



Hewlett-Packard Company

TPC Benchmark™ C
Full Disclosure Report
for
HP ProLiant DL580 G7
using
Microsoft SQL Server 2005 Enterprise x64 Edition SP3
and
Windows Server 2008 R2 Enterprise Edition

**Second Edition
Submitted for Review
August 27, 2010**

Second Edition –August 2010

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Preface

The TPC Benchmark C was developed by the Transaction Processing Performance Council (TPC). The TPC was founded to define transaction processing benchmarks and to disseminate objective, verifiable performance data to the industry. This full disclosure report is based on the TPC Benchmark C Standard Specifications Version 5.11

TPC Benchmark C Overview

The TPC describes this benchmark in Clause 0.1 of the specifications as follows:

TPC Benchmark™ C (TPC-C) is an OLTP workload. It is a mixture of read-only and update intensive transactions that simulate the activities found in complex OLTP application environments. It does so by exercising a breadth of system components associated with such environments, which are characterized by:

- The simultaneous execution of multiple transaction types that span a breadth of complexity
- On-line and deferred transaction execution modes
- Multiple on-line terminal sessions
- Moderate system and application execution time
- Significant disk input/output
- Transaction integrity (ACID properties)
- Non-uniform distribution of data access through primary and secondary keys
- Databases consisting of many tables with a wide variety of sizes, attributes, and relationships
- Contention on data access and update

The performance metric reported by TPC-C is a "business throughput" measuring the number of orders processed per minute. Multiple transactions are used to simulate the business activity of processing an order, and each transaction is subject to a response time constraint. The performance metric for this benchmark is expressed in transactions-per-minute-C (tpmC). To be compliant with the TPC-C standard, all references to tpmC results must include the tpmC rate, the associated price-per-tpmC, and the availability date of the priced configuration.

Although these specifications express implementation in terms of a relational data model with conventional locking scheme, the database may be implemented using any commercially available database management system (DBMS), database server, file system, or other data repository that provides a functionally equivalent implementation. The terms "table", "row", and "column" are used in this document only as examples of logical data structures.

TPC-C uses terminology and metrics that are similar to other benchmarks, originated by the TPC or others. Such similarity in terminology does not in any way imply that TPC-C results are comparable to other benchmarks. The only benchmark results comparable to TPC-C are other TPC-C results conformant with the same revision.

Despite the fact that this benchmark offers a rich environment that emulates many OLTP applications, this benchmark does not reflect the entire range of OLTP requirements. In addition, the extent to which a customer can achieve the results reported by a vendor is highly dependent on how closely TPC-C approximates the customer application. The relative performance of systems derived from this benchmark does not necessarily hold for other workloads or environments. Extrapolations to any other environment are not recommended.

Benchmark results are highly dependent upon workload, specific application requirements, and systems design and implementation. Relative system performance will vary as a result of these and other factors. Therefore, TPC-C should not be used as a substitute for a specific customer application benchmarking when critical capacity planning and/or product evaluation decisions are contemplated.

Abstract

Overview

This report documents the methodology and results of the TPC Benchmark C test conducted on the HP ProLiant DL580 G7. The operating system used for the benchmark was Windows Server 2008R2 Enterprise Edition. The DBMS used was Microsoft SQL Server 2005 Enterprise x64 Edition SP3.

TPC Benchmark C Metrics

The standard TPC Benchmark C metrics, tpmC (transactions per minute), price per tpmC (three year capital cost per measured tpmC), and the availability date are reported as:

1,807,347 tpmC
USD \$0.49 per tpmC

The availability date is October 15, 2010.

Standard and Executive Summary Statements

The following pages contain executive summary of results for this benchmark.

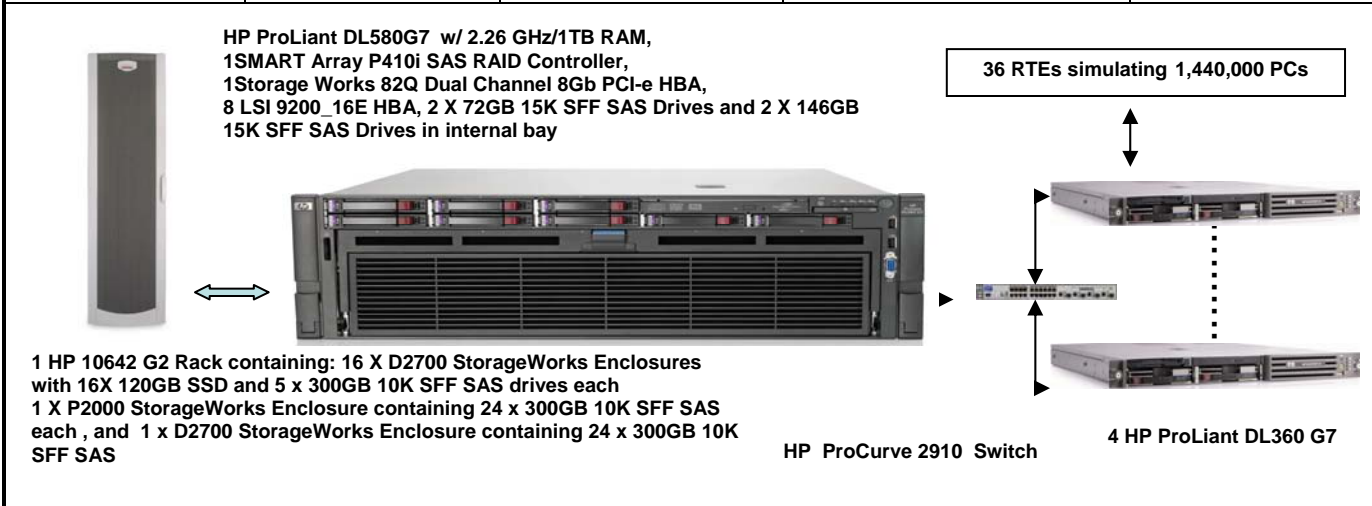
Auditor

The benchmark configuration, environment and methodology were audited by Lorna Livingtree of Performance Metrics, Inc. to verify compliance with the relevant TPC specifications.

| | | | | |
|--|---|--|---|--|
| Hewlett-Packard Company | HP ProLiant DL580G7 2.26 GHz 24MB L3 | | TPC-C Rev. 5.11 TPC-Pricing 1.5.0 TPC-Energy 1.20 | |
| | C/S with 4 HP ProLiant DL360 G7 | | Report Date: Aug 27, 2010 | |

| | | | | |
|----------------------|-----------------------|-------------------|---------------------|-------------------------|
| Total System Cost | TPC-C Throughput | Price/Performance | Availability Date | TPC-Energy Metric |
| USD \$879,563 | 1,807,347 tpmC | USD \$0.49 | Oct 15, 2010 | 2.46 watts/KtpmC |

| | | | | |
|---|--|---|--|------------------|
| Database Server Processors /Cores/Threads | Database Manager | Operating System | Other Software | Number of Users |
| 4/32/64 Intel 2.26 GHz 24MB cache | Microsoft SQL Server 2005 Enterprise x64 Edition SP3 | Windows Server 2008 R2 Enterprise Edition | Microsoft Visual Studio 2008 Microsoft COM+ | 1,440,000 |



| | Server | | Each Client | |
|--------------------------|----------|---|-------------|---|
| System Components | Quantity | Description | Quantity | Description |
| Processors/Cores/Threads | 4 | Intel 2.26GHz 24MB L3 cache - 8 cores /16 threads | 2/6/12 | 2.93 GHz Intel Xeon w/ 12MB cache |
| Memory | 1 TB | 64 x 16GB DDR3 | 24GB | 12 x 2048 MB |
| Disk Controllers | 1 | Smart P410i Controller | 1 | Integrated Smart Array P410i Controller |
| | 8 | LSI 9200_16E HBA | | |
| | 1 | 82Q 8Gb Dual Channel | | |
| Disk Drives | 128 | 300GB 10K SFF SAS 6G | 4 | 300GB 10K SFF SAS |
| | 256 | 120 GB SSD | | |
| | 2 | 146 GB 15K SFF SAS | | |
| | 2 | 72 GB 15K SFF SAS | | |
| Total Storage | | 64,649.72 GB | | 555.36 GB |

| | | | | | |
|------------------------|-----------------------|---|-------------------------|--|--|
| Hewlett-Packard | | HP ProLiant DL580G7 2.26 GHz 24GB L3 | | TPC-C Rev. 5.11 TPC-Pricing 1.5.0 TPC-Energy 1.2.0 | |
| Company | | C/S with 4 HP ProLiant DL360 G7 | | Report Date: Aug 27, 2010 | |
| Total System Cost | TPC-C Throughput | Price/Performance | Availability Date | TPC-Energy Metric | |
| USD \$879,563 | 1,807,347KtpmC | USD \$0.49 | October 15, 2010 | 2.46 watts/ KtpmC | |

Numerical Quantities For Reported Energy Configuration:

REC Idle Power: 3844 watts

Average Power of REC: 4441watts

| | Secondary Metrics | Additional Numerical Quantities | | | |
|--------------------|-------------------|---------------------------------|--------------------|-----------------|---------------|
| | Watts / KtpmC | Full Load Avg Watts | Full Load % of REC | Idle Avg. Watts | Idle % of REC |
| Database Server | 0.90 | 1,629.61 | 36.7% | 1,286.63 | 33.5% |
| Storage | 0.93 | 1,677.23 | 37.8% | 1,614.07 | 42.0% |
| Application Server | 0.55 | 993.96 | 22.4% | 803.76 | 20.9% |
| Miscellaneous | 0.08 | 140.00 | 3.2% | 140.00 | 3.6% |
| Total REC | 2.46 | 4441 | 100% | 3844 | 100% |

Lowest ambient temperature at air inlet: 21.28C

Items in Priced Configuration not in the Reported Energy Configuration:

None

Items in Reported Energy Configuration not in the Measured Energy Configuration:

5 HP LE1851w 18.5-Inch wide Monitor Part Number NK033AA#ABA

| Hewlett-Packard Company | HP ProLiant DL580G7 | | | TPC-C Rev. 5.11 | | |
|--|---------------------|-------|------------|-----------------|--|--------------------|
| | | | | Report Date | 27-Aug-10 | |
| Description | Part Number | Brand | Unit Price | Qty | Extended Price | 3 yr. Maint. Price |
| Server Hardware | | | | | | |
| HP ProLiant DL580 G7 Configure-to-order Server | 588857-B21 | 1 | 4,597 | 1 | 4,597 | |
| HP DL580 G7 Intel Xeon X7560 (2.26GHz/8-core/24MB/130W) FIO 2-processor Kit | 588143-L21 | 1 | 10,000 | 1 | 10,000 | |
| HP DL580 G7 Intel Xeon X7560 (2.26GHz/8-core/24MB/130W) Processor Kit | 588143-B21 | 1 | 4,999 | 2 | 9,998 | |
| HP 16GB 4Rx4 PC3-8500R-7 Kit | 500666-B21 | 1 | 1,349 | 64 | 86,336 | |
| HP DL580G7 Memory Board | 588141-B21 | 1 | 200 | 6 | 1,200 | |
| HP DL580 G7 PCI Express Kit | 588137-B21 | 1 | 349 | 1 | 349 | |
| HP StorageWorks 82Q 8Gb Dual Port PCI-e Fibre Channel Host Bus Adapter | AJ764A | 1 | 2,250 | 1 | 2,250 | |
| HP LE1851w 18.5-Inch wide Monitor | NK033AA#ABA | 1 | 159 | 1 | 159 | |
| HP PS/2 Keyboard And Mouse Bundle | RC464AA#ABA | 1 | 39 | 1 | 39 | |
| HP 10642 G2 Pallet Universal Rack | AF001A | 1 | 1,249 | 1 | 1,249 | |
| HP 300GB 6G SAS 10K SFF (2.5-inch) Dual Port Enterprise 3yr Warranty | 507127-B21 | 1 | 519 | 128 | 66,432 | |
| HP 120GB 3G SATA 2.5in MDL | 572073-B21 | 1 | 2,199 | 256 | 562,944 | |
| HP 72GB 6G SAS 15K SFF (2.5-inch) | 512545-B21 | 1 | 349 | 2 | 698 | |
| HP 146GB 6G SAS 15K SFF (2.5-inch) | 512547-B21 | 1 | 459 | 2 | 918 | |
| HP StorageWorks D2700 Disk Enclosure | AJ941A | 1* | 3,399 | 17 | 57,783 | |
| HP 3y 4h 24x7 D2000 Encl HW Support,D2000 Enclosures | UQ540E | 1 | 1,904 | 17 | | 32,368 |
| HP StorageWorks P2000 G3 MSA FC Dual Controller SFF | AP846A | 1 | 10,350 | 1 | 10,350 | |
| HP 3y 4h 24x7 MSA 2000 G3 HWSupp,MSA 2000 G3 Array | UV394E | 1 | 1,999 | 1 | | 1,999 |
| 4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years , DL580 | U4608E | 1 | 1,397 | 1 | | 1,397 |
| LSI 9200_16e | LSI00189 | 4 | 498 | 8 | 3,984 | |
| LSI 9200_16e (10% spares) | LSI00189 | 4 | 498 | 2 | | 996 |
| Subtotal | | | | | 819,286 | 36,760 |
| Server Software | | | | | | |
| Microsoft SQL Server 2005 Enterprise X64 Edition(per processor) | 810-03134 | 2 | 23,432 | 4 | 93,728 | Incl Below |
| Visual Studio 2008 Standard Edition | 127-00166 | 2 | 275 | 1 | 275 | Incl Below |
| Microsoft Windows Server 2008 R2 Enterprise Edition | P72-04217 | 2 | 2,280 | 1 | 2,280 | Incl Below |
| Microsoft Problem Resolution Services | | 2 | 259 | 1 | | 259 |
| Subtotal | | | | | 96,283 | 259 |
| Client Hardware | | | | | | |
| HP DL360G7 CTO Chassis | 579237-B21 | 1 | 1,441 | 4 | 5,764 | |
| HP X5670 DL360G6/G7 FIO Kit | 588062-L21 | 1 | 1,999 | 8 | 15,992 | |
| HP 460W CS HE Power Supply Kit | 503296-B21 | 1 | 249 | 4 | 996 | |
| HP NC365T 4-port Ethernet Server Adapter | 593722-B21 | 1 | 439 | 8 | 3,512 | |
| HP 2GB 2Rx8 PC3-10600R-9 Kit | 500656-B21 | 1 | 120 | 48 | 5,760 | |
| HP 300GB 6G SAS 10K SFF (2.5-inch) Dual Port Enterprise 3yr Warranty | 507127-B21 | 1 | 519 | 16 | 8,304 | |
| HP LE1851w 18.5-Inch wide Monitor | NK033AA#ABA | 1 | 159 | 4 | 636 | |
| HP PS/2 Keyboard And Mouse Bundle | RC464AA#ABA | 1 | 39 | 4 | 156 | |
| HP CP 3Y 4H 24x7 HW Entry300 4-Hour 24 Hour x 7 Day Coverage 3 Years | U4497E | 1 | 750 | 4 | | 3,000 |
| Subtotal | | | | | 41,120 | 3,000 |
| Client Software | | | | | | |
| Windows Server 2008 R2 Enterprise Edition | P72-04217 | 2 | 2,280 | 8 | 18,240 | Incl. Above |
| Windows Server 2008 R2 Standard Edition | P73-04980 | 2 | 711 | 4 | 2,844 | Incl. Above |
| Subtotal | | | | | 21,084 | 0 |
| User Connectivity | | | | | | |
| HP ProCurve 2910al-48G Switch | J9147A#ABA | 1 | 4,569 | 1 | 4,569 | |
| HP ProCurve3 Yr 4 hr/24x7 Onsite | H2893E | 1 | 1,307 | 1 | | 1,307 |
| CAT 6 7 Foot Pink Patch Cable | CB242-7PK | 3 | 2 | 36 | 58 | |
| CAT 6 7 Foot Pink Patch Cable (spares) | CB242-7PK | 3 | 2 | 4 | | 6 |
| Subtotal | | | | | 4,627 | 1,313 |
| Large Purchase and Net 30 discount (See Note 1) | | | | | (\$137,759) | (\$6,411) |
| Total | | | | | \$844,641 | \$34,921 |
| Prices used in TPC benchmarks reflect the actual prices a customer would pay for a one-time purchase of the stated components. Individually negotiated discounts are not permitted. Special prices based on assumptions about past or future purchases are not permitted. All discounts reflect standard pricing policies for the listed components. For complete details, see the pricing sections of the TPC benchmark pricing specifications. If you find that the stated prices are not available according to these terms, please inform the TPC at pricing@tpc.org. Thank you. | | | | | Three-Year Cost of Ownership: USD | \$879,563 |
| | | | | | tpmC Rating: | 1,807,347 |
| | | | | | \$/ tpmC: USD | \$0.49 |
| Pricing: 1=HP Direct 800-203-6748 2=Microsoft 3= deepsurplus.com 4= Microland Electronics | | | | | | |
| Note 1 = Discount based on HP Direct guidance applies to all lines where pricing = 1 * SSD drive support in this enclosure will be available Oct 15 2010 see appendix F | | | | | | |
| Note 2 = (S) One or more component of the measured configuration have been substituted in the priced configuration. See FDR for details. | | | | | | |
| Note 3 = The benchmark results were audited by Lorna Livingtree of Performance Metrics | | | | | | |
| One or more components of the measured configuration have been substituted in the Priced Configuration. See the FDR for details. | | | | | | |

Numerical Quantities Summary

MQTH, Computed Maximum Qualified Throughput

1,807,347 tpmC

| Response Times (in seconds) | Average | 90% | Maximum |
|------------------------------------|----------------|------------|----------------|
| New-Order | 0.25 | 0.49 | 10.41 |
| Payment | 0.23 | 0.46 | 21.88 |
| Order-Status | 0.26 | 0.49 | 9.83 |
| Delivery (interactive portion) | 0.18 | 0.32 | 6.40 |
| Delivery (deferred portion) | 0.09 | 0.18 | 5.20 |
| Stock-Level | 0.29 | 0.53 | 9.01 |
| Menu | 0.18 | 0.33 | 120.20 |

Transaction Mix, in percent of total transaction

| | |
|--------------|--------|
| New-Order | 44.96% |
| Payment | 43.03% |
| Order-Status | 4.00% |
| Delivery | 4.01% |
| Stock-Level | 4.01% |

Emulation Delay (in seconds)

| | Resp.Time | Menu |
|------------------------|------------------|-------------|
| New-Order | 0.10 | 0.10 |
| Payment | 0.10 | 0.10 |
| Order-Status | 0.10 | 0.10 |
| Delivery (interactive) | 0.10 | 0.10 |
| Stock-Level | 0.10 | 0.10 |

Keying/Think Times (in seconds)

| | Min. | Average | Max. |
|------------------------|-------------|----------------|--------------|
| New-Order | 18.02/0.00 | 18.03/12.06 | 18.06/120.53 |
| Payment | 3.02/0.00 | 3.03/12.06 | 3.05/120.53 |
| Order-Status | 2.02/0.00 | 2.03/10.02 | 2.05/100.53 |
| Delivery (interactive) | 2.02/0.00 | 2.03/5.07 | 2.06/50.53 |
| Stock-Level | 2.02/0.00 | 2.03/5.07 | 2.05/50.53 |

Test Duration

| | |
|--|--------------|
| Ramp-up time | 23 minutes |
| Measurement interval | 120 minutes |
| Transactions (all types) completed during measurement interval | 482,367,379 |
| Ramp down time | 9.29 minutes |

Checkpointing

| | |
|-----------------------|------------|
| Number of checkpoints | 4 |
| Checkpoint interval | 30 minutes |

General Items

Test Sponsor

A statement identifying the benchmark sponsor(s) and other participating companies must be provided.

This benchmark was sponsored by Hewlett-Packard Company. The benchmark was developed and engineered by Hewlett-Packard Company. Testing took place at HP benchmarking laboratories in Houston, Texas.

Application Code and Definition Statements

The application program (as defined in clause 2.1.7) must be disclosed. This includes, but is not limited to, the code implementing the five transactions and the terminal input output functions.

Appendix A contains all source code implemented in this benchmark.

Parameter Settings

Settings must be provided for all customer-tunable parameters and options which have been changed from the defaults found in actual products, including by not limited to:

- *Database options*
- *Recover/commit options*
- *Consistency locking options*
- *Operating system and application configuration parameters*

This requirement can be satisfied by providing a full list of all parameters.

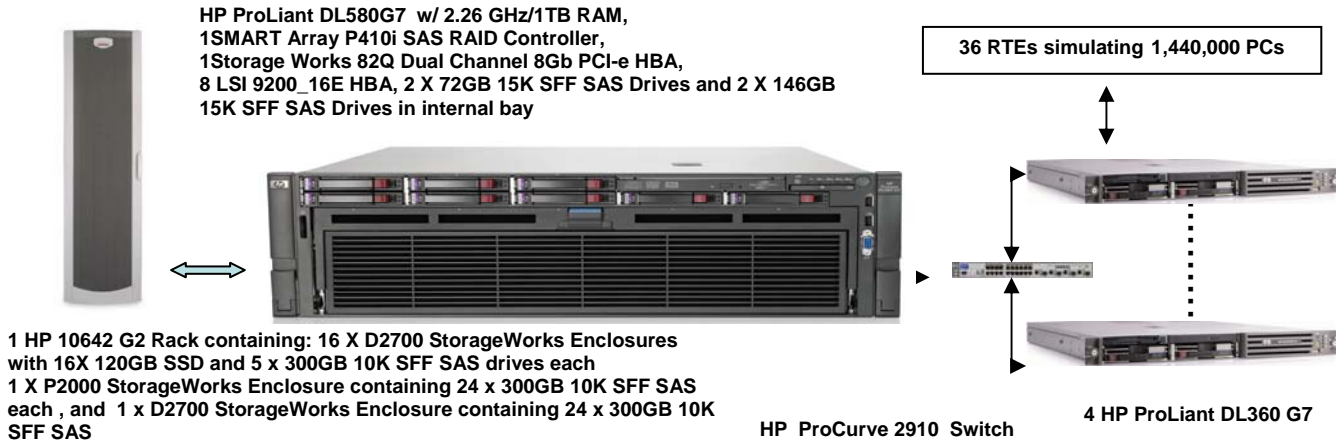
Appendix C contains the tunable parameters to for the database, the operating system, and the transaction monitor.

Configuration Items

Diagrams of both measured and priced configurations must be provided, accompanied by a description of the differences.

The configuration diagram for both the tested and priced systems are included on the following page.

Figure 1. Benchmarked and Priced Configuration



Clause 1 Related Items

Table Definitions

Listing must be provided for all table definition statements and all other statements used to set up the database.

Appendix B contains the code used to define and load the database tables.

Physical Organization of Database

The physical organization of tables and indices within the database must be disclosed.

The tested configuration consisted of 256 SSD drives at 120GB for database data, two 72GB drives for the operating system, two 146GB drives for additional operating system space, 48 drives at 300GB for database log and 80 drives at 300 GB for backup and 60 day space. There were 8 x LSI 9200-16e controllers connected to 16 x D2700 storage boxes with 16 x 120GB SSD drives each for database data and 5 x 300GB drives each for backup, 48 x 300GB drives on one MSA P2000 G3 controller connected to 1 D2700 storage box for database log, and 2 x 72GB drives plus 2 x 146GB drives on the SMART P410i controller for the operating system.

Benchmarked Configuration:

SMART-P400 Controller, Slot 0, Array A, disk 0

| | | |
|---|----------------------------------|---------------|
| <u>LOGICAL DRIVE C:</u> | <u>Total Capacity = 68.33 GB</u> | <u>RAID 1</u> |
| Microsoft Windows Server 2008 R2 Enterprise Edition | | |

SMART-P400 Controller, Slot 0, Array B, disk 1

| | | |
|------------------------------|-----------------------------------|---------------|
| <u>LOGICAL DRIVE Z:</u> | <u>Total Capacity = 136.60 GB</u> | <u>RAID 1</u> |
| Extra operating system space | | |

HP 82Q, Slot4 connected to HP P2000 G3, disk 2-9

| | | |
|---------------------------------|-----------------------------------|-----------------|
| <u>Disk 2: LOGICAL DRIVE E:</u> | <u>Total Capacity = 837.26 GB</u> | <u>RAID 1+0</u> |
| <u>Disk 3: LOGICAL DRIVE F:</u> | <u>Total Capacity = 837.26 GB</u> | <u>RAID 1+0</u> |
| <u>Disk 4: LOGICAL DRIVE G:</u> | <u>Total Capacity = 837.26 GB</u> | <u>RAID 1+0</u> |
| <u>Disk 5: LOGICAL DRIVE H:</u> | <u>Total Capacity = 837.26 GB</u> | <u>RAID 1+0</u> |
| <u>Disk 6: LOGICAL DRIVE E:</u> | <u>Total Capacity = 837.26 GB</u> | <u>RAID 1+0</u> |
| <u>Disk 7: LOGICAL DRIVE F:</u> | <u>Total Capacity = 837.26 GB</u> | <u>RAID 1+0</u> |
| <u>Disk 8: LOGICAL DRIVE G:</u> | <u>Total Capacity = 837.26 GB</u> | <u>RAID 1+0</u> |
| <u>Disk 9: LOGICAL DRIVE H</u> | <u>Total Capacity = 837.26 GB</u> | <u>RAID 1+0</u> |

Logical drives E, F, G, H are software stripe volumes created over 2 physical RAID 1+0 volumes each.

LSI 9200_16E, Slot 2, disk 10-25

| | | |
|--|-----------------------------------|---------------|
| <u>LOGICAL DRIVE C:\dev\tpcc_1-16:</u> | <u>Total Capacity = 111.79 GB</u> | <u>RAID 0</u> |
|--|-----------------------------------|---------------|

LSI 9200_16E, Slot 2, disk 26-30

| | | |
|-----------------------------------|---------------------------------|-------------------------------|
| <u>LOGICAL DRIVE C:\backup\1:</u> | <u>Total Capacity = 1.09 TB</u> | <u>Software RAID-5 volume</u> |
|-----------------------------------|---------------------------------|-------------------------------|

LSI 9200_16E, Slot 2, disk 31-46

| | | |
|---|-----------------------------------|---------------|
| <u>LOGICAL DRIVE C:\dev\tpcc_17-32:</u> | <u>Total Capacity = 111.79 GB</u> | <u>RAID 0</u> |
|---|-----------------------------------|---------------|

LSI 9200_16E, Slot 2, disk 47-51

| | | |
|-----------------------------------|---------------------------------|-------------------------------|
| <u>LOGICAL DRIVE C:\backup\2:</u> | <u>Total Capacity = 1.09 TB</u> | <u>Software RAID-5 volume</u> |
|-----------------------------------|---------------------------------|-------------------------------|

| | | |
|--|-----------------------------------|-------------------------------|
| LSI 9200_16E, Slot 3, disk 52-67 <u>LOGICAL DRIVE C:\dev\tpcc_33-48:</u> | <u>Total Capacity = 111.79 GB</u> | <u>RAID 0</u> |
| LSI 9200_16E, Slot 3, disk 68-72 <u>LOGICAL DRIVE C:\backup\3:</u> | <u>Total Capacity = 1.09 TB</u> | <u>Software RAID-5 volume</u> |
| LSI 9200_16E, Slot 3, disk 73-88 <u>LOGICAL DRIVE C:\dev\tpcc_49-64:</u> | <u>Total Capacity = 111.79 GB</u> | <u>RAID 0</u> |
| LSI 9200_16E, Slot 3, disk 89-93 <u>LOGICAL DRIVE C:\backup\4:</u> | <u>Total Capacity = 1.09 TB</u> | <u>Software RAID-5 volume</u> |
| LSI 9200_16E, Slot 5, disk 94-109 <u>LOGICAL DRIVE C:\dev\tpcc_65-80:</u> | <u>Total Capacity = 111.79 GB</u> | <u>RAID 0</u> |
| LSI 9200_16E, Slot 5, disk 110-114 <u>LOGICAL DRIVE C:\backup\5:</u> | <u>Total Capacity = 1.09 TB</u> | <u>Software RAID-5 volume</u> |
| LSI 9200_16E, Slot 5, disk 115-130 <u>LOGICAL DRIVE C:\dev\tpcc_81-96:</u> | <u>Total Capacity = 111.79 GB</u> | <u>RAID 0</u> |
| LSI 9200_16E, Slot 5, disk 131-135 <u>LOGICAL DRIVE C:\backup\6:</u> | <u>Total Capacity = 1.09 TB</u> | <u>Software RAID-5 volume</u> |
| LSI 9200_16E, Slot 6, disk 136-151 <u>LOGICAL DRIVE C:\dev\tpcc_97-112:</u> | <u>Total Capacity = 111.79 GB</u> | <u>RAID 0</u> |
| LSI 9200_16E, Slot 6, disk 152-156 <u>LOGICAL DRIVE C:\backup\7:</u> | <u>Total Capacity = 1.09 TB</u> | <u>Software RAID-5 volume</u> |
| LSI 9200_16E, Slot 6, disk 157-172 <u>LOGICAL DRIVE C:\dev\tpcc_113-128:</u> | <u>Total Capacity = 111.79 GB</u> | <u>RAID 0</u> |
| LSI 9200_16E, Slot 6, disk 173-177 <u>LOGICAL DRIVE C:\backup\8:</u> | <u>Total Capacity = 1.09 TB</u> | <u>Software RAID-5 volume</u> |
| LSI 9200_16E, Slot 8, disk 178-193 <u>LOGICAL DRIVE C:\dev\tpcc_129-144:</u> | <u>Total Capacity = 111.79 GB</u> | <u>RAID 0</u> |
| LSI 9200_16E, Slot 8, disk 194-198 <u>LOGICAL DRIVE C:\backup\9:</u> | <u>Total Capacity = 1.09 TB</u> | <u>Software RAID-5 volume</u> |
| LSI 9200_16E, Slot 8, disk 199-214 <u>LOGICAL DRIVE C:\dev\tpcc_145-160:</u> | <u>Total Capacity = 111.79 GB</u> | <u>RAID 0</u> |
| LSI 9200_16E, Slot 8, disk 215-219 <u>LOGICAL DRIVE C:\backup\10:</u> | <u>Total Capacity = 1.09 TB</u> | <u>Software RAID-5 volume</u> |

| | | |
|---|-----------------------------------|-------------------------------|
| LSI 9200_16E, Slot 9, disk 220-235 <u>LOGICAL DRIVE C:\dev\tpcc_161-176:</u> | <u>Total Capacity = 111.79 GB</u> | <u>RAID 0</u> |
| LSI 9200_16E, Slot 9, disk 236-240 <u>LOGICAL DRIVE C:\backup\11:</u> | <u>Total Capacity = 1.09 TB</u> | <u>Software RAID-5 volume</u> |
| LSI 9200_16E, Slot 9, disk 241-256 <u>LOGICAL DRIVE C:\dev\tpcc_177-192:</u> | <u>Total Capacity = 111.79 GB</u> | <u>RAID 0</u> |
| LSI 9200_16E, Slot 9, disk 257-261 <u>LOGICAL DRIVE C:\backup\12:</u> | <u>Total Capacity = 1.09 TB</u> | <u>Software RAID-5 volume</u> |
| LSI 9200_16E, Slot 10, disk 262-277 <u>LOGICAL DRIVE C:\dev\tpcc_193-208:</u> | <u>Total Capacity = 111.79 GB</u> | <u>RAID 0</u> |
| LSI 9200_16E, Slot 10, disk 278-282 <u>LOGICAL DRIVE C:\backup\13:</u> | <u>Total Capacity = 1.09 TB</u> | <u>Software RAID-5 volume</u> |
| LSI 9200_16E, Slot 10, disk 283-298 <u>LOGICAL DRIVE C:\dev\tpcc_209-224:</u> | <u>Total Capacity = 111.79 GB</u> | <u>RAID 0</u> |
| LSI 9200_16E, Slot 10, disk 299-303 <u>LOGICAL DRIVE C:\backup\14:</u> | <u>Total Capacity = 1.09 TB</u> | <u>Software RAID-5 volume</u> |
| LSI 9200_16E, Slot 11, disk 304-319 <u>LOGICAL DRIVE C:\dev\tpcc_225-240:</u> | <u>Total Capacity = 111.79 GB</u> | <u>RAID 0</u> |
| LSI 9200_16E, Slot 11, disk 320-324 <u>LOGICAL DRIVE C:\backup\15:</u> | <u>Total Capacity = 1.09 TB</u> | <u>Software RAID-5 volume</u> |
| LSI 9200_16E, Slot 11, disk 325-340 <u>LOGICAL DRIVE C:\dev\tpcc_241-256:</u> | <u>Total Capacity = 111.79 GB</u> | <u>RAID 0</u> |
| LSI 9200_16E, Slot 11, disk 341-345 <u>LOGICAL DRIVE C:\backup\16:</u> | <u>Total Capacity = 1.09 TB</u> | <u>Software RAID-5 volume</u> |

Priced Configuration vs. Measured Configuration:

Priced configuration was identical to the measured configuration

Insert and Delete Operations

It must be ascertained that insert and/or delete operations to any of the tables can occur concurrently with the TPC-C transaction mix. Furthermore, any restrictions in the SUT database implementation that precludes inserts beyond the limits defined in Clause 1.4.11 must be disclosed. This includes the maximum number of rows that can be inserted and the minimum key value for these new rows.

All insert and delete functions were fully operational during the entire benchmark.

Partitioning

While there are a few restrictions placed upon horizontal or vertical partitioning of tables and rows in the TPC-C benchmark, any such partitioning must be disclosed.

No partitioning was used in this benchmark.

Replication, Duplication or Additions

Replication of tables, if used, must be disclosed. Additional and/or duplicated attributes in any table must be disclosed along with a statement on the impact on performance.

No replications, duplications or additional attributes were used in this benchmark.

Clause 2 Related Items

Random Number Generation

The method of verification for the random number generation must be described.

In the Benchcraft RTE from Microsoft, each driver engine uses an independent random number sequence. All of the users within a given driver draw from the same sequence.

The Benchcraft RTE computes random integers as described in "Random Numbers Generators: Good Ones Are Hard to Find." Communications of the ACM - October 1988 Volume 31 Number 10.

The seeds for each user were captured and verified by the auditor to be unique. In addition, the contents of the database were systematically searched, and randomly sampled by the auditor for patterns that would indicate the random number generator had affected any kind of a discernible pattern; none was found.

Input/Output Screen Layout

The actual layout of the terminal input/output screens must be disclosed.

All screen layouts followed the specifications exactly.

Priced Terminal Feature Verification

The method used to verify that the emulated terminals provide all the features described in Clause 2.2.2.4 must be explained. Although not specifically priced, the type and model of the terminals used for the demonstration in 8.1.3.3 must be disclosed and commercially available (including supporting software and maintenance).

The terminal attributes were verified by the auditor. The auditor manually exercised each specification on a representative HP ProLiant web server.

Presentation Manager or Intelligent Terminal

Any usage of presentation managers or intelligent terminals must be explained.

Application code running on the client machines implemented the TPC-C user interface. No presentation manager software or intelligent terminal features were used. The source code for the forms applications is listed in Appendix A.

Transaction Statistics

Table 2.1 lists the numerical quantities that Clauses 8.1.3.5 to 8.1.3.11 require.

Table 2.1 Transaction Statistics

| Statistic | | Value |
|-----------------|------------------------------|--------|
| New Order | Home warehouse order lines | 99.00% |
| | Remote warehouse order lines | 1.00% |
| | Rolled back transactions | 1.00% |
| | Average items per order | 10.00 |
| Payment | Home warehouse payments | 85.00% |
| | Remote warehouse payments | 15.00% |
| | Accessed by last name | 59.97% |
| Order Status | Accessed by last name | 59.97% |
| Transaction Mix | New Order | 44.96% |
| | Payment | 43.02% |
| | Order status | 4.01% |
| | Delivery | 4.00% |
| | Stock level | 4.01% |

Queuing Mechanism

The queuing mechanism used to defer the execution of the Delivery transaction must be disclosed.

Microsoft COM+ on each client machine served as the queuing mechanism to the database. Each delivery request was submitted to Microsoft COM+ asynchronously with control being returned to the client process immediately and the deferred delivery part completing asynchronously.

The source code is listed in Appendix A.

Clause 3 Related Items

Transaction System Properties (ACID)

The results of the ACID tests must be disclosed along with a description of how the ACID requirements were met. This includes disclosing which case was followed for the execution of Isolation Test 7.

All ACID property tests were successful. The executions are described below.

Atomicity

The system under test must guarantee that the database transactions are atomic; the system will either perform all individual operations on the data or will assure that no partially completed operations leave any effects on the data.

Completed Transactions

A row was selected in a script from the warehouse, district and customer tables, and the balances noted. A payment transaction was started with the same warehouse, district and customer identifiers and a known amount. The payment transaction was committed and the rows were verified to contain correctly updated balances.

Aborted Transactions

A row was selected in a script from the warehouse, district and customer tables, and the balances noted. A payment transaction was started with the same warehouse, district and customer identifiers and a known amount. The payment transaction was rolled back and the rows were verified to contain the original balances.

Consistency

Consistency is the property of the application that requires any execution of a database transaction to take the database from one consistent state to another, assuming that the database is initially in a consistent state.

Consistency conditions one through four were tested using a script to issue queries to the database. The results of the queries verified that the database was consistent for all four tests.

A run was executed under full load lasting over two hours and included a checkpoint.

The script was executed again. The result of the same queries verified that the database remained consistent after the run.

Isolation

Sufficient conditions must be enabled at either the system or application level to ensure the required isolation defined above (clause 3.4.1) is obtained.

Isolation tests one through nine were executed using shell scripts to issue queries to the database. Each script included timestamps to demonstrate the concurrency of operations. The results of the queries were captured to files. The captured files were verified by the auditor to demonstrate the required isolation had been met.

In addition, the phantom tests and the stock level tests were executed and verified.

For Isolation test seven, case A was followed.

Durability

The tested system must guarantee durability: the ability to preserve the effects of committed transaction and insure database consistency after recovery from any one of the failures listed in Clause 3.5.3.

Durable Media Failure

Loss of Data and Log

To demonstrate recovery from a permanent failure of durable medium containing DBMS logs and TPC-C tables, the following steps were executed. This test was executed on a fully scaled database of 144,000 warehouses of which 16,000 were used under a load of 160,000 users.

- The total number of New Orders was determined by the sum of D_NEXT_O_ID of all rows in the DISTRICT table giving the beginning count.
- The RTEs were started with 160,000 users.
- The test was allowed to run for a minimum of 5 minutes.
- One disk was removed from the P2000 Storage containing the log disks.
- Since the disk was mirrored, processing was not interrupted. This was verified by checking the user's status on the RTE.
- One of the data disks was removed from one D2700 data drive cabinet.
- When Microsoft SQL Server recorded errors about not being able to access the database, the RTE was shut down, and a database transaction log dump was taken.
- Microsoft SQL Server was shutdown, and the system rebooted after replacing the pulled drives with new drives.
- After the drive configuration was reset for data drive and RAID recovery for log drive Microsoft SQL Server was started.
- The database was restored from backup and the transaction log dump was applied.
- Consistency condition #3 was executed and verified.
- Step 2 was repeated and the difference between the first and second counts was noted.
- An RTE report was generated for the entire run time giving the number of NEW-ORDERS successfully returned to the RTE.
- The counts in steps 12 and 13 were compared and the results verified that all committed transactions had been successfully recovered.
- Samples were taken from the RTE files and used to query the database to demonstrate successful transactions had corresponding rows in the ORDER table.

Instantaneous Interruption and Loss of Memory

Because loss of power erases the contents of memory, the instantaneous interruption and the loss of memory tests were combined into a single test. This test was executed on a fully scaled database of 144,000 warehouses, of which 144,000 warehouses were used, under a full load of 1,440,000 users. The following steps were executed:

- The total number of New Orders was determined by the sum of D_NEXT_O_ID of all rows in the DISTRICT table giving the beginning count.
- The RTE was started with 1,440,000 users.
- The test was allowed to run for a minimum of 5 minutes.
- Pulling the power cords from the SUT induced system crash and loss of memory. No battery backup or Uninterruptible Power Supply (UPS) were used to preserve the contents of memory.
- The RTE was paused then stopped.
- Power was restored and the system restarted.
- Microsoft SQL Server was restarted and performed an automatic recovery.
- Consistency condition #3 was executed and verified.
- Step 1 was repeated and the difference between the first and second counts was noted.

- An RTE report was generated for the entire run time giving the number of NEW-ORDERS successfully returned to the RTE.
- The counts in step 9 and 10 were compared and the results verified that all committed transactions had been successfully recovered.
- Samples were taken from the RTE files and used to query the database to demonstrate successful transactions had corresponding rows in the ORDER table.

Clause 4 Related Items

Initial Cardinality of Tables

The cardinality (e.g. number of rows) of each table, as it existed at the start of the benchmark run, must be disclosed. If the database was over-scaled and inactive rows of the WAREHOUSE table were deleted, the cardinality of the WAREHOUSE table as initially configured and the number of rows deleted must be disclosed.

Table 4.1 Number of Rows for Server

| Table | Cardinality as built |
|-------------------|----------------------|
| Warehouse | 144000 |
| District | 1,440,000 |
| Customer | 4,320,000,000 |
| History | 4,320,000,000 |
| Orders | 4,320,000,000 |
| New Order | 1,296,000,000 |
| Order Line | 43,199,861,682 |
| Stock | 14,400,000,000 |
| Item | 100,000 |
| Unused Warehouses | 0 |

Database Layout

The distribution of tables and logs across all media must be explicitly depicted for tested and priced systems.

The database data was housed on 256 SSD drives at 120GB, two 72GB drives for the operating system, two 146GB drives for additional operating system space, 48 drives at 300GB for database log and 80 drives at 300 GB for backup and 60 day space. There were 8 x LSI 9200-16e controllers connected to 16 x D2700 storage boxes with 16 x 120GB SSD drives each for database data and 5 x 300GB drives each for backup, 48 x 300GB drives on one MSA P2000 G3 controller connected to 1 D2700 storage box for database log, and 2 x 72GB drives plus 2 x 146GB drives on the SMART P410i controller for the operating system. Section 1.2 of this report details the distribution of database tables across all disks. The code that creates the file groups and tables is included in Appendix B.

Type of Database

A statement must be provided that describes:

- The data model implemented by DBMS used (e.g. relational, network, hierarchical).
- The database interface (e.g. embedded, call level) and access language (e.g. SQL, DL/I, COBOL read/write used to implement the TPC-C transaction. If more than one interface/access language is used to implement TPC-C, each interface/access language must be described and a list of which interface/access language is used with which transaction type must be disclosed.

Microsoft SQL Server 2005 Enterprise x64 Edition is a relational DBMS.

The interface used was Microsoft SQL Server stored procedures accessed with Remote Procedure Calls embedded in C code.

Database Mapping

The mapping of database partitions/replications must be explicitly described.

The database was not replicated.

60 Day Space

Details of the 60-day space computations along with proof that the database is configured to sustain 8 hours of growth for the dynamic tables (Order, Order-Line, and History) must be disclosed.

To calculate the space required to sustain the database log for 8 hours of growth at steady state, the following steps were followed:

- The free space on the log file was queried using *dbcc sqlperf(logspace)*.
- Transactions were run against the database with a full load of users.
- The free space was again queried using *dbcc sqlperf(logspace)*.
- The space used was calculated as the difference between the first and second query.
- The number of NEW-ORDERS was verified from the difference in the sum(d_next_o_id) taken from before and after the run.
- The space used was divided by the number of NEW-ORDERS giving a space used per NEW-ORDER transaction.
- The space used per transaction was multiplied by the measured tpmC rate times 480 minutes.

The same methodology was used to compute growth requirements for dynamic tables Order, Order-Line and History.

Details of both the 8-hour transaction log space requirements and the 60-day space requirements are shown in Appendix D.

Clause 5 Related Items

Throughput

Measured tpmC must be reported

Measured tpmC 1,807,347 tpmC

Price per tpmC USD \$0.49

Response Times

Ninetieth percentile, maximum and average response times must be reported for all transaction types as well as for the menu response time.

Table 5.2: Response Times

| Type | Average | 90 th % | Maximum |
|----------------------|---------|--------------------|---------|
| New-Order | 0.25 | 0.49 | 10.41 |
| Payment | 0.23 | 0.46 | 21.88 |
| Order-Status | 0.26 | 0.49 | 9.83 |
| Interactive Delivery | 0.18 | 0.32 | 6.40 |
| Deferred Delivery | 0.09 | 0.18 | 5.20 |
| Stock-Level | 0.29 | 0.53 | 9.01 |
| Menu | 0.18 | 0.33 | 120.20 |

Keying and Think Times

The minimum, the average, and the maximum keying and think times must be reported for each transaction type.

Table 5.3: Keying Times

| Type | Minimum | Average | Maximum |
|----------------------|---------|---------|---------|
| New-Order | 18.02 | 18.03 | 18.06 |
| Payment | 3.02 | 3.03 | 3.05 |
| Order-Status | 2.02 | 2.03 | 2.05 |
| Interactive Delivery | 2.02 | 2.03 | 2.06 |
| Stock-Level | 2.02 | 2.03 | 2.05 |

Table 5.4: Think Times

| Type | Minimum | Average | Maximum |
|----------------------|---------|---------|---------|
| New-Order | 0.00 | 12.06 | 120.53 |
| Payment | 0.00 | 12.06 | 120.53 |
| Order-Status | 0.00 | 10.02 | 100.53 |
| Interactive Delivery | 0.00 | 5.07 | 50.53 |
| Stock-Level | 0.00 | 5.07 | 50.53 |

Response Time Frequency Distribution Curves and Other Graphs

Response Time frequency distribution curves (see Clause 5.6.1) must be reported for each transaction type.

The performance curve for response times versus throughput (see Clause 5.6.2) must be reported for the New-Order transaction.

Think Time frequency distribution curves (see Clause 5.6.3) must be reported for each transaction type.

Keying Time frequency distribution curves (see Clause 5.6.4) must be reported for each transaction type.

A graph of throughput versus elapsed time (see Clause 5.6.5) must be reported for the New-Order transaction.

Figure 3. New Order Response Time Distribution

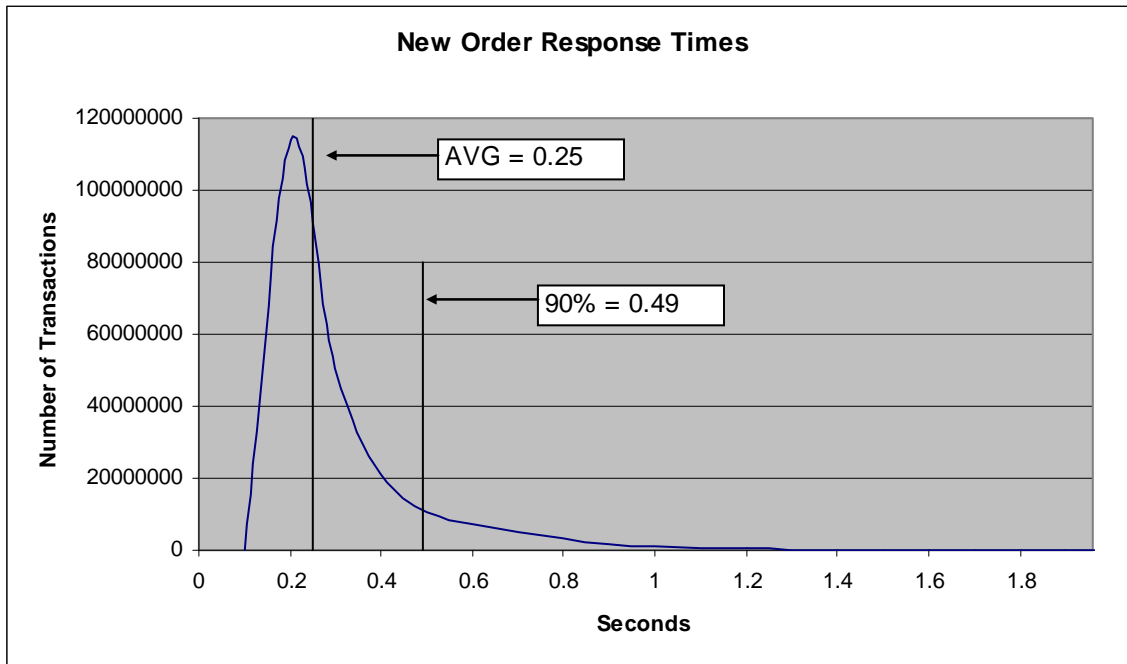


Figure 4. Payment Response Time Distribution

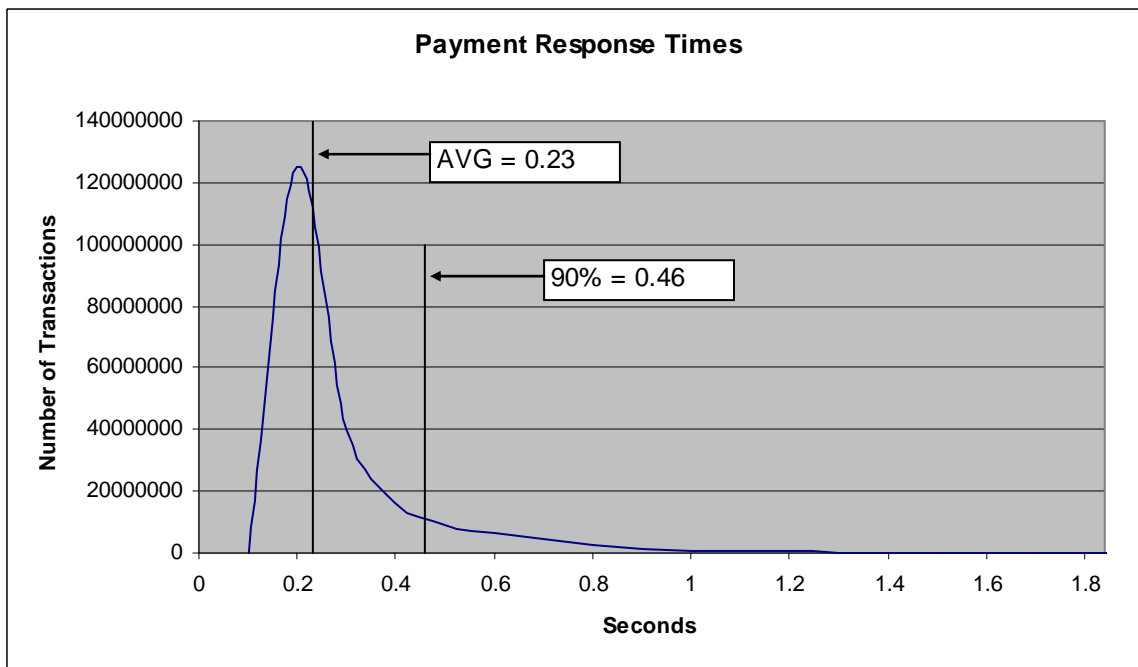


Figure 5. Order Status Response Time Distribution

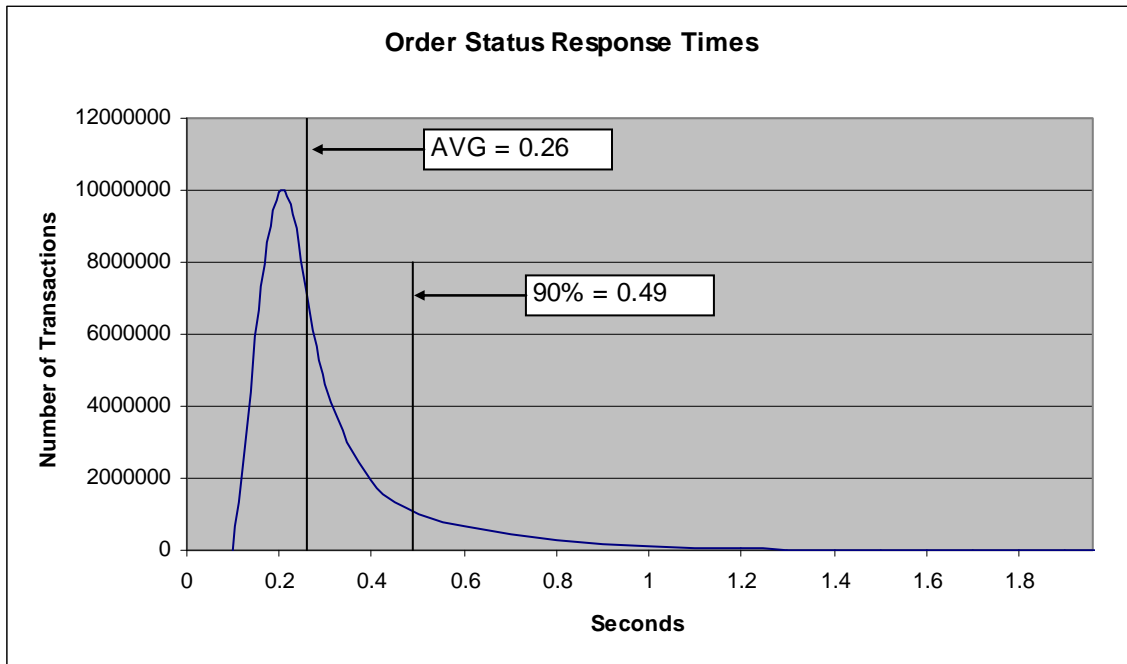


Figure 6. Delivery Response Time Distribution

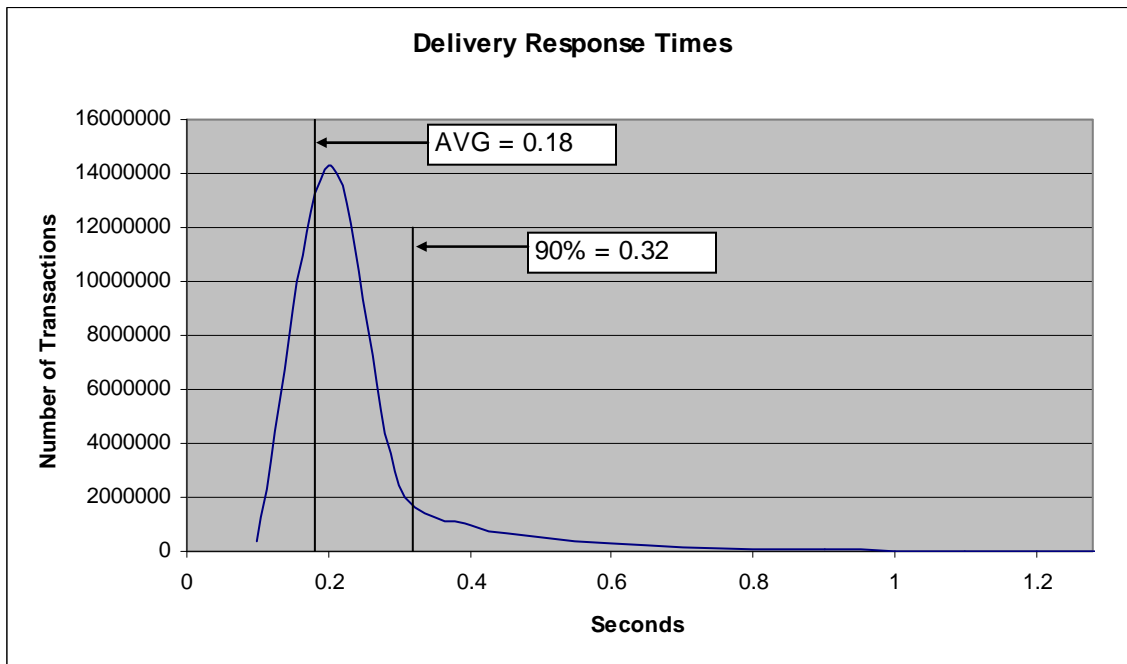


Figure 7. Stock Level Response Time Distribution

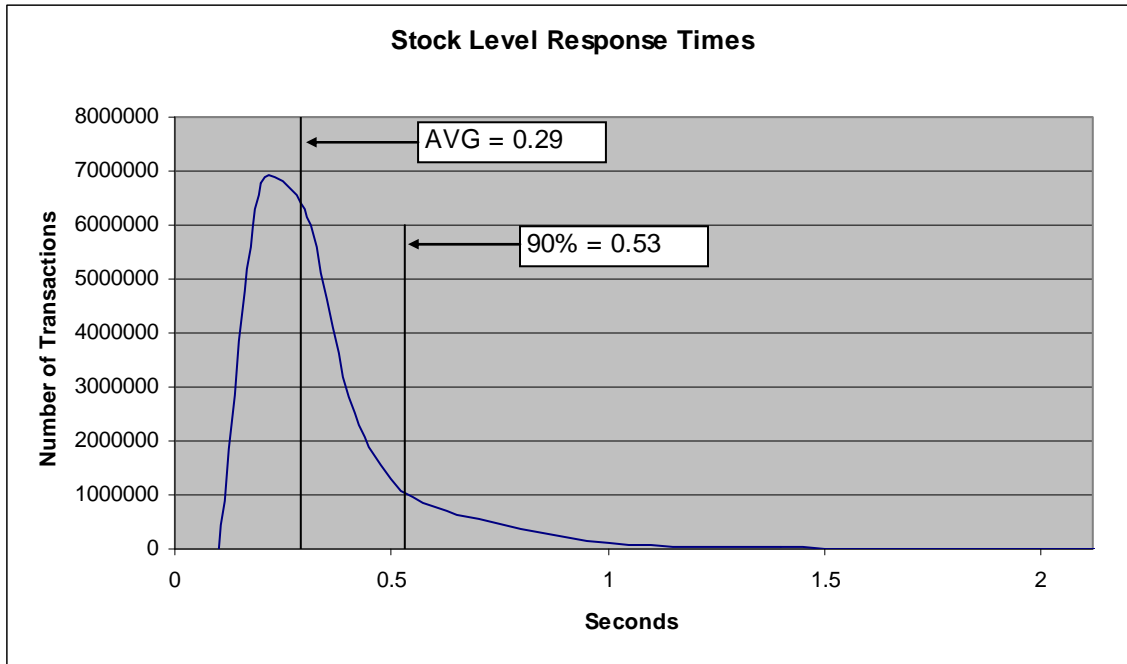


Figure 8. Response Time vs. Throughput

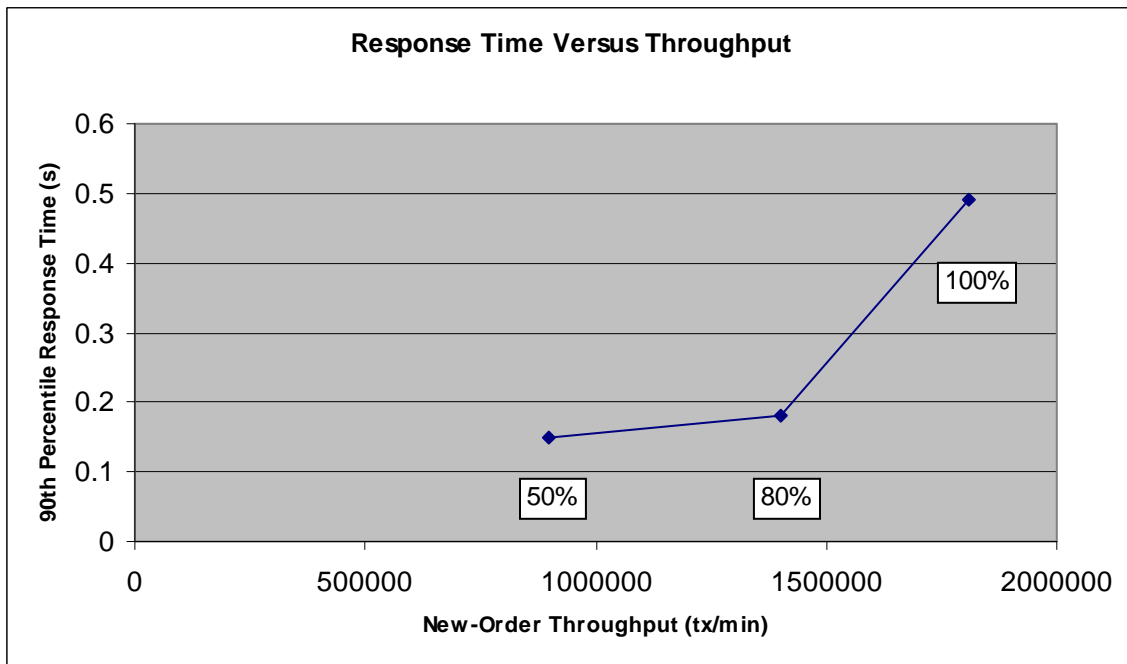


Figure 9. New Order Think Time Distribution

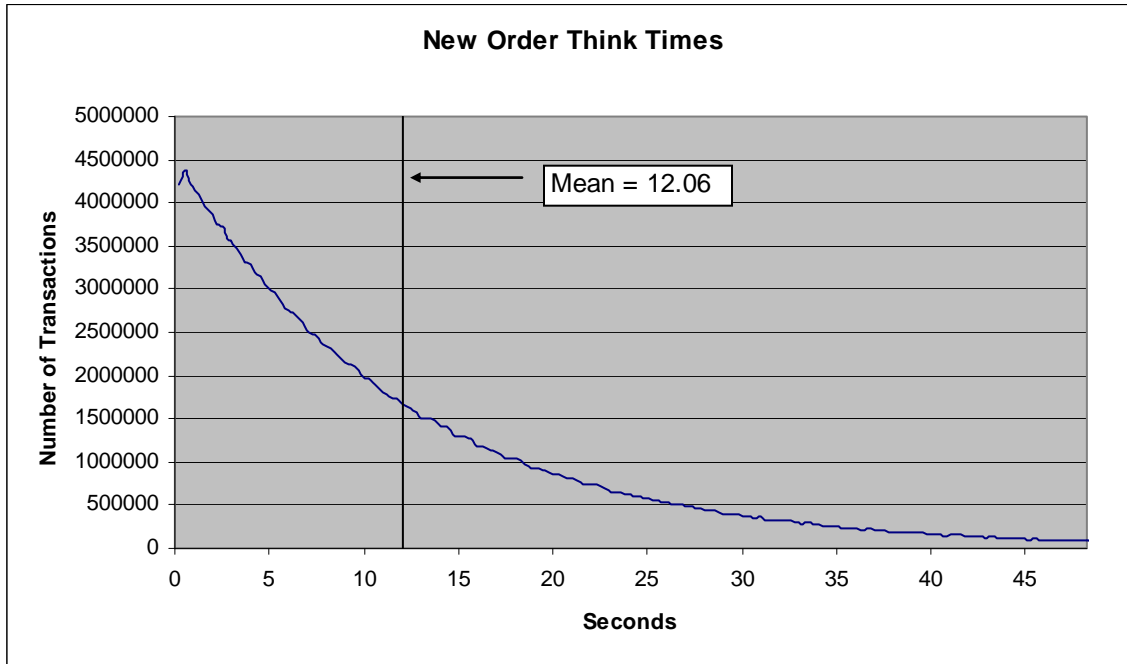
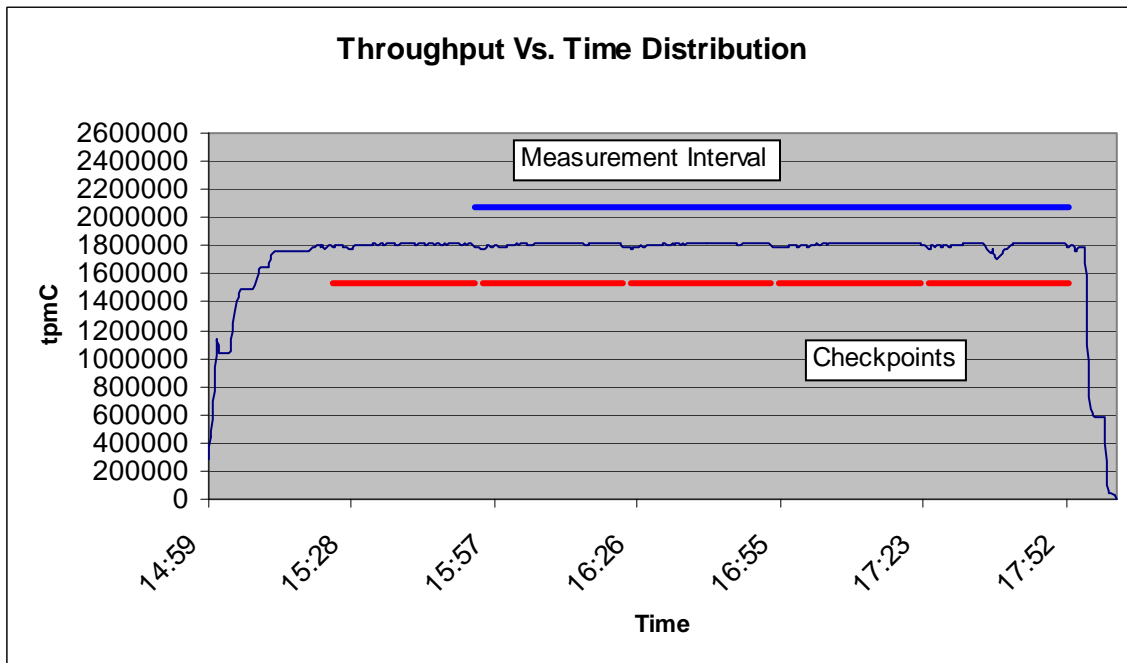


Figure 10. Throughput vs. Time Distribution



Steady State Determination

The method used to determine that the SUT had reached a steady state prior to commencing the measurement interval must be disclosed.

Steady state was determined using real time monitor utilities from the RTE. Steady state was further confirmed by the throughput data collected during the run and graphed in Figure 10.

Work Performed During Steady State

A description of how the work normally performed during a sustained test (for example checkpointing, writing redo/undo log records, etc.), actually occurred during the measurement interval must be reported.

The RTE generated the required input data to choose a transaction from the menu. This data was time stamped. The input screen for the requested transaction was returned and time stamped. The difference between these two timestamps was the menu response time. The RTE writes to the log file once per transaction on selective fields such as order id. There is one log file per driver engine.

The RTE generated the required input data for the chosen transaction. It waited to complete the minimum required key time before transmitting the input screen. The transmission was time stamped. The return of the screen with the required response data was time stamped. The difference between these two timestamps was the response time for that transaction.

The RTE then waited the required think time interval before repeating the process starting at selecting a transaction from the menu.

The RTE transmissions were sent to application processes running on the client machines through Ethernet LANs. These client application processes handled all screen I/O as well as all requests to the database on the server. The applications communicated with the database server over gigabit Ethernet LANs using ODBC and RPC calls.

To perform checkpoints at specific intervals, the SQL Server *recovery interval* was set to 32767 and a script was written to schedule multiple checkpoints at specific intervals. The script included a wait time between each checkpoint equal to 30 minutes. The measurement interval was 120 minutes. The checkpoint script was started manually after the RTE had all users logged in and the database had achieved steady state.

At each checkpoint, Microsoft SQL Server wrote to disk all memory pages that had been updated but not yet physically written to disk. The positioning of the measurement interval is depicted on the graph in Figure 9.

Measurement Period Duration

A statement of the duration of the measurement interval for the reported Maximum Qualified Throughput (tpmC) must be included.

The reported measured interval was exactly 120 minutes long.

Regulation of Transaction Mix

The method of regulation of the transaction mix (e.g., card decks or weighted random distribution) must be described. If weighted distribution is used and the RTE adjusts the weights associated with each transaction type, the maximum adjustments to the weight from the initial value must be disclosed.

The RTE was given a weighted random distribution, which was not adjusted during the run.

Transaction Statistics

The percentage of the total mix for each transaction type must be disclosed. The percentage of New-Order transactions rolled back as a result of invalid item number must be disclosed. The average number of order-lines entered per New-Order transaction must be disclosed. The percentage of remote order lines per New-Order transaction must be disclosed. The percentage of remote Payment transactions must be disclosed. The percentage of customer selections by customer last name in the Payment and Order-Status transactions must be disclosed. The percentage of Delivery transactions skipped due to there being fewer than necessary orders in the New-Order table must be disclosed.

Table 5.5: Transaction Statistics

| Statistic | | Value |
|-----------------|------------------------------------|--------|
| New Order | Home warehouse order lines | 99.00% |
| | Remote warehouse order lines | 1.00% |
| | Rolled back transactions | 1.00% |
| | Average items per order | 10.00 |
| Payment | Home warehouse payments | 85.00% |
| | Remote warehouse payments | 15.00% |
| | Accessed by last name | 59.97% |
| Delivery | Skipped transactions (interactive) | 0 |
| | Skipped transactions (deferred) | 0 |
| Order Status | Accessed by last name | 59.97% |
| Transaction Mix | New Order | 44.96% |
| | Payment | 43.02% |
| | Order status | 4.00% |
| | Delivery | 4.01% |
| | Stock level | 4.01% |

Checkpoint Count and Location

The number of checkpoints in the Measurement Interval, the time in seconds from the start of the Measurement Interval to the first checkpoint, and the Checkpoint Interval must be disclosed.

The initial checkpoint was started 34 minutes after the start of the ramp-up. Subsequent checkpoints occurred every 30 minutes. Each checkpoint in the measurement interval lasted 29 minutes and 10 seconds. The measurement interval contains four checkpoints.

Checkpoint Duration

The start time and duration in seconds of at least the four longest checkpoints during the Measurement Interval must be disclosed.

| Checkpoint Start Time | Duration |
|-----------------------|------------------------|
| 15:54:55 PM | 28 minutes, 20 seconds |
| 16:24:52 PM | 28 minutes, 20 seconds |
| 16:54:49 PM | 28 minutes, 20 seconds |
| 17:24:46 PM | 28 minutes, 20 seconds |

Clause 6 Related Items

RTE Descriptions

If the RTE is commercially available, then its inputs must be specified. Otherwise, a description must be supplied of what inputs (e.g., scripts) to the RTE had been used.

The RTE used was Microsoft Benchcraft RTE. Benchcraft is a proprietary tool provided by Microsoft and is not commercially available. The RTE's input is listed in Appendix A.

Emulated Components

It must be demonstrated that the functionality and performance of the components being emulated in the Driver System are equivalent to the priced system. The results of the test described in Clause 6.6.3.4 must be disclosed.

The driver system consisted of 4 HP ProLiant servers hosting 9 Hyper-V virtual machines per system for a total of 36 VM client systems. These driver machines emulated the users' web browsers.

Functional Diagrams

A complete functional diagram of both the benchmark configuration and the configuration of the proposed (target) system must be disclosed. A detailed list of all hardware and software functionality being performed on the Driver System and its interface to the SUT must be disclosed.

The driver system performed the data generation and input functions of the priced display device. It also captured the input and output data and timestamps for post-processing of the reported metrics. No other functionality was included on the driver system.

Section 1.4 of this report contains detailed diagrams of both the benchmark configuration and the priced configuration.

Networks

The network configuration of both the tested services and proposed (target) services that are being represented and a thorough explanation of exactly which parts of the proposed configuration are being replaced with the Driver System must be disclosed.

The bandwidth of the networks used in the tested/priced configuration must be disclosed.

In the tested configuration, 36 driver (RTE) machines were connected through a gigabit Ethernet switch to the client machines at 1Gbps, thus providing the path from the RTEs to the clients. The server (SUT) was connected to the clients through a gigabit Ethernet switch on a separate LAN.

The priced configuration was connected in the same manner as the tested configuration.

Operator Intervention

If the configuration requires operator intervention (see Clause 6.6.6), the mechanism and the frequency of this intervention must be disclosed.

This configuration does not require any operator intervention to sustain eight hours of the reported throughput.

Clause 7 Related Items

System Pricing

A detailed list of hardware and software used in the priced system must be reported. Each separately orderable item must have vendor part number, description, and release/revision level, and either general availability status or committed delivery data. If package-pricing is used, vendor part number of the package and a description uniquely identifying each of the components of the package must be disclosed. Pricing source and effective date(s) of price(s) must also be reported.

The total 3 year price of the entire configuration must be reported, including: hardware, software, and maintenance charges. Separate component pricing is recommended. The basis of all discounts used must be disclosed.

The details of the hardware and software are reported in the front of this report as part of the executive summary. All third party quotations are included at the end of this report as Appendix E.

Availability, Throughput, and Price Performance

The committed delivery date for general availability (availability date) of products used in the price calculation must be reported. When the priced system included products with different availability dates, the reported availability date for the priced system must be the date at which all components are committed to be available.

A statement of the measured tpmC as well as the respective calculations for the 5-year pricing, price/performance (price/tpmC), and the availability date must be included.

- **Maximum Qualified Throughput** **1,804,347tpmC**
- **Price per tpmC** **USD \$0.49 per tpmC**
- **Availability** **October 15, 2010**

Country Specific Pricing

Additional Clause 7 related items may be included in the Full Disclosure Report for each country specific priced configuration. Country specific pricing is subject to Clause 7.1.7

This system is being priced for the United States of America.

Usage Pricing

For any usage pricing, the sponsor must disclose:

- Usage level at which the component was priced.
- A statement of the company policy allowing such pricing.

The component pricing based on usage is shown below:

- 4 Microsoft Windows Server 2008 R2 Standard Edition
- 9 Microsoft Windows Server 2008 R2 Enterprise Edition
- 1 Microsoft SQL Server 2005 Enterprise x64 Edition (per processor) SP3
- 1 Microsoft Visual Studio 2008 Standard
- HP Servers include 3 years of support.

Clause 9 Related Items

Auditor's Report

The auditor's name, address, phone number, and a copy of the auditor's attestation letter indicating compliance must be included in the Full Disclosure Report.

This implementation of the TPC Benchmark C was audited by Lorna Livingtree of Performance Metrics, Inc.

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Availability of the Full Disclosure Report

The Full Disclosure Report must be readily available to the public at a reasonable charge, similar to the charges for similar documents by the test sponsor. The report must be made available when results are made public. In order to use the phrase "TPC Benchmark™ C", the Full Disclosure Report must have been submitted to the TPC Administrator as well as written permission obtained to distribute same.

Requests for this TPC Benchmark C Full Disclosure Report should be sent to:

TPC
Presidio of San Francisco
Building 572B Ruger St. (surface)
P.O. Box 29920 (mail)
San Francisco, CA 94129-0920

or

Hewlett-Packard Company
Database Performance Engineering
P.O. Box 692000
Houston, TX 77269-2000



August 27, 2010

Mr. David Adams
 Database Performance Engineer
 Hewlett-Packard Company
 20555 SH 249
 Houston, TX 77070

I have verified on-site the TPC Benchmark™ C for the following configuration:
 Platform: HP ProLiant DL580G7
 Database Manager: Microsoft SQL Server 2005 Enterprise X64 Edition SP3
 Operating System: Microsoft Windows Server 2008 R2 Enterprise Edition
 Transaction Monitor: Microsoft COM+

| System Under Test: | | | | |
|-----------------------------|---------------|---|--------------|------------------|
| CPU's | Memory | Disks (total) | 90% Response | TpmC |
| 4 Xeon 8 core @ 2.27 Ghz | Main: 1024 GB | 128 @ 300 GB 256 @ 120 GB 2 @ 146 GB 2 @ 72GB | 0.49 | 1,807,347 |
| Clients: 4 DL360 G7 | | | | |
| 2 Xeon 6 core @ 2.93 Ghz | 24 GB | 4 @ 300 GB | NA | NA |

In my opinion, these performance results were produced in compliance with the TPC requirements for the benchmark. The following attributes of the benchmark were given special attention:

- The transactions were correctly implemented.
- The database files were properly sized.
- The database was properly scaled with 144,000 warehouses, all of which were active during the measured interval.
- The ACID properties were successfully demonstrated on an identical configuration previously publish. The system loss test was successfully demonstrated.
- Input data was generated according to the specified percentages.
- Eight hours of mirrored log space was present on the tested system.
- Eight hours of growth space for the dynamic tables was present on the tested system.
- The data for the 60 days space calculation was verified.
- The steady state portion of the test was 120 minutes.
- There was one complete checkpoint in steady state before the measured interval.
- There were 4 checkpoints started and completed inside the measured interval.
- The system pricing was checked for major components and maintenance.
- Third party quotes were verified for compliance.

Auditor Notes: None

Sincerely,

Lorna Livingtree

Lorna Livingtree



Appendix A:

Source Code

The client source code is listed below.

dlldata.c

```
*****
DllData file -- generated by MIDL compiler

    DO NOT ALTER THIS FILE

This file is regenerated by MIDL on every IDL file
compile.

To completely reconstruct this file, delete it and
rerun MIDL
on all the IDL files in this DLL, specifying this
file for the
/dlldata command line option
*****
#include <rpcproxy.h>

#ifdef __cplusplus
extern "C" {
#endif

EXTERN_PROXY_FILE( tpcc_com_ps )

PROXYFILE_LIST_START
/* Start of list */
REFERENCE_PROXY_FILE( tpcc_com_ps ),
/* End of list */
PROXYFILE_LIST_END

DLLDATA_ROUTINES( aProxyFileList, GET_DLL_CLSID )

#ifdef __cplusplus
} /*extern "C" */
#endif

/* end of generated dlldata file */
```

error.h

```
/* FILE: ERROR.H Microsoft
 * TPC-C Kit Ver. 4.69.000 Copyright
 * Microsoft, 1999
 * All Rights Reserved
 * Version
 * 4.10.000 audited by Richard Gimarc, Performance
 * Metrics, 3/17/99
```

```
*
* PURPOSE: Header file for error exception
* classes.
*
* Change history:
* 4.20.000 - updated rev number to
match kit
* 4.21.000 - fixed bug: ~CBaseErr
needed to be declared virtual
* 4.69.000 - updated rev number to
match kit
*/

#pragma once

#ifndef _INC_STRING
#include <string.h>
#endif

const int m_szMsg_size = 512;
const int m_szApp_size = 64;
const int m_szLoc_size = 64;

//error message structure used in ErrorText routines
typedef struct _SERRORMSG
{
    int iError;
    char szMsg[256];
    //message to sent to browser
} SERRORMSG;

typedef enum _ErrorLevel
{
    ERR_FATAL_LEVEL = 1,
    ERR_WARNING_LEVEL = 2,
    ERR_INFORMATION_LEVEL = 3
} ErrorLevel;

#define ERR_TYPE_LOGIC -1
//logic error in program; internal error
#define ERR_SUCCESS 0
//success (a non-error error)
#define ERR_BAD_ITEM_ID 1
//expected abort record in txnRecord
#define ERR_TYPE_DELIVERY_POST 2
//expected delivery post failed
#define ERR_TYPE_WEBDLL 3
//tpcc web generated error
#define ERR_TYPE_SQL 4
//sql server generated error
#define ERR_TYPE_DBLIB 5
//dblib generated error
```

```
#define ERR_TYPE_ODBC 6
//odbc generated error
#define ERR_TYPE_SOCKET 7
//error on communication socket client rte
only
#define ERR_TYPE_DEADLOCK 8
//dblib and odbc only deadlock condition
#define ERR_TYPE_COM 9
//error from COM call
#define ERR_TYPE_TUXEDO 10
//tuxedo error
#define ERR_TYPE_OS 11
//operating system error
#define ERR_TYPE_MEMORY 12
//memory allocation error
#define ERR_TYPE_TPCC_ODBC 13
//error from tpcc odbc txn module
#define ERR_TYPE_TPCC_DBLIB 14
//error from tpcc dblib txn module
#define ERR_TYPE_DELISRV 15
//delivery server error
#define ERR_TYPE_TXNLOG 16
//txn log error
#define ERR_TYPE_BCONN 17
//Benchcraft connection class
#define ERR_TYPE_TPCC_CONN 18
//Benchcraft connection class
#define ERR_TYPE_ENCINA 19
//Encina error
#define ERR_TYPE_COMPONENT 20
//error from COM component
#define ERR_TYPE_RTE 21
//Benchcraft rte
#define ERR_TYPE_AUTOMATION 22
//Benchcraft automation errors
#define ERR_TYPE_DRIVER 23
//Driver engine errors
#define ERR_TYPE_RTE_BASE 24
//Framework errors
#define ERR_BUF_OVERFLOW 25
//Buffer overflow during receive
```

```

#define ERR_TYPE_SOAP_HTTP
                26
                //HTTP/SOAP dll generated error
#define ERR_TYPE_OLEDB
                27
                //OLE-DB generated error
#define ERR_TYPE_TPCC_OLEDB
                28
                //error from tpcc ole-db txn module
// TPC-W error types
#define ERR_TYPE_TPCW_CONN
                50
                //Benchcraft connection class
#define ERR_TYPE_TPCW_HTML
                51
                //error from TpcWhtml dll
#define ERR_TYPE_TPCW_USER
                52
                //error from TPC-W user class
#define ERR_TYPE_TPCW_ENG_BASE
                53
#define ERR_TYPE_TPCW_ENG_OS
                54
#define ERR_TYPE_HTML_RESP
                55
#define ERR_TYPE_TPCW_ODBC
                56
#define ERR_TYPE_SCHANNEL
                57
#define ERR_TYPE_THINK_LIST
                58
//----- end TPC-W -----
#define ERR_TYPE_XML_PROFILE
                59
// TPC-E error types
#define ERR_TYPE_TPCE_CONN
                60
                //TPC-E pipe connection errors
#define ERR_TYPE_TPCE RTE
                61
                //TPC-E Rte errors
#define ERR_TYPE_TPCE_ENG_BASE
                62
                //Tpce Driver engine errors
#define ERR_TYPE_TPCE_ENG_OS
                63
                //Tpce Driver
engine system errors
//#define ERR_TYPE_TPCE_MEE_ENG_BASE
                64
                //Tpce MEE
Driver engine errors
//#define ERR_TYPE_TPCE_MEE_ENG_OS
                65
                //Tpce MEE
Driver engine system errors

#define ERR_INS_MEMORY
                "Insufficient Memory to continue."
#define ERR_UNKNOWN
                "Unknown error."
#define ERR_MSG_BUF_SIZE
                512
#define INV_ERROR_CODE
                -1
#define ERR_INS_BUF_OVERFLOW
                "Insufficient Buffer
size to receive HTML pages."

```

```

class CBaseErr
{
public:
    enum Action
    {
        eNone = 0
    };

    CBaseErr(LPCTSTR szLoc = NULL)
    {
        m_idMsg =
        GetLastError(); //take the error code
        immediately before it is reset by other functions

        if (szLoc)
        {
            m_szLoc = new
            char[strlen(szLoc)+1*m_szLoc_size*];
            strcpy(m_szLoc, szLoc);
        }
        else
            m_szLoc = NULL;

        m_szApp = new
        char[m_szApp_size];

        GetModuleFileName(GetModuleHandle(NULL),
        m_szApp, m_szApp_size);
    }

    CBaseErr(int idMsg, LPCTSTR szLoc = NULL)
    {
        m_idMsg = idMsg;

        if (szLoc)
        {
            m_szLoc = new
            char[strlen(szLoc)+1*m_szLoc_size*];
            strcpy(m_szLoc, szLoc);
        }
        else
            m_szLoc = NULL;

        m_szApp = new
        char[m_szApp_size];

        GetModuleFileName(GetModuleHandle(NULL),
        m_szApp, m_szApp_size);
    }

    virtual ~CBaseErr(void)
    {
        if (m_szApp)
            delete [] m_szApp;
        if (m_szLoc)
            delete [] m_szLoc;
    }
};

```

```

};

virtual void Draw(HWND hwnd, LPCTSTR szStr
= NULL)
{
    int j = 0;
    char szTmp[512];

    if (szStr)
        j = wsprintf(szTmp,
"%s\n",szStr);
        if (ErrorNum() != INV_ERROR_CODE)
            j += wsprintf(szTmp+j,
"Error = %d\n", ErrorNum());
        if (m_szLoc)
            j += wsprintf(szTmp+j,
"Location = %s\n", GetLocation());
        j += wsprintf(szTmp+j, "%s\n",
ErrorText());
        MessageBox(hwnd, szTmp, m_szApp,
MB_OK);
}

char *GetApp(void) { return m_szApp; }
char *GetLocation(void) { return m_szLoc; }
virtual int ErrorNum() { return m_idMsg; }

virtual int ErrorType() = 0; // a value
which distinguishes the kind of error that occurred
virtual char *ErrorTypeStr() = 0; // text
representation of the error type
virtual char *ErrorText() = 0; // a string
(i.e., human readable) representation of the error
virtual int ErrorAction() { return eNone; }
// the function call that caused the error

protected:
char *m_szApp;
char *m_szLoc; // code location where
the error occurred
int m_idMsg;

//short m_errType;
};

class CSocketErr : public CBaseErr
{
public:
    enum Action
    {
        eNone = 0,
        eSend,
        eSocket,
        eBind,
        eConnect,
        eListen,
        eHost,
        eRecv,
    };
};

```



```

        eGetHostByName,
        eWSACreateEvent,
        eWSASend,
        eWSAGetOverlappedResult,
        eWSARecv,
        eWSAWaitForMultipleEvents,
        eWSAStartup,
        eWSAResetEvent,
        eWSAEnumNetworkEvents,
        eWSAEventSelect,
        eSelect,
        eAccept,
        eNonRetryable
    };

    CSocketErr(Action eAction, LPCTSTR
szLocation = NULL);

~CSocketErr()
{
    if (m_szErrorText != NULL)
        delete []
m_szErrorText;
};

    Action    m_eAction;
    char      *m_szErrorText;

    int        ErrorType() { return
ERR_TYPE_SOCKET;};
    char*      ErrorTypeStr() { return "SOCKET";
}
    char*      ErrorText(void);
    int        ErrorAction() { return
(int)m_eAction; }
};

class CSystemErr : public CBaseErr
{
public:
    enum Action
    {
        eNone = 0,
        eTransactNamedPipe,
        eWaitNamedPipe,
        eSetNamedPipeHandleState,
        eCreateFile,
        eCreateProcess,
        eCallNamedPipe,
        eCreateEvent,
        eCreateThread,
        eVirtualAlloc,
        eReadFile = 10,
        eWriteFile,
        eMapViewOfFile,
        eCreateFileMapping,
        eInitializeSecurityDescriptor,
        eSetSecurityDescriptorDacl,
        eCreateNamedPipe,
        eConnectNamedPipe,
        eWaitForSingleObject,
        eRegOpenKeyEx,

```

```

        eRegQueryValueEx = 20,
        eBeginThread,
        eRegEnumValue,
        eRegSetValueEx,
        eRegCreateKeyEx,
        eWaitForMultipleObjects,
        eRegisterClassEx,
        eCreateWindow,
        eCreateSemaphore,
        eReleaseSemaphore,
        eFSeek,
        eFRead,
        eFWrite,
        eTmpFile,
        eSetFilePointer,
        eNew,
        eCloseHandle,
        eGetOverlappedResult
    };

    CSystemErr(Action
eAction, LPCTSTR szLocation);
    CSystemErr(int iError,
Action eAction, LPCTSTR szLocation);
    int        ErrorType() { return
ERR_TYPE_OS;};
    char*      ErrorTypeStr() { return "SYSTEM";
}
    char        *ErrorText(void);
    int        ErrorAction() { return
(int)m_eAction; }
    void      Draw(HWND hwnd, LPCTSTR szStr =
NULL);
    Action    m_eAction;

private:
    char m_szMsg[ERR_MSG_BUF_SIZE];
};

class CMemoryErr : public CBaseErr
{
public:
    CMemoryErr();

    int        ErrorType() {return
ERR_TYPE_MEMORY;};
    char*      ErrorTypeStr() { return "OUT OF
MEMORY"; }
    char*      ErrorText() {return
ERR_INS_MEMORY;};
};

class CBufferOverflowErr : public CBaseErr
{
public:
    CBufferOverflowErr(int,LPTSTR);

    int        ErrorType() {return
ERR_BUF_OVERFLOW;};
    char*      ErrorTypeStr() { return "BUFFER
OVERFLOW"; }

```

```

        char*      ErrorText() {return
ERR_INS_BUF_OVERFLOW;};
};

// Exception type for XML profiles
class CXMLProfileErr : public CBaseErr
{
public:
    enum Action
    {
        LoadProfile = 1,
        LoadSchema,
        ValidateProfile,
        SaveProfile,
        LoadFromXML,
        SaveToXML,
        ApplyProcessingInstruction,
        ApplyAttribute,
        ApplyNode
    };

    CXMLProfileErr(Action eAction,
int eCode, LPCTSTR szLocation)
    {
        m_eAction = eAction;
        m_eCode = eCode;
        m_bOverload = true;
    };

    CXMLProfileErr(Action eAction,
int eCode, LPCTSTR szLocation, char * szMsg)
    {
        m_eAction = eAction;
        m_eCode = eCode;
        strcpy(m_szMsg, szMsg);
        m_bOverload = false;
    };

    virtual int
ErrorType() { return
ERR_TYPE_XML_PROFILE;};
    virtual char
*ErrorTypeStr() { return "XML PROFILE"; };
    virtual char
*ErrorText();

    virtual int
ErrorCode() { return m_eCode; };
    int
ErrorAction() { return (int)m_eAction; }
//virtual void      Draw(HWND
hwnd, LPCTSTR szStr = NULL)
//{
//
//      ::MessageBox(hwnd,
szStr, m_szLoc, MB_OK);
//};

private:
    char
m_szMsg[ERR_MSG_BUF_SIZE];
    LPCTSTR m_szLoc;
    int        m_eCode;
    bool      m_bOverload;
    Action    m_eAction;

```

```
};
```

install.c

```
/* FILE: INSTALL.C
 * Microsoft
 * TPC-C Kit Ver. 4.69.000
 * Copyright
 * Microsoft, 2008, 2009
 * All Rights Reserved
 *
 * not audited
 *
 * PURPOSE: Automated installation
 * application for TPC-C Web Kit
 * Contact: Charles Levine
 * (clevine@microsoft.com)
 *
 * Change history:
 * 4.20.000 - added COM installation
 * steps
 * 4.50.000 - added IIS6 configuration options
 * 4.51.000 - added routines to copy
 * Visual Studio runtime module (MSVCR70.DLL)
 * to
 * SystemRoot\System32
 * 4.69.000 - added IIS7 support
 * and Windows Server 2008 R2 support
 */

#include <windows.h>
#include <direct.h>
#include <io.h>
#include <stdlib.h>
#include <tchar.h>
#include <stdio.h>
#include <commctrl.h>
#include "..\..\common\src\ReadRegistry.h"
#include <process.h>

#include "resource.h"

#define WM_INITTEXT WM_USER+100

HICON hIcon;
HINSTANCE hInst;

DWORD versionExeMS;
DWORD versionExeLS;
DWORD versionExeMM;
DWORD versionDllMS;
DWORD versionDllLS;

// TPC-C registry settings
TPCCREGISTRYDATA Reg;

static int iPoolThreadLimit;
static int iMaxPoolThreads;
static int iThreadTimeout;
```

```
static int iListenBackLog;
static int iAcceptExOutstanding;
static int iUriEnableCache;
static int iUriScavengerPeriod;
static int iMaxConnections;

static int iIISMajorVersion;
static int iNumberOfProcessors;

static int iMaxPhysicalMemory;
//max physical memory in MB
static char szLastFileName[64]; //
last file we worked on (for error reporting)

BOOL CALLBACK LicenseDlgProc(HWND hwnd, UINT
uMsg, WPARAM wParam, LPARAM lParam);
BOOL CALLBACK UpdatedDlgProc(HWND hwnd, UINT
uMsg, WPARAM wParam, LPARAM lParam);
BOOL CALLBACK MainDlgProc(HWND hwnd, UINT uMsg,
WPARAM wParam, LPARAM lParam);
BOOL CALLBACK CopyDlgProc(HWND hwnd, UINT uMsg,
WPARAM wParam, LPARAM lParam);
static void ProcessOK(HWND hwnd,
char *szDllPath, char *szWindowsPath);
static void
ReadRegistrySettings(void);
static void
WriteRegistrySettings(char *szDllPath);
static BOOL RegisterDLL(char
*szFileName);
static int
CopyFiles(HWND hDlg, char *szDllPath, char
*szWindowsPath);
static BOOL
GetInstallPath(char
*szDllPath);
static BOOL
GetWindowsInstallPath(char *szWindowsPath);
static void
GetVersionInfo(char
*szDLLPath, char *szExePath);
static BOOL
CheckWWWWebService(void);
static
BOOL
StartWWWWebService(void);
static BOOL
StopWWWWebService(void);
static void
UpdateDialog(HWND
hDlg);
static void
ConfigureIIS6(HWND
hwnd, HWND hDlg);
static void
ConfigureIIS7(HWND
hwnd, HWND hDlg);

SYSTEM_INFO siSysInfo;

BOOL install_com(char *szDllPath);

#include "..\..\common\src\ReadRegistry.cpp"

int WINAPI WinMain( HINSTANCE hInstance, HINSTANCE
hPrevInstance, LPSTR lpCmdLine, int nCmdShow )
{
    int iRc;
```

```
hInst = hInstance;

InitCommonControls();

hIcon = LoadIcon(hInstance,
MAKEINTRESOURCE(IDI_ICON1));

iRc = DialogBox(hInstance,
MAKEINTRESOURCE(IDD_DIALOG4), GetDesktopWindow(),
LicenseDlgProc);
if ( iRc )
{
    iRc = DialogBox(hInstance,
MAKEINTRESOURCE(IDD_DIALOG1), GetDesktopWindow(),
MainDlgProc);
    if ( iRc )
    {
        DialogBoxParam(hInstance,
MAKEINTRESOURCE(IDD_DIALOG2), GetDesktopWindow(),
UpdatedDlgProc, (LPARAM)iRc);
    }
}

DestroyIcon(hIcon);
return 0;

BOOL CALLBACK LicenseDlgProc(HWND hwnd, UINT uMsg,
WPARAM wParam, LPARAM lParam)
{
    HGLOBAL hRes;
    HRSRC hResInfo;
    BYTE *pSrc, *pDst;
    DWORD dwSize;
    static HFONT hFont;

    switch(uMsg)
    {
        case WM_INITDIALOG:
            hFont = CreateFont(-12,
0, 0, 0, 400, 0, 0, 0, 0, 0, 0, 0, 0, "Arial");
            SendMessage(
GetDlgItem(hwnd, IDR_LICENSE1), WM_SETFONT,
(WPARAM)hFont, MAKELPARAM(0, 0) );
            PostMessage(hwnd,
WM_INITTEXT, (WPARAM)0, (LPARAM)0);
            return TRUE;
        case WM_INITTEXT:
            hResInfo =
FindResource(hInst, MAKEINTRESOURCE(IDR_LICENSE1),
"LICENSE");
            dwSize =
SizeofResource(hInst, hResInfo);
            hRes =
LoadResource(hInst, hResInfo );
            pSrc = (BYTE
*)LockResource(hRes);
            pDst = (unsigned char
*)malloc(dwSize+1);
            if ( pDst )
            {
```

```

        memcpy(pDst,
pSrc, dwSize);
        pDst[dwSize]
= 0;

        SetDlgItemText(hwnd, IDC_LICENSE, (const
char *)pDst);
        free(pDst);
    }
    else
        SetDlgItemText(hwnd, IDC_LICENSE, (const
char *)pSrc);
        return TRUE;
    case WM_DESTROY:
        DeleteObject(hFont);
        return TRUE;
    case WM_COMMAND:
        if ( wParam == IDOK )
            EndDialog(hwnd, TRUE);
        if ( wParam == IDCANCEL
)
            EndDialog(hwnd, FALSE);
        default:
            break;
    }
    return FALSE;
}

BOOL CALLBACK UpdatedDlgProc(HWND hwnd, UINT uMsg,
WPARAM wParam, LPARAM lParam)
{
    switch(uMsg)
    {
        case WM_INITDIALOG:
            switch(lParam)
            {
                case 1:
                case 2:
                    SetDlgItemText(hwnd, IDC_RESULTS, "TPC-C
Web Client Installed");
                    break;
            }
            return TRUE;
        case WM_COMMAND:
            if ( wParam == IDOK )
                EndDialog(hwnd, TRUE);
            break;
        default:
            break;
    }
    return FALSE;
}

BOOL CALLBACK MainDlgProc(HWND hwnd, UINT uMsg,
WPARAM wParam, LPARAM lParam)
{
    PAINTSTRUCT ps;

```

```

MEMORYSTATUS memoryStatus;
OSVERSIONINFO VI;
char
szTmp[MAX_PATH];
static char
szDllPath[MAX_PATH];
static char
szWindowsPath[MAX_PATH];
static char
szExePath[MAX_PATH];

switch(uMsg)
{
    case WM_INITDIALOG:
        GlobalMemoryStatus(&memoryStatus);
        iMaxPhysicalMemory =
(memoryStatus.dwTotalPhys/ 1048576);

        if (
GetWindowsInstallPath(szWindowsPath) )
        {
            MessageBox(hwnd, "Error: Cannot determine
Windows System Root.", NULL, MB_ICONSTOP | MB_OK);
            EndDialog(hwnd, FALSE);
            return TRUE;
        }
        if (
GetInstallPath(szDllPath) )
        {
            MessageBox(hwnd, "Error internet service
inetsrv is not installed.", NULL, MB_ICONSTOP |
MB_OK);
            EndDialog(hwnd, FALSE);
            return TRUE;
        }
        // set default values
        ZeroMemory( &Reg,
sizeof(Reg) );
        Reg.dwNumberOfDeliveryThreads = 4;
        Reg.dwMaxConnections =
100;
        Reg.dwMaxPendingDeliveries = 100;
        Reg.eDB_Protocol =
ODBC;
        Reg.eTxnMon = None;
        strcpy(Reg.szDbServer,
"");
        strcpy(Reg.szDbName,
"tpcc");
        strcpy(Reg.szDbUser,
"sa");
        strcpy(Reg.szDbPassword,
"");

```

```

        iPoolThreadLimit =
iMaxPhysicalMemory * 2;
        iThreadTimeout = 86400;
        iListenBackLog = 15;
        iAcceptExOutstanding =
40;

        ReadTPCCRegistrySettings( &Reg );
        ReadRegistrySettings();

        // copy the hardware
information to the SYSTEM_INFO structure
        GetSystemInfo(&siSysInfo);
        // store the number of
processors on this system
        iNumberOfProcessors =
siSysInfo.dwNumberOfProcessors;

        GetModuleFileName(hInst, szExePath,
sizeof(szExePath));
        GetVersionInfo(szDllPath, szExePath);

        wsprintf(szTmp,
"Version %d.%2.2d.%3.3d", versionExeMS, versionExeMM,
versionExeLS);
        SetDlgItemText(hwnd,
IDC_VERSION, szTmp);
        SetDlgItemText(hwnd,
IDC_PATH, szDllPath);
        SetDlgItemText(hwnd,
ED_DB_SERVER, Reg.szDbServer);
        SetDlgItemText(hwnd,
ED_DB_USER_ID, Reg.szDbUser);
        SetDlgItemText(hwnd,
ED_DB_PASSWORD, Reg.szDbPassword);
        SetDlgItemText(hwnd,
ED_DB_NAME, Reg.szDbName);
        SetDlgItemInt(hwnd,
ED_THREADS, Reg.dwNumberOfDeliveryThreads, FALSE);
        SetDlgItemInt(hwnd,
ED_MAXCONNECTION, Reg.dwMaxConnections, FALSE);
        SetDlgItemInt(hwnd,
ED_MAXDELIVERIES, Reg.dwMaxPendingDeliveries, FALSE);
        SetDlgItemInt(hwnd,
ED_IIS_MAX_THREAD_POOL_LIMIT, iPoolThreadLimit,
FALSE);
        SetDlgItemInt(hwnd,
ED_IIS_THREAD_TIMEOUT, iThreadTimeout, FALSE);
        SetDlgItemInt(hwnd,
ED_IIS_LISTEN_BACKLOG, iListenBackLog, FALSE);
        SetDlgItemInt(hwnd,
ED_WEB_SERVICE_BACKLOG_QUEUE_SIZE,
iAcceptExOutstanding, FALSE);

        // check OS version
level for COM. Must be at least Windows 2000

```

```

    VI.dwOSVersionInfoSize
= sizeof(VI);
    GetVersionEx( &VI );
    if (VI.dwMajorVersion <
5)
    {
        HWND hDlg =
        GetDlgItem( hwnd, IDC_TM_MTS );
        EnableWindow(
hDlg, 0 ); // disable COM option
        if
(Reg.eTxnMon == COM)
            Reg.eTxnMon = None;
    }
    CheckDlgButton(hwnd,
IDC_TM_NONE, 0);
    CheckDlgButton(hwnd,
IDC_TM_MTS, 0);
    switch (Reg.eTxnMon)
    {
    case None:
        CheckDlgButton(hwnd, IDC_TM_NONE, 1);
        break;
    case COM:
        CheckDlgButton(hwnd, IDC_TM_MTS, 1);
        break;
    }
    return TRUE;
    case WM_PAINT:
        if ( IsIconic(hwnd) )
        {
            BeginPaint(hwnd, &ps);
            DrawIcon(ps.hdc, 0, 0, hIcon);
            EndPaint(hwnd, &ps);
            return TRUE;
        }
        break;
    case WM_COMMAND:
        if ( HIWORD(wParam) ==
BN_CLICKED )
        {
            switch(
LOWORD(wParam) )
            {
            case IDOK:
                ProcessOK(hwnd, szDllPath, szWindowsPath);
                return TRUE;
            case IDCANCEL:
                EndDialog(hwnd, FALSE);
            }
        }
    }
}

```

```

    return TRUE;
    default:
        return FALSE;
    }
}
    default:
        break;
    }
    default:
        break;
    }
    return FALSE;
}
static void ProcessOK(HWND hwnd, char *szDllPath,
char *szWindowsPath)
{
    int d;
    HWND hDlg;
    int rc;
    BOOL bSvcRunning;
    char szFullName[MAX_PATH];
    char szErrTxt[128];
    // Check whether Service Pack 1 has been
    installed if
    // running on Windows Server 2003. The RTM
    version has
    // a limitation on the number of concurrent
    HTTP connections.
    //
    OSVERSIONINFOEX VersionInfo;
    VersionInfo.dwOSVersionInfoSize =
    sizeof(OSVERSIONINFOEX);
    if
    (GetVersionEx((LPOSVERSIONINFO)&VersionInfo))
    {
        if (VersionInfo.dwMajorVersion ==
5 && // Windows 2000/2003 Server?
        VersionInfo.dwMinorVersion == 2 && //
        Windows 2003 Server?
        VersionInfo.wServicePackMajor == 0) //
        Service Pack installed?
        {
            TCHAR szMsg[MAX_PATH];
            _sntprintf(szMsg,
            sizeof(szMsg),
            "Warning:
            running on Windows Server 2003 without at least
            Service Pack 1\n"
            "limits the
            number of concurrent HTTP connections to around
            8000.");
            MessageBox(hwnd, szMsg,
            _T("Service Pack not Installed"), MB_ICONEXCLAMATION
            | MB_OK);
        }
    }
}

```

```

    }
    // read settings from dialog
    Reg.dwNumberOfDeliveryThreads =
    GetDlgItemInt(hwnd, ED_THREADS, &d, FALSE);
    Reg.dwMaxConnections = GetDlgItemInt(hwnd,
ED_MAXCONNECTION, &d, FALSE);
    Reg.dwMaxPendingDeliveries =
    GetDlgItemInt(hwnd, ED_MAXDELIVERIES, &d, FALSE);
    GetDlgItemText(hwnd, ED_DB_SERVER,
    Reg.szDbServer, sizeof(Reg.szDbServer));
    GetDlgItemText(hwnd, ED_DB_USER_ID,
    Reg.szDbUser, sizeof(Reg.szDbUser));
    GetDlgItemText(hwnd, ED_DB_PASSWORD,
    Reg.szDbPassword, sizeof(Reg.szDbPassword));
    GetDlgItemText(hwnd, ED_DB_NAME,
    Reg.szDbName, sizeof(Reg.szDbName));
    if ( IsDlgButtonChecked(hwnd, IDC_TM_NONE)
)
        Reg.eTxnMon = None;
    else if ( IsDlgButtonChecked(hwnd,
IDC_TM_MTS) )
        Reg.eTxnMon = COM;
    iPoolThreadLimit = GetDlgItemInt(hwnd,
ED_IIS_MAX_THREAD_POOL_LIMIT, &d, FALSE);
    iThreadTimeout = GetDlgItemInt(hwnd,
ED_IIS_THREAD_TIMEOUT, &d, FALSE);
    iListenBackLog = GetDlgItemInt(hwnd,
ED_IIS_LISTEN_BACKLOG, &d, FALSE);
    iAcceptExOutstanding = GetDlgItemInt(hwnd,
ED_WEB_SERVICE_BACKLOG_QUEUE_SIZE, &d, FALSE);
    ShowWindow(hwnd, SW_HIDE);
    hDlg = CreateDialog(hInst,
MAKEINTRESOURCE(IDD_DIALOG3), hwnd, CopyDlgProc);
    ShowWindow(hDlg, SW_SHOWNA);
    UpdateDialog(hDlg);
    // check to see if the web services are
    running
    bSvcRunning = CheckWWWWebService();
    if ( bSvcRunning )
    {
        SetDlgItemText(hDlg, IDC_STATUS,
"Stopping Web Service.");
        SendDlgItemMessage(hDlg,
IDC_PROGRESS1, PBM_STEPIT, 0, 0);
        UpdateDialog(hDlg);
        StopWWWWebService();
        SendDlgItemMessage(hDlg,
IDC_PROGRESS1, PBM_STEPIT, 0, 0);
        UpdateDialog(hDlg);
    }
    // write binaries to inetpub\wwwroot
    rc = CopyFiles(hDlg, szDllPath,
szWindowsPath);
    if ( !rc )

```

```

    {
        ShowWindow(hwnd, SW_SHOWNA);
        DestroyWindow(hDlg);
        strcpy( szErrTxt, "Error(s)
occured when creating " );
        strcat( szErrTxt, szLastFileName
    );
        MessageBox(hwnd, szErrTxt, NULL,
MB_ICONSTOP | MB_OK);
        EndDialog(hwnd, 0);
        return;
    }
    // while we have the web services shutdown,
check to see if this
    // is IIS6. If it is, then call
ConfigureIIS6
    if ( iIISMajorVersion == 6 )
    {
        ConfigureIIS6(hwnd, hDlg);
    }
    // while we have the web services shutdown,
check to see if this
    // is IIS7. If it is, then call
ConfigureIIS6
    if ( iIISMajorVersion == 7 )
    {
        ConfigureIIS7(hwnd, hDlg);
    }
    //if we stopped service restart it.
    if ( bSvcRunning )
    {
        SetDlgItemText(hDlg, IDC_STATUS,
"Starting Web Service.");
        SendDlgItemMessage(hDlg,
IDC_PROGRESS1, PBM_STEPIT, 0, 0);
        UpdateDialog(hDlg);
        StartWWWebService();
    }
    // update registry
SetDlgItemText(hDlg, IDC_STATUS, "Updating
Registry.");
    SendDlgItemMessage(hDlg, IDC_PROGRESS1,
PBM_STEPIT, 0, 0);
    UpdateDialog(hDlg);
    WriteRegistrySettings(szDllPath);
    // register com proxy stub
    strcpy(szFullName, szDllPath);
    strcat(szFullName, "tpcc_com_ps.dll");
    if (!RegisterDLL(szFullName))
    {
        ShowWindow(hwnd, SW_SHOWNA);
        DestroyWindow(hDlg);
        strcpy( szErrTxt, "Error occured
when registering " );
        strcat( szErrTxt, szFullName );
        MessageBox(hwnd, szErrTxt, NULL,
MB_ICONSTOP | MB_OK);
        EndDialog(hwnd, 0);

```

```

        return;
    }
    // if using COM
    if (Reg.eTxxMon == COM)
    {
        SetDlgItemText(hDlg, IDC_STATUS,
"Configuring COM.");
        SendDlgItemMessage(hDlg,
IDC_PROGRESS1, PBM_STEPIT, 0, 0);
        UpdateDialog(hDlg);
        if (install_com(szDllPath))
        {
            ShowWindow(hwnd,
SW_SHOWNA);
            DestroyWindow(hDlg);
            strcpy( szErrTxt,
"Error occured when configuring COM settings." );
            MessageBox(hwnd,
szErrTxt, NULL, MB_ICONSTOP | MB_OK);
            EndDialog(hwnd, 0);
            return;
        }
    }
    Sleep(100);
    ShowWindow(hwnd, SW_SHOWNA);
    DestroyWindow(hDlg);
    EndDialog(hwnd, rc);
    return;
}
static void ReadRegistrySettings(void)
{
    HKEY    hKey;
    DWORD  size;
    DWORD  type;
    if ( RegOpenKeyEx(HKEY_LOCAL_MACHINE,
"SOFTWARE\\Microsoft\\InetStp", 0, KEY_READ, &hKey)
== ERROR_SUCCESS )
    {
        size = sizeof(iIISMajorVersion);
        if ( RegQueryValueEx(hKey,
"MajorVersion", 0, &type, (char *)&iIISMajorVersion,
&size) == ERROR_SUCCESS )
            if ( !iIISMajorVersion )
                iIISMajorVersion = 5;
    }
    if ( RegOpenKeyEx(HKEY_LOCAL_MACHINE,
"SYSTEM\\CurrentControlSet\\Services\\Inetinfo\\Param
eters", 0, KEY_READ, &hKey) == ERROR_SUCCESS )
    {
        if ( iIISMajorVersion == 6 )

```

```

    // since IIS6 handles
the pool thread parameters differently, we need to
fill in the dialog
    // with the
MaxPoolThreads rather than PoolThreadLimit
    // for ease of coding,
we are just going to stuff the value into
iPoolThreadLimit
    size = sizeof(iPoolThreadLimit);
    if (
RegQueryValueEx(hKey, "MaxPoolThreads", 0, &type,
(char *)&iPoolThreadLimit, &size) == ERROR_SUCCESS )
        if ( !iPoolThreadLimit )
            iPoolThreadLimit = iMaxPhysicalMemory * 2;
    else
    {
        size =
sizeof(iPoolThreadLimit);
        if (
RegQueryValueEx(hKey, "MaxPoolThreads", 0, &type,
(char *)&iPoolThreadLimit, &size) == ERROR_SUCCESS )
            if ( !iPoolThreadLimit )
                iPoolThreadLimit = iMaxPhysicalMemory * 2;
    }
    size = sizeof(iThreadTimeout);
    if ( RegQueryValueEx(hKey,
"ThreadTimeout", 0, &type, (char *)&iThreadTimeout,
&size) == ERROR_SUCCESS )
        if ( !iThreadTimeout )
            iThreadTimeout = 86400;
    size = sizeof(iListenBackLog);
    if ( RegQueryValueEx(hKey,
"ListenBackLog", 0, &type, (char *)&iListenBackLog,
&size) == ERROR_SUCCESS )
        if ( !iListenBackLog )
            iListenBackLog = 15;
    RegCloseKey(hKey);
}
    if ( RegOpenKeyEx(HKEY_LOCAL_MACHINE,
"SYSTEM\\CurrentControlSet\\Services\\W3SVC\\Paramete
rs", 0, KEY_READ, &hKey) == ERROR_SUCCESS )
    {
        size =
sizeof(iAcceptExOutstanding);
        if ( RegQueryValueEx(hKey,
"AcceptExOutstanding", 0, &type, (char
*)&iAcceptExOutstanding, &size) == ERROR_SUCCESS )
            if (
!iAcceptExOutstanding )
                iAcceptExOutstanding = 40;

```

```

        RegCloseKey(hKey);
    }
    if ( RegOpenKeyEx(HKEY_LOCAL_MACHINE,
"SYSTEM\\CurrentControlSet\\Services\\HTTP\\Parameter
s", 0, KEY_READ, &hKey) == ERROR_SUCCESS )
    {
        size = sizeof(iUriEnableCache);
        if ( RegQueryValueEx(hKey,
"UriEnableCache", 0, &type, (char *)&iUriEnableCache,
&size) == ERROR_SUCCESS )
            if ( !iUriEnableCache )
                iUriEnableCache = 0;

        size =
sizeof(iUriScavengerPeriod);
        if ( RegQueryValueEx(hKey,
"UriScavengerPeriod", 0, &type, (char
*)&iUriScavengerPeriod, &size) == ERROR_SUCCESS )
            if (
!iUriScavengerPeriod )
                iUriScavengerPeriod = 10800;

        size = sizeof(iMaxConnections);
        if ( RegQueryValueEx(hKey,
"MaxConnections", 0, &type, (char *)&iMaxConnections,
&size) == ERROR_SUCCESS )
            if ( !iMaxConnections )
                iMaxConnections = 100000;

        RegCloseKey(hKey);
    }
}

static void WriteRegistrySettings(char *szDllPath)
{
    HKEY    hKey;
    DWORD   dwDisposition;
    char    szTmp[MAX_PATH];
    char    *ptr;
    int     iRc;

    if ( RegCreateKeyEx(HKEY_LOCAL_MACHINE,
"SOFTWARE\\Microsoft\\TPCC", 0, NULL,
REG_OPTION_NON_VOLATILE, KEY_ALL_ACCESS, NULL, &hKey,
&dwDisposition) == ERROR_SUCCESS )
    {
        strcpy(szTmp, szDllPath);
        ptr = strstr(szTmp, "tpcc");
        if ( ptr )
            *ptr = 0;

        RegSetValueEx(hKey, "Path", 0,
REG_SZ, szTmp, strlen(szTmp)+1);

        RegSetValueEx(hKey,
"NumberOfDeliveryThreads", 0, REG_DWORD, (char
*)&Reg.dwNumberOfDeliveryThreads,
sizeof(Reg.dwNumberOfDeliveryThreads));
    }
}

```

```

        RegSetValueEx(hKey,
"MaxConnections", 0, REG_DWORD, (char
*)&Reg.dwMaxConnections,
sizeof(Reg.dwMaxConnections));

        RegSetValueEx(hKey,
"MaxPendingDeliveries", 0, REG_DWORD, (char
*)&Reg.dwMaxPendingDeliveries,
sizeof(Reg.dwMaxPendingDeliveries));

        RegSetValueEx(hKey,
"DB_Protocol", 0, REG_SZ,
szDBNames[Reg.eDB_Protocol],
strlen(szDBNames[Reg.eDB_Protocol])+1);

        RegSetValueEx(hKey, "TxnMonitor",
0, REG_SZ, szTxnMonNames[Reg.eTxnMon],
strlen(szTxnMonNames[Reg.eTxnMon])+1);

        RegSetValueEx(hKey, "DbServer",
0, REG_SZ, Reg.szDbServer, strlen(Reg.szDbServer)+1);
        RegSetValueEx(hKey, "DbName", 0,
REG_SZ, Reg.szDbName, strlen(Reg.szDbName)+1);
        RegSetValueEx(hKey, "DbUser", 0,
REG_SZ, Reg.szDbUser, strlen(Reg.szDbUser)+1);
        RegSetValueEx(hKey, "DbPassword",
0, REG_SZ, Reg.szDbPassword,
strlen(Reg.szDbPassword)+1);

        strcpy(szTmp, "YES");
        RegSetValueEx(hKey,
"COM_SinglePool", 0, REG_SZ, szTmp, strlen(szTmp)+1);

        RegFlushKey(hKey);
        RegCloseKey(hKey);
    }

    if (
(iRc=RegCreateKeyEx(HKEY_LOCAL_MACHINE,
"SYSTEM\\CurrentControlSet\\Services\\Inetinfo\\Param
eters", 0, NULL, REG_OPTION_NON_VOLATILE,
KEY_ALL_ACCESS, NULL, &hKey, &dwDisposition)) ==
ERROR_SUCCESS )
    {
        // if this is IIS6, then we need
to treat the PoolThreadLimit differently
        // if IIS6, then PoolThreadLimit
is the maximum number of threads for the entire
system.
        // IIS6 added MaxPoolThreads
which controls the number of threads per processor.
For IIS6
        // we will set MaxPoolThreads to
the value the user provided in the dialog and then
set
        // PoolThreadLimit to
MaxPoolThreads * number of processors on this system
        if ( !iISMajorVersion == 6 )
            {
                iMaxPoolThreads =
iPoolThreadLimit;
                iPoolThreadLimit =
iMaxPoolThreads * iNumberOfProcessors;
            }
    }
}

```

```

        RegSetValueEx(hKey,
"PoolThreadLimit", 0, REG_DWORD, (char
*)&iPoolThreadLimit, sizeof(iPoolThreadLimit));

        RegSetValueEx(hKey,
"MaxPoolThreads", 0, REG_DWORD, (char
*)&iMaxPoolThreads, sizeof(iMaxPoolThreads));
    }
    else
    {
        RegSetValueEx(hKey,
"PoolThreadLimit", 0, REG_DWORD, (char
*)&iPoolThreadLimit, sizeof(iPoolThreadLimit));
    }

    RegSetValueEx(hKey,
"ThreadTimeout", 0, REG_DWORD, (char
*)&iThreadTimeout, sizeof(iThreadTimeout));

    RegSetValueEx(hKey,
"ListenBackLog", 0, REG_DWORD, (char
*)&iListenBackLog, sizeof(iListenBackLog));

    RegFlushKey(hKey);
    RegCloseKey(hKey);
}

    if (
(iRc=RegCreateKeyEx(HKEY_LOCAL_MACHINE,
"SYSTEM\\CurrentControlSet\\Services\\W3SVC\\Paramete
rs", 0, NULL, REG_OPTION_NON_VOLATILE,
KEY_ALL_ACCESS, NULL, &hKey, &dwDisposition)) ==
ERROR_SUCCESS )
    {
        RegSetValueEx(hKey,
"AcceptExOutstanding", 0, REG_DWORD, (char
*)&iAcceptExOutstanding,
sizeof(iAcceptExOutstanding));

        RegFlushKey(hKey);
        RegCloseKey(hKey);
    }

    return;
}

BOOL CALLBACK CopyDlgProc(HWND hwnd, UINT uMsg,
WPARAM wParam, LPARAM lParam)
{
    if ( uMsg == WM_INITDIALOG )
    {
        SendDlgItemMessage(hwnd,
IDC_PROGRESS1, PBM_SETRANGE, 0, MAKELPARAM(0, 13));
        SendDlgItemMessage(hwnd,
IDC_PROGRESS1, PBM_SETSTEP, (WPARAM)1, 0);
        return TRUE;
    }
    return FALSE;
}

BOOL RegisterDLL(char *szFileName)
{
    HINSTANCE hLib;
    FARPROC    lpDllEntryPoint;
}

```

```

        hLib = LoadLibrary(szFileName);
        if ( hLib == NULL )
            return FALSE;
        // Find the entry point.
        lpDllEntryPoint = GetProcAddress(hLib,
"DllRegisterServer");
        if (lpDllEntryPoint != NULL)
        {
            return ((*lpDllEntryPoint)() ==
S_OK);
        }
        else
            return FALSE; //unable to
locate entry point
}

BOOL FileFromResource( char *szResourceName, int
iResourceId, char *szDllPath, char *szFileName )
{
    HGLOBAL          hDLL;
    HRSRC            hResInfo;
    HANDLE           hFile;
    DWORD            dwSize;
    BYTE             *pSrc;
    DWORD            d;
    char             szFullName[MAX_PATH];

    hResInfo = FindResource(hInst,
MAKEINTRESOURCE(iResourceId), szResourceName);

    strcpy(szFullName, szDllPath);
    strcat(szFullName, szFileName);

    dwSize = SizeofResource(hInst, hResInfo);
    hDLL = LoadResource(hInst, hResInfo );
    pSrc = (BYTE *)LockResource(hDLL);
    //remove(szFullName);

    hFile = CreateFile(szFullName,
GENERIC_WRITE, 0, NULL, CREATE_ALWAYS,
FILE_ATTRIBUTE_NORMAL, NULL);
    if (hFile == INVALID_HANDLE_VALUE)
    {
        DWORD dwError = GetLastError();
        return FALSE;
    }

    if ( !WriteFile(hFile, pSrc, dwSize, &d,
NULL) )
        return FALSE;

    CloseHandle(hFile);

    UnlockResource(hDLL);
    FreeResource(hDLL);
    return TRUE;
}

static int CopyFiles(HWND hDlg, char *szDllPath, char
*szWindowsPath)
{

```

```

        SetDlgItemText(hDlg, IDC_STATUS, "Copying
Files...");
        SendDlgItemMessage(hDlg, IDC_PROGRESS1,
PBM_STEPIT, 0, 0);
        UpdateDialog(hDlg);

        // install TPCC.DLL
        strcpy( szLastFileName, "tpcc.dll" );
        if (!FileFromResource( "TPCCDLL",
IDR_TPCCDLL, szDllPath, szLastFileName ))
            return 0;
        SendDlgItemMessage(hDlg, IDC_PROGRESS1,
PBM_STEPIT, 0, 0);
        UpdateDialog(hDlg);

        // install MSVCR71.DLL
        strcpy( szLastFileName, "msvcr71.dll" );
        if (!FileFromResource( "MSVCR71",
IDR_MSVCR71, szWindowsPath, szLastFileName ))
            return 0;
        SendDlgItemMessage(hDlg, IDC_PROGRESS1,
PBM_STEPIT, 0, 0);
        UpdateDialog(hDlg);

        // install tpcc_odbc.dll
        strcpy( szLastFileName, "tpcc_odbc.dll" );
        if (!FileFromResource( "ODBC_DLL",
IDR_ODBC_DLL, szDllPath, szLastFileName ))
            return 0;
        SendDlgItemMessage(hDlg, IDC_PROGRESS1,
PBM_STEPIT, 0, 0);
        UpdateDialog(hDlg);

        // install tpcc_com.dll
        strcpy( szLastFileName, "tpcc_com.dll" );
        if (!FileFromResource( "COM_DLL",
IDR_COM_DLL, szDllPath, szLastFileName ))
            return 0;
        SendDlgItemMessage(hDlg, IDC_PROGRESS1,
PBM_STEPIT, 0, 0);
        UpdateDialog(hDlg);

        // install tpcc_com_all.tlb
        strcpy( szLastFileName, "tpcc_com_all.tlb"
);
        if (!FileFromResource( "COM_TYPLIB",
IDR_COMTYPLIB_DLL, szDllPath, szLastFileName ))
            return 0;
        SendDlgItemMessage(hDlg, IDC_PROGRESS1,
PBM_STEPIT, 0, 0);
        UpdateDialog(hDlg);

        // install tpcc_com_ps.dll
        strcpy( szLastFileName, "tpcc_com_ps.dll"
);
        if (!FileFromResource( "COM_PS_DLL",
IDR_COMPS_DLL, szDllPath, szLastFileName ))
            return 0;
        SendDlgItemMessage(hDlg, IDC_PROGRESS1,
PBM_STEPIT, 0, 0);
        UpdateDialog(hDlg);

```

```

        // install tpcc_com_all.dll
        strcpy( szLastFileName, "tpcc_com_all.dll"
);
        if (!FileFromResource( "COM_ALL_DLL",
IDR_COMALL_DLL, szDllPath, szLastFileName ))
            return 0;
        SendDlgItemMessage(hDlg, IDC_PROGRESS1,
PBM_STEPIT, 0, 0);
        UpdateDialog(hDlg);

        SendDlgItemMessage(hDlg, IDC_PROGRESS1,
PBM_STEPIT, 0, 0);
        UpdateDialog(hDlg);

        return 1;
}

static BOOL GetInstallPath(char *szDllPath)
{
    HKEY hKey;
    BYTE szData[MAX_PATH];
    DWORD sv;
    BOOL bRc;
    int len;
    int iRc;

    // Registry key
    HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\InetStp\PathWWW
Root is used to find the
    // IIS default web site directory and
determine that IIS is installed.

    szDllPath[0] = 0;
    bRc = TRUE;
    if ( RegOpenKeyEx(HKEY_LOCAL_MACHINE,
"SOFTWARE\Microsoft\InetStp", 0, KEY_ALL_ACCESS,
&hKey) == ERROR_SUCCESS )
    {
        sv = sizeof(szData);
        iRc = RegQueryValueEx( hKey,
"PathWWWRoot", NULL, NULL, szData, &sv ); // used by
IIS 5.0 & 6.0
        if (iRc == ERROR_SUCCESS)
        {
            len =
ExpandEnvironmentStrings(szData, szDllPath,
MAX_PATH);
            if (len < MAX_PATH)
            {
                if (
szDllPath[len-2] != '\\')
                {
                    szDllPath[len-1] = '\\';
                    szDllPath[len] = 0;
                }
                bRc = FALSE;
            }
        }
    }

    RegCloseKey(hKey);

```

```

    }
    return bRc;
}

static BOOL GetWindowsInstallPath(char
*szWindowsPath)
{
    HKEY hKey;
    BYTE szData[MAX_PATH];
    DWORD sv;
    BOOL bRc;
    int len;
    int iRc;

    // Registry key
    HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows
    NT\CurrentVersion\SystemRoot is used to find the
    // system root to install the VC70 DLL.

    szWindowsPath[0] = 0;
    bRc = TRUE;
    if ( RegOpenKeyEx(HKEY_LOCAL_MACHINE,
"SOFTWARE\Microsoft\Windows NT\CurrentVersion", 0,
KEY_ALL_ACCESS, &hKey) == ERROR_SUCCESS )
    {
        sv = sizeof(szData);
        iRc = RegQueryValueEx( hKey,
"SystemRoot", NULL, NULL, szData, &sv );
        if (iRc == ERROR_SUCCESS)
        {
            bRc = FALSE;
            strcpy(szWindowsPath,
szData);
            len =
strlen(szWindowsPath);
            if ( szWindowsPath[len-
1] != '\\' )
            {
                szWindowsPath[len] = '\\';
                szWindowsPath[len+1] = 0;
            }
            // now append the path
            strcat(szWindowsPath,
"SYSTEM32\");
        }
        RegCloseKey(hKey);
    }
    return bRc;
}

static void GetVersionInfo(char *szDLLPath, char
*szExePath)
{
    DWORD d;
    DWORD dwSize;

```

```

    DWORD
    dwBytes;
    char
    *ptr;
    VS_FIXEDFILEINFO *vs;

    versionDllMS = 0;
    versionDllLS = 0;
    if ( _access(szDLLPath, 00) == 0 )
    {
        dwSize =
GetFileVersionInfoSize(szDLLPath, &d);
        if ( dwSize )
        {
            ptr = (char
*)malloc(dwSize);

            GetFileVersionInfo(szDLLPath, 0, dwSize,
ptr);
            VerQueryValue(ptr,
"\",&vs, &dwBytes);
            versionDllMS = vs-
>dwProductVersionMS;
            versionDllLS = vs-
>dwProductVersionLS;
            free(ptr);
        }
    }

    versionExeMS = 0x7FFF;
    versionExeLS = 0x7FFF;
    dwSize = GetFileVersionInfoSize(szExePath,
&d);
    if ( dwSize )
    {
        ptr = (char *)malloc(dwSize);
        GetFileVersionInfo(szExePath, 0,
dwSize, ptr);
        VerQueryValue(ptr, "\",&vs,
&dwBytes);
        versionExeMS = vs-
>dwProductVersionMS;
        versionExeLS = LOWORD(vs-
>dwProductVersionLS);
        versionExeMM = HIWORD(vs-
>dwProductVersionLS);
        free(ptr);
    }
    return;
}

static BOOL CheckWWWService(void)
{
    SC_HANDLE schSCManager;
    SC_HANDLE schService;
    SERVICE_STATUS ssStatus;

    schSCManager = OpenSCManager(NULL, NULL,
SC_MANAGER_ALL_ACCESS);
    schService = OpenService(schSCManager,
TEXT("W3SVC"), SERVICE_ALL_ACCESS);
    if (schService == NULL)

```

```

        return FALSE;

        if (! QueryServiceStatus(schService,
&ssStatus) )
            goto ServiceNotRunning;

        if ( !ControlService(schService,
SERVICE_CONTROL_STOP, &ssStatus) )
            goto ServiceNotRunning;
        //start Service pending, Check the status
until the service is running.
        if (! QueryServiceStatus(schService,
&ssStatus) )
            goto ServiceNotRunning;

        CloseServiceHandle(schService);
        return TRUE;

ServiceNotRunning:
        CloseServiceHandle(schService);
        return FALSE;
}

static BOOL StartWWWService(void)
{
    SC_HANDLE schSCManager;
    SC_HANDLE schService;
    SERVICE_STATUS ssStatus;
    DWORD dwOldCheckPoint;

    schSCManager = OpenSCManager(NULL, NULL,
SC_MANAGER_ALL_ACCESS);
    schService = OpenService(schSCManager,
TEXT("W3SVC"), SERVICE_ALL_ACCESS);
    if (schService == NULL)
        return FALSE;

    if (! StartService(schService, 0, NULL) )
        goto StartWWWWebErr;
    //start Service pending, Check the status
until the service is running.
    if (! QueryServiceStatus(schService,
&ssStatus) )
        goto StartWWWWebErr;
    while( ssStatus.dwCurrentState !=
SERVICE_RUNNING)
    {
        dwOldCheckPoint =
ssStatus.dwCheckPoint;
        //Save the current checkpoint.
        Sleep(ssStatus.dwWaitHint);

        //Wait for the specified interval.
        if (
!QueryServiceStatus(schService, &ssStatus) )
            //Check the status again.
            break;
        if (dwOldCheckPoint >=
ssStatus.dwCheckPoint) //Break if
the checkpoint has not been incremented.

```



```

        break;
    }
    if (ssStatus.dwCurrentState ==
SERVICE_RUNNING)
        goto StartWWWebErr;
    CloseServiceHandle(schService);
    return TRUE;
StartWWWebErr:
    CloseServiceHandle(schService);
    return FALSE;
}
static BOOL StopWWWebService(void)
{
    SC_HANDLE      schSCManager;
    SC_HANDLE      schService;
    SERVICE_STATUS ssStatus;
    DWORD          dwOldCheckPoint;
    schSCManager = OpenSCManager(NULL, NULL,
SC_MANAGER_ALL_ACCESS);
    //schService = OpenService(schSCManager,
TEXT("W3SVC"), SERVICE_ALL_ACCESS);
    schService = OpenService(schSCManager,
TEXT("IISADMIN"), SERVICE_ALL_ACCESS);
    if (schService == NULL)
        return FALSE;
    if (! QueryServiceStatus(schService,
&ssStatus) )
        goto StopWWWebErr;
    if ( !ControlService(schService,
SERVICE_CONTROL_STOP, &ssStatus) )
        goto StopWWWebErr;
    //start Service pending, Check the status
until the service is running.
    if (! QueryServiceStatus(schService,
&ssStatus) )
        goto StopWWWebErr;
    while( ssStatus.dwCurrentState ==
SERVICE_RUNNING)
    {
        dwOldCheckPoint =
ssStatus.dwCheckPoint;
        //Save the current checkpoint.
        Sleep(ssStatus.dwWaitHint);
        //Wait for the specified interval.
        if (
!QueryServiceStatus(schService, &ssStatus) )
            //Check the status again.
            break;
        if (dwOldCheckPoint >=
ssStatus.dwCheckPoint) //Break if
the checkpoint has not been incremented.
            break;
    }
}

```

```

    if (ssStatus.dwCurrentState ==
SERVICE_RUNNING)
        goto StopWWWebErr;
    CloseServiceHandle(schService);
    return TRUE;
StopWWWebErr:
    CloseServiceHandle(schService);
    return FALSE;
}
static void UpdateDialog(HWND hDlg)
{
    MSG msg;
    UpdateWindow(hDlg);
    while( PeekMessage(&msg, hDlg, 0, 0,
PM_REMOVE) )
    {
        TranslateMessage(&msg);
        DispatchMessage(&msg);
    }
    Sleep(250);
    return;
}
static void ConfigureIIS6(HWND hwnd, HWND hDlg)
{
    int      irc;
    char     szErrTxt[128];
    FILE     *fErrorFile;
    SetDlgItemText(hDlg, IDC_STATUS,
"Configuring IIS6...");
    //SendDlgItemMessage(hDlg, IDC_PROGRESS1,
PBM_STEPIT, 0, 0);
    UpdateDialog(hDlg);
    irc = system("IIS6_CONFIG.CMD");
    // since the return code from the command
file is always 1,
    // check to see if the file iis6_config.err
exists
    // if it does, then something hosed
fErrorFile = fopen("IIS6_CONFIG.err","r");
    if ( fErrorFile != NULL )
    {
        ShowWindow(hwnd, SW_SHOWNA);
        DestroyWindow(hDlg);
        strcpy( szErrTxt, "IIS6
configuration error." );
        strcat( szErrTxt, "Check
iis6_config.err" );
        MessageBox(hwnd, szErrTxt, NULL,
MB_ICONSTOP | MB_OK);
        EndDialog(hwnd, 0);
        return;
    }
}

```

```

static void ConfigureIIS7(HWND hwnd, HWND hDlg)
{
    int      irc;
    char     szErrTxt[128];
    FILE     *fErrorFile;
    SetDlgItemText(hDlg, IDC_STATUS,
"Installing VS Modules...");
    UpdateDialog(hDlg);
    if ( access( "%SystemRoot%\System32", 0)
== 0 )
    {
        CopyFile("../VS_Modules\ATL71.DLL",
"%SystemRoot%\System32", 0);
        CopyFile("../VS_Modules\MSVCR71D.DLL",
"%SystemRoot%\System32", 0);
        CopyFile("../VS_Modules\MSVCP71D.DLL",
"%SystemRoot%\System32", 0);
    }
    if ( access( "%SystemRoot%\SysWOW64", 0)
== 0 )
    {
        CopyFile("../VS_Modules\ATL71.DLL",
"%SystemRoot%\SysWOW64", 0);
        CopyFile("../VS_Modules\MSVCR71D.DLL",
"%SystemRoot%\SysWOW64", 0);
        CopyFile("../VS_Modules\MSVCP71D.DLL",
"%SystemRoot%\SysWOW64", 0);
    }
    SetDlgItemText(hDlg, IDC_STATUS,
"Configuring IIS7...");
    //SendDlgItemMessage(hDlg, IDC_PROGRESS1,
PBM_STEPIT, 0, 0);
    UpdateDialog(hDlg);
    irc = system("IIS7_CONFIG.CMD");
    // since the return code from the command
file is always 1,
    // check to see if the file iis6_config.err
exists
    // if it does, then something hosed
fErrorFile = fopen("IIS7_CONFIG.err","r");
    if ( fErrorFile != NULL )
    {
        ShowWindow(hwnd, SW_SHOWNA);
        DestroyWindow(hDlg);
        strcpy( szErrTxt, "IIS7
configuration error." );
        strcat( szErrTxt, "Check
iis7_config.err" );
        MessageBox(hwnd, szErrTxt, NULL,
MB_ICONSTOP | MB_OK);
        EndDialog(hwnd, 0);
    }
}

```

```

    }
    return;
}

```

install.h

```

//{{NO_DEPENDENCIES}}
// Microsoft Developer Studio generated include file.
// Used by install.rc
//

#define IDD_DIALOG1 101
#define IDI_ICON1 102
#define IDR_TPCCDLL 103
#define IDD_DIALOG2 105
#define IDI_ICON2 106
#define IDR_DELIVERY 107
#define IDD_DIALOG3 108

#define BN_LOG 1001
#define ED_KEEP 1002
#define ED_THREADS 1003
#define ED_THREADS2 1004
#define IDC_PATH 1007
#define IDC_VERSION 1009
#define IDC_RESULTS 1010
#define IDC_PROGRESS1 1011
#define IDC_STATUS 1012
#define IDC_BUTTON1 1013
#define ED_MAXCONNECTION 1014
#define ED_IIS_MAX_THREAD_POOL_LIMIT 1015
#define ED_WEB_SERVICE_BACKLOG_QUEUE_SIZE 1017
#define ED_IIS_THREAD_TIMEOUT 1018
#define ED_IIS_LISTEN_BACKLOG 1019
#define IDC_ODBC 1022
#define IDC_CONNECT_POOL 1023
#define ED_USER_CONNECT_DELAY_TIME 1024

// Next default values for new objects
//

```

install.rc

```

// Microsoft Visual C++ generated resource script.
//
#include "resource.h"

#define APSTUDIO_READONLY_SYMBOLS
////////////////////////////////////
////////////////////////////////////
//
// Generated from the TEXTINCLUDE 2 resource.
//
#include "afxres.h"

////////////////////////////////////
////////////////////////////////////
#undef APSTUDIO_READONLY_SYMBOLS

////////////////////////////////////
////////////////////////////////////
// English (U.S.) resources

#ifdef _WIN32
#include "afxres.h"
#endif

// Dialog
//
IDD_DIALOG1 DIALOGEX 0, 0, 219, 324
STYLE DS_SETFONT | DS_MODALFRAME | DS_CENTER |
WS_MINIMIZEBOX | WS_POPUP |
WS_CAPTION | WS_SYSMENU
CAPTION "TPC-C Web Client Installation Utility"
FONT 8, "MS Sans Serif", 0, 0, 0x1
BEGIN
    EDITTEXT        ED_THREADS,164,45,34,12,ES_RIGHT
    | ES_NUMBER,
    WS_EX_RTLREADING

    EDITTEXT        ED_MAXDELIVERIES,164,59,34,12,ES_RIGHT | ES_NUMBER,
    WS_EX_RTLREADING

    EDITTEXT        ED_MAXCONNECTION,164,73,34,12,ES_RIGHT | ES_NUMBER,
    WS_EX_RTLREADING

    CONTROL        "None",IDC_TM_NONE,"Button",BS_AUTORADIOBUTTON |
    WS_GROUP |
    WS_TABSTOP,43,104,33,10
    CONTROL        "COM",IDC_TM_MTS,"Button",BS_AUTORADIOBUTTON |
    WS_TABSTOP,94,104,32,10

    EDITTEXT        ED_DB_SERVER,131,145,67,12,ES_AUTOHSCROLL

```

```

    EDITTEXT        ED_DB_USER_ID,131,158,67,12,ES_AUTOHSCROLL
    EDITTEXT        ED_DB_PASSWORD,131,171,67,12,ES_AUTOHSCROLL
    EDITTEXT        ED_DB_NAME,131,184,67,12,ES_AUTOHSCROLL
    EDITTEXT        ED_IIS_MAX_THREAD_POOL_LIMIT,164,226,34,12,ES_RIGHT |
    ES_NUMBER,WS_EX_RTLREADING

    EDITTEXT        ED_WEB_SERVICE_BACKLOG_QUEUE_SIZE,164,240,34,12,ES_RIGHT |
    ES_NUMBER,WS_EX_RTLREADING

    EDITTEXT        ED_IIS_THREAD_TIMEOUT,164,254,34,12,ES_RIGHT |
    ES_NUMBER,
    WS_EX_RTLREADING

    EDITTEXT        ED_IIS_LISTEN_BACKLOG,164,268,34,12,ES_RIGHT |
    ES_NUMBER,
    WS_EX_RTLREADING

    DEFPUSHBUTTON   "OK",IDOK,53,296,50,14
    PUSHBUTTON      "Cancel",IDCANCEL,119,296,50,14

    EDITTEXT        IDC_PATH,106,26,91,13,ES_AUTOHSCROLL | ES_READONLY
    LTEXT           "Number of Delivery
    Threads:",IDC_STATIC,35,45,115,12
    LTEXT           "Max Number of
    Connections:",IDC_STATIC,35,73,115,12
    RTEXT           "Version
    4.11",IDC_VERSION,120,4,89,9
    LTEXT           "IIS Max Thread Pool
    Limit:",IDC_STATIC,36,226,115,12
    LTEXT           "Web Service Backlog Queue
    Size:",IDC_STATIC,36,240,115,
    12
    LTEXT           "IIS Thread Timeout
    (seconds):",IDC_STATIC,36,254,115,12
    LTEXT           "IIS Listen
    Backlog:",IDC_STATIC,36,270,115,10
    LTEXT           "Installation
    directory:",IDC_STATIC,35,29,71,10
    GROUPBOX       "Transaction
    Monitor",IDC_STATIC,33,90,165,33
    LTEXT           "Server
    Name:",IDC_STATIC,35,148,56,8
    LTEXT           "User ID:",IDC_STATIC,35,161,60,8
    LTEXT           "User
    Password:",IDC_STATIC,35,174,83,8
    LTEXT           "Database
    Name:",IDC_STATIC,35,187,54,8
    GROUPBOX       "SQL Server Connection
    Properties",IDC_STATIC,22,132,187,
    74
    GROUPBOX       "Web Client
    Properties",IDC_STATIC,22,15,187,113
    GROUPBOX       "IIS
    Settings",IDC_STATIC,22,210,187,79
    LTEXT           "Max Pending
    Deliveries:",IDC_STATIC,35,59,115,12
    END

IDD_DIALOG2 DIALOGEX 0, 0, 117, 62

```

```

STYLE_DS_SETFONT | DS_SETFOREGROUND | DS_3DLOOK |
DS_CENTER | WS_POPUP |
  WS_BORDER
EXSTYLE_WS_EX_STATICEDGE
FONT 12, "MS Sans Serif", 0, 0, 0x1
BEGIN
  DEFPUSHBUTTON "OK",IDOK,33,45,50,9
  CTEXT "HTML TPC-C Installation
Successfull",IDC_RESULTS,7,22,
  102,18,0,WS_EX_CLIENTEDGE
  ICON
  IDI_ICON2,IDC_STATIC,50,7,18,20,SS_REALSIZEIMAGE,
  WS_EX_TRANSPARENT
END

IDD_DIALOG3 DIALOG 0, 0, 91, 40
STYLE_DS_SYSMODAL | DS_SETFONT | DS_MODALFRAME |
DS_3DLOOK | DS_CENTER |
  WS_CAPTION
CAPTION "Installing TPC-C Web Client"
FONT 12, "Arial Black"
BEGIN
  CONTROL
  "Progress1",IDC_PROGRESS1,"msctl1s_progress32",WS_BORD
  ER,
    7,20,77,13
  CTEXT
  "Static",IDC_STATUS,7,7,77,12,SS_SUNKEN
END

IDD_DIALOG4 DIALOG 0, 0, 291, 202
STYLE_DS_SETFONT | DS_MODALFRAME | DS_CENTER |
WS_POPUP | WS_CAPTION |
  WS_SYSMENU
CAPTION "Client End User License"
FONT 8, "MS Sans Serif"
BEGIN
  EDITTEXT
  IDC_LICENSE,7,7,271,167,ES_MULTILINE | ES_AUTOVSCROLL
  |
  ES_AUTOHSCROLL | ES_READONLY |
  WS_VSCROLL | WS_HSCROLL
  DEFPUSHBUTTON "I &Agree",IDOK,87,181,50,14
  PUSHBUTTON "&Cancel",IDCANCEL,153,181,50,14
END

////////////////////////////////////
////////////////////////////////////
//
// DESIGNINFO
//
#ifdef APSTUDIO_INVOKED
GUIDELINES DESIGNINFO
BEGIN
  IDD_DIALOG1, DIALOG
  BEGIN
    LEFTMARGIN, 22
    RIGHTMARGIN, 209
    VERTGUIDE, 35
    VERTGUIDE, 198
    TOPMARGIN, 4

```

```

  BOTTOMMARGIN, 318
  END
  IDD_DIALOG2, DIALOG
  BEGIN
    LEFTMARGIN, 7
    RIGHTMARGIN, 109
    TOPMARGIN, 7
    BOTTOMMARGIN, 54
  END
  IDD_DIALOG3, DIALOG
  BEGIN
    LEFTMARGIN, 7
    RIGHTMARGIN, 84
    TOPMARGIN, 7
    BOTTOMMARGIN, 33
  END
  IDD_DIALOG4, DIALOG
  BEGIN
    LEFTMARGIN, 7
    RIGHTMARGIN, 278
    TOPMARGIN, 7
    BOTTOMMARGIN, 195
  END
  END
#endif // APSTUDIO_INVOKED

#ifdef APSTUDIO_INVOKED
////////////////////////////////////
////////////////////////////////////
//
// TEXTINCLUDE
//
1 TEXTINCLUDE
BEGIN
  "resource.h\0"
END

2 TEXTINCLUDE
BEGIN
  "#include ""afxres.h""\r\n"
  "\0"
END

3 TEXTINCLUDE
BEGIN
  "\r\n"
  "\0"
END
#endif // APSTUDIO_INVOKED

////////////////////////////////////
////////////////////////////////////
//
// Icon
//

```

```

// Icon with lowest ID value placed first to ensure
application icon
// remains consistent on all systems.
IDI_ICON1 ICON
"icon1.ico"
IDI_ICON2 ICON
"icon2.ico"

////////////////////////////////////
////////////////////////////////////
//
// TPCCDLL
//
IDR_TPCCDLL TPCCDLL
"..\\..\\isapi_dll\\bin\\tpcc.dll"

////////////////////////////////////
////////////////////////////////////
//
// Version
//

VS_VERSION_INFO VERSIONINFO
FILEVERSION 0,4,69,0
PRODUCTVERSION 0,4,69,0
FILEFLAGS 0x3fL
#ifdef _DEBUG
FILEFLAGS 0x1L
#else
FILEFLAGS 0x0L
#endif
FILEOS 0x40004L
FILETYPE 0x1L
FILESUBTYPE 0x0L
BEGIN
  BLOCK "StringFileInfo"
  BEGIN
    BLOCK "040904b0"
    BEGIN
      VALUE "Comments", "TPC-C Web Client
Installer"
      VALUE "CompanyName", "Microsoft"
      VALUE "FileDescription", "install"
      VALUE "FileVersion", "0, 4, 69, 0"
      VALUE "InternalName", "install"
      VALUE "LegalCopyright", "Copyright ©
1999"
      VALUE "OriginalFilename", "install.exe"
      VALUE "ProductName", "Microsoft install"
      VALUE "ProductVersion", "0, 4, 69, 0"
    END
  END
  BLOCK "VarFileInfo"
  BEGIN
    VALUE "Translation", 0x409, 1200
  END
END
END

////////////////////////////////////
////////////////////////////////////
//

```

```

// LICENSE
//
IDR_LICENSE1          LICENSE
"license.txt"

////////////////////////////////////
////////////////////////////////////
//
// ODBC_DLL
//
IDR_ODBC_DLL          ODBC_DLL
"..\\..\\db_odbc_dll\\bin\\Release\\tpcc_odbc.dll"

////////////////////////////////////
////////////////////////////////////
//
// COM_DLL
//
IDR_COM_DLL           COM_DLL
"..\\..\\tm_com_dll\\bin\\tpcc_com.dll"

////////////////////////////////////
////////////////////////////////////
//
// COM_PS_DLL
//
IDR_COMPS_DLL        COM_PS_DLL
"..\\..\\tpcc_com_ps\\bin\\tpcc_com_ps.dll"

////////////////////////////////////
////////////////////////////////////
//
// COM_ALL_DLL
//
IDR_COMALL_DLL       COM_ALL_DLL
"..\\..\\tpcc_com_all\\bin\\tpcc_com_all.dll"

////////////////////////////////////
////////////////////////////////////
//
// COM_TYPLIB
//
IDR_COMTYPLIB_DLL    COM_TYPLIB
"..\\..\\tpcc_com_all\\src\\tpcc_com_all.tlb"

////////////////////////////////////
////////////////////////////////////
//
// MSVCR71
//
IDR_MSVCR71          MSVCR71
"C:\\WINDOWS\\system32\\msvcr71.dll"
#endif // English (U.S.) resources
////////////////////////////////////
////////////////////////////////////

```

```

#ifndef APSTUDIO_INVOKED
////////////////////////////////////
////////////////////////////////////
//
// Generated from the TEXTINCLUDE 3 resource.
//

////////////////////////////////////
////////////////////////////////////
#endif // not APSTUDIO_INVOKED


```

install_com.cpp

```

/* FILE:          INSTALL_COM.CPP
 *               Microsoft
 * TPC-C Kit Ver. 4.69.000
 *               Copyright
 *               Microsoft, 2008, 2009
 *               All Rights Reserved
 *               not audited
 *
 * PURPOSE:  installation code for COM
 * application for TPC-C Web Kit
 * Contact:  Charles Levine
 * (clevine@microsoft.com)
 *
 * Change history:
 *               4.20.000 - first version
 */

#define _WIN32_WINNT 0x0500

#include <comdef.h>
#include <comadmin.h>
#include <stdio.h>
#include <tchar.h>

extern "C"
{
    BOOL install_com(char *szDllPath);
}

BOOL install_com(char *szDllPath)
{
    ICOMAdminCatalog* pCOMAdminCat = NULL;
    ICatalogCollection* pCatalogCollectionApp
= NULL;
    ICatalogCollection* pCatalogCollectionCo
= NULL;
    ICatalogCollection* pCatalogCollectionItf
= NULL;
    ICatalogCollection*
pCatalogCollectionMethod = NULL;

```

```

ICatalogObject*
pCatalogObjectApp      = NULL;
ICatalogObject*
pCatalogObjectCo      = NULL;
ICatalogObject*
pCatalogObjectItf     = NULL;
ICatalogObject*
pCatalogObjectMethod  = NULL;

    _bstr_t
bstrTemp, bstrTemp2, bstrTemp3, bstrTemp4;
    _bstr_t
bstrDllPath = szDllPath;
    _variant_t
vTmp, vKey;
    long
lActProp, lCount, lCountCo, lCountItf,
lCountMethod;
    bool
bTmp;

    CoInitializeEx(NULL, COINIT_MULTITHREADED);

    HRESULT hr =
CoCreateInstance(CLSID_COMAdminCatalog,
                NULL,
                CLSCTX_INPROC_SERVER,
                IID_ICOMAdminCatalog,
                (void**)
                &pCOMAdminCat);

    if (!SUCCEEDED(hr)) goto Error;

    bstrTemp = "Applications";

    // Attempt to connect to "Applications" in
the Catalog
    hr = pCOMAdminCat->GetCollection(bstrTemp,
                (IDispatch**)
                &pCatalogCollectionApp);
    if (!SUCCEEDED(hr)) goto Error;

    // Attempt to load the "Applications"
collection
    hr = pCatalogCollectionApp->Populate();
    if (!SUCCEEDED(hr)) goto Error;

    hr = pCatalogCollectionApp-
>get_Count(&lCount);
    if (!SUCCEEDED(hr)) goto Error;

    // iterate through applications to delete
existing "TPC-C" application (if any)
    while (lCount > 0)
    {

```

```

        hr = pCatalogCollectionApp-
>get_Item(lCount - 1, (IDispatch**)
&pCatalogObjectApp);
        if (!SUCCEEDED(hr)) goto Error;

        hr = pCatalogObjectApp-
>get_Name(&vTmp);
        if (!SUCCEEDED(hr)) goto Error;

        if (wcsncmp(vTmp.bstrVal, L"TPC-
C"))
        {
                lCount--;
                continue;
        }
        else
        {
                hr =
pCatalogCollectionApp->Remove(lCount - 1);
                if (!SUCCEEDED(hr))
goto Error;
                break;
        }
    }

    hr = pCatalogCollectionApp-
>SaveChanges(&lActProp);
    if (!SUCCEEDED(hr)) goto Error;

    // add the new application
    hr = pCatalogCollectionApp-
>Add((IDispatch**) &pCatalogObjectApp);
    if (!SUCCEEDED(hr)) goto Error;

    // set properties
    bstrTemp = "Name";
    vTmp = "TPC-C";
    hr = pCatalogObjectApp->put_Value(bstrTemp,
vTmp);
    if (!SUCCEEDED(hr)) goto Error;

    // set as a library (in process)
application
    bstrTemp = "Activation";
    lActProp = COMAdminActivationInproc;
    vTmp = lActProp;
    hr = pCatalogObjectApp->put_Value(bstrTemp,
vTmp);
    if (!SUCCEEDED(hr)) goto Error;

    // set security level to process
    bstrTemp = "AccessChecksLevel";
    lActProp =
COMAdminAccessChecksApplicationLevel;
    vTmp = lActProp;
    hr = pCatalogObjectApp->put_Value(bstrTemp,
vTmp);
    if (!SUCCEEDED(hr)) goto Error;

    // save key to get the Components
collection later
    hr = pCatalogObjectApp->get_Key(&vKey);
    if (!SUCCEEDED(hr)) goto Error;

```

```

        // save changes (app creation) so component
installation will work
        hr = pCatalogCollectionApp-
>SaveChanges(&lActProp);
        if (!SUCCEEDED(hr)) goto Error;

        pCatalogObjectApp->Release();
        pCatalogObjectApp = NULL;

        bstrTemp = "TPC-C";
        // app name
        bstrTemp2 = bstrDllPath +
"tpcc_com_all.dll";
        // DLL
        bstrTemp3 = bstrDllPath +
"tpcc_com_all.tlb";
        // type library (TLB)
        bstrTemp4 = bstrDllPath +
"tpcc_com_ps.dll";
        // proxy/stub dll

        hr = pCOMAdminCat-
>InstallComponent(bstrTemp,

        bstrTemp2,

        bstrTemp3,

        bstrTemp4);
        if (!SUCCEEDED(hr)) goto Error;

        bstrTemp = "Components";
        hr = pCatalogCollectionApp-
>GetCollection(bstrTemp, vKey, (IDispatch**)
&pCatalogCollectionCo);
        if (!SUCCEEDED(hr)) goto Error;

        hr = pCatalogCollectionCo->Populate();
        if (!SUCCEEDED(hr)) goto Error;

        hr = pCatalogCollectionCo-
>get_Count(&lCountCo);
        if (!SUCCEEDED(hr)) goto Error;

        // iterate through components in
application and set the properties
        while (lCountCo > 0)
        {
                hr = pCatalogCollectionCo-
>get_Item(lCountCo - 1, (IDispatch**)
&pCatalogObjectCo);
                if (!SUCCEEDED(hr)) goto Error;

                // used for debugging (view the
name)
                hr = pCatalogObjectCo-
>get_Name(&vTmp);
                if (!SUCCEEDED(hr)) goto Error;

                bstrTemp = "ConstructionEnabled";
                bTmp = TRUE;

```

```

                vTmp = bTmp;
                hr = pCatalogObjectCo-
>put_Value(bstrTemp, vTmp);
                if (!SUCCEEDED(hr)) goto Error;

                bstrTemp = "ConstructorString";
                bstrTemp2 = "dummy string (do not
remove)";
                vTmp = bstrTemp2;
                hr = pCatalogObjectCo-
>put_Value(bstrTemp, vTmp);
                if (!SUCCEEDED(hr)) goto Error;

                bstrTemp =
"JustInTimeActivation";
                bTmp = TRUE;
                vTmp = bTmp;
                hr = pCatalogObjectCo-
>put_Value(bstrTemp, vTmp);
                if (!SUCCEEDED(hr)) goto Error;

                bstrTemp = "MaxPoolSize";
                vTmp.Clear();
                // clear
variant so it isn't stored as a bool (_variant_t
feature)
                vTmp = (long)30;
                hr = pCatalogObjectCo-
>put_Value(bstrTemp, vTmp);
                if (!SUCCEEDED(hr)) goto Error;

                bstrTemp =
"ObjectPoolingEnabled";
                bTmp = TRUE;
                vTmp = bTmp;
                hr = pCatalogObjectCo-
>put_Value(bstrTemp, vTmp);
                if (!SUCCEEDED(hr)) goto Error;

                // save key to get the
InterfacesForComponent collection
                hr = pCatalogObjectCo-
>get_Key(&vKey);
                if (!SUCCEEDED(hr)) goto Error;

                bstrTemp =
"InterfacesForComponent";
                hr = pCatalogCollectionCo-
>GetCollection(bstrTemp, vKey, (IDispatch**)
&pCatalogCollectionItf);
                if (!SUCCEEDED(hr)) goto Error;

                hr = pCatalogCollectionItf-
>Populate();
                if (!SUCCEEDED(hr)) goto Error;

                hr = pCatalogCollectionItf-
>get_Count(&lCountItf);
                if (!SUCCEEDED(hr)) goto Error;

                // iterate through interfaces in
component

```

```

        while (lCountItf > 0)
        {
            hr =
pCatalogCollectionItf->get_Item(lCountItf - 1,
(IDispatch**) &pCatalogObjectItf);
            if (!SUCCEEDED(hr))
goto Error;

            // save key to get the
MethodsForInterface collection
            hr = pCatalogObjectItf-
>get_Key(&vKey);
            if (!SUCCEEDED(hr))
goto Error;

            bstrTemp =
"MethodsForInterface";
            hr =
pCatalogCollectionItf->GetCollection(bstrTemp, vKey,
(IDispatch**) &pCatalogCollectionMethod);
            if (!SUCCEEDED(hr))
goto Error;

            hr =
pCatalogCollectionMethod->Populate();
            if (!SUCCEEDED(hr))
goto Error;

            hr =
pCatalogCollectionMethod->get_Count(&lCountMethod);
            if (!SUCCEEDED(hr))
goto Error;

            // iterate through
methods of interface
            while (lCountMethod >
0)
            {
                hr =
pCatalogCollectionMethod->get_Item(lCountMethod - 1,
(IDispatch**) &pCatalogObjectMethod);
                if
(!SUCCEEDED(hr)) goto Error;

                bstrTemp =
"AutoComplete";
                bTmp = TRUE;
                vTmp = bTmp;
                hr =
pCatalogObjectMethod->put_Value(bstrTemp, vTmp);
                if
(!SUCCEEDED(hr)) goto Error;

                pCatalogObjectMethod->Release();
                pCatalogObjectMethod = NULL;

                lCountMethod-
-;
            }

            // save changes

```

```

            hr =
pCatalogCollectionMethod->SaveChanges(&lActProp);
            if (!SUCCEEDED(hr))
goto Error;

            pCatalogObjectItf-
>Release();
            pCatalogObjectItf =
NULL;

            lCountItf--;
        }

        pCatalogObjectCo->Release();
        pCatalogObjectCo = NULL;

        lCountCo--;
    }

    // save changes
    hr = pCatalogCollectionCo-
>SaveChanges(&lActProp);
    if (!SUCCEEDED(hr)) goto Error;

    pCatalogCollectionApp->Release();
    pCatalogCollectionApp = NULL;

    pCatalogCollectionCo->Release();
    pCatalogCollectionCo = NULL;

    pCatalogCollectionItf->Release();
    pCatalogCollectionItf = NULL;

    pCatalogCollectionMethod->Release();
    pCatalogCollectionMethod = NULL;

Error:
    CoUninitialize();

    if (!SUCCEEDED(hr))
    {
        LPTSTR lpBuf;
        DWORD dwRes =
FormatMessage(FORMAT_MESSAGE_ALLOCATE_BUFFER |
FORMAT_MESSAGE_FROM_SYSTEM,
                NULL,
                hr,
                MAKELANGID(LANG_NEUTRAL, SUBLANG_DEFAULT),
                (LPTSTR)
&lpBuf,
                0,
                NULL);

```

```

//          _tprintf(__T("Error adding
components. HRESULT: 0x%x\n%s"), hr, lpBuf);
        return TRUE;
    }
    else
        return FALSE;
}

```

license.txt

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Methods.h

```

/*      FILE:          METHODS.H
 *
 *      TPC-C Kit Ver. 4.69.000
 *      Microsoft
 *      Copyright
 *      Microsoft, 1999
 *      All Rights Reserved
 *
 *      not yet
 *
 *      audited
 *
 *      PURPOSE:  Header file for COM components.
 *
 *      Change history:
 *      *      4.20.000 - first version
 *      *      4.69.000 - updated rev number to
 *      match kit
 */

enum COMPONENT_ERROR
{
    ERR_MISSING_REGISTRY_ENTRIES = 1,
    ERR_LOADDLL_FAILED,
    ERR_GETPROCADDR_FAILED,
    ERR_UNKNOWN_DB_PROTOCOL,
    ERR_MEM_ALLOC_FAILED
};

class CCOMPONENT_ERR : public CBaseErr
{
public:
    CCOMPONENT_ERR(COMPONENT_ERROR
Err)
    {
        m_Error = Err;
        m_szTextDetail = NULL;
        m_SystemErr = 0;
        m_szErrorText = NULL;
    };
};

```

```

        CCOMPONENT_ERR(COMPONENT_ERROR
Err, char *szTextDetail, DWORD dwSystemErr)
    {
        m_Error = Err;
        m_szTextDetail = new
char[strlen(szTextDetail)+1];
        strcpy( m_szTextDetail,
szTextDetail );
        m_SystemErr =
dwSystemErr;
        m_szErrorText = NULL;
    };

~CCOMPONENT_ERR()
{
    if (m_szTextDetail !=
NULL)
        delete []
m_szTextDetail;
    if (m_szErrorText !=
NULL)
        delete []
m_szErrorText;
};

COMPONENT_ERROR m_Error;
char
*m_szTextDetail;
char
*m_szErrorText;
DWORD
m_SystemErr;

int ErrorType() {return
ERR_TYPE_COMPONENT;};
char *ErrorTypeStr() { return
"COMPONENT"; }
int ErrorNum() {return m_Error;};
char *ErrorText();

static void WriteMessageToEventLog(LPTSTR lpszMsg);

////////////////////////////////////
////////////////////////////////////
// CTPCC_Common
class CTPCC_Common :
public ITPCC,
public IObjectControl,
public IObjectConstruct,
public
CComObjectRootEx<CComSingleThreadModel>
{
public:
    BEGIN_COM_MAP(CTPCC_Common)
        COM_INTERFACE_ENTRY(ITPCC)
        COM_INTERFACE_ENTRY(IObjectControl)
        COM_INTERFACE_ENTRY(IObjectConstruct)
    END_COM_MAP()
};

```

```

CTPCC_Common();
~CTPCC_Common();

// ITPCC
public:
    HRESULT __stdcall NewOrder(
    VARIANT txn_in, VARIANT* txn_out);
    HRESULT __stdcall Payment(
    VARIANT txn_in, VARIANT* txn_out);
    HRESULT __stdcall Delivery(
    VARIANT txn_in, VARIANT* txn_out) {return
E_NOTIMPL;};
    HRESULT __stdcall StockLevel( VARIANT
txn_in, VARIANT* txn_out);
    HRESULT __stdcall OrderStatus(
    VARIANT txn_in, VARIANT* txn_out);
    HRESULT __stdcall CallSetComplete();

// IObjectControl
    STDMETHODIMP_(BOOL) CanBePooled() { return
m_bCanBePooled; }
    STDMETHODIMP Activate() { return S_OK; }
    // we don't support COM Services
    transactions (no enlistment)
    STDMETHODIMP_(void) Deactivate() { /*
nothing to do */ }

// IObjectConstruct
    STDMETHODIMP Construct(IDispatch * pUnk);

// helper methods
private:
    BOOL m_bCanBePooled;
    CTPCC_BASE *m_pTxn;

    struct COM_DATA
    {
        int retval;
        int error;
        union
        {
            NEW_ORDER_DATA
NewOrder;
            PAYMENT_DATA
Payment;
            DELIVERY_DATA
Delivery;
            STOCK_LEVEL_DATA
StockLevel;
            ORDER_STATUS_DATA
OrderStatus;
        } u;
    };

////////////////////////////////////
////////////////////////////////////
// CTPCC
class CTPCC :
public CTPCC_Common,
public CComCoClass<CTPCC, &CLSID_TPCC>
};

```



```

{
public:
DECLARE_REGISTRY_RESOURCEID(IDR_TPCC)

BEGIN_COM_MAP(CTPCC)
    //COM_INTERFACE_ENTRY2(IUnknown,
CComObjectRootEx<CComSingleThreadModel>)
    COM_INTERFACE_ENTRY2(IUnknown, ITPCC)
    COM_INTERFACE_ENTRY_CHAIN(CTPCC_Common)
END_COM_MAP()

};

////////////////////////////////////
////////////////////////////////////
// CNewOrder
class CNewOrder :
    public CTPCC_Common,
    public CComCoClass<CNewOrder,
&CLSID_NewOrder>
{
public:
DECLARE_REGISTRY_RESOURCEID(IDR_NEWORDER)

BEGIN_COM_MAP(CNewOrder)
    //
    COM_INTERFACE_ENTRY2(IUnknown,
CComObjectRootEx)
    COM_INTERFACE_ENTRY2(IUnknown, ITPCC)
    COM_INTERFACE_ENTRY_CHAIN(CTPCC_Common)
END_COM_MAP()

// ITPCC
public:
//
    HRESULT __stdcall NewOrder(
        VARIANT txn_in, VARIANT* txn_out) {return
E_NOTIMPL;}
    HRESULT __stdcall Payment(
        VARIANT txn_in, VARIANT* txn_out) {return
E_NOTIMPL;}
    HRESULT __stdcall StockLevel( VARIANT
txn_in, VARIANT* txn_out) {return E_NOTIMPL;}
    HRESULT __stdcall OrderStatus(
        VARIANT txn_in, VARIANT* txn_out) {return
E_NOTIMPL;}
};

////////////////////////////////////
////////////////////////////////////
// COrderStatus
class COrderStatus :
    public CTPCC_Common,
    public CComCoClass<COrderStatus,
&CLSID_OrderStatus>
{
public:
DECLARE_REGISTRY_RESOURCEID(IDR_ORDERSTATUS)

BEGIN_COM_MAP(COrderStatus)
    //
    COM_INTERFACE_ENTRY2(IUnknown,
CComObjectRootEx)
    COM_INTERFACE_ENTRY2(IUnknown, ITPCC)

```

```

    COM_INTERFACE_ENTRY_CHAIN(CTPCC_Common)
END_COM_MAP()

// ITPCC
public:
    HRESULT __stdcall NewOrder(
        VARIANT txn_in, VARIANT* txn_out) {return
E_NOTIMPL;}
    HRESULT __stdcall Payment(
        VARIANT txn_in, VARIANT* txn_out) {return
E_NOTIMPL;}
    HRESULT __stdcall StockLevel( VARIANT
txn_in, VARIANT* txn_out) {return E_NOTIMPL;}
    //
    HRESULT __stdcall OrderStatus(
        VARIANT txn_in, VARIANT* txn_out) {return
E_NOTIMPL;}
};

////////////////////////////////////
////////////////////////////////////
// CPayment
class CPayment :
    public CTPCC_Common,
    public CComCoClass<CPayment,
&CLSID_Payment>
{
public:
DECLARE_REGISTRY_RESOURCEID(IDR_PAYMENT)

BEGIN_COM_MAP(CPayment)
    //
    COM_INTERFACE_ENTRY2(IUnknown,
CComObjectRootEx)
    COM_INTERFACE_ENTRY2(IUnknown, ITPCC)
    COM_INTERFACE_ENTRY_CHAIN(CTPCC_Common)
END_COM_MAP()

// ITPCC
public:
    HRESULT __stdcall NewOrder(
        VARIANT txn_in, VARIANT* txn_out) {return
E_NOTIMPL;}
    //
    HRESULT __stdcall Payment(
        VARIANT txn_in, VARIANT* txn_out) {return
E_NOTIMPL;}
    HRESULT __stdcall StockLevel( VARIANT
txn_in, VARIANT* txn_out) {return E_NOTIMPL;}
    HRESULT __stdcall OrderStatus(
        VARIANT txn_in, VARIANT* txn_out) {return
E_NOTIMPL;}
};

////////////////////////////////////
////////////////////////////////////
// CStockLevel
class CStockLevel :
    public CTPCC_Common,
    public CComCoClass<CStockLevel,
&CLSID_StockLevel>
{
public:
DECLARE_REGISTRY_RESOURCEID(IDR_STOCKLEVEL)

```

```

BEGIN_COM_MAP(CStockLevel)
    //
    COM_INTERFACE_ENTRY2(IUnknown,
CComObjectRootEx)
    COM_INTERFACE_ENTRY2(IUnknown, ITPCC)
    COM_INTERFACE_ENTRY_CHAIN(CTPCC_Common)
END_COM_MAP()

// ITPCC
public:
    HRESULT __stdcall NewOrder(
        VARIANT txn_in, VARIANT* txn_out) {return
E_NOTIMPL;}
    HRESULT __stdcall Payment(
        VARIANT txn_in, VARIANT* txn_out) {return
E_NOTIMPL;}
    //
    HRESULT __stdcall StockLevel( VARIANT
txn_in, VARIANT* txn_out) {return E_NOTIMPL;}
    HRESULT __stdcall OrderStatus(
        VARIANT txn_in, VARIANT* txn_out) {return
E_NOTIMPL;}
};

```

null-txns.sql

```

-----
--
-- File:      NULL-TXNS.SQL
--
--           Microsoft TPC-C Benchmark Kit Ver. 4.68
--
--           Copyright Microsoft, 2006
--
--
-- This script will create stored procs
-- which
-- accept the same parameters and return
-- correctly
-- formed results sets to match the standard
-- TPC-C
-- stored procs. Of course, the advantage
-- is that
-- these stored procs place almost no load
-- on
-- SQL Server and do not require a database.
--
--
-- Interface Level:      4.10.000
--
-----
USE tpcc
GO

```

```

IF EXISTS ( SELECT name FROM sysobjects WHERE name =
'tpcc_delivery' )
    DROP PROCEDURE tpcc_delivery
GO
IF EXISTS ( SELECT name FROM sysobjects WHERE name =
'tpcc_neworder' )
    DROP PROCEDURE tpcc_neworder
GO
IF EXISTS ( SELECT name FROM sysobjects WHERE name =
'tpcc_orderstatus' )
    DROP PROCEDURE tpcc_orderstatus
GO
IF EXISTS ( SELECT name FROM sysobjects WHERE name =
'tpcc_payment' )
    DROP PROCEDURE tpcc_payment
GO
IF EXISTS ( SELECT name FROM sysobjects WHERE name =
'tpcc_stocklevel' )
    DROP PROCEDURE tpcc_stocklevel
GO
IF EXISTS ( SELECT name FROM sysobjects WHERE name =
'tpcc_version' )
    DROP PROCEDURE tpcc_version
GO
IF EXISTS ( SELECT name FROM sysobjects WHERE name =
'order_line_null' )
    DROP PROCEDURE order_line_null
GO

CREATE PROCEDURE tpcc_delivery
    @w_id int,
    @o_carrier_id smallint

AS

DECLARE @d_id tinyint,
        @o_id int,
        @c_id int,
        @total numeric(12,2),
        @oid1 int,
        @oid2 int,
        @oid3 int,
        @oid4 int,
        @oid5 int,
        @oid6 int,
        @oid7 int,
        @oid8 int,
        @oid9 int,
        @oid10 int,
        @delaytime varchar(30)

-----
-- uniform random delay of 0 - 1 second; avg = 0.50
-----
SELECT @delaytime = '00:00:0' +
CAST(CAST((RAND()*1.00) AS decimal(4,3)) AS char(5))

WAITFOR delay @delaytime

SELECT 3001, 3001, 3001, 3001, 3001, 3001, 3001,
3001, 3001, 3001
GO

```

```

CREATE PROCEDURE tpcc_neworder
    @w_id int,
    @d_id tinyint,
    @c_id int,
    @o_ol_cnt tinyint,
    @o_all_local tinyint,
    @i_id1 int = 0, @s_w_id1 int
= 0, @ol_qty1 smallint = 0,
    @i_id2 int = 0, @s_w_id2 int
= 0, @ol_qty2 smallint = 0,
    @i_id3 int = 0, @s_w_id3 int
= 0, @ol_qty3 smallint = 0,
    @i_id4 int = 0, @s_w_id4 int
= 0, @ol_qty4 smallint = 0,
    @i_id5 int = 0, @s_w_id5 int
= 0, @ol_qty5 smallint = 0,
    @i_id6 int = 0, @s_w_id6 int
= 0, @ol_qty6 smallint = 0,
    @i_id7 int = 0, @s_w_id7 int
= 0, @ol_qty7 smallint = 0,
    @i_id8 int = 0, @s_w_id8 int
= 0, @ol_qty8 smallint = 0,
    @i_id9 int = 0, @s_w_id9 int
= 0, @ol_qty9 smallint = 0,
    @i_id10 int = 0, @s_w_id10
int = 0, @ol_qty10 smallint = 0,
    @i_id11 int = 0, @s_w_id11
int = 0, @ol_qty11 smallint = 0,
    @i_id12 int = 0, @s_w_id12
int = 0, @ol_qty12 smallint = 0,
    @i_id13 int = 0, @s_w_id13
int = 0, @ol_qty13 smallint = 0,
    @i_id14 int = 0, @s_w_id14
int = 0, @ol_qty14 smallint = 0,
    @i_id15 int = 0, @s_w_id15
int = 0, @ol_qty15 smallint = 0

AS

DECLARE @w_tax numeric(4,4),
        @d_tax numeric(4,4),
        @c_last char(16),
        @c_credit char(2),
        @c_discount numeric(4,4),
        @i_price numeric(5,2),
        @i_name char(24),
        @o_entry_d datetime,
        @li_no int,
        @o_id int,
        @commit_flag tinyint,
        @li_id int,
        @li_qty smallint,
        @delaytime varchar(30)

BEGIN
-----
-- uniform random delay of 0 - 0.6 second; avg =
0.3
-----

```

```

SELECT @delaytime = '00:00:0' +
CAST(CAST((RAND()*0.60) AS decimal(4,3)) AS char(5))

WAITFOR delay @delaytime

-----
-- process orderlines
-----
SELECT @commit_flag = 1,
        @li_no = 0

WHILE (@li_no < @o_ol_cnt)
BEGIN
    SELECT @li_id = CASE @li_no
        WHEN 1 THEN @i_id1
        WHEN 2 THEN @i_id2
        WHEN 3 THEN @i_id3
        WHEN 4 THEN @i_id4
        WHEN 5 THEN @i_id5
        WHEN 6 THEN @i_id6
        WHEN 7 THEN @i_id7
        WHEN 8 THEN @i_id8
        WHEN 9 THEN @i_id9
        WHEN 10 THEN @i_id10
        WHEN 11 THEN @i_id11
        WHEN 12 THEN @i_id12
        WHEN 13 THEN @i_id13
        WHEN 14 THEN @i_id14
        WHEN 15 THEN @i_id15
    END

    SELECT @li_no = @li_no + 1

    SELECT @i_price = 23.45, @li_qty = @li_no

    IF (@li_id = 999999)
    BEGIN
        SELECT ',,0,,0,0'

        SELECT @commit_flag = 0
    END
    ELSE
    BEGIN
        SELECT 'Item Name blah',
            17,
            'G',
            @i_price,
            @i_price * @li_qty
    END
END

-----
-- return order data to client
-----
SELECT @w_tax = 0.1234,
        @d_tax = 0.0987,
        @o_id = 3001,
        @c_last = 'BAROUGHTABLE',
        @c_discount = 0.2198,
        @c_credit = 'GC',
        @o_entry_d = GETDATE()

```

```

SELECT @w_tax,
       @d_tax,
       @o_id,
       @c_last,
       @c_discount,
       @c_credit,
       @o_entry_d,
       @commit_flag

END
GO

CREATE PROCEDURE tpcc_orderstatus
    @w_id int,
    @d_id tinyint,

    @c_id int,
    @c_last char(16) = ''

AS
DECLARE @c_balance numeric(12,2),
        @c_first char(16),
        @c_middle char(2),
        @o_id int,
        @o_entry_d datetime,
        @o_carrier_id smallint,
        @ol_cnt smallint,
        @delaytime varchar(30)

-----
-- uniform random delay of 0 - 0.2 second; avg = 0.1
-----
SELECT @delaytime = '00:00:0' +
CAST(CAST((RAND()*0.20) AS decimal(4,3)) AS char(5))

WAITFOR delay @delaytime

SELECT @c_id = 113,
       @c_balance = -10.00,
       @c_first = '8YCodgytqCj8',
       @c_middle = 'OE',
       @c_last = 'OUGHTOUGHTABLE',
       @o_id = 3456,
       @o_entry_d = GETDATE(),
       @o_carrier_id = 1

SELECT @ol_cnt = (RAND() * 11) + 5

SET ROWCOUNT @ol_cnt

SELECT ol_supply_w_id,
       ol_i_id,
       ol_quantity,
       ol_amount,
       ol_delivery_d
FROM order_line_null

SELECT @c_id,
       @c_last,
       @c_first,
       @c_middle,

```

```

@o_entry_d,
@o_carrier_id,
@c_balance,
@o_id

GO

CREATE PROCEDURE tpcc_payment
    @w_id int,
    @c_w_id int,
    @h_amount numeric(6,2),
    @d_id tinyint,
    @c_d_id tinyint,
    @c_id int,
    @c_last char(16) = ''

AS
DECLARE @w_street_1 char(20),
        @w_street_2 char(20),
        @w_city char(20),
        @w_state char(2),
        @w_zip char(9),
        @w_name char(10),
        @d_street_1 char(20),
        @d_street_2 char(20),
        @d_city char(20),
        @d_state char(2),
        @d_zip char(9),
        @d_name char(10),
        @c_first char(16),
        @c_middle char(2),
        @c_street_1 char(20),
        @c_street_2 char(20),
        @c_city char(20),
        @c_state char(2),
        @c_zip char(9),
        @c_phone char(16),
        @c_since datetime,
        @c_credit char(2),
        @c_credit_lim numeric(12,2),
        @c_balance numeric(12,2),
        @c_discount numeric(4,4),
        @data char(500),
        @c_data char(500),
        @datetime datetime,
        @w_ytd numeric(12,2),
        @d_ytd numeric(12,2),
        @cnt smallint,
        @val smallint,
        @screen_data char(200),
        @d_id_local tinyint,
        @w_id_local int,
        @c_id_local int,
        @delaytime varchar(30)

-----
-- uniform random delay of 0 - 0.3 second; avg = 0.15
-----
SELECT @delaytime = '00:00:0' +
CAST(CAST((RAND()*0.20) AS decimal(4,3)) AS char(5))

WAITFOR delay @delaytime

```

```

SELECT @screen_data = ''

-----
-- get customer info and update balances
-----
SELECT @d_street_1 = 'rqSHHakqyV',
       @d_street_2 = 'zZ98nW3BR2s',
       @d_city = 'ArNr4GNFV9',
       @d_state = 'aV',
       @d_zip = '453511111'

-----
-- get warehouse data and update year-to-date
-----
SELECT @w_street_1 = 'rqSHHakqyV',
       @w_street_2 = 'zZ98nW3BR2s',
       @w_city = 'ArNr4GNFV9',
       @w_state = 'aV',
       @w_zip = '453511111'

SELECT @c_id = 123,
       @c_balance = -10000.00,
       @c_first = 'KmR03Xureb',
       @c_middle = 'OE',
       @c_last = 'BAROUGHTBEAR',
       @c_street_1 = 'QpGdOHjv8mR9vNI8V',
       @c_street_2 = 'dzKoCOBgbC3yu',
       @c_city = 'zAKZxDC037FQxq',
       @c_state = 'QA',
       @c_zip = '700311111',
       @c_phone = '2967264064528555',
       @c_credit = 'GC',
       @c_credit_lim = 50000.00,
       @c_discount = 0.3069,
       @c_since = GETDATE(),
       @datetime = GETDATE()

-----
-- return data to client
-----
SELECT @c_id,
       @c_last,
       @datetime,
       @w_street_1,
       @w_street_2,
       @w_city,
       @w_state,
       @w_zip,
       @d_street_1,
       @d_street_2,
       @d_city,
       @d_state,
       @d_zip,
       @c_first,
       @c_middle,
       @c_street_1,
       @c_street_2,
       @c_city,
       @c_state,
       @c_zip,
       @c_phone,
       @c_since,
       @c_credit,

```

```

@c_credit_lim,
@c_discount,
@c_balance,
@screen_data
GO

CREATE PROCEDURE tpcc_stocklevel
    @w_id int,
    @d_id tinyint,
    @threshold smallint
AS
DECLARE @delaytime varchar(30)
-----
-- uniform random delay of 0 - 3.6 second; avg = 1.8
-----
SELECT @delaytime = '00:00:0' +
CAST(CAST((RAND()*0.20) AS decimal(4,3)) AS char(5))

WAITFOR delay @delaytime

SELECT 49
GO

CREATE PROCEDURE tpcc_version
AS
DECLARE @version char(8)
BEGIN
    SELECT @version = '4.10.000'
    SELECT @version AS 'Version'
END
GO

CREATE TABLE order_line_null (
    [ol_i_id] [int]
    NOT NULL ,
    [ol_supply_w_id]
    [int] NOT NULL ,
    [ol_delivery_d]
    [datetime] NOT NULL ,
    [ol_quantity]
    [smallint] NOT NULL ,
    [ol_amount]
    [numeric](6, 2) NOT NULL
) ON [PRIMARY]
GO

INSERT INTO order_line_null VALUES ( 101, 1,
GETDATE(), 1, 123.45 )
INSERT INTO order_line_null VALUES ( 102, 1,
GETDATE(), 2, 123.45 )
INSERT INTO order_line_null VALUES ( 103, 1,
GETDATE(), 3, 123.45 )
INSERT INTO order_line_null VALUES ( 104, 1,
GETDATE(), 4, 123.45 )
INSERT INTO order_line_null VALUES ( 105, 1,
GETDATE(), 5, 123.45 )
INSERT INTO order_line_null VALUES ( 106, 1,
GETDATE(), 1, 123.45 )

```

```

INSERT INTO order_line_null VALUES ( 107, 1,
GETDATE(), 2, 123.45 )
INSERT INTO order_line_null VALUES ( 108, 1,
GETDATE(), 3, 123.45 )
INSERT INTO order_line_null VALUES ( 109, 1,
GETDATE(), 4, 123.45 )
INSERT INTO order_line_null VALUES ( 110, 1,
GETDATE(), 5, 123.45 )
INSERT INTO order_line_null VALUES ( 111, 1,
GETDATE(), 1, 123.45 )
INSERT INTO order_line_null VALUES ( 112, 1,
GETDATE(), 2, 123.45 )
INSERT INTO order_line_null VALUES ( 113, 1,
GETDATE(), 3, 123.45 )
INSERT INTO order_line_null VALUES ( 114, 1,
GETDATE(), 4, 123.45 )
INSERT INTO order_line_null VALUES ( 115, 1,
GETDATE(), 5, 123.45 )
GO

```

RCa03544

```

#line
1"C:\temp\MSTPCC.442\WEBCLNT\install\src\instal
l.rc"
#line 1
//Microsoft Developer Studio generated resource
script.
//
#include "resource.h"
#line 5
#define APSTUDIO_READONLY_SYMBOLS
////////////////////////////////////
//
// Generated from the TEXTINCLUDE 2 resource.
//
#include "afxres.h"
#line 12
////////////////////////////////////
#undef APSTUDIO_READONLY_SYMBOLS
#line 15
////////////////////////////////////
// English (U.S.) resources
#line 18
#if !defined(AFX_RESOURCE_DLL) ||
defined(AFX_TARG_ENU)
#ifdef _WIN32
LANGUAGE LANG_ENGLISH, SUBLANG_ENGLISH_US
#pragma code_page(1252)
#endif // _WIN32
#line 24
////////////////////////////////////
//
// Dialog
//
#line 29
IDD_DIALOG1 DIALOGEX 0, 0, 219, 351
STYLE DS_MODALFRAME | DS_CENTER | WS_MINIMIZEBOX |
WS_POPUP | WS_CAPTION |
WS_SYSMENU
CAPTION "TPC-C Web Client Installation Utility"
FONT 8, "MS Sans Serif"
BEGIN
EDITTEXT          ED_THREADS,164,45,34,12,ES_RIGHT |
ES_NUMBER,
WS_EX_RTLREADING
EDITTEXT
ED_MAXDELIVERIES,164,59,34,12,ES_RIGHT | ES_NUMBER,
WS_EX_RTLREADING
EDITTEXT
ED_MAXCONNECTION,164,73,34,12,ES_RIGHT | ES_NUMBER,
WS_EX_RTLREADING
CONTROL
"None", IDC_TM_NONE, "Button", BS_AUTORADIOBUTTON |
WS_GROUP | WS_TABSTOP,43,100,33,10
CONTROL
"COM", IDC_TM_MTS, "Button", BS_AUTORADIOBUTTON |
WS_TABSTOP,43,113,32,10
CONTROL
"TUXEDO", IDC_TM_TUXEDO, "Button", BS_AUTORADIOBUTTON |
WS_TABSTOP,106,100,46,10
CONTROL
"ENCINA", IDC_TM_ENCINA, "Button", BS_AUTORADIOBUTTON |
WS_DISABLED | WS_TABSTOP,106,113,43,10
EDITTEXT
ED_DB_SERVER,131,152,67,12,ES_AUTOHSCROLL
EDITTEXT
ED_DB_USER_ID,131,165,67,12,ES_AUTOHSCROLL
EDITTEXT
ED_DB_PASSWORD,131,178,67,12,ES_AUTOHSCROLL
EDITTEXT
ED_DB_NAME,131,191,67,12,ES_AUTOHSCROLL
CONTROL
"DBLIB", IDC_DBLIB, "Button", BS_AUTORADIOBUTTON |
WS_GROUP |
WS_TABSTOP,45,219,39,12
CONTROL
"ODBC", IDC_ODBC, "Button", BS_AUTORADIOBUTTON |
WS_TABSTOP,
91,219,39,12
EDITTEXT
ED_IIS_MAX_THREAD_POOL_LIMIT,164,263,34,12,ES_RIGHT |
ES_NUMBER,WS_EX_RTLREADING
EDITTEXT
ED_WEB_SERVICE_BACKLOG_QUEUE_SIZE,164,277,34,12,ES_RI
GHT |
ES_NUMBER,WS_EX_RTLREADING
EDITTEXT
ED_IIS_THREAD_TIMEOUT,164,291,34,12,ES_RIGHT |
ES_NUMBER,
WS_EX_RTLREADING
EDITTEXT
ED_IIS_LISTEN_BACKLOG,164,305,34,12,ES_RIGHT |
ES_NUMBER,
WS_EX_RTLREADING
DEFPUSHBUTTON     "OK", IDOK, 53, 331, 50, 14
PUSHBUTTON        "Cancel", IDCANCEL, 119, 331, 50, 14
EDITTEXT          IDC_PATH,106,26,91,13,ES_AUTOHSCROLL
| ES_READONLY

```

```

LTEXT          "Number of Delivery
Threads:", IDC_STATIC, 35, 45, 115, 12
LTEXT          "Max Number of
Connections:", IDC_STATIC, 35, 73, 115, 12
RTEXT          "Version 4.11", IDC_VERSION, 120, 4, 89, 9
LTEXT          "IIS Max Thread Pool
Limit:", IDC_STATIC, 36, 263, 115, 12
LTEXT          "Web Service Backlog Queue
Size:", IDC_STATIC, 36, 277, 115,
12
LTEXT          "IIS Thread Timeout
(seconds):", IDC_STATIC, 36, 291, 115, 12
LTEXT          "IIS Listen
Backlog:", IDC_STATIC, 36, 307, 115, 10
GROUPBOX      "Database
Interface", IDC_STATIC, 35, 208, 163, 27, WS_GROUP
LTEXT          "Installation
directory:", IDC_STATIC, 35, 29, 71, 10
GROUPBOX      "Transaction
Monitor", IDC_STATIC, 33, 90, 165, 37
LTEXT          "Server Name:", IDC_STATIC, 35, 155, 56, 8
LTEXT          "User ID:", IDC_STATIC, 35, 168, 60, 8
LTEXT          "User
Password:", IDC_STATIC, 35, 181, 83, 8
LTEXT          "Database
Name:", IDC_STATIC, 35, 194, 54, 8
GROUPBOX      "SQL Server Connection
Properties", IDC_STATIC, 22, 139, 187,
102
GROUPBOX      "Web Client
Properties", IDC_STATIC, 22, 15, 187, 118
GROUPBOX      "IIS
Settings", IDC_STATIC, 22, 247, 187, 79
LTEXT          "Max Pending
Deliveries:", IDC_STATIC, 35, 59, 115, 12
END
#line 90
IDD_DIALOG2 DIALOGEX 0, 0, 117, 62
STYLE DS_SETFOREGROUND | DS_3DLOOK | DS_CENTER |
WS_POPUP | WS_BORDER
EXSTYLE WS_EX_STATICEDGE
FONT 12, "MS Sans Serif", 0, 0, 0x1
BEGIN
DEFPUSHBUTTON "OK", IDOK, 33, 45, 50, 9
CTEXT          "HTML TPC-C Installation
Successful", IDC_RESULTS, 7, 22,
102, 18, 0, WS_EX_CLIENTEDGE
ICON
IDI_ICON2, IDC_STATIC, 50, 7, 18, 20, SS_REALSIZEIMAGE,
WS_EX_TRANSPARENT
END
#line 102
IDD_DIALOG3 DIALOG DISCARDABLE 0, 0, 91, 40
STYLE DS_SYSMODAL | DS_MODALFRAME | DS_3DLOOK |
DS_CENTER | WS_CAPTION
CAPTION "Installing TPC-C Web Client"
FONT 12, "Arial Black"
BEGIN
CONTROL
"Progress1", IDC_PROGRESS1, "mctl1_progress32", WS_BORD
ER,
7, 20, 77, 13

```

```

CTEXT          "Static", IDC_STATUS, 7, 7, 77, 12, SS_SUNKEN
END
#line 112
IDD_DIALOG4 DIALOG DISCARDABLE 0, 0, 291, 202
STYLE DS_MODALFRAME | DS_CENTER | WS_POPUP |
WS_CAPTION | WS_SYSTEMU
CAPTION "Client End User License"
FONT 8, "MS Sans Serif"
BEGIN
EDITTEXT      IDC_LICENSE, 7, 7, 271, 167, ES_MULTILINE
| ES_AUTOVSCROLL |
ES_AUTOHSCROLL | ES_READONLY | WS_VSCROLL |
WS_HSCROLL
DEFPUSHBUTTON "I &Agree", IDOK, 87, 181, 50, 14
PUSHBUTTON    "&Cancel", IDCANCEL, 153, 181, 50, 14
END
#line 124
////////////////////////////////////
////////////////////////////////////
//
// DESIGNINFO
//
#line 129
#ifdef APSTUDIO_INVOKED
GUIDELINES DESIGNINFO DISCARDABLE
BEGIN
IDD_DIALOG1, DIALOG
BEGIN
LEFTMARGIN, 22
RIGHTMARGIN, 209
VERTGUIDE, 35
VERTGUIDE, 198
TOPMARGIN, 4
BOTTOMMARGIN, 345
END
#line 142
IDD_DIALOG2, DIALOG
BEGIN
LEFTMARGIN, 7
RIGHTMARGIN, 109
TOPMARGIN, 7
BOTTOMMARGIN, 54
END
#line 150
IDD_DIALOG3, DIALOG
BEGIN
LEFTMARGIN, 7
RIGHTMARGIN, 84
TOPMARGIN, 7
BOTTOMMARGIN, 33
END
#line 158
IDD_DIALOG4, DIALOG
BEGIN
LEFTMARGIN, 7
RIGHTMARGIN, 278
TOPMARGIN, 7
BOTTOMMARGIN, 195
END
#endif // APSTUDIO_INVOKED
#line 169

```

```

#ifdef APSTUDIO_INVOKED
////////////////////////////////////
////////////////////////////////////
//
// TEXTINCLUDE
//
#line 175
1 TEXTINCLUDE DISCARDABLE
BEGIN
"resource.h\0"
END
#line 180
2 TEXTINCLUDE DISCARDABLE
BEGIN
#include "afxres.h"\r\n"
"\0"
END
#line 186
3 TEXTINCLUDE DISCARDABLE
BEGIN
\r\n"
"\0"
END
#line 192
#endif // APSTUDIO_INVOKED
#line 195
////////////////////////////////////
////////////////////////////////////
//
// Icon
//
#line 200
// Icon with lowest ID value placed first to ensure
application icon
// remains consistent on all systems.
IDI_ICON1          ICON    DISCARDABLE
"icon1.ico"
IDI_ICON2          ICON    DISCARDABLE
"icon2.ico"
#line 205
////////////////////////////////////
////////////////////////////////////
//
// TPCCDLL
//
#line 210
IDR_TPCCDLL          TPCCDLL DISCARDABLE
"..\\..\\isapi_dll\\bin\\tpcc.dll"
#line 212
#ifdef _MAC
////////////////////////////////////
////////////////////////////////////
//
// Version
//
#line 218
VS_VERSION_INFO VERSIONINFO
FILEVERSION 0, 4, 20, 0
PRODUCTVERSION 0, 4, 20, 0
FILEFLAGSMASK 0x3fL
#ifdef _DEBUG
FILEFLAGS 0x1L
#else

```

```

FILEFLAGS 0x0L
#endif
FILEOS 0x40004L
FILETYPE 0x1L
FILESUBTYPE 0x0L
BEGIN
BLOCK "StringFileInfo"
BEGIN
BLOCK "040904b0"
BEGIN
VALUE "Comments", "TPC-C Web Client Installer\0"
VALUE "CompanyName", "Microsoft\0"
VALUE "FileDescription", "install\0"
VALUE "FileVersion", "0, 4, 20, 0\0"
VALUE "InternalName", "install\0"
VALUE "LegalCopyright", "Copyright \r 1999\0"
VALUE "OriginalFilename", "install.exe\0"
VALUE "ProductName", "Microsoft install\0"
VALUE "ProductVersion", "0, 4, 20, 0\0"
END
END
BLOCK "VarFileInfo"
BEGIN
VALUE "Translation", 0x409, 1200
END
END
#line 252
#endif // !_MAC
#line 255
////////////////////////////////////
//
// LICENSE
//
#line 260
IDR_LICENSE1          LICENSE DISCARDABLE
"license.txt"
#line 262
////////////////////////////////////
//
// DBLIB_DLL
//
#line 267
IDR_DBLIB_DLL        DBLIB_DLL DISCARDABLE
".\..\..\db_dblib_dll\bin\tpcc_dblib.dll"
#line 269
////////////////////////////////////
//
// ODBC_DLL
//
#line 274
IDR_ODBC_DLL         ODBC_DLL DISCARDABLE
".\..\..\db_odbc_dll\bin\tpcc_odbc.dll"
#line 276
////////////////////////////////////
//
// TUXEDO_APP
//
#line 281

```

```

IDR_TUXEDO_APP        TUXEDO_APP DISCARDABLE
".\..\..\tuxapp\bin\tuxapp.exe"
#line 283
////////////////////////////////////
//
// TUXEDO_DLL
//
#line 288
IDR_TUXEDO_DLL        TUXEDO_DLL DISCARDABLE
".\..\..\tm_tuxedo_dll\bin\tpcc_tuxedo.dll"
#line 290
////////////////////////////////////
//
// COM_DLL
//
#line 295
IDR_COM_DLL          COM_DLL DISCARDABLE
".\..\..\tm_com_dll\bin\tpcc_com.dll"
#line 297
////////////////////////////////////
//
// COM_PS_DLL
//
#line 302
IDR_COMPS_DLL        COM_PS_DLL DISCARDABLE
".\..\..\tpcc_com_ps\bin\tpcc_com_ps.dll"
#line 304
////////////////////////////////////
//
// COM_ALL_DLL
//
#line 309
IDR_COMALL_DLL       COM_ALL_DLL DISCARDABLE
".\..\..\tpcc_com_all\bin\tpcc_com_all.dll"
#line 311
////////////////////////////////////
//
// COM_TYPLIB
//
#line 316
IDR_COMTYPLIB_DLL    COM_TYPLIB DISCARDABLE
".\..\..\tpcc_com_all\src\tpcc_com_all.tlb"
#line 318
#endif // English (U.S.) resources
////////////////////////////////////
//
//
#line 323
#ifdef APSTUDIO_INVOKED
////////////////////////////////////
//
// Generated from the TEXTINCLUDE 3 resource.
//
#line 330
////////////////////////////////////
//
#endif // not APSTUDIO_INVOKED

```

ReadRegistry.cpp

```

/*      FILE:      READREGISTRY.CPP
*
*      TPC-C Kit Ver. 4.20.000
*
*      Microsoft, 1999
*      Copyright
*      All Rights Reserved
*
*      not yet
*
*      audited
*
*      PURPOSE:  Implementation for TPC-C class.
*      Contact:  Charles Levine
*      (clevine@microsoft.com)
*
*      Change history:
*      4.20.000 - first version
*/

/* FUNCTION: ReadTPCCRegistrySettings
*
* PURPOSE:      This function reads the NT
registry for startup parameters. There parameters are
*               under the TPCC key.
*
* RETURNS      FALSE = no errors
*              TRUE  = error reading
registry
*/
BOOL ReadTPCCRegistrySettings( TPCCREGISTRYDATA *pReg
)
{
    HKEY    hKey;
    DWORD  size;
    DWORD  type;
    DWORD  dwTmp;
    char   szTmp[256];

    if ( RegOpenKeyEx(HKEY_LOCAL_MACHINE,
"SOFTWARE\Microsoft\TPCC", 0, KEY_READ, &hKey) !=
ERROR_SUCCESS )
        return TRUE;

    // determine database protocol to use;
always has to be ODBC
    pReg->eDB_Protocol = ODBC;
    size = sizeof(szTmp);
    //if ( RegQueryValueEx(hKey, "DB_Protocol",
0, &type, (BYTE *)&szTmp, &size) == ERROR_SUCCESS )
    //{
        //if ( !strcmp(szTmp,
szDBNames[ODBC] ) )
            // pReg->eDB_Protocol =
ODBC;
    //}

    pReg->eTxnMon = None;
    // determine txn monitor to use; may be
either COM, or blank

```

```

        size = sizeof(szTmp);
        if ( RegQueryValueEx(hKey, "TxnMonitor", 0,
&type, (BYTE *)&szTmp, &size) == ERROR_SUCCESS )
        {
            if ( !strcmp(szTmp,
szTxnMonNames[COM]) )
                pReg->eTxnMon = COM;
        }

        pReg->bCOM_SinglePool = FALSE;
        size = sizeof(szTmp);
        if ( RegQueryValueEx(hKey,
"COM_SinglePool", 0, &type, (BYTE *)&szTmp, &size) ==
ERROR_SUCCESS )
        {
            if ( !strcmp(szTmp, "YES") )
                pReg->bCOM_SinglePool =
TRUE;
        }

        pReg->dwMaxConnections = 0;
        size = sizeof(dwTmp);
        if ( ( RegQueryValueEx(hKey,
"MaxConnections", 0, &type, (LPBYTE)&dwTmp, &size) ==
ERROR_SUCCESS )
            && (type == REG_DWORD) )
            pReg->dwMaxConnections = dwTmp;

        pReg->dwMaxPendingDeliveries = 0;
        size = sizeof(dwTmp);
        if ( ( RegQueryValueEx(hKey,
"MaxPendingDeliveries", 0, &type, (LPBYTE)&dwTmp,
&size) == ERROR_SUCCESS )
            && (type == REG_DWORD) )
            pReg->dwMaxPendingDeliveries =
dwTmp;

        pReg->dwNumberOfDeliveryThreads = 0;
        size = sizeof(dwTmp);
        if ( ( RegQueryValueEx(hKey,
"NumberOfDeliveryThreads", 0, &type, (LPBYTE)&dwTmp,
&size) == ERROR_SUCCESS )
            && (type == REG_DWORD) )
            pReg->dwNumberOfDeliveryThreads =
dwTmp;

        size = sizeof( pReg->szPath );
        if ( RegQueryValueEx(hKey, "Path", 0,
&type, (BYTE *)&Reg->szPath, &size) != ERROR_SUCCESS
)
            pReg->szPath[0] = 0;

        size = sizeof( pReg->szDbServer );
        if ( RegQueryValueEx(hKey, "DbServer", 0,
&type, (BYTE *)&Reg->szDbServer, &size) !=
ERROR_SUCCESS )
            pReg->szDbServer[0] = 0;

        size = sizeof( pReg->szDbName );
        if ( RegQueryValueEx(hKey, "DbName", 0,
&type, (BYTE *)&Reg->szDbName, &size) !=
ERROR_SUCCESS )
            pReg->szDbName[0] = 0;

```

```

        size = sizeof( pReg->szDbUser );
        if ( RegQueryValueEx(hKey, "DbUser", 0,
&type, (BYTE *)&Reg->szDbUser, &size) !=
ERROR_SUCCESS )
            pReg->szDbUser[0] = 0;

        size = sizeof( pReg->szDbPassword );
        if ( RegQueryValueEx(hKey, "DbPassword", 0,
&type, (BYTE *)&Reg->szDbPassword, &size) !=
ERROR_SUCCESS )
            pReg->szDbPassword[0] = 0;

        size = sizeof( pReg->szSPPrefix );
        if ( RegQueryValueEx(hKey, "SPPrefix", 0,
&type, (BYTE *)&Reg->szSPPrefix, &size) !=
ERROR_SUCCESS )
            pReg->szSPPrefix[0] = 'L'\0';

        pReg->dwConnectDelay = 0;
        size = sizeof(dwTmp);
        if ( ( RegQueryValueEx(hKey,
"ConnectDelay", 0, &type, (LPBYTE)&dwTmp, &size) ==
ERROR_SUCCESS )
            && (type == REG_DWORD) )
            pReg->dwConnectDelay = dwTmp;

        pReg->bCallNoDuplicatesNewOrder = FALSE;
        size = sizeof(dwTmp);
        if ( ( RegQueryValueEx(hKey,
"CallNoDuplicatesNewOrder", 0, &type, (LPBYTE)&dwTmp,
&size) == ERROR_SUCCESS )
            && (type == REG_DWORD) )
            pReg->bCallNoDuplicatesNewOrder =
dwTmp;

        RegCloseKey(hKey);

        return FALSE;
    }

```

ReadRegistry.h

```

/*      FILE:          ReadRegistry.h
*
*      TPC-C Kit Ver. 4.69.000
*
*      Microsoft
*
*      Copyright
*
*      Microsoft, 1999
*
*      All Rights Reserved
*
*      not audited
*
*      PURPOSE:  Header for registry related code.
*
*      Change history:
*
*      4.20.000 - first version
*      4.69.000 - updated rev number to
match kit
*/

```

```

enum DBPROTOCOL { Unspecified, ODBC };
const char *szDBNames[] = { "Unspecified", "ODBC" };

enum TXNMON { None, COM };
const char *szTxnMonNames[] = { "NONE", "COM" };

//This structure defines the data necessary to keep
distinct for each terminal or client connection.
typedef struct _TPCCREGISTRYDATA
{
    enum DBPROTOCOL eDB_Protocol;
    enum TXNMON eTxnMon;
    BOOL bCOM_SinglePool;
    DWORD dwMaxConnections;
    DWORD dwMaxPendingDeliveries;
    DWORD dwNumberOfDeliveryThreads;
    char szPath[128];
    char szDbServer[32];
    char szDbName[32];
    char szDbUser[32];
    char szDbPassword[32];
    wchar_t szSPPrefix[32];
    //tpcc_odbc.dll stored procedures prefix
    DWORD dwConnectDelay; // delay in
ms to use in pacing connection open and close
    BOOL bCallNoDuplicatesNewOrder; //
whether to check for non-duplicate item ids and call
a different NewOrder SP
} TPCCREGISTRYDATA, *PTCCREGISTRYDATA;

BOOL ReadTPCCRegistrySettings( TPCCREGISTRYDATA *pReg
);

```

resource.h

```

//{{NO_DEPENDENCIES}}
// Microsoft Visual C++ generated include file.
// Used by install.rc
//
#define IDD_DIALOG1 101
#define IDI_ICON1 102
#define IDR_TPCCDLL 103
#define IDD_DIALOG2 105
#define IDI_ICON2 106
#define IDR_DELIVERY 107
#define IDD_DIALOG3 108
#define IDR_LICENSE1 112
#define IDD_DIALOG4 113
#define IDR_TPCCOBJ1 117
#define IDR_TPCCSTUB1 118
#define IDR_ODBC_DLL 123
#define IDR_COM_DLL 126
#define IDR_COMPS_DLL 127
#define IDR_COMALL_DLL 128
#define IDR_COMTYPLIB_DLL 129
#define IDR_MSVC71 130
#define BN_LOG 1001
#define ED_KEEP 1002
#define ED_THREADS 1003
#define ED_THREADS2 1004

```

```

#define IDC_PATH 1007
#define IDC_VERSION 1009
#define IDC_RESULTS 1010
#define IDC_PROGRESS1 1011
#define IDC_STATUS 1012
#define IDC_BUTTON1 1013
#define ED_MAXCONNECTION 1014
#define ED_IIS_MAX_THREAD_POOL_LIMIT 1015
#define ED_MAXDELIVERIES 1016
#define ED_WEB_SERVICE_BACKLOG_QUEUE_SIZE 1017
#define ED_IIS_THREAD_TIMEOUT 1018
#define ED_IIS_LISTEN_BACKLOG 1019
#define IDC_DBLIB 1021
#define IDC_LICENSE 1022
#define IDC_ODBC 1022
#define IDC_CONNECT_POOL 1023
#define ED_DB_SERVER 1023
#define ED_USER_CONNECT_DELAY_TIME 1024
#define ED_DB_USER_ID 1024
#define IDC_MTS 1025
#define IDC_TM_MTS 1025
#define IDC_TM_TUXEDO 1026
#define IDC_TM_NONE 1027
#define ED_DB_PASSWORD 1028
#define ED_DB_NAME 1029
#define IDC_TM_ENCINA 1030

// Next default values for new objects
//
#ifdef APSTUDIO_INVOKED
#ifdef APSTUDIO_READONLY_SYMBOLS
#define _APS_NEXT_RESOURCE_VALUE 131
#define _APS_NEXT_COMMAND_VALUE 40001
#define _APS_NEXT_CONTROL_VALUE 1031
#define _APS_NEXT_SYMED_VALUE 101
#endif
#endif

```

resource.h

```

//{{NO_DEPENDENCIES}}
// Microsoft Developer Studio generated include file.
// Used by tpcc.rc
//
#define IDD_DIALOG1 101

// Next default values for new objects
//
#ifdef APSTUDIO_INVOKED
#ifdef APSTUDIO_READONLY_SYMBOLS
#define _APS_NEXT_RESOURCE_VALUE 102
#define _APS_NEXT_COMMAND_VALUE 40001
#define _APS_NEXT_CONTROL_VALUE 1000
#define _APS_NEXT_SYMED_VALUE 101
#endif
#endif

```

rtetime.h

```

/* FILE: rtetime.h : header file
 * Copyright 1997 Microsoft Corp., All rights reserved.
 *
 * Source code licensed to Tandem Computers for Internal
 * use only. Redistribution of source or object files or
 * any derivative works is prohibited. By agreement,
 * this
 * notice may not be removed.
 *
 * Authors: Charles Levine, Philip Durr
 * Microsoft Corp.
 */

//FILE: RTETIME.H

#define MAX_JULIAN_TIME 0x7FFFFFFFFFFFFFFF
#define JULIAN_TIME __int64
#define TC_TIME DWORD
extern "C"
{
    BOOL InitJulianTime(LPSYSTEMTIME lpInitTime);
    JULIAN_TIME GetJulianTime(void);
    DWORD MyTickCount(void);
    void GetJulianAndTC(JULIAN_TIME *pJulian, DWORD *pTC);
    JULIAN_TIME ConvertTo64BitTime(int iYear, int iMonth, int iDay, int iHour, int iMinute, int iSecond);
    JULIAN_TIME Get64BitTime(LPSYSTEMTIME lpInitTime);
    int JulianDay( int yr, int mm, int dd );
    void JulianToTime(JULIAN_TIME julianTS, int* yr, int* mm, int* dd, int* hh, int* mi, int* ss );
    void JulianToCalendar( int day, int* yr, int* mm, int* dd );
}

```

spinlock.h

```

/* FILE: SPINLOCK.H
 *
 * Copyright 1997 Microsoft Corp., All rights reserved.
 *
 * Source code licensed to Tandem Computers for Internal
 * use only. Redistribution of source or object files or

```

```

* any derivative works is prohibited. By agreement,
this
* notice may not be removed.
 *
 * Authors: Mike Parkes, Charles Levine, Philip Durr
 * Microsoft Corp.
 */

#ifdef _INC_Spinlock
    const LONG LockClosed = 1;
    const LONG LockOpen = 0;

    /*****
    *****
    * Spinlock and Semaphore locking.
    *
    * This class provides a very conservative locking scheme.
    * The assumption behind the code is that locks will be held for a very short time. When a lock is taken a memory location is exchanged. All other threads that want this lock wait by spinning and sometimes sleeping on a semaphore until it becomes free again. The only other choice is not to wait at all and move on to do something else. This module should normally be used in conjunction with cache aligned memory in minimize cache line misses.
    *****
    *****/

    class Spinlock
    {
    private:
        HANDLE Semaphore;
        volatile LONG m_Spinlock;
        volatile LONG Waiting;

    #ifdef _DEBUG
        // Counters for debugging builds.
        volatile LONG TotalLocks;
        volatile LONG TotalSleeps;
        volatile LONG TotalSpins;
        volatile LONG TotalWaits;
    #endif
    };

```



```

        public:
            // Public functions.
            Spinlock( void );

            inline BOOL ClaimLock(
                BOOL Wait = TRUE );

            ReleaseLock( void );

            Spinlock & Copy );

            Spinlock & Copy );

        private:
            // Private functions.
            inline BOOL
            ClaimSpinlock( volatile LONG *sl );
            void WaitForLock( void
            );
            void WakeAllSleepers(
            void );
        };

        /*****
        *
        * A guaranteed atomic exchange.
        *
        * An attempt is made to claim the
        Spinlock. This action is
        * guaranteed to be atomic.
        *
        *****/

        inline BOOL Spinlock::ClaimSpinlock(
        volatile LONG *Spinlock )
        {
            #ifdef _DEBUG
                InterlockedIncrement(
                (LPLONG) & TotalLocks );
            #endif
            return ( (*Spinlock) ==
            LockOpen) && (InterlockedExchange( (LPLONG)Spinlock,
            LockClosed ) == LockOpen );
        }

        /*****
        *
        * Claim the Spinlock.
        *
        * Claim the lock if available else wait
        or exit.
        *
        *****/
    
```

```

        inline BOOL Spinlock::ClaimLock( BOOL Wait
        )
        {
            if ( ! ClaimSpinlock( (volatile
            LONG*) & m_Spinlock ) )
                if ( Wait )
                    WaitForLock();
            return Wait;
        }
        return TRUE;
    }

    /*****
    *
    * Release the Spinlock.
    *
    * Release the lock and if needed wakeup
    any sleepers.
    *
    *****/

    inline void Spinlock::ReleaseLock( void )
    {
        m_Spinlock = LockOpen;
        if ( Waiting > 0 )
            WakeAllSleepers();
    }

    #define _INC_Spinlock

    #endif
    
```

tpcc.cpp

```

    /* FILE: TPCC.C Microsoft
    * TPC-C Kit Ver. 4.69.000 Copyright
    * Microsoft, 1999 All Rights Reserved
    * Version
    * 4.10.000 audited by Richard Gimarc, Performance
    Metrics, 3/17/99
    *
    * PURPOSE: Main module for TPCC.DLL which is
    an ISAPI service dll.
    * Contact: Charles Levine
    (clevine@microsoft.com)
    *
    * Change history:
    * 4.20.000 - reworked error
    handling; added options for COM and Encina txn
    monitors
    */
    
```

```

        *
        * 4.69.000 - updated rev number to
        match kit
        */

        #include <windows.h>
        #include <process.h>
        #include <tchar.h>
        #include <stdio.h>
        #include <stdarg.h>
        #include <malloc.h>
        #include <stdlib.h>
        #include <string.h>
        #include <time.h>
        #include <sys\timeb.h>
        #include <io.h>
        #include <assert.h>

        #include <sqltypes.h>

        #ifdef ICECAP
        #include <icapexp.h>
        #endif

        #include "..\..\common\src\trans.h"
        //tpckit transaction header contains
        definitions of structures specific to TPC-C
        #include "..\..\common\src\error.h"
        #include "..\..\common\src\txn_base.h"
        #include "..\..\common\src\ReadRegistry.h"

        #include "..\..\common\txnlog\include\rtetime.h"
        #include "..\..\common\txnlog\include\spinlock.h"
        #include "..\..\common\txnlog\include\txnlog.h"

        // Database layer includes
        #include "..\..\db_odbc_dll\src\tpcc_odbc.h"
        // ODBC implementation of TPC-C txns

        // Txn monitor layer includes
        #include "..\..\tm_com_dll\src\tpcc_com.h"
        // COM Services implementation on
        TPC-C txns

        #include "httpext.h"
        //ISAPI DLL information header
        #include "tpcc.h"
        //this dlls specific structure, value e.t.
        header.

        #define LEN_ERR_STRING 256

        // defines for Make<Txn>Form calls to distinguish
        input and output flavors
        #define OUTPUT_FORM 0
        #define INPUT_FORM 1

        char
            szMyComputerName[MAX_COMPUTERNAME_LENGTH+1]
        ;

        //Terminal client id structure
        TERM Term = { 0, 0, 0, NULL };
    
```

```

// The WEBCLIENT_VERSION string specifies the version
level of this web client interface.
// The RTE must be synchronized with the interface
level on login, otherwise the login
// will fail. This is a sanity check to catch
problems resulting from mismatched versions
// of the RTE and web client.
#define WEBCLIENT_VERSION "420"

static CRITICAL_SECTION
TermCriticalSection;

static HINSTANCE hLibInstanceTm = NULL;
static HINSTANCE hLibInstanceDb = NULL;

TYPE_CTPCC_ODBC *pCTPCC_ODBC_new;
TYPE_CTPCC_COM *pCTPCC_COM_new;

// For deferred Delivery txns:
CTxnLog
*txnDelilog = NULL;
//used to log delivery transaction
information
HANDLE hWorkerSemaphore = INVALID_HANDLE_VALUE;
HANDLE hDoneEvent =
INVALID_HANDLE_VALUE;
HANDLE *pDeliHandles = NULL;

// configuration settings from registry
TPCCREGISTRYDATA Reg;

DWORD dwNumDeliveryThreads = 4;
CRITICAL_SECTION DelBuffCriticalSection;
//critical section for delivery
transactions cache
DELIVERY_TRANSACTION *pDelBuff
= NULL;

DWORD dwDelBuffSize = 100;
// size of circular buffer for delivery

txns
DWORD dwDelBuffFreeCount;
// number of buffers free

DWORD dwDelBuffBusyIndex = 0;
//
index position of entry waiting to be delivered
DWORD dwDelBuffFreeIndex = 0;
//
index position of unused entry

// Critical section to synchronize connection open
and close.
//
CRITICAL_SECTION hConnectCriticalSection;

```

```

#include "..\..\common\src\ReadRegistry.cpp"

/* FUNCTION: DllMain
*
* PURPOSE: This function is the entry point
for the DLL. This implementation is based on the
* fact that
DLL_PROCESS_ATTACH is only called from the inet
service once.
*
* ARGUMENTS: HANDLE hModule
module handle
*
* ul_reason_for_call reason for call
*
* lpReserved LPVOID
reserved for future use
*
* RETURNS: BOOL FALSE
errors occurred in
initialization
*
TRUE DLL
successfully initialized
*/

BOOL APIENTRY DllMain(HANDLE hModule, DWORD
ul_reason_for_call, LPVOID lpReserved)
{
    DWORD i;
    char szEvent[LEN_ERR_STRING] = "\0";
    char szLogFile[128];
    char szDllName[128];

    // debugging...
    // DebugBreak();

    try
    {
        switch( ul_reason_for_call )
        {
            case
            DLL_PROCESS_ATTACH:
            {
                DWORD dwSize = MAX_COMPUTERNAME_LENGTH+1;
                GetComputerName(szMyComputerName, &dwSize);
                szMyComputerName[dwSize] = 0;
            }
            DisableThreadLibraryCalls((HMODULE)hModule)
            ;
            InitializeCriticalSection(&TermCriticalSection);
            if (
            ReadTPCCRegistrySettings( &Reg ) )

```

```

        throw new CWEBCLNT_ERR(
ERR_MISSING_REGISTRY_ENTRIES );

        dwDelBuffSize
= min( Reg.dwMaxPendingDeliveries, 10000 ); // min
with 10000 as a sanity constraint

        dwNumDeliveryThreads = min(
Reg.dwNumberOfDeliveryThreads, 100 ); // min with
100 as a sanity constraint

        TermInit();

        if
(Reg.eTxnMon == COM)
        {
            strcpy( szDllName, Reg.szPath );
            strcat( szDllName, "tpcc_com.dll" );

            hLibInstanceTm = LoadLibrary( szDllName );
            if
(hLibInstanceTm == NULL)
            throw new CWEBCLNT_ERR( ERR_LOADDLL_FAILED,
szDllName, GetLastError() );

            //
            get function pointer to wrapper for class constructor
            pCTPCC_COM_new = (TYPE_CTPCC_COM*)
GetProcAddress(hLibInstanceTm, "CTPCC_COM_new");
            if
(pCTPCC_COM_new == NULL)
            throw new CWEBCLNT_ERR(
ERR_GETPROCADDR_FAILED, szDllName, GetLastError() );

            // load DLL
            for database connection
            if
((Reg.eTxnMon == None) || (dwNumDeliveryThreads > 0))
            {
                if
(Reg.eDB_Protocol == ODBC)
                {
                    strcpy( szDllName, Reg.szPath );
                    strcat( szDllName, "tpcc_odbc.dll" );

                    hLibInstanceDb = LoadLibrary( szDllName );

                    if (hLibInstanceDb == NULL)
                        throw new CWEBCLNT_ERR(
ERR_LOADDLL_FAILED, szDllName, GetLastError() );

```

```

// get function pointer to wrapper for
class constructor

pCTPCC_ODBC_new = (TYPE_CTPCC_ODBC*)
GetProcAddress(hLibInstanceDb,"CTPCC_ODBC_new");

if (pCTPCC_ODBC_new == NULL)

    throw new CWEBCLNT_ERR(
ERR_GETPROCADDR_FAILED, szDllName, GetLastError() );

    }
}

// Check
whether Service Pack 1 has been installed if
// running on
Windows Server 2003. The RTM version has
// a
limitation on concurrent HTTP connections.
//
OSVERSIONINFOEX VersionInfo;

VersionInfo.dwOSVersionInfoSize =
sizeof(OSVERSIONINFOEX);
if
(GetVersionEx((LPOSVERSIONINFO)&VersionInfo))
{
if
(VersionInfo.dwMajorVersion == 5 && // Windows
2000/2003 Server?
VersionInfo.dwMinorVersion == 2 && //
Windows 2003 Server?
VersionInfo.wServicePackMajor == 0) //
Service Pack installed?
{

TCHAR szMsg[256];

_sntprintf(szMsg, sizeof(szMsg),

"\nRunning on
Windows Server 2003 without at least Service Pack
1\n"

"limits the
number of concurrent HTTP connections to around
8000");

// Use event logging to log the error.

//
HANDLE hEventSource =
RegisterEventSource(NULL, TEXT("TPCC.DLL"));

```

```

LPTSTR lpszStrings[1] = { szMsg };

if (hEventSource != NULL)
{
    ReportEvent(hEventSource, //
handle of event source

EVENTLOG_WARNING_TYPE,

// event type

0,

// event category

0,

// event ID

NULL,

// current user's SID

1,

// strings in lpszStrings

0,

// no bytes of raw data

(LPCTSTR *)lpszStrings,

// array of error strings

NULL);

// no raw data

(VOID)
DeregisterEventSource(hEventSource);

}

}

if
(dwNumDeliveryThreads)
{
Initialize delivery delay critical section
//
InitializeCriticalSection(&hConnectCritical
Section);
//
for deferred delivery txns:

hDoneEvent = CreateEvent( NULL, TRUE /*
manual reset */, FALSE /* initially not signalled */,
NULL );

```

```

InitializeCriticalSection(&DelBuffCriticalS
ection);

hWorkerSemaphore = CreateSemaphore( NULL,
0, dwDelBuffSize, NULL );

dwDelBuffFreeCount = dwDelBuffSize;

InitJulianTime(NULL);

//
create unique log file name based on delilog-yyymmdd-
hhmm.log

SYSTEMTIME Time;

GetLocalTime( &Time );

wsprintf( szLogFile, "%sdelivery-
%2.2d%2.2d%2.2d-%2.2d%2.2d-%2.2ds%2.2dms.log",

Reg.szPath, Time.wYear % 100, Time.wMonth,
Time.wDay, Time.wHour, Time.wMinute, Time.wSecond,
Time.wMilliseconds );

txnDelilog = new CTxnLog(szLogFile,
TXN_LOG_WRITE);

//write event into txn log for START

txnDelilog-
>WriteCtrlRecToLog(TXN_EVENT_START, szMyComputerName,
sizeof(szMyComputerName));

//
allocate structures for delivery buffers and thread
mgmt

pDeliHandles = new
HANDLE[dwNumDeliveryThreads];

pDelBuff = new
DELIVERY_TRANSACTION[dwDelBuffSize];

//
launch DeliveryWorkerThread to perform actual
delivery txns

for(i=0; i<dwNumDeliveryThreads; i++)
{
pDeliHandles[i] = (HANDLE) _beginthread(
DeliveryWorkerThread, 0, NULL );

if (pDeliHandles[i] ==
INVALID_HANDLE_VALUE)

throw new CWEBCLNT_ERR(
ERR_DELIVERY_THREAD_FAILED );

}
}

```

```

                break;
            case
DLL_PROCESS_DETACH:
                if
(dwNumDeliveryThreads)
                {
                    if
(txnDelilog != NULL)
                    {
                        //write event into txn log for STOP
                        txnDelilog-
>WriteCtrlRecToLog(TXN_EVENT_STOP, szMyComputerName,
sizeof(szMyComputerName));

                        // This will do a clean shutdown of the
delivery log file
                        CTxnLog *txnDelilogLocal = txnDelilog;
                        txnDelilog= NULL;
                        delete txnDelilogLocal;
                    }

                    delete [] pDeliHandles;
                    delete [] pDelBuff;

                    CloseHandle( hWorkerSemaphore );
                    CloseHandle( hDoneEvent );

                    DeleteCriticalSection(&DelBuffCriticalSecti
on);

                    Delete delivery delay critical section
                    //
                    DeleteCriticalSection(&hConnectCriticalSect
ion);
                    }

                    DeleteCriticalSection(&TermCriticalSection)
;

                    if
(hLibInstanceTm != NULL)
                    FreeLibrary( hLibInstanceTm );
                    hLibInstanceTm = NULL;

                    if
(hLibInstanceDb != NULL)

```

```

FreeLibrary( hLibInstanceDb );
hLibInstanceDb = NULL;

Sleep(500);
break;

default:
/* nothing
*/;
}
}
catch (CBaseErr *e)
{
    TCHAR szMsg[256];
    _sntprintf(szMsg, sizeof(szMsg),
"%s error, code %d: %s",
e-
>ErrorTypeStr(), e->ErrorNum(), e->ErrorText());
    WriteMessageToEventLog( szMsg );
    delete e;
    TerminateExtension(0);
    return FALSE;
}
catch (...)
{
    WriteMessageToEventLog(TEXT("Unhandled
exception. DLL could not load.));
    TerminateExtension(0);
    return FALSE;
}

return TRUE;
}

/* FUNCTION: GetExtensionVersion
*
* PURPOSE: This function is called by the
inet service when the DLL is first loaded.
*
* ARGUMENTS: HSE_VERSION_INFO *pVer
passed in structure in which to place
expected version number.
*
* RETURNS: TRUE inet service
expected return value.
*/

BOOL WINAPI GetExtensionVersion(HSE_VERSION_INFO
*pVer)
{
    pVer->dwExtensionVersion =
MAKELONG(HSE_VERSION_MINOR, HSE_VERSION_MAJOR);
    lstrcpy(pVer->lpszExtensionDesc, "TPC-C
Server.", HSE_MAX_EXT_DLL_NAME_LEN);

    return TRUE;
}

```

```

/* FUNCTION: TerminateExtension
*
* PURPOSE: This function is called by the
inet service when the DLL is about to be unloaded.
*
* Release all resources
in anticipation of being unloaded.
*
* RETURNS: TRUE inet service
expected return value.
*/

BOOL WINAPI TerminateExtension( DWORD dwFlags )
{
    if (pDeliHandles)
    {
        SetEvent( hDoneEvent );
        for(DWORD i=0;
i<dwNumDeliveryThreads; i++)
        WaitForSingleObject(
pDeliHandles[i], INFINITE );
    }

    TermDeleteAll();
    return TRUE;
}

/* FUNCTION: HttpExtensionProc
*
* PURPOSE: This function is the main entry
point for the TPC DLL. The internet service
*
* calls this function
passing in the http string.
*
* ARGUMENTS: EXTENSION_CONTROL_BLOCK
*pECB
structure pointer to passed in
internet
*
*
* service information.
*
* RETURNS: DWORD
HSE_STATUS_SUCCESS
connection can be dropped if
error
*
* HSE_STATUS_SUCCESS_AND_KEEP_CONN
keep connect valid comment sent
*
* COMMENTS: None
*
*/

DWORD WINAPI
HttpExtensionProc(EXTENSION_CONTROL_BLOCK *pECB)
{
    int TermId,
iSyncId;
    char szBuffer[4096];

    int lpbSize;
    static char szHeader[] = "200 Ok";
}

```

```

        DWORD          dwSize = 6;
        // initial value is strlen(szHeader)
        char           szHeader1[4096];
        DWORD          dwAddr; // used to
store Win32 exception address
LPEXCEPTION_POINTERS
pExceptionInfo; // pointer to Win32
exception info

#ifdef ICECAP
    StartCAP();
#endif

    // Use structured exception handling for
Win32 exceptions
    //
    __try
    {
        ProcessCommand(pECB, szBuffer,
TermId, iSyncId);
    }
    __except (
        pExceptionInfo =
GetExceptionInformation(), // can call
GetExceptionInformation only in filter (not handler)
        dwAddr =
(DWORD)pExceptionInfo->ExceptionRecord-
>ExceptionAddress, // save the address

        EXCEPTION_EXECUTE_HANDLER) // handle all
exceptions
    {
        char
szMsg[512];
        int
iLen;

        MEMORY_BASIC_INFORMATION mbi ;
        VirtualQuery( (void*)dwAddr,
&mbi, sizeof( mbi ) );
        DWORD hInstance =
(DWORD)mbi.AllocationBase ;

        iLen = wsprintf(szMsg,
TEXT("Unhandled exception (%#x) in Web Client's
HttpExtensionProc. "
        "Occured at
address %#x, base %#x, tpcc_com.dll at %#x, tpcc.dll
at %#x, tpcc_com_all.dll at %#x"),

        GetExceptionCode(), dwAddr, hInstance,

        GetModuleHandle("tpcc_com.dll"),
GetModuleHandle("tpcc.dll"),
GetModuleHandle("tpcc_com_all.dll"));

        if (txnDelilog != NULL)
        {
            txnDelilog-
>WriteCtrlRecToLog(TXN_EVENT_WARNING, szMsg, iLen +
1);
        }
    }

```

```

        ErrorForm( pECB, ERR_TYPE_WEBDLL,
GetExceptionCode(), TermId, iSyncId, szMsg, szBuffer
);
    }
}

#ifdef ICECAP
    StopCAP();
#endif

    lpbSize = strlen(szBuffer);
    dwSize += lpbSize;
    dwSize += wsprintf(szHeader1,
        "Content-Type:
text/html\r\n"
        "Content-Length:
%d\r\n"
        "Connection: Keep-
Alive\r\n\r\n", lpbSize);
    strcat( szHeader1, szBuffer );

    (*pECB->ServerSupportFunction)(pECB-
>ConnID, HSE_REQ_SEND_RESPONSE_HEADER, szHeader,
(LPDWORD) &dwSize, (LPDWORD)szHeader1);

    //finish up and keep connection
    pECB->dwHttpStatusCode = 200;
    return HSE_STATUS_SUCCESS_AND_KEEP_CONN;
}

/* FUNCTION: ProcessCommand
 *
 * PURPOSE: This function parses the commands
from the driver and executes corresponding
transactions.
 *
 * ARGUMENTS: EXTENSION_CONTROL_BLOCK
*pECB structure pointer to passed in
internet
 *
 * service information.
 *
 * RETURNS: None (outputs into the
szBuffer parameter).
 *
 * COMMENTS: Separated from HttpExtensionProc
to be able to use structured exception handling in
 *
 * HttpExtensionProc (cannot mix C++ and Win32
exceptions in one functions).
 *
 */
void ProcessCommand(EXTENSION_CONTROL_BLOCK *pECB,
char* szBuffer, int& TermId, int& iSyncId)
{
    int iCmd, FormId;

    try
    {
        //process http query
        ProcessQueryString(pECB, &iCmd,
&FormId, &TermId, &iSyncId);
    }
}

```

```

        if (TermId != 0)
        {
            if ( TermId < 0 ||
TermId >= Term.iNumEntries ||
Term.pClientData[TermId].iNextFree != -1 )
            {
                //
                char
szTmp[128];
                wsprintf(
szTmp, "Invalid term ID; TermId = %d", TermId );
                WriteMessageToEventLog( szTmp );
                throw new
CWEBCLNT_ERR( ERR_INVALID_TERMID );
            }
            //must have a valid
syncid here since termid is valid
            if (iSyncId !=
Term.pClientData[TermId].iSyncId)
            throw new
CWEBCLNT_ERR( ERR_INVALID_SYNC_CONNECTION );
            //set use time
            Term.pClientData[TermId].iTickCount =
GetTickCount();
        }

        switch(iCmd)
        {
            case 0:
                WelcomeForm(pECB,
szBuffer);
                break;
            case 1:
                switch( FormId )
                {
                    case WELCOME_FORM:
                    case MAIN_MENU_FORM:
                    case NEW_ORDER_FORM:
                        ProcessNewOrderForm(pECB, TermId,
szBuffer);
                        break;
                    case PAYMENT_FORM:
                        ProcessPaymentForm(pECB, TermId, szBuffer);
                        break;
                    case DELIVERY_FORM:
                        ProcessDeliveryForm(pECB, TermId,
szBuffer);
                        break;
                    case ORDER_STATUS_FORM:
                        ProcessOrderStatusForm(pECB, TermId,
szBuffer);
                }
            }
        }
    }
}

```

```

                break;
            case STOCK_LEVEL_FORM:
                ProcessStockLevelForm(pECB, TermId,
szBuffer);
                break;
        }
        break;
    case 2:
        // new-order selected
from menu; display new-order input form
        MakeNewOrderForm(TermId, NULL, INPUT_FORM,
szBuffer);
        break;
    case 3:
        // payment selected
from menu; display payment input form
        MakePaymentForm(TermId,
NULL, INPUT_FORM, szBuffer);
        break;
    case 4:
        // delivery selected
from menu; display delivery input form
        MakeDeliveryForm(TermId, NULL, INPUT_FORM,
szBuffer);
        break;
    case 5:
        // order-status
selected from menu; display order-status input form
        MakeOrderStatusForm(TermId, NULL,
INPUT_FORM, szBuffer);
        break;
    case 6:
        // stock-level selected
from menu; display stock-level input form
        MakeStockLevelForm(TermId, NULL,
INPUT_FORM, szBuffer);
        break;
    case 7:
        // ExitCmd
TermDelete(TermId);
WelcomeForm(pECB,
szBuffer);
        break;
    case 8:
        SubmitCmd(pECB,
szBuffer);
        break;
    case 9:
        // menu
        MakeMainMenuForm(TermId,
Term.pClientData[TermId].iSyncId, szBuffer);
        break;
    case 10:
        // CMD=Clear
// resets all
connections; should only be used when no other
connections are active

```

```

TermDeleteAll();
TermInit();
WelcomeForm(pECB,
szBuffer);
        break;
    case 11:
        // CMD=Stats
StatsCmd(pECB,
szBuffer);
        break;
    }
}
catch (CBaseErr *e)
{
    ErrorForm( pECB, e->ErrorType(),
e->ErrorNum(), TermId, iSyncId, e->ErrorText(),
szBuffer );
    delete e;
}

void WriteMessageToEventLog(LPTSTR lpszMsg)
{
    TCHAR    szMsg[256];
    HANDLE   hEventSource;
    LPTSTR   lpszStrings[2];

    // Use event logging to log the error.
    //
    hEventSource = RegisterEventSource(NULL,
TEXT("TPCC.DLL"));

    _stprintf(szMsg, TEXT("Error in TPCC.DLL: "));
    lpszStrings[0] = szMsg;
    lpszStrings[1] = lpszMsg;

    if (hEventSource != NULL)
    {
        ReportEvent(hEventSource, // handle of event
source
        EVENTLOG_ERROR_TYPE, // event type
        0, // event category
        0, // event ID
        NULL, // current user's
SID
        2, // strings in
lpszStrings
        0, // no bytes of raw
data
        (LPCTSTR *)lpszStrings, // array of
error strings
        NULL); // no raw data

        (VOID) DeregisterEventSource(hEventSource);
    }
}

/* FUNCTION: DeliveryWorkerThread
*
* PURPOSE: This function processes deferred
delivery txns. There are typically several

```

```

*
* threads running this
routine. The number of threads is determined by an
entry
*
* read from the registry.
The thread waits for work by waiting on semaphore.
*
* When a delivery txn is
posted, the semaphore is released. After processing
*
* the delivery txn,
information is logged to record the txn status and
execution
*
* time.
*/

/*static*/ void DeliveryWorkerThread(void *ptr)
{
    CTPCC_BASE *pTxn = NULL;

    DELIVERY_TRANSACTION
    delivery;
    PDELIVERY_DATA
    pDeliveryData;
    TXN_RECORD_TPCC_DELIV_DEF txnDeliRec;

    DWORD
    index;
    HANDLE
    handles[2];

    SYSTEMTIME trans_end;
    //delivery transaction finished
time
    SYSTEMTIME trans_start;
    //delivery transaction start time
    assert(txnDeliLog != NULL);

    try
    {
        if (Reg.eDB_Protocol == ODBC)
        {
            if (Reg.dwConnectDelay
> 0)
            {
                //
                Synchronize connect (for VIA)
                //
                EnterCriticalSection(&hConnectCriticalSecti
on);
                Sleep(Reg.dwConnectDelay);
                LeaveCriticalSection(&hConnectCriticalSecti
on);
            }
            pTxn = pCTPCC_ODBC_new(
Reg.szDbServer, Reg.szDbUser, Reg.szDbPassword,
szMyComputerName, Reg.szDbName,

```

```

        Reg.szSPPrefix,
Reg.bCallNoDuplicatesNewOrder );

        }
        pDeliveryData = pTxn-
>BuffAddr_Delivery();
    }
    catch (CBaseErr *e)
    {
        char szTmp[1024];
        wsprintf( szTmp, "Error in
Delivery Txn thread. Could not connect to database.
"
                "%s.
Server=%s, User=%s, Password=%s, Database=%s",
                e-
>ErrorText(), Reg.szDbServer, Reg.szDbUser,
Reg.szDbPassword, Reg.szDbName );
        WriteMessageToEventLog( szTmp );
        delete e;
        goto ErrorExit;
    }
    catch (...)
    {
        WriteMessageToEventLog(TEXT("Unhandled
exception caught in DeliveryWorkerThread.));
        goto ErrorExit;
    }
    while (TRUE)
    {
        try
        {
            //while delivery thread
running, i.e. user has not requested termination
            while (TRUE)
            {
                // need to
wait for multiple objects: program exit or worker
semaphore;
                handles[0] =
hDoneEvent;
                handles[1] =
hWorkerSemaphore;
                index =
WaitForMultipleObjects( 2, &handles[0], FALSE,
INFINITE );
                if (index ==
WAIT_OBJECT_0)
                    goto ErrorExit;

                ZeroMemory(&txnDeliRec,
sizeof(txnDeliRec));
                txnDeliRec.TxnType =
TXN_REC_TYPE_TPCC_DELIV_DEF;

```

```

// make a
local copy of current entry from delivery buffer and
increment buffer index

        EnterCriticalSection(&DelBuffCriticalSectio
n);
        delivery =
*(pDelBuff+dwDelBuffBusyIndex);
        dwDelBuffFreeCount++;
        dwDelBuffBusyIndex++;
        if
(dwDelBuffBusyIndex == dwDelBuffSize) // wrap-
around if at end of buffer
            dwDelBuffBusyIndex = 0;
        LeaveCriticalSection(&DelBuffCriticalSectio
n);
        pDeliveryData->w_id = delivery.w_id;
        pDeliveryData->o_carrier_id =
delivery.o_carrier_id;
        txnDeliRec.w_id = pDeliveryData->w_id;
        txnDeliRec.o_carrier_id = pDeliveryData-
>o_carrier_id;
        txnDeliRec.TxnStartT0 =
Get64BitTime(&delivery.queue);
        GetLocalTime(
&trans_start );
        pTxn-
>Delivery();
        GetLocalTime(
&trans_end );
        //log txn
        txnDeliRec.TxnStatus = ERR_SUCCESS;
        for (int i=0;
i<10; i++)
            txnDeliRec.o_id[i] = pDeliveryData-
>o_id[i];
        txnDeliRec.DeltaT4 =
(int)(Get64BitTime(&trans_end) -
txnDeliRec.TxnStartT0);
        txnDeliRec.DeltaTxnExec =
(int)(Get64BitTime(&trans_end) -
Get64BitTime(&trans_start));
        if
(txnDeliLog != NULL)

```

```

        txnDeliLog->WriteToLog(&txnDeliRec);
    }
    }
    catch (CBaseErr *e)
    {
        char szTmp[1024];
        wsprintf( szTmp, "%s
Error (code %d) in Delivery Txn thread. %s",
                e->ErrorTypeStr(), e->ErrorNum(), e->ErrorText() );
        WriteMessageToEventLog(
szTmp );
        // log the error txn
        txnDeliRec.TxnStatus =
e->ErrorType();
        if (txnDeliLog != NULL)
            txnDeliLog-
>WriteToLog(&txnDeliRec);
        delete e;
    }
    catch (...)
    {
        // unhandled exception;
shouldn't happen; not much we can do...
        WriteMessageToEventLog(TEXT("Unhandled
exception caught in DeliveryWorkerThread.));
    }
    ErrorExit:
    if (Reg.dwConnectDelay > 0)
    {
        // Synchronize disconnect (for
VIA)
        //
        EnterCriticalSection(&hConnectCriticalSecti
on);
        Sleep(Reg.dwConnectDelay);
    }
    delete pTxn;
    if (Reg.dwConnectDelay > 0)
    {
        // Synchronize disconnect (for
VIA)
        //
        LeaveCriticalSection(&hConnectCriticalSecti
on);
    }
    _endthread();
}
/* FUNCTION: PostDeliveryInfo
*

```

```

* PURPOSE:      This function enters the delivery
txn into the deferred delivery buffer.
*
* RETURNS:      BOOL      FALSE
                delivery information posted successfully
*
                TRUE      error cannot post delivery info
*/

BOOL PostDeliveryInfo(long w_id, short o_carrier_id)
{
    BOOL bError;

    EnterCriticalSection(&DelBuffCriticalSection);
    if (dwDelBuffFreeCount > 0)
    {
        bError = FALSE;
        (pDelBuff+dwDelBuffFreeIndex)-
        = w_id;
        (pDelBuff+dwDelBuffFreeIndex)-
        = o_carrier_id;

        GetLocalTime(&(pDelBuff+dwDelBuffFreeIndex)-
        ->queue);

        dwDelBuffFreeCount--;
        dwDelBuffFreeIndex++;
        if (dwDelBuffFreeIndex ==
        dwDelBuffSize)
            dwDelBuffFreeIndex = 0;
        // wrap-around if at end of
        buffer
    }
    else
        // No free buffers. Return an
        error, which indicates that the delivery buffer is
        full.
        // Most likely, the number of
        delivery worker threads needs to be increased to keep
        up
        // with the txn rate.
        bError = TRUE;
        LeaveCriticalSection(&DelBuffCriticalSection);
    }

    if (!bError)
        // increment worker semaphore to
        wake up a worker thread
        ReleaseSemaphore(
        hWorkerSemaphore, 1, NULL );

    return bError;
}

/* FUNCTION: ProcessQueryString
*
* PURPOSE:      This function extracts the
relevent information out of the http command passed in
from
*
                the browser.
*

```

```

* COMMENTS:      If this is the initial connection
i.e. client is at welcome screen then
*
                there will
not be a terminal id or current form id. If this is
the case
*
                then the
pTermid and pFormid return values are undefined.
*/

void ProcessQueryString(EXTENSION_CONTROL_BLOCK
*pECB, int *pCmd, int *pFormId, int *pTermId, int
*pSyncId)
{
    char *ptr = pECB->lpszQueryString;
    char szBuffer[25];
    int i;

    //allowable client command strings i.e.
    CMD=command
    static char *szCmds[] =
    {
        "Process", "..NewOrder..",
        "..Payment..", "..Delivery..", "..Order-Status..",
        "..Stock-Level..",
        "..Exit..", "Submit", "Menu",
        "Clear", "Stats", ""
    };

    *pCmd = 0; // default is
the login screen
    *pTermId = 0;

    // if no params (i.e., empty query string),
then return login screen
    if (strlen(pECB->lpszQueryString) == 0)
        return;

    // parse FORMID, TERMID, and SYNCID
    *pFormId = GetIntKeyValue(&ptr, "FORMID",
    NO_ERR, NO_ERR);
    *pTermId = GetIntKeyValue(&ptr, "TERMID",
    NO_ERR, NO_ERR);
    *pSyncId = GetIntKeyValue(&ptr, "SYNCID",
    NO_ERR, NO_ERR);

    // parse CMD
    GetKeyValue(&ptr, "CMD", szBuffer,
    sizeof(szBuffer), ERR_COMMAND_UNDEFINED);

    // see which command it matches
    for(i=0; i++)
    {
        if (szCmds[i][0] == 0)
            // no more; no match;
return error
            throw new CWEBCLNT_ERR(
            ERR_COMMAND_UNDEFINED );
        if ( !strcmp(szCmds[i], szBuffer)
        )
        {
            *pCmd = i+1;
            break;
        }
    }
}

```

```

}

/* FUNCTION: void WelcomeForm
*
*/

void WelcomeForm(EXTENSION_CONTROL_BLOCK *pECB, char
*szBuffer)
{
    char szTmp[1024];

    //welcome to tpc-c html form buffer, this
is first form client sees.
    strcpy( szBuffer,
    "<HTML><HEAD><TITLE>TPC-C Web
Client</TITLE></HEAD><BODY>"

    "<B><BIG>Microsoft TPC-C Web Client (ver
4.69)</BIG></B> <BR> <BR>"

    "<font face=\"Courier New\"><PRE>"

    "Compiled:  __DATE__  __TIME__ <BR>"

    "Source:  __FILE__  (__TIMESTAMP__)"

    "<BR>"

    "</PRE></font>"

    "<FORM ACTION=\"tpcc.dll\" METHOD=\"GET\""

    "<INPUT TYPE=\"hidden\" NAME=\"STATUSID\"
VALUE=\"0\""

    "<INPUT TYPE=\"hidden\" NAME=\"ERROR\"
VALUE=\"0\""

    "<INPUT TYPE=\"hidden\" NAME=\"FORMID\"
VALUE=\"1\""

    "<INPUT TYPE=\"hidden\" NAME=\"TERMID\"
VALUE=\"0\""

    "<INPUT TYPE=\"hidden\" NAME=\"SYNCID\"
VALUE=\"0\""

    "<INPUT TYPE=\"hidden\" NAME=\"VERSION\"
VALUE=\"\" WEBCLIENT_VERSION \"\""
    );

    sprintf( szTmp,
    "Configuration
Settings: <BR><font face=\"Courier New\"
color=\"blue\"><PRE>"

    "Txn Monitor          = <B>%s</B><BR>"

    "Database protocol     = <B>%s</B><BR>"

    "Max Connections      = <B>%d</B><BR>"

    "of Delivery Threads  = <B>%d</B><BR>"
    "#

```



```

"Max Pending Deliveries = <B>%d</B><BR>"
szTxnMonNames[Reg.eTxnMon],
szDBNames[Reg.eDB_Protocol],
    Reg.dwMaxConnections,
dwNumDeliveryThreads, dwDelBuffSize );
strcat( szBuffer, szTmp);

if (Reg.eTxnMon == COM)
{
    sprintf( szTmp, "COM Single
Pool = <B>%s</B><BR>",
    Reg.bCOM_SinglePool ?
"YES" : "NO" );
    strcat( szBuffer, szTmp);
}
strcat( szBuffer, "</PRE></font>");

if (Reg.eTxnMon == None)
    // connection options may be
specified when not using a txn monitor
    sprintf( szTmp, "Please enter
your database options for this connection:<BR>"

" <font face=\"Courier New\"
color=\"blue\"><PRE>"

"DB Server = <INPUT NAME=\"db_server\"
SIZE=20 VALUE=\"%s\"><BR>"

"DB User ID = <INPUT NAME=\"db_user\"
SIZE=20 VALUE=\"%s\"><BR>"

"DB Password = <INPUT NAME=\"db_passwd\"
SIZE=20 VALUE=\"%s\"><BR>"

"DB Name = <INPUT NAME=\"db_name\"
SIZE=20 VALUE=\"%s\"><BR>"

"</PRE></font>"

Reg.szDbServer, Reg.szDbUser, Reg.szDbPassword,
Reg.szDbName );
else
    // if using a txn monitor,
connection options are determined from registry;
can't
    // set per user. show options
fyi
    sprintf( szTmp, "Database
options which will be used by the transaction
monitor:<BR>"

" <font face=\"Courier New\"
color=\"blue\"><PRE>"

"DB Server = <B>%s</B><BR>"

"DB User ID = <B>%s</B><BR>"

"DB Password = <B>%s</B><BR>"

```

```

"DB Name = <B>%s</B><BR>"

"</PRE></font>"

Reg.szDbServer, Reg.szDbUser, Reg.szDbPassword,
Reg.szDbName );
    strcat( szBuffer, szTmp);

    sprintf( szTmp, "Please enter your
Warehouse and District for this session:<BR>"

" <font face=\"Courier New\"
color=\"blue\"><PRE>" );
    strcat( szBuffer, szTmp);
    strcat( szBuffer, "Warehouse ID = <INPUT
NAME=\"w_id\" SIZE=6><BR>"

"District ID = <INPUT NAME=\"d_id\"
SIZE=2><BR>"

"</PRE></font><HR>"

" <INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"Submit\">"

"</FORM></BODY></HTML>");
}

/* FUNCTION: SubmitCmd
*
* PURPOSE: This function allocated a new
terminal id in the Term structure array.
*
*/

void SubmitCmd(EXTENSION_CONTROL_BLOCK *pECB, char
*szBuffer)
{
    int iNewTerm;
    char *ptr = pECB->lpszQueryString;

    char szVersion[32] = { 0 };
    char szServer[32] = { 0 };
    char szUser[32] = "sa";

    char szPassword[32] = { 0 };
    char szDatabase[32] = "tpcc";

    // validate version field; the version
field ensures that the RTE is synchronized with the
web client
    GetKeyValue(&ptr, "VERSION", szVersion,
sizeof(szVersion), ERR_VERSION_MISMATCH);
    if ( strcmp( szVersion, WEBCLIENT_VERSION )
)
        throw new CWBCLNT_ERR(
ERR_VERSION_MISMATCH );

    if (Reg.eTxnMon == None)
    {
        // parse Server name

```

```

        GetKeyValue(&ptr, "db_server",
szServer, sizeof(szServer), ERR_NO_SERVER_SPECIFIED);
        // parse User name
        GetKeyValue(&ptr, "db_user",
szUser, sizeof(szUser), NO_ERR);
        // parse Password
        GetKeyValue(&ptr, "db_passwd",
szPassword, sizeof(szPassword), NO_ERR);
        // parse Database name
        GetKeyValue(&ptr, "db_name",
szDatabase, sizeof(szDatabase), NO_ERR);
    }

    // parse warehouse ID
    int w_id = GetIntKeyValue(&ptr, "w_id",
ERR_HTML_ILL_FORMED, ERR_W_ID_INVALID);
    if ( w_id < 1 )
        throw new CWBCLNT_ERR(
ERR_W_ID_INVALID );

    // parse district ID
    int d_id = GetIntKeyValue(&ptr, "d_id",
ERR_HTML_ILL_FORMED, ERR_D_ID_INVALID);
    if ( d_id < 1 || d_id > 10 )
        throw new CWBCLNT_ERR(
ERR_D_ID_INVALID );

    iNewTerm = TermAdd();

    Term.pClientData[iNewTerm].w_id = w_id;
    Term.pClientData[iNewTerm].d_id = d_id;

    try
    {
        if (Reg.eTxnMon == COM)

            Term.pClientData[iNewTerm].pTxn =
pCTPCC_COM_new( Reg.bCOM_SinglePool );
        else if (Reg.eDB_Protocol ==
ODBC)

            Term.pClientData[iNewTerm].pTxn =
pCTPCC_ODBC_new( szServer, szUser, szPassword,
szMyComputerName,

szDatabase, Reg.szSPPrefix,

Reg.bCallNoDuplicatesNewOrder );
    }
    catch (...)
    {
        TermDelete(iNewTerm);
        throw; // pass
exception upward
    }

    MakeMainMenuForm(iNewTerm,
Term.pClientData[iNewTerm].iSyncId, szBuffer);

```

```

}
/* FUNCTION: StatsCmd
 *
 * PURPOSE:      This function returns to the
browser the total number of active terminal ids.
 *              This routine is for
development/debugging purposes.
 *
 */
void StatsCmd(EXTENSION_CONTROL_BLOCK *pECB, char
*szBuffer)
{
    int i;
    int    iTotal;

    EnterCriticalSection(&TermCriticalSection);

    iTotal = 0;
    for(i=0; i<Term.iNumEntries; i++)
    {
        if (Term.pClientData[i].iNextFree
== -1)
            iTotal++;
    }
    LeaveCriticalSection(&TermCriticalSection);

    wsprintf( szBuffer,

    "<HTML><HEAD><TITLE>TPC-C Web Client
Stats</TITLE></HEAD>"

    " <BODY><B><BIG> Total
Active Connections: %d </BIG></B><BR></BODY></HTML>"

    , iTotal );
}

char *CWEBCLNT_ERR::ErrorText()
{
    static SERRORMSG errorMsgs[] =
    {
        {          ERR_COMMAND_UNDEFINED,

        "Command undefined."

        },
        {          ERR_D_ID_INVALID,

        "Invalid District ID Must be 1 to 10."

        },
        {
ERR_DELIVERY_CARRIER_ID_RANGE,
        "Delivery Carrier ID out of range
must be 1 - 10."
        },
        {
ERR_DELIVERY_CARRIER_INVALID,
        "Delivery Carrier ID invalid must be
numeric 1 - 10."
        },
        {
ERR_DELIVERY_MISSING_OCD_KEY,

```

```

"Delivery missing Carrier ID key \"OCD*\"."
        },
        {
ERR_DELIVERY_THREAD_FAILED,
        "Could not start delivery worker
thread."
        },
        {          ERR_GETPROCADDR_FAILED,

        "Could not map proc in DLL.  GetProcAddr
error.  DLL="
        },
        {          ERR_HTML_ILL_FORMED,

        "Required key field is missing from HTML
string."
        },
        {
ERR_INVALID_SYNC_CONNECTION,
        "Invalid Terminal Sync ID."
        },
        {          ERR_INVALID_TERMINID,

        "Invalid Terminal ID."
        },
        {          ERR_LOADDLL_FAILED,

        "Load of DLL failed.  DLL="
        },
        {
ERR_MAX_CONNECTIONS_EXCEEDED,
        "No connections available.  Max Connections
is probably too low."
        },
        {
ERR_MISSING_REGISTRY_ENTRIES,
        "Required registry entries are missing.
Rerun INSTALL to correct."
        },
        {
ERR_NEWORDER_CUSTOMER_INVALID,
        "New Order customer id invalid
data type, range = 1 to 3000."
        },
        {
ERR_NEWORDER_CUSTOMER_KEY,
        "New Order missing Customer key
\"CID*\"."
        },
        {
ERR_NEWORDER_DISTRICT_INVALID,
        "New Order District ID Invalid
range 1 - 10."
        },
        {
ERR_NEWORDER_FORM_MISSING_DID,
        "New Order missing District key
\"DID*\"."
        },
        {
ERR_NEWORDER_ITEMID_INVALID,
        "New Order Item Id is wrong data type, must
be numeric."
        },

```

```

        {
ERR_NEWORDER_ITEMID_RANGE,
        "New Order Item Id is out of
range. Range = 1 to 999999."
        },
        {
ERR_NEWORDER_ITEMID_WITHOUT_SUPPW,
        "New Order Item_Id field entered without a
corresponding Supp_W."
        },
        {
ERR_NEWORDER_MISSING_IID_KEY,
        "New Order missing Item Id key \"IID*\"."
        },
        {
ERR_NEWORDER_MISSING_QTY_KEY,
        "New Order Missing Qty key \"Qty##*\"."
        },
        {
ERR_NEWORDER_MISSING_SUPPW_KEY,
        "New Order missing Supp_W key
\"SP##*\"."
        },
        {
ERR_NEWORDER_NOITEMS_ENTERED,
        "New Order No order lines entered."
        },
        {
ERR_NEWORDER_QTY_INVALID,
        "New Order Qty invalid must be
numeric range 1 - 99."
        },
        {
ERR_NEWORDER_QTY_RANGE,

        "New Order Qty is out of range. Range = 1
to 99."
        },
        {
ERR_NEWORDER_QTY_WITHOUT_SUPPW,
        "New Order Qty field entered
without a corresponding Supp_W."
        },
        {
ERR_NEWORDER_SUPPW_INVALID,
        "New Order Supp_W invalid data
type must be numeric."
        },
        {
ERR_NO_SERVER_SPECIFIED,
        "No Server name specified."
        },
        {
ERR_ORDERSTATUS_CID_AND_CLT,
        "Order Status Only Customer ID or Last Name
may be entered, not both."
        },
        {
ERR_ORDERSTATUS_CID_INVALID,
        "Order Status Customer ID invalid, range
must be numeric 1 - 3000."
        },
        {
ERR_ORDERSTATUS_CLT_RANGE,
        "Order Status Customer last name
longer than 16 characters."
        },

```

```

        {
            ERR_ORDERSTATUS_DID_INVALID,
            "Order Status District invalid, value must
            be numeric 1 - 10." },
        {
            ERR_ORDERSTATUS_MISSING_CID_CLT,
            "Order Status Either Customer ID or Last
            Name must be entered." },
        {
            ERR_ORDERSTATUS_MISSING_CID_KEY,
            "Order Status missing Customer key
            \"CID*\"." },
        {
            ERR_ORDERSTATUS_MISSING_CLT_KEY,
            "Order Status missing Customer Last Name
            key \"CLT*\"." },
        {
            ERR_ORDERSTATUS_MISSING_DID_KEY,
            "Order Status missing District key
            \"DID*\"." },
        {
            ERR_PAYMENT_CDI_INVALID,
            "Payment Customer district
            invalid must be numeric." },
        {
            ERR_PAYMENT_CID_AND_CLT,
            "Payment Only Customer ID or Last
            Name may be entered, not both." },
        {
            ERR_PAYMENT_CUSTOMER_INVALID,
            "Payment Customer data type invalid, must
            be numeric." },
        {
            ERR_PAYMENT_CWI_INVALID,
            "Payment Customer Warehouse
            invalid, must be numeric." },
        {
            ERR_PAYMENT_DISTRICT_INVALID,
            "Payment District ID is invalid, must be 1
            - 10." },
        {
            ERR_PAYMENT_HAM_INVALID,
            "Payment Amount invalid data type
            must be numeric." },
        {
            ERR_PAYMENT_HAM_RANGE,
            "Payment Amount out of range, 0 - 9999.99."
        },
        {
            ERR_PAYMENT_LAST_NAME_TO_LONG,
            "Payment Customer last name
            longer than 16 characters." },
        {
            ERR_PAYMENT_MISSING_CDI_KEY,
            "Payment missing Customer district key

```

```

\"CDI*\"." },
        {
            ERR_PAYMENT_MISSING_CID_CLT,
            "Payment Either Customer ID or Last Name
            must be entered." },
        {
            ERR_PAYMENT_MISSING_CID_KEY,
            "Payment missing Customer Key \"CID*\"."
        },
        {
            ERR_PAYMENT_MISSING_CLT_KEY,
            "Payment missing Customer Last Name key
            \"CLT*\"." },
        {
            ERR_PAYMENT_MISSING_CWI_KEY,
            "Payment missing Customer Warehouse key
            \"CWI*\"." },
        {
            ERR_PAYMENT_MISSING_DID_KEY,
            "Payment missing District Key \"DID*\"."
        },
        {
            ERR_PAYMENT_MISSING_HAM_KEY,
            "Payment missing Amount key \"HAM*\"."
        },
        {
            ERR_STOCKLEVEL_MISSING_THRESHOLD_KEY,
            "Stock Level; missing Threshold key
            \"TT*\"." },
        {
            ERR_STOCKLEVEL_THRESHOLD_INVALID,
            "Stock Level; Threshold value must be in
            the range = 1 - 99." },
        {
            ERR_STOCKLEVEL_THRESHOLD_RANGE,
            "Stock Level Threshold out of
            range, range must be 1 - 99." },
        {
            ERR_VERSION_MISMATCH,
            "Invalid version field. RTE and Web Client
            are probably out of sync." },
        {
            ERR_W_ID_INVALID,
            "Invalid Warehouse ID."
        },
        {
            0,
            ""
        }
    };
    char szTmp[256];
    int i = 0;

```

```

        while (TRUE)
        {
            if (errorMsgs[i].szMsg[0] == 0)
            {
                strcpy( szTmp, "Unknown
                error number." );
                break;
            }
            if (m_Error ==
            errorMsgs[i].iError)
            {
                strcpy( szTmp,
                errorMsgs[i].szMsg );
                break;
            }
            i++;
        }
        if (m_szTextDetail)
            strcat( szTmp, m_szTextDetail );
        if (m_SystemErr)
            wsprintf( szTmp+strlen(szTmp), "
            Error=%d", m_SystemErr );

        m_szErrorText = new char[strlen(szTmp)+1];
        strcpy( m_szErrorText, szTmp );
        return m_szErrorText;
    }

    /* FUNCTION: GetKeyValue
    * PURPOSE: This function parses a http
    formatted string for specific key values.
    * ARGUMENTS: char *pQueryString http string from client
    browser char key
    value to look for *pKey char key
    * *pValue char
    value character array into which to place key's
    * int
    * iMax
    maximum length of key value array.
    * WEBERROR
    err
    error value to throw
    * RETURNS: nothing.
    * ERROR: if (the pKey value is not found)
    then if
    (err == 0) if
    * return (empty string)
    * else

```

```

*
*      throw CWBCLNT_ERR(err)
*
* COMMENTS:      http keys are formatted either
KEY=value& or KEY=value\0. This DLL formats
*              TPC-C input
fields in such a manner that the keys can be
extracted in the
*              above manner.
*/

void GetKeyValue(char **pQueryString, char *pKey,
char *pValue, int iMax, WEBERROR err)
{
    char *ptr;

    if ( !(ptr=strstr(*pQueryString, pKey)) )
        goto ErrorExit;
    ptr += strlen(pKey);
    if ( *ptr != '=' )
        goto ErrorExit;
    ptr++;

    iMax--; // one position is for terminating
null
while( *ptr && *ptr != '&' && iMax)
{
    *pValue++ = *ptr++;
    iMax--;
}
*pValue = 0; // terminating null

*pQueryString = ptr;
return;

ErrorExit:
    if (err != NO_ERR)
        throw new CWBCLNT_ERR( err );
    *pValue = 0; // return empty result string
}

/* FUNCTION: GetIntKeyValue
*
* PURPOSE:      This function parses a http
formatted string for a specific key value.
*
* ARGUMENTS:   char
*pQueryString  http string from client
browser
*              char
*pKey          key
value to look for
*              WEBERROR
*              NoKeyErr  error value to throw if
key not found
*              WEBERROR
*              NotIntErr error value to throw if
value not numeric
*
* RETURNS:     integer
*
* ERROR:       if (the pKey value is not found)
then

```

```

*
*              if
(NoKeyErr != NO_ERR)
*
*      throw CWBCLNT_ERR(err)
*
*      else
*
*      return 0
*
*      else if (non-
numeric char found) then
*
*      if
(NotIntErr != NO_ERR) then
*
*      throw CWBCLNT_ERR(err)
*
*      else
*
*      return 0
*
* COMMENTS:      http keys are formatted either
KEY=value& or KEY=value\0. This DLL formats
*              TPC-C input
fields in such a manner that the keys can be
extracted in the
*              above manner.
*/

int GetIntKeyValue(char **pQueryString, char *pKey,
WEBERROR NoKeyErr, WEBERROR NotIntErr)
{
    char *ptr0;
    char *ptr;

    if ( !(ptr=strstr(*pQueryString, pKey)) )
        goto ErrorNoKey;
    ptr += strlen(pKey);
    if ( *ptr != '=' )
        goto ErrorNoKey;
    ptr++;

    ptr0 = ptr; // remember
starting point
// scan string until a terminator (null or
&) or a non-digit
while( *ptr && *ptr != '&' && isdigit(*ptr)
)
    ptr++;

// make sure we stopped scanning for the
right reason
if ((ptr0 == ptr) || (*ptr && *ptr != '&'))
{
    if (NotIntErr != NO_ERR)
        throw new CWBCLNT_ERR(
NoKeyErr );
    return 0;
}

*pQueryString = ptr;
return atoi(ptr0);

ErrorNoKey:
    if (NoKeyErr != NO_ERR)

```

```

);
    throw new CWBCLNT_ERR( NoKeyErr
);
    return 0;
}

/* FUNCTION: TermInit
*
* PURPOSE:      This function initializes the
client terminal structure; it is called when the
TPCC.DLL
*              is first loaded by the
inet service.
*
*/

void TermInit(void)
{
    EnterCriticalSection(&TermCriticalSection);

    Term.iMasterSyncId = 1;
    Term.iNumEntries =
Reg.dwMaxConnections+1;

    Term.pClientData = NULL;
    Term.pClientData =
(PCLIENTDATA)malloc(Term.iNumEntries *
sizeof(CLIENTDATA));
    if (Term.pClientData == NULL)
    {
        LeaveCriticalSection(&TermCriticalSection);
        throw new CWBCLNT_ERR(
ERR_MEM_ALLOC_FAILED );
    }

    ZeroMemory( Term.pClientData,
Term.iNumEntries * sizeof(CLIENTDATA) );

    Term.iFreeList =
Term.iNumEntries-1;
// build free list
// note: Term.pClientData[0].iNextFree gets
set to -1, which marks it as "in use".
// This is intentional, as the zero
entry is used as an anchor and never
// allocated as an actual
terminal.
for(int i=0; i<Term.iNumEntries; i++)
    Term.pClientData[i].iNextFree =
i-1;

    LeaveCriticalSection(&TermCriticalSection);
}

/* FUNCTION: TermDeleteAll
*
* PURPOSE:      This function frees allocated
resources associated with the terminal structure.
*
* ARGUMENTS:   none
*
* RETURNS:     None
*

```

```

* COMMENTS:      This function is called only when
the inet service unloads the TPCC.DLL
*
*/

void TermDeleteAll(void)
{
    EnterCriticalSection(&TermCriticalSection);

    for(int i=1; i<Term.iNumEntries; i++)
    {
        if (Term.pClientData[i].iNextFree
== -1)
            delete
Term.pClientData[i].pTxn;
    }

    Term.iFreeList          = 0;
    Term.iNumEntries       = 0;
    if ( Term.pClientData )
        free(Term.pClientData);
    Term.pClientData      = NULL;

    LeaveCriticalSection(&TermCriticalSection);
}

/* FUNCTION: TermAdd
*
* PURPOSE:      This function assigns a terminal
id which is used to identify a client browser.
*
* RETURNS:      int
                assigned terminal id
*/

int TermAdd(void)
{
    DWORD    i;
    int      iNewTerm, iTickCount;

    if (Term.iNumEntries == 0)
        return -1;

    EnterCriticalSection(&TermCriticalSection);
    if (Term.iFreeList != 0)
    {
        // position is available
        iNewTerm = Term.iFreeList;
        Term.iFreeList =
Term.pClientData[iNewTerm].iNextFree;

        Term.pClientData[iNewTerm].iNextFree = -1;
// indicates this position is in use
    }
    else
    {
        // no open slots, so find the
slot that hasn't been used in the longest time and
reuse it
        for(iNewTerm=1, i=1,
iTickCount=0x7FFFFFFF; i<Reg.dwMaxConnections; i++)
        {
            if (iTickCount >
Term.pClientData[i].iTickCount)

```

```

{
            iTickCount =
Term.pClientData[i].iTickCount;
            iNewTerm = i;
        }
    }
    // if oldest term is less than
one minute old, it probably means that more
connections
    // are being attempted than were
specified as "Max Connections" at install. In this
case,
    // do not bump existing
connection; instead, return error to requestor.
    if ((GetTickCount() - iTickCount)
< 60000)
    {
        LeaveCriticalSection(&TermCriticalSection);
        throw new CWEBCLNT_ERR(
ERR_MAX_CONNECTIONS_EXCEEDED );
    }

    Term.pClientData[iNewTerm].iTickCount =
GetTickCount();
    Term.pClientData[iNewTerm].iSyncId =
Term.iMasterSyncId++;
    Term.pClientData[iNewTerm].pTxn = NULL;

    LeaveCriticalSection(&TermCriticalSection);
    return iNewTerm;
}

/* FUNCTION: TermDelete
*
* PURPOSE:      This function makes a terminal
entry in the Term array available for reuse.
*
* ARGUMENTS:    int
                id
                Terminal id of client exiting
*/

void TermDelete(int id)
{
    if ( id > 0 && id < Term.iNumEntries )
    {
        delete Term.pClientData[id].pTxn;

        // put onto free list

        EnterCriticalSection(&TermCriticalSection);

        Term.pClientData[id].iNextFree =
Term.iFreeList;
        Term.iFreeList = id;

        LeaveCriticalSection(&TermCriticalSection);
    }
}

```

```

/* FUNCTION: MakeErrorForm
*/

void ErrorForm(EXTENSION_CONTROL_BLOCK *pECB, int
iType, int iErrorNum, int iTermId, int iSyncId, char
*szErrorText, char *szBuffer )
{
    wsprintf(szBuffer,
"<HTML><HEAD><TITLE>TPC-C
Error</TITLE></HEAD><BODY>"
"<FORM ACTION=\\"tpcc.dll\\"
METHOD=\\"GET\\">"
"<INPUT TYPE=\\"hidden\\"
NAME=\\"STATUSID\\" VALUE=\\"%d\\">"
"<INPUT TYPE=\\"hidden\\"
NAME=\\"ERROR\\" VALUE=\\"%d\\">"
"<INPUT TYPE=\\"hidden\\"
NAME=\\"FORMID\\" VALUE=\\"%d\\">"
"<INPUT TYPE=\\"hidden\\"
NAME=\\"TERMINID\\" VALUE=\\"%d\\">"
"<INPUT TYPE=\\"hidden\\"
NAME=\\"SYNCID\\" VALUE=\\"%d\\">"
"<BOLD>An Error
Occurred</BOLD><BR><BR>"
"%s"
"<BR><BR><HR>"
"<INPUT TYPE=\\"submit\\"
NAME=\\"CMD\\" VALUE=\\".NewOrder..\\>"
"<INPUT TYPE=\\"submit\\"
NAME=\\"CMD\\" VALUE=\\".Payment..\\>"
"<INPUT TYPE=\\"submit\\"
NAME=\\"CMD\\" VALUE=\\".Delivery..\\>"
"<INPUT TYPE=\\"submit\\"
NAME=\\"CMD\\" VALUE=\\".Order-Status..\\>"
"<INPUT TYPE=\\"submit\\"
NAME=\\"CMD\\" VALUE=\\".Stock-Level..\\>"
"<INPUT TYPE=\\"submit\\"
NAME=\\"CMD\\" VALUE=\\".Exit..\\>"
"</FORM></BODY></HTML>"
, iType, iErrorNum,
MAIN_MENU_FORM, iTermId, iSyncId, szErrorText );
}

/* FUNCTION: MakeMainMenuForm
*/

void MakeMainMenuForm(int iTermId, int iSyncId, char
*szForm)
{
    wsprintf(szForm,
"<HTML><HEAD><TITLE>TPC-C Main
Menu</TITLE></HEAD><BODY>"
"Select Desired
Transaction.<BR><HR>"
"<FORM ACTION=\\"tpcc.dll\\"
METHOD=\\"GET\\">"
"<INPUT TYPE=\\"hidden\\"
NAME=\\"STATUSID\\" VALUE=\\"0\\">"
"<INPUT TYPE=\\"hidden\\"
NAME=\\"ERROR\\" VALUE=\\"0\\">"

```

```

        "<INPUT TYPE=\"hidden\"
NAME=\"FORMID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\"
NAME=\"TERMINID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\"
NAME=\"SYNCID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..NewOrder..\">"
        "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Payment..\">"
        "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Delivery..\">"
        "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Order-Status..\">"
        "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Stock-Level..\">"
        "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Exit..\">"
        , MAIN_MENU_FORM, iTermId,
iSyncId);
}

/* FUNCTION: MakeStockLevelForm
 *
 * PURPOSE:      This function constructs the
Stock Level HTML page.
 *
 * COMMENTS:     The internal client buffer is
created when the terminal id is assigned and should
not
                be freed
                except when the client terminal id is no longer
needed.
 */

void MakeStockLevelForm(int iTermId, STOCK_LEVEL_DATA
*pStockLevelData, BOOL bInput, char *szForm)
{
    int    c;

    c = sprintf(szForm,
<HTML><HEAD><TITLE>TPC-C Stock
Level</TITLE></HEAD><FORM ACTION=\"tpcc.dll\"
METHOD=\"GET\">"
        "<INPUT TYPE=\"hidden\"
NAME=\"STATUSID\" VALUE=\"0\">"
        "<INPUT TYPE=\"hidden\"
NAME=\"ERROR\" VALUE=\"0\">"
        "<INPUT TYPE=\"hidden\"
NAME=\"FORMID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\"
NAME=\"TERMINID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\"
NAME=\"SYNCID\" VALUE=\"%d\">"
        "<PRE><font face=\"Courier\">
Stock-Level<BR>"
        "Warehouse: %6.6d District:
%2.2d<BR> <BR>",
        STOCK_LEVEL_FORM, iTermId,
Term.pClientData[iTermId].iSyncId,
Term.pClientData[iTermId].w_id,
Term.pClientData[iTermId].d_id);

```

```

        if ( bInput )
        {
            strcpy(szForm+c,
"Stock Level Threshold:
low stock:
</font><BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR>
<BR> <BR> <BR></PRE><HR>"
        "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"Process\">"
        "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"Menu\">"
        "</FORM></HTML>" );
        }
        else
        {
            sprintf(szForm+c,
"Stock Level Threshold:
low stock:
%3.3d</font> <BR> <BR> <BR> <BR> <BR> <BR> <BR>
<BR> <BR> <BR> <BR></PRE><HR>"
        "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..NewOrder..\">"
        "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Payment..\">"
        "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Delivery..\">"
        "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Order-Status..\">"
        "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Stock-Level..\">"
        "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Exit..\">"
        "</FORM></HTML>"
        , pStockLevelData-
>threshold, pStockLevelData->low_stock);
        }
    }

/* FUNCTION: MakeNewOrderForm
 *
 * COMMENTS:     The internal client buffer is
created when the terminal id is assigned and should
not
                be freed
                except when the client terminal id is no longer
needed.
 */

void MakeNewOrderForm(int iTermId, NEW_ORDER_DATA
*pNewOrderData, BOOL bInput, char *szForm)
{
    int    i, c;
    BOOL   bValid;
    static char szBR[] = " <BR> <BR> <BR>
<BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR>
<BR> <BR>";

```

```

        if (!bInput)
            assert( pNewOrderData-
>exec_status_code == eOK || pNewOrderData-
>exec_status_code == eInvalidItem );

        bValid = (bInput || (pNewOrderData-
>exec_status_code == eOK));

        c = sprintf(szForm,
<HTML><HEAD><TITLE>TPC-C New
Order</TITLE></HEAD><BODY>"
        "<FORM ACTION=\"tpcc.dll\"
METHOD=\"GET\">"
        "<INPUT TYPE=\"hidden\"
NAME=\"STATUSID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\"
NAME=\"ERROR\" VALUE=\"0\">"
        "<INPUT TYPE=\"hidden\"
NAME=\"FORMID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\"
NAME=\"TERMINID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\"
NAME=\"SYNCID\" VALUE=\"%d\">"
        "<PRE><font face=\"Courier\">
New Order<BR>"
        , bValid ? 0 : ERR_BAD_ITEM_ID,
NEW_ORDER_FORM, iTermId,
Term.pClientData[iTermId].iSyncId);

        if ( bInput )
        {
            c += sprintf(szForm+c,
"Warehouse: %6.6d ", Term.pClientData[iTermId].w_id
);

            strcpy( szForm+c,
"District: <INPUT
NAME=\"DID*\" SIZE=1>
Date:<BR>"
        "Customer: <INPUT
NAME=\"CID*\" SIZE=4> Name:
Credit: %Disc:<BR>"
        "Order Number:
Number of Lines:      W_tax:      D_tax:<BR>
<BR>"
        " Supp_W Item_Id Item
Name Qty Stock B/G Price
Amount<BR>"
        "<INPUT
NAME=\"SP00*\" SIZE=4> <INPUT NAME=\"IID00*\"
SIZE=6>
<INPUT
NAME=\"Qty00*\" SIZE=1><BR>"
        "<INPUT
NAME=\"SP01*\" SIZE=4> <INPUT NAME=\"IID01*\"
SIZE=6>
<INPUT
NAME=\"Qty01*\" SIZE=1><BR>"
        "<INPUT
NAME=\"SP02*\" SIZE=4> <INPUT NAME=\"IID02*\"
SIZE=6>
<INPUT
NAME=\"Qty02*\" SIZE=1><BR>"
        "<INPUT
NAME=\"SP03*\" SIZE=4> <INPUT NAME=\"IID03*\"

```

```

SIZE=6> <INPUT
NAME="\Qty03*" SIZE=1><BR>"
" <INPUT
NAME="\SP04*" SIZE=4> <INPUT NAME="\IID04*"
SIZE=6> <INPUT
NAME="\Qty04*" SIZE=1><BR>"
" <INPUT
NAME="\SP05*" SIZE=4> <INPUT NAME="\IID05*"
SIZE=6> <INPUT
NAME="\Qty05*" SIZE=1><BR>"
" <INPUT
NAME="\SP06*" SIZE=4> <INPUT NAME="\IID06*"
SIZE=6> <INPUT
NAME="\Qty06*" SIZE=1><BR>"
" <INPUT
NAME="\SP07*" SIZE=4> <INPUT NAME="\IID07*"
SIZE=6> <INPUT
NAME="\Qty07*" SIZE=1><BR>"
" <INPUT
NAME="\SP08*" SIZE=4> <INPUT NAME="\IID08*"
SIZE=6> <INPUT
NAME="\Qty08*" SIZE=1><BR>"
" <INPUT
NAME="\SP09*" SIZE=4> <INPUT NAME="\IID09*"
SIZE=6> <INPUT
NAME="\Qty09*" SIZE=1><BR>"
" <INPUT
NAME="\SP10*" SIZE=4> <INPUT NAME="\IID10*"
SIZE=6> <INPUT
NAME="\Qty10*" SIZE=1><BR>"
" <INPUT
NAME="\SP11*" SIZE=4> <INPUT NAME="\IID11*"
SIZE=6> <INPUT
NAME="\Qty11*" SIZE=1><BR>"
" <INPUT
NAME="\SP12*" SIZE=4> <INPUT NAME="\IID12*"
SIZE=6> <INPUT
NAME="\Qty12*" SIZE=1><BR>"
" <INPUT
NAME="\SP13*" SIZE=4> <INPUT NAME="\IID13*"
SIZE=6> <INPUT
NAME="\Qty13*" SIZE=1><BR>"
" <INPUT
NAME="\SP14*" SIZE=4> <INPUT NAME="\IID14*"
SIZE=6> <INPUT
NAME="\Qty14*" SIZE=1><BR>"
"Execution Status:
Total:<BR>"
</font></PRE><HR>"
<INPUT TYPE="submit">
NAME="\CMD" VALUE="Process">
" <INPUT TYPE="submit">
NAME="\CMD" VALUE="\Menu">
" </FORM></HTML>"
}
else
{
c += sprintf(szForm+c,
"Warehouse: %6.6d District: %2.2d
Date: ",
pNewOrderData->w_id,
pNewOrderData->d_id);

```

```

if ( bValid )
{
c += sprintf(szForm+c,
"%2.2d-%2.2d-%4.4d %2.2d:%2.2d:%2.2d",
pNewOrderData->o_entry_d.day,
pNewOrderData->o_entry_d.month,
pNewOrderData->o_entry_d.year,
pNewOrderData->o_entry_d.hour,
pNewOrderData->o_entry_d.minute,
pNewOrderData->o_entry_d.second);
}
c += sprintf(szForm+c,
"<BR>Customer: %4.4d Name: %-16s Credit: %-2s
",
pNewOrderData->c_id,
pNewOrderData->c_last, pNewOrderData->c_credit);
if ( bValid )
{
c += sprintf(szForm+c,
"%%Disc: %5.2f <BR>"
"Order Number: %8.8d Number of Lines:
%2.2d W_tax: %5.2f D_tax: %5.2f <BR> <BR>"
" Supp_W Item_Id Item Name
Qty Stock B/G Price Amount<BR>",
100.0*pNewOrderData->c_discount,
pNewOrderData->o_id,
pNewOrderData->o_ol_cnt,
pNewOrderData->w_tax, 100.0 *
pNewOrderData->d_tax);
for(i=0;
i<pNewOrderData->o_ol_cnt; i++)
{
c +=
sprintf(szForm+c, "%6.6d %6.6d %-24s %2.2d
%3.3d %1.1s %6.2f %7.2f <BR>",
pNewOrderData->OL[i].ol_supply_w_id,
pNewOrderData->OL[i].ol_i_id,
pNewOrderData->OL[i].ol_i_name,
pNewOrderData->OL[i].ol_quantity,
pNewOrderData->OL[i].ol_stock,

```

```

pNewOrderData->OL[i].ol_brand_generic,
pNewOrderData->OL[i].ol_i_price,
pNewOrderData->OL[i].ol_amount );
}
else
{
c += sprintf(szForm+c,
"%Disc:<BR>"
"Order
Number: %8.8d Number of Lines: W_tax:
D_tax:<BR> <BR>"
" Supp_W
Item_Id Item Name Qty Stock B/G
Price Amount<BR>"
pNewOrderData->o_id);
i = 0;
}
strcpy( szForm+c, szBR, (15-i)*5
);
c += (15-i)*5;
if ( bValid )
c += sprintf(szForm+c,
"Execution Status: Transaction committed.
Total: $$$8.2f ",
pNewOrderData->total_amount);
else
c += sprintf(szForm+c,
"Execution Status: Item number is not valid.
Total:");
strcpy(szForm+c,
" <BR></font></PRE><HR>"
" <INPUT TYPE="submit">
NAME="\CMD" VALUE="\..NewOrder..\ ">
" <INPUT TYPE="submit">
NAME="\CMD" VALUE="\..Payment..\ ">
" <INPUT TYPE="submit">
NAME="\CMD" VALUE="\..Delivery..\ ">
" <INPUT TYPE="submit">
NAME="\CMD" VALUE="\..Order-Status..\ ">
" <INPUT TYPE="submit">
NAME="\CMD" VALUE="\..Stock-Level..\ ">
" <INPUT TYPE="submit">
NAME="\CMD" VALUE="\..Exit..\ ">
" </FORM></HTML>"
);
}
}
/* FUNCTION: MakePaymentForm
*
```

```

* COMMENTS:      The internal client buffer is
created when the terminal id is assigned and should
not
*
*                be freed
except when the client terminal id is no longer
needed.
*/

void MakePaymentForm(int iTermId, PAYMENT_DATA
*pPaymentData, BOOL bInput, char *szForm)
{
    int c;

    c = sprintf(szForm,
                "<HTML><HEAD><TITLE>TPC-C
Payment</TITLE></HEAD><BODY>"
                "<FORM ACTION=\"tpcc.dll\"
METHOD=\"GET\">"
                "<INPUT TYPE=\"hidden\"
NAME=\"STATUSID\" VALUE=\"0\">"
                "<INPUT TYPE=\"hidden\"
NAME=\"ERROR\" VALUE=\"0\">"
                "<INPUT TYPE=\"hidden\"
NAME=\"FORMID\" VALUE=\"%d\">"
                "<INPUT TYPE=\"hidden\"
NAME=\"TERMINID\" VALUE=\"%d\">"
                "<INPUT TYPE=\"hidden\"
NAME=\"SYNCID\" VALUE=\"%d\">"
                "<PRE><font face=\"Courier\">"
Payment<BR>"
                "Date: "
                , PAYMENT_FORM, iTermId,
Term.pClientData[iTermId].iSyncId);

    if ( !bInput )
    {
        c += sprintf(szForm+c, "%2.2d-
%2.2d-%4.4d %2.2d:%2.2d",
                    pPaymentData-
>h_date.day,
                    pPaymentData-
>h_date.month,
                    pPaymentData-
>h_date.year,
                    pPaymentData-
>h_date.hour,
                    pPaymentData-
>h_date.minute,
                    pPaymentData-
>h_date.second);
    }

    if ( bInput )
    {
        c += sprintf(szForm+c,
                    "<BR> <BR>Warehouse:
%6.6d"
                    "
                    District: <INPUT NAME=\"DID\" SIZE=1><BR> <BR> <BR>
<BR> <BR>"
                    "Customer: <INPUT
NAME=\"CID\" SIZE=4>"

```

```

"Cust-Warehouse: <INPUT
NAME=\"CWI\" SIZE=4> "
"Cust-District: <INPUT
NAME=\"CDI\" SIZE=1><BR>"
"Name:
<INPUT NAME=\"CLT\" SIZE=16>
Since:<BR>"
"
Credit:<BR>"
"
Disc:<BR>"
"
Phone:<BR> <BR>"
"Amount Paid:
$<INPUT NAME=\"HAM\" SIZE=7>
New Cust-
Balance:<BR>"
"Credit Limit:<BR>
<BR>Cust-Data: <BR> <BR> <BR> <BR>
<BR></font></PRE><HR>"
"<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"Process\"><INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"Menu\">"
"</BODY></FORM></HTML>"

Term.pClientData[iTermId].w_id);
    }
    else
    {
        c += sprintf(szForm+c,
                    "<BR> <BR>Warehouse:
%6.6d
District: %2.2d<BR>"
                    "%-20s
                    "%-20s
                    "%-20s<BR>"
                    "%-20s %-2s %5.5s-%4.4s
%-20s %-2s %5.5s-%4.4s<BR> <BR>"
                    "Customer: %4.4d Cust-
Warehouse: %6.6d Cust-District: %2.2d<BR>"
                    "Name: %-16s %-2s %-
16s Since: %2.2d-%2.2d-%4.4d<BR>"
                    "
                    "%-20s
Credit: %-2s<BR>"

                    ,
                    pPaymentData->d_id
                    , pPaymentData-
>w_street_1, pPaymentData->d_street_1
                    , pPaymentData-
>w_street_2, pPaymentData->d_street_2
                    , pPaymentData->w_city,
                    pPaymentData->w_state, pPaymentData->w_zip,
                    pPaymentData->w_zip+5
                    , pPaymentData->d_city,
                    pPaymentData->d_state, pPaymentData->d_zip,
                    pPaymentData->d_zip+5
                    , pPaymentData->c_id,
                    pPaymentData->c_d_id
                    , pPaymentData-
>c_first, pPaymentData->c_middle, pPaymentData-
>c_last

```

```

                    , pPaymentData-
>c_since.day, pPaymentData->c_since.month,
                    pPaymentData->c_since.year
                    , pPaymentData-
>c_street_1, pPaymentData->c_credit
                    );
                    c += sprintf(szForm+c,
                                "
                                "%-20s
                                %%Disc: %5.2f<BR>",
                                pPaymentData-
>c_street_2, 100.0*pPaymentData->c_discount);
                    c += sprintf(szForm+c,
                                "
                                "%-20s %-2s
                                %5.5s-%4.4s Phone: %6.6s-%3.3s-%3.3s-%4.4s<BR>
                                <BR>",
                                pPaymentData->c_city,
                                pPaymentData->c_zip,
                                pPaymentData->c_zip+5,
                                pPaymentData->c_phone,
                                pPaymentData->c_phone+9,
                                pPaymentData->c_phone+12 );
                    c += sprintf(szForm+c,
                                "Amount Paid:
                                %%7.2f
                                New Cust-Balance: %%14.2f<BR>"
                                "Credit Limit:
                                %%13.2f<BR> <BR>"
                                , pPaymentData-
>h_amount, pPaymentData->c_balance
                                , pPaymentData-
>c_credit_lim
                                );
                    if ( pPaymentData->c_credit[0] ==
'B' && pPaymentData->c_credit[1] == 'C' )
                    c += sprintf(szForm+c,
                                "Cust-Data: %50.50s<BR>
                                %50.50s<BR>
                                %50.50s<BR>
                                %50.50s<BR>",
                                pPaymentData->c_data, pPaymentData-
>c_data+50, pPaymentData->c_data+100, pPaymentData-
>c_data+150 );
                    else
                    strcpy(szForm+c, "Cust-
Data: <BR> <BR> <BR> <BR>");
                    strcat(szForm,
                                "
                                "<INPUT TYPE=\"submit\" NAME=\"CMD\"
                                VALUE=\"..NewOrder..\">"
                                "
                                "<INPUT TYPE=\"submit\" NAME=\"CMD\"
                                VALUE=\"..Payment..\">"
                                "
                                "<INPUT TYPE=\"submit\" NAME=\"CMD\"
                                VALUE=\"..Delivery..\">"

```



```

        "<INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"..Order-Status..\">"
    "<INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"..Stock-Level..\">"
    "<INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"..Exit..\">"
    "</BODY></FORM></HTML>";
}

/* FUNCTION: MakeOrderStatusForm
 *
 * COMMENTS:      The internal client buffer is
created when the terminal id is assigned and should
not
 *                be freed
except when the client terminal id is no longer
needed.
 */

void MakeOrderStatusForm(int iTermId,
ORDER_STATUS_DATA *pOrderStatusData, BOOL bInput,
char *szForm)
{
    int i, c;
    static char szBR[] = "<BR> <BR> <BR> <BR>
<BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR>
<BR>";
    c = wsprintf(szForm,
"<HTML><HEAD><TITLE>TPC-C Order-
Status</TITLE></HEAD><BODY>"
"<FORM ACTION=\"tpcc.dll\"
METHOD=\"GET\">"
"<INPUT TYPE=\"hidden\"
NAME=\"STATUSID\" VALUE=\"0\">"
"<INPUT TYPE=\"hidden\"
NAME=\"ERROR\" VALUE=\"0\">"
"<INPUT TYPE=\"hidden\"
NAME=\"FORMID\" VALUE=\"%d\">"
"<INPUT TYPE=\"hidden\"
NAME=\"TERMINID\" VALUE=\"%d\">"
"<INPUT TYPE=\"hidden\"
NAME=\"SYNCID\" VALUE=\"%d\">"
"<PRE><font face=\"Courier\">"
Order-Status<BR>"
"Warehouse: %6.6d ",
ORDER_STATUS_FORM, iTermId,
Term.pClientData[iTermId].iSyncId,
Term.pClientData[iTermId].w_id);
    if ( bInput )
    {
        strcpy(szForm+c,
"District: <INPUT
NAME=\"DID\" SIZE=1><BR>"

```

```

"Customer: <INPUT
NAME=\"CID\"*\" SIZE=4> Name:
<INPUT NAME=\"CLT\"*\" SIZE=23><BR>"
"<BR>"
"Order-Number:
Carrier-
Entry-Date:
Number:<BR>"
"Supply-W Item-Id
Delivery-Date<BR> <BR> <BR> <BR>
Qty Amount
<BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR>
" <BR> <BR> <BR> <BR>
<BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR>
TYPE=\"submit\" NAME=\"CMD\" VALUE=\"Process\"><INPUT
TYPE=\"submit\" NAME=\"CMD\" VALUE=\"Menu\">"
"</BODY></FORM></HTML>"
);
    }
    else
    {
        c += wsprintf(szForm+c,
"District: %2.2d<BR>"
"Customer: %4.4d
Name: %-16s %-2s %-16s<BR>",
pOrderStatusData->d_id,
pOrderStatusData->c_id,
pOrderStatusData->c_first, pOrderStatusData->c_middle,
pOrderStatusData->c_last);
        c += sprintf(szForm+c, "Cust-
Balance: %9.2f<BR> <BR>",
pOrderStatusData->c_balance);
        c += wsprintf(szForm+c,
"Order-Number: %8.8d
Entry-Date: %2.2d-%2.2d-%4.4d %2.2d:%2.2d:%2.2d
Carrier-Number: %2.2d<BR>"
"Supply-W Item-Id
Delivery-Date<BR>",
pOrderStatusData->o_id,
pOrderStatusData->o_entry_d.day,
pOrderStatusData->o_entry_d.month,
pOrderStatusData->o_entry_d.year,
pOrderStatusData->o_entry_d.hour,
pOrderStatusData->o_entry_d.minute,
pOrderStatusData->o_entry_d.second,
pOrderStatusData->o_carrier_id);
        for(i=0; i< pOrderStatusData-
>o_ol_cnt; i++)
    {

```

```

        c += sprintf(szForm+c,
" %6.6d %6.6d %2.2d %8.2f %2.2d-
%2.2d-%4.4d<BR>",
pOrderStatusData->ol[i].ol_supply_w_id,
pOrderStatusData->ol[i].ol_i_id,
pOrderStatusData->ol[i].ol_quantity,
pOrderStatusData->ol[i].ol_amount,
pOrderStatusData->ol[i].ol_delivery_d.day,
pOrderStatusData->ol[i].ol_delivery_d.month,
pOrderStatusData->ol[i].ol_delivery_d.year);
    }
    strcpy(szForm+c,
(15-i)*5);
    c += (15-i)*5;
    strcpy(szForm+c,
"</font></PRE><HR><INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..NewOrder..\">"
"<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Payment..\">"
"<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Delivery..\">"
"<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Order-Status..\">"
"<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Stock-Level..\">"
"<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Exit..\">"
"</BODY></FORM></HTML>"
);
}

/* FUNCTION: MakeDeliveryForm
 *
 * COMMENTS:      The internal client buffer is
created when the terminal id is assigned and should
not
 *                be freed
except when the client terminal id is no longer
needed.
 */

void MakeDeliveryForm(int iTermId, DELIVERY_DATA
*pDeliveryData, BOOL bInput, char *szForm)
{
    int c;
    c = wsprintf(szForm,
"<HTML><HEAD><TITLE>TPC-C
Delivery</TITLE></HEAD><BODY>"

```

```

        "<FORM ACTION=\"tpcc.dll\"
METHOD=\"GET\">"
        "<INPUT TYPE=\"hidden\"
NAME=\"STATUSID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\"
NAME=\"ERROR\" VALUE=\"0\">"
        "<INPUT TYPE=\"hidden\"
NAME=\"FORMID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\"
NAME=\"TERMINID\" VALUE=\"%d\">"
NAME=\"SYNCID\" VALUE=\"%d\">"
        "<PRE><font face=\"Courier\">
Delivery<BR>"
        "Warehouse: %6.6d<BR> <BR>",
        (!bInput && (pDeliveryData-
>exec_status_code != eOK)) ? ERR_TYPE_DELIVERY_POST :
0,
        DELIVERY_FORM, iTermId,
Term.pClientData[iTermId].iSyncId,
Term.pClientData[iTermId].w_id);
        if ( bInput )
        {
            strcpy( szForm+c,
                "Carrier Number: <INPUT
NAME=\"OCD*\" SIZE=1<BR> <BR>"
                "Execution Status: <BR>
<BR> <BR> <BR> <BR> <BR> <BR>"
                " <BR> <BR> <BR> <BR>
<BR> <BR> <BR> <BR> </font></PRE><HR>"
                "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"Process\">"
                "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"Menu\">"
                "</BODY></FORM></HTML>"
        );
        }
        else
        {
            wsprintf( szForm+c,
                "Carrier Number:
%2.2d<BR> <BR>"
                "Execution Status: %s
<BR> <BR> <BR> <BR> <BR> <BR>
<BR> <BR> <BR> <BR> </font></PRE>"
                "<HR><INPUT
TYPE=\"submit\" NAME=\"CMD\" VALUE=\"..NewOrder..\">"
                "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Payment..\">"
                "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Delivery..\">"
                "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Order-Status..\">"
                "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Stock-Level..\">"
                "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Exit..\">"
                "</BODY></FORM></HTML>"
            , pDeliveryData-
>o_carrier_id,

```

```

        (pDeliveryData-
>exec_status_code == eOK) ? "Delivery has been
queued." : "Delivery Post Failed "
        );
    }
}
/* FUNCTION: ProcessNewOrderForm
*
* PURPOSE: This function gets and validates
the input data from the new order form
*
* filling in the required
input variables. it then calls the SQLNewOrder
*
* transaction, constructs
the output form and writes it back to client
*
* browser.
*/
void ProcessNewOrderForm(EXTENSION_CONTROL_BLOCK
*pECB, int iTermId, char *szBuffer)
{
    PNEW_ORDER_DATA pNewOrder;
    pNewOrder = Term.pClientData[iTermId].pTxn-
>BuffAddr_NewOrder();
    ZeroMemory(pNewOrder,
sizeof(NEW_ORDER_DATA));
    pNewOrder->w_id =
Term.pClientData[iTermId].w_id;
    GetNewOrderData(pECB->lpszQueryString,
pNewOrder);
    Term.pClientData[iTermId].pTxn->NewOrder();
    pNewOrder = Term.pClientData[iTermId].pTxn-
>BuffAddr_NewOrder();
    MakeNewOrderForm(iTermId, pNewOrder,
OUTPUT_FORM, szBuffer );
}
/* FUNCTION: void ProcessPaymentForm
*
* PURPOSE: This function gets and validates
the input data from the payment form
*
* filling in the required
input variables. It then calls the SQLPayment
*
* transaction, constructs
the output form and writes it back to client
*
* browser.
*
* ARGUMENTS: EXTENSION_CONTROL_BLOCK
*pECB passed in structure pointer from
inetsrv.
int
iTermId client browser terminal id
*/
void ProcessPaymentForm(EXTENSION_CONTROL_BLOCK
*pECB, int iTermId, char *szBuffer)
{

```

```

    PPAYMENT_DATA pPayment;
    pPayment = Term.pClientData[iTermId].pTxn-
>BuffAddr_Payment();
    ZeroMemory(pPayment, sizeof(PAYMENT_DATA));
    pPayment->w_id =
Term.pClientData[iTermId].w_id;
    GetPaymentData(pECB->lpszQueryString,
pPayment);
    Term.pClientData[iTermId].pTxn->Payment();
    pPayment = Term.pClientData[iTermId].pTxn-
>BuffAddr_Payment();
    MakePaymentForm(iTermId, pPayment,
OUTPUT_FORM, szBuffer);
}
/* FUNCTION: ProcessOrderStatusForm
*
* PURPOSE: This function gets and validates
the input data from the Order Status
*
* form filling in the
required input variables. It then calls the
*
* SQLOrderStatus
transaction, constructs the output form and writes it
*
* back to client browser.
*
* ARGUMENTS: EXTENSION_CONTROL_BLOCK
*pECB passed in structure pointer from
inetsrv.
int
iTermId client browser terminal id
*/
void ProcessOrderStatusForm(EXTENSION_CONTROL_BLOCK
*pECB, int iTermId, char *szBuffer)
{
    PORDER_STATUS_DATA pOrderStatus;
    pOrderStatus =
Term.pClientData[iTermId].pTxn-
>BuffAddr_OrderStatus();
    ZeroMemory(pOrderStatus,
sizeof(ORDER_STATUS_DATA));
    pOrderStatus->w_id =
Term.pClientData[iTermId].w_id;
    GetOrderStatusData(pECB->lpszQueryString,
pOrderStatus);
    Term.pClientData[iTermId].pTxn-
>OrderStatus();
    pOrderStatus =
Term.pClientData[iTermId].pTxn-
>BuffAddr_OrderStatus();
    MakeOrderStatusForm(iTermId, pOrderStatus,
OUTPUT_FORM, szBuffer);
}
/* FUNCTION: ProcessDeliveryForm

```

```

*
* PURPOSE:      This function gets and validates
the input data from the delivery form
*
*              filling in the required
input variables. It then calls the PostDeliveryInfo
*              Api, The client is then
informed that the transaction has been posted.
*
* ARGUMENTS:   EXTENSION_CONTROL_BLOCK
*peCB          passed in structure pointer from
inetsrv.
*
*              int
*
*              iTermId  client browser terminal id
*/

void ProcessDeliveryForm(EXTENSION_CONTROL_BLOCK
*peCB, int iTermId, char *szBuffer)
{
    char          *ptr = peCB->lpszQueryString;
    PDELIVERY_DATA  pDelivery;

    pDelivery = Term.pClientData[iTermId].pTxn-
>BuffAddr_Delivery();
    ZeroMemory(pDelivery,
sizeof(DELIVERY_DATA));
    pDelivery->w_id =
Term.pClientData[iTermId].w_id;

    pDelivery->o_carrier_id      =
GetIntKeyValue(&ptr, "OCD*",
ERR_DELIVERY_MISSING_OCD_KEY,
ERR_DELIVERY_CARRIER_INVALID);
    if ( pDelivery->o_carrier_id > 10 ||
pDelivery->o_carrier_id < 1 )
        throw new CWBCLNT_ERR(
ERR_DELIVERY_CARRIER_ID_RANGE );

    if ( dwNumDeliveryThreads )
    {
        //post delivery info
        if ( PostDeliveryInfo(pDelivery-
>w_id, pDelivery->o_carrier_id) )
            pDelivery-
>exec_status_code = eDeliveryFailed;
        else
            pDelivery-
>exec_status_code = eOK;
    }
    else // delivery is done synchronously if
no delivery threads configured
        Term.pClientData[iTermId].pTxn-
>Delivery();

    pDelivery = Term.pClientData[iTermId].pTxn-
>BuffAddr_Delivery();
    MakeDeliveryForm(iTermId, pDelivery,
OUTPUT_FORM, szBuffer);
}

/* FUNCTION: ProcessStockLevelForm

```

```

*
* PURPOSE:      This function gets and validates
the input data from the Stock Level
*
*              form filling in the
required input variables. It then calls the
*              SQLStockLevel
transaction, constructs the output form and writes it
*              back to client browser.
*
* ARGUMENTS:   EXTENSION_CONTROL_BLOCK
*peCB          passed in structure pointer from
inetsrv.
*
*              int
*
*              iTermId  client browser terminal id
*/

void ProcessStockLevelForm(EXTENSION_CONTROL_BLOCK
*peCB, int iTermId, char *szBuffer)
{
    char          *ptr = peCB-
>lpszQueryString;
    PSTOCK_LEVEL_DATA  pStockLevel;

    pStockLevel =
Term.pClientData[iTermId].pTxn-
>BuffAddr_StockLevel();
    ZeroMemory( pStockLevel,
sizeof(STOCK_LEVEL_DATA) );

    pStockLevel->w_id =
Term.pClientData[iTermId].w_id;
    pStockLevel->d_id =
Term.pClientData[iTermId].d_id;

    pStockLevel->threshold =
GetIntKeyValue(&ptr, "TT*",
ERR_STOCKLEVEL_MISSING_THRESHOLD_KEY,
ERR_STOCKLEVEL_THRESHOLD_INVALID);
    if ( pStockLevel->threshold >= 100 ||
pStockLevel->threshold < 0 )
        throw new CWBCLNT_ERR(
ERR_STOCKLEVEL_THRESHOLD_RANGE );

    Term.pClientData[iTermId].pTxn-
>StockLevel();

    pStockLevel =
Term.pClientData[iTermId].pTxn-
>BuffAddr_StockLevel();
    MakeStockLevelForm(iTermId, pStockLevel,
OUTPUT_FORM, szBuffer);
}

/* FUNCTION: GetNewOrderData
*
* PURPOSE:      This function extracts and
validates the new order form data from an http
command string.
*

```

```

* ARGUMENTS:   LPSTR          client
                lpszQueryString
browser http command string
*
                NEW_ORDER_DATA  *pNewOrderData
                pointer to new order data structure
*/

void GetNewOrderData(LPSTR lpszQueryString,
NEW_ORDER_DATA *pNewOrderData)
{
    char          szTmp[26];
    int           i;
    short        items;
    int          ol_i_id, ol_quantity;
    char         *ptr = lpszQueryString;

    static char szSP[MAX_OL_NEW_ORDER_ITEMS][6]
=
    { "SP00*", "SP01*", "SP02*",
      "SP03*", "SP04*", "SP05*", "SP06*", "SP07*",
      "SP08*", "SP09*", "SP10*", "SP11*", "SP12*",
      "SP13*", "SP14*" };
    static char
szIID[MAX_OL_NEW_ORDER_ITEMS][7] =
    { "IID00*", "IID01*", "IID02*",
      "IID03*", "IID04*", "IID05*", "IID06*", "IID07*",
      "IID08*", "IID09*", "IID10*", "IID11*", "IID12*",
      "IID13*", "IID14*" };
    static char
szQty[MAX_OL_NEW_ORDER_ITEMS][7] =
    { "Qty00*", "Qty01*", "Qty02*",
      "Qty03*", "Qty04*", "Qty05*", "Qty06*", "Qty07*",
      "Qty08*", "Qty09*", "Qty10*", "Qty11*", "Qty12*",
      "Qty13*", "Qty14*" };

    pNewOrderData->d_id = GetIntKeyValue(&ptr,
"DID*", ERR_NEWORDER_FORM_MISSING_DID,
ERR_NEWORDER_DISTRICT_INVALID);
    pNewOrderData->c_id = GetIntKeyValue(&ptr,
"CID*", ERR_NEWORDER_CUSTOMER_KEY,
ERR_NEWORDER_CUSTOMER_INVALID);

    for(i=0, items=0; i<MAX_OL_NEW_ORDER_ITEMS;
i++)
    {
        GetKeyValue(&ptr, szSP[i], szTmp,
sizeof(szTmp), ERR_NEWORDER_MISSING_SUPPW_KEY);
        if ( szTmp[0] )
            if ( !IsNumeric(szTmp)
                throw new
CWBCLNT_ERR( ERR_NEWORDER_SUPPW_INVALID );
            pNewOrderData-
>OL[items].ol_supply_w_id = atoi(szTmp);
    }
}

```

```

                ol_i_id =
pNewOrderData->OL[items].ol_i_id =
        GetIntKeyValue(&ptr, szIID[i],
ERR_NEWORDER_MISSING_IID_KEY,
ERR_NEWORDER_ITEMID_INVALID);
        if ( ol_i_id > 999999
|| ol_i_id < 1 )
                throw new
CWECLNT_ERR( ERR_NEWORDER_ITEMID_RANGE );
                ol_quantity =
pNewOrderData->OL[items].ol_quantity =
        GetIntKeyValue(&ptr, szQty[i],
ERR_NEWORDER_MISSING_QTY_KEY,
ERR_NEWORDER_QTY_INVALID);
        if ( ol_quantity > 99
|| ol_quantity < 1 )
                throw new
CWECLNT_ERR( ERR_NEWORDER_QTY_RANGE );
                items++;
        }
        else
        {
                // nothing entered for
supply warehouse, so item id and qty must also be
blank
                GetKeyValue(&ptr,
szIID[i], szTmp, sizeof(szTmp),
ERR_NEWORDER_MISSING_IID_KEY);
                if ( szTmp[0] )
                        throw new
CWECLNT_ERR( ERR_NEWORDER_ITEMID_WITHOUT_SUPPW );
                GetKeyValue(&ptr,
szQty[i], szTmp, sizeof(szTmp),
ERR_NEWORDER_MISSING_QTY_KEY);
                if ( szTmp[0] )
                        throw new
CWECLNT_ERR( ERR_NEWORDER_QTY_WITHOUT_SUPPW );
        }
        if ( items == 0 )
                throw new CWECLNT_ERR(
ERR_NEWORDER_NOITEMS_ENTERED );
        pNewOrderData->o_ol_cnt = items;
}
/* FUNCTION: GetPaymentData
*
* PURPOSE: This function extracts and
validates the payment form data from an http command
string.
*
* ARGUMENTS: LPSTR client
lpzQueryString client
browser http command string PAYMENT_DATA
*
* pPaymentData pointer to
payment data structure

```

```

*/
void GetPaymentData(LPSTR lpzQueryString,
PAYMENT_DATA *pPaymentData)
{
        char        szTmp[26];
        char        *ptr = lpzQueryString;
        BOOL        bCustIdBlank;
        int         iLen;

        pPaymentData->d_id = GetIntKeyValue(&ptr,
"DID*", ERR_PAYMENT_MISSING_DID_KEY,
ERR_PAYMENT_DISTRICT_INVALID);

        GetKeyValue(&ptr, "CID*", szTmp,
sizeof(szTmp), ERR_PAYMENT_MISSING_CID_KEY);
        if ( szTmp[0] == 0 )
        {
                bCustIdBlank = TRUE;
                pPaymentData->c_id = 0;
        }
        else
        {
                // parse customer id and verify
that last name was NOT entered
                bCustIdBlank = FALSE;
                if ( !IsNumeric(szTmp) )
                        throw new CWECLNT_ERR(
ERR_PAYMENT_CUSTOMER_INVALID );
                pPaymentData->c_id = atoi(szTmp);
        }

        pPaymentData->c_w_id = GetIntKeyValue(&ptr,
"CWI*", ERR_PAYMENT_MISSING_CWI_KEY,
ERR_PAYMENT_CWI_INVALID);
        pPaymentData->c_d_id = GetIntKeyValue(&ptr,
"CDI*", ERR_PAYMENT_MISSING_CDI_KEY,
ERR_PAYMENT_CDI_INVALID);

        if ( bCustIdBlank )
        {
                // customer id is blank, so last
name must be entered
                GetKeyValue(&ptr, "CLT*", szTmp,
sizeof(szTmp), ERR_PAYMENT_MISSING_CLT_KEY);
                if ( szTmp[0] == 0 )
                        throw new CWECLNT_ERR(
ERR_PAYMENT_MISSING_CID_CLT );
                _strupr( szTmp );
                if ( strlen(szTmp) >
LAST_NAME_LEN )
                        throw new CWECLNT_ERR(
ERR_PAYMENT_LAST_NAME_TO_LONG );
                strcpy(pPaymentData->c_last,
szTmp);
                // pad with spaces so that the
client layer doesn't have to do it
                // before passing parameters to
stored procedure
                iLen = strlen(pPaymentData-
>c_last);
                memset(pPaymentData->c_last +
iLen, ' ', LAST_NAME_LEN - iLen);

```

```

                pPaymentData-
>c_last[LAST_NAME_LEN] = 0;
        }
        else
        {
                // parse customer id and verify
that last name was NOT entered
                GetKeyValue(&ptr, "CLT*", szTmp,
sizeof(szTmp), ERR_PAYMENT_MISSING_CLT_KEY);
                if ( szTmp[0] != 0 )
                        throw new CWECLNT_ERR(
ERR_PAYMENT_CID_AND_CLT );
        }

        GetKeyValue(&ptr, "HAM*", szTmp,
sizeof(szTmp), ERR_PAYMENT_MISSING_HAM_KEY);
        if ( !IsDecimal(szTmp) )
                throw new CWECLNT_ERR(
ERR_PAYMENT_HAM_INVALID );
        pPaymentData->h_amount = atof(szTmp);
        if ( pPaymentData->h_amount >= 10000.00 ||
pPaymentData->h_amount < 0 )
                throw new CWECLNT_ERR(
ERR_PAYMENT_HAM_RANGE );
}
/* FUNCTION: GetOrderStatusData
*
* PURPOSE: This function extracts and
validates the payment form data from an http command
string.
*
*
*/
void GetOrderStatusData(LPSTR lpzQueryString,
ORDER_STATUS_DATA *pOrderStatusData)
{
        char        szTmp[26];
        char        *ptr = lpzQueryString;
        int         iLen;

        pOrderStatusData->d_id =
GetIntKeyValue(&ptr, "DID*",
ERR_ORDERSTATUS_MISSING_DID_KEY,
ERR_ORDERSTATUS_DID_INVALID);

        GetKeyValue(&ptr, "CID*", szTmp,
sizeof(szTmp), ERR_ORDERSTATUS_MISSING_CID_KEY);
        if ( szTmp[0] == 0 )
        {
                // customer id is blank, so last
name must be entered
                pOrderStatusData->c_id = 0;
                GetKeyValue(&ptr, "CLT*", szTmp,
sizeof(szTmp), ERR_ORDERSTATUS_MISSING_CLT_KEY);
                if ( szTmp[0] == 0 )
                        throw new CWECLNT_ERR(
ERR_ORDERSTATUS_MISSING_CID_CLT );
                _strupr( szTmp );
                if ( strlen(szTmp) >
LAST_NAME_LEN )
                        throw new CWECLNT_ERR(
ERR_ORDERSTATUS_CLT_RANGE );

```

```

        strcpy(pOrderStatusData->c_last,
szTmp);
        // pad with spaces so that the
client layer doesn't have to do it
        // before passing parameters to
stored procedure
        iLen = strlen(pOrderStatusData-
>c_last);
        memset(pOrderStatusData->c_last +
iLen, ' ', LAST_NAME_LEN - iLen);
        pOrderStatusData-
>c_last[LAST_NAME_LEN] = 0;
    }
    else
    {
        // parse customer id and verify
that last name was NOT entered
        if ( !IsNumeric(szTmp) )
            throw new CWBCLNT_ERR(
ERR_ORDERSTATUS_CID_INVALID );
        pOrderStatusData->c_id =
atoi(szTmp);
        GetKeyValue(&ptr, "CLT*", szTmp,
sizeof(szTmp), ERR_ORDERSTATUS_MISSING_CLT_KEY);
        if ( szTmp[0] != 0 )
            throw new CWBCLNT_ERR(
ERR_ORDERSTATUS_CID_AND_CLT );
    }
}

/* FUNCTION: BOOL IsNumeric(char *ptr)
*
* PURPOSE:      This function determines if a
string is numeric. It fails if any characters other
*              than numeric and null
terminator are present.
*
* ARGUMENTS:   char
*              *ptr      pointer to string to check.
*
* RETURNS:     BOOL      FALSE   if
string is not all numeric
*
*              TRUE      if string contains only numeric
characters i.e. '0' - '9'
*/

BOOL IsNumeric(char *ptr)
{
    if ( *ptr == 0 )
        return FALSE;

    while( *ptr && isdigit(*ptr) )
        ptr++;
    return ( !*ptr );
}

/* FUNCTION: BOOL IsDecimal(char *ptr)
*
* PURPOSE:      This function determines if a
string is a non-negative decimal value.
*              It fails if any characters other than a
series of numbers followed by

```

```

        a decimal point,
another series of numbers, and a null terminator are
present.
*
* ARGUMENTS:   char
*              *ptr      pointer to string to check.
*
* RETURNS:     BOOL      FALSE   if
string is not a valid non-negative decimal value
*
*              TRUE      if string is OK
*/

BOOL IsDecimal(char *ptr)
{
    char *dotpstr;
    BOOL bValid;

    if ( *ptr == 0 )
        return FALSE;

    // find decimal point
    dotpstr = strchr( ptr, '.' );
    if (dotpstr == NULL)
        // no decimal point, so just
check for numeric
        return IsNumeric(ptr);
    *dotpstr = 0; // temporarily replace
decimal with a terminator

    if ( *ptr != 0 )
        bValid = IsNumeric(ptr);
    // string starts with decimal point
    else if (*(dotpstr+1) == 0)
        return FALSE; // nothing but a
decimal point is bad
    else
        bValid = TRUE;

    if (*(dotpstr+1) != 0)
        // check text after decimal point
        bValid &= IsNumeric(dotpstr+1);

    *dotpstr = '.'; // replace decimal point
    return bValid;
}

```

tpcc.def

```

LIBRARY TPCC.DLL

EXPORTS

    GetExtensionVersion @1
    HttpExtensionProc @2
    TerminateExtension @3

```

tpcc.h

```

/*      FILE:      TPCC.H      Microsoft
*
*      TPC-C Kit Ver. 4.69.000      Copyright
*
*      Microsoft, 1999      All Rights Reserved
*
*
*      Version
4.10.000 audited by Richard Gimarc, Performance
Metrics, 3/17/99
*
*      PURPOSE:   Header file for ISAPI TPCC.DLL,
defines structures and functions used in the isapi
tpcc.dll.
*
*/

//VERSION RESOURCE DEFINES
#define _APS_NEXT_RESOURCE_VALUE 101
#define _APS_NEXT_COMMAND_VALUE 40001
#define _APS_NEXT_CONTROL_VALUE 1000
#define _APS_NEXT_SYMED_VALUE 101

#define TP_MAX_RETRIES 50

//note that the welcome form must be processed first
as terminal ids assigned here, once the
//terminal id is assigned then the forms can be
processed in any order.
#define WELCOME_FORM 1
//beginning form no term id assigned, form
id
#define MAIN_MENU_FORM 2
//term id assigned main menu form id
#define NEW_ORDER_FORM 3
//new order form id
#define PAYMENT_FORM 4
//payment form id
#define DELIVERY_FORM 5
//delivery form id
#define ORDER_STATUS_FORM 6 //order
status id
#define STOCK_LEVEL_FORM 7 //stock level
form id

```

```

//This macro is used to prevent the compiler error
unused formal parameter
#define UNUSEDPARAM(x) (x = x)

//This structure defines the data necessary to keep
distinct for each terminal or client connection.
typedef struct _CLIENTDATA
{
    int                iNextFree;
                    //index of
next free element or -1 if this entry in use.
    int                w_id;
                    //warehouse
id assigned at welcome form
    int                d_id;
                    //district id
assigned at welcome form
    int                iSyncId;
                    //synchronization id
    int                iTickCount;
                    //time of
last access:
    CTPCC_BASE         *pTxn;
} CLIENTDATA, *PCLIENTDATA;

//This structure is used to define the operational
interface for terminal id support
typedef struct _TERM
{
    int                iNumEntries;
                    //total allocated terminal array entries
    int                iFreeList;
                    //next available terminal array element or
-1 if none
    int                iMasterSyncId;
                    //synchronization id
    CLIENTDATA         *pClientData;
                    //pointer to
allocated client data
} TERM;

typedef TERM *PTERM;
                    //pointer to
terminal structure type

enum WEBERROR
{
    NO_ERR,
    ERR_COMMAND_UNDEFINED,
    ERR_D_ID_INVALID,
    ERR_DELIVERY_CARRIER_ID_RANGE,
    ERR_DELIVERY_CARRIER_INVALID,
    ERR_DELIVERY_MISSING_OCD_KEY,
    ERR_DELIVERY_THREAD_FAILED,

```

```

ERR_GETPROCADDR_FAILED,
ERR_HTML_ILL_FORMED,
ERR_INVALID_SYNC_CONNECTION,
ERR_INVALID_TERMID,
ERR_LOADDLL_FAILED,
ERR_MAX_CONNECTIONS_EXCEEDED,
ERR_MEM_ALLOC_FAILED,
ERR_MISSING_REGISTRY_ENTRIES,
ERR_NEWORDER_CUSTOMER_INVALID,
ERR_NEWORDER_CUSTOMER_KEY,
ERR_NEWORDER_DISTRICT_INVALID,
ERR_NEWORDER_FORM_MISSING_DID,
ERR_NEWORDER_ITEMID_INVALID,
ERR_NEWORDER_ITEMID_RANGE,
ERR_NEWORDER_ITEMID_WITHOUT_SUPPW,
ERR_NEWORDER_MISSING_IID_KEY,
ERR_NEWORDER_MISSING_QTY_KEY,
ERR_NEWORDER_MISSING_SUPPW_KEY,
ERR_NEWORDER_NOITEMS_ENTERED,
ERR_NEWORDER_QTY_INVALID,
ERR_NEWORDER_QTY_RANGE,
ERR_NEWORDER_QTY_WITHOUT_SUPPW,
ERR_NEWORDER_SUPPW_INVALID,
ERR_NO_SERVER_SPECIFIED,
ERR_ORDERSTATUS_CID_AND_CLT,
ERR_ORDERSTATUS_CID_INVALID,
ERR_ORDERSTATUS_CLT_RANGE,
ERR_ORDERSTATUS_DID_INVALID,
ERR_ORDERSTATUS_MISSING_CID_CLT,
ERR_ORDERSTATUS_MISSING_CID_KEY,
ERR_ORDERSTATUS_MISSING_CLT_KEY,
ERR_ORDERSTATUS_MISSING_DID_KEY,
ERR_PAYMENT_CDI_INVALID,
ERR_PAYMENT_CID_AND_CLT,
ERR_PAYMENT_CUSTOMER_INVALID,
ERR_PAYMENT_CWI_INVALID,
ERR_PAYMENT_DISTRICT_INVALID,
ERR_PAYMENT_HAM_INVALID,
ERR_PAYMENT_HAM_RANGE,
ERR_PAYMENT_LAST_NAME_TO_LONG,
ERR_PAYMENT_MISSING_CDI_KEY,
ERR_PAYMENT_MISSING_CID_CLT,
ERR_PAYMENT_MISSING_CID_KEY,
ERR_PAYMENT_MISSING_CLT,
ERR_PAYMENT_MISSING_CLT_KEY,
ERR_PAYMENT_MISSING_CWI_KEY,
ERR_PAYMENT_MISSING_DID_KEY,
ERR_PAYMENT_MISSING_HAM_KEY,
ERR_STOCKLEVEL_MISSING_THRESHOLD_KEY,
ERR_STOCKLEVEL_THRESHOLD_INVALID,
ERR_STOCKLEVEL_THRESHOLD_RANGE,
ERR_VERSION_MISMATCH,
ERR_W_ID_INVALID
};

class CWEBCLNT_ERR : public CBaseErr
{
public:
    CWEBCLNT_ERR(WEBERROR Err)
    {

```

```

        m_Error = Err;
        m_szTextDetail = NULL;
        m_SystemErr = 0;
        m_szErrorText = NULL;
    };
};

CWEBCLNT_ERR(WEBERROR Err, char
*szTextDetail, DWORD dwSystemErr)
{
    m_Error = Err;
    m_szTextDetail = new
char[strlen(szTextDetail)+1];
    strcpy( m_szTextDetail,
szTextDetail );
    m_SystemErr =
dwSystemErr;
    m_szErrorText = NULL;
};

~CWEBCLNT_ERR()
{
    if (m_szTextDetail !=
NULL)
        delete []
m_szTextDetail;
    if (m_szErrorText !=
NULL)
        delete []
m_szErrorText;
};

WEBERROR m_Error;
char
*m_szTextDetail; //
char
*m_szErrorText;
DWORD m_SystemErr;

int ErrorType() {return
ERR_TYPE_WEBDLL;};
char *ErrorTypeStr() { return
"WEBCLIENT"; }
int ErrorNum() {return m_Error;};
char *ErrorText();
};

//These constants have already been defined in
engstut.h, but since we do
//not want to include it in the delisrv executable
#define TXN_EVENT_START 2
#define TXN_EVENT_STOP 4
#define TXN_EVENT_WARNING 6
//used to record a warning into the log

//function prototypes

BOOL APIENTRY DllMain(HANDLE hModule, DWORD
ul_reason_for_call, LPVOID lpReserved);
void WriteMessageToEventLog(LPTSTR lpszMsg);
void ProcessQueryString(EXTENSION_CONTROL_BLOCK
*pECB, int *pCmd, int *pFormId, int *pTermId, int
*pSyncId);

```

```

void WelcomeForm(EXTENSION_CONTROL_BLOCK *pECB, char
*szBuffer);
void SubmitCmd(EXTENSION_CONTROL_BLOCK *pECB, char
*szBuffer);
void BeginCmd(EXTENSION_CONTROL_BLOCK *pECB, int
iFormId, int iTermId);
void ProcessCmd(EXTENSION_CONTROL_BLOCK *pECB, int
iFormId, int iTermId);
void StatsCmd(EXTENSION_CONTROL_BLOCK *pECB, char
*szBuffer);
void ErrorMessage(EXTENSION_CONTROL_BLOCK *pECB, int
iError, int iErrorType, char *szMsg, int iTermId);
void GetKeyValue(char **pQueryString, char *pKey,
char *pValue, int iMax, WEBERROR err);
int GetIntKeyValue(char **pQueryString, char *pKey,
WEBERROR NoKeyErr, WEBERROR NotIntErr);
void TermInit(void);
void TermDeleteAll(void);
int TermAdd(void);
void TermDelete(int id);
void ErrorForm(EXTENSION_CONTROL_BLOCK *pECB, int
iType, int iErrorNum, int iTermId, int iSyncId, char
*szErrorText, char *szBuffer );
void MakeMainMenuForm(int iTermId, int iSyncId, char
*szForm);
void MakeStockLevelForm(int iTermId, STOCK_LEVEL_DATA
*pStockLevelData, BOOL bInput, char *szForm);
void MakeNewOrderForm(int iTermId, NEW_ORDER_DATA
*pNewOrderData, BOOL bInput, char *szForm);
void MakePaymentForm(int iTermId, PAYMENT_DATA
*pPaymentData, BOOL bInput, char *szForm);
void MakeOrderStatusForm(int iTermId,
ORDER_STATUS_DATA *pOrderStatusData, BOOL bInput,
char *szForm);
void MakeDeliveryForm(int iTermId, DELIVERY_DATA
*pDeliveryData, BOOL bInput, char *szForm);
void ProcessNewOrderForm(EXTENSION_CONTROL_BLOCK
*pECB, int iTermId, char *szBuffer);
void ProcessPaymentForm(EXTENSION_CONTROL_BLOCK
*pECB, int iTermId, char *szBuffer);
void ProcessOrderStatusForm(EXTENSION_CONTROL_BLOCK
*pECB, int iTermId, char *szBuffer);
void ProcessDeliveryForm(EXTENSION_CONTROL_BLOCK
*pECB, int iTermId, char *szBuffer);
void ProcessStockLevelForm(EXTENSION_CONTROL_BLOCK
*pECB, int iTermId, char *szBuffer);
void GetNewOrderData(LPSTR lpszQueryString,
NEW_ORDER_DATA *pNewOrderData);
void GetPaymentData(LPSTR lpszQueryString,
PAYMENT_DATA *pPaymentData);
void GetOrderStatusData(LPSTR lpszQueryString,
ORDER_STATUS_DATA *pOrderStatusData);
BOOL PostDeliveryInfo(long w_id, short o_carrier_id);
BOOL IsNumeric(char *ptr);
BOOL IsDecimal(char *ptr);
void DeliveryWorkerThread(void *ptr);
// Separate function to be able to use Win32
exception handling in
// HttpExtensionProc.
void ProcessCommand(EXTENSION_CONTROL_BLOCK *pECB,
char* szBuffer, int& TermId, int& iSyncId);

```

tpcc.rc

```

//Microsoft Developer Studio generated resource
script.
//
#include "resource.h"

#define APSTUDIO_READONLY_SYMBOLS
//
// Generated from the TEXTINCLUDE 2 resource.
//
#include "afxres.h"

//
// English (U.S.) resources

#if !defined(AFX_RESOURCE_DLL) ||
defined(AFX_TARG_ENU)
#ifdef _WIN32
LANGUAGE LANG_ENGLISH, SUBLANG_ENGLISH_US
#pragma code_page(1252)
#endif // _WIN32

#ifdef _MAC

VS_VERSION_INFO VERSIONINFO
FILEVERSION 0,4,0,0
PRODUCTVERSION 0,4,0,0
FILEFLAGSMASK 0x3fL
#ifdef _DEBUG
FILEFLAGS 0x1L
#else
FILEFLAGS 0x0L
#endif
FILEOS 0x40004L
FILETYPE 0x2L
FILESUBTYPE 0x0L
BEGIN
    BLOCK "StringFileInfo"
    BEGIN
        BLOCK "040904b0"
        BEGIN
            VALUE "Comments", "TPC-C HTML DLL

Server\0"
            VALUE "CompanyName", "Microsoft\0"
            VALUE "FileDescription", "TPC-C HTML DLL

Server\0"
            VALUE "FileVersion", "0, 4, 0, 0\0"
            VALUE "InternalName", "tpcc\0"

```

```

        VALUE "LegalCopyright", "Copyright ©
1997\0"
        VALUE "OriginalFilename", "tpcc.dll\0"
        VALUE "ProductName", "Microsoft tpcc\0"
        VALUE "ProductVersion", "0, 4, 0, 0\0"
    END
    END
    BLOCK "VarFileInfo"
    BEGIN
        VALUE "Translation", 0x409, 1200
    END
    END
#endif // !_MAC

#ifdef APSTUDIO_INVOKED
//
// TEXTINCLUDE
//
1 TEXTINCLUDE DISCARDABLE
BEGIN
    "resource.h\0"
END

2 TEXTINCLUDE DISCARDABLE
BEGIN
    "#include \"afxres.h\"\r\n"
    "\0"
END

3 TEXTINCLUDE DISCARDABLE
BEGIN
    "\r\n"
    "\0"
END

#endif // APSTUDIO_INVOKED

//
// Dialog
//
IDD_DIALOG1 DIALOG DISCARDABLE 0, 0, 186, 95
STYLE DS_MODALFRAME | WS_POPUP | WS_CAPTION |
WS_SYSMENU
CAPTION "Dialog"
FONT 8, "MS Sans Serif"
BEGIN
    DEFPUSHBUTTON "OK", IDOK, 129, 7, 50, 14
    PUSHBUTTON "Cancel", IDCANCEL, 129, 24, 50, 14
END

//
//

```

```

// DESIGNINFO
//

#ifdef APSTUDIO_INVOKED
GUIDELINES DESIGNINFO DISCARDABLE
BEGIN
    IDD_DIALOG1, DIALOG
    BEGIN
        LEFTMARGIN, 7
        RIGHTMARGIN, 179
        TOPMARGIN, 7
        BOTTOMMARGIN, 88
    END
END
#endif // APSTUDIO_INVOKED

#endif // English (U.S.) resources
// ~~~~~
// ~~~~~

#ifdef APSTUDIO_INVOKED
// ~~~~~
// ~~~~~
// Generated from the TEXTINCLUDE 3 resource.
//

// ~~~~~
// ~~~~~
#endif // not APSTUDIO_INVOKED

```

tpcc_com.cpp

```

/* FILE: TPCC_COM.CPP
 * Microsoft
 * TPC-C Kit Ver. 4.69.000
 * Copyright
 * Microsoft, 1999
 * All Rights Reserved
 * not yet
 * audited
 * PURPOSE: Source file for TPC-C COM+ class
 * implementation.
 * Contact: Charles Levine
 * (clevine@microsoft.com)
 * Change history:
 * 4.20.000 - first version
 * 4.69.000 - updated rev number to
 * match kit
 */
// needed for CoinitializeEx
#define _WIN32_WINNT 0x0400

```

```

#include <windows.h>

// need to declare functions for export
#define DllDecl __declspec( dllexport )

#include "..\..\common\src\trans.h"
//tpckit transaction header contains
definitions of structures specific to TPC-C
#include "..\..\common\src\error.h"
#include "..\..\common\src\txn_base.h"
#include "..\..\common\src\tpcc_com_errorcode.h"
#include "tpcc_com.h"

#include "..\..\tpcc_com_ps\src\tpcc_com_ps_i.c"
#include "..\..\tpcc_com_all\src\tpcc_com_all_i.c"

// wrapper routine for class constructor
__declspec( dllexport ) CTPCC_COM* CTPCC_COM_new(BOOL
bSinglePool)
{
    return new CTPCC_COM(bSinglePool);
}

CTPCC_COM::CTPCC_COM(BOOL bSinglePool)
{
    HRESULT hr = NULL;
    long lRet = 0;
    ULONG ulTmpSize = 0;

    m_pTxn = NULL;
    m_pNewOrder = NULL;
    m_pPayment = NULL;
    m_pStockLevel = NULL;
    m_pOrderStatus = NULL;

    m_bSinglePool = bSinglePool;

    ulTmpSize = (ULONG) sizeof(COM_DATA);
    VariantInit(&m_vTxn);
    m_vTxn.vt = VT_SAFEARRAY;

    m_vTxn.parray =
    SafeArrayCreateVector(VT_UI1, ulTmpSize, ulTmpSize);
    if (!m_vTxn.parray)
        throw new CCOMERR( E_FAIL );

    memset((void*)m_vTxn.parray-
>pvData,0,ulTmpSize);
    m_pTxn = (COM_DATA*)m_vTxn.parray->pvData;

    hr = CoInitializeEx(NULL,
COINIT_MULTITHREADED);
    if (FAILED(hr))
    {
        throw new CCOMERR( hr );
    }

    // create components
    if (m_bSinglePool)
    {

```

```

        hr = CoCreateInstance(CLSID_TPCC,
NULL, CLSCTX_SERVER, IID_ITPCC, (void
**)&m_pNewOrder);
        if (FAILED(hr))
            throw new CCOMERR(hr);

        // all txns will use same
        component
            m_pPayment = m_pNewOrder;
            m_pStockLevel = m_pNewOrder;
            m_pOrderStatus = m_pNewOrder;
        }
        else
        {
            // use different components for
            each txn

            hr =
            CoCreateInstance(CLSID_NewOrder, NULL, CLSCTX_SERVER,
IID_ITPCC, (void **)&m_pNewOrder);
            if (FAILED(hr))
                throw new CCOMERR(hr);

            hr =
            CoCreateInstance(CLSID_Payment, NULL, CLSCTX_SERVER,
IID_ITPCC, (void **)&m_pPayment);
            if (FAILED(hr))
                throw new CCOMERR(hr);

            hr =
            CoCreateInstance(CLSID_StockLevel, NULL,
CLSCTX_SERVER, IID_ITPCC, (void **)&m_pStockLevel);
            if (FAILED(hr))
                throw new CCOMERR(hr);

            hr =
            CoCreateInstance(CLSID_OrderStatus, NULL,
CLSCTX_SERVER, IID_ITPCC, (void **)&m_pOrderStatus);
            if (FAILED(hr))
                throw new CCOMERR(hr);
        }

        // call setcomplete to release each
        component
        back into pool
        hr = m_pNewOrder->CallSetComplete();
        if (FAILED(hr))
            throw new CCOMERR(hr);

        if (!m_bSinglePool)
        {
            hr = m_pPayment-
            >CallSetComplete();
            if (FAILED(hr))
                throw new CCOMERR(hr);

            hr = m_pStockLevel-
            >CallSetComplete();
            if (FAILED(hr))
                throw new CCOMERR(hr);

            hr = m_pOrderStatus-
            >CallSetComplete();
            if (FAILED(hr))

```



```

        throw new CCOMERR(hr);
    }
}

CTPCC_COM::~~CTPCC_COM()
{
    if (m_pTxn)
        SafeArrayDestroy(m_vTxn.parray);

    ReleaseInterface(m_pNewOrder);
    if (!m_bSinglePool)
    {
        ReleaseInterface(m_pPayment);
        ReleaseInterface(m_pStockLevel);
        ReleaseInterface(m_pOrderStatus);
    }
    CoUninitialize();
}

void CTPCC_COM::NewOrder()
{
    VARIANT                vTxn_out;

    HRESULT hr = m_pNewOrder->NewOrder(m_vTxn,
    &vTxn_out);

    if (FAILED(hr) && hr != E_TPCCCOM)
        throw new CCOMERR( hr ); //
COM call didn't succeed and there is no output
structure

    memcpy(m_pTxn, (void *)vTxn_out.parray-
    >pvData, vTxn_out.parray->rgsabound[0].cElements);
    hr = SafeArrayDestroy(vTxn_out.parray);
    if (hr != S_OK)
        throw new CCOMERR( hr );

    if ( m_pTxn->ErrorType != ERR_SUCCESS )
        throw new CCOMERR( m_pTxn-
    >ErrorType, m_pTxn->error );
}

void CTPCC_COM::Payment()
{
    VARIANT                vTxn_out;

    HRESULT hr = m_pPayment->Payment(m_vTxn,
    &vTxn_out);

    if (FAILED(hr) && hr != E_TPCCCOM)
        throw new CCOMERR( hr ); //
COM call didn't succeed and there is no output
structure

    memcpy(m_pTxn, (void *)vTxn_out.parray-
    >pvData, vTxn_out.parray->rgsabound[0].cElements);
    hr = SafeArrayDestroy(vTxn_out.parray);
    if (hr != S_OK)
        throw new CCOMERR( hr );

    if ( m_pTxn->ErrorType != ERR_SUCCESS )
        throw new CCOMERR( m_pTxn-
    >ErrorType, m_pTxn->error );
}

```

```

}

void CTPCC_COM::StockLevel()
{
    VARIANT                vTxn_out;

    HRESULT hr = m_pStockLevel-
    >StockLevel(m_vTxn, &vTxn_out);

    if (FAILED(hr) && hr != E_TPCCCOM)
        throw new CCOMERR( hr ); //
COM call didn't succeed and there is no output
structure

    memcpy(m_pTxn, (void *)vTxn_out.parray-
    >pvData, vTxn_out.parray->rgsabound[0].cElements);
    hr = SafeArrayDestroy(vTxn_out.parray);
    if (hr != S_OK)
        throw new CCOMERR( hr );

    if ( m_pTxn->ErrorType != ERR_SUCCESS )
        throw new CCOMERR( m_pTxn-
    >ErrorType, m_pTxn->error );
}

void CTPCC_COM::OrderStatus()
{
    VARIANT                vTxn_out;

    HRESULT hr = m_pOrderStatus-
    >OrderStatus(m_vTxn, &vTxn_out);

    if (FAILED(hr) && hr != E_TPCCCOM)
        throw new CCOMERR( hr ); //
COM call didn't succeed and there is no output
structure

    memcpy(m_pTxn, (void *)vTxn_out.parray-
    >pvData, vTxn_out.parray->rgsabound[0].cElements);
    hr = SafeArrayDestroy(vTxn_out.parray);
    if (hr != S_OK)
        throw new CCOMERR( hr );

    if ( m_pTxn->ErrorType != ERR_SUCCESS )
        throw new CCOMERR( m_pTxn-
    >ErrorType, m_pTxn->error );
}

```

tpcc_com.h

```

/* FILE:                TPCC_COM.H
 *
 * Microsoft
 * TPC-C Kit Ver. 4.69.000
 * Copyright
 * Microsoft, 1999
 * All Rights Reserved
 *
 * not yet
 * audited
 *
 */

```

```

* PURPOSE: Header file for TPC-C COM+ class
implementation.
*
* Change history:
* 4.20.000 - first version
* 4.69.000 - updated rev number to
match kit
*/

#pragma once

#include <stdio.h>
#include "..\..\tpcc_com_ps\src\tpcc_com_ps.h"

// need to declare functions for import, unless
define has already been created
// by the DLL's .cpp module for export.
#ifdef DllDecl
#define DllDecl __declspec( dllimport )
#endif

class CCOMERR : public CBaseErr
{
private:
    char m_szErrorText[64];

public:
    // use this interface for genuine
COM errors
    CCOMERR( HRESULT hr )
    {
        m_hr = hr;
        m_iErrorType = 0;
        m_iError = 0;
    }

    // use this interface to
impersonate a non-COM error type
    CCOMERR( int iErrorType, int
iError )
    {
        m_iErrorType =
iErrorType;
        m_iError = iError;
        m_hr = S_OK;
    }

    int m_hr;
    int m_iErrorType;
    int m_iError;

    // A CCOMERR class can
impersonate another class, which happens if the error
// was not actually a COM
Services error, but was simply transmitted back via
COM.
    int ErrorType()
    {
        if (m_iErrorType == 0)
            return
ERR_TYPE_COM;
        else

```

```

        return
m_iErrorType;
    }

    char *ErrorTypeStr() { return
"COM"; }

    int ErrorNum()
    {
        if (m_iErrorType == 0)
            return m_hr;
        // return COM error
        else
            return
m_iError; // return impersonated error
    }

    char *ErrorText()
    {
        if (m_hr == S_OK)
            sprintf(
m_szErrorText, "Error: Class %d, error # %d",
m_iErrorType, m_iError );
        else
            sprintf(
m_szErrorText, "Error: COM HRESULT %x", m_hr );
        return m_szErrorText;
    }
};

class DllDecl CTPCC_COM : public CTPCC_BASE
{
private:
    BOOL m_bSinglePool;

    // COM Interface pointers
    ITPCC*
m_pNewOrder;
    ITPCC*
m_pPayment;
    ITPCC*
m_pStockLevel;
    ITPCC*
m_pOrderStatus;

    struct COM_DATA
    {
        int ErrorType;
        int error;
        union
        {
            NEW_ORDER_DATA      NewOrder;
            PAYMENT_DATA        Payment;
            DELIVERY_DATA       Delivery;
            STOCK_LEVEL_DATA    StockLevel;
            ORDER_STATUS_DATA   OrderStatus;
        } *m_pTxn;
    }
};

```

```

        VARIANT m_vTxn;
public:
    CTPCC_COM(BOOL bSinglePool);
    ~CTPCC_COM(void);

    inline PNEW_ORDER_DATA
    BuffAddr_NewOrder() { return
&m_pTxn->u.NewOrder; };
    inline PPAYMENT_DATA
    BuffAddr_Payment() { return
&m_pTxn->u.Payment; };
    inline PDELIVERY_DATA
    BuffAddr_Delivery() { return
&m_pTxn->u.Delivery; };
    inline PSTOCK_LEVEL_DATA
    BuffAddr_StockLevel() { return
&m_pTxn->u.StockLevel; };
    inline PORDER_STATUS_DATA
    BuffAddr_OrderStatus() { return
&m_pTxn->u.OrderStatus; };

    void NewOrder        ();
    void Payment         ();
    void StockLevel      ();
    void OrderStatus     ();
    void Delivery        ();
    { throw new CCOMERR(E_NOTIMPL); } // not supported
};

inline void ReleaseInterface(IUnknown *pUnk)
{
    if (pUnk)
    {
        pUnk->Release();
        pUnk = NULL;
    }
}

// wrapper routine for class constructor
extern "C" __declspec(dllexport) CTPCC_COM*
CTPCC_COM_new(BOOL);

typedef CTPCC_COM* (TYPE_CTPCC_COM)(BOOL);

```

tpcc_com_all.cpp

```

/* FILE: TPCC_COM_ALL.CPP
 * Microsoft
TPC-C Kit Ver. 4.69.000
 * Copyright
Microsoft, 1999
 * All Rights Reserved
 *

```

```

 * Version
4.10.000 audited by Richard Gimarc, Performance
Metrics, 3/17/99
 *
 * PURPOSE: Implementation for TPC-C class.
 * Contact: Charles Levine
(clevine@microsoft.com)
 *
 * Change history:
 * 4.20.000 - updated rev number to
match kit
 * 4.69.000 - updated rev number to
match kit
 */

#define STRICT
#define WIN32_WINNT 0x0400
#define ATL_APARTMENT_THREADED

#include <stdio.h>
#include <atlbase.h>
//You may derive a class from CComModule and use it
if you want to override
//something, but do not change the name of _Module
extern CComModule _Module;

#include <atlcom.h>
#include <initguid.h>
#include <transact.h>
//#include <atlimpl.cpp>
#include <comsvcs.h>

#include <sqltypes.h>
#include <sql.h>
#include <sqlext.h>

#include "tpcc_com_ps.h"
#include "..\..\common\src\trans.h"
//tpckit transaction
header contains definitions of structures specific to
TPC-C
#include "..\..\common\src\txn_base.h"
#include "..\..\common\src\error.h"
#include "..\..\common\src\ReadRegistry.h"
#include "..\..\common\src\tpcc_com_errorcode.h"
#include "..\..\db_odbc_dll\src\tpcc_odbc.h"
// ODBC implementation of TPC-C txns

#include "resource.h"
#include "tpcc_com_all.h"
#include "tpcc_com_all_i.c"
#include "Methods.h"
#include "..\..\tpcc_com_ps\src\tpcc_com_ps_i.c"
#include "..\..\common\src\ReadRegistry.cpp"

CComModule _Module;

BEGIN_OBJECT_MAP(ObjectMap)
OBJECT_ENTRY(CLSID_TPCC, CTPCC)
OBJECT_ENTRY(CLSID_NewOrder, CNewOrder)
OBJECT_ENTRY(CLSID_OrderStatus,
COrderStatus)
OBJECT_ENTRY(CLSID_Payment, CPayment)

```

```

OBJECT_ENTRY(CLSID_StockLevel, CStockLevel)
END_OBJECT_MAP()

// configuration settings from registry
TPCCREGISTRYDATA Reg;
char
    szMyComputerName[MAX_COMPUTERNAME_LENGTH+1]
;

static HINSTANCE hLibInstanceDb = NULL;
TYPE_CTPCC_ODBC          *pCTPCC_ODBC_new;

// Critical section to synchronize connection open
and close.
//
CRITICAL_SECTION hConnectCriticalSection;

////////////////////////////////////
// DLL Entry Point

extern "C"
BOOL WINAPI DllMain(HINSTANCE hInstance, DWORD
dwReason, LPVOID /*lpReserved*/)
{
    char szDllName[128];

    try
    {
        if (dwReason ==
DLL_PROCESS_ATTACH)
        {
            _Module.Init(ObjectMap,
hInstance);

            DisableThreadLibraryCalls(hInstance);

            DWORD dwSize =
MAX_COMPUTERNAME_LENGTH+1;

            GetComputerName(szMyComputerName, &dwSize);

            szMyComputerName[dwSize] = 0;

            if (
ReadTPCCRegistrySettings( &Reg ) )
                throw new
CCOMPONENT_ERR( ERR_MISSING_REGISTRY_ENTRIES );

            if (Reg.eDB_Protocol ==
ODBC)
            {
                strcpy(
szDllName, Reg.szPath );
                strcat(
szDllName, "tpcc_odbc.dll");

                hLibInstanceDb = LoadLibrary( szDllName );
                if
(hLibInstanceDb == NULL)

```

```

                throw new CCOMPONENT_ERR(
ERR_LOADDLL_FAILED, szDllName, GetLastError() );

                // get
                // function pointer to wrapper for class constructor
                pCTPCC_ODBC_new = (TYPE_CTPCC_ODBC*)
                GetProcAddress(hLibInstanceDb,"CTPCC_ODBC_new");
                if
                (pCTPCC_ODBC_new == NULL)
                throw new CCOMPONENT_ERR(
ERR_GETPROCADDR_FAILED, szDllName, GetLastError() );
                else
                throw new
                CCOMPONENT_ERR( ERR_UNKNOWN_DB_PROTOCOL );

                if (Reg.dwConnectDelay
> 0)
                {
                    InitializeCriticalSection(&hConnectCritical
Section);
                }
                else if (dwReason ==
DLL_PROCESS_DETACH)
                    _Module.Term();
            }
            catch (CBaseErr *e)
            {
                TCHAR szMsg[256];

                _sntprintf(szMsg, sizeof(szMsg),
"%s error, code %d: %s",
e-
>ErrorTypeStr(), e->ErrorNum(), e->ErrorText());
                WriteMessageToEventLog( szMsg );

                delete e;
                return FALSE;
            }
            catch (...)
            {
                WriteMessageToEventLog(TEXT("Unhandled
exception in object DllMain"));
                return FALSE;
            }

            return TRUE; // OK
        }

////////////////////////////////////
// Used to determine whether the DLL can be unloaded
by OLE

STDAPI DllCanUnloadNow(void)

```

```

{
    return (_Module.GetLockCount()==0) ? S_OK :
S_FALSE;
}

////////////////////////////////////
// Returns a class factory to create an object of the
requested type

STDAPI DllGetClassObject(REFCLSID rclsid, REFIID
riid, LPVOID* ppv)
{
    return _Module.GetClassObject(rclsid, riid,
ppv);
}

////////////////////////////////////
// DllRegisterServer - Adds entries to the system
registry

STDAPI DllRegisterServer(void)
{
    // registers object, typelib and all
interfaces in typelib
    return _Module.RegisterServer(TRUE);
}

////////////////////////////////////
// DllUnregisterServer - Removes entries from the
system registry

STDAPI DllUnregisterServer(void)
{
    _Module.UnregisterServer();
    return S_OK;
}

static void WriteMessageToEventLog(LPTSTR lpszMsg)
{
    TCHAR    szMsg[256];
    HANDLE   hEventSource;
    LPTSTR   lpszStrings[2];

    // Use event logging to log the error.
    //
    hEventSource = RegisterEventSource(NULL,
TEXT("tpcc_com_all.dll"));

    _sntprintf(szMsg, TEXT("Error in COM+ TPC-C
Component: "));
    lpszStrings[0] = szMsg;
    lpszStrings[1] = lpszMsg;

    if (hEventSource != NULL)
    {
        ReportEvent(hEventSource, // handle of event
source
            EVENTLOG_ERROR_TYPE, // event type
            0, // event category

```

```

        0,                // event ID
        NULL,            // current user's
SID
        2,                // strings in
lpszStrings
        0,                // no bytes of raw
data
        (LPCTSTR *)lpszStrings, // array of
error strings
        NULL);          // no raw data
        (VOID) DeregisterEventSource(hEventSource);
    }
}

inline void ReleaseInterface(IUnknown *pUnk)
{
    if (pUnk)
    {
        pUnk->Release();
        pUnk = NULL;
    }
}

/* FUNCTION: CCOMPONENT_ERR::ErrorText
 *
 */

char* CCOMPONENT_ERR::ErrorText(void)
{
    static SERRORMSG errorMsgs[] =
    {
        { ERR_MISSING_REGISTRY_ENTRIES,
"Required entries missing from registry."
        },
        { ERR_LOADDLL_FAILED,
"Load of DLL failed. DLL="
        },
        { ERR_GETPROCADDR_FAILED,
"Could not map proc in DLL. GetProcAddr
error. DLL="
        },
        { ERR_UNKNOWN_DB_PROTOCOL,
"Unknown database protocol specified in
registry."
        },
        { 0, ""
        }
    };

    char szTmp[256];
    int i = 0;
    while (TRUE)
    {
        if (errorMsgs[i].szMsg[0] == 0)
        {
            strcpy( szTmp, "Unknown
error number." );
            break;
        }
    }
}

```

```

        if (m_Error ==
errorMsgs[i].iError)
        {
            strcpy( szTmp,
errorMsgs[i].szMsg );
            break;
        }
        i++;
    }

    if (m_szTextDetail)
        strcat( szTmp, m_szTextDetail );
    if (m_SystemErr)
        wsprintf( szTmp+strlen(szTmp), "
Error=%d", m_SystemErr );

    m_szErrorText = new char[strlen(szTmp)+1];
    strcpy( m_szErrorText, szTmp );
    return m_szErrorText;
}

CTPCC_Common::CTPCC_Common()
{
    m_pTxn = NULL;
    m_bCanBePooled = TRUE;
}

CTPCC_Common::~~CTPCC_Common()
{
    // Pace connection close for VIA.
    //
    if (Reg.dwConnectDelay > 0)
    {
        EnterCriticalSection(&hConnectCriticalSecti
on);

        Sleep(Reg.dwConnectDelay);

        LeaveCriticalSection(&hConnectCriticalSecti
on);
    }

    if (m_pTxn)
    {
        delete m_pTxn;
    }
}

HRESULT CTPCC_Common::CallSetComplete()
{
    IObjectContext* pObjectContext = NULL;

    // get our object context
    HRESULT hr = CoGetObjectContext(
IID_IObjectContext, (void **)&pObjectContext );
    pObjectContext->SetComplete();
    ReleaseInterface(pObjectContext);
    return hr;
}

```

```

//
// called by the ctor activator
//
//
STDMETHODIMP CTPCC_Common::Construct(IDispatch *
pUnk)
{
    // Code to access construction string, if
needed later...
    //
    if (!pUnk)
        return E_UNEXPECTED;
    //
    IObjectConstructString * pString
= NULL;
    //
    HRESULT hr = pUnk-
>QueryInterface(IID_IObjectConstructString, (void
**)&pString);
    //
    pString->Release();

    try
    {
        // Pace connection creation for
VIA.
        //
        if (Reg.dwConnectDelay > 0)
        {
            EnterCriticalSection(&hConnectCriticalSecti
on);

            Sleep(Reg.dwConnectDelay);

            LeaveCriticalSection(&hConnectCriticalSecti
on);

            if (Reg.eDB_Protocol == ODBC)
                m_pTxn =
pCTPCC_ODBC_new(
Reg.szDbServer, Reg.szDbUser,
Reg.szDbPassword,

                szMyComputerName, Reg.szDbName,

                Reg.szSPPrefix,
Reg.bCallNoDuplicatesNewOrder );
        }
        catch (CBaseErr *e)
        {
            TCHAR szMsg[256];
            _sntprintf(szMsg, sizeof(szMsg),
"%s error in CTPCC_Common::Construct, code %d: %s",
e-
>ErrorTypeStr(), e->ErrorNum(), e->ErrorText());
            WriteMessageToEventLog( szMsg );
            delete e;
            return E_FAIL;
        }
    }
    catch (...)
    {
}
}

```

```

        WriteMessageToEventLog(TEXT("Unhandled
exception in object ::Construct"));
        return E_FAIL;
    }
    return S_OK;
}

HRESULT CTPCC_Common::NewOrder(VARIANT txn_in,
VARIANT* txn_out)
{
    PNEW_ORDER_DATA    pNewOrder;
    COM_DATA            *pData;
    COM_DATA            *pOutData;

    try
    {
        // Allocate output structure
        first because it is also used in the catch clauses.
        //
        VariantInit(txn_out);
        txn_out->vt = VT_SAFEARRAY;
        txn_out->parray =
SafeArrayCreateVector( VT_UI1,
>cElements,
        txn_in.parray->rgsabound-
>cElements);
        if (txn_out->parray == NULL) //
sanity error checking - for very rare case, but to be
sure
        {
            return E_OUTOFMEMORY;
        }
        pOutData = (COM_DATA*)txn_out-
>parray->pvData;
        pData = (COM_DATA*)txn_in.parray-
>pvData;
        pNewOrder = m_pTxn-
>BuffAddr_NewOrder();

        memcpy(pNewOrder, &pData-
>u.NewOrder, sizeof(NEW_ORDER_DATA));

        m_pTxn->NewOrder(); //
do the actual txn

        memcpy( &pOutData->u.NewOrder,
pNewOrder, sizeof(NEW_ORDER_DATA));

        pOutData->retval = ERR_SUCCESS;
        pOutData->error = 0;
        return S_OK;
    }
    catch (CBaseErr *e)
    {
        // check for lost database
        connection; if yes, component is toast
    }
}

```

```

        if ( ((e->ErrorType() ==
ERR_TYPE_ODBC) && (e->ErrorNum() == 10054)) )
            m_bCanBePooled = FALSE;

        pOutData->retval = e-
>ErrorType();
        pOutData->error = e->ErrorNum();
        delete e;
        return E_TPCCCOM;
    }
    catch (...)
    {
        WriteMessageToEventLog(TEXT("Unhandled
exception in CTPCC_Common::NewOrder."));
        pOutData->retval =
ERR_TYPE_LOGIC;
        pOutData->error = 0;
        m_bCanBePooled = FALSE;
        return E_TPCCCOM;
    }
}

HRESULT CTPCC_Common::Payment(VARIANT txn_in,
VARIANT* txn_out)
{
    PPAYMENT_DATA      pPayment;
    COM_DATA            *pData;
    COM_DATA            *pOutData;

    try
    {
        // Allocate output structure
        first because it is also used in the catch clauses.
        //
        VariantInit(txn_out);
        txn_out->vt = VT_SAFEARRAY;
        txn_out->parray =
SafeArrayCreateVector( VT_UI1,
>cElements,
        txn_in.parray->rgsabound-
>cElements);
        if (txn_out->parray == NULL) //
sanity error checking - for very rare case, but to be
sure
        {
            return E_OUTOFMEMORY;
        }
        pOutData = (COM_DATA*)txn_out-
>parray->pvData;
        pData = (COM_DATA*)txn_in.parray-
>pvData;
        pPayment = m_pTxn-
>BuffAddr_Payment();

        memcpy(pPayment, &pData-
>u.Payment, sizeof(PAYMENT_DATA));
    }
    catch (...)
    {
        WriteMessageToEventLog(TEXT("Unhandled
exception in CTPCC_Common::Payment."));
        pOutData->retval =
ERR_TYPE_LOGIC;
        pOutData->error = 0;
        m_bCanBePooled = FALSE;
        return E_TPCCCOM;
    }
}

HRESULT CTPCC_Common::StockLevel(VARIANT txn_in,
VARIANT* txn_out)
{
    PSTOCK_LEVEL_DATA  pStockLevel;
    COM_DATA            *pData;
    COM_DATA            *pOutData;

    try
    {
        // Allocate output structure
        first because it is also used in the catch clauses.
        //
        VariantInit(txn_out);
        txn_out->vt = VT_SAFEARRAY;
        txn_out->parray =
SafeArrayCreateVector( VT_UI1,
>cElements,
        txn_in.parray->rgsabound-
>cElements);
        if (txn_out->parray == NULL) //
sanity error checking - for very rare case, but to be
sure
        {
            return E_OUTOFMEMORY;
        }
        pOutData = (COM_DATA*)txn_out-
>parray->pvData;
        pData = (COM_DATA*)txn_in.parray-
>pvData;
        pPayment = m_pTxn-
>BuffAddr_Payment();

        memcpy(pPayment, &pData-
>u.Payment, sizeof(PAYMENT_DATA));
    }
    catch (...)
    {
        WriteMessageToEventLog(TEXT("Unhandled
exception in CTPCC_Common::Payment."));
        pOutData->retval =
ERR_TYPE_LOGIC;
        pOutData->error = 0;
        m_bCanBePooled = FALSE;
        return E_TPCCCOM;
    }
}

```

```

        m_pTxn->Payment(); //
do the actual txn

        memcpy( &pOutData->u.Payment,
pPayment, sizeof(PAYMENT_DATA));

        pOutData->retval = ERR_SUCCESS;
        pOutData->error = 0;
        return S_OK;
    }
    catch (CBaseErr *e)
    {
        // check for lost database
        connection; if yes, component is toast
        if ( ((e->ErrorType() ==
ERR_TYPE_ODBC) && (e->ErrorNum() == 10054)) )
            m_bCanBePooled = FALSE;

        pOutData->retval = e-
>ErrorType();
        pOutData->error = e->ErrorNum();
        delete e;
        return E_TPCCCOM;
    }
    catch (...)
    {
        WriteMessageToEventLog(TEXT("Unhandled
exception in CTPCC_Common::Payment."));
        pOutData->retval =
ERR_TYPE_LOGIC;
        pOutData->error = 0;
        m_bCanBePooled = FALSE;
        return E_TPCCCOM;
    }
}

HRESULT CTPCC_Common::StockLevel(VARIANT txn_in,
VARIANT* txn_out)
{
    PSTOCK_LEVEL_DATA  pStockLevel;
    COM_DATA            *pData;
    COM_DATA            *pOutData;

    try
    {
        // Allocate output structure
        first because it is also used in the catch clauses.
        //
        VariantInit(txn_out);
        txn_out->vt = VT_SAFEARRAY;
        txn_out->parray =
SafeArrayCreateVector( VT_UI1,
>cElements,
        txn_in.parray->rgsabound-
>cElements);
        if (txn_out->parray == NULL) //
sanity error checking - for very rare case, but to be
sure
        {
            return E_OUTOFMEMORY;
        }
        pOutData = (COM_DATA*)txn_out-
>parray->pvData;
        pData = (COM_DATA*)txn_in.parray-
>pvData;
        pPayment = m_pTxn-
>BuffAddr_Payment();

        memcpy(pPayment, &pData-
>u.Payment, sizeof(PAYMENT_DATA));
    }
    catch (...)
    {
        WriteMessageToEventLog(TEXT("Unhandled
exception in CTPCC_Common::Payment."));
        pOutData->retval =
ERR_TYPE_LOGIC;
        pOutData->error = 0;
        m_bCanBePooled = FALSE;
        return E_TPCCCOM;
    }
}

```

```

        return E_OUTOFMEMORY;
    }
}
    pOutData = (COM_DATA*)txn_out-
>parray->pvData;
    pData = (COM_DATA*)txn_in.parray-
>pvData;
    pStockLevel = m_pTxn-
>BuffAddr_StockLevel();
    memcpy(pStockLevel, &pData-
>u.StockLevel, sizeof(STOCK_LEVEL_DATA));
    m_pTxn->StockLevel();
    memcpy(&pOutData->u.StockLevel,
pStockLevel, sizeof(STOCK_LEVEL_DATA));
    pOutData->retval = ERR_SUCCESS;
    pOutData->error = 0;
    return S_OK;
}
catch (CBaseErr *e)
{
    // check for lost database
connection; if yes, component is toast
    if ( ((e->ErrorType() ==
ERR_TYPE_ODBC) && (e->ErrorNum() == 10054)) )
        m_bCanBePooled = FALSE;
    pOutData->retval = e-
>ErrorType();
    pOutData->error = e->ErrorNum();
    delete e;
    return E_TPCCCOM;
}
catch (...)
{
    WriteMessageToEventLog(TEXT("Unhandled
exception in CTPCC_Common::StockLevel."););
    pOutData->retval =
ERR_TYPE_LOGIC;
    pOutData->error = 0;
    m_bCanBePooled = FALSE;
    return E_TPCCCOM;
}
}
HRESULT CTPCC_Common::OrderStatus(VARIANT txn_in,
VARIANT* txn_out)
{
    ORDER_STATUS_DATA pOrderStatus;
    COM_DATA *pData;
    COM_DATA *pOutData;
    try
    {
        // Allocate output structure
first because it is also used in the catch clauses.
        //
        VariantInit(txn_out);
        txn_out->vt = VT_SAFEARRAY;

```

```

        txn_out->parray =
SafeArrayCreateVector( VT_UI1,
>cElements,
        txn_in.parray->rgsabound-
>cElements);
        txn_in.parray->rgsabound-
>cElements);
        if (txn_out->parray == NULL) //
sanity error checking - for very rare case, but to be
sure
        {
            return E_OUTOFMEMORY;
        }
    pOutData = (COM_DATA*)txn_out-
>parray->pvData;
    pData = (COM_DATA*)txn_in.parray-
>pvData;
    pOrderStatus = m_pTxn-
>BuffAddr_OrderStatus();
    memcpy(pOrderStatus, &pData-
>u.OrderStatus, sizeof(ORDER_STATUS_DATA));
    m_pTxn->OrderStatus();
    memcpy(&pOutData->u.OrderStatus,
pOrderStatus, sizeof(ORDER_STATUS_DATA));
    pOutData->retval = ERR_SUCCESS;
    pOutData->error = 0;
    return S_OK;
}
catch (CBaseErr *e)
{
    // check for lost database
connection; if yes, component is toast
    if ( ((e->ErrorType() ==
ERR_TYPE_ODBC) && (e->ErrorNum() == 10054)) )
        m_bCanBePooled = FALSE;
    pOutData->retval = e-
>ErrorType();
    pOutData->error = e->ErrorNum();
    delete e;
    return E_TPCCCOM;
}
catch (...)
{
    WriteMessageToEventLog(TEXT("Unhandled
exception in CTPCC_Common::OrderStatus."););
    pOutData->retval =
ERR_TYPE_LOGIC;
    pOutData->error = 0;
    m_bCanBePooled = FALSE;
    return E_TPCCCOM;
}
}
}

```

tpcc_com_all.def

```

; tpcc_com_all.def : Declares the module parameters.

LIBRARY      "tpcc_com_all.dll"

EXPORTS
    DllCanUnloadNow      PRIVATE
    DllGetClassObject    PRIVATE
    DllRegisterServer     PRIVATE
    DllUnregisterServer  PRIVATE

```

tpcc_com_all.h

```

/* this ALWAYS GENERATED file contains the
definitions for the interfaces */

/* File created by MIDL compiler version 6.00.0361
*/
/* at Tue Nov 10 10:51:22 2009
*/
/* Compiler settings for .\src\tpcc_com_all.idl:
Oicf, Wl, Zp8, env=Win32 (32b run)
protocol : dce , ms_ext, c_ext, robust
error checks: allocation ref bounds_check enum
stub_data
VC __declspec() decoration level:
__declspec(uuid()), __declspec(selectany),
__declspec(novtable)
DECLSPEC_UUID(), MIDL_INTERFACE()
*/
///@MIDL_FILE_HEADER( )

#pragma warning( disable: 4049 ) /* more than 64k
source lines */

/* verify that the <rpcndr.h> version is high enough
to compile this file*/
#ifndef __REQUIRED_RPCNDR_H_VERSION__
#define __REQUIRED_RPCNDR_H_VERSION__ 475
#endif

#include "rpc.h"
#include "rpcndr.h"

#ifndef __RPCNDR_H_VERSION__
#error this stub requires an updated version of
<rpcndr.h>
#endif // __RPCNDR_H_VERSION__

#ifndef __tpcc_com_all_h__
#define __tpcc_com_all_h__

#ifdef _MSC_VER >= 1020

```

```

#pragma once
#endif

/* Forward Declarations */

#ifndef __TPCC_FWD_DEFINED__
#define __TPCC_FWD_DEFINED__

#ifdef __cplusplus
typedef class TPCC TPCC;
#else
typedef struct TPCC TPCC;
#endif /* __cplusplus */

#endif /* __TPCC_FWD_DEFINED__ */

#ifndef __NewOrder_FWD_DEFINED__
#define __NewOrder_FWD_DEFINED__

#ifdef __cplusplus
typedef class NewOrder NewOrder;
#else
typedef struct NewOrder NewOrder;
#endif /* __cplusplus */

#endif /* __NewOrder_FWD_DEFINED__ */

#ifndef __OrderStatus_FWD_DEFINED__
#define __OrderStatus_FWD_DEFINED__

#ifdef __cplusplus
typedef class OrderStatus OrderStatus;
#else
typedef struct OrderStatus OrderStatus;
#endif /* __cplusplus */

#endif /* __OrderStatus_FWD_DEFINED__ */

#ifndef __Payment_FWD_DEFINED__
#define __Payment_FWD_DEFINED__

#ifdef __cplusplus
typedef class Payment Payment;
#else
typedef struct Payment Payment;
#endif /* __cplusplus */

#endif /* __Payment_FWD_DEFINED__ */

#ifndef __StockLevel_FWD_DEFINED__
#define __StockLevel_FWD_DEFINED__

#ifdef __cplusplus
typedef class StockLevel StockLevel;
#else
typedef struct StockLevel StockLevel;
#endif /* __cplusplus */

#endif /* __StockLevel_FWD_DEFINED__ */

```

```

/* header files for imported files */
#include "oaidl.h"
#include "ocidl.h"
#include "tpcc_com_ps.h"

#ifdef __cplusplus
extern "C"{
#endif

void * __RPC_USER MIDL_user_allocate(size_t);
void __RPC_USER MIDL_user_free( void * );

/* interface __MIDL_itf_tpcc_com_all_0000 */
/* [local] */

extern RPC_IF_HANDLE
__MIDL_itf_tpcc_com_all_0000_v0_0_c_ifspec;
extern RPC_IF_HANDLE
__MIDL_itf_tpcc_com_all_0000_v0_0_s_ifspec;

#ifdef __TPCCLib_LIBRARY_DEFINED__
#define __TPCCLib_LIBRARY_DEFINED__

/* library TPCCLib */
/* [helpstring][version][uuid] */

EXTERN_C const IID LIBID_TPCCLib;

EXTERN_C const CLSID CLSID_TPCC;

#ifdef __cplusplus
class DECLSPEC_UUID("122A3128-2520-11D3-BA71-00C04FBFE08B")
TPCC;
#endif

EXTERN_C const CLSID CLSID_NewOrder;

#ifdef __cplusplus
class DECLSPEC_UUID("975BAABF-84A7-11D2-BA47-00C04FBFE08B")
NewOrder;
#endif

EXTERN_C const CLSID CLSID_OrderStatus;

#ifdef __cplusplus
class DECLSPEC_UUID("266836AD-A50D-11D2-BA4E-00C04FBFE08B")

```

```

OrderStatus;
#endif

EXTERN_C const CLSID CLSID_Payment;

#ifdef __cplusplus
class DECLSPEC_UUID("CD02F7EF-A4FA-11D2-BA4E-00C04FBFE08B")
Payment;
#endif

EXTERN_C const CLSID CLSID_StockLevel;

#ifdef __cplusplus
class DECLSPEC_UUID("2668369E-A50D-11D2-BA4E-00C04FBFE08B")
StockLevel;
#endif
#endif /* __TPCCLib_LIBRARY_DEFINED__ */

/* Additional Prototypes for ALL interfaces */

/* end of Additional Prototypes */

#ifdef __cplusplus
}
#endif

#endif

```

tpcc_com_all.idl

```

/* FILE: TPCC.IDL
 * Microsoft
 * TPC-C Kit Ver. 4.69.000
 * Copyright
 * Microsoft, 1999
 * All Rights Reserved
 * not yet
 * audited
 * PURPOSE: IDL source for TPCC.dll. This
 * file is processed by the MIDL tool to
 * produce the
 * type library (TPCC.tlb) and marshalling code.
 * Change history:
 * 4.20.000 - first version
 * 4.69.000 - updated rev number to
 * match kit
 */

interface TPCC;
interface NewOrder;
interface OrderStatus;

```

```

interface Payment;
interface StockLevel;

import "oidl.idl";
import "ocidl.idl";
import "..\tpcc_com_ps\src\tpcc_com_ps.idl";

[
    uuid(122A3117-2520-11D3-BA71-00C04FBFE08B),
    version(1.0),
    helpstring("TPC-C 1.0 Type Library")
]
library TPCCLib
{
    importlib("stdole32.tlb");
    importlib("stdole2.tlb");

    [
        uuid(122A3128-2520-11D3-BA71-
00C04FBFE08B),
        helpstring("All Txns Class")
    ]
    coclass TPCC
    {
        [default] interface ITPCC;
    };

    [
        uuid(975BAABF-84A7-11D2-BA47-
00C04FBFE08B),
        helpstring("NewOrder Class")
    ]
    coclass NewOrder
    {
        [default] interface ITPCC;
    };

    [
        uuid(266836AD-A50D-11D2-BA4E-
00C04FBFE08B),
        helpstring("OrderStatus Class")
    ]
    coclass OrderStatus
    {
        [default] interface ITPCC;
    };

    [
        uuid(CD02F7EF-A4FA-11D2-BA4E-
00C04FBFE08B),
        helpstring("Payment Class")
    ]
    coclass Payment
    {
        [default] interface ITPCC;
    };

    [

```

```

        uuid(2668369E-A50D-11D2-BA4E-
00C04FBFE08B),
        helpstring("StockLevel Class")
    ]
    coclass StockLevel
    {
        [default] interface ITPCC;
    };
};

```

tpcc_com_all.rc

```

//Microsoft Developer Studio generated resource
script.
//
#include "resource.h"

#define APSTUDIO_READONLY_SYMBOLS
////////////////////////////////////
////////////////////////////////////
//
// Generated from the TEXTINCLUDE 2 resource.
//
#include "winres.h"

////////////////////////////////////
////////////////////////////////////
#undef APSTUDIO_READONLY_SYMBOLS

////////////////////////////////////
////////////////////////////////////
// English (U.S.) resources

#if !defined(AFX_RESOURCE_DLL) ||
defined(AFX_TARG_ENU)
#ifdef _WIN32
LANGUAGE LANG_ENGLISH, SUBLANG_ENGLISH_US
#pragma code_page(1252)
#endif // _WIN32

#ifdef APSTUDIO_INVOKED
////////////////////////////////////
////////////////////////////////////
//
// TEXTINCLUDE
//

1 TEXTINCLUDE DISCARDABLE
BEGIN
    "resource.h\0"
END

2 TEXTINCLUDE DISCARDABLE
BEGIN
    "#include \"winres.h\"\r\n"
    "\0"
END

3 TEXTINCLUDE DISCARDABLE

```

```

BEGIN
    "1 TYPELIB \"tpcc_com_all.tlb\"\r\n"
    "\0"
END

#ifdef APSTUDIO_INVOKED

#ifdef _MAC
////////////////////////////////////
////////////////////////////////////
//
// Version
//

VS_VERSION_INFO VERSIONINFO
FILEVERSION 1,0,0,1
PRODUCTVERSION 1,0,0,1
FILEFLAGSMASK 0x3fL
#ifdef _DEBUG
FILEFLAGS 0x1L
#else
FILEFLAGS 0x0L
#endif
FILEOS 0x4L
FILETYPE 0x2L
FILESUBTYPE 0x0L
BEGIN
    BLOCK "StringFileInfo"
    BEGIN
        BLOCK "040904B0"
        BEGIN
            VALUE "CompanyName", "\0"
            VALUE "FileDescription", "tpcc_com_all
Module\0"
            VALUE "FileVersion", "1, 0, 0, 1\0"
            VALUE "InternalName", "TPCCNEWORDER\0"
            VALUE "LegalCopyright", "Copyright
1997\0"
            VALUE "OriginalFilename",
"tpcc_com_all.DLL\0"
            VALUE "ProductName", "tpcc_com_all
Module\0"
            VALUE "ProductVersion", "1, 0, 0, 1\0"
            VALUE "OLESelfRegister", "\0"
        END
    END
    BLOCK "VarFileInfo"
    BEGIN
        VALUE "Translation", 0x409, 1200
    END
END

#endif // !_MAC

////////////////////////////////////
////////////////////////////////////
//
// REGISTRY
//

```



```

IDR_TPCC                REGISTRY DISCARDABLE
"tpcc_com_all.rgs"
IDR_NEWORDER           REGISTRY DISCARDABLE
"tpcc_com_no.rgs"
IDR_ORDERSTATUS       REGISTRY DISCARDABLE
"tpcc_com_os.rgs"
IDR_PAYMENT            REGISTRY DISCARDABLE
"tpcc_com_pay.rgs"
IDR_STOCKLEVEL        REGISTRY DISCARDABLE
"tpcc_com_sl.rgs"

////////////////////////////////////
////////////////////////////////////
//
// String Table
//

STRINGTABLE DISCARDABLE
BEGIN
    IDS_PROJNAME        "tpcc_com_all"
END

#ifdef // English (U.S.) resources
////////////////////////////////////
////////////////////////////////////
////////////////////////////////////

#ifndef APSTUDIO_INVOKED
////////////////////////////////////
////////////////////////////////////
//
// Generated from the TEXTINCLUDE 3 resource.
//
1 TYPELIB "tpcc_com_all.tlb"

////////////////////////////////////
////////////////////////////////////
#endif // not APSTUDIO_INVOKED

```

tpcc_com_all.rgs

```

HKCR
{
    TPCC.AllTxns.1 = s 'All Txns Class'
    {
        CLSID = s '{122A3128-2520-11D3-
BA71-00C04FBFE08B}'
    }
    TPCC.AllTxns = s 'TPCC Class'
    {
        CurVer = s 'TPCC.AllTxns.1'
    }
    NoRemove CLSID
    {
        ForceRemove {122A3128-2520-11D3-
BA71-00C04FBFE08B} = s 'TPCC Class'
    }
}

```

```

ProgID = s
'TPCC.AllTxns.1'

VersionIndependentProgID = s 'TPCC.AllTxns'
InprocServer32 = s

'%MODULE%'
{
    val
    ThreadingModel = s 'Both'
}
}

```

tpcc_com_all.i.c

```

/* this ALWAYS GENERATED file contains the IIDs and
CLSIDs */

/* link this file in with the server and any clients
*/

/* File created by MIDL compiler version 6.00.0361
*/
/* at Tue Nov 10 10:51:22 2009
*/
/*
*/
/* Compiler settings for .\src\tpcc_com_all.idl:
Oicf, Wl, Zp8, env=Win32 (32b run)
protocol : dce , ms_ext, c_ext, robust
error checks: allocation ref bounds_check enum
stub_data
VC __declspec() decoration level:
__declspec(uuid()), __declspec(selectany),
__declspec(novtable)
DECLSPEC_UUID(), MIDL_INTERFACE()
*/
//@MIDL_FILE_HEADING( )

#ifdef !defined(_M_IA64) && !defined(_M_AMD64)

#pragma warning( disable: 4049 ) /* more than 64k
source lines */

#ifdef __cplusplus
extern "C"{
#endif

#include <rpc.h>
#include <rpcndr.h>

#ifdef _MIDL_USE_GUIDDEF_

#ifndef INITGUID

```

```

#define INITGUID
#include <guiddef.h>
#undef INITGUID
#else
#include <guiddef.h>
#endif

#define
MIDL_DEFINE_GUID(type,name,l,w1,w2,b1,b2,b3,b4,b5,b6,
b7,b8) \

DEFINE_GUID(name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8)

#else // !_MIDL_USE_GUIDDEF_

#ifndef __IID_DEFINED__
#define __IID_DEFINED__

typedef struct _IID
{
    unsigned long x;
    unsigned short s1;
    unsigned short s2;
    unsigned char c[8];
} IID;

#endif // __IID_DEFINED__

#ifndef CLSID_DEFINED
#define CLSID_DEFINED
typedef IID CLSID;
#endif // CLSID_DEFINED

#define
MIDL_DEFINE_GUID(type,name,l,w1,w2,b1,b2,b3,b4,b5,b6,
b7,b8) \
    const type name =
{1,w1,w2,{b1,b2,b3,b4,b5,b6,b7,b8}}

#endif !_MIDL_USE_GUIDDEF_

MIDL_DEFINE_GUID(IID,
LIBID_TPCCLib,0x122A3117,0x2520,0x11D3,0xBA,0x71,0x00,0x
C0,0x4F,0xBF,0xE0,0x8B);

MIDL_DEFINE_GUID(CLSID,
CLSID_TPCC,0x122A3128,0x2520,0x11D3,0xBA,0x71,0x00,0x
C0,0x4F,0xBF,0xE0,0x8B);

MIDL_DEFINE_GUID(CLSID,
CLSID_NewOrder,0x975BAABF,0x84A7,0x11D2,0xBA,0x47,0x0
0,0xC0,0x4F,0xBF,0xE0,0x8B);

MIDL_DEFINE_GUID(CLSID,
CLSID_OrderStatus,0x266836AD,0xA50D,0x11D2,0xBA,0x4E,
0x00,0xC0,0x4F,0xBF,0xE0,0x8B);

```

```

MIDL_DEFINE_GUID(CLSID,
CLSID_Payment, 0xCD02F7EF, 0xA4FA, 0x11D2, 0xBA, 0x4E, 0x00,
0xC0, 0x4F, 0xBF, 0xE0, 0x8B);

MIDL_DEFINE_GUID(CLSID,
CLSID_StockLevel, 0x2668369E, 0xA50D, 0x11D2, 0xBA, 0x4E, 0x00,
0xC0, 0x4F, 0xBF, 0xE0, 0x8B);

#undef MIDL_DEFINE_GUID

#ifdef __cplusplus
}
#endif

#endif /* !defined(_M_IA64) && !defined(_M_AMD64)*/

/* this ALWAYS GENERATED file contains the IIDs and
CLSIDs */

/* link this file in with the server and any clients
*/

/* File created by MIDL compiler version 6.00.0361
*/
/* at Tue Nov 10 10:51:22 2009
*/
/* Compiler settings for .\src\tpcc_com_all.idl:
Oicf, W1, Zp8, env=Win64 (32b run,appending)
protocol : dce , ms_ext, c_ext, robust
error checks: allocation ref bounds_check enum
stub_data
VC __declspec() decoration level:
__declspec(uuid()), __declspec(selectany),
__declspec(novtable)
DECLSPEC_UUID(), MIDL_INTERFACE()
*/
//@@MIDL_FILE_HEADING( )

#if defined(_M_IA64) || defined(_M_AMD64)

#pragma warning( disable: 4049 ) /* more than 64k
source lines */

#endif

#ifdef __cplusplus
extern "C"{
#endif

#include <rpc.h>
#include <rpcndr.h>

#ifdef _MIDL_USE_GUIDDEF_

#ifndef INITGUID
#define INITGUID
#endif

#endif

```

```

#include <guiddef.h>
#undef INITGUID
#else
#include <guiddef.h>
#endif

#define
MIDL_DEFINE_GUID(type,name,l,w1,w2,b1,b2,b3,b4,b5,b6,
b7,b8) \

DEFINE_GUID(name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8)

#else // !_MIDL_USE_GUIDDEF_

#ifndef __IID_DEFINED__
#define __IID_DEFINED__

typedef struct _IID
{
    unsigned long x;
    unsigned short s1;
    unsigned short s2;
    unsigned char c[8];
} IID;

#endif // __IID_DEFINED__

#ifndef CLSID_DEFINED
#define CLSID_DEFINED
typedef IID CLSID;
#endif // CLSID_DEFINED

#define
MIDL_DEFINE_GUID(type,name,l,w1,w2,b1,b2,b3,b4,b5,b6,
b7,b8) \
    const type name =
{1,w1,w2,{b1,b2,b3,b4,b5,b6,b7,b8}}

#endif !_MIDL_USE_GUIDDEF_

MIDL_DEFINE_GUID(IID,
LIBID_TPCCLib, 0x122A3117, 0x2520, 0x11D3, 0xBA, 0x71, 0x00,
0xC0, 0x4F, 0xBF, 0xE0, 0x8B);

MIDL_DEFINE_GUID(CLSID,
CLSID_TPCC, 0x122A3128, 0x2520, 0x11D3, 0xBA, 0x71, 0x00, 0x
C0, 0x4F, 0xBF, 0xE0, 0x8B);

MIDL_DEFINE_GUID(CLSID,
CLSID_NewOrder, 0x975BAABF, 0x84A7, 0x11D2, 0xBA, 0x47, 0x0
0, 0xC0, 0x4F, 0xBF, 0xE0, 0x8B);

MIDL_DEFINE_GUID(CLSID,
CLSID_OrderStatus, 0x266836AD, 0xA50D, 0x11D2, 0xBA, 0x4E,
0x00, 0xC0, 0x4F, 0xBF, 0xE0, 0x8B);

MIDL_DEFINE_GUID(CLSID,
CLSID_Payment, 0xCD02F7EF, 0xA4FA, 0x11D2, 0xBA, 0x4E, 0x00,
0xC0, 0x4F, 0xBF, 0xE0, 0x8B);

```

```

MIDL_DEFINE_GUID(CLSID,
CLSID_StockLevel, 0x2668369E, 0xA50D, 0x11D2, 0xBA, 0x4E, 0
x00, 0xC0, 0x4F, 0xBF, 0xE0, 0x8B);

#undef MIDL_DEFINE_GUID

#ifdef __cplusplus
}
#endif

#endif /* defined(_M_IA64) || defined(_M_AMD64)*/

```

tpcc_com_errorcode.h

```

/* FILE: TPCC_COM_ERRORCODE.H
* Microsoft
TPC-C Kit Ver. 4.20.000
* Copyright
Microsoft, 1999
* All Rights Reserved
* not yet
audited
*
* PURPOSE: Header file defining the error
code returned from ITPCC COM interface.
*
* Change history:
* 4.20.000 - first version
*/

// Error return value for methods in ITPCC interface.
//
// Define as 0x80042345 (decimal -2147212475 ).
//
const HRESULT E_TPCCCOM = MAKE_HRESULT
(SEVERITY_ERROR, FACILITY_ITF, 0x2345);

```

tpcc_com_no.rgs

```

HKCR
{
    TPCC.NewOrder.1 = s 'NewOrder Class'
    {
        CLSID = s '{975BAABF-84A7-11D2-
BA47-00C04FBFE08B}'
    }
    TPCC.NewOrder = s 'NewOrder Class'
    {
        CurVer = s 'TPCC.NewOrder.1'
    }
    NoRemove CLSID
}

```

```

        ForceRemove {975BAABF-84A7-11D2-
BA47-00C04FBFE08B} = s 'NewOrder Class'
        {
            ProgID = s
'TPCC.NewOrder.1'

            VersionIndependentProgID = s
'TPCC.NewOrder'

            InprocServer32 = s
'%MODULE%'
            {
                val
ThreadingModel = s 'Both'
            }
        }
}

```

tpcc_com_os.rgs

```

HKCR
{
    TPCC.OrderStatus.1 = s 'OrderStatus Class'
    {
        CLSID = s '{266836AD-A50D-11D2-
BA4E-00C04FBFE08B}'
        TPCC.OrderStatus = s 'OrderStatus Class'
        {
            CurVer = s 'TPCC.OrderStatus.1'
        }
        NoRemove CLSID
        {
            ForceRemove {266836AD-A50D-11D2-
BA4E-00C04FBFE08B} = s 'OrderStatus Class'
            {
                ProgID = s
'TPCC.OrderStatus.1'

                VersionIndependentProgID = s
'TPCC.OrderStatus'

                InprocServer32 = s
'%MODULE%'
                {
                    val
ThreadingModel = s 'Both'
                }
            }
        }
    }
}

```

tpcc_com_pay.rgs

```

HKCR
{
    TPCC.Payment.1 = s 'Payment Class'
    {

```

```

        CLSID = s '{CD02F7EF-A4FA-11D2-
BA4E-00C04FBFE08B}'
        TPCC.Payment = s 'Payment Class'
        {
            CurVer = s 'TPCC.Payment.1'
        }
        NoRemove CLSID
        {
            ForceRemove {CD02F7EF-A4FA-11D2-
BA4E-00C04FBFE08B} = s 'Payment Class'
            {
                ProgID = s
'TPCC.Payment.1'

                VersionIndependentProgID = s 'TPCC.Payment'
                InprocServer32 = s
'%MODULE%'
                {
                    val
ThreadingModel = s 'Both'
                }
            }
        }
    }
}

```

tpcc_com_ps.def

```

LIBRARY      "tpcc_com_ps"

EXPORTS
    DllGetClassObject           PRIVATE
    DllCanUnloadNow            PRIVATE
    GetProxyDllInfo            PRIVATE
    DllRegisterServer          PRIVATE
    DllUnregisterServer         PRIVATE

```

tpcc_com_ps.h

```

/* this ALWAYS GENERATED file contains the
definitions for the interfaces */

```

```

/* File created by MIDL compiler version 6.00.0361
*/
/* at Tue Nov 10 10:51:13 2009
*/
/* Compiler settings for .\src\tpcc_com_ps.idl:
Oicf, W1, Zp8, env=Win32 (32b run)
protocol : dce , ms_ext, c_ext
error checks: allocation ref bounds_check enum
stub_data
    VC __declspec() decoration level:
    __declspec(uuid()), __declspec(selectany),
    __declspec(novtable)

```

```

        DECLSPEC_UUID(), MIDL_INTERFACE()
*/
//@@MIDL_FILE_HEADING( )

#pragma warning( disable: 4049 ) /* more than 64k
source lines */

/* verify that the <rpcndr.h> version is high enough
to compile this file*/
#ifndef __REQUIRED_RPCNDR_H_VERSION__
#define __REQUIRED_RPCNDR_H_VERSION__ 440
#endif

#include "rpc.h"
#include "rpcndr.h"

#ifndef __RPCNDR_H_VERSION__
#error this stub requires an updated version of
<rpcndr.h>
#endif // __RPCNDR_H_VERSION__

#ifndef COM_NO_WINDOWS_H
#include "windows.h"
#include "ole2.h"
#endif /*COM_NO_WINDOWS_H*/

#ifndef __tpcc_com_ps_h__
#define __tpcc_com_ps_h__

#if defined(_MSC_VER) && (_MSC_VER >= 1020)
#pragma once
#endif

/* Forward Declarations */

#ifndef __ITPCC_FWD_DEFINED__
#define __ITPCC_FWD_DEFINED__
typedef interface ITPCC ITPCC;
#endif /* __ITPCC_FWD_DEFINED__ */

/* header files for imported files */
#include "oaidl.h"
#include "ocidl.h"

#ifdef __cplusplus
extern "C"{
#endif

void * __RPC_USER MIDL_user_allocate(size_t);
void __RPC_USER MIDL_user_free( void * );

/* interface __MIDL_itf_tpcc_com_ps_0000 */
/* [local] */

extern RPC_IF_HANDLE
__MIDL_itf_tpcc_com_ps_0000_v0_0_c_ifspec;
extern RPC_IF_HANDLE
__MIDL_itf_tpcc_com_ps_0000_v0_0_s_ifspec;

```

```

#ifndef __ITPCC_INTERFACE_DEFINED__
#define __ITPCC_INTERFACE_DEFINED__

/* interface ITPCC */
/* [unique][helpstring][uuid][oleautomation][object] */

EXTERN_C const IID IID_ITPCC;

#if defined(__cplusplus) && !defined(CINTERFACE)

    MIDL_INTERFACE("FEE6AA2-84B1-11d2-BA47-00C04FBFE08B")
    ITPCC : public IUnknown
    {
    public:
        virtual HRESULT STDMETHODCALLTYPE NewOrder(
            /* [in] */ VARIANT txn_in,
            /* [out] */ VARIANT *txn_out) = 0;

        virtual HRESULT STDMETHODCALLTYPE Payment(
            /* [in] */ VARIANT txn_in,
            /* [out] */ VARIANT *txn_out) = 0;

        virtual HRESULT STDMETHODCALLTYPE Delivery(
            /* [in] */ VARIANT txn_in,
            /* [out] */ VARIANT *txn_out) = 0;

        virtual HRESULT STDMETHODCALLTYPE StockLevel(
            /* [in] */ VARIANT txn_in,
            /* [out] */ VARIANT *txn_out) = 0;

        virtual HRESULT STDMETHODCALLTYPE OrderStatus(
            /* [in] */ VARIANT txn_in,
            /* [out] */ VARIANT *txn_out) = 0;

        virtual HRESULT STDMETHODCALLTYPE CallSetComplete(
            void) = 0;
    };

#else /* C style interface */

    typedef struct ITPCCVtbl
    {
        BEGIN_INTERFACE

        HRESULT ( STDMETHODCALLTYPE *QueryInterface )(
            ITPCC * This,
            /* [in] */ REFIID riid,
            /* [iid_is][out] */ void **ppvObject);

        ULONG ( STDMETHODCALLTYPE *AddRef )(
            ITPCC * This);

        ULONG ( STDMETHODCALLTYPE *Release )(
            ITPCC * This);

        HRESULT ( STDMETHODCALLTYPE *NewOrder )(
            ITPCC * This,

```

```

            /* [in] */ VARIANT txn_in,
            /* [out] */ VARIANT *txn_out);

        HRESULT ( STDMETHODCALLTYPE *Payment )(
            ITPCC * This,
            /* [in] */ VARIANT txn_in,
            /* [out] */ VARIANT *txn_out);

        HRESULT ( STDMETHODCALLTYPE *Delivery )(
            ITPCC * This,
            /* [in] */ VARIANT txn_in,
            /* [out] */ VARIANT *txn_out);

        HRESULT ( STDMETHODCALLTYPE *StockLevel )(
            ITPCC * This,
            /* [in] */ VARIANT txn_in,
            /* [out] */ VARIANT *txn_out);

        HRESULT ( STDMETHODCALLTYPE *OrderStatus )(
            ITPCC * This,
            /* [in] */ VARIANT txn_in,
            /* [out] */ VARIANT *txn_out);

        HRESULT ( STDMETHODCALLTYPE *CallSetComplete )(
            ITPCC * This);

        END_INTERFACE
    } ITPCCVtbl;

    interface ITPCC
    {
        CONST_VTBL struct ITPCCVtbl *lpVtbl;
    };

#endif COBJMACROS

#define ITPCC_QueryInterface(This,riid,ppvObject) \
    (This)->lpVtbl -> QueryInterface(This,riid,ppvObject)

#define ITPCC_AddRef(This) \
    (This)->lpVtbl -> AddRef(This)

#define ITPCC_Release(This) \
    (This)->lpVtbl -> Release(This)

#define ITPCC_NewOrder(This,txn_in,txn_out) \
    (This)->lpVtbl -> NewOrder(This,txn_in,txn_out)

#define ITPCC_Payment(This,txn_in,txn_out) \
    (This)->lpVtbl -> Payment(This,txn_in,txn_out)

#define ITPCC_Delivery(This,txn_in,txn_out) \
    (This)->lpVtbl -> Delivery(This,txn_in,txn_out)

#define ITPCC_StockLevel(This,txn_in,txn_out) \
    (This)->lpVtbl -> StockLevel(This,txn_in,txn_out)

#define ITPCC_OrderStatus(This,txn_in,txn_out) \

```

```

    (This)->lpVtbl ->
    OrderStatus(This,txn_in,txn_out)

#define ITPCC_CallSetComplete(This) \
    (This)->lpVtbl -> CallSetComplete(This)

#endif /* COBJMACROS */

#endif /* C style interface */

HRESULT STDMETHODCALLTYPE ITPCC_NewOrder_Proxy(
    ITPCC * This,
    /* [in] */ VARIANT txn_in,
    /* [out] */ VARIANT *txn_out);

void __RPC_STUB ITPCC_NewOrder_Stub(
    IRpcStubBuffer *This,
    IRpcChannelBuffer *_pRpcChannelBuffer,
    PRPC_MESSAGE _pRpcMessage,
    DWORD *_pdwStubPhase);

HRESULT STDMETHODCALLTYPE ITPCC_Payment_Proxy(
    ITPCC * This,
    /* [in] */ VARIANT txn_in,
    /* [out] */ VARIANT *txn_out);

void __RPC_STUB ITPCC_Payment_Stub(
    IRpcStubBuffer *This,
    IRpcChannelBuffer *_pRpcChannelBuffer,
    PRPC_MESSAGE _pRpcMessage,
    DWORD *_pdwStubPhase);

HRESULT STDMETHODCALLTYPE ITPCC_Delivery_Proxy(
    ITPCC * This,
    /* [in] */ VARIANT txn_in,
    /* [out] */ VARIANT *txn_out);

void __RPC_STUB ITPCC_Delivery_Stub(
    IRpcStubBuffer *This,
    IRpcChannelBuffer *_pRpcChannelBuffer,
    PRPC_MESSAGE _pRpcMessage,
    DWORD *_pdwStubPhase);

HRESULT STDMETHODCALLTYPE ITPCC_StockLevel_Proxy(
    ITPCC * This,
    /* [in] */ VARIANT txn_in,
    /* [out] */ VARIANT *txn_out);

void __RPC_STUB ITPCC_StockLevel_Stub(
    IRpcStubBuffer *This,
    IRpcChannelBuffer *_pRpcChannelBuffer,
    PRPC_MESSAGE _pRpcMessage,
    DWORD *_pdwStubPhase);

```

```

HRESULT __stdcall ITPCC_OrderStatus_Proxy(
    ITPCC * This,
    /* [in] */ VARIANT txn_in,
    /* [out] */ VARIANT *txn_out);

void __RPC_STUB ITPCC_OrderStatus_Stub(
    IRpcStubBuffer *This,
    IRpcChannelBuffer *pRpcChannelBuffer,
    PRPC_MESSAGE _pRpcMessage,
    DWORD *_pdwStubPhase);

HRESULT __stdcall ITPCC_CallSetComplete_Proxy(
    ITPCC * This);

void __RPC_STUB ITPCC_CallSetComplete_Stub(
    IRpcStubBuffer *This,
    IRpcChannelBuffer *pRpcChannelBuffer,
    PRPC_MESSAGE _pRpcMessage,
    DWORD *_pdwStubPhase);

#endif /* __ITPCC_INTERFACE_DEFINED__ */

/* Additional Prototypes for ALL interfaces */

unsigned long             __RPC_USER
VARIANT_UserSize(        unsigned long *, unsigned long
, VARIANT * );
unsigned char * __RPC_USER
VARIANT_UserMarshal(    unsigned long *, unsigned char *, VARIANT * );
unsigned char * __RPC_USER
VARIANT_UserUnmarshal(unsigned long *, unsigned char
*, VARIANT * );
void                    __RPC_USER
VARIANT_UserFree(       unsigned long *, VARIANT * );

/* end of Additional Prototypes */

#ifdef __cplusplus
}
#endif
#endif


```

tpcc_com_ps.idl

```

/* FILE:             ITPCC.IDL
 *
 * TPC-C Kit Ver. 4.20.000
 *
 * Microsoft
 * Copyright
 * Microsoft, 1999
 */

```

```

*           All Rights Reserved
*
*           not yet
audited
*
*           PURPOSE: Defines the interface used by
TPCC. This interface can be implemented by C++
components.
*
* Change history:
*           4.20.000 - first version
*/

// Forward declare all types defined
interface ITPCC;
import "oidl.idl";
import "ocidl.idl";

[
    object,
    oleautomation,
    uuid(FEEE6AA2-84B1-11d2-BA47-
00C04FBFE08B),
    helpstring("ITPCC Interface"),
    pointer_default(unique)
]
interface ITPCC : IUnknown
{
    HRESULT __stdcall NewOrder(
        (
            [in] VARIANT txn_in,
            [out] VARIANT *txn_out
        )
    );
    HRESULT __stdcall Payment(
        (
            [in] VARIANT txn_in,
            [out] VARIANT *txn_out
        )
    );
    HRESULT __stdcall Delivery(
        (
            [in] VARIANT txn_in,
            [out] VARIANT *txn_out
        )
    );
    HRESULT __stdcall StockLevel(
        (

```

```

[in] VARIANT txn_in,
[out] VARIANT *txn_out
);
HRESULT __stdcall OrderStatus(
    (
        [in] VARIANT txn_in,
        [out] VARIANT *txn_out
    )
);
HRESULT __stdcall CallSetComplete(
    (
    )
);
}; // interface ITPCC

```

tpcc_com_ps.i.c

```

/* this ALWAYS GENERATED file contains the IIDs and
CLSIDs */

/* link this file in with the server and any clients
*/

/* File created by MIDL compiler version 6.00.0361
*/
/* at Tue Nov 10 10:51:13 2009
*/
/* Compiler settings for .\src\tpcc_com_ps.idl:
    Oicf, W1, Zp8, env=Win32 (32b run)
    protocol : dce , ms_ext, c_ext
    error checks: allocation ref bounds_check enum
stub_data
    VC __declspec() decoration level:
    __declspec(uuid()), __declspec(selectany),
    __declspec(novtable)
    DECLSPEC_UUID(), MIDL_INTERFACE()
*/
//@@MIDL_FILE_HEADING(  )

#if !defined(_M_IA64) && !defined(_M_AMD64)

#pragma warning( disable: 4049 ) /* more than 64k
source lines */

```

```

#ifdef __cplusplus
extern "C"{
#endif

#include <rpc.h>
#include <rpcndr.h>

#ifdef _MIDL_USE_GUIDDEF_

#ifndef INITGUID
#define INITGUID
#include <guiddef.h>
#undef INITGUID
#else
#include <guiddef.h>
#endif

#define
MIDL_DEFINE_GUID(type,name,l,w1,w2,b1,b2,b3,b4,b5,b6,
b7,b8) \

DEFINE_GUID(name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8)

#else // !_MIDL_USE_GUIDDEF_

#ifndef __IID_DEFINED__
#define __IID_DEFINED__

typedef struct _IID
{
    unsigned long x;
    unsigned short s1;
    unsigned short s2;
    unsigned char c[8];
} IID;

#endif // __IID_DEFINED__

#ifndef CLSID_DEFINED
#define CLSID_DEFINED
typedef IID CLSID;
#endif // CLSID_DEFINED

#define
MIDL_DEFINE_GUID(type,name,l,w1,w2,b1,b2,b3,b4,b5,b6,
b7,b8) \
    const type name =
{1,w1,w2,{b1,b2,b3,b4,b5,b6,b7,b8}}

#endif !_MIDL_USE_GUIDDEF_

MIDL_DEFINE_GUID(IID,
IID_ITPCC,0xFEEB6AA2,0x84B1,0x11d2,0xBA,0x47,0x00,0x0,
0,0x4F,0xBF,0xE0,0x8B);

#undef MIDL_DEFINE_GUID

#ifdef __cplusplus
}
#endif

```

```

#endif /* !defined(_M_IA64) && !defined(_M_AMD64)*/

/* this ALWAYS GENERATED file contains the IIDs and
CLSIDs */

/* link this file in with the server and any clients
*/

/* File created by MIDL compiler version 6.00.0361
*/
/* at Tue Nov 10 10:51:13 2009
*/
/* Compiler settings for .\src\tpcc_com_ps.idl:
Oicf, W1, Zp8, env=Win64 (32b run,appending)
protocol : dce , ms_ext, c_ext, robust
error checks: allocation ref bounds_check enum
stub_data
VC __declspec() decoration level:
__declspec(uuid()), __declspec(selectany),
__declspec(novtable)
DECLSPEC_UUID(), MIDL_INTERFACE()
*/
/@@MIDL_FILE_HEADING( )

#ifdef _M_IA64 || defined(_M_AMD64)

#pragma warning( disable: 4049 ) /* more than 64k
source lines */

#endif

#ifdef __cplusplus
extern "C"{
#endif

#include <rpc.h>
#include <rpcndr.h>

#ifdef _MIDL_USE_GUIDDEF_

#ifndef INITGUID
#define INITGUID
#include <guiddef.h>
#undef INITGUID
#else
#include <guiddef.h>
#endif

#define
MIDL_DEFINE_GUID(type,name,l,w1,w2,b1,b2,b3,b4,b5,b6,
b7,b8) \

DEFINE_GUID(name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8)

#else // !_MIDL_USE_GUIDDEF_

#ifndef __IID_DEFINED__

```

```

#define __IID_DEFINED__

typedef struct _IID
{
    unsigned long x;
    unsigned short s1;
    unsigned short s2;
    unsigned char c[8];
} IID;

#endif // __IID_DEFINED__

#ifndef CLSID_DEFINED
#define CLSID_DEFINED
typedef IID CLSID;
#endif // CLSID_DEFINED

#define
MIDL_DEFINE_GUID(type,name,l,w1,w2,b1,b2,b3,b4,b5,b6,
b7,b8) \
    const type name =
{1,w1,w2,{b1,b2,b3,b4,b5,b6,b7,b8}}

#endif !_MIDL_USE_GUIDDEF_

MIDL_DEFINE_GUID(IID,
IID_ITPCC,0xFEEB6AA2,0x84B1,0x11d2,0xBA,0x47,0x00,0x0,
0,0x4F,0xBF,0xE0,0x8B);

#undef MIDL_DEFINE_GUID

#ifdef __cplusplus
}
#endif

#endif /* defined(_M_IA64) || defined(_M_AMD64)*/



---


tpcc_com_ps_p.c



---


/* this ALWAYS GENERATED file contains the proxy stub
code */

/* File created by MIDL compiler version 6.00.0361
*/
/* at Tue Nov 10 10:51:13 2009
*/
/* Compiler settings for .\src\tpcc_com_ps.idl:
Oicf, W1, Zp8, env=Win32 (32b run)
protocol : dce , ms_ext, c_ext
error checks: allocation ref bounds_check enum
stub_data
VC __declspec() decoration level:
__declspec(uuid()), __declspec(selectany),
__declspec(novtable)

```

```

DECLSPEC_UUID(), MIDL_INTERFACE()
*/
//@@MIDL_FILE_HEADING( )

#if !defined(_M_IA64) && !defined(_M_AMD64)

#pragma warning( disable: 4049 ) /* more than 64k
source lines */
#if _MSC_VER >= 1200
#pragma warning(push)
#endif
#pragma warning( disable: 4100 ) /* unreferenced
arguments in x86 call */
#pragma warning( disable: 4211 ) /* redefine extent
to static */
#pragma warning( disable: 4232 ) /* dllimport
identity*/
#define USE_STUBLESS_PROXY

/* verify that the <rpcproxy.h> version is high
enough to compile this file*/
#ifndef __REDQ_RPCPROXY_H_VERSION__
#define __REQUIRED_RPCPROXY_H_VERSION__ 440
#endif

#include "rpcproxy.h"
#ifdef __RPCPROXY_H_VERSION__
#error this stub requires an updated version of
<rpcproxy.h>
#endif // __RPCPROXY_H_VERSION__

#include "tpcc_com_ps.h"

#define TYPE_FORMAT_STRING_SIZE 1023
#define PROC_FORMAT_STRING_SIZE 193
#define TRANSMIT_AS_TABLE_SIZE 0
#define WIRE_MARSHAL_TABLE_SIZE 1

typedef struct _MIDL_TYPE_FORMAT_STRING
{
    short Pad;
    unsigned char Format[ TYPE_FORMAT_STRING_SIZE ];
} MIDL_TYPE_FORMAT_STRING;

typedef struct _MIDL_PROC_FORMAT_STRING
{
    short Pad;
    unsigned char Format[ PROC_FORMAT_STRING_SIZE ];
} MIDL_PROC_FORMAT_STRING;

static RPC_SYNTAX_IDENTIFIER _RpcTransferSyntax =
{{0x8A885D04,0x1CEB,0x11C9,{0x9F,0xE8,0x08,0x00,0x2B,
0x10,0x48,0x60}},{2,0}};

extern const MIDL_TYPE_FORMAT_STRING
__MIDL_TypeFormatString;

```

```

extern const MIDL_PROC_FORMAT_STRING
__MIDL_ProcFormatString;

extern const MIDL_STUB_DESC Object_StubDesc;

extern const MIDL_SERVER_INFO ITPCC_ServerInfo;
extern const MIDL_STUBLESS_PROXY_INFO
ITPCC_ProxyInfo;

extern const USER_MARSHAL_ROUTINE_QUADRUPLE
UserMarshalRoutines[ WIRE_MARSHAL_TABLE_SIZE ];

#if !defined(__RPC_WIN32__)
#error Invalid build platform for this stub.
#endif

#if !(TARGET_IS_NT40_OR_LATER)
#error You need a Windows NT 4.0 or later to run this
stub because it uses these features:
#error -Oif or -Oicf, [wire_marshal] or
[user_marshal] attribute.
#error However, your C/C++ compilation flags indicate
you intend to run this app on earlier systems.
#error This app will die there with the
RPC_X_WRONG_STUB_VERSION error.
#endif

static const MIDL_PROC_FORMAT_STRING
__MIDL_ProcFormatString =
{
    0,
    {
        /* Procedure NewOrder */
        FC_AUTO_HANDLE /*
0x33, */
        /*
Old Flags: object, Oi2 */
/* 2 */ NdrFcLong( 0x0 ), /* 0 */
/* 6 */ NdrFcShort( 0x3 ), /* 3 */
/* 8 */ NdrFcShort( 0x1c ), /* x86 Stack
size/offset = 28 */
/* 10 */ NdrFcShort( 0x0 ), /* 0 */
/* 12 */ NdrFcShort( 0x8 ), /* 8 */
/* 14 */ 0x7, /* Oi2 Flags: srv must
size, clt must size, has return, */
3 /*
0x3, */

/* Parameter txn_in */

/* 16 */ NdrFcShort( 0x8b ), /* Flags: must size,
must free, in, by val, */
/* 18 */ NdrFcShort( 0x4 ), /* x86 Stack
size/offset = 4 */
/* 20 */ NdrFcShort( 0x3e2 ), /* Type
Offset=994 */

```

```

/* Parameter txn_out */

/* 22 */ NdrFcShort( 0x4113 ), /* Flags:
must size, must free, out, simple ref, srv alloc
size=16 */
/* 24 */ NdrFcShort( 0x14 ), /* x86 Stack
size/offset = 20 */
/* 26 */ NdrFcShort( 0x3f4 ), /* Type
Offset=1012 */

/* Return value */

/* 28 */ NdrFcShort( 0x70 ), /* Flags: out, return,
base type, */
/* 30 */ NdrFcShort( 0x18 ), /* x86 Stack
size/offset = 24 */
/* 32 */ 0x8, /* FC_LONG */
0x0, /*
0 */

/* Procedure Payment */

/* 34 */ 0x33, /* FC_AUTO_HANDLE */
0x6c, /*
Old Flags: object, Oi2 */
/* 36 */ NdrFcLong( 0x0 ), /* 0 */
/* 40 */ NdrFcShort( 0x4 ), /* 4 */
/* 42 */ NdrFcShort( 0x1c ), /* x86 Stack
size/offset = 28 */
/* 44 */ NdrFcShort( 0x0 ), /* 0 */
/* 46 */ NdrFcShort( 0x8 ), /* 8 */
/* 48 */ 0x7, /* Oi2 Flags: srv must
size, clt must size, has return, */
0x3, /*
3 */

/* Parameter txn_in */

/* 50 */ NdrFcShort( 0x8b ), /* Flags: must size,
must free, in, by val, */
/* 52 */ NdrFcShort( 0x4 ), /* x86 Stack
size/offset = 4 */
/* 54 */ NdrFcShort( 0x3e2 ), /* Type
Offset=994 */

/* Parameter txn_out */

/* 56 */ NdrFcShort( 0x4113 ), /* Flags:
must size, must free, out, simple ref, srv alloc
size=16 */
/* 58 */ NdrFcShort( 0x14 ), /* x86 Stack
size/offset = 20 */
/* 60 */ NdrFcShort( 0x3f4 ), /* Type
Offset=1012 */

/* Return value */

/* 62 */ NdrFcShort( 0x70 ), /* Flags: out, return,
base type, */
/* 64 */ NdrFcShort( 0x18 ), /* x86 Stack
size/offset = 24 */
/* 66 */ 0x8, /* FC_LONG */

```

```

0 */
                                0x0,
                                /*
/* Procedure Delivery */
/* 68 */ 0x33, /* FC_AUTO_HANDLE */
                                0x6c,
Old Flags: object, Oi2 */
/* 70 */ NdrFcLong( 0x0 ), /* 0 */
/* 74 */ NdrFcShort( 0x5 ), /* 5 */
/* 76 */ NdrFcShort( 0x1c ), /* x86 Stack
size/offset = 28 */
/* 78 */ NdrFcShort( 0x0 ), /* 0 */
/* 80 */ NdrFcShort( 0x8 ), /* 8 */
/* 82 */ 0x7, /* Oi2 Flags: srv must
size, clt must size, has return, */
3 */
                                0x3,
                                /*
/* Parameter txn_in */
/* 84 */ NdrFcShort( 0x8b ), /* Flags: must size,
must free, in, by val, */
/* 86 */ NdrFcShort( 0x4 ), /* x86 Stack
size/offset = 4 */
/* 88 */ NdrFcShort( 0x3e2 ), /* Type
Offset=994 */
/* Parameter txn_out */
/* 90 */ NdrFcShort( 0x4113 ), /* Flags:
must size, must free, out, simple ref, srv alloc
size=16 */
/* 92 */ NdrFcShort( 0x14 ), /* x86 Stack
size/offset = 20 */
/* 94 */ NdrFcShort( 0x3f4 ), /* Type
Offset=1012 */
/* Return value */
/* 96 */ NdrFcShort( 0x70 ), /* Flags: out, return,
base type, */
/* 98 */ NdrFcShort( 0x18 ), /* x86 Stack
size/offset = 24 */
/* 100 */ 0x8, /* FC_LONG */
0 */
                                0x0,
                                /*
/* Procedure StockLevel */
/* 102 */ 0x33, /* FC_AUTO_HANDLE */
                                0x6c,
Old Flags: object, Oi2 */
/* 104 */ NdrFcLong( 0x0 ), /* 0 */
/* 108 */ NdrFcShort( 0x6 ), /* 6 */
/* 110 */ NdrFcShort( 0x1c ), /* x86 Stack
size/offset = 28 */
/* 112 */ NdrFcShort( 0x0 ), /* 0 */
/* 114 */ NdrFcShort( 0x8 ), /* 8 */
/* 116 */ 0x7, /* Oi2 Flags: srv must
size, clt must size, has return, */
3 */
                                0x3,

```

```

/* Parameter txn_in */
/* 118 */ NdrFcShort( 0x8b ), /* Flags: must size,
must free, in, by val, */
/* 120 */ NdrFcShort( 0x4 ), /* x86 Stack
size/offset = 4 */
/* 122 */ NdrFcShort( 0x3e2 ), /* Type
Offset=994 */
/* Parameter txn_out */
/* 124 */ NdrFcShort( 0x4113 ), /* Flags:
must size, must free, out, simple ref, srv alloc
size=16 */
/* 126 */ NdrFcShort( 0x14 ), /* x86 Stack
size/offset = 20 */
/* 128 */ NdrFcShort( 0x3f4 ), /* Type
Offset=1012 */
/* Return value */
/* 130 */ NdrFcShort( 0x70 ), /* Flags: out, return,
base type, */
/* 132 */ NdrFcShort( 0x18 ), /* x86 Stack
size/offset = 24 */
/* 134 */ 0x8, /* FC_LONG */
0 */
                                0x0,
                                /*
/* Procedure OrderStatus */
/* 136 */ 0x33, /* FC_AUTO_HANDLE */
                                0x6c,
Old Flags: object, Oi2 */
/* 138 */ NdrFcLong( 0x0 ), /* 0 */
/* 142 */ NdrFcShort( 0x7 ), /* 7 */
/* 144 */ NdrFcShort( 0x1c ), /* x86 Stack
size/offset = 28 */
/* 146 */ NdrFcShort( 0x0 ), /* 0 */
/* 148 */ NdrFcShort( 0x8 ), /* 8 */
/* 150 */ 0x7, /* Oi2 Flags: srv must
size, clt must size, has return, */
3 */
                                0x3,
                                /*
/* Parameter txn_in */
/* 152 */ NdrFcShort( 0x8b ), /* Flags: must size,
must free, in, by val, */
/* 154 */ NdrFcShort( 0x4 ), /* x86 Stack
size/offset = 4 */
/* 156 */ NdrFcShort( 0x3e2 ), /* Type
Offset=994 */
/* Parameter txn_out */
/* 158 */ NdrFcShort( 0x4113 ), /* Flags:
must size, must free, out, simple ref, srv alloc
size=16 */
/* 160 */ NdrFcShort( 0x14 ), /* x86 Stack
size/offset = 20 */

```

```

/* 162 */ NdrFcShort( 0x3f4 ), /* Type
Offset=1012 */
/* Return value */
/* 164 */ NdrFcShort( 0x70 ), /* Flags: out, return,
base type, */
/* 166 */ NdrFcShort( 0x18 ), /* x86 Stack
size/offset = 24 */
/* 168 */ 0x8, /* FC_LONG */
0 */
                                0x0,
                                /*
/* Procedure CallSetComplete */
/* 170 */ 0x33, /* FC_AUTO_HANDLE */
                                0x6c,
Old Flags: object, Oi2 */
/* 172 */ NdrFcLong( 0x0 ), /* 0 */
/* 176 */ NdrFcShort( 0x8 ), /* 8 */
/* 178 */ NdrFcShort( 0x8 ), /* x86 Stack
size/offset = 8 */
/* 180 */ NdrFcShort( 0x0 ), /* 0 */
/* 182 */ NdrFcShort( 0x8 ), /* 8 */
/* 184 */ 0x4, /* Oi2 Flags: has
return, */
1 */
                                0x1,
                                /*
/* Return value */
/* 186 */ NdrFcShort( 0x70 ), /* Flags: out, return,
base type, */
/* 188 */ NdrFcShort( 0x4 ), /* x86 Stack
size/offset = 4 */
/* 190 */ 0x8, /* FC_LONG */
0 */
                                0x0,
                                /*
};
static const MIDL_TYPE_FORMAT_STRING
__MIDL_TypeFormatString =
{
    0,
    {
        0 */
                                NdrFcShort( 0x0 ), /*
/* 2 */
                                0x12, 0x0, /*
FC_UP */
/* 4 */ NdrFcShort( 0x3ca ), /* Offset=
970 (974) */
/* 6 */
                                0x2b, /*
FC_NON_ENCAPSULATED_UNION */
                                0x9, /*
FC_ULONG */
/* 8 */ 0x7, /* Corr desc: FC_USHORT
*/

```



```

0x0, /*
/* 10 */ NdrFcShort( 0xffff8 ), /* -8 */
/* 12 */ NdrFcShort( 0x2 ), /* Offset= 2 (14) */
/* 14 */ NdrFcShort( 0x10 ), /* 16 */
/* 16 */ NdrFcShort( 0x2f ), /* 47 */
/* 18 */ NdrFcLong( 0x14 ), /* 20 */
/* 22 */ NdrFcShort( 0x800b ), /* Simple arm
type: FC_HYPER */
/* 24 */ NdrFcLong( 0x3 ), /* 3 */
/* 28 */ NdrFcShort( 0x8008 ), /* Simple arm
type: FC_LONG */
/* 30 */ NdrFcLong( 0x11 ), /* 17 */
/* 34 */ NdrFcShort( 0x8001 ), /* Simple arm
type: FC_BYTE */
/* 36 */ NdrFcLong( 0x2 ), /* 2 */
/* 40 */ NdrFcShort( 0x8006 ), /* Simple arm
type: FC_SHORT */
/* 42 */ NdrFcLong( 0x4 ), /* 4 */
/* 46 */ NdrFcShort( 0x800a ), /* Simple arm
type: FC_FLOAT */
/* 48 */ NdrFcLong( 0x5 ), /* 5 */
/* 52 */ NdrFcShort( 0x800c ), /* Simple arm
type: FC_DOUBLE */
/* 54 */ NdrFcLong( 0xb ), /* 11 */
/* 58 */ NdrFcShort( 0x8006 ), /* Simple arm
type: FC_SHORT */
/* 60 */ NdrFcLong( 0xa ), /* 10 */
/* 64 */ NdrFcShort( 0x8008 ), /* Simple arm
type: FC_LONG */
/* 66 */ NdrFcLong( 0x6 ), /* 6 */
/* 70 */ NdrFcShort( 0xe8 ), /* Offset= 232 (302) */
/* 72 */ NdrFcLong( 0x7 ), /* 7 */
/* 76 */ NdrFcShort( 0x800c ), /* Simple arm
type: FC_DOUBLE */
/* 78 */ NdrFcLong( 0x8 ), /* 8 */
/* 82 */ NdrFcShort( 0xe2 ), /* Offset= 226 (308) */
/* 84 */ NdrFcLong( 0xd ), /* 13 */
/* 88 */ NdrFcShort( 0xf4 ), /* Offset= 244 (332) */
/* 90 */ NdrFcLong( 0x9 ), /* 9 */
/* 94 */ NdrFcShort( 0x100 ), /* Offset=
256 (350) */
/* 96 */ NdrFcLong( 0x2000 ), /* 8192 */
/* 100 */ NdrFcShort( 0x10c ), /* Offset=
268 (368) */
/* 102 */ NdrFcLong( 0x24 ), /* 36 */
/* 106 */ NdrFcShort( 0x31a ), /* Offset=
794 (900) */
/* 108 */ NdrFcLong( 0x4024 ), /* 16420 */
/* 112 */ NdrFcShort( 0x314 ), /* Offset=
788 (900) */
/* 114 */ NdrFcLong( 0x4011 ), /* 16401 */
/* 118 */ NdrFcShort( 0x312 ), /* Offset=
786 (904) */
/* 120 */ NdrFcLong( 0x4002 ), /* 16386 */
/* 124 */ NdrFcShort( 0x310 ), /* Offset=
784 (908) */
/* 126 */ NdrFcLong( 0x4003 ), /* 16387 */
/* 130 */ NdrFcShort( 0x30e ), /* Offset=
782 (912) */
/* 132 */ NdrFcLong( 0x4014 ), /* 16404 */
/* 136 */ NdrFcShort( 0x30c ), /* Offset=
780 (916) */
/* 138 */ NdrFcLong( 0x4004 ), /* 16388 */
/* 142 */ NdrFcShort( 0x30a ), /* Offset=
778 (920) */
/* 144 */ NdrFcLong( 0x4005 ), /* 16389 */
/* 148 */ NdrFcShort( 0x308 ), /* Offset=
776 (924) */
/* 150 */ NdrFcLong( 0x400b ), /* 16395 */
/* 154 */ NdrFcShort( 0x2f2 ), /* Offset=
754 (908) */
/* 156 */ NdrFcLong( 0x400a ), /* 16394 */
/* 160 */ NdrFcShort( 0x2f0 ), /* Offset=
752 (912) */
/* 162 */ NdrFcLong( 0x4006 ), /* 16390 */
/* 166 */ NdrFcShort( 0x2fa ), /* Offset=
762 (928) */
/* 168 */ NdrFcLong( 0x4007 ), /* 16391 */
/* 172 */ NdrFcShort( 0x2f0 ), /* Offset=
752 (924) */
/* 174 */ NdrFcLong( 0x4008 ), /* 16392 */
/* 178 */ NdrFcShort( 0x2f2 ), /* Offset=
754 (932) */
/* 180 */ NdrFcLong( 0x400d ), /* 16397 */
/* 184 */ NdrFcShort( 0x2f0 ), /* Offset=
752 (936) */
/* 186 */ NdrFcLong( 0x4009 ), /* 16393 */
/* 190 */ NdrFcShort( 0x2ee ), /* Offset=
750 (940) */
/* 192 */ NdrFcLong( 0x6000 ), /* 24576 */
/* 196 */ NdrFcShort( 0x2ec ), /* Offset=
748 (944) */
/* 198 */ NdrFcLong( 0x400c ), /* 16396 */
/* 202 */ NdrFcShort( 0x2ea ), /* Offset=
746 (948) */
/* 204 */ NdrFcLong( 0x10 ), /* 16 */
/* 208 */ NdrFcShort( 0x8002 ), /* Simple arm
type: FC_CHAR */
/* 210 */ NdrFcLong( 0x12 ), /* 18 */
/* 214 */ NdrFcShort( 0x8006 ), /* Simple arm
type: FC_SHORT */
/* 216 */ NdrFcLong( 0x13 ), /* 19 */
/* 220 */ NdrFcShort( 0x8008 ), /* Simple arm
type: FC_LONG */
/* 222 */ NdrFcLong( 0x15 ), /* 21 */
/* 226 */ NdrFcShort( 0x800b ), /* Simple arm
type: FC_HYPER */
/* 228 */ NdrFcLong( 0x16 ), /* 22 */
/* 232 */ NdrFcShort( 0x8008 ), /* Simple arm
type: FC_LONG */
/* 234 */ NdrFcLong( 0x17 ), /* 23 */
/* 238 */ NdrFcShort( 0x8008 ), /* Simple arm
type: FC_LONG */
/* 240 */ NdrFcLong( 0xe ), /* 14 */
/* 244 */ NdrFcShort( 0x2c8 ), /* Offset=
712 (956) */
/* 246 */ NdrFcLong( 0x400e ), /* 16398 */
/* 250 */ NdrFcShort( 0x2cc ), /* Offset=
716 (966) */
/* 252 */ NdrFcLong( 0x4010 ), /* 16400 */
/* 256 */ NdrFcShort( 0x2ca ), /* Offset=
714 (970) */
/* 258 */ NdrFcLong( 0x4012 ), /* 16402 */
/* 262 */ NdrFcShort( 0x286 ), /* Offset=
646 (908) */
/* 264 */ NdrFcLong( 0x4013 ), /* 16403 */
/* 268 */ NdrFcShort( 0x284 ), /* Offset=
644 (912) */
/* 270 */ NdrFcLong( 0x4015 ), /* 16405 */
/* 274 */ NdrFcShort( 0x282 ), /* Offset=
642 (916) */
/* 276 */ NdrFcLong( 0x4016 ), /* 16406 */
/* 280 */ NdrFcShort( 0x278 ), /* Offset=
632 (912) */
/* 282 */ NdrFcLong( 0x4017 ), /* 16407 */
/* 286 */ NdrFcShort( 0x272 ), /* Offset=
626 (912) */
/* 288 */ NdrFcLong( 0x0 ), /* 0 */
/* 292 */ NdrFcShort( 0x0 ), /* Offset= 0 (292) */
/* 294 */ NdrFcLong( 0x1 ), /* 1 */
/* 298 */ NdrFcShort( 0x0 ), /* Offset= 0 (298) */
/* 300 */ NdrFcShort( 0xffff ), /* Offset= -1
(299) */
/* 302 */
FC_STRUCT /* 0x15, */
/* 304 */ NdrFcShort( 0x8 ), /* 8 */
/* 306 */ 0xb, /* FC_HYPER */
FC_END /* 0x5b, */
FC_UP /* 0x12, 0x0, */
/* 310 */ NdrFcShort( 0xc ), /* Offset= 12 (322) */
/* 312 */
FC_CARRAY /* 0x1b, */
/* 314 */ NdrFcShort( 0x2 ), /* 2 */
/* 316 */ 0x9, /* Corr desc: FC_ULONG */
/* 318 */ NdrFcShort( 0xfffc ), /* -4 */
/* 320 */ 0x6, /* FC_SHORT */
FC_END /* 0x5b, */
/* 322 */
FC_CSTRUCT /* 0x17, */
/* 324 */ NdrFcShort( 0x8 ), /* 8 */
/* 326 */ NdrFcShort( 0xffff2 ), /* Offset= -
14 (312) */
/* 328 */ 0x8, /* FC_LONG */
FC_LONG /* 0x8, */
/* 330 */ 0x5c, /* FC_PAD */
FC_END /* 0x5b, */
/* 332 */
FC_IP /* 0x2E, */

```

```

0x5a, /*
FC_CONSTANT_IID */
/* 334 */ NdrFcLong( 0x0 ), /* 0 */
/* 338 */ NdrFcShort( 0x0 ), /* 0 */
/* 340 */ NdrFcShort( 0x0 ), /* 0 */
/* 342 */ 0xc0, /* 192 */
0x0, /*
0 */
/* 344 */ 0x0, /* 0 */
0x0, /*
0 */
/* 346 */ 0x0, /* 0 */
0x0, /*
0 */
/* 348 */ 0x0, /* 0 */
0x46, /*
70 */
/* 350 */
FC_IP */
0x5a, /*
FC_CONSTANT_IID */
/* 352 */ NdrFcLong( 0x20400 ), /* 132096 */
/* 356 */ NdrFcShort( 0x0 ), /* 0 */
/* 358 */ NdrFcShort( 0x0 ), /* 0 */
/* 360 */ 0xc0, /* 192 */
0x0, /*
0 */
/* 362 */ 0x0, /* 0 */
0x0, /*
0 */
/* 364 */ 0x0, /* 0 */
0x0, /*
0 */
/* 366 */ 0x0, /* 0 */
0x46, /*
70 */
/* 368 */
FC_UP [pointer_deref] */
/* 370 */ NdrFcShort( 0x2 ), /* Offset= 2 (372) */
/* 372 */
0x12, 0x0, /*
FC_UP */
/* 374 */ NdrFcShort( 0x1fc ), /* Offset=
508 (882) */
/* 376 */
0x2a, /*
FC_ENCAPSULATED_UNION */
0x49, /*
73 */
/* 378 */ NdrFcShort( 0x18 ), /* 24 */
/* 380 */ NdrFcShort( 0xa ), /* 10 */
/* 382 */ NdrFcLong( 0x8 ), /* 8 */
/* 386 */ NdrFcShort( 0x58 ), /* Offset= 88 (474) */
/* 388 */ NdrFcLong( 0xd ), /* 13 */
/* 392 */ NdrFcShort( 0x78 ), /* Offset= 120 (512) */
/* 394 */ NdrFcLong( 0x9 ), /* 9 */
/* 398 */ NdrFcShort( 0x94 ), /* Offset= 148 (546) */
/* 400 */ NdrFcLong( 0xc ), /* 12 */
/* 404 */ NdrFcShort( 0xbc ), /* Offset= 188 (592) */
/* 406 */ NdrFcLong( 0x24 ), /* 36 */

```

```

/* 410 */ NdrFcShort( 0x114 ), /* Offset=
276 (686) */
/* 412 */ NdrFcLong( 0x800d ), /* 32781 */
/* 416 */ NdrFcShort( 0x130 ), /* Offset=
304 (720) */
/* 418 */ NdrFcLong( 0x10 ), /* 16 */
/* 422 */ NdrFcShort( 0x148 ), /* Offset=
328 (750) */
/* 424 */ NdrFcLong( 0x2 ), /* 2 */
/* 428 */ NdrFcShort( 0x160 ), /* Offset=
352 (780) */
/* 430 */ NdrFcLong( 0x3 ), /* 3 */
/* 434 */ NdrFcShort( 0x178 ), /* Offset=
376 (810) */
/* 436 */ NdrFcLong( 0x14 ), /* 20 */
/* 440 */ NdrFcShort( 0x190 ), /* Offset=
400 (840) */
/* 442 */ NdrFcShort( 0xffff ), /* Offset= -1
(441) */
/* 444 */
FC_CARRAY */
0x1b, /*
0x3, /*
3 */
/* 446 */ NdrFcShort( 0x4 ), /* 4 */
/* 448 */ 0x19, /* Corr desc: field
pointer, FC_ULONG */
0x0, /*
*/
/* 450 */ NdrFcShort( 0x0 ), /* 0 */
/* 452 */
0x4b, /*
FC_PP */
0x5c, /*
FC_PAD */
/* 454 */
0x48, /*
FC_VARIABLE_REPEAT */
0x49, /*
FC_FIXED_OFFSET */
/* 456 */ NdrFcShort( 0x4 ), /* 4 */
/* 458 */ NdrFcShort( 0x0 ), /* 0 */
/* 460 */ NdrFcShort( 0x1 ), /* 1 */
/* 462 */ NdrFcShort( 0x0 ), /* 0 */
/* 464 */ NdrFcShort( 0x0 ), /* 0 */
/* 466 */ 0x12, 0x0, /* FC_UP */
/* 468 */ NdrFcShort( 0xff6e ), /* Offset= -
146 (322) */
/* 470 */
0x5b, /*
FC_END */
0x8, /*
FC_LONG */
/* 472 */ 0x5c, /* FC_PAD */
0x5b, /*
FC_END */
/* 474 */
0x16, /*
FC_PSTRUCT */
0x3, /*
3 */
/* 476 */ NdrFcShort( 0x8 ), /* 8 */

```

```

/* 478 */
0x4b, /*
FC_PP */
0x5c, /*
FC_PAD */
/* 480 */
0x46, /*
FC_NO_REPEAT */
0x5c, /*
FC_PAD */
/* 482 */ NdrFcShort( 0x4 ), /* 4 */
/* 484 */ NdrFcShort( 0x4 ), /* 4 */
/* 486 */ 0x11, 0x0, /* FC_RP */
/* 488 */ NdrFcShort( 0xffd4 ), /* Offset= -
44 (444) */
/* 490 */
0x5b, /*
FC_END */
0x8, /*
FC_LONG */
/* 492 */ 0x8, /* FC_LONG */
0x5b, /*
FC_END */
/* 494 */
0x21, /*
FC_BOGUS_ARRAY */
0x3, /*
3 */
/* 496 */ NdrFcShort( 0x0 ), /* 0 */
/* 498 */ 0x19, /* Corr desc: field
pointer, FC_ULONG */
0x0, /*
*/
/* 500 */ NdrFcShort( 0x0 ), /* 0 */
/* 502 */ NdrFcLong( 0xffffffff ), /* -1 */
/* 506 */ 0x4c, /* FC_EMBEDDED_COMPLEX
*/
0x0, /*
0 */
/* 508 */ NdrFcShort( 0xff50 ), /* Offset= -
176 (332) */
/* 510 */ 0x5c, /* FC_PAD */
0x5b, /*
FC_END */
/* 512 */
0x1a, /*
FC_BOGUS_STRUCT */
0x3, /*
3 */
/* 514 */ NdrFcShort( 0x8 ), /* 8 */
/* 516 */ NdrFcShort( 0x0 ), /* 0 */
/* 518 */ NdrFcShort( 0x6 ), /* Offset= 6 (524) */
/* 520 */ 0x8, /* FC_LONG */
0x36, /*
FC_POINTER */
/* 522 */ 0x5c, /* FC_PAD */
0x5b, /*
FC_END */
/* 524 */
0x11, 0x0, /*
FC_RP */

```

```

/* 526 */ NdrFcShort( 0xffe0 ), /* Offset= -
32 (494) */
/* 528 */
FC_BOGUS_ARRAY */
0x21, /*
0x3, /*
3 */
/* 530 */ NdrFcShort( 0x0 ), /* 0 */
/* 532 */ 0x19, /* Corr desc: field
pointer, FC_ULONG */
0x0, /*
*/
/* 534 */ NdrFcShort( 0x0 ), /* 0 */
/* 536 */ NdrFcLong( 0xffffffff ), /* -1 */
/* 540 */ 0x4c, /* FC_EMBEDDED_COMPLEX
*/
0x0, /*
0 */
/* 542 */ NdrFcShort( 0xff40 ), /* Offset= -
192 (350) */
/* 544 */ 0x5c, /* FC_PAD */
0x5b, /*
FC_END */
/* 546 */
0x1a, /*
FC_BOGUS_STRUCT */
0x3, /*
3 */
/* 548 */ NdrFcShort( 0x8 ), /* 8 */
/* 550 */ NdrFcShort( 0x0 ), /* 0 */
/* 552 */ NdrFcShort( 0x6 ), /* Offset= 6 (558) */
/* 554 */ 0x8, /* FC_LONG */
0x36, /*
FC_POINTER */
/* 556 */ 0x5c, /* FC_PAD */
0x5b, /*
FC_END */
/* 558 */
0x11, 0x0, /*
FC_RP */
/* 560 */ NdrFcShort( 0xffe0 ), /* Offset= -
32 (528) */
/* 562 */
0x1b, /*
FC_CARRY */
0x3, /*
3 */
/* 564 */ NdrFcShort( 0x4 ), /* 4 */
/* 566 */ 0x19, /* Corr desc: field
pointer, FC_ULONG */
0x0, /*
*/
/* 568 */ NdrFcShort( 0x0 ), /* 0 */
/* 570 */
0x4b, /*
FC_PP */
0x5c, /*
FC_PAD */
/* 572 */
0x48, /*
FC_VARIABLE_REPEAT */
0x49, /*
FC_FIXED_OFFSET */

```

```

/* 574 */ NdrFcShort( 0x4 ), /* 4 */
/* 576 */ NdrFcShort( 0x0 ), /* 0 */
/* 578 */ NdrFcShort( 0x1 ), /* 1 */
/* 580 */ NdrFcShort( 0x0 ), /* 0 */
/* 582 */ NdrFcShort( 0x0 ), /* 0 */
/* 584 */ 0x12, 0x0, /* FC_UP */
/* 586 */ NdrFcShort( 0x184 ), /* Offset=
388 (974) */
/* 588 */
0x5b, /*
FC_END */
0x8, /*
FC_LONG */
/* 590 */ 0x5c, /* FC_PAD */
0x5b, /*
FC_END */
/* 592 */
0x1a, /*
FC_BOGUS_STRUCT */
0x3, /*
3 */
/* 594 */ NdrFcShort( 0x8 ), /* 8 */
/* 596 */ NdrFcShort( 0x0 ), /* 0 */
/* 598 */ NdrFcShort( 0x6 ), /* Offset= 6 (604) */
/* 600 */ 0x8, /* FC_LONG */
0x36, /*
FC_POINTER */
/* 602 */ 0x5c, /* FC_PAD */
0x5b, /*
FC_END */
/* 604 */
0x11, 0x0, /*
FC_RP */
/* 606 */ NdrFcShort( 0xffd4 ), /* Offset= -
44 (562) */
/* 608 */
0x2f, /*
FC_IP */
0x5a, /*
FC_CONSTANT_IID */
/* 610 */ NdrFcLong( 0x2f ), /* 47 */
/* 614 */ NdrFcShort( 0x0 ), /* 0 */
/* 616 */ NdrFcShort( 0x0 ), /* 0 */
/* 618 */ 0xc0, /* 192 */
0x0, /*
0 */
/* 620 */ 0x0, /* 0 */
0x0, /*
0 */
/* 622 */ 0x0, /* 0 */
0x0, /*
0 */
/* 624 */ 0x0, /* 0 */
0x46, /*
70 */
/* 626 */
0x1b, /*
FC_CARRY */
0x0, /*
0 */
/* 628 */ NdrFcShort( 0x1 ), /* 1 */

```

```

/* 630 */ 0x19, /* Corr desc: field
pointer, FC_ULONG */
0x0, /*
*/
/* 632 */ NdrFcShort( 0x4 ), /* 4 */
/* 634 */ 0x1, /* FC_BYTE */
0x5b, /*
FC_END */
/* 636 */
0x1a, /*
FC_BOGUS_STRUCT */
0x3, /*
3 */
/* 638 */ NdrFcShort( 0x10 ), /* 16 */
/* 640 */ NdrFcShort( 0x0 ), /* 0 */
/* 642 */ NdrFcShort( 0xa ), /* Offset= 10 (652) */
/* 644 */ 0x8, /* FC_LONG */
0x8, /*
FC_LONG */
/* 646 */ 0x4c, /* FC_EMBEDDED_COMPLEX
*/
0x0, /*
0 */
/* 648 */ NdrFcShort( 0xffd8 ), /* Offset= -
40 (608) */
/* 650 */ 0x36, /* FC_POINTER */
0x5b, /*
FC_END */
/* 652 */
0x12, 0x0, /*
FC_UP */
/* 654 */ NdrFcShort( 0xffe4 ), /* Offset= -
28 (626) */
/* 656 */
0x1b, /*
FC_CARRY */
0x3, /*
3 */
/* 658 */ NdrFcShort( 0x4 ), /* 4 */
/* 660 */ 0x19, /* Corr desc: field
pointer, FC_ULONG */
0x0, /*
*/
/* 662 */ NdrFcShort( 0x0 ), /* 0 */
/* 664 */
0x4b, /*
FC_PP */
0x5c, /*
FC_PAD */
/* 666 */
0x48, /*
FC_VARIABLE_REPEAT */
0x49, /*
FC_FIXED_OFFSET */
/* 668 */ NdrFcShort( 0x4 ), /* 4 */
/* 670 */ NdrFcShort( 0x0 ), /* 0 */
/* 672 */ NdrFcShort( 0x1 ), /* 1 */
/* 674 */ NdrFcShort( 0x0 ), /* 0 */
/* 676 */ NdrFcShort( 0x0 ), /* 0 */
/* 678 */ 0x12, 0x0, /* FC_UP */
/* 680 */ NdrFcShort( 0xffd4 ), /* Offset= -
44 (636) */
/* 682 */

```

```

FC_END */
                                0x5b,          /*
FC_LONG */
/* 684 */ 0x5c,
                                /* FC_PAD */
                                0x5b,          /*
FC_END */
/* 686 */
                                0x1a,          /*
FC_BOGUS_STRUCT */
                                0x3,           /*
3 */
/* 688 */ NdrFcShort( 0x8 ), /* 8 */
/* 690 */ NdrFcShort( 0x0 ), /* 0 */
/* 692 */ NdrFcShort( 0x6 ), /* Offset= 6 (698) */
/* 694 */ 0x8,
                                /* FC_LONG */
                                0x36,          /*
FC_POINTER */
/* 696 */ 0x5c,
                                /* FC_PAD */
                                0x5b,          /*
FC_END */
/* 698 */
                                0x11, 0x0,      /*
FC_RP */
/* 700 */ NdrFcShort( 0xffd4 ), /* Offset= -
44 (656) */
/* 702 */
                                0x1d,          /*
FC_SMPARRAY */
                                0x0,           /*
0 */
/* 704 */ NdrFcShort( 0x8 ), /* 8 */
/* 706 */ 0x1,
                                /* FC_BYTE */
                                0x5b,          /*
FC_END */
/* 708 */
                                0x15,          /*
FC_STRUCT */
                                0x3,           /*
3 */
/* 710 */ NdrFcShort( 0x10 ), /* 16 */
/* 712 */ 0x8,
                                /* FC_LONG */
                                0x6,           /*
FC_SHORT */
/* 714 */ 0x6,
                                /* FC_SHORT */
                                0x4c,          /*
FC_EMBEDDED_COMPLEX */
/* 716 */ 0x0,
                                /* 0 */
                                NdrFcShort( 0xffff1 ),
                                /* Offset= -15 (702) */
                                0x5b,          /*
FC_END */
/* 720 */
                                0x1a,          /*
FC_BOGUS_STRUCT */
                                0x3,           /*
3 */
/* 722 */ NdrFcShort( 0x18 ), /* 24 */
/* 724 */ NdrFcShort( 0x0 ), /* 0 */
/* 726 */ NdrFcShort( 0xa ), /* Offset= 10 (736) */
/* 728 */ 0x8,
                                /* FC_LONG */

```

```

FC_POINTER */
/* 730 */ 0x4c,
/*
0 */
/* 732 */ NdrFcShort( 0xffe8 ), /* Offset= -
24 (708) */
/* 734 */ 0x5c,
                                /* FC_PAD */
                                0x5b,          /*
FC_END */
/* 736 */
                                0x11, 0x0,      /*
FC_RP */
/* 738 */ NdrFcShort( 0xff0c ), /* Offset= -
244 (494) */
/* 740 */
                                0x1b,          /*
FC_CARRAY */
                                0x0,           /*
0 */
/* 742 */ NdrFcShort( 0x1 ), /* 1 */
/* 744 */ 0x19,
                                /* Corr desc: field
pointer, FC_ULONG */
                                0x0,           /*
*/
/* 746 */ NdrFcShort( 0x0 ), /* 0 */
/* 748 */ 0x1,
                                /* FC_BYTE */
                                0x5b,          /*
FC_END */
/* 750 */
                                0x16,          /*
FC_PSTRUCT */
                                0x3,           /*
3 */
/* 752 */ NdrFcShort( 0x8 ), /* 8 */
/* 754 */
                                0x4b,          /*
FC_PP */
                                0x5c,          /*
FC_PAD */
/* 756 */
                                0x46,          /*
FC_NO_REPEAT */
                                0x5c,          /*
FC_PAD */
/* 758 */ NdrFcShort( 0x4 ), /* 4 */
/* 760 */ NdrFcShort( 0x4 ), /* 4 */
/* 762 */ 0x12, 0x0,
                                /* FC_UP */
/* 764 */ NdrFcShort( 0xffe8 ), /* Offset= -
24 (740) */
/* 766 */
                                0x5b,          /*
FC_END */
                                0x8,           /*
FC_LONG */
/* 768 */ 0x8,
                                /* FC_LONG */
                                0x5b,          /*
FC_END */
/* 770 */
                                0x1b,          /*
FC_CARRAY */

```

```

1 */
/* 772 */ NdrFcShort( 0x2 ), /* 2 */
/* 774 */ 0x19,
                                /* Corr desc: field
pointer, FC_ULONG */
                                0x0,          /*
*/
/* 776 */ NdrFcShort( 0x0 ), /* 0 */
/* 778 */ 0x6,
                                /* FC_SHORT */
                                0x5b,          /*
FC_END */
/* 780 */
                                0x16,          /*
FC_PSTRUCT */
                                0x3,           /*
3 */
/* 782 */ NdrFcShort( 0x8 ), /* 8 */
/* 784 */
                                0x4b,          /*
FC_PP */
                                0x5c,          /*
FC_PAD */
/* 786 */
                                0x46,          /*
FC_NO_REPEAT */
                                0x5c,          /*
FC_PAD */
/* 788 */ NdrFcShort( 0x4 ), /* 4 */
/* 790 */ NdrFcShort( 0x4 ), /* 4 */
/* 792 */ 0x12, 0x0,
                                /* FC_UP */
/* 794 */ NdrFcShort( 0xffe8 ), /* Offset= -
24 (770) */
/* 796 */
                                0x5b,          /*
FC_END */
                                0x8,           /*
FC_LONG */
/* 798 */ 0x8,
                                /* FC_LONG */
                                0x5b,          /*
FC_END */
/* 800 */
                                0x1b,          /*
FC_CARRAY */
                                0x3,           /*
3 */
/* 802 */ NdrFcShort( 0x4 ), /* 4 */
/* 804 */ 0x19,
                                /* Corr desc: field
pointer, FC_ULONG */
                                0x0,          /*
*/
/* 806 */ NdrFcShort( 0x0 ), /* 0 */
/* 808 */ 0x8,
                                /* FC_LONG */
                                0x5b,          /*
FC_END */
/* 810 */
                                0x16,          /*
FC_PSTRUCT */
                                0x3,           /*
3 */
/* 812 */ NdrFcShort( 0x8 ), /* 8 */
/* 814 */

```

```

0x4b, /*
FC_PP */
0x5c, /*
FC_PAD */
/* 816 */
0x46, /*
FC_NO_REPEAT */
0x5c, /*
FC_PAD */
/* 818 */ NdrFcShort( 0x4 ), /* 4 */
/* 820 */ NdrFcShort( 0x4 ), /* 4 */
/* 822 */ 0x12, 0x0, /* FC_UP */
/* 824 */ NdrFcShort( 0xffe8 ), /* Offset= -
24 (800) */
/* 826 */
0x5b, /*
FC_END */
0x8, /*
FC_LONG */
/* 828 */ 0x8, /* FC_LONG */
0x5b, /*
FC_END */
/* 830 */
0x1b, /*
FC_CARRAY */
0x7, /*
7 */
/* 832 */ NdrFcShort( 0x8 ), /* 8 */
/* 834 */ 0x19, /* Corr desc: field
pointer, FC_ULONG */
0x0, /*
*/
/* 836 */ NdrFcShort( 0x0 ), /* 0 */
/* 838 */ 0xb, /* FC_HYPER */
0x5b, /*
FC_END */
/* 840 */
0x16, /*
FC_PSTRUCT */
0x3, /*
3 */
/* 842 */ NdrFcShort( 0x8 ), /* 8 */
/* 844 */
0x4b, /*
FC_PP */
0x5c, /*
FC_PAD */
/* 846 */
0x46, /*
FC_NO_REPEAT */
0x5c, /*
FC_PAD */
/* 848 */ NdrFcShort( 0x4 ), /* 4 */
/* 850 */ NdrFcShort( 0x4 ), /* 4 */
/* 852 */ 0x12, 0x0, /* FC_UP */
/* 854 */ NdrFcShort( 0xffe8 ), /* Offset= -
24 (830) */
/* 856 */
0x5b, /*
FC_END */

```

```

0x8, /*
FC_LONG */
/* 858 */ 0x8, /* FC_LONG */
0x5b, /*
FC_END */
/* 860 */
0x15, /*
FC_STRUCT */
0x3, /*
3 */
/* 862 */ NdrFcShort( 0x8 ), /* 8 */
/* 864 */ 0x8, /* FC_LONG */
0x8, /*
FC_LONG */
/* 866 */ 0x5c, /* FC_PAD */
0x5b, /*
FC_END */
/* 868 */
0x1b, /*
FC_CARRAY */
0x3, /*
3 */
/* 870 */ NdrFcShort( 0x8 ), /* 8 */
/* 872 */ 0x7, /* Corr desc: FC_USHORT
*/
0x0, /*
*/
/* 874 */ NdrFcShort( 0xffd8 ), /* -40 */
/* 876 */ 0x4c, /* FC_EMBEDDED_COMPLEX
*/
0x0, /*
0 */
/* 878 */ NdrFcShort( 0xffee ), /* Offset= -
18 (860) */
/* 880 */ 0x5c, /* FC_PAD */
0x5b, /*
FC_END */
/* 882 */
0x1a, /*
FC_BOGUS_STRUCT */
0x3, /*
3 */
/* 884 */ NdrFcShort( 0x28 ), /* 40 */
/* 886 */ NdrFcShort( 0xffee ), /* Offset= -
18 (868) */
/* 888 */ NdrFcShort( 0x0 ), /* Offset= 0 (888) */
/* 890 */ 0x6, /* FC_SHORT */
0x6, /*
FC_SHORT */
/* 892 */ 0x8, /* FC_LONG */
0x8, /*
FC_LONG */
/* 894 */ 0x4c, /* FC_EMBEDDED_COMPLEX
*/
0x0, /*
0 */
/* 896 */ NdrFcShort( 0xfd8 ), /* Offset= -
520 (376) */
/* 898 */ 0x5c, /* FC_PAD */
0x5b, /*
FC_END */
/* 900 */

```

```

0x12, 0x0, /*
FC_UP */
/* 902 */ NdrFcShort( 0xfef6 ), /* Offset= -
266 (636) */
/* 904 */
0x12, 0x8, /*
FC_UP [simple_pointer] */
/* 906 */ 0x1, /* FC_BYTE */
0x5c, /*
FC_PAD */
/* 908 */
0x12, 0x8, /*
FC_UP [simple_pointer] */
/* 910 */ 0x6, /* FC_SHORT */
0x5c, /*
FC_PAD */
/* 912 */
0x12, 0x8, /*
FC_UP [simple_pointer] */
/* 914 */ 0x8, /* FC_LONG */
0x5c, /*
FC_PAD */
/* 916 */
0x12, 0x8, /*
FC_UP [simple_pointer] */
/* 918 */ 0xb, /* FC_HYPER */
0x5c, /*
FC_PAD */
/* 920 */
0x12, 0x8, /*
FC_UP [simple_pointer] */
/* 922 */ 0xa, /* FC_FLOAT */
0x5c, /*
FC_PAD */
/* 924 */
0x12, 0x8, /*
FC_UP [simple_pointer] */
/* 926 */ 0xc, /* FC_DOUBLE */
0x5c, /*
FC_PAD */
/* 928 */
0x12, 0x0, /*
FC_UP */
/* 930 */ NdrFcShort( 0xfd8c ), /* Offset= -
628 (302) */
/* 932 */
0x12, 0x10, /*
FC_UP [pointer_deref] */
/* 934 */ NdrFcShort( 0xfd8e ), /* Offset= -
626 (308) */
/* 936 */
0x12, 0x10, /*
FC_UP [pointer_deref] */
/* 938 */ NdrFcShort( 0xfda2 ), /* Offset= -
606 (332) */
/* 940 */
0x12, 0x10, /*
FC_UP [pointer_deref] */
/* 942 */ NdrFcShort( 0xfdb0 ), /* Offset= -
592 (350) */
/* 944 */
0x12, 0x10, /*
FC_UP [pointer_deref] */

```

```

/* 946 */ NdrFcShort( 0xfdb6 ), /* Offset= -
578 (368) */
/* 948 */
FC_UP [pointer_deref] */
/* 950 */ NdrFcShort( 0x2 ), /* Offset= 2 (952) */
/* 952 */
FC_UP */
/* 954 */ NdrFcShort( 0x14 ), /* Offset= 20 (974) */
/* 956 */
FC_STRUCTURE */
/* 958 */ NdrFcShort( 0x10 ), /* 16 */
/* 960 */ NdrFcShort( 0x6 ), /* FC_SHORT */
/* 962 */ 0x1, /* FC_BYTE */
/* 964 */ 0xb, /* FC_HYPER */
/* 966 */
/* 968 */ NdrFcShort( 0xffff4 ), /* Offset= -
12 (956) */
/* 970 */
FC_UP [simple_pointer] */
/* 972 */ 0x2, /* FC_CHAR */
/* 974 */
FC_BOGUS_STRUCTURE */
/* 976 */ NdrFcShort( 0x20 ), /* 32 */
/* 978 */ NdrFcShort( 0x0 ), /* 0 */
/* 980 */ NdrFcShort( 0x0 ), /* Offset= 0 (980) */
/* 982 */ 0x8, /* FC_LONG */
/* 984 */ 0x6, /* FC_SHORT */
/* 986 */ 0x6, /* FC_SHORT */
/* 988 */ 0x4c, /* FC_EMBEDDED_COMPLEX */
/* 990 */ NdrFcShort( 0xfc28 ), /* Offset= -
984 (6) */
/* 992 */ 0x5c, /* FC_PAD */
/* 994 */ 0xb4, /* FC_USER_MARSHAL */

```

```

0x83,
131 */
/* 996 */ NdrFcShort( 0x0 ), /* 0 */
/* 998 */ NdrFcShort( 0x10 ), /* 16 */
/* 1000 */ NdrFcShort( 0x0 ), /* 0 */
/* 1002 */ NdrFcShort( 0xfc18 ), /*
Offset= -1000 (2) */
/* 1004 */
FC_RP [allocated_on_stack] */
/* 1006 */ NdrFcShort( 0x6 ), /* Offset= 6
(1012) */
/* 1008 */
FC_OP */
/* 1010 */ NdrFcShort( 0xffdc ), /*
Offset= -36 (974) */
/* 1012 */ 0xb4, /*
FC_USER_MARSHAL */
131 */
/* 1014 */ NdrFcShort( 0x0 ), /* 0 */
/* 1016 */ NdrFcShort( 0x10 ), /* 16 */
/* 1018 */ NdrFcShort( 0x0 ), /* 0 */
/* 1020 */ NdrFcShort( 0xffff4 ), /*
Offset= -12 (1008) */
};
static const USER_MARSHAL_ROUTINE_QUADRUPLE
UserMarshalRoutines[ WIRE_MARSHAL_TABLE_SIZE ] =
{
    {
        VARIANT_UserSize
        ,VARIANT_UserMarshal
        ,VARIANT_UserUnmarshal
        ,VARIANT_UserFree
    }
};
/* Standard interface: __MIDL_itf_tpcc_com_ps_0000,
ver. 0.0,
GUID={0x00000000,0x0000,0x0000,{0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00}} */
/* Object interface: IUnknown, ver. 0.0,
GUID={0x00000000,0x0000,0x0000,{0xc0,0x00,0x00,0x00,0x00,0x00,0x00,0x46}} */
/* Object interface: ITPCC, ver. 0.0,
GUID={0xFEEE6AA2,0x84B1,0x11d2,{0xBA,0x47,0x00,0xC0,0x4F,0xBF,0xE0,0x8B}} */

```

```

#pragma code_seg(".orpc")
static const unsigned short
ITPCC_FormatStringOffsetTable[] =
{
    0,
    34,
    68,
    102,
    136,
    170
};
static const MIDL_STUBLESS_PROXY_INFO ITPCC_ProxyInfo
=
{
    &Object_StubDesc,
    __MIDL_ProcFormatString.Format,
    &ITPCC_FormatStringOffsetTable[-3],
    0,
    0,
    0
};
static const MIDL_SERVER_INFO ITPCC_ServerInfo =
{
    &Object_StubDesc,
    0,
    __MIDL_ProcFormatString.Format,
    &ITPCC_FormatStringOffsetTable[-3],
    0,
    0,
    0,
    0
};
CINTERFACE_PROXY_VTABLE(9) _ITPCCProxyVtbl =
{
    &ITPCC_ProxyInfo,
    &IID_ITPCC,
    IUnknown_QueryInterface_Proxy,
    IUnknown_AddRef_Proxy,
    IUnknown_Release_Proxy,
    (void *) (INT_PTR) -1 /* ITPCC::NewOrder */ ,
    (void *) (INT_PTR) -1 /* ITPCC::Payment */ ,
    (void *) (INT_PTR) -1 /* ITPCC::Delivery */ ,
    (void *) (INT_PTR) -1 /* ITPCC::StockLevel */ ,
    (void *) (INT_PTR) -1 /* ITPCC::OrderStatus */ ,
    (void *) (INT_PTR) -1 /* ITPCC::CallSetComplete */
};
const CInterfaceStubVtbl _ITPCCStubVtbl =
{
    &IID_ITPCC,
    &ITPCC_ServerInfo,
    9,
    0, /* pure interpreted */
    CStdStubBuffer_METHODS
};
static const MIDL_STUB_DESC Object_StubDesc =
{
    0,

```



```

/* Procedure NewOrder */
FC_AUTO_HANDLE */
                                0x33,          /*
Old Flags: object, Oi2 */
/* 2 */ NdrFcLong( 0x0 ), /* 0 */
/* 6 */ NdrFcShort( 0x3 ), /* 3 */
/* 8 */ NdrFcShort( 0x30 ), /* ia64 Stack
size/offset = 48 */
/* 10 */ NdrFcShort( 0x0 ), /* 0 */
/* 12 */ NdrFcShort( 0x8 ), /* 8 */
/* 14 */ 0x47, /* Oi2 Flags: srv must
size, clt must size, has return, has ext, */
                                0x3,          /*
3 */
/* 16 */ 0xa, /* 10 */
                                0x7,          /*
Ext Flags: new corr desc, clt corr check, srv corr
check, */
/* 18 */ NdrFcShort( 0x20 ), /* 32 */
/* 20 */ NdrFcShort( 0x20 ), /* 32 */
/* 22 */ NdrFcShort( 0x0 ), /* 0 */
/* 24 */ NdrFcShort( 0x0 ), /* 0 */

/* Parameter txn_in */

/* 26 */ NdrFcShort( 0x8b ), /* Flags: must size,
must free, in, by val, */
/* 28 */ NdrFcShort( 0x8 ), /* ia64 Stack
size/offset = 8 */
/* 30 */ NdrFcShort( 0x3ce ), /* Type
Offset=974 */

/* Parameter txn_out */

/* 32 */ NdrFcShort( 0x6113 ), /* Flags:
must size, must free, out, simple ref, srv alloc
size=24 */
/* 34 */ NdrFcShort( 0x20 ), /* ia64 Stack
size/offset = 32 */
/* 36 */ NdrFcShort( 0x3e0 ), /* Type
Offset=992 */

/* Return value */

/* 38 */ NdrFcShort( 0x70 ), /* Flags: out, return,
base type, */
/* 40 */ NdrFcShort( 0x28 ), /* ia64 Stack
size/offset = 40 */
/* 42 */ 0x8, /* FC_LONG */
                                0x0,          /*
0 */

/* Procedure Payment */

/* 44 */ 0x33, /* FC_AUTO_HANDLE */
                                0x6c,          /*
Old Flags: object, Oi2 */
/* 46 */ NdrFcLong( 0x0 ), /* 0 */
/* 50 */ NdrFcShort( 0x4 ), /* 4 */
/* 52 */ NdrFcShort( 0x30 ), /* ia64 Stack
size/offset = 48 */

```

```

/* 54 */ NdrFcShort( 0x0 ), /* 0 */
/* 56 */ NdrFcShort( 0x8 ), /* 8 */
/* 58 */ 0x47, /* Oi2 Flags: srv must
size, clt must size, has return, has ext, */
                                0x3,          /*
3 */
/* 60 */ 0xa, /* 10 */
                                0x7,          /*
Ext Flags: new corr desc, clt corr check, srv corr
check, */
/* 62 */ NdrFcShort( 0x20 ), /* 32 */
/* 64 */ NdrFcShort( 0x20 ), /* 32 */
/* 66 */ NdrFcShort( 0x0 ), /* 0 */
/* 68 */ NdrFcShort( 0x0 ), /* 0 */

/* Parameter txn_in */

/* 70 */ NdrFcShort( 0x8b ), /* Flags: must size,
must free, in, by val, */
/* 72 */ NdrFcShort( 0x8 ), /* ia64 Stack
size/offset = 8 */
/* 74 */ NdrFcShort( 0x3ce ), /* Type
Offset=974 */

/* Parameter txn_out */

/* 76 */ NdrFcShort( 0x6113 ), /* Flags:
must size, must free, out, simple ref, srv alloc
size=24 */
/* 78 */ NdrFcShort( 0x20 ), /* ia64 Stack
size/offset = 32 */
/* 80 */ NdrFcShort( 0x3e0 ), /* Type
Offset=992 */

/* Return value */

/* 82 */ NdrFcShort( 0x70 ), /* Flags: out, return,
base type, */
/* 84 */ NdrFcShort( 0x28 ), /* ia64 Stack
size/offset = 40 */
/* 86 */ 0x8, /* FC_LONG */
                                0x0,          /*
0 */

/* Procedure Delivery */

/* 88 */ 0x33, /* FC_AUTO_HANDLE */
                                0x6c,          /*
Old Flags: object, Oi2 */
/* 90 */ NdrFcLong( 0x0 ), /* 0 */
/* 94 */ NdrFcShort( 0x5 ), /* 5 */
/* 96 */ NdrFcShort( 0x30 ), /* ia64 Stack
size/offset = 48 */
/* 98 */ NdrFcShort( 0x0 ), /* 0 */
/* 100 */ NdrFcShort( 0x8 ), /* 8 */
/* 102 */ 0x47, /* Oi2 Flags: srv must
size, clt must size, has return, has ext, */
                                0x3,          /*
3 */
/* 104 */ 0xa, /* 10 */
                                0x7,          /*
Ext Flags: new corr desc, clt corr check, srv corr
check, */

```

```

/* 106 */ NdrFcShort( 0x20 ), /* 32 */
/* 108 */ NdrFcShort( 0x20 ), /* 32 */
/* 110 */ NdrFcShort( 0x0 ), /* 0 */
/* 112 */ NdrFcShort( 0x0 ), /* 0 */

/* Parameter txn_in */

/* 114 */ NdrFcShort( 0x8b ), /* Flags: must size,
must free, in, by val, */
/* 116 */ NdrFcShort( 0x8 ), /* ia64 Stack
size/offset = 8 */
/* 118 */ NdrFcShort( 0x3ce ), /* Type
Offset=974 */

/* Parameter txn_out */

/* 120 */ NdrFcShort( 0x6113 ), /* Flags:
must size, must free, out, simple ref, srv alloc
size=24 */
/* 122 */ NdrFcShort( 0x20 ), /* ia64 Stack
size/offset = 32 */
/* 124 */ NdrFcShort( 0x3e0 ), /* Type
Offset=992 */

/* Return value */

/* 126 */ NdrFcShort( 0x70 ), /* Flags: out, return,
base type, */
/* 128 */ NdrFcShort( 0x28 ), /* ia64 Stack
size/offset = 40 */
/* 130 */ 0x8, /* FC_LONG */
                                0x0,          /*
0 */

/* Procedure StockLevel */

/* 132 */ 0x33, /* FC_AUTO_HANDLE */
                                0x6c,          /*
Old Flags: object, Oi2 */
/* 134 */ NdrFcLong( 0x0 ), /* 0 */
/* 138 */ NdrFcShort( 0x6 ), /* 6 */
/* 140 */ NdrFcShort( 0x30 ), /* ia64 Stack
size/offset = 48 */
/* 142 */ NdrFcShort( 0x0 ), /* 0 */
/* 144 */ NdrFcShort( 0x8 ), /* 8 */
/* 146 */ 0x47, /* Oi2 Flags: srv must
size, clt must size, has return, has ext, */
                                0x3,          /*
3 */
/* 148 */ 0xa, /* 10 */
                                0x7,          /*
Ext Flags: new corr desc, clt corr check, srv corr
check, */
/* 150 */ NdrFcShort( 0x20 ), /* 32 */
/* 152 */ NdrFcShort( 0x20 ), /* 32 */
/* 154 */ NdrFcShort( 0x0 ), /* 0 */
/* 156 */ NdrFcShort( 0x0 ), /* 0 */

/* Parameter txn_in */

/* 158 */ NdrFcShort( 0x8b ), /* Flags: must size,
must free, in, by val, */

```



```

/* 160 */ NdrFcShort( 0x8 ), /* ia64 Stack
size/offset = 8 */
/* 162 */ NdrFcShort( 0x3ce ), /* Type
Offset=974 */

/* Parameter txn_out */

/* 164 */ NdrFcShort( 0x6113 ), /* Flags:
must size, must free, out, simple ref, srv alloc
size=24 */
/* 166 */ NdrFcShort( 0x20 ), /* ia64 Stack
size/offset = 32 */
/* 168 */ NdrFcShort( 0x3e0 ), /* Type
Offset=992 */

/* Return value */

/* 170 */ NdrFcShort( 0x70 ), /* Flags: out, return,
base type, */
/* 172 */ NdrFcShort( 0x28 ), /* ia64 Stack
size/offset = 40 */
/* 174 */ 0x8, /* FC_LONG */
0x0, /*
0 */

/* Procedure OrderStatus */

/* 176 */ 0x33, /* FC_AUTO_HANDLE */
0x6c, /*
Old Flags: object, Oi2 */
/* 178 */ NdrFcLong( 0x0 ), /* 0 */
/* 182 */ NdrFcShort( 0x7 ), /* 7 */
/* 184 */ NdrFcShort( 0x30 ), /* ia64 Stack
size/offset = 48 */
/* 186 */ NdrFcShort( 0x0 ), /* 0 */
/* 188 */ NdrFcShort( 0x8 ), /* 8 */
/* 190 */ 0x47, /* Oi2 Flags: srv must
size, clt must size, has return, has ext, */
0x3, /*
3 */
/* 192 */ 0xa, /* 10 */
0x7, /*
Ext Flags: new corr desc, clt corr check, srv corr
check, */
/* 194 */ NdrFcShort( 0x20 ), /* 32 */
/* 196 */ NdrFcShort( 0x20 ), /* 32 */
/* 198 */ NdrFcShort( 0x0 ), /* 0 */
/* 200 */ NdrFcShort( 0x0 ), /* 0 */

/* Parameter txn_in */

/* 202 */ NdrFcShort( 0x8b ), /* Flags: must size,
must free, in, by val, */
/* 204 */ NdrFcShort( 0x8 ), /* ia64 Stack
size/offset = 8 */
/* 206 */ NdrFcShort( 0x3ce ), /* Type
Offset=974 */

/* Parameter txn_out */

/* 208 */ NdrFcShort( 0x6113 ), /* Flags:
must size, must free, out, simple ref, srv alloc
size=24 */

```

```

/* 210 */ NdrFcShort( 0x20 ), /* ia64 Stack
size/offset = 32 */
/* 212 */ NdrFcShort( 0x3e0 ), /* Type
Offset=992 */

/* Return value */

/* 214 */ NdrFcShort( 0x70 ), /* Flags: out, return,
base type, */
/* 216 */ NdrFcShort( 0x28 ), /* ia64 Stack
size/offset = 40 */
/* 218 */ 0x8, /* FC_LONG */
0x0, /*
0 */

/* Procedure CallSetComplete */

/* 220 */ 0x33, /* FC_AUTO_HANDLE */
0x6c, /*
Old Flags: object, Oi2 */
/* 222 */ NdrFcLong( 0x0 ), /* 0 */
/* 226 */ NdrFcShort( 0x8 ), /* 8 */
/* 228 */ NdrFcShort( 0x10 ), /* ia64 Stack
size/offset = 16 */
/* 230 */ NdrFcShort( 0x0 ), /* 0 */
/* 232 */ NdrFcShort( 0x8 ), /* 8 */
/* 234 */ 0x44, /* Oi2 Flags: has
return, has ext, */
0x1, /*
1 */
/* 236 */ 0xa, /* 10 */
0x1, /*
Ext Flags: new corr desc, */
/* 238 */ NdrFcShort( 0x0 ), /* 0 */
/* 240 */ NdrFcShort( 0x0 ), /* 0 */
/* 242 */ NdrFcShort( 0x0 ), /* 0 */
/* 244 */ NdrFcShort( 0x0 ), /* 0 */

/* Return value */

/* 246 */ NdrFcShort( 0x70 ), /* Flags: out, return,
base type, */
/* 248 */ NdrFcShort( 0x8 ), /* ia64 Stack
size/offset = 8 */
/* 250 */ 0x8, /* FC_LONG */
0x0, /*
0 */
0x0

};

static const MIDL_TYPE_FORMAT_STRING
__MIDL_TypeFormatString =
{
    0,
    {
        0 /*
        /* 2 */
        0x12, 0x0, /*
        FC_UP */

```

```

/* 4 */ NdrFcShort( 0x3b6 ), /* Offset=
950 (954) */
/* 6 */
0x2b, /*
FC_NON_ENCAPSULATED_UNION */
0x9, /*
FC_ULONG */
/* 8 */ 0x7, /* Corr desc: FC_USHORT
*/
0x0, /*
*/
/* 10 */ NdrFcShort( 0xffff8 ), /* -8 */
/* 12 */ NdrFcShort( 0x1 ), /* Corr flags: early,
*/
/* 14 */ NdrFcShort( 0x2 ), /* Offset= 2 (16) */
/* 16 */ NdrFcShort( 0x10 ), /* 16 */
/* 18 */ NdrFcShort( 0x2f ), /* 47 */
/* 20 */ NdrFcLong( 0x14 ), /* 20 */
/* 24 */ NdrFcShort( 0x800b ), /* Simple arm
type: FC_HYPER */
/* 26 */ NdrFcLong( 0x3 ), /* 3 */
/* 30 */ NdrFcShort( 0x8008 ), /* Simple arm
type: FC_LONG */
/* 32 */ NdrFcLong( 0x11 ), /* 17 */
/* 36 */ NdrFcShort( 0x8001 ), /* Simple arm
type: FC_BYTE */
/* 38 */ NdrFcLong( 0x2 ), /* 2 */
/* 42 */ NdrFcShort( 0x8006 ), /* Simple arm
type: FC_SHORT */
/* 44 */ NdrFcLong( 0x4 ), /* 4 */
/* 48 */ NdrFcShort( 0x800a ), /* Simple arm
type: FC_FLOAT */
/* 50 */ NdrFcLong( 0x5 ), /* 5 */
/* 54 */ NdrFcShort( 0x800c ), /* Simple arm
type: FC_DOUBLE */
/* 56 */ NdrFcLong( 0xb ), /* 11 */
/* 60 */ NdrFcShort( 0x8006 ), /* Simple arm
type: FC_SHORT */
/* 62 */ NdrFcLong( 0xa ), /* 10 */
/* 66 */ NdrFcShort( 0x8008 ), /* Simple arm
type: FC_LONG */
/* 68 */ NdrFcLong( 0x6 ), /* 6 */
/* 72 */ NdrFcShort( 0xe8 ), /* Offset= 232 (304) */
/* 74 */ NdrFcLong( 0x7 ), /* 7 */
/* 78 */ NdrFcShort( 0x800c ), /* Simple arm
type: FC_DOUBLE */
/* 80 */ NdrFcLong( 0x8 ), /* 8 */
/* 84 */ NdrFcShort( 0xe2 ), /* Offset= 226 (310) */
/* 86 */ NdrFcLong( 0xd ), /* 13 */
/* 90 */ NdrFcShort( 0xf6 ), /* Offset= 246 (336) */
/* 92 */ NdrFcLong( 0x9 ), /* 9 */
/* 96 */ NdrFcShort( 0x102 ), /* Offset=
258 (354) */
/* 98 */ NdrFcLong( 0x2000 ), /* 8192 */
/* 102 */ NdrFcShort( 0x10e ), /* Offset=
270 (372) */
/* 104 */ NdrFcLong( 0x24 ), /* 36 */
/* 108 */ NdrFcShort( 0x304 ), /* Offset=
772 (880) */
/* 110 */ NdrFcLong( 0x4024 ), /* 16420 */
/* 114 */ NdrFcShort( 0x2fe ), /* Offset=
766 (880) */
/* 116 */ NdrFcLong( 0x4011 ), /* 16401 */

```

```

/* 120 */ NdrFcShort( 0x2fc ), /* Offset=
764 (884) */
/* 122 */ NdrFcLong( 0x4002 ), /* 16386 */
/* 126 */ NdrFcShort( 0x2fa ), /* Offset=
762 (888) */
/* 128 */ NdrFcLong( 0x4003 ), /* 16387 */
/* 132 */ NdrFcShort( 0x2f8 ), /* Offset=
760 (892) */
/* 134 */ NdrFcLong( 0x4014 ), /* 16404 */
/* 138 */ NdrFcShort( 0x2f6 ), /* Offset=
758 (896) */
/* 140 */ NdrFcLong( 0x4004 ), /* 16388 */
/* 144 */ NdrFcShort( 0x2f4 ), /* Offset=
756 (900) */
/* 146 */ NdrFcLong( 0x4005 ), /* 16389 */
/* 150 */ NdrFcShort( 0x2f2 ), /* Offset=
754 (904) */
/* 152 */ NdrFcLong( 0x400b ), /* 16395 */
/* 156 */ NdrFcShort( 0x2dc ), /* Offset=
732 (888) */
/* 158 */ NdrFcLong( 0x400a ), /* 16394 */
/* 162 */ NdrFcShort( 0x2da ), /* Offset=
730 (892) */
/* 164 */ NdrFcLong( 0x4006 ), /* 16390 */
/* 168 */ NdrFcShort( 0x2e4 ), /* Offset=
740 (908) */
/* 170 */ NdrFcLong( 0x4007 ), /* 16391 */
/* 174 */ NdrFcShort( 0x2da ), /* Offset=
730 (904) */
/* 176 */ NdrFcLong( 0x4008 ), /* 16392 */
/* 180 */ NdrFcShort( 0x2dc ), /* Offset=
732 (912) */
/* 182 */ NdrFcLong( 0x400d ), /* 16397 */
/* 186 */ NdrFcShort( 0x2da ), /* Offset=
730 (916) */
/* 188 */ NdrFcLong( 0x4009 ), /* 16393 */
/* 192 */ NdrFcShort( 0x2d8 ), /* Offset=
728 (920) */
/* 194 */ NdrFcLong( 0x6000 ), /* 24576 */
/* 198 */ NdrFcShort( 0x2d6 ), /* Offset=
726 (924) */
/* 200 */ NdrFcLong( 0x400c ), /* 16396 */
/* 204 */ NdrFcShort( 0x2d4 ), /* Offset=
724 (928) */
/* 206 */ NdrFcLong( 0x10 ), /* 16 */
/* 210 */ NdrFcShort( 0x8002 ), /* Simple arm
type: FC_CHAR */
/* 212 */ NdrFcLong( 0x12 ), /* 18 */
/* 216 */ NdrFcShort( 0x8006 ), /* Simple arm
type: FC_SHORT */
/* 218 */ NdrFcLong( 0x13 ), /* 19 */
/* 222 */ NdrFcShort( 0x8008 ), /* Simple arm
type: FC_LONG */
/* 224 */ NdrFcLong( 0x15 ), /* 21 */
/* 228 */ NdrFcShort( 0x800b ), /* Simple arm
type: FC_HYPER */
/* 230 */ NdrFcLong( 0x16 ), /* 22 */
/* 234 */ NdrFcShort( 0x8008 ), /* Simple arm
type: FC_LONG */
/* 236 */ NdrFcLong( 0x17 ), /* 23 */
/* 240 */ NdrFcShort( 0x8008 ), /* Simple arm
type: FC_LONG */
/* 242 */ NdrFcLong( 0xe ), /* 14 */

```

```

/* 246 */ NdrFcShort( 0x2b2 ), /* Offset=
690 (936) */
/* 248 */ NdrFcLong( 0x400e ), /* 16398 */
/* 252 */ NdrFcShort( 0x2b6 ), /* Offset=
694 (946) */
/* 254 */ NdrFcLong( 0x4010 ), /* 16400 */
/* 258 */ NdrFcShort( 0x2b4 ), /* Offset=
692 (950) */
/* 260 */ NdrFcLong( 0x4012 ), /* 16402 */
/* 264 */ NdrFcShort( 0x270 ), /* Offset=
624 (888) */
/* 266 */ NdrFcLong( 0x4013 ), /* 16403 */
/* 270 */ NdrFcShort( 0x26e ), /* Offset=
622 (892) */
/* 272 */ NdrFcLong( 0x4015 ), /* 16405 */
/* 276 */ NdrFcShort( 0x26c ), /* Offset=
620 (896) */
/* 278 */ NdrFcLong( 0x4016 ), /* 16406 */
/* 282 */ NdrFcShort( 0x262 ), /* Offset=
610 (892) */
/* 284 */ NdrFcLong( 0x4017 ), /* 16407 */
/* 288 */ NdrFcShort( 0x25c ), /* Offset=
604 (892) */
/* 290 */ NdrFcLong( 0x0 ), /* 0 */
/* 294 */ NdrFcShort( 0x0 ), /* Offset= 0 (294) */
/* 296 */ NdrFcLong( 0x1 ), /* 1 */
/* 300 */ NdrFcShort( 0x0 ), /* Offset= 0 (300) */
/* 302 */ NdrFcShort( 0xffff ), /* Offset= -1
(301) */
/* 304 */
0x15, /*
FC_STRUCT */
0x7, /*
7 */
/* 306 */ NdrFcShort( 0x8 ), /* 8 */
/* 308 */ 0xb, /* FC_HYPER */
0x5b, /*
FC_END */
/* 310 */
0x12, 0x0, /*
FC_UP */
/* 312 */ NdrFcShort( 0xe ), /* Offset= 14 (326) */
/* 314 */
0x1b, /*
FC_CARRAY */
0x1, /*
1 */
/* 316 */ NdrFcShort( 0x2 ), /* 2 */
/* 318 */ 0x9, /* Corr desc: FC_ULONG
*/
0x0, /*
*/
/* 320 */ NdrFcShort( 0xffff ), /* -4 */
/* 322 */ NdrFcShort( 0x1 ), /* Corr flags: early,
*/
/* 324 */ 0x6, /* FC_SHORT */
0x5b, /*
FC_END */
/* 326 */
0x17, /*
FC_CSTRUCT */
0x3, /*
3 */

```

```

/* 328 */ NdrFcShort( 0x8 ), /* 8 */
/* 330 */ NdrFcShort( 0xffff0 ), /* Offset= -
16 (314) */
/* 332 */ 0x8, /* FC_LONG */
0x8, /*
FC_LONG */
/* 334 */ 0x5c, /* FC_PAD */
0x5b, /*
FC_END */
/* 336 */
0x2f, /*
FC_IP */
0x5a, /*
FC_CONSTANT_IID */
/* 338 */ NdrFcLong( 0x0 ), /* 0 */
/* 342 */ NdrFcShort( 0x0 ), /* 0 */
/* 344 */ NdrFcShort( 0x0 ), /* 0 */
/* 346 */ 0xc0, /* 192 */
0x0, /*
0 */
/* 348 */ 0x0, /* 0 */
0x0, /*
0 */
/* 350 */ 0x0, /* 0 */
0x0, /*
0 */
/* 352 */ 0x0, /* 0 */
0x46, /*
70 */
/* 354 */
0x2E, /*
FC_IP */
0x5a, /*
FC_CONSTANT_IID */
/* 356 */ NdrFcLong( 0x20400 ), /* 132096 */
/* 360 */ NdrFcShort( 0x0 ), /* 0 */
/* 362 */ NdrFcShort( 0x0 ), /* 0 */
/* 364 */ 0xc0, /* 192 */
0x0, /*
0 */
/* 366 */ 0x0, /* 0 */
0x0, /*
0 */
/* 368 */ 0x0, /* 0 */
0x0, /*
0 */
/* 370 */ 0x0, /* 0 */
0x46, /*
70 */
/* 372 */
0x12, 0x10, /*
FC_UP [pointer_deref] */
/* 374 */ NdrFcShort( 0x2 ), /* Offset= 2 (376) */
/* 376 */
0x12, 0x0, /*
FC_UP */
/* 378 */ NdrFcShort( 0x1e4 ), /* Offset=
484 (862) */
/* 380 */
0x2a, /*
FC_ENCAPSULATED_UNION */
0x89, /*
137 */

```

```

/* 382 */ NdrFcShort( 0x20 ), /* 32 */
/* 384 */ NdrFcShort( 0xa ), /* 10 */
/* 386 */ NdrFcLong( 0x8 ), /* 8 */
/* 390 */ NdrFcShort( 0x50 ), /* Offset= 80 (470) */
/* 392 */ NdrFcLong( 0xd ), /* 13 */
/* 396 */ NdrFcShort( 0x70 ), /* Offset= 112 (508) */
/* 398 */ NdrFcLong( 0x9 ), /* 9 */
/* 402 */ NdrFcShort( 0x90 ), /* Offset= 144 (546) */
/* 404 */ NdrFcLong( 0xc ), /* 12 */
/* 408 */ NdrFcShort( 0xb0 ), /* Offset= 176 (584) */
/* 410 */ NdrFcLong( 0x24 ), /* 36 */
/* 414 */ NdrFcShort( 0x102 ), /* Offset=
258 (672) */
/* 416 */ NdrFcLong( 0x800d ), /* 32781 */
/* 420 */ NdrFcShort( 0x11e ), /* Offset=
286 (706) */
/* 422 */ NdrFcLong( 0x10 ), /* 16 */
/* 426 */ NdrFcShort( 0x138 ), /* Offset=
312 (738) */
/* 428 */ NdrFcLong( 0x2 ), /* 2 */
/* 432 */ NdrFcShort( 0x14e ), /* Offset=
334 (766) */
/* 434 */ NdrFcLong( 0x3 ), /* 3 */
/* 438 */ NdrFcShort( 0x164 ), /* Offset=
356 (794) */
/* 440 */ NdrFcLong( 0x14 ), /* 20 */
/* 444 */ NdrFcShort( 0x17a ), /* Offset=
378 (822) */
/* 446 */ NdrFcShort( 0xffff ), /* Offset= -1
(445) */
/* 448 */
                                0x21, /*
FC_BOGUS_ARRAY */
                                0x3, /*
3 */
/* 450 */ NdrFcShort( 0x0 ), /* 0 */
/* 452 */ 0x19, /* Corr desc: field
pointer, FC_ULONG */
                                0x0, /*
*/
/* 454 */ NdrFcShort( 0x0 ), /* 0 */
/* 456 */ NdrFcShort( 0x1 ), /* Corr flags: early,
*/
/* 458 */ NdrFcLong( 0xffffffff ), /* -1 */
/* 462 */ NdrFcShort( 0x0 ), /* Corr flags: */
/* 464 */
                                0x12, 0x0, /*
FC_UP */
/* 466 */ NdrFcShort( 0xff74 ), /* Offset= -
140 (326) */
/* 468 */ 0x5c, /* FC_PAD */
                                0x5b, /*
FC_END */
/* 470 */
                                0x1a, /*
FC_BOGUS_STRUCT */
                                0x3, /*
3 */
/* 472 */ NdrFcShort( 0x10 ), /* 16 */
/* 474 */ NdrFcShort( 0x0 ), /* 0 */
/* 476 */ NdrFcShort( 0x6 ), /* Offset= 6 (482) */
/* 478 */ 0x8, /* FC_LONG */

```

```

                                0x40, /*
FC_STRUCTPAD4 */
/* 480 */ 0x36, /* FC_POINTER */
                                0x5b, /*
FC_END */
/* 482 */
                                0x11, 0x0, /*
FC_RP */
/* 484 */ NdrFcShort( 0xffdc ), /* Offset= -
36 (448) */
/* 486 */
                                0x21, /*
FC_BOGUS_ARRAY */
                                0x3, /*
3 */
/* 488 */ NdrFcShort( 0x0 ), /* 0 */
/* 490 */ 0x19, /* Corr desc: field
pointer, FC_ULONG */
                                0x0, /*
*/
/* 492 */ NdrFcShort( 0x0 ), /* 0 */
/* 494 */ NdrFcShort( 0x1 ), /* Corr flags: early,
*/
/* 496 */ NdrFcLong( 0xffffffff ), /* -1 */
/* 500 */ NdrFcShort( 0x0 ), /* Corr flags: */
/* 502 */ 0x4c, /* FC_EMBEDDED_COMPLEX
*/
                                0x0, /*
0 */
/* 504 */ NdrFcShort( 0xff58 ), /* Offset= -
168 (336) */
/* 506 */ 0x5c, /* FC_PAD */
                                0x5b, /*
FC_END */
/* 508 */
                                0x1a, /*
FC_BOGUS_STRUCT */
                                0x3, /*
3 */
/* 510 */ NdrFcShort( 0x10 ), /* 16 */
/* 512 */ NdrFcShort( 0x0 ), /* 0 */
/* 514 */ NdrFcShort( 0x6 ), /* Offset= 6 (520) */
/* 516 */ 0x8, /* FC_LONG */
                                0x40, /*
FC_STRUCTPAD4 */
/* 518 */ 0x36, /* FC_POINTER */
                                0x5b, /*
FC_END */
/* 520 */
                                0x11, 0x0, /*
FC_RP */
/* 522 */ NdrFcShort( 0xffdc ), /* Offset= -
36 (486) */
/* 524 */
                                0x21, /*
FC_BOGUS_ARRAY */
                                0x3, /*
3 */
/* 526 */ NdrFcShort( 0x0 ), /* 0 */
/* 528 */ 0x19, /* Corr desc: field
pointer, FC_ULONG */
                                0x0, /*
*/

```

```

/* 530 */ NdrFcShort( 0x0 ), /* 0 */
/* 532 */ NdrFcShort( 0x1 ), /* Corr flags: early,
*/
/* 534 */ NdrFcLong( 0xffffffff ), /* -1 */
/* 538 */ NdrFcShort( 0x0 ), /* Corr flags: */
/* 540 */ 0x4c, /* FC_EMBEDDED_COMPLEX
*/
                                0x0, /*
0 */
/* 542 */ NdrFcShort( 0xff44 ), /* Offset= -
188 (354) */
/* 544 */ 0x5c, /* FC_PAD */
                                0x5b, /*
FC_END */
/* 546 */
                                0x1a, /*
FC_BOGUS_STRUCT */
                                0x3, /*
3 */
/* 548 */ NdrFcShort( 0x10 ), /* 16 */
/* 550 */ NdrFcShort( 0x0 ), /* 0 */
/* 552 */ NdrFcShort( 0x6 ), /* Offset= 6 (558) */
/* 554 */ 0x8, /* FC_LONG */
                                0x40, /*
FC_STRUCTPAD4 */
/* 556 */ 0x36, /* FC_POINTER */
                                0x5b, /*
FC_END */
/* 558 */
                                0x11, 0x0, /*
FC_RP */
/* 560 */ NdrFcShort( 0xffdc ), /* Offset= -
36 (524) */
/* 562 */
                                0x21, /*
FC_BOGUS_ARRAY */
                                0x3, /*
3 */
/* 564 */ NdrFcShort( 0x0 ), /* 0 */
/* 566 */ 0x19, /* Corr desc: field
pointer, FC_ULONG */
                                0x0, /*
*/
/* 568 */ NdrFcShort( 0x0 ), /* 0 */
/* 570 */ NdrFcShort( 0x1 ), /* Corr flags: early,
*/
/* 572 */ NdrFcLong( 0xffffffff ), /* -1 */
/* 576 */ NdrFcShort( 0x0 ), /* Corr flags: */
/* 578 */
                                0x12, 0x0, /*
FC_UP */
/* 580 */ NdrFcShort( 0x176 ), /* Offset=
374 (954) */
/* 582 */ 0x5c, /* FC_PAD */
                                0x5b, /*
FC_END */
/* 584 */
                                0x1a, /*
FC_BOGUS_STRUCT */
                                0x3, /*
3 */
/* 586 */ NdrFcShort( 0x10 ), /* 16 */
/* 588 */ NdrFcShort( 0x0 ), /* 0 */

```

```

/* 590 */ NdrFcShort( 0x6 ), /* Offset= 6 (596) */
/* 592 */ 0x8, /* FC_LONG */
FC_STRUCTPAD4 */
/* 594 */ 0x36, /* FC_POINTER */
/* 596 */ 0x5b,
FC_END */
/* 598 */ 0x11, 0x0, /*
FC_RP */
/* 598 */ NdrFcShort( 0xffdc ), /* Offset= -
36 (562) */
/* 600 */ 0x2f,
FC_IP */
/* 602 */ 0x5a,
FC_CONSTANT_IID */
/* 602 */ NdrFcLong( 0x2f ), /* 47 */
/* 606 */ NdrFcShort( 0x0 ), /* 0 */
/* 608 */ NdrFcShort( 0x0 ), /* 0 */
/* 610 */ 0xc0, /* 192 */
0 */
/* 612 */ 0x0, /* 0 */
0 */
/* 614 */ 0x0, /* 0 */
0 */
/* 616 */ 0x0, /* 0 */
70 */
/* 618 */ 0x1b,
FC_CARRAY */
/* 620 */ 0x0,
/* 620 */ NdrFcShort( 0x1 ), /* 1 */
/* 622 */ 0x19, /* Corr desc: field
pointer, FC_ULONG */
/* 624 */ 0x0,
/* 624 */ NdrFcShort( 0x4 ), /* 4 */
/* 626 */ NdrFcShort( 0x1 ), /* Corr flags: early,
*/
/* 628 */ 0x1, /* FC_BYTE */
FC_END */
/* 630 */ 0x5b,
FC_BOGUS_STRUCT */
/* 632 */ 0x1a,
/* 634 */ 0x3,
3 */
/* 632 */ NdrFcShort( 0x18 ), /* 24 */
/* 634 */ NdrFcShort( 0x0 ), /* 0 */
/* 636 */ NdrFcShort( 0xa ), /* Offset= 10 (646) */
/* 638 */ 0x8, /* FC_LONG */
FC_LONG */
/* 640 */ 0x4c, /* FC_EMBEDDED_COMPLEX
*/
0 */
/* 642 */ 0x0,

```

```

/* 642 */ NdrFcShort( 0xffd6 ), /* Offset= -
42 (600) */
/* 644 */ 0x36, /* FC_POINTER */
/* 646 */ 0x5b,
FC_END */
/* 648 */ 0x12, 0x0,
FC_UP */
/* 648 */ NdrFcShort( 0xffe2 ), /* Offset= -
30 (618) */
/* 650 */ 0x21,
FC_BOGUS_ARRAY */
/* 652 */ 0x3,
3 */
/* 652 */ NdrFcShort( 0x0 ), /* 0 */
/* 654 */ 0x19, /* Corr desc: field
pointer, FC_ULONG */
/* 656 */ 0x0,
/* 658 */ 0x0, /* Corr flags: early,
*/
/* 660 */ NdrFcLong( 0xffffffff ), /* -1 */
/* 664 */ NdrFcShort( 0x0 ), /* Corr flags:
*/
/* 666 */ 0x12, 0x0,
FC_UP */
/* 668 */ NdrFcShort( 0xffda ), /* Offset= -
38 (630) */
/* 670 */ 0x5c, /* FC_PAD */
FC_END */
/* 672 */ 0x5b,
FC_BOGUS_STRUCT */
/* 674 */ 0x1a,
/* 676 */ 0x3,
3 */
/* 674 */ NdrFcShort( 0x10 ), /* 16 */
/* 676 */ NdrFcShort( 0x0 ), /* 0 */
/* 678 */ NdrFcShort( 0x6 ), /* Offset= 6 (684) */
/* 680 */ 0x8, /* FC_LONG */
FC_STRUCTPAD4 */
/* 682 */ 0x40, /* FC_POINTER */
FC_END */
/* 684 */ 0x5b,
FC_RP */
/* 686 */ 0x11, 0x0,
/* 688 */ NdrFcShort( 0xffdc ), /* Offset= -
36 (650) */
/* 690 */ 0x1d,
FC_SMFARRAY */
/* 692 */ 0x0,
0 */
/* 690 */ NdrFcShort( 0x8 ), /* 8 */
/* 692 */ 0x1, /* FC_BYTE */
FC_END */
/* 694 */ 0x5b,

```

```

/* 696 */ 0x15,
FC_STRUCT */
/* 698 */ 0x3,
3 */
/* 696 */ NdrFcShort( 0x10 ), /* 16 */
/* 698 */ 0x8, /* FC_LONG */
FC_SHORT */
/* 700 */ 0x6, /* FC_SHORT */
FC_EMBEDDED_COMPLEX */
/* 702 */ 0x0, /* 0 */
/* 702 */ 0x0, /* Offset= -15 (688) */
FC_END */
/* 706 */ 0x5b,
FC_BOGUS_STRUCT */
/* 708 */ 0x1a,
/* 710 */ 0x3,
3 */
/* 708 */ NdrFcShort( 0x20 ), /* 32 */
/* 710 */ NdrFcShort( 0x0 ), /* 0 */
/* 712 */ NdrFcShort( 0xa ), /* Offset= 10 (722) */
/* 714 */ 0x8, /* FC_LONG */
FC_STRUCTPAD4 */
/* 716 */ 0x40, /* FC_POINTER */
FC_EMBEDDED_COMPLEX */
/* 718 */ 0x0, /* 0 */
/* 718 */ 0x0, /* Offset= -25 (694) */
FC_END */
/* 722 */ 0x5b,
FC_RP */
/* 724 */ 0x11, 0x0,
/* 724 */ NdrFcShort( 0xff12 ), /* Offset= -
238 (486) */
/* 726 */ 0x1b,
FC_CARRAY */
/* 728 */ 0x0,
0 */
/* 728 */ NdrFcShort( 0x1 ), /* 1 */
/* 730 */ 0x19, /* Corr desc: field
pointer, FC_ULONG */
/* 732 */ 0x0,
/* 732 */ NdrFcShort( 0x0 ), /* 0 */
/* 734 */ NdrFcShort( 0x1 ), /* Corr flags: early,
*/
/* 736 */ 0x1, /* FC_BYTE */
FC_END */
/* 738 */ 0x5b,
FC_BOGUS_STRUCT */
/* 740 */ 0x1a,
/* 742 */ 0x3,
3 */
/* 740 */ NdrFcShort( 0x10 ), /* 16 */
/* 742 */ NdrFcShort( 0x0 ), /* 0 */

```

```

/* 744 */ NdrFcShort( 0x6 ), /* Offset= 6 (750) */
/* 746 */ 0x8, /* FC_LONG */
/* 748 */ 0x36, /* FC_POINTER */
/* 750 */ 0x5b, /*
FC_UP */
/* 752 */ NdrFcShort( 0xffe6 ), /* Offset= -
26 (726) */
/* 754 */ 0x12, 0x0, /*
FC_CARRY */
/* 756 */ 0x1, /*
1 */
/* 758 */ NdrFcShort( 0x2 ), /* 2 */
/* 758 */ 0x19, /* Corr desc: field
pointer, FC_ULONG */
/* 760 */ 0x0, /*
*/
/* 760 */ NdrFcShort( 0x0 ), /* 0 */
/* 762 */ NdrFcShort( 0x1 ), /* Corr flags: early,
*/
/* 764 */ 0x6, /* FC_SHORT */
/* 766 */ 0x5b, /*
FC_END */
/* 766 */ 0x1a, /*
FC_BOGUS_STRUCT */
/* 766 */ 0x3, /*
3 */
/* 768 */ NdrFcShort( 0x10 ), /* 16 */
/* 770 */ NdrFcShort( 0x0 ), /* 0 */
/* 772 */ NdrFcShort( 0x6 ), /* Offset= 6 (778) */
/* 774 */ 0x8, /* FC_LONG */
/* 774 */ 0x40, /*
FC_STRUCTPAD4 */
/* 776 */ 0x36, /* FC_POINTER */
/* 776 */ 0x5b, /*
FC_END */
/* 778 */ 0x12, 0x0, /*
FC_UP */
/* 780 */ NdrFcShort( 0xffe6 ), /* Offset= -
26 (754) */
/* 782 */ 0x1b, /*
FC_CARRY */
/* 782 */ 0x3, /*
3 */
/* 784 */ NdrFcShort( 0x4 ), /* 4 */
/* 786 */ 0x19, /* Corr desc: field
pointer, FC_ULONG */
/* 788 */ 0x0, /*
*/
/* 788 */ NdrFcShort( 0x0 ), /* 0 */
/* 790 */ NdrFcShort( 0x1 ), /* Corr flags: early,
*/
/* 792 */ 0x8, /* FC_LONG */
/* 792 */ 0x5b, /*
FC_END */

```

```

/* 794 */
FC_BOGUS_STRUCT */
/* 794 */ 0x1a, /*
0x3, /*
3 */
/* 796 */ NdrFcShort( 0x10 ), /* 16 */
/* 798 */ NdrFcShort( 0x0 ), /* 0 */
/* 800 */ NdrFcShort( 0x6 ), /* Offset= 6 (806) */
/* 802 */ 0x8, /* FC_LONG */
/* 802 */ 0x40, /*
FC_STRUCTPAD4 */
/* 804 */ 0x36, /* FC_POINTER */
/* 804 */ 0x5b, /*
FC_END */
/* 806 */ 0x12, 0x0, /*
FC_UP */
/* 808 */ NdrFcShort( 0xffe6 ), /* Offset= -
26 (782) */
/* 810 */ 0x1b, /*
FC_CARRY */
/* 810 */ 0x7, /*
7 */
/* 812 */ NdrFcShort( 0x8 ), /* 8 */
/* 814 */ 0x19, /* Corr desc: field
pointer, FC_ULONG */
/* 814 */ 0x0, /*
*/
/* 816 */ NdrFcShort( 0x0 ), /* 0 */
/* 818 */ NdrFcShort( 0x1 ), /* Corr flags: early,
*/
/* 820 */ 0xb, /* FC_HYPER */
/* 820 */ 0x5b, /*
FC_END */
/* 822 */ 0x1a, /*
FC_BOGUS_STRUCT */
/* 822 */ 0x3, /*
3 */
/* 824 */ NdrFcShort( 0x10 ), /* 16 */
/* 826 */ NdrFcShort( 0x0 ), /* 0 */
/* 828 */ NdrFcShort( 0x6 ), /* Offset= 6 (834) */
/* 830 */ 0x8, /* FC_LONG */
/* 830 */ 0x40, /*
FC_STRUCTPAD4 */
/* 832 */ 0x36, /* FC_POINTER */
/* 832 */ 0x5b, /*
FC_END */
/* 834 */ 0x12, 0x0, /*
FC_UP */
/* 836 */ NdrFcShort( 0xffe6 ), /* Offset= -
26 (810) */
/* 838 */ 0x15, /*
FC_STRUCT */
/* 838 */ 0x3, /*
3 */
/* 840 */ NdrFcShort( 0x8 ), /* 8 */
/* 842 */ 0x8, /* FC_LONG */
/* 842 */ 0x8, /*
FC_LONG */

```

```

/* 844 */ 0x5c, /* FC_PAD */
/* 844 */ 0x5b, /*
FC_END */
/* 846 */ 0x1b, /*
FC_CARRY */
/* 846 */ 0x3, /*
3 */
/* 848 */ NdrFcShort( 0x8 ), /* 8 */
/* 850 */ 0x7, /* Corr desc: FC_USHORT
*/
/* 850 */ 0x0, /*
*/
/* 852 */ NdrFcShort( 0xffc8 ), /* -56 */
/* 854 */ NdrFcShort( 0x1 ), /* Corr flags: early,
*/
/* 856 */ 0x4c, /* FC_EMBEDDED_COMPLEX
*/
/* 856 */ 0x0, /*
0 */
/* 858 */ NdrFcShort( 0xffec ), /* Offset= -
20 (838) */
/* 860 */ 0x5c, /* FC_PAD */
/* 860 */ 0x5b, /*
FC_END */
/* 862 */ 0x1a, /*
FC_BOGUS_STRUCT */
/* 862 */ 0x3, /*
3 */
/* 864 */ NdrFcShort( 0x38 ), /* 56 */
/* 866 */ NdrFcShort( 0xffec ), /* Offset= -
20 (846) */
/* 868 */ NdrFcShort( 0x0 ), /* Offset= 0 (868) */
/* 870 */ 0x6, /* FC_SHORT */
/* 870 */ 0x6, /*
FC_SHORT */
/* 872 */ 0x8, /* FC_LONG */
/* 872 */ 0x8, /*
FC_LONG */
/* 874 */ 0x40, /* FC_STRUCTPAD4 */
/* 874 */ 0x4c, /*
FC_EMBEDDED_COMPLEX */
/* 876 */ 0x0, /* 0 */
/* 876 */ NdrFcShort( 0xfe0f ),
/* Offset= -497 (380) */
/* 876 */ 0x5b, /*
FC_END */
/* 880 */ 0x12, 0x0, /*
FC_UP */
/* 882 */ NdrFcShort( 0xff04 ), /* Offset= -
252 (630) */
/* 884 */ 0x12, 0x8, /*
FC_UP [simple_pointer] */
/* 886 */ 0x1, /* FC_BYTE */
/* 886 */ 0x5c, /*
FC_PAD */
/* 888 */ 0x12, 0x8, /*
FC_UP [simple_pointer] */
/* 890 */ 0x6, /* FC_SHORT */

```

```

FC_PAD */
/* 892 */
FC_UP [simple_pointer] */
/* 894 */ 0x8,
FC_PAD */
/* 896 */
FC_UP [simple_pointer] */
/* 898 */ 0xb,
FC_PAD */
/* 900 */
FC_UP [simple_pointer] */
/* 902 */ 0xa,
FC_PAD */
/* 904 */
FC_UP [simple_pointer] */
/* 906 */ 0xc,
FC_PAD */
/* 908 */
FC_UP */
/* 910 */ NdrFcShort( 0xfda2 ), /* Offset= -
606 (304) */
/* 912 */
FC_UP [pointer_deref] */
/* 914 */ NdrFcShort( 0xfda4 ), /* Offset= -
604 (310) */
/* 916 */
FC_UP [pointer_deref] */
/* 918 */ NdrFcShort( 0xfdba ), /* Offset= -
582 (336) */
/* 920 */
FC_UP [pointer_deref] */
/* 922 */ NdrFcShort( 0xfdc8 ), /* Offset= -
568 (354) */
/* 924 */
FC_UP [pointer_deref] */
/* 926 */ NdrFcShort( 0xfdd6 ), /* Offset= -
554 (372) */
/* 928 */
FC_UP [pointer_deref] */
/* 930 */ NdrFcShort( 0x2 ), /* Offset= 2 (932) */
/* 932 */
FC_UP */
/* 934 */ NdrFcShort( 0x14 ), /* Offset= 20 (954) */
/* 936 */
FC_STRUCT */

```

```

7 */
/* 938 */ NdrFcShort( 0x10 ), /* 16 */
/* 940 */ 0x6,
FC_BYTE */
/* 942 */ 0x1,
FC_LONG */
/* 944 */ 0xb,
FC_END */
/* 946 */
FC_UP */
/* 948 */ NdrFcShort( 0xffff ), /* Offset= -
12 (936) */
/* 950 */
FC_UP [simple_pointer] */
/* 952 */ 0x2,
FC_PAD */
/* 954 */
FC_BOGUS_STRUCT */
7 */
/* 956 */ NdrFcShort( 0x20 ), /* 32 */
/* 958 */ NdrFcShort( 0x0 ), /* 0 */
/* 960 */ NdrFcShort( 0x0 ), /* Offset= 0 (960) */
/* 962 */ 0x8,
FC_LONG */
/* 964 */ 0x6,
FC_SHORT */
/* 966 */ 0x6,
FC_SHORT */
/* 968 */ 0x4c,
0 */
/* 970 */ NdrFcShort( 0xfc3c ), /* Offset= -
964 (6) */
/* 972 */ 0x5c,
FC_END */
/* 974 */ 0xb4,
131 */
/* 976 */ NdrFcShort( 0x0 ), /* 0 */
/* 978 */ NdrFcShort( 0x18 ), /* 24 */
/* 980 */ NdrFcShort( 0x0 ), /* 0 */
/* 982 */ NdrFcShort( 0xfc2c ), /* Offset= -
980 (2) */
/* 984 */
FC_RP [allocated_on_stack] */
/* 986 */ NdrFcShort( 0x6 ), /* Offset= 6 (992) */
/* 988 */

```

```

0x13, 0x0,
FC_OP */
/* 990 */ NdrFcShort( 0xffdc ), /* Offset= -
36 (954) */
/* 992 */ 0xb4,
131 */
/* 994 */ NdrFcShort( 0x0 ), /* 0 */
/* 996 */ NdrFcShort( 0x18 ), /* 24 */
/* 998 */ NdrFcShort( 0x0 ), /* 0 */
/* 1000 */ NdrFcShort( 0xffff ),
Offset= -12 (988) */
};
static const USER_MARSHAL_ROUTINE_QUADRUPLE
UserMarshalRoutines[ WIRE_MARSHAL_TABLE_SIZE ] =
{
    {
        VARIANT_UserSize
        ,VARIANT_UserMarshal
        ,VARIANT_UserUnmarshal
        ,VARIANT_UserFree
    }
};
/* Standard interface: __MIDL_itf_tpcc_com_ps_0000,
ver. 0.0,
GUID={0x00000000,0x0000,0x0000,{0x00,0x00,0x00,0x00,0
x00,0x00,0x00,0x00}} */
/* Object interface: IUnknown, ver. 0.0,
GUID={0x00000000,0x0000,0x0000,{0xc0,0x00,0x00,0x00,0
x00,0x00,0x00,0x46}} */
/* Object interface: ITPCC, ver. 0.0,
GUID={0xFEEE6AA2,0x84B1,0x11d2,{0xBA,0x47,0x00,0xC0,0
x4F,0xBF,0xE0,0x8B}} */
#pragma code_seg("orpc")
static const unsigned short
ITPCC_FormatStringOffsetTable[] =
{
    0,
    44,
    88,
    132,
    176,
    220
};

```

```

static const MIDL_STUBLESS_PROXY_INFO ITPCC_ProxyInfo
=
{
    &Object_StubDesc,
    __MIDL_ProcFormatString.Format,
    &ITPCC_FormatStringOffsetTable[-3],
    0,
    0,
    0,
    0,
    0;
};

static const MIDL_SERVER_INFO ITPCC_ServerInfo =
{
    &Object_StubDesc,
    0,
    __MIDL_ProcFormatString.Format,
    &ITPCC_FormatStringOffsetTable[-3],
    0,
    0,
    0,
    0,
    0;
};

CINTERFACE_PROXY_VTABLE(9) _ITPCCProxyVtbl =
{
    &ITPCC_ProxyInfo,
    &IID_ITPCC,
    IUnknown_QueryInterface_Proxy,
    IUnknown_AddRef_Proxy,
    IUnknown_Release_Proxy,
    (void *) (INT_PTR) -1 /* ITPCC::NewOrder */ ,
    (void *) (INT_PTR) -1 /* ITPCC::Payment */ ,
    (void *) (INT_PTR) -1 /* ITPCC::Delivery */ ,
    (void *) (INT_PTR) -1 /* ITPCC::StockLevel */ ,
    (void *) (INT_PTR) -1 /* ITPCC::OrderStatus */ ,
    (void *) (INT_PTR) -1 /* ITPCC::CallSetComplete */
};

const CInterfaceStubVtbl _ITPCCStubVtbl =
{
    &IID_ITPCC,
    &ITPCC_ServerInfo,
    9,
    0, /* pure interpreted */
    CStdStubBuffer_METHODS
};

static const MIDL_STUB_DESC Object_StubDesc =
{
    0,
    NdrOleAllocate,
    NdrOleFree,
    0,
    0,
    0,
    0,
    0,
    0,
    0,
    __MIDL_TypeFormatString.Format,
    1, /* -error bounds_check flag */
    0x50002, /* Ndr library version */
    0,
    0x6000169, /* MIDL Version 6.0.361 */
    0,
};

```

```

UserMarshalRoutines,
0, /* notify & notify_flag routine table */
0x1, /* MIDL flag */
0, /* cs routines */
0, /* proxy/server info */
0 /* Reserved5 */
};

const CInterfaceProxyVtbl *
_tpcc_com_ps_ProxyVtblList[] =
{
    (CInterfaceProxyVtbl *) &_ITPCCProxyVtbl,
    0
};

const CInterfaceStubVtbl *
_tpcc_com_ps_StubVtblList[] =
{
    (CInterfaceStubVtbl *) &_ITPCCStubVtbl,
    0
};

PCInterfaceName const
_tpcc_com_ps_InterfaceNamesList[] =
{
    "ITPCC",
    0
};

#define _tpcc_com_ps_CHECK_IID(n)
IID_GENERIC_CHECK_IID( _tpcc_com_ps, pIID,
n)

int __stdcall _tpcc_com_ps_IID_Lookup( const IID *
pIID, int * pIndex )
{
    if(!_tpcc_com_ps_CHECK_IID(0))
    {
        *pIndex = 0;
        return 1;
    }

    return 0;
}

const ExtendedProxyFileInfo tpcc_com_ps_ProxyFileInfo
=
{
    (PCInterfaceProxyVtblList *) &
    _tpcc_com_ps_ProxyVtblList,
    (PCInterfaceStubVtblList *) &
    _tpcc_com_ps_StubVtblList,
    (const PCInterfaceName *) &
    _tpcc_com_ps_InterfaceNamesList,
    0, /* no delegation */
    & _tpcc_com_ps_IID_Lookup,
    1,
    2,
    0, /* table of [async_uuid] interfaces */
    0, /* Filler1 */
    0, /* Filler2 */
};

```

```

0 /* Filler3 */
};
#endif /* _MSC_VER >= 1200 */
#pragma warning(pop)
#endif

#endif /* defined(_M_IA64) || defined(_M_AMD64) */

```

tpcc_com_sl.rgs

```

HKCR
{
    TPCC.StockLevel.1 = s 'StockLevel Class'
    {
        CLSID = s '{2668369E-A50D-11D2-
BA4E-00C04FBFE08B}'
    }
    TPCC.StockLevel = s 'StockLevel Class'
    {
        CurVer = s 'TPCC.StockLevel.1'
    }
    NoRemove CLSID
    {
        ForceRemove {2668369E-A50D-11D2-
BA4E-00C04FBFE08B} = s 'StockLevel Class'
        {
            ProgID = s
            'TPCC.StockLevel.1'

            VersionIndependentProgID = s
            'TPCC.StockLevel'

            InprocServer32 = s
            '%MODULE%'
            {
                val
                ThreadingModel = s 'Both'
            }
        }
    }
}

```

tpcc_odbc.cpp

```

/* FILE: TPCC_ODBC.CPP
* Microsoft
TPC-C Kit Ver. 4.69.000
* Copyright
Microsoft, 2002
* All Rights Reserved
* Version
4.10.000 audited by Richard Gimarc, Performance
Metrics, 3/17/99
*
* PURPOSE: Implements ODBC calls for TPC-C
txns.

```

```

*      Contact: Charles Levine
(clevine@microsoft.com)
*
* Change history:
*      4.42.000 - changed w_id fields
from short to long to support >32K warehouses
*      4.20.000 - updated rev number to
match kit
*      4.10.001 - not deleting error
class in catch handler on deadlock retry;
*      not a
functional bug, but a memory leak
*      4.69.000 - updated rev number to
match kit
*/

#include <windows.h>
#include <stdio.h>
#include <assert.h>

#define DBNTWIN32
#include <sqltypes.h>
#include <sql.h>
#include <sqlxt.h>

// #define COMPILER_FOR_SNAC // define that to
// compile for SQL Native Client; comment out to use
// MDAC

#ifdef COMPILER_FOR_SNAC
#include <odbcss.h>
#else
// Compile for SNAC
#include <sqlncli.h>
#endif

#ifdef ICECAP
#include <icapexp.h>
#endif

// need to declare functions for export
#define DllDecl __declspec( dllexport )

#include "..\..\common\src\error.h"
#include "..\..\common\src\trans.h"
#include "..\..\common\src\txn_base.h"
#include "tpcc_odbc.h"

// version string; must match return value from
tpcc_version stored proc
const char sVersion[] = "4.20.000";

const iMaxRetries = 3; // how many
retries on deadlock
//const iMaxRetries = 0; // for
debugging

const int iErrOleDbProvider = 7312;
const char sErrTimeoutExpired[] = "Timeout expired";

static SQLHENV henv = SQL_NULL_HENV;
// ODBC environment handle

```

```

BOOL APIENTRY DllMain(HMODULE hModule, DWORD
ul_reason_for_call, LPVOID lpReserved)
{
    switch( ul_reason_for_call )
    {
        case DLL_PROCESS_ATTACH:

            DisableThreadLibraryCalls(hModule);
            if (
SQLAllocHandleStd(SQL_HANDLE_ENV, SQL_NULL_HANDLE,
&henv) != SQL_SUCCESS )
                return FALSE;
                break;

        case DLL_PROCESS_DETACH:
            if (henv != NULL)
                SQLFreeEnv(henv);
                break;

            default:
                /* nothing */;
    }
    return TRUE;
}

/* FUNCTION: CTPCC_ODBC_ERR::ErrorText
*/
*/

char* CTPCC_ODBC_ERR::ErrorText(void)
{
    int i;

    static SERRORMSG errorMsgs[] =
    {
        { ERR_WRONG_SP_VERSION,
"Wrong version of stored procs on database
server" },
        { ERR_INVALID_CUST,
"Invalid Customer id,name." },
        { ERR_NO_SUCH_ORDER,
"No orders found for customer." },
        { ERR_RETRIED_TRANS,
"Retries before transaction succeeded." },
        { ERR_INVALID_NEW_ORDER_PARAM,
"New Order parameter invalid." },
        { 0, "" }
    };
}

static char szNotFound[] = "Unknown error
number.";

for(i=0; errorMsgs[i].szMsg[0]; i++)
{

```

```

        if ( m_erno ==
errorMsgs[i].iError )
            break;
    }
    if ( !errorMsgs[i].szMsg[0] )
        return szNotFound;
    else
        return errorMsgs[i].szMsg;
}

// wrapper routine for class constructor
__declspec(dlllexport) CTPCC_ODBC* CTPCC_ODBC_new(
LPCSTR szServer, // name of
SQL server
LPCSTR szUser, //
user name for login
LPCSTR szPassword, // password
for login
LPCSTR szHost, //
not used
LPCSTR szDatabase, // name of
database to use
LPCWSTR szSPPrefix, // prefix to
append to the stored procedure names
BOOL bCallNoDuplicatesNewOrder ) // whether
to check for non-duplicate items in NewOrder and call
a new SP
{
    return new CTPCC_ODBC( szServer, szUser,
szPassword, szHost, szDatabase, szSPPrefix,
bCallNoDuplicatesNewOrder );
}

CTPCC_ODBC::CTPCC_ODBC (
LPCSTR szServer,
// name of SQL server
LPCSTR szUser,
// user name for login
LPCSTR szPassword,
// password for login
LPCSTR szHost,
// not used
LPCSTR szDatabase,
// name of database to use
LPCWSTR szSPPrefix,
// prefix to append to the stored procedure
names
BOOL bCallNoDuplicatesNewOrder //
whether to check for non-duplicate items in NewOrder
and call a new SP
)
:
m_bCallNoDuplicatesNewOrder(bCallNoDuplicatesNewOrder
)
{
    RETCODE rc;

    // initialization
    m_hdbc = SQL_NULL_HDBC;
    m_hstmt = SQL_NULL_HSTMT;

    m_hstmtNewOrder = SQL_NULL_HSTMT;

```



```

m_hstmtPayment = SQL_NULL_HSTMT;
m_hstmtDelivery = SQL_NULL_HSTMT;
m_hstmtOrderStatus = SQL_NULL_HSTMT;
m_hstmtStockLevel = SQL_NULL_HSTMT;

m_descNewOrderCols1 = SQL_NULL_HDESC;
m_descNewOrderCols2 = SQL_NULL_HDESC;
m_descOrderStatusCols1 = SQL_NULL_HDESC;
m_descOrderStatusCols2 = SQL_NULL_HDESC;

wcsncpy(m_szSPPrefix, szSPPrefix,
sizeof(m_szSPPrefix)/sizeof(m_szSPPrefix[0]));

if ( SQLAllocHandle(SQL_HANDLE_DBC, henv,
&m_hdbc) != SQL_SUCCESS )

ThrowError(CODBCERR::eAllocHandle);

if ( SQLSetConnectOption(m_hdbc,
SQL_PACKET_SIZE, 4096) != SQL_SUCCESS )

ThrowError(CODBCERR::eConnOption);

{
char
szConnectStr[256];
char
szOutStr[1024];
SQLSMALLINT
iOutStrLen;

#ifdef COMPILER_FOR_SNAC
sprintf( szConnectStr,
"DRIVER=SQL
Server:SERVER=%s;UID=%s;PWD=%s;DATABASE=%s",
szServer, szUser,
szPassword, szDatabase );
#else
// Compile for SNAC
sprintf( szConnectStr,
"DRIVER=SQL Native
Client:SERVER=%s;UID=%s;PWD=%s;DATABASE=%s",
szServer, szUser,
szPassword, szDatabase );
#endif
rc = SQLDriverConnect(m_hdbc,
NULL, (SQLCHAR*)szConnectStr, sizeof(szConnectStr),
(SQLCHAR*)szOutStr,
sizeof(szOutStr), &iOutStrLen, SQL_DRIVER_NOPROMPT );

if (rc != SQL_SUCCESS && rc !=
SQL_SUCCESS_WITH_INFO)

ThrowError(CODBCERR::eConnect);
}

if (SQLAllocHandle(SQL_HANDLE_STMT, m_hdbc,
&m_hstmt) != SQL_SUCCESS)

ThrowError(CODBCERR::eAllocHandle);

{

```

```

char
buffer[128];

// set some options affecting
connection behavior
strcpy(buffer, "set nocount on
set XACT_ABORT ON");
rc = SQLExecDirect(m_hstmt,
(unsigned char *)buffer, SQL_NTS);
if (rc != SQL_SUCCESS && rc !=
SQL_SUCCESS_WITH_INFO)

ThrowError(CODBCERR::eExecDirect);

// verify that version of stored
procs on server is correct
char db_sp_version[10];
strcpy(buffer, "{call
tpcc_version}");
rc = SQLExecDirect(m_hstmt,
(unsigned char *)buffer, SQL_NTS);
if (rc != SQL_SUCCESS && rc !=
SQL_SUCCESS_WITH_INFO)

ThrowError(CODBCERR::eExecDirect);
if ( SQLBindCol(m_hstmt, 1,
SQL_C_CHAR, &db_sp_version, sizeof(db_sp_version),
NULL) != SQL_SUCCESS )

ThrowError(CODBCERR::eBindCol);
if ( SQLFetch(m_hstmt) ==
SQL_ERROR )

ThrowError(CODBCERR::eFetch);
if
(strcmp(db_sp_version, sVersion)
throw new
CTPCC_ODBC_ERR( CTPCC_ODBC_ERR::ERR_WRONG_SP_VERSION
));

SQLFreeHandle(SQL_HANDLE_STMT,
m_hstmt);
}

// Bind parameters for each of the
transactions
InitNewOrderParams();
InitPaymentParams();
InitOrderStatusParams();
InitDeliveryParams();
InitStockLevelParams();
}

CTPCC_ODBC::~CTPCC_ODBC( void )
{
// note: descriptors are automatically
released when the connection is dropped
SQLFreeHandle(SQL_HANDLE_STMT,
m_hstmtNewOrder);
SQLFreeHandle(SQL_HANDLE_STMT,
m_hstmtPayment);
SQLFreeHandle(SQL_HANDLE_STMT,
m_hstmtDelivery);

```

```

SQLFreeHandle(SQL_HANDLE_STMT,
m_hstmtOrderStatus);
SQLFreeHandle(SQL_HANDLE_STMT,
m_hstmtStockLevel);

SQLDisconnect(m_hdbc);
SQLFreeHandle(SQL_HANDLE_DBC, m_hdbc);
}

//void CTPCC_ODBC::ThrowError( CODBCERR::ACTION
eAction )
void CTPCC_ODBC::ThrowError( RETCODE eAction )
{
RETCODE rc;
SDWORD lNativeError;
char szState[6];
char
szMsg[SQL_MAX_MESSAGE_LENGTH];
char
szTmp[6*SQL_MAX_MESSAGE_LENGTH];
CODBCERR *pODBCErr;
// not allocated until needed (maybe never)

pODBCErr = new CODBCERR();

pODBCErr->m_NativeError = 0;
//pODBCErr->m_eAction = eAction;
pODBCErr->m_eAction =
(CODBCERR::ACTION)eAction;
pODBCErr->m_bDeadLock = FALSE;

szTmp[0] = 0;
szMsg[0] = 0;
while (TRUE)
{
rc = SQLError(henv, m_hdbc,
m_hstmt, (BYTE *)&szState, &lNativeError,
(BYTE *)&szMsg, sizeof(szMsg), NULL);
if (rc == SQL_NO_DATA)
break;
if (rc != SQL_SUCCESS)
break;
// check for deadlock
if (lNativeError == 1205 ||
(lNativeError == iErrOleDbProvider &&
strstr(szMsg,
sErrTimeoutExpired) != NULL))
pODBCErr->m_bDeadLock =
TRUE;
// capture the (first) database
error
if (pODBCErr->m_NativeError == 0
&& lNativeError != 0)
pODBCErr->m_NativeError
= lNativeError;

```

```

        // quit if there isn't enough
        room to concatenate
        error text
        if ( (strlen(szMsg) + 2) >
        (sizeof(szTmp) - strlen(szTmp)) )
            break;

        // include line break after first
        error msg
        if (szTmp[0] != 0)
            strcat( szTmp, "\n");
            strcat( szTmp, szMsg );
    }

    if (pODBCErr->m_odbcerrstr != NULL)
    {
        delete [] pODBCErr->m_odbcerrstr;
        pODBCErr->m_odbcerrstr = NULL;
    }

    if (strlen(szTmp) > 0)
    {
        pODBCErr->m_odbcerrstr = new
        char[ strlen(szTmp)+1 ];
        strcpy( pODBCErr->m_odbcerrstr,
        szTmp );
    }

    SQLFreeStmt(m_hstmt, SQL_CLOSE);
    throw pODBCErr;
}

void CTPCC_ODBC::InitStockLevelParams()
{
    if ( SQLAllocHandle(SQL_HANDLE_STMT,
    m_hdbc, &m_hstmtStockLevel) != SQL_SUCCESS )

        ThrowError(CODBCERR::eAllocHandle);

    m_hstmt = m_hstmtStockLevel;

    int i = 0;
    if ( SQLBindParameter(m_hstmt, ++i,
    SQL_PARAM_INPUT, SQL_C_SLONG, SQL_INTEGER, 0, 0,
    &m_txn.StockLevel.w_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i,
    SQL_PARAM_INPUT, SQL_C_UTINYINT, SQL_TINYINT, 0, 0,
    &m_txn.StockLevel.d_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i,
    SQL_PARAM_INPUT, SQL_C_SSHORT, SQL_SMALLINT, 0, 0,
    &m_txn.StockLevel.threshhold, 0, NULL) != SQL_SUCCESS
        )
        ThrowError(CODBCERR::eBindParam);

    if ( SQLBindCol(m_hstmt, 1, SQL_C_SLONG,
    &m_txn.StockLevel.low_stock, 0, NULL) != SQL_SUCCESS
        )
        ThrowError(CODBCERR::eBindCol);

    //Compose Stock Level statement
    _snwprintf(m_szStockLevelCommand,
    sizeof(m_szStockLevelCommand)/sizeof(m_szStockLevelCo
    mmand[0]),

```

```

        L"{call %stpcp_stocklevel
        (?,?,?)", m_szSPPrefix);
    }

    void CTPCC_ODBC::StockLevel()
    {
        RETCODE          rc;
        int               iTryCount =
        0;

        m_hstmt = m_hstmtStockLevel;

        while (TRUE)
        {
            try
            {
                rc =
                SQLExecDirectW(m_hstmt, m_szStockLevelCommand,
                SQL_NTS);
                if (rc != SQL_SUCCESS
                && rc != SQL_SUCCESS_WITH_INFO)

                    ThrowError(CODBCERR::eExecDirect);

                if ( SQLFetch(m_hstmt)
                == SQL_ERROR )

                    ThrowError(CODBCERR::eFetch);

                SQLFreeStmt(m_hstmt,
                SQL_CLOSE);

                m_txn.StockLevel.exec_status_code = eOK;
                break;
            }
            catch ( CODBCERR *e)
            {
                if (!e->m_bDeadLock)

                    throw;

                // hit deadlock;
                backoff for increasingly longer period
                delete e;
                Sleep(10 * iTryCount);
            }
        }

        // if (iTryCount)
        // throw new
        CTPCC_ODBC_ERR(CTPCC_ODBC_ERR::ERR_RETRIED_TRANS,
        iTryCount);
    }

    void CTPCC_ODBC::InitNewOrderParams()
    {
        if ( SQLAllocHandle(SQL_HANDLE_STMT,
        m_hdbc, &m_hstmtNewOrder) != SQL_SUCCESS
            ||
            SQLAllocHandle(SQL_HANDLE_STMT, m_hdbc,
            &m_hstmtNewOrderNoDuplicates) != SQL_SUCCESS

```

```

            ||
            SQLAllocHandle(SQL_HANDLE_DESC, m_hdbc,
            &m_descNewOrderCols1) != SQL_SUCCESS
            ||
            SQLAllocHandle(SQL_HANDLE_DESC, m_hdbc,
            &m_descNewOrderCols2) != SQL_SUCCESS
            ||
            SQLAllocHandle(SQL_HANDLE_DESC, m_hdbc,
            &m_descNewOrderNoDuplicatesCols1) != SQL_SUCCESS
            ||
            SQLAllocHandle(SQL_HANDLE_DESC, m_hdbc,
            &m_descNewOrderNoDuplicatesCols2) != SQL_SUCCESS
            )

        ThrowError(CODBCERR::eAllocHandle);

        m_hstmt = m_hstmtNewOrder;

        if ( SQLSetStmtAttrW( m_hstmt,
        SQL_ATTR_APP_ROW_DESC, m_descNewOrderCols1,
        SQL_IS_POINTER ) != SQL_SUCCESS )

            ThrowError(CODBCERR::eSetStmtAttr);

        int i = 0;
        if ( SQLBindParameter(m_hstmt, ++i,
        SQL_PARAM_INPUT, SQL_C_SLONG, SQL_INTEGER, 0, 0,
        &m_txn.NewOrder.w_id, 0, NULL) != SQL_SUCCESS
            || SQLBindParameter(m_hstmt, ++i,
        SQL_PARAM_INPUT, SQL_C_UTINYINT, SQL_TINYINT, 0, 0,
        &m_txn.NewOrder.d_id, 0, NULL) != SQL_SUCCESS
            || SQLBindParameter(m_hstmt, ++i,
        SQL_PARAM_INPUT, SQL_C_SLONG, SQL_INTEGER, 0, 0,
        &m_txn.NewOrder.c_id, 0, NULL) != SQL_SUCCESS
            || SQLBindParameter(m_hstmt, ++i,
        SQL_PARAM_INPUT, SQL_C_UTINYINT, SQL_TINYINT, 0, 0,
        &m_txn.NewOrder.o_ol_cnt, 0, NULL) != SQL_SUCCESS
            || SQLBindParameter(m_hstmt, ++i,
        SQL_PARAM_INPUT, SQL_C_UTINYINT, SQL_TINYINT, 0, 0,
        &m_txn.NewOrder.o_all_local, 0, NULL) != SQL_SUCCESS
            )
            ThrowError(CODBCERR::eBindParam);

        for (int j=0; j<MAX_OL_NEW_ORDER_ITEMS;
        j++)
        {
            if ( SQLBindParameter(m_hstmt,
            ++i, SQL_PARAM_INPUT, SQL_C_SLONG, SQL_INTEGER, 0, 0,
            &m_txn.NewOrder.OL[j].ol_i_id, 0, NULL) !=
            SQL_SUCCESS
                ||
                SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT,
                SQL_C_SLONG, SQL_INTEGER, 0, 0,
                &m_txn.NewOrder.OL[j].ol_supply_w_id, 0, NULL) !=
                SQL_SUCCESS
                ||
                SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT,
                SQL_C_SSHORT, SQL_SMALLINT, 0, 0,
                &m_txn.NewOrder.OL[j].ol_quantity, 0, NULL) !=
                SQL_SUCCESS
            )

                ThrowError(CODBCERR::eBindParam);

```

```

    }

    // set the bind offset pointer
    if ( SQLSetStmAttrW( m_hstmt,
SQL_ATTR_ROW_BIND_OFFSET_PTR, &m_BindOffset,
SQL_IS_POINTER ) != SQL_SUCCESS )

        ThrowError(CODBCERR::eSetStmAttr);

    i = 0;
    if ( SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.NewOrder.OL[0].ol_i_name,
sizeof(m_txn.NewOrder.OL[0].ol_i_name), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_SSHORT, &m_txn.NewOrder.OL[0].ol_stock, 0,
NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.NewOrder.OL[0].ol_brand_generic,
sizeof(m_txn.NewOrder.OL[0].ol_brand_generic), NULL)
!= SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_DOUBLE, &m_txn.NewOrder.OL[0].ol_i_price, 0,
NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_DOUBLE, &m_txn.NewOrder.OL[0].ol_amount, 0,
NULL) != SQL_SUCCESS
    )
        ThrowError(CODBCERR::eBindCol);

    // associate the column bindings for the
second result set
    if ( SQLSetStmAttrW( m_hstmt,
SQL_ATTR_APP_ROW_DESC, m_descNewOrderCols2,
SQL_IS_POINTER ) != SQL_SUCCESS )

        ThrowError(CODBCERR::eSetStmAttr);

    i = 0;
    if ( SQLBindCol(m_hstmt, ++i,
SQL_C_DOUBLE, &m_txn.NewOrder.w_tax, 0, NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_DOUBLE, &m_txn.NewOrder.d_tax, 0, NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_SLONG, &m_txn.NewOrder.o_id, 0, NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.NewOrder.c_last,
sizeof(m_txn.NewOrder.c_last), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_DOUBLE, &m_txn.NewOrder.c_discount, 0, NULL)
!= SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.NewOrder.c_credit,
sizeof(m_txn.NewOrder.c_credit), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_TYPE_TIMESTAMP, &m_txn.NewOrder.o_entry_d, 0,
NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_SLONG, &m_no_commit_flag, 0, NULL) !=
SQL_SUCCESS

```

```

    )
        ThrowError(CODBCERR::eBindCol);

    //Compose the New Order statement
    _snprintf(m_szNewOrderCommand,
sizeof(m_szNewOrderCommand)/sizeof(m_szNewOrderComman
d[0]),
        // 0      1      2
        //
        "012345678901234567890123456789
L*[call
%stppcc_neworder(?,?,?,?,?,?,?,?,?,?,?,?,?,
?,?,?,?,?),
L*?,?,?,?,?,?,?,?,?,?,?,?,?,
?,?,?,?,?]", m_szSPPrefix);

    m_iBeginNewOrderVariablePart = 29 +
wcslen(m_szSPPrefix); // fixed part + prefix
part

    //////////////////////////////////////
    //////////////////////////////////////
    //
    // Now initialize New Order that
works on no duplicate (w_id,i_id) pairs
    // and returns one result set for
lineitem details.
    //
    //
    m_hstmt = m_hstmtNewOrderNoDuplicates;

    if ( SQLSetStmAttrW( m_hstmt,
SQL_ATTR_APP_ROW_DESC,
m_descNewOrderNoDuplicatesCols1, SQL_IS_POINTER ) !=
SQL_SUCCESS )

        ThrowError(CODBCERR::eSetStmAttr);

    i = 0;
    if ( SQLBindParameter(m_hstmt, ++i,
SQL_PARAM_INPUT, SQL_C_SLONG, SQL_INTEGER, 0, 0,
&m_txn.NewOrder.w_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i,
SQL_PARAM_INPUT, SQL_C_UTINYINT, SQL_TINYINT, 0, 0,
&m_txn.NewOrder.d_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i,
SQL_PARAM_INPUT, SQL_C_SLONG, SQL_INTEGER, 0, 0,
&m_txn.NewOrder.c_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i,
SQL_PARAM_INPUT, SQL_C_UTINYINT, SQL_TINYINT, 0, 0,
&m_txn.NewOrder.o_ol_cnt, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i,
SQL_PARAM_INPUT, SQL_C_UTINYINT, SQL_TINYINT, 0, 0,
&m_txn.NewOrder.o_all_local, 0, NULL) != SQL_SUCCESS
    )
        ThrowError(CODBCERR::eBindParam);

    for (int j=0; j<MAX_OL_NEW_ORDER_ITEMS;
j++)
    {
        if ( SQLBindParameter(m_hstmt,
++i, SQL_PARAM_INPUT, SQL_C_SLONG, SQL_INTEGER, 0, 0,

```

```

&m_txn.NewOrder.OL[j].ol_i_id, 0, NULL) !=
SQL_SUCCESS
        ||
SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT,
SQL_C_SLONG, SQL_INTEGER, 0, 0,
&m_txn.NewOrder.OL[j].ol_supply_w_id, 0, NULL) !=
SQL_SUCCESS
        ||
SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT,
SQL_C_SSHORT, SQL_SMALLINT, 0, 0,
&m_txn.NewOrder.OL[j].ol_quantity, 0, NULL) !=
SQL_SUCCESS
    )

        ThrowError(CODBCERR::eBindParam);
    }

    // set row-wise binding
    if ( SQLSetStmAttrW(m_hstmt,
SQL_ATTR_ROW_BIND_TYPE,
(SQLPOINTER)sizeof(m_txn.NewOrder.OL[0]),
SQL_IS_UINTEGER) != SQL_SUCCESS
        || SQLSetStmAttrW(m_hstmt,
SQL_ATTR_ROWS_FETCHED_PTR, &m_RowsFetched, 0) !=
SQL_SUCCESS )

        ThrowError(CODBCERR::eSetStmAttr);

    i = 0;
    if ( SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.NewOrder.OL[0].ol_i_name,
sizeof(m_txn.NewOrder.OL[0].ol_i_name), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_SSHORT, &m_txn.NewOrder.OL[0].ol_stock, 0,
NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.NewOrder.OL[0].ol_brand_generic,
sizeof(m_txn.NewOrder.OL[0].ol_brand_generic), NULL)
!= SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_DOUBLE, &m_txn.NewOrder.OL[0].ol_i_price, 0,
NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_DOUBLE, &m_txn.NewOrder.OL[0].ol_amount, 0,
NULL) != SQL_SUCCESS
    )
        ThrowError(CODBCERR::eBindCol);

    // associate the column bindings for the
second result set
    if ( SQLSetStmAttrW( m_hstmt,
SQL_ATTR_APP_ROW_DESC,
m_descNewOrderNoDuplicatesCols2, SQL_IS_POINTER ) !=
SQL_SUCCESS )

        ThrowError(CODBCERR::eSetStmAttr);

    i = 0;
    if ( SQLBindCol(m_hstmt, ++i,
SQL_C_DOUBLE, &m_txn.NewOrder.w_tax, 0, NULL) !=
SQL_SUCCESS

```

```

        || SQLBindCol(m_hstmt, ++i,
SQL_C_DOUBLE, &m_txn.NewOrder.d_tax, 0, NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_SLONG, &m_txn.NewOrder.o_id, 0, NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.NewOrder.c_last,
sizeof(m_txn.NewOrder.c_last), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_DOUBLE, &m_txn.NewOrder.c_discount, 0, NULL)
!= SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.NewOrder.c_credit,
sizeof(m_txn.NewOrder.c_credit), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_TYPE_TIMESTAMP, &m_txn.NewOrder.o_entry_d, 0,
NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_SLONG, &m_no_commit_flag, 0, NULL) !=
SQL_SUCCESS
    )
    ThrowError(CODBCERR::eBindCol);

    //Compose the New Order statement
    _snprintf(m_szNewOrderNoDuplicatesCommand,
sizeof(m_szNewOrderNoDuplicatesCommand)/sizeof(m_szNe
wOrderNoDuplicatesCommand[0]),
    L"call
%stpc_neworder_new(?,?,?,?,?,?,?,?,?,?,?,?,
,?,?,?,?,?,?)", m_szSPPrefix);

    m_iBeginNewOrderNoDuplicatesVariablePart =
33 + wcslen(m_szSPPrefix); // fixed part + prefix
part
}

//
// Returns true if there are duplicate
(warehouse_id, item_id)
// lineitem pairs in New Order input
parameters.
//
bool CTPCC_ODBC::DuplicatesInNewOrder()
{
    int i, j;

    for (i = 0; i < m_txn.NewOrder.o_ol_cnt;
++i)
    {
        for (j = i+1; j<
m_txn.NewOrder.o_ol_cnt; ++j)
        {
            if
(m_txn.NewOrder.OL[i].ol_i_id ==
m_txn.NewOrder.OL[j].ol_i_id)
            {
                return true;
            }
        }
    }
}

```

```

    }
    return false;
}

void CTPCC_ODBC::NewOrder()
{
    if (m_bCallNoDuplicatesNewOrder)
    {
        if (DuplicatesInNewOrder())
        {
            NewOrderDuplicates();
        }
        else
        {
            NewOrderNoDuplicates();
        }
    }
    else
    {
        NewOrderDuplicates();
    }
}

void CTPCC_ODBC::NewOrderDuplicates()
{
    int
i;
    RETCODE rc;
    int
iTryCount = 0;

0 1 2

012345678901234567890123456789
    wchar_t
szSqlTemplate[IMAX_SP_NAME_LEN];

    // L"call
tpc_neworder(?,?,?,?,?"

L"?,?,?,?,?,?,?,?,?,?,?,?,?,?"

L"?,?,?,?,?,?,?,?,?,?,?,?,?"

L"?,?,?,?,?,?,?,?,?,?,?,?,?"

L"?,?,?,?,?,?,?,?,?,?,?,?,?"

    m_hstmt = m_hstmtNewOrder;

    // associate the parameter and column
bindings for this transaction
    if ( SQLSetStmtAttrW( m_hstmt,
SQL_ATTR_APP_ROW_DESC, m_descNewOrderCols1,
SQL_IS_POINTER ) != SQL_SUCCESS )

        ThrowError(CODBCERR::eSetStmtAttr);
}

```

```

    // clip statement buffer based on number of
parameters
    // fixed part is 29 chars and variable part
is 6 chars per line item
    wcsncpy(szSqlTemplate, m_szNewOrderCommand);
    i = m_iBeginNewOrderVariablePart +
m_txn.NewOrder.o_ol_cnt*6;
    wcsncpy( &szSqlTemplate[i], L"");

    // check whether any order lines are for a
remote warehouse
    m_txn.NewOrder.o_all_local = 1;
    for (i = 0; i < m_txn.NewOrder.o_ol_cnt;
i++)
    {
        if
(m_txn.NewOrder.OL[i].ol_supply_w_id !=
m_txn.NewOrder.w_id)
        {
            m_txn.NewOrder.o_all_local = 0; // at
least one remote warehouse
            break;
        }
    }

    while (TRUE)
    {
        try
        {
            m_BindOffset = 0;
            rc =
SQLExecDirectW(m_hstmt, szSqlTemplate, SQL_NTS);
            if (rc != SQL_SUCCESS
&& rc != SQL_SUCCESS_WITH_INFO)

                ThrowError(CODBCERR::eExecDirect);

            // Get order line
results
            m_txn.NewOrder.total_amount = 0;
            for (i = 0;
i<m_txn.NewOrder.o_ol_cnt; i++)
            {
                // set the
bind offset value...
                m_BindOffset
= i * sizeof(m_txn.NewOrder.OL[0]);

                if (
SQLFetch(m_hstmt) == SQL_ERROR)
                    ThrowError(CODBCERR::eFetch);

                // move to
the next resultset
                if (
SQLMoreResults(m_hstmt) == SQL_ERROR )
                    ThrowError(CODBCERR::eMoreResults);
            }
        }
    }
}

```

```

        m_txn.NewOrder.total_amount +=
m_txn.NewOrder.OL[i].ol_amount;
    }

    // associate the column
bindings for the second result set
    if ( SQLSetStmtAttrW(
m_hstmt, SQL_ATTR_APP_ROW_DESC, m_descNewOrderCols2,
SQL_IS_POINTER ) != SQL_SUCCESS )

        ThrowError(CODBCERR::eSetStmtAttr);

    if ( SQLFetch(m_hstmt)
== SQL_ERROR)

        ThrowError(CODBCERR::eFetch);

    SQLFreeStmt(m_hstmt,
SQL_CLOSE);

    if (m_no_commit_flag ==
1)
    {
        m_txn.NewOrder.total_amount *= ((1 +
m_txn.NewOrder.w_tax + m_txn.NewOrder.d_tax) * (1 -
m_txn.NewOrder.c_discount));

        m_txn.NewOrder.exec_status_code = eOK;
    }
    else
        m_txn.NewOrder.exec_status_code =
eInvalidItem;

        break;
    }
    catch (CODBCERR *e)
    {
        if (!(e->m_bDeadLock)
|| (++iTryCount > iMaxRetries))
            throw;

        // hit deadlock;
backoff for increasingly longer period
        delete e;
        Sleep(10 * iTryCount);
    }
}

// if (iTryCount)
// throw new
CTPCC_ODBC_ERR(CTPCC_ODBC_ERR::ERR_RETRIED_TRANS,
iTryCount);
}

//
// No lineitem duplicates optimized version.
//
void CTPCC_ODBC::NewOrderNoDuplicates()
{

```

```

    int
    i;
    RETCODE          rc;
    int
    iTryCount = 0;

    0      1      2      3          //
0123456789012345678901234567890123          //
    wchar_t
    szSqlTemplate[iMAX_SP_NAME_LEN];

    tpcc_neworder_new(?,?,?,?,"          // L" {call
L"?,?,?,?,?,?,?,?,?,?,?,?,?,"          //
L"?,?,?,?,?,?,?,?,?,?,?,?,?,"          //
L"?,?,?,?,?,?,?,?,?,?,?,?,?,"          //
L"?,?,?,?,?,?,?,?,?,?,?,?,?,"          //
    m_hstmt = m_hstmtNewOrderNoDuplicates;

    // associate the parameter and column
bindings for this transaction
    if ( SQLSetStmtAttrW( m_hstmt,
SQL_ATTR_APP_ROW_DESC,
m_descNewOrderNoDuplicatesCols1, SQL_IS_POINTER ) !=
SQL_SUCCESS )

        ThrowError(CODBCERR::eSetStmtAttr);

    // clip statement buffer based on number of
parameters
    // fixed part is 33 chars and variable part
is 6 chars per line item
    wcsncpy(szSqlTemplate,
m_szNewOrderNoDuplicatesCommand);
    i =
m_iBeginNewOrderNoDuplicatesVariablePart +
m_txn.NewOrder.o_ol_cnt*6;
    wcsncpy( &szSqlTemplate[i], L" )" );

    // check whether any order lines are for a
remote warehouse
    m_txn.NewOrder.o_all_local = 1;
    for (i = 0; i < m_txn.NewOrder.o_ol_cnt;
i++)
    {
        if
(m_txn.NewOrder.OL[i].ol_supply_w_id !=
m_txn.NewOrder.w_id)
        {
            m_txn.NewOrder.o_all_local = 0; // at
least one remote warehouse
            break;
        }
    }

```

```

    }
    while (TRUE)
    {
        try
        {
            // configure block
            cursor
            if (
SQLSetStmtAttrW(m_hstmt, SQL_ATTR_ROW_ARRAY_SIZE,
(SQLPOINTER)1, 0) != SQL_SUCCESS )

                ThrowError(CODBCERR::eSetStmtAttr);

            rc =
SQLExecDirectW(m_hstmt, szSqlTemplate, SQL_NTS);
            if (rc != SQL_SUCCESS
&& rc != SQL_SUCCESS_WITH_INFO)

                ThrowError(CODBCERR::eExecDirect);

            // configure block
            cursor
            if
(SQLSetStmtAttrW(m_hstmt, SQL_ATTR_ROW_ARRAY_SIZE,
(SQLPOINTER)MAX_OL_NEW_ORDER_ITEMS, 0) !=
SQL_SUCCESS)

                ThrowError(CODBCERR::eSetStmtAttr);

            // Get order line
            results
            if ( SQLFetch(m_hstmt)
== SQL_ERROR)

                ThrowError(CODBCERR::eFetch);

            m_txn.NewOrder.total_amount = 0;
            for (i = 0;
i < m_txn.NewOrder.o_ol_cnt; i++)
            {
                m_txn.NewOrder.total_amount +=
m_txn.NewOrder.OL[i].ol_amount;
            }

            // associate the column
bindings for the second result set
            if ( SQLSetStmtAttrW(
m_hstmt, SQL_ATTR_APP_ROW_DESC,
m_descNewOrderNoDuplicatesCols2, SQL_IS_POINTER ) !=
SQL_SUCCESS )

                ThrowError(CODBCERR::eSetStmtAttr);

            // move to the next
            resultset
            if (
SQLMoreResults(m_hstmt) == SQL_ERROR )

```

```

        ThrowError(CODBCERR::eMoreResults);
        if ( rc =
SQLFetch(m_hstmt)) == SQL_ERROR)
            ThrowError(CODBCERR::eFetch);
SQLFreeStmt(m_hstmt,
SQL_CLOSE);
// Check Fetch return
code for no rows returned.
// It means customer id
or warehouse id were invalid.
//
// if (rc == SQL_NO_DATA)
//     throw new
CTPCC_ODBC_ERR(CTPCC_ODBC_ERR::ERR_INVALID_NEW_ORDER_
PARAM);
        if (m_no_commit_flag ==
1)
        {
            m_txn.NewOrder.total_amount *= ((1 +
m_txn.NewOrder.w_tax + m_txn.NewOrder.d_tax) * (1 -
m_txn.NewOrder.c_discount));
            m_txn.NewOrder.exec_status_code = eOK;
        }
        else
            m_txn.NewOrder.exec_status_code =
eInvalidItem;
            break;
        }
        catch (COBDCERR *e)
        {
            if (!e->m_bDeadLock)
                throw;
            // hit deadlock;
            backoff for increasingly longer period
            delete e;
            Sleep(10 * iTryCount);
        }
    }
    //
    // if (iTryCount)
    //     throw new
CTPCC_ODBC_ERR(CTPCC_ODBC_ERR::ERR_RETRIED_TRANS,
iTryCount);
}

void CTPCC_ODBC::InitPaymentParams()
{
    if ( SQLAllocHandle(SQL_HANDLE_STMT,
m_hdbc, &m_hstmtPayment) != SQL_SUCCESS )
        ThrowError(CODBCERR::eAllocHandle);

```

```

        m_hstmt = m_hstmtPayment;
        int i = 0;
        if ( SQLBindParameter(m_hstmt, ++i,
SQL_PARAM_INPUT, SQL_C_SLONG, SQL_INTEGER, 0, 0,
&m_txn.Payment.w_id, 0, NULL) != SQL_SUCCESS
            || SQLBindParameter(m_hstmt, ++i,
SQL_PARAM_INPUT, SQL_C_SLONG, SQL_INTEGER, 0, 0,
&m_txn.Payment.c_w_id, 0, NULL) != SQL_SUCCESS
            || SQLBindParameter(m_hstmt, ++i,
SQL_PARAM_INPUT, SQL_C_DOUBLE, SQL_NUMERIC, 6, 2,
&m_txn.Payment.h_amount, 0, NULL) != SQL_SUCCESS
            || SQLBindParameter(m_hstmt, ++i,
SQL_PARAM_INPUT, SQL_C_UTINYINT, SQL_TINYINT, 0, 0,
&m_txn.Payment.d_id, 0, NULL) != SQL_SUCCESS
            || SQLBindParameter(m_hstmt, ++i,
SQL_PARAM_INPUT, SQL_C_UTINYINT, SQL_TINYINT, 0, 0,
&m_txn.Payment.c_d_id, 0, NULL) != SQL_SUCCESS
            || SQLBindParameter(m_hstmt, ++i,
SQL_PARAM_INPUT, SQL_C_SLONG, SQL_INTEGER, 0, 0,
&m_txn.Payment.c_id, 0, NULL) != SQL_SUCCESS
            || SQLBindParameter(m_hstmt, ++i,
SQL_PARAM_INPUT, SQL_C_CHAR, SQL_CHAR,
sizeof(m_txn.Payment.c_last), 0,
&m_txn.Payment.c_last, sizeof(m_txn.Payment.c_last),
NULL) != SQL_SUCCESS
        )
            ThrowError(CODBCERR::eBindParam);
        i = 0;
        if ( SQLBindCol(m_hstmt, ++i,
SQL_C_SLONG, &m_txn.Payment.c_id, 0,
NULL) != SQL_SUCCESS
            || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.Payment.c_last,
sizeof(m_txn.Payment.c_last), NULL) !=
SQL_SUCCESS
            || SQLBindCol(m_hstmt, ++i,
SQL_C_TYPE_TIMESTAMP, &m_txn.Payment.h_date,
0, NULL) != SQL_SUCCESS
            || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.Payment.w_street_1,
sizeof(m_txn.Payment.w_street_1), NULL) !=
SQL_SUCCESS
            || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.Payment.w_street_2,
sizeof(m_txn.Payment.w_street_2), NULL) !=
SQL_SUCCESS
            || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.Payment.w_city,
sizeof(m_txn.Payment.w_city), NULL) !=
SQL_SUCCESS
            || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.Payment.w_state,
sizeof(m_txn.Payment.w_state), NULL) !=
SQL_SUCCESS
            || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.Payment.w_zip,
sizeof(m_txn.Payment.w_zip), NULL) !=
SQL_SUCCESS
            || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.Payment.d_street_1,

```

```

sizeof(m_txn.Payment.d_street_1), NULL) !=
SQL_SUCCESS
            || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.Payment.d_street_2,
sizeof(m_txn.Payment.d_street_2), NULL) !=
SQL_SUCCESS
            || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.Payment.d_city,
sizeof(m_txn.Payment.d_city), NULL) !=
SQL_SUCCESS
            || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.Payment.d_state,
sizeof(m_txn.Payment.d_state), NULL) !=
SQL_SUCCESS
            || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.Payment.d_zip,
sizeof(m_txn.Payment.d_zip), NULL) !=
SQL_SUCCESS
            || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.Payment.c_first,
sizeof(m_txn.Payment.c_first), NULL) !=
SQL_SUCCESS
            || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.Payment.c_middle,
sizeof(m_txn.Payment.c_middle), NULL) !=
SQL_SUCCESS
            || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.Payment.c_street_1,
sizeof(m_txn.Payment.c_street_1), NULL) !=
SQL_SUCCESS
            || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.Payment.c_street_2,
sizeof(m_txn.Payment.c_street_2), NULL) !=
SQL_SUCCESS
            || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.Payment.c_city,
sizeof(m_txn.Payment.c_city), NULL) !=
SQL_SUCCESS
            || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.Payment.c_state,
sizeof(m_txn.Payment.c_state), NULL) !=
SQL_SUCCESS
            || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.Payment.c_zip,
sizeof(m_txn.Payment.c_zip), NULL) !=
SQL_SUCCESS
            || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.Payment.c_phone,
sizeof(m_txn.Payment.c_phone), NULL) !=
SQL_SUCCESS
            || SQLBindCol(m_hstmt, ++i,
SQL_C_TYPE_TIMESTAMP, &m_txn.Payment.c_since,
0, NULL) != SQL_SUCCESS
            || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.Payment.c_credit,
sizeof(m_txn.Payment.c_credit), NULL) !=
SQL_SUCCESS
            || SQLBindCol(m_hstmt, ++i,
SQL_C_DOUBLE, &m_txn.Payment.c_credit_lim, 0, NULL)
!= SQL_SUCCESS
            || SQLBindCol(m_hstmt, ++i,
SQL_C_DOUBLE, &m_txn.Payment.c_discount, 0,
NULL) != SQL_SUCCESS

```

```

        || SQLBindCol(m_hstmt, ++i,
SQL_C_DOUBLE, &m_txn.Payment.c_balance, 0,
NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.Payment.c_data,
sizeof(m_txn.Payment.c_data), NULL) !=
SQL_SUCCESS
    )
    ThrowError(CODBCERR::eBindCol);

    //Compose Payment statement
    _snwprintf(m_szPaymentCommand,
sizeof(m_szPaymentCommand)/sizeof(m_szPaymentCommand(
0)),
        L"{call %stpc_payment
(?,?,?,?,,?)", m_szSPPrefix);
}

void CTPCC_ODBC::Payment()
{
    RETCODE rc;
    int iTryCount =
0;

    m_hstmt = m_hstmtPayment;

    if (m_txn.Payment.c_id != 0)
        m_txn.Payment.c_last[0] = 0;

    while (TRUE)
    {
        try
        {
            rc =
SQLExecDirectW(m_hstmt, m_szPaymentCommand, SQL_NTS);
            if (rc != SQL_SUCCESS
&& rc != SQL_SUCCESS_WITH_INFO)
                ThrowError(CODBCERR::eExecDirect);

            if ( SQLFetch(m_hstmt)
== SQL_ERROR)
                ThrowError(CODBCERR::eFetch);

            SQLFreeStmt(m_hstmt,
SQL_CLOSE);

            if (m_txn.Payment.c_id
== 0)
                throw new
CTPCC_ODBC_ERR( CTPCC_ODBC_ERR::ERR_INVALID_CUST );
            else
                m_txn.Payment.exec_status_code = eOK;

            break;
        }
        catch (CODBCERR *e)
        {
            if (!e->m_bDeadLock)
                || (++iTryCount > iMaxRetries)
                    throw;

```

```

        // hit deadlock;
        backoff for increasingly longer period
        delete e;
        Sleep(10 * iTryCount);
    }
}

// if (iTryCount)
// throw new
CTPCC_ODBC_ERR(CTPCC_ODBC_ERR::ERR_RETRIED_TRANS,
iTryCount);
}

void CTPCC_ODBC::InitOrderStatusParams()
{
    if ( SQLAllocHandle(SQL_HANDLE_STMT,
m_hdbc, &m_hstmtOrderStatus) != SQL_SUCCESS
        ||
SQLAllocHandle(SQL_HANDLE_DESC, m_hdbc,
&m_descOrderStatusCols1) != SQL_SUCCESS
        ||
SQLAllocHandle(SQL_HANDLE_DESC, m_hdbc,
&m_descOrderStatusCols2) != SQL_SUCCESS
    )
        ThrowError(CODBCERR::eAllocHandle);

    m_hstmt = m_hstmtOrderStatus;

    if ( SQLSetStmtAttrW( m_hstmt,
SQL_ATTR_APP_ROW_DESC, m_descOrderStatusCols1,
SQL_IS_POINTER ) != SQL_SUCCESS )
        ThrowError(CODBCERR::eSetStmtAttr);

    int i = 0;
    if ( SQLBindParameter(m_hstmt, ++i,
SQL_PARAM_INPUT, SQL_C_SLONG, SQL_INTEGER, 0, 0,
&m_txn.OrderStatus.w_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i,
SQL_PARAM_INPUT, SQL_C_UTINYINT, SQL_TINYINT, 0, 0,
&m_txn.OrderStatus.d_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i,
SQL_PARAM_INPUT, SQL_C_SLONG, SQL_INTEGER, 0, 0,
&m_txn.OrderStatus.c_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i,
SQL_PARAM_INPUT, SQL_C_CHAR, SQL_CHAR,
sizeof(m_txn.OrderStatus.c_last), 0,
&m_txn.OrderStatus.c_last,
sizeof(m_txn.OrderStatus.c_last), NULL) !=
SQL_SUCCESS
    )
        ThrowError(CODBCERR::eBindParam);

    // configure block cursor
    if ( SQLSetStmtAttrW(m_hstmt,
SQL_ATTR_ROW_BIND_TYPE,
(SQLPOINTER)sizeof(m_txn.OrderStatus.OL[0]), 0) !=
SQL_SUCCESS
        || SQLSetStmtAttrW(m_hstmt,
SQL_ATTR_ROWS_FETCHED_PTR, &m_RowsFetched, 0) !=
SQL_SUCCESS

```

```

    )
        ThrowError(CODBCERR::eSetStmtAttr);

    i = 0;
    if ( SQLBindCol(m_hstmt, ++i,
SQL_C_SLONG, &m_txn.OrderStatus.OL[0].ol_supply_w_id,
0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_SLONG, &m_txn.OrderStatus.OL[0].ol_i_id, 0,
NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_SSHORT, &m_txn.OrderStatus.OL[0].ol_quantity,
0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_DOUBLE, &m_txn.OrderStatus.OL[0].ol_amount, 0,
NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_TYPE_TIMESTAMP,
&m_txn.OrderStatus.OL[0].ol_delivery_d, 0, NULL) !=
SQL_SUCCESS
    )
        ThrowError(CODBCERR::eBindCol);

    if ( SQLSetStmtAttrW( m_hstmt,
SQL_ATTR_APP_ROW_DESC, m_descOrderStatusCols2,
SQL_IS_POINTER ) != SQL_SUCCESS )
        ThrowError(CODBCERR::eSetStmtAttr);

    i = 0;
    if ( SQLBindCol(m_hstmt, ++i,
SQL_C_SLONG, &m_txn.OrderStatus.c_id, 0, NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.OrderStatus.c_last,
sizeof(m_txn.OrderStatus.c_last), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.OrderStatus.c_first,
sizeof(m_txn.OrderStatus.c_first), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_CHAR, &m_txn.OrderStatus.c_middle,
sizeof(m_txn.OrderStatus.c_middle), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_TYPE_TIMESTAMP, &m_txn.OrderStatus.o_entry_d,
0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_SSHORT, &m_txn.OrderStatus.o_carrier_id, 0,
NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_DOUBLE, &m_txn.OrderStatus.c_balance, 0, NULL)
!= SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i,
SQL_C_SLONG, &m_txn.OrderStatus.o_id, 0, NULL) !=
SQL_SUCCESS
    )
        ThrowError(CODBCERR::eBindCol);

    //Compose Order Status statement

```

```

        _snwprintf(m_szOrderStatusCommand,
sizeof(m_szOrderStatusCommand)/sizeof(m_szOrderStatus
Command[0]),
        L"{call %stppcc_orderstatus
(?,?,?,?)", m_szSPPrefix);
}

void CTPCC_ODBC::OrderStatus()
{
    int
        iTryCount = 0;
    RETCODE
        rc;

    m_hstmt = m_hstmtOrderStatus;

    if (m_txn.OrderStatus.c_id != 0)
        m_txn.OrderStatus.c_last[0] = 0;

    while (TRUE)
    {
        try
        {
            if ( SQLSetStmtAttrW(
m_hstmt, SQL_ATTR_APP_ROW_DESC,
m_descOrderStatusCols2, SQL_IS_POINTER ) !=
SQL_SUCCESS )

                ThrowError(CODBCERR::eSetStmtAttr);

            // configure block
            cursor
                if (
SQLSetStmtAttrW(m_hstmt, SQL_ATTR_ROW_ARRAY_SIZE,
(SQLPOINTER)1, 0) != SQL_SUCCESS )

                    ThrowError(CODBCERR::eSetStmtAttr);

            rc =
SQLExecDirectW(m_hstmt, m_szOrderStatusCommand,
SQL_NTS);
            if (rc != SQL_SUCCESS
&& rc != SQL_SUCCESS_WITH_INFO)

                ThrowError(CODBCERR::eExecDirect);

            // configure block
            cursor
                if (
SQLSetStmtAttrW(m_hstmt, SQL_ATTR_ROW_ARRAY_SIZE,
(SQLPOINTER)MAX_OL_ORDER_STATUS_ITEMS, 0) !=
SQL_SUCCESS )

                    ThrowError(CODBCERR::eSetStmtAttr);

            rc = SQLFetchScroll(
m_hstmt, SQL_FETCH_NEXT, 0 );
            // if (!(rc ==
SQL_SUCCESS) || ((rc == SQL_SUCCESS_WITH_INFO) &&
(m_RowsFetched != 0)))
                if ( (rc !=
SQL_SUCCESS) )

```

```

                ThrowError(CODBCERR::eFetchScroll);

                m_txn.OrderStatus.o_ol_cnt =
(short)m_RowsFetched;

                if
(m_txn.OrderStatus.o_ol_cnt != 0)
                {
                    if (
SQLSetStmtAttrW( m_hstmt, SQL_ATTR_APP_ROW_DESC,
m_descOrderStatusCols2, SQL_IS_POINTER ) !=
SQL_SUCCESS )

                        ThrowError(CODBCERR::eSetStmtAttr);

                    // if (
SQLMoreResults(m_hstmt) == SQL_ERROR )
                    if ( ( rc =
SQLMoreResults(m_hstmt) ) != SQL_SUCCESS )
                        {
                            ThrowError(CODBCERR::eMoreResults);
                        }

                    // if ( ( rc =
SQLFetch(m_hstmt) ) == SQL_ERROR)
                    if ( ( rc =
SQLFetch(m_hstmt) ) != SQL_SUCCESS)
                        ThrowError(CODBCERR::eFetch);
                }

                SQLFreeStmt(m_hstmt,
SQL_CLOSE);

                if
(m_txn.OrderStatus.o_ol_cnt == 0)
                    throw new
CTPCC_ODBC_ERR( CTPCC_ODBC_ERR::ERR_NO_SUCH_ORDER );
                else if
(m_txn.OrderStatus.c_id == 0 &&
m_txn.OrderStatus.c_last[0] == 0)
                    throw new
CTPCC_ODBC_ERR( CTPCC_ODBC_ERR::ERR_INVALID_CUST );
                else
                    m_txn.OrderStatus.exec_status_code = eOK;

                break;
            }
            catch (CODBCERR *e)
            {
                if (!(e->m_bDeadLock)
|| (++iTryCount > iMaxRetries))
                    throw;

                // hit deadlock;
                delete e;
                Sleep(10 * iTryCount);

```

```

        }
    }

    // if (iTryCount)
    // throw new
CTPCC_ODBC_ERR(CTPCC_ODBC_ERR::ERR_RETRIED_TRANS,
iTryCount);
}

void CTPCC_ODBC::InitDeliveryParams()
{
    if ( SQLAllocHandle(SQL_HANDLE_STMT,
m_hdbc, &m_hstmtDelivery) != SQL_SUCCESS )

        ThrowError(CODBCERR::eAllocHandle);

    m_hstmt = m_hstmtDelivery;

    int i = 0;
    if ( SQLBindParameter(m_hstmt, ++i,
SQL_PARAM_INPUT, SQL_C_SLONG, SQL_INTEGER, 0, 0,
&m_txn.Delivery.w_id, 0, NULL) != SQL_SUCCESS
|| SQLBindParameter(m_hstmt, ++i,
SQL_PARAM_INPUT, SQL_C_SSHORT, SQL_SMALLINT, 0, 0,
&m_txn.Delivery.o_carrier_id, 0, NULL) != SQL_SUCCESS
)
        ThrowError(CODBCERR::eBindParam);

    for (i=0;i<10;i++)
    {
        if ( SQLBindCol(m_hstmt,
(UWORD)(i+1), SQL_C_SLONG, &m_txn.Delivery.o_id[i],
0, NULL) != SQL_SUCCESS )

            ThrowError(CODBCERR::eBindCol);
    }

    //Compose Delivery statement
    _snwprintf(m_szDeliveryCommand,
sizeof(m_szDeliveryCommand)/sizeof(m_szDeliveryComman
d[0]),
        L"{call %stppcc_delivery (?,?,?)",
m_szSPPrefix;
}

void CTPCC_ODBC::Delivery()
{
    RETCODE
        rc;
    int
        iTryCount =
0;

    m_hstmt = m_hstmtDelivery;

    while (TRUE)
    {
        try
        {
            rc =
SQLExecDirectW(m_hstmt, m_szDeliveryCommand,
SQL_NTS);
            if (rc != SQL_SUCCESS
&& rc != SQL_SUCCESS_WITH_INFO)

```



```

        ThrowError(COdbcErr::eExecDirect);
        if ( SQLFetch(m_hstmt)
== SQL_ERROR )
            ThrowError(COdbcErr::eFetch);
        SQLFreeStmt(m_hstmt,
SQL_CLOSE);
        m_txn.Delivery.exec_status_code = eOK;
        break;
    }
    catch (COdbcErr *e)
    {
        if (!e->m_bDeadLock)
|| (++iTryCount > iMaxRetries))
            throw;

        // hit deadlock;
        backoff for increasingly longer period
        delete e;
        Sleep(10 * iTryCount);
    }

// if (iTryCount)
// throw new
CTPCC_ODBC_ERR(CTPCC_ODBC_ERR::ERR_RETRIED_TRANS,
iTryCount);
}

```

tpcc_odbc.h

```

/* FILE: TPCC_ODBC.H
* Microsoft
TPC-C Kit Ver. 4.69.000
* Copyright
Microsoft, 1999
* All Rights Reserved
*
* Version
4.10.000 audited by Richard Gimarc, Performance
Metrics, 3/17/99
*
* PURPOSE: Header file for TPC-C txn class
implementation.
*
* Change history:
* 4.20.000 - updated rev number to
match kit
* 4.69.000 - updated rev number to
match kit
*/
#pragma once

// need to declare functions for import, unless
define has already been created
// by the DLL's .cpp module for export.

```

```

#ifndef DllDecl
#define DllDecl __declspec( dllimport )
#endif

#define iMAX_SP_NAME_LEN 256 //maximum length of a
stored procedure name with parameters

class COdbcErr : public CBaseErr
{
public:
    enum ACTION
    {
        eNone,
        eUnknown,
        eAllocConn,
        // error from SQLAllocConnect
        eAllocHandle,
        // error from SQLAllocHandle
        eConnOption,
        // error from SQLSetConnectOption
        eConnect,
        // error from SQLConnect
        eAllocStmt,
        // error from SQLAllocStmt
        eExecDirect,
        // error from SQLExecDirect
        eBindParam,
        // error from SQLBindParameter
        eBindCol,
        // error from SQLBindCol
        eFetch,
        // error from SQLFetch
        eFetchScroll,
        // error from SQLFetchScroll
        eMoreResults,
        // error from SQLMoreResults
        ePrepare,
        // error from SQLPrepare
        eExecute,
        // error from SQLExecute
        eSetEnvAttr,
        // error from SQLSetEnvAttr
        eSetStmtAttr,
        // error from SQLSetStmtAttr
    };

    COdbcErr(void)
    {
        m_eAction = eNone;
        m_NativeError = 0;
        m_bDeadLock = FALSE;
        m_odbcerrstr = NULL;
    };

    ~COdbcErr()
    {
        if (m_odbcerrstr !=
NULL)
            delete []
m_odbcerrstr;
    };

    ACTION m_eAction;

```

```

        int
        m_NativeError;
        BOOL
        m_bDeadLock;
        char
        *m_odbcerrstr;

        int
        ErrorType()
    {return ERR_TYPE_ODBC;};
        char*
        ErrorTypeStr() { return
"ODBC"; }
        int
        ErrorNum()
    {return m_NativeError;};
        char*
        ErrorText() {return
m_odbcerrstr;};
        int
        ErrorAction()
    { return (int)m_eAction; }
};

class CTPCC_ODBC_ERR : public CBaseErr
{
public:
    enum TPCC_ODBC_ERRS
    {
        ERR_WRONG_SP_VERSION =
1, // "Wrong version of stored procs on
database server"
        ERR_INVALID_CUST,
        // "Invalid Customer id,name."
        ERR_NO_SUCH_ORDER,
        // "No orders found for
customer."
        ERR_RETRIED_TRANS,
        // "Retries before transaction
succeeded."
        ERR_INVALID_NEW_ORDER_PARAM // "New Order
parameter invalid."
    };

    CTPCC_ODBC_ERR( int iErr ) {
m_errno = iErr; m_iTryCount = 0; };

    CTPCC_ODBC_ERR( int iErr, int
iTryCount ) { m_errno = iErr; m_iTryCount =
iTryCount; };

        int
        m_errno;
        int
        m_iTryCount;

        int
        ErrorType()
    {return ERR_TYPE_TPCC_ODBC;};
        char*
        ErrorTypeStr() { return
"TPCC ODBC"; }
        int
        ErrorNum()
    {return m_errno;};
        char*
        ErrorText();
};

class DllDecl CTPCC_ODBC : public CTPCC_BASE
{
private:
    // declare variables and private
functions here...

```

```

        BOOL                m_bDeadlock;
        // transaction was selected as
deadlock victim
        int
        m_MaxRetries;      // retry
count on deadlock

        SQLHENV            m_henv;
        // ODBC environment
handle
        SQLHDBC            m_hdbc;
        SQLHSTMT           m_hstmt;
        // the current hstmt

        SQLHSTMT           m_hstmtNewOrder;
        SQLHSTMT
        m_hstmtNewOrderNoDuplicates; // NewOrder
with one result set for lineitem details
        SQLHSTMT           m_hstmtPayment;
        SQLHSTMT           m_hstmtDelivery;
        SQLHSTMT           m_hstmtOrderStatus;
        SQLHSTMT           m_hstmtStockLevel;

        SQLHDESC           m_descNewOrderCols1;
        SQLHDESC           m_descNewOrderCols2;
        SQLHDESC
        m_descNewOrderNoDuplicatesCols1; //
NewOrder with one result set for lineitem details
        SQLHDESC
        m_descNewOrderNoDuplicatesCols2; //
NewOrder with one result set for lineitem details
        SQLHDESC           m_descOrderStatusCols1;
        SQLHDESC           m_descOrderStatusCols2;

        wchar_t
        m_szSPPrefix[32]; // stored procedures
prefix

        wchar_t
        m_szNewOrderCommand[iMAX_SP_NAME_LEN];
        wchar_t
        m_szNewOrderNoDuplicatesCommand[iMAX_SP_NAME
E_LEN];

        int
        m_iBeginNewOrderVariablePart; // begining
of the variable part in NewOrder statement
        int
        m_iBeginNewOrderNoDuplicatesVariablePart;
// begining of the variable part in
NewOrder statement
        wchar_t
        m_szPaymentCommand[iMAX_SP_NAME_LEN];
        wchar_t
        m_szDeliveryCommand[iMAX_SP_NAME_LEN];
        wchar_t
        m_szOrderStatusCommand[iMAX_SP_NAME_LEN];
        wchar_t
        m_szStockLevelCommand[iMAX_SP_NAME_LEN];

        // new-order specific fields
        SQLINTEGER         m_BindOffset;
        SQLINTEGER
        m_RowsFetched;

```

```

        int
        m_no_commit_flag;

        // tpcc_neworder_new flag
        BOOL
        m_bCallNoDuplicatesNewOrder;

        //void ThrowError(
        CODBCERR::ACTION eAction );
        void ThrowError( RETCODE eAction
);

        void InitNewOrderParams();
        void InitPaymentParams();
        void InitDeliveryParams();
        void InitStockLevelParams();
        void InitOrderStatusParams();

        union
        {
                NEW_ORDER_DATA
                PAYMENT_DATA
                DELIVERY_DATA
                STOCK_LEVEL_DATA
                ORDER_STATUS_DATA
        }
        m_txn;

        bool DuplicatesInNewOrder();
        void NewOrderDuplicates();
        void NewOrderNoDuplicates();

public:
        CTPCC_ODBC( LPCSTR
szServer, LPCSTR szUser, LPCSTR szPassword,
LPCSTR szHost, LPCSTR szDatabase,
LPCWSTR szSPPrefix, BOOL
bCallNoDuplicatesNewOrder);
        ~CTPCC_ODBC(void);

        inline PNEW_ORDER_DATA
        BuffAddr_NewOrder() { return
&m_txn.NewOrder;
};
        inline PPAYMENT_DATA
        BuffAddr_Payment() { return
&m_txn.Payment;
};
        inline PDELIVERY_DATA
        BuffAddr_Delivery() { return
&m_txn.Delivery;
};
        inline PSTOCK_LEVEL_DATA
        BuffAddr_StockLevel() { return
&m_txn.StockLevel;
};
        inline PORDER_STATUS_DATA
        BuffAddr_OrderStatus() { return
&m_txn.OrderStatus;
};

```

```

        void NewOrder            ();
        void Payment            ();
        void Delivery           ();
        void StockLevel         ();
        void OrderStatus        ();
};

// wrapper routine for class constructor
extern "C" DllDecl CTPCC_ODBC* CTPCC_ODBC_new
( LPCSTR szServer, LPCSTR szUser,
LPCSTR szPassword, LPCSTR szHost, LPCSTR szDatabase,
LPCWSTR szSPPrefix, BOOL
bCallNoDuplicatesNewOrder );

typedef CTPCC_ODBC* (TYPE_CTPCC_ODBC)(LPCSTR, LPCSTR,
LPCSTR, LPCSTR, LPCSTR, LPCWSTR, BOOL);

tpcc_oledb.cpp
/* FILE: TPCC_OLEDB.CPP
* Microsoft
TPC-C Kit Ver. 4.69.000
* Copyright
Microsoft, 2004
* Written by
Sergey Vasilevskiy
* All Rights Reserved
*
* PURPOSE: Implements OLEDB calls for TPC-C
txns.
* Contact: Charles Levine
(clevine@microsoft.com)
*
* 4.69.000 - updated rev number to
match kit
*/

#include <windows.h>
#include <stdio.h>
#include <assert.h>
#include <stddef.h>

#define DBINITCONSTANTS
#include <oledb.h>
// #include <sqloledb.h> // Use MDAC
#include <C:\Program Files\Microsoft SQL
Server\100\SDK\include\sqlncli.h> // Use SNAC
#include <oledberr.h>

#ifdef ICECAP
#include <icapexp.h>
#endif

// need to declare functions for export

```

```

#define DllDecl __declspec( dllexport )

#include "..\..\common\src\error.h"
#include "..\..\common\src\trans.h"
#include "..\..\common\src\txn_base.h"
#include "tpcc_oledb.h"

#ifdef SQL_MAX_MESSAGE_LENGTH
#define SQL_MAX_MESSAGE_LENGTH 512
#endif

// version string; must match return value from
tpcc_version stored proc
const char sVersion[] = "4.20.000";

const iMaxRetries = 10; // how many
retries on deadlock

const int iErrOleDbProvider = 7312;
const char sErrTimeoutExpired[] = "Timeout expired";

// this needs to be the same as the max length of
machine/database/user/password in Benchcraft
(engstat.h)
const static int iMaxNameLen = 32;

BOOL WINAPI DllMain(HMODULE hModule, DWORD
ul_reason_for_call, LPVOID lpReserved)
{
    switch( ul_reason_for_call )
    {
        case DLL_PROCESS_ATTACH:
            DisableThreadLibraryCalls(hModule);
            break;

        case DLL_PROCESS_DETACH:
            break;

        default:
            /* nothing */;
    }
    return TRUE;
}

/* FUNCTION: CTPCC_OLEDB_ERR::ErrorText
 *
 */
char* CTPCC_OLEDB_ERR::ErrorText(void)
{
    int i;

    static SERRORMSG errorMsgs[] =
    {
        { ERR_WRONG_SP_VERSION,
"Wrong version of stored procs on database
server" },
        { ERR_INVALID_CUST,
"Invalid Customer id,name."
    },
    },

```

```

        { ERR_NO_SUCH_ORDER,
"No orders found for customer."
    },
        { ERR_RETRIED_TRANS,
"Retries before transaction succeeded."
    },
    { 0, ""
    }
};

static char szNotFound[] = "Unknown error
number.";

for(i=0; errorMsgs[i].szMsg[0]; i++)
{
    if ( m_erno ==
errorMsgs[i].iError )
        break;
}
if ( !errorMsgs[i].szMsg[0] )
    return szNotFound;
else
    return errorMsgs[i].szMsg;
}

// wrapper routine for class constructor
__declspec(dllexport) CTPCC_OLEDB* CTPCC_OLEDB_new(
LPCSTR szServer, // name of
SQL server
LPCSTR szUser, //
user name for login
LPCSTR szPassword, // password
for login
LPCSTR szHost, //
not used
LPCSTR szDatabase, // name of
database to use
LPCWSTR szSPPrefix ) //
prefix to append to the stored procedure names
{
    return new CTPCC_OLEDB( szServer, szUser,
szPassword, szHost, szDatabase, szSPPrefix );
}

CTPCC_OLEDB::CTPCC_OLEDB (
LPCSTR szServer,
// name of SQL server
LPCSTR szUser,
// user name for login
LPCSTR szPassword,
// password for login
LPCSTR szHost,
// not used
LPCSTR szDatabase,
// name of database to use
LPCWSTR szSPPrefix
// prefix to append to the stored procedure
names
)

```

```

: m_pIMalloc(NULL)
{
    int
iRc;
int
i;
HRESULT hr;

IDBInitialize*
pIDBInitialize = NULL; //
data source interface
IDBProperties*
pIDBProperties = NULL;
ICommandText*
pICommandText;
// SQL command without parameters
wchar_t
szwServer[iMaxNameLen]; //
Unicode string used to convert to BSTR
wchar_t
szwDatabase[iMaxNameLen]; // Unicode
string used to convert to BSTR
wchar_t
szwUser[iMaxNameLen]; //
Unicode string used to convert to BSTR
wchar_t
szwPassword[iMaxNameLen]; // Unicode
string used to convert to BSTR

// Copy stored procedures prefix
wcsncpy(m_szSPPrefix, szSPPrefix,
sizeof(m_szSPPrefix)/sizeof(m_szSPPrefix[0]));

// Convert single byte ANSI strings to
Unicode (for later conversion to BSTR)
iRc = MultiByteToWideChar(CP_THREAD_ACP,
MB_PRECOMPOSED, szServer, (int)strlen(szServer)+1,
szwServer, iMaxNameLen);
iRc = MultiByteToWideChar(CP_THREAD_ACP,
MB_PRECOMPOSED, szDatabase,
(int)strlen(szDatabase)+1, szwDatabase, iMaxNameLen);
iRc = MultiByteToWideChar(CP_THREAD_ACP,
MB_PRECOMPOSED, szUser, (int)strlen(szUser)+1,
szwUser, iMaxNameLen);
iRc = MultiByteToWideChar(CP_THREAD_ACP,
MB_PRECOMPOSED, szPassword,
(int)strlen(szPassword)+1, szwPassword, iMaxNameLen);

// Initialize COM library to be able to use
OLE-DB interfaces
CoInitialize(NULL);

// Initialization - create SQLOLEDB
component
//hr = CoCreateInstance(CLSID_SQLOLEDB, //
GUID of SQLOLEDB component
// Compile for SNAC
hr = CoCreateInstance(CLSID_SQLNCLI, //
GUID of SQLNCLI component
NULL,
// not defining an aggregate
component, so NULL

```

```

        CLSCTX_INPROC_SERVER, //
run the component in our process
        IID_IDBInitialize,
        (void **) &pIDBInitialize);

/*
Initialize the property values needed
to establish the connection.
*/
for(i = 0; i < 4; i++)
    VariantInit(&m_InitProperties[i].vValue);
//Server name.
m_InitProperties[0].dwPropertyID =
DBPROP_INIT_DATASOURCE;
m_InitProperties[0].vValue.vt = VT_BSTR;
m_InitProperties[0].vValue.bstrVal=
SysAllocString(szwServer);
m_InitProperties[0].dwOptions =
DBPROPOPTIONS_REQUIRED;
m_InitProperties[0].colid = DB_NULLID;
//Database.
m_InitProperties[1].dwPropertyID =
DBPROP_INIT_CATALOG;
m_InitProperties[1].vValue.vt = VT_BSTR;
m_InitProperties[1].vValue.bstrVal=
SysAllocString(szwDatabase);
m_InitProperties[1].dwOptions =
DBPROPOPTIONS_REQUIRED;
m_InitProperties[1].colid = DB_NULLID;
//Username (login).
m_InitProperties[2].dwPropertyID =
DBPROP_AUTH_USERID;
m_InitProperties[2].vValue.vt = VT_BSTR;
m_InitProperties[2].vValue.bstrVal=
SysAllocString(szwUser);
m_InitProperties[2].dwOptions =
DBPROPOPTIONS_REQUIRED;
m_InitProperties[2].colid = DB_NULLID;
//Password.
m_InitProperties[3].dwPropertyID =
DBPROP_AUTH_PASSWORD;
m_InitProperties[3].vValue.vt = VT_BSTR;
m_InitProperties[3].vValue.bstrVal=
SysAllocString(szwPassword);
m_InitProperties[3].dwOptions =
DBPROPOPTIONS_REQUIRED;
m_InitProperties[3].colid = DB_NULLID;
/*
Construct the DBPROPSET
structure(m_rgInitPropSet). The
DBPROPSET structure is used to pass an array of
DBPROP
structures (m_InitProperties) to the
SetProperties method.
*/
m_rgInitPropSet.guidPropertySet =
DBPROPSET_DBINIT;
m_rgInitPropSet.cProperties = 4;
m_rgInitPropSet.rgProperties =
m_InitProperties;
//Set initialization properties.
if (FAILED(hr = pIDBInitialize-
>QueryInterface(IID_IDBProperties,

```

```

        (void **)&pIDBProperties)))
    {
        ThrowError(pIDBInitialize,
COLEDBERR::eQueryInterface, "CTPCC_OLEDB()");
    }

    hr = pIDBProperties->SetProperties(1,
&m_rgInitPropSet);

    pIDBProperties->Release();
//Now establish the connection to the data
source.
hr = pIDBInitialize->Initialize();

// Free BSTR property strings
for(i = 0; i < 4; i++)
    {
        SysFreeString(m_InitProperties[i].vValue.bstrVal);
    }

    hr = pIDBInitialize-
>QueryInterface(IID_IDBCreateSession, (void
**) &m_pIDBCreateSession);

// Releasing this has no effect on the SQL
Server connection
// of the data source object because of the
reference maintained by
// m_pIDBCreateSession.
pIDBInitialize->Release();
pIDBInitialize = NULL;

hr = m_pIDBCreateSession-
>CreateSession(NULL, IID_IDBCreateCommand, (IUnknown
**) &m_pIDBCreateCommand);
if (FAILED(hr))
    {
        ThrowError(m_pIDBCreateSession,
COLEDBERR::eCreateSession, "CTPCC_OLEDB()");
    }

hr = m_pIDBCreateCommand-
>CreateCommand(NULL, IID_ICommandText, (IUnknown
**) &pICommandText);
if (FAILED(hr))
    {
        ThrowError(m_pIDBCreateCommand,
COLEDBERR::eCreateCommand, "CTPCC_OLEDB()");
    }

hr = pICommandText-
>SetCommandText(DBGUID_SQL, L"set nocount on set
XACT_ABORT ON");
if (FAILED(hr))
    {
        ThrowError(pICommandText,
COLEDBERR::eSetCommandText, "CTPCC_OLEDB()");
    }

```

```

        hr = pICommandText->Execute(NULL, IID_NULL,
NULL, NULL, NULL);
if (FAILED(hr))
    {
        ThrowError(pICommandText,
COLEDBERR::eExecute, "CTPCC_OLEDB()");
    }

    pICommandText->Release();

// verify that version of stored procs on
server is correct
ChecksPVersion();

// Get IMalloc interface
hr = CoGetMalloc(1, (LPMALLOC
*)&m_pIMalloc);

// Bind parameters for each of the
transactions
InitNewOrderParams();
InitPaymentParams();
InitOrderStatusParams();
InitDeliveryParams();
InitStockLevelParams();
}

CTPCC_OLEDB::~CTPCC_OLEDB( void )
{
    if (m_pIMalloc != NULL)
    {
        m_pIMalloc->Release();
    }
    m_pIPaymentCommand->Release();
    m_pIDBCreateCommand->Release();
    m_pIDBCreateSession->Release();

    CoUninitialize(); // uninitialized COM
library
}

/*
* Check stored procedures version on the
server.
*/
void CTPCC_OLEDB::CheckSPVersion()
{
    HRESULT hr;
    char
db_sp_version[10];
    ICommandText* pICommandText;
    IAccessor* pIAccessor;
    IRowset* pRowset;
    const ULONG nOutputParams
= 1;
// output 1st result set columns
HACCESSOR
hTpccVersionOutputAccessor;
// Structure to bind in accessor
DBBINDING
acOutputDBBinding[nOutputParams];
DBBINDSTATUS
acOutputDBBindStatus[nOutputParams];

```

```

LONG                cRows = 1;
// number of rows returned in the rowset
ULONG
cRowsObtained;
HROW                rghRow;
//returned row handles
HROW*               prghRow =
&rghRow;

hr = m_pIDBCreateCommand-
>CreateCommand(NULL, IID_ICommandText, (IUnknown
**) &pICommandText);
if (FAILED(hr))
{
    ThrowError(m_pIDBCreateCommand,
COLEDBERR::eCreateCommand, "CheckSPVersion()");
}

hr = pICommandText-
>SetCommandText(DBGUID_SQL, L"{call tpcc_version}");
if (FAILED(hr))
{
    ThrowError(pICommandText,
COLEDBERR::eSetCommandText, "CheckSPVersion()");
}

hr = pICommandText-
>QueryInterface(IID_IAccessor, (void **) &pIAccessor);
if (FAILED(hr))
{
    ThrowError(pICommandText,
COLEDBERR::eQueryInterface, "CheckSPVersion()");
}

// Now fill the binding information for
result set 1 output columns
InitBindings(&acOutputDBBinding[0],
nOutputParams, eOutputColumn);

// Binding for a rowset
SetBinding(&acOutputDBBinding[0], 0,
sizeof(db_sp_version), DBTYPE_STR);

hr = pIAccessor->CreateAccessor(
    DBACCESSOR_ROWDATA,
    nOutputParams,
    acOutputDBBinding,
    sizeof(db_sp_version),
&hTpccVersionOutputAccessor,
    acOutputDBBindStatus);
if (FAILED(hr))
{
    ThrowError(pIAccessor,
COLEDBERR::eCreateAccessor, "CheckSPVersion()");
}

hr = pICommandText->Execute(NULL,
IID_IRowset, NULL, NULL, (IUnknown **) &pRowset);
if (FAILED(hr))
{

```

```

    ThrowError(pICommandText,
COLEDBERR::eExecute, "CheckSPVersion()");
}

// Fetch the result row handle(s)
hr = pRowset->GetNextRows(DB_NULL_HCHAPTER,
0, cRows, &cRowsObtained, &prghRow);
if (FAILED(hr))
{
    ThrowError(pICommandText,
COLEDBERR::eGetNextRows, "CheckSPVersion()");
}

// Fetch the actual row data by handle
hr = pRowset->GetData(rghRow,
hTpccVersionOutputAccessor, &db_sp_version);
if (FAILED(hr))
{
    ThrowError(pICommandText,
COLEDBERR::eGetData, "CheckSPVersion()");
}

// Release row(s)
hr = pRowset->Release();

pICommandText->Release();

// Check the retrieved version
if (strcmp(db_sp_version, sVersion))
    throw new
CTPCC_OLEDB_ERR(
CTPCC_OLEDB_ERR::ERR_WRONG_SP_VERSION );
}

void CTPCC_OLEDB::ThrowError( IUnknown*
pObjectWithError, COLEDBERR::ACTION eAction, LPCTSTR
szLocation)
{
    HRESULT
    hr;
    //char
    szState[6];
    char
    szMsg[SQL_MAX_MESSAGE_LENGTH];
    char
    szTmp[6*SQL_MAX_MESSAGE_LENGTH];
    COLEDBERR
    *pOLEDBErr;
    //
    not allocated until needed (maybe never)
    int
    iLen;
    // Interfaces
    IErrorInfo*
    pIErrorInfoAll
= NULL;
    IErrorInfo*
    pIErrorInfoRecord
= NULL;
    IErrorRecords*
    pIErrorRecords
= NULL;
    ISupportErrorInfo*
    pISupportErrorInfo
= NULL;
    ISQLServerErrorInfo*
    pISQLServerErrorInfo = NULL;

```

```

    ISQLErrorInfo*
    pISQLErrorInfo = NULL;

    // Information used when cannot get custom
error object
    ERRORINFO
    BasicErrorInfo;
    BSTR
    bstrDescription;
    // Number of error records.
    ULONG
    nRecs;
    ULONG
    nRec;

    // SQL Server error information from
ISQLServerErrorInfo.
    SSERRORINFO*
    pSSErrorInfo =
NULL;
    OLECHAR*
    pSSErrorStrings =
NULL;

    assert(pObjectWithError != NULL);

    pOLEDBErr = new COLEDBERR(szLocation);

    pOLEDBErr->m_NativeError = 0;
    pOLEDBErr->m_eAction = eAction;
    pOLEDBErr->m_bDeadLock = FALSE;

    szTmp[0] = 0;

    // Only ask for error information if the
interface supports it.
    // Note: SQLOLEDB provider supports error
interface, so this check is
    // for good style only.
    hr = pObjectWithError-
>QueryInterface(IID_ISupportErrorInfo, (void**)
&pISupportErrorInfo);
    if (FAILED(hr))
    {
        _snprintf(szMsg, sizeof(szMsg),
"SupportErrorInfo interface not supported (hr=0x%X)",
hr);
        pOLEDBErr->m_OLEDBErrStr = new
char[strlen(szMsg)+1];
        strcpy(pOLEDBErr->m_OLEDBErrStr,
szMsg);
        throw pOLEDBErr;
    }
    /*if (FAILED(pISupportErrorInfo-
>InterfaceSupportsErrorInfo(IID_InterfaceWithError))
    {
        _snprintf(szMsg, sizeof(szMsg),
"InterfaceWithError interface not supported");
        pOLEDBErr->m_OLEDBErrStr = new
char[strlen(szMsg)+1];
        strcpy(pOLEDBErr->m_OLEDBErrStr,
szMsg);
        return;
    }*/

    // Do not test the return of GetErrorInfo.
It can succeed and return

```

```

// a NULL pointer in pErrorInfoAll. Simply
test the pointer.
GetErrorInfo(0, &pErrorInfoAll);
    if (pErrorInfoAll != NULL)
    {
        // Test to see if it's a valid
OLE DB IErrorInfo interface
        // exposing a list of records.
        if (SUCCEEDED(pErrorInfoAll-
>QueryInterface(IID_IErrorRecords, (void**)
&pErrorRecords)))
        {
            pErrorRecords-
>GetRecordCount(&nRecs);
            // Within each record,
retrieve information from each
            // of the defined
interfaces.
            for (nRec = 0; nRec <
nRecs; nRec++)
            {
                // Request
the generic SQL error interface.
                pErrorRecords->GetCustomErrorObject(nRec,
                IID_ISQLErrorInfo, // generic SQL error
interface
                (IUnknown**) &pISQLErrorInfo);
                if
                (pISQLErrorInfo != NULL)
                {
                    //
Request SQL Server-specific error interface, not the
generic SQL error interface.
                    pISQLErrorInfo->QueryInterface(
                    IID_ISQLServerErrorInfo, // SQL Server
error interface
                    (void**) &pISQLServerErrorInfo);
                }
                // Test to
ensure the reference is valid, then
                // get error
information from ISQLServerErrorInfo.
                if
                (pISQLServerErrorInfo != NULL)
                {
                    pISQLServerErrorInfo-
>GetErrorInfo(&pSSErrorInfo, &pSSErrorStrings);
                }
                //
ISQLServerErrorInfo::GetErrorInfo succeeds

```

```

//
even when it has nothing to return. Test the
//
pointers before using.
//
(pSSErrorInfo)
{
    // First, add the error message.
    // Convert Unicode error string to ANSI.
    WideCharToMultiByte(CP_THREAD_ACP, 0,
    pSSErrorInfo->pwszMessage, -1,
    szMsg, sizeof(szMsg),
    NULL, NULL);
    // quit if there isn't enough room to
concatenate error text
    if ( (strlen(szMsg) + 2) > (sizeof(szTmp) -
strlen(szTmp)) )
        break;
    // include line break after first error msg
    if (szTmp[0] != 0)
        strcat( szTmp, "\r\n");
    // concatenate the error record to the
overall error message
    strcat( szTmp, szMsg );
    // Second, add the stored procedure name
and line number, if available.
    if (wcslen(pSSErrorInfo->pwszProcedure)>0)
    {
        // Prefix with a line break
        iLen = sprintf(szMsg,
"\r\nProcedure: ");
        // Convert Unicode error string
to ANSI.
        WideCharToMultiByte(CP_THREAD_ACP, 0,

```

```

pSSErrorInfo-
>pwszProcedure, -1,
    &szMsg[iLen],
    sizeof(szMsg) - iLen,
    NULL, NULL);
    // Check if have space to add the
line number.
    // Assume the line number takes
no more than 3 digits.
    if ((strlen(szMsg) + 4)<
sizeof(szMsg))
    {
        _snprintf(&szMsg[strlen(szMsg)],
sizeof(szMsg),
        "%d",
        pSSErrorInfo->wLineNumber);
    }
    // quit if there isn't enough
room to concatenate error text
    if ( (strlen(szMsg) + 2) >
(sizeof(szTmp) - strlen(szTmp)) )
        break;
    // concatenate the error record
to the overall error message
    strcat( szTmp, szMsg );
    // copy the overall error string
to the exception
    pOLEDBErr->m_OLEDBErrStr = new
char[strlen(szTmp)+1];
    strcpy(pOLEDBErr->m_OLEDBErrStr,
szTmp);
}
    // Third, capture the (first) database
error

```

```

        if (pOLEDBErr->m_NativeError == 0 &&
pSSErrorInfo->lNative != 0)
        {
            pOLEDBErr->m_NativeError =
pSSErrorInfo->lNative;

            // Check for deadlock error code
and set the deadlock flag
            if (pSSErrorInfo->lNative ==
1205)
            {
                pOLEDBErr->m_bDeadLock
= TRUE;
            }
        }

        // IMalloc::Free needed to release
references
        // on returned values.
        if (m_pIMalloc != NULL)
        {
            m_pIMalloc->Free(pSSErrorStrings);
            m_pIMalloc->Free(pSSErrorInfo);
        }

        pISQLServerErrorInfo->Release();
    }
    else
    {
        //
        Custom error object is not supported.
        //
        Use general OLE-DB error interface.
        //
        Get the numeric error code
        pIErrorRecords->GetBasicErrorInfo(nRec,
&BasicErrorInfo);
    }
    if
(pOLEDBErr->m_NativeError == 0)

```

```

        {
            // Get the failed call HRESULT code, which
is not really the native error
            pOLEDBErr->m_NativeError =
BasicErrorInfo.hrError;
        }

        //
        Try to get the string description of the error.
        pIErrorRecords->GetErrorInfo(nRec,
LOCALE_USER_DEFAULT,
(IErrorInfo**) &pIErrorInfoRecord);
    }
    if
(pIErrorInfoRecord)
    {
        pIErrorInfoRecord->GetDescription(&bstrDescription);

        // Convert Unicode error string to ANSI.
        WideCharToMultiByte(CP_THREAD_ACP, 0,
bstrDescription, -1,
szMsg, sizeof(szMsg),
NULL, NULL);

        pOLEDBErr->m_OLEDBErrStr = new
char[strlen(szMsg)+1];
        strcpy(pOLEDBErr->m_OLEDBErrStr, szMsg);
    }
}
// for()
} // if
(SUCCEEDED(pIErrorInfoAll->QueryInterface(IID_IErrorRecords, (void**)
&pIErrorRecords)))
    else
    {
        // No IErrorRecords
interface supported. Use default IErrorInfo.
        // Note: SQLOLEDB
supports IErrorRecords, so this check is for good
style only.
        _snprintf(szMsg,
sizeof(szMsg), "IErrorRecords interface not
supported");
        pOLEDBErr->m_OLEDBErrStr = new char[strlen(szMsg)+1];
        strcpy(pOLEDBErr->m_OLEDBErrStr, szMsg);
    }
}
pIErrorInfoAll->Release();

```

```

    } // if (pIErrorInfoAll != NULL)
    else
    {
        // No IErrorInfo interface
supported.
        // Note: SQLOLEDB supports
IErrorInfo, so this check is for good style only.
        _snprintf(szMsg, sizeof(szMsg),
"IErrorInfo interface not supported");
        pOLEDBErr->m_OLEDBErrStr = new
char[strlen(szMsg)+1];
        strcpy(pOLEDBErr->m_OLEDBErrStr,
szMsg);
    }
}
throw pOLEDBErr;
}
/*
 *
 * Create a new command object from the SQL
text passed in.
 *
 */
void CTPCC_OLEDB::CreateCommand(wchar_t*
szSQLCommand, // I: SQL
query for the command
ICommandText**
ppICommandText // O: returned command object
)
{
    HRESULT hr;

    // Create a new command object
    hr = m_pIDBCreateCommand->CreateCommand(NULL, IID_ICommandText, (IUnknown
**)ppICommandText);
    if (FAILED(hr))
    {
        ThrowError(m_pIDBCreateCommand,
COLEDBERR::eCreateCommand,
"CTPCC_OLEDB::CreateCommand");
    }

    // Set command text
    hr = (*ppICommandText)->SetCommandText(DBGUID_SQL, szSQLCommand);
    if (FAILED(hr))
    {
        ThrowError(*ppICommandText,
COLEDBERR::eSetCommandText,
"CTPCC_OLEDB::CreateCommand");
    }

    // Prepare the command
    PrepareCommand(*ppICommandText);
}
/*

```

```

*       QueryInterface and Prepare in one function
for simplicity.
*       DEFERRED PREPARE property is set to off to
prepare immediatelly.
*/
void CTPCC_OLEDB::PrepareCommand(ICommandText*
pICommandText)
{
    HRESULT hr;
    ICommandPrepare* pICommandPrepare;
    ICommandProperties* pICommandProperties;
    DBPROPSET
    rowSetPropSet;
    DBPROP
    rowSetProp;

    // Set the deferred prepare property to
false.
    rowSetProp.dwPropertyID =
SSPROP_DEFERPREPARE;
    memset(&rowSetProp.vValue, 0,
sizeof(rowSetProp.vValue));
    rowSetProp.dwOptions =
DBPROPOPTIONS_REQUIRED;
    rowSetProp.colid = DB_NULLID;

    rowSetPropSet.cProperties = 1;
    rowSetPropSet.guidPropertySet =
DBPROPSET_SQLSERVERROWSET;
    rowSetPropSet.rgProperties = &rowSetProp;

    // Query interface for setting properties
hr = pICommandText->
QueryInterface(IID_ICommandProperties, (void
**) &pICommandProperties);
    if (FAILED(hr))
    {
        ThrowError(pICommandText,
COLEDBERR::eQueryInterface,
"CTPCC_OLEDB::PrepareCommand");
    }

    // Set the property set
hr = pICommandProperties->SetProperties(1,
&rowSetPropSet);
    if (FAILED(hr))
    {
        ThrowError(pICommandText,
COLEDBERR::eQueryInterface,
"CTPCC_OLEDB::PrepareCommand");
    }

    // Get interface for preparing commands
hr = pICommandText->
QueryInterface(IID_ICommandPrepare, (void
**) &pICommandPrepare);
    if (FAILED(hr))
    {
        ThrowError(pICommandText,
COLEDBERR::eQueryInterface,
"CTPCC_OLEDB::PrepareCommand");
    }
}

```

```

// Prepare Payment command
hr = pICommandPrepare->Prepare(0xFFFFFFFF);
if (FAILED(hr))
{
    ThrowError(pICommandPrepare,
COLEDBERR::ePrepare, "CTPCC_OLEDB::PrepareCommand");
}

/*
*       Initialize fields of an array of bindings
structures.
*       Needs to be called before setting
individual parameter/column bindings.
*/
void CTPCC_OLEDB::InitBindings(DBBINDING*
pDBBindings,
int iCount,
// IO: array of bindings
// I: number of
elements in the array
eBindingType BindingType) //
I: what the bindings will be used for
(parameters/columns)
{
    int i;

    for(i = 0; i < iCount; i++)
    {
        pDBBindings[i].iOrdinal = i + 1;
        pDBBindings[i].obLength = 0;
        pDBBindings[i].obStatus = 0;
        pDBBindings[i].pTypeInfo = NULL;
        pDBBindings[i].pObject = NULL;
        pDBBindings[i].pBindExt = NULL;
        pDBBindings[i].dwPart = DBPART_VALUE;

        switch (BindingType)
        {
            case eInputParameter:
                pDBBindings[i].eParamIO
= DBPARAMIO_INPUT;
                break;
            case eOutputParameter:
                pDBBindings[i].eParamIO
= DBPARAMIO_OUTPUT;
                break;
            case eInputOutputParameter:
                pDBBindings[i].eParamIO
= DBPARAMIO_INPUT | DBPARAMIO_OUTPUT;
                break;
            case eOutputColumn:
                pDBBindings[i].eParamIO
= DBPARAMIO_NOTPARAM;
                break;
            default:
                assert(false); //
this should never happen
        }

        pDBBindings[i].dwMemOwner =
DBMEMOWNER_CLIENTOWNED;
    }
}

```

```

pDBBindings[i].dwFlags = 0;
        pDBBindings[i].bPrecision = 0;
        pDBBindings[i].bScale = 0;
    }
}

/*
*       Perform binding for one parameter or output
column.
*
*/
void CTPCC_OLEDB::SetBinding(DBBINDING* pDBBinding,
// I: binding row structure
size_t obValue,
// I: parameter (column) offset in the user
buffer
size_t cbMaxLen,
//
I: parameter (column) length
DBTYPE wType
// I: parameter (column) type
)
{
    pDBBinding->obValue = (ULONG)obValue;
    pDBBinding->cbMaxLen = (ULONG)cbMaxLen;
    pDBBinding->wType = wType;
}

void CTPCC_OLEDB::InitStockLevelParams()
{
    int i;
    HRESULT hr;
    wchar_t
szName[MAX_SP_NAME_LEN];
    IAccessor*
pIAccessor;
    const ULONG
nInputParams = 3; // input parameters
    const ULONG
nOutputParams = 1; // output 1st result
set columns
    // Structure to bind in accessor
    DBBINDING
acInputDBBinding[nInputParams];
    DBBINDSTATUS
acInputDBBindStatus[nInputParams];
    DBBINDING
acOutputDBBinding[nOutputParams];
    DBBINDSTATUS
acOutputDBBindStatus[nOutputParams];

    // Set command text
    _snwprintf(szName,
sizeof(szName)/sizeof(szName[0]),
L"call
%stpcc_stocklevel (?,?,?)", m_szSPPrefix);
}

```



```

        // Create and Prepare a new command object
        for StockLevel.
        CreateCommand(szName,
        &m_pIStockLevelCommand);

        // Describe the consumer buffer by filling
        in the array
        // of DBBINDING structures. Each binding
        associates
        // a single parameter to the consumer's buffer.
        InitBindings(&acInputDBBinding[0],
        nInputParams, eInputParameter);

        i = 0;
        // StockLevel parameter 1
        SetBinding(&acInputDBBinding[i++],
        offsetof(STOCK_LEVEL_DATA, w_id),
        sizeof(m_txn.StockLevel.w_id), DBTYPE_I4);

        // StockLevel parameter 2
        SetBinding(&acInputDBBinding[i++],
        offsetof(STOCK_LEVEL_DATA, d_id),
        sizeof(m_txn.StockLevel.d_id), DBTYPE_UI1);

        // StockLevel parameter 3
        SetBinding(&acInputDBBinding[i++],
        offsetof(STOCK_LEVEL_DATA, threshold),
        sizeof(m_txn.StockLevel.threshold), DBTYPE_I2);

        hr = m_pIStockLevelCommand-
        >QueryInterface(IID_IAccessor, (void **)&IAccessor);
        if (FAILED(hr))
        {
            ThrowError(m_pIStockLevelCommand,
            COLEDBERR::eQueryInterface,
            "InitStockLevelParams()");
        }

        hr = pIAccessor->CreateAccessor(
            DBACCESSOR_PARAMETERDATA,
            nInputParams,
            acInputDBBinding,
            sizeof(STOCK_LEVEL_DATA),

            &m_hStockLevelInputAccessor,
            acInputDBBindStatus);

        if (FAILED(hr))
        {
            ThrowError(pIAccessor,
            COLEDBERR::eCreateAccessor,
            "InitStockLevelParams()");
        }

        m_StockLevelExecuteParams.cParamSets = 1;
        m_StockLevelExecuteParams.hAccessor =
        m_hStockLevelInputAccessor;
        m_StockLevelExecuteParams.pData =
        &m_txn.StockLevel;

        // Now fill the binding information for
        result set 1 output columns
        InitBindings(&acOutputDBBinding[0],
        nOutputParams, eOutputColumn);

```

```

        // Binding for a rowset that may return
        more than one row.
        i = 0;
        // StockLevel output column 1
        SetBinding(&acOutputDBBinding[i++],
        offsetof(STOCK_LEVEL_DATA, low_stock),
        sizeof(m_txn.StockLevel.low_stock), DBTYPE_I4);

        hr = pIAccessor->CreateAccessor(
            DBACCESSOR_ROWDATA |
            DBACCESSOR_OPTIMIZED,
            nOutputParams,
            acOutputDBBinding,
            sizeof(STOCK_LEVEL_DATA),

            &m_hStockLevelOutputAccessor,
            acOutputDBBindStatus);

        if (FAILED(hr))
        {
            ThrowError(pIAccessor,
            COLEDBERR::eCreateAccessor,
            "InitStockLevelParams()");
        }

        void CTPCC_OLEDB::StockLevel()
        {
            HRESULT hr;
            int
            iTryCount = 0;
            IRowset* pRowset;
            LONG cRows = 1;
            // number of rows returned in the rowset
            ULONG
            cRowsObtained;
            HROW
            //returned row handles
            rghRow;
            HROW*
            prghRow =

            &rghRow;

            while (TRUE)
            {
                try
                {
                    // Execute the prepared
                    command
                    hr =
                    m_pIStockLevelCommand->Execute(NULL, IID_IRowset,
                    &m_StockLevelExecuteParams, NULL,

                    (IUnknown **)&pRowset);
                    if (FAILED(hr))
                    {
                        ThrowError(m_pIStockLevelCommand,
                        COLEDBERR::eExecute, "StockLevel()");
                    }

                    // Fetch the result row
                    handle(s)

```

```

            hr = pRowset-
            >GetNextRows(DB_NULL_HCHAPTER, 0, cRows,
            &cRowsObtained, &prghRow);
            if (FAILED(hr))
            {
                ThrowError(m_pIStockLevelCommand,
                COLEDBERR::eGetNextRows, "StockLevel()");
            }

            // Fetch the actual row
            data by handle
            hr = pRowset-
            >GetData(rghRow, m_hStockLevelOutputAccessor,
            &m_txn.StockLevel);
            if (FAILED(hr))
            {
                ThrowError(m_pIStockLevelCommand,
                COLEDBERR::eGetData, "StockLevel()");
            }

            // Release row(s)
            hr = pRowset-
            >ReleaseRows(cRowsObtained, prghRow, NULL, NULL,
            NULL);
            // Release rowset
            hr = pRowset-
            >Release();

            m_txn.StockLevel.exec_status_code = eOK;

            break;
        }
        catch (COLEDBERR *e)
        {
            if (!e->m_bDeadLock)
            || (++iTryCount > iMaxRetries))
                throw;

            // hit deadlock;
            backoff for increasingly longer period
            delete e;
            Sleep(10 * iTryCount);
        }

        // if (iTryCount)
        // throw new
        CTPCC_OLEDB_ERR(CTPCC_OLEDB_ERR::ERR_RETRIED_TRANS,
        iTryCount);
    }

    void CTPCC_OLEDB::InitNewOrderParams()
    {
        int
        i, j, iOlCount;
        HRESULT
        hr;
        wchar_t
        szName[IMAX_SP_NAME_LEN];

```

```

IAccessor*
pIAccessor;
const ULONG
nInputParams = 5 +
3*MAX_OL_NEW_ORDER_ITEMS; // input parameters
const ULONG
nOutputParams = 5; // output 1st result
set columns
const ULONG
nOutputParams2 = 8; // output 2nd result
set columns
// Structure to bind in accessor
DBBINDING
acInputDBBinding[nInputParams];
DBBINDSTATUS
acInputDBBindStatus[nInputParams];
DBBINDING
acOutputDBBinding[nOutputParams];
DBBINDSTATUS
acOutputDBBindStatus[nOutputParams];
DBBINDING
acOutputDBBinding2[nOutputParams2];
DBBINDSTATUS
acOutputDBBindStatus2[nOutputParams2];

// Describe the consumer buffer by filling
in the array
// of DBBINDING structures. Each binding
associates
// a single parameter to the consumer's buffer.
InitBindings(&acInputDBBinding[0],
nInputParams, eInputParameter);

i = 0;
// NewOrder parameter 1
SetBinding(&acInputDBBinding[i++],
offsetof(NEW_ORDER_DATA, w_id),
sizeof(m_txn.NewOrder.w_id), DBTYPE_I4);

// NewOrder parameter 2
SetBinding(&acInputDBBinding[i++],
offsetof(NEW_ORDER_DATA, d_id),
sizeof(m_txn.NewOrder.d_id), DBTYPE_UI1);

// NewOrder parameter 3
SetBinding(&acInputDBBinding[i++],
offsetof(NEW_ORDER_DATA, c_id),
sizeof(m_txn.NewOrder.c_id), DBTYPE_I4);

// NewOrder parameter 4
SetBinding(&acInputDBBinding[i++],
offsetof(NEW_ORDER_DATA, o_ol_cnt),
sizeof(m_txn.NewOrder.o_ol_cnt), DBTYPE_UI1);

// NewOrder parameter 5
SetBinding(&acInputDBBinding[i++],
offsetof(NEW_ORDER_DATA, o_all_local),
sizeof(m_txn.NewOrder.o_all_local), DBTYPE_UI1);

for (j=0; j<MAX_OL_NEW_ORDER_ITEMS; j++)
{
SetBinding(&acInputDBBinding[i++],

```

```

offsetof(NEW_ORDER_DATA, OL[j].ol_i_id),
sizeof(m_txn.NewOrder.OL[j].ol_i_id), DBTYPE_I4);

SetBinding(&acInputDBBinding[i++],
offsetof(NEW_ORDER_DATA, OL[j].ol_supply_w_id),
sizeof(m_txn.NewOrder.OL[j].ol_supply_w_id),
DBTYPE_I4);

SetBinding(&acInputDBBinding[i++],
offsetof(NEW_ORDER_DATA, OL[j].ol_quantity),
sizeof(m_txn.NewOrder.OL[j].ol_quantity), DBTYPE_I2);
}

// Now fill the binding information for
result set 1 output columns
InitBindings(&acOutputDBBinding[0],
nOutputParams, eOutputColumn);

// Binding for the order line rowsets (each
consist of one row).
// Bind to offsets of the OL_NEW_ORDER_DATA
structure instead of NEW_ORDER_DATA.
// IRowset::GetData() will be passed
individual array slots OL[i] to fetch the data
// from the row set.

i = 0;
// NewOrder output column 1
SetBinding(&acOutputDBBinding[i++],
offsetof(OL_NEW_ORDER_DATA, ol_i_name),
sizeof(m_txn.NewOrder.OL[0].ol_i_name), DBTYPE_STR);

// NewOrder output column 2
SetBinding(&acOutputDBBinding[i++],
offsetof(OL_NEW_ORDER_DATA, ol_stock),
sizeof(m_txn.NewOrder.OL[0].ol_stock), DBTYPE_I2);

// NewOrder output column 3
SetBinding(&acOutputDBBinding[i++],
offsetof(OL_NEW_ORDER_DATA, ol_brand_generic),
sizeof(m_txn.NewOrder.OL[0].ol_brand_generic),
DBTYPE_STR);

// NewOrder output column 4
SetBinding(&acOutputDBBinding[i++],
offsetof(OL_NEW_ORDER_DATA, ol_i_price),
sizeof(m_txn.NewOrder.OL[0].ol_i_price), DBTYPE_R8);

// NewOrder output column 5
SetBinding(&acOutputDBBinding[i++],
offsetof(OL_NEW_ORDER_DATA, ol_amount),
sizeof(m_txn.NewOrder.OL[0].ol_amount), DBTYPE_R8);

// Now fill the binding information for
result set 2 output columns
InitBindings(&acOutputDBBinding2[0],
nOutputParams2, eOutputColumn);

i = 0;

```

```

// NewOrder output column 1
SetBinding(&acOutputDBBinding2[i++],
offsetof(NEW_ORDER_DATA, w_tax),
sizeof(m_txn.NewOrder.w_tax), DBTYPE_R8);

// NewOrder output column 2
SetBinding(&acOutputDBBinding2[i++],
offsetof(NEW_ORDER_DATA, d_tax),
sizeof(m_txn.NewOrder.d_tax), DBTYPE_R8);

// NewOrder output column 3
SetBinding(&acOutputDBBinding2[i++],
offsetof(NEW_ORDER_DATA, o_id),
sizeof(m_txn.NewOrder.o_id), DBTYPE_I4);

// NewOrder output column 4
SetBinding(&acOutputDBBinding2[i++],
offsetof(NEW_ORDER_DATA, c_last),
sizeof(m_txn.NewOrder.c_last), DBTYPE_STR);

// NewOrder output column 5
SetBinding(&acOutputDBBinding2[i++],
offsetof(NEW_ORDER_DATA, c_discount),
sizeof(m_txn.NewOrder.c_discount), DBTYPE_R8);

// NewOrder output column 6
SetBinding(&acOutputDBBinding2[i++],
offsetof(NEW_ORDER_DATA, c_credit),
sizeof(m_txn.NewOrder.c_credit), DBTYPE_STR);

// NewOrder output column 7
SetBinding(&acOutputDBBinding2[i++],
offsetof(NEW_ORDER_DATA, o_entry_d),
sizeof(m_txn.NewOrder.o_entry_d),
DBTYPE_DBTIMESTAMP);

// NewOrder output column 8
SetBinding(&acOutputDBBinding2[i++],
offsetof(NEW_ORDER_DATA, o_commit_flag),
sizeof(m_txn.NewOrder.o_commit_flag), DBTYPE_I2);

for (j=0; j<MAX_OL_NEW_ORDER_ITEMS; j++)
{
// Set command text first

// Print the fixed first portion
i = _snwprintf(szName,
sizeof(szName)/sizeof(szName[0]),
L"call %stppc_neworder (?,?,?,?,"
m_szSPPrefix);

// Now print the variable portion
depending on the number of order line parameters
for (iOlCount = 0; iOlCount <= j;
++iOlCount)
{
i +=
_snwprintf(&szName[i],
sizeof(szName)/sizeof(szName[0]) - i, L",?,?,?");
}
}

```

```

        // Print the fixed end
        if (j != MAX_OL_NEW_ORDER_ITEMS -
1)
        {
            // append 'default' for
the parameters that are not used
            i +=
            _snprintf(&szName[i],
sizeof(szName)/sizeof(szName[0]) - i, L",default}");
        }
        else // using all 15 order
line parameters
        {
            i +=
            _snprintf(&szName[i],
sizeof(szName)/sizeof(szName[0]) - i, L"}");
        }

        // Create and Prepare a new
command object for NewOrder.
        CreateCommand(szName,
&m_pINewOrderCommand[j]);

        // Now create the input accessor
for this prepared command
        hr = m_pINewOrderCommand[j]-
>QueryInterface(IID_IAccessor, (void **)&piAccessor);
        if (FAILED(hr))
        {
            ThrowError(m_pINewOrderCommand[j],
COLEDBERR::eQueryInterface, "InitNewOrderParams()");
        }

        hr = piAccessor->CreateAccessor(

            DBACCESSOR_PARAMETERDATA,

            3 * (j + 1),

            acInputDBBinding,

            sizeof(NEW_ORDER_DATA),

            &m_hNewOrderInputAccessor[j],

            acInputDBBindStatus);
        if (FAILED(hr))
        {
            ThrowError(piAccessor,
COLEDBERR::eCreateAccessor, "InitNewOrderParams()");
        }

        m_NewOrderExecuteParams[j].cParamSets = 1;

```

```

        //
m_NewOrderExecuteParams.hAccessor is set dynamically
at run-time

        // based on the number of new
order items for the particular transaction call.

        m_NewOrderExecuteParams[j].hAccessor =
m_hNewOrderInputAccessor[j];
        m_NewOrderExecuteParams[j].pData
= &m_txn.NewOrder;

        // Create accessor for the first
rowset
        hr = piAccessor->CreateAccessor(
            DBACCESSOR_ROWDATA |
DBACCESSOR_OPTIMIZED,

            nOutputParams,
            acOutputDBBinding,

            sizeof(OL_NEW_ORDER_DATA),

            &m_hNewOrderOutputAccessor[j],
            acOutputDBBindStatus);
        if (FAILED(hr))
        {
            ThrowError(piAccessor,
COLEDBERR::eCreateAccessor, "InitNewOrderParams()");
        }

        // Create accessor for the second
rowset
        hr = piAccessor->CreateAccessor(
            DBACCESSOR_ROWDATA, //
cannot be optimized too because #1 accessor is
            nOutputParams2,
            acOutputDBBinding2,
            sizeof(NEW_ORDER_DATA),

            &m_hNewOrderOutputAccessor2[j],
            acOutputDBBindStatus2);
        if (FAILED(hr))
        {
            ThrowError(piAccessor,
COLEDBERR::eCreateAccessor, "InitNewOrderParams()");
        }

        piAccessor->Release();
    }

    void CTPCC_OLEDB::NewOrder()
    {
        HRESULT                hr;
        int                    iTryCount = 0;
        IMultipleResults*      pMultipleResults;
        IRowset*                pRowset;
        IRowset*                pRowset2;
        LONG                    cRows = 1; // number of rows
        returned in the 1st rowset
        ULONG                    cRowsObtained;

```

```

        HROW                    rghRows; //returned row handles
        for the 1st result set
        HROW*                    prghRows = &rghRows;
        LONG                    cRows2 = 1; // number of rows
        returned in the 2nd rowset
        ULONG                    cRowsObtained2;
        HROW                    rghRows2; //returned row handle
        for the 2nd result set
        HROW*                    prghRows2 = &rghRows2;
        int                    i;
        long                    lRowsAffected; // the number of
        affected rows for a rowset
        int                    iHandleIndex; // index into the
        handle arrays based on the orders count

        // check whether any order lines are for a
        remote warehouse
        m_txn.NewOrder.o_all_local = 1;
        for (i = 0; i < m_txn.NewOrder.o_ol_cnt;
i++)
        {
            if
(m_txn.NewOrder.OL[i].ol_supply_w_id !=
m_txn.NewOrder.w_id)
            {
                m_txn.NewOrder.o_all_local = 0; // at
                least one remote warehouse
                break;
            }
        }

        iHandleIndex = m_txn.NewOrder.o_ol_cnt - 1;
        // for convenience

        while (TRUE)
        {
            try
            {
                // Execute the prepared
                command (according to the number of new orders)
                // Ask for
                IMultipleResults because it returns 2 rowsets.
                hr =
                m_pINewOrderCommand[iHandleIndex]->Execute(

                    NULL, IID_IMultipleResults,

                    &m_NewOrderExecuteParams[iHandleIndex],

                    NULL,

```

```

(IUnknown **)&MultipleResults);
    if (FAILED(hr))
    {

        ThrowError(m_pINewOrderCommand[iHandleIndex
], COLEDBERR::eExecute, "NewOrder()");
    }

    //////////////////////////////////////
    // Get order line
results

    //////////////////////////////////////

    m_txn.NewOrder.total_amount = 0;
    for (i = 0; i <
m_txn.NewOrder.o_ol_cnt; ++i)
    {
        // Get the
        first rowset object
        hr =
pMultipleResults->GetResult(NULL, 0, IID_IRowset,
&lRowsAffected, (IUnknown **)&pRowset);
        if
(FAILED(hr))
        {
            char szTmp[256];

            _snprintf(szTmp, sizeof(szTmp), "NewOrder()
result set %d, hr=0x%X", i, hr);

            ThrowError(m_pINewOrderCommand[m_txn.NewOrd
er.o_ol_cnt - 1], COLEDBERR::eGetResult, szTmp);
        }
        // Fetch the
        result row handle(s)
        hr = pRowset->
>GetNextRows(DB_NULL_HCHAPTER, 0, cRows,
&cRowsObtained, &prghRows);
        if
(FAILED(hr))
        {
            ThrowError(m_pINewOrderCommand[iHandleIndex
], COLEDBERR::eGetNextRows, "NewOrder()");
        }
        // Fetch the
        actual row data by handle
        hr = pRowset->
>GetData(rghRows,
m_hNewOrderOutputAccessor[iHandleIndex],
&m_txn.NewOrder.OL[i]);
        if
(FAILED(hr))
        {

```

```

        ThrowError(m_pINewOrderCommand[iHandleIndex
], COLEDBERR::eGetData, "NewOrder()");
    }

    m_txn.NewOrder.total_amount +=
m_txn.NewOrder.OL[i].ol_amount;

    // Release
    row(s)
    hr = pRowset->
>ReleaseRows(cRowsObtained, prghRows, NULL, NULL,
NULL);
    // Release
    rowset
    hr = pRowset->
>Release();
    }
    // Get the second
    rowset object
    //////////////////////////////////////
    hr = pMultipleResults->
>GetResult(NULL, 0, IID_IRowset, &lRowsAffected,
(IUnknown **)&pRowset2);
    if (FAILED(hr))
    {
        char
        szTmp[256];

        _snprintf(szTmp, sizeof(szTmp), "NewOrder()
result set %d, hr=%d", i, hr);

        ThrowError(m_pINewOrderCommand[iHandleIndex
], COLEDBERR::eGetResult, szTmp);
    }
    // Fetch the result row
    handle(s)
    hr = pRowset2->
>GetNextRows(DB_NULL_HCHAPTER, 0, cRows2,
&cRowsObtained2, &prghRows2);
    if (FAILED(hr))
    {
        ThrowError(m_pINewOrderCommand[iHandleIndex
], COLEDBERR::eGetNextRows, "NewOrder()");
    }
    // Fetch the actual row
    data by handle
    hr = pRowset2->
>GetData(rghRows2,
m_hNewOrderOutputAccessor2[iHandleIndex],
&m_txn.NewOrder);
    if (FAILED(hr))
    {

```

```

        ThrowError(m_pINewOrderCommand[iHandleIndex
], COLEDBERR::eGetData, "NewOrder()");
    }

    // Release row(s)
    hr = pRowset2->
>ReleaseRows(cRowsObtained2, prghRows2, NULL, NULL,
NULL);
    // Release rowset
    hr = pRowset2->
>Release();
    // Release the common
    MultipleResults interface
    hr = pMultipleResults->
>Release();
    if
(m_txn.NewOrder.o_all_local == 1)
    {
        m_txn.NewOrder.total_amount *= ((1 +
m_txn.NewOrder.w_tax + m_txn.NewOrder.d_tax) * (1 -
m_txn.NewOrder.c_discount));
        m_txn.NewOrder.exec_status_code = eOK;
    }
    else
    {
        m_txn.NewOrder.exec_status_code =
eInvalidItem;
    }
    break;
}
catch (COLEDBERR *e)
{
    if (!(e->m_bDeadLock)
|| (++iTryCount > iMaxRetries))
        throw;
    // hit deadlock;
    backoff for increasingly longer period
    delete e;
    Sleep(10 * iTryCount);
}
// if (iTryCount)
// throw new
CTPCC_OLEDB_ERR(CTPCC_OLEDB_ERR::ERR_RETRIED_TRANS,
iTryCount);
}

void CTPCC_OLEDB::InitPaymentParams()
{
    int
    i;
    HRESULT
    hr;

```

```

wchar_t
szName[IMAX_SP_NAME_LEN];
IAccessor*
pIAccessor;
const
ULONG
nInputParams = 7; // input parameters
const
ULONG
nOutputParams = 27; // output result set
columns
// Structure to bind in accessor
DBBINDING
acInputDBBinding[nInputParams];
DBBINDSTATUS
acInputDBBindStatus[nInputParams];
DBBINDING
acOutputDBBinding[nOutputParams];
DBBINDSTATUS
acOutputDBBindStatus[nOutputParams];

// Set command text
_snwprintf(szName,
sizeof(szName)/sizeof(szName[0]), L"{call
%stpc_payment(?,?,?,?,?,?)", m_szSPPrefix);

// Create and Prepare a new command object
for Payment.
CreateCommand(szName, &m_pIPaymentCommand);

// Describe the consumer buffer by filling
in the array
// of DBBINDING structures. Each binding
associates
// a single parameter to the consumer's buffer.
InitBindings(&acInputDBBinding[0],
nInputParams, eInputParameter);

i = 0;
// Payment parameter 1
SetBinding(&acInputDBBinding[i++],
offsetof(PAYMENT_DATA, w_id),
sizeof(m_txn.Payment.w_id), DBTYPE_I4);

// Payment parameter 2
SetBinding(&acInputDBBinding[i++],
offsetof(PAYMENT_DATA, c_w_id),
sizeof(m_txn.Payment.c_w_id), DBTYPE_I4);

// Payment parameter 3
SetBinding(&acInputDBBinding[i++],
offsetof(PAYMENT_DATA, h_amount),
sizeof(m_txn.Payment.h_amount), DBTYPE_R8);

// Payment parameter 4
SetBinding(&acInputDBBinding[i++],
offsetof(PAYMENT_DATA, d_id),
sizeof(m_txn.Payment.d_id), DBTYPE_UI1);

// Payment parameter 5
SetBinding(&acInputDBBinding[i++],
offsetof(PAYMENT_DATA, c_d_id),
sizeof(m_txn.Payment.c_d_id), DBTYPE_UI1);

```

```

// Payment parameter 6
SetBinding(&acInputDBBinding[i++],
offsetof(PAYMENT_DATA, c_id),
sizeof(m_txn.Payment.c_id), DBTYPE_I4);

// Payment parameter 7
SetBinding(&acInputDBBinding[i++],
offsetof(PAYMENT_DATA, c_last),
sizeof(m_txn.Payment.c_last), DBTYPE_STR);

hr = m_pIPaymentCommand-
>QueryInterface(IID_IAccessor, (void **)&pIAccessor);
if (FAILED(hr))
{
ThrowError(m_pIPaymentCommand,
COLEDBERR::eQueryInterface, "InitPaymentParams()");
}

hr = pIAccessor->CreateAccessor(
DBACCESSOR_PARAMETERDATA,
nInputParams,
acInputDBBinding,
sizeof(PAYMENT_DATA),
&m_hPaymentInputAccessor,
acInputDBBindStatus);

if (FAILED(hr))
{
ThrowError(pIAccessor,
COLEDBERR::eCreateAccessor, "InitPaymentParams()");
}

m_PaymentExecuteParams.cParamSets = 1;
m_PaymentExecuteParams.hAccessor =
m_hPaymentInputAccessor;
m_PaymentExecuteParams.pData =
&m_txn.Payment;

// Now fill the binding information for
output columns
InitBindings(&acOutputDBBinding[0],
nOutputParams, eOutputColumn);

i = 0;
// Payment output column 1
SetBinding(&acOutputDBBinding[i++],
offsetof(PAYMENT_DATA, c_id),
sizeof(m_txn.Payment.c_id), DBTYPE_I4);

// Payment output column 2
SetBinding(&acOutputDBBinding[i++],
offsetof(PAYMENT_DATA, c_last),
sizeof(m_txn.Payment.c_last), DBTYPE_STR);

// Payment output column 3
SetBinding(&acOutputDBBinding[i++],
offsetof(PAYMENT_DATA, h_date),
sizeof(m_txn.Payment.h_date), DBTYPE_DBTIMESTAMP);

// Payment output column 4
SetBinding(&acOutputDBBinding[i++],
offsetof(PAYMENT_DATA, w_street_1),
sizeof(m_txn.Payment.w_street_1), DBTYPE_STR);

```

```

// Payment output column 5
SetBinding(&acOutputDBBinding[i++],
offsetof(PAYMENT_DATA, w_street_2),
sizeof(m_txn.Payment.w_street_2), DBTYPE_STR);

// Payment output column 6
SetBinding(&acOutputDBBinding[i++],
offsetof(PAYMENT_DATA, w_city),
sizeof(m_txn.Payment.w_city), DBTYPE_STR);

// Payment output column 7
SetBinding(&acOutputDBBinding[i++],
offsetof(PAYMENT_DATA, w_state),
sizeof(m_txn.Payment.w_state), DBTYPE_STR);

// Payment output column 8
SetBinding(&acOutputDBBinding[i++],
offsetof(PAYMENT_DATA, w_zip),
sizeof(m_txn.Payment.w_zip), DBTYPE_STR);

// Payment output column 9
SetBinding(&acOutputDBBinding[i++],
offsetof(PAYMENT_DATA, d_street_1),
sizeof(m_txn.Payment.d_street_1), DBTYPE_STR);

// Payment output column 10
SetBinding(&acOutputDBBinding[i++],
offsetof(PAYMENT_DATA, d_street_2),
sizeof(m_txn.Payment.d_street_2), DBTYPE_STR);

// Payment output column 11
SetBinding(&acOutputDBBinding[i++],
offsetof(PAYMENT_DATA, d_city),
sizeof(m_txn.Payment.d_city), DBTYPE_STR);

// Payment output column 12
SetBinding(&acOutputDBBinding[i++],
offsetof(PAYMENT_DATA, d_state),
sizeof(m_txn.Payment.d_state), DBTYPE_STR);

// Payment output column 13
SetBinding(&acOutputDBBinding[i++],
offsetof(PAYMENT_DATA, d_zip),
sizeof(m_txn.Payment.d_zip), DBTYPE_STR);

// Payment output column 14
SetBinding(&acOutputDBBinding[i++],
offsetof(PAYMENT_DATA, c_first),
sizeof(m_txn.Payment.c_first), DBTYPE_STR);

// Payment output column 15
SetBinding(&acOutputDBBinding[i++],
offsetof(PAYMENT_DATA, c_middle),
sizeof(m_txn.Payment.c_middle), DBTYPE_STR);

// Payment output column 16
SetBinding(&acOutputDBBinding[i++],
offsetof(PAYMENT_DATA, d_street_1),
sizeof(m_txn.Payment.d_street_1), DBTYPE_STR);

// Payment output column 17

```

```

        SetBinding(&acOutputDBBinding[i++],
offsetof(PAYMENT_DATA, d_street_2),
sizeof(m_txn.Payment.d_street_2), DBTYPE_STR);

        // Payment output column 18
        SetBinding(&acOutputDBBinding[i++],
offsetof(PAYMENT_DATA, d_city),
sizeof(m_txn.Payment.d_city), DBTYPE_STR);

        // Payment output column 19
        SetBinding(&acOutputDBBinding[i++],
offsetof(PAYMENT_DATA, d_state),
sizeof(m_txn.Payment.d_state), DBTYPE_STR);

        // Payment output column 20
        SetBinding(&acOutputDBBinding[i++],
offsetof(PAYMENT_DATA, d_zip),
sizeof(m_txn.Payment.d_zip), DBTYPE_STR);

        // Payment output column 21
        SetBinding(&acOutputDBBinding[i++],
offsetof(PAYMENT_DATA, c_phone),
sizeof(m_txn.Payment.c_phone), DBTYPE_STR);

        // Payment output column 22
        SetBinding(&acOutputDBBinding[i++],
offsetof(PAYMENT_DATA, c_since),
sizeof(m_txn.Payment.c_since), DBTYPE_DBTIMESTAMP);

        // Payment output column 23
        SetBinding(&acOutputDBBinding[i++],
offsetof(PAYMENT_DATA, c_credit),
sizeof(m_txn.Payment.c_credit), DBTYPE_STR);

        // Payment output column 24
        SetBinding(&acOutputDBBinding[i++],
offsetof(PAYMENT_DATA, c_credit_lim),
sizeof(m_txn.Payment.c_credit_lim), DBTYPE_R8);

        // Payment output column 25
        SetBinding(&acOutputDBBinding[i++],
offsetof(PAYMENT_DATA, c_discount),
sizeof(m_txn.Payment.c_discount), DBTYPE_R8);

        // Payment output column 26
        SetBinding(&acOutputDBBinding[i++],
offsetof(PAYMENT_DATA, c_balance),
sizeof(m_txn.Payment.c_balance), DBTYPE_R8);

        // Payment output column 27
        SetBinding(&acOutputDBBinding[i++],
offsetof(PAYMENT_DATA, c_data),
sizeof(m_txn.Payment.c_data), DBTYPE_STR);

        hr = piAccessor->CreateAccessor(
DBACCESSOR_OPTIMIZED,
        DBACCESSOR_ROWDATA |
        nOutputParams,
        acOutputDBBinding,
        sizeof(PAYMENT_DATA),
&m_hPaymentOutputAccessor,
        acOutputDBBindStatus);

```

```

        if (FAILED(hr))
        {
            ThrowError(piAccessor,
COLEDBERR::eCreateAccessor, "InitPaymentParams()");
        }

void CTPCC_OLEDB::Payment()
{
    HRESULT          hr;
    int              iTryCount = 0;
    IRowset*         pRowset;
    LONG             cRows = 1;
    // number of rows returned in the rowset
    ULONG           cRowsObtained;
    HROW            rghRow;
    //returned row handles
    HROW*           prghRow =
&rghRow;

    if (m_txn.Payment.c_id != 0)
        m_txn.Payment.c_last[0] = 0;

    while (TRUE)
    {
        try
        {
            // Execute the prepared
            command          hr =
m_pIPaymentCommand->Execute(NULL, IID_IRowset,
&m_PaymentExecuteParams, NULL,

            (IUnknown **)&pRowset);
            if (FAILED(hr))
            {
                ThrowError(m_pIPaymentCommand,
COLEDBERR::eExecute, "Payment()");
            }

            // Fetch the result row
            handle(s)          hr = pRowset-
>GetNextRows(DB_NULL_HCHAPTER, 0, cRows,
&cRowsObtained, &prghRow);
            if (FAILED(hr))
            {
                ThrowError(m_pIPaymentCommand,
COLEDBERR::eGetNextRows, "Payment()");
            }

            // Fetch the actual row
            data by handle    hr = pRowset-
>GetData(rghRow, m_hPaymentOutputAccessor,
&m_txn.Payment);
            if (FAILED(hr))

```

```

        {
            ThrowError(m_pIPaymentCommand,
COLEDBERR::eGetData, "Payment()");
        }

        // Release row(s)
        hr = pRowset-
>ReleaseRows(cRowsObtained, prghRow, NULL, NULL,
NULL);
        // Release rowset
        hr = pRowset-
>Release();

        if (m_txn.Payment.c_id
== 0)
            throw new
CTPCC_OLEDB_ERR( CTPCC_OLEDB_ERR::ERR_INVALID_CUST );
        else
            m_txn.Payment.exec_status_code = eOK;

        break;
    }
    catch (COLEDBERR *e)
    {
        if (!e->m_bDeadLock)
            throw;

        // hit deadlock;
        // backoff for increasingly longer period
        delete e;
        Sleep(10 * iTryCount);
    }

    // if (iTryCount)
    // throw new
CTPCC_OLEDB_ERR(CTPCC_OLEDB_ERR::ERR_RETRIED_TRANS,
iTryCount);
}

void CTPCC_OLEDB::InitOrderStatusParams()
{
    int              i;
    HRESULT          hr;
    wchar_t          szName[IMAX_SP_NAME_LEN];
    IAccessor*       piAccessor;
    const ULONG      nInputParams = 4; // input parameters
    const ULONG      nOutputParams = 5; // output 1st result
    set columns      const ULONG
nOutputParams2 = 8; // output 2nd result
    set columns      // Structure to bind in accessor

```

```

DBBINDING
acInputDBBinding[nInputParams];
DBBINDSTATUS
acInputDBBindStatus[nInputParams];
DBBINDING
acOutputDBBinding[nOutputParams];
DBBINDSTATUS
acOutputDBBindStatus[nOutputParams];
DBBINDING
acOutputDBBinding2[nOutputParams2];
DBBINDSTATUS
acOutputDBBindStatus2[nOutputParams2];

// Set command text
_snwprintf(szName,
sizeof(szName)/sizeof(szName[0]),
L"call
%stpc_orderstatus (?,?,?,?)", m_szSPPrefix);

// Create and Prepare a new command object
for OrderStatus.
CreateCommand(szName,
&m_pIOrderStatusCommand);

// Describe the consumer buffer by filling
in the array
// of DBBINDING structures. Each binding
associates
// a single parameter to the consumer's buffer.
InitBindings(&acInputDBBinding[0],
nInputParams, eInputParameter);

i = 0;
// OrderStatus parameter 1
SetBinding(&acInputDBBinding[i++],
offsetof(ORDER_STATUS_DATA, w_id),
sizeof(m_txn.OrderStatus.w_id), DBTYPE_I4);

// OrderStatus parameter 2
SetBinding(&acInputDBBinding[i++],
offsetof(ORDER_STATUS_DATA, d_id),
sizeof(m_txn.OrderStatus.d_id), DBTYPE_UI1);

// OrderStatus parameter 3
SetBinding(&acInputDBBinding[i++],
offsetof(ORDER_STATUS_DATA, c_id),
sizeof(m_txn.OrderStatus.c_id), DBTYPE_I4);

// OrderStatus parameter 4
SetBinding(&acInputDBBinding[i++],
offsetof(ORDER_STATUS_DATA, c_last),
sizeof(m_txn.OrderStatus.c_last), DBTYPE_STR);

hr = m_pIOrderStatusCommand-
>QueryInterface(IID_IAccessor, (void **)&pIAccessor);
if (FAILED(hr))
{
ThrowError(m_pIOrderStatusCommand,
COLEDBERR::eQueryInterface,
"InitOrderStatusParams()");
}

```

```

hr = pIAccessor->CreateAccessor(
DBACCESSOR_PARAMETERDATA,
nInputParams,
acInputDBBinding,
sizeof(ORDER_STATUS_DATA),
&m_hOrderStatusInputAccessor,
acInputDBBindStatus);
if (FAILED(hr))
{
ThrowError(pIAccessor,
COLEDBERR::eCreateAccessor,
"InitOrderStatusParams()");
}
m_OrderStatusExecuteParams.cParamSets = 1;
m_OrderStatusExecuteParams.hAccessor =
m_hOrderStatusInputAccessor;
m_OrderStatusExecuteParams.pData =
&m_txn.OrderStatus;

// Now fill the binding information for
result set 1 output columns
InitBindings(&acOutputDBBinding[0],
nOutputParams, eOutputColumn);

// Binding for a rowset that may return
more than one row.
// Bind to offsets of the
OL_ORDER_STATUS_DATA structure instead of
ORDER_STATUS_DATA.
// IRowset::GetData() will be passed
individual array slots OL[i] to fetch the data
// from the row set.

i = 0;
// OrderStatus output column 1
SetBinding(&acOutputDBBinding[i++],
offsetof(OL_ORDER_STATUS_DATA, ol_supply_w_id),
sizeof(m_txn.OrderStatus.OL[0].ol_supply_w_id),
DBTYPE_I4);

// OrderStatus output column 2
SetBinding(&acOutputDBBinding[i++],
offsetof(OL_ORDER_STATUS_DATA, ol_i_id),
sizeof(m_txn.OrderStatus.OL[0].ol_i_id),
DBTYPE_I4);

// OrderStatus output column 3
SetBinding(&acOutputDBBinding[i++],
offsetof(OL_ORDER_STATUS_DATA, ol_quantity),
sizeof(m_txn.OrderStatus.OL[0].ol_quantity),
DBTYPE_I2);

// OrderStatus output column 4
SetBinding(&acOutputDBBinding[i++],
offsetof(OL_ORDER_STATUS_DATA, ol_amount),
sizeof(m_txn.OrderStatus.OL[0].ol_amount),
DBTYPE_R8);

// OrderStatus output column 5
SetBinding(&acOutputDBBinding[i++],
offsetof(OL_ORDER_STATUS_DATA, ol_delivery_d),

```

```

sizeof(m_txn.OrderStatus.OL[0].ol_delivery_d),
DBTYPE_DBTIMESTAMP);

hr = pIAccessor->CreateAccessor(
DBACCESSOR_ROWDATA |
DBACCESSOR_OPTIMIZED,
nOutputParams,
acOutputDBBinding,
sizeof(OL_ORDER_STATUS_DATA),
&m_hOrderStatusOutputAccessor,
acOutputDBBindStatus);
if (FAILED(hr))
{
ThrowError(pIAccessor,
COLEDBERR::eCreateAccessor,
"InitOrderStatusParams()");
}

// Now fill the binding information for
result set 2 output columns
InitBindings(&acOutputDBBinding2[0],
nOutputParams2, eOutputColumn);

i = 0;
// OrderStatus output column 1
SetBinding(&acOutputDBBinding2[i++],
offsetof(ORDER_STATUS_DATA, c_id),
sizeof(m_txn.OrderStatus.c_id), DBTYPE_I4);

// OrderStatus output column 2
SetBinding(&acOutputDBBinding2[i++],
offsetof(ORDER_STATUS_DATA, c_last),
sizeof(m_txn.OrderStatus.c_last), DBTYPE_STR);

// OrderStatus output column 3
SetBinding(&acOutputDBBinding2[i++],
offsetof(ORDER_STATUS_DATA, c_first),
sizeof(m_txn.OrderStatus.c_first), DBTYPE_STR);

// OrderStatus output column 4
SetBinding(&acOutputDBBinding2[i++],
offsetof(ORDER_STATUS_DATA, c_middle),
sizeof(m_txn.OrderStatus.c_middle), DBTYPE_STR);

// OrderStatus output column 5
SetBinding(&acOutputDBBinding2[i++],
offsetof(ORDER_STATUS_DATA, o_entry_d),
sizeof(m_txn.OrderStatus.o_entry_d),
DBTYPE_DBTIMESTAMP);

// OrderStatus output column 7
SetBinding(&acOutputDBBinding2[i++],
offsetof(ORDER_STATUS_DATA, o_carrier_id),
sizeof(m_txn.OrderStatus.o_carrier_id), DBTYPE_I2);

// OrderStatus output column 8
SetBinding(&acOutputDBBinding2[i++],
offsetof(ORDER_STATUS_DATA, c_balance),
sizeof(m_txn.OrderStatus.c_balance),
DBTYPE_R8);

// OrderStatus output column 9

```

```

        SetBinding(&acOutputDBBinding2[i++],
offsetof(ORDER_STATUS_DATA, o_id),
sizeof(m_txn.OrderStatus.o_id), DBTYPE_I4);

        hr = piAccessor->CreateAccessor(
            DBACCESSOR_ROWDATA, //
cannot be optimized too because #1 accessor is
            nOutputParams2,
            acOutputDBBinding2,
            sizeof(NEW_ORDER_DATA),

&m_hOrderStatusOutputAccessor2,
            acOutputDBBindStatus2);
        if (FAILED(hr))
        {
            ThrowError(piAccessor,
COLEDBERR::eCreateAccessor,
"InitOrderStatusParams()");
        }
    }

void CTPCC_OLEDB::OrderStatus()
{
    HRESULT                hr;
    int
    iTryCount = 0;
    IMultipleResults*     pMultipleResults;
    IRowset*              pRowset;
    IRowset*              pRowset2;
    LONG
    cRows = MAX_OL_ORDER_STATUS_ITEMS; //
number of rows returned in the 1st rowset
    ULONG
    cRowsObtained;
    HROW
    rghRows[MAX_OL_ORDER_STATUS_ITEMS];
//returned row handles for the 1st result
set
    HROW*
    prghRows = &rghRows[0];
    LONG
    cRows2 = 1; // number of rows
returned in the 2nd rowset
    ULONG
    cRowsObtained2;
    HROW
    rghRows2; //returned row handle
for the 2nd result set
    HROW*
    prghRows2 = &rghRows2;
    int
    i;
    long
    lRowsAffected; // the number of
affected rows for a rowset

    if (m_txn.OrderStatus.c_id != 0)
        m_txn.OrderStatus.c_last[0] = 0;

    while (TRUE)
    {
        try
        {

```

```

// Execute the prepared
command
// Ask for
IMultipleResults because it returns 2 rowsets.
        hr =
m_pIOrderStatusCommand->Execute(NULL,
IID_IMultipleResults, &m_OrderStatusExecuteParams,
NULL,

        (IUnknown **)&pMultipleResults);
        if (FAILED(hr))
        {
            ThrowError(m_pIOrderStatusCommand,
COLEDBERR::eExecute, "OrderStatus()");
        }

        // Get order line
        // Get the first rowset
object
        hr = pMultipleResults-
>GetResult(NULL, 0, IID_IRowset, &lRowsAffected,
(IUnknown **)&pRowset);
        if (FAILED(hr))
        {
            ThrowError(m_pIOrderStatusCommand,
COLEDBERR::eGetResult, "OrderStatus()");
        }

        // Fetch the result row
handle(s)
        hr = pRowset-
>GetNextRows(DB_NULL_HCHAPTER, 0, cRows,
&cRowsObtained, &prghRows);
        if (FAILED(hr))
        {
            ThrowError(m_pIOrderStatusCommand,
COLEDBERR::eGetNextRows, "OrderStatus()");
        }

        m_txn.OrderStatus.o_ol_cnt =
(short)cRowsObtained;

        // Get the data from
multiple rows in this rowset
        for (i = 0; i <
m_txn.OrderStatus.o_ol_cnt; ++i)
        {
            // Fetch the
actual row data by handle

```

```

        hr = pRowset-
>GetData(rghRows[i], m_hOrderStatusOutputAccessor,
&m_txn.OrderStatus.OL[i]);
        if
(FAILED(hr))
        {
            ThrowError(m_pIOrderStatusCommand,
COLEDBERR::eGetData, "OrderStatus()");
        }
        // Release row(s)
        hr = pRowset-
>ReleaseRows(cRowsObtained, prghRows, NULL, NULL,
NULL);
        // Release rowset
        hr = pRowset-
>Release();

        // Get the second
rowset object
        if
(m_txn.OrderStatus.o_ol_cnt > 0)
        {
            hr =
pMultipleResults->GetResult(NULL, 0, IID_IRowset,
&lRowsAffected, (IUnknown **)&pRowset2);
            if
(FAILED(hr))
            {
                ThrowError(m_pIOrderStatusCommand,
COLEDBERR::eGetResult, "OrderStatus()");
            }
            // Fetch the
result row handle(s)
            hr =
pRowset2->GetNextRows(DB_NULL_HCHAPTER, 0, cRows2,
&cRowsObtained2, &prghRows2);
            if
(FAILED(hr))
            {
                ThrowError(m_pIOrderStatusCommand,
COLEDBERR::eGetNextRows, "OrderStatus()");
            }
            // Fetch the
actual row data by handle
            hr =
pRowset2->GetData(rghRows2,
m_hOrderStatusOutputAccessor2, &m_txn.OrderStatus);
            if
(FAILED(hr))
            {

```



```

        ThrowError(m_pIOrderStatusCommand,
COLEDBERR::eGetData, "OrderStatus()");
    }

    // Release
row(s)
hr =
pRowset2->Release();
}

// Release the common
MultipleResults interface
hr = pMultipleResults-
>Release();

    if
(m_txn.OrderStatus.o_ol_cnt == 0)
    throw new
CTPCC_OLEDB_ERR( CTPCC_OLEDB_ERR::ERR_NO_SUCH_ORDER
);
    else if
(m_txn.OrderStatus.c_id == 0 &&
m_txn.OrderStatus.c_last[0] == 0)
    throw new
CTPCC_OLEDB_ERR( CTPCC_OLEDB_ERR::ERR_INVALID_CUST );
    else
        m_txn.OrderStatus.exec_status_code = eOK;

        break;
    }
catch (COLEDBERR *e)
{
    if (!e->m_bDeadLock)
|| (++iTryCount > iMaxRetries))
        throw;

    // hit deadlock;
backoff for increasingly longer period
delete e;
Sleep(10 * iTryCount);
}

// if (iTryCount)
// throw new
CTPCC_OLEDB_ERR(CTPCC_OLEDB_ERR::ERR_RETRIED_TRANS,
iTryCount);
}

void CTPCC_OLEDB::InitDeliveryParams()
{
    int
    HRESULT
    hr;
    wchar_t
    szName[iMAX_SP_NAME_LEN];
    IAccessor*
    pIAccessor;

```

```

const ULONG
nInputParams = 2; // input parameters
const ULONG
nOutputParams = 10; // output 1st result
set columns
// Structure to bind in accessor
DBBINDING
acInputDBBinding[nInputParams];
DBBINDSTATUS
acInputDBBindStatus[nInputParams];
DBBINDING
acOutputDBBinding[nOutputParams];
DBBINDSTATUS
acOutputDBBindStatus[nOutputParams];

// Set command text
_snpwprintf(szName,
sizeof(szName)/sizeof(szName[0]),
L"{call %stpcc_delivery
(?,?)", m_szSPPrefix);

// Create and Prepare a new command object
for Delivery.
CreateCommand(szName,
&m_pIDeliveryCommand);

// Describe the consumer buffer by filling
in the array
// of DBBINDING structures. Each binding
associates
// a single parameter to the consumer's buffer.
InitBindings(&acInputDBBinding[0],
nInputParams, eInputParameter);

    i = 0;
// Delivery parameter 1
SetBinding(&acInputDBBinding[i++],
offsetof(DELIVERY_DATA, w_id),
sizeof(m_txn.Delivery.w_id), DBTYPE_I4);

// Delivery parameter 2
SetBinding(&acInputDBBinding[i++],
offsetof(DELIVERY_DATA, o_carrier_id),
sizeof(m_txn.Delivery.o_carrier_id), DBTYPE_I2);

    hr = m_pIDeliveryCommand-
>QueryInterface(IID_IAccessor, (void **)&pIAccessor);
    if (FAILED(hr))
    {
        ThrowError(m_pIDeliveryCommand,
COLEDBERR::eQueryInterface, "InitDeliveryParams()");
    }

    hr = pIAccessor->CreateAccessor(
DBACCESSOR_PARAMETERDATA,
nInputParams,
acInputDBBinding,
sizeof(DELIVERY_DATA),

&m_hDeliveryInputAccessor,
acInputDBBindStatus);

    if (FAILED(hr))
{

```

```

        ThrowError(pIAccessor,
COLEDBERR::eCreateAccessor, "InitDeliveryParams()");
    }

    m_DeliveryExecuteParams.cParamSets = 1;
    m_DeliveryExecuteParams.hAccessor =
m_hDeliveryInputAccessor;
    m_DeliveryExecuteParams.pData =
&m_txn.Delivery;

    // Now fill the binding information for
result set 1 output columns
InitBindings(&acOutputDBBinding[0],
nOutputParams, eOutputColumn);

// Binding for a rowset that may return
more than one row.
for (i = 0; i < 10; ++i)
{
    // Delivery output column 1
SetBinding(&acOutputDBBinding[i],
offsetof(DELIVERY_DATA, o_id[i]),
sizeof(m_txn.Delivery.o_id[i]), DBTYPE_I4);
}

    hr = pIAccessor->CreateAccessor(
DBACCESSOR_ROWDATA |
DBACCESSOR_OPTIMIZED,
nOutputParams,
acOutputDBBinding,
sizeof(DELIVERY_DATA),

&m_hDeliveryOutputAccessor,
acOutputDBBindStatus);

    if (FAILED(hr))
    {
        ThrowError(pIAccessor,
COLEDBERR::eCreateAccessor, "InitDeliveryParams()");
    }
}

void CTPCC_OLEDB::Delivery()
{
    HRESULT
    int
    iTryCount = 0;
    IRowset*
    pRowset;
    LONG
    cRows = 1;
    // number of rows returned in the rowset
    ULONG
    cRowsObtained;
    HROW
    rghRow;
    //returned row handles
    HROW*
    prghRow =

&rghRow;

    while (TRUE)
    {
        try
        {
            // Execute the prepared
command

```

```

        hr =
m_pIDeliveryCommand->Execute(NULL, IID_IRowset,
&m_DeliveryExecuteParams, NULL,

        (IUnknown **)&pRowset);
        if (FAILED(hr))
        {
            ThrowError(m_pIDeliveryCommand,
COLEDBERR::eExecute, "Delivery()");
        }

        // Fetch the result row
handle(s)
        hr = pRowset-
>GetNextRows(DB_NULL_HCHAPTER, 0, cRows,
&cRowsObtained, &prghRow);
        if (FAILED(hr))
        {
            ThrowError(m_pIDeliveryCommand,
COLEDBERR::eGetNextRows, "Delivery()");
        }

        // Fetch the actual row
data by handle
        hr = pRowset-
>GetData(rghRow, m_hDeliveryOutputAccessor,
&m_txn.Delivery);
        if (FAILED(hr))
        {
            ThrowError(m_pIDeliveryCommand,
COLEDBERR::eGetData, "Delivery()");
        }

        // Release row(s)
>ReleaseRows(cRowsObtained, prghRow, NULL, NULL,
NULL);
        // Release rowset
hr = pRowset-
>Release();

        m_txn.Delivery.exec_status_code = eOK;

        break;
    }
    catch (COLEDBERR *e)
    {
        if (!e->m_bDeadLock)
            throw;

        // hit deadlock;
backoff for increasingly longer period
        delete e;
        Sleep(10 * iTryCount);
    }
}

```

```

//      if (iTryCount)
//          throw new
CTPCC_OLEDB_ERR(CTPCC_OLEDB_ERR::ERR_RETRIED_TRANS,
iTryCount);
}

tpcc_oledb.h

/*      FILE:          TPC_C_OLEDB.H
*          Microsoft
TPC-C Kit Ver. 4.20.000
*          Copyright
Microsoft, 1999-2004
*          Written by
Sergey Vasilevskiy
*          All Rights Reserved
*
*
*      PURPOSE:  Header file for TPC-C txn class
OLE DB implementation.
*
*
*/
#pragma once

// need to declare functions for import, unless
define has already been created
// by the DLL's .cpp module for export.
#ifdef DllDecl
#define DllDecl __declspec( dllimport )
#endif

#define IMAX_SP_NAME_LEN 256 //maximum length of a
stored procedure name with parameters

// Type of parameter and result set column bindings.
enum eBindingType
{
    eInputParameter,
    eOutputParameter,
    eInputOutputParameter,
    eOutputColumn
};

class COLEDBERR : public CBaseErr
{
public:
    enum ACTION
    {
        eNone,
        eUnknown,
        eQueryInterface,
        // error from QueryInterface
        eCreateSession,
        eCreateCommand,
        eSetCommandText,
        eExecute,

        // = 6
        eCreateAccessor,

```

```

        ePrepare,
        eGetNextRows,
        eGetData,
        eGetResult

        // = 11
    };

    COLEDBERR(LPCTSTR szLoc)
        : CBaseErr(szLoc)
    {
        m_eAction = eNone;
        m_NativeError = 0;
        m_bDeadLock = FALSE;
        m_OLEDBErrStr = NULL;
    };

    ~COLEDBERR()
    {
        if (m_OLEDBErrStr !=
NULL)
            delete []
m_OLEDBErrStr;
    };

    ACTION    m_eAction;
    int
m_NativeError;
    BOOL
m_bDeadLock;
    char
*m_OLEDBErrStr;

    int
ErrorType()
{ return ERR_TYPE_OLEDB; };
    char*
ErrorTypeStr() { return
"OLEDB"; }
    int
ErrorNum()
{ return m_NativeError; };
    char*
ErrorText() { return
m_OLEDBErrStr; };
    int
ErrorAction()
{ return (int)m_eAction; }
};

class CTPCC_OLEDB_ERR : public CBaseErr
{
public:
    enum TPC_C_OLEDB_ERRS
    {
        ERR_WRONG_SP_VERSION =
1, // "Wrong version of stored proc on
database server"
        ERR_INVALID_CUST, // "Invalid Customer id,name."
        ERR_NO_SUCH_ORDER, // "No orders found for
customer."
        ERR_RETRIED_TRANS, // "Retries before transaction
succeeded."
    };

    CTPCC_OLEDB_ERR( int iErr ) {
m_errno = iErr; m_iTryCount = 0; };

```

```

        CTPCC_OLEDB_ERR( int iErr, int
iTryCount ) { m_errno = iErr; m_iTryCount =
iTryCount; };

        int                m_errno;
        int                m_iTryCount;

        int                ErrorType()
{return ERR_TYPE_TPCC_OLEDB;};
        char*             ErrorTypeStr() { return
"TPCC OLEDB"; }
        int                ErrorNum()
{return m_errno;};
        char*             ErrorText();
};

class DllDecl CTPCC_OLEDB : public CTPCC_BASE
{
private: // declare variables and private
functions here...
        BOOL
        m_bDeadlock; //
transaction was selected as deadlock victim
        int
        m_MaxRetries;
// retry count on deadlock

        DBPROPSET
        m_rgInitPropSet; //
initialization property set used to establish a
connection
        DBPROP
        m_InitProperties[4]; //
individual initialization properties

        IDBCreateSession*
        m_pIDBCreateSession; // session
(connection) interface
        IDBCreateCommand*
        m_pIDBCreateCommand; // SQL
command creation interface

        IMalloc*
        m_pIMalloc;
// Needed to release error strings.

        // StockLevel
        ICommandText*
        m_pIStockLevelCommand;
        HACCESSOR
        m_hStockLevelInputAccessor; // accessor
to bind input parameters
        HACCESSOR
        m_hStockLevelOutputAccessor; // accessor
to bind output columns
        DBPARAMS
        m_StockLevelExecuteParams; //
parameter structure for Execute

        // NewOrder

```

```

// One prepared command for each
possible number of new order line items
        ICommandText*
        m_pNewOrderCommand[MAX_OL_NEW_ORDER_ITEMS]
;
// accessors to bind input
parameters
// one for each possible number
of new order line items
        HACCESSOR
        m_hNewOrderInputAccessor[MAX_OL_NEW_ORDER_I
TEMS];
// accessor to bind output
columns of the first rowset
        HACCESSOR
        m_hNewOrderOutputAccessor[MAX_OL_NEW_ORDER_
ITEMS];
// accessor to bind output
columns of the second rowset
        HACCESSOR
        m_hNewOrderOutputAccessor2[MAX_OL_NEW_ORDER
_ITEMS];
// parameter structure for
Execute
        DBPARAMS
        m_NewOrderExecuteParams[MAX_OL_NEW_ORDER_IT
EMS];

// Payment
        ICommandText*
        m_pIPaymentCommand;
        HACCESSOR
        m_hPaymentInputAccessor; // accessor
to bind input parameters
        HACCESSOR
        m_hPaymentOutputAccessor; // accessor
to bind output columns
        DBPARAMS
        m_PaymentExecuteParams; //
parameter structure for Execute

// OrderStatus
        ICommandText*
        m_pIOrderStatusCommand;
        HACCESSOR
        m_hOrderStatusInputAccessor; // accessor
to bind input parameters
        HACCESSOR
        m_hOrderStatusOutputAccessor; // accessor
to bind output columns
        HACCESSOR
        m_hOrderStatusOutputAccessor2; //
accessor to bind output columns
        DBPARAMS
        m_OrderStatusExecuteParams; //
parameter structure for Execute

// Delivery
        ICommandText*
        m_pIDeliveryCommand;
        HACCESSOR
        m_hDeliveryInputAccessor; // accessor
to bind input parameters

```

```

        HACCESSOR
        m_hDeliveryOutputAccessor; // accessor
to bind output columns
        DBPARAMS
        m_DeliveryExecuteParams; // parameter
structure for Execute

        wchar_t
        m_szSPPrefix[32]; // stored
procedures prefix

// new-order specific fields
        int
        m_no_commit_flag;

        void ThrowError( IUnknown*
pObjectWithError, COLEDBERR::ACTION eAction, LPCTSTR
szLocation );

        void CheckSPVersion();

        void InitNewOrderParams();
        void InitPaymentParams();
        void InitDeliveryParams();
        void InitStockLevelParams();
        void InitOrderStatusParams();

// Helper function to create and
prepare a command
        void CreateCommand(wchar_t*
szSQLCommand, ICommandText** ppICommandText);
// Helper function to prepare a
command
        void PrepareCommand(ICommandText*
pICommand);

// Helper function to fill one
binding
// Used for both input parameter
and output column bindings
        void SetBinding(DBBINDING*
pDBBinding, size_t obValue, size_t cbMaxLen, DBTYPE
wType);

// Helper function to initialize
an array of bindings
        void InitBindings(DBBINDING*
pDBBindings, int iCount, eBindingType BindingType);

        union
        {
                NewOrder;
                Payment;
                Delivery;
                StockLevel;
                OrderStatus;
                NEW_ORDER_DATA
                PAYMENT_DATA
                DELIVERY_DATA
                STOCK_LEVEL_DATA
                ORDER_STATUS_DATA

```

```

    }
    m_txn;

    public:
        CTPCC_OLEDB(LPCSTR szServer,
LPCSTR szUser, LPCSTR szPassword, LPCSTR szHost,
LPCSTR szDatabase, LPCWSTR szSPPrefix);
        ~CTPCC_OLEDB(void);

        inline PNEW_ORDER_DATA
        BuffAddr_NewOrder() { return
&m_txn.NewOrder; };
        inline PPAYMENT_DATA
        BuffAddr_Payment() { return
&m_txn.Payment; };
        inline PDELIVERY_DATA
        BuffAddr_Delivery() { return
&m_txn.Delivery; };
        inline PSTOCK_LEVEL_DATA
        BuffAddr_StockLevel() { return
&m_txn.StockLevel; };
        inline PORDER_STATUS_DATA
        BuffAddr_OrderStatus() { return
&m_txn.OrderStatus; };

        void NewOrder        ();
        void Payment         ();
        void Delivery        ();
        void StockLevel      ();
        void OrderStatus     ();

};

// wrapper routine for class constructor
extern "C" DllDecl CTPCC_OLEDB* CTPCC_OLEDB_new
( LPCSTR szServer, LPCSTR szUser, LPCSTR
szPassword, LPCSTR szHost, LPCSTR szDatabase, LPCWSTR
szSPPrefix );

typedef CTPCC_OLEDB* (TYPE_CTPCC_OLEDB)(LPCSTR,
LPCSTR, LPCSTR, LPCSTR, LPCWSTR);

```

trans.h

```

/*      FILE:          TRANS.H
 *
 *      TPC-C Kit Ver. 4.42.000
 *
 *      Microsoft
 *
 *      Copyright
 *
 *      Microsoft, 2002
 *
 *      All Rights Reserved
 *
 *
 *      Version
 *
 *      4.10.000 audited by Richard Gimarc, Performance
 *      Metrics, 3/17/99
 *
 *
 *      PURPOSE:  Header file for TPC-C structure
 *      templates.
 *
 *      Change history:

```

```

 *      4.42.000 - changed w_id fields
 *      from short to long to support >32K warehouses
 *      4.20.000 - updated rev number to
 *      match kit
 *      4.69.000 - updated rev number to
 *      match kit
 *
 *      #pragma once
 *
 *      // String length constants
 *      #define SERVER_NAME_LEN      20
 *      #define DATABASE_NAME_LEN   20
 *      #define USER_NAME_LEN       20
 *      #define PASSWORD_LEN        20
 *      #define TABLE_NAME_LEN     20
 *      #define I_DATA_LEN          50
 *      #define I_NAME_LEN          24
 *      #define BRAND_LEN           1
 *      #define LAST_NAME_LEN       16
 *      #define W_NAME_LEN          10
 *      #define ADDRESS_LEN         20
 *      #define STATE_LEN           2
 *      #define ZIP_LEN              9
 *      #define S_DIST_LEN          24
 *      #define S_DATA_LEN          50
 *      #define D_NAME_LEN          10
 *      #define FIRST_NAME_LEN      16
 *      #define MIDDLE_NAME_LEN     2
 *      #define PHONE_LEN           16
 *      #define DATETIME_LEN        30
 *      #define CREDIT_LEN          2
 *      #define C_DATA_LEN          250
 *      #define H_DATA_LEN          24
 *      #define DIST_INFO_LEN       24
 *      #define MAX_OL_NEW_ORDER_ITEMS 15
 *      #define MAX_OL_ORDER_STATUS_ITEMS 15
 *      #define STATUS_LEN          25
 *      #define OL_DIST_INFO_LEN    24
 *
 *      // TIMESTAMP_STRUCT is provided by the ODBC header
 *      file sqltypes.h, but is not available
 *      // when compiling with dlib, so redefined here.
 *      Note: we are using the symbol "__SQLTYPES"
 *      // (declared in sqltypes.h) as a way to determine if
 *      // TIMESTAMP_STRUCT has been declared.
 *      #ifndef __SQLTYPES
 *      typedef struct
 *      {
 *          /* SQLSMALLINT */      short
 *          /* SQLSMALLINT */      year;
 *          /* SQLSMALLINT */      unsigned short /*
 *          /* SQLSMALLINT */      month;
 *          /* SQLSMALLINT */      unsigned short /*
 *          /* SQLSMALLINT */      day;
 *          /* SQLSMALLINT */      unsigned short /*
 *          /* SQLSMALLINT */      hour;
 *          /* SQLSMALLINT */      unsigned short /*
 *          /* SQLSMALLINT */      minute;
 *          /* SQLSMALLINT */      unsigned short /*
 *          /* SQLSMALLINT */      second;
 *          /* SQLSMALLINT */      unsigned long /*
 *          /* SQLINTEGER */       fraction;
 *      } TIMESTAMP_STRUCT;
 *      #endif

```

```

#endif

// possible values for exec_status_code after
// transaction completes
enum EXEC_STATUS
{
    eOK, // 0
    "Transaction committed,"
    eInvalidItem, // 1 "Item number
    "is not valid."
    eDeliveryFailed // 2 "Delivery
    "Post Failed."
};

// transaction structures
typedef struct
{
    // input params
    long
    ol_supply_w_id;
    long
    ol_i_id;
    short
    ol_quantity;

    // output params
    char
    ol_i_name[I_NAME_LEN+1];
    char
    ol_brand_generic[BRAND_LEN+1];
    double
    ol_i_price;
    double
    ol_amount;
    short
    ol_stock;
} OL_NEW_ORDER_DATA;

typedef struct
{
    // input params
    long
    w_id;
    short
    d_id;
    long
    c_id;
    short
    o_ol_cnt;

    // output params
    EXEC_STATUS
    exec_status_code;
    char
    c_last[LAST_NAME_LEN+1];
    char
    c_credit[CREDIT_LEN+1];
    double
    c_discount;
    double
    w_tax;
    double
    d_tax;
    long
    o_id;
    short
    o_commit_flag;
    TIMESTAMP_STRUCT
    o_entry_d;
    short
    o_all_local;
    double
    total_amount;
    OL_NEW_ORDER_DATA
    OL[MAX_OL_NEW_ORDER_ITEMS];
}

```

```

} NEW_ORDER_DATA, *PNEW_ORDER_DATA;

typedef struct
{
    // input params
    long
w_id;
short
d_id;
long
c_id;
short
c_d_id;
long
c_w_id;
double
h_amount;
char
c_last[LAST_NAME_LEN+1];

    // output params
EXEC_STATUS
exec_status_code;
TIMESTAMP_STRUCT    h_date;
char
w_street_1[ADDRESS_LEN+1];
char
w_street_2[ADDRESS_LEN+1];
char
w_city[ADDRESS_LEN+1];
char
w_state[STATE_LEN+1];
char
w_zip[ZIP_LEN+1];
char
d_street_1[ADDRESS_LEN+1];
char
d_street_2[ADDRESS_LEN+1];
char
d_city[ADDRESS_LEN+1];
char
d_state[STATE_LEN+1];
char
d_zip[ZIP_LEN+1];
char
c_first[FIRST_NAME_LEN+1];
char
c_middle[MIDDLE_NAME_LEN + 1];
char
c_street_1[ADDRESS_LEN+1];
char
c_street_2[ADDRESS_LEN+1];
char
c_city[ADDRESS_LEN+1];
char
c_state[STATE_LEN+1];
char
c_zip[ZIP_LEN+1];
char
c_phone[PHONE_LEN+1];
TIMESTAMP_STRUCT    c_since;
char
c_credit[CREDIT_LEN+1];

```

```

double
c_credit_lim;
double
c_discount;
double
c_balance;
char
c_data[200+1];
} PAYMENT_DATA, *PPAYMENT_DATA;

typedef struct
{
    long
ol_i_id;
long
ol_supply_w_id;
short
ol_quantity;
double
ol_amount;
TIMESTAMP_STRUCT    ol_delivery_d;
} OL_ORDER_STATUS_DATA;

typedef struct
{
    // input params
    long
short
long
char
c_last[LAST_NAME_LEN+1];

    // output params
EXEC_STATUS
exec_status_code;
char
c_first[FIRST_NAME_LEN+1];
char
c_middle[MIDDLE_NAME_LEN+1];
double
long
TIMESTAMP_STRUCT
short
OL_ORDER_STATUS_DATA
OL[MAX_OL_ORDER_STATUS_ITEMS];
short
} ORDER_STATUS_DATA, *PORDER_STATUS_DATA;

typedef struct
{
    // input params
    long
short
w_id;
o_carrier_id;

    // output params
EXEC_STATUS
exec_status_code;
SYSTEMTIME
long
o_id[10];
// id's of delivered
orders for districts 1 to 10
} DELIVERY_DATA, *PDELIVERY_DATA;

```

```

//This structure is used for posting delivery
transactions and for writing them to the delivery
server.
typedef struct _DELIVERY_TRANSACTION
{
    SYSTEMTIME
queue;
//time delivery transaction queued
long
w_id;
//delivery warehouse
short
o_carrier_id;
//carrier id
} DELIVERY_TRANSACTION;

typedef struct
{
    // input params
    long
w_id;
short
d_id;
short
threshold;

    // output params
EXEC_STATUS
exec_status_code;
long
low_stock;
} STOCK_LEVEL_DATA, *PSTOCK_LEVEL_DATA;

```

txnlog.h

```

/* FILE: TXNLOG.H
* Microsoft
TPC-C Kit Ver. 4.10.000
* not yet
audited
*
* PURPOSE: Header file for txn log class
* Copyright
Microsoft, 1999
* All Rights Reserved
*/
#include <stdio.h> //needed for FILE

#define DRIVER_NAME_LEN 32 //max length of the
driver engine name - must be the same as in
engstut.h!
#define TXN_LOG_INCORRECTLY_SHUT_DOWN 100
//ctrl rec subtype generated by the txn log
when reading an abruptly shut down log

#pragma once

typedef struct _TXN_NEWORDER
{
    BYTE
OL_Count; //range 0 to
31

```

```

31     BYTE      OL_Remote_Count;    //range 0 to
WORD      c_id;
int       o_id;
} TXN_NEWORDER;

typedef struct _TXN_PAYMENT
{
    BYTE      CustByName;
    BYTE      IsRemote;
} TXN_PAYMENT;

typedef struct _TXN_ORDERSTATUS
{
    BYTE      CustByName;
} TXN_ORDERSTATUS;

typedef union _TXN_DETAILS
{
    TXN_NEWORDER      NewOrder;
    TXN_PAYMENT       Payment;
    TXN_ORDERSTATUS   OrderStatus;
} TXN_DETAILS;

// Common header for all records in txn
log. The TxnType field is
// a switch which identifies the particular
variant.
#define TXN_REC_TYPE_CONTROL      1
//
#define TXN_REC_TYPE_TPCC        2 // replaces TRANSACTION_TYPE_TPCC
#define TXN_REC_TYPE_TPCC_DELIV_DEF 3
//
#define TXN_REC_TYPE_TPCW        4 // replaces TRANSACTION_TYPE_TPCW

typedef struct _TXN_RECORD_HEADER
{
    JULIAN_TIME      TxnStartT0;
    // start of txn
    BYTE      TxnType;
    // one of TXN_REC_TYPE_*
    BYTE      TxnSubType;
    // depends on TxnType
} TXN_RECORD_HEADER, *PTXN_RECORD_HEADER;

typedef struct _TXN_RECORD_CONTROL
{
    // common header; must exactly
match TXN_RECORD_HEADER
    JULIAN_TIME      TxnStartT0;
    // start of txn
    BYTE      TxnType;
    // = TXN_REC_TYPE_CONTROL
    BYTE      TxnSubType;
    // depends on TxnType
    // end of common header

```

```

        DWORD      Len;
        // number of bytes after this
    } TXN_RECORD_CONTROL, *PTXN_RECORD_CONTROL;

// TPC-C Txn Record Layout:
//
// 'TxnStartT0' is a Julian timestamp
// corresponding to the moment the
// txn is sent to the SUT, i.e., beginning of
// response time. Deltas
// are in milliseconds. Note that if RTDelay > 0,
// then the txn was
// delayed by this amount. The delay occurs at
// the beginning of the
// response time. So if RTDelay > 0, then the txn
// was actually sent
// at TxnStartT0 + RTDelay.
//
// Graphically:
//
// time -->
//
// |--- Menu ---|--- Keying --|--- Response --
// |--- Think ---|
//
// <- DeltaT1 -> <- DeltaT2 -> <- DeltaT4 ->
// <- DeltaT3 ->
//
// ^
// ^ TxnStartT0
//
// RTDelay is the amount of response time delay
// included in DeltaT4.
// RTDelay is recorded per txn because this value
// can be changed on
// the fly, and so may vary from txn to txn.
//
// TxnStatus is the txn completion code. It is
// used to indicate errors.
// For example, in the New Order txn, 1% of txns
// abort. TxnStatus will
// reflect this.

typedef struct _TXN_RECORD_TPCC
{
    // common header; must exactly
match TXN_RECORD_HEADER
    JULIAN_TIME      TxnStartT0;
    // start of txn
    BYTE      TxnType;
    // = TXN_REC_TYPE_TPCC
    BYTE      TxnSubType;
    // depends on TxnType
    // end of common header

    int      DeltaT1;
    int      DeltaT2;
    int      DeltaT3;
    int      DeltaT4;

    menu time (ms)
    keying time (ms)
    think time (ms)
    response time (ms)

```

```

    int      RTDelay;
    response time delay (ms)
    int      TxnError;
    // error code providing more detail for
    TxnStatus
    int      w_id;
    // warehouse ID
    BYTE      d_id;
    // assigned district ID for this thread
    BYTE      d_id_ThisTxn;
    // district ID chosen for this particular
    BYTE      TxnStatus;
    // completion status for txn to indicate
    errors
    BYTE      reserved;
    // for word alignment
    TXN_DETAILS      TxnDetails;
    //
    bool IsSuccessRecord() { return
(TxnStatus == ERR_SUCCESS || TxnStatus ==
ERR_BAD_ITEM_ID || TxnStatus ==
ERR_TYPE_DELIVERY_POST); }
} TXN_RECORD_TPCC, *PTXN_RECORD_TPCC;

// TPC-C Deferred Delivery Txn Record
Layout:
//
// Incorporating delivery transaction information
// into the above
// structure would increase the size of
// TXN_DETAILS from 8 to 42 bytes.
// Hence, we store delivery transaction details in
// a separate structure.
//
typedef struct _TXN_RECORD_TPCC_DELIV_DEF
{
    // common header; must exactly
match TXN_RECORD_HEADER
    JULIAN_TIME      TxnStartT0;
    // start of txn
    BYTE      TxnType;
    // = TXN_REC_TYPE_TPCC_DELIV_DEF
    BYTE      TxnSubType;
    // = 0
    // end of common header

    int      DeltaT4;
    response time (ms)
    int      DeltaTxnExec;
    // execution time (ms)
    int      w_id;
    // warehouse ID
    BYTE      TxnStatus;
    // completion status for txn to indicate
    errors
    BYTE      reserved;
    // for word alignment
    short      o_carrier_id;
    carrier id
    long      o_id[10];
    returned delivery transaction ids

```

```

        bool IsSuccessRecord() { return
(TxnStatus == ERR_SUCCESS || TxnStatus ==
ERR_BAD_ITEM_ID || TxnStatus ==
ERR_TYPE_DELIVERY_POST); }
    } TXN_RECORD_TPCC_DELIV_DEF,
*PTXN_RECORD_TPCC_DELIV_DEF;

//
//TPC-W records.
//
typedef struct _TXN_RECORD_TPCW
{
    // common header; must exactly
match TXN_RECORD_HEADER
    JULIAN_TIME    TxnStartT0;
    // start of txn
    BYTE    TxnType;
    // = TXN_REC_TYPE_TPCW
    BYTE    TxnSubType;
    // depends on TxnType
    // end of common header

    int    ThinkTime;    //
think time (ms)
    int    WIRT;
    // response time (ms)
    int    TxnError;
    // error code providing more detail for
TxnStatus
    BYTE    TxnStatus;
    // completion status for txn to indicate
errors
    //This field below depends on the
txn sub type:
    // - for Home interaction: it
indicates whether the user was a new customer (or
returning)
    // - for Buy Confirm:
it indicates whether the shipping address
was updated
    // - for Search Request:
it indicates the search type (Author,
Title, or Subject)
    //This statistics needs to be
reported according to 5.5.5.1 clause in the specs.
    //Because this field occupies 1
byte, the record structure is already aligned on word
boundary.
    union    {
        BYTE    newCustomer;
        BYTE    addrUpdated;
        BYTE    searchType;
    }
    intrDetails;

    //This field is mostly for
informational/debugging purposes.
    //It indicates what user
performed this web interaction and what instance
(session) of that use it was.
    //The first 22 bits indicate the
user #, and the top 10 bits indicate instance
(session) #.
    unsigned __int32    uiUser;

```

```

        bool IsSuccessRecord() { return
(TxnStatus == ERR_SUCCESS); }
    } TXN_RECORD_TPCW, *PTXN_RECORD_TPCW;

//
// Data part of a control record
written when a user is created (or it's new session)
- to record USMD
typedef struct _TXN_RECORD_TPCW_USER_DATA
{
    unsigned __int32    uiUser;
    // user number
    JULIAN_TIME
    USMD;
    //
USMD for this user
    BYTE
    bRetCust;
    // returning
customer?
} TXN_RECORD_TPCW_USER_DATA,
*PTXN_RECORD_TPCW_USER_DATA;

//The entire TPCW User control record
structure
typedef struct _TXN_RECORD_TPCW_USER
{
    // common header; must exactly
match TXN_RECORD_HEADER
    JULIAN_TIME    TxnStartT0;
    // start of txn
    BYTE    TxnType;
    // = TXN_REC_TYPE_CONTROL
    BYTE    TxnSubType;
    // depends on TxnType
    // end of common header

    DWORD    Len;
    // number of bytes after this
field
    //The fields above must exactly
match TXN_RECORD_CONTROL

    //The fields below must exactly
match TXN_RECORD_TPCW_USER_DATA
    unsigned __int32    uiUser;
    // user number
    JULIAN_TIME
    USMD;
    //
USMD for this user
    BYTE
    bRetCust;
    // returning
customer?
} TXN_RECORD_TPCW_USER,
*PTXN_RECORD_TPCW_USER;

#define    USER_INDEX_NBITS    22
#define    USER_INDEX_MASK
0x003fffff    //lower 22
bits mask for user field in TPCW record
#define    USER_SESSION_MASK    0xffc00000
//upper 10 bits mask for user
field in TPCW record

```

```

#define    USER_CREATE_REC    254
//subtype for the control record
written when a user is created

#define    TXN_LOG_VERSION    2
#define    TXN_DATA_START
4096    // offset in log file where log
records start
#define    TXN_LOG_EYE_CATCHER "BC"    //
signature bytes at the start of log file

////////////////////////////////////
////////////////////////////////////
// The transaction log has a header as the
first 4K block.
//
typedef struct _TXN_LOG_HEADER
{
    char
    EyeCatcher[2];    // signature bytes;
should always be "BC"
    int
    LogVersion;
    // set to
TXN_LOG_VERSION
    JULIAN_TIME
    BeginTxnTS;
    // timestamp
of first (lowest) txn start
    JULIAN_TIME
    EndTxnTS;
    // timestamp of last
(highest) txn completion time
    int
    iRecCount;
    // number of
records in log file
    BOOL
    bLogSorted;
    int
    iFileSize;
    // file size
in bytes

    // driver engine that created
this log file
    char
    szDriverEngineName[DRIVER_NAME_LEN];
    // the record map provides a fast
way to get close to a particular timestamp in a
sorted log file.
    //
    struct
    {
        JULIAN_TIME
        TS;
        // timestamp
of record
        int
        iPos;
        // byte
position in file
    }
    RecMap[RecMapSize];
//#define    RecMapSize
200
} TXN_LOG_HEADER, *PTXN_LOG_HEADER;

```

```

/* Header of the sorted pointers blocks in
Temp file (in merging). */
typedef struct BLOCK_HEADER {
    long    BlockPos;
    __int64 CurPos;
    DWORD   BytesRead;
    int     nRecords;
    BYTE    *offset; /* offset of
pointers to records in the log file */
} BLOCK_HEADER, *PBLOCK_HEADER;

#define READ_BUFFER_SIZE          64*1024
#define WRITE_BUFFER_SIZE        8*1024
#define WRITE_BUFFER_SIZE        128*1024

#define NUM_READ_BUFFERS          1
#define NUM_WRITE_BUFFERS        2
#define MAX_NUM_BUFFERS          2

// flags passed in to the constructor
#define TXN_LOG_WRITE              0x01
#define TXN_LOG_READ              0x02
#define TXN_LOG_SORTED            0x04
#define TXN_LOG_CRASHOPEN        0x08 //
if set, invalid headers will be tolerated; used for
recovery

#define TXN_LOG_OS_ERROR          1
#define TXN_LOG_NOT_SORTED      2

#define SKIP_CTRL_RECS            1

class CTxnLog
{
private:
    DWORD    iBufferSize;
            //buffer allocated size
    DWORD    iBytesFreeInBuffer; //total bytes
available for use in buffer
    int
iNumBuffers;
//buffers in use
    int
iActiveBuffer;
//indicates which buffer is active: 0 or 1
    int
iIoBuffer;
//buffer for any pending IO operation
//
    int
iFilePointer;
//position in file.
    LARGE_INTEGER lFilePointer;
//position in file.
    int
iNextRec;
//when reading, ordinal value of next
record

```

```

// A "save point" is remembered
each time GetNextRecord is called with a start time
specified.
// The next time it is called, if
start time is after the save point, we start scanning
from the
// save point. This is
particularly useful in FindBestInterval, where the
log is scanned repeatedly.
    JULIAN_TIME
    SavePtTime;
//
    int
iSavePtFilePointer;
    LARGE_INTEGER
lSavePtFilePointer;
    int
iSavePtNextRec;
    JULIAN_TIME    lastTS;
//when
writing sorted output, used to verify records are
sorted
    BOOL    bWrite;
//writing log
file
    BOOL    bCrashOpen;
// tolerate
bad headers and consistency checks
    BOOL
bLogSorted; //
is log file sorted? applies to both input and output
    JULIAN_TIME
BeginTxnTS; //
timestamp of first (lowest) txn start
    JULIAN_TIME
EndTxnTS; // timestamp
of last (highest) txn completion time
    int
iRecCount; //
number of records in log file
// To write a checkpoint
information into the header, need to know the
EndTxnTS for the
// last record written to the
disk. It is not necessarily the last record in the
// last written buffer, as the
last record may be only partially in the buffer.
// So remember the timestamps for
2 last records that begin in the buffer - one of
// them will be the last complete
record written to disk.
    JULIAN_TIME
PrevEndTxnTS; // timestamp
of the previous to last record
    union {
        TXN_LOG_HEADER
HeaderForCheckpoint; // header written on
every checkpoint
        char
szHeaderBuffer[512]; //
512 bytes is the minimum we can write to the disk

```

```

} HeaderBuffer; //need the
union because can't write sizeof(TXN_LOG_HEADER) -
too few bytes
// Control record returned from
GetNextRecord if the file
// currently opened for read was
not properly shut down
    struct
    {
        TXN_RECORD_CONTROL
RecHeader;
        char
szDriverName[DRIVER_NAME_LEN];
    } IncorrectShutdownRec;
    BYTE    *pCurrent;
//ptr to
current buffer
    BYTE
*pBuffer[MAX_NUM_BUFFERS];
    PTXN_RECORD_HEADER *TxnArray;
//transaction record pointer
array for sort
    DWORD    dwError;
    DWORD
dwCheckpointError; //error in
checkpoint thread
    HANDLE    hTxnFile;
    HANDLE    //handle to log file
hMapFile;
//map file used when
sorting the log
    HANDLE    hIoComplete;
//event to signify that
there are no pending IOs
    HANDLE    hLogFileIo;
//event to
signal the IO thread to write the inactive buffer
    HANDLE
hStopCheckpointThread; //event to
signal the checkpoint thread to exit
    Spinlock Spin;
//spin lock to protect
the txn log file buffers
    Spinlock WriteSpin;
//spin lock to protect
the WriteFile operation between IO and Checkpoint
threads
    FILE
*tmpFile; //temp file for merging
sorted pieces
    PBLOCK_HEADER
tmpHeaders; //sorted
pointers block header
    BYTE
**recPointers; //record pointer
buffers for each sorted block

```



```

        PTXN_RECORD_HEADER *recBuffers;
//record buffers for each sorted block
        int
        *PointersRead;
//# of pointers processed in each block
        BOOL *BlockAvailable;
//whether to check a particular
block for jmin

        int                nBlocks;
        int                jmin;

//index (block-wise) of the lowest
timestamp record
        int
        iAvgRecordLen;
//average record length

        int
        iSortedReturnedCount;
//keeps track of the # of sorted records
returned through GetSortedRecord()

        BOOL        bIncorrectShutdown;
// indicates whether the log
opened for read was not correctly shut down

        int Write(BYTE *ptr, DWORD Size);
static void LogFileIO(CTxnLog *);

        void LoadBuffers(int j);
//used in sort/merge to load
record buffers

        static void
CheckpointThread(CTxnLog *); // checkpointing thread

        public:

                CTxnLog(LPCTSTR szFileName, DWORD
dwOpts, char *szDriver = NULL);
~CTxnLog(void);

                int WriteToLog(PTXN_RECORD_TPCC
pTxnRcprd);

                int
WriteToLog(PTXN_RECORD_TPCC_DELIV_DEF pTxnRcprd);
                int
WriteToLog(PTXN_RECORD_CONTROL pCtrlRec);
                int WriteToLog(PTXN_RECORD_HEADER
pCtrlRec);

                int WriteToLog(PTXN_RECORD_TPCW
pTxnRcprd);
//support for TPC-W

                int WriteCtrlRecToLog(BYTE
SubType, LPTSTR lpStr, DWORD dwLen);

                void
CloseTransactionLogFile(void);

                PTXN_RECORD_HEADER
GetNextRecord(BOOL bSkipCtrlRecs = FALSE);

```

```

        PTXN_RECORD_HEADER
GetNextRecord(JULIAN_TIME SeekTimeT0, BOOL
bSkipCtrlRecs = FALSE);

        int Sort(void);
        PTXN_RECORD_HEADER
GetSortedRecord();

        inline BOOL IsSorted(void) {
return bLogSorted; };
        inline JULIAN_TIME BeginTS(void)
{ return BeginTxnTS; };
        inline JULIAN_TIME EndTS(void) {
return EndTxnTS; };
        inline int RecordCount(void) {
return iRecCount; };
};

class CTXNLOG_ERR : public CBaseErr
{
        public:
                enum CTXNLOG_ERRS
                {
                        ERR_BAD_FILE_FORMAT,
// "File format is invalid."

                        ERR_UNKNOWN_LOG_VERSION, // "Log file
version is unknown."

                        ERR_BROKEN_LOG_FILE,
// "Log file is broken."
                        ERR_LOG_NOT_SORTED,
// "Log file is not sorted"
                        ERR_INVALID_TIME_SEQ,
// "Internal Error: Record Time
Sequence invalid."
                };

                CTXNLOG_ERR(int iErr) :
CBaseErr(iErr) {};

                int ErrorType() {return
ERR_TYPE_TXNLOG;};
                char *ErrorTypeStr() { return
"TXN LOG"; }

                char *ErrorText()
                {
                        static char *szMsgs[] =
                {
                        "File format
is invalid.",
                        "Log file
version is unknown.",
                        "Log file is
broken.",
                        "Log file is
not sorted",
                        "Internal
Error: Record Time Sequence invalid.",
                        ""
                };

```

```

for(int i = 0;
szMsgs[i][0]; i++)
        {
                if ( m_idMsg
== i )
                        break;
        }
return(szMsgs[i][0] ?
szMsgs[i] : ERR_UNKNOWN);
};
};

```

txn_base.h

```

/* FILE: TXN_BASE.H
* Microsoft
TPC-C Kit Ver. 4.69.000 Copyright
Microsoft, 1999
* All Rights Reserved
* Version
4.10.000 audited by Richard Gimarc, Performance
Metrics, 3/17/99
* PURPOSE: Header file for TPC-C txn class
implementation.
* Change history:
* 4.20.000 - updated rev number to
match kit
*/

#pragma once

// need to declare functions for import, unless
define has already been created
// by the DLL's .cpp module for export.
#ifdef DllDecl
#define DllDecl __declspec( dllimport )
#endif

class DllDecl CTPCC_BASE
{
        public:
                CTPCC_BASE(void) {};
                virtual ~CTPCC_BASE(void) {};

                virtual PNEW_ORDER_DATA
BuffAddr_NewOrder() = 0;
                virtual PPAYMENT_DATA
BuffAddr_Payment() = 0;
                virtual PDELIVERY_DATA
BuffAddr_Delivery() = 0;
                virtual PSTOCK_LEVEL_DATA
BuffAddr_StockLevel() = 0;
                virtual PORDER_STATUS_DATA
BuffAddr_OrderStatus() = 0;

```

```
        virtual void NewOrder
    () = 0;
        virtual void Payment
    () = 0;
        virtual void Delivery
    () = 0;
        virtual void StockLevel
    () = 0;
        virtual void OrderStatus    ()
= 0;
};
```

_resource.h

```
//{{NO_DEPENDENCIES}}
// Microsoft Developer Studio generated include file.
// Used by tpcc_com_all.rc
//
#define IDS_PROJNAME            100
#define IDR_TPCC                101
#define IDR_NEWORDER           102
#define IDR_ORDERSTATUS        103
#define IDR_PAYMENT            104
#define IDR_STOCKLEVEL         105

// Next default values for new objects
//
#ifdef APSTUDIO_INVOKED
#ifdef APSTUDIO_READONLY_SYMBOLS
#define _APS_NEXT_RESOURCE_VALUE        202
#define _APS_NEXT_COMMAND_VALUE        32768
#define _APS_NEXT_CONTROL_VALUE        201
#define _APS_NEXT_SYMED_VALUE          106
#endif
#endif
#endif
```

Appendix B:

Database Design

The TPC-C database was created with the following Transact-SQL scripts:

backup.sql

```
-----
--
-- File:    BACKUP.SQL
--
--          Microsoft TPC-C Benchmark Kit Ver. 4.61
--
--          Copyright Microsoft, 2005
--
-----

DECLARE @startdate DATETIME,
        @enddate   DATETIME

SELECT @startdate = GETDATE()
SELECT 'Start date:',
       21)          CONVERT(VARCHAR(30),@startdate,

DUMP DATABASE tpcc TO tpccback1, tpccback2,
tpccback3, tpccback4, tpccback5, tpccback6,
tpccback7, tpccback8, tpccback9, tpccback10,
tpccback11, tpccback12, tpccback13, tpccback14,
tpccback15, tpccback16 WITH init, stats = 1

SELECT @enddate = GETDATE()
SELECT 'End date: ',
       CONVERT(VARCHAR(30),@enddate, 21)
SELECT 'Elapsed time (in seconds): ',
       DATEDIFF(second, @startdate,
@enddate)
GO
```

backupdev.sql

```
-----
--
-- File:    BACKUPDEV.SQL
--
--          Microsoft TPC-C Benchmark Kit Ver. 4.68
--
--          Copyright Microsoft, 2005
--
-----

USE master
GO
```

```
-----
-- create backup devices
-----
EXEC sp_addumpdevice
'disk','tpccback1','c:\backup\1\tpccback1.dmp'
GO
EXEC sp_addumpdevice
'disk','tpccback2','c:\backup\2\tpccback2.dmp'
GO
EXEC sp_addumpdevice
'disk','tpccback3','c:\backup\3\tpccback3.dmp'
GO
EXEC sp_addumpdevice
'disk','tpccback4','c:\backup\4\tpccback4.dmp'
GO
EXEC sp_addumpdevice
'disk','tpccback5','c:\backup\5\tpccback5.dmp'
GO
EXEC sp_addumpdevice
'disk','tpccback6','c:\backup\6\tpccback6.dmp'
GO
EXEC sp_addumpdevice
'disk','tpccback7','c:\backup\7\tpccback7.dmp'
GO
EXEC sp_addumpdevice
'disk','tpccback8','c:\backup\8\tpccback8.dmp'
GO
EXEC sp_addumpdevice
'disk','tpccback9','c:\backup\9\tpccback9.dmp'
GO
EXEC sp_addumpdevice
'disk','tpccback10','c:\backup\10\tpccback10.dmp'
GO
EXEC sp_addumpdevice
'disk','tpccback11','c:\backup\11\tpccback11.dmp'
GO
EXEC sp_addumpdevice
'disk','tpccback12','c:\backup\12\tpccback12.dmp'
GO
EXEC sp_addumpdevice
'disk','tpccback13','c:\backup\13\tpccback13.dmp'
GO
EXEC sp_addumpdevice
'disk','tpccback14','c:\backup\14\tpccback14.dmp'
GO
EXEC sp_addumpdevice
'disk','tpccback15','c:\backup\15\tpccback15.dmp'
GO
EXEC sp_addumpdevice
'disk','tpccback16','c:\backup\16\tpccback16.dmp'
GO
```

createdb.sql

```
-----
--
-- File:    CREATEDB.SQL
--
```

```
-----
--          Microsoft TPC-C Benchmark Kit Ver. 4.68
--
--          Copyright Microsoft, 2005
--
-----

SET ANSI_NULL_DFLT_OFF ON
GO

USE master
GO

-----
-- Create temporary table for timing
-----
IF EXISTS( SELECT name FROM sysobjects WHERE name =
'tpcc_timer' )
    DROP TABLE tpcc_timer
GO

CREATE TABLE tpcc_timer
        (start_date CHAR(30),
        end_date   CHAR(30))
GO

INSERT INTO tpcc_timer VALUES(0,0)
GO

-----
-- Store starting time
-----
UPDATE tpcc_timer
SET start_date = (SELECT CONVERT(CHAR(30),
GETDATE(), 21))
GO

-----
-- create main database files
-----
CREATE DATABASE tpcc
ON PRIMARY
(
    NAME             = MSSQL_tpcc_root,
    FILENAME         = 'c:\MSSQL_tpcc_root.mdf',
    SIZE             = 8MB,
    FILEGROWTH       = 0),

FILEGROUP MSSQL_fg
(
    NAME             = MSSQL_1,
    FILENAME         = 'c:\dev\tpcc_1\ ',
    SIZE             = 60000MB,
    FILEGROWTH       = 0),

(
    NAME             = MSSQL_2,
    FILENAME         = 'c:\dev\tpcc_2\ ',
    SIZE             = 60000MB,
    FILEGROWTH       = 0),

(
    NAME             = MSSQL_3,
    FILENAME         = 'c:\dev\tpcc_3\ ',
    SIZE             = 60000MB,
```

```

FILEGROWTH = 0),
(
  NAME = MSSQL_4,
  FILENAME = 'c:\dev\tpcc_4\'',
  SIZE = 60000MB,
  FILEGROWTH = 0),
(
  NAME = MSSQL_5,
  FILENAME = 'c:\dev\tpcc_5\'',
  SIZE = 60000MB,
  FILEGROWTH = 0),
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  FILENAME = 'c:\dev\tpcc_6\'',
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(
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  FILENAME = 'c:\dev\tpcc_19\'',

```

```

  SIZE = 60000MB,
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  NAME = MSSQL_35,

```

```

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  SIZE = 60000MB,
  FILEGROWTH = 0),

```



```

( NAME = MSSQL_240,
FILENAME = 'c:\dev\tpcc_240\',
SIZE = 60000MB,
FILEGROWTH = 0),
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FILENAME = 'c:\dev\tpcc_241\',
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SIZE = 60000MB,
FILEGROWTH = 0),
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FILENAME = 'c:\dev\tpcc_254\',
SIZE = 60000MB,
FILEGROWTH = 0),
( NAME = MSSQL_255,
FILENAME = 'c:\dev\tpcc_255\',
SIZE = 60000MB,

```

```

FILEGROWTH = 0),
( NAME = MSSQL_256,
FILENAME = 'c:\dev\tpcc_256\',
SIZE = 60000MB,
FILEGROWTH = 0)

LOG ON
( NAME = MSSQL_tpcc_log_1,
FILENAME = 'E:',
SIZE = 1714500MB,
FILEGROWTH = 0),
( NAME = MSSQL_tpcc_log_2,
FILENAME = 'F:',
SIZE = 1714500MB,
FILEGROWTH = 0),
( NAME = MSSQL_tpcc_log_3,
FILENAME = 'G:',
SIZE = 1714500MB,
FILEGROWTH = 0),
( NAME = MSSQL_tpcc_log_4,
FILENAME = 'H:',
SIZE = 1714500MB,
FILEGROWTH = 0)

COLLATE Latin1_General_BIN
GO

-----
-- Store ending time
-----
UPDATE tpcc_timer
SET end_date = (SELECT CONVERT(CHAR(30),
GETDATE(), 21))
GO

SELECT DATEDIFF(second, (SELECT start_date FROM
tpcc_timer), (SELECT end_date FROM tpcc_timer))
GO

-----
-- remove temporary table
-----
IF EXISTS ( SELECT name FROM sysobjects WHERE name =
'tpcc_timer' )
DROP TABLE tpcc_timer
GO

```

dbopt1.sql

```

-----
--
-- File: DBOPT1.SQL
--
-- Microsoft TPC-C Benchmark Kit Ver. 4.68
--
-- Copyright Microsoft, 2006
--

```

```

--
--
-- Sets database options for load
--
-----
USE master
GO

ALTER DATABASE tpcc SET RECOVERY BULK_LOGGED
GO

EXEC sp_dboption tpcc, 'trunc. log on chkpt.', TRUE
GO

ALTER DATABASE tpcc SET TORN_PAGE_DETECTION OFF
GO

ALTER DATABASE tpcc SET PAGE_VERIFY NONE
GO

USE tpcc
GO

CHECKPOINT
GO

```

dbopt2.sql

```

-----
--
-- File: DBOPT2.SQL
--
-- Microsoft TPC-C Benchmark Kit Ver. 4.68
--
-- Copyright Microsoft, 2006
--
-- Sets database options after load
--
-----
ALTER DATABASE tpcc SET RECOVERY FULL
GO

USE tpcc
GO

CHECKPOINT
GO

sp_configure 'allow updates', 1
GO

```

```

RECONFIGURE WITH OVERRIDE
GO
DECLARE @msg          varchar(50)
-----
--          OPTIONS FOR SQL SERVER 2000          --
-- Set option values for user-defined indexes --
-----
SET @msg = ' '
PRINT @msg
SET @msg = 'Setting SQL Server indexoptions'
PRINT @msg
SET @msg = ' '
PRINT @msg

EXEC sp_indexoption 'customer',
'DisAllowPageLocks', TRUE
EXEC sp_indexoption 'district',
'DisAllowPageLocks', TRUE
EXEC sp_indexoption 'warehouse',
'DisAllowPageLocks', TRUE
EXEC sp_indexoption 'stock',
'DisAllowPageLocks', TRUE
EXEC sp_indexoption 'order_line',
'DisAllowRowLocks', TRUE
EXEC sp_indexoption 'orders',
'DisAllowRowLocks', TRUE
EXEC sp_indexoption 'new_order',
'DisAllowRowLocks', TRUE
EXEC sp_indexoption 'item',
'DisAllowRowLocks', TRUE
EXEC sp_indexoption 'item',
'DisAllowPageLocks', False
GO

Print ' '
Print '*****'
Print 'Pre-specified Locking Hierarchy:'
Print 'Lockflag = 0 ==> No pre-specified
hierarchy'
Print 'Lockflag = 1 ==> Lock at Page-level then
Table-level'
Print 'Lockflag = 2 ==> Lock at Row-level then
Table-level'
Print 'Lockflag = 3 ==> Lock at Table-level'
Print ' '

SELECT name,
lockflags
FROM sysindexes
WHERE object_id('warehouse') = id OR
object_id('district') = id OR
object_id('customer') = id OR
object_id('stock') = id OR
object_id('orders') = id OR
object_id('order_line') = id OR
object_id('history') = id OR
object_id('new_order') = id OR
object_id('item') = id
ORDER BY lockflags asc

```

```

GO
sp_configure 'allow updates',0
GO
RECONFIGURE WITH OVERRIDE
GO
EXEC sp_dboption tpcc,
statistics', FALSE
EXEC sp_dboption tpcc,
statistics', FALSE
GO
DECLARE @db_id int,
@tbl_id int
SET @db_id = DB_ID('tpcc')
SET @tbl_id = OBJECT_ID('tpcc..warehouse')
DBCC PINTABLE (@db_id, @tbl_id)
SET @tbl_id = OBJECT_ID('tpcc..district')
DBCC PINTABLE (@db_id, @tbl_id)
SET @tbl_id = OBJECT_ID('tpcc..new_order')
DBCC PINTABLE (@db_id, @tbl_id)
SET @tbl_id = OBJECT_ID('tpcc..item')
DBCC PINTABLE (@db_id, @tbl_id)
GO

```

delivery.sql

```

-----
--
-- File: DELIVERY.SQL
--
-- Microsoft TPC-C Benchmark Kit Ver. 4.68
--
-- Copyright Microsoft, 2006
--
-- Creates delivery stored procedure
--
--
-- Interface Level: 4.20.000
--
-----
SET QUOTED_IDENTIFIER OFF
GO
SET ANSI_NULLS ON
GO

```

```

USE tpcc
GO
IF EXISTS ( SELECT name FROM sysobjects WHERE name =
'tpcc_delivery' )
DROP PROCEDURE tpcc_delivery
GO
CREATE PROC tpcc_delivery
@w_id int,
@o_carrier_id smallint
AS
DECLARE @d_id tinyint,
@o_id int,
@c_id int,
@total money,
@oid1 int,
@oid2 int,
@oid3 int,
@oid4 int,
@oid5 int,
@oid6 int,
@oid7 int,
@oid8 int,
@oid9 int,
@oid10 int
SELECT @d_id = 0
BEGIN TRANSACTION d
WHILE (@d_id < 10)
BEGIN
SELECT @d_id = @d_id + 1,
@total = 0,
@o_id = 0
SELECT TOP 1
@o_id = no_o_id
FROM new_order WITH (serializable
updlock)
WHERE no_w_id = @w_id AND
no_d_id = @d_id
ORDER BY no_o_id ASC
IF (@@rowcount <> 0)
BEGIN
-- claim the order for this district
DELETE new_order
WHERE no_w_id = @w_id AND
no_d_id = @d_id AND
no_o_id = @o_id
-- set carrier_id on this order (and get
customer id)
UPDATE orders
SET o_carrier_id = @o_carrier_id,
@c_id = o_c_id
WHERE o_w_id = @w_id AND
o_d_id = @d_id AND

```

```

                o_id          = @o_id
-- set date in all lineitems for this
order (and sum amounts)
UPDATE order_line
SET   ol_delivery_d = GETDATE(),
      @total        = @total +
ol_amount
WHERE ol_w_id      = @w_id AND
      ol_d_id      = @d_id AND
      ol_o_id      = @o_id

-- accumulate lineitem amounts for this
order into customer
UPDATE customer
SET   c_balance     = c_balance +
      @total,
      c_delivery_cnt = c_delivery_cnt
+ 1
WHERE c_w_id      = @w_id AND
      c_d_id      = @d_id AND
      c_id        = @c_id

END

SELECT @oid1 = CASE @d_id WHEN 1 THEN
@o_id ELSE @oid1 END,
@oid2 = CASE @d_id WHEN 2 THEN
@o_id ELSE @oid2 END,
@oid3 = CASE @d_id WHEN 3 THEN
@o_id ELSE @oid3 END,
@oid4 = CASE @d_id WHEN 4 THEN
@o_id ELSE @oid4 END,
@oid5 = CASE @d_id WHEN 5 THEN
@o_id ELSE @oid5 END,
@oid6 = CASE @d_id WHEN 6 THEN
@o_id ELSE @oid6 END,
@oid7 = CASE @d_id WHEN 7 THEN
@o_id ELSE @oid7 END,
@oid8 = CASE @d_id WHEN 8 THEN
@o_id ELSE @oid8 END,
@oid9 = CASE @d_id WHEN 9 THEN
@o_id ELSE @oid9 END,
@oid10 = CASE @d_id WHEN 10 THEN
@o_id ELSE @oid10 END
END

COMMIT TRANSACTION d

-- return delivery data to client

SELECT @oid1,
@oid2,
@oid3,
@oid4,
@oid5,
@oid6,
@oid7,
@oid8,
@oid9,
@oid10
GO

SET QUOTED_IDENTIFIER OFF

```

```

GO

SET ANSI_NULLS ON
GO

-----
getargs.c
-----
// File: GETARGS.C
// Microsoft
TPC-C Kit Ver. 4.51
// Copyright
Microsoft, 1996, 1997, 1998, 1999, 2000, 2001, 2002,
2003
// Purpose: Source file for command line
processing

// Includes
#include "tpcc.h"

//=====
//
// Function name: GetArgsLoader
//
//=====

void GetArgsLoader(int argc, char **argv,
TPCCCLDR_ARGS *pargs)
{
    int i;
    char *ptr;

#ifdef DEBUG
    printf("[%ld]DBG: Entering GetArgsLoader()\n",
(int) GetCurrentThreadId());
#endif

    /* init args struct with some useful values */
    pargs->server = SERVER;
    pargs->user = USER;
    pargs->password = PASSWORD;
    pargs->database = DATABASE;
    pargs->batch = BATCH;
    pargs->num_warehouses = UNDEF;
    pargs->tables_all =
TRUE;
    pargs->table_item =
FALSE;
    pargs->table_warehouse =
FALSE;
    pargs->table_customer =
FALSE;
    pargs->table_orders =
FALSE;
    pargs->loader_res_file =
LOADER_RES_FILE;
    pargs->log_path =
LOADER_LOG_PATH;

```

```

    pargs->pack_size =
DEFLDPACKSIZE;
    pargs->starting_warehouse =
DEF_STARTING_WAREHOUSE;
    pargs->build_index =
BUILD_INDEX;
    pargs->index_order =
INDEX_ORDER;
    pargs->index_script_path =
INDEX_SCRIPT_PATH;
    pargs->scale_down =
SCALE_DOWN;

    /* check for zero command line args */
    if ( argc == 1 )
        GetArgsLoaderUsage();

    for ( i = 1; i < argc; ++i )
    {
        if (argv[i][0] != '-' &&
argv[i][0] != '/')
        {
            printf("\nUnrecognized command");
            GetArgsLoaderUsage();
            exit(1);
        }

        ptr = argv[i];

        switch (ptr[1])
        {
            case '?': /* Fall through */
                GetArgsLoaderUsage();
                break;

            case 'D':
                pargs->
>database = ptr+2;
                break;

            case 'P':
                pargs->
>password = ptr+2;
                break;

            case 'S':
                pargs->server
= ptr+2;
                break;

            case 'U':
                pargs->user =
ptr+2;
                break;

            case 'b':
                pargs->batch
= atoi(ptr+2);
                break;

            case 'W':

```

```

>num_warehouses = atol(ptr+2);      pargs-
                                    break;
                                    case 's':
>starting_warehouse = atol(ptr+2);  pargs-
                                    break;
                                    case 't':
                                    {
                                        pargs->tables_all = FALSE;
                                        if
(strncmp(ptr+2,"item") == 0)
                                        pargs->table_item = TRUE;
                                        else if (strcmp(ptr+2,"warehouse") == 0)
                                        pargs->table_warehouse = TRUE;
                                        else if (strcmp(ptr+2,"customer") == 0)
                                        pargs->table_customer = TRUE;
                                        else if (strcmp(ptr+2,"orders") == 0)
                                        pargs->table_orders = TRUE;
                                        else
                                        {
                                            printf("\nUnrecognized command");
                                            GetArgsLoaderUsage();
                                            exit(1);
                                        }
                                        break;
                                    }
                                    case 'f':
>loader_res_file = ptr+2;          pargs-
                                    break;
                                    case 'L':
>log_path = ptr+2;                pargs-
                                    break;
                                    case 'p':
>pack_size = atol(ptr+2);          pargs-
                                    break;
                                    case 'i':
>build_index = atol(ptr+2);        pargs-
                                    break;

```

```

                                    case 'o':
>index_order = atol(ptr+2);        pargs-
                                    break;
                                    case 'c':
>scale_down = atol(ptr+2);        pargs-
                                    break;
                                    case 'd':
>index_script_path = ptr+2;        pargs-
                                    break;
                                    default:
                                    GetArgsLoaderUsage();
                                    exit(-1);
                                    break;
                                }
                                /* check for required args */
                                if (pargs->num_warehouses == UNDEF )
                                {
                                    printf("Number of Warehouses is
required\n");
                                    exit(-2);
                                }
                                return;
                            }
                            //=====
                            //
                            // Function name: GetArgsLoaderUsage
                            //
                            //=====
                            void GetArgsLoaderUsage()
                            {
                                #ifdef DEBUG
                                    printf("[%ld]DBG: Entering
GetArgsLoaderUsage()\n", (int) GetCurrentThreadId());
                                #endif
                                    printf("TPCCLDR:\n\n");
                                    printf("Parameter
Default\n");
                                    printf("-----\n");
                                    printf("-W Number of Warehouses to Load
Required \n");
                                    printf("-S Server
%s\n", SERVER);
                                    printf("-U Username
%s\n", USER);

```

```

                                printf("-P Password
%s\n", PASSWORD);
                                printf("-D Database
%s\n", DATABASE);
                                printf("-b Batch Size
%d\n", (long) BATCH);
                                printf("-p TDS packet size
%d\n", (long) DEFLDPACKSIZE);
                                printf("-L Loader BCP Log Path
%s\n", LOADER_LOG_PATH);
                                printf("-f Loader Results Output Filename
%s\n", LOADER_RES_FILE);
                                printf("-s Starting Warehouse
%d\n", (long) DEF_STARTING_WAREHOUSE);
                                printf("-i Build Option (data = 0, data and
index = 1) %ld\n", (long) BUILD_INDEX);
                                printf("-o Cluster Index Build Order
(before = 1, after = 0) %ld\n", (long) INDEX_ORDER);
                                printf("-c Build Scaled Database (normal =
0, tiny = 1) %ld\n", (long) SCALE_DOWN);
                                printf("-d Index Script Path
%s\n", INDEX_SCRIPT_PATH);
                                printf("-t Table to Load
all tables \n");
                                printf(" [item|warehouse|customer|orders]\n");
                                printf(" Notes: \n");
                                printf(" - the '-t' parameter may be included
multiple times to \n");
                                printf(" specify multiple tables to be
loaded \n");
                                printf(" - 'item' loads ITEM table \n");
                                printf(" - 'warehouse' loads WAREHOUSE,
DISTRICT, and STOCK tables \n");
                                printf(" - 'customer' loads CUSTOMER and
HISTORY tables \n");
                                printf(" - 'orders' load NEW-ORDER, ORDERS,
ORDER-LINE tables \n");
                                printf("\nNote: Command line switches are
case sensitive.\n");
                                exit(0);
                            }

```

idxcuscl.sql

```

-----
--
-- File:   IDXCUSCL.SQL
--
-- Microsoft TPC-C Benchmark Kit Ver. 4.68
--
-- Copyright Microsoft, 2006
--
--

```

```

--          Creates clustered index on customer table
--
-----
USE tpcc
GO

DECLARE @startdate DATETIME,
        @enddate   DATETIME

SELECT @startdate = GETDATE()
SELECT 'Start date:',
       CONVERT(VARCHAR(30),@startdate,21)

IF EXISTS ( SELECT name FROM sysindexes WHERE name =
'customer_c1' )
    DROP INDEX customer.customer_c1

CREATE UNIQUE CLUSTERED INDEX customer_c1 ON
customer(c_w_id, c_d_id, c_id)
    ON MSSQL_fg

SELECT @enddate = GETDATE()
SELECT 'End date:',
       CONVERT(VARCHAR(30),@enddate,21)
SELECT 'Elapsed time (in seconds): ',
       DATEDIFF(second, @startdate, @enddate)
GO

```

idxcusnc.sql

```

-----
--
-- File:   IDXCUSNC.SQL
--
--        Microsoft TPC-C Benchmark Kit Ver. 4.68
--
--        Copyright Microsoft, 2006
--
--        Creates non-clustered index on customer
table
--
-----
USE tpcc
GO

DECLARE @startdate DATETIME,
        @enddate   DATETIME

SELECT @startdate = GETDATE()
SELECT 'Start date:',
       CONVERT(VARCHAR(30),@startdate,21)

IF EXISTS ( SELECT name FROM sysindexes WHERE name =
'customer_nc1' )
    DROP INDEX customer.customer_nc1

```

```

CREATE UNIQUE NONCLUSTERED INDEX customer_nc1 ON
customer(c_w_id, c_d_id, c_last, c_first, c_id)
    ON MSSQL_fg

```

```

SELECT @enddate = GETDATE()
SELECT 'End date:',
       CONVERT(VARCHAR(30),@enddate,21)
SELECT 'Elapsed time (in seconds): ',
       DATEDIFF(second, @startdate, @enddate)
GO

```

idxdiscl.sql

```

-----
--
-- File:   IDXDISCL.SQL
--
--        Microsoft TPC-C Benchmark Kit Ver. 4.68
--
--        Copyright Microsoft, 2006
--
--        Creates clustered index on district table
--
-----

```

```

USE tpcc
GO

DECLARE @startdate DATETIME,
        @enddate   DATETIME

SELECT @startdate = GETDATE()
SELECT 'Start date:',
       CONVERT(VARCHAR(30),@startdate,21)

IF EXISTS ( SELECT name FROM sysindexes WHERE name =
'district_c1' )
    DROP INDEX district.district_c1

CREATE UNIQUE CLUSTERED INDEX district_c1 ON
district(d_w_id, d_id)
    WITH FILLFACTOR=100 ON MSSQL_fg

SELECT @enddate = GETDATE()
SELECT 'End date:',
       CONVERT(VARCHAR(30),@enddate,21)
SELECT 'Elapsed time (in seconds): ',
       DATEDIFF(second, @startdate, @enddate)
GO

```

idxhiscl.sql

```

-----
--
-- File:   IDXHISCL.SQL
--
--        Microsoft TPC-C Benchmark Kit Ver. 4.68
--
--        Copyright Microsoft, 2006
--
--        Creates clustered index on history table
--
--        CAUTION: This index is only beneficial
for systems --
--        CAUTION: with 8 or more processors.
--
--        CAUTION: It may negatively impact
performance on --
--        CAUTION: systems with less than 8
processors.    --
--
-----
USE tpcc
GO

```

```

DECLARE @startdate DATETIME,
        @enddate   DATETIME

SELECT @startdate = GETDATE()
SELECT 'Start date:',
       CONVERT(VARCHAR(30),@startdate,21)

IF EXISTS ( SELECT name FROM sysindexes WHERE name =
'history_c1' )
    DROP INDEX history.history_c1

CREATE UNIQUE CLUSTERED INDEX history_c1 ON
history(h_c_w_id, h_date, h_c_d_id, h_c_id, h_amount)
    ON MSSQL_fg

SELECT @enddate = GETDATE()
SELECT 'End date:',
       CONVERT(VARCHAR(30),@enddate,21)
SELECT 'Elapsed time (in seconds): ',
       DATEDIFF(second, @startdate, @enddate)
GO

```

idxitmcl.sql

```

--
-- File:   IDXITMCL.SQL
--
--       Microsoft TPC-C Benchmark Kit Ver. 4.68
--
--       Copyright Microsoft, 2006
--
--       Creates clustered index on item table
--
-----
USE tpcc
GO

DECLARE @startdate DATETIME,
        @enddate   DATETIME

SELECT @startdate = GETDATE()
SELECT 'Start date:',
       CONVERT(VARCHAR(30),@startdate,21)

IF EXISTS ( SELECT name FROM sysindexes WHERE name =
            'item_cl' )
    DROP INDEX item.item_cl

CREATE UNIQUE CLUSTERED INDEX item_cl ON item(i_id)
ON MSSQL_fg

SELECT @enddate = GETDATE()
SELECT 'End date:',
       CONVERT(VARCHAR(30),@enddate,21)
SELECT 'Elapsed time (in seconds): ',
       DATEDIFF(second, @startdate, @enddate)
GO

```

idxnodcl.sql

```

-----
--
-- File:   IDXNODCL.SQL
--
--       Microsoft TPC-C Benchmark Kit Ver. 4.68
--
--       Copyright Microsoft, 2006
--
--       Creates clustered index on new-order
table --
--
-----

```

```

USE tpcc
GO

DECLARE @startdate DATETIME,
        @enddate   DATETIME

SELECT @startdate = GETDATE()
SELECT 'Start date:',
       CONVERT(VARCHAR(30),@startdate,21)

IF EXISTS ( SELECT name FROM sysindexes WHERE name =
            'new_order_cl' )
    DROP INDEX new_order.new_order_cl

CREATE UNIQUE CLUSTERED INDEX new_order_cl ON
new_order(no_w_id, no_d_id, no_o_id)
ON MSSQL_fg

SELECT @enddate = GETDATE()
SELECT 'End date:',
       CONVERT(VARCHAR(30),@enddate,21)
SELECT 'Elapsed time (in seconds): ',
       DATEDIFF(second, @startdate, @enddate)
GO

```

idxodlcl.sql

```

-----
--
-- File:   IDXODLCL.SQL
--
--       Microsoft TPC-C Benchmark Kit Ver. 4.68
--
--       Copyright Microsoft, 2006
--
--       Creates clustered index on order-line
table --
--
-----
USE tpcc
GO

DECLARE @startdate DATETIME,
        @enddate   DATETIME

SELECT @startdate = GETDATE()
SELECT 'Start date:',
       CONVERT(VARCHAR(30),@startdate,21)

IF EXISTS ( SELECT name FROM sysindexes WHERE name =
            'order_line_cl' )
    DROP INDEX order_line.order_line_cl

```

```

CREATE UNIQUE CLUSTERED INDEX order_line_cl ON
order_line(ol_w_id, ol_d_id, ol_o_id, ol_number)
ON MSSQL_fg

SELECT @enddate = GETDATE()
SELECT 'End date:',
       CONVERT(VARCHAR(30),@enddate,21)
SELECT 'Elapsed time (in seconds): ',
       DATEDIFF(second, @startdate, @enddate)
GO

```

idxordcl.sql

```

-----
--
-- File:   IDXORDCL.SQL
--
--       Microsoft TPC-C Benchmark Kit Ver. 4.68
--
--       Copyright Microsoft, 2006
--
--       Creates clustered index on orders table
--
-----
USE tpcc
GO

DECLARE @startdate DATETIME,
        @enddate   DATETIME

SELECT @startdate = GETDATE()
SELECT 'Start date:',
       CONVERT(VARCHAR(30),@startdate,21)

IF EXISTS ( SELECT name FROM sysindexes WHERE name =
            'orders_cl' )
    DROP INDEX orders.orders_cl

CREATE UNIQUE CLUSTERED INDEX orders_cl ON
orders(o_w_id, o_d_id, o_id)
ON MSSQL_fg

SELECT @enddate = GETDATE()
SELECT 'End date:',
       CONVERT(VARCHAR(30),@enddate,21)
SELECT 'Elapsed time (in seconds): ',
       DATEDIFF(second, @startdate, @enddate)
GO

```

idxordnc.sql

```
-----
--
-- File:      IDXORDNC.SQL
--
--           Microsoft TPC-C Benchmark Kit Ver. 4.68
--           Copyright Microsoft, 2006
--
--           Creates non-clustered index on orders
table      --
-----
USE tpcc
GO

DECLARE @startdate DATETIME,
        @enddate   DATETIME

SELECT  @startdate = GETDATE()
SELECT  'Start date:',
        CONVERT(VARCHAR(30),@startdate,21)

IF EXISTS ( SELECT name FROM sysindexes WHERE name =
            'orders_ncl' )
        DROP INDEX orders.orders_ncl

CREATE INDEX orders_ncl ON orders(o_w_id, o_d_id,
                                o_c_id, o_id)
        ON MSSQL_fg

SELECT  @enddate = GETDATE()
SELECT  'End date:',
        CONVERT(VARCHAR(30),@enddate,21)
SELECT  'Elapsed time (in seconds): ',
        DATEDIFF(second, @startdate, @enddate)
GO
```

idxstkcl.sql

```
-----
--
-- File:      IDXSTKCL.SQL
--
--           Microsoft TPC-C Benchmark Kit Ver. 4.68
--           Copyright Microsoft, 2006
--
--           Creates clustered index on stock table
--
-----
```

```
-----
--
--
-----
USE tpcc
GO

DECLARE @startdate DATETIME,
        @enddate   DATETIME

SELECT  @startdate = GETDATE()
SELECT  'Start date:',
        CONVERT(VARCHAR(30),@startdate,21)

IF EXISTS ( SELECT name FROM sysindexes WHERE name =
            'stock_cl' )
        DROP INDEX stock.stock_cl

CREATE UNIQUE CLUSTERED INDEX stock_cl ON
stock(s_i_id, s_w_id)
        ON MSSQL_fg

SELECT  @enddate = GETDATE()
SELECT  'End date:',
        CONVERT(VARCHAR(30),@enddate,21)
SELECT  'Elapsed time (in seconds): ',
        DATEDIFF(second, @startdate, @enddate)
GO
```

idxwarcl.sql

```
-----
--
-- File:      IDXWARCL.SQL
--
--           Microsoft TPC-C Benchmark Kit Ver. 4.68
--           Copyright Microsoft, 2006
--
--           Creates clustered index on warehouse
table      --
-----
USE tpcc
GO

DECLARE @startdate DATETIME,
        @enddate   DATETIME

SELECT  @startdate = GETDATE()
SELECT  'Start date:',
        CONVERT(VARCHAR(30),@startdate,21)
```

```
IF EXISTS ( SELECT name FROM sysindexes WHERE name =
            'warehouse_cl' )
        DROP INDEX warehouse.warehouse_cl

CREATE UNIQUE CLUSTERED INDEX warehouse_cl ON
warehouse(w_id)
        WITH FILLFACTOR=100 ON MSSQL_fg

SELECT  @enddate = GETDATE()
SELECT  'End date:',
        CONVERT(VARCHAR(30),@enddate,21)
SELECT  'Elapsed time (in seconds): ',
        DATEDIFF(second, @startdate, @enddate)
GO
```

NewOrd.sql

```
-----
--
-- File:      NEWORD.SQL
--
--           Microsoft TPC-C Benchmark Kit Ver. 4.68
--           Copyright Microsoft, 2006
--
--           Creates neworder stored procedure
--
--           Interface Level:      4.20.000
--
-----
SET QUOTED_IDENTIFIER OFF
GO

SET ANSI_NULLS ON
GO

USE tpcc
GO

IF EXISTS ( SELECT name FROM sysobjects WHERE name =
            'tpcc_neworder' )
        DROP PROCEDURE tpcc_neworder
GO

CREATE PROCEDURE      tpcc_neworder
                    @w_id      int,
                    @d_id      tinyint,
                    @c_id      int,
                    @o_ol_cnt  tinyint,
                    @o_all_local tinyint,
```



```

        @i_id1 int = 0, @s_w_id1
int = 0, @ol_qty1 smallint = 0,
        @i_id2 int = 0, @s_w_id2
int = 0, @ol_qty2 smallint = 0,
        @i_id3 int = 0, @s_w_id3
int = 0, @ol_qty3 smallint = 0,
        @i_id4 int = 0, @s_w_id4
int = 0, @ol_qty4 smallint = 0,
        @i_id5 int = 0, @s_w_id5
int = 0, @ol_qty5 smallint = 0,
        @i_id6 int = 0, @s_w_id6
int = 0, @ol_qty6 smallint = 0,
        @i_id7 int = 0, @s_w_id7
int = 0, @ol_qty7 smallint = 0,
        @i_id8 int = 0, @s_w_id8
int = 0, @ol_qty8 smallint = 0,
        @i_id9 int = 0, @s_w_id9
int = 0, @ol_qty9 smallint = 0,
        @i_id10 int = 0, @s_w_id10
int = 0, @ol_qty10 smallint = 0,
        @i_id11 int = 0, @s_w_id11
int = 0, @ol_qty11 smallint = 0,
        @i_id12 int = 0, @s_w_id12
int = 0, @ol_qty12 smallint = 0,
        @i_id13 int = 0, @s_w_id13
int = 0, @ol_qty13 smallint = 0,
        @i_id14 int = 0, @s_w_id14
int = 0, @ol_qty14 smallint = 0,
        @i_id15 int = 0, @s_w_id15
int = 0, @ol_qty15 smallint = 0

AS
DECLARE @w_tax          smallmoney,
        @d_tax          smallmoney,
        @c_last         char(16),
        @c_credit       char(2),
        @c_discount     smallmoney,
        @i_price        smallmoney,
        @i_name         char(24),
        @i_data         char(50),
        @o_entry_d      datetime,
        @remote_flag    int,
        @s_quantity     smallint,
        @s_data         char(50),
        @s_dist         char(24),
        @li_no          int,
        @o_id           int,
        @commit_flag    tinyint,
        @li_id          int,
        @li_s_w_id      int,
        @li_qty         smallint,
        @ol_number      int,
        @c_id_local     int

BEGIN
BEGIN TRANSACTION n
-----

```

```

-- get district tax and next available order id and
update
-- plus initialize local variables
-----
UPDATE district
SET   @d_tax      = d_tax,
      @o_id       = d_next_o_id,
      d_next_o_id = d_next_o_id + 1,
      @o_entry_d  = GETDATE(),
      @li_no      = 0,
      @commit_flag = 1
WHERE d_w_id      = @w_id AND
      d_id        = @d_id

-----
-- process orderlines
-----
WHILE (@li_no < @o_ol_cnt)
BEGIN
    SELECT @li_no = @li_no + 1
-----
-- set i_id, s_w_id, and qty for this lineitem
-----
    SELECT @li_id = CASE @li_no
        WHEN 1 THEN @i_id1
        WHEN 2 THEN @i_id2
        WHEN 3 THEN @i_id3
        WHEN 4 THEN @i_id4
        WHEN 5 THEN @i_id5
        WHEN 6 THEN @i_id6
        WHEN 7 THEN @i_id7
        WHEN 8 THEN @i_id8
        WHEN 9 THEN @i_id9
        WHEN 10 THEN @i_id10
        WHEN 11 THEN @i_id11
        WHEN 12 THEN @i_id12
        WHEN 13 THEN @i_id13
        WHEN 14 THEN @i_id14
        WHEN 15 THEN @i_id15
    END,
        @li_s_w_id = CASE @li_no
        WHEN 1 THEN @s_w_id1
        WHEN 2 THEN @s_w_id2
        WHEN 3 THEN @s_w_id3
        WHEN 4 THEN @s_w_id4
        WHEN 5 THEN @s_w_id5
        WHEN 6 THEN @s_w_id6
        WHEN 7 THEN @s_w_id7
        WHEN 8 THEN @s_w_id8
        WHEN 9 THEN @s_w_id9
        WHEN 10 THEN
        WHEN 11 THEN
        WHEN 12 THEN
        WHEN 13 THEN
        WHEN 14 THEN
        WHEN 15 THEN
    END,
        @s_w_id10
        @s_w_id11
        @s_w_id12
        @s_w_id13
        @s_w_id14

```

```

        WHEN 15 THEN
@s_w_id15
        END,
        @li_qty = CASE @li_no
        WHEN 1 THEN @ol_qty1
        WHEN 2 THEN @ol_qty2
        WHEN 3 THEN @ol_qty3
        WHEN 4 THEN @ol_qty4
        WHEN 5 THEN @ol_qty5
        WHEN 6 THEN @ol_qty6
        WHEN 7 THEN @ol_qty7
        WHEN 8 THEN @ol_qty8
        WHEN 9 THEN @ol_qty9
        WHEN 10 THEN
        @ol_qty10
        WHEN 11 THEN
        @ol_qty11
        WHEN 12 THEN
        @ol_qty12
        WHEN 13 THEN
        @ol_qty13
        WHEN 14 THEN
        @ol_qty14
        @ol_qty15
        END

-----
-- get item data (no one updates item)
-----
SELECT @i_price = i_price,
      @i_name   = i_name,
      @i_data   = i_data
FROM   item WITH (repeatableread)
WHERE  i_id     = @li_id

-----
-- update stock values
-----
UPDATE stock
SET   s_ytd      = s_ytd + @li_qty,
      @s_quantity = s_quantity -
s_quantity - @li_qty +
        CASE WHEN
(s_quantity - @li_qty < 10) THEN 91 ELSE 0 END,
      s_order_cnt = s_order_cnt + 1,
      s_remote_cnt = s_remote_cnt +
        CASE WHEN
(@li_s_w_id = @w_id) THEN 0 ELSE 1 END,
      @s_data     = s_data,
      @s_dist     = CASE @d_id
        WHEN 1 THEN
s_dist_01
        WHEN 2 THEN
s_dist_02
        WHEN 3 THEN
s_dist_03
        WHEN 4 THEN
s_dist_04
        WHEN 5 THEN
s_dist_05

```

```

        WHEN 6 THEN
s_dist_06
        WHEN 7 THEN
s_dist_07
        WHEN 8 THEN
s_dist_08
        WHEN 9 THEN
s_dist_09
        WHEN 10 THEN
s_dist_10
                END
        WHERE s_i_id = @li_id AND
              s_w_id = @li_s_w_id
-----
-- if there actually is a stock (and item) with
these ids, go to work
-----
        IF (@@rowcount > 0)
        BEGIN
-----
-- insert order_line data (using data from item and
stock)
-----
        INSERT INTO order_line VALUES( @o_id,
                                        @d_id,
                                        @w_id,
                                        @li_no,
                                        @li_id,
                                        'dec 31,
1899',
                                        @i_price
* @li_qty,
@li_s_w_id,
                                        @li_qty,
                                        @s_dist)
-----
-- send line-item data to client
-----
        SELECT @i_name,
               @s_quantity,
               b_g = CASE WHEN (
(patindex('%ORIGINAL%',@i_data) > 0) AND
(patindex('%ORIGINAL%',@s_data) > 0) )
THEN 'B' ELSE 'G' END,
               @i_price,
               @i_price * @li_qty
        END
        ELSE
        BEGIN
-----

```

```

-- no item (or stock) found - triggers rollback
condition
-----
        SELECT '',0,0,0
        SELECT @commit_flag = 0
        END
        END
-----
--
-- get customer last name, discount, and credit
rating
-----
        SELECT @c_last = c_last,
               @c_discount = c_discount,
               @c_credit = c_credit,
               @c_id_local = c_id
        FROM customer WITH (repeatableread)
        WHERE c_id = @c_id AND
              c_w_id = @w_id AND
              c_d_id = @d_id
-----
-- insert fresh row into orders table
-----
        INSERT INTO orders VALUES ( @o_id,
                                    @d_id,
                                    @w_id,
                                    @c_id_local,
                                    0,
                                    @o_ol_cnt,
                                    @o_all_local,
                                    @o_entry_d)
-----
-- insert corresponding row into new-order table
-----
        INSERT INTO new_order VALUES ( @o_id,
                                        @d_id,
                                        @w_id)
-----
-- select warehouse tax
-----
        SELECT @w_tax = w_tax
        FROM warehouse WITH (repeatableread)
        WHERE w_id = @w_id
        IF (@commit_flag = 1)
                COMMIT TRANSACTION n
        ELSE
-----
-- all that work for nuthn!!!
-----
        ROLLBACK TRANSACTION n
-----
-- return order data to client
-----
        SELECT @w_tax,
               @d_tax,

```

```

        @o_id,
        @c_last,
        @c_discount,
        @c_credit,
        @o_entry_d,
        @commit_flag
END
GO
SET QUOTED_IDENTIFIER OFF
GO
SET ANSI_NULLS ON
GO
-----
null-txns.sql
-----
--
-- File: NULL-TXNS.SQL
--
-- Microsoft TPC-C Benchmark Kit Ver. 4.68
--
-- Copyright Microsoft, 2006
--
-- This script will create stored procs
which --
-- accept the same parameters and return
correctly --
-- formed results sets to match the standard
TPC-C --
-- stored procs. Of course, the advantage
is that --
-- these stored procs place almost no load
on --
-- SQL Server and do not require a database.
--
-- Interface Level: 4.10.000
-----
USE tpcc
GO
IF EXISTS ( SELECT name FROM sysobjects WHERE name =
'tpcc_delivery' )
        DROP PROCEDURE tpcc_delivery
GO
IF EXISTS ( SELECT name FROM sysobjects WHERE name =
'tpcc_neworder' )
        DROP PROCEDURE tpcc_neworder
GO

```

```

IF EXISTS ( SELECT name FROM sysobjects WHERE name =
'tpcc_orderstatus' )
    DROP PROCEDURE tpcc_orderstatus
GO
IF EXISTS ( SELECT name FROM sysobjects WHERE name =
'tpcc_payment' )
    DROP PROCEDURE tpcc_payment
GO
IF EXISTS ( SELECT name FROM sysobjects WHERE name =
'tpcc_stocklevel' )
    DROP PROCEDURE tpcc_stocklevel
GO
IF EXISTS ( SELECT name FROM sysobjects WHERE name =
'tpcc_version' )
    DROP PROCEDURE tpcc_version
GO
IF EXISTS ( SELECT name FROM sysobjects WHERE name =
'order_line_null' )
    DROP PROCEDURE order_line_null
GO

CREATE PROCEDURE    tpcc_delivery
                   @w_id          int,
                   @o_carrier_id  smallint
AS
DECLARE @d_id      tinyint,
        @o_id      int,
        @c_id      int,
        @total     numeric(12,2),
        @oid1      int,
        @oid2      int,
        @oid3      int,
        @oid4      int,
        @oid5      int,
        @oid6      int,
        @oid7      int,
        @oid8      int,
        @oid9      int,
        @oid10     int,
        @delaytime varchar(30)

-----
-- uniform random delay of 0 - 1 second; avg = 0.50
-----
SELECT @delaytime = '00:00:0' +
CAST(CAST((RAND()*1.00) AS decimal(4,3)) AS char(5))

WAITFOR delay @delaytime

SELECT 3001, 3001, 3001, 3001, 3001, 3001, 3001,
3001, 3001, 3001
GO

CREATE PROCEDURE    tpcc_neworder
                   @w_id          int,
                   @d_id          tinyint,
                   @c_id          int,
                   @o_ol_cnt      tinyint,
                   @o_all_local   tinyint,

```

```

                   @i_id1 int = 0, @s_w_id1 int
= 0, @ol_qty1 smallint = 0,
                   @i_id2 int = 0, @s_w_id2 int
= 0, @ol_qty2 smallint = 0,
                   @i_id3 int = 0, @s_w_id3 int
= 0, @ol_qty3 smallint = 0,
                   @i_id4 int = 0, @s_w_id4 int
= 0, @ol_qty4 smallint = 0,
                   @i_id5 int = 0, @s_w_id5 int
= 0, @ol_qty5 smallint = 0,
                   @i_id6 int = 0, @s_w_id6 int
= 0, @ol_qty6 smallint = 0,
                   @i_id7 int = 0, @s_w_id7 int
= 0, @ol_qty7 smallint = 0,
                   @i_id8 int = 0, @s_w_id8 int
= 0, @ol_qty8 smallint = 0,
                   @i_id9 int = 0, @s_w_id9 int
= 0, @ol_qty9 smallint = 0,
                   @i_id10 int = 0, @s_w_id10
int = 0, @ol_qty10 smallint = 0,
                   @i_id11 int = 0, @s_w_id11
int = 0, @ol_qty11 smallint = 0,
                   @i_id12 int = 0, @s_w_id12
int = 0, @ol_qty12 smallint = 0,
                   @i_id13 int = 0, @s_w_id13
int = 0, @ol_qty13 smallint = 0,
                   @i_id14 int = 0, @s_w_id14
int = 0, @ol_qty14 smallint = 0,
                   @i_id15 int = 0, @s_w_id15
int = 0, @ol_qty15 smallint = 0

AS
DECLARE @w_tax      numeric(4,4),
        @d_tax      numeric(4,4),
        @c_last     char(16),
        @c_credit   char(2),
        @c_discount numeric(4,4),
        @i_price    numeric(5,2),
        @i_name     char(24),
        @o_entry_d  datetime,
        @li_no      int,
        @o_id       int,
        @commit_flag tinyint,
        @li_id      int,
        @li_qty     smallint,
        @delaytime  varchar(30)

BEGIN
-----
-- uniform random delay of 0 - 0.6 second; avg =
0.3
-----
SELECT @delaytime = '00:00:0' +
CAST(CAST((RAND()*0.60) AS decimal(4,3)) AS char(5))

WAITFOR delay @delaytime

-----
-- process orderlines

```

```

-----
SELECT @commit_flag = 1,
       @li_no       = 0

WHILE (@li_no < @o_ol_cnt)
BEGIN
    SELECT @li_id = CASE @li_no
                    WHEN 1 THEN @i_id1
                    WHEN 2 THEN @i_id2
                    WHEN 3 THEN @i_id3
                    WHEN 4 THEN @i_id4
                    WHEN 5 THEN @i_id5
                    WHEN 6 THEN @i_id6
                    WHEN 7 THEN @i_id7
                    WHEN 8 THEN @i_id8
                    WHEN 9 THEN @i_id9
                    WHEN 10 THEN @i_id10
                    WHEN 11 THEN @i_id11
                    WHEN 12 THEN @i_id12
                    WHEN 13 THEN @i_id13
                    WHEN 14 THEN @i_id14
                    WHEN 15 THEN @i_id15
                    END

    SELECT @li_no = @li_no + 1

    SELECT @i_price = 23.45, @li_qty = @li_no

    IF (@li_id = 999999)
    BEGIN
        SELECT ',0,',0,0

        SELECT @commit_flag = 0
    END
    ELSE
    BEGIN
        SELECT 'Item Name blah',
              17,
              'G',
              @i_price,
              @i_price * @li_qty
    END
END

-----
-- return order data to client
-----
SELECT @w_tax = 0.1234,
       @d_tax = 0.0987,
       @o_id = 3001,
       @c_last = 'BAROUGHTABLE',
       @c_discount = 0.2198,
       @c_credit = 'GC',
       @o_entry_d = GETDATE()

SELECT @w_tax,
       @d_tax,
       @o_id,
       @c_last,
       @c_discount,
       @c_credit,
       @o_entry_d,

```

```

        @commit_flag
END
GO

CREATE PROCEDURE tpcc_orderstatus
    @w_id int,
    @d_id tinyint,

    @c_id int,
    @c_last char(16) = ''

AS
DECLARE @c_balance numeric(12,2),
        @c_first char(16),
        @c_middle char(2),
        @o_id int,
        @o_entry_d datetime,
        @o_carrier_id smallint,
        @ol_cnt smallint,
        @delaytime varchar(30)

-----
-- uniform random delay of 0 - 0.2 second; avg = 0.1
-----
SELECT @delaytime = '00:00:0' +
CAST(CAST((RAND()*0.20) AS decimal(4,3)) AS char(5))

WAITFOR delay @delaytime

SELECT @c_id = 113,
        @c_balance = -10.00,
        @c_first = '8YCoddytqCj8',
        @c_middle = 'OE',
        @c_last = 'OUGHTOUGHTABLE',
        @o_id = 3456,
        @o_entry_d = GETDATE(),
        @o_carrier_id = 1

SELECT @ol_cnt = (RAND() * 11) + 5

SET ROWCOUNT @ol_cnt

SELECT ol_supply_w_id,
        ol_i_id,
        ol_quantity,
        ol_amount,
        ol_delivery_d
FROM order_line_null

SELECT @c_id,
        @c_last,
        @c_first,
        @c_middle,
        @o_entry_d,
        @o_carrier_id,
        @c_balance,
        @o_id
GO

CREATE PROCEDURE tpcc_payment

```

```

        @w_id int,
        @c_w_id int,
        @h_amount numeric(6,2),
        @d_id tinyint,
        @c_d_id tinyint,
        @c_id int,
        @c_last char(16) = ''

AS
DECLARE @w_street_1 char(20),
        @w_street_2 char(20),
        @w_city char(20),
        @w_state char(2),
        @w_zip char(9),
        @w_name char(10),
        @d_street_1 char(20),
        @d_street_2 char(20),
        @d_city char(20),
        @d_state char(2),
        @d_zip char(9),
        @d_name char(10),
        @c_first char(16),
        @c_middle char(2),
        @c_street_1 char(20),
        @c_street_2 char(20),
        @c_city char(20),
        @c_state char(2),
        @c_zip char(9),
        @c_phone char(16),
        @c_since datetime,
        @c_credit char(2),
        @c_credit_lim numeric(12,2),
        @c_balance numeric(12,2),
        @c_discount numeric(4,4),
        @data char(500),
        @c_data char(500),
        @datetime datetime,
        @w_ytd numeric(12,2),
        @d_ytd numeric(12,2),
        @cnt smallint,
        @val smallint,
        @screen_data char(200),
        @d_id_local tinyint,
        @w_id_local int,
        @c_id_local int,
        @delaytime varchar(30)

-----
-- uniform random delay of 0 - 0.3 second; avg = 0.15
-----
SELECT @delaytime = '00:00:0' +
CAST(CAST((RAND()*0.20) AS decimal(4,3)) AS char(5))

WAITFOR delay @delaytime

SELECT @screen_data = ''

-----
-- get customer info and update balances
-----
SELECT @d_street_1 = 'rqSHHakqyV',
        @d_street_2 = 'zZ98nW3BR2s',

```

```

        @d_city = 'ArNr4GNFV9',
        @d_state = 'aV',
        @d_zip = '453511111'

-----
-- get warehouse data and update year-to-date
-----
SELECT @w_street_1 = 'rqSHHakqyV',
        @w_street_2 = 'zZ98nW3BR2s',
        @w_city = 'ArNr4GNFV9',
        @w_state = 'aV',
        @w_zip = '453511111'

SELECT @c_id = 123,
        @c_balance = -10000.00,
        @c_first = 'KmR03Xureb',
        @c_middle = 'OE',
        @c_last = 'BAROUGHTBAR',
        @c_street_1 = 'QpGdOHjv8mR9vNI8V',
        @c_street_2 = 'dzKocObBqbc3yu',
        @c_city = 'zAKZXdC037FQxq',
        @c_state = 'QA',
        @c_zip = '700311111',
        @c_phone = '2967264064528555',
        @c_credit = 'GC',
        @c_credit_lim = 50000.00,
        @c_discount = 0.3069,
        @c_since = GETDATE(),
        @datetime = GETDATE()

-----
-- return data to client
-----
SELECT @c_id,
        @c_last,
        @datetime,
        @w_street_1,
        @w_street_2,
        @w_city,
        @w_state,
        @w_zip,
        @d_street_1,
        @d_street_2,
        @d_city,
        @d_state,
        @d_zip,
        @c_first,
        @c_middle,
        @c_street_1,
        @c_street_2,
        @c_city,
        @c_state,
        @c_zip,
        @c_phone,
        @c_since,
        @c_credit,
        @c_credit_lim,
        @c_discount,
        @c_balance,
        @screen_data
GO

CREATE PROCEDURE tpcc_stocklevel

```

```

        @w_id      int,
        @d_id      tinyint,
        @threshold smallint
AS
DECLARE @delaytime varchar(30)

-----
-- uniform random delay of 0 - 3.6 second; avg = 1.8
-----
SELECT @delaytime = '00:00:0' +
CAST(CAST((RAND()*0.20) AS decimal(4,3)) AS char(5))

WAITFOR delay @delaytime

SELECT 49
GO

CREATE PROCEDURE tpcc_version
AS
DECLARE @version char(8)
BEGIN
    SELECT @version = '4.10.000'
        SELECT @version AS 'Version'
END
GO

CREATE TABLE order_line_null (
        [ol_i_id] [int]
NOT NULL ,
        [ol_supply_w_id]
[int] NOT NULL ,
        [ol_delivery_d]
[datetime] NOT NULL ,
        [ol_quantity]
[smallint] NOT NULL ,
        [ol_amount]
[numeric](6, 2) NOT NULL
) ON [PRIMARY]
GO

INSERT INTO order_line_null VALUES ( 101, 1,
GETDATE(), 1, 123.45 )
INSERT INTO order_line_null VALUES ( 102, 1,
GETDATE(), 2, 123.45 )
INSERT INTO order_line_null VALUES ( 103, 1,
GETDATE(), 3, 123.45 )
INSERT INTO order_line_null VALUES ( 104, 1,
GETDATE(), 4, 123.45 )
INSERT INTO order_line_null VALUES ( 105, 1,
GETDATE(), 5, 123.45 )
INSERT INTO order_line_null VALUES ( 106, 1,
GETDATE(), 1, 123.45 )
INSERT INTO order_line_null VALUES ( 107, 1,
GETDATE(), 2, 123.45 )
INSERT INTO order_line_null VALUES ( 108, 1,
GETDATE(), 3, 123.45 )
INSERT INTO order_line_null VALUES ( 109, 1,
GETDATE(), 4, 123.45 )
INSERT INTO order_line_null VALUES ( 110, 1,
GETDATE(), 5, 123.45 )

```

```

INSERT INTO order_line_null VALUES ( 111, 1,
GETDATE(), 1, 123.45 )
INSERT INTO order_line_null VALUES ( 112, 1,
GETDATE(), 2, 123.45 )
INSERT INTO order_line_null VALUES ( 113, 1,
GETDATE(), 3, 123.45 )
INSERT INTO order_line_null VALUES ( 114, 1,
GETDATE(), 4, 123.45 )
INSERT INTO order_line_null VALUES ( 115, 1,
GETDATE(), 5, 123.45 )
GO

```

ordstat.sql

```

-----
--
-- File:   ORDSTAT.SQL
--
-- Microsoft TPC-C Benchmark Kit Ver. 4.68
--
-- Copyright Microsoft, 2006
--
--
-- Creates order status stored procedure
--
--
-- Interface Level:   4.20.000
--
-----
SET QUOTED_IDENTIFIER OFF
GO

SET ANSI_NULLS ON
GO

USE tpcc
GO

IF EXISTS ( SELECT name FROM sysobjects WHERE name =
'tpcc_orderstatus' )
    DROP PROCEDURE tpcc_orderstatus
GO

CREATE PROCEDURE tpcc_orderstatus
        @w_id      int,
        @d_id      tinyint,
        @c_id      int,
        @c_last    char(16) = ''
AS
DECLARE @c_balance money,

```

```

        @c_first    char(16),
        @c_middle  char(2),
        @o_id      int,
        @o_entry_d  datetime,
        @o_carrier_id smallint,
        @cnt       smallint
BEGIN TRANSACTION o
IF (@c_id = 0)
    BEGIN
        -----
        -- get customer id and info using last name
        -----
        SELECT @cnt = (count(*)+1)/2
        FROM customer WITH (repeatableread)
        WHERE c_last = @c_last AND
              c_w_id = @w_id AND
              c_d_id = @d_id

        SET rowcount @cnt

        SELECT @c_id = c_id,
               @c_balance = c_balance,
               @c_first = c_first,
               @c_last = c_last,
               @c_middle = c_middle
        FROM customer WITH (repeatableread)
        WHERE c_last = @c_last AND
              c_w_id = @w_id AND
              c_d_id = @d_id
        ORDER BY c_w_id, c_d_id, c_last, c_first

        SET rowcount 0
    END
ELSE
    BEGIN
        -----
        -- get customer info if by id
        -----
        SELECT @c_balance = c_balance,
               @c_first = c_first,
               @c_middle = c_middle,
               @c_last = c_last
        FROM customer WITH (repeatableread)
        WHERE c_id = @c_id AND
              c_d_id = @d_id AND
              c_w_id = @w_id

        SELECT @cnt = @@rowcount
    END

    -----
    -- if no such customer
    -----
    IF (@cnt = 0)
        BEGIN
            RAISERROR('Customer not found',18,1)
            GOTO custnotfound
        END

    -----
    -- get order info
    -----

```

```

SELECT @o_id          = o_id,
       @o_entry_d     = o_entry_d,
       @o_carrier_id  = o_carrier_id

FROM   orders WITH (serializable)
WHERE  o_c_id          = @c_id AND
       o_d_id          = @d_id AND
       o_w_id          = @w_id

ORDER BY o_id ASC

-----
-- select order lines for the current order
-----
SELECT ol_supply_w_id,
       ol_i_id,
       ol_quantity,
       ol_amount,
       ol_delivery_d
FROM   order_line WITH (repeatableread)
WHERE  ol_o_id = @o_id AND
       ol_d_id = @d_id AND
       ol_w_id = @w_id

custnotfound:

COMMIT TRANSACTION o

-----
-- return data to client
-----
SELECT @c_id,
       @c_last,
       @c_first,
       @c_middle,

       @o_entry_d,
       @o_carrier_id,
       @c_balance,
       @o_id

GO

```

payment.sql

```

-----
--
-- File:   PAYMENT.SQL
--
-- Microsoft TPC-C Benchmark Kit Ver. 4.68
--
-- Copyright Microsoft, 2006
--
-- Creates payment stored procedure
--
--

```

```

-- Interface Level: 4.20.000
--
--
-----
SET QUOTED_IDENTIFIER OFF
GO

SET ANSI_NULLS ON
GO

USE tpcc
GO

IF EXISTS ( SELECT name FROM sysobjects WHERE name =
            'tpcc_payment' )
    DROP PROCEDURE tpcc_payment
GO

CREATE PROCEDURE tpcc_payment
    @w_id          int,
    @c_w_id        int,
    @h_amount      smallmoney,
    @d_id          tinyint,
    @c_d_id        tinyint,
    @c_id          int,
    @c_last        char(16) = ""

AS
DECLARE @w_street_1 char(20),
        @w_street_2 char(20),
        @w_city      char(20),
        @w_state     char(2),
        @w_zip       char(9),
        @w_name      char(10),
        @d_street_1  char(20),
        @d_street_2  char(20),
        @d_city      char(20),
        @d_state     char(2),
        @d_zip       char(9),
        @d_name      char(10),
        @c_first     char(16),
        @c_middle    char(2),
        @c_street_1  char(20),
        @c_street_2  char(20),
        @c_city      char(20),
        @c_state     char(2),
        @c_zip       char(9),
        @c_phone     char(16),
        @c_since     datetime,
        @c_credit    char(2),
        @c_credit_lim money,
        @c_balance   money,
        @c_discount  smallmoney,
        @c_data      char(42),
        @datetime    datetime,
        @w_ytd       money,
        @d_ytd       money,
        @cnt         smallint,
        @val         smallint,
        @screen_data char(200),

```

```

    @id_local       tinyint,
    @w_id_local     int,
    @c_id_local     int

SELECT @screen_data = ""

BEGIN TRANSACTION p
-- get payment date
SELECT @datetime = GETDATE()

IF (@c_id = 0)
BEGIN
-- get customer id and info using last name
SELECT @cnt = COUNT(*)
FROM   customer WITH (repeatableread)
WHERE  c_last = @c_last AND
       c_w_id = @c_w_id AND
       c_d_id = @c_d_id

SELECT @val = (@cnt + 1) / 2

SET rowcount @val

SELECT @c_id = c_id
FROM   customer WITH (repeatableread)
WHERE  c_last = @c_last AND
       c_w_id = @c_w_id AND
       c_d_id = @c_d_id

ORDER BY c_last, c_first

SET rowcount 0

END

-- get customer info and update balances

UPDATE customer
SET @c_balance = c_balance = c_balance -
@h_amount,
    c_payment_cnt = c_payment_cnt + 1,
    c_ytd_payment = c_ytd_payment +
@h_amount,
    @c_first = c_first,
    @c_middle = c_middle,
    @c_last = c_last,
    @c_street_1 = c_street_1,
    @c_street_2 = c_street_2,
    @c_city = c_city,
    @c_state = c_state,
    @c_zip = c_zip,
    @c_phone = c_phone,
    @c_credit = c_credit,
    @c_credit_lim = c_credit_lim,
    @c_discount = c_discount,
    @c_since = c_since,
    @c_id_local = c_id

WHERE  c_id = @c_id AND
       c_w_id = @c_w_id AND
       c_d_id = @c_d_id

-- if customer has bad credit get some more info
IF (@c_credit = "BC")

```

```

BEGIN
--      compute new info
SELECT  @c_data =  convert(char(5),@c_id) +
+          convert(char(4),@c_d_id)
+
+          convert(char(5),@c_w_id)
+
+          convert(char(4),@d_id) +
+          convert(char(5),@w_id) +
convert(char(19),@h_amount)

--      update customer info
UPDATE  customer
SET     c_data      = @c_data +
substring(c_data, 1, 458),
       @screen_data = @c_data +
substring(c_data, 1, 158)
WHERE  c_id = @c_id AND
       c_w_id = @c_w_id AND
       c_d_id = @c_d_id
END

--      get district data and update year-to-date
UPDATE  district
SET     d_ytd      = d_ytd + @h_amount,
       @d_street_1 = d_street_1,
       @d_street_2 = d_street_2,
       @d_city     = d_city,
       @d_state    = d_state,
       @d_zip      = d_zip,
       @d_name     = d_name,
       @d_id_local = d_id
WHERE  d_w_id = @w_id AND
       d_id   = @d_id

--      get warehouse data and update year-to-date
UPDATE  warehouse
SET     w_ytd      = w_ytd + @h_amount,
       @w_street_1 = w_street_1,
       @w_street_2 = w_street_2,
       @w_city     = w_city,
       @w_state    = w_state,
       @w_zip      = w_zip,
       @w_name     = w_name,
       @w_id_local = w_id
WHERE  w_id   = @w_id

--      create history record
INSERT INTO      history VALUES
(@c_id_local,
       @c_d_id,
       @c_w_id,
       @d_id_local,
       @w_id_local,
       @datetime,
       @h_amount,
       @w_name + ' ' +
@d_name)

COMMIT TRANSACTION p

--      return data to client

```

```

SELECT  @c_id,
        @c_last,
        @datetime,
        @w_street_1,
        @w_street_2,
        @w_city,
        @w_state,
        @w_zip,
        @d_street_1,
        @d_street_2,
        @d_city,
        @d_state,
        @d_zip,
        @c_first,
        @c_middle,
        @c_street_1,
        @c_street_2,
        @c_city,
        @c_state,
        @c_zip,
        @c_phone,
        @c_since,
        @c_credit,
        @c_credit_lim,
        @c_discount,
        @c_balance,
        @screen_data

GO

SET QUOTED_IDENTIFIER OFF
GO

SET ANSI_NULLS ON
GO

random.c

//      File:          RANDOM.C
//
//      Microsoft
TPC-C Kit Ver. 4.62
//
//      Copyright
Microsoft, 1996, 1997, 1998, 1999, 2000, 2001, 2002,
2005
//      Purpose:  Random number generation routines
for database loader

// Includes
#include "tpcc.h"
#include "math.h"

// Defines
#define A      16807
#define M      2147483647
#define Q      127773      /* M div A */
#define R      2836      /* M mod A */
#define Thread __declspec(thread)

// Globals

```

```

long      Thread Seed = 0;      /* thread local seed
*/

/*****
*****
*
* random -
*
* Implements a GOOD pseudo random number
generator. This generator *
* will/should? run the complete period before
repeating. *
*
* Copied from:
*
* Random Numbers Generators: Good Ones Are Hard
to Find. *
* Communications of the ACM - October 1988
Volume 31 Number 10 *
*
* Machine Dependencies:
*
* long must be 2 ^ 31 - 1 or greater.
*
*
*
*****
*****
/*****
*****
* seed - load the Seed value used in irand and drand.
Should be used before *
* first call to irand or drand.
*
*****
*****
/

void seed(long val)
{
#ifdef DEBUG
printf("[%ld]DBG: Entering seed()...\n", (int)
GetCurrentThreadId());
printf("Old Seed %ld New Seed %ld\n",Seed,
val);
#endif
if ( val < 0 )
val = abs(val);

Seed = val;
}

/*****
*****
*****
*****

```

```

* irand - returns a 32 bit integer pseudo random
number with a period of *
*      1 to 2 ^ 32 - 1.
*
*
* parameters:
*
*      none.
*
*
* returns:
*
*      32 bit integer - defined as long ( see above
).
*
*
* side effects:
*
*      seed get recomputed.
*
*****
long irand()
{
    register long    s;      /* copy of seed */
    register long    test; /* test flag */
    register long    hi;    /* tmp value for speed
*/
    register long    lo;    /* tmp value for speed
*/

#ifdef DEBUG
    printf("[%d]DBG: Entering irand()...\n", (int)
GetCurrentThreadId());
#endif

    s = Seed;
    hi = s / Q;
    lo = s % Q;

    test = A * lo - R * hi;
    if ( test > 0 )
        Seed = test;
    else
        Seed = test + M;

    return( Seed );
}

/*****
*****
*
*
* drand - returns a double pseudo random number
between 0.0 and 1.0. *
*      See irand.
*
*****
*****

```

```

double drand()
{
#ifdef DEBUG
    printf("[%d]DBG: Entering drand()...\n", (int)
GetCurrentThreadId());
#endif

    return( (double)irand() / 2147483647.0);
}

//=====
// Function : RandomNumber
//
// Description:
//=====
long RandomNumber(long lower, long upper)
{
    long rand_num;

#ifdef DEBUG
    printf("[%d]DBG: Entering RandomNumber()...\n",
(int) GetCurrentThreadId());
#endif

    if ( upper == lower ) /* pgd 08-13-
96 perf enhancement */
        return lower;

    upper++;

    if ( upper <= lower )
        rand_num = upper;
    else
        rand_num = lower + irand() %
(upper - lower); /* pgd 08-13-96 perf enhancement */

#ifdef DEBUG
    printf("[%d]DBG: RandomNumber between %ld & %ld
=> %ld\n",
(int)
GetCurrentThreadId(), lower, upper, rand_num);
#endif

    return rand_num;
}

#if 0

//Original code pgd 08/13/96

long RandomNumber(long lower,
long upper)
{
    long rand_num;

#ifdef DEBUG

```

```

    printf("[%d]DBG: Entering RandomNumber()...\n",
(int) GetCurrentThreadId());
#endif

    upper++;

    if ((upper <= lower))
        rand_num = upper;
    else
        rand_num = lower + irand() %
((upper > lower) ? upper - lower : upper);

#ifdef DEBUG
    printf("[%d]DBG: RandomNumber between %ld & %ld
=> %ld\n",
(int)
GetCurrentThreadId(), lower, upper, rand_num);
#endif

    return rand_num;
}
#endif

//=====
// Function : NURand
//
// Description:
//=====
long NURand(int iConst,
long x,
long y,
long C)
{
    long rand_num;

#ifdef DEBUG
    printf("[%d]DBG: Entering NURand()...\n", (int)
GetCurrentThreadId());
#endif

    rand_num = (((RandomNumber(0,iConst) |
RandomNumber(x,y) + C) % (y-x+1))+x);

#ifdef DEBUG
    printf("[%d]DBG: NURand: num = %d\n", (int)
GetCurrentThreadId(), rand_num);
#endif

    return rand_num;
}

```


removedb.sql

```
-----
--
-- File:      REMOVEDB.SQL
--
--           Microsoft TPC-C Benchmark Kit Ver. 4.61
--
--           Copyright Microsoft, 2005
--
-----

USE master
GO

-----

-- remove any existing database and backup files
-----

-- EXEC sp_dbremove tpcc, dropdev
-- GO

EXEC sp_dropdevice 'tpccback1'
GO
EXEC sp_dropdevice 'tpccback2'
GO
EXEC sp_dropdevice 'tpccback3'
GO
EXEC sp_dropdevice 'tpccback4'
GO
EXEC sp_dropdevice 'tpccback5'
GO
EXEC sp_dropdevice 'tpccback6'
GO
EXEC sp_dropdevice 'tpccback7'
GO
EXEC sp_dropdevice 'tpccback8'
GO
EXEC sp_dropdevice 'tpccback9'
GO
EXEC sp_dropdevice 'tpccback10'
GO
EXEC sp_dropdevice 'tpccback11'
GO
EXEC sp_dropdevice 'tpccback12'
GO
EXEC sp_dropdevice 'tpccback13'
GO
EXEC sp_dropdevice 'tpccback14'
GO
EXEC sp_dropdevice 'tpccback15'
GO
EXEC sp_dropdevice 'tpccback16'
GO
```

restore.cmd

```
osql -E -i restore.sql
```

restore.sql

```
-----
--
-- File:      RESTORE.SQL
--
--           Microsoft TPC-C Benchmark Kit Ver. 4.61
--
--           Copyright Microsoft, 2005
--
-----

DECLARE @startdate DATETIME,
        @enddate   DATETIME

SELECT @startdate = GETDATE()
SELECT 'Start date:',
       CONVERT(VARCHAR(30),@startdate,
              21)

LOAD DATABASE tpcc FROM tpccback1, tpccback2,
tpccback3, tpccback4, tpccback5, tpccback6,
tpccback7, tpccback8, tpccback9, tpccback10,
tpccback11, tpccback12, tpccback13, tpccback14,
tpccback15, tpccback16 WITH stats = 1, replace

SELECT @enddate = GETDATE()
SELECT 'End date: ',
       CONVERT(VARCHAR(30),@enddate, 21)
SELECT 'Elapsed time (in seconds): ',
       DATEDIFF(second, @startdate,
               @enddate)
GO
```

RunSQLCfg.sql

```
-----
--
-- File:      RUNSQLCFG.SQL
--
--           Microsoft TPC-C Benchmark Kit Ver. 4.68
--
--           Copyright Microsoft, 2006
--
-----
```

```
--
--
--           Sets suggested runtime server
configuration --
--           parameters
--
-----

EXEC sp_configure 'show advanced option', 1
GO

RECONFIGURE WITH OVERRIDE
GO

-----

-- change this value to approximately the number of
connected users
-----

EXEC sp_configure 'max worker threads',255

-----

-- increase priority of user threads
-----

EXEC sp_configure 'priority boost',1

-----

-- disable automatic checkpointing
-----

EXEC sp_configure 'recovery interval',32767

-----

-- change to a mask appropriate for the number of
processors on the server
-----

EXEC sp_configure 'affinity mask',0xf

-----

-- enable fibers
-----

EXEC sp_configure 'lightweight pooling',1
GO

RECONFIGURE WITH OVERRIDE
GO
```

sqlshutdown.sql

```
-----
--
-- File:      SQLSHUTDOWN.SQL
--
--           Microsoft TPC-C Benchmark Kit Ver. 4.68
--
--           Copyright Microsoft, 2006
--
--           Checkpoints tpcc database and issues a
shutdown    --
-----
USE tpcc
GO

CHECKPOINT
GO

SHUTDOWN
GO
```

StockLev.sql

```
-----
--
-- File:      STOCKLEV.SQL
--
--           Microsoft TPC-C Benchmark Kit Ver. 4.68
--
--           Copyright Microsoft, 2006
--
--           Creates stock level stored procedure
--
--           Interface Level:      4.20.000
--
-----
SET QUOTED_IDENTIFIER OFF
GO

SET ANSI_NULLS ON
GO
```

```
USE tpcc
GO

IF EXISTS ( SELECT name FROM sysobjects WHERE name =
'tpcc_stocklevel' )
    DROP PROCEDURE tpcc_stocklevel
GO

CREATE PROCEDURE    tpcc_stocklevel
                   @w_id      int,
                   @d_id      tinyint,
                   @threshold smallint

AS
DECLARE @o_id_low  int,
        @o_id_high int

SELECT @o_id_low = (d_next_o_id - 20),
       @o_id_high = (d_next_o_id - 1)
FROM   district
WHERE  d_w_id   = @w_id AND
       d_id     = @d_id

SELECT COUNT(DISTINCT(s_i_id))
FROM   stock,
       order_line
WHERE  ol_w_id = @w_id AND
       ol_d_id = @d_id and
       ol_o_id BETWEEN @o_id_low AND
                   @o_id_high AND
       s_w_id = ol_w_id AND
       s_i_id = ol_i_id AND
       s_quantity < @threshold

OPTION(OORDER GROUP)
GO
```

```
SET QUOTED_IDENTIFIER OFF
GO
```

```
SET ANSI_NULLS ON
GO
```

strings.c

```
-----
// File:      STRINGS.C
//           Microsoft
// TPC-C Kit Ver. 4.51
//           Copyright
// Microsoft, 1996, 1997, 1998, 1999, 2000, 2001, 2002,
// 2003
// Purpose:   Source file for database loader
// string functions
-----
// Includes
#include "tpcc.h"
#include <string.h>
#include <ctype.h>
```

```
-----
//
// Function name: MakeAddress
//
//=====
void MakeAddress(char *street_1,
                 char
*street_2,
                 char *city,
                 char *state,
                 char *zip)
{
#ifdef DEBUG
    printf("[%ld]DBG: Entering MakeAddress()\n",
(int) GetCurrentThreadId());
#endif

    MakeAlphaString (10, 20, ADDRESS_LEN, street_1);
    MakeAlphaString (10, 20, ADDRESS_LEN, street_2);
    MakeAlphaString (10, 20, ADDRESS_LEN, city);
    MakeAlphaString ( 2,  2, STATE_LEN, state);
    MakeZipNumberString( 9,  9, ZIP_LEN, zip);

#ifdef DEBUG
    printf("[%ld]DBG: MakeAddress: street_1: %s,
street_2: %s, city: %s, state: %s, zip: %s\n",
(int)
GetCurrentThreadId(), street_1, street_2, city,
state, zip);
#endif

    return;
}

//=====
//
// Function name: LastName
//
//=====
void LastName(int num,
             char *name)
{
    static char *n[] =
    {
        "BAR" , "OUGHT", "ABLE" , "PRI"
, "PRES",
        "ESE" , "ANTI" , "CALLY",
"ATION", "EING"
    };
#ifdef DEBUG
    printf("[%ld]DBG: Entering LastName()\n", (int)
GetCurrentThreadId());
#endif
#endif
```

```

if ((num >= 0) && (num < 1000))
{
    strcpy(name, n[(num/100)%10]);
    strcat(name, n[(num/10)%10]);
    strcat(name, n[(num/1)%10]);

    if (strlen(name) < LAST_NAME_LEN)
    {
        PaddString(LAST_NAME_LEN, name);
    }
}
else
{
    printf("\nError in LastName()...
num <%ld> out of range (0,999)\n", num);
    exit(-1);
}

#ifdef DEBUG
    printf("[%ld]DBG: LastName: num = [%d] ==>
[%d][%d][%d]\n",
            (int)
GetCurrentThreadId(), num, num/100, (num/10)%10,
num%10);
    printf("[%ld]DBG: LastName: String = %s\n",
(int) GetCurrentThreadId(), name);
#endif

    return;
}

//=====
//
// Function name: MakeAlphaString
//
//=====
//philipdu 08/13/96 Changed MakeAlphaString to use A-
Z, a-z, and 0-9 in
//accordance with spec see below:
//The spec says:
//4.3.2.2 The notation random a-string [x .. y]
//(respectively, n-string [x .. y]) represents a
string of random alphanumeric
//(respectively, numeric) characters of a random
length of minimum x, maximum y,
//and mean (y+x)/2. Alphanumerics are A..Z, a..z, and
0..9. The only other
//requirement is that the character set used "must be
able to represent a minimum
//of 128 different characters". We are using 8-bit
chars, so this is a non issue.
//It is completely unreasonable to stuff non-printing
chars into the text fields.
//--Clevine 08/13/96

```

```

int MakeAlphaString( int x, int y, int z, char
*str)
{
    int len;
    int i;
    char cc = 'a';
    static char chArray[] =
"0123456789ABCDEFGHIJKLMNPOQRSTUVWXYZabcdefghijklmnop
qrstuvwxyz";
    static int chArrayMax = 61;

#ifdef DEBUG
    printf("[%ld]DBG: Entering MakeAlphaString()\n",
(int) GetCurrentThreadId());
#endif

    len= RandomNumber(x, y);

    for (i=0; i<len; i++)
        str[i] =
chArray[RandomNumber(0,chArrayMax)];
    str[len] = 0;

    return len;
}

int MakeAlphaStringPadded( int minLen, int maxlen,
int padLen, char *str)
{
    int len;
    int i;
    char cc = 'a';
    static char chArray[] =
"0123456789ABCDEFGHIJKLMNPOQRSTUVWXYZabcdefghijklmnop
qrstuvwxyz";
    static int chArrayMax = 61;

#ifdef DEBUG
    printf("[%ld]DBG: Entering
MakeAlphaStringPadded()\n", (int)
GetCurrentThreadId());
#endif

    len= RandomNumber(minLen, maxlen);

    for (i=0; i<len; i++)
        str[i] =
chArray[RandomNumber(0,chArrayMax)];
    if (len < padLen)
        memset(str+len, ' ', padLen -
len);
    str[padLen] = 0;
    return padLen;
}

//=====
//
// Function name: MakeOriginalAlphaString
//
//=====

```

```

//=====
int MakeOriginalAlphaString(int x,
int y,
int z,
char *str,
int percent)
{
    int len;
    int val;
    int start;

#ifdef DEBUG
    printf("[%ld]DBG: Entering
MakeOriginalAlphaString()\n", (int)
GetCurrentThreadId());
#endif

    // verify percentage is valid
    if ((percent < 0) || (percent > 100))
    {
        printf("MakeOriginalAlphaString:
Invalid percentage: %d\n", percent);
        exit(-1);
    }

    // verify string is at least 8 chars in length
    if (x < 8)
    {
        printf("MakeOriginalAlphaString:
string length must be >= 8\n");
        exit(-1);
    }

    // Make Alpha String
    len = MakeAlphaString(x,y, z, str);

    val = RandomNumber(1,100);
    if (val <= percent)
    {
        start = RandomNumber(0, len - 8);
        strncpy(str + start, "ORIGINAL",
8);
    }

#ifdef DEBUG
    printf("[%ld]DBG: MakeOriginalAlphaString:
%s\n",
            (int)
GetCurrentThreadId(), str);
#endif

    return len;
}

```

```

//=====
//
// Function name: MakeNumberString
//
//=====
int MakeNumberString(int x, int y, int z, char
*str)
{
    char tmp[16];

    //MakeNumberString is always called
MakeZipNumberString(16, 16, 16, string)

    memset(str, '0', 16);
    itoa(RandomNumber(0, 99999999), tmp, 10);
    memcpy(str, tmp, strlen(tmp));

    itoa(RandomNumber(0, 99999999), tmp, 10);
    memcpy(str+8, tmp, strlen(tmp));

    str[16] = 0;

    return 16;
}

//=====
//
// Function name: MakeZipNumberString
//
//=====
int MakeZipNumberString(int x, int y, int z, char
*str)
{
    char tmp[16];

    //MakeZipNumberString is always called
MakeZipNumberString(9, 9, 9, string)

    strcpy(str, "000011111");

    itoa(RandomNumber(0, 9999), tmp, 10);
    memcpy(str, tmp, strlen(tmp));

    return 9;
}

//=====
//
// Function name: InitString
//
//=====
void InitString(char *str, int len)
{
#ifdef DEBUG

```

```

    printf("[%ld]DBG: Entering InitString()\n", (int)
GetCurrentThreadId());
#endif

    memset(str, ' ', len);
    str[len] = 0;
}

//=====
//
// Function name: InitAddress
//
// Description:
//
//=====
void InitAddress(char *street_1, char *street_2, char
*city, char *state, char *zip)
{
    memset(street_1, ' ', ADDRESS_LEN+1);
    memset(street_2, ' ', ADDRESS_LEN+1);
    memset(city, ' ', ADDRESS_LEN+1);

    street_1[ADDRESS_LEN+1] = 0;
    street_2[ADDRESS_LEN+1] = 0;
    city[ADDRESS_LEN+1] = 0;

    memset(state, ' ', STATE_LEN+1);
    state[STATE_LEN+1] = 0;

    memset(zip, ' ', ZIP_LEN+1);
    zip[ZIP_LEN+1] = 0;
}

//=====
//
// Function name: PaddString
//
//=====
void PaddString(int max, char *name)
{
    int len;

    len = strlen(name);
    if ( len < max )
        memset(name+len, ' ', max - len);
    name[max] = 0;

    return;
}

```

tables.sql

```

-----
--
-- File: TABLES.SQL
--
-- Microsoft TPC-C Benchmark Kit Ver. 4.68
--
-- Copyright Microsoft, 2006
--
--
-- Creates TPC-C tables
--
-----
SET ANSI_NULL_DFLT_OFF ON
GO

USE tpcc
GO

-----
-- Remove all existing TPC-C tables
-----
if exists ( select name from sysobjects where name =
'warehouse' )
    drop table warehouse
go
if exists ( select name from sysobjects where name =
'district' )
    drop table district
go
if exists ( select name from sysobjects where name =
'customer' )
    drop table customer
go
if exists ( select name from sysobjects where name =
'history' )
    drop table history
go
if exists ( select name from sysobjects where name =
'new_order' )
    drop table new_order
go
if exists ( select name from sysobjects where name =
'orders' )
    drop table orders
go
if exists ( select name from sysobjects where name =
'order_line' )
    drop table order_line
go
if exists ( select name from sysobjects where name =
'item' )
    drop table item
go

```

```

if exists ( select name from sysobjects where name =
'stock' )
    drop table stock
go

-----
-- Create new tables
-----
create table warehouse
(
    w_id          int,
    w_ytd         money,
    w_tax         smallmoney,
    w_name        char(10),
    w_street_1    char(20),
    w_street_2    char(20),
    w_city        char(20),
    w_state       char(2),
    w_zip         char(9)
) on MSSQL_fg
go

create table district
(
    d_id          tinyint,
    d_w_id        int,
    d_ytd         money,
    d_next_o_id   int,

    d_tax         smallmoney,
    d_name        char(10),
    d_street_1    char(20),
    d_street_2    char(20),
    d_city        char(20),
    d_state       char(2),
    d_zip         char(9)
) on MSSQL_fg
go

create table customer
(
    c_id          int,
    c_d_id        tinyint,
    c_w_id        int,
    c_discount    smallmoney,
    c_credit_lim  money,
    c_last        char(16),
    c_first       char(16),
    c_credit      char(2),
    c_balance     money,
    c_ytd_payment money,
    c_payment_cnt smallint,
    c_delivery_cnt smallint,
    c_street_1    char(20),
    c_street_2    char(20),
    c_city        char(20),
    c_state       char(2),
    c_zip         char(9),
    c_phone       char(16),
    c_since       datetime,
    c_middle      char(2),
    c_data        char(500)
) on MSSQL_fg

```

```

go

-- Use the following table option if using c_data
varchar(max)
-- sp_tableoption 'customer','large value types out
of row','1'
-- go

create table history
(
    h_c_id        int,
    h_c_d_id      tinyint,
    h_c_w_id      int,
    h_d_id        tinyint,
    h_w_id        int,
    h_date        datetime,
    h_amount      smallmoney,
    h_data        char(24)
) on MSSQL_fg
go

create table new_order
(
    no_o_id       int,
    no_d_id       tinyint,
    no_w_id       int
) on MSSQL_fg
go

create table orders
(
    o_id          int,
    o_d_id        tinyint,
    o_w_id        int,
    o_c_id        int,
    o_carrier_id  tinyint,
    o_ol_cnt      tinyint,
    o_all_local   tinyint,
    o_entry_d     datetime
) on MSSQL_fg
go

create table order_line
(
    ol_o_id       int,
    ol_d_id       tinyint,
    ol_w_id       int,
    ol_number     tinyint,
    ol_i_id       int,
    ol_delivery_d datetime,
    ol_amount     smallmoney,
    ol_supply_w_id int,
    ol_quantity   smallint,
    ol_dist_info  char(24)
) on MSSQL_fg
go

create table item
(
    i_id          int,
    i_name        char(24),
    i_price       smallmoney,
    i_data        char(50),

```

```

    i_im_id       int
) on MSSQL_fg
go

create table stock
(
    s_i_id        int,
    s_w_id        int,
    s_quantity    smallint,
    s_ytd         int,
    s_order_cnt   smallint,
    s_remote_cnt  smallint,
    s_data        char(50),
    s_dist_01     char(24),
    s_dist_02     char(24),
    s_dist_03     char(24),
    s_dist_04     char(24),
    s_dist_05     char(24),
    s_dist_06     char(24),
    s_dist_07     char(24),
    s_dist_08     char(24),
    s_dist_09     char(24),
    s_dist_10     char(24)
) on MSSQL_fg
go

```

time.c

```

// File: TIME.C
// Microsoft
TPC-C Kit Ver. 4.62
// Copyright
Microsoft, 1996, 1997, 1998, 1999, 2000, 2001, 2002,
2005
// Purpose: Source file for time functions

// Includes
#include "tpcc.h"

// Globals
static long start_sec;

//=====
//
// Function name: TimeNow
//
//=====

long TimeNow()
{
    long time_now;
    struct _timeb e1_time;

#ifdef DEBUG
    printf("[%ld]DBG: Entering TimeNow()\n", (int)
GetCurrentThreadId());

```

```

#endif

    _ftime(&el_time);

    time_now = ((el_time.time - start_sec) * 1000) +
el_time.millitm;

    return time_now;
}

```

tpcc.h

```

// File: TPC.H
// Microsoft
TPC-C Kit Ver. 4.51
// Copyright
Microsoft, 1996, 1997, 1998, 1999, 2000, 2001, 2002,
2003, 2005
// Purpose: Header file for TPC-C database
loader

// Build number of TPC Benchmark Kit
#define TPCKIT_VER "4.51"

// General headers
#include <windows.h>
#include <winbase.h>
#include <stdlib.h>
#include <stdio.h>
#include <process.h>
#include <stddef.h>
#include <stdarg.h>
#include <string.h>
#include <time.h>
#include <sys\timeb.h>
#include <sys\types.h>
#include <math.h>

// ODBC headers
#include <sql.h>
#include <sqlext.h>
#include <odbcss.h>

// General constants
#define MILLI 1000
#define FALSE 0
#define TRUE 1
#define UNDEF -1
#define MINPRINTASCII 32
#define MAXPRINTASCII 126

// Default environment constants
#define SERVER ""

```

```

#define DATABASE
    "tpcc"
#define USER
    "sa"
#define PASSWORD ""

// Default loader arguments
#define BATCH
    10000
#define DEFLDPACKSIZE
    32768
#define LOADER_RES_FILE
    "C:\\MSTPCC.450\\SETUP\\LOGS\\load.out"
#define LOADER_LOG_PATH
    "C:\\MSTPCC.450\\SETUP\\LOGS\\"
#define LOADER_NURAND_C
    123
#define DEF_STARTING_WAREHOUSE 1
#define BUILD_INDEX 1 // build both data and indexes
#define INDEX_ORDER 1 // build indexes before load
#define SCALE_DOWN 0 // build a normal scale database
#define INDEX_SCRIPT_PATH
    "scripts"

typedef struct
{
    char
        *server;
    char
        *database;
    char
        *user;
    char
        *password;
    BOOL
        tables_all; //
    set if loading all tables
    BOOL
        table_item; //
    set if loading ITEM table specifically
    BOOL
        table_warehouse; // set if loading
    WAREHOUSE, DISTRICT, and STOCK
    BOOL
        table_customer; // set if
    loading CUSTOMER and HISTORY
    BOOL
        table_orders; // set if
    loading NEW-ORDER, ORDERS, ORDER-LINE
    long
        num_warehouses;
    long
        batch;
    long
        verbose;
    long
        pack_size;
    char
        *loader_res_file;

```

```

char
    *log_path;
char
    *synch_servername;
long
    case_sensitivity;
long
    starting_warehouse;
long
    build_index;
long
    index_order;
long
    scale_down;
char
    *index_script_path;
} TPCCCLR_ARGS;

// String length constants
#define SERVER_NAME_LEN 20
#define DATABASE_NAME_LEN 20
#define USER_NAME_LEN 20
#define PASSWORD_LEN 20
#define TABLE_NAME_LEN 20
#define I_DATA_LEN 50
#define I_NAME_LEN 24
#define BRAND_LEN 1
#define LAST_NAME_LEN 16
#define W_NAME_LEN 10
#define ADDRESS_LEN 20
#define STATE_LEN 2
#define ZIP_LEN 9
#define S_DIST_LEN 24
#define S_DATA_LEN 50
#define D_NAME_LEN 10
#define FIRST_NAME_LEN 16
#define MIDDLE_NAME_LEN 2
#define PHONE_LEN 16
#define CREDIT_LEN 2
#define C_DATA_LEN 500
#define H_DATA_LEN 24
#define DIST_INFO_LEN 24
#define MAX_OL_NEW_ORDER_ITEMS 15
#define MAX_OL_ORDER_STATUS_ITEMS 15
#define STATUS_LEN 25
#define OL_DIST_INFO_LEN
24
#define C_SINCE_LEN
    23
#define H_DATE_LEN
    23
#define OL_DELIVERY_D_LEN
23
#define O_ENTRY_D_LEN 23

// Functions in random.c
void
    seed();
long
    irand();
double
    drand();
void
    WUCreate();
short
    WURand();
long
    RandomNumber(long lower, long upper);

```

```

// Functions in getargs.c;
void GetArgsLoader();
void GetArgsLoaderUsage();

// Functions in time.c
long   TimeNow();

// Functions in strings.c
void   MakeAddress();
void   LastName();
int    MakeAlphaString();
int    MakeAlphaStringPadded();
int    MakeOriginalAlphaString();
int    MakeNumberString();
int    MakeZipNumberString();
void   InitString();
void   InitAddress();
void   PaddString();

```

tpccldr.c

```

//=====
// File:                TPCCLDR.C           Microsoft
// TPC-C Kit Ver. 4.51
// Copyright
// Microsoft, 1996, 1997, 1998, 1999,
// 2000, 2001,
// 2002, 2003
// Purpose: Source file for TPC-C database
// loader
//=====
// Includes
#include "tpcc.h"
#include "search.h"

// Defines
#define MAXITEMS          100000
#define MAXITEMS_SCALE_DOWN 100
#define CUSTOMERS_PER_DISTRICT 3000
#define CUSTOMERS_SCALE_DOWN 30
#define DISTRICT_PER_WAREHOUSE 10
#define ORDERS_PER_DISTRICT 3000
#define ORDERS_SCALE_DOWN 30
#define MAX_CUSTOMER_THREADS 2
#define MAX_ORDER_THREADS 3
#define MAX_MAIN_THREADS 4
#define MAX_SQL_ERRORS 10

// Functions declarations
void HandleErrorDBC (SQLHDBC hdbc1);
long NURand();
void LoadItem();
void LoadWarehouse();
void Stock();
void District();
void LoadCustomer();

```

```

void CustomerBufInit();
void CustomerBufLoad();
void LoadCustomerTable();
void LoadHistoryTable();
void LoadOrders();
void OrdersBufInit();
void OrdersBufLoad();
void LoadOrdersTable();
void LoadNewOrderTable();
void LoadOrderLineTable();
void GetPermutation();
void CheckForCommit();
void CheckForCommit_Big();
void OpenConnections();
void BuildIndex();
void FormatDate ();

// Shared memory structures
typedef struct
{
    double          ol_i_id;           ol;
    long            ol_supply_w_id;
    short           ol_quantity;
    double          ol_amount;
    char            ol_dist_info[DIST_INFO_LEN+1];
    char            ol_delivery_d[OL_DELIVERY_D_LEN+1];
} ORDER_LINE_STRUCT;

typedef struct
{
    long            o_id;
    short           o_d_id;
    long            o_w_id;
    long            o_c_id;
    short           o_carrier_id;
    short           o_ol_cnt;
    short           o_all_local;
    ORDER_LINE_STRUCT o_ol[15];
} ORDERS_STRUCT;

typedef struct
{
    long            c_id;
    short           c_d_id;
    long            c_w_id;
    char            c_first[FIRST_NAME_LEN+1];
    char            c_middle[MIDDLE_NAME_LEN+1];
    char            c_last[LAST_NAME_LEN+1];
    char            c_street_1[ADDRESS_LEN+1];
    char            c_street_2[ADDRESS_LEN+1];
    char            c_city[ADDRESS_LEN+1];

```

```

char            c_state[STATE_LEN+1];
char            c_zip[ZIP_LEN+1];
char            c_phone[PHONE_LEN+1];
char            c_credit[CREDIT_LEN+1];
double          c_credit_lim;
double          c_discount;
char            c_balance[6];
double          c_ytd_payment;
short           c_payment_cnt;
short           c_delivery_cnt;
char            c_data[C_DATA_LEN+1];
double          h_amount;
char            h_data[H_DATA_LEN+1];
} CUSTOMER_STRUCT;

typedef struct
{
    char            c_last[LAST_NAME_LEN+1];
    char            c_first[FIRST_NAME_LEN+1];
    long            c_id;
} CUSTOMER_SORT_STRUCT;

typedef struct
{
    long            time_start;
} LOADER_TIME_STRUCT;

// Global variables
char            szLastError[300];

HENV            henv;
HDBC            v_hdbc;

// for SQL Server version
verification
HDBC            i_hdbc1;
// for ITEM table
HDBC            w_hdbc1;
// for WAREHOUSE, DISTRICT, STOCK
HDBC            c_hdbc1;
// for CUSTOMER
HDBC            c_hdbc2;
// for HISTORY
HDBC            o_hdbc1;
// for ORDERS

```

```

HDBC      o_hdbc2;
          // for NEW-ORDER

HDBC      o_hdbc3;
          // for ORDER-LINE

HSTMT     v_hstmt;
          // for SQL Server version verification
HSTMT     i_hstmt1;
HSTMT     w_hstmt1;
HSTMT     c_hstmt1, c_hstmt2;
HSTMT     o_hstmt1, o_hstmt2, o_hstmt3;

int        total_db_errors;

ORDERS_STRUCT  orders_buf[ORDERS_PER_DISTRICT];
CUSTOMER_STRUCT customer_buf[CUSTOMERS_PER_DISTRICT];

long         orders_rows_loaded;
double       new_order_rows_loaded;
double       order_line_rows_loaded;
long         history_rows_loaded;
long         customer_rows_loaded;
double       stock_rows_loaded;
long         district_rows_loaded;
long         item_rows_loaded;
long         warehouse_rows_loaded;
long         main_time_start;
long         main_time_end;
long         max_items;
long         customers_per_district;
long         orders_per_district;
long         first_new_order;
long         last_new_order;

TPCCCLDR_ARGS *aptr, args;

//=====
//
// Function name: main
//
//=====
int main(int argc, char **argv)
{
    DWORD
dwThreadID[MAX_MAIN_THREADS];
HANDLE      hThread[MAX_MAIN_THREADS];
FILE        *fLoader;
char        buffer[255];
int         i;

    for (i=0; i<MAX_MAIN_THREADS; i++)
        hThread[i] = NULL;

printf("\n*****\n");
printf("\n*
**);

```

```

**);
printf("\n* Microsoft SQL Server
**);
printf("\n*
**);
printf("\n* TPC-C BENCHMARK KIT: Database
loader *");
printf("\n* Version %s
**", TPCKIT_VER);
printf("\n*
**);
printf("\n*****\n");

// process command line arguments
aptr = &args;
GetArgsLoader(argc, argv, aptr);

printf("Build interface is ODBC.\n");

if (aptr->build_index == 0)
    printf("Data load only - no index
creation.\n");
else
    printf("Data load and index
creation.\n");

if (aptr->index_order == 0)
    printf("Clustered indexes will be
created after bulk load.\n");
else
    printf("Clustered indexes will be
created before bulk load.\n");

// set database scale values
if (aptr->scale_down == 1)
{
    printf("**** Scaled Down Database
***\n");
    max_items = MAXITEMS_SCALE_DOWN;
    customers_per_district =
CUSTOMERS_SCALE_DOWN;
    orders_per_district =
ORDERS_SCALE_DOWN;
    first_new_order = 0;
    last_new_order = 30;
}
else
{
    max_items = MAXITEMS;
    customers_per_district =
CUSTOMERS_PER_DISTRICT;
    orders_per_district =
ORDERS_PER_DISTRICT;
    first_new_order = 2100;
    last_new_order = 3000;
}

// open connections to SQL Server
OpenConnections();

// open file for loader results
fLoader = fopen(aptr->loader_res_file,
"w");

```

```

if (fLoader == NULL)
{
    printf("Error, loader result file
open failed.");
    exit(-1);
}

// start loading data
sprintf(buffer, "TPC-C load started for %ld
warehouses.\n", aptr->num_warehouses);
if (aptr->scale_down == 1)
{
    sprintf(buffer, "SCALED DOWN
DATABASE.\n");
}

printf("%s", buffer);
fprintf(fLoader, "%s", buffer);

main_time_start = (TimeNow() / MILLI);

// start parallel load threads
if (aptr->tables_all || aptr->table_item)
{
    fprintf(fLoader, "\nStarting
loader threads for: item\n");

    hThread[0] = CreateThread(NULL,
0,
(LPTHREAD_START_ROUTINE) LoadItem,
NULL,
0,
&dwThreadID[0]);

    if (hThread[0] == NULL)
    {
        printf("Error, failed
in creating creating thread = 0.\n");
        exit(-1);
    }

    if (aptr->tables_all || aptr-
>table_warehouse)
    {
        fprintf(fLoader, "Starting loader
threads for: warehouse\n");

        hThread[1] = CreateThread(NULL,
0,
(LPTHREAD_START_ROUTINE) LoadWarehouse,

```



```

        NULL,
        0,
        &dwThreadID[1]);
    if (hThread[1] == NULL)
    {
        printf("Error, failed
in creating creating thread = 1.\n");
        exit(-1);
    }
    if (aptr->tables_all || aptr-
>table_customer)
    {
        fprintf(fLoader, "Starting loader
threads for: customer\n");
        hThread[2] = CreateThread(NULL,
        0,
        (LPTHREAD_START_ROUTINE) LoadCustomer,
        NULL,
        0,
        &dwThreadID[2]);
        if (hThread[2] == NULL)
        {
            printf("Error, failed
in creating creating main thread = 2.\n");
            exit(-1);
        }
        if (aptr->tables_all || aptr->table_orders)
        {
            fprintf(fLoader, "Starting loader
threads for: orders\n");
            hThread[3] = CreateThread(NULL,
            0,
            (LPTHREAD_START_ROUTINE) LoadOrders,
            NULL,
            0,
            &dwThreadID[3]);
            if (hThread[3] == NULL)
            {

```

```

                printf("Error, failed
in creating creating main thread = 3.\n");
                exit(-1);
            }
        }
        // Wait for threads to finish...
        for (i=0; i<MAX_MAIN_THREADS; i++)
        {
            if (hThread[i] != NULL)
            {
                WaitForSingleObject(
hThread[i], INFINITE );
                CloseHandle(hThread[i]);
                hThread[i] = NULL;
            }
        }
        main_time_end = (TimeNow() / MILLI);
        sprintf(buffer, "\nTPC-C load completed
successfully in %ld minutes.\n",
        (main_time_end -
main_time_start)/60);
        printf("%s", buffer);
        fprintf(fLoader, "%s", buffer);
        fclose(fLoader);
        SQLFreeEnv(henv);
        exit(0);
    }
    return 0;
}
//=====
//
// Function name: LoadItem
//
//=====
void LoadItem()
{
    int         i;
    long        i_id;
    long        i_im_id;
    char         i_name[I_NAME_LEN+1];
    double       i_price;
    char         i_data[I_DATA_LEN+1];
    char         name[20];
    long         time_start;
    RETCODE      rc;
    DBINT        rcount;
    char         bcp_hint[128];
    char         err_log_path[256];
    // Seed with unique number
    seed(11);

```

```

        printf("Loading item table...\n");
        //if build index before load
        if ((aptr->build_index == 1) && (aptr-
>index_order == 1))
            BuildIndex("idxitmcl");
        InitString(i_name, I_NAME_LEN+1);
        InitString(i_data, I_DATA_LEN+1);
        sprintf(name, "%s.%s", aptr->database,
"item");
        strcpy(err_log_path, aptr->log_path);
        strcat(err_log_path, "item.err");
        rc = bcp_init(i_hdbc1, name, NULL,
err_log_path, DB_IN);
        if (rc != SUCCEEDED)
            HandleErrorDBC(i_hdbc1);
        if ((aptr->build_index == 1) && (aptr-
>index_order == 1))
        {
            sprintf(bcp_hint, "tablock, order
(i_id), ROWS_PER_BATCH = 10000");
            rc = bcp_control(i_hdbc1,
BCPHINTS, (void*) bcp_hint);
            if (rc != SUCCEEDED)
                HandleErrorDBC(i_hdbc1);
        }
        i = 0;
        rc = bcp_bind(i_hdbc1, (BYTE *) &i_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT4, ++i);
        if (rc != SUCCEEDED)
            HandleErrorDBC(i_hdbc1);
        rc = bcp_bind(i_hdbc1, (BYTE *) i_name, 0,
I_NAME_LEN, NULL, 0, 0, ++i);
        if (rc != SUCCEEDED)
            HandleErrorDBC(i_hdbc1);
        rc = bcp_bind(i_hdbc1, (BYTE *) &i_price,
0, SQL_VARLEN_DATA, NULL, 0, SQLFLT8, ++i);
        if (rc != SUCCEEDED)
            HandleErrorDBC(i_hdbc1);
        rc = bcp_bind(i_hdbc1, (BYTE *) i_data, 0,
SQL_VARLEN_DATA, "", 1, 0, ++i);
        if (rc != SUCCEEDED)
            HandleErrorDBC(i_hdbc1);
        rc = bcp_bind(i_hdbc1, (BYTE *) &i_im_id,
0, SQL_VARLEN_DATA, NULL, 0, SQLINT4, ++i);
        if (rc != SUCCEEDED)
            HandleErrorDBC(i_hdbc1);
        time_start = (TimeNow() / MILLI);
        item_rows_loaded = 0;
        for (i_id = 1; i_id <= max_items; i_id++)
        {
            i_im_id = RandomNumber(1L,
10000L);

```

```

        MakeAlphaStringPadded(14, 24,
I_NAME_LEN, i_name);

        i_price = ((float)
RandomNumber(100L, 10000L))/100.0;

        MakeOriginalAlphaString(26, 50,
I_DATA_LEN, i_data, 10);

        rc = bcp_sendrow(i_hdbc1);

        if (rc != SUCCEED)

            HandleErrorDBC(i_hdbc1);

            item_rows_loaded++;
            CheckForCommit(i_hdbc1, i_hstmt1,
item_rows_loaded, "item", &time_start);
        }

        rcint = bcp_done(i_hdbc1);
        if (rcint < 0)
            HandleErrorDBC(i_hdbc1);

        printf("Finished loading item table.\n");

        SQLFreeStmt(i_hstmt1, SQL_DROP);
        SQLDisconnect(i_hdbc1);
        SQLFreeConnect(i_hdbc1);

        // if build index after load
        if ((aptr->build_index == 1) && (aptr-
>index_order == 0))
            BuildIndex("idxitmt1");
    }

//=====
//
// Function   : LoadWarehouse
//
// Loads WAREHOUSE table and loads Stock and District
// as Warehouses are created
//
//=====
void LoadWarehouse()
{
    int         i;
    long        w_id;
    char        w_name[W_NAME_LEN+1];
    char        w_street_1[ADDRESS_LEN+1];
    char        w_street_2[ADDRESS_LEN+1];
    char        w_city[ADDRESS_LEN+1];
    char        w_state[STATE_LEN+1];
    char        w_zip[ZIP_LEN+1];
    double      w_tax;
    double      w_ytd;
    char        name[20];

```

```

        long        time_start;
        RETCODE   rc;
        DBINT     rcint;
        char      bcphint[128];
        char      err_log_path[256];

        // Seed with unique number
        seed(2);

        printf("Loading warehouse table...\n");

        // if build index before load...
        if ((aptr->build_index == 1) && (aptr-
>index_order == 1))
            BuildIndex("idxwarc1");

        InitString(w_name, W_NAME_LEN+1);
        InitAddress(w_street_1, w_street_2, w_city,
w_state, w_zip);

        sprintf(name, "%s.%s", aptr->database,
"warehouse");

        strcpy(err_log_path, aptr->log_path);
        strcat(err_log_path, "whouse.err");
        rc = bcp_init(w_hdbc1, name, NULL,
err_log_path, DB_IN);

        if (rc != SUCCEED)
            HandleErrorDBC(w_hdbc1);

        if ((aptr->build_index == 1) && (aptr-
>index_order == 1))
        {
            sprintf(bcphint, "tablock, order
(w_id), ROWS_PER_BATCH = %d", aptr->num_warehouses);
            rc = bcp_control(w_hdbc1,
BCPHINTS, (void*) bcphint);
            if (rc != SUCCEED)

                HandleErrorDBC(w_hdbc1);
        }

        i = 0;
        rc = bcp_bind(w_hdbc1, (BYTE *) &w_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT4, ++i);
        if (rc != SUCCEED)
            HandleErrorDBC(w_hdbc1);
        rc = bcp_bind(w_hdbc1, (BYTE *) &w_ytd, 0,
SQL_VARLEN_DATA, NULL, 0, SQLFLT8, ++i);
        if (rc != SUCCEED)
            HandleErrorDBC(w_hdbc1);
        rc = bcp_bind(w_hdbc1, (BYTE *) &w_tax, 0,
SQL_VARLEN_DATA, NULL, 0, SQLFLT8, ++i);
        if (rc != SUCCEED)
            HandleErrorDBC(w_hdbc1);
        rc = bcp_bind(w_hdbc1, (BYTE *) w_name, 0,
W_NAME_LEN, NULL, 0, 0, ++i);
        if (rc != SUCCEED)
            HandleErrorDBC(w_hdbc1);
        rc = bcp_bind(w_hdbc1, (BYTE *) w_street_1,
0, ADDRESS_LEN, NULL, 0, 0, ++i);
        if (rc != SUCCEED)

```

```

            HandleErrorDBC(w_hdbc1);
        rc = bcp_bind(w_hdbc1, (BYTE *) w_street_2,
0, ADDRESS_LEN, NULL, 0, 0, ++i);
        if (rc != SUCCEED)
            HandleErrorDBC(w_hdbc1);
        rc = bcp_bind(w_hdbc1, (BYTE *) w_city, 0,
ADDRESS_LEN, NULL, 0, 0, ++i);
        if (rc != SUCCEED)
            HandleErrorDBC(w_hdbc1);
        rc = bcp_bind(w_hdbc1, (BYTE *) w_state, 0,
STATE_LEN, NULL, 0, 0, ++i);
        if (rc != SUCCEED)
            HandleErrorDBC(w_hdbc1);
        rc = bcp_bind(w_hdbc1, (BYTE *) w_zip, 0,
ZIP_LEN, NULL, 0, 0, ++i);
        if (rc != SUCCEED)
            HandleErrorDBC(w_hdbc1);

        time_start = (TimeNow() / MILLI);
        warehouse_rows_loaded = 0;

        for (w_id = (long)aptr->starting_warehouse;
w_id <= aptr->num_warehouses; w_id++)
        {
            MakeAlphaStringPadded(6, 10,
W_NAME_LEN, w_name);

            MakeAddress(w_street_1,
w_street_2, w_city, w_state, w_zip);

            w_tax = ((float)
RandomNumber(0L, 2000L))/10000.00;

            w_ytd = 300000.00;

            rc = bcp_sendrow(w_hdbc1);
            if (rc != SUCCEED)

                HandleErrorDBC(w_hdbc1);

            warehouse_rows_loaded++;
            CheckForCommit(w_hdbc1, i_hstmt1,
warehouse_rows_loaded, "warehouse", &time_start);
        }

        rcint = bcp_done(w_hdbc1);
        if (rcint < 0)
            HandleErrorDBC(w_hdbc1);

        printf("Finished loading warehouse
table.\n");

        // if build index after load...
        if ((aptr->build_index == 1) && (aptr-
>index_order == 0))
            BuildIndex("idxwarc1");

        stock_rows_loaded = 0;
        district_rows_loaded = 0;

        District();

```

```

        Stock();
    }

//=====
//
// Function   : District
//
//=====
void District()
{
    int         i;
    short       d_id;
    long        d_w_id;
    char         d_name[D_NAME_LEN+1];
    char         d_street_1[ADDRESS_LEN+1];
    char         d_street_2[ADDRESS_LEN+1];
    char         d_city[ADDRESS_LEN+1];
    char         d_state[STATE_LEN+1];
    char         d_zip[ZIP_LEN+1];
    double       d_tax;
    double       d_ytd;
    char         name[20];
    long         d_next_o_id;
    long         time_start;
    long         w_id;
    RETCODE      rc;
    DBINT        rcint;
    char         bcphint[128];
    char         err_log_path[256];

    // Seed with unique number
    seed(4);

    printf("Loading district table...\n");

    // build index before load
    if ((aptr->build_index == 1) && (aptr->index_order == 1))
        BuildIndex("idxdiscl");

    InitString(d_name, D_NAME_LEN+1);
    InitAddress(d_street_1, d_street_2, d_city,
d_state, d_zip);
    sprintf(name, "%s..%s", aptr->database,
"district");

    strcpy(err_log_path, aptr->log_path);
    strcat(err_log_path, "district.err");
    rc = bcp_init(w_hdbc1, name, NULL,
err_log_path, DB_IN);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    if ((aptr->build_index == 1) && (aptr->index_order == 1))
    {
        sprintf(bcphint, "tablock, order
(d_w_id, d_id), ROWS_PER_BATCH = %u", (aptr->num_warehouses * 10));
        rc = bcp_control(w_hdbc1,
BCPHINTS, (void*) bcphint);
    }
}

```

```

        if (rc != SUCCEED)
            HandleErrorDBC(w_hdbc1);
    }

    i = 0;
    rc = bcp_bind(w_hdbc1, (BYTE *) &d_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT2, ++i);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *) &d_w_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT4, ++i);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *) &d_ytd, 0,
SQL_VARLEN_DATA, NULL, 0, SQLFLT8, ++i);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *)
&d_next_o_id, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT4,
++i);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *) &d_tax, 0,
SQL_VARLEN_DATA, NULL, 0, SQLFLT8, ++i);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *) d_name, 0,
D_NAME_LEN, NULL, 0, 0, ++i);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *) d_street_1,
0, ADDRESS_LEN, NULL, 0, 0, ++i);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *) d_street_2,
0, ADDRESS_LEN, NULL, 0, 0, ++i);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *) d_city, 0,
ADDRESS_LEN, NULL, 0, 0, ++i);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *) d_state, 0,
STATE_LEN, NULL, 0, 0, ++i);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *) d_zip, 0,
ZIP_LEN, NULL, 0, 0, ++i);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    d_ytd = 30000.0;

    d_next_o_id = orders_per_district+1;

    time_start = (TimeNow() / MILLI);

    for (w_id = aptr->starting_warehouse; w_id
<= aptr->num_warehouses; w_id++)
    {
        d_w_id = w_id;
    }
}

```

```

        for (d_id = 1; d_id <=
DISTRICT_PER_WAREHOUSE; d_id++)
    {
        MakeAlphaStringPadded(6, 10, D_NAME_LEN,
d_name);
        MakeAddress(d_street_1,
d_street_2, d_city, d_state, d_zip);
        d_tax = ((float)
RandomNumber(0L, 2000L))/10000.00;
        rc =
bcp_sendrow(w_hdbc1);
        if (rc != SUCCEED)
            HandleErrorDBC(w_hdbc1);

        district_rows_loaded++;
        CheckForCommit(w_hdbc1,
&time_start);
    }

    rcint = bcp_done(w_hdbc1);
    if (rcint < 0)
        HandleErrorDBC(w_hdbc1);

    printf("Finished loading district
table.\n");

    // if build index after load...
    if ((aptr->build_index == 1) && (aptr->index_order == 0))
        BuildIndex("idxdiscl");

    return;
}

//=====
//
// Function   : Stock
//
//=====
void Stock()
{
    int         i;
    long        s_i_id;
    long        s_w_id;
    short       s_quantity;
    char         s_dist_01[S_DIST_LEN+1];
    char         s_dist_02[S_DIST_LEN+1];
    char         s_dist_03[S_DIST_LEN+1];
    char         s_dist_04[S_DIST_LEN+1];
    char         s_dist_05[S_DIST_LEN+1];
    char         s_dist_06[S_DIST_LEN+1];
    char         s_dist_07[S_DIST_LEN+1];
    char         s_dist_08[S_DIST_LEN+1];
}

```

```

char s_dist_09[S_DIST_LEN+1];
char s_dist_10[S_DIST_LEN+1];
long s_ytd;
short s_order_cnt;
short s_remote_cnt;
char s_data[S_DATA_LEN+1];
short len;
char name[20];
long time_start;
RETCODE rc;
DBINT rcint;
char bcphint[128];
char err_log_path[256];

// Seed with unique number
seed(3);

// if build index before load...
if ((aptr->build_index == 1) && (aptr->index_order == 1))
    BuildIndex("idxstkcl");

sprintf(name, "%s.%s", aptr->database, "stock");

strcpy(err_log_path, aptr->log_path);
strcat(err_log_path, "stock.err");
rc = bcp_init(w_hdbc1, name, NULL, err_log_path, DB_IN);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

if ((aptr->build_index == 1) && (aptr->index_order == 1))
{
    sprintf(bcphint, "tablock, order (s_i_id, s_w_id), ROWS_PER_BATCH = %u", (aptr->num_warehouses * 100000));
    rc = bcp_control(w_hdbc1, BCPHINTS, (void*) bcphint);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);
}

i = 0;
rc = bcp_bind(w_hdbc1, (BYTE *) &s_i_id, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT4, ++i);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);
rc = bcp_bind(w_hdbc1, (BYTE *) &s_w_id, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT4, ++i);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);
rc = bcp_bind(w_hdbc1, (BYTE *) &s_quantity, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT2, ++i);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);
rc = bcp_bind(w_hdbc1, (BYTE *) &s_ytd, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT4, ++i);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

```

```

rc = bcp_bind(w_hdbc1, (BYTE *) &s_order_cnt, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT2, ++i);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);
rc = bcp_bind(w_hdbc1, (BYTE *) &s_remote_cnt, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT2, ++i);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);
rc = bcp_bind(w_hdbc1, (BYTE *) s_data, 0, SQL_VARLEN_DATA, "", 1, 0, ++i);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);
rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_01, 0, S_DIST_LEN, NULL, 0, 0, ++i);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);
rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_02, 0, S_DIST_LEN, NULL, 0, 0, ++i);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);
rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_03, 0, S_DIST_LEN, NULL, 0, 0, ++i);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);
rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_04, 0, S_DIST_LEN, NULL, 0, 0, ++i);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);
rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_05, 0, S_DIST_LEN, NULL, 0, 0, ++i);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);
rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_06, 0, S_DIST_LEN, NULL, 0, 0, ++i);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);
rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_07, 0, S_DIST_LEN, NULL, 0, 0, ++i);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);
rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_08, 0, S_DIST_LEN, NULL, 0, 0, ++i);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);
rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_09, 0, S_DIST_LEN, NULL, 0, 0, ++i);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);
rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_10, 0, S_DIST_LEN, NULL, 0, 0, ++i);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

s_ytd = s_order_cnt = s_remote_cnt = 0;
time_start = (TimeNow() / MILLI);
printf("...Loading stock table\n");
for (s_i_id=1; s_i_id <= max_items; s_i_id++)

```

```

{
    for (s_w_id = (long)aptr->starting_warehouse; s_w_id <= aptr->num_warehouses; s_w_id++)
    {
        s_quantity = (short)RandomNumber(10L,100L);
        len = MakeAlphaString(24,24,S_DIST_LEN, s_dist_01);
        len = MakeAlphaString(24,24,S_DIST_LEN, s_dist_02);
        len = MakeAlphaString(24,24,S_DIST_LEN, s_dist_03);
        len = MakeAlphaString(24,24,S_DIST_LEN, s_dist_04);
        len = MakeAlphaString(24,24,S_DIST_LEN, s_dist_05);
        len = MakeAlphaString(24,24,S_DIST_LEN, s_dist_06);
        len = MakeAlphaString(24,24,S_DIST_LEN, s_dist_07);
        len = MakeAlphaString(24,24,S_DIST_LEN, s_dist_08);
        len = MakeAlphaString(24,24,S_DIST_LEN, s_dist_09);
        len = MakeAlphaString(24,24,S_DIST_LEN, s_dist_10);

        len = MakeOriginalAlphaString(26,50, S_DATA_LEN, s_data,10);

        rc = bcp_sendrow(w_hdbc1);
        if (rc != SUCCEED)
            HandleErrorDBC(w_hdbc1);
        stock_rows_loaded++;

        CheckForCommit_Big(w_hdbc1, w_hstmt1, stock_rows_loaded, "stock", &time_start);
    }

    rcint = bcp_done(w_hdbc1);
    if (rcint < 0)
        HandleErrorDBC(w_hdbc1);

    printf("Finished loading stock table.\n");

    SQLFreeStmt(w_hstmt1, SQL_DROP);
    SQLDisconnect(w_hdbc1);
    SQLFreeConnect(w_hdbc1);

    // if build index after load...
    if ((aptr->build_index == 1) && (aptr->index_order == 0))
        BuildIndex("idxstkcl");
}

```

```

        return;
    }

    //=====
    //
    // Function   : LoadCustomer
    //
    //=====
    void LoadCustomer()
    {
        LOADER_TIME_STRUCT
customer_time_start;
        LOADER_TIME_STRUCT      history_time_start;
        long
        w_id;
        short                    d_id;
        DWORD
dwThreadID[MAX_CUSTOMER_THREADS];
        HANDLE
hThread[MAX_CUSTOMER_THREADS];
        char                      name[20];
        RETCODE
rc;
        DBINT
rcint;
        char
bcphint[128];
        char
cmd[256];
        int
        num_procs;
        char
err_log_path_cust[256];
        char
err_log_path_hist[256];

        // Seed with unique number
seed(5);

        printf("Loading customer and history
tables...\n");

        // if build index before load...
        if ((aptr->build_index == 1) && (aptr-
>index_order == 1))
        {
            BuildIndex("idxcuscl");
            // check the number of
processors on this system
            // if 8 or more processors, then
build index on History.
            // if less than 8 processors, do
not build the index
            num_procs = atoi(getenv(
"NUMBER_OF_PROCESSORS" ));
            if ( num_procs >= 8 )
                BuildIndex("idxhiscl");
        }

        // Initialize bulk copy

```

```

        sprintf(name, "%s..%s", aptr->database,
"customer");

        strcpy(err_log_path_cust,aptr->log_path);
        strcat(err_log_path_cust,"customer.err");
        rc = bcp_init(c_hdbc1, name, NULL,
err_log_path_cust, DB_IN);
        if (rc != SUCCEED)
            HandleErrorDBC(c_hdbc1);

        if ((aptr->build_index == 1) && (aptr-
>index_order == 1))
        {
            sprintf(bcphint, "tablock, order
(c_w_id, c_d_id, c_id), ROWS_PER_BATCH = %u", (aptr-
>num_warehouses * 30000));
            rc = bcp_control(c_hdbc1,
BCPHINTS, (void*) bcphint);
            if (rc != SUCCEED)
                HandleErrorDBC(c_hdbc1);
        }

        sprintf(name, "%s..%s", aptr->database,
"history");

        rc = bcp_init(c_hdbc2, name, NULL,
"logs\\history.err", DB_IN);
        strcpy(err_log_path_hist,aptr->log_path);
        strcat(err_log_path_hist,"history.err");
        rc = bcp_init(c_hdbc2, name, NULL,
err_log_path_hist, DB_IN);
        if (rc != SUCCEED)
            HandleErrorDBC(c_hdbc2);

        sprintf(bcphint, "tablock");
        rc = bcp_control(c_hdbc2, BCPHINTS, (void*)
bcphint);
        if (rc != SUCCEED)
            HandleErrorDBC(c_hdbc2);

        customer_rows_loaded = 0;
        history_rows_loaded = 0;

        CustomerBufInit();

        customer_time_start.time_start = (TimeNow()
/ MILLI);
        history_time_start.time_start = (TimeNow()
/ MILLI);

        for (w_id = (long)aptr->starting_warehouse;
w_id <= aptr->num_warehouses; w_id++)
        {
            for (d_id = 1; d_id <=
DISTRICT_PER_WAREHOUSE; d_id++)
            {
                CustomerBufLoad(d_id,
w_id);

                // Start parallel
loading threads here...

```

```

// Start customer table
thread
        printf("...Loading
customer table for: d_id = %d, w_id = %d\n", d_id,
w_id);

        hThread[0] =
CreateThread(NULL,
            0,
(LPTHREAD_START_ROUTINE) LoadCustomerTable,
&customer_time_start,
            0,
&dwThreadID[0]);

        if (hThread[0] == NULL)
        {
            printf("Error, failed in creating creating
thread = 0.\n");
            exit(-1);
        }

        // Start History table
thread
        printf("...Loading
history table for: d_id = %d, w_id = %d\n", d_id,
w_id);

        hThread[1] =
CreateThread(NULL,
            0,
(LPTHREAD_START_ROUTINE) LoadHistoryTable,
&history_time_start,
            0,
&dwThreadID[1]);

        if (hThread[1] == NULL)
        {
            printf("Error, failed in creating creating
thread = 1.\n");
            exit(-1);
        }

        WaitForSingleObject(
hThread[0], INFINITE );

```

```

WaitForSingleObject(
hThread[1], INFINITE );

if
(CloseHandle(hThread[0]) == FALSE)
{
    printf("Error, failed in closing customer
thread handle with errno: %d\n", GetLastError());
}

if
(CloseHandle(hThread[1]) == FALSE)
{
    printf("Error, failed in closing history
thread handle with errno: %d\n", GetLastError());
}

// flush the bulk connection
rcint = bcp_done(c_hdbc1);
if (rcint < 0)
    HandleErrorDBC(c_hdbc1);

rcint = bcp_done(c_hdbc2);
if (rcint < 0)
    HandleErrorDBC(c_hdbc2);

printf("Finished loading customer
table.\n");

// if build index after load...
if ((aptr->build_index == 1) && (aptr-
>index_order == 0))
{
    BuildIndex("idxcuscl");
    // check the number of processors
    on this system // if 8 or more processors, then
build index on History.
    // if less than 8 processors, do
not build the index
    num_procs = atoi(getenv(
"NUMBER_OF_PROCESSORS" ));
    if (num_procs >= 8)
        BuildIndex("idxhiscl");
}

// build non-clustered index
if (aptr->build_index == 1)
    BuildIndex("idxcusnc");

// Output the NURAND used for the loader
into C_FIRST for C_ID = 1,
// C_W_ID = 1, and C_D_ID = 1
sprintf(cmd, "osql -S%s -U%s -P%s -d%s -e -
Q\update customer set c_first = 'C_LOAD = %d' where
c_id = 1 and c_w_id = 1 and c_d_id = 1\ " >
%snurand_load.log",

```

```

aptr->server,
aptr->user,
aptr-
>password,
aptr-
>database,
aptr-
    LOADER_NURAND_C,
aptr-
>log_path);

system(cmd);

SQLFreeStmt(c_hstmt1, SQL_DROP);
SQLDisconnect(c_hdbc1);
SQLFreeConnect(c_hdbc1);

SQLFreeStmt(c_hstmt2, SQL_DROP);
SQLDisconnect(c_hdbc2);
SQLFreeConnect(c_hdbc2);

return;
}

//=====================================================
//
// Function : CustomerBufInit
//
//=====================================================
void CustomerBufInit()
{
    long i;

    for (i=0;i<customers_per_district;i++)
    {
        customer_buf[i].c_id = 0;
        customer_buf[i].c_d_id = 0;
        customer_buf[i].c_w_id = 0;

        strcpy(customer_buf[i].c_first,"");
        strcpy(customer_buf[i].c_middle,"");
        strcpy(customer_buf[i].c_last,"");
        strcpy(customer_buf[i].c_street_1,"");
        strcpy(customer_buf[i].c_street_2,"");
        strcpy(customer_buf[i].c_city,"");
        strcpy(customer_buf[i].c_state,"");
        strcpy(customer_buf[i].c_zip,"");

        strcpy(customer_buf[i].c_phone,"");

        strcpy(customer_buf[i].c_credit,"");

        customer_buf[i].c_credit_lim = 0;

```

```

customer_buf[i].c_discount =
(float) 0;

strcpy(customer_buf[i].c_balance,"");

customer_buf[i].c_ytd_payment =
0;
customer_buf[i].c_payment_cnt =
0;
customer_buf[i].c_delivery_cnt =
0;

strcpy(customer_buf[i].c_data,"");

customer_buf[i].h_amount = 0;

strcpy(customer_buf[i].h_data,"");
}

//=====================================================
//
// Function : CustomerBufLoad
//
// Fills shared buffer for HISTORY and CUSTOMER
//=====================================================
void CustomerBufLoad(int d_id, long w_id)
{
    long i;
    CUSTOMER_SORT_STRUCT
c[CUSTOMERS_PER_DISTRICT];

    for (i=0;i<customers_per_district;i++)
    {
        if (i < 1000)
            LastName(i,
c[i].c_last);
        else
            LastName(NURand(255,0,999,LOADER_NURAND_C),
c[i].c_last);

        MakeAlphaStringPadded(8,16,FIRST_NAME_LEN,
c[i].c_first);

        c[i].c_id = i+1;

        printf("...Loading customer buffer for:
d_id = %d, w_id = %d\n",
d_id, w_id);

        for (i=0;i<customers_per_district;i++)
        {
            customer_buf[i].c_d_id = d_id;
            customer_buf[i].c_w_id = w_id;

```

```

        customer_buf[i].h_amount = 10.0;
customer_buf[i].c_ytd_payment =
10.0;
        customer_buf[i].c_payment_cnt =
1;
        customer_buf[i].c_delivery_cnt =
0;
        customer_buf[i].c_id = c[i].c_id;
strcpy(customer_buf[i].c_first,
c[i].c_first);
        strcpy(customer_buf[i].c_last,
c[i].c_last);
        customer_buf[i].c_middle[0] =
'O';
        customer_buf[i].c_middle[1] =
'E';

        MakeAddress(customer_buf[i].c_street_1,
customer_buf[i].c_street_2,
customer_buf[i].c_city,
customer_buf[i].c_state,
customer_buf[i].c_zip;
        MakeNumberString(16, 16,
PHONE_LEN, customer_buf[i].c_phone);

        if (RandomNumber(1L, 100L) > 10)
            customer_buf[i].c_credit[0] = 'G';
        else
            customer_buf[i].c_credit[0] = 'B';
        customer_buf[i].c_credit[1] =
'C';
        customer_buf[i].c_credit_lim =
50000.0;
        customer_buf[i].c_discount =
((float) RandomNumber(0L, 5000L) / 10000.0);

        strcpy(customer_buf[i].c_balance, "-10.0");
        MakeAlphaStringPadded(300, 500,
C_DATA_LEN, customer_buf[i].c_data);

        // Generate HISTORY data
        MakeAlphaStringPadded(12, 24,
H_DATA_LEN, customer_buf[i].h_data);
    }
}

//=====
//
// Function   : LoadCustomerTable
//
//=====
void LoadCustomerTable(LOADER_TIME_STRUCT
*customer_time_start)
{

```

```

        long          i;
        long          c_id;
        short         c_d_id;
        long          c_w_id;
        char          c_first[FIRST_NAME_LEN+1];
        char          c_middle[MIDDLE_NAME_LEN+1];
        char          c_last[LAST_NAME_LEN+1];
        char          c_street_1[ADDRESS_LEN+1];
        char          c_street_2[ADDRESS_LEN+1];
        char          c_city[ADDRESS_LEN+1];
        char          c_state[STATE_LEN+1];
        char          c_zip[ZIP_LEN+1];
        char          c_phone[PHONE_LEN+1];
        char          c_credit[CREDIT_LEN+1];
        double        c_credit_lim;
        double        c_discount;
        char          c_balance[6];
        double        c_ytd_payment;
        short         c_payment_cnt;
        short         c_delivery_cnt;
        char          c_data[C_DATA_LEN+1];

        RETCODE      rc;

        i = 0;
        rc = bcp_bind(c_hdbc1, (BYTE *) &c_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT4, ++i);
        if (rc != SUCCEEDED)
            HandleErrorDBC(c_hdbc1);
        rc = bcp_bind(c_hdbc1, (BYTE *) &c_d_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT2, ++i);
        if (rc != SUCCEEDED)
            HandleErrorDBC(c_hdbc1);
        rc = bcp_bind(c_hdbc1, (BYTE *) &c_w_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT4, ++i);
        if (rc != SUCCEEDED)
            HandleErrorDBC(c_hdbc1);
        rc = bcp_bind(c_hdbc1, (BYTE *) &c_discount, 0,
SQL_VARLEN_DATA, NULL, 0, SQLFLT8, ++i);
        if (rc != SUCCEEDED)
            HandleErrorDBC(c_hdbc1);
        rc = bcp_bind(c_hdbc1, (BYTE *) &c_credit_lim, 0,
SQL_VARLEN_DATA, NULL, 0, SQLFLT8, ++i);
        if (rc != SUCCEEDED)
            HandleErrorDBC(c_hdbc1);
        rc = bcp_bind(c_hdbc1, (BYTE *) &c_last, 0,
LAST_NAME_LEN, NULL, 0, 0, ++i);
        if (rc != SUCCEEDED)
            HandleErrorDBC(c_hdbc1);
        rc = bcp_bind(c_hdbc1, (BYTE *) c_first, 0,
FIRST_NAME_LEN, NULL, 0, 0, ++i);
        if (rc != SUCCEEDED)
            HandleErrorDBC(c_hdbc1);
        rc = bcp_bind(c_hdbc1, (BYTE *) c_credit, 0,
CREDIT_LEN, NULL, 0, 0, ++i);
        if (rc != SUCCEEDED)
            HandleErrorDBC(c_hdbc1);
        rc = bcp_bind(c_hdbc1, (BYTE *) c_balance, 0, 5,
NULL, 0, SQLCHARACTER, ++i);
        if (rc != SUCCEEDED)
            HandleErrorDBC(c_hdbc1);

```

```

        rc = bcp_bind(c_hdbc1, (BYTE *) &c_ytd_payment,
0, SQL_VARLEN_DATA, NULL, 0, SQLFLT8, ++i);
        if (rc != SUCCEEDED)
            HandleErrorDBC(c_hdbc1);
        rc = bcp_bind(c_hdbc1, (BYTE *) &c_payment_cnt,
0, SQL_VARLEN_DATA, NULL, 0, SQLINT2, ++i);
        if (rc != SUCCEEDED)
            HandleErrorDBC(c_hdbc1);
        rc = bcp_bind(c_hdbc1, (BYTE *)
&c_delivery_cnt, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT2,
++i);
        if (rc != SUCCEEDED)
            HandleErrorDBC(c_hdbc1);
        rc = bcp_bind(c_hdbc1, (BYTE *) c_street_1, 0,
ADDRESS_LEN, NULL, 0, 0, ++i);
        if (rc != SUCCEEDED)
            HandleErrorDBC(c_hdbc1);
        rc = bcp_bind(c_hdbc1, (BYTE *) c_street_2, 0,
ADDRESS_LEN, NULL, 0, 0, ++i);
        if (rc != SUCCEEDED)
            HandleErrorDBC(c_hdbc1);
        rc = bcp_bind(c_hdbc1, (BYTE *) c_city, 0,
ADDRESS_LEN, NULL, 0, 0, ++i);
        if (rc != SUCCEEDED)
            HandleErrorDBC(c_hdbc1);
        rc = bcp_bind(c_hdbc1, (BYTE *) c_state, 0,
STATE_LEN, NULL, 0, 0, ++i);
        if (rc != SUCCEEDED)
            HandleErrorDBC(c_hdbc1);
        rc = bcp_bind(c_hdbc1, (BYTE *) c_zip, 0,
ZIP_LEN, NULL, 0, 0, ++i);
        if (rc != SUCCEEDED)
            HandleErrorDBC(c_hdbc1);
        rc = bcp_bind(c_hdbc1, (BYTE *) c_phone, 0,
PHONE_LEN, NULL, 0, 0, ++i);
        if (rc != SUCCEEDED)
            HandleErrorDBC(c_hdbc1);
        rc = bcp_bind(c_hdbc1, (BYTE *) &c_since,
0, C_SINCE_LEN, NULL, 0, SQLCHARACTER, ++i);
        if (rc != SUCCEEDED)
            HandleErrorDBC(c_hdbc1);
        rc = bcp_bind(c_hdbc1, (BYTE *) c_middle,
0, MIDDLE_NAME_LEN, NULL, 0, 0, ++i);
        if (rc != SUCCEEDED)
            HandleErrorDBC(c_hdbc1);
        rc = bcp_bind(c_hdbc1, (BYTE *) c_data, 0,
C_DATA_LEN, NULL, 0, 0, ++i);
        if (rc != SUCCEEDED)
            HandleErrorDBC(c_hdbc1);

        for (i = 0; i < customers_per_district; i++)
        {
            c_id = customer_buf[i].c_id;
            c_d_id = customer_buf[i].c_d_id;
            c_w_id = customer_buf[i].c_w_id;

            strcpy(c_first,
customer_buf[i].c_first);
            strcpy(c_middle,
customer_buf[i].c_middle);
            strcpy(c_last,
customer_buf[i].c_last);

```

```

        strcpy(c_street_1,
customer_buf[i].c_street_1);
        strcpy(c_street_2,
customer_buf[i].c_street_2);
        strcpy(c_city,
customer_buf[i].c_city);
        strcpy(c_state,
customer_buf[i].c_state);
        strcpy(c_zip,
customer_buf[i].c_zip);
        strcpy(c_phone,
customer_buf[i].c_phone);
        strcpy(c_credit,
customer_buf[i].c_credit);

        FormatDate(&c_since);

        c_credit_lim =
customer_buf[i].c_credit_lim;
        c_discount =
customer_buf[i].c_discount;
        strcpy(c_balance,
customer_buf[i].c_balance);
        c_ytd_payment =
customer_buf[i].c_ytd_payment;
        c_payment_cnt =
customer_buf[i].c_payment_cnt;
        c_delivery_cnt =
customer_buf[i].c_delivery_cnt;
        strcpy(c_data,
customer_buf[i].c_data);

        // Send data to server
rc = bcp_sendrow(c_hdbc1);
if (rc != SUCCEED)

        HandleErrorDBC(c_hdbc1);

        customer_rows_loaded++;
        CheckForCommit(c_hdbc1, c_hstmt1,
customer_rows_loaded, "customer",
&customer_time_start->time_start);
}

//=====
//
// Function : LoadHistoryTable
//
//=====
void LoadHistoryTable(LOADER_TIME_STRUCT
*history_time_start)
{
        long                i;
        long                c_id;
        short               c_d_id;
        long                c_w_id;
        double              h_amount;
        char                h_data[H_DATA_LEN+1];

```

```

        char                h_date[H_DATE_LEN+1];

        RETCODE            rc;

        i = 0;
        rc = bcp_bind(c_hdbc2, (BYTE *) &c_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT4, ++i);
        if (rc != SUCCEED)
                HandleErrorDBC(c_hdbc2);
        rc = bcp_bind(c_hdbc2, (BYTE *) &c_d_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT2, ++i);
        if (rc != SUCCEED)
                HandleErrorDBC(c_hdbc2);
        rc = bcp_bind(c_hdbc2, (BYTE *) &c_w_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT4, ++i);
        if (rc != SUCCEED)
                HandleErrorDBC(c_hdbc2);
        rc = bcp_bind(c_hdbc2, (BYTE *) &c_d_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT2, ++i);
        if (rc != SUCCEED)
                HandleErrorDBC(c_hdbc2);
        rc = bcp_bind(c_hdbc2, (BYTE *) &c_w_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT4, ++i);
        if (rc != SUCCEED)
                HandleErrorDBC(c_hdbc2);
        rc = bcp_bind(c_hdbc2, (BYTE *) &h_date, 0,
H_DATE_LEN, NULL, 0, SQLCHARACTER, ++i);
        if (rc != SUCCEED)
                HandleErrorDBC(c_hdbc2);
        rc = bcp_bind(c_hdbc2, (BYTE *) &h_amount, 0,
SQL_VARLEN_DATA, NULL, 0, SQLFLT8, ++i);
        if (rc != SUCCEED)
                HandleErrorDBC(c_hdbc2);
        rc = bcp_bind(c_hdbc2, (BYTE *) h_data, 0,
H_DATA_LEN, NULL, 0, 0, ++i);
        if (rc != SUCCEED)
                HandleErrorDBC(c_hdbc2);

        for (i = 0; i < customers_per_district; i++)
        {
                c_id = customer_buf[i].c_id;
                c_d_id = customer_buf[i].c_d_id;
                c_w_id = customer_buf[i].c_w_id;
                h_amount =
customer_buf[i].h_amount;
                strcpy(h_data,
customer_buf[i].h_data);

                FormatDate(&h_date);

                // send to server
rc = bcp_sendrow(c_hdbc2);
if (rc != SUCCEED)

                HandleErrorDBC(c_hdbc2);

                history_rows_loaded++;
                CheckForCommit(c_hdbc2, c_hstmt2,
history_rows_loaded, "history", &history_time_start-
>time_start);

```

```

        }
}

//=====
//
// Function : LoadOrders
//
//=====
void LoadOrders()
{
        LOADER_TIME_STRUCT        orders_time_start;
        LOADER_TIME_STRUCT        new_order_time_start;
        LOADER_TIME_STRUCT        order_line_time_start;
        long                       w_id;
        short                       d_id;
        DWORD                       dwThreadId[MAX_ORDER_THREADS];
        HANDLE                       hThread[MAX_ORDER_THREADS];
        char                         name[20];
        RETCODE                       rc;
        char                         bcphint[128];
        char                         err_log_path_ord[256];
        char                         err_log_path_nord[256];
        char                         err_log_path_ordl[256];

        // seed with unique number
seed(6);

        printf("Loading orders...\n");

        // if build index before load...
if ((aptr->build_index == 1) && (aptr-
>index_order == 1))
        {
                BuildIndex("idxordcl");
                BuildIndex("idxmodcl");
                BuildIndex("idxodlcl");
        }

        // initialize bulk copy
sprintf(name, "%s.%s", aptr->database,
"orders");

        rc = bcp_init(o_hdbc1, name, NULL,
"logs\\orders.err", DB_IN);
        strcpy(err_log_path_ord, aptr->log_path);
        strcat(err_log_path_ord, "orders.err");
        rc = bcp_init(o_hdbc1, name, NULL,
err_log_path_ord, DB_IN);
        if (rc != SUCCEED)
                HandleErrorDBC(o_hdbc1);

```



```

        if ((aptr->build_index == 1) && (aptr-
>index_order == 1))
        {
            sprintf(bcphint, "tablock, order
(o_w_id, o_d_id, o_id), ROWS_PER_BATCH = %u", (aptr-
>num_warehouses * 30000));
            rc = bcp_control(o_hdbc1,
BCPHINTS, (void*) bcphint);
            if (rc != SUCCEED)

                HandleErrorDBC(o_hdbc1);
        }

        sprintf(name, "%s..%s", aptr->database,
"new_order");

        rc = bcp_init(o_hdbc2, name, NULL,
"logs\\neword.err", DB_IN);
        strcpy(err_log_path_nord, aptr->log_path);
        strcat(err_log_path_nord, "neword.err");
        rc = bcp_init(o_hdbc2, name, NULL,
err_log_path_nord, DB_IN);
        if (rc != SUCCEED)
            HandleErrorDBC(o_hdbc2);

        if ((aptr->build_index == 1) && (aptr-
>index_order == 1))
        {
            sprintf(bcphint, "tablock, order
(no_w_id, no_d_id, no_o_id), ROWS_PER_BATCH = %u",
(aptr->num_warehouses * 9000));
            rc = bcp_control(o_hdbc2,
BCPHINTS, (void*) bcphint);
            if (rc != SUCCEED)

                HandleErrorDBC(o_hdbc2);
        }

        sprintf(name, "%s..%s", aptr->database,
"order_line");

        rc = bcp_init(o_hdbc3, name, NULL,
"logs\\ordline.err", DB_IN);
        strcpy(err_log_path_ordl, aptr->log_path);
        strcat(err_log_path_ordl, "ordline.err");
        rc = bcp_init(o_hdbc3, name, NULL,
err_log_path_ordl, DB_IN);
        if (rc != SUCCEED)
            HandleErrorDBC(o_hdbc3);

        if ((aptr->build_index == 1) && (aptr-
>index_order == 1))
        {
            sprintf(bcphint, "tablock, order
(ol_w_id, ol_d_id, ol_o_id, ol_number),
ROWS_PER_BATCH = %u", (aptr->num_warehouses *
300000));
            rc = bcp_control(o_hdbc3,
BCPHINTS, (void*) bcphint);
            if (rc != SUCCEED)

                HandleErrorDBC(o_hdbc3);
        }

```

```

        orders_rows_loaded = 0;
        new_order_rows_loaded = 0;
        order_line_rows_loaded = 0;

        OrdersBufInit();

        orders_time_start.time_start = (TimeNow() /
MILLI);
        new_order_time_start.time_start =
(TimeNow() / MILLI);
        order_line_time_start.time_start =
(TimeNow() / MILLI);

        for (w_id = (long)aptr->starting_warehouse;
w_id <= aptr->num_warehouses; w_id++)
        {
            for (d_id = 1; d_id <=
DISTRICT_PER_WAREHOUSE; d_id++)
            {
                OrdersBufLoad(d_id,
w_id);

                // start parallel
                // start Orders table
                thread
                printf("...Loading
Order Table for: d_id = %d, w_id = %d\n", d_id,
w_id);

                hThread[0] =
CreateThread(NULL,
                0,
                (LPTHREAD_START_ROUTINE) LoadOrdersTable,
                &orders_time_start,
                0,
                &dwThreadID[0]);

                if (hThread[0] == NULL)
                {
                    printf("Error, failed in creating creating
thread = 0.\n");
                    exit(-1);
                }

                // start NewOrder table
                thread
                printf("...Loading New-
Order Table for: d_id = %d, w_id = %d\n", d_id,
w_id);

```

```

                hThread[1] =
CreateThread(NULL,
                0,
                (LPTHREAD_START_ROUTINE) LoadNewOrderTable,
                &new_order_time_start,
                0,
                &dwThreadID[1]);

                if (hThread[1] == NULL)
                {
                    printf("Error, failed in creating creating
thread = 1.\n");
                    exit(-1);
                }

                // start Order-Line
                table thread
                printf("...Loading
Order-Line Table for: d_id = %d, w_id = %d\n", d_id,
w_id);

                hThread[2] =
CreateThread(NULL,
                0,
                (LPTHREAD_START_ROUTINE) LoadOrderLineTable,
                &order_line_time_start,
                0,
                &dwThreadID[2]);

                if (hThread[2] == NULL)
                {
                    printf("Error, failed in creating creating
thread = 2.\n");
                    exit(-1);
                }

                WaitForSingleObject(
hThread[0], INFINITE );
                WaitForSingleObject(
hThread[1], INFINITE );
                WaitForSingleObject(
hThread[2], INFINITE );

                if
                (CloseHandle(hThread[0]) == FALSE)

```

```

        {
            printf("Error, failed in closing Orders
thread handle with errno: %d\n", GetLastError());
        }
        if
(CloseHandle(hThread[1]) == FALSE)
        {
            printf("Error, failed in closing NewOrder
thread handle with errno: %d\n", GetLastError());
        }
        if
(CloseHandle(hThread[2]) == FALSE)
        {
            printf("Error, failed in closing OrderLine
thread handle with errno: %d\n", GetLastError());
        }
    }
    printf("Finished loading orders.\n");
return;
}
//=====
//
// Function : OrdersBufInit
//
// Clears shared buffer for ORDERS, NEWORDER, and
ORDERLINE
//
//=====
void OrdersBufInit()
{
    int i;
    int j;

    for (i=0;i<orders_per_district;i++)
    {
        orders_buf[i].o_id = 0;
        orders_buf[i].o_d_id = 0;
        orders_buf[i].o_w_id = 0;
        orders_buf[i].o_c_id = 0;
        orders_buf[i].o_carrier_id = 0;
        orders_buf[i].o_ol_cnt = 0;
        orders_buf[i].o_all_local = 0;

        for (j=0;j<=14;j++)
        {
            orders_buf[i].o_ol[j].ol = 0;
            orders_buf[i].o_ol[j].ol_i_id = 0;
            orders_buf[i].o_ol[j].ol_supply_w_id = 0;

```

```

            orders_buf[i].o_ol[j].ol_quantity = 0;
            orders_buf[i].o_ol[j].ol_amount = 0;
            strcpy(orders_buf[i].o_ol[j].ol_dist_info,"
");
        }
    }
//=====
//
// Function : OrdersBufLoad
//
// Fills shared buffer for ORDERS, NEWORDER, and
ORDERLINE
//
//=====
void OrdersBufLoad(short d_id, long w_id)
{
    int cust[ORDERS_PER_DISTRICT+1];
    long o_id;
    long ol;

    printf("...Loading Order Buffer for: d_id =
%d, w_id = %d\n",
           d_id, w_id);

    GetPermutation(cust, orders_per_district);

    for
(o_id=0;o_id<orders_per_district;o_id++)
    {
        // Generate ORDER and NEW-ORDER
data
        orders_buf[o_id].o_d_id = d_id;
        orders_buf[o_id].o_w_id = w_id;
        orders_buf[o_id].o_id = o_id+1;
        orders_buf[o_id].o_c_id =
cust[o_id+1];
        orders_buf[o_id].o_ol_cnt =
(short)RandomNumber(5L, 15L);

        if (o_id < first_new_order)
        {
            orders_buf[o_id].o_carrier_id =
(short)RandomNumber(1L, 10L);

            orders_buf[o_id].o_all_local = 1;
        }
        else
        {
            orders_buf[o_id].o_carrier_id = 0;
            orders_buf[o_id].o_all_local = 1;
        }
    }
}

```

```

        for (ol=0;
ol<orders_buf[o_id].o_ol_cnt; ol++)
        {
            orders_buf[o_id].o_ol[ol].ol = ol+1;
            orders_buf[o_id].o_ol[ol].ol_i_id =
RandomNumber(1L, max_items);
            orders_buf[o_id].o_ol[ol].ol_supply_w_id =
w_id;
            orders_buf[o_id].o_ol[ol].ol_quantity = 5;
            MakeAlphaString(24, 24,
OL_DIST_INFO_LEN,
&orders_buf[o_id].o_ol[ol].ol_dist_info);
data
            // Generate ORDER-LINE
            if (o_id <
first_new_order)
            {
                orders_buf[o_id].o_ol[ol].ol_amount = 0;
                // Added to
insure ol_delivery_d set properly during load
                FormatDate(&orders_buf[o_id].o_ol[ol].ol_de
livery_d);
            }
            else
            {
                orders_buf[o_id].o_ol[ol].ol_amount =
RandomNumber(1,999999)/100.0;
                // Added to
insure ol_delivery_d set properly during load
                // odbc
                datetime format
                strcpy(orders_buf[o_id].o_ol[ol].ol_deliver
y_d,"1899-12-31 00:00:00.000");
            }
        }
//=====
//
// Function : LoadOrdersTable
//
//=====
void LoadOrdersTable(LOADER_TIME_STRUCT
*orders_time_start)
{
    int i;
    long o_id;
    short o_d_id;

```

```

        long          o_w_id;
long      o_c_id;
short     o_carrier_id;
short     o_ol_cnt;
short     o_all_local;

char
o_entry_d[O_ENTRY_D_LEN+1];
RETCODE   rc;
DBINT     rcint;

// bind ORDER data
i = 0;
rc = bcp_bind(o_hdbc1, (BYTE *) &o_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT4, ++i);
if (rc != SUCCEED)
    HandleErrorDBC(o_hdbc1);
rc = bcp_bind(o_hdbc1, (BYTE *) &o_d_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT2, ++i);
if (rc != SUCCEED)
    HandleErrorDBC(o_hdbc1);
rc = bcp_bind(o_hdbc1, (BYTE *) &o_w_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT4, ++i);
if (rc != SUCCEED)
    HandleErrorDBC(o_hdbc1);
rc = bcp_bind(o_hdbc1, (BYTE *) &o_c_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT4, ++i);
if (rc != SUCCEED)
    HandleErrorDBC(o_hdbc1);
rc = bcp_bind(o_hdbc1, (BYTE *) &o_carrier_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT2, ++i);
if (rc != SUCCEED)
    HandleErrorDBC(o_hdbc1);
rc = bcp_bind(o_hdbc1, (BYTE *) &o_ol_cnt, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT2, ++i);
if (rc != SUCCEED)
    HandleErrorDBC(o_hdbc1);
rc = bcp_bind(o_hdbc1, (BYTE *) &o_all_local, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT2, ++i);
if (rc != SUCCEED)
    HandleErrorDBC(o_hdbc1);
rc = bcp_bind(o_hdbc1, (BYTE *) &o_entry_d,
0, O_ENTRY_D_LEN, NULL, 0, SQLCHARACTER, ++i);
if (rc != SUCCEED)
    HandleErrorDBC(o_hdbc1);

for (i = 0; i < orders_per_district; i++)
{
    orders_buf[i].o_id =
    orders_buf[i].o_d_id =
    orders_buf[i].o_w_id =
    orders_buf[i].o_c_id =
    orders_buf[i].o_carrier_id =
    orders_buf[i].o_ol_cnt =
    orders_buf[i].o_all_local =

        FormatDate(&o_entry_d);

```

```

// send data to server
rc = bcp_sendrow(o_hdbc1);
if (rc != SUCCEED)

    HandleErrorDBC(o_hdbc1);

    orders_rows_loaded++;
    CheckForCommit(o_hdbc1, o_hstmt1,
orders_rows_loaded, "orders", &orders_time_start-
>time_start);
}

if ((o_w_id == aptr->num_warehouses) &&
(o_d_id == 10))
{
    rcint = bcp_done(o_hdbc1);

    if (rcint < 0)

        HandleErrorDBC(o_hdbc1);

        SQLFreeStmt(o_hstmt1, SQL_DROP);
        SQLDisconnect(o_hdbc1);
        SQLFreeConnect(o_hdbc1);

        // if build index after load...
        if ((aptr->build_index == 1) &&
(aptr->index_order == 0))
            BuildIndex("idxordc1");

        // build non-clustered index
        if (aptr->build_index == 1)
            BuildIndex("idxordnc");
}

}

//=====
//
// Function   : LoadNewOrderTable
//
//=====
void LoadNewOrderTable(LOADER_TIME_STRUCT
*new_order_time_start)
{
    long          i;
    long          o_id;
    short         o_d_id;
    long          o_w_id;
    RETCODE       rc;
    DBINT         rcint;

    // Bind NEW-ORDER data
    i = 0;
    rc = bcp_bind(o_hdbc2, (BYTE *) &o_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT4, ++i);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc2);
    rc = bcp_bind(o_hdbc2, (BYTE *) &o_d_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT2, ++i);

```

```

if (rc != SUCCEED)
    HandleErrorDBC(o_hdbc2);
rc = bcp_bind(o_hdbc2, (BYTE *) &o_w_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT4, ++i);
if (rc != SUCCEED)
    HandleErrorDBC(o_hdbc2);

for (i = first_new_order; i <
last_new_order; i++)
{
    o_id = orders_buf[i].o_id;
    o_d_id = orders_buf[i].o_d_id;
    o_w_id = orders_buf[i].o_w_id;

    rc = bcp_sendrow(o_hdbc2);
    if (rc != SUCCEED)

        HandleErrorDBC(o_hdbc2);

        new_order_rows_loaded++;

        CheckForCommit_Big(o_hdbc2,
o_hstmt2, new_order_rows_loaded, "new_order",
&new_order_time_start->time_start);
}

if ((o_w_id == aptr->num_warehouses) &&
(o_d_id == 10))
{
    rcint = bcp_done(o_hdbc2);

    if (rcint < 0)

        HandleErrorDBC(o_hdbc2);

        SQLFreeStmt(o_hstmt2, SQL_DROP);
        SQLDisconnect(o_hdbc2);
        SQLFreeConnect(o_hdbc2);

        // if build index after load...
        if ((aptr->build_index == 1) &&
(aptr->index_order == 0))
            BuildIndex("idxmodc1");
}

}

//=====
//
// Function   : LoadOrderLineTable
//
//=====
void LoadOrderLineTable(LOADER_TIME_STRUCT
*order_line_time_start)
{
    long          i;
    long          j;
    long          o_id;
    short         o_d_id;
    long          o_w_id;
    double        ol;

```

```

        long         ol_i_id;
        long         ol_supply_w_id;
short   ol_quantity;
double  ol_amount;
char    ol_dist_info[DIST_INFO_LEN+1];
char
char    ol_delivery_d[OL_DELIVERY_D_LEN+1];
RETCODE rc;
DBINT   rcint;

// bind ORDER-LINE data
i = 0;
rc = bcp_bind(o_hdbc3, (BYTE *) &o_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT4, ++i);
if (rc != SUCCEEDED)
    HandleErrorDBC(o_hdbc3);
rc = bcp_bind(o_hdbc3, (BYTE *) &o_d_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT2, ++i);
if (rc != SUCCEEDED)
    HandleErrorDBC(o_hdbc3);
rc = bcp_bind(o_hdbc3, (BYTE *) &o_w_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT4, ++i);
if (rc != SUCCEEDED)
    HandleErrorDBC(o_hdbc3);
rc = bcp_bind(o_hdbc3, (BYTE *) &ol, 0,
SQL_VARLEN_DATA, NULL, 0, SQLFLT8, ++i);
if (rc != SUCCEEDED)
    HandleErrorDBC(o_hdbc3);
rc = bcp_bind(o_hdbc3, (BYTE *) &ol_i_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT4, ++i);
if (rc != SUCCEEDED)
    HandleErrorDBC(o_hdbc3);
rc = bcp_bind(o_hdbc3, (BYTE *)
&ol_delivery_d, 0, OL_DELIVERY_D_LEN, NULL, 0,
SQLCHARACTER, ++i);
if (rc != SUCCEEDED)
    HandleErrorDBC(o_hdbc3);
rc = bcp_bind(o_hdbc3, (BYTE *) &ol_amount, 0,
SQL_VARLEN_DATA, NULL, 0, SQLFLT8, ++i);
if (rc != SUCCEEDED)
    HandleErrorDBC(o_hdbc3);
rc = bcp_bind(o_hdbc3, (BYTE *)
&ol_supply_w_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT4, ++i);
if (rc != SUCCEEDED)
    HandleErrorDBC(o_hdbc3);
rc = bcp_bind(o_hdbc3, (BYTE *) &ol_quantity, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT2, ++i);
if (rc != SUCCEEDED)
    HandleErrorDBC(o_hdbc3);
rc = bcp_bind(o_hdbc3, (BYTE *) ol_dist_info, 0,
DIST_INFO_LEN, NULL, 0, ++i);
if (rc != SUCCEEDED)
    HandleErrorDBC(o_hdbc3);

for (i = 0; i < orders_per_district; i++)
{
    o_id   = orders_buf[i].o_id;
    o_d_id = orders_buf[i].o_d_id;
    o_w_id = orders_buf[i].o_w_id;

    for (j=0; j <
orders_buf[i].o_ol_cnt; j++)

```

```

        {
            orders_buf[i].o_ol[j].ol;
            orders_buf[i].o_ol[j].ol_i_id;
            orders_buf[i].o_ol[j].ol_supply_w_id;
            orders_buf[i].o_ol[j].ol_quantity;
            orders_buf[i].o_ol[j].ol_amount;

            strcpy(ol_delivery_d,orders_buf[i].o_ol[j].
ol_delivery_d);

            strcpy(ol_dist_info,orders_buf[i].o_ol[j].o
l_dist_info);

            rc =
bcp_sendrow(o_hdbc3);
            if (rc != SUCCEEDED)
                HandleErrorDBC(o_hdbc3);

            order_line_rows_loaded++;

            CheckForCommit_Big(o_hdbc3, o_hstmt3,
order_line_rows_loaded, "order_line",
&order_line_time_start->time_start);
        }

        if ((o_w_id == aptr->num_warehouses) &&
(o_d_id == 10))
        {
            rcint = bcp_done(o_hdbc3);
            if (rcint < 0)
                HandleErrorDBC(o_hdbc3);

            SQLFreeStmt(o_hstmt3, SQL_DROP);
            SQLDisconnect(o_hdbc3);
            SQLFreeConnect(o_hdbc3);

            // if build index after load...
            if ((aptr->build_index == 1) &&
(aptr->index_order == 0))
                BuildIndex("idxodlcl");
        }

//=====
//
// Function : GetPermutation
//

```

```

//=====
void GetPermutation(int perm[], int n)
{
    int i, r, t;

    for (i=1;i<=n;i++)
        perm[i] = i;

    for (i=1;i<=n;i++)
    {
        r = RandomNumber(i,n);
        t = perm[i];
        perm[i] = perm[r];
        perm[r] = t;
    }
}

//=====
//
// Function : CheckForCommit
//
//=====
void CheckForCommit(HDBC hdbc,

HSTMT hstmt,

long rows_loaded,

char *table_name, long

*time_start)
{
    long time_end, time_diff;

    if ( !(rows_loaded % aptr->batch) )
    {
        time_end = (TimeNow() / MILLI);
        time_diff = time_end -

*time_start;

        printf("-> Loaded %ld rows into
%s in %ld sec - Total = %d (%.2f rps)\n",
aptr->batch,
table_name,
time_diff,
rows_loaded,
(float) aptr-
>batch / (time_diff ? time_diff : 1L));

        *time_start = time_end;
    }

return;
}

//=====
//
// Function : CheckForCommit_Big

```

```

//
//=====
void CheckForCommit_Big(HDBC hdbc,
    HSTMT hstmt,
    double rows_loaded,
    char *table_name,
    long
*time_start)
{
    long time_end, time_diff;
    if ( !(fmod(rows_loaded,aptr->batch) ) )
    {
        time_end = (TimeNow() / MILLI);
        time_diff = time_end -
*time_start;
        printf("-> Loaded %ld rows into
%s in %ld sec - Total = %.0f (%.2f rps)\n",
            aptr->batch,
            table_name,
            time_diff,
            rows_loaded,
            (float) aptr->batch / (time_diff ? time_diff : 1L));
        *time_start = time_end;
    }
    return;
}
//=====
//
// Function : OpenConnections
//
//=====
void OpenConnections()
{
    RETCODE rc;
    char
szDriverString[300];
    char
szDriverStringOut[1024];
    SQLSMALLINT
cbDriverStringOut;
    SQLAllocHandle(SQL_HANDLE_ENV,
SQL_NULL_HANDLE, &henv );
    SQLSetEnvAttr(henv, SQL_ATTR_ODBC_VERSION,
(void*)SQL_OV_ODBC3, 0 );

```

```

    SQLAllocHandle(SQL_HANDLE_DBC, henv ,
&i_hdbc1);
    SQLAllocHandle(SQL_HANDLE_DBC, henv ,
&w_hdbc1);
    SQLAllocHandle(SQL_HANDLE_DBC, henv ,
&c_hdbc1);
    SQLAllocHandle(SQL_HANDLE_DBC, henv ,
&c_hdbc2);
    SQLAllocHandle(SQL_HANDLE_DBC, henv ,
&o_hdbc1);
    SQLAllocHandle(SQL_HANDLE_DBC, henv ,
&o_hdbc2);
    SQLAllocHandle(SQL_HANDLE_DBC, henv ,
&o_hdbc3);
    SQLSetConnectAttr(i_hdbc1, SQL_COPT_SS_BCP,
(void *)SQL_BCP_ON, SQL_IS_INTEGER );
    SQLSetConnectAttr(w_hdbc1, SQL_COPT_SS_BCP,
(void *)SQL_BCP_ON, SQL_IS_INTEGER );
    SQLSetConnectAttr(c_hdbc1, SQL_COPT_SS_BCP,
(void *)SQL_BCP_ON, SQL_IS_INTEGER );
    SQLSetConnectAttr(c_hdbc2, SQL_COPT_SS_BCP,
(void *)SQL_BCP_ON, SQL_IS_INTEGER );
    SQLSetConnectAttr(o_hdbc1, SQL_COPT_SS_BCP,
(void *)SQL_BCP_ON, SQL_IS_INTEGER );
    SQLSetConnectAttr(o_hdbc2, SQL_COPT_SS_BCP,
(void *)SQL_BCP_ON, SQL_IS_INTEGER );
    SQLSetConnectAttr(o_hdbc3, SQL_COPT_SS_BCP,
(void *)SQL_BCP_ON, SQL_IS_INTEGER );
    // Open connections to SQL Server
    // Connection 1
    sprintf( szDriverString , "DRIVER={SQL
Server};SERVER=%s;UID=%s;PWD=%s/DATABASE=%s" ,
    aptr->server,
    aptr->user,
    aptr->password,
    aptr->database );
    rc = SQLSetConnectOption (i_hdbc1,
SQL_PACKET_SIZE, aptr->pack_size);
    if (rc != SUCCEED)
        HandleErrorDBC(i_hdbc1);
    rc = SQLDriverConnect ( i_hdbc1,
NULL,
(SQLCHAR*)&szDriverString[0] ,
SQL_NTS,
(SQLCHAR*)&szDriverStringOut[0],
sizeof(szDriverStringOut),
&cbDriverStringOut,
SQL_DRIVER_NOPROMPT );

```

```

    if ( (rc != SUCCEED) &&
        (rc != SQL_SUCCESS_WITH_INFO) )
    {
        HandleErrorDBC(i_hdbc1);
        printf("TPC-C Loader
aborted!\n");
        exit(9);
    }
    // Connection 2
    sprintf( szDriverString , "DRIVER={SQL
Server};SERVER=%s;UID=%s;PWD=%s/DATABASE=%s" ,
    aptr->server,
    aptr->user,
    aptr->password,
    aptr->database );
    rc = SQLSetConnectOption (w_hdbc1,
SQL_PACKET_SIZE, aptr->pack_size);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);
    rc = SQLDriverConnect ( w_hdbc1,
NULL,
(SQLCHAR*)&szDriverString[0] ,
SQL_NTS,
(SQLCHAR*)&szDriverStringOut[0],
sizeof(szDriverStringOut),
&cbDriverStringOut,
SQL_DRIVER_NOPROMPT );
    if ( (rc != SUCCEED) &&
        (rc != SQL_SUCCESS_WITH_INFO) )
    {
        HandleErrorDBC(w_hdbc1);
        printf("TPC-C Loader
aborted!\n");
        exit(9);
    }
    // Connection 3
    sprintf( szDriverString , "DRIVER={SQL
Server};SERVER=%s;UID=%s;PWD=%s/DATABASE=%s" ,
    aptr->server,
    aptr->user,
    aptr->password,
    aptr->database );

```

```

rc = SQLSetConnectOption (c_hdbc1,
SQL_PACKET_SIZE, aptr->pack_size);
if (rc != SUCCEED)
    HandleErrorDBC(c_hdbc1);

rc = SQLDriverConnect ( c_hdbc1,

    NULL,

    (SQLCHAR*)&szDriverString[0] ,

    SQL_NTS,

    (SQLCHAR*)&szDriverStringOut[0],

    sizeof(szDriverStringOut),

    &cbDriverStringOut,

    SQL_DRIVER_NOPROMPT );
if ( (rc != SUCCEED) &&
    (rc != SQL_SUCCESS_WITH_INFO) )
{
    HandleErrorDBC(c_hdbc1);
    printf("TPC-C Loader
aborted!\n");
    exit(9);
}

// Connection 4
sprintf( szDriverString , "DRIVER={SQL
Server};SERVER=%s;UID=%s;PWD=%s;DATABASE=%s" ,

    aptr->server,

    aptr->user,

    aptr->password,

    aptr->database );

rc = SQLSetConnectOption (c_hdbc2,
SQL_PACKET_SIZE, aptr->pack_size);
if (rc != SUCCEED)
    HandleErrorDBC(c_hdbc2);

rc = SQLDriverConnect ( c_hdbc2,

    NULL,

    (SQLCHAR*)&szDriverString[0] ,

    SQL_NTS,

    (SQLCHAR*)&szDriverStringOut[0],

    sizeof(szDriverStringOut),

    &cbDriverStringOut,

    SQL_DRIVER_NOPROMPT );
if ( (rc != SUCCEED) &&

```

```

    (rc != SQL_SUCCESS_WITH_INFO) )
{
    HandleErrorDBC(c_hdbc2);
    printf("TPC-C Loader
aborted!\n");
    exit(9);
}

// Connection 5
sprintf( szDriverString , "DRIVER={SQL
Server};SERVER=%s;UID=%s;PWD=%s;DATABASE=%s" ,

    aptr->server,

    aptr->user,

    aptr->password,

    aptr->database );

rc = SQLSetConnectOption (o_hdbc1,
SQL_PACKET_SIZE, aptr->pack_size);
if (rc != SUCCEED)
    HandleErrorDBC(o_hdbc1);

rc = SQLDriverConnect ( o_hdbc1,

    NULL,

    (SQLCHAR*)&szDriverString[0] ,

    SQL_NTS,

    (SQLCHAR*)&szDriverStringOut[0],

    sizeof(szDriverStringOut),

    &cbDriverStringOut,

    SQL_DRIVER_NOPROMPT );
if ( (rc != SUCCEED) &&
    (rc != SQL_SUCCESS_WITH_INFO) )
{
    HandleErrorDBC(o_hdbc1);
    printf("TPC-C Loader
aborted!\n");
    exit(9);
}

// Connection 6
sprintf( szDriverString , "DRIVER={SQL
Server};SERVER=%s;UID=%s;PWD=%s;DATABASE=%s" ,

    aptr->server,

    aptr->user,

    aptr->password,

    aptr->database );

rc = SQLSetConnectOption (o_hdbc2,
SQL_PACKET_SIZE, aptr->pack_size);

```

```

if (rc != SUCCEED)
    HandleErrorDBC(o_hdbc2);

rc = SQLDriverConnect ( o_hdbc2,

    NULL,

    (SQLCHAR*)&szDriverString[0] ,

    SQL_NTS,

    (SQLCHAR*)&szDriverStringOut[0],

    sizeof(szDriverStringOut),

    &cbDriverStringOut,

    SQL_DRIVER_NOPROMPT );
if ( (rc != SUCCEED) &&
    (rc != SQL_SUCCESS_WITH_INFO) )
{
    HandleErrorDBC(o_hdbc2);
    printf("TPC-C Loader
aborted!\n");
    exit(9);
}

// Connection 7
sprintf( szDriverString , "DRIVER={SQL
Server};SERVER=%s;UID=%s;PWD=%s;DATABASE=%s" ,

    aptr->server,

    aptr->user,

    aptr->password,

    aptr->database );

rc = SQLSetConnectOption (o_hdbc3,
SQL_PACKET_SIZE, aptr->pack_size);
if (rc != SUCCEED)
    HandleErrorDBC(o_hdbc3);

rc = SQLDriverConnect ( o_hdbc3,

    NULL,

    (SQLCHAR*)&szDriverString[0] ,

    SQL_NTS,

    (SQLCHAR*)&szDriverStringOut[0],

    sizeof(szDriverStringOut),

    &cbDriverStringOut,

    SQL_DRIVER_NOPROMPT );
if ( (rc != SUCCEED) &&
    (rc != SQL_SUCCESS_WITH_INFO) )
{
    HandleErrorDBC(o_hdbc3);

```

```

        printf("TPC-C Loader
aborted!\n");
        exit(9);
    }
}

//=====
//
// Function name: BuildIndex
//
//=====
void BuildIndex(char          *index_script)
{
    char    cmd[256];

    printf("Starting index creation:
%s\n",index_script);

    sprintf(cmd, "osql -S%s -U%s -P%s -e -
i%s\\%s.sql > %s%s.log",
            aptr->server,
            aptr->user,
            aptr->password,
            aptr->index_script_path,
            index_script,
            aptr->log_path,
            index_script);

    system(cmd);

    printf("Finished index creation:
%s\n",index_script);
}

//=====
//
// Function name: HandleErrorDBC
//
//=====
void HandleErrorDBC (SQLHDBC hdbc1)
{
    SQLCHAR          SqlState[6],
Msg[SQL_MAX_MESSAGE_LENGTH];
    SQLLEN          NativeError;
    SQLSMALLINT i, MsgLen;
    SQLRETURN rc2;
    char            timebuf[128];
    char            datebuf[128];
    char            err_log_path[256];
    FILE            *fpl;

    i = 1;
    while (( rc2 = SQLGetDiagRec(SQL_HANDLE_DBC
, hdbc1, i, SqlState , &NativeError,

```

```

        sizeof(Msg) , &MsgLen ) != SQL_NO_DATA )
    {
        Msg );
        sprintf( szLastError , "%s" ,
                _strtime(timebuf);
                _strdate(datebuf);

                printf( "[%s : %s]
%s\n=>SQLState: %s\n" , datebuf, timebuf,
szLastError, SqlState);

                strcpy(err_log_path,aptr-
>log_path);

                strcat(err_log_path,"tpccldr.err");
                fpl = fopen(err_log_path,"a+");
                if (fpl == NULL)
                    printf("ERROR: Unable
to open errorlog file.\n");
                else
                    printf("ERROR: Unable
to open errorlog file.\n");
                else
                {
                    fprintf(fpl, "[%s : %s]
%s\nSQLState: %s\n" , datebuf, timebuf, szLastError,
SqlState);
                    fclose(fpl);
                }
                i++;
            }
        }

//=====
//
// Function : HandleErrorSTMT
//
//=====
void HandleErrorSTMT (HSTMT hstmt1)
{
    SQLCHAR          SqlState[6],
Msg[SQL_MAX_MESSAGE_LENGTH];
    SQLLEN          NativeError;
    SQLSMALLINT i, MsgLen;
    SQLRETURN rc2;
    char            timebuf[128];
    char            datebuf[128];
    char            err_log_path[256];
    FILE            *fpl;

    i = 1;
    while (( rc2 =
SQLGetDiagRec(SQL_HANDLE_STMT , hstmt1, i, SqlState ,
&NativeError,
                sizeof(Msg) , &MsgLen ) != SQL_NO_DATA )
    {
        Msg,
        MAX_SQL_ERRORS)
        if (total_db_errors >=

```

```

        printf(">>>> Maximum
SQL errors of %d exceeded. Terminating
TPCCCLR.<<<<\n",total_db_errors);
        exit(9);
    }
    total_db_errors++;

    Msg );
    sprintf( szLastError , "%s" ,
            _strtime(timebuf);
            _strdate(datebuf);

            printf( "[%s : %s] %s\nSQLState:
%s\n" , datebuf, timebuf, szLastError, SqlState);

            strcpy(err_log_path,aptr-
>log_path);

            strcat(err_log_path,"tpccldr.err");
            fpl = fopen(err_log_path,"a+");
            if (fpl == NULL)
                printf("ERROR: Unable
to open errorlog file.\n");
            else
            {
                fprintf(fpl, "[%s : %s]
%s\nSQLState: %s\n" , datebuf, timebuf, szLastError,
SqlState);
                fclose(fpl);
            }
            i++;
        }
    }

//=====
//
// Function : FormatDate
//
//=====
void FormatDate ( char* szTimeCOutput )
{
    struct tm when;
    time_t now;

    time( &now );
    when = *localtime( &now );

    mktime( &when );

    // odbc datetime format
    strftime( szTimeCOutput , 30 , "%Y-%m-%d
%H:%M:%S.000" , &when );

    return;
}

```

tpcc_neworder_new.sql

```
-----
--
-- File:      TPCC_NEWORDER_NEW.SQL
--
--           Microsoft TPC-C Benchmark Kit Ver. 4.68
--
--           Copyright Microsoft, 2006
--
--
--           This acid stored procedure implements the
neworder -- transaction.  It outputs timestamps at
the      -- beginning of the transaction, before the
commit   -- delay, and after the commit.
--
--
-----
SET QUOTED_IDENTIFIER OFF
GO
SET ANSI_NULLS OFF
GO
GO
USE tpcc
GO
IF EXISTS ( SELECT name FROM sysobjects WHERE name =
'tpcc_neworder_new' )
    DROP PROCEDURE tpcc_neworder_new
GO
-- neworder_new v2.5 6/23/05 PeterCa
-- lq stock/order_line/client.  upd district & ins
neworder.
-- cust/warehouse select together, ins order
separate
-- uses rownumber to distinct w any transform
-- uses in-memory sort for distinct on iid,wid
-- uses charindex
-- will rollback if (@i_idX,@s_w_idX pairs not
unique) OR (@i_idX not unique).
CREATE PROCEDURE tpcc_neworder_new
    @w_id int,
    @d_id tinyint,
    @c_id int,
    @o_ol_cnt tinyint,
    @o_all_local tinyint,
    @i_id1 int = 0, @s_w_id1
int = 0, @ol_qty1 smallint = 0,
    @i_id2 int = 0, @s_w_id2
int = 0, @ol_qty2 smallint = 0,
```

```
    @i_id3 int = 0, @s_w_id3
int = 0, @ol_qty3 smallint = 0,
    @i_id4 int = 0, @s_w_id4
int = 0, @ol_qty4 smallint = 0,
    @i_id5 int = 0, @s_w_id5
int = 0, @ol_qty5 smallint = 0,
    @i_id6 int = 0, @s_w_id6
int = 0, @ol_qty6 smallint = 0,
    @i_id7 int = 0, @s_w_id7
int = 0, @ol_qty7 smallint = 0,
    @i_id8 int = 0, @s_w_id8
int = 0, @ol_qty8 smallint = 0,
    @i_id9 int = 0, @s_w_id9
int = 0, @ol_qty9 smallint = 0,
    @i_id10 int = 0, @s_w_id10
int = 0, @ol_qty10 smallint = 0,
    @i_id11 int = 0, @s_w_id11
int = 0, @ol_qty11 smallint = 0,
    @i_id12 int = 0, @s_w_id12
int = 0, @ol_qty12 smallint = 0,
    @i_id13 int = 0, @s_w_id13
int = 0, @ol_qty13 smallint = 0,
    @i_id14 int = 0, @s_w_id14
int = 0, @ol_qty14 smallint = 0,
    @i_id15 int = 0, @s_w_id15
int = 0, @ol_qty15 smallint = 0
AS
BEGIN
DECLARE @o_id int,
        @d_tax smallmoney,
        @o_entry_d datetime,
        @commit_flag tinyint
BEGIN TRANSACTION n
-- get district tax and next available order id
and update
-- insert corresponding row into new-order table
-- plus initialize local variables
UPDATE district
SET @d_tax = d_tax,
    @o_id = d_next_o_id,
    d_next_o_id = d_next_o_id + 1,
    @o_entry_d = GETDATE(),
    @commit_flag = 1
OUTPUT deleted.d_next_o_id,
        @d_id,
        @w_id
INTO new_order
WHERE d_w_id = @w_id AND
      d_id = @d_id
-- update stock from stock join (item join
(params))
-- output to orderline, output to client
-- NOTE: @@rowcount != @ol_o_cnt
-- if (@i_idX,@s_w_idX pairs not unique) OR
(@i_idX not unique).
UPDATE stock
```

```
SET s_ytd = s_ytd + info.ol_qty,
    s_quantity = s_quantity -
info.ol_qty +
CASE WHEN (s_quantity -
info.ol_qty < 10) THEN 91 ELSE 0 END,
s_order_cnt = s_order_cnt + 1,
s_remote_cnt = s_remote_cnt +
CASE
WHEN (info.w_id = @w_id) THEN 0 ELSE 1 END
OUTPUT @o_id,
        @d_id,
        @w_id,
        info.lino,
        info.i_id,
        "dec 31, 1899",
        info.i_price * info.ol_qty,
        info.w_id,
        info.ol_qty,
CASE @d_id WHEN 1 THEN
inserted.s_dist_01
        WHEN 2 THEN
inserted.s_dist_02
        WHEN 3 THEN
inserted.s_dist_03
        WHEN 4 THEN
inserted.s_dist_04
        WHEN 5 THEN
inserted.s_dist_05
        WHEN 6 THEN
inserted.s_dist_06
        WHEN 7 THEN
inserted.s_dist_07
        WHEN 8 THEN
inserted.s_dist_08
        WHEN 9 THEN
inserted.s_dist_09
        WHEN 10 THEN
inserted.s_dist_10
END
INTO order_line
OUTPUT info.i_name,inserted.s_quantity,
CASE WHEN
((charindex("ORIGINAL",info.i_data) > 0) AND
(charindex("ORIGINAL",inserted.s_data) > 0) )
THEN "B" ELSE "G" END,
        info.i_price,
        info.i_price*info.ol_qty
FROM stock INNER JOIN
(SELECT iid,
        wid,
        lino,
        ol_qty,
        i_price,
        i_name,
        i_data
FROM (SELECT iid,
        wid,
        lino,
        qty,
```



```

row_number()
OVER (PARTITION BY iid,wid ORDER BY iid,wid)
FROM (SELECT
@i_id1,@s_w_id1,1,@ol_qty1 UNION ALL
SELECT
@i_id2,@s_w_id2,2,@ol_qty2 UNION ALL
SELECT
@i_id3,@s_w_id3,3,@ol_qty3 UNION ALL
SELECT
@i_id4,@s_w_id4,4,@ol_qty4 UNION ALL
SELECT
@i_id5,@s_w_id5,5,@ol_qty5 UNION ALL
SELECT
@i_id6,@s_w_id6,6,@ol_qty6 UNION ALL
SELECT
@i_id7,@s_w_id7,7,@ol_qty7 UNION ALL
SELECT
@i_id8,@s_w_id8,8,@ol_qty8 UNION ALL
SELECT
@i_id9,@s_w_id9,9,@ol_qty9 UNION ALL
SELECT
@i_id10,@s_w_id10,10,@ol_qty10 UNION ALL
SELECT
@i_id11,@s_w_id11,11,@ol_qty11 UNION ALL
SELECT
@i_id12,@s_w_id12,12,@ol_qty12 UNION ALL
SELECT
@i_id13,@s_w_id13,13,@ol_qty13 UNION ALL
SELECT
@i_id14,@s_w_id14,14,@ol_qty14 UNION ALL
SELECT
@i_id15,@s_w_id15,15,@ol_qty15) AS
uol(iid,wid,lino,qty)
) AS
ol(iid,wid,lino,ol_qty,rownum)
INNER JOIN
item (repeatableread) ON
i_id = iid AND -- filters out invalid items

rownum = 1
) AS
info(i_id,w_id,lino,ol_qty,i_price,i_name,i_data)
ON s_i_id = info.i_id AND
s_w_id = info.w_id

IF (@@rowcount <> @o_ol_cnt) -- must have an
invalid item
SELECT @commit_flag = 0 -- 2.4.2.3 requires
rest to proceed

-- insert fresh row into orders table
INSERT INTO orders VALUES ( @o_id,
@d_id,
@w_id,
@c_id,
0,
@o_ol_cnt,
@o_all_local,
@o_entry_d)

-- get customer last name, discount, and credit
rating
-- get warehouse tax

```

```

-- return order_data to client
SELECT w_tax,
@d_tax,
@o_id,
c_last,
c_discount,
c_credit,
@o_entry_d,
@commit_flag
FROM warehouse(repeatableread),
customer(repeatableread)
WHERE w_id = @w_id AND
c_id = @c_id AND
c_w_id = @w_id AND
c_d_id = @d_id

-- @@rowcount checks that previous select
found a valid customer
IF (@@rowcount = 0)
BEGIN
RAISERROR( 'Invalid Customer ID',
11, 1 )
ROLLBACK TRANSACTION n
END
ELSE IF (@commit_flag = 1)
COMMIT TRANSACTION n
ELSE -- all that work for nothing.
ROLLBACK TRANSACTION n

END
GO

```

VerifyTPCCLoad.sql

```

-----
--
-- File: VerifyTPCCLoad.SQL
--
-- Microsoft TPC-C Benchmark Kit Ver. 4.68
--
-- Copyright Microsoft, 2006
--
-----
SET NOCOUNT ON
PRINT ''
SELECT CONVERT(CHAR(30), GETDATE(), 21)
PRINT ''

USE tpcc
GO

IF EXISTS (SELECT name
FROM sysobjects
WHERE name = 'TPCC_INFO' AND

```

```

type = 'U')
DROP TABLE TPCC_INFO
GO
PRINT 'WAREHOUSE TABLE'
SELECT count_big(*)
FROM warehouse
GO
PRINT 'DISTRICT TABLE = (10 * No of warehouses)'
SELECT count_big(*)
FROM district
GO
PRINT 'ITEM TABLE = 100,000'
SELECT count_big(*)
FROM item
GO
PRINT 'CUSTOMER TABLE = (30,000 * No of
warehouses)'
SELECT count_big(*)
FROM customer
GO
PRINT 'ORDERS TABLE = (30,000 * No of warehouses)'
SELECT count_big(*)
FROM orders
GO
PRINT 'HISTORY TABLE = (30,000 * No of warehouses)'
SELECT count_big(*)
FROM history
GO
PRINT 'STOCK TABLE = (100,000 * No of warehouses)'
SELECT count_big(*)
FROM stock
GO
PRINT 'ORDER_LINE TABLE = (300,000 * No of
warehouses + some change)'
SELECT count_big(*)
FROM order_line
GO
PRINT 'NEW_ORDER TABLE = (9000 * No of warehouses)'
SELECT count_big(*)
FROM new_order
GO
CREATE TABLE TPCC_INFO
( INFO_DATE datetime,
NUM_WAREHOUSE bigint,
WAREHOUSE_TARGET bigint,
NUM_DISTRICT bigint,
DISTRICT_TARGET bigint,
NUM_ITEM bigint,
ITEM_TARGET bigint,
NUM_CUSTOMER bigint,
CUSTOMER_TARGET bigint,
NUM_ORDERS bigint,
ORDERS_TARGET bigint,
ORDERS_TARGET_LOW bigint,

```

```

ORDERS_TARGET_HIGH          bigint,
NUM_ORDER_LINE              bigint,
ORDER_LINE_TARGET           bigint,
ORDER_LINE_TARGET_LOW       bigint,
ORDER_LINE_TARGET_HIGH      bigint,
NUM_NEW_ORDER               bigint,
NEW_ORDER_TARGET            bigint,
NEW_ORDER_TARGET_LOW        bigint,
NEW_ORDER_TARGET_HIGH       bigint,
NUM_HISTORY                  bigint,
HISTORY_TARGET              bigint,
NUM_STOCK                   bigint,
STOCK_TARGET                bigint)

GO

DECLARE @NUM_WAREHOUSE      bigint,
        @WAREHOUSE_TARGET  bigint,
        @NUM_DISTRICT      bigint,
        @DISTRICT_TARGET   bigint,
        @NUM_ITEM           bigint,
        @ITEM_TARGET        bigint,
        @NUM_CUSTOMER       bigint,
        @CUSTOMER_TARGET    bigint,
        @NUM_ORDERS         bigint,
        @ORDERS_TARGET      bigint,
        @ORDERS_TARGET_LOW  bigint,
        @ORDERS_TARGET_HIGH bigint,
        @NUM_ORDER_LINE     bigint,
        @ORDER_LINE_TARGET  bigint,
        @ORDER_LINE_TARGET_LOW  bigint,
        @ORDER_LINE_TARGET_HIGH  bigint,
        @NUM_NEW_ORDER      bigint,
        @NEW_ORDER_TARGET   bigint,
        @NEW_ORDER_TARGET_LOW  bigint,
        @NEW_ORDER_TARGET_HIGH  bigint,
        @NUM_HISTORY        bigint,
        @HISTORY_TARGET     bigint,
        @NUM_STOCK          bigint,
        @STOCK_TARGET       bigint

-- set the local variables prior to inserting them
into the TPCC_INFO table
SELECT @NUM_WAREHOUSE      = COUNT_BIG(*)
FROM   warehouse

SELECT @NUM_DISTRICT      = COUNT_BIG(*)
FROM   district

SELECT @NUM_ITEM          = COUNT_BIG(*)
FROM   item

SELECT @NUM_CUSTOMER      = COUNT_BIG(*)
FROM   customer

SELECT @NUM_ORDERS        = COUNT_BIG(*)
FROM   orders

SELECT @NUM_ORDER_LINE    = COUNT_BIG(*)
FROM   order_line

SELECT @NUM_NEW_ORDER     = COUNT_BIG(*)
FROM   new_order

```

```

SELECT @NUM_HISTORY      = COUNT_BIG(*)
FROM   history

SELECT @NUM_STOCK        = COUNT_BIG(*)
FROM   stock

--- now calculate and set the target values
SELECT @WAREHOUSE_TARGET = @NUM_WAREHOUSE,
       @DISTRICT_TARGET  = @NUM_WAREHOUSE *
10,
       @ITEM_TARGET       = 100000,
       @CUSTOMER_TARGET  = @NUM_WAREHOUSE *
30000,
       @ORDERS_TARGET     = @NUM_WAREHOUSE *
30000,
       @ORDERS_TARGET_LOW = @ORDERS_TARGET -
FLOOR(@ORDERS_TARGET * .01),
       @ORDERS_TARGET_HIGH = @ORDERS_TARGET +
FLOOR(@ORDERS_TARGET * .01),
       @ORDER_LINE_TARGET = @NUM_WAREHOUSE *
300000,
       @ORDER_LINE_TARGET_LOW = @ORDER_LINE_TARGET -
FLOOR(@ORDER_LINE_TARGET * .01),
       @ORDER_LINE_TARGET_HIGH = @ORDER_LINE_TARGET +
FLOOR(@ORDER_LINE_TARGET * .01),
       @NEW_ORDER_TARGET  = @NUM_WAREHOUSE *
9000,
       @NEW_ORDER_TARGET_LOW = @NEW_ORDER_TARGET -
FLOOR(@NEW_ORDER_TARGET * .01),
       @NEW_ORDER_TARGET_HIGH = @NEW_ORDER_TARGET +
FLOOR(@NEW_ORDER_TARGET * .01),
       @HISTORY_TARGET    = @NUM_WAREHOUSE *
30000,
       @STOCK_TARGET      = @NUM_WAREHOUSE *
100000

--- insert the values into TPCC_INFO
INSERT INTO TPCC_INFO VALUES (GETDATE(),
                              @NUM_WAREHOUSE,
                              @WAREHOUSE_TARGET,
                              @NUM_DISTRICT,
                              @DISTRICT_TARGET,
                              @NUM_ITEM,
                              @ITEM_TARGET,
                              @NUM_CUSTOMER,
                              @CUSTOMER_TARGET,
                              @NUM_ORDERS,
                              @ORDERS_TARGET,
                              @ORDERS_TARGET_LOW,
                              @ORDERS_TARGET_HIGH,
                              @NUM_NEW_ORDER,
                              @NEW_ORDER_TARGET,
                              @NEW_ORDER_TARGET_LOW,
                              @NEW_ORDER_TARGET_HIGH,
                              @NUM_HISTORY,

```

```

                              @HISTORY_TARGET,
                              @NUM_STOCK,
                              @STOCK_TARGET)

GO

--- output the row counts from the build
PRINT ''
PRINT ''
PRINT '-----'
PRINT '| WAREHOUSE TABLE |'
PRINT '-----'
SELECT TOP 1
CONVERT(CHAR(30),INFO_DATE,21) AS 'Date',
NUM_WAREHOUSE AS
'Warehouse Rows',
WAREHOUSE_TARGET AS
'Warehouse Target',
CASE WHEN (NUM_WAREHOUSE = WAREHOUSE_TARGET)
THEN 'OK!'
ELSE 'ERROR!!!'
END AS
'Warehouse Message'
FROM TPCC_INFO
GO

PRINT ''
PRINT ''
PRINT '-----'
PRINT '| DISTRICT TABLE |'
PRINT '-----'
SELECT TOP 1
CONVERT(CHAR(30),INFO_DATE,21) AS 'Date',
NUM_DISTRICT AS 'District
Rows',
DISTRICT_TARGET AS
'District Target',
CASE WHEN (NUM_DISTRICT = DISTRICT_TARGET)
THEN 'OK!'
ELSE 'ERROR!!!'
END AS 'District
Message'
FROM TPCC_INFO
GO

PRINT ''
PRINT ''
PRINT '-----'
PRINT '| ITEM TABLE |'
PRINT '-----'
SELECT TOP 1
CONVERT(CHAR(30),INFO_DATE,21) AS 'Date',
NUM_ITEM AS 'Item
Rows',
ITEM_TARGET AS
'Item Target',
CASE WHEN (NUM_ITEM = ITEM_TARGET)
THEN 'OK!'
ELSE 'ERROR!!!'
END AS 'Item
Message'
FROM TPCC_INFO
GO

```

```

PRINT ''
PRINT ''
PRINT '-----'
PRINT '| CUSTOMER TABLE |'
PRINT '-----'
SELECT TOP 1
  CONVERT(CHAR(30),INFO_DATE,21) AS 'Date',
  NUM_CUSTOMER AS 'Customer
Rows',
  CUSTOMER_TARGET AS
  'Customer Target',
  CASE WHEN (NUM_CUSTOMER = CUSTOMER_TARGET)
    THEN 'OK!'
    ELSE 'ERROR!!!'
END AS 'Customer
Message'
FROM TPCC_INFO
GO

PRINT ''
PRINT ''
PRINT '-----'
PRINT '| ORDERS TABLE |'
PRINT '-----'
SELECT TOP 1
  CONVERT(CHAR(30),INFO_DATE,21) AS 'Date',
  NUM_ORDERS AS 'Orders
Rows',
  ORDERS_TARGET AS
  'Orders Target',
  CASE WHEN (NUM_ORDERS = ORDERS_TARGET)
    THEN 'OK!'
    WHEN (NUM_ORDERS BETWEEN
ORDERS_TARGET_LOW AND ORDERS_TARGET_HIGH)
    THEN 'OK! (within 1%)'
    ELSE 'ERROR!!!'
END AS 'Orders
Message'
FROM TPCC_INFO
GO

PRINT ''
PRINT ''
PRINT '-----'
PRINT '| ORDER LINE TABLE |'
PRINT '-----'
SELECT TOP 1
  CONVERT(CHAR(30),INFO_DATE,21) AS 'Date',
  NUM_ORDER_LINE AS 'Order
Line Rows',
  ORDER_LINE_TARGET AS
  'Order Line Target',
  CASE WHEN (NUM_ORDER_LINE =
ORDER_LINE_TARGET)
    THEN 'OK!'
    WHEN (NUM_ORDER_LINE BETWEEN
ORDER_LINE_TARGET_LOW AND ORDER_LINE_TARGET_HIGH)
    THEN 'OK! (within 1%)'
    ELSE 'ERROR!!!'
END AS 'Order
Line Message'
FROM TPCC_INFO
GO

```

```

PRINT ''
PRINT ''
PRINT '-----'
PRINT '| NEW ORDER TABLE |'
PRINT '-----'
SELECT TOP 1
  CONVERT(CHAR(30),INFO_DATE,21) AS 'Date',
  NUM_NEW_ORDER AS 'New
Order Rows',
  NEW_ORDER_TARGET AS
  'New Order Target',
  CASE WHEN (NUM_NEW_ORDER = NEW_ORDER_TARGET)
    THEN 'OK!'
    WHEN (NUM_NEW_ORDER BETWEEN
NEW_ORDER_TARGET_LOW AND NEW_ORDER_TARGET_HIGH)
    THEN 'OK! (within 1%)'
    ELSE 'ERROR!!!'
END AS 'New
Order Message'
FROM TPCC_INFO
GO

PRINT ''
PRINT ''
PRINT '-----'
PRINT '| HISTORY TABLE |'
PRINT '-----'
SELECT TOP 1
  CONVERT(CHAR(30),INFO_DATE,21) AS 'Date',
  NUM_HISTORY AS 'History
Rows',
  HISTORY_TARGET AS
  'History Target',
  CASE WHEN (NUM_HISTORY = HISTORY_TARGET)
    THEN 'OK!'
    ELSE 'ERROR!!!'
END AS 'History
Message'
FROM TPCC_INFO
GO

PRINT ''
PRINT ''
PRINT '-----'
PRINT '| STOCK TABLE |'
PRINT '-----'
SELECT TOP 1
  CONVERT(CHAR(30),INFO_DATE,21) AS 'Date',
  NUM_STOCK AS 'Stock
Rows',
  STOCK_TARGET AS
  'Stock Target',
  CASE WHEN (NUM_STOCK = STOCK_TARGET)
    THEN 'OK!'
    ELSE 'ERROR!!!'
END AS 'Stock
Message'
FROM TPCC_INFO
GO

-----
-- Check Indexes

```

```

-----
USE tpcc
GO

PRINT ''
PRINT ''
PRINT '-----'
PRINT '| TPC-C INDEXES |'
PRINT '-----'
EXEC sp_helpindex warehouse
EXEC sp_helpindex district
EXEC sp_helpindex item
EXEC sp_helpindex customer
EXEC sp_helpindex orders
EXEC sp_helpindex order_line
EXEC sp_helpindex new_order
EXEC sp_helpindex history
EXEC sp_helpindex stock
GO

```

version.sql (dml)

```

-----
--
-- File: VERSION.SQL
--
-- Microsoft TPC-C Benchmark Kit Ver. 4.68
--
-- Copyright Microsoft, 2006
--
-- Returns version level of TPC-C stored
procs --
--
-- Always update the return value of this
proc for --
-- any interface changes or 'must have' bug
fixes. --
--
-- The value returned by this SP defines the
--
-- 'interface level', which must match
between the --
-- stored procs and the client code. The
--
-- interface level may be down rev from the
--
-- current kit. This indicates that the
interface --
-- hasn't changed since that version.
--
--
-- Interface Level: 4.20.000
--

```

```

--
--
-----
USE tpcc
GO

IF EXISTS ( SELECT name FROM sysobjects WHERE name =
'tpcc_version' )
    DROP PROCEDURE tpcc_version
GO

CREATE PROCEDURE    tpcc_version
AS
DECLARE @version    char(8)

BEGIN
    SELECT @version    = '4.20.000'

    SELECT @version    AS 'Version'
END
GO

```

version.sql (utility)

```

-----
--
--
-- File:    VERSION.SQL
--
--         Microsoft TPC-C Benchmark Kit Ver. 4.68
--
--         Copyright Microsoft, 2006
--
--
--         Extracts current version of SQL Server
--
--
-----
USE master
GO

SELECT CONVERT(char(20),
SERVERPROPERTY('ProductVersion')),
        CONVERT(char(20),
SERVERPROPERTY('ProductLevel')),
        CONVERT(char(29), SERVERPROPERTY('Edition'))
GO

SELECT CONVERT(char(30), GETDATE(), 21)
GO

```

Appendix C:

Tunable Parameters

Benchcraft_Profile.txt

Profile: WorldCup
File Path: C:\scripts\profile_gen\WorldCup.xml
Version: 5

Number of Engines: 144

Name: d1
Description:
Directory: c:\d2.log
Machine: n90
Parameter Set: 2.2
Index: 100000000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER53164609
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 0
Additional Options:

Name: d2
Description:
Directory: c:\d1.log
Machine: n90
Parameter Set: 2.2
Index: 100300000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER44265281
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 1
Additional Options:

Name: d3
Description:
Directory: c:\d3.log
Machine: n90
Parameter Set: 2.2
Index: 100600000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER3439676359
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 4
Additional Options:

Name: d4
Description:
Directory: c:\d4.log
Machine: n90
Parameter Set: 2.2
Index: 100900000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER4439706187
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 5
Additional Options:

Name: d5
Description:
Directory: c:\d5.log
Machine: n91
Parameter Set: 2.2
Index: 101200000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER5346413218
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 0
Additional Options:

Name: d6
Description:
Directory: c:\d6.log
Machine: n91
Parameter Set: 2.2
Index: 101500000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER62226046
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 1
Additional Options:

Name: d7
Description:
Directory: c:\d7.log
Machine: n91
Parameter Set: 2.2
Index: 101800000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER72289718
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0

Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 4
Additional Options:

Name: d8
Description:
Directory: c:\d8.log
Machine: n91
Parameter Set: 2.2
Index: 102100000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER82325578
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 5
Additional Options:

Name: d9
Description:
Directory: c:\d9.log
Machine: n92
Parameter Set: 2.2
Index: 102400000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER92360187
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 0
Additional Options:

Name: d10
Description:
Directory: c:\d10.log
Machine: n92
Parameter Set: 2.2
Index: 102700000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER102399796
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 1
Additional Options:

Name: d11
Description:
Directory: c:\d11.log
Machine: n92
Parameter Set: 2.2
Index: 103000000
Seed: 4678

Configured Users: 10000
Pipe Name: DRIVER1122682203
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 4
Additional Options:

Name: d12
Description:
Directory: c:\d12.log
Machine: n92
Parameter Set: 2.2
Index: 103300000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER1222731546
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 5
Additional Options:

Name: d13
Description:
Directory: c:\d13.log
Machine: n93
Parameter Set: 2.2
Index: 103600000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER13-1439076421
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 0
Additional Options:

Name: d14
Description:
Directory: c:\d14.log
Machine: n93
Parameter Set: 2.2
Index: 103900000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER14-1438943656
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 1
Additional Options:

Name: d15
Description:

Directory: c:\d15.log
Machine: n93
Parameter Set: 2.2
Index: 104200000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER15-1438852265
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 4
Additional Options:

Name: d16
Description:
Directory: c:\d16.log
Machine: n93
Parameter Set: 2.2
Index: 104500000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER16-1438790906
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 5
Additional Options:

Name: d17
Description:
Directory: c:\d17.log
Machine: n94
Parameter Set: 2.2
Index: 104800000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER17-57150250
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 0
Additional Options:

Name: d18
Description:
Directory: c:\d18.log
Machine: n94
Parameter Set: 2.2
Index: 105100000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER18-57076468
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25

CPU: 1
Additional Options:

Name: d19
Description:
Directory: c:\d19.log
Machine: n94
Parameter Set: 2.2
Index: 105400000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER19-57030562
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 4
Additional Options:

Name: d20
Description:
Directory: c:\d20.log
Machine: n94
Parameter Set: 2.2
Index: 105700000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER20-56992625
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 5
Additional Options:

Name: d21
Description:
Directory: c:\d21.log
Machine: n95
Parameter Set: 2.2
Index: 106000000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER2191781
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 0
Additional Options:

Name: d22
Description:
Directory: c:\d22.log
Machine: n95
Parameter Set: 2.2
Index: 106300000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER221814250

Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 1
 Additional Options:

 Name: d23
 Description:
 Directory: c:\d23.log
 Machine: n95
 Parameter Set: 2.2
 Index: 106600000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER231877968
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 4
 Additional Options:

 Name: d24
 Description:
 Directory: c:\d24.log
 Machine: n95
 Parameter Set: 2.2
 Index: 106900000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER242206343
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 5
 Additional Options:

 Name: d25
 Description:
 Directory: c:\d25.log
 Machine: n96
 Parameter Set: 2.2
 Index: 107200000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER252251500
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 0
 Additional Options:

 Name: d26
 Description:
 Directory: c:\d26.log
 Machine: n96

Parameter Set: 2.2
 Index: 107500000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER262289250
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 1
 Additional Options:

 Name: d27
 Description:
 Directory: c:\d27.log
 Machine: n96
 Parameter Set: 2.2
 Index: 107800000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER272340437
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 4
 Additional Options:

 Name: d28
 Description:
 Directory: c:\d28.log
 Machine: n96
 Parameter Set: 2.2
 Index: 108100000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER282382234
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 5
 Additional Options:

 Name: d29
 Description:
 Directory: c:\d29.log
 Machine: n97
 Parameter Set: 2.2
 Index: 108400000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER292416328
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 0
 Additional Options:

Name: d30
 Description:
 Directory: c:\d30.log
 Machine: n97
 Parameter Set: 2.2
 Index: 108700000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER302463687
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 1
 Additional Options:

 Name: d31
 Description:
 Directory: c:\d31.log
 Machine: n97
 Parameter Set: 2.2
 Index: 109000000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER3155814328
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 4
 Additional Options:

 Name: d32
 Description:
 Directory: c:\d32.log
 Machine: n97
 Parameter Set: 2.2
 Index: 109300000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER3255892765
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 5
 Additional Options:

 Name: d33
 Description:
 Directory: c:\d33.log
 Machine: n98
 Parameter Set: 2.2
 Index: 109600000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER3355948500
 Connect Rate: 10
 Start Rate: 0

Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 0
 Additional Options:

 Name: d34
 Description:
 Directory: c:\d34.log
 Machine: n98
 Parameter Set: 2.2
 Index: 109900000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER3455990593
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 1
 Additional Options:

 Name: d35
 Description:
 Directory: c:\d35.log
 Machine: n98
 Parameter Set: 2.2
 Index: 110200000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER3556027390
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 4
 Additional Options:

 Name: d36
 Description:
 Directory: c:\d36.log
 Machine: n98
 Parameter Set: 2.2
 Index: 110500000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER3656077062
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 5
 Additional Options:

 Name: d37
 Description:
 Directory: c:\d37.log
 Machine: n99
 Parameter Set: 2.2
 Index: 110800000

Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER37766536203
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 0
 Additional Options:

 Name: d38
 Description:
 Directory: c:\d38.log
 Machine: n99
 Parameter Set: 2.2
 Index: 111100000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER38766654375
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 1
 Additional Options:

 Name: d39
 Description:
 Directory: c:\d39.log
 Machine: n99
 Parameter Set: 2.2
 Index: 111400000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER39766760968
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 4
 Additional Options:

 Name: d40
 Description:
 Directory: c:\d40.log
 Machine: n99
 Parameter Set: 2.2
 Index: 111700000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER40766820328
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 5
 Additional Options:

 Name: d41

Description:
 Directory: c:\d38.log
 Machine: n100
 Parameter Set: 2.2
 Index: 112000000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER41766909890
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 0
 Additional Options:

 Name: d42
 Description:
 Directory: c:\d42.log
 Machine: n100
 Parameter Set: 2.2
 Index: 112300000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER42766941343
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 1
 Additional Options:

 Name: d43
 Description:
 Directory: c:\d43.log
 Machine: n100
 Parameter Set: 2.2
 Index: 112600000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER43766990906
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 4
 Additional Options:

 Name: d44
 Description:
 Directory: c:\d44.log
 Machine: n100
 Parameter Set: 2.2
 Index: 112900000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER44767023437
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0

CLIENT_NURAND: 25
 CPU: 5
 Additional Options:

Name: d45
 Description:
 Directory: c:\d45.log
 Machine: n101
 Parameter Set: 2.2
 Index: 113200000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER45767085000
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 0
 Additional Options:

Name: d46
 Description:
 Directory: c:\d46.log
 Machine: n101
 Parameter Set: 2.2
 Index: 113500000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER46767120687
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 1
 Additional Options:

Name: d47
 Description:
 Directory: c:\d47.log
 Machine: n101
 Parameter Set: 2.2
 Index: 113800000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER47767168296
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 4
 Additional Options:

Name: d48
 Description:
 Directory: c:\d48.log
 Machine: n101
 Parameter Set: 2.2
 Index: 114100000
 Seed: 4678
 Configured Users: 10000

Pipe Name: DRIVER48767212015
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 5
 Additional Options:

Name: d49
 Description:
 Directory: c:\d49.log
 Machine: n102
 Parameter Set: 2.2
 Index: 114400000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER49778610406
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 0
 Additional Options:

Name: d50
 Description:
 Directory: c:\d50.log
 Machine: n102
 Parameter Set: 2.2
 Index: 114700000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER50778666593
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 1
 Additional Options:

Name: d51
 Description:
 Directory: c:\d51.log
 Machine: n102
 Parameter Set: 2.2
 Index: 115000000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER51778705953
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 4
 Additional Options:

Name: d52
 Description:
 Directory: c:\d52.log

Machine: n102
 Parameter Set: 2.2
 Index: 115300000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER52778774546
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 5
 Additional Options:

Name: d53
 Description:
 Directory: c:\d53.log
 Machine: n103
 Parameter Set: 2.2
 Index: 115600000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER53778801906
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 0
 Additional Options:

Name: d54
 Description:
 Directory: c:\d54.log
 Machine: n103
 Parameter Set: 2.2
 Index: 115900000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER54778828968
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 1
 Additional Options:

Name: d55
 Description:
 Directory: c:\d55.log
 Machine: n103
 Parameter Set: 2.2
 Index: 116200000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER55778888203
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 4

Additional Options:

Name: d56
 Description:
 Directory: c:\d56.log
 Machine: n103
 Parameter Set: 2.2
 Index: 116500000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER56778926656
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 5
 Additional Options:

Name: d57
 Description:
 Directory: c:\d57.log
 Machine: n104
 Parameter Set: 2.2
 Index: 116800000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER57778954765
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 0
 Additional Options:

Name: d58
 Description:
 Directory: c:\d58.log
 Machine: n104
 Parameter Set: 2.2
 Index: 117100000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER58778987609
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 1
 Additional Options:

Name: d59
 Description:
 Directory: c:\d59.log
 Machine: n104
 Parameter Set: 2.2
 Index: 117400000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER59779021390
 Connect Rate: 10

Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 4
 Additional Options:

Name: d60
 Description:
 Directory: c:\d60.log
 Machine: n104
 Parameter Set: 2.2
 Index: 117700000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER60779145406
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 5
 Additional Options:

Name: d61
 Description:
 Directory: c:\d61.log
 Machine: n105
 Parameter Set: 2.2
 Index: 118000000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER613345406
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 0
 Additional Options:

Name: d62
 Description:
 Directory: c:\d62.log
 Machine: n105
 Parameter Set: 2.2
 Index: 118300000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER623453375
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 1
 Additional Options:

Name: d63
 Description:
 Directory: c:\d63.log
 Machine: n105
 Parameter Set: 2.2

Index: 118600000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER633501687
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 4
 Additional Options:

Name: d64
 Description:
 Directory: c:\d64.log
 Machine: n105
 Parameter Set: 2.2
 Index: 118900000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER643542156
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 5
 Additional Options:

Name: d65
 Description:
 Directory: c:\d65.log
 Machine: n106
 Parameter Set: 2.2
 Index: 119200000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER653612937
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 0
 Additional Options:

Name: d66
 Description:
 Directory: c:\d66.log
 Machine: n106
 Parameter Set: 2.2
 Index: 119500000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER663655140
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 1
 Additional Options:

Name: d67
Description:
Directory: c:\d67.log
Machine: n106
Parameter Set: 2.2
Index: 119800000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER673761906
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 4
Additional Options:

Name: d68
Description:
Directory: c:\d68.log
Machine: n106
Parameter Set: 2.2
Index: 120100000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER683819031
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 5
Additional Options:

Name: d69
Description:
Directory: c:\d69.log
Machine: n107
Parameter Set: 2.2
Index: 120400000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER693865343
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 0
Additional Options:

Name: d70
Description:
Directory: c:\d70.log
Machine: n107
Parameter Set: 2.2
Index: 120700000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER703910750
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0

Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 1
Additional Options:

Name: d71
Description:
Directory: c:\d71.log
Machine: n107
Parameter Set: 2.2
Index: 121000000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER713949343
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 4
Additional Options:

Name: d72
Description:
Directory: c:\d72.log
Machine: n107
Parameter Set: 2.2
Index: 121300000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER723985750
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 5
Additional Options:

Name: d73
Description:
Directory: c:\d73.log
Machine: n108
Parameter Set: 2.2
Index: 121600000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER732742140
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 0
Additional Options:

Name: d74
Description:
Directory: c:\d74.log
Machine: n108
Parameter Set: 2.2
Index: 121900000
Seed: 4678

Configured Users: 10000
Pipe Name: DRIVER742768187
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 1
Additional Options:

Name: d75
Description:
Directory: c:\d75.log
Machine: n108
Parameter Set: 2.2
Index: 122200000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER752779937
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 4
Additional Options:

Name: d76
Description:
Directory: c:\d76.log
Machine: n108
Parameter Set: 2.2
Index: 122500000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER762790703
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 5
Additional Options:

Name: d77
Description:
Directory: c:\d77.log
Machine: n109
Parameter Set: 2.2
Index: 122800000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER772802046
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 0
Additional Options:

Name: d78
Description:

Directory: c:\d78.log
Machine: n109
Parameter Set: 2.2
Index: 123100000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER782810718
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 1
Additional Options:

Name: d79
Description:
Directory: c:\d79.log
Machine: n109
Parameter Set: 2.2
Index: 123400000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER792820421
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 4
Additional Options:

Name: d80
Description:
Directory: c:\d80.log
Machine: n109
Parameter Set: 2.2
Index: 123700000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER802842390
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 5
Additional Options:

Name: d81
Description:
Directory: c:\d81.log
Machine: n110
Parameter Set: 2.2
Index: 124000000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER812851328
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25

CPU: 0
Additional Options:

Name: d82
Description:
Directory: c:\d82.log
Machine: n110
Parameter Set: 2.2
Index: 124300000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER823364343
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 1
Additional Options:

Name: d83
Description:
Directory: c:\d83.log
Machine: n110
Parameter Set: 2.2
Index: 124600000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER833381656
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 4
Additional Options:

Name: d84
Description:
Directory: c:\d84.log
Machine: n110
Parameter Set: 2.2
Index: 124900000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER843392562
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 5
Additional Options:

Name: d85
Description:
Directory: c:\d85.log
Machine: n111
Parameter Set: 2.2
Index: 125200000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER854757562

Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 0
Additional Options:

Name: d86
Description:
Directory: c:\d86.log
Machine: n111
Parameter Set: 2.2
Index: 125500000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER8654864968
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 1
Additional Options:

Name: d87
Description:
Directory: c:\d87.log
Machine: n111
Parameter Set: 2.2
Index: 125800000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER8754901734
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 4
Additional Options:

Name: d88
Description:
Directory: c:\d88.log
Machine: n111
Parameter Set: 2.2
Index: 126100000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER8855059343
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 5
Additional Options:

Name: d89
Description:
Directory: c:\d89.log
Machine: n112

Parameter Set: 2.2
Index: 126400000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER8955092343
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 0
Additional Options:

Name: d90
Description:
Directory: c:\d90.log
Machine: n112
Parameter Set: 2.2
Index: 126700000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER9055486578
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 1
Additional Options:

Name: d91
Description:
Directory: c:\d91.log
Machine: n112
Parameter Set: 2.2
Index: 127000000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER9155534031
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 4
Additional Options:

Name: d92
Description:
Directory: c:\d92.log
Machine: n112
Parameter Set: 2.2
Index: 127300000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER9255579359
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 5
Additional Options:

Name: d93
Description:
Directory: c:\d93.log
Machine: n113
Parameter Set: 2.2
Index: 127600000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER9355620406
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 0
Additional Options:

Name: d94
Description:
Directory: c:\d94.log
Machine: n113
Parameter Set: 2.2
Index: 127900000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER9455653265
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 1
Additional Options:

Name: d95
Description:
Directory: c:\d95.log
Machine: n113
Parameter Set: 2.2
Index: 128200000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER9555683343
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 4
Additional Options:

Name: d96
Description:
Directory: c:\d96.log
Machine: n113
Parameter Set: 2.2
Index: 128500000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER9655715281
Connect Rate: 10
Start Rate: 0

Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 5
Additional Options:

Name: d97
Description:
Directory: c:\d97.log
Machine: n114
Parameter Set: 2.2
Index: 128800000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER9791039015
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 0
Additional Options:

Name: d98
Description:
Directory: c:\d98.log
Machine: n114
Parameter Set: 2.2
Index: 129100000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER9891080187
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 1
Additional Options:

Name: d99
Description:
Directory: c:\d99.log
Machine: n114
Parameter Set: 2.2
Index: 129400000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER9991094312
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 4
Additional Options:

Name: d100
Description:
Directory: c:\d100.log
Machine: n114
Parameter Set: 2.2
Index: 129700000

Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER10091114343
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 5
Additional Options:

Name: d101
Description:
Directory: c:\d101.log
Machine: n115
Parameter Set: 2.2
Index: 130000000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER10191182218
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 0
Additional Options:

Name: d102
Description:
Directory: c:\d102.log
Machine: n115
Parameter Set: 2.2
Index: 130300000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER10291195265
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 1
Additional Options:

Name: d103
Description:
Directory: c:\d103.log
Machine: n115
Parameter Set: 2.2
Index: 130600000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER10391210015
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 4
Additional Options:

Name: d104

Description:
Directory: c:\d104.log
Machine: n115
Parameter Set: 2.2
Index: 130900000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER10491224609
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 5
Additional Options:

Name: d105
Description:
Directory: c:\d105.log
Machine: n116
Parameter Set: 2.2
Index: 131200000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER10591253062
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 0
Additional Options:

Name: d106
Description:
Directory: c:\d106.log
Machine: n116
Parameter Set: 2.2
Index: 131500000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER10691266500
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 1
Additional Options:

Name: d107
Description:
Directory: c:\d107.log
Machine: n116
Parameter Set: 2.2
Index: 131800000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER10791279375
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0

CLIENT_NURAND: 25
CPU: 4
Additional Options:

Name: d108
Description:
Directory: c:\d108.log
Machine: n116
Parameter Set: 2.2
Index: 132100000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER10891300515
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 5
Additional Options:

Name: d109
Description:
Directory: c:\d109.log
Machine: n117
Parameter Set: 2.2
Index: 132400000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER10991349968
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 0
Additional Options:

Name: d110
Description:
Directory: c:\d110.log
Machine: n117
Parameter Set: 2.2
Index: 132700000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER11091369218
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 1
Additional Options:

Name: d111
Description:
Directory: c:\d111.log
Machine: n117
Parameter Set: 2.2
Index: 133000000
Seed: 4678
Configured Users: 10000

Pipe Name: DRIVER11191391000
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 4
Additional Options:

Name: d112
Description:
Directory: c:\d112.log
Machine: n117
Parameter Set: 2.2
Index: 133300000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER11291408671
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 5
Additional Options:

Name: d113
Description:
Directory: c:\d113.log
Machine: n118
Parameter Set: 2.2
Index: 133600000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER11391437843
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 0
Additional Options:

Name: d114
Description:
Directory: c:\d114.log
Machine: n118
Parameter Set: 2.2
Index: 133900000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER11491503046
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 1
Additional Options:

Name: d115
Description:
Directory: c:\d115.log

Machine: n118
Parameter Set: 2.2
Index: 134200000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER11591544156
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 4
Additional Options:

Name: d116
Description:
Directory: c:\d116.log
Machine: n118
Parameter Set: 2.2
Index: 134500000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER11691602328
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 5
Additional Options:

Name: d117
Description:
Directory: c:\d117.log
Machine: n119
Parameter Set: 2.2
Index: 134800000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER11791774937
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 0
Additional Options:

Name: d118
Description:
Directory: c:\d118.log
Machine: n119
Parameter Set: 2.2
Index: 135100000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER11891802062
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 1

Additional Options:

Name: d119
Description:
Directory: c:\d119.log
Machine: n119
Parameter Set: 2.2
Index: 135400000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER11991877296
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 4
Additional Options:

Name: d120
Description:
Directory: c:\d120.log
Machine: n119
Parameter Set: 2.2
Index: 135700000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER12091903921
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 5
Additional Options:

Name: d121
Description:
Directory: c:\d121.log
Machine: n120
Parameter Set: 2.2
Index: 136000000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER12191918468
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 25
CPU: 0
Additional Options:

Name: d122
Description:
Directory: c:\d122.log
Machine: n120
Parameter Set: 2.2
Index: 136300000
Seed: 4678
Configured Users: 10000
Pipe Name: DRIVER12291955406
Connect Rate: 10

Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 1
 Additional Options:

 Name: d123
 Description:
 Directory: c:\d123.log
 Machine: n120
 Parameter Set: 2.2
 Index: 136600000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER12391970531
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 4
 Additional Options:

 Name: d124
 Description:
 Directory: c:\d124.log
 Machine: n120
 Parameter Set: 2.2
 Index: 136900000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER12491983140
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 5
 Additional Options:

 Name: d125
 Description:
 Directory: c:\d125.log
 Machine: n121
 Parameter Set: 2.2
 Index: 137200000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER12591999843
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 0
 Additional Options:

 Name: d126
 Description:
 Directory: c:\d126.log
 Machine: n121
 Parameter Set: 2.2

Index: 137500000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER12692036203
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 1
 Additional Options:

 Name: d127
 Description:
 Directory: c:\d127.log
 Machine: n121
 Parameter Set: 2.2
 Index: 137800000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER12792054906
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 4
 Additional Options:

 Name: d128
 Description:
 Directory: c:\d128.log
 Machine: n121
 Parameter Set: 2.2
 Index: 138100000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER12892076843
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 5
 Additional Options:

 Name: d129
 Description:
 Directory: c:\d129.log
 Machine: n122
 Parameter Set: 2.2
 Index: 138400000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER12992104890
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 0
 Additional Options:

Name: d130
 Description:
 Directory: c:\d130.log
 Machine: n122
 Parameter Set: 2.2
 Index: 138700000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER13092127640
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 1
 Additional Options:

 Name: d131
 Description:
 Directory: c:\d131.log
 Machine: n122
 Parameter Set: 2.2
 Index: 139000000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER13192142859
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 4
 Additional Options:

 Name: d132
 Description:
 Directory: c:\d132.log
 Machine: n122
 Parameter Set: 2.2
 Index: 139300000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER13292160578
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 5
 Additional Options:

 Name: d133
 Description:
 Directory: c:\d133.log
 Machine: n123
 Parameter Set: 2.2
 Index: 139600000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER13392176515
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0

Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 0
 Additional Options:

 Name: d134
 Description:
 Directory: c:\d134.log
 Machine: n123
 Parameter Set: 2.2
 Index: 139900000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER13492201453
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 1
 Additional Options:

 Name: d135
 Description:
 Directory: c:\d135.log
 Machine: n123
 Parameter Set: 2.2
 Index: 140200000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER13592217078
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 4
 Additional Options:

 Name: d136
 Description:
 Directory: c:\d136.log
 Machine: n123
 Parameter Set: 2.2
 Index: 140500000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER13692231875
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 5
 Additional Options:

 Name: d137
 Description:
 Directory: c:\d137.log
 Machine: n124
 Parameter Set: 2.2
 Index: 140800000
 Seed: 4678

Configured Users: 10000
 Pipe Name: DRIVER13792250593
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 0
 Additional Options:

 Name: d138
 Description:
 Directory: c:\d138.log
 Machine: n124
 Parameter Set: 2.2
 Index: 141100000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER13892265406
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 1
 Additional Options:

 Name: d139
 Description:
 Directory: c:\d139.log
 Machine: n124
 Parameter Set: 2.2
 Index: 141400000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER13992284484
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 4
 Additional Options:

 Name: d140
 Description:
 Directory: c:\d140.log
 Machine: n124
 Parameter Set: 2.2
 Index: 141700000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER14092299718
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 5
 Additional Options:

 Name: d141
 Description:

Directory: c:\d141.log
 Machine: n125
 Parameter Set: 2.2
 Index: 142000000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER14192313406
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 0
 Additional Options:

 Name: d142
 Description:
 Directory: c:\d142.log
 Machine: n125
 Parameter Set: 2.2
 Index: 142300000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER14292330796
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 1
 Additional Options:

 Name: d143
 Description:
 Directory: c:\d143.log
 Machine: n125
 Parameter Set: 2.2
 Index: 142600000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER14392343687
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25
 CPU: 4
 Additional Options:

 Name: d144
 Description:
 Directory: c:\d144.log
 Machine: n125
 Parameter Set: 2.2
 Index: 142900000
 Seed: 4678
 Configured Users: 10000
 Pipe Name: DRIVER14492356531
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 25

CPU: 5
 Additional Options:
 Number of User groups: 144

Driver Engine: d1
 IIS Server: vcr1
 SQL Server:
 tcp:130.168.211.71,2001
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 1 - 1000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d2
 IIS Server: vcr1
 SQL Server:
 tcp:130.168.211.71,2001
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 1001 - 2000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d3
 IIS Server: vcr1
 SQL Server:
 tcp:130.168.211.71,2001
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 2001 - 3000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d4
 IIS Server: vcr1
 SQL Server:
 tcp:130.168.211.71,2001
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 3001 - 4000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1

Scale Down: No

Driver Engine: d5
 IIS Server: vcr2
 SQL Server:
 tcp:130.168.211.71,2001
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 4001 - 5000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d6
 IIS Server: vcr2
 SQL Server:
 tcp:130.168.211.71,2001
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 5001 - 6000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d7
 IIS Server: vcr2
 SQL Server:
 tcp:130.168.211.71,2001
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 6001 - 7000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d8
 IIS Server: vcr2
 SQL Server:
 tcp:130.168.211.71,2001
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 7001 - 8000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d9

IIS Server: vcr3
 SQL Server:
 tcp:130.168.211.71,2001
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 8001 - 9000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d10
 IIS Server: vcr3
 SQL Server:
 tcp:130.168.211.71,2001
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 9001 - 10000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d11
 IIS Server: vcr3
 SQL Server:
 tcp:130.168.211.71,2001
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 10001 - 11000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d12
 IIS Server: vcr3
 SQL Server:
 tcp:130.168.211.71,2001
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 11001 - 12000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d13
 IIS Server: vcr4
 SQL Server:
 tcp:130.168.211.71,2001

```

Database: tpcc
User: sa
Protocol: HTML
w_id Range: 12001 - 13000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d14
IIS Server: vcr4
SQL Server:

tcp:130.168.211.71,2001
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 13001 - 14000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d15
IIS Server: vcr4
SQL Server:

tcp:130.168.211.71,2001
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 14001 - 15000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d16
IIS Server: vcr4
SQL Server:

tcp:130.168.211.71,2001
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 15001 - 16000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d17
IIS Server: vcr5
SQL Server:

tcp:130.168.211.71,2001
Database: tpcc
User: sa
Protocol: HTML

```

```

w_id Range: 16001 - 17000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d18
IIS Server: vcr5
SQL Server:

tcp:130.168.211.71,2001
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 17001 - 18000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d19
IIS Server: vcr5
SQL Server:

tcp:130.168.211.71,2001
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 18001 - 19000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d20
IIS Server: vcr5
SQL Server:

tcp:130.168.211.71,2001
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 19001 - 20000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d21
IIS Server: vcr6
SQL Server:

tcp:130.168.211.71,2001
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 20001 - 21000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000

```

```

Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d22
IIS Server: vcr6
SQL Server:

tcp:130.168.211.71,2001
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 21001 - 22000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d23
IIS Server: vcr6
SQL Server:

tcp:130.168.211.71,2001
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 22001 - 23000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d24
IIS Server: vcr6
SQL Server:

tcp:130.168.211.71,2001
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 23001 - 24000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d25
IIS Server: vcr7
SQL Server:

tcp:130.168.211.71,2001
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 24001 - 25000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1

```

Scale Down: No

Driver Engine: d26
 IIS Server: vcr7
 SQL Server:
 tcp:130.168.211.71,2001
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 25001 - 26000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d27
 IIS Server: vcr7
 SQL Server:
 tcp:130.168.211.71,2001
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 26001 - 27000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d28
 IIS Server: vcr7
 SQL Server:
 tcp:130.168.211.71,2001
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 27001 - 28000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d29
 IIS Server: vcr8
 SQL Server:
 tcp:130.168.211.71,2001
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 28001 - 29000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d30

IIS Server: vcr8
 SQL Server:
 tcp:130.168.211.71,2001
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 29001 - 30000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d31
 IIS Server: vcr8
 SQL Server:
 tcp:130.168.211.71,2001
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 30001 - 31000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d32
 IIS Server: vcr8
 SQL Server:
 tcp:130.168.211.71,2001
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 31001 - 32000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d33
 IIS Server: vcr9
 SQL Server:
 tcp:130.168.211.71,2001
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 32001 - 33000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d34
 IIS Server: vcr9
 SQL Server:
 tcp:130.168.211.71,2001

Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 33001 - 34000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d35
 IIS Server: vcr9
 SQL Server:
 tcp:130.168.211.71,2001
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 34001 - 35000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d36
 IIS Server: vcr9
 SQL Server:
 tcp:130.168.211.71,2001
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 35001 - 36000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d37
 IIS Server: vcr10
 SQL Server:
 tcp:130.168.211.72,2002
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 36001 - 37000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d38
 IIS Server: vcr10
 SQL Server:
 tcp:130.168.211.72,2002
 Database: tpcc
 User: sa
 Protocol: HTML

w_id Range: 37001 - 38000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d39
 IIS Server: vcr10
 SQL Server:

tcp:130.168.211.72,2002
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 38001 - 39000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d40
 IIS Server: vcr10
 SQL Server:

tcp:130.168.211.72,2002
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 39001 - 40000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d41
 IIS Server: vcr11
 SQL Server:

tcp:130.168.211.72,2002
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 40001 - 41000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d42
 IIS Server: vcr11
 SQL Server:

tcp:130.168.211.72,2002
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 41001 - 42000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000

Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d43
 IIS Server: vcr11
 SQL Server:

tcp:130.168.211.72,2002
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 42001 - 43000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d44
 IIS Server: vcr11
 SQL Server:

tcp:130.168.211.72,2002
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 43001 - 44000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d45
 IIS Server: vcr12
 SQL Server:

tcp:130.168.211.72,2002
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 44001 - 45000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d46
 IIS Server: vcr12
 SQL Server:

tcp:130.168.211.72,2002
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 45001 - 46000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1

Scale Down: No

Driver Engine: d47
 IIS Server: vcr12
 SQL Server:

tcp:130.168.211.72,2002
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 46001 - 47000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d48
 IIS Server: vcr12
 SQL Server:

tcp:130.168.211.72,2002
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 47001 - 48000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d49
 IIS Server: vcr13
 SQL Server:

tcp:130.168.211.72,2002
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 48001 - 49000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d50
 IIS Server: vcr13
 SQL Server:

tcp:130.168.211.72,2002
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 49001 - 50000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d51

```

IIS Server: vcrl3
SQL Server:
tcp:130.168.211.72,2002
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 50001 - 51000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d52
IIS Server: vcrl3
SQL Server:
tcp:130.168.211.72,2002
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 51001 - 52000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d53
IIS Server: vcrl4
SQL Server:
tcp:130.168.211.72,2002
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 52001 - 53000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d54
IIS Server: vcrl4
SQL Server:
tcp:130.168.211.72,2002
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 53001 - 54000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d55
IIS Server: vcrl4
SQL Server:
tcp:130.168.211.72,2002

```

```

Database: tpcc
User: sa
Protocol: HTML
w_id Range: 54001 - 55000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d56
IIS Server: vcrl4
SQL Server:
tcp:130.168.211.72,2002
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 55001 - 56000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d57
IIS Server: vcrl5
SQL Server:
tcp:130.168.211.72,2002
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 56001 - 57000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d58
IIS Server: vcrl5
SQL Server:
tcp:130.168.211.72,2002
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 57001 - 58000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d59
IIS Server: vcrl5
SQL Server:
tcp:130.168.211.72,2002
Database: tpcc
User: sa
Protocol: HTML

```

```

w_id Range: 58001 - 59000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d60
IIS Server: vcrl5
SQL Server:
tcp:130.168.211.72,2002
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 59001 - 60000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d61
IIS Server: vcrl6
SQL Server:
tcp:130.168.211.72,2002
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 60001 - 61000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d62
IIS Server: vcrl6
SQL Server:
tcp:130.168.211.72,2002
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 61001 - 62000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d63
IIS Server: vcrl6
SQL Server:
tcp:130.168.211.72,2002
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 62001 - 63000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000

```

Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d64
 IIS Server: vcrl6
 SQL Server:

tcp:130.168.211.72,2002
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 63001 - 64000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d65
 IIS Server: vcrl7
 SQL Server:

tcp:130.168.211.72,2002
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 64001 - 65000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d66
 IIS Server: vcrl7
 SQL Server:

tcp:130.168.211.72,2002
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 65001 - 66000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d67
 IIS Server: vcrl7
 SQL Server:

tcp:130.168.211.72,2002
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 66001 - 67000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1

Scale Down: No

Driver Engine: d68
 IIS Server: vcrl7
 SQL Server:

tcp:130.168.211.72,2002
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 67001 - 68000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d69
 IIS Server: vcrl8
 SQL Server:

tcp:130.168.211.72,2002
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 68001 - 69000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d70
 IIS Server: vcrl8
 SQL Server:

tcp:130.168.211.72,2002
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 69001 - 70000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d71
 IIS Server: vcrl8
 SQL Server:

tcp:130.168.211.72,2002
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 70001 - 71000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d72

IIS Server: vcrl8
 SQL Server:

tcp:130.168.211.72,2002
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 71001 - 72000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d73
 IIS Server: vcrl9
 SQL Server:

tcp:130.168.211.73,2003
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 72001 - 73000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d74
 IIS Server: vcrl9
 SQL Server:

tcp:130.168.211.73,2003
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 73001 - 74000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d75
 IIS Server: vcrl9
 SQL Server:

tcp:130.168.211.73,2003
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 74001 - 75000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d76
 IIS Server: vcrl9
 SQL Server:

tcp:130.168.211.73,2003


```

Database: tpcc
User: sa
Protocol: HTML
w_id Range: 75001 - 76000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d77
IIS Server: vcr20
SQL Server:
tcp:130.168.211.73,2003
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 76001 - 77000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d78
IIS Server: vcr20
SQL Server:
tcp:130.168.211.73,2003
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 77001 - 78000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d79
IIS Server: vcr20
SQL Server:
tcp:130.168.211.73,2003
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 78001 - 79000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d80
IIS Server: vcr20
SQL Server:
tcp:130.168.211.73,2003
Database: tpcc
User: sa
Protocol: HTML

```

```

w_id Range: 79001 - 80000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d81
IIS Server: vcr21
SQL Server:
tcp:130.168.211.73,2003
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 80001 - 81000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d82
IIS Server: vcr21
SQL Server:
tcp:130.168.211.73,2003
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 81001 - 82000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d83
IIS Server: vcr21
SQL Server:
tcp:130.168.211.73,2003
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 82001 - 83000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d84
IIS Server: vcr21
SQL Server:
tcp:130.168.211.73,2003
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 83001 - 84000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000

```

```

Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d85
IIS Server: vcr22
SQL Server:
tcp:130.168.211.73,2003
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 84001 - 85000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d86
IIS Server: vcr22
SQL Server:
tcp:130.168.211.73,2003
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 85001 - 86000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d87
IIS Server: vcr22
SQL Server:
tcp:130.168.211.73,2003
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 86001 - 87000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d88
IIS Server: vcr22
SQL Server:
tcp:130.168.211.73,2003
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 87001 - 88000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1

```

Scale Down: No

Driver Engine: d89
 IIS Server: vcr23
 SQL Server:

tcp:130.168.211.73,2003
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 88001 - 89000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d90
 IIS Server: vcr23
 SQL Server:

tcp:130.168.211.73,2003
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 89001 - 90000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d91
 IIS Server: vcr23
 SQL Server:

tcp:130.168.211.73,2003
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 90001 - 91000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d92
 IIS Server: vcr23
 SQL Server:

tcp:130.168.211.73,2003
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 91001 - 92000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d93

IIS Server: vcr24
 SQL Server:

tcp:130.168.211.73,2003
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 92001 - 93000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d94
 IIS Server: vcr24
 SQL Server:

tcp:130.168.211.73,2003
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 93001 - 94000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d95
 IIS Server: vcr24
 SQL Server:

tcp:130.168.211.73,2003
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 94001 - 95000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d96
 IIS Server: vcr24
 SQL Server:

tcp:130.168.211.73,2003
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 95001 - 96000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d97
 IIS Server: vcr25
 SQL Server:

tcp:130.168.211.73,2003

Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 96001 - 97000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d98
 IIS Server: vcr25
 SQL Server:

tcp:130.168.211.73,2003
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 97001 - 98000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d99
 IIS Server: vcr25
 SQL Server:

tcp:130.168.211.73,2003
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 98001 - 99000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d100
 IIS Server: vcr25
 SQL Server:

tcp:130.168.211.73,2003
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 99001 - 100000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d101
 IIS Server: vcr26
 SQL Server:

tcp:130.168.211.73,2003
 Database: tpcc
 User: sa
 Protocol: HTML

```

w_id Range: 10001 - 101000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d102
IIS Server: vcr26
SQL Server:
tcp:130.168.211.73,2003
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 101001 - 102000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d103
IIS Server: vcr26
SQL Server:
tcp:130.168.211.73,2003
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 102001 - 103000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d104
IIS Server: vcr26
SQL Server:
tcp:130.168.211.73,2003
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 103001 - 104000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d105
IIS Server: vcr27
SQL Server:
tcp:130.168.211.73,2003
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 104001 - 105000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000

```

```

Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d106
IIS Server: vcr27
SQL Server:
tcp:130.168.211.73,2003
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 105001 - 106000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d107
IIS Server: vcr27
SQL Server:
tcp:130.168.211.73,2003
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 106001 - 107000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d108
IIS Server: vcr27
SQL Server:
tcp:130.168.211.73,2003
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 107001 - 108000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d109
IIS Server: vcr28
SQL Server:
tcp:130.168.211.74,2004
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 108001 - 109000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1

```

```

Scale Down: No

Driver Engine: d110
IIS Server: vcr28
SQL Server:
tcp:130.168.211.74,2004
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 109001 - 110000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d111
IIS Server: vcr28
SQL Server:
tcp:130.168.211.74,2004
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 110001 - 111000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d112
IIS Server: vcr28
SQL Server:
tcp:130.168.211.74,2004
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 111001 - 112000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d113
IIS Server: vcr29
SQL Server:
tcp:130.168.211.74,2004
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 112001 - 113000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d114

```

```

IIS Server: vcr29
SQL Server:
tcp:130.168.211.74,2004
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 113001 - 114000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d115
IIS Server: vcr29
SQL Server:
tcp:130.168.211.74,2004
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 114001 - 115000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d116
IIS Server: vcr29
SQL Server:
tcp:130.168.211.74,2004
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 115001 - 116000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d117
IIS Server: vcr30
SQL Server:
tcp:130.168.211.74,2004
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 116001 - 117000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d118
IIS Server: vcr30
SQL Server:
tcp:130.168.211.74,2004

```

```

Database: tpcc
User: sa
Protocol: HTML
w_id Range: 117001 - 118000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d119
IIS Server: vcr30
SQL Server:
tcp:130.168.211.74,2004
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 118001 - 119000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d120
IIS Server: vcr30
SQL Server:
tcp:130.168.211.74,2004
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 119001 - 120000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d121
IIS Server: vcr31
SQL Server:
tcp:130.168.211.74,2004
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 120001 - 121000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d122
IIS Server: vcr31
SQL Server:
tcp:130.168.211.74,2004
Database: tpcc
User: sa
Protocol: HTML

```

```

w_id Range: 121001 - 122000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d123
IIS Server: vcr31
SQL Server:
tcp:130.168.211.74,2004
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 122001 - 123000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d124
IIS Server: vcr31
SQL Server:
tcp:130.168.211.74,2004
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 123001 - 124000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d125
IIS Server: vcr32
SQL Server:
tcp:130.168.211.74,2004
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 124001 - 125000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d126
IIS Server: vcr32
SQL Server:
tcp:130.168.211.74,2004
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 125001 - 126000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000

```

Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d127
 IIS Server: vcr32
 SQL Server:

tcp:130.168.211.74,2004
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 126001 - 127000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d128
 IIS Server: vcr32
 SQL Server:

tcp:130.168.211.74,2004
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 127001 - 128000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d129
 IIS Server: vcr33
 SQL Server:

tcp:130.168.211.74,2004
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 128001 - 129000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d130
 IIS Server: vcr33
 SQL Server:

tcp:130.168.211.74,2004
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 129001 - 130000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1

Scale Down: No

Driver Engine: d131
 IIS Server: vcr33
 SQL Server:

tcp:130.168.211.74,2004
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 130001 - 131000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d132
 IIS Server: vcr33
 SQL Server:

tcp:130.168.211.74,2004
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 131001 - 132000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d133
 IIS Server: vcr34
 SQL Server:

tcp:130.168.211.74,2004
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 132001 - 133000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d134
 IIS Server: vcr34
 SQL Server:

tcp:130.168.211.74,2004
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 133001 - 134000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d135

IIS Server: vcr34
 SQL Server:

tcp:130.168.211.74,2004
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 134001 - 135000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d136
 IIS Server: vcr34
 SQL Server:

tcp:130.168.211.74,2004
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 135001 - 136000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d137
 IIS Server: vcr35
 SQL Server:

tcp:130.168.211.74,2004
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 136001 - 137000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d138
 IIS Server: vcr35
 SQL Server:

tcp:130.168.211.74,2004
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 137001 - 138000
 w_id Min Warehouse: 1
 w_id Max Warehouse: 144000
 Scale: Normal
 User Count: 10000
 District id: 1
 Scale Down: No

Driver Engine: d139
 IIS Server: vcr35
 SQL Server:

tcp:130.168.211.74,2004

```

Database: tpcc
User: sa
Protocol: HTML
w_id Range: 138001 - 139000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d140
IIS Server: vcr35
SQL Server:

tcp:130.168.211.74,2004
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 139001 - 140000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d141
IIS Server: vcr36
SQL Server:

tcp:130.168.211.74,2004
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 140001 - 141000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d142
IIS Server: vcr36
SQL Server:

tcp:130.168.211.74,2004
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 141001 - 142000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d143
IIS Server: vcr36
SQL Server:

tcp:130.168.211.74,2004
Database: tpcc
User: sa
Protocol: HTML

```

```

w_id Range: 142001 - 143000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Driver Engine: d144
IIS Server: vcr36
SQL Server:

tcp:130.168.211.74,2004
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 143001 - 144000
w_id Min Warehouse: 1
w_id Max Warehouse: 144000
Scale: Normal
User Count: 10000
District id: 1
Scale Down: No

Number of Parameter Sets: 61

~Default
Default Parameter Set
Txn Think
Key RT RT Menu Weight Time
Time Delay Fence Delay
12.05 18.01 0.10 5.00 10.00 0.10
12.05 3.01 0.10 5.00 10.00 0.10
5.05 2.01 0.10 5.00 1.00 0.10
5.05 2.01 0.10 20.00 1.00 0.10
10.05 2.01 0.10 5.00 1.00 0.10

Tuned Distribution
Txn Think
Key RT RT Menu Weight Time
Time Delay Fence Delay
12.05 18.01 0.10 5.00 44.75 0.10
12.05 3.01 0.10 5.00 43.10 0.10
5.05 2.01 0.10 5.00 4.05 0.10
5.05 2.01 0.10 20.00 4.05 0.10
10.05 2.01 0.10 5.00 4.05 0.10

No Think

```

```

Txn Think
Key RT RT Menu Weight Time
Time Delay Fence Delay
0.00 0.00 0.00 5.00 10.00 0.00
0.00 0.00 0.00 5.00 10.00 0.00
0.00 0.00 0.00 5.00 1.00 0.00
0.00 0.00 0.00 20.00 1.00 0.00
0.00 0.00 0.00 5.00 1.00 0.00
0.95

Txn Think
Key RT RT Menu Weight Time
Time Delay Fence Delay
13.00 18.01 0.10 5.00 44.75 0.10
13.00 3.01 0.10 5.00 43.10 0.10
6.00 2.01 0.10 5.00 4.05 0.10
6.00 2.01 0.10 20.00 4.05 0.10
11.00 2.01 0.10 5.00 4.05 0.10
0.9

Txn Think
Key RT RT Menu Weight Time
Time Delay Fence Delay
16.00 18.01 0.10 5.00 44.83 0.10
16.00 3.01 0.10 5.00 43.05 0.10
9.00 2.01 0.10 5.00 4.04 0.10
9.00 2.01 0.10 20.00 4.04 0.10
14.00 2.01 0.10 5.00 4.04 0.10
3

Txn Think
Key RT RT Menu Weight Time
Time Delay Fence Delay
36.15 0.00 0.10 5.00 44.75 0.10
36.15 0.00 0.10 5.00 43.10 0.10
15.15 0.00 0.10 5.00 4.05 0.10
15.15 0.00 0.10 20.00 4.05 0.10

```

| | | | | | |
|-------|-------|--------------|-------|--------|------------|
| 30.15 | 0.00 | Order Status | 4.05 | | |
| | | 0.10 | 5.00 | 0.10 | |
| | | 4 | | | |
| | | 4.0 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| | | | | Weight | Time |
| Time | Delay | Fence | Delay | | |
| 48.20 | 18.01 | New Order | 0.10 | 5.00 | 44.75 0.10 |
| 48.20 | 3.01 | Payment | 0.10 | 5.00 | 43.10 0.10 |
| 20.20 | 2.01 | Delivery | 0.10 | 5.00 | 4.05 0.10 |
| 20.20 | 2.01 | Stock Level | 0.10 | 20.00 | 4.05 0.10 |
| 40.20 | 2.01 | Order Status | 0.10 | 5.00 | 4.05 0.10 |
| | | 3.8 | | | |
| | | 3.8 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| | | | | Weight | Time |
| Time | Delay | Fence | Delay | | |
| 45.70 | 18.01 | New Order | 0.10 | 5.00 | 44.75 0.10 |
| 45.70 | 3.01 | Payment | 0.10 | 5.00 | 43.10 0.10 |
| 19.10 | 2.01 | Delivery | 0.10 | 5.00 | 4.05 0.10 |
| 19.10 | 2.01 | Stock Level | 0.10 | 20.00 | 4.05 0.10 |
| 38.10 | 2.01 | Order Status | 0.10 | 5.00 | 4.05 0.10 |
| | | 3.6 | | | |
| | | 3.6 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| | | | | Weight | Time |
| Time | Delay | Fence | Delay | | |
| 43.30 | 18.01 | New Order | 0.10 | 5.00 | 44.75 0.10 |
| 43.30 | 3.01 | Payment | 0.10 | 5.00 | 43.10 0.10 |
| 18.10 | 2.01 | Delivery | 0.10 | 5.00 | 4.05 0.10 |
| 18.10 | 2.01 | Stock Level | 0.10 | 20.00 | 4.05 0.10 |
| 36.18 | 2.01 | Order Status | 0.10 | 5.00 | 4.05 0.10 |
| | | 3.4 | | | |
| | | 3.4 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| | | | | Weight | Time |
| Time | Delay | Fence | Delay | | |
| 40.90 | 18.01 | New Order | 0.10 | 5.00 | 44.75 0.10 |

| | | | | | |
|-------|-------|--------------|-------|--------|------------|
| 40.90 | 3.01 | Payment | 0.10 | 5.00 | 43.10 0.10 |
| 17.10 | 2.01 | Delivery | 0.10 | 5.00 | 4.05 0.10 |
| 17.10 | 2.01 | Stock Level | 0.10 | 20.00 | 4.05 0.10 |
| 17.10 | 2.01 | Order Status | 0.10 | 5.00 | 4.05 0.10 |
| | | 3.2 | | | |
| | | 3.2 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| | | | | Weight | Time |
| Time | Delay | Fence | Delay | | |
| 38.50 | 18.01 | New Order | 0.10 | 5.00 | 44.75 0.10 |
| 38.50 | 3.01 | Payment | 0.10 | 5.00 | 43.10 0.10 |
| 16.10 | 2.01 | Delivery | 0.10 | 5.00 | 4.05 0.10 |
| 16.10 | 2.01 | Stock Level | 0.10 | 20.00 | 4.05 0.10 |
| 32.10 | 2.01 | Order Status | 0.10 | 5.00 | 4.05 0.10 |
| | | 2.8 | | | |
| | | 2.8 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| | | | | Weight | Time |
| Time | Delay | Fence | Delay | | |
| 33.74 | 18.01 | New Order | 0.10 | 5.00 | 44.75 0.10 |
| 33.74 | 3.01 | Payment | 0.10 | 5.00 | 43.10 0.10 |
| 14.14 | 2.01 | Delivery | 0.10 | 5.00 | 4.05 0.10 |
| 14.14 | 2.01 | Stock Level | 0.10 | 20.00 | 4.05 0.10 |
| 28.14 | 2.01 | Order Status | 0.10 | 5.00 | 4.05 0.10 |
| | | 2.6 | | | |
| | | 2.6 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| | | | | Weight | Time |
| Time | Delay | Fence | Delay | | |
| 31.30 | 18.01 | New Order | 0.10 | 5.00 | 44.75 0.10 |
| 31.30 | 3.01 | Payment | 0.10 | 5.00 | 43.10 0.10 |
| 13.10 | 2.01 | Delivery | 0.10 | 5.00 | 4.05 0.10 |
| 13.10 | 2.01 | Stock Level | 0.10 | 20.00 | 4.05 0.10 |
| 26.10 | 2.01 | Order Status | 0.10 | 5.00 | 4.05 0.10 |
| | | 2.4 | | | |
| | | 2.4 tt | | | |

| | | | | | |
|-------|-------|--------------|-------|--------|------------|
| Key | RT | RT | Menu | Txn | Think |
| | | | | Weight | Time |
| Time | Delay | Fence | Delay | | |
| 28.90 | 18.01 | New Order | 0.10 | 5.00 | 44.75 0.10 |
| 28.90 | 3.01 | Payment | 0.10 | 5.00 | 43.10 0.10 |
| 12.10 | 2.01 | Delivery | 0.10 | 5.00 | 4.05 0.10 |
| 12.10 | 2.01 | Stock Level | 0.10 | 20.00 | 4.05 0.10 |
| 24.10 | 2.01 | Order Status | 0.10 | 5.00 | 4.05 0.10 |
| | | 2.2 | | | |
| | | 2.2 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| | | | | Weight | Time |
| Time | Delay | Fence | Delay | | |
| 28.90 | 18.01 | New Order | 0.10 | 5.00 | 44.75 0.10 |
| 28.90 | 3.01 | Payment | 0.10 | 5.00 | 43.10 0.10 |
| 12.10 | 2.01 | Delivery | 0.10 | 5.00 | 4.05 0.10 |
| 12.10 | 2.01 | Stock Level | 0.10 | 20.00 | 4.05 0.10 |
| 24.12 | 2.01 | Order Status | 0.10 | 5.00 | 4.05 0.10 |
| | | 2 | | | |
| | | 2.0 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| | | | | Weight | Time |
| Time | Delay | Fence | Delay | | |
| 24.10 | 18.01 | New Order | 0.10 | 5.00 | 44.75 0.10 |
| 24.10 | 3.01 | Payment | 0.10 | 5.00 | 43.10 0.10 |
| 10.10 | 2.01 | Delivery | 0.10 | 5.00 | 4.05 0.10 |
| 10.10 | 2.01 | Stock Level | 0.10 | 20.00 | 4.05 0.10 |
| 20.10 | 2.01 | Order Status | 0.10 | 5.00 | 4.05 0.10 |
| | | 5 | | | |
| | | 5.0 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| | | | | Weight | Time |
| Time | Delay | Fence | Delay | | |
| 60.25 | 18.01 | New Order | 0.10 | 5.00 | 44.75 0.10 |
| 60.25 | 3.01 | Payment | 0.10 | 5.00 | 43.10 0.10 |
| 25.25 | 2.01 | Delivery | 0.10 | 5.00 | 4.05 0.10 |
| 25.25 | 2.01 | Stock Level | 0.10 | 20.00 | 4.05 0.10 |

| | | | | | | | | | | | |
|-------|-------|--------------|-------|-------|-------|--------|-------|--|--|--|--|
| 50.25 | 2.01 | 0.10 | 5.00 | 4.05 | 0.10 | | | | | | |
| | | 4.5 | | | | | | | | | |
| | | 4.5 tt | | | | | | | | | |
| | | | | | | Txn | Think | | | | |
| Key | RT | RT | Menu | | | Weight | Time | | | | |
| Time | Delay | Fence | Delay | | | | | | | | |
| 54.20 | 18.01 | New Order | 0.10 | 5.00 | 44.75 | | 0.10 | | | | |
| 54.20 | 3.01 | Payment | 0.10 | 5.00 | 43.10 | | 0.10 | | | | |
| 22.70 | 2.01 | Delivery | 0.10 | 5.00 | 4.05 | | 0.10 | | | | |
| 22.70 | 2.01 | Stock Level | 0.10 | 20.00 | 4.05 | | 0.10 | | | | |
| 45.20 | 2.01 | Order Status | 0.10 | 5.00 | 4.05 | | 0.10 | | | | |
| | | 3.5 | | | | | | | | | |
| | | 3.5 tt | | | | | | | | | |
| | | | | | | Txn | Think | | | | |
| Key | RT | RT | Menu | | | Weight | Time | | | | |
| Time | Delay | Fence | Delay | | | | | | | | |
| 42.10 | 18.01 | New Order | 0.10 | 5.00 | 44.75 | | 0.10 | | | | |
| 42.10 | 3.01 | Payment | 0.10 | 5.00 | 43.10 | | 0.10 | | | | |
| 17.60 | 2.01 | Delivery | 0.10 | 5.00 | 4.05 | | 0.10 | | | | |
| 17.60 | 2.01 | Stock Level | 0.10 | 20.00 | 4.05 | | 0.10 | | | | |
| 35.10 | 2.01 | Order Status | 0.10 | 5.00 | 4.05 | | 0.10 | | | | |
| | | 1.8 | | | | | | | | | |
| | | 1.8 tt | | | | | | | | | |
| | | | | | | Txn | Think | | | | |
| Key | RT | RT | Menu | | | Weight | Time | | | | |
| Time | Delay | Fence | Delay | | | | | | | | |
| 21.60 | 18.01 | New Order | 0.10 | 5.00 | 44.75 | | 0.10 | | | | |
| 21.60 | 3.01 | Payment | 0.10 | 5.00 | 43.10 | | 0.10 | | | | |
| 9.09 | 2.01 | Delivery | 0.10 | 5.00 | 4.05 | | 0.10 | | | | |
| 9.09 | 2.01 | Stock Level | 0.10 | 20.00 | 4.05 | | 0.10 | | | | |
| 18.09 | 2.01 | Order Status | 0.10 | 5.00 | 4.05 | | 0.10 | | | | |
| | | 4.2 | | | | | | | | | |
| | | 4.2 tt | | | | | | | | | |
| | | | | | | Txn | Think | | | | |
| Key | RT | RT | Menu | | | Weight | Time | | | | |
| Time | Delay | Fence | Delay | | | | | | | | |
| 54.20 | 18.01 | New Order | 0.10 | 5.00 | 44.75 | | 0.10 | | | | |

| | | | | | | | | | | | |
|-------|-------|--------------|-------|-------|-------|--------|-------|--|--|--|--|
| 54.20 | 3.01 | 0.10 | 5.00 | 43.10 | 0.10 | | | | | | |
| 22.70 | 2.01 | Delivery | 0.10 | 5.00 | 4.05 | | 0.10 | | | | |
| 22.70 | 2.01 | Stock Level | 0.10 | 20.00 | 4.05 | | 0.10 | | | | |
| 45.20 | 2.01 | Order Status | 0.10 | 5.00 | 4.05 | | 0.10 | | | | |
| | | 1.6 | | | | | | | | | |
| | | 1.6 tt | | | | | | | | | |
| | | | | | | Txn | Think | | | | |
| Key | RT | RT | Menu | | | Weight | Time | | | | |
| Time | Delay | Fence | Delay | | | | | | | | |
| 19.20 | 18.01 | New Order | 0.10 | 5.00 | 44.75 | | 0.10 | | | | |
| 19.20 | 3.01 | Payment | 0.10 | 5.00 | 43.10 | | 0.10 | | | | |
| 8.08 | 2.01 | Delivery | 0.10 | 5.00 | 4.05 | | 0.10 | | | | |
| 8.08 | 2.01 | Stock Level | 0.10 | 20.00 | 4.05 | | 0.10 | | | | |
| 16.08 | 2.01 | Order Status | 0.10 | 5.00 | 4.05 | | 0.10 | | | | |
| | | 1.4 | | | | | | | | | |
| | | 1.4 tt | | | | | | | | | |
| | | | | | | Txn | Think | | | | |
| Key | RT | RT | Menu | | | Weight | Time | | | | |
| Time | Delay | Fence | Delay | | | | | | | | |
| 16.87 | 18.01 | New Order | 0.10 | 5.00 | 44.75 | | 0.10 | | | | |
| 16.87 | 3.01 | Payment | 0.10 | 5.00 | 43.10 | | 0.10 | | | | |
| 7.07 | 2.01 | Delivery | 0.10 | 5.00 | 4.05 | | 0.10 | | | | |
| 7.07 | 2.01 | Stock Level | 0.10 | 20.00 | 4.05 | | 0.10 | | | | |
| 14.07 | 2.01 | Order Status | 0.10 | 5.00 | 4.05 | | 0.10 | | | | |
| | | 1.2 | | | | | | | | | |
| | | 1.2 tt | | | | | | | | | |
| | | | | | | Txn | Think | | | | |
| Key | RT | RT | Menu | | | Weight | Time | | | | |
| Time | Delay | Fence | Delay | | | | | | | | |
| 14.46 | 18.01 | New Order | 0.10 | 5.00 | 44.83 | | 0.10 | | | | |
| 14.46 | 3.01 | Payment | 0.10 | 5.00 | 43.05 | | 0.10 | | | | |
| 6.06 | 2.01 | Delivery | 0.10 | 5.00 | 4.04 | | 0.10 | | | | |
| 6.06 | 2.01 | Stock Level | 0.10 | 20.00 | 4.04 | | 0.10 | | | | |
| 12.06 | 2.01 | Order Status | 0.10 | 5.00 | 4.04 | | 0.10 | | | | |
| | | 3.5 | | | | | | | | | |
| | | 3.5 tt | | | | | | | | | |

| | | | | | | | | | | | |
|-------|-------|----------------|-------|-------|-------|--------|-------|--|--|--|--|
| Key | RT | RT | Menu | | | Txn | Think | | | | |
| Time | Delay | Fence | Delay | | | Weight | Time | | | | |
| 42.10 | 18.01 | New Order | 0.10 | 5.00 | 44.75 | | 0.10 | | | | |
| 42.10 | 3.01 | Payment | 0.10 | 5.00 | 43.10 | | 0.10 | | | | |
| 17.60 | 2.01 | Delivery | 0.10 | 5.00 | 4.05 | | 0.10 | | | | |
| 17.60 | 2.01 | Stock Level | 0.10 | 20.00 | 4.05 | | 0.10 | | | | |
| 35.10 | 2.01 | Order Status | 0.10 | 5.00 | 4.05 | | 0.10 | | | | |
| | | 1.9 | | | | | | | | | |
| | | 1.9 tt | | | | | | | | | |
| | | | | | | Txn | Think | | | | |
| Key | RT | RT | Menu | | | Weight | Time | | | | |
| Time | Delay | Fence | Delay | | | | | | | | |
| 22.89 | 18.01 | New Order | 0.10 | 5.00 | 44.75 | | 0.10 | | | | |
| 22.89 | 3.01 | Payment | 0.10 | 5.00 | 43.10 | | 0.10 | | | | |
| 9.59 | 2.01 | Delivery | 0.10 | 5.00 | 4.05 | | 0.10 | | | | |
| 9.59 | 2.01 | Stock Level | 0.10 | 20.00 | 4.05 | | 0.10 | | | | |
| 19.09 | 2.01 | Order Status | 0.10 | 5.00 | 4.05 | | 0.10 | | | | |
| | | 1.1 | | | | | | | | | |
| | | 1.1 tt | | | | | | | | | |
| | | | | | | Txn | Think | | | | |
| Key | RT | RT | Menu | | | Weight | Time | | | | |
| Time | Delay | Fence | Delay | | | | | | | | |
| 13.25 | 18.01 | New Order | 0.10 | 5.00 | 44.83 | | 0.10 | | | | |
| 13.25 | 3.01 | Payment | 0.10 | 5.00 | 43.05 | | 0.10 | | | | |
| 5.55 | 2.01 | Delivery | 0.10 | 5.00 | 4.04 | | 0.10 | | | | |
| 5.55 | 2.01 | Stock Level | 0.10 | 20.00 | 4.04 | | 0.10 | | | | |
| 11.05 | 2.01 | Order Status | 0.10 | 5.00 | 4.04 | | 0.10 | | | | |
| | | 1.05 better | | | | | | | | | |
| | | 1.05 tt better | | | | | | | | | |
| | | | | | | Txn | Think | | | | |
| Key | RT | RT | Menu | | | Weight | Time | | | | |
| Time | Delay | Fence | Delay | | | | | | | | |
| 12.65 | 18.01 | New Order | 0.10 | 5.00 | 44.92 | | 0.10 | | | | |
| 12.65 | 3.01 | Payment | 0.10 | 5.00 | 43.01 | | 0.10 | | | | |
| 5.30 | 2.01 | Delivery | 0.10 | 5.00 | 4.02 | | 0.10 | | | | |
| 5.30 | 2.01 | Stock Level | 0.10 | 20.00 | 4.03 | | 0.10 | | | | |

| | | | | | |
|-------|-------|--------------|-------|--------|-------|
| 10.55 | 2.01 | 0.10 | 5.00 | 4.02 | 0.10 |
| | | 1.09 | | | |
| | | 1.09 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| Time | Delay | Fence | Delay | Weight | Time |
| 13.13 | 18.01 | New Order | 0.10 | 44.83 | 0.10 |
| 13.13 | 3.01 | Payment | 0.10 | 43.05 | 0.10 |
| 5.50 | 2.01 | Delivery | 0.10 | 4.04 | 0.10 |
| 5.50 | 2.01 | Stock Level | 0.10 | 4.04 | 0.10 |
| 10.95 | 2.01 | Order Status | 0.10 | 4.04 | 0.10 |
| | | 1.08 | | | |
| | | 1.08 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| Time | Delay | Fence | Delay | Weight | Time |
| 13.01 | 18.01 | New Order | 0.10 | 44.83 | 0.10 |
| 13.01 | 3.01 | Payment | 0.10 | 43.05 | 0.10 |
| 5.45 | 2.01 | Delivery | 0.10 | 4.04 | 0.10 |
| 5.45 | 2.01 | Stock Level | 0.10 | 4.04 | 0.10 |
| 10.85 | 2.01 | Order Status | 0.10 | 4.04 | 0.10 |
| | | 1.07 | | | |
| | | 1.07 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| Time | Delay | Fence | Delay | Weight | Time |
| 12.89 | 18.01 | New Order | 0.10 | 44.83 | 0.10 |
| 12.89 | 3.01 | Payment | 0.10 | 43.05 | 0.10 |
| 5.40 | 2.01 | Delivery | 0.10 | 4.04 | 0.10 |
| 5.40 | 2.01 | Stock Level | 0.10 | 4.04 | 0.10 |
| 10.75 | 2.01 | Order Status | 0.10 | 4.04 | 0.10 |
| | | 1.06 | | | |
| | | 1.06 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| Time | Delay | Fence | Delay | Weight | Time |
| 12.77 | 18.01 | New Order | 0.10 | 44.83 | 0.10 |

| | | | | | |
|-------|-------|--------------|-------|--------|-------|
| 12.77 | 3.01 | Payment | 0.10 | 43.05 | 0.10 |
| 5.35 | 2.01 | Delivery | 0.10 | 4.04 | 0.10 |
| 5.35 | 2.01 | Stock Level | 0.10 | 4.04 | 0.10 |
| 10.65 | 2.01 | Order Status | 0.10 | 4.04 | 0.10 |
| | | 1.15 | | | |
| | | 1.15 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| Time | Delay | Fence | Delay | Weight | Time |
| 13.85 | 18.01 | New Order | 0.10 | 44.75 | 0.10 |
| 13.85 | 3.01 | Payment | 0.10 | 43.10 | 0.10 |
| 5.80 | 2.01 | Delivery | 0.10 | 4.05 | 0.10 |
| 5.80 | 2.01 | Stock Level | 0.10 | 4.05 | 0.10 |
| 11.55 | 2.01 | Order Status | 0.10 | 4.05 | 0.10 |
| | | 1.25 | | | |
| | | 1.25 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| Time | Delay | Fence | Delay | Weight | Time |
| 15.06 | 18.01 | New Order | 0.10 | 44.83 | 0.10 |
| 15.06 | 3.01 | Payment | 0.10 | 43.05 | 0.10 |
| 6.31 | 2.01 | Delivery | 0.10 | 4.04 | 0.10 |
| 6.31 | 2.01 | Stock Level | 0.10 | 4.04 | 0.10 |
| 12.56 | 2.01 | Order Status | 0.10 | 4.04 | 0.10 |
| | | 1.3 | | | |
| | | 1.3 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| Time | Delay | Fence | Delay | Weight | Time |
| 15.66 | 18.01 | New Order | 0.10 | 44.83 | 0.10 |
| 15.66 | 3.01 | Payment | 0.10 | 43.05 | 0.10 |
| 6.56 | 2.01 | Delivery | 0.10 | 4.04 | 0.10 |
| 6.56 | 2.01 | Stock Level | 0.10 | 4.04 | 0.10 |
| 13.06 | 2.01 | Order Status | 0.10 | 4.04 | 0.10 |
| | | 1.12 | | | |
| | | 1.12 tt | | | |

| | | | | | |
|-------|-------|--------------|-------|--------|-------|
| Key | RT | RT | Menu | Txn | Think |
| Time | Delay | Fence | Delay | Weight | Time |
| 13.49 | 18.01 | New Order | 0.10 | 44.75 | 0.10 |
| 13.49 | 3.01 | Payment | 0.10 | 43.10 | 0.10 |
| 5.65 | 2.01 | Delivery | 0.10 | 4.05 | 0.10 |
| 5.65 | 2.01 | Stock Level | 0.10 | 4.05 | 0.10 |
| 11.25 | 2.01 | Order Status | 0.10 | 4.05 | 0.10 |
| | | 1.18 | | | |
| | | 1.18 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| Time | Delay | Fence | Delay | Weight | Time |
| 14.21 | 18.01 | New Order | 0.10 | 44.75 | 0.10 |
| 14.21 | 3.01 | Payment | 0.10 | 43.10 | 0.10 |
| 5.95 | 2.01 | Delivery | 0.10 | 4.05 | 0.10 |
| 5.95 | 2.01 | Stock Level | 0.10 | 4.05 | 0.10 |
| 11.85 | 2.01 | Order Status | 0.10 | 4.05 | 0.10 |
| | | 1.22 | | | |
| | | 1.22 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| Time | Delay | Fence | Delay | Weight | Time |
| 14.70 | 18.01 | New Order | 0.10 | 44.75 | 0.10 |
| 14.70 | 3.01 | Payment | 0.10 | 43.10 | 0.10 |
| 6.16 | 2.01 | Delivery | 0.10 | 4.05 | 0.10 |
| 6.16 | 2.01 | Stock Level | 0.10 | 4.05 | 0.10 |
| 12.26 | 2.01 | Order Status | 0.10 | 4.05 | 0.10 |
| | | 1.28 | | | |
| | | 1.28 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| Time | Delay | Fence | Delay | Weight | Time |
| 15.42 | 18.01 | New Order | 0.10 | 44.75 | 0.10 |
| 15.42 | 3.01 | Payment | 0.10 | 43.10 | 0.10 |
| 6.46 | 2.01 | Delivery | 0.10 | 4.05 | 0.10 |
| 6.46 | 2.01 | Stock Level | 0.10 | 4.05 | 0.10 |

| | | | | | |
|-------|-------|--------------|-------|--------|-------|
| 12.86 | 2.01 | Order Status | 4.05 | 5.00 | 0.10 |
| | | 1.04 | | | |
| | | 1.04 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| Time | Delay | Fence | Delay | Weight | Time |
| 12.53 | 18.01 | New Order | 44.83 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 12.53 | 3.01 | Payment | 43.05 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 5.25 | 2.01 | Delivery | 4.04 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 5.25 | 2.01 | Stock Level | 4.04 | 20.00 | 0.10 |
| | | 0.10 | | | |
| 10.45 | 2.01 | Order Status | 4.04 | 5.00 | 0.10 |
| | | 0.10 | | | |
| | | 1.03 | | | |
| | | 1.03 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| Time | Delay | Fence | Delay | Weight | Time |
| 12.41 | 18.01 | New Order | 44.83 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 12.41 | 3.01 | Payment | 43.05 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 5.20 | 2.01 | Delivery | 4.04 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 5.20 | 2.01 | Stock Level | 4.04 | 20.00 | 0.10 |
| | | 0.10 | | | |
| 10.35 | 2.01 | Order Status | 4.04 | 5.00 | 0.10 |
| | | 0.10 | | | |
| | | 1.02 | | | |
| | | 1.02 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| Time | Delay | Fence | Delay | Weight | Time |
| 12.29 | 18.01 | New Order | 44.83 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 12.29 | 3.01 | Payment | 43.05 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 5.15 | 2.01 | Delivery | 4.04 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 5.15 | 2.01 | Stock Level | 4.04 | 20.00 | 0.10 |
| | | 0.10 | | | |
| 10.25 | 2.01 | Order Status | 4.04 | 5.00 | 0.10 |
| | | 0.10 | | | |
| | | 1.01 | | | |
| | | 1.01 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| Time | Delay | Fence | Delay | Weight | Time |
| 12.17 | 18.01 | New Order | 44.83 | 5.00 | 0.10 |
| | | 0.10 | | | |

| | | | | | |
|-------|-------|--------------|-------|--------|-------|
| 12.17 | 3.01 | Payment | 43.05 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 5.10 | 2.01 | Delivery | 4.04 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 5.10 | 2.01 | Stock Level | 4.04 | 20.00 | 0.10 |
| | | 0.10 | | | |
| 10.15 | 2.01 | Order Status | 4.04 | 5.00 | 0.10 |
| | | 0.10 | | | |
| | | 5.5 | | | |
| | | 5.5 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| Time | Delay | Fence | Delay | Weight | Time |
| 66.28 | 18.01 | New Order | 44.83 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 66.28 | 3.01 | Payment | 43.05 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 27.77 | 2.01 | Delivery | 4.04 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 27.77 | 2.01 | Stock Level | 4.04 | 20.00 | 0.10 |
| | | 0.10 | | | |
| 55.27 | 2.01 | Order Status | 4.04 | 5.00 | 0.10 |
| | | 0.10 | | | |
| | | 6 | | | |
| | | 6.0 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| Time | Delay | Fence | Delay | Weight | Time |
| 72.30 | 18.01 | New Order | 44.83 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 72.30 | 3.01 | Payment | 43.05 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 30.30 | 2.01 | Delivery | 4.04 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 30.30 | 2.01 | Stock Level | 4.04 | 20.00 | 0.10 |
| | | 0.10 | | | |
| 60.30 | 2.01 | Order Status | 4.04 | 5.00 | 0.10 |
| | | 0.10 | | | |
| | | 6.5 | | | |
| | | 6.5 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| Time | Delay | Fence | Delay | Weight | Time |
| 79.53 | 18.01 | New Order | 44.83 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 79.53 | 3.01 | Payment | 43.05 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 33.33 | 2.01 | Delivery | 4.04 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 33.33 | 2.01 | Stock Level | 4.04 | 20.00 | 0.10 |
| | | 0.10 | | | |
| 66.33 | 2.01 | Order Status | 4.04 | 5.00 | 0.10 |
| | | 0.10 | | | |
| | | 7 | | | |
| | | 7.0 tt | | | |

| | | | | | |
|--------|-------|--------------|-------|--------|-------|
| Key | RT | RT | Menu | Txn | Think |
| Time | Delay | Fence | Delay | Weight | Time |
| 84.35 | 18.01 | New Order | 44.83 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 84.35 | 3.01 | Payment | 43.05 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 35.35 | 2.01 | Delivery | 4.04 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 35.35 | 2.01 | Stock Level | 4.04 | 20.00 | 0.10 |
| | | 0.10 | | | |
| 70.35 | 2.01 | Order Status | 4.04 | 5.00 | 0.10 |
| | | 0.10 | | | |
| | | 7.5 | | | |
| | | 7.5 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| Time | Delay | Fence | Delay | Weight | Time |
| 90.38 | 18.01 | New Order | 44.83 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 90.38 | 3.01 | Payment | 43.05 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 37.88 | 2.01 | Delivery | 4.04 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 37.88 | 2.01 | Stock Level | 4.04 | 20.00 | 0.10 |
| | | 0.10 | | | |
| 75.38 | 2.01 | Order Status | 4.04 | 5.00 | 0.10 |
| | | 0.10 | | | |
| | | 8 | | | |
| | | 8.0 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| Time | Delay | Fence | Delay | Weight | Time |
| 96.40 | 18.01 | New Order | 44.83 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 96.40 | 3.01 | Payment | 43.05 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 40.40 | 2.01 | Delivery | 4.04 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 40.40 | 2.01 | Stock Level | 4.04 | 20.00 | 0.10 |
| | | 0.10 | | | |
| 80.40 | 2.01 | Order Status | 4.04 | 5.00 | 0.10 |
| | | 0.10 | | | |
| | | 8.5 | | | |
| | | 8.5 tt | | | |
| Key | RT | RT | Menu | Txn | Think |
| Time | Delay | Fence | Delay | Weight | Time |
| 102.43 | 18.01 | New Order | 44.83 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 192.43 | 3.01 | Payment | 43.05 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 42.92 | 2.01 | Delivery | 4.04 | 5.00 | 0.10 |
| | | 0.10 | | | |
| 42.92 | 2.01 | Stock Level | 4.04 | 20.00 | 0.10 |
| | | 0.10 | | | |

| Key | RT | RT | Menu | Txn | Think |
|--------|-------|-------|----------------------|--------|-------|
| 85.42 | 2.01 | | Order Status | 4.04 | |
| | | | 0.10 | 5.00 | 0.10 |
| | | | 9 | | |
| | | | 9.0 tt | | |
| Time | Delay | Fence | Delay | Weight | Time |
| 108.45 | 18.01 | | New Order | 44.83 | |
| | | | 0.10 | 5.00 | 0.10 |
| 108.45 | 3.01 | | Payment | 43.05 | |
| | | | 0.10 | 5.00 | 0.10 |
| 45.45 | 2.01 | | Delivery | 4.04 | |
| | | | 0.10 | 5.00 | 0.10 |
| 45.45 | 2.01 | | Stock Level | 4.04 | |
| | | | 0.10 | 20.00 | 0.10 |
| 90.45 | 2.01 | | Order Status | 4.04 | |
| | | | 0.10 | 5.00 | 0.10 |
| | | | 9.5 | | |
| | | | 9.5 tt | | |
| Key | RT | RT | Menu | Txn | Think |
| | | | | Weight | Time |
| Time | Delay | Fence | Delay | Weight | Time |
| 114.47 | 18.01 | | New Order | 44.83 | |
| | | | 0.10 | 5.00 | 0.10 |
| 114.47 | 3.01 | | Payment | 43.05 | |
| | | | 0.10 | 5.00 | 0.10 |
| 47.98 | 2.01 | | Delivery | 4.04 | |
| | | | 0.10 | 5.00 | 0.10 |
| 47.98 | 2.01 | | Stock Level | 4.04 | |
| | | | 0.10 | 20.00 | 0.10 |
| 95.47 | 2.01 | | Order Status | 4.04 | |
| | | | 0.10 | 5.00 | 0.10 |
| | | | 10 | | |
| | | | 10 tt | | |
| Key | RT | RT | Menu | Txn | Think |
| | | | | Weight | Time |
| Time | Delay | Fence | Delay | Weight | Time |
| 120.50 | 18.01 | | New Order | 44.83 | |
| | | | 0.10 | 5.00 | 0.10 |
| 120.50 | 3.01 | | Payment | 43.05 | |
| | | | 0.10 | 5.00 | 0.10 |
| 50.50 | 2.01 | | Delivery | 4.04 | |
| | | | 0.10 | 5.00 | 0.10 |
| 50.50 | 2.01 | | Stock Level | 4.04 | |
| | | | 0.10 | 20.00 | 0.10 |
| 100.50 | 2.01 | | Order Status | 4.04 | |
| | | | 0.10 | 5.00 | 0.10 |
| | | | 1.02 better | | |
| | | | 1.02 more aggressive | | |
| Key | RT | RT | Menu | Txn | Think |
| | | | | Weight | Time |
| Time | Delay | Fence | Delay | Weight | Time |
| 12.05 | 18.01 | | New Order | 44.92 | |
| | | | 0.10 | 5.00 | 0.10 |

| Key | RT | RT | Menu | Txn | Think |
|-------|-------|-------|----------------------|--------|-------|
| 12.05 | 3.01 | | Payment | 43.01 | |
| | | | 0.10 | 5.00 | 0.10 |
| 5.05 | 2.01 | | Delivery | 4.02 | |
| | | | 0.10 | 5.00 | 0.10 |
| 5.05 | 2.01 | | Stock Level | 4.03 | |
| | | | 0.10 | 20.00 | 0.10 |
| 10.05 | 2.01 | | Order Status | 4.02 | |
| | | | 0.10 | 5.00 | 0.10 |
| | | | 1.01 better | | |
| | | | 1.01 more aggressive | | |
| Key | RT | RT | Menu | Txn | Think |
| | | | | Weight | Time |
| Time | Delay | Fence | Delay | Weight | Time |
| 12.17 | 18.01 | | New Order | 44.92 | |
| | | | 0.10 | 5.00 | 0.10 |
| 12.17 | 3.01 | | Payment | 43.01 | |
| | | | 0.10 | 5.00 | 0.10 |
| 5.10 | 2.01 | | Delivery | 4.02 | |
| | | | 0.10 | 5.00 | 0.10 |
| 5.10 | 2.01 | | Stock Level | 4.03 | |
| | | | 0.10 | 20.00 | 0.10 |
| 10.15 | 2.01 | | Order Status | 4.02 | |
| | | | 0.10 | 5.00 | 0.10 |
| | | | 1.001 | | |
| | | | 1.001 | | |
| Key | RT | RT | Menu | Txn | Think |
| | | | | Weight | Time |
| Time | Delay | Fence | Delay | Weight | Time |
| 12.06 | 18.01 | | New Order | 44.94 | |
| | | | 0.10 | 5.00 | 0.10 |
| 12.06 | 3.01 | | Payment | 43.03 | |
| | | | 0.10 | 5.00 | 0.10 |
| 5.06 | 2.01 | | Delivery | 4.01 | |
| | | | 0.10 | 5.00 | 0.10 |
| 5.06 | 2.01 | | Stock Level | 4.01 | |
| | | | 0.10 | 20.00 | 0.10 |
| 10.06 | 2.01 | | Order Status | 4.01 | |
| | | | 0.10 | 5.00 | 0.10 |
| | | | FullSpeed | | |
| | | | 1.000 tt | | |
| Key | RT | RT | Menu | Txn | Think |
| | | | | Weight | Time |
| Time | Delay | Fence | Delay | Weight | Time |
| 12.05 | 18.01 | | New Order | 44.93 | |
| | | | 0.10 | 5.00 | 0.10 |
| 12.05 | 3.01 | | Payment | 43.03 | |
| | | | 0.10 | 5.00 | 0.10 |
| 5.05 | 2.01 | | Delivery | 4.02 | |
| | | | 0.10 | 5.00 | 0.10 |
| 5.05 | 2.01 | | Stock Level | 4.01 | |
| | | | 0.10 | 20.00 | 0.10 |
| 10.05 | 2.01 | | Order Status | 4.02 | |
| | | | 0.10 | 5.00 | 0.10 |
| | | | 1.003 best | | |
| | | | 1.003 best | | |

| Key | RT | RT | Menu | Txn | Think |
|-------|-------|-------|---------------|--------|-------|
| | | | | Weight | Time |
| Time | Delay | Fence | Delay | Weight | Time |
| 12.09 | 18.01 | | New Order | 44.90 | |
| | | | 0.10 | 5.00 | 0.10 |
| 12.09 | 3.01 | | Payment | 43.05 | |
| | | | 0.10 | 5.00 | 0.10 |
| 5.07 | 2.01 | | Delivery | 4.01 | |
| | | | 0.10 | 5.00 | 0.10 |
| 5.07 | 2.01 | | Stock Level | 4.03 | |
| | | | 0.10 | 20.00 | 0.10 |
| 10.08 | 2.01 | | Order Status | 4.01 | |
| | | | 0.10 | 5.00 | 0.10 |
| | | | ExtraKick | | |
| | | | FullSpeedKick | | |
| Key | RT | RT | Menu | Txn | Think |
| | | | | Weight | Time |
| Time | Delay | Fence | Delay | Weight | Time |
| 12.03 | 18.01 | | New Order | 44.93 | |
| | | | 0.10 | 5.00 | 0.10 |
| 12.03 | 3.01 | | Payment | 43.01 | |
| | | | 0.10 | 5.00 | 0.10 |
| 5.03 | 2.01 | | Delivery | 4.02 | |
| | | | 0.10 | 5.00 | 0.10 |
| 5.03 | 2.01 | | Stock Level | 4.02 | |
| | | | 0.10 | 20.00 | 0.10 |
| 10.03 | 2.01 | | Order Status | 4.02 | |
| | | | 0.10 | 5.00 | 0.10 |
| | | | ovd_11 | | |
| Key | RT | RT | Menu | Txn | Think |
| | | | | Weight | Time |
| Time | Delay | Fence | Delay | Weight | Time |
| 10.85 | 18.00 | | New Order | 44.92 | |
| | | | 0.10 | 5.00 | 0.10 |
| 10.85 | 3.00 | | Payment | 43.01 | |
| | | | 0.10 | 5.00 | 0.10 |
| 4.55 | 2.00 | | Delivery | 4.02 | |
| | | | 0.10 | 5.00 | 0.10 |
| 4.55 | 2.00 | | Stock Level | 4.03 | |
| | | | 0.10 | 20.00 | 0.10 |
| 9.05 | 2.00 | | Order Status | 4.02 | |
| | | | 0.10 | 5.00 | 0.10 |
| | | | ovd_10 | | |
| Key | RT | RT | Menu | Txn | Think |
| | | | | Weight | Time |
| Time | Delay | Fence | Delay | Weight | Time |
| 10.12 | 18.00 | | New Order | 44.92 | |
| | | | 0.10 | 5.00 | 0.10 |
| 10.12 | 3.00 | | Payment | 43.01 | |
| | | | 0.10 | 5.00 | 0.10 |
| 4.24 | 2.00 | | Delivery | 4.02 | |
| | | | 0.10 | 5.00 | 0.10 |
| 4.24 | 2.00 | | Stock Level | 4.03 | |
| | | | 0.10 | 20.00 | 0.10 |

Order Status 4.02
8.44 2.00 0.10 5.00 0.10

client_summary.txt

System Information report written at: 08/27/10
11:31:49
System Name: VCL1
[System Summary]

Item Value
OS Name Microsoft Windows Server 2008 R2 Standard

Version 6.1.7600 Build 7600
Other OS Description Not Available
OS Manufacturer Microsoft Corporation
System Name VCL1
System Manufacturer Microsoft Corporation
System Model Virtual Machine
System Type x64-based PC
Processor Intel(R) Xeon(R) CPU X5670 @
2.93GHz, 2932 Mhz, 2 Core(s), 2 Logical Processor(s)

BIOS Version/Date American Megatrends Inc. 090004,
3/19/2009
SMBIOS Version 2.3
Windows Directory C:\Windows
System Directory C:\Windows\system32
Boot Device \Device\HarddiskVolume1
Locale United States
Hardware Abstraction Layer Version =
"6.1.7600.16385"
User Name Not Available
Time Zone Central Daylight Time
Installed Physical Memory (RAM) 1.50 GB
Total Physical Memory 1.50 GB
Available Physical Memory 1.05 GB
Total Virtual Memory 3.00 GB
Available Virtual Memory 2.52 GB
Page File Space 1.50 GB
Page File C:\pagefile.sys

[Hardware Resources]

[Conflicts/Sharing]

| Resource | Device | Status |
|----------------|-----------------------|----------------------------------|
| I/O Port | 0x00000000-0x0000000F | Direct memory access controller |
| I/O Port | 0x00000000-0x0000000F | PCI bus |
| Memory Address | 0xA0000-0xBFFFF | VgaSave |
| Memory Address | 0xA0000-0xBFFFF | PCI bus |
| Memory Address | 0xF8000000-0xFBFFFFFF | Microsoft Emulated S3 Device Cap |
| Memory Address | 0xF8000000-0xFBFFFFFF | PCI bus |

[DMA]

| Resource | Device | Status |
|-----------|---------------------------------|--------|
| Channel 4 | Direct memory access controller | OK |
| Channel 2 | Standard floppy disk controller | OK |

[Forced Hardware]

| Device | PNP Device ID |
|--------|---------------|
|--------|---------------|

[I/O]

| Resource | Device | Status |
|-----------------------|-----------------------|--------|
| 0x00000010-0x0000001F | Motherboard resources | OK |
| 0x00000022-0x0000003F | Motherboard resources | OK |
| 0x00000044-0x0000005F | Motherboard resources | OK |
| 0x00000062-0x00000063 | Motherboard resources | OK |
| 0x00000065-0x0000006F | Motherboard resources | OK |
| 0x00000072-0x0000007F | Motherboard resources | OK |
| 0x00000080-0x00000080 | Motherboard resources | OK |
| 0x00000084-0x00000086 | Motherboard resources | OK |
| 0x00000088-0x00000088 | Motherboard resources | OK |
| 0x0000008C-0x0000008E | Motherboard resources | OK |
| 0x00000090-0x0000009F | Motherboard resources | OK |
| 0x000000A2-0x000000BF | Motherboard resources | OK |
| 0x000000E0-0x000000EF | Motherboard resources | OK |
| 0x000001E0-0x000001EF | Motherboard resources | OK |
| 0x00000160-0x0000016F | Motherboard resources | OK |
| 0x00000278-0x0000027F | Motherboard resources | OK |
| 0x00000378-0x0000037F | Motherboard resources | OK |
| 0x00000678-0x0000067F | Motherboard resources | OK |
| 0x00000778-0x0000077F | Motherboard resources | OK |
| 0x000004D0-0x000004D1 | Motherboard resources | OK |
| 0x00000400-0x0000043F | Motherboard resources | OK |
| 0x00000370-0x00000371 | Motherboard resources | OK |
| 0x00000440-0x0000044F | Motherboard resources | OK |

| Resource | Device | Status |
|-----------------------|---|--------|
| 0x0000FFA0-0x0000FFAF | Intel(R) 82371AB/EB PCI Bus Master IDE Controller | OK |
| 0x000000F0-0x000000FF | Numeric data processor | OK |
| 0x000001F0-0x000001F7 | ATA Channel 0 | OK |
| 0x000003F6-0x000003F6 | ATA Channel 0 | OK |
| 0x000003B0-0x000003BB | VgaSave | OK |
| 0x000003C0-0x000003DF | VgaSave | OK |
| 0x000001CE-0x000001CF | VgaSave | OK |
| 0x000002E8-0x000002EF | VgaSave | OK |
| 0x00000170-0x00000177 | ATA Channel 1 | OK |
| 0x00000376-0x00000376 | ATA Channel 1 | OK |
| 0x00000020-0x00000021 | Programmable interrupt controller | OK |
| 0x000000A0-0x000000A1 | Programmable interrupt controller | OK |
| 0x00000040-0x00000043 | System timer | OK |
| 0x00000000-0x0000000F | Direct memory access controller | OK |
| 0x00000000-0x0000000F | PCI bus | OK |
| 0x00000081-0x00000083 | Direct memory access controller | OK |
| 0x00000087-0x00000087 | Direct memory access controller | OK |
| 0x00000089-0x0000008B | Direct memory access controller | OK |
| 0x0000008F-0x0000008F | Direct memory access controller | OK |
| 0x000000C0-0x000000DF | Direct memory access controller | OK |
| 0x00000060-0x00000060 | Standard PS/2 Keyboard | OK |
| 0x00000064-0x00000064 | Standard PS/2 Keyboard | OK |
| 0x000003F8-0x000003FF | Communications Port (COM1) | OK |
| 0x000002F8-0x000002FF | Communications Port (COM2) | OK |
| 0x000003F0-0x000003F5 | Standard floppy disk controller | OK |
| 0x000003F7-0x000003F7 | Standard floppy disk controller | OK |
| 0x00000061-0x00000061 | System speaker | OK |
| 0x00000D00-0x0000FFFF | PCI bus | OK |
| 0x00000070-0x00000071 | System CMOS/real time clock | OK |

[IRQs]

| Resource | Device | Status |
|----------------|---------------------------------|--------|
| IRQ 13 | Numeric data processor | OK |
| IRQ 12 | Microsoft PS/2 Mouse | OK |
| IRQ 4294967294 | Virtual Machine Bus | OK |
| IRQ 4294967293 | Virtual Machine Bus | OK |
| IRQ 81 | Microsoft ACPI-Compliant System | OK |


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IRQ 175 Microsoft ACPI-Compliant System OK
IRQ 176 Microsoft ACPI-Compliant System OK
IRQ 177 Microsoft ACPI-Compliant System OK
IRQ 178 Microsoft ACPI-Compliant System OK
IRQ 179 Microsoft ACPI-Compliant System OK
IRQ 180 Microsoft ACPI-Compliant System OK
IRQ 181 Microsoft ACPI-Compliant System OK
IRQ 182 Microsoft ACPI-Compliant System OK
IRQ 183 Microsoft ACPI-Compliant System OK
IRQ 184 Microsoft ACPI-Compliant System OK
IRQ 185 Microsoft ACPI-Compliant System OK
IRQ 186 Microsoft ACPI-Compliant System OK
IRQ 187 Microsoft ACPI-Compliant System OK
IRQ 188 Microsoft ACPI-Compliant System OK
IRQ 189 Microsoft ACPI-Compliant System OK
IRQ 190 Microsoft ACPI-Compliant System OK
IRQ 14 ATA Channel 0 OK
IRQ 15 ATA Channel 1 OK
IRQ 0 System timer OK
IRQ 1 Standard PS/2 Keyboard OK
IRQ 4 Communications Port (COM1) OK
IRQ 3 Communications Port (COM2) OK
IRQ 6 Standard floppy disk controller OK
IRQ 5 Microsoft Emulated S3 Device Cap OK
IRQ 8 System CMOS/real time clock OK

[Memory]

Resource Device Status
0x0000-0x9FFFF System board OK
0xC0000-0xDFFFF System board OK
0xE0000-0xFFFFF System board OK
0x100000-0xF7FFFFFF System board OK
0xFFFC0000-0xFFFFFFFF System board OK

0xFEC00000-0xFEC00FFF Motherboard resources OK
0xFEE00000-0xFEE00FFF Motherboard resources OK
0xA0000-0xBFFFF VgaSave OK
0xA0000-0xBFFFF PCI bus OK
0xFFB00000-0xFFFFFFFF Microsoft Virtual Machine Bus Video Device OK
0xF8000000-0xFBFFFFFFF Microsoft Emulated S3 Device Cap OK

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```

0xF8000000-0xFBFFFFFFF PCI bus OK

[Components]

[Multimedia]

[Audio Codecs]

CODEC Manufacturer Description
Status File Version Size
Creation Date
c:\windows\system32\msg711.acm Microsoft
Corporation OK
C:\Windows\system32\MSG711.ACM
6.1.7600.16385 14.50 KB (14,848 bytes)
7/13/2009 7:18 PM
c:\windows\system32\imaadp32.acm Microsoft
Corporation OK
C:\Windows\system32\IMAADP32.ACM
6.1.7600.16385 21.50 KB (22,016 bytes)
7/13/2009 7:18 PM
c:\windows\system32\msgsm32.acm Microsoft
Corporation OK
C:\Windows\system32\MSGSM32.ACM
6.1.7600.16385 28.50 KB (29,184 bytes)
7/13/2009 7:18 PM
c:\windows\system32\msadp32.acm Microsoft
Corporation OK
C:\Windows\system32\MSADP32.ACM
6.1.7600.16385 23.50 KB (24,064 bytes)
7/13/2009 7:18 PM

[Video Codecs]

CODEC Manufacturer Description
Status File Version Size
Creation Date
c:\windows\system32\msvidc32.dll Microsoft
Corporation OK
C:\Windows\system32\MSVIDC32.DLL
6.1.7600.16385 37.50 KB (38,400 bytes)
7/13/2009 7:18 PM
c:\windows\system32\msrle32.dll Microsoft
Corporation OK
C:\Windows\system32\MSRLE32.DLL
6.1.7600.16385 15.50 KB (15,872 bytes)
7/13/2009 7:18 PM
c:\windows\system32\msyuv.dll Microsoft Corporation
OK
C:\Windows\system32\MSYUV.DLL
6.1.7600.16385 24.00 KB (24,576 bytes)
7/13/2009 7:06 PM
c:\windows\system32\iyuv_32.dll Microsoft
Corporation OK
C:\Windows\system32\IYUV_32.DLL
6.1.7600.16385 52.50 KB (53,760 bytes)
7/13/2009 7:06 PM
c:\windows\system32\tsbyuv.dll Microsoft
Corporation OK

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C:\Windows\system32\TSBYUV.DLL
6.1.7600.16385 14.00 KB (14,336 bytes)
7/13/2009 7:06 PM

[CD-ROM]

Item Value
Drive D:
Description CD-ROM Drive
Media Loaded Yes
Media Type DVD-ROM
Name Msft Virtual CD-ROM ATA Device
Manufacturer (Standard CD-ROM drives)
Status OK
Transfer Rate 0.00 kbytes/sec
SCSI Target ID 0
PNP Device ID
IDE\CDROMSFT_VIRTUAL_CD-ROM
_____1.0_____5&47E3A3F&0&1.0.0
Driver c:\windows\system32\drivers\cdrom.sys
(6.1.7600.16385, 144.00 KB (147,456 bytes), 7/13/2009
6:19 PM)

[Sound Device]

Item Value

[Display]

Item Value
Name Microsoft Virtual Machine Bus Video Device

PNP Device ID VMBUS\{5620E0C7-8062-4DCE-AEB7-
520C7EF76171}\5&2126CDE1&0&{5620E0C7-8062-4DCE-AEB7-
520C7EF76171}
Adapter Type Not Available, Microsoft
compatible
Adapter Description Microsoft Virtual Machine Bus
Video Device
Adapter RAM Not Available
Installed Drivers VMBusVideoD.dll
Driver Version 6.1.7600.16385
INF File wmbusvideo.inf (SynthVid section)
Color Planes Not Available
Color Table Entries Not Available
Resolution Not Available
Bits/Pixel Not Available
Memory Address 0xFFB00000-0xFFFFFFFF
Driver c:\windows\system32\drivers\wmbusvideom.sys
(6.1.7600.16385, 22.00 KB (22,528 bytes), 7/13/2009
6:43 PM)

[Infrared]

Item Value

[Input]

[Keyboard]

Item Value

```

Description Standard PS/2 Keyboard
 Name Enhanced (101- or 102-key)
 Layout 00000409
 PNP Device ID ACPI\PNP0303\4&30998706&0
 Number of Function Keys 12
 I/O Port 0x00000060-0x00000060
 I/O Port 0x00000064-0x00000064
 IRQ Channel IRQ 1
 Driver c:\windows\system32\drivers\i8042prt.sys
 (6.1.7600.16385, 103.00 KB (105,472 bytes), 7/13/2009
 6:19 PM)

[Pointing Device]

Item Value
 Hardware Type Microsoft PS/2 Mouse
 Number of Buttons 0
 Status OK
 PNP Device ID ACPI\PNP0F03\4&30998706&0
 Power Management Supported No
 Double Click Threshold Not Available
 Handedness Not Available
 IRQ Channel IRQ 12
 Driver c:\windows\system32\drivers\i8042prt.sys
 (6.1.7600.16385, 103.00 KB (105,472 bytes), 7/13/2009
 6:19 PM)

Hardware Type HID-compliant mouse
 Number of Buttons 0
 Status OK
 PNP Device ID HID\{58F75A6D-D949-4320-99E1-
 A2A2576D581C}\6&996B31D&0&0000
 Power Management Supported No
 Double Click Threshold Not Available
 Handedness Not Available
 Driver c:\windows\system32\drivers\mouhid.sys
 (6.1.7600.16385, 30.50 KB (31,232 bytes), 7/13/2009
 7:00 PM)

[Modem]

Item Value

[Network]

[Adapter]

Item Value
 Name [00000000] WAN Miniport (SSTP)
 Adapter Type Not Available
 Product Type WAN Miniport (SSTP)
 Installed Yes
 PNP Device ID ROOT\MS_SSTP\Miniport\0000
 Last Reset 8/26/2010 6:23 PM
 Index 0
 Service Name RasSstp
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled No
 DHCP Server Not Available

DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address Not Available
 Driver c:\windows\system32\drivers\rassstp.sys
 (6.1.7600.16385, 82.00 KB (83,968 bytes), 7/13/2009
 7:10 PM)

Name [00000001] WAN Miniport (IKEv2)
 Adapter Type Not Available
 Product Type WAN Miniport (IKEv2)
 Installed Yes
 PNP Device ID ROOT\MS_AGILEVPN\Miniport\0000
 Last Reset 8/26/2010 6:23 PM
 Index 1

Service Name RasAgileVpn
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled No
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address Not Available
 Driver c:\windows\system32\drivers\agilevpn.sys
 (6.1.7600.16385, 59.00 KB (60,416 bytes), 7/13/2009
 7:10 PM)

Name [00000002] WAN Miniport (L2TP)
 Adapter Type Not Available
 Product Type WAN Miniport (L2TP)
 Installed Yes
 PNP Device ID ROOT\MS_L2TP\Miniport\0000
 Last Reset 8/26/2010 6:23 PM
 Index 2

Service Name Rasl2tp
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled No
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address Not Available
 Driver c:\windows\system32\drivers\rasl2tp.sys
 (6.1.7600.16385, 127.00 KB (130,048 bytes), 7/13/2009
 7:10 PM)

Name [00000003] WAN Miniport (PPTP)
 Adapter Type Not Available
 Product Type WAN Miniport (PPTP)
 Installed Yes
 PNP Device ID ROOT\MS_PPTP\Miniport\0000
 Last Reset 8/26/2010 6:23 PM
 Index 3

Service Name PptpMiniport
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled No
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address Not Available

Driver c:\windows\system32\drivers\raspptp.sys
 (6.1.7600.16385, 109.00 KB (111,616 bytes), 7/13/2009
 7:10 PM)

Name [00000004] WAN Miniport (PPPOE)
 Adapter Type Not Available
 Product Type WAN Miniport (PPPOE)
 Installed Yes
 PNP Device ID ROOT\MS_PPPOE\Miniport\0000
 Last Reset 8/26/2010 6:23 PM
 Index 4

Service Name RasPppoe
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled No
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address Not Available
 Driver c:\windows\system32\drivers\rasppoe.sys
 (6.1.7600.16385, 90.50 KB (92,672 bytes), 7/13/2009
 7:10 PM)

Name [00000005] WAN Miniport (IPv6)
 Adapter Type Not Available
 Product Type WAN Miniport (IPv6)
 Installed Yes
 PNP Device ID ROOT\MS_NDISWAN\IPv6\0000
 Last Reset 8/26/2010 6:23 PM
 Index 5

Service Name NdisWan
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled No
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address Not Available
 Driver c:\windows\system32\drivers\ndiswan.sys
 (6.1.7600.16385, 160.50 KB (164,352 bytes), 7/13/2009
 7:10 PM)

Name [00000006] WAN Miniport (Network Monitor)

Adapter Type Not Available
 Product Type WAN Miniport (Network Monitor)

Installed Yes
 PNP Device ID ROOT\MS_NDISWAN\NBH\0000
 Last Reset 8/26/2010 6:23 PM
 Index 6

Service Name NdisWan
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled No
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address Not Available

Driver c:\windows\system32\drivers\ndiswan.sys
(6.1.7600.16385, 160.50 KB (164,352 bytes), 7/13/2009
7:10 PM)

Name [00000007] Microsoft Virtual Machine Bus
Network Adapter
Adapter Type Ethernet 802.3
Product Type Microsoft Virtual Machine Bus
Network Adapter
Installed Yes
PNP Device ID VMBUS\{FBACFC4D-5F02-4F3D-A269-
686EFAA2462E}\5&2126CDE1&0&{FBACFC4D-5F02-4F3D-A269-
686EFAA2462E}
Last Reset 8/26/2010 6:23 PM
Index 7
Service Name netvsc
IP Address 130.172.20.1
IP Subnet 255.255.0.0
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:15:5D:28:07:01
Driver c:\windows\system32\drivers\netvsc60.sys
(6.1.7600.16385, 169.00 KB (173,056 bytes), 7/13/2009
6:42 PM)

Name [00000008] Microsoft ISATAP Adapter
Adapter Type Tunnel
Product Type Microsoft ISATAP Adapter
Installed Yes
PNP Device ID ROOT*ISATAP\0000
Last Reset 8/26/2010 6:23 PM
Index 8
Service Name tunnel
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available
Driver c:\windows\system32\drivers\tunnel.sys
(6.1.7600.16385, 122.50 KB (125,440 bytes), 7/13/2009
7:09 PM)

Name [00000009] WAN Miniport (IP)
Adapter Type Not Available
Product Type WAN Miniport (IP)
Installed Yes
PNP Device ID ROOT\MS_NDISWANIP\0000
Last Reset 8/26/2010 6:23 PM
Index 9
Service Name NdisWan
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available

MAC Address Not Available
Driver c:\windows\system32\drivers\ndiswan.sys
(6.1.7600.16385, 160.50 KB (164,352 bytes), 7/13/2009
7:10 PM)

Name [00000010] Microsoft Virtual Machine Bus
Network Adapter
Adapter Type Ethernet 802.3
Product Type Microsoft Virtual Machine Bus
Network Adapter
Installed Yes
PNP Device ID VMBUS\{8DD21FAA-967F-4128-B6D8-
85AF784FC60C}\5&2126CDE1&0&{8DD21FAA-967F-4128-B6D8-
85AF784FC60C}
Last Reset 8/26/2010 6:23 PM
Index 10
Service Name netvsc
IP Address 130.168.20.1
IP Subnet 255.255.0.0
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:15:5D:28:07:00
Driver c:\windows\system32\drivers\netvsc60.sys
(6.1.7600.16385, 169.00 KB (173,056 bytes), 7/13/2009
6:42 PM)

Name [00000011] RAS Async Adapter
Adapter Type Wide Area Network (WAN)
Product Type RAS Async Adapter
Installed Yes
PNP Device ID SW\{EEAB7790-C514-11D1-B42B-
00805FC1270E}\ASYNCMAC
Last Reset 8/26/2010 6:23 PM
Index 11
Service Name AsyncMac
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 20:41:53:59:4E:FF
Driver c:\windows\system32\drivers\asynctac.sys
(6.1.7600.16385, 22.50 KB (23,040 bytes), 7/13/2009
7:10 PM)

Name [00000012] Microsoft ISATAP Adapter
Adapter Type Tunnel
Product Type Microsoft ISATAP Adapter
Installed Yes
PNP Device ID ROOT*ISATAP\0001
Last Reset 8/26/2010 6:23 PM
Index 12
Service Name tunnel
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available

DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available
Driver c:\windows\system32\drivers\tunnel.sys
(6.1.7600.16385, 122.50 KB (125,440 bytes), 7/13/2009
7:09 PM)

Name [00000013] Microsoft 6to4 Adapter
Adapter Type Tunnel
Product Type Microsoft 6to4 Adapter
Installed Yes
PNP Device ID ROOT*6TO4MP\0000
Last Reset 8/26/2010 6:23 PM
Index 13
Service Name tunnel
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available
Driver c:\windows\system32\drivers\tunnel.sys
(6.1.7600.16385, 122.50 KB (125,440 bytes), 7/13/2009
7:09 PM)

[Protocol]

| Item | Value |
|-------------------------------|----------------------|
| Name | MSAFD Tcpip [TCP/IP] |
| Connectionless Service | No |
| Guarantees Delivery | Yes |
| Guarantees Sequencing | Yes |
| Maximum Address Size | 16 bytes |
| Maximum Message Size | 0 bytes |
| Message Oriented | No |
| Minimum Address Size | 16 bytes |
| Pseudo Stream Oriented | No |
| Supports Broadcasting | No |
| Supports Connect Data | No |
| Supports Disconnect Data | No |
| Supports Encryption | No |
| Supports Expedited Data | Yes |
| Supports Graceful Closing | Yes |
| Supports Guaranteed Bandwidth | No |
| Supports Multicasting | No |

| Item | Value |
|--------------------------|-------------------------|
| Name | MSAFD Tcpip [UDP/IP] |
| Connectionless Service | Yes |
| Guarantees Delivery | No |
| Guarantees Sequencing | No |
| Maximum Address Size | 16 bytes |
| Maximum Message Size | 63.99 KB (65,527 bytes) |
| Message Oriented | Yes |
| Minimum Address Size | 16 bytes |
| Pseudo Stream Oriented | No |
| Supports Broadcasting | Yes |
| Supports Connect Data | No |
| Supports Disconnect Data | No |
| Supports Encryption | No |
| Supports Expedited Data | No |

Supports Graceful Closing No
 Supports Guaranteed Bandwidth No
 Supports Multicasting Yes

Name MSAFD Tcpip [TCP/IPv6]
 Connectionless Service No
 Guarantees Delivery Yes
 Guarantees Sequencing Yes
 Maximum Address Size 28 bytes
 Maximum Message Size 0 bytes
 Message Oriented No
 Minimum Address Size 28 bytes
 Pseudo Stream Oriented No
 Supports Broadcasting No
 Supports Connect Data No
 Supports Disconnect Data No
 Supports Encryption No
 Supports Expedited Data Yes
 Supports Graceful Closing Yes
 Supports Guaranteed Bandwidth No
 Supports Multicasting No

Name MSAFD Tcpip [UDP/IPv6]
 Connectionless Service Yes
 Guarantees Delivery No
 Guarantees Sequencing No
 Maximum Address Size 28 bytes
 Maximum Message Size 63.99 KB (65,527 bytes)

Message Oriented Yes
 Minimum Address Size 28 bytes
 Pseudo Stream Oriented No
 Supports Broadcasting Yes
 Supports Connect Data No
 Supports Disconnect Data No
 Supports Encryption No
 Supports Expedited Data No
 Supports Graceful Closing No
 Supports Guaranteed Bandwidth No
 Supports Multicasting Yes

Name RSVP TCPv6 Service Provider
 Connectionless Service No
 Guarantees Delivery Yes
 Guarantees Sequencing Yes
 Maximum Address Size 28 bytes
 Maximum Message Size 0 bytes
 Message Oriented No
 Minimum Address Size 28 bytes
 Pseudo Stream Oriented No
 Supports Broadcasting No
 Supports Connect Data No
 Supports Disconnect Data No
 Supports Encryption Yes
 Supports Expedited Data Yes
 Supports Graceful Closing Yes
 Supports Guaranteed Bandwidth No
 Supports Multicasting No

Name RSVP TCP Service Provider
 Connectionless Service No
 Guarantees Delivery Yes
 Guarantees Sequencing Yes

Maximum Address Size 16 bytes
 Maximum Message Size 0 bytes
 Message Oriented No
 Minimum Address Size 16 bytes
 Pseudo Stream Oriented No
 Supports Broadcasting No
 Supports Connect Data No
 Supports Disconnect Data No
 Supports Encryption Yes
 Supports Expedited Data Yes
 Supports Graceful Closing Yes
 Supports Guaranteed Bandwidth No
 Supports Multicasting No

Name RSVP UDPv6 Service Provider
 Connectionless Service Yes
 Guarantees Delivery No
 Guarantees Sequencing No
 Maximum Address Size 28 bytes
 Maximum Message Size 63.99 KB (65,527 bytes)

Message Oriented Yes
 Minimum Address Size 28 bytes
 Pseudo Stream Oriented No
 Supports Broadcasting Yes
 Supports Connect Data No
 Supports Disconnect Data No
 Supports Encryption Yes
 Supports Expedited Data No
 Supports Graceful Closing No
 Supports Guaranteed Bandwidth No
 Supports Multicasting Yes

Name RSVP UDP Service Provider
 Connectionless Service Yes
 Guarantees Delivery No
 Guarantees Sequencing No
 Maximum Address Size 16 bytes
 Maximum Message Size 63.99 KB (65,527 bytes)

Message Oriented Yes
 Minimum Address Size 16 bytes
 Pseudo Stream Oriented No
 Supports Broadcasting Yes
 Supports Connect Data No
 Supports Disconnect Data No
 Supports Encryption Yes
 Supports Expedited Data No
 Supports Graceful Closing No
 Supports Guaranteed Bandwidth No
 Supports Multicasting Yes

[WinSock]

Item Value
 File c:\windows\system32\wsow64\wsock32.dll
 Size 15.00 KB (15,360 bytes)
 Version 6.1.7600.16385

File c:\windows\system32\wsock32.dll
 Size 18.00 KB (18,432 bytes)
 Version 6.1.7600.16385

[Ports]

[Serial]

Item Value
 Name Communications Port (COM1)
 Status OK
 PNP Device ID ACPI\PNP0501\1
 Maximum Input Buffer Size 0
 Maximum Output Buffer Size No
 Settable Baud Rate Yes
 Settable Data Bits Yes
 Settable Flow Control Yes
 Settable Parity Yes
 Settable Parity Check Yes
 Settable Stop Bits Yes
 Settable RLSD Yes
 Supports RLSD Yes
 Supports 16 Bit Mode No
 Supports Special Characters No
 Baud Rate 9600
 Bits/Byte 8
 Stop Bits 1
 Parity None
 Busy No
 Abort Read/Write on Error No
 Binary Mode Enabled Yes
 Continue Xmit on Xoff No
 CTS Outflow Control No
 Discard NULL Bytes No
 DSR Outflow Control 0
 DSR Sensitivity 0
 DTR Flow Control Type Enable
 EOF Character 0
 Error Replace Character 0
 Error Replacement Enabled No
 Event Character 0
 Parity Check Enabled No
 RTS Flow Control Type Enable
 Xoff Character 19
 XoffXmit Threshold 512
 Xon Character 17
 XonXmit Threshold 2048
 XonXoff InFlow Control 0
 XonXoff OutFlow Control 0
 IRQ Channel IRQ 4
 I/O Port 0x000003F8-0x000003FF
 Driver c:\windows\system32\drivers\serial.sys
 (6.1.7600.16385, 92.00 KB (94,208 bytes), 7/13/2009
 7:00 PM)

Name Communications Port (COM2)
 Status OK
 PNP Device ID ACPI\PNP0501\2
 Maximum Input Buffer Size 0
 Maximum Output Buffer Size No
 Settable Baud Rate Yes
 Settable Data Bits Yes
 Settable Flow Control Yes
 Settable Parity Yes
 Settable Parity Check Yes

```

Settable Stop Bits Yes
Settable RLSD Yes
Supports RLSD Yes
Supports 16 Bit Mode No
Supports Special Characters No
Baud Rate 9600
Bits/Byte 8
Stop Bits 1
Parity None
Busy No
Abort Read/Write on Error No
Binary Mode Enabled Yes
Continue XMit on XOff No
CTS Outflow Control No
Discard NULL Bytes No
DSR Outflow Control 0
DSR Sensitivity 0
DTR Flow Control Type Enable
EOF Character 0
Error Replace Character 0
Error Replacement Enabled No
Event Character 0
Parity Check Enabled No
RTS Flow Control Type Enable
XOff Character 19
XOffXMit Threshold 512
XOn Character 17
XOnXMit Threshold 2048
XOnXOff InFlow Control 0
XOnXOff OutFlow Control 0
IRQ Channel IRQ 3
I/O Port 0x000002F8-0x000002FF
Driver c:\windows\system32\drivers\serial.sys
(6.1.7600.16385, 92.00 KB (94,208 bytes), 7/13/2009
7:00 PM)

```

[Parallel]

```
Item Value
```

[Storage]

[Drives]

```

Item Value
Drive A:
Description 3 1/2 Inch Floppy Drive

Drive C:
Description Local Fixed Disk
Compressed No
File System NTFS
Size 71.90 GB (77,200,355,328 bytes)
Free Space 58.94 GB (63,285,141,504 bytes)

Volume Name
Volume Serial Number 10EC2319

Drive D:
Description CD-ROM Disc

```

[Disks]

```

Item Value
Description Disk drive
Manufacturer (Standard disk drives)
Model Virtual HD ATA Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 2
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 0
Sectors/Track 63
Size 71.99 GB (77,301,181,440 bytes)
Total Cylinders 9,398
Total Sectors 150,978,870
Total Tracks 2,396,490
Tracks/Cylinder 255
Partition Disk #0, Partition #0
Partition Size 100.00 MB (104,857,600 bytes)
Partition Starting Offset 1,048,576 bytes
Partition Disk #0, Partition #1
Partition Size 71.90 GB (77,200,359,424 bytes)
Partition Starting Offset 105,906,176 bytes

```

[SCSI]

```

Item Value
Name Storage miniport driver
Manufacturer Microsoft
Status OK
PNP Device ID VMBUS\{D003008D-EDEF-4721-A7A7-7859FF507824}\5&2126CDE1&0&{D003008D-EDEF-4721-A7A7-7859FF507824}
Driver c:\windows\system32\drivers\storvsc.sys
(6.1.7600.16385, 34.08 KB (34,896 bytes), 7/13/2009
6:42 PM)

```

[IDE]

```

Item Value
Name Intel(R) 82371AB/EB PCI Bus Master IDE
Controller
Manufacturer Intel
Status OK
PNP Device ID PCI\VEN_8086&DEV_7111&SUBSYS_00000000&REV_01\3&267A616A&1&39
I/O Port 0x0000FFA0-0x0000FFAF
Driver c:\windows\system32\drivers\intelide.sys
(6.1.7600.16385, 16.56 KB (16,960 bytes), 7/13/2009
6:19 PM)

Name ATA Channel 0
Manufacturer (Standard IDE ATA/ATAPI
controllers)
Status OK
PNP Device ID PCIIDE\IDECHANNEL\4&182B817&0&0
I/O Port 0x000001F0-0x000001F7

```

```

I/O Port 0x000003F6-0x000003F6
IRQ Channel IRQ 14
Driver c:\windows\system32\drivers\atapi.sys
(6.1.7600.16385, 23.56 KB (24,128 bytes), 7/13/2009
6:19 PM)

```

```

Name ATA Channel 1
Manufacturer (Standard IDE ATA/ATAPI
controllers)
Status OK
PNP Device ID PCIIDE\IDECHANNEL\4&182B817&0&1

```

```

I/O Port 0x00000170-0x00000177
I/O Port 0x00000376-0x00000376
IRQ Channel IRQ 15
Driver c:\windows\system32\drivers\atapi.sys
(6.1.7600.16385, 23.56 KB (24,128 bytes), 7/13/2009
6:19 PM)

```

[Printing]

```

Name Driver Port Name Server Name
Fax (redirected 1) Microsoft Shared Fax Driver
TS004 Not Available
Microsoft XPS Document Writer (redirected 1)
Microsoft XPS Document Writer TS005 Not
Available
CCM74 B&W - HP LaserJet M4345 mfp PCL6 (redirected 1)
HP LaserJet M4345 mfp PCL6 TS001 Not
Available
Microsoft XPS Document Writer Microsoft XPS Document
Writer XPSPort: Not Available

```

[Problem Devices]

```
Device PNP Device ID Error Code
```

[USB]

```
Device PNP Device ID
```

[Software Environment]

[System Drivers]

| Name | Description | File | Type |
|----------|-------------------------------------|--|---|
| | Started | Start Mode | State |
| | Status | Error Control | Accept Pause |
| | Accept Stop | | |
| 1394ohci | 1394 OHCI Compliant Host Controller | c:\windows\system32\drivers\1394ohci.sys | Kernel Driver No Manual Stopped OK Normal No No |
| acpi | Microsoft ACPI Driver | c:\windows\system32\drivers\acpi.sys | Kernel Driver Yes Boot Running OK Critical No Yes |
| acpipmi | ACPI Power Meter Driver | c:\windows\system32\drivers\acpipmi.sys | |

| | | | | |
|----------|--|-----|----------|-----|
| | Kernel Driver | No | Manual | No |
| | Stopped | OK | Normal | No |
| adp94xx | adp94xx | | | |
| | c:\windows\system32\drivers\adp94xx.sys | | | |
| | Kernel Driver | No | Manual | No |
| | Stopped | OK | Normal | No |
| adpahci | adpahci | | | |
| | c:\windows\system32\drivers\adpahci.sys | | | |
| | Kernel Driver | No | Manual | No |
| | Stopped | OK | Normal | No |
| adpu320 | adpu320 | | | |
| | c:\windows\system32\drivers\adpu320.sys | | | |
| | Kernel Driver | No | Manual | No |
| | Stopped | OK | Normal | No |
| afd | Ancillary Function Driver for Winsock | | | |
| | c:\windows\system32\drivers\afd.sys | | | |
| | Kernel Driver | Yes | System | Yes |
| | Running | OK | Normal | No |
| agp440 | Intel AGP Bus Filter | | | |
| | c:\windows\system32\drivers\agp440.sys | | | |
| | Kernel Driver | No | Manual | No |
| | Stopped | OK | Normal | No |
| aliide | aliide | | | |
| | c:\windows\system32\drivers\aliide.sys | | | |
| | Kernel Driver | No | Manual | No |
| | Stopped | OK | Critical | No |
| amdide | amdide | | | |
| | c:\windows\system32\drivers\amdide.sys | | | |
| | Kernel Driver | No | Manual | No |
| | Stopped | OK | Critical | No |
| amdk8 | AMD K8 Processor Driver | | | |
| | c:\windows\system32\drivers\amd8.sys | | | |
| | Kernel Driver | No | Manual | No |
| | Stopped | OK | Normal | No |
| amdppm | AMD Processor Driver | | | |
| | c:\windows\system32\drivers\amdppm.sys | | | |
| | Kernel Driver | No | Manual | No |
| | Stopped | OK | Normal | No |
| amdsata | amdsata | | | |
| | c:\windows\system32\drivers\amdsata.sys | | | |
| | Kernel Driver | No | Manual | No |
| | Stopped | OK | Normal | No |
| amdsbs | amdsbs | | | |
| | c:\windows\system32\drivers\amdsbs.sys | | | |
| | Kernel Driver | No | Manual | No |
| | Stopped | OK | Normal | No |
| amdxtata | amdxtata | | | |
| | c:\windows\system32\drivers\amdxtata.sys | | | |
| | Kernel Driver | Yes | Boot | Yes |
| | Running | OK | Normal | No |

| | | | | |
|-----------|--|-----|----------|-----|
| appid | AppID Driver | | | |
| | c:\windows\system32\drivers\appid.sys | | | |
| | Kernel Driver | No | Manual | No |
| | Stopped | OK | Normal | No |
| arc | arc | | | |
| | c:\windows\system32\drivers\arc.sys | | | |
| | Kernel Driver | No | Manual | No |
| | Stopped | OK | Normal | No |
| arcsas | arcsas | | | |
| | c:\windows\system32\drivers\arcsas.sys | | | |
| | Kernel Driver | No | Manual | No |
| | Stopped | OK | Normal | No |
| asynccmac | RAS Asynchronous Media Driver | | | |
| | c:\windows\system32\drivers\asynccmac.sys | | | |
| | Kernel Driver | Yes | Manual | Yes |
| | Running | OK | Normal | No |
| ataapi | IDE Channel | | | |
| | c:\windows\system32\drivers\ataapi.sys | | | |
| | Kernel Driver | Yes | Boot | Yes |
| | Running | OK | Critical | No |
| b06bdrv | Broadcom NetXtreme II VBD | | | |
| | c:\windows\system32\drivers\bxvbda.sys | | | |
| | Kernel Driver | No | Manual | No |
| | Stopped | OK | Normal | No |
| b57nd60a | Broadcom NetXtreme Gigabit Ethernet - NDIS | | | |
| | 6.0 | | | |
| | c:\windows\system32\drivers\b57nd60a.sys | | | |
| | Kernel Driver | No | Manual | No |
| | Stopped | OK | Normal | No |
| beep | Beep | | | |
| | c:\windows\system32\drivers\beep.sys | | | |
| | Kernel Driver | No | Manual | No |
| | Stopped | OK | Normal | No |
| blbdrive | blbdrive | | | |
| | c:\windows\system32\drivers\blbdrive.sys | | | |
| | Kernel Driver | Yes | System | Yes |
| | Running | OK | Normal | No |
| browser | Browser Support Driver | | | |
| | c:\windows\system32\drivers\browser.sys | | | |
| | File System Driver | Yes | Manual | Yes |
| | Running | OK | Normal | No |
| brfiltlo | Brother USB Mass-Storage Lower Filter | | | |
| | Driver | | | |
| | c:\windows\system32\drivers\brfiltlo.sys | | | |
| | Kernel Driver | No | Manual | No |
| | Stopped | OK | Normal | No |
| brfiltup | Brother USB Mass-Storage Upper Filter | | | |
| | Driver | | | |
| | c:\windows\system32\drivers\brfiltup.sys | | | |
| | Kernel Driver | No | Manual | No |
| | Stopped | OK | Normal | No |
| brserid | Brother MFC Serial Port Interface Driver | | | |
| | (WDM) | | | |
| | c:\windows\system32\drivers\brserid.sys | | | |
| | Kernel Driver | No | Manual | No |

| | | | | | |
|--------------|--|------|----------|----------|-----|
| | Stopped | OK | Normal | No | No |
| brserwdm | Brother WDM Serial driver | | | | |
| | c:\windows\system32\drivers\brserwdm.sys | | | | |
| | Kernel Driver | No | Manual | No | No |
| | Stopped | OK | Normal | No | No |
| brusbmdm | Brother MFC USB Fax Only Modem | | | | |
| | c:\windows\system32\drivers\brusbmdm.sys | | | | |
| | Kernel Driver | No | Manual | No | No |
| | Stopped | OK | Normal | No | No |
| brusbser | Brother MFC USB Serial WDM Driver | | | | |
| | c:\windows\system32\drivers\brusbser.sys | | | | |
| | Kernel Driver | No | Manual | No | No |
| | Stopped | OK | Normal | No | No |
| cdfs | CD/DVD File System Reader | | | | |
| | c:\windows\system32\drivers\cdfs.sys | | | | |
| | File System Driver | Yes | Disabled | Yes | Yes |
| | Running | OK | Normal | No | Yes |
| cdrom | CD-ROM Driver | | | | |
| | c:\windows\system32\drivers\cdrom.sys | | | | |
| | Kernel Driver | Yes | System | Yes | Yes |
| | Running | OK | Normal | No | Yes |
| clfs | Common Log (CLFS) | | | | |
| | c:\windows\system32\clfs.sys | | | | |
| | Kernel Driver | Yes | Boot | Running | OK |
| | Yes | Boot | Running | OK | OK |
| | Critical | No | Yes | Critical | No |
| cmbatt | Microsoft ACPI Control Method Battery | | | | |
| | Driver | | | | |
| | c:\windows\system32\drivers\cmbatt.sys | | | | |
| | Kernel Driver | No | Manual | No | No |
| | Stopped | OK | Normal | No | No |
| cmdide | cmdide | | | | |
| | c:\windows\system32\drivers\cmdide.sys | | | | |
| | Kernel Driver | No | Manual | No | No |
| | Stopped | OK | Critical | No | No |
| cng | CNG | | | | |
| | c:\windows\system32\drivers\cng.sys | | | | |
| | Kernel Driver | Yes | Boot | Running | OK |
| | Running | OK | Critical | No | Yes |
| compbatt | Compbatt | | | | |
| | c:\windows\system32\drivers\compbatt.sys | | | | |
| | Kernel Driver | No | Manual | No | No |
| | Stopped | OK | Critical | No | No |
| compositebus | Composite Bus Enumerator Driver | | | | |
| | c:\windows\system32\drivers\compositebus.sys | | | | |
| | Kernel Driver | Yes | Manual | Running | OK |
| | Running | OK | Normal | No | Yes |
| crdisk | Crdisk Filter Driver | | | | |
| | c:\windows\system32\drivers\crdisk.sys | | | | |
| | Kernel Driver | No | Disabled | Stopped | OK |
| | Stopped | OK | Normal | No | No |
| dfsc | DFS Namespace Client Driver | | | | |
| | c:\windows\system32\drivers\dfsc.sys | | | | |

| | | | | | |
|-----------|---|-----|--------|----|-----|
| | File System Driver | Yes | System | | |
| | Running | OK | Normal | No | Yes |
| discache | System Attribute Cache | | | | |
| | c:\windows\system32\drivers\discache.sys | | | | |
| | Kernel Driver | Yes | System | | |
| | Running | OK | Normal | No | Yes |
| disk | Disk Driver | | | | |
| | c:\windows\system32\drivers\disk.sys | | | | |
| | Kernel Driver | Yes | Boot | | |
| | Running | OK | Normal | No | Yes |
| dxgkrnl | LDDM Graphics Subsystem | | | | |
| | c:\windows\system32\drivers\dxgkrnl.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Ignore | No | No |
| ebdrv | Broadcom NetXtreme II 10 GigE VBD | | | | |
| | c:\windows\system32\drivers\evbda.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| elxstor | elxstor | | | | |
| | c:\windows\system32\drivers\elxstor.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| errdev | Microsoft Hardware Error Device Driver | | | | |
| | c:\windows\system32\drivers\errdev.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| exfat | exFAT File System Driver | | | | |
| | c:\windows\system32\drivers\exfat.sys | | | | |
| | File System Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| fastfat | FAT12/16/32 File System Driver | | | | |
| | c:\windows\system32\drivers\fastfat.sys | | | | |
| | File System Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| fdc | Floppy Disk Controller Driver | | | | |
| | c:\windows\system32\drivers\fdc.sys | | | | |
| | Kernel Driver | Yes | Manual | | |
| | Running | OK | Normal | No | Yes |
| fileinfo | File Information FS MiniFilter | | | | |
| | c:\windows\system32\drivers\fileinfo.sys | | | | |
| | File System Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| filetrace | Filetrace | | | | |
| | c:\windows\system32\drivers\filetrace.sys | | | | |
| | File System Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| flpydisk | Floppy Disk Driver | | | | |
| | c:\windows\system32\drivers\flpydisk.sys | | | | |
| | Kernel Driver | Yes | Manual | | |
| | Running | OK | Normal | No | Yes |

| | | | | | |
|-----------|---|-----|----------|----|-----|
| fltmggr | FltMgr | | | | |
| | c:\windows\system32\drivers\fltmggr.sys | | | | |
| | File System Driver | Yes | Boot | | |
| | Running | OK | Critical | No | Yes |
| fsdepends | File System Dependency Minifilter | | | | |
| | c:\windows\system32\drivers\fsdepends.sys | | | | |
| | File System Driver | No | Manual | | |
| | Stopped | OK | Critical | No | No |
| gagp30kx | Microsoft Generic AGPv3.0 Filter for K8 | | | | |
| | Processor Platforms | | | | |
| | c:\windows\system32\drivers\gagp30kx.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| hdaudbus | Microsoft UAA Bus Driver for High | | | | |
| | Definition Audio | | | | |
| | c:\windows\system32\drivers\hdaudbus.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| hidbatt | HID UPS Battery Driver | | | | |
| | c:\windows\system32\drivers\hidbatt.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| hidusb | Microsoft HID Class Driver | | | | |
| | c:\windows\system32\drivers\hidusb.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Ignore | No | No |
| hpsamd | HpSAMD | | | | |
| | c:\windows\system32\drivers\hpsamd.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| http | HTTP | | | | |
| | c:\windows\system32\drivers\http.sys | | | | |
| | Kernel Driver | Yes | Manual | | |
| | Running | OK | Normal | No | Yes |
| hwpolicy | Hardware Policy Driver | | | | |
| | c:\windows\system32\drivers\hwpolicy.sys | | | | |
| | Kernel Driver | Yes | Boot | | |
| | Running | OK | Normal | No | Yes |
| i8042prt | i8042 Keyboard and PS/2 Mouse Port Driver | | | | |
| | c:\windows\system32\drivers\i8042prt.sys | | | | |
| | Kernel Driver | Yes | Manual | | |
| | Running | OK | Normal | No | Yes |
| iastorv | iaStorV | | | | |
| | c:\windows\system32\drivers\iastorv.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| iirsp | iirsp | | | | |
| | c:\windows\system32\drivers\iirsp.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |

| | | | | | |
|----------------|--|-----|----------|----|-----|
| intelide | intelide | | | | |
| | c:\windows\system32\drivers\intelide.sys | | | | |
| | Kernel Driver | Yes | Boot | | |
| | Running | OK | Critical | No | Yes |
| intelppm | Intel Processor Driver | | | | |
| | c:\windows\system32\drivers\intelppm.sys | | | | |
| | Kernel Driver | Yes | Manual | | |
| | Running | OK | Normal | No | Yes |
| ioatdma | Intel(R) QuickData Technology Device | | | | |
| | c:\windows\system32\drivers\qd260x64.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| ipfilterdriver | IP Traffic Filter Driver | | | | |
| | c:\windows\system32\drivers\ipfltdrv.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| ipmidrv | IPMIDRV | | | | |
| | c:\windows\system32\drivers\ipmidrv.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| ipnat | IP Network Address Translator | | | | |
| | c:\windows\system32\drivers\ipnat.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| isapnp | isapnp | | | | |
| | c:\windows\system32\drivers\isapnp.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Critical | No | No |
| iscsiprt | iScsiPort Driver | | | | |
| | c:\windows\system32\drivers\msiscsi.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| kbdclass | Keyboard Class Driver | | | | |
| | c:\windows\system32\drivers\kbdclass.sys | | | | |
| | Kernel Driver | Yes | Manual | | |
| | Running | OK | Normal | No | Yes |
| kbdhid | Keyboard HID Driver | | | | |
| | c:\windows\system32\drivers\kbdhid.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Ignore | No | No |
| ksecdd | KSecDD | | | | |
| | c:\windows\system32\drivers\ksecdd.sys | | | | |
| | Kernel Driver | Yes | Boot | | |
| | Running | OK | Critical | No | Yes |
| ksecpkg | KSecPkg | | | | |
| | c:\windows\system32\drivers\ksecpkg.sys | | | | |
| | Kernel Driver | Yes | Boot | | |
| | Running | OK | Critical | No | Yes |
| ksthunk | Kernel Streaming Thunks | | | | |
| | c:\windows\system32\drivers\ksthunk.sys | | | | |
| | Kernel Driver | No | Manual | | |

| | | | | | |
|----------|---|--|--------------------|-----|--------|
| | Stopped | OK | Normal | No | No |
| lltdio | Link-Layer Topology Discovery Mapper I/O Driver | c:\windows\system32\drivers\lltdio.sys | Kernel Driver | Yes | Auto |
| | Running | OK | Normal | No | Yes |
| lsi_fc | LSI_FC | c:\windows\system32\drivers\lsi_fc.sys | Kernel Driver | No | Manual |
| | Stopped | OK | Normal | No | No |
| lsi_sas | LSI_SAS | c:\windows\system32\drivers\lsi_sas.sys | Kernel Driver | No | Manual |
| | Stopped | OK | Normal | No | No |
| lsi_sas2 | LSI_SAS2 | c:\windows\system32\drivers\lsi_sas2.sys | Kernel Driver | No | Manual |
| | Stopped | OK | Normal | No | No |
| lsi_scsi | LSI_SCSI | c:\windows\system32\drivers\lsi_scsi.sys | Kernel Driver | No | Manual |
| | Stopped | OK | Normal | No | No |
| luafov | UAC File Virtualization | c:\windows\system32\drivers\luafov.sys | File System Driver | Yes | Auto |
| | Running | OK | Normal | No | Yes |
| megasas | megasas | c:\windows\system32\drivers\megasas.sys | Kernel Driver | No | Manual |
| | Stopped | OK | Normal | No | No |
| megasr | MegaSR | c:\windows\system32\drivers\megasr.sys | Kernel Driver | No | Manual |
| | Stopped | OK | Normal | No | No |
| modem | Modem | c:\windows\system32\drivers\modem.sys | Kernel Driver | No | Manual |
| | Stopped | OK | Ignore | No | No |
| monitor | Microsoft Monitor Class Function Driver Service | c:\windows\system32\drivers\monitor.sys | Kernel Driver | No | Manual |
| | Stopped | OK | Normal | No | No |
| mouclass | Mouse Class Driver | c:\windows\system32\drivers\mouclass.sys | Kernel Driver | Yes | Manual |
| | Running | OK | Normal | No | Yes |
| mouhid | Mouse HID Driver | c:\windows\system32\drivers\mouhid.sys | Kernel Driver | Yes | Manual |
| | Running | OK | Ignore | No | Yes |

| | | | | | |
|-----------|---|---|--------------------|-----|--------|
| mountmgr | Mount Point Manager | c:\windows\system32\drivers\mountmgr.sys | Kernel Driver | Yes | Boot |
| | Running | OK | Critical | No | Yes |
| mpio | mpio | c:\windows\system32\drivers\mpio.sys | Kernel Driver | No | Manual |
| | Stopped | OK | Normal | No | No |
| mpsdrv | Windows Firewall Authorization Driver | c:\windows\system32\drivers\mpsdrv.sys | Kernel Driver | Yes | Manual |
| | Running | OK | Normal | No | Yes |
| mrxsm | SMB MiniRedirector Wrapper and Engine | c:\windows\system32\drivers\mrxsm.sys | File System Driver | Yes | Manual |
| | Running | OK | Normal | No | Yes |
| mrxsm10 | SMB 1.x MiniRedirector | c:\windows\system32\drivers\mrxsm10.sys | File System Driver | Yes | Manual |
| | Running | OK | Normal | No | Yes |
| mrxsm20 | SMB 2.0 MiniRedirector | c:\windows\system32\drivers\mrxsm20.sys | File System Driver | Yes | Manual |
| | Running | OK | Normal | No | Yes |
| msahci | msahci | c:\windows\system32\drivers\msahci.sys | Kernel Driver | No | Manual |
| | Stopped | OK | Critical | No | No |
| msdsm | msdsm | c:\windows\system32\drivers\msdsm.sys | Kernel Driver | No | Manual |
| | Stopped | OK | Normal | No | No |
| msfs | Msfs | c:\windows\system32\drivers\msfs.sys | File System Driver | Yes | System |
| | Running | OK | Normal | No | Yes |
| mshidkmdf | Pass-through HID to KMD Filter Driver | c:\windows\system32\drivers\mshidkmdf.sys | Kernel Driver | No | Manual |
| | Stopped | OK | Ignore | No | No |
| msisadrv | msisadrv | c:\windows\system32\drivers\msisadrv.sys | Kernel Driver | Yes | Boot |
| | Running | OK | Critical | No | Yes |
| msrpc | MsRPC | c:\windows\system32\drivers\msrpc.sys | Kernel Driver | No | Manual |
| | Stopped | OK | Normal | No | No |
| mssmbios | Microsoft System Management BIOS Driver | c:\windows\system32\drivers\mssmbios.sys | Kernel Driver | Yes | System |

| | | | | | |
|----------|--------------------------------------|--|--------------------|-----|--------|
| | Running | OK | Normal | No | Yes |
| mtconfig | Microsoft Input Configuration Driver | c:\windows\system32\drivers\mtconfig.sys | Kernel Driver | No | Manual |
| | Stopped | OK | Normal | No | No |
| mup | Mup | c:\windows\system32\drivers\mup.sys | File System Driver | Yes | Boot |
| | Running | OK | Normal | No | Yes |
| ndis | NDIS System Driver | c:\windows\system32\drivers\ndis.sys | Kernel Driver | Yes | Boot |
| | Running | OK | Critical | No | Yes |
| ndiscap | NDIS Capture LightWeight Filter | c:\windows\system32\drivers\ndiscap.sys | Kernel Driver | No | Manual |
| | Stopped | OK | Normal | No | No |
| ndistapi | Remote Access NDIS TAPI Driver | c:\windows\system32\drivers\ndistapi.sys | Kernel Driver | Yes | Manual |
| | Running | OK | Normal | No | Yes |
| ndisuio | NDIS Usermode I/O Protocol | c:\windows\system32\drivers\ndisuio.sys | Kernel Driver | No | Manual |
| | Stopped | OK | Normal | No | No |
| ndiswan | Remote Access NDIS WAN Driver | c:\windows\system32\drivers\ndiswan.sys | Kernel Driver | Yes | Manual |
| | Running | OK | Normal | No | Yes |
| ndproxy | NDIS Proxy | c:\windows\system32\drivers\ndproxy.sys | Kernel Driver | Yes | Manual |
| | Running | OK | Normal | No | Yes |
| netbios | NetBIOS Interface | c:\windows\system32\drivers\netbios.sys | File System Driver | Yes | System |
| | Running | OK | Normal | No | Yes |
| netbt | NetBT | c:\windows\system32\drivers\netbt.sys | Kernel Driver | Yes | System |
| | Running | OK | Normal | No | Yes |
| netvsc | netvsc | c:\windows\system32\drivers\netvsc60.sys | Kernel Driver | Yes | Manual |
| | Running | OK | Normal | No | Yes |
| nfrd960 | nfrd960 | c:\windows\system32\drivers\nfrd960.sys | Kernel Driver | No | Manual |
| | Stopped | OK | Normal | No | No |

| | |
|----------------------|---|
| npfs | Npfs c:\windows\system32\drivers\npfs.sys File System Driver Yes System Running OK Normal No Yes |
| nsiproxy | NSI proxy service driver. c:\windows\system32\drivers\nsiproxy.sys Kernel Driver Yes System Running OK Normal No Yes |
| ntfs | Ntfs c:\windows\system32\drivers\ntfs.sys File System Driver Yes Manual Running OK Normal No Yes |
| null | Null c:\windows\system32\drivers\null.sys Kernel Driver Yes System Running OK Normal No Yes |
| nvraid | nvraid c:\windows\system32\drivers\nvraid.sys Kernel Driver No Manual Stopped OK Normal No No |
| nvstor | nvstor c:\windows\system32\drivers\nvstor.sys Kernel Driver No Manual Stopped OK Critical No No |
| nv_agp | NVIDIA nForce AGP Bus Filter c:\windows\system32\drivers\nv_agp.sys Kernel Driver No Manual Stopped OK Normal No No |
| ohci1394 (Legacy) | 1394 OHCI Compliant Host Controller c:\windows\system32\drivers\ohci1394.sys Kernel Driver No Manual Stopped OK Normal No No |
| parport | Parallel port driver c:\windows\system32\drivers\parport.sys Kernel Driver No Manual Stopped OK Ignore No No |
| partmgr | Partition Manager c:\windows\system32\drivers\partmgr.sys Kernel Driver Yes Boot Running OK Critical No Yes |
| pci | PCI Bus Driver c:\windows\system32\drivers\pci.sys Kernel Driver Yes Boot Running OK Critical No Yes |
| pciide | pciide c:\windows\system32\drivers\pciide.sys Kernel Driver No Manual Stopped OK Critical No No |
| pcmcia | pcmcia c:\windows\system32\drivers\pcmcia.sys Kernel Driver No Manual |

| | |
|--------------|--|
| pcw | Performance Counters for Windows Driver c:\windows\system32\drivers\pcw.sys Kernel Driver Yes Boot Running OK Normal No Yes |
| peauth | PEAUTH c:\windows\system32\drivers\peauth.sys Kernel Driver Yes Auto Running OK Normal No Yes |
| pptpminiport | WAN Miniport (PPTP) c:\windows\system32\drivers\rasppptp.sys Kernel Driver Yes Manual Running OK Normal No Yes |
| processor | Processor Driver c:\windows\system32\drivers\processr.sys Kernel Driver No Manual Stopped OK Normal No No |
| psched | QoS Packet Scheduler c:\windows\system32\drivers\pacer.sys Kernel Driver Yes System Running OK Normal No Yes |
| ql2300 | ql2300 c:\windows\system32\drivers\ql2300.sys Kernel Driver No Manual Stopped OK Normal No No |
| ql40xx | ql40xx c:\windows\system32\drivers\ql40xx.sys Kernel Driver No Manual Stopped OK Normal No No |
| rasacd | Remote Access Auto Connection Driver c:\windows\system32\drivers\rasacd.sys Kernel Driver No Manual Stopped OK Normal No No |
| rasagilevpn | WAN Miniport (IKEv2) c:\windows\system32\drivers\agilevpn.sys Kernel Driver Yes Manual Running OK Normal No Yes |
| rasl2tp | WAN Miniport (L2TP) c:\windows\system32\drivers\rasl2tp.sys Kernel Driver Yes Manual Running OK Normal No Yes |
| raspppoe | Remote Access PPPOE Driver c:\windows\system32\drivers\raspppoe.sys Kernel Driver Yes Manual Running OK Normal No Yes |
| rasstsp | WAN Miniport (SSTP) c:\windows\system32\drivers\rasstsp.sys Kernel Driver Yes Manual Running OK Normal No Yes |

| | |
|----------|--|
| rdbs | Redirected Buffering Sub Sysytem c:\windows\system32\drivers\rdbs.sys File System Driver Yes System Running OK Normal No Yes |
| rdpbus | Remote Desktop Device Redirector Bus Driver c:\windows\system32\drivers\rdpbus.sys Kernel Driver Yes Manual Running OK Normal No Yes |
| rdpcdd | RDPcDD c:\windows\system32\drivers\rdpcdd.sys Kernel Driver Yes System Running OK Ignore No Yes |
| rdpdr | Terminal Server Device Redirector Driver c:\windows\system32\drivers\rdpdr.sys Kernel Driver Yes Manual Running OK Normal No Yes |
| rdpenydd | RDP Encoder Mirror Driver c:\windows\system32\drivers\rdpenydd.sys Kernel Driver Yes System Running OK Ignore No Yes |
| rdprefmp | Reflector Display Driver used to gain access to graphics data c:\windows\system32\drivers\rdprefmp.sys Kernel Driver Yes System Running OK Ignore No Yes |
| rdpwd | RDP Winstation Driver c:\windows\system32\drivers\rdpwd.sys Kernel Driver Yes Manual Running OK Ignore No Yes |
| rspndr | Link-Layer Topology Discovery Responder c:\windows\system32\drivers\rspndr.sys Kernel Driver Yes Auto Running OK Normal No Yes |
| s3cap | s3cap c:\windows\system32\drivers\vms3cap.sys Kernel Driver Yes Manual Running OK Normal No Yes |
| sacdrv | sacdrv c:\windows\system32\drivers\sacdrv.sys Kernel Driver No Boot Stopped OK Ignore No No |
| sbp2port | sbp2port c:\windows\system32\drivers\sbp2port.sys Kernel Driver No Manual Stopped OK Normal No No |
| scfilter | Smart card PnP Class Filter Driver c:\windows\system32\drivers\scfilter.sys Kernel Driver No Manual Stopped OK Normal No No |
| secdrv | Security Driver c:\windows\system32\drivers\secdrv.sys |

| | | | | |
|----------|---|-----|----------|-----|
| | Kernel Driver | Yes | Auto | |
| | Running | OK | Normal | No |
| | | | | Yes |
| serenum | Serenum Filter Driver | | | |
| | c:\windows\system32\drivers\serenum.sys | | | |
| | Kernel Driver | Yes | Manual | |
| | Running | OK | Normal | No |
| | | | | Yes |
| serial | Serial port driver | | | |
| | c:\windows\system32\drivers\serial.sys | | | |
| | Kernel Driver | Yes | System | |
| | Running | OK | Ignore | No |
| | | | | Yes |
| sermouse | Serial Mouse Driver | | | |
| | c:\windows\system32\drivers\sermouse.sys | | | |
| | Kernel Driver | No | Manual | |
| | Stopped | OK | Normal | No |
| | | | | No |
| sffdisk | SFF Storage Class Driver | | | |
| | c:\windows\system32\drivers\sffdisk.sys | | | |
| | Kernel Driver | No | Manual | |
| | Stopped | OK | Normal | No |
| | | | | No |
| sffp_mmc | SFF Storage Protocol Driver for MMC | | | |
| | c:\windows\system32\drivers\sffp_mmc.sys | | | |
| | Kernel Driver | No | Manual | |
| | Stopped | OK | Normal | No |
| | | | | No |
| sffp_sd | SFF Storage Protocol Driver for SDBus | | | |
| | c:\windows\system32\drivers\sffp_sd.sys | | | |
| | Kernel Driver | No | Manual | |
| | Stopped | OK | Normal | No |
| | | | | No |
| sfloppy | High-Capacity Floppy Disk Drive | | | |
| | c:\windows\system32\drivers\sfloppy.sys | | | |
| | Kernel Driver | No | Manual | |
| | Stopped | OK | Normal | No |
| | | | | No |
| sisraid2 | SiSRaid2 | | | |
| | c:\windows\system32\drivers\sisraid2.sys | | | |
| | Kernel Driver | No | Manual | |
| | Stopped | OK | Normal | No |
| | | | | No |
| sisraid4 | SiSRaid4 | | | |
| | c:\windows\system32\drivers\sisraid4.sys | | | |
| | Kernel Driver | No | Manual | |
| | Stopped | OK | Normal | No |
| | | | | No |
| smb | Message-oriented TCP/IP and TCP/IPv6 Protocol (SMB session) | | | |
| | c:\windows\system32\drivers\smb.sys | | | |
| | Kernel Driver | No | Manual | |
| | Stopped | OK | Normal | No |
| | | | | No |
| spldr | Security Processor Loader Driver | | | |
| | c:\windows\system32\drivers\spldr.sys | | | |
| | Kernel Driver | Yes | Boot | |
| | Running | OK | Critical | No |
| | | | | Yes |
| srv | Server SMB 1.xxx Driver | | | |
| | c:\windows\system32\drivers\srv.sys | | | |
| | File System Driver | Yes | Manual | |

| | | | | | |
|----------|---|-----|--------|----|-----|
| | Running | OK | Normal | No | Yes |
| srv2 | Server SMB 2.xxx Driver | | | | |
| | c:\windows\system32\drivers\srv2.sys | | | | |
| | File System Driver | Yes | Manual | | |
| | Running | OK | Normal | No | Yes |
| srvnet | srvnet | | | | |
| | c:\windows\system32\drivers\srvnet.sys | | | | |
| | File System Driver | Yes | Manual | | |
| | Running | OK | Normal | No | Yes |
| stexstor | stexstor | | | | |
| | c:\windows\system32\drivers\stexstor.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| storflt | Disk Virtual Machine Bus Acceleration Filter Driver | | | | |
| | c:\windows\system32\drivers\vmstorfl.sys | | | | |
| | Kernel Driver | Yes | Boot | | |
| | Running | OK | Normal | No | Yes |
| storvsc | storvsc | | | | |
| | c:\windows\system32\drivers\storvsc.sys | | | | |
| | Kernel Driver | Yes | Boot | | |
| | Running | OK | Normal | No | Yes |
| storvsp | storvsp | | | | |
| | c:\windows\system32\drivers\storvsp.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| swenum | Software Bus Driver | | | | |
| | c:\windows\system32\drivers\swenum.sys | | | | |
| | Kernel Driver | Yes | Manual | | |
| | Running | OK | Normal | No | Yes |
| synthvid | SynthVid | | | | |
| | c:\windows\system32\drivers\vbmsvideom.sys | | | | |
| | Kernel Driver | Yes | Manual | | |
| | Running | OK | Ignore | No | Yes |
| tcpip | TCP/IP Protocol Driver | | | | |
| | c:\windows\system32\drivers\tcpip.sys | | | | |
| | Kernel Driver | Yes | Boot | | |
| | Running | OK | Normal | No | Yes |
| tcpip6 | Microsoft IPv6 Protocol Driver | | | | |
| | c:\windows\system32\drivers\tcpip.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| tcpipreg | TCP/IP Registry Compatibility | | | | |
| | c:\windows\system32\drivers\tcpipreg.sys | | | | |
| | Kernel Driver | Yes | Auto | | |
| | Running | OK | Normal | No | Yes |
| tdpipe | TDPIPE | | | | |
| | c:\windows\system32\drivers\tdpipe.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |

| | | | | | |
|----------|--|-----|----------|----|-----|
| tdtcp | TDTCP | | | | |
| | c:\windows\system32\drivers\tdtcp.sys | | | | |
| | Kernel Driver | Yes | Manual | | |
| | Running | OK | Normal | No | Yes |
| tdx | NetIO Legacy TDI Support Driver | | | | |
| | c:\windows\system32\drivers\tdx.sys | | | | |
| | Kernel Driver | Yes | System | | |
| | Running | OK | Normal | No | Yes |
| termdd | Terminal Device Driver | | | | |
| | c:\windows\system32\drivers\termdd.sys | | | | |
| | Kernel Driver | Yes | System | | |
| | Running | OK | Normal | No | Yes |
| tssecsrv | Remote Desktop Services Security Filter Driver | | | | |
| | c:\windows\system32\drivers\tssecsrv.sys | | | | |
| | Kernel Driver | Yes | Manual | | |
| | Running | OK | Ignore | No | Yes |
| tunnel | Microsoft Tunnel Miniport Adapter Driver | | | | |
| | c:\windows\system32\drivers\tunnel.sys | | | | |
| | Kernel Driver | Yes | Manual | | |
| | Running | OK | Normal | No | Yes |
| uagp35 | Microsoft AGPv3.5 Filter | | | | |
| | c:\windows\system32\drivers\uagp35.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| udfs | udfs | | | | |
| | c:\windows\system32\drivers\udfs.sys | | | | |
| | File System Driver | No | Disabled | | |
| | Stopped | OK | Normal | No | No |
| uliagpkx | Uli AGP Bus Filter | | | | |
| | c:\windows\system32\drivers\uliagpkx.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| umbus | UMBus Enumerator Driver | | | | |
| | c:\windows\system32\drivers\umbus.sys | | | | |
| | Kernel Driver | Yes | Manual | | |
| | Running | OK | Normal | No | Yes |
| umpass | Microsoft UMPass Driver | | | | |
| | c:\windows\system32\drivers\umpass.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| usbccgp | Microsoft USB Generic Parent Driver | | | | |
| | c:\windows\system32\drivers\usbccgp.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| usbehci | Microsoft USB 2.0 Enhanced Host Controller Miniport Driver | | | | |
| | c:\windows\system32\drivers\usbehci.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| usbhub | Microsoft USB Standard Hub Driver | | | | |
| | c:\windows\system32\drivers\usbhub.sys | | | | |

```

Kernel Driver      No      Manual      No
Stopped OK        Normal     No         No

usbohci Microsoft USB Open Host Controller Miniport
Driver c:\windows\system32\drivers\usbohci.sys
Kernel Driver      No      Manual
Stopped OK        Normal     No         No

usbprint Microsoft USB PRINTER Class
c:\windows\system32\drivers\usbprint.sys
Kernel Driver      No      Manual
Stopped OK        Normal     No         No

usbstor USB Mass Storage Driver
c:\windows\system32\drivers\usbstor.sys
Kernel Driver      No      Manual
Stopped OK        Normal     No         No

usbuhci Microsoft USB Universal Host Controller
Miniport Driver c:\windows\system32\drivers\usbuhci.sys
Kernel Driver      No      Manual
Stopped OK        Normal     No         No

vdrvroot Microsoft Virtual Drive Enumerator Driver
c:\windows\system32\drivers\vdrvroot.sys
Kernel Driver      Yes     Boot
Running OK        Critical  No         Yes

vga vga
c:\windows\system32\drivers\vgapnp.sys
Kernel Driver      No      Manual
Stopped OK        Ignore   No         No

vgasave VgaSave
c:\windows\system32\drivers\vga.sys
Kernel Driver      Yes     System
Running OK        Ignore   No         Yes

vhdmv vhdmp
c:\windows\system32\drivers\vhdmv.sys
Kernel Driver      No      Manual
Stopped OK        Normal     No         No

viaide viaide
c:\windows\system32\drivers\viaide.sys
Kernel Driver      No      Manual
Stopped OK        Critical  No         No

vid Vid
c:\windows\system32\drivers\vid.sys
Kernel Driver      No      Manual
Stopped OK        Normal     No         No

vmbus Virtual Machine Bus
c:\windows\system32\drivers\vmbus.sys
Kernel Driver      Yes     Boot
Running OK        Normal     No         Yes

vmbushid VMBusHID
c:\windows\system32\drivers\vmbushid.sys
Kernel Driver      Yes     Manual

```

```

Running OK        Ignore   No         Yes

volmgr Volume Manager Driver
c:\windows\system32\drivers\volmgr.sys
Kernel Driver      Yes     Boot
Running OK        Critical  No         Yes

volmgrx Dynamic Volume Manager
c:\windows\system32\drivers\volmgrx.sys
Kernel Driver      Yes     Boot
Running OK        Critical  No         Yes

volsnap Storage volumes
c:\windows\system32\drivers\volsnap.sys
Kernel Driver      Yes     Boot
Running OK        Critical  No         Yes

vsmraid vsmraid
c:\windows\system32\drivers\vsmraid.sys
Kernel Driver      No      Manual
Stopped OK        Normal     No         No

wacompen Wacom Serial Pen HID Driver
c:\windows\system32\drivers\wacompen.sys
Kernel Driver      No      Manual
Stopped OK        Normal     No         No

wanarp Remote Access IP ARP Driver
c:\windows\system32\drivers\wanarp.sys
Kernel Driver      No      Manual
Stopped OK        Normal     No         No

wanarpv6 Remote Access IPv6 ARP Driver
c:\windows\system32\drivers\wanarp.sys
Kernel Driver      Yes     System
Running OK        Normal     No         Yes

wd Wd
c:\windows\system32\drivers\wd.sys
Kernel Driver      No      Manual
Stopped OK        Normal     No         No

wdf01000 Kernel Mode Driver Frameworks service
c:\windows\system32\drivers\wdf01000.sys
Kernel Driver      Yes     Boot
Running OK        Normal     No         Yes

wfplwf WFP Lightweight Filter
c:\windows\system32\drivers\wfplwf.sys
Kernel Driver      Yes     System
Running OK        Normal     No         Yes

wimmount WIMMount
c:\windows\system32\drivers\wimmount.sys
File System Driver No      Manual
Stopped OK        Normal     No         No

wmiacpi Microsoft Windows Management Interface for
ACPI c:\windows\system32\drivers\wmiacpi.sys
Kernel Driver      No      Manual
Stopped OK        Normal     No         No

```

```

ws2ifsl Winsock IFS Driver
c:\windows\system32\drivers\ws2ifsl.sys
Kernel Driver      No      Disabled
Stopped OK        Normal     No         No

wudfpf User Mode Driver Frameworks Platform Driver
c:\windows\system32\drivers\wudfpf.sys
Kernel Driver      No      Manual
Stopped OK        Normal     No         No

[Environment Variables]

Variable Value User Name
ComSpec %SystemRoot%\system32\cmd.exe <SYSTEM>
FP_NO_HOST_CHECK NO <SYSTEM>
OS Windows_NT <SYSTEM>
Path
%SystemRoot%\system32;%SystemRoot%\System32\WindowsPowerShell\v1.0\;C:\Program Files (x86)\Microsoft SQL Server\80\Tools\Binn\;C:\Program Files\Microsoft SQL Server\90\Tools\Binn\;C:\Program Files (x86)\Microsoft SQL Server\90\Tools\Binn\;C:\Program Files (x86)\Microsoft SQL Server\90\Tools\Binn\;C:\Program Files (x86)\Microsoft Visual Studio 8\Common7\IDE\PrivateAssemblies\ <SYSTEM>
PATHEXT .COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH;.MSC <SYSTEM>
PROCESSOR_ARCHITECTURE AMD64 <SYSTEM>
TEMP %SystemRoot%\TEMP <SYSTEM>
TMP %SystemRoot%\TEMP <SYSTEM>
USERNAME SYSTEM <SYSTEM>
windir %SystemRoot% <SYSTEM>
PSModulePath
%SystemRoot%\system32\WindowsPowerShell\v1.0\Modules\ <SYSTEM>
NUMBER_OF_PROCESSORS 2 <SYSTEM>
PROCESSOR_LEVEL 6 <SYSTEM>
PROCESSOR_IDENTIFIER Intel64 Family 6 Model 44 Stepping 2, GenuineIntel <SYSTEM>
PROCESSOR_REVISION 2c02 <SYSTEM>
lib C:\Program Files\SQLXML 4.0\bin\ <SYSTEM>
TEMP %USERPROFILE%\AppData\Local\Temp NT
AUTHORITY\SYSTEM
TMP %USERPROFILE%\AppData\Local\Temp NT
AUTHORITY\SYSTEM
TEMP %USERPROFILE%\AppData\Local\Temp NT
AUTHORITY\LOCAL SERVICE
TMP %USERPROFILE%\AppData\Local\Temp NT
AUTHORITY\LOCAL SERVICE
TEMP %USERPROFILE%\AppData\Local\Temp NT
AUTHORITY\NETWORK SERVICE
TMP %USERPROFILE%\AppData\Local\Temp NT
AUTHORITY\NETWORK SERVICE
TEMP %USERPROFILE%\AppData\Local\Temp VCL1\Administrator

```



```
TMP      %USERPROFILE%\AppData\Local\Temp
         VCL1\Administrator
TEMP     %USERPROFILE%\AppData\Local\Temp      IIS
APPPOOL\Classic .NET AppPool
TMP      %USERPROFILE%\AppData\Local\Temp      IIS
APPPOOL\Classic .NET AppPool
```

[Print Jobs]

| Document | Size | Owner | Notify | Status |
|-----------|----------------|-------------|--------------|----------|
| | Time Submitted | | Start Time | |
| | Until Time | | Elapsed Time | |
| | Pages Printed | | Job ID | Priority |
| | Parameters | | Driver | Print |
| Processor | Host | Print Queue | Data Type | Name |

[Network Connections]

| Local Name | Remote Name | Type |
|------------|-------------|------|
| Status | User Name | |

[Running Tasks]

| Name | Path | Process ID | Priority | Min |
|--------------|----------------------------------|-------------------------|-------------------|------|
| Working Set | Max Working Set | Start Time | | |
| | Version | Size | File Date | |
| system | idle | process | Not Available | 0 |
| Available | Not Available | Not Available | Not Available | Not |
| Available | Not Available | Not Available | Not Available | Not |
| system | Not Available | 4 | 8 | Not |
| Available | Not Available | 8/26/2010 6:23 PM | Not | Not |
| Available | Not Available | Not Available | Not Available | Not |
| smss.exe | Not Available | 280 | 11 | 200 |
| | 1380 | 8/26/2010 6:23 PM | Not Available | |
| | Not Available | Not Available | Not Available | |
| csrss.exe | c:\windows\system32\csrss.exe | 364 | 13 | |
| | 200 | 1380 | 8/26/2010 6:23 PM | |
| | 6.1.7600.16385 | 7.50 KB (7,680 bytes) | | |
| | 7/13/2009 6:19 PM | | | |
| csrss.exe | c:\windows\system32\csrss.exe | 416 | 13 | |
| | 200 | 1380 | 8/26/2010 6:24 PM | |
| | 6.1.7600.16385 | 7.50 KB (7,680 bytes) | | |
| | 7/13/2009 6:19 PM | | | |
| wininit.exe | c:\windows\system32\wininit.exe | | | |
| | 424 | 13 | 200 | 1380 |
| | 8/26/2010 6:24 PM | 6.1.7600.16385 | | |
| | 126.00 KB (129,024 bytes) | | 7/13/2009 | |
| 6:52 PM | | | | |
| winlogon.exe | c:\windows\system32\winlogon.exe | | | |
| | 456 | 13 | 200 | 1380 |
| | 8/26/2010 6:24 PM | 6.1.7600.16385 | | |
| | 380.00 KB (389,120 bytes) | | 7/13/2009 | |
| 6:52 PM | | | | |
| services.exe | c:\windows\system32\services.exe | | | |
| | 516 | 9 | 200 | 1380 |
| | 8/26/2010 6:24 PM | 6.1.7600.16385 | | |
| | 321.00 KB (328,704 bytes) | | 7/13/2009 | |
| 6:19 PM | | | | |
| lsass.exe | c:\windows\system32\lsass.exe | 524 | 9 | |
| | 200 | 1380 | 8/26/2010 6:24 PM | |
| | 6.1.7600.16385 | 30.50 KB (31,232 bytes) | | |
| | 7/13/2009 6:20 PM | | | |

```
lsms.exe c:\windows\system32\lsms.exe 532 8
         200 1380 8/26/2010 6:24 PM
         6.1.7600.16385 325.50 KB (333,312
bytes) 7/13/2009 7:17 PM
svchost.exe c:\windows\system32\svchost.exe
         628 8 200 1380
         8/26/2010 6:24 PM 6.1.7600.16385
         26.50 KB (27,136 bytes) 7/13/2009
6:31 PM
svchost.exe c:\windows\system32\svchost.exe
         704 8 200 1380
         8/26/2010 6:24 PM 6.1.7600.16385
         26.50 KB (27,136 bytes) 7/13/2009
6:31 PM
svchost.exe c:\windows\system32\svchost.exe
         800 8 200 1380
         8/26/2010 6:24 PM 6.1.7600.16385
         26.50 KB (27,136 bytes) 7/13/2009
6:31 PM
svchost.exe c:\windows\system32\svchost.exe
         844 8 200 1380
         8/26/2010 6:24 PM 6.1.7600.16385
         26.50 KB (27,136 bytes) 7/13/2009
6:31 PM
svchost.exe c:\windows\system32\svchost.exe
         892 8 200 1380
         8/26/2010 6:24 PM 6.1.7600.16385
         26.50 KB (27,136 bytes) 7/13/2009
6:31 PM
svchost.exe c:\windows\system32\svchost.exe
         940 8 200 1380
         8/26/2010 6:24 PM 6.1.7600.16385
         26.50 KB (27,136 bytes) 7/13/2009
6:31 PM
svchost.exe c:\windows\system32\svchost.exe
         980 8 200 1380
         8/26/2010 6:24 PM 6.1.7600.16385
         26.50 KB (27,136 bytes) 7/13/2009
6:31 PM
svchost.exe c:\windows\system32\svchost.exe
         12 8 200 1380
         8/26/2010 6:24 PM 6.1.7600.16385
         26.50 KB (27,136 bytes) 7/13/2009
6:31 PM
spoolsv.exe c:\windows\system32\spoolsv.exe
         1036 8 200 1380
         8/26/2010 6:24 PM 6.1.7600.16385
         545.00 KB (558,080 bytes) 7/13/2009
7:39 PM
vmicsvc.exe c:\windows\system32\vmicsvc.exe
         1104 8 200 1380
         8/26/2010 6:25 PM 6.1.7600.16385
         236.50 KB (242,176 bytes) 7/13/2009
6:43 PM
vmicsvc.exe c:\windows\system32\vmicsvc.exe
         1124 8 200 1380
         8/26/2010 6:25 PM 6.1.7600.16385
         236.50 KB (242,176 bytes) 7/13/2009
6:43 PM
vmicsvc.exe c:\windows\system32\vmicsvc.exe
         1152 8 200 1380
         8/26/2010 6:25 PM 6.1.7600.16385
```

```
236.50 KB (242,176 bytes) 7/13/2009
6:43 PM
vmicsvc.exe c:\windows\system32\vmicsvc.exe
         1176 8 200 1380
         8/26/2010 6:25 PM 6.1.7600.16385
         236.50 KB (242,176 bytes) 7/13/2009
6:43 PM
vmicsvc.exe c:\windows\system32\vmicsvc.exe
         1208 8 200 1380
         8/26/2010 6:25 PM 6.1.7600.16385
         236.50 KB (242,176 bytes) 7/13/2009
6:43 PM
svchost.exe c:\windows\system32\svchost.exe
         1240 8 200 1380
         8/26/2010 6:25 PM 6.1.7600.16385
         26.50 KB (27,136 bytes) 7/13/2009
6:31 PM
inetinfo.exe c:\windows\system32\inetrv\inetinfo.exe
         1268 8 200 1380
         8/26/2010 6:25 PM 7.5.7600.16385
         15.00 KB (15,360 bytes) 7/13/2009
7:27 PM
smsvchost.exe c:\windows\microsoft.net\framework64\v3.0\w
         indows communication foundation\smsvchost.exe
         1368 8 200 1380
         8/26/2010 6:25 PM 3.0.4506.4926
         113.83 KB (116,560 bytes) 7/13/2009
8:01 PM
taskhost.exe c:\windows\system32\taskhost.exe
         1404 8 200 1380
         8/26/2010 6:25 PM 6.1.7600.16385
         67.50 KB (69,120 bytes) 7/13/2009
6:31 PM
dwm.exe c:\windows\system32\dwm.exe 1472 8
         200 1380 8/26/2010 6:25 PM
         6.1.7600.16385 117.50 KB (120,320
bytes) 7/13/2009 6:37 PM
explorer.exe c:\windows\explorer.exe
         1504 8 200 1380
         8/26/2010 6:25 PM 6.1.7600.16385
         2.74 MB (2,868,224 bytes) 7/13/2009
6:56 PM
svchost.exe c:\windows\system32\svchost.exe
         1756 8 200 1380
         8/26/2010 6:25 PM 6.1.7600.16385
         26.50 KB (27,136 bytes) 7/13/2009
6:31 PM
svchost.exe c:\windows\system32\svchost.exe
         1784 8 200 1380
         8/26/2010 6:25 PM 6.1.7600.16385
         26.50 KB (27,136 bytes) 7/13/2009
6:31 PM
svchost.exe c:\windows\system32\svchost.exe
         1752 8 200 1380
         8/26/2010 6:25 PM 6.1.7600.16385
         26.50 KB (27,136 bytes) 7/13/2009
6:31 PM
svchost.exe c:\windows\system32\svchost.exe
         304 8 200 1380
         8/26/2010 6:25 PM 6.1.7600.16385
```

```

26.50 KB (27,136 bytes)      7/13/2009
6:31 PM
csrss.exe c:\windows\system32\csrss.exe 2504 13
200 1380 8/26/2010 6:25 PM
6.1.7600.16385 7.50 KB (7,680 bytes)
7/13/2009 6:19 PM
winlogon.exe c:\windows\system32\winlogon.exe
2528 13 200 1380
8/26/2010 6:25 PM 6.1.7600.16385
380.00 KB (389,120 bytes) 7/13/2009
6:52 PM
logonui.exe c:\windows\system32\logonui.exe
2592 13 200 1380
8/26/2010 6:25 PM 6.1.7600.16385
27.00 KB (27,648 bytes) 7/13/2009
6:52 PM
rdpclip.exe c:\windows\system32\rdpclip.exe
2660 8 200 1380
8/26/2010 6:25 PM 6.1.7600.16385
204.50 KB (209,408 bytes) 7/13/2009
7:17 PM
dllhost.exe c:\windows\system32\dllhost.exe
2964 8 200 1380
8/26/2010 6:26 PM 6.1.7600.16385
9.50 KB (9,728 bytes) 7/13/2009
6:59 PM
msdtc.exe c:\windows\system32\msdtc.exe 3052 8
200 1380 8/26/2010 6:26 PM
2001.12.8530.16385 138.50 KB (141,824
bytes) 7/13/2009 6:59 PM
printisolationhost.exe
c:\windows\system32\printisolationhost.exe
336 8 200 1380
8/27/2010 11:29 AM 6.1.7600.16385
18.50 KB (18,944 bytes) 7/13/2009
7:39 PM
regedit.exe c:\windows\regedit.exe 624
8 200 1380 8/27/2010
11:30 AM 6.1.7600.16385 417.00 KB (427,008
bytes) 7/13/2009 6:27 PM
msinfo32.exe c:\windows\system32\msinfo32.exe
2944 8 200 1380
8/27/2010 11:30 AM 6.1.7600.16385
370.00 KB (378,880 bytes) 7/13/2009
6:31 PM
wmiprvse.exe
c:\windows\system32\wbem\wmiprvse.exe
2472 8 200 1380
8/27/2010 11:30 AM 6.1.7600.16385
360.00 KB (368,640 bytes) 7/13/2009
6:47 PM
wmiprvse.exe
c:\windows\system32\wbem\wmiprvse.exe
1648 8 200 1380
8/27/2010 11:30 AM 6.1.7600.16385
360.00 KB (368,640 bytes) 7/13/2009
6:47 PM
printisolationhost.exe
c:\windows\system32\printisolationhost.exe
2580 8 200 1380
8/27/2010 11:31 AM 6.1.7600.16385
18.50 KB (18,944 bytes) 7/13/2009
7:39 PM

```

[Loaded Modules]

| Name | Version | Size | File Date | Manufacturer | Path |
|------------|------------------|-----------------------------|-------------------|-----------------------|------------------------------------|
| csrss | 6.1.7600.16385 | 7.50 KB (7,680 bytes) | 7/13/2009 6:19 PM | Microsoft Corporation | c:\windows\system32\csrss.exe |
| ntdll | 6.1.7600.16385 | 1.66 MB (1,736,792 bytes) | 7/13/2009 6:22 PM | Microsoft Corporation | c:\windows\system32\ntdll.dll |
| csrsrv | 6.1.7600.16385 | 42.50 KB (43,520 bytes) | 7/13/2009 6:19 PM | Microsoft Corporation | c:\windows\system32\csrsrv.dll |
| basesrv | 6.1.7600.16385 | 51.50 KB (52,736 bytes) | 7/13/2009 6:18 PM | Microsoft Corporation | c:\windows\system32\basesrv.dll |
| winsrv | 6.1.7600.16385 | 209.00 KB (214,016 bytes) | 7/13/2009 6:38 PM | Microsoft Corporation | c:\windows\system32\winsrv.dll |
| user32 | 6.1.7600.16385 | 985.00 KB (1,008,640 bytes) | 7/13/2009 6:38 PM | Microsoft Corporation | c:\windows\system32\user32.dll |
| gdi32 | 6.1.7600.16385 | 395.00 KB (404,480 bytes) | 7/13/2009 6:39 PM | Microsoft Corporation | c:\windows\system32\gdi32.dll |
| kernel32 | 6.1.7600.16385 | 1.11 MB (1,162,240 bytes) | 7/13/2009 6:28 PM | Microsoft Corporation | c:\windows\system32\kernel32.dll |
| kernelbase | 6.1.7600.16385 | 411.50 KB (421,376 bytes) | 7/13/2009 6:20 PM | Microsoft Corporation | c:\windows\system32\kernelbase.dll |
| lpk | 6.1.7600.16385 | 41.00 KB (41,984 bytes) | 7/13/2009 6:38 PM | Microsoft Corporation | c:\windows\system32\lpk.dll |
| usp10 | 1.626.7600.16385 | 782.50 KB (801,280 bytes) | 7/13/2009 6:38 PM | Microsoft Corporation | c:\windows\system32\usp10.dll |
| msvcrt | 7.0.7600.16385 | 620.00 KB (634,880 bytes) | 7/13/2009 6:19 PM | Microsoft Corporation | c:\windows\system32\msvcrt.dll |
| sxsrv | 6.1.7600.16385 | 31.00 KB (31,744 bytes) | 7/13/2009 6:26 PM | Microsoft Corporation | c:\windows\system32\sxsrv.dll |
| sxs | 6.1.7600.16385 | 569.50 KB (583,168 bytes) | 7/13/2009 6:27 PM | Microsoft Corporation | c:\windows\system32\sxs.dll |
| rpcrt4 | 6.1.7600.16385 | 1.17 MB (1,221,632 bytes) | 7/13/2009 6:23 PM | Microsoft Corporation | c:\windows\system32\rpcrt4.dll |
| cryptbase | 6.1.7600.16385 | 43.00 KB (44,032 bytes) | 7/13/2009 6:20 PM | Microsoft Corporation | c:\windows\system32\cryptbase.dll |
| wininit | 6.1.7600.16385 | 126.00 KB (129,024 bytes) | 7/13/2009 6:52 PM | Microsoft Corporation | c:\windows\system32\wininit.exe |
| sechost | 6.1.7600.16385 | 111.00 KB (113,664 bytes) | 7/13/2009 6:20 PM | Microsoft Corporation | c:\windows\system32\sechost.dll |
| profapi | 6.1.7600.16385 | 43.00 KB (44,032 bytes) | 7/13/2009 6:20 PM | Microsoft Corporation | c:\windows\system32\profapi.dll |

```

imm32 6.1.7600.16385 163.50 KB (167,424
bytes) 7/13/2009 6:38 PM Microsoft Corporation
c:\windows\system32\imm32.dll
msctf 6.1.7600.16385 1.02 MB (1,067,008
bytes) 7/13/2009 6:40 PM Microsoft Corporation
c:\windows\system32\msctf.dll
rpcrtremote 6.1.7600.16385 63.50 KB
(65,024 bytes) 7/13/2009 6:59 PM Microsoft
Corporation
c:\windows\system32\rpcrtremote.dll
apphelp 6.1.7600.16385 330.50 KB (338,432
bytes) 7/13/2009 6:21 PM Microsoft Corporation
c:\windows\system32\apphelp.dll
advapi32 6.1.7600.16385 856.50 KB (877,056
bytes) 7/13/2009 7:41 PM Microsoft Corporation
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ws2_32 6.1.7600.16385 289.50 KB (296,448
bytes) 7/13/2009 6:21 PM Microsoft Corporation
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nsi 6.1.7600.16385 13.50 KB (13,824 bytes)
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c:\windows\system32\nsi.dll
msock 6.1.7600.16385 312.50 KB (320,000
bytes) 7/13/2009 6:21 PM Microsoft Corporation
c:\windows\system32\msock.dll
wshtcpip 6.1.7600.16385 13.00 KB (13,312 bytes)
7/13/2009 6:21 PM Microsoft Corporation
c:\windows\system32\wshtcpip.dll
wship6 6.1.7600.16385 13.50 KB (13,824 bytes)
7/13/2009 6:21 PM Microsoft Corporation
c:\windows\system32\wship6.dll
secur32 6.1.7600.16385 27.50 KB (28,160 bytes)
7/13/2009 6:50 PM Microsoft Corporation
c:\windows\system32\secur32.dll
sspicli 6.1.7600.16385 133.00 KB (136,192
bytes) 7/13/2009 6:20 PM Microsoft Corporation
c:\windows\system32\sspicli.dll
credssp 6.1.7600.16385 20.00 KB (20,480 bytes)
7/13/2009 6:50 PM Microsoft Corporation
c:\windows\system32\credssp.dll
winlogon 6.1.7600.16385 380.00 KB (389,120
bytes) 7/13/2009 6:52 PM Microsoft Corporation
c:\windows\system32\winlogon.exe
winsta 6.1.7600.16385 228.00 KB (233,472
bytes) 7/13/2009 7:17 PM Microsoft Corporation
c:\windows\system32\winsta.dll
uxinit 6.1.7600.16385 24.50 KB (25,088 bytes)
7/13/2009 6:54 PM Microsoft Corporation
c:\windows\system32\uxinit.dll
slc 6.1.7600.16385 30.00 KB (30,720 bytes)
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c:\windows\system32\slc.dll
mpr 6.1.7600.16385 79.00 KB (80,896 bytes)
7/13/2009 7:10 PM Microsoft Corporation
c:\windows\system32\mpr.dll
uxtheme 6.1.7600.16385 324.50 KB (332,288
bytes) 7/13/2009 6:55 PM Microsoft Corporation
c:\windows\system32\uxtheme.dll
services 6.1.7600.16385 321.00 KB (328,704
bytes) 7/13/2009 6:19 PM Microsoft Corporation
c:\windows\system32\services.exe

```

scext 6.1.7600.16385 87.00 KB (89,088 bytes)
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 c:\windows\system32\scext.dll
 sceesrv 6.1.7600.16385 396.50 KB (406,016
 bytes) 7/13/2009 6:49 PM Microsoft Corporation
 c:\windows\system32\sceesrv.dll
 srvccli 6.1.7600.16385 124.50 KB (127,488
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 c:\windows\system32\srvccli.dll
 authz 6.1.7600.16385 173.50 KB (177,664
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 c:\windows\system32\authz.dll
 ubpm 6.1.7600.16385 209.00 KB (214,016
 bytes) 7/13/2009 6:31 PM Microsoft Corporation
 c:\windows\system32\ubpm.dll
 wtsapi32 6.1.7600.16385 53.00 KB (54,272 bytes)
 7/13/2009 7:17 PM Microsoft Corporation
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 lsass 6.1.7600.16385 30.50 KB (31,232 bytes)
 7/13/2009 6:20 PM Microsoft Corporation
 c:\windows\system32\lsass.exe
 sspisrv 6.1.7600.16385 28.00 KB (28,672 bytes)
 7/13/2009 6:20 PM Microsoft Corporation
 c:\windows\system32\sspisrv.dll
 lsasrv 6.1.7600.16385 1.38 MB (1,446,912
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 samsv 6.1.7600.16385 740.00 KB (757,760
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 c:\windows\system32\samsrv.dll
 cryptdll 6.1.7600.16385 64.50 KB (66,048 bytes)
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 msasn1 6.1.7600.16385 43.00 KB (44,032 bytes)
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 c:\windows\system32\wevtapi.dll
 cngaudit 6.1.7600.16385 18.50 KB (18,944 bytes)
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 ncrypt 6.1.7600.16385 300.00 KB (307,200
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 bcrypt 6.1.7600.16385 121.00 KB (123,904
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 msprvs 6.1.7600.16385 2.00 KB (2,048 bytes)
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 netjoin 6.1.7600.16385 184.50 KB (188,928
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 negoexts 6.1.7600.16385 114.50 KB (117,248
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 kerberos 6.1.7600.16385 697.50 KB (714,240
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 cryptsp 6.1.7600.16385 78.00 KB (79,872 bytes)
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 c:\windows\system32\cryptsp.dll

msvl_0 6.1.7600.16385 304.00 KB (311,296
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 netlogon 6.1.7600.16385 676.50 KB (692,736
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 c:\windows\system32\netlogon.dll
 dnsapi 6.1.7600.16385 348.00 KB (356,352
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 c:\windows\system32\dnsapi.dll
 logoncli 6.1.7600.16385 182.00 KB (186,368
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 schannel 6.1.7600.16385 340.50 KB (348,672
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 crypt32 6.1.7600.16385 1.39 MB (1,454,592
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 rsaenh 6.1.7600.16385 274.66 KB (281,256
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 tspkg 6.1.7600.16385 84.00 KB (86,016 bytes)
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 c:\windows\system32\tspkg.dll
 pku2u 6.1.7600.16385 235.00 KB (240,640
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 bcryptprimitives 6.1.7600.16385 291.32 KB
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 c:\windows\system32\bcryptprimitives.dll
 efslsaext 6.1.7600.16385 55.50 KB (56,832 bytes)
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 scecli 6.1.7600.16385 227.00 KB (232,448
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 rassfm 6.1.7600.16385 28.50 KB (29,184 bytes)
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 iphlpapi 6.1.7600.16385 142.50 KB (145,920
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 winnsi 6.1.7600.16385 25.50 KB (26,112 bytes)
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 netutils 6.1.7600.16385 28.00 KB (28,672 bytes)
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 userenv 6.1.7600.16385 104.50 KB (107,008
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 samcli 6.1.7600.16385 65.50 KB (67,072 bytes)
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 samlib 6.1.7600.16385 104.50 KB (107,008
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 gpapi 6.1.7600.16385 94.50 KB (96,768 bytes)
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 c:\windows\system32\gpapi.dll
 cryptnet 6.1.7600.16385 135.50 KB (138,752
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 wldap32 6.1.7600.16385 304.50 KB (311,808
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 certpoleng 6.1.7600.16385 70.00 KB
 (71,680 bytes) 7/13/2009 6:52 PM Microsoft
 Corporation
 c:\windows\system32\certpoleng.dll
 lsm 6.1.7600.16385 325.50 KB (333,312
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 c:\windows\system32\lsm.exe
 sysntfy 6.1.7600.16385 22.50 KB (23,040 bytes)
 7/13/2009 6:52 PM Microsoft Corporation
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 wmsgapi 6.1.7600.16385 14.50 KB (14,848 bytes)
 7/13/2009 6:52 PM Microsoft Corporation
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 pcwum 6.1.7600.16385 36.00 KB (36,864 bytes)
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 c:\windows\system32\pcwum.dll
 ole32 6.1.7600.16385 1.99 MB (2,084,352
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 c:\windows\system32\ole32.dll
 ntmarta 6.1.7600.16385 158.50 KB (162,304
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 clbcatq 2001.12.8530.16385 593.50 KB (607,744
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 oleaut32 6.1.7600.16385 841.00 KB (861,184
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 lsmproxy 6.1.7600.16385 47.50 KB (48,640 bytes)
 7/13/2009 7:17 PM Microsoft Corporation
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 svchost 6.1.7600.16385 26.50 KB (27,136 bytes)
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 umpnmgm 6.1.7600.16385 395.00 KB (404,480
 bytes) 7/13/2009 6:27 PM Microsoft Corporation
 c:\windows\system32\umpnmgm.dll
 spinf 6.1.7600.16385 103.00 KB (105,472
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 devrtl 6.1.7600.16385 57.00 KB (58,368 bytes)
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 c:\windows\system32\devrtl.dll
 umpo 6.1.7600.16385 160.00 KB (163,840
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 setupapi 6.1.7600.16385 1.81 MB (1,899,520
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 devobj 6.1.7600.16385 91.00 KB (93,184 bytes) 7/13/2009 6:26 PM Microsoft Corporation c:\windows\system32\devobj.dll
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 wmidcprv 6.1.7600.16385 187.00 KB (191,488 bytes) 7/13/2009 6:47 PM Microsoft Corporation c:\windows\system32\wbem\wmidcprv.dll
 fastprox 6.1.7600.16385 888.00 KB (909,312 bytes) 7/13/2009 6:47 PM Microsoft Corporation c:\windows\system32\wbem\fastprox.dll
 wbemcomn 6.1.7600.16385 517.50 KB (529,920 bytes) 7/13/2009 6:47 PM Microsoft Corporation c:\windows\system32\wbemcomn.dll
 ntdsapi 6.1.7600.16385 148.50 KB (152,064 bytes) 7/13/2009 6:54 PM Microsoft Corporation c:\windows\system32\ntdsapi.dll
 wbemprox 6.1.7600.16385 42.50 KB (43,520 bytes) 7/13/2009 6:46 PM Microsoft Corporation c:\windows\system32\wbem\wbemprox.dll
 wbemsvc 6.1.7600.16385 63.00 KB (64,512 bytes) 7/13/2009 6:46 PM Microsoft Corporation c:\windows\system32\wbem\wbemsvc.dll
 wmiutils 6.1.7600.16385 134.00 KB (137,216 bytes) 7/13/2009 6:47 PM Microsoft Corporation c:\windows\system32\wbem\wmiutils.dll
 wintrust 6.1.7600.16385 215.00 KB (220,160 bytes) 7/13/2009 6:49 PM Microsoft Corporation c:\windows\system32\wintrust.dll
 rpcepmap 6.1.7600.16385 65.50 KB (67,072 bytes) 7/13/2009 6:21 PM Microsoft Corporation c:\windows\system32\rpcepmap.dll
 firewallapi 6.1.7600.16385 730.50 KB (748,032 bytes) 7/13/2009 7:08 PM Microsoft Corporation c:\windows\system32\firewallapi.dll
 version 6.1.7600.16385 28.50 KB (29,184 bytes) 7/13/2009 6:57 PM Microsoft Corporation c:\windows\system32\version.dll
 fwpuclnt 6.1.7600.16385 316.50 KB (324,096 bytes) 7/13/2009 7:09 PM Microsoft Corporation c:\windows\system32\fwpuclnt.dll
 wevtsvc 6.1.7600.16385 1.57 MB (1,646,080 bytes) 7/13/2009 6:49 PM Microsoft Corporation c:\windows\system32\wevtsvc.dll
 lmhsvc 6.1.7600.16385 23.00 KB (23,552 bytes) 7/13/2009 7:09 PM Microsoft Corporation c:\windows\system32\lmhsvc.dll
 nrpsrv 6.1.7600.16385 14.50 KB (14,848 bytes) 7/13/2009 7:09 PM Microsoft Corporation c:\windows\system32\nrpsrv.dll
 dhcpcore 6.1.7600.16385 307.00 KB (314,368 bytes) 7/13/2009 6:21 PM Microsoft Corporation c:\windows\system32\dhcpcore.dll
 dhcpcore6 6.1.7600.16385 219.00 KB (224,256 bytes) 7/13/2009 6:21 PM Microsoft Corporation c:\windows\system32\dhcpcore6.dll

gpssvc 6.1.7600.16385 758.00 KB (776,192 bytes) 7/13/2009 6:54 PM Microsoft Corporation c:\windows\system32\gpssvc.dll
 nlaapi 6.1.7600.16385 68.50 KB (70,144 bytes) 7/13/2009 7:09 PM Microsoft Corporation c:\windows\system32\nlaapi.dll
 profsvc 6.1.7600.16385 203.50 KB (208,384 bytes) 7/13/2009 6:50 PM Microsoft Corporation c:\windows\system32\profsvc.dll
 shlwapi 6.1.7600.16385 439.00 KB (449,536 bytes) 7/13/2009 6:55 PM Microsoft Corporation c:\windows\system32\shlwapi.dll
 atl 3.5.2284.0 88.50 KB (90,624 bytes) 7/13/2009 7:34 PM Microsoft Corporation c:\windows\system32\atl.dll
 dsrole 6.1.7600.16385 32.00 KB (32,768 bytes) 7/13/2009 6:50 PM Microsoft Corporation c:\windows\system32\dsrole.dll
 sens 6.1.7600.16385 63.00 KB (64,512 bytes) 7/13/2009 6:34 PM Microsoft Corporation c:\windows\system32\sens.dll
 shsvcs 6.1.7600.16385 361.00 KB (369,664 bytes) 7/13/2009 6:55 PM Microsoft Corporation c:\windows\system32\shsvcs.dll
 schedsvc 6.1.7600.16385 1.05 MB (1,104,384 bytes) 7/13/2009 6:47 PM Microsoft Corporation c:\windows\system32\schedsvc.dll
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 netapi32 6.1.7600.16385 71.00 KB (72,704 bytes) 7/13/2009 6:53 PM Microsoft Corporation c:\windows\system32\netapi32.dll
 wkscli 6.1.7600.16385 70.00 KB (71,680 bytes) 7/13/2009 6:53 PM Microsoft Corporation c:\windows\system32\wkscli.dll
 ktmw32 6.1.7600.16385 22.50 KB (23,040 bytes) 7/13/2009 6:19 PM Microsoft Corporation c:\windows\system32\ktmw32.dll
 xmllite 1.3.1000.0 195.00 KB (199,680 bytes) 7/13/2009 7:41 PM Microsoft Corporation c:\windows\system32\xmllite.dll
 taskcomp 6.1.7600.16385 462.50 KB (473,600 bytes) 7/13/2009 6:47 PM Microsoft Corporation c:\windows\system32\taskcomp.dll
 comctl32 6.10.7600.16385 1.94 MB (2,030,080 bytes) 7/13/2009 6:56 PM Microsoft Corporation c:\windows\winsxs\amd64_microsoft.windows.c
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 propsys 7.0.7600.16385 1.16 MB (1,212,416 bytes) 7/13/2009 6:56 PM Microsoft Corporation c:\windows\system32\propsys.dll
 ikeext 6.1.7600.16385 826.00 KB (845,824 bytes) 7/13/2009 7:10 PM Microsoft Corporation c:\windows\system32\ikeext.dll
 dhcpcsvc6 6.1.7600.16385 53.00 KB (54,272 bytes) 7/13/2009 6:21 PM Microsoft Corporation c:\windows\system32\dhcpcsvc6.dll
 dhcpcsvc 6.1.7600.16385 85.00 KB (87,040 bytes) 7/13/2009 6:21 PM Microsoft Corporation c:\windows\system32\dhcpcsvc.dll

wmisvc 6.1.7600.16385 237.00 KB (242,688 bytes) 7/13/2009 6:47 PM Microsoft Corporation c:\windows\system32\wmisvc.dll
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 browser 6.1.7600.16385 133.00 KB (136,192 bytes) 7/13/2009 6:53 PM Microsoft Corporation c:\windows\system32\browser.dll
 iphlpsvc 6.1.7600.16385 552.50 KB (565,760 bytes) 7/13/2009 7:09 PM Microsoft Corporation c:\windows\system32\iphlpvc.dll
 rtutils 6.1.7600.16385 50.50 KB (51,712 bytes) 7/13/2009 7:09 PM Microsoft Corporation c:\windows\system32\rtutils.dll
 sqmapi 6.1.7600.16385 229.50 KB (235,008 bytes) 7/13/2009 6:40 PM Microsoft Corporation c:\windows\system32\sqmapi.dll
 wdscore 6.1.7600.16385 265.00 KB (271,360 bytes) 7/13/2009 6:28 PM Microsoft Corporation c:\windows\system32\wdscore.dll
 sscore 6.1.7600.16385 13.00 KB (13,312 bytes) 7/13/2009 6:53 PM Microsoft Corporation c:\windows\system32\sscore.dll
 clusapi 6.1.7600.16385 307.00 KB (314,368 bytes) 7/13/2009 6:34 PM Microsoft Corporation c:\windows\system32\clusapi.dll
 resutils 6.1.7600.16385 84.00 KB (86,016 bytes) 7/13/2009 6:34 PM Microsoft Corporation c:\windows\system32\resutils.dll
 vssapi 6.1.7600.16385 1.66 MB (1,745,408 bytes) 7/13/2009 6:38 PM Microsoft Corporation c:\windows\system32\vssapi.dll
 vsstrace 6.1.7600.16385 75.00 KB (76,800 bytes) 7/13/2009 6:36 PM Microsoft Corporation c:\windows\system32\vsstrace.dll
 netprofm 6.1.7600.16385 449.00 KB (459,776 bytes) 7/13/2009 7:12 PM Microsoft Corporation c:\windows\system32\netprofm.dll
 nci 6.1.7600.16385 87.50 KB (89,600 bytes) 7/13/2009 7:09 PM Microsoft Corporation c:\windows\system32\nci.dll
 rasadhlp 6.1.7600.16385 16.00 KB (16,384 bytes) 7/13/2009 7:10 PM Microsoft Corporation c:\windows\system32\rasadhlp.dll
 wbemcore 6.1.7600.16385 1.16 MB (1,220,096 bytes) 7/13/2009 6:48 PM Microsoft Corporation c:\windows\system32\wbem\wbemcore.dll
 esscli 6.1.7600.16385 430.00 KB (440,320 bytes) 7/13/2009 6:47 PM Microsoft Corporation c:\windows\system32\wbem\esscli.dll
 repdrvfs 6.1.7600.16385 441.00 KB (451,584 bytes) 7/13/2009 6:47 PM Microsoft Corporation c:\windows\system32\wbem\repdrvfs.dll
 wmiiprsvd 6.1.7600.16385 732.50 KB (750,080 bytes) 7/13/2009 6:48 PM Microsoft Corporation c:\windows\system32\wbem\wmiiprsvd.dll
 ncobjapi 6.1.7600.16385 67.50 KB (69,120 bytes) 7/13/2009 6:47 PM Microsoft Corporation c:\windows\system32\ncobjapi.dll
 wbemess 6.1.7600.16385 494.00 KB (505,856 bytes) 7/13/2009 6:47 PM Microsoft Corporation c:\windows\system32\wbem\wbemess.dll

ncprov 6.1.7600.16385 76.50 KB (78,336 bytes)
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npmproxy 6.1.7600.16385 31.00 KB (31,744 bytes)
7/13/2009 7:12 PM Microsoft Corporation
c:\windows\system32\npmproxy.dll
certprop 6.1.7600.16385 78.50 KB (80,384 bytes)
7/13/2009 6:50 PM Microsoft Corporation
c:\windows\system32\certprop.dll
winscard 6.1.7600.16385 212.50 KB (217,600
bytes) 7/13/2009 6:50 PM Microsoft Corporation
c:\windows\system32\winscard.dll
sessenv 6.1.7600.16385 102.50 KB (104,960
bytes) 7/13/2009 7:17 PM Microsoft Corporation
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wuaueng 7.3.7600.16385 2.31 MB (2,418,176
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winhttp 6.1.7600.16385 428.50 KB (438,784
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webio 6.1.7600.16385 385.50 KB (394,752
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cabinet 6.1.7600.16385 92.00 KB (94,208 bytes)
7/13/2009 6:21 PM Microsoft Corporation
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mspatcha 6.1.7600.16385 45.50 KB (46,592 bytes)
7/13/2009 6:21 PM Microsoft Corporation
c:\windows\system32\mspatcha.dll
psapi 6.1.7600.16385 9.00 KB (9,216 bytes)
7/13/2009 6:26 PM Microsoft Corporation
c:\windows\system32\psapi.dll
wer 6.1.7600.16385 473.00 KB (484,352
bytes) 7/13/2009 6:41 PM Microsoft Corporation
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es 2001.12.8530.16385 393.50 KB (402,944
bytes) 7/13/2009 7:00 PM Microsoft Corporation
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aelupsvc 6.1.7600.16385 70.50 KB (72,192 bytes)
7/13/2009 6:21 PM Microsoft Corporation
c:\windows\system32\aelupsvc.dll
nsisvc 6.1.7600.16385 25.00 KB (25,600 bytes)
7/13/2009 6:21 PM Microsoft Corporation
c:\windows\system32\nsisvc.dll
uxsms 6.1.7600.16385 38.00 KB (38,912 bytes)
7/13/2009 6:37 PM Microsoft Corporation
c:\windows\system32\uxsms.dll
trkwks 6.1.7600.16385 117.00 KB (119,808
bytes) 7/13/2009 6:59 PM Microsoft Corporation
c:\windows\system32\trkwks.dll
netman 6.1.7600.16385 352.00 KB (360,448
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c:\windows\system32\netman.dll
netshell 6.1.7600.16385 2.53 MB (2,651,136
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c:\windows\system32\netshell.dll

rasdlg 6.1.7600.16385 840.50 KB (860,672
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c:\windows\system32\rasdlg.dll
mprapi 6.1.7600.16385 215.50 KB (220,672
bytes) 7/13/2009 7:10 PM Microsoft Corporation
c:\windows\system32\mprapi.dll
rasapi32 6.1.7600.16385 375.50 KB (384,512
bytes) 7/13/2009 7:10 PM Microsoft Corporation
c:\windows\system32\rasapi32.dll
rasman 6.1.7600.16385 98.00 KB (100,352
bytes) 7/13/2009 7:10 PM Microsoft Corporation
c:\windows\system32\rasman.dll
netcfgx 6.1.7600.16385 505.00 KB (517,120
bytes) 7/13/2009 7:08 PM Microsoft Corporation
c:\windows\system32\netcfgx.dll
hnetcfg 6.1.7600.16385 414.50 KB (424,448
bytes) 7/13/2009 7:08 PM Microsoft Corporation
c:\windows\system32\hnetcfg.dll
umrdp 6.1.7600.16385 190.50 KB (195,072
bytes) 7/13/2009 7:18 PM Microsoft Corporation
c:\windows\system32\umrdp.dll
umb 6.1.7600.16385 58.50 KB (59,904 bytes)
7/13/2009 6:35 PM Microsoft Corporation
c:\windows\system32\umb.dll
printui 6.1.7600.16385 1.00 MB (1,049,600
bytes) 7/13/2009 7:40 PM Microsoft Corporation
c:\windows\system32\printui.dll
puiapi 6.1.7600.16385 190.00 KB (194,560
bytes) 7/13/2009 7:40 PM Microsoft Corporation
c:\windows\system32\puiapi.dll
dnssrslvr 6.1.7600.16385 178.00 KB (182,272
bytes) 7/13/2009 6:21 PM Microsoft Corporation
c:\windows\system32\dnssrslvr.dll
dnsexec 6.1.7600.16385 8.00 KB (8,192 bytes)
7/13/2009 7:12 PM Microsoft Corporation
c:\windows\system32\dnsexec.dll
wkssvc 6.1.7600.16385 116.00 KB (118,784
bytes) 7/13/2009 6:53 PM Microsoft Corporation
c:\windows\system32\wkssvc.dll
cryptsvc 6.1.7600.16385 171.00 KB (175,104
bytes) 7/13/2009 6:49 PM Microsoft Corporation
c:\windows\system32\cryptsvc.dll
nlasvc 6.1.7600.16385 295.00 KB (302,080
bytes) 7/13/2009 7:09 PM Microsoft Corporation
c:\windows\system32\nlasvc.dll
ncsi 6.1.7600.16385 204.50 KB (209,408
bytes) 7/13/2009 7:08 PM Microsoft Corporation
c:\windows\system32\ncsi.dll
ssdpapi 6.1.7600.16385 50.00 KB (51,200 bytes)
7/13/2009 7:10 PM Microsoft Corporation
c:\windows\system32\ssdpapi.dll
wsmsvc 6.1.7600.16385 1.93 MB (2,018,816
bytes) 7/13/2009 6:49 PM Microsoft Corporation
c:\windows\system32\wsmsvc.dll
httpapi 6.1.7600.16385 44.00 KB (45,056 bytes)
7/13/2009 6:21 PM Microsoft Corporation
c:\windows\system32\httpapi.dll
wevtfd 6.1.7600.16385 114.00 KB (116,736
bytes) 7/13/2009 6:46 PM Microsoft Corporation
c:\windows\system32\wevtfd.dll
bfe 6.1.7600.16385 687.00 KB (703,488
bytes) 7/13/2009 7:09 PM Microsoft Corporation
c:\windows\system32\bfe.dll

mpssvc 6.1.7600.16385 805.50 KB (824,832
bytes) 7/13/2009 7:09 PM Microsoft Corporation
c:\windows\system32\mpssvc.dll
wfpapi 6.1.7600.16385 22.00 KB (22,528 bytes)
7/13/2009 7:08 PM Microsoft Corporation
c:\windows\system32\wfpapi.dll
dps 6.1.7600.16385 159.00 KB (162,816
bytes) 7/13/2009 6:31 PM Microsoft Corporation
c:\windows\system32\dps.dll
taskschd 6.1.7600.16385 1.11 MB (1,168,896
bytes) 7/13/2009 6:47 PM Microsoft Corporation
c:\windows\system32\taskschd.dll
wdi 6.1.7600.16385 88.50 KB (90,624 bytes)
7/13/2009 6:31 PM Microsoft Corporation
c:\windows\system32\wdi.dll
radardt 6.1.7600.16385 95.50 KB (97,792 bytes)
7/13/2009 6:32 PM Microsoft Corporation
c:\windows\system32\radardt.dll
wdiasqmmodule 6.1.7600.16385 35.00 KB
(35,840 bytes) 7/13/2009 6:40 PM Microsoft
Corporation
c:\windows\system32\wdiasqmmodule.dll
spoolsv 6.1.7600.16385 545.00 KB (558,080
bytes) 7/13/2009 7:39 PM Microsoft Corporation
c:\windows\system32\spoolsv.exe
powrprof 6.1.7600.16385 163.50 KB (167,424
bytes) 7/13/2009 6:27 PM Microsoft Corporation
c:\windows\system32\powrprof.dll
localspl 6.1.7600.16385 932.50 KB (954,880
bytes) 7/13/2009 7:40 PM Microsoft Corporation
c:\windows\system32\localspl.dll
spoolss 6.1.7600.16385 56.50 KB (57,856 bytes)
7/13/2009 7:39 PM Microsoft Corporation
c:\windows\system32\spoolss.dll
printisolationproxy 6.1.7600.16385 47.00 KB
(48,128 bytes) 7/13/2009 7:39 PM Microsoft
Corporation
c:\windows\system32\printisolationproxy.dll
tcpmon 6.1.7600.16385 190.50 KB (195,072
bytes) 7/13/2009 7:39 PM Microsoft Corporation
c:\windows\system32\tcpmon.dll
snmpapi 6.1.7600.16385 27.00 KB (27,648 bytes)
7/13/2009 7:10 PM Microsoft Corporation
c:\windows\system32\snmpapi.dll
wsnmp32 6.1.7600.16385 65.50 KB (67,072 bytes)
7/13/2009 7:10 PM Microsoft Corporation
c:\windows\system32\wsnmp32.dll
msxml6 6.30.7600.16385 1.91 MB (1,999,360
bytes) 7/13/2009 7:43 PM Microsoft Corporation
c:\windows\system32\msxml6.dll
usbmon 6.1.7600.16385 44.00 KB (45,056 bytes)
7/13/2009 7:39 PM Microsoft Corporation
c:\windows\system32\usbmon.dll
wls0wndh 6.1.7600.16385 10.50 KB (10,752 bytes)
7/13/2009 6:52 PM Microsoft Corporation
c:\windows\system32\wls0wndh.dll
wsdmon 6.1.7600.16385 219.50 KB (224,768
bytes) 7/13/2009 7:39 PM Microsoft Corporation
c:\windows\system32\wsdmon.dll
wsdapi 6.1.7600.16385 571.50 KB (585,216
bytes) 7/13/2009 6:36 PM Microsoft Corporation
c:\windows\system32\wsdapi.dll

```

webservicess 6.1.7600.16385 1.11 MB
(1,159,168 bytes) 7/13/2009 7:01 PM Microsoft
Corporation
c:\windows\system32\webservicess.dll
fundisc 6.1.7600.16385 190.00 KB (194,560
bytes) 7/13/2009 6:35 PM Microsoft Corporation
c:\windows\system32\fundisc.dll
fdpnp 6.1.7600.16385 50.00 KB (51,200 bytes)
7/13/2009 6:35 PM Microsoft Corporation
c:\windows\system32\fdpnp.dll
winprint 6.1.7600.16385 38.50 KB (39,424 bytes)
7/13/2009 7:39 PM Microsoft Corporation
c:\windows\system32\spool\prtprocs\x64\winp
rint.dll
win32spl 6.1.7600.16385 728.50 KB (745,984
bytes) 7/13/2009 7:40 PM Microsoft Corporation
c:\windows\system32\win32spl.dll
cscapi 6.1.7600.16385 45.00 KB (46,080 bytes)
7/13/2009 6:24 PM Microsoft Corporation
c:\windows\system32\cscapi.dll
spfileq 6.1.7600.16385 95.50 KB (97,792 bytes)
7/13/2009 6:26 PM Microsoft Corporation
c:\windows\system32\spfileq.dll
hpzppwn7 0.3.7071.0 99.00 KB (101,376
bytes) 8/27/2010 11:29 AM Hewlett-Packard
Corporation
c:\windows\system32\spool\prtprocs\x64\hpzp
pwn7.dll
sfc 6.1.7600.16385 3.00 KB (3,072 bytes)
7/13/2009 6:25 PM Microsoft Corporation
c:\windows\system32\sfc.dll
sfc_os 6.1.7600.16385 44.00 KB (45,056 bytes)
7/13/2009 6:26 PM Microsoft Corporation
c:\windows\system32\sfc_os.dll
mscms 6.1.7600.16385 611.00 KB (625,664
bytes) 7/13/2009 6:39 PM Microsoft Corporation
c:\windows\system32\mscms.dll
icm32 6.1.7600.16385 245.00 KB (250,880
bytes) 7/13/2009 6:38 PM Microsoft Corporation
c:\windows\system32\icm32.dll
unidrvvui 0.3.7600.16385 863.50 KB (884,224
bytes) 7/13/2009 8:18 PM Microsoft Corporation
c:\windows\system32\spool\drivers\x64\3\uni
drvui.dll
mxdwdui 0.3.7600.16385 215.50 KB (220,672
bytes) 7/13/2009 8:19 PM Microsoft Corporation
c:\windows\system32\spool\drivers\x64\3\mxd
wdui.dll
fxsui 6.1.7600.16385 156.50 KB (160,256
bytes) 7/13/2009 7:36 PM Microsoft Corporation
c:\windows\system32\spool\drivers\x64\3\fxs
ui.dll
fxswzrd 6.1.7600.16385 153.00 KB (156,672
bytes) 7/13/2009 7:36 PM Microsoft Corporation
c:\windows\system32\spool\drivers\x64\3\fxs
wzrd.dll
tapi32 6.1.7600.16385 243.00 KB (248,832
bytes) 7/13/2009 7:41 PM Microsoft Corporation
c:\windows\system32\tapi32.dll
fxstiff 6.1.7600.16385 424.00 KB (434,176
bytes) 7/13/2009 7:35 PM Microsoft Corporation
c:\windows\system32\spool\drivers\x64\3\fxs
tiff.dll

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```

fxsres 6.1.7600.16385 6.26 MB (6,565,888
bytes) 7/13/2009 8:19 PM Microsoft Corporation
c:\windows\system32\spool\drivers\x64\3\fxs
res.dll
fxsapi 6.1.7600.16385 608.50 KB (623,104
bytes) 7/13/2009 7:35 PM Microsoft Corporation
c:\windows\system32\spool\drivers\x64\3\fxs
api.dll
fxsdrv 0.3.7600.16385 371.00 KB (379,904
bytes) 7/13/2009 7:36 PM Microsoft Corporation
c:\windows\system32\spool\drivers\x64\3\fxs
drv.dll
vmicsvc 6.1.7600.16385 236.50 KB (242,176
bytes) 7/13/2009 6:43 PM Microsoft Corporation
c:\windows\system32\vmicsvc.exe
activeds 6.1.7600.16385 261.50 KB (267,776
bytes) 7/13/2009 6:53 PM Microsoft Corporation
c:\windows\system32\activeds.dll
adslrpc 6.1.7600.16385 231.00 KB (236,544
bytes) 7/13/2009 6:53 PM Microsoft Corporation
c:\windows\system32\adslrpc.dll
vmbuspipe 6.1.7600.16385 15.00 KB (15,360 bytes)
7/13/2009 6:42 PM Microsoft Corporation
c:\windows\system32\vmbuspipe.dll
apphostsvc 7.5.7600.16385 64.00 KB
(65,536 bytes) 7/13/2009 7:27 PM Microsoft
Corporation
c:\windows\system32\inetsrv\apphostsvc.dll
iisutil 7.5.7600.16385 274.50 KB (281,088
bytes) 7/13/2009 7:27 PM Microsoft Corporation
c:\windows\system32\inetsrv\iisutil.dll
nativerd 7.5.7600.16385 458.50 KB (469,504
bytes) 7/13/2009 7:27 PM Microsoft Corporation
c:\windows\system32\inetsrv\nativerd.dll
iisres 7.5.7600.16385 215.00 KB (220,160
bytes) 7/13/2009 7:26 PM Microsoft Corporation
c:\windows\system32\inetsrv\iisres.dll
mlang 6.1.7600.16385 221.50 KB (226,816
bytes) 7/13/2009 6:55 PM Microsoft Corporation
c:\windows\system32\mlang.dll
inetinfo 7.5.7600.16385 15.00 KB (15,360 bytes)
7/13/2009 7:27 PM Microsoft Corporation
c:\windows\system32\inetsrv\inetinfo.exe
rpcrref 7.5.7600.16385 9.00 KB (9,216 bytes)
7/13/2009 7:26 PM Microsoft Corporation
c:\windows\system32\inetsrv\rpcrref.dll
iisrtl 7.5.7600.16385 187.00 KB (191,488
bytes) 7/13/2009 7:26 PM Microsoft Corporation
c:\windows\system32\iisrtl.dll
iisadmin 7.5.7600.16385 23.50 KB (24,064 bytes)
7/13/2009 7:26 PM Microsoft Corporation
c:\windows\system32\inetsrv\iisadmin.dll
coadmin 7.5.7600.16385 81.50 KB (83,456 bytes)
7/13/2009 7:26 PM Microsoft Corporation
c:\windows\system32\inetsrv\coadmin.dll
admwprox 7.5.7600.16385 54.00 KB (55,296 bytes)
7/13/2009 7:26 PM Microsoft Corporation
c:\windows\system32\admwprox.dll

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iisfcg 7.5.7600.16385 1.01 MB (1,057,792
bytes) 7/13/2009 7:26 PM Microsoft Corporation
c:\windows\system32\inetsrv\iisfcg.dll
abocomp 7.5.7600.16385 215.00 KB (220,160
bytes) 7/13/2009 7:27 PM Microsoft Corporation
c:\windows\system32\inetsrv\abocomp.dll
wsoc32 6.1.7600.16385 18.00 KB (18,432 bytes)
7/13/2009 7:10 PM Microsoft Corporation
c:\windows\system32\wsoc32.dll
metadata 7.5.7600.16385 277.00 KB (283,648
bytes) 7/13/2009 7:26 PM Microsoft Corporation
c:\windows\system32\inetsrv\metadata.dll
msxml3 8.110.7600.16385 1.79 MB (1,876,992
bytes) 7/13/2009 7:42 PM Microsoft Corporation
c:\windows\system32\msxml3.dll
svcxext 7.5.7600.16385 16.50 KB (16,896 bytes)
7/13/2009 7:26 PM Microsoft Corporation
c:\windows\system32\inetsrv\svcxext.dll
wamreg 7.5.7600.16385 36.50 KB (37,376 bytes)
7/13/2009 7:26 PM Microsoft Corporation
c:\windows\system32\inetsrv\wamreg.dll
smsvchost 3.0.4506.4926 113.83 KB (116,560
bytes) 7/13/2009 8:01 PM Microsoft Corporation
c:\windows\microsoft.net\framework64\v3.0\w
indows communication foundation\smsvchost.exe
mscoree 2.0.50727.4927 393.81 KB (403,264
bytes) 7/13/2009 3:37 PM Microsoft Corporation
c:\windows\system32\mscoree.dll
mscorwks 2.0.50727.4927 9.59 MB (10,059,072
bytes) 7/13/2009 3:37 PM Microsoft Corporation
c:\windows\microsoft.net\framework64\v2.0.5
0727\mscorwks.dll
msvcr80 8.0.50727.4927 783.81 KB (802,624
bytes) 7/13/2009 3:37 PM Microsoft Corporation
c:\windows\winsxs\amd64_microsoft.vc80.crt_
1fc8b3b9a1e18e3b_8.0.50727.4927_none_88dce9872fb18caf
\msvcr80.dll
mscorlib.ni 2.0.50727.4927 14.85 MB
(15,566,848 bytes) 7/14/2009 12:08 AM Microsoft
Corporation
c:\windows\assembly\nativeimages_v2.0.50727
_64\mscorlib\9a017aa8d51322f18a40f414fa35872d\mscorli
b.ni.dll
mscorjit 2.0.50727.4927 1.50 MB (1,576,768
bytes) 7/13/2009 3:37 PM Microsoft Corporation
c:\windows\microsoft.net\framework64\v2.0.5
0727\mscorjit.dll
System.ni 2.0.50727.4927 10.11 MB (10,597,376
bytes) 7/14/2009 12:08 AM Microsoft Corporation
c:\windows\assembly\nativeimages_v2.0.50727
_64\system\247913fa7ae6fc04ea33d28d24ab611\system.ni
.dll
System.ServiceProcess.ni 2.0.50727.4927
288.50 KB (295,424 bytes) 7/14/2009
Microsoft Corporation
c:\windows\assembly\nativeimages_v2.0.50727
_64\system.serviceproces#\cdbb9ec9236094dc4ee8550f1102
6618\system.serviceprocess.ni.dll
System.ServiceModel.ni 3.0.4506.4926
22.71 MB (23,812,096 bytes) 6/11/2010
4:37 PM Microsoft Corporation
c:\windows\assembly\nativeimages_v2.0.50727

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_64\system.servicemodel\0270a4b611f4102a46c03a3703a19
871\system.servicemodel.ni.dll
SMDiagnostics.ni 3.0.4506.4926 341.00 KB
(349,184 bytes) 6/10/2010 3:46 PM Microsoft
Corporation
c:\windows\assembly\nativeimages_v2.0.50727
_64\smdiagnosics\9582e0909da23bef64014e4eacd0c8d8\sm
diagnostics.ni.dll
System.Configuration.ni 2.0.50727.4927
1.25 MB (1,308,160 bytes) 7/14/2009
12:08 AM Microsoft Corporation
c:\windows\assembly\nativeimages_v2.0.50727
_64\system.configuration\907b2b3dae591e0484acfc0ea63e
8caa\system.configuration.ni.dll
System.Xml.ni 2.0.50727.4927 6.63 MB
(6,948,864 bytes) 7/14/2009 12:09 AM Microsoft
Corporation
c:\windows\assembly\nativeimages_v2.0.50727
_64\system.xml\1fblb14199d6aec70dfa0626a3ae5f2\sysm
e.xml.ni.dll
System.IdentityModel.ni 3.0.4506.4926
1.37 MB (1,433,088 bytes) 6/11/2010
4:37 PM Microsoft Corporation
c:\windows\assembly\nativeimages_v2.0.50727
_64\system.identitymodel\4720ef897a36c2ce494b6c3d07fc
e065\system.identitymodel.ni.dll
wbhstipm 7.5.7600.16385 28.00 KB (28,672 bytes)
7/13/2009 7:26 PM Microsoft Corporation
c:\windows\system32\inetsrv\wbhstipm.dll

System.Runtime.Serialization.ni 3.0.4506.4926
2.93 MB (3,073,536 bytes) 6/10/2010
3:46 PM Microsoft Corporation
c:\windows\assembly\nativeimages_v2.0.50727
_64\system.runtime.serialization\12aaaff696a0c54773664b4c5407d
eaa2\system.runtime.serialization.ni.dll
taskhost 6.1.7600.16385 67.50 KB (69,120 bytes)
7/13/2009 6:31 PM Microsoft Corporation
c:\windows\system32\taskhost.exe
msctfmonitor 6.1.7600.16385 27.50 KB
(28,160 bytes) 7/13/2009 6:39 PM Microsoft
Corporation
c:\windows\system32\msctfmonitor.dll
msutb 6.1.7600.16385 230.00 KB (235,520
bytes) 7/13/2009 6:39 PM Microsoft Corporation
c:\windows\system32\msutb.dll
dimsjob 6.1.7600.16385 39.50 KB (40,448 bytes)
7/13/2009 6:53 PM Microsoft Corporation
c:\windows\system32\dimsjob.dll
dwm 6.1.7600.16385 117.50 KB (120,320
bytes) 7/13/2009 6:37 PM Microsoft Corporation
c:\windows\system32\dwm.exe
dwmredir 6.1.7600.16385 125.50 KB (128,512
bytes) 7/13/2009 6:37 PM Microsoft Corporation
c:\windows\system32\dwmredir.dll
dwmcore 6.1.7600.16385 1.56 MB (1,634,304
bytes) 7/13/2009 6:39 PM Microsoft Corporation
c:\windows\system32\dwmcore.dll
windowscodecs 6.1.7600.16385 1.13 MB
(1,189,888 bytes) 7/13/2009 6:42 PM Microsoft
Corporation
c:\windows\system32\windowscodecs.dll

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d3d10_1 6.1.7600.16385 192.50 KB (197,120
bytes) 7/13/2009 6:41 PM Microsoft Corporation
c:\windows\system32\d3d10_1.dll
d3d10_lcore 6.1.7600.16385 311.50 KB
(318,976 bytes) 7/13/2009 6:41 PM Microsoft
Corporation
c:\windows\system32\d3d10_lcore.dll
dxgi 6.1.7600.16385 643.00 KB (658,432
bytes) 7/13/2009 6:41 PM Microsoft Corporation
c:\windows\system32\dxgi.dll
dwmapi 6.1.7600.16385 80.50 KB (82,432 bytes)
7/13/2009 6:37 PM Microsoft Corporation
c:\windows\system32\dwmapi.dll
explorer 6.1.7600.16385 2.74 MB (2,868,224
bytes) 7/13/2009 6:56 PM Microsoft Corporation
c:\windows\explorer.exe
explorerframe 6.1.7600.16385 1.78 MB
(1,863,680 bytes) 7/13/2009 6:57 PM Microsoft
Corporation
c:\windows\system32\explorerframe.dll
duser 6.1.7600.16385 254.50 KB (260,608
bytes) 7/13/2009 6:39 PM Microsoft Corporation
c:\windows\system32\duser.dll
dui70 6.1.7600.16385 954.00 KB (976,896
bytes) 7/13/2009 6:41 PM Microsoft Corporation
c:\windows\system32\dui70.dll
gdiplus 6.1.7600.16385 2.06 MB (2,165,248
bytes) 7/13/2009 6:40 PM Microsoft Corporation
c:\windows\winsxs\amd64_microsoft.windows.g
diplus_6595b64144ccfd1f_1.1.7600.16385_none_2b4f45e87
195fcc4\gdiplus.dll
ehstorshell 6.1.7600.16385 198.50 KB
(203,264 bytes) 7/13/2009 7:00 PM Microsoft
Corporation
c:\windows\system32\ehstorshell.dll
ntshrui 6.1.7600.16385 498.00 KB (509,952
bytes) 7/13/2009 6:57 PM Microsoft Corporation
c:\windows\system32\ntshrui.dll
iconcodecservice 6.1.7600.16385 14.00 KB
(14,336 bytes) 7/13/2009 6:37 PM Microsoft
Corporation
c:\windows\system32\iconcodecservice.dll

sndvol32 6.1.7600.16385 220.00 KB (225,280
bytes) 7/13/2009 7:19 PM Microsoft Corporation
c:\windows\system32\sndvol32.dll
hid 6.1.7600.16385 29.50 KB (30,208 bytes)
7/13/2009 7:06 PM Microsoft Corporation
c:\windows\system32\hid.dll
mmdevapi 6.1.7600.16385 277.50 KB (284,160
bytes) 7/13/2009 7:18 PM Microsoft Corporation
c:\windows\system32\mmdevapi.dll
timedate 6.1.7600.16385 503.00 KB (515,072
bytes) 7/13/2009 6:56 PM Microsoft Corporation
c:\windows\system32\timedate.cpl
winbrand 6.1.7600.16385 16.00 KB (16,384 bytes)
7/13/2009 6:30 PM Microsoft Corporation
c:\windows\system32\winbrand.dll
shdocvw 6.1.7600.16385 191.50 KB (196,096
bytes) 7/13/2009 6:55 PM Microsoft Corporation
c:\windows\system32\shdocvw.dll

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shacct 6.1.7600.16385 132.00 KB (135,168
bytes) 7/13/2009 6:55 PM Microsoft Corporation
c:\windows\system32\shacct.dll
linkinfo 6.1.7600.16385 29.00 KB (29,696 bytes)
7/13/2009 6:55 PM Microsoft Corporation
c:\windows\system32\linkinfo.dll
msls31 3.10.349.0 217.00 KB (222,208
bytes) 7/13/2009 6:39 PM Microsoft Corporation
c:\windows\system32\msls31.dll
authui 6.1.7600.16385 1.84 MB (1,926,144
bytes) 7/13/2009 6:58 PM Microsoft Corporation
c:\windows\system32\authui.dll
cryptui 6.1.7600.16385 1.02 MB (1,065,984
bytes) 7/13/2009 6:49 PM Microsoft Corporation
c:\windows\system32\cryptui.dll
winmm 6.1.7600.16385 212.50 KB (217,600
bytes) 7/13/2009 7:18 PM Microsoft Corporation
c:\windows\system32\winmm.dll
stobject 6.1.7600.16385 250.00 KB (256,000
bytes) 7/13/2009 6:56 PM Microsoft Corporation
c:\windows\system32\stobject.dll
batmeter 6.1.7600.16385 730.50 KB (748,032
bytes) 7/13/2009 6:56 PM Microsoft Corporation
c:\windows\system32\batmeter.dll
prnfldr 6.1.7600.16385 407.00 KB (416,768
bytes) 7/13/2009 7:40 PM Microsoft Corporation
c:\windows\system32\prnfldr.dll
dxdp 6.1.7600.16385 449.00 KB (459,776
bytes) 7/13/2009 7:21 PM Microsoft Corporation
c:\windows\system32\dxdp.dll
urlmon 8.0.7600.16385 1.42 MB (1,492,480
bytes) 7/13/2009 7:01 PM Microsoft Corporation
c:\windows\system32\urlmon.dll
iertutil 8.0.7600.16385 2.33 MB (2,440,704
bytes) 7/13/2009 6:59 PM Microsoft Corporation
c:\windows\system32\iertutil.dll
syncreg 2007.94.7600.16385 72.00 KB (73,728 bytes)
7/13/2009 7:22 PM Microsoft Corporation
c:\windows\system32\syncreg.dll
actioncenter 6.1.7600.16385 762.50 KB
(780,800 bytes) 7/13/2009 6:56 PM Microsoft
Corporation
c:\windows\system32\actioncenter.dll
imapi2 6.1.7600.16385 493.50 KB (505,344
bytes) 7/13/2009 7:01 PM Microsoft Corporation
c:\windows\system32\imapi2.dll
pnidui 6.1.7600.16385 1.72 MB (1,807,872
bytes) 7/13/2009 7:08 PM Microsoft Corporation
c:\windows\system32\pnidui.dll
qutil 6.1.7600.16385 105.00 KB (107,520
bytes) 7/13/2009 7:07 PM Microsoft Corporation
c:\windows\system32\qutil.dll
hgcp1 6.1.7600.16385 324.50 KB (332,288
bytes) 7/13/2009 6:57 PM Microsoft Corporation
c:\windows\system32\hgcp1.dll
qagent 6.1.7600.16385 259.00 KB (265,216
bytes) 7/13/2009 7:07 PM Microsoft Corporation
c:\windows\system32\qagent.dll
werconcp1 6.1.7600.16385 1.22 MB (1,280,512
bytes) 7/13/2009 6:41 PM Microsoft Corporation
c:\windows\system32\werconcp1.dll
framedynos 6.1.7600.16385 288.50 KB
(295,424 bytes) 7/13/2009 6:47 PM Microsoft

```

Corporation
 c:\windows\system32\framedyns.dll
 wercplsupport 6.1.7600.16385 82.50 KB
 (84,480 bytes) 7/13/2009 6:40 PM Microsoft
 Corporation
 c:\windows\system32\wercplsupport.dll
 hcproviders 6.1.7600.16385 30.50 KB
 (31,232 bytes) 7/13/2009 6:56 PM Microsoft
 Corporation
 c:\windows\system32\hcproviders.dll
 ieproxy 8.0.7600.16385 438.00 KB (448,512
 bytes) 7/13/2009 6:58 PM Microsoft Corporation
 c:\program files\internet
 explorer\ieproxy.dll
 drprov 6.1.7600.16385 24.00 KB (24,576 bytes)
 7/13/2009 7:17 PM Microsoft Corporation
 c:\windows\system32\drprov.dll
 ntlanman 6.1.7600.16385 126.50 KB (129,536
 bytes) 7/13/2009 6:48 PM Microsoft Corporation
 c:\windows\system32\ntlanman.dll
 msftedit 5.41.21.2509 781.00 KB (799,744
 bytes) 7/13/2009 6:39 PM Microsoft Corporation
 c:\windows\system32\msftedit.dll
 searchfolder 6.1.7600.16385 845.00 KB
 (865,280 bytes) 7/13/2009 6:59 PM Microsoft
 Corporation
 c:\windows\system32\searchfolder.dll
 networkexplorer 6.1.7600.16385 1.60 MB
 (1,672,704 bytes) 7/13/2009 7:08 PM Microsoft
 Corporation
 c:\windows\system32\networkexplorer.dll
 actxprxy 6.1.7600.16385 936.50 KB (958,976
 bytes) 7/13/2009 7:41 PM Microsoft Corporation
 c:\windows\system32\actxprxy.dll
 ieframe 8.0.7600.16385 11.78 MB (12,352,000
 bytes) 7/13/2009 7:16 PM Microsoft Corporation
 c:\windows\system32\ieframe.dll
 oleacc 7.0.0.0 324.00 KB (331,776 bytes)
 7/13/2009 6:39 PM Microsoft Corporation
 c:\windows\system32\oleacc.dll
 wininet 8.0.7600.16385 1.14 MB (1,193,472
 bytes) 7/13/2009 7:00 PM Microsoft Corporation
 c:\windows\system32\wininet.dll
 normaliz 6.1.7600.16385 2.50 KB (2,560 bytes)
 7/13/2009 6:26 PM Microsoft Corporation
 c:\windows\system32\normaliz.dll
 regsvc 6.1.7600.16385 155.50 KB (159,232
 bytes) 7/13/2009 6:31 PM Microsoft Corporation
 c:\windows\system32\regsvc.dll
 iisw3adm 7.5.7600.16385 440.50 KB (451,072
 bytes) 7/13/2009 7:27 PM Microsoft Corporation
 c:\windows\system32\inetsrv\iisw3adm.dll
 w3tp 7.5.7600.16385 19.50 KB (19,968 bytes)
 7/13/2009 7:27 PM Microsoft Corporation
 c:\windows\system32\inetsrv\w3tp.dll
 termsrv 6.1.7600.16385 690.00 KB (706,560
 bytes) 7/13/2009 7:17 PM Microsoft Corporation
 c:\windows\system32\termsrv.dll
 icaapi 6.1.7600.16385 22.00 KB (22,528 bytes)
 7/13/2009 7:16 PM Microsoft Corporation
 c:\windows\system32\icaapi.dll

regapi 6.1.7600.16385 92.50 KB (94,720 bytes)
 7/13/2009 7:17 PM Microsoft Corporation
 c:\windows\system32\regapi.dll
 tlscsp 6.1.7600.16385 72.00 KB (73,728 bytes)
 7/13/2009 7:16 PM Microsoft Corporation
 c:\windows\system32\tlscsp.dll
 rdpcorekmts 6.1.7600.16385 146.00 KB
 (149,504 bytes) 7/13/2009 7:17 PM Microsoft
 Corporation
 c:\windows\system32\rdpcorekmts.dll
 rdpwsx 6.1.7600.16385 74.50 KB (76,288 bytes)
 7/13/2009 7:17 PM Microsoft Corporation
 c:\windows\system32\rdpwsx.dll
 ipsecsv 6.1.7600.16385 488.50 KB (500,224
 bytes) 7/13/2009 7:08 PM Microsoft Corporation
 c:\windows\system32\ipsecsv.dll
 fwremotesvr 6.1.7600.16385 74.00 KB
 (75,776 bytes) 7/13/2009 7:08 PM Microsoft
 Corporation
 c:\windows\system32\fwremotesvr.dll
 logonui 6.1.7600.16385 27.00 KB (27,648 bytes)
 7/13/2009 6:52 PM Microsoft Corporation
 c:\windows\system32\logonui.exe
 vaultcredprovider 6.1.7600.16385 78.50 KB
 (80,384 bytes) 7/13/2009 6:53 PM Microsoft
 Corporation
 c:\windows\system32\vaultcredprovider.dll
 smartcardcredentialprovider 6.1.7600.16385
 185.50 KB (189,952 bytes) 7/13/2009
 6:50 PM Microsoft Corporation
 c:\windows\system32\smartcardcredentialprov
 ider.dll
 certcredprovider 6.1.7600.16385 126.00 KB
 (129,024 bytes) 7/13/2009 6:49 PM Microsoft
 Corporation
 c:\windows\system32\certcredprovider.dll
 rasplap 6.1.7600.16385 396.00 KB (405,504
 bytes) 7/13/2009 7:10 PM Microsoft Corporation
 c:\windows\system32\rasplap.dll
 rdpcclip 6.1.7600.16385 204.50 KB (209,408
 bytes) 7/13/2009 7:17 PM Microsoft Corporation
 c:\windows\system32\rdpcclip.exe
 dllhost 6.1.7600.16385 9.50 KB (9,728 bytes)
 7/13/2009 6:59 PM Microsoft Corporation
 c:\windows\system32\dllhost.exe
 comsvcs 2001.12.8530.16385 1.66 MB (1,735,680
 bytes) 7/13/2009 7:01 PM Microsoft Corporation
 c:\windows\system32\comsvcs.dll
 txflg 2001.12.8530.16385 116.50 KB (119,296
 bytes) 7/13/2009 6:59 PM Microsoft Corporation
 c:\windows\system32\txflg.dll
 xolehlp 2001.12.8530.16385 58.00 KB (59,392 bytes)
 7/13/2009 6:59 PM Microsoft Corporation
 c:\windows\system32\xolehlp.dll
 msdtcprx 2001.12.8530.16385 728.00 KB (745,472
 bytes) 7/13/2009 6:59 PM Microsoft Corporation
 c:\windows\system32\msdtcprx.dll
 mtxclu 2001.12.8530.16385 364.00 KB (372,736
 bytes) 7/13/2009 6:59 PM Microsoft Corporation
 c:\windows\system32\mtxclu.dll

catsrv 2001.12.8530.16385 461.50 KB (472,576
 bytes) 7/13/2009 7:00 PM Microsoft Corporation
 c:\windows\system32\catsrv.dll
 mfcsubs 2001.12.8530.16385 33.00 KB (33,792 bytes)
 7/13/2009 6:59 PM Microsoft Corporation
 c:\windows\system32\mfcsubs.dll
 catsrvps 2001.12.8530.16385 55.00 KB (56,320 bytes)
 7/13/2009 6:59 PM Microsoft Corporation
 c:\windows\system32\catsrvps.dll
 catsrvut 2001.12.8530.16385 513.50 KB (525,824
 bytes) 7/13/2009 7:00 PM Microsoft Corporation
 c:\windows\system32\catsrvut.dll
 msdtc 2001.12.8530.16385 138.50 KB (141,824
 bytes) 7/13/2009 6:59 PM Microsoft Corporation
 c:\windows\system32\msdtc.exe
 msdtctm 2001.12.8530.16385 1.44 MB (1,509,888
 bytes) 7/13/2009 7:00 PM Microsoft Corporation
 c:\windows\system32\msdtctm.dll
 msdtclog 2001.12.8530.16385 122.00 KB (124,928
 bytes) 7/13/2009 6:59 PM Microsoft Corporation
 c:\windows\system32\msdtclog.dll
 comres 2001.12.8530.16385 1.24 MB (1,297,408
 bytes) 7/13/2009 6:59 PM Microsoft Corporation
 c:\windows\system32\comres.dll
 msdtcvspres 2001.12.8530.16385 21.00 KB
 (21,504 bytes) 7/13/2009 6:59 PM Microsoft
 Corporation
 c:\windows\system32\msdtcvspres.dll
 mtxoci 2001.12.8530.16385 153.00 KB (156,672
 bytes) 7/13/2009 6:59 PM Microsoft Corporation
 c:\windows\system32\mtxoci.dll
 printisolationhost 6.1.7600.16385 18.50 KB
 (18,944 bytes) 7/13/2009 7:39 PM Microsoft
 Corporation
 c:\windows\system32\printisolationhost.exe
 hpzuiwn7 0.3.7071.0 2.37 MB (2,484,736
 bytes) 7/13/2009 8:19 PM Hewlett-Packard
 Corporation
 c:\windows\system32\spool\drivers\x64\3\hpz
 uiwn7.dll
 compstui 6.1.7600.16385 295.00 KB (302,080
 bytes) 7/13/2009 7:40 PM Microsoft Corporation
 c:\windows\system32\compstui.dll
 msimg32 6.1.7600.16385 8.00 KB (8,192 bytes)
 7/13/2009 6:38 PM Microsoft Corporation
 c:\windows\system32\msimg32.dll
 regedit 6.1.7600.16385 417.00 KB (427,008
 bytes) 7/13/2009 6:27 PM Microsoft Corporation
 c:\windows\regedit.exe
 comdlg32 6.1.7600.16385 581.50 KB (595,456
 bytes) 7/13/2009 6:55 PM Microsoft Corporation
 c:\windows\system32\comdlg32.dll
 aclui 6.1.7600.16385 150.50 KB (154,112
 bytes) 7/13/2009 6:57 PM Microsoft Corporation
 c:\windows\system32\aclui.dll
 ulib 6.1.7600.16385 143.50 KB (146,944
 bytes) 7/13/2009 6:25 PM Microsoft Corporation
 c:\windows\system32\ulib.dll
 clb 6.1.7600.16385 17.00 KB (17,408 bytes)
 7/13/2009 6:25 PM Microsoft Corporation
 c:\windows\system32\clb.dll


```

msinfo32 6.1.7600.16385 370.00 KB (378,880
bytes) 7/13/2009 6:31 PM Microsoft Corporation
c:\windows\system32\msinfo32.exe
mfc42u 6.6.8063.0 1.29 MB (1,357,312
bytes) 7/13/2009 7:35 PM Microsoft Corporation
c:\windows\system32\mfc42u.dll
odbc32 6.1.7600.16385 696.00 KB (712,704
bytes) 7/13/2009 7:29 PM Microsoft Corporation
c:\windows\system32\odbc32.dll
odbcint 6.1.7600.16385 224.00 KB (229,376
bytes) 7/13/2009 7:28 PM Microsoft Corporation
c:\windows\system32\odbcint.dll
structuredquery 7.0.7600.16385 472.50 KB
(483,840 bytes) 7/13/2009 7:29 PM Microsoft
Corporation
c:\windows\system32\structuredquery.dll
thumbcache 6.1.7600.16385 110.50 KB
(113,152 bytes) 7/13/2009 6:55 PM Microsoft
Corporation
c:\windows\system32\thumbcache.dll
ehstorapi 6.1.7600.16385 141.50 KB (144,896
bytes) 7/13/2009 7:00 PM Microsoft Corporation
c:\windows\system32\ehstorapi.dll
wmiprvse 6.1.7600.16385 360.00 KB (368,640
bytes) 7/13/2009 6:47 PM Microsoft Corporation
c:\windows\system32\wbem\wmiprvse.exe
cimwin32 6.1.7600.16385 1.96 MB (2,055,168
bytes) 7/13/2009 6:48 PM Microsoft Corporation
c:\windows\system32\wbem\cimwin32.dll
security 6.1.7600.16385 5.00 KB (5,120 bytes)
7/13/2009 6:50 PM Microsoft Corporation
c:\windows\system32\security.dll
browcli 6.1.7600.16385 57.00 KB (58,368 bytes)
7/13/2009 6:53 PM Microsoft Corporation
c:\windows\system32\browcli.dll
schedcli 6.1.7600.16385 23.50 KB (24,064 bytes)
7/13/2009 6:53 PM Microsoft Corporation
c:\windows\system32\schedcli.dll
wmi 6.1.7600.16385 5.00 KB (5,120 bytes)
7/13/2009 7:41 PM Microsoft Corporation
c:\windows\system32\wmi.dll
ntevt 6.1.7600.16385 260.00 KB (266,240
bytes) 7/13/2009 6:47 PM Microsoft Corporation
c:\windows\system32\wbem\ntevt.dll
provthrd 6.1.7600.16385 300.00 KB (307,200
bytes) 7/13/2009 6:47 PM Microsoft Corporation
c:\windows\system32\provthrd.dll
msvcirt 7.0.7600.16385 76.50 KB (78,336 bytes)
7/13/2009 6:18 PM Microsoft Corporation
c:\windows\system32\msvcirt.dll
wmiperfclass 6.1.7600.16385 133.00 KB
(136,192 bytes) 7/13/2009 6:31 PM Microsoft
Corporation
c:\windows\system32\wbem\wmiperfclass.dll
pdh 6.1.7600.16385 293.00 KB (300,032
bytes) 7/13/2009 6:31 PM Microsoft Corporation
c:\windows\system32\pdh.dll

```

[Services]

```

Display Name Name State Start Mode
Service Type Path Error Control
Tag ID
Application Experience AeLookupSvc
Running Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Application Layer Gateway Service ALG
Stopped Manual Own Process
c:\windows\system32\alg.exe Normal NT
AUTHORITY\LocalService 0
Application Host Helper Service AppHostSvc
Running Auto Share Process
c:\windows\system32\svchost.exe -k apphost
Normal LocalSystem 0
Application Identity AppIDSvc Stopped
Manual Share Process
c:\windows\system32\svchost.exe -k
localserviceandnoimpersonation Normal NT
Authority\LocalService 0
Application Information AppInfo Stopped
Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Application Management AppMgmt Stopped
Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
ASP.NET State Service aspnet_state
Stopped Manual Own Process
c:\windows\microsoft.net\framework64\v2.0.5
0727\aspnet_state.exe Normal NT
AUTHORITY\NetworkService 0
Windows Audio Endpoint Builder
AudioEndpointBuilder Stopped
Manual Share Process
c:\windows\system32\svchost.exe -k
localsystemnetworkrestricted Normal LocalSystem
0
Windows Audio AudioSrv Stopped Manual
Share Process
c:\windows\system32\svchost.exe -k
localservicenetworkrestricted Normal NT
AUTHORITY\LocalService 0
Base Filtering Engine BFE Running
Auto Share Process
c:\windows\system32\svchost.exe -k
localservicenetwork Normal NT
AUTHORITY\LocalService 0
Background Intelligent Transfer Service BITS
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Computer Browser Browser Stopped Disabled
Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Certificate Propagation CertPropSvc
Running Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Microsoft .NET Framework NGEN v2.0.50727_X86
clr_optimization_v2.0.50727_32

```

```

Stopped Manual Own Process
c:\windows\microsoft.net\framework\v2.0.507
27\mscorsvw.exe Ignore LocalSystem 0
Microsoft .NET Framework NGEN v2.0.50727_X64
clr_optimization_v2.0.50727_64
Stopped Manual Own Process
c:\windows\microsoft.net\framework64\v2.0.5
0727\mscorsvw.exe Ignore LocalSystem 0
COM+ System Application COMSysApp Running
Manual Own Process
c:\windows\system32\dllhost.exe
/processid:{02d4b3f1-fd88-11d1-960d-00805fc79235}
Normal LocalSystem 0
Cryptographic Services CryptSvc Running
Auto Share Process
c:\windows\system32\svchost.exe -k
networkservice Normal NT
Authority\NetworkService 0
DCOM Server Process Launcher DcomLaunch
Running Auto Share Process
c:\windows\system32\svchost.exe -k
dcomlaunch Normal LocalSystem 0
Disk Defragmenter defragsvc Stopped Manual Own
Process c:\windows\system32\svchost.exe -k
defragsvc Normal LocalSystem 0
DHCP Client Dhcp Running Auto
Share Process
c:\windows\system32\svchost.exe -k
localservicenetworkrestricted Normal NT
Authority\LocalService 0
DNS Client Dnscache Running Auto
Share Process
c:\windows\system32\svchost.exe -k
networkservice Normal NT
AUTHORITY\NetworkService 0
Wired AutoConfig dot3svc Stopped Manual
Share Process
c:\windows\system32\svchost.exe -k
localsystemnetworkrestricted Normal localSystem
0
Diagnostic Policy Service DPS Running
Auto Share Process
c:\windows\system32\svchost.exe -k
localservicenetwork Normal NT
AUTHORITY\LocalService 0
Extensible Authentication Protocol EapHost
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal localSystem 0
Encrypting File System (EFS) EFS Stopped
Manual Share Process
c:\windows\system32\lsass.exe Normal
LocalSystem 0
Windows Event Log eventlog Running Auto
Share Process
c:\windows\system32\svchost.exe -k
localservicenetworkrestricted Normal NT
AUTHORITY\LocalService 0
COM+ Event System EventSystem Running
Auto Share Process

```

```

c:\windows\system32\svchost.exe -k
localservice Normal NT
AUTHORITY\LocalService 0
Microsoft Fibre Channel Platform Registration Service
FCRegSvc Stopped Manual Share Process
c:\windows\system32\svchost.exe -k
localservicenetworkrestricted Normal NT
AUTHORITY\LocalService 0
Function Discovery Provider Host fdPHost
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k
localservice Normal NT
AUTHORITY\LocalService 0
Function Discovery Resource Publication FDResPub
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k
localserviceandnoimpersonation Normal NT
AUTHORITY\LocalService 0
Windows Font Cache Service FontCache Stopped
Manual Share Process
c:\windows\system32\svchost.exe -k
localserviceandnoimpersonation Normal NT
AUTHORITY\LocalService 0
Windows Presentation Foundation Font Cache 3.0.0.0
FontCache3.0.0.0 Stopped Manual Own
Process
c:\windows\microsoft.net\framework64\v3.0\w
pf\presentationfontcache.exe Normal NT
Authority\LocalService 0
Group Policy Client gpsvc Running Auto
Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Human Interface Device Access hidserv Stopped
Manual Share Process
c:\windows\system32\svchost.exe -k
localsystemnetworkrestricted Normal LocalSystem
0
Health Key and Certificate Management hkmsvc
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Windows CardSpace idsvc Stopped Manual
Share Process
"c:\windows\microsoft.net\framework64\v3.0\
windows communication foundation\infocard.exe"
Normal LocalSystem 0
IIS Admin Service IISADMIN Running Auto
Share Process
c:\windows\system32\inetsrv\inetinfo.exe
Normal LocalSystem 0
IKE and AuthIP IPsec Keying Modules IKEEXT
Running Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
PnP-X IP Bus Enumerator IPBusEnum Stopped
Disabled Share Process
c:\windows\system32\svchost.exe -k
localsystemnetworkrestricted Normal LocalSystem
0
IP Helper iphlpsvc Running Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0

```

```

CNG Key Isolation KeyIso Stopped Manual
Share Process
c:\windows\system32\lsass.exe Normal
LocalSystem 0
KtmRm for Distributed Transaction Coordinator
KtmRm Stopped Manual Share Process
c:\windows\system32\svchost.exe -k
networkserviceandnoimpersonation Normal NT
AUTHORITY\NetworkService 0
Server LanmanServer Running Auto
Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Workstation LanmanWorkstation Running
Auto Share Process
c:\windows\system32\svchost.exe -k
networkservice Normal NT
AUTHORITY\NetworkService 0
Link-Layer Topology Discovery Mapper lltdsvc
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k
localservice Normal NT
AUTHORITY\LocalService 0
TCP/IP NetBIOS Helper lmhosts Running
Auto Share Process
c:\windows\system32\svchost.exe -k
localservicenetworkrestricted Normal NT
AUTHORITY\LocalService 0
Multimedia Class Scheduler MMCSS Stopped
Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Windows Firewall MpsSvc Running Auto
Share Process
c:\windows\system32\svchost.exe -k
localservicenetwork Normal NT
Authority\LocalService 0
Distributed Transaction Coordinator MSDTC
Running Auto Own Process
c:\windows\system32\msdtc.exe Normal NT
AUTHORITY\NetworkService 0
Microsoft iSCSI Initiator Service MSiSCSI
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Windows Installer msiserver Stopped Manual Own
Process
c:\windows\system32\msiexec.exe /v
Normal LocalSystem 0
Network Access Protection Agent napagent
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k
networkservice Normal NT
AUTHORITY\NetworkService 0
Netlogon Netlogon Stopped Manual Share Process
c:\windows\system32\lsass.exe Normal
LocalSystem 0
Network Connections Netman Running Manual
Share Process
c:\windows\system32\svchost.exe -k
localsystemnetworkrestricted Normal LocalSystem
0
Net.Msmq Listener Adapter NetMsmqActivator
Stopped Disabled Share Process

```

```

"c:\windows\microsoft.net\framework64\v3.0\
windows communication foundation\smsvchost.exe" -
netmqactivator Normal NT
AUTHORITY\NetworkService 0
Net.Pipe Listener Adapter NetPipeActivator
Running Auto Share Process
"c:\windows\microsoft.net\framework64\v3.0\
windows communication foundation\smsvchost.exe"
Normal NT AUTHORITY\LocalService 0
Network List Service netprofm Running
Manual Share Process
c:\windows\system32\svchost.exe -k
localservice Normal NT
AUTHORITY\LocalService 0
Net.Tcp Listener Adapter NetTcpActivator
Running Auto Share Process
"c:\windows\microsoft.net\framework64\v3.0\
windows communication foundation\smsvchost.exe"
Normal NT AUTHORITY\LocalService 0
Net.Tcp Port Sharing Service NetTcpPortSharing
Running Auto Share Process
"c:\windows\microsoft.net\framework64\v3.0\
windows communication foundation\smsvchost.exe"
Normal NT AUTHORITY\LocalService 0
Network Location Awareness NlaSvc Running
Auto Share Process
c:\windows\system32\svchost.exe -k
networkservice Normal NT
AUTHORITY\NetworkService 0
Network Store Interface Service nsi
Running Auto Share Process
c:\windows\system32\svchost.exe -k
localservice Normal NT
Authority\LocalService 0
Office Source Engine ose Stopped
Manual Own Process "c:\program
files (x86)\common files\microsoft shared\source
engine\ose.exe" Normal LocalSystem 0
Performance Counter DLL Host PerfHost Stopped
Manual Own Process
c:\windows\syswow64\perfhst.exe
Normal NT AUTHORITY\LocalService 0
Performance Logs & Alerts pla Stopped
Manual Share Process
c:\windows\system32\svchost.exe -k
localservicenetwork Normal NT
AUTHORITY\LocalService 0
Plug and Play PlugPlay Running Auto
Share Process
c:\windows\system32\svchost.exe -k
dcomlaunch Normal LocalSystem 0
IPsec Policy Agent PolicyAgent Running
Manual Share Process
c:\windows\system32\svchost.exe -k
networkservicenetworkrestricted Normal NT
Authority\NetworkService 0

```

```

Power      Power      Running  Auto    Share Process
c:\windows\system32\svchost.exe -k
dcomlaunch Normal LocalSystem 0

User Profile Service ProfSvc Running
Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0

Protected Storage ProtectedStorage Stopped
Manual Share Process
c:\windows\system32\lsass.exe Normal
LocalSystem 0

Remote Access Auto Connection Manager RasAuto
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0

Remote Access Connection Manager RasMan
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0

Routing and Remote Access RemoteAccess
Stopped Disabled Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0

Remote Registry RemoteRegistry Running
Auto Share Process
c:\windows\system32\svchost.exe -k regsvc
Normal NT AUTHORITY\LocalService 0

RPC Endpoint Mapper RpcEptMapper Running
Auto Share Process
c:\windows\system32\svchost.exe -k rpcss
Normal NT AUTHORITY\NetworkService 0

Remote Procedure Call (RPC) Locator RpcLocator
Stopped Manual Own Process
c:\windows\system32\locator.exe
Normal NT AUTHORITY\NetworkService 0

Remote Procedure Call (RPC) RpcSs Running
Auto Share Process
c:\windows\system32\svchost.exe -k rpcss
Normal NT AUTHORITY\NetworkService 0

Resultant Set of Policy Provider RSoPProv
Stopped Manual Share Process
c:\windows\system32\rsopprov.exe
Normal LocalSystem 0

Special Administration Console Helper sacsvr
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0

Security Accounts Manager SamSs Running
Auto Share Process
c:\windows\system32\lsass.exe Normal
LocalSystem 0

Smart Card SCardSvr Stopped Manual
Share Process
c:\windows\system32\svchost.exe -k
localserviceandnoimpersonation Normal NT
AUTHORITY\LocalService 0

Task Scheduler Schedule Running Auto
Share Process

```

```

c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0

Smart Card Removal Policy SCPolicySvc
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0

Secondary Logon seclogon Stopped Manual
Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0

System Event Notification Service SENS
Running Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0

Remote Desktop Configuration SessionEnv
Running Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0

Internet Connection Sharing (ICS) SharedAccess
Stopped Disabled Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0

Shell Hardware Detection ShellHWDetection
Running Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs
Ignore LocalSystem 0

SNMP Trap SNMPTRAP Stopped Manual Own Process
c:\windows\system32\snmptrap.exe
Normal NT AUTHORITY\LocalService 0

Print Spooler Spooler Running Auto Own
Process c:\windows\system32\spoolsv.exe
Normal LocalSystem 0

Software Protection sppsvc Stopped Auto Own
Process c:\windows\system32\sppsvc.exe
Normal NT AUTHORITY\NetworkService 0

SPP Notification Service sppuinotify
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k
localservice Normal NT
AUTHORITY\LocalService 0

SSDP Discovery SSDPSRV Stopped Disabled
Share Process
c:\windows\system32\svchost.exe -k
localserviceandnoimpersonation Normal NT
AUTHORITY\LocalService 0

Secure Socket Tunneling Protocol Service
SstpSvc Stopped Manual Share Process
c:\windows\system32\svchost.exe -k
localservice Normal NT
Authority\LocalService 0

Microsoft Software Shadow Copy Provider swprv
Stopped Manual Own Process
c:\windows\system32\svchost.exe -k swprv
Normal LocalSystem 0

Telephony TapiSrv Stopped Manual Own Process
c:\windows\system32\svchost.exe -k tapisrv
Normal NT AUTHORITY\NetworkService 0

TPM Base Services TBS Stopped Manual
Share Process
c:\windows\system32\svchost.exe -k

```

```

localserviceandnoimpersonation Normal NT
AUTHORITY\LocalService 0

Remote Desktop Services TermService
Running Manual Share Process
c:\windows\system32\svchost.exe -k termsvcs
Normal NT Authority\NetworkService 0

Thread Ordering Server THREADORDER
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k
localservice Normal NT
AUTHORITY\LocalService 0

Distributed Link Tracking Client TrkWks
Running Auto Share Process
c:\windows\system32\svchost.exe -k
localsystemnetworkrestricted Normal LocalSystem
0

Windows Modules Installer TrustedInstaller
Stopped Manual Own Process
c:\windows\servicing\trustedinstaller.exe
Normal LocalSystem 0

Interactive Services Detection UI0Detect
Stopped Manual Own Process
c:\windows\system32\ui0detect.exe
Normal LocalSystem 0

Remote Desktop Services UserMode Port Redirector
UmRdpService Running Manual
Share Process
c:\windows\system32\svchost.exe -k
localsystemnetworkrestricted Normal LocalSystem
0

UPnP Device Host upnphost Stopped Disabled
Share Process
c:\windows\system32\svchost.exe -k
localserviceandnoimpersonation Normal NT
AUTHORITY\LocalService 0

Desktop Window Manager Session Manager UxSms
Running Auto Share Process
c:\windows\system32\svchost.exe -k
localsystemnetworkrestricted Normal LocalSystem
0

Credential Manager VaultSvc Stopped Manual
Share Process
c:\windows\system32\lsass.exe Normal
LocalSystem 0

Virtual Disk vds Stopped Manual Own
Process c:\windows\system32\vds.exe Normal
LocalSystem 0

Hyper-V Heartbeat Service vmicheartbeat
Running Auto Own Process
c:\windows\system32\vmicsvc.exe -feature
heartbeat Normal NT AUTHORITY\NetworkService 0

Hyper-V Data Exchange Service vmickvpexchange
Running Auto Own Process
c:\windows\system32\vmicsvc.exe -feature
kvpexchange Normal NT
AUTHORITY\LocalService 0

Hyper-V Guest Shutdown Service vmicshutdown
Running Auto Own Process
c:\windows\system32\vmicsvc.exe -feature
shutdown Normal LocalSystem 0

```

```

Hyper-V Time Synchronization Service vmictimesync
Running Auto Own Process
c:\windows\system32\vmicsvc.exe -feature
timesync Normal NT AUTHORITY\LocalService 0

Hyper-V Volume Shadow Copy Requestor vmicvss
Running Auto Own Process
c:\windows\system32\vmicsvc.exe -feature
vss Normal LocalSystem 0
Volume Shadow Copy VSS Stopped Manual Own
Process c:\windows\system32\vssvc.exe Normal
LocalSystem 0
Windows Time W32Time Stopped Manual
Share Process
c:\windows\system32\svchost.exe -k
localservice Normal NT
AUTHORITY\LocalService 0
World Wide Web Publishing Service W3SVC
Running Auto Share Process
c:\windows\system32\svchost.exe -k iissvc
Normal LocalSystem 0
Windows Process Activation Service WAS
Running Manual Share Process
c:\windows\system32\svchost.exe -k iissvc
Normal LocalSystem 0
Windows Color System WcsPlugInService
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k wcssvc
Normal NT AUTHORITY\LocalService 0

Diagnostic Service Host WdiServiceHost
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k
localservice Normal NT
AUTHORITY\LocalService 0
Diagnostic System Host WdiSystemHost
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k
localsystemnetworkrestricted Normal LocalSystem
0
Windows Event Collector Wecsvc Stopped
Manual Share Process
c:\windows\system32\svchost.exe -k
networkservice Normal NT
AUTHORITY\NetworkService 0
Problem Reports and Solutions Control Panel Support
werplsupport Stopped Manual
Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal localSystem 0
Windows Error Reporting Service WerSvc
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k
wersvcgroup Ignore localSystem 0

WinHTTP Web Proxy Auto-Discovery Service
WinHttpAutoProxySvc Stopped Manual
Share Process
c:\windows\system32\svchost.exe -k
localservice Normal NT
AUTHORITY\LocalService 0
Windows Management Instrumentation Winmgmt
Running Auto Share Process

```

```

c:\windows\system32\svchost.exe -k netsvcs
Ignore localSystem 0
Windows Remote Management (WS-Management)
WinRM Running Auto Share Process
c:\windows\system32\svchost.exe -k
networkservice Normal NT
AUTHORITY\NetworkService 0
WMI Performance Adapter wmiApSrv Stopped
Manual Own Process
c:\windows\system32\wbem\wmiapsrv.exe
Normal localSystem 0
Portable Device Enumerator Service WPDBusEnum
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k
localsystemnetworkrestricted Normal LocalSystem
0
Windows Update wuauclt Running Auto
Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Windows Driver Foundation - User-mode Driver
Framework wudfsvc Stopped Manual Share Process
c:\windows\system32\svchost.exe -k
localsystemnetworkrestricted Normal LocalSystem
0

[Program Groups]

Group Name Name User Name
Start Menu Default:Start Menu Default
Start Menu\Programs Default:Start Menu\Programs
Default
Start Menu\Programs\Accessories Default:Start
Menu\Programs\Accessories Default
Start Menu\Programs\Accessories\Accessibility
Default:Start
Menu\Programs\Accessories\Accessibility Default
Start Menu\Programs\Accessories\System Tools
Default:Start
Menu\Programs\Accessories\System Tools Default
Start Menu\Programs\Maintenance Default:Start
Menu\Programs\Maintenance Default
Start Menu Public:Start Menu Public
Start Menu\Programs Public:Start Menu\Programs
Public
Start Menu\Programs\Accessories Public:Start
Menu\Programs\Accessories Public
Start Menu\Programs\Accessories\Accessibility
Public:Start
Menu\Programs\Accessories\System Tools Public
Start Menu\Programs\Accessories\Windows PowerShell
Public:Start
Menu\Programs\Accessories\Windows PowerShell
Public
Start Menu\Programs\Administrative Tools
Public:Start Menu\Programs\Administrative
Tools Public
Start Menu\Programs\Administrative Tools\Terminal
Services Public:Start Menu\Programs\Administrative
Tools\Terminal Services Public

```

```

Start Menu\Programs\Maintenance Public:Start
Menu\Programs\Maintenance Public
Start Menu\Programs\Microsoft SQL Server 2005
Public:Start Menu\Programs\Microsoft SQL
Server 2005 Public
Start Menu\Programs\Microsoft SQL Server
2005\Analysis Services Public:Start
Menu\Programs\Microsoft SQL Server 2005\Analysis
Services Public
Start Menu\Programs\Microsoft SQL Server
2005\Configuration Tools Public:Start
Menu\Programs\Microsoft SQL Server 2005\Configuration
Tools Public
Start Menu\Programs\Microsoft SQL Server
2005\Documentation and Tutorials Public:Start
Menu\Programs\Microsoft SQL Server 2005\Documentation
and Tutorials Public
Start Menu\Programs\Microsoft SQL Server
2005\Documentation and Tutorials\Tutorials
Public:Start Menu\Programs\Microsoft SQL
Server 2005\Documentation and Tutorials\Tutorials
Public
Start Menu\Programs\Microsoft SQL Server
2005\Performance Tools Public:Start
Menu\Programs\Microsoft SQL Server 2005\Performance
Tools Public
Start Menu\Programs\Microsoft Visual Studio 2005
Public:Start Menu\Programs\Microsoft Visual
Studio 2005 Public
Start Menu\Programs\Microsoft Visual Studio
2005\Visual Studio Tools Public:Start
Menu\Programs\Microsoft Visual Studio 2005\Visual
Studio Tools Public
Start Menu\Programs\Startup Public:Start
Menu\Programs\Startup Public
Start Menu VCL1\Administrator:Start Menu
VCL1\Administrator
Start Menu\Programs VCL1\Administrator:Start
Menu\Programs VCL1\Administrator
Start Menu\Programs\Accessories
VCL1\Administrator:Start
Menu\Programs\Accessories VCL1\Administrator
Start Menu\Programs\Accessories\Accessibility
VCL1\Administrator:Start
Menu\Programs\Accessories\Accessibility
VCL1\Administrator
Start Menu\Programs\Administrative Tools
VCL1\Administrator:Start
Menu\Programs\Administrative Tools
VCL1\Administrator
Start Menu\Programs\Maintenance
VCL1\Administrator:Start
Menu\Programs\Maintenance VCL1\Administrator
Start Menu\Programs\Startup
VCL1\Administrator:Start
Menu\Programs\Startup VCL1\Administrator

[Startup Programs]

```

| Program | Command | User Name | Location |
|---------------------------------|---|---------------|----------|
| [OLE Registration] | | | |
| Object | Local Server | | |
| WordPad Document | "%programfiles%\windows nt\accessories\wordpad.exe" | | |
| Paintbrush Picture | %systemroot%\system32\mspaint.exe | | |
| Package | Not Available | | |
| Microsoft PenInputPanel Control | | Not Available | |

[Windows Error Reporting]

| Time | Type | Details |
|-------------------|-------------------|--|
| 8/26/2010 6:51 PM | Application Error | Faulting application name: w3wp.exe, version: 7.5.7600.16385, time stamp: 0x4a5bcd2b
Faulting module name: ole32.dll, version: 6.1.7600.16385, time stamp: 0x4a5bdac7
Exception code: 0xc0000005
Fault offset: 0x0000f771
Faulting process id: 0x988
Faulting application start time: 0x01cb453cc4c91d60
Faulting application path: C:\Windows\SysWOW64\inetrv\w3wp.exe
Faulting module path: C:\Windows\SysWOW64\ole32.dll
Report Id: fe2357f2-b142-11df-9427-00155d280701 |
| 8/25/2010 5:22 PM | Application Error | Faulting application name: w3wp.exe, version: 7.5.7600.16385, time stamp: 0x4a5bcd2b
Faulting module name: ole32.dll, version: 6.1.7600.16385, time stamp: 0x4a5bdac7
Exception code: 0xc0000005
Fault offset: 0x0000f771
Faulting process id: 0xbccc
Faulting application start time: 0x01cb447707f98f46
Faulting application path: C:\Windows\SysWOW64\inetrv\w3wp.exe
Faulting module path: C:\Windows\SysWOW64\ole32.dll
Report Id: 5a3f09ae-b06d-11df-b1e8-00155d280701 |
| 8/24/2010 6:17 PM | Application Error | Faulting application name: w3wp.exe, version: 7.5.7600.16385, time stamp: 0x4a5bcd2b
Faulting module name: ole32.dll, version: 6.1.7600.16385, time stamp: 0x4a5bdac7
Exception code: 0xc0000005
Fault offset: 0x0000f771
Faulting process id: 0x988
Faulting application start time: 0x01cb43a59be9386e
Faulting application path: C:\Windows\SysWOW64\inetrv\w3wp.exe
Faulting module path: C:\Windows\SysWOW64\ole32.dll
Report Id: df014ebc-afab-11df-b61e-00155d280701 |
| 8/23/2010 2:03 PM | Application Error | Faulting application name: w3wp.exe, version: 7.5.7600.16385, time stamp: 0x4a5bcd2b
Faulting module name: ole32.dll, version: 6.1.7600.16385, time stamp: 0x4a5bdac7
Exception code: |

```

0xc0000005&#x000d;&#x000a;Fault offset:
0x0000f771&#x000d;&#x000a;Faulting process id:
0x8fc&#x000d;&#x000a;Faulting application start time:
0x01cb42c54771d8a8&#x000d;&#x000a;Faulting
application path:
C:\Windows\SysWOW64\inetrv\w3wp.exe&#x000d;&#x000a;F
aulting module path:
C:\Windows\SysWOW64\ole32.dll&#x000d;&#x000a;Report
Id: 2c6ee67a-aebf-11df-860c-00155d280701
8/17/2010 4:13 PM Application Error Faulting
application name: w3wp.exe, version: 7.5.7600.16385,
time stamp: 0x4a5bcd2b&#x000d;&#x000a;Faulting module
name: ole32.dll, version: 6.1.7600.16385, time stamp:
0x4a5bdac7&#x000d;&#x000a;Exception code:
0xc0000005&#x000d;&#x000a;Fault offset:
0x0000f771&#x000d;&#x000a;Faulting process id:
0x388&#x000d;&#x000a;Faulting application start time:
0x01cb3e20902b578a&#x000d;&#x000a;Faulting
application path:
C:\Windows\SysWOW64\inetrv\w3wp.exe&#x000d;&#x000a;F
aulting module path:
C:\Windows\SysWOW64\ole32.dll&#x000d;&#x000a;Report
Id: 64cb61aa-a1a1-11df-8aae-00155d280701
8/11/2010 10:08 PM Application Error Faulting
application name: w3wp.exe, version: 7.5.7600.16385,
time stamp: 0x4a5bcd2b&#x000d;&#x000a;Faulting module
name: ole32.dll, version: 6.1.7600.16385, time stamp:
0x4a5bdac7&#x000d;&#x000a;Exception code:
0xc0000005&#x000d;&#x000a;Fault offset:
0x0000f771&#x000d;&#x000a;Faulting process id:
0x430&#x000d;&#x000a;Faulting application start time:
0x01cb399ab8b9d788&#x000d;&#x000a;Faulting
application path:
C:\Windows\SysWOW64\inetrv\w3wp.exe&#x000d;&#x000a;F
aulting module path:
C:\Windows\SysWOW64\ole32.dll&#x000d;&#x000a;Report
Id: f6ed02f8-a594-11df-a2bd-00155d280701
8/9/2010 9:41 PM Application Error Faulting
application name: w3wp.exe, version: 7.5.7600.16385,
time stamp: 0x4a5bcd2b&#x000d;&#x000a;Faulting module
name: ole32.dll, version: 6.1.7600.16385, time stamp:
0x4a5bdac7&#x000d;&#x000a;Exception code:
0xc0000005&#x000d;&#x000a;Fault offset:
0x0000f771&#x000d;&#x000a;Faulting process id:
0x3d8&#x000d;&#x000a;Faulting application start time:
0x01cb3806393b9e1e&#x000d;&#x000a;Faulting
application path:
C:\Windows\SysWOW64\inetrv\w3wp.exe&#x000d;&#x000a;F
aulting module path:
C:\Windows\SysWOW64\ole32.dll&#x000d;&#x000a;Report
Id: ee0f8c42-a3fe-11df-a3a1-00155d280701
8/5/2010 4:08 PM Application Error Faulting
application name: w3wp.exe, version: 7.5.7600.16385,
time stamp: 0x4a5bcd2b&#x000d;&#x000a;Faulting module
name: ole32.dll, version: 6.1.7600.16385, time stamp:
0x4a5bdac7&#x000d;&#x000a;Exception code:
0xc0000005&#x000d;&#x000a;Fault offset:
0x0000f771&#x000d;&#x000a;Faulting process id:
0x808&#x000d;&#x000a;Faulting application start time:
0x01cb34a375432780&#x000d;&#x000a;Faulting
application path:
C:\Windows\SysWOW64\inetrv\w3wp.exe&#x000d;&#x000a;F
aulting module path:

```

```

C:\Windows\SysWOW64\ole32.dll&#x000d;&#x000a;Report
Id: ab3ceb4-a0ab-11df-a192-00155d280701
8/3/2010 5:46 PM Application Error Faulting
application name: w3wp.exe, version: 7.5.7600.16385,
time stamp: 0x4a5bcd2b&#x000d;&#x000a;Faulting module
name: ole32.dll, version: 6.1.7600.16385, time stamp:
0x4a5bdac7&#x000d;&#x000a;Exception code:
0xc0000005&#x000d;&#x000a;Fault offset:
0x0000f771&#x000d;&#x000a;Faulting process id:
0x6dc&#x000d;&#x000a;Faulting application start time:
0x01cb33183adcb8c&#x000d;&#x000a;Faulting
application path:
C:\Windows\SysWOW64\inetrv\w3wp.exe&#x000d;&#x000a;F
aulting module path:
C:\Windows\SysWOW64\ole32.dll&#x000d;&#x000a;Report
Id: 020d56b6-9f27-11df-b12e-00155d280701
7/21/2010 7:46 PM Application Error Faulting
application name: w3wp.exe, version: 7.5.7600.16385,
time stamp: 0x4a5bcd2b&#x000d;&#x000a;Faulting module
name: ole32.dll, version: 6.1.7600.16385, time stamp:
0x4a5bdac7&#x000d;&#x000a;Exception code:
0xc0000005&#x000d;&#x000a;Fault offset:
0x0000f771&#x000d;&#x000a;Faulting process id:
0x518&#x000d;&#x000a;Faulting application start time:
0x01cb2906ca1f1672&#x000d;&#x000a;Faulting
application path:
C:\Windows\SysWOW64\inetrv\w3wp.exe&#x000d;&#x000a;F
aulting module path:
C:\Windows\SysWOW64\ole32.dll&#x000d;&#x000a;Report
Id: 9a52d4a4-9500-11df-abec-00155d280701
7/21/2010 6:56 PM Application Error Faulting
application name: w3wp.exe, version: 7.5.7600.16385,
time stamp: 0x4a5bcd2b&#x000d;&#x000a;Faulting module
name: ole32.dll, version: 6.1.7600.16385, time stamp:
0x4a5bdac7&#x000d;&#x000a;Exception code:
0xc0000005&#x000d;&#x000a;Fault offset:
0x0000f771&#x000d;&#x000a;Faulting process id:
0x17c&#x000d;&#x000a;Faulting application start time:
0x01cb2902e9066558&#x000d;&#x000a;Faulting
application path:
C:\Windows\SysWOW64\inetrv\w3wp.exe&#x000d;&#x000a;F
aulting module path:
C:\Windows\SysWOW64\ole32.dll&#x000d;&#x000a;Report
Id: aade6b78-94f9-11df-abec-00155d280701
7/16/2010 6:12 PM Application Error Faulting
application name: w3wp.exe, version: 7.5.7600.16385,
time stamp: 0x4a5bcd2b&#x000d;&#x000a;Faulting module
name: ole32.dll, version: 6.1.7600.16385, time stamp:
0x4a5bdac7&#x000d;&#x000a;Exception code:
0xc0000005&#x000d;&#x000a;Fault offset:
0x0000f771&#x000d;&#x000a;Faulting process id:
0x31c&#x000d;&#x000a;Faulting application start time:
0x01cb25058bf135ba&#x000d;&#x000a;Faulting
application path:
C:\Windows\SysWOW64\inetrv\w3wp.exe&#x000d;&#x000a;F
aulting module path:
C:\Windows\SysWOW64\ole32.dll&#x000d;&#x000a;Report
Id: a886142c-9105-11df-8d51-00155d280701
8/26/2010 6:51 PM Windows Error Reporting
Fault bucket , type 0&#x000d;&#x000a;Event
Name: APPCRASH&#x000d;&#x000a;Response: Not
available&#x000d;&#x000a;Cab Id:
0&#x000d;&#x000a;Problem

```



```

files:&#x000d;&#x000a;C:\Windows\Temp\WERE8F4.tmp.app
compat.txt&#x000d;&#x000a;C:\Windows\Temp\WERF317.tmp
.WERInternalMetadata.xml&#x000d;&#x000a;C:\Windows\Te
mp\WERF327.tmp.hdmp&#x000d;&#x000a;C:\Windows\Temp\WE
R345.tmp.mdmp&#x000d;&#x000a;&#x000d;&#x000a;These
files may be available
here:&#x000d;&#x000a;C:\ProgramData\Microsoft\Windows
\WER\ReportQueue\AppCrash_w3wp.exe_lacfc318792f45c71d
ad16b62778422247fc5f7_cab_09ee03df&#x000d;&#x000a;&#x
000d;&#x000a;Analysis symbol:
&#x000d;&#x000a;Rechecking for solution:
0&#x000d;&#x000a;Report Id: a886142c-9105-11df-8d51-
00155d280701&#x000d;&#x000a;Report Status: 4

```

COM_settings.txt

The component services tool in Windows 2008 was used to change the queue settings for the TPCC COM+ queue components. All tpcc queue components were set to enable object pooling, object construction, just in time activation, and component supports events and statistics. The construction string was Server = myserver; UID= sa; pwd=; DATABASE= tpcc; The single queue TpcAllTxn object was used, with the Min and Max both being set to 60 queues. Delivery threads were set under the TPCC key in the registry.

inetinfo.txt

```

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\services\
InetInfo
Class Name: <NO CLASS>
Last Write Time: 5/14/2010 - 1:27 PM

```

```

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\services\
InetInfo\Parameters
Class Name: <NO CLASS>
Last Write Time: 5/14/2010 - 3:50 PM

```

```

Value 0
Name: PoolThreadLimit
Type: REG_DWORD
Data: 0xffe

```

```

Value 1
Name: ThreadTimeout
Type: REG_DWORD
Data: 0x15180

```

```

Value 2
Name: ListenBackLog
Type: REG_DWORD
Data: 0xf

```

```

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\services\
InetInfo\Performance
Class Name: <NO CLASS>
Last Write Time: 5/14/2010 - 1:27 PM

```

```

Value 0
Name: Close
Type: REG_SZ
Data: CloseINFOPerformanceData

```

```

Value 1
Name: Open
Type: REG_SZ
Data: OpenINFOPerformanceData

```

```

Value 2
Name: Collect
Type: REG_SZ
Data: CollectINFOPerformanceData

```

```

Value 3
Name: Library
Type: REG_SZ
Data: infoctrs.dll

```

```

Value 4
Name: InstallType
Type: REG_DWORD
Data: 0x1

```

```

Value 5
Name: PerfIniFile
Type: REG_SZ
Data: infoctrs.ini

```

```

Value 6
Name: First Counter
Type: REG_DWORD
Data: 0x1848

```

```

Value 7
Name: Last Counter
Type: REG_DWORD
Data: 0x1888

```

```

Value 8
Name: First Help
Type: REG_DWORD
Data: 0x1849

```

```

Value 9
Name: Last Help
Type: REG_DWORD
Data: 0x1889

```

```

Value 10
Name: Object List
Type: REG_SZ
Data: 6216

```

install.txt

```

Microsoft SQL Server 2005 Enterprise x64 Edition SP3
Installation Procedures
Type of installation: custom
During the custom installation, use the default
settings for all except the following two areas:
Services accounts:
SQL Server - local system account
SQL Server Agent - local system account
Set the sort order/collation as Latin1_General / BIN

```

server_info.txt

```

System Information report written at: 08/27/10
11:54:55
System Name: WORLDUCUP
[System Summary]

```

```

Item Value
OS Name Microsoft Windows Server 2008 R2 Enterprise

```

```

Version 6.1.7600 Build 7600
Other OS Description Not Available
OS Manufacturer Microsoft Corporation
System Name WORLDUCUP
System Manufacturer Hewlett-Packard
System Model ProLiant DL580 G7
System Type x64-based PC
Processor Intel(R) Xeon(R) CPU X7560 @
2.27GHz, 2264 Mhz, 8 Core(s), 16 Logical Processor(s)

```

```

Processor Intel(R) Xeon(R) CPU X7560 @
2.27GHz, 2264 Mhz, 8 Core(s), 16 Logical Processor(s)

```

```

Processor Intel(R) Xeon(R) CPU X7560 @
2.27GHz, 2264 Mhz, 8 Core(s), 16 Logical Processor(s)

```

```

Processor Intel(R) Xeon(R) CPU X7560 @
2.27GHz, 2264 Mhz, 8 Core(s), 16 Logical Processor(s)

```

```

BIOS Version/Date Hewlett-Packard P65, 7/14/2010

```

```

SMBIOS Version 2.6
Windows Directory C:\Windows
System Directory C:\Windows\system32
Boot Device \Device\HarddiskVolume129
Locale United States
Hardware Abstraction Layer Version =
"6.1.7600.16385"
User Name Not Available
Time Zone Central Daylight Time
Installed Physical Memory (RAM) 1.00 TB
Total Physical Memory 1.00 TB
Available Physical Memory 980 GB
Total Virtual Memory 1.06 TB
Available Virtual Memory 1.02 TB
Page File Space 64.5 GB
Page File C:\pagefile.sys

```

[Hardware Resources]

[Conflicts/Sharing]

Resource Device
Memory Address 0xF0000000-0xFBFFFFFF PCI bus
Memory Address 0xF0000000-0xFBFFFFFF Intel(R)
5520/5500/X58 I/O Hub PCI Express Root Port 3 - 340A

Memory Address 0xF0000000-0xFBFFFFFF LSI Adapter,
SAS2 2116 Meteor ROC(E) -StorPort

I/O Port 0x00000000-0x000003AF PCI bus
I/O Port 0x00000000-0x000003AF Direct memory
access controller

I/O Port 0x0000A000-0x0000AFFF Intel(R)
5520/5500/X58 I/O Hub PCI Express Root Port 9 - 3410

I/O Port 0x0000A000-0x0000AFFF PCI bus

Memory Address 0xF0600000-0xF06FFFFFF Intel(R)
5520/5500/X58 I/O Hub PCI Express Root Port 7 - 340E

Memory Address 0xF0600000-0xF06FFFFFF LSI Adapter,
SAS2 2116 Meteor ROC(E) -StorPort

IRQ 20 Intel(R) ICH10 Family USB Universal Host
Controller - 3A34
IRQ 20 Intel(R) ICH10 Family USB Enhanced Host
Controller - 3A3A

I/O Port 0x000003C0-0x000003DF ATI ES1000

I/O Port 0x000003C0-0x000003DF PCI bus

I/O Port 0x00000070-0x00000071 System
CMOS/real time clock
I/O Port 0x00000070-0x00000071 Motherboard
resources

Memory Address 0xD0300000-0xD03FFFFFF Intel(R)
5520/5500/X58 I/O Hub PCI Express Root Port 9 - 3410

Memory Address 0xD0300000-0xD03FFFFFF LSI Adapter,
SAS2 2116 Meteor ROC(E) -StorPort

I/O Port 0x00002000-0x00002FFF Intel(R)
82801 PCI Bridge - 244E
I/O Port 0x00002000-0x00002FFF ATI ES1000

Memory Address 0xDA000000-0xDA3FFFFFF Smart Array
P410i Controller
Memory Address 0xDA000000-0xDA3FFFFFF Intel(R)
ICH10 Family PCI Express Root Port 1 - 3A40

IRQ 23 ATI ES1000
IRQ 23 Intel(R) ICH10 Family USB Universal Host
Controller - 3A39

IRQ 23 Intel(R) ICH10 Family USB Universal Host
Controller - 3A35

I/O Port 0x00003000-0x000030FF HP ProLiant
iLO 3 Management Controller (CORE)
I/O Port 0x00003000-0x000030FF Intel(R)
ICH10 Family PCI Express Root Port 5 - 3A48

Memory Address 0xF0200000-0xF05FFFFFF Intel(R)
5520/5500/X58 I/O Hub PCI Express Root Port 1 - 3408

Memory Address 0xF0200000-0xF05FFFFFF QLogic Fibre
Channel Adapter

Memory Address 0xFED00000-0xFED003FF High
precision event timer
Memory Address 0xFED00000-0xFED003FF PCI bus

Memory Address 0xD0100000-0xD0103FFF LSI Adapter,
SAS2 2116 Meteor ROC(E) -StorPort
Memory Address 0xD0100000-0xD0103FFF Intel(R)
5520/5500/X58 I/O Hub PCI Express Root Port 1 - 3408

Memory Address 0xD0200000-0xD02FFFFFF Intel(R)
5520/5500/X58 I/O Hub PCI Express Root Port 7 - 340E

Memory Address 0xD0200000-0xD02FFFFFF LSI Adapter,
SAS2 2116 Meteor ROC(E) -StorPort

Memory Address 0xDA500000-0xDA5001FF HP ProLiant
iLO 3 Management Controller (CORE)
Memory Address 0xDA500000-0xDA5001FF Intel(R)
ICH10 Family PCI Express Root Port 5 - 3A48

IRQ 16 Intel(R) ICH10 Family PCI Express Root Port
1 - 3A40
IRQ 16 HP ProLiant iLO 3 Management Controller
(CORE)
IRQ 16 Intel(R) ICH10 Family PCI Express Root Port
5 - 3A48

Memory Address 0xD0400000-0xD05FFFFFF HP NC375i
Integrated Quad Port Multifunction Gigabit Server
Adapter #8
Memory Address 0xD0400000-0xD05FFFFFF Intel(R)
5520/5500/X58 I/O Hub PCI Express Root Port 3 - 340A

Memory Address 0xD0000000-0xD0003FFF LSI Adapter,
SAS2 2116 Meteor ROC(E) -StorPort
Memory Address 0xD0000000-0xD0003FFF PCI bus
Memory Address 0xD0000000-0xD0003FFF Intel(R)
5520/X58 I/O Hub PCI Express Root Port 5 - 340C

Memory Address 0xE0000000-0xE7FFFFFF Intel(R)
82801 PCI Bridge - 244E
Memory Address 0xE0000000-0xE7FFFFFF ATI ES1000

IRQ 17 Standard Dual Channel PCI IDE Controller

IRQ 17 HP ProLiant iLO 3 Management Controller
(CHIF)
IRQ 17 Standard Universal PCI to USB Host
Controller

Memory Address 0xA0000-0xBFFFFFF ATI ES1000

Memory Address 0xA0000-0xBFFFFFF PCI bus

I/O Port 0x00001000-0x0000101F Intel(R)
ICH10 Family USB Universal Host Controller - 3A34
I/O Port 0x00001000-0x0000101F PCI bus

I/O Port 0x000003B0-0x000003BB ATI ES1000

I/O Port 0x000003B0-0x000003BB PCI bus

Memory Address 0xF0700000-0xF0703FFF LSI Adapter,
SAS2 2116 Meteor ROC(E) -StorPort
Memory Address 0xF0700000-0xF0703FFF Intel(R)
5520/5500/X58 I/O Hub PCI Express Root Port 9 - 3410

Memory Address 0xF0100000-0xF0103FFF LSI Adapter,
SAS2 2116 Meteor ROC(E) -StorPort
Memory Address 0xF0100000-0xF0103FFF Intel(R)
5520/X58 I/O Hub PCI Express Root Port 5 - 340C

Memory Address 0xDA700000-0xDA7FFFFFF Intel(R)
82801 PCI Bridge - 244E
Memory Address 0xDA700000-0xDA7FFFFFF ATI ES1000

[DMA]

Resource Device Status
Channel 7 Direct memory access controller OK

[Forced Hardware]

Device PNP Device ID

[I/O]

Resource Device Status
0x00006000-0x00006FFF Intel(R) 5520/5500/X58
I/O Hub PCI Express Root Port 7 - 340E OK
0x00009FD8-0x00009FDF Standard Dual Channel
PCI IDE Controller OK
0x00009FCC-0x00009FCF Standard Dual Channel
PCI IDE Controller OK
0x00009FD0-0x00009FD7 Standard Dual Channel
PCI IDE Controller OK
0x00009FC8-0x00009FCB Standard Dual Channel
PCI IDE Controller OK
0x00009FF0-0x00009FFF Standard Dual Channel
PCI IDE Controller OK
0x00009FE0-0x00009FEF Standard Dual Channel
PCI IDE Controller OK
0x00001040-0x0000105F Intel(R) ICH10 Family
USB Universal Host Controller - 3A36 OK

0x00002000-0x00002FFF Intel(R) 82801 PCI Bridge - 244E OK
 0x00002000-0x00002FFF ATI ES1000 OK
 0x00000061-0x00000061 System speaker OK
 0x0000B000-0x0000BFFF Intel(R) 5520/5500/X58 I/O Hub PCI Express Root Port 7 - 340E OK
 0x00000CA2-0x00000CA3 Microsoft Generic IPMI Compliant Device OK
 0x00004000-0x00004FFF Intel(R) ICH10 Family PCI Express Root Port 1 - 3A40 OK
 0x000003B0-0x000003BB ATI ES1000 OK
 0x000003B0-0x000003BB PCI bus OK
 0x000003C0-0x000003DF ATI ES1000 OK
 0x000003C0-0x000003DF PCI bus OK
 0x00007000-0x00007FFF Intel(R) 5520/5500/X58 I/O Hub PCI Express Root Port 1 - 3408 OK
 0x00005000-0x00005FFF Intel(R) 5520/5500/X58 I/O Hub PCI Express Root Port 9 - 3410 OK
 0x00001000-0x0000101F Intel(R) ICH10 Family USB Universal Host Controller - 3A34 OK
 0x00001000-0x0000101F PCI bus OK
 0x0000C000-0x0000CFFF Intel(R) 5520/5500/X58 I/O Hub PCI Express Root Port 1 - 3408 OK
 0x0000A000-0x0000AFFF Intel(R) 5520/5500/X58 I/O Hub PCI Express Root Port 9 - 3410 OK
 0x0000A000-0x0000AFFF PCI bus OK
 0x00000040-0x00000043 System timer OK
 0x0000002E-0x0000002F Extended IO Bus OK
 0x00000620-0x0000065F Extended IO Bus OK
 0x00000680-0x0000069F Extended IO Bus OK
 0x00000600-0x0000061F Extended IO Bus OK
 0x00000660-0x0000067F Extended IO Bus OK
 0x00000300-0x0000031F Extended IO Bus OK
 0x00001060-0x0000107F Intel(R) ICH10 Family USB Universal Host Controller - 3A39 OK
 0x00003000-0x000030FF HP ProLiant iLO 3 Management Controller (CORE) OK
 0x00003000-0x000030FF Intel(R) ICH10 Family PCI Express Root Port 5 - 3A48 OK
 0x00003400-0x000034FF HP ProLiant iLO 3 Management Controller (CORE) OK
 0x00000000-0x0000003AF PCI bus OK
 0x00000000-0x0000003AF Direct memory access controller OK
 0x000003E0-0x00000CF7 PCI bus OK
 0x00000D00-0x00000FFF PCI bus OK
 0x0000E000-0x0000EFFF Intel(R) 5520/5500/X58 I/O Hub PCI Express Root Port 3 - 340A OK
 0x00000080-0x0000008F Direct memory access controller OK
 0x000000C0-0x000000DF Direct memory access controller OK

0x00001020-0x0000103F Intel(R) ICH10 Family USB Universal Host Controller - 3A35 OK
 0x00003800-0x000038FF HP ProLiant iLO 3 Management Controller (CHIF) OK
 0x00008000-0x00008FFF Intel(R) 5520/X58 I/O Hub PCI Express Root Port 5 - 340C OK
 0x00000070-0x00000071 System CMOS/real time clock OK
 0x00000070-0x00000071 Motherboard resources OK
 0x00000408-0x0000040F Motherboard resources OK
 0x000004D0-0x000004D1 Motherboard resources OK
 0x00000020-0x0000003F Motherboard resources OK
 0x000000A0-0x000000BF Motherboard resources OK
 0x00000090-0x0000009F Motherboard resources OK
 0x00000050-0x00000053 Motherboard resources OK
 0x00000700-0x0000071F Motherboard resources OK
 0x00000880-0x000008FF Motherboard resources OK
 0x00000900-0x0000097F Motherboard resources OK
 0x00000010-0x0000001F Motherboard resources OK
 0x00000CD0-0x00000CD3 Motherboard resources OK
 0x00000CD4-0x00000CD7 Motherboard resources OK
 0x00000F50-0x00000F58 Motherboard resources OK
 0x00000F00-0x00000F00 Motherboard resources OK
 0x00000CA0-0x00000CA1 Motherboard resources OK
 0x00000CA4-0x00000CA5 Motherboard resources OK
 0x000002F8-0x000002FF Motherboard resources OK
 0x0000D000-0x0000DFFF Intel(R) 5520/X58 I/O Hub PCI Express Root Port 5 - 340C OK
 0x00000060-0x00000060 Standard PS/2 Keyboard OK
 0x00000064-0x00000064 Standard PS/2 Keyboard OK
 0x00003C00-0x00003C1F Standard Universal PCI to USB Host Controller OK
 0x000003F8-0x000003FF Communications Port (COM1) OK
 [IRQs]
 Resource Device Status
 IRQ 4294967278 Intel(R) 5520/5500/X58 I/O Hub PCI Express Root Port 2 - 3409 OK
 IRQ 4294967057 HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter #8 OK

IRQ 4294967056 HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter #8 OK
 IRQ 4294967055 HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter #8 OK
 IRQ 4294967054 HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter #8 OK
 IRQ 4294967053 HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter #8 OK
 IRQ 4294967052 HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter #8 OK
 IRQ 4294967051 HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter #8 OK
 IRQ 4294967050 HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter #8 OK
 IRQ 4294967288 Intel(R) 5520/5500/X58 I/O Hub PCI Express Root Port 7 - 340E OK
 IRQ 4294967274 Intel(R) 5520/5500/X58 I/O Hub PCI Express Root Port 10 - 3411 OK
 IRQ 4294967201 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967200 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967199 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967198 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967197 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967196 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967195 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967194 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967193 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967192 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967191 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967190 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967189 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967188 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967187 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 17 Standard Dual Channel PCI IDE Controller OK
 IRQ 17 HP ProLiant iLO 3 Management Controller (CHIF) OK
 IRQ 17 Standard Universal PCI to USB Host Controller OK
 IRQ 22 Intel(R) ICH10 Family USB Universal Host Controller - 3A36 OK
 IRQ 12 PS/2 Compatible Mouse OK
 IRQ 4294967283 Intel(R) 5520/X58 I/O Hub PCI Express Root Port 4 - 340B OK
 IRQ 4294967273 Smart Array P410i Controller OK
 IRQ 4294967272 Smart Array P410i Controller OK

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| IRQ 4294967271 | Smart Array P410i Controller | OK |
| IRQ 4294967270 | Smart Array P410i Controller | OK |
| IRQ 4294967269 | Smart Array P410i Controller | OK |
| IRQ 4294967268 | Smart Array P410i Controller | OK |
| IRQ 4294967267 | Smart Array P410i Controller | OK |
| IRQ 4294967266 | Smart Array P410i Controller | OK |
| IRQ 4294967065 | HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter #7 | OK |
| IRQ 4294967064 | HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter #7 | OK |
| IRQ 4294967063 | HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter #7 | OK |
| IRQ 4294967062 | HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter #7 | OK |
| IRQ 4294967061 | HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter #7 | OK |
| IRQ 4294967060 | HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter #7 | OK |
| IRQ 4294967059 | HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter #7 | OK |
| IRQ 4294967058 | HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter #7 | OK |
| IRQ 4294967291 | Intel(R) 5520/5500/X58 I/O Hub PCI Express Root Port 7 - 3A0E | OK |
| IRQ 16 | Intel(R) ICH10 Family PCI Express Root Port 1 - 3A40 | OK |
| IRQ 16 | HP ProLiant iLO 3 Management Controller (CORE) | OK |
| IRQ 16 | Intel(R) ICH10 Family PCI Express Root Port 5 - 3A48 | OK |
| IRQ 81 | Microsoft ACPI-Compliant System | OK |
| IRQ 82 | Microsoft ACPI-Compliant System | OK |
| IRQ 83 | Microsoft ACPI-Compliant System | OK |
| IRQ 84 | Microsoft ACPI-Compliant System | OK |
| IRQ 85 | Microsoft ACPI-Compliant System | OK |
| IRQ 86 | Microsoft ACPI-Compliant System | OK |
| IRQ 87 | Microsoft ACPI-Compliant System | OK |
| IRQ 88 | Microsoft ACPI-Compliant System | OK |
| IRQ 89 | Microsoft ACPI-Compliant System | OK |
| IRQ 90 | Microsoft ACPI-Compliant System | OK |
| IRQ 91 | Microsoft ACPI-Compliant System | OK |
| IRQ 92 | Microsoft ACPI-Compliant System | OK |
| IRQ 93 | Microsoft ACPI-Compliant System | OK |

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| IRQ 94 | Microsoft ACPI-Compliant System | OK |
| IRQ 95 | Microsoft ACPI-Compliant System | OK |
| IRQ 96 | Microsoft ACPI-Compliant System | OK |
| IRQ 97 | Microsoft ACPI-Compliant System | OK |
| IRQ 98 | Microsoft ACPI-Compliant System | OK |
| IRQ 99 | Microsoft ACPI-Compliant System | OK |
| IRQ 100 | Microsoft ACPI-Compliant System | OK |
| IRQ 101 | Microsoft ACPI-Compliant System | OK |
| IRQ 102 | Microsoft ACPI-Compliant System | OK |
| IRQ 103 | Microsoft ACPI-Compliant System | OK |
| IRQ 104 | Microsoft ACPI-Compliant System | OK |
| IRQ 105 | Microsoft ACPI-Compliant System | OK |
| IRQ 106 | Microsoft ACPI-Compliant System | OK |
| IRQ 107 | Microsoft ACPI-Compliant System | OK |
| IRQ 108 | Microsoft ACPI-Compliant System | OK |
| IRQ 109 | Microsoft ACPI-Compliant System | OK |
| IRQ 110 | Microsoft ACPI-Compliant System | OK |
| IRQ 111 | Microsoft ACPI-Compliant System | OK |
| IRQ 112 | Microsoft ACPI-Compliant System | OK |
| IRQ 113 | Microsoft ACPI-Compliant System | OK |
| IRQ 114 | Microsoft ACPI-Compliant System | OK |
| IRQ 115 | Microsoft ACPI-Compliant System | OK |
| IRQ 116 | Microsoft ACPI-Compliant System | OK |
| IRQ 117 | Microsoft ACPI-Compliant System | OK |
| IRQ 118 | Microsoft ACPI-Compliant System | OK |
| IRQ 119 | Microsoft ACPI-Compliant System | OK |
| IRQ 120 | Microsoft ACPI-Compliant System | OK |
| IRQ 121 | Microsoft ACPI-Compliant System | OK |
| IRQ 122 | Microsoft ACPI-Compliant System | OK |
| IRQ 123 | Microsoft ACPI-Compliant System | OK |
| IRQ 124 | Microsoft ACPI-Compliant System | OK |

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| IRQ 125 | Microsoft ACPI-Compliant System | OK |
| IRQ 126 | Microsoft ACPI-Compliant System | OK |
| IRQ 127 | Microsoft ACPI-Compliant System | OK |
| IRQ 128 | Microsoft ACPI-Compliant System | OK |
| IRQ 129 | Microsoft ACPI-Compliant System | OK |
| IRQ 130 | Microsoft ACPI-Compliant System | OK |
| IRQ 131 | Microsoft ACPI-Compliant System | OK |
| IRQ 132 | Microsoft ACPI-Compliant System | OK |
| IRQ 133 | Microsoft ACPI-Compliant System | OK |
| IRQ 134 | Microsoft ACPI-Compliant System | OK |
| IRQ 135 | Microsoft ACPI-Compliant System | OK |
| IRQ 136 | Microsoft ACPI-Compliant System | OK |
| IRQ 137 | Microsoft ACPI-Compliant System | OK |
| IRQ 138 | Microsoft ACPI-Compliant System | OK |
| IRQ 139 | Microsoft ACPI-Compliant System | OK |
| IRQ 140 | Microsoft ACPI-Compliant System | OK |
| IRQ 141 | Microsoft ACPI-Compliant System | OK |
| IRQ 142 | Microsoft ACPI-Compliant System | OK |
| IRQ 143 | Microsoft ACPI-Compliant System | OK |
| IRQ 144 | Microsoft ACPI-Compliant System | OK |
| IRQ 145 | Microsoft ACPI-Compliant System | OK |
| IRQ 146 | Microsoft ACPI-Compliant System | OK |
| IRQ 147 | Microsoft ACPI-Compliant System | OK |
| IRQ 148 | Microsoft ACPI-Compliant System | OK |
| IRQ 149 | Microsoft ACPI-Compliant System | OK |
| IRQ 150 | Microsoft ACPI-Compliant System | OK |
| IRQ 151 | Microsoft ACPI-Compliant System | OK |
| IRQ 152 | Microsoft ACPI-Compliant System | OK |
| IRQ 153 | Microsoft ACPI-Compliant System | OK |
| IRQ 154 | Microsoft ACPI-Compliant System | OK |
| IRQ 155 | Microsoft ACPI-Compliant System | OK |

IRQ 156 Microsoft ACPI-Compliant System OK
 IRQ 157 Microsoft ACPI-Compliant System OK
 IRQ 158 Microsoft ACPI-Compliant System OK
 IRQ 159 Microsoft ACPI-Compliant System OK
 IRQ 160 Microsoft ACPI-Compliant System OK
 IRQ 161 Microsoft ACPI-Compliant System OK
 IRQ 162 Microsoft ACPI-Compliant System OK
 IRQ 163 Microsoft ACPI-Compliant System OK
 IRQ 164 Microsoft ACPI-Compliant System OK
 IRQ 165 Microsoft ACPI-Compliant System OK
 IRQ 166 Microsoft ACPI-Compliant System OK
 IRQ 167 Microsoft ACPI-Compliant System OK
 IRQ 168 Microsoft ACPI-Compliant System OK
 IRQ 169 Microsoft ACPI-Compliant System OK
 IRQ 170 Microsoft ACPI-Compliant System OK
 IRQ 171 Microsoft ACPI-Compliant System OK
 IRQ 172 Microsoft ACPI-Compliant System OK
 IRQ 173 Microsoft ACPI-Compliant System OK
 IRQ 174 Microsoft ACPI-Compliant System OK
 IRQ 175 Microsoft ACPI-Compliant System OK
 IRQ 176 Microsoft ACPI-Compliant System OK
 IRQ 177 Microsoft ACPI-Compliant System OK
 IRQ 178 Microsoft ACPI-Compliant System OK
 IRQ 179 Microsoft ACPI-Compliant System OK
 IRQ 180 Microsoft ACPI-Compliant System OK
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 IRQ 183 Microsoft ACPI-Compliant System OK
 IRQ 184 Microsoft ACPI-Compliant System OK
 IRQ 185 Microsoft ACPI-Compliant System OK
 IRQ 186 Microsoft ACPI-Compliant System OK

IRQ 187 Microsoft ACPI-Compliant System OK
 IRQ 188 Microsoft ACPI-Compliant System OK
 IRQ 189 Microsoft ACPI-Compliant System OK
 IRQ 190 Microsoft ACPI-Compliant System OK
 IRQ 4294967096 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967095 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967094 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967093 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967092 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967091 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967090 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967089 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967088 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967087 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967086 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967085 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967084 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967083 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967082 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 23 ATI ES1000 OK
 IRQ 23 Intel(R) ICH10 Family USB Universal Host
 Controller - 3A39 OK
 IRQ 23 Intel(R) ICH10 Family USB Universal Host
 Controller - 3A35 OK
 IRQ 4294967294 Intel(R) 5520/5500/X58 I/O Hub
 PCI Express Root Port 1 - 3408 OK
 IRQ 4294967277 Intel(R) 5520/X58 I/O Hub PCI
 Express Root Port 4 - 340B OK
 IRQ 4294967073 HP NC375i Integrated Quad Port
 Multifunction Gigabit Server Adapter #5 OK
 IRQ 4294967072 HP NC375i Integrated Quad Port
 Multifunction Gigabit Server Adapter #5 OK
 IRQ 4294967071 HP NC375i Integrated Quad Port
 Multifunction Gigabit Server Adapter #5 OK
 IRQ 4294967070 HP NC375i Integrated Quad Port
 Multifunction Gigabit Server Adapter #5 OK
 IRQ 4294967069 HP NC375i Integrated Quad Port
 Multifunction Gigabit Server Adapter #5 OK
 IRQ 4294967068 HP NC375i Integrated Quad Port
 Multifunction Gigabit Server Adapter #5 OK
 IRQ 4294967067 HP NC375i Integrated Quad Port
 Multifunction Gigabit Server Adapter #5 OK
 IRQ 4294967066 HP NC375i Integrated Quad Port
 Multifunction Gigabit Server Adapter #5 OK

IRQ 4294967286 Intel(R) 5520/5500/X58 I/O Hub
 PCI Express Root Port 9 - 3410 OK
 IRQ 20 Intel(R) ICH10 Family USB Universal Host
 Controller - 3A34 OK
 IRQ 20 Intel(R) ICH10 Family USB Enhanced Host
 Controller - 3A3A OK
 IRQ 4294967156 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967155 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967154 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967153 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967152 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967151 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967150 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967149 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967148 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967147 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967146 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967145 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967144 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967143 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967142 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967285 Intel(R) 5520/5500/X58 I/O Hub
 PCI Express Root Port 1 - 3408 OK
 IRQ 4294967282 Intel(R) 5520/X58 I/O Hub PCI
 Express Root Port 6 - 340D OK
 IRQ 4294967081 HP NC375i Integrated Quad Port
 Multifunction Gigabit Server Adapter #6 OK
 IRQ 4294967080 HP NC375i Integrated Quad Port
 Multifunction Gigabit Server Adapter #6 OK
 IRQ 4294967079 HP NC375i Integrated Quad Port
 Multifunction Gigabit Server Adapter #6 OK
 IRQ 4294967078 HP NC375i Integrated Quad Port
 Multifunction Gigabit Server Adapter #6 OK
 IRQ 4294967077 HP NC375i Integrated Quad Port
 Multifunction Gigabit Server Adapter #6 OK
 IRQ 4294967076 HP NC375i Integrated Quad Port
 Multifunction Gigabit Server Adapter #6 OK
 IRQ 4294967075 HP NC375i Integrated Quad Port
 Multifunction Gigabit Server Adapter #6 OK
 IRQ 4294967074 HP NC375i Integrated Quad Port
 Multifunction Gigabit Server Adapter #6 OK
 IRQ 4294967293 Intel(R) 5520/5500/X58 I/O Hub
 PCI Express Root Port 9 - 3410 OK
 IRQ 0 System timer OK
 IRQ 4294967186 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK
 IRQ 4294967185 LSI Adapter, SAS2 2116 Meteor
 ROC(E) -StorPort OK

IRQ 4294967204 QLogic Fibre Channel Adapter OK
 IRQ 4294967203 QLogic Fibre Channel Adapter OK
 IRQ 4294967202 QLogic Fibre Channel Adapter OK
 IRQ 4294967290 Intel(R) 5520/X58 I/O Hub PCI Express Root Port 5 - 340C OK
 IRQ 4294967275 Intel(R) 5520/5500/X58 I/O Hub PCI Express Root Port 8 - 340F OK
 IRQ 4294967279 Intel(R) 5520/5500/X58 I/O Hub PCI Express Root Port 0 - 3420 OK
 IRQ 4294967171 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967170 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967169 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967168 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967167 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967166 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967165 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967164 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967163 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967162 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967161 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967160 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967159 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967158 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967157 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967141 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967140 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967139 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967138 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967137 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967136 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967135 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967134 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967133 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967132 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK

IRQ 4294967131 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967130 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967129 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967128 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967127 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967284 Intel(R) 5520/5500/X58 I/O Hub PCI Express Root Port 2 - 3409 OK
 IRQ 4294967289 Intel(R) 5520/X58 I/O Hub PCI Express Root Port 5 - 340C OK
 IRQ 1 Standard PS/2 Keyboard OK
 IRQ 4294967280 Intel(R) 5520/5500/X58 I/O Hub PCI Express Root Port 10 - 3411 OK
 IRQ 4294967111 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967110 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967109 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967108 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967107 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967106 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967105 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967104 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967103 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967102 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967101 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967100 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967099 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967098 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4294967097 LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 IRQ 4 Communications Port (COM1) OK
 [Memory]
 Resource Device Status
 0xD0400000-0xD05FFFFFFF HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter #8 OK
 0xD0400000-0xD05FFFFFFF Intel(R) 5520/5500/X58 I/O Hub PCI Express Root Port 3 - 340A OK
 0xD2000000-0xD3FFFFFFF HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter #8 OK
 0xD0200000-0xD02FFFFFFF Intel(R) 5520/5500/X58 I/O Hub PCI Express Root Port 7 - 340E OK

0xD0200000-0xD02FFFFFFF LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 0xD0100000-0xD0103FFF LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 0xD0100000-0xD0103FFF Intel(R) 5520/5500/X58 I/O Hub PCI Express Root Port 1 - 3408 OK
 0xD0140000-0xD017FFFF LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 0xDA700000-0xDA7FFFFFFF Intel(R) 82801 PCI Bridge - 244E OK
 0xDA700000-0xDA7FFFFFFF ATI ES1000 OK
 0xE0000000-0xE7FFFFFFF Intel(R) 82801 PCI Bridge - 244E OK
 0xE0000000-0xE7FFFFFFF ATI ES1000 OK
 0xDA000000-0xDA3FFFFFFF Smart Array P410i Controller OK
 0xDA000000-0xDA3FFFFFFF Intel(R) ICH10 Family PCI Express Root Port 1 - 3A40 OK
 0xDA400000-0xDA4000FFFF Smart Array P410i Controller OK
 0xD0600000-0xD07FFFFFFF HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter #7 OK
 0xD4000000-0xD5FFFFFFF HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter #7 OK
 0xF0600000-0xF06FFFFFFF Intel(R) 5520/5500/X58 I/O Hub PCI Express Root Port 7 - 340E OK
 0xF0600000-0xF06FFFFFFF LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 0xF0700000-0xF0703FFF LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 0xF0700000-0xF0703FFF Intel(R) 5520/5500/X58 I/O Hub PCI Express Root Port 9 - 3410 OK
 0xF0740000-0xF077FFFF LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 0xA0000-0xBFFFFF ATI ES1000 OK
 0xA0000-0xBFFFFF PCI bus OK
 0xD0800000-0xD09FFFFFFF HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter #5 OK
 0xD6000000-0xD7FFFFFFF HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter #5 OK
 0xD0300000-0xD03FFFFFFF Intel(R) 5520/5500/X58 I/O Hub PCI Express Root Port 9 - 3410 OK
 0xD0300000-0xD03FFFFFFF LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 0xD0340000-0xD037FFFF LSI Adapter, SAS2 2116 Meteor ROC(E) -StorPort OK
 0xF0200000-0xF05FFFFFFF Intel(R) 5520/5500/X58 I/O Hub PCI Express Root Port 1 - 3408 OK
 0xF0200000-0xF05FFFFFFF QLogic Fibre Channel Adapter OK
 0xD0A00000-0xD0BFFFFFFF HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter #6 OK
 0xD8000000-0xD9FFFFFFF HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter #6 OK

```

0xDA500000-0xDA5001FF HP ProLiant iLO 3
Management Controller (CORE) OK
0xDA500000-0xDA5001FF Intel(R) ICH10 Family
PCI Express Root Port 5 - 3A48 OK
0xD0000000-0xD0003FFF LSI Adapter, SAS2 2116
Meteor ROC(E) -StorPort OK
0xD0000000-0xD0003FFF PCI bus OK
0xD0000000-0xD0003FFF Intel(R) 5520/X58 I/O
Hub PCI Express Root Port 5 - 340C OK
0xD0040000-0xD007FFFF LSI Adapter, SAS2 2116
Meteor ROC(E) -StorPort OK
0xFED00000-0xFED003FF High precision event
timer OK
0xFED00000-0xFED003FF PCI bus OK
0xFED40000-0xFED44FFF PCI bus OK
0xF0000000-0xFBFFFFFF PCI bus OK
0xF0000000-0xFBFFFFFF Intel(R) 5520/5500/X58
I/O Hub PCI Express Root Port 3 - 340A OK
0xF0000000-0xFBFFFFFF LSI Adapter, SAS2 2116
Meteor ROC(E) -StorPort OK
0xF0100000-0xF0103FFF LSI Adapter, SAS2 2116
Meteor ROC(E) -StorPort OK
0xF0100000-0xF0103FFF Intel(R) 5520/X58 I/O
Hub PCI Express Root Port 5 - 340C OK
0xF0140000-0xF017FFFF LSI Adapter, SAS2 2116
Meteor ROC(E) -StorPort OK
0xF0300000-0xF03FFFFFF QLogic Fibre Channel
Adapter OK
0xDA502000-0xDA5020FF HP ProLiant iLO 3
Management Controller (CHIF) OK
0xDA600000-0xDA6FFFFFF HP ProLiant iLO 3
Management Controller (CHIF) OK
0xDA580000-0xDA5FFFFFF HP ProLiant iLO 3
Management Controller (CHIF) OK
0xDA508000-0xDA50FFFF HP ProLiant iLO 3
Management Controller (CHIF) OK
0xDA510000-0xDA517FFF HP ProLiant iLO 3
Management Controller (CHIF) OK
0xF0204000-0xF0207FFF QLogic Fibre Channel
Adapter OK
0xF0500000-0xF05FFFFFF QLogic Fibre Channel
Adapter OK
0xD0240000-0xD027FFFF LSI Adapter, SAS2 2116
Meteor ROC(E) -StorPort OK
0xDA800000-0xDA8003FF Intel(R) ICH10 Family
USB Enhanced Host Controller - 3A3A OK
0xF0040000-0xF007FFFF LSI Adapter, SAS2 2116
Meteor ROC(E) -StorPort OK
0xC0000000-0xCFFFFFFF Motherboard resources
OK
0xFE000000-0xFEFFFFFF Motherboard resources
OK
0xF0640000-0xF067FFFF LSI Adapter, SAS2 2116
Meteor ROC(E) -StorPort OK

```

[Components]

[Multimedia]

```

[Audio Codecs]
CODEC Manufacturer Description
Status File Version Size
Creation Date
c:\windows\system32\imaadp32.acm Microsoft
Corporation OK
C:\Windows\system32\IMAADP32.ACM
6.1.7600.16385 21.50 KB (22,016 bytes)
7/13/2009 7:18 PM
c:\windows\system32\msg711.acm Microsoft
Corporation OK
C:\Windows\system32\MSG711.ACM
6.1.7600.16385 14.50 KB (14,848 bytes)
7/13/2009 7:18 PM
c:\windows\system32\msgsm32.acm Microsoft
Corporation OK
C:\Windows\system32\MSGSM32.ACM
6.1.7600.16385 28.50 KB (29,184 bytes)
7/13/2009 7:18 PM
c:\windows\system32\msadp32.acm Microsoft
Corporation OK
C:\Windows\system32\MSADP32.ACM
6.1.7600.16385 23.50 KB (24,064 bytes)
7/13/2009 7:18 PM

[Video Codecs]
CODEC Manufacturer Description
Status File Version Size
Creation Date
c:\windows\system32\tabyuv.dll Microsoft
Corporation OK
C:\Windows\system32\TSBYUV.DLL
6.1.7600.16385 14.00 KB (14,336 bytes)
7/13/2009 7:06 PM
c:\windows\system32\iyuv_32.dll Microsoft
Corporation OK
C:\Windows\system32\IYUV_32.DLL
6.1.7600.16385 52.50 KB (53,760 bytes)
7/13/2009 7:06 PM
c:\windows\system32\msyuv.dll Microsoft Corporation
OK
C:\Windows\system32\MSYUV.DLL
6.1.7600.16385 24.00 KB (24,576 bytes)
7/13/2009 7:06 PM
c:\windows\system32\msvidc32.dll Microsoft
Corporation OK
C:\Windows\system32\MSVIDC32.DLL
6.1.7600.16385 37.50 KB (38,400 bytes)
7/13/2009 7:18 PM
c:\windows\system32\msrle32.dll Microsoft
Corporation OK
C:\Windows\system32\MSRLE32.DLL
6.1.7600.16385 15.50 KB (15,872 bytes)
7/13/2009 7:18 PM

[CD-ROM]
Item Value

[Sound Device]

```

```

Item Value
[Display]
Item Value
Name ATI ES1000
PNP Device ID PCI\VEN_1002&DEV_515E&SUBSYS_31FB103C&REV_0
2\4&637F70&0&18F0
Adapter Type Not Available, ATI Technologies
Inc. compatible
Adapter Description ATI ES1000
Adapter RAM Not Available
Installed Drivers Not Available
Driver Version 8.240.50.5000
INF File oem9.inf (ati2mtag_RN50 section)
Color Planes Not Available
Color Table Entries Not Available
Resolution Not Available
Bits/Pixel Not Available
Memory Address 0xE0000000-0xE7FFFFFFF
I/O Port 0x00002000-0x00002FFF
Memory Address 0xDA700000-0xDA7FFFFFFF
IRQ Channel IRQ 23
I/O Port 0x000003B0-0x000003BB
I/O Port 0x000003C0-0x000003DF
Memory Address 0xA0000-0xBFFFFF
Driver c:\windows\system32\drivers\ati2mtag.sys
(6.14.10.6748, 2.11 MB (2,210,816 bytes), 9/22/2009
2:05 PM)

[Infrared]
Item Value

[Input]

[Keyboard]
Item Value
Description USB Input Device
Name Enhanced (101- or 102-key)
Layout 00000409
PNP Device ID USB\VID_03F0&PID_7029&MI_00\7&5D475ED&0&000
0
Number of Function Keys 12
Driver c:\windows\system32\drivers\hidusb.sys
(6.1.7600.16385, 29.50 KB (30,208 bytes), 7/13/2009
7:06 PM)
Description Standard PS/2 Keyboard
Name Enhanced (101- or 102-key)
Layout 00000409
PNP Device ID ACPI\PNP0303\4&CB33808&0
Number of Function Keys 12
I/O Port 0x00000060-0x00000060
I/O Port 0x00000064-0x00000064
IRQ Channel IRQ 1

```


Driver c:\windows\system32\drivers\i8042prt.sys
(6.1.7600.16385, 103.00 KB (105,472 bytes), 7/13/2009
6:19 PM)

[Pointing Device]

Item Value
Hardware Type PS/2 Compatible Mouse
Number of Buttons 0
Status OK
PNP Device ID ACPI\PNP0F13\4&CB33808&0
Power Management Supported No
Double Click Threshold Not Available
Handedness Not Available
IRQ Channel IRQ 12
Driver c:\windows\system32\drivers\i8042prt.sys
(6.1.7600.16385, 103.00 KB (105,472 bytes), 7/13/2009
6:19 PM)

Hardware Type USB Input Device
Number of Buttons 0
Status OK
PNP Device ID USB\VID_03F0&PID_7029&MI_01\7&5D475ED&0&000
1
Power Management Supported No
Double Click Threshold Not Available
Handedness Not Available
Driver c:\windows\system32\drivers\hidusb.sys
(6.1.7600.16385, 29.50 KB (30,208 bytes), 7/13/2009
7:06 PM)

[Modem]

Item Value

[Network]

[Adapter]

Item Value
Name [00000000] WAN Miniport (SSTP)
Adapter Type Not Available
Product Type WAN Miniport (SSTP)
Installed Yes
PNP Device ID ROOT\MS_SSTP\Miniport\0000
Last Reset 8/25/2010 11:22 PM
Index 0
Service Name RasSstp
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available
Driver c:\windows\system32\drivers\rassstp.sys
(6.1.7600.16385, 82.00 KB (83,968 bytes), 7/13/2009
7:10 PM)

Name [00000001] WAN Miniport (IKEv2)
Adapter Type Not Available
Product Type WAN Miniport (IKEv2)
Installed Yes
PNP Device ID ROOT\MS_AGILEVPN\Miniport\0000
Last Reset 8/25/2010 11:22 PM
Index 1
Service Name RasAgileVpn
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available
Driver c:\windows\system32\drivers\agilevpn.sys
(6.1.7600.16385, 59.00 KB (60,416 bytes), 7/13/2009
7:10 PM)

Name [00000002] WAN Miniport (L2TP)
Adapter Type Not Available
Product Type WAN Miniport (L2TP)
Installed Yes
PNP Device ID ROOT\MS_L2TP\Miniport\0000
Last Reset 8/25/2010 11:22 PM
Index 2
Service Name Rasl2tp
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available
Driver c:\windows\system32\drivers\rasl2tp.sys
(6.1.7600.16385, 127.00 KB (130,048 bytes), 7/13/2009
7:10 PM)

Name [00000003] WAN Miniport (PPTP)
Adapter Type Not Available
Product Type WAN Miniport (PPTP)
Installed Yes
PNP Device ID ROOT\MS_PPTP\Miniport\0000
Last Reset 8/25/2010 11:22 PM
Index 3
Service Name PptpMiniport
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available
Driver c:\windows\system32\drivers\raspptp.sys
(6.1.7600.16385, 109.00 KB (111,616 bytes), 7/13/2009
7:10 PM)

Name [00000004] WAN Miniport (PPPOE)
Adapter Type Not Available
Product Type WAN Miniport (PPPOE)

Installed Yes
PNP Device ID ROOT\MS_PPPOEMINI\Miniport\0000
Last Reset 8/25/2010 11:22 PM
Index 4
Service Name RasPppoe
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available
Driver c:\windows\system32\drivers\rasppoe.sys
(6.1.7600.16385, 90.50 KB (92,672 bytes), 7/13/2009
7:10 PM)

Name [00000005] WAN Miniport (IPv6)
Adapter Type Not Available
Product Type WAN Miniport (IPv6)
Installed Yes
PNP Device ID ROOT\MS_NDISWANIPV6\0000
Last Reset 8/25/2010 11:22 PM
Index 5
Service Name NdisWan
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available
Driver c:\windows\system32\drivers\ndiswan.sys
(6.1.7600.16385, 160.50 KB (164,352 bytes), 7/13/2009
7:10 PM)

Name [00000006] WAN Miniport (Network Monitor)
Adapter Type Not Available
Product Type WAN Miniport (Network Monitor)

Installed Yes
PNP Device ID ROOT\MS_NDISWANBH\0000
Last Reset 8/25/2010 11:22 PM
Index 6
Service Name NdisWan
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available
Driver c:\windows\system32\drivers\ndiswan.sys
(6.1.7600.16385, 160.50 KB (164,352 bytes), 7/13/2009
7:10 PM)

Name [00000007] HP NC375i Integrated Quad Port
Multifunction Gigabit Server Adapter
Adapter Type Not Available

Product Type HP NC375i Integrated Quad Port
 Multifunction Gigabit Server Adapter
 Installed Yes
 PNP Device ID Not Available
 Last Reset 8/25/2010 11:22 PM
 Index 7
 Service Name NXND6HP
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled Yes
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address Not Available

Name [00000008] Microsoft ISATAP Adapter
 Adapter Type Tunnel
 Product Type Microsoft ISATAP Adapter
 Installed Yes
 PNP Device ID ROOT*ISATAP\0000
 Last Reset 8/25/2010 11:22 PM
 Index 8
 Service Name tunnel
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled No
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address Not Available
 Driver c:\windows\system32\drivers\tunnel.sys
 (6.1.7600.16385, 122.50 KB (125,440 bytes), 7/13/2009 7:09 PM)

Name [00000009] WAN Miniport (IP)
 Adapter Type Not Available
 Product Type WAN Miniport (IP)
 Installed Yes
 PNP Device ID ROOT\MS_NDISWANIP\0000
 Last Reset 8/25/2010 11:22 PM
 Index 9
 Service Name NdisWan
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled No
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address Not Available
 Driver c:\windows\system32\drivers\ndiswan.sys
 (6.1.7600.16385, 160.50 KB (164,352 bytes), 7/13/2009 7:10 PM)

Name [00000010] HP NC375i Integrated Quad Port
 Multifunction Gigabit Server Adapter
 Adapter Type Not Available
 Product Type HP NC375i Integrated Quad Port
 Multifunction Gigabit Server Adapter
 Installed Yes
 PNP Device ID Not Available

Last Reset 8/25/2010 11:22 PM
 Index 10
 Service Name NXND6HP
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled Yes
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address Not Available

Name [00000011] RAS Async Adapter
 Adapter Type Wide Area Network (WAN)
 Product Type RAS Async Adapter
 Installed Yes
 PNP Device ID SW\{EEAB7790-C514-11D1-B42B-00805FC1270E}\ASYNCMAC
 Last Reset 8/25/2010 11:22 PM
 Index 11
 Service Name AsyncMac
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled No
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address 20:41:53:59:4E:FF
 Driver c:\windows\system32\drivers\asyncmac.sys
 (6.1.7600.16385, 22.50 KB (23,040 bytes), 7/13/2009 7:10 PM)

Name [00000012] Microsoft ISATAP Adapter
 Adapter Type Tunnel
 Product Type Microsoft ISATAP Adapter
 Installed Yes
 PNP Device ID ROOT*ISATAP\0001
 Last Reset 8/25/2010 11:22 PM
 Index 12
 Service Name tunnel
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled No
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address Not Available
 Driver c:\windows\system32\drivers\tunnel.sys
 (6.1.7600.16385, 122.50 KB (125,440 bytes), 7/13/2009 7:09 PM)

Name [00000013] HP NC375i Integrated Quad Port
 Multifunction Gigabit Server Adapter
 Adapter Type Not Available
 Product Type HP NC375i Integrated Quad Port
 Multifunction Gigabit Server Adapter
 Installed Yes
 PNP Device ID Not Available
 Last Reset 8/25/2010 11:22 PM
 Index 13
 Service Name NXND6HP

IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled Yes
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address Not Available

Name [00000014] Microsoft 6to4 Adapter
 Adapter Type Tunnel
 Product Type Microsoft 6to4 Adapter
 Installed Yes
 PNP Device ID ROOT*6TO4MP\0000
 Last Reset 8/25/2010 11:22 PM
 Index 14
 Service Name tunnel
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled No
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address Not Available
 Driver c:\windows\system32\drivers\tunnel.sys
 (6.1.7600.16385, 122.50 KB (125,440 bytes), 7/13/2009 7:09 PM)

Name [00000015] HP NC375i Integrated Quad Port
 Multifunction Gigabit Server Adapter
 Adapter Type Not Available
 Product Type HP NC375i Integrated Quad Port
 Multifunction Gigabit Server Adapter
 Installed Yes
 PNP Device ID Not Available
 Last Reset 8/25/2010 11:22 PM
 Index 15
 Service Name NXND6HP
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled Yes
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address Not Available

Name [00000016] Microsoft ISATAP Adapter
 Adapter Type Tunnel
 Product Type Microsoft ISATAP Adapter
 Installed Yes
 PNP Device ID ROOT*ISATAP\0002
 Last Reset 8/25/2010 11:22 PM
 Index 16
 Service Name tunnel
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled No
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available

MAC Address Not Available
Driver c:\windows\system32\drivers\tunnel.sys
(6.1.7600.16385, 122.50 KB (125,440 bytes), 7/13/2009
7:09 PM)

Name [00000017] Microsoft 6to4 Adapter
Adapter Type Tunnel
Product Type Microsoft 6to4 Adapter
Installed Yes
PNP Device ID ROOT*6TO4MP\0001
Last Reset 8/25/2010 11:22 PM
Index 17
Service Name tunnel
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available
Driver c:\windows\system32\drivers\tunnel.sys
(6.1.7600.16385, 122.50 KB (125,440 bytes), 7/13/2009
7:09 PM)

Name [00000018] Intel(R) PRO/1000 PT Quad Port
LP Server Adapter
Adapter Type Not Available
Product Type Intel(R) PRO/1000 PT Quad Port LP
Server Adapter
Installed Yes
PNP Device ID Not Available
Last Reset 8/25/2010 11:22 PM
Index 18
Service Name elexpress
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled Yes
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000019] Intel(R) PRO/1000 PT Quad Port
LP Server Adapter
Adapter Type Not Available
Product Type Intel(R) PRO/1000 PT Quad Port LP
Server Adapter
Installed Yes
PNP Device ID Not Available
Last Reset 8/25/2010 11:22 PM
Index 19
Service Name elexpress
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled Yes
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000020] Intel(R) PRO/1000 PT Quad Port
LP Server Adapter
Adapter Type Not Available
Product Type Intel(R) PRO/1000 PT Quad Port LP
Server Adapter
Installed Yes
PNP Device ID Not Available
Last Reset 8/25/2010 11:22 PM
Index 20
Service Name elexpress
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled Yes
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000021] Intel(R) PRO/1000 PT Quad Port
LP Server Adapter
Adapter Type Not Available
Product Type Intel(R) PRO/1000 PT Quad Port LP
Server Adapter
Installed Yes
PNP Device ID Not Available
Last Reset 8/25/2010 11:22 PM
Index 21
Service Name elexpress
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled Yes
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000022] Microsoft ISATAP Adapter
Adapter Type Tunnel
Product Type Microsoft ISATAP Adapter
Installed Yes
PNP Device ID ROOT*ISATAP\0004
Last Reset 8/25/2010 11:22 PM
Index 22
Service Name tunnel
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available
Driver c:\windows\system32\drivers\tunnel.sys
(6.1.7600.16385, 122.50 KB (125,440 bytes), 7/13/2009
7:09 PM)

Name [00000023] HP NC382i DP Multifunction
Gigabit Server Adapter
Adapter Type Not Available
Product Type HP NC382i DP Multifunction
Gigabit Server Adapter

Installed Yes
PNP Device ID Not Available
Last Reset 8/25/2010 11:22 PM
Index 23
Service Name l2nd
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000024] HP NC382i DP Multifunction
Gigabit Server Adapter
Adapter Type Not Available
Product Type HP NC382i DP Multifunction
Gigabit Server Adapter
Installed Yes
PNP Device ID Not Available
Last Reset 8/25/2010 11:22 PM
Index 24
Service Name l2nd
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000025] HP NC382i DP Multifunction
Gigabit Server Adapter
Adapter Type Not Available
Product Type HP NC382i DP Multifunction
Gigabit Server Adapter
Installed Yes
PNP Device ID Not Available
Last Reset 8/25/2010 11:22 PM
Index 25
Service Name l2nd
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000026] HP NC382i DP Multifunction
Gigabit Server Adapter
Adapter Type Not Available
Product Type HP NC382i DP Multifunction
Gigabit Server Adapter
Installed Yes
PNP Device ID Not Available
Last Reset 8/25/2010 11:22 PM
Index 26
Service Name l2nd
IP Address Not Available

IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000027] HP NC382i DP Multifunction
Gigabit Server Adapter
Adapter Type Not Available
Product Type HP NC382i DP Multifunction
Gigabit Server Adapter
Installed Yes
PNP Device ID Not Available
Last Reset 8/25/2010 11:22 PM
Index 27
Service Name l2nd
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000028] HP NC382i DP Multifunction
Gigabit Server Adapter
Adapter Type Not Available
Product Type HP NC382i DP Multifunction
Gigabit Server Adapter
Installed Yes
PNP Device ID Not Available
Last Reset 8/25/2010 11:22 PM
Index 28
Service Name l2nd
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000029] HP NC382i DP Multifunction
Gigabit Server Adapter
Adapter Type Not Available
Product Type HP NC382i DP Multifunction
Gigabit Server Adapter
Installed Yes
PNP Device ID Not Available
Last Reset 8/25/2010 11:22 PM
Index 29
Service Name l2nd
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available

MAC Address Not Available

Name [00000030] HP NC382i DP Multifunction
Gigabit Server Adapter
Adapter Type Not Available
Product Type HP NC382i DP Multifunction
Gigabit Server Adapter
Installed Yes
PNP Device ID Not Available
Last Reset 8/25/2010 11:22 PM
Index 30
Service Name l2nd
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000031] HP NC375i Integrated Quad Port
Multifunction Gigabit Server Adapter
Adapter Type Ethernet 802.3
Product Type HP NC375i Integrated Quad Port
Multifunction Gigabit Server Adapter
Installed Yes
PNP Device ID
PCI\VEN_4040&DEV_0100&SUBSYS_705A103C&REV_4
2\4&B68A0E2&0&0218
Last Reset 8/25/2010 11:22 PM
Index 31
Service Name NXND6HP
IP Address 130.168.211.73
IP Subnet 255.255.0.0
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:26:55:1B:8E:BA
Memory Address 0xD0800000-0xD09FFFFFFF
Memory Address 0xD6000000-0xD7FFFFFFF
IRQ Channel IRQ 4294967073
IRQ Channel IRQ 4294967072
IRQ Channel IRQ 4294967071
IRQ Channel IRQ 4294967070
IRQ Channel IRQ 4294967069
IRQ Channel IRQ 4294967068
IRQ Channel IRQ 4294967067
IRQ Channel IRQ 4294967066
Driver c:\windows\system32\drivers\hpn6x64.sys
(4.0.526.13779, 371.97 KB (380,896 bytes), 8/21/2009
9:47 AM)

Name [00000032] HP NC375i Integrated Quad Port
Multifunction Gigabit Server Adapter
Adapter Type Ethernet 802.3
Product Type HP NC375i Integrated Quad Port
Multifunction Gigabit Server Adapter
Installed Yes

PNP Device ID
PCI\VEN_4040&DEV_0100&SUBSYS_705A103C&REV_4
2\4&B68A0E2&0&0318
Last Reset 8/25/2010 11:22 PM
Index 32
Service Name NXND6HP
IP Address 130.168.211.74
IP Subnet 255.255.0.0
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:26:55:1B:8E:BB
Memory Address 0xD0A00000-0xD0BFFFFFFF
Memory Address 0xD8000000-0xD9FFFFFFF
IRQ Channel IRQ 4294967081
IRQ Channel IRQ 4294967080
IRQ Channel IRQ 4294967079
IRQ Channel IRQ 4294967078
IRQ Channel IRQ 4294967077
IRQ Channel IRQ 4294967076
IRQ Channel IRQ 4294967075
IRQ Channel IRQ 4294967074
Driver c:\windows\system32\drivers\hpn6x64.sys
(4.0.526.13779, 371.97 KB (380,896 bytes), 8/21/2009
9:47 AM)

Name [00000033] HP NC375i Integrated Quad Port
Multifunction Gigabit Server Adapter
Adapter Type Ethernet 802.3
Product Type HP NC375i Integrated Quad Port
Multifunction Gigabit Server Adapter
Installed Yes
PNP Device ID
PCI\VEN_4040&DEV_0100&SUBSYS_705A103C&REV_4
2\4&B68A0E2&0&0118
Last Reset 8/25/2010 11:22 PM
Index 33
Service Name NXND6HP
IP Address 130.168.211.72
IP Subnet 255.255.0.0
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:26:55:1B:8E:B9
Memory Address 0xD0600000-0xD07FFFFFFF
Memory Address 0xD4000000-0xD5FFFFFFF
IRQ Channel IRQ 4294967065
IRQ Channel IRQ 4294967064
IRQ Channel IRQ 4294967063
IRQ Channel IRQ 4294967062
IRQ Channel IRQ 4294967061
IRQ Channel IRQ 4294967060
IRQ Channel IRQ 4294967059
IRQ Channel IRQ 4294967058
Driver c:\windows\system32\drivers\hpn6x64.sys
(4.0.526.13779, 371.97 KB (380,896 bytes), 8/21/2009
9:47 AM)

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Name [00000034] HP NC375i Integrated Quad Port
Multifunction Gigabit Server Adapter
Adapter Type Ethernet 802.3
Product Type HP NC375i Integrated Quad Port
Multifunction Gigabit Server Adapter
Installed Yes
PNP Device ID
PCI\VEN_4040&DEV_0100&SUBSYS_705A103C&REV_4
2\4&B68A0E2&0&0018
Last Reset 8/25/2010 11:22 PM
Index 34
Service Name NXND6HP
IP Address 130.168.211.71
IP Subnet 255.255.0.0
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:26:55:1B:8E:B8
Memory Address 0xD0400000-0xD05FFFFF
Memory Address 0xD2000000-0xD3FFFFFF
IRQ Channel IRQ 4294967057
IRQ Channel IRQ 4294967056
IRQ Channel IRQ 4294967055
IRQ Channel IRQ 4294967054
IRQ Channel IRQ 4294967053
IRQ Channel IRQ 4294967052
IRQ Channel IRQ 4294967051
IRQ Channel IRQ 4294967050
Driver c:\windows\system32\drivers\hpnd6x64.sys
(4.0.526.13779, 371.97 KB (380,896 bytes), 8/21/2009
9:47 AM)

Name [00000035] HP NC364T PCIe Quad Port Gigabit
Server Adapter
Adapter Type Not Available
Product Type HP NC364T PCIe Quad Port Gigabit
Server Adapter
Installed Yes
PNP Device ID Not Available
Last Reset 8/25/2010 11:22 PM
Index 35
Service Name elexpress
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled Yes
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000036] HP NC364T PCIe Quad Port Gigabit
Server Adapter
Adapter Type Not Available
Product Type HP NC364T PCIe Quad Port Gigabit
Server Adapter
Installed Yes
PNP Device ID Not Available
Last Reset 8/25/2010 11:22 PM
Index 36
Service Name elexpress

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IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled Yes
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000037] HP NC364T PCIe Quad Port Gigabit
Server Adapter
Adapter Type Not Available
Product Type HP NC364T PCIe Quad Port Gigabit
Server Adapter
Installed Yes
PNP Device ID Not Available
Last Reset 8/25/2010 11:22 PM
Index 37
Service Name elexpress
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled Yes
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000038] HP NC364T PCIe Quad Port Gigabit
Server Adapter
Adapter Type Not Available
Product Type HP NC364T PCIe Quad Port Gigabit
Server Adapter
Installed Yes
PNP Device ID Not Available
Last Reset 8/25/2010 11:22 PM
Index 38
Service Name elexpress
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled Yes
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000039] Microsoft ISATAP Adapter
Adapter Type Tunnel
Product Type Microsoft ISATAP Adapter
Installed Yes
PNP Device ID ROOT\*ISATAP\0003
Last Reset 8/25/2010 11:22 PM
Index 39
Service Name tunnel
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

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Driver c:\windows\system32\drivers\tunnel.sys
(6.1.7600.16385, 122.50 KB (125,440 bytes), 7/13/2009
7:09 PM)

Name [00000040] HP NC365T PCIe Quad Port Gigabit
Server Adapter
Adapter Type Not Available
Product Type HP NC365T PCIe Quad Port Gigabit
Server Adapter
Installed Yes
PNP Device ID Not Available
Last Reset 8/25/2010 11:22 PM
Index 40
Service Name elexpress
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000041] HP NC365T PCIe Quad Port Gigabit
Server Adapter
Adapter Type Not Available
Product Type HP NC365T PCIe Quad Port Gigabit
Server Adapter
Installed Yes
PNP Device ID Not Available
Last Reset 8/25/2010 11:22 PM
Index 41
Service Name elexpress
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000042] HP NC365T PCIe Quad Port Gigabit
Server Adapter
Adapter Type Not Available
Product Type HP NC365T PCIe Quad Port Gigabit
Server Adapter
Installed Yes
PNP Device ID Not Available
Last Reset 8/25/2010 11:22 PM
Index 42
Service Name elexpress
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000043] HP NC365T PCIe Quad Port Gigabit
Server Adapter

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Adapter Type Not Available
 Product Type HP NC365T PCIe Quad Port Gigabit
 Server Adapter
 Installed Yes
 PNP Device ID Not Available
 Last Reset 8/25/2010 11:22 PM
 Index 43
 Service Name elrexpress
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled No
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address Not Available

[Protocol]

Item Value
 Name MSAFD Tcpip [TCP/IP]
 Connectionless Service No
 Guarantees Delivery Yes
 Guarantees Sequencing Yes
 Maximum Address Size 16 bytes
 Maximum Message Size 0 bytes
 Message Oriented No
 Minimum Address Size 16 bytes
 Pseudo Stream Oriented No
 Supports Broadcasting No
 Supports Connect Data No
 Supports Disconnect Data No
 Supports Encryption No
 Supports Expedited Data Yes
 Supports Graceful Closing Yes
 Supports Guaranteed Bandwidth No
 Supports Multicasting No

Name MSAFD Tcpip [UDP/IP]
 Connectionless Service Yes
 Guarantees Delivery No
 Guarantees Sequencing No
 Maximum Address Size 16 bytes
 Maximum Message Size 63.99 KB (65,527 bytes)

Message Oriented Yes
 Minimum Address Size 16 bytes
 Pseudo Stream Oriented No
 Supports Broadcasting Yes
 Supports Connect Data No
 Supports Disconnect Data No
 Supports Encryption No
 Supports Expedited Data No
 Supports Graceful Closing No
 Supports Guaranteed Bandwidth No
 Supports Multicasting Yes

Name MSAFD Tcpip [TCP/IPv6]
 Connectionless Service No
 Guarantees Delivery Yes
 Guarantees Sequencing Yes
 Maximum Address Size 28 bytes
 Maximum Message Size 0 bytes

Message Oriented No
 Minimum Address Size 28 bytes
 Pseudo Stream Oriented No
 Supports Broadcasting No
 Supports Connect Data No
 Supports Disconnect Data No
 Supports Encryption No
 Supports Expedited Data Yes
 Supports Graceful Closing Yes
 Supports Guaranteed Bandwidth No
 Supports Multicasting No

Name MSAFD Tcpip [UDP/IPv6]
 Connectionless Service Yes
 Guarantees Delivery No
 Guarantees Sequencing No
 Maximum Address Size 28 bytes
 Maximum Message Size 63.99 KB (65,527 bytes)

Message Oriented Yes
 Minimum Address Size 28 bytes
 Pseudo Stream Oriented No
 Supports Broadcasting Yes
 Supports Connect Data No
 Supports Disconnect Data No
 Supports Encryption No
 Supports Expedited Data No
 Supports Graceful Closing No
 Supports Guaranteed Bandwidth No
 Supports Multicasting Yes

Name RSVP TCPv6 Service Provider
 Connectionless Service No
 Guarantees Delivery Yes
 Guarantees Sequencing Yes
 Maximum Address Size 28 bytes
 Maximum Message Size 0 bytes
 Message Oriented No
 Minimum Address Size 28 bytes
 Pseudo Stream Oriented No
 Supports Broadcasting No
 Supports Connect Data No
 Supports Disconnect Data No
 Supports Encryption Yes
 Supports Expedited Data Yes
 Supports Graceful Closing Yes
 Supports Guaranteed Bandwidth No
 Supports Multicasting No

Name RSVP TCP Service Provider
 Connectionless Service No
 Guarantees Delivery Yes
 Guarantees Sequencing Yes
 Maximum Address Size 16 bytes
 Maximum Message Size 0 bytes
 Message Oriented No
 Minimum Address Size 16 bytes
 Pseudo Stream Oriented No
 Supports Broadcasting No
 Supports Connect Data No
 Supports Disconnect Data No
 Supports Encryption Yes
 Supports Expedited Data Yes

Supports Graceful Closing Yes
 Supports Guaranteed Bandwidth No
 Supports Multicasting No
 Name RSVP UDPv6 Service Provider
 Connectionless Service Yes
 Guarantees Delivery No
 Guarantees Sequencing No
 Maximum Address Size 28 bytes
 Maximum Message Size 63.99 KB (65,527 bytes)

Message Oriented Yes
 Minimum Address Size 28 bytes
 Pseudo Stream Oriented No
 Supports Broadcasting Yes
 Supports Connect Data No
 Supports Disconnect Data No
 Supports Encryption Yes
 Supports Expedited Data No
 Supports Graceful Closing No
 Supports Guaranteed Bandwidth No
 Supports Multicasting Yes

Name RSVP UDP Service Provider
 Connectionless Service Yes
 Guarantees Delivery No
 Guarantees Sequencing No
 Maximum Address Size 16 bytes
 Maximum Message Size 63.99 KB (65,527 bytes)

Message Oriented Yes
 Minimum Address Size 16 bytes
 Pseudo Stream Oriented No
 Supports Broadcasting Yes
 Supports Connect Data No
 Supports Disconnect Data No
 Supports Encryption Yes
 Supports Expedited Data No
 Supports Graceful Closing No
 Supports Guaranteed Bandwidth No
 Supports Multicasting Yes

[WinSock]

Item Value
 File c:\windows\syswow64\wsck32.dll
 Size 15.00 KB (15,360 bytes)
 Version 6.1.7600.16385
 File c:\windows\system32\wsck32.dll
 Size 18.00 KB (18,432 bytes)
 Version 6.1.7600.16385

[Ports]

[Serial]

Item Value
 Name Communications Port (COM1)
 Status OK
 PNP Device ID ACPI\PNP0501\0

```

Maximum Input Buffer Size      0
Maximum Output Buffer Size    No
Settable Baud Rate           Yes
Settable Data Bits           Yes
Settable Flow Control         Yes
Settable Parity               Yes
Settable Parity Check         Yes
Settable Stop Bits           Yes
Settable RLSD                 Yes
Supports RLSD                 Yes
Supports 16 Bit Mode         No
Supports Special Characters   No
Baud Rate                     9600
Bits/Byte                     8
Stop Bits                     1
Parity                         None
Busy                           No
Abort Read/Write on Error     No
Binary Mode Enabled          Yes
Continue XMit on XOff         No
CTS Outflow Control          No
Discard NULL Bytes           No
DSR Outflow Control          0
DSR Sensitivity               0
DTR Flow Control Type        Enable
EOF Character                 0
Error Replace Character        0
Error Replacement Enabled     No
Event Character                0
Parity Check Enabled          No
RTS Flow Control Type         Enable
XOff Character                19
XOffXMit Threshold           512
XOn Character                 17
XOnXMit Threshold            2048
XOnXOff InFlow Control        0
XOnXOff OutFlow Control       0
IRQ Channel                   IRQ 4
I/O Port                      0x000003F8-0x000003FF
Driver                        c:\windows\system32\drivers\serial.sys
(6.1.7600.16385, 92.00 KB (94,208 bytes), 7/13/2009
7:00 PM)

[Parallel]

Item      Value

[Storage]

[Drives]

Item      Value
Drive     C:
Description      Local Fixed Disk
Compressed       No
File System      NTFS
Size             33.88 GB (36,381,310,976 bytes)
Free Space       4.53 GB (4,866,600,960 bytes)
Volume Name
Volume Serial Number      F863586B

```

```

Drive E:
Description      Local Fixed Disk
Compressed       Not Available
File System      Not Available
Size             Not Available
Free Space       Not Available
Volume Name      Not Available
Volume Serial Number      Not Available

Drive F:
Description      Local Fixed Disk
Compressed       Not Available
File System      Not Available
Size             Not Available
Free Space       Not Available
Volume Name      Not Available
Volume Serial Number      Not Available

Drive G:
Description      Local Fixed Disk
Compressed       Not Available
File System      Not Available
Size             Not Available
Free Space       Not Available
Volume Name      Not Available
Volume Serial Number      Not Available

Drive H:
Description      Local Fixed Disk
Compressed       Not Available
File System      Not Available
Size             Not Available
Free Space       Not Available
Volume Name      Not Available
Volume Serial Number      Not Available

Drive Y:
Description      Network Connection
Provider Name     \\.\c$

Drive Z:
Description      Local Fixed Disk
Compressed       No
File System      NTFS
Size             136.70 GB (146,776,518,656 bytes)
Free Space       73.28 GB (78,688,755,712 bytes)

Volume Name      Crash
Volume Serial Number      12C928F3

[Disks]

Item      Value
Description      Disk drive
Manufacturer      (Standard disk drives)
Model            ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector     512
Media Loaded     Yes
Media Type       Fixed hard disk
Partitions       1
SCSI Bus         0
SCSI Logical Unit 0
SCSI Port        10

```

```

SCSI Target ID      22
Sectors/Track       63
Size                111.79 GB (120,031,511,040 bytes)
Total Cylinders     14,593
Total Sectors       234,436,545
Total Tracks        3,721,215
Tracks/Cylinder     255
Partition Disk #220, Partition #0
Partition Size      111.79 GB (120,031,543,296 bytes)

Partition Starting Offset      1,048,576 bytes

Description      Disk drive
Manufacturer      (Standard disk drives)
Model            ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector     512
Media Loaded     Yes
Media Type       Fixed hard disk
Partitions       1
SCSI Bus         0
SCSI Logical Unit 0
SCSI Port        10
SCSI Target ID   24
Sectors/Track    63
Size            111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors   234,436,545
Total Tracks    3,721,215
Tracks/Cylinder 255
Partition Disk #221, Partition #0
Partition Size  111.79 GB (120,031,543,296 bytes)

Partition Starting Offset      1,048,576 bytes

Description      Disk drive
Manufacturer      (Standard disk drives)
Model            ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector     512
Media Loaded     Yes
Media Type       Fixed hard disk
Partitions       1
SCSI Bus         0
SCSI Logical Unit 0
SCSI Port        10
SCSI Target ID   25
Sectors/Track    63
Size            111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors   234,436,545
Total Tracks    3,721,215
Tracks/Cylinder 255
Partition Disk #222, Partition #0
Partition Size  111.79 GB (120,031,543,296 bytes)

Partition Starting Offset      1,048,576 bytes

Description      Disk drive
Manufacturer      (Standard disk drives)
Model            ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector     512
Media Loaded     Yes
Media Type       Fixed hard disk
Partitions       1

```

```

SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 10
SCSI Target ID 26
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #223, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 10
SCSI Target ID 27
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #224, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 10
SCSI Target ID 28
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #225, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512

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Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 10
SCSI Target ID 29
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #226, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 10
SCSI Target ID 30
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #227, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 10
SCSI Target ID 31
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #228, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive

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Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 10
SCSI Target ID 32
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #229, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 10
SCSI Target ID 33
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #230, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 10
SCSI Target ID 34
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #231, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

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Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 10
 SCSI Target ID 35
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #232, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 10
 SCSI Target ID 36
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #233, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 10
 SCSI Target ID 37
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255

Partition Disk #234, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 10
 SCSI Target ID 38
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #235, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 10
 SCSI Target ID 45
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #241, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 10
 SCSI Target ID 46
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593

Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #242, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 10
 SCSI Target ID 47
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #243, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 10
 SCSI Target ID 48
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #244, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 10
 SCSI Target ID 49

Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #245, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 10
SCSI Target ID 50
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #246, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 10
SCSI Target ID 51
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #247, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0

SCSI Logical Unit 0
SCSI Port 10
SCSI Target ID 52
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #248, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 10
SCSI Target ID 53
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #249, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 10
SCSI Target ID 54
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #250, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes

Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 10
SCSI Target ID 55
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #251, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 10
SCSI Target ID 56
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #252, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 10
SCSI Target ID 57
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #253, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)

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Model      ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type  Fixed hard disk
Partitions  1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 10
SCSI Target ID 58
Sectors/Track 63
Size      111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #254, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description      Disk drive
Manufacturer      (Standard disk drives)
Model            ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector     512
Media Loaded     Yes
Media Type       Fixed hard disk
Partitions       1
SCSI Bus         0
SCSI Logical Unit 0
SCSI Port        10
SCSI Target ID  59
Sectors/Track   63
Size            111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors   234,436,545
Total Tracks    3,721,215
Tracks/Cylinder 255
Partition Disk #255, Partition #0
Partition Size  111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description      Disk drive
Manufacturer      (Standard disk drives)
Model            ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector     512
Media Loaded     Yes
Media Type       Fixed hard disk
Partitions       1
SCSI Bus         0
SCSI Logical Unit 0
SCSI Port        10
SCSI Target ID  60
Sectors/Track   63
Size            111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors   234,436,545
Total Tracks    3,721,215
Tracks/Cylinder 255
Partition Disk #256, Partition #0
Partition Size  111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

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Description      Disk drive
Manufacturer      (Standard disk drives)
Model            ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector     512
Media Loaded     Yes
Media Type       Fixed hard disk
Partitions       1
SCSI Bus         0
SCSI Logical Unit 0
SCSI Port        11
SCSI Target ID  61
Sectors/Track   63
Size            111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors   234,436,545
Total Tracks    3,721,215
Tracks/Cylinder 255
Partition Disk #262, Partition #0
Partition Size  111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description      Disk drive
Manufacturer      (Standard disk drives)
Model            ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector     512
Media Loaded     Yes
Media Type       Fixed hard disk
Partitions       1
SCSI Bus         0
SCSI Logical Unit 0
SCSI Port        11
SCSI Target ID  63
Sectors/Track   63
Size            111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors   234,436,545
Total Tracks    3,721,215
Tracks/Cylinder 255
Partition Disk #263, Partition #0
Partition Size  111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description      Disk drive
Manufacturer      (Standard disk drives)
Model            ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector     512
Media Loaded     Yes
Media Type       Fixed hard disk
Partitions       1
SCSI Bus         0
SCSI Logical Unit 0
SCSI Port        11
SCSI Target ID  64
Sectors/Track   63
Size            111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors   234,436,545
Total Tracks    3,721,215
Tracks/Cylinder 255
Partition Disk #264, Partition #0

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Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description      Disk drive
Manufacturer      (Standard disk drives)
Model            ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector     512
Media Loaded     Yes
Media Type       Fixed hard disk
Partitions       1
SCSI Bus         0
SCSI Logical Unit 0
SCSI Port        11
SCSI Target ID  65
Sectors/Track   63
Size            111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors   234,436,545
Total Tracks    3,721,215
Tracks/Cylinder 255
Partition Disk #265, Partition #0
Partition Size  111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description      Disk drive
Manufacturer      (Standard disk drives)
Model            ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector     512
Media Loaded     Yes
Media Type       Fixed hard disk
Partitions       1
SCSI Bus         0
SCSI Logical Unit 0
SCSI Port        11
SCSI Target ID  66
Sectors/Track   63
Size            111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors   234,436,545
Total Tracks    3,721,215
Tracks/Cylinder 255
Partition Disk #266, Partition #0
Partition Size  111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description      Disk drive
Manufacturer      (Standard disk drives)
Model            ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector     512
Media Loaded     Yes
Media Type       Fixed hard disk
Partitions       1
SCSI Bus         0
SCSI Logical Unit 0
SCSI Port        11
SCSI Target ID  67
Sectors/Track   63
Size            111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors   234,436,545

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Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #267, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 11
SCSI Target ID 68
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #268, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 11
SCSI Target ID 69
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #269, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 11
SCSI Target ID 70
Sectors/Track 63

Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #270, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 11
SCSI Target ID 71
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #271, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 11
SCSI Target ID 72
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #272, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0

SCSI Port 11
SCSI Target ID 73
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #273, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 11
SCSI Target ID 74
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #274, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 11
SCSI Target ID 75
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #275, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk

Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 11
 SCSI Target ID 76
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #276, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 11
 SCSI Target ID 77
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #277, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 11
 SCSI Target ID 84
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #283, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device

Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 11
 SCSI Target ID 85
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #284, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 11
 SCSI Target ID 86
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #285, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 11
 SCSI Target ID 87
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #286, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 11
 SCSI Target ID 88
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #287, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 11
 SCSI Target ID 89
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #288, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 11
 SCSI Target ID 90
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #289, Partition #0

Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 11
 SCSI Target ID 91
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #290, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 11
 SCSI Target ID 92
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #291, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 11
 SCSI Target ID 93
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545

Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #292, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 11
 SCSI Target ID 94
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #293, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 11
 SCSI Target ID 95
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #294, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 11
 SCSI Target ID 96
 Sectors/Track 63

Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #295, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 11
 SCSI Target ID 97
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #296, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 11
 SCSI Target ID 98
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #297, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0

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SCSI Port 11
SCSI Target ID 99
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #298, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 5
SCSI Target ID 37
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #10, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 5
SCSI Target ID 39
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #11, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk

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Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 5
SCSI Target ID 40
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #12, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 5
SCSI Target ID 41
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #13, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 5
SCSI Target ID 42
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #14, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device

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Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 5
SCSI Target ID 43
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #15, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 5
SCSI Target ID 44
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #16, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 5
SCSI Target ID 45
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #17, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

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Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 5
 SCSI Target ID 46
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #18, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 5
 SCSI Target ID 47
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #19, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 5
 SCSI Target ID 48
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #20, Partition #0

Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 5
 SCSI Target ID 49
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #21, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 5
 SCSI Target ID 50
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #22, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 5
 SCSI Target ID 51
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545

Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #23, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 5
 SCSI Target ID 52
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #24, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 5
 SCSI Target ID 53
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #25, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 5
 SCSI Target ID 60
 Sectors/Track 63

Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #31, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 5
SCSI Target ID 61
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #32, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 5
SCSI Target ID 62
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #33, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0

SCSI Port 5
SCSI Target ID 63
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #34, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 5
SCSI Target ID 64
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #35, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 5
SCSI Target ID 65
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #36, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk

Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 5
SCSI Target ID 66
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #37, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 5
SCSI Target ID 67
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #38, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 5
SCSI Target ID 68
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #39, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device

Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 5
 SCSI Target ID 69
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #40, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 5
 SCSI Target ID 70
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #41, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 5
 SCSI Target ID 71
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #42, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 5
 SCSI Target ID 72
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #43, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 5
 SCSI Target ID 73
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #44, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 5
 SCSI Target ID 74
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #45, Partition #0

Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 5
 SCSI Target ID 75
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #46, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 12
 SCSI Target ID 28
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #304, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 12
 SCSI Target ID 30
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545

Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #305, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 12
SCSI Target ID 31
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #306, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 12
SCSI Target ID 32
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #307, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 12
SCSI Target ID 33
Sectors/Track 63

Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #308, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 12
SCSI Target ID 34
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #309, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 12
SCSI Target ID 35
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #310, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0

SCSI Port 12
SCSI Target ID 36
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #311, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 12
SCSI Target ID 37
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #312, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 12
SCSI Target ID 38
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #313, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk

Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 12
 SCSI Target ID 39
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #314, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 12
 SCSI Target ID 40
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #315, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 12
 SCSI Target ID 41
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #316, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device

Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 12
 SCSI Target ID 42
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #317, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 12
 SCSI Target ID 43
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #318, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 12
 SCSI Target ID 44
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #319, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 12
 SCSI Target ID 51
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #325, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 12
 SCSI Target ID 52
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #326, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 12
 SCSI Target ID 53
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #327, Partition #0

Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 12
 SCSI Target ID 54
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #328, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 12
 SCSI Target ID 55
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #329, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 12
 SCSI Target ID 56
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545

Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #330, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 12
 SCSI Target ID 57
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #331, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 12
 SCSI Target ID 58
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #332, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 12
 SCSI Target ID 59
 Sectors/Track 63

Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #333, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 12
 SCSI Target ID 60
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #334, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 12
 SCSI Target ID 61
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #335, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0

SCSI Port 12
 SCSI Target ID 62
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #336, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 12
 SCSI Target ID 63
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #337, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 12
 SCSI Target ID 64
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #338, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk

Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 12
 SCSI Target ID 65
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #339, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 12
 SCSI Target ID 66
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #340, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 51
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #52, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device

Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 84
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #53, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 87
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #54, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 7
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #55, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 8
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #56, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 9
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #57, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 10
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #58, Partition #0

Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 11
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #59, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 12
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #60, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 13
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545

Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #61, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 14
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #62, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 15
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #63, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 16
 Sectors/Track 63

Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #64, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 6
SCSI Target ID 17
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #65, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 6
SCSI Target ID 18
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #66, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0

SCSI Port 6
SCSI Target ID 19
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #67, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 6
SCSI Target ID 20
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #68, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 6
SCSI Target ID 21
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #69, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk

Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 6
SCSI Target ID 22
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #70, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 6
SCSI Target ID 29
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #76, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 6
SCSI Target ID 30
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #77, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device

Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 31
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #78, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 32
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #79, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 33
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #80, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 34
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #81, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 35
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #82, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 36
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #83, Partition #0

Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 37
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #84, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 38
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #85, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 39
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545

Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #86, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 40
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #87, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 41
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #88, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 32
 Sectors/Track 63

Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #136, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 34
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #137, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 35
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #138, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0

SCSI Port 8
 SCSI Target ID 36
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #139, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 37
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #140, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 38
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #141, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk

Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 39
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #142, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 40
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #143, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 41
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #144, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device

Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 42
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #145, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 43
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #146, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 44
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #147, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 45
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #148, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 46
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #149, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 47
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #150, Partition #0

Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 48
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #151, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 55
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #157, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 56
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545

Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #158, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 57
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #159, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 58
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #160, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 59
 Sectors/Track 63

Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #161, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 60
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #162, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 61
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #163, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0

SCSI Port 8
 SCSI Target ID 62
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #164, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 63
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #165, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 64
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #166, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk

Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 65
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #167, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 66
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #168, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 67
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #169, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device

Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 68
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #170, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 69
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #171, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 70
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #172, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 9
 SCSI Target ID 7
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #178, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 9
 SCSI Target ID 8
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #179, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 9
 SCSI Target ID 9
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #180, Partition #0

Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 9
 SCSI Target ID 10
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #181, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 9
 SCSI Target ID 11
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #182, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 9
 SCSI Target ID 12
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545

Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #183, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 9
 SCSI Target ID 13
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #184, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 9
 SCSI Target ID 14
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #185, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 9
 SCSI Target ID 15
 Sectors/Track 63

Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #186, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 9
SCSI Target ID 16
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #187, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 9
SCSI Target ID 17
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #188, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0

SCSI Port 9
SCSI Target ID 18
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #189, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 9
SCSI Target ID 19
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #190, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 9
SCSI Target ID 20
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #191, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk

Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 9
SCSI Target ID 21
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #192, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 9
SCSI Target ID 22
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #193, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 9
SCSI Target ID 29
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #199, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device

Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 9
 SCSI Target ID 30
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #200, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

 Partition Starting Offset 1,048,576 bytes

 Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 9
 SCSI Target ID 31
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #201, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

 Partition Starting Offset 1,048,576 bytes

 Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 9
 SCSI Target ID 32
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #202, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

 Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 9
 SCSI Target ID 33
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #203, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

 Partition Starting Offset 1,048,576 bytes

 Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 9
 SCSI Target ID 34
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #204, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

 Partition Starting Offset 1,048,576 bytes

 Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 9
 SCSI Target ID 35
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #205, Partition #0

Partition Size 111.79 GB (120,031,543,296 bytes)

 Partition Starting Offset 1,048,576 bytes

 Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 9
 SCSI Target ID 36
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #206, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

 Partition Starting Offset 1,048,576 bytes

 Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 9
 SCSI Target ID 37
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #207, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

 Partition Starting Offset 1,048,576 bytes

 Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 9
 SCSI Target ID 38
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545

Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #208, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 9
SCSI Target ID 39
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #209, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 9
SCSI Target ID 40
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #210, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 9
SCSI Target ID 41
Sectors/Track 63

Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #211, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 9
SCSI Target ID 42
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #212, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 9
SCSI Target ID 43
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #213, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0

SCSI Port 9
SCSI Target ID 44
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #214, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 7
SCSI Target ID 25
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #94, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 7
SCSI Target ID 27
Sectors/Track 63
Size 111.79 GB (120,031,511,040 bytes)
Total Cylinders 14,593
Total Sectors 234,436,545
Total Tracks 3,721,215
Tracks/Cylinder 255
Partition Disk #95, Partition #0
Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model ATA MK0120EAVDT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk

Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 28
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #96, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 29
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #97, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 30
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #98, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device

Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 31
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #99, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 32
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #100, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 33
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #101, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 34
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #102, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 35
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #103, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 36
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #104, Partition #0

Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 37
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #105, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 38
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #106, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 39
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545

Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #107, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 40
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #108, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 41
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #109, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 48
 Sectors/Track 63

Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #115, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 49
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #116, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 50
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #117, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0

SCSI Port 7
 SCSI Target ID 51
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #118, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 52
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #119, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 53
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #120, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk

Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 54
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #121, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 55
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #122, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 56
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #123, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device

Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 57
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #124, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 58
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #125, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 59
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #126, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 60
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #127, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 61
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #128, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 62
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #129, Partition #0

Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model ATA MK0120EAVDT SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 63
 Sectors/Track 63
 Size 111.79 GB (120,031,511,040 bytes)
 Total Cylinders 14,593
 Total Sectors 234,436,545
 Total Tracks 3,721,215
 Tracks/Cylinder 255
 Partition Disk #130, Partition #0
 Partition Size 111.79 GB (120,031,543,296 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP DG0300FARVV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 10
 SCSI Target ID 39
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #236, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP DG0300FARVV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 10
 SCSI Target ID 40
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680

Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #237, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP DG0300FARVV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 10
 SCSI Target ID 41
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #238, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP DG0300FARVV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 10
 SCSI Target ID 42
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #239, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP DG0300FARVV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 10
 SCSI Target ID 43
 Sectors/Track 63

Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #240, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 10
SCSI Target ID 61
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #257, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 10
SCSI Target ID 62
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #258, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0

SCSI Port 10
SCSI Target ID 63
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #259, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 10
SCSI Target ID 64
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #260, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 10
SCSI Target ID 65
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #261, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk

Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 11
SCSI Target ID 78
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #278, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 11
SCSI Target ID 79
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #279, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 11
SCSI Target ID 80
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #280, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device

Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 11
 SCSI Target ID 81
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #281, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP DG0300FARVV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 11
 SCSI Target ID 82
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #282, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP DG0300FARVV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 11
 SCSI Target ID 100
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #299, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP DG0300FARVV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 11
 SCSI Target ID 101
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #300, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP DG0300FARVV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 11
 SCSI Target ID 102
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #301, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP DG0300FARVV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 11
 SCSI Target ID 103
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #302, Partition #0

Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP DG0300FARVV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 11
 SCSI Target ID 104
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #303, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP DG0300FARVV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 12
 SCSI Target ID 45
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #320, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP DG0300FARVV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 12
 SCSI Target ID 46
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680

Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #321, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 12
SCSI Target ID 47
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #322, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 12
SCSI Target ID 48
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #323, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 12
SCSI Target ID 49
Sectors/Track 63

Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #324, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 12
SCSI Target ID 67
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #341, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 12
SCSI Target ID 68
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #342, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0

SCSI Port 12
SCSI Target ID 69
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #343, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 12
SCSI Target ID 70
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #344, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 12
SCSI Target ID 71
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #345, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk

Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 49
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #152, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP DG0300FARVV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 50
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #153, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP DG0300FARVV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 51
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #154, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP DG0300FARVV SCSI Disk Device

Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 52
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #155, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP DG0300FARVV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 53
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #156, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP DG0300FARVV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 71
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #173, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP DG0300FARVV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 72
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #174, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP DG0300FARVV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 73
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #175, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP DG0300FARVV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 74
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #176, Partition #0

Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 8
SCSI Target ID 75
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #177, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 9
SCSI Target ID 23
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #194, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 9
SCSI Target ID 24
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680

Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #195, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 9
SCSI Target ID 25
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #196, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 9
SCSI Target ID 26
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #197, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 9
SCSI Target ID 27
Sectors/Track 63

Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #198, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 9
SCSI Target ID 45
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #215, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 9
SCSI Target ID 46
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #216, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0

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SCSI Port 9
SCSI Target ID 47
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #217, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 9
SCSI Target ID 48
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #218, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP DG0300FARVV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 9
SCSI Target ID 49
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #219, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP EG0300FARTT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk

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Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 6
SCSI Target ID 42
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #89, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP EG0300FARTT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 6
SCSI Target ID 44
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #91, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP EG0300FARTT SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 6
SCSI Target ID 45
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #92, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP EG0300FAWHV SCSI Disk Device

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Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 5
SCSI Target ID 54
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #26, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP EG0300FAWHV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 5
SCSI Target ID 55
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #27, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP EG0300FAWHV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 5
SCSI Target ID 56
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #28, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

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Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP EG0300FAWHV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 5
 SCSI Target ID 57
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #29, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP EG0300FAWHV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 5
 SCSI Target ID 58
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #30, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP EG0300FAWHV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 5
 SCSI Target ID 76
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #47, Partition #0

Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP EG0300FAWHV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 5
 SCSI Target ID 77
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #48, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP EG0300FAWHV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 5
 SCSI Target ID 78
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #49, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP EG0300FAWHV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 5
 SCSI Target ID 79
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680

Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #50, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP EG0300FAWHV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 5
 SCSI Target ID 80
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #51, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP EG0300FAWHV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 23
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #71, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP EG0300FAWHV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 24
 Sectors/Track 63

Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #72, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP EG0300FAWHV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 6
SCSI Target ID 25
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #73, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP EG0300FAWHV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 6
SCSI Target ID 26
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #74, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP EG0300FAWHV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0

SCSI Port 6
SCSI Target ID 27
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #75, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP EG0300FAWHV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 6
SCSI Target ID 46
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #93, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP EG0300FAWHV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 7
SCSI Target ID 42
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #110, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP EG0300FAWHV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk

Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 7
SCSI Target ID 43
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #111, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP EG0300FAWHV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 7
SCSI Target ID 44
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #112, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP EG0300FAWHV SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 7
SCSI Target ID 45
Sectors/Track 63
Size 279.39 GB (299,992,412,160 bytes)
Total Cylinders 36,472
Total Sectors 585,922,680
Total Tracks 9,300,360
Tracks/Cylinder 255
Partition Disk #113, Partition #0
Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP EG0300FAWHV SCSI Disk Device

Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 46
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #114, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP EG0300FAWHV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 64
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #131, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP EG0300FAWHV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 65
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #132, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP EG0300FAWHV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 66
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #133, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP EG0300FAWHV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 67
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #134, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP EG0300FAWHV SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 7
 SCSI Target ID 68
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #135, Partition #0

Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP EG0300FAWJD SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 1
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 43
 Sectors/Track 63
 Size 279.39 GB (299,992,412,160 bytes)
 Total Cylinders 36,472
 Total Sectors 585,922,680
 Total Tracks 9,300,360
 Tracks/Cylinder 255
 Partition Disk #90, Partition #0
 Partition Size 279.40 GB (299,998,919,168 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP LOGICAL VOLUME SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 2
 SCSI Target ID 4
 Sectors/Track 32
 Size 68.33 GB (73,372,631,040 bytes)
 Total Cylinders 17,562
 Total Sectors 143,305,920
 Total Tracks 4,478,310
 Tracks/Cylinder 255
 Partition Disk #0, Partition #0
 Partition Size 33.88 GB (36,381,310,976 bytes)

Partition Starting Offset 16,384 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model HP LOGICAL VOLUME SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 2
 SCSI Target ID 5
 Sectors/Track 32
 Size 136.70 GB (146,778,685,440 bytes)
 Total Cylinders 35,132
 Total Sectors 286,677,120

Total Tracks 8,958,660
Tracks/Cylinder 255
Partition Disk #1, Partition #0
Partition Size 136.70 GB (146,776,522,752 bytes)

Partition Starting Offset 1,048,576 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP P2000 G3 FC SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 2
SCSI Port 4
SCSI Target ID 0
Sectors/Track 63
Size 837.26 GB (898,998,428,160 bytes)
Total Cylinders 109,297
Total Sectors 1,755,856,305
Total Tracks 27,870,735
Tracks/Cylinder 255
Partition Disk #6, Partition #0
Partition Size 837.26 GB (898,998,911,488 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP P2000 G3 FC SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 4
SCSI Port 4
SCSI Target ID 0
Sectors/Track 63
Size 837.26 GB (898,998,428,160 bytes)
Total Cylinders 109,297
Total Sectors 1,755,856,305
Total Tracks 27,870,735
Tracks/Cylinder 255
Partition Disk #7, Partition #0
Partition Size 837.26 GB (898,998,911,488 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP P2000 G3 FC SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 6
SCSI Port 4
SCSI Target ID 0
Sectors/Track 63

Size 837.26 GB (898,998,428,160 bytes)
Total Cylinders 109,297
Total Sectors 1,755,856,305
Total Tracks 27,870,735
Tracks/Cylinder 255
Partition Disk #8, Partition #0
Partition Size 837.26 GB (898,998,911,488 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP P2000 G3 FC SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 8
SCSI Port 4
SCSI Target ID 0
Sectors/Track 63
Size 837.26 GB (898,998,428,160 bytes)
Total Cylinders 109,297
Total Sectors 1,755,856,305
Total Tracks 27,870,735
Tracks/Cylinder 255
Partition Disk #9, Partition #0
Partition Size 837.26 GB (898,998,911,488 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP P2000 G3 FC SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 1
SCSI Port 3
SCSI Target ID 0
Sectors/Track 63
Size 837.26 GB (898,998,428,160 bytes)
Total Cylinders 109,297
Total Sectors 1,755,856,305
Total Tracks 27,870,735
Tracks/Cylinder 255
Partition Disk #2, Partition #0
Partition Size 837.26 GB (898,998,911,488 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP P2000 G3 FC SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 3

SCSI Port 3
SCSI Target ID 0
Sectors/Track 63
Size 837.26 GB (898,998,428,160 bytes)
Total Cylinders 109,297
Total Sectors 1,755,856,305
Total Tracks 27,870,735
Tracks/Cylinder 255
Partition Disk #3, Partition #0
Partition Size 837.26 GB (898,998,911,488 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP P2000 G3 FC SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 5
SCSI Port 3
SCSI Target ID 0
Sectors/Track 63
Size 837.26 GB (898,998,428,160 bytes)
Total Cylinders 109,297
Total Sectors 1,755,856,305
Total Tracks 27,870,735
Tracks/Cylinder 255
Partition Disk #4, Partition #0
Partition Size 837.26 GB (898,998,911,488 bytes)

Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model HP P2000 G3 FC SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 7
SCSI Port 3
SCSI Target ID 0
Sectors/Track 63
Size 837.26 GB (898,998,428,160 bytes)
Total Cylinders 109,297
Total Sectors 1,755,856,305
Total Tracks 27,870,735
Tracks/Cylinder 255
Partition Disk #5, Partition #0
Partition Size 837.26 GB (898,998,911,488 bytes)

Partition Starting Offset 32,256 bytes

[SCSI]

Item Value
Name LSI Adapter, SAS2 2116 Meteor ROC(E) -
StorPort
Manufacturer LSI Corporation

```

Status OK
PNP Device ID
    PCI\VEN_1000&DEV_0064&SUBSYS_30301000&REV_0
1\4&140EBF27&0&0008
Memory Address 0xD0100000-0xD0103FFF
Memory Address 0xD0140000-0xD017FFFF
IRQ Channel IRQ 4294967201
IRQ Channel IRQ 4294967200
IRQ Channel IRQ 4294967199
IRQ Channel IRQ 4294967198
IRQ Channel IRQ 4294967197
IRQ Channel IRQ 4294967196
IRQ Channel IRQ 4294967195
IRQ Channel IRQ 4294967194
IRQ Channel IRQ 4294967193
IRQ Channel IRQ 4294967192
IRQ Channel IRQ 4294967191
IRQ Channel IRQ 4294967190
IRQ Channel IRQ 4294967189
IRQ Channel IRQ 4294967188
IRQ Channel IRQ 4294967187
Driver c:\windows\system32\drivers\lsi_sas2.sys
(2.0.21.0, 77.08 KB (78,928 bytes), 7/6/2010 2:28 PM)

Name Smart Array P410i Controller
Manufacturer Hewlett-Packard Company
Status OK
PNP Device ID
    PCI\VEN_103C&DEV_323A&SUBSYS_3245103C&REV_0
1\4&190029E3&0&00E0
Memory Address 0xDA000000-0xDA3FFFFF
Memory Address 0xDA400000-0xDA400FFF
IRQ Channel IRQ 4294967273
IRQ Channel IRQ 4294967272
IRQ Channel IRQ 4294967271
IRQ Channel IRQ 4294967270
IRQ Channel IRQ 4294967269
IRQ Channel IRQ 4294967268
IRQ Channel IRQ 4294967267
IRQ Channel IRQ 4294967266
Driver c:\windows\system32\drivers\hpciss2.sys
(6.20.2.64, 153.60 KB (157,288 bytes), 8/2/2010 10:41
AM)

Name LSI Adapter, SAS2 2116 Meteor ROC(E) -
StorPort
Manufacturer LSI Corporation
Status OK
PNP Device ID
    PCI\VEN_1000&DEV_0064&SUBSYS_30301000&REV_0
1\4&28E642B8&0&0048
Memory Address 0xF0700000-0xF0703FFF
Memory Address 0xF0740000-0xF077FFFF
IRQ Channel IRQ 4294967096
IRQ Channel IRQ 4294967095
IRQ Channel IRQ 4294967094
IRQ Channel IRQ 4294967093
IRQ Channel IRQ 4294967092
IRQ Channel IRQ 4294967091
IRQ Channel IRQ 4294967090
IRQ Channel IRQ 4294967089
IRQ Channel IRQ 4294967088

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IRQ Channel IRQ 4294967087
IRQ Channel IRQ 4294967086
IRQ Channel IRQ 4294967085
IRQ Channel IRQ 4294967084
IRQ Channel IRQ 4294967083
IRQ Channel IRQ 4294967082
Driver c:\windows\system32\drivers\lsi_sas2.sys
(2.0.21.0, 77.08 KB (78,928 bytes), 7/6/2010 2:28 PM)

Name LSI Adapter, SAS2 2116 Meteor ROC(E) -
StorPort
Manufacturer LSI Corporation
Status OK
PNP Device ID
    PCI\VEN_1000&DEV_0064&SUBSYS_30301000&REV_0
1\4&2A2971F1&0&0048
Memory Address 0xD0300000-0xD03FFFFF
Memory Address 0xD0340000-0xD037FFFF
IRQ Channel IRQ 4294967156
IRQ Channel IRQ 4294967155
IRQ Channel IRQ 4294967154
IRQ Channel IRQ 4294967153
IRQ Channel IRQ 4294967152
IRQ Channel IRQ 4294967151
IRQ Channel IRQ 4294967150
IRQ Channel IRQ 4294967149
IRQ Channel IRQ 4294967148
IRQ Channel IRQ 4294967147
IRQ Channel IRQ 4294967146
IRQ Channel IRQ 4294967145
IRQ Channel IRQ 4294967144
IRQ Channel IRQ 4294967143
IRQ Channel IRQ 4294967142
Driver c:\windows\system32\drivers\lsi_sas2.sys
(2.0.21.0, 77.08 KB (78,928 bytes), 7/6/2010 2:28 PM)

Name LSI Adapter, SAS2 2116 Meteor ROC(E) -
StorPort
Manufacturer LSI Corporation
Status OK
PNP Device ID
    PCI\VEN_1000&DEV_0064&SUBSYS_30301000&REV_0
1\4&34526C84&0&0028
Memory Address 0xD0000000-0xD0003FFF
Memory Address 0xD0040000-0xD007FFFF
IRQ Channel IRQ 4294967186
IRQ Channel IRQ 4294967185
IRQ Channel IRQ 4294967184
IRQ Channel IRQ 4294967183
IRQ Channel IRQ 4294967182
IRQ Channel IRQ 4294967181
IRQ Channel IRQ 4294967180
IRQ Channel IRQ 4294967179
IRQ Channel IRQ 4294967178
IRQ Channel IRQ 4294967177
IRQ Channel IRQ 4294967176
IRQ Channel IRQ 4294967175
IRQ Channel IRQ 4294967174
IRQ Channel IRQ 4294967173
IRQ Channel IRQ 4294967172

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Driver c:\windows\system32\drivers\lsi_sas2.sys
(2.0.21.0, 77.08 KB (78,928 bytes), 7/6/2010 2:28 PM)

Name LSI Adapter, SAS2 2116 Meteor ROC(E) -
StorPort
Manufacturer LSI Corporation
Status OK
PNP Device ID
    PCI\VEN_1000&DEV_0064&SUBSYS_30301000&REV_0
1\4&35959BBD&0&0028
Memory Address 0xF0100000-0xF0103FFF
Memory Address 0xF0140000-0xF017FFFF
IRQ Channel IRQ 4294967126
IRQ Channel IRQ 4294967125
IRQ Channel IRQ 4294967124
IRQ Channel IRQ 4294967123
IRQ Channel IRQ 4294967122
IRQ Channel IRQ 4294967121
IRQ Channel IRQ 4294967120
IRQ Channel IRQ 4294967119
IRQ Channel IRQ 4294967118
IRQ Channel IRQ 4294967117
IRQ Channel IRQ 4294967116
IRQ Channel IRQ 4294967115
IRQ Channel IRQ 4294967114
IRQ Channel IRQ 4294967113
IRQ Channel IRQ 4294967112
Driver c:\windows\system32\drivers\lsi_sas2.sys
(2.0.21.0, 77.08 KB (78,928 bytes), 7/6/2010 2:28 PM)

Name QLogic Fibre Channel Adapter
Manufacturer QLogic
Status OK
PNP Device ID
    PCI\VEN_1077&DEV_2532&SUBSYS_3263103C&REV_0
2\4&1551EE60&0&0008
Memory Address 0xF0200000-0xF05FFFFF
Memory Address 0xF0300000-0xF03FFFFF
IRQ Channel IRQ 4294967265
IRQ Channel IRQ 4294967264
IRQ Channel IRQ 4294967263
IRQ Channel IRQ 4294967262
IRQ Channel IRQ 4294967261
IRQ Channel IRQ 4294967260
IRQ Channel IRQ 4294967259
IRQ Channel IRQ 4294967258
IRQ Channel IRQ 4294967257
IRQ Channel IRQ 4294967256
IRQ Channel IRQ 4294967255
IRQ Channel IRQ 4294967254
IRQ Channel IRQ 4294967253
IRQ Channel IRQ 4294967252
IRQ Channel IRQ 4294967251
IRQ Channel IRQ 4294967250
IRQ Channel IRQ 4294967249
IRQ Channel IRQ 4294967248
IRQ Channel IRQ 4294967247
IRQ Channel IRQ 4294967246
IRQ Channel IRQ 4294967245
IRQ Channel IRQ 4294967244
IRQ Channel IRQ 4294967243

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IRQ Channel      IRQ 4294967242
IRQ Channel      IRQ 4294967241
IRQ Channel      IRQ 4294967240
IRQ Channel      IRQ 4294967239
IRQ Channel      IRQ 4294967238
IRQ Channel      IRQ 4294967237
IRQ Channel      IRQ 4294967236
IRQ Channel      IRQ 4294967235
IRQ Channel      IRQ 4294967234
Driver c:\windows\system32\drivers\ql2300.sys
(9.1.8.27, 1.14 MB (1,196,656 bytes), 7/9/2010 10:58
PM)

Name             QLogic Fibre Channel Adapter
Manufacturer      QLogic
Status           OK
PNP Device ID    PCI\VEN_1077&DEV_2532&SUBSYS_3263103C&REV_0
2\4&1551EE60&0&0108
Memory Address   0xF0204000-0xF0207FFF
Memory Address   0xF0500000-0xF05FFFFF
IRQ Channel      IRQ 4294967233
IRQ Channel      IRQ 4294967232
IRQ Channel      IRQ 4294967231
IRQ Channel      IRQ 4294967230
IRQ Channel      IRQ 4294967229
IRQ Channel      IRQ 4294967228
IRQ Channel      IRQ 4294967227
IRQ Channel      IRQ 4294967226
IRQ Channel      IRQ 4294967225
IRQ Channel      IRQ 4294967224
IRQ Channel      IRQ 4294967223
IRQ Channel      IRQ 4294967222
IRQ Channel      IRQ 4294967221
IRQ Channel      IRQ 4294967220
IRQ Channel      IRQ 4294967219
IRQ Channel      IRQ 4294967218
IRQ Channel      IRQ 4294967217
IRQ Channel      IRQ 4294967216
IRQ Channel      IRQ 4294967215
IRQ Channel      IRQ 4294967214
IRQ Channel      IRQ 4294967213
IRQ Channel      IRQ 4294967212
IRQ Channel      IRQ 4294967211
IRQ Channel      IRQ 4294967210
IRQ Channel      IRQ 4294967209
IRQ Channel      IRQ 4294967208
IRQ Channel      IRQ 4294967207
IRQ Channel      IRQ 4294967206
IRQ Channel      IRQ 4294967205
IRQ Channel      IRQ 4294967204
IRQ Channel      IRQ 4294967203
IRQ Channel      IRQ 4294967202
Driver c:\windows\system32\drivers\ql2300.sys
(9.1.8.27, 1.14 MB (1,196,656 bytes), 7/9/2010 10:58
PM)

Name             LSI Adapter, SAS2 2116 Meteor ROC(E) -
StorPort
Manufacturer      LSI Corporation
Status           OK
PNP Device ID    PCI\VEN_1000&DEV_0064&SUBSYS_30301000&REV_0
1\4&22E49D58&0&0038
Memory Address   0xF0600000-0xF06FFFFF
Memory Address   0xF0640000-0xF067FFFF
IRQ Channel      IRQ 4294967111
IRQ Channel      IRQ 4294967110

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PNP Device ID    PCI\VEN_1000&DEV_0064&SUBSYS_30301000&REV_0
1\4&21A16E1F&0&0038
Memory Address   0xD0200000-0xD02FFFFF
Memory Address   0xD0240000-0xD027FFFF
IRQ Channel      IRQ 4294967171
IRQ Channel      IRQ 4294967170
IRQ Channel      IRQ 4294967169
IRQ Channel      IRQ 4294967168
IRQ Channel      IRQ 4294967167
IRQ Channel      IRQ 4294967166
IRQ Channel      IRQ 4294967165
IRQ Channel      IRQ 4294967164
IRQ Channel      IRQ 4294967163
IRQ Channel      IRQ 4294967162
IRQ Channel      IRQ 4294967161
IRQ Channel      IRQ 4294967160
IRQ Channel      IRQ 4294967159
IRQ Channel      IRQ 4294967158
IRQ Channel      IRQ 4294967157
Driver c:\windows\system32\drivers\lsi_sas2.sys
(2.0.21.0, 77.08 KB (78,928 bytes), 7/6/2010 2:28 PM)

Name             LSI Adapter, SAS2 2116 Meteor ROC(E) -
StorPort
Manufacturer      LSI Corporation
Status           OK
PNP Device ID    PCI\VEN_1000&DEV_0064&SUBSYS_30301000&REV_0
1\4&CABD01B&0&0018
Memory Address   0xF0000000-0xFBFFFFFFF
Memory Address   0xF0040000-0xF007FFFF
IRQ Channel      IRQ 4294967141
IRQ Channel      IRQ 4294967140
IRQ Channel      IRQ 4294967139
IRQ Channel      IRQ 4294967138
IRQ Channel      IRQ 4294967137
IRQ Channel      IRQ 4294967136
IRQ Channel      IRQ 4294967135
IRQ Channel      IRQ 4294967134
IRQ Channel      IRQ 4294967133
IRQ Channel      IRQ 4294967132
IRQ Channel      IRQ 4294967131
IRQ Channel      IRQ 4294967130
IRQ Channel      IRQ 4294967129
IRQ Channel      IRQ 4294967128
IRQ Channel      IRQ 4294967127
Driver c:\windows\system32\drivers\lsi_sas2.sys
(2.0.21.0, 77.08 KB (78,928 bytes), 7/6/2010 2:28 PM)

Name             LSI Adapter, SAS2 2116 Meteor ROC(E) -
StorPort
Manufacturer      LSI Corporation
Status           OK
PNP Device ID    PCI\VEN_1000&DEV_0064&SUBSYS_30301000&REV_0
1\4&22E49D58&0&0038
Memory Address   0xF0600000-0xF06FFFFF
Memory Address   0xF0640000-0xF067FFFF
IRQ Channel      IRQ 4294967111
IRQ Channel      IRQ 4294967110

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IRQ Channel      IRQ 4294967109
IRQ Channel      IRQ 4294967108
IRQ Channel      IRQ 4294967107
IRQ Channel      IRQ 4294967106
IRQ Channel      IRQ 4294967105
IRQ Channel      IRQ 4294967104
IRQ Channel      IRQ 4294967103
IRQ Channel      IRQ 4294967102
IRQ Channel      IRQ 4294967101
IRQ Channel      IRQ 4294967100
IRQ Channel      IRQ 4294967099
IRQ Channel      IRQ 4294967098
IRQ Channel      IRQ 4294967097
Driver c:\windows\system32\drivers\lsi_sas2.sys
(2.0.21.0, 77.08 KB (78,928 bytes), 7/6/2010 2:28 PM)

[IDE]

Item             Value
Name             Standard Dual Channel PCI IDE Controller

Manufacturer      (Standard IDE ATA/ATAPI
controllers)
Status           OK
PNP Device ID    PCI\VEN_8086&DEV_3A20&SUBSYS_330D103C&REV_0
0\3&11583659&0&FA
I/O Port         0x00009FD8-0x00009FDF
I/O Port         0x00009FCC-0x00009FCF
I/O Port         0x00009FD0-0x00009FD7
I/O Port         0x00009FC8-0x00009FCB
I/O Port         0x00009FF0-0x00009FFF
I/O Port         0x00009FE0-0x00009FEF
IRQ Channel      IRQ 17
Driver c:\windows\system32\drivers\pciide.sys
(6.1.7600.16385, 12.06 KB (12,352 bytes), 7/13/2009
6:19 PM)

Name             ATA Channel 0
Manufacturer      (Standard IDE ATA/ATAPI
controllers)
Status           OK
PNP Device ID    PCIIDE\IDECHANNEL\4&1D3E2C59&0&0

Driver c:\windows\system32\drivers\atapi.sys
(6.1.7600.16385, 23.56 KB (24,128 bytes), 7/13/2009
6:19 PM)

Name             ATA Channel 1
Manufacturer      (Standard IDE ATA/ATAPI
controllers)
Status           OK
PNP Device ID    PCIIDE\IDECHANNEL\4&1D3E2C59&0&1

Driver c:\windows\system32\drivers\atapi.sys
(6.1.7600.16385, 23.56 KB (24,128 bytes), 7/13/2009
6:19 PM)

[Printing]

Can't Collect Information

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[Problem Devices]

| Device | PNP Device ID | Error Code |
|--------|---------------|------------|
|--------|---------------|------------|

[USB]

| Device | PNP Device ID |
|--|---|
| Intel(R) ICH10 Family USB Universal Host Controller - 3A36 | PCI\VEN_8086&DEV_3A36&SUBSYS_330D103C&REV_00\3&11583659&0&EA |
| Intel(R) ICH10 Family USB Universal Host Controller - 3A34 | PCI\VEN_8086&DEV_3A34&SUBSYS_330D103C&REV_00\3&11583659&0&E8 |
| Intel(R) ICH10 Family USB Universal Host Controller - 3A39 | PCI\VEN_8086&DEV_3A39&SUBSYS_330D103C&REV_00\3&11583659&0&EB |
| Intel(R) ICH10 Family USB Universal Host Controller - 3A35 | PCI\VEN_8086&DEV_3A35&SUBSYS_330D103C&REV_00\3&11583659&0&E9 |
| Intel(R) ICH10 Family USB Enhanced Host Controller - 3A3A | PCI\VEN_8086&DEV_3A3A&SUBSYS_330D103C&REV_00\3&11583659&0&EF |
| Standard Universal PCI to USB Host Controller | PCI\VEN_103C&DEV_3300&SUBSYS_3309103C&REV_01\4&A2E0978&0&04E4 |

[Software Environment]

[System Drivers]

| Name | Description | File | Type | Started | Start Mode | State | Status | Error Control | Accept Pause | |
|----------|-------------------------------------|--|---------------|---------|------------|---------|--------|---------------|--------------|-----|
| 1394ohci | 1394 OHCI Compliant Host Controller | c:\windows\system32\drivers\1394ohci.sys | Kernel Driver | No | Manual | Stopped | OK | Normal | No | No |
| acpi | Microsoft ACPI Driver | c:\windows\system32\drivers\acpi.sys | Kernel Driver | Yes | Boot | Running | OK | Critical | No | Yes |
| acpipmi | ACPI Power Meter Driver | c:\windows\system32\drivers\acpipmi.sys | Kernel Driver | Yes | Manual | Running | OK | Normal | No | Yes |
| adp94xx | adp94xx | c:\windows\system32\drivers\adp94xx.sys | Kernel Driver | No | Manual | Stopped | OK | Normal | No | No |

| | | | | | | | | | | |
|---------|---------------------------------------|---|---------------|-----|--------|---------|----|----------|----|-----|
| adpahci | adpahci | c:\windows\system32\drivers\adpahci.sys | Kernel Driver | No | Manual | Stopped | OK | Normal | No | No |
| adpu320 | adpu320 | c:\windows\system32\drivers\adpu320.sys | Kernel Driver | No | Manual | Stopped | OK | Normal | No | No |
| afd | Ancillary Function Driver for Winsock | c:\windows\system32\drivers\afd.sys | Kernel Driver | Yes | System | Running | OK | Normal | No | Yes |
| agp440 | Intel AGP Bus Filter | c:\windows\system32\drivers\agp440.sys | Kernel Driver | No | Manual | Stopped | OK | Normal | No | No |
| aliide | aliide | c:\windows\system32\drivers\aliide.sys | Kernel Driver | No | Manual | Stopped | OK | Critical | No | No |
| amdide | amdide | c:\windows\system32\drivers\amdide.sys | Kernel Driver | No | Manual | Stopped | OK | Critical | No | No |
| amdK8 | AMD K8 Processor Driver | c:\windows\system32\drivers\amdK8.sys | Kernel Driver | No | Manual | Stopped | OK | Normal | No | No |
| amdppm | AMD Processor Driver | c:\windows\system32\drivers\amdppm.sys | Kernel Driver | No | Manual | Stopped | OK | Normal | No | No |
| amdsata | amdsata | c:\windows\system32\drivers\amdsata.sys | Kernel Driver | No | Manual | Stopped | OK | Normal | No | No |
| amdsbs | amdsbs | c:\windows\system32\drivers\amdsbs.sys | Kernel Driver | No | Manual | Stopped | OK | Normal | No | No |
| amdXata | amdXata | c:\windows\system32\drivers\amdXata.sys | Kernel Driver | Yes | Boot | Running | OK | Normal | No | Yes |
| appid | AppID Driver | c:\windows\system32\drivers\appid.sys | Kernel Driver | No | Manual | Stopped | OK | Normal | No | No |
| arc | arc | c:\windows\system32\drivers\arc.sys | Kernel Driver | No | Manual | | | | | |

| | | | | | | | | | | |
|----------|--|--|--------------------|-----|--------|---------|----|----------|----|-----|
| arcsas | arcsas | c:\windows\system32\drivers\arcsas.sys | Kernel Driver | No | Manual | Stopped | OK | Normal | No | No |
| asynxmac | RAS Asynchronous Media Driver | c:\windows\system32\drivers\asynxmac.sys | Kernel Driver | Yes | Manual | Running | OK | Normal | No | Yes |
| atapi | IDE Channel | c:\windows\system32\drivers\atapi.sys | Kernel Driver | Yes | Boot | Running | OK | Critical | No | Yes |
| ati2mtag | ati2mtag | c:\windows\system32\drivers\ati2mtag.sys | Kernel Driver | Yes | Manual | Running | OK | Ignore | No | Yes |
| b06bdrv | HP Virtual Bus Device | c:\windows\system32\drivers\bxvbda.sys | Kernel Driver | Yes | Boot | Running | OK | Normal | No | Yes |
| b57nd60a | Broadcom NetXtreme Gigabit Ethernet - NDIS 6.0 | c:\windows\system32\drivers\b57nd60a.sys | Kernel Driver | No | Manual | Stopped | OK | Normal | No | No |
| beep | Beep | c:\windows\system32\drivers\beep.sys | Kernel Driver | No | Manual | Stopped | OK | Normal | No | No |
| blbdrive | blbdrive | c:\windows\system32\drivers\blbdrive.sys | Kernel Driver | Yes | System | Running | OK | Normal | No | Yes |
| bowser | Browser Support Driver | c:\windows\system32\drivers\bowser.sys | File System Driver | Yes | Manual | Running | OK | Normal | No | Yes |
| brfiltlo | Brother USB Mass-Storage Lower Filter Driver | c:\windows\system32\drivers\brfiltlo.sys | Kernel Driver | No | Manual | Stopped | OK | Normal | No | No |
| brfiltup | Brother USB Mass-Storage Upper Filter Driver | c:\windows\system32\drivers\brfiltup.sys | Kernel Driver | No | Manual | Stopped | OK | Normal | No | No |
| brserid | Brother MFC Serial Port Interface Driver (WDM) | c:\windows\system32\drivers\brserid.sys | Kernel Driver | No | Manual | Stopped | OK | Normal | No | No |

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brsrwmdm Brother WDM Serial driver
c:\windows\system32\drivers\brsrwmdm.sys
Kernel Driver No Manual
Stopped OK Normal No No

brusbmdm Brother MFC USB Fax Only Modem
c:\windows\system32\drivers\brusbmdm.sys
Kernel Driver No Manual
Stopped OK Normal No No

brusbser Brother MFC USB Serial WDM Driver
c:\windows\system32\drivers\brusbser.sys
Kernel Driver No Manual
Stopped OK Normal No No

cdfs CD/DVD File System Reader
c:\windows\system32\drivers\cdfs.sys
File System Driver No Disabled
Stopped OK Normal No No

cdrom CD-ROM Driver
c:\windows\system32\drivers\cdrom.sys
Kernel Driver No System
Stopped OK Normal No No

clfs Common Log (CLFS)
c:\windows\system32\clfs.sys Kernel Driver
Yes Boot Running OK
Critical No Yes

cmbatt Microsoft ACPI Control Method Battery
Driver c:\windows\system32\drivers\cmbatt.sys
Kernel Driver No Manual
Stopped OK Normal No No

cmdide cmdide
c:\windows\system32\drivers\cmdide.sys
Kernel Driver No Manual
Stopped OK Critical No No

cng CNG
c:\windows\system32\drivers\cng.sys
Kernel Driver Yes Boot
Running OK Critical No Yes

compbatt Compbatt
c:\windows\system32\drivers\compbatt.sys
Kernel Driver No Manual
Stopped OK Critical No No

compositebus Composite Bus Enumerator Driver
c:\windows\system32\drivers\compositebus.sys
Kernel Driver Yes Manual
Running OK Normal No Yes

cpqcidrv HP iLO Management Channel Interface Driver
c:\windows\system32\drivers\cpqcidrv.sys
Kernel Driver No Manual
Stopped OK Normal No No

cpqteam HP Network Configuration Utility
c:\windows\system32\drivers\cpqteam.sys
Kernel Driver No Manual

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Stopped OK Normal No No

cpuspy3 CpuSpy3 Driver
\??\c:\windows\system32\drivers\cpuspy3.sys
Kernel Driver No Manual
Stopped OK Normal No No

crocdisk Crocdisk Filter Driver
c:\windows\system32\drivers\crocdisk.sys
Kernel Driver No Disabled
Stopped OK Normal No No

dfsc DFS Namespace Client Driver
c:\windows\system32\drivers\dfsc.sys
File System Driver Yes System
Running OK Normal No Yes

discache System Attribute Cache
c:\windows\system32\drivers\discache.sys
Kernel Driver Yes System
Running OK Normal No Yes

disk Disk Driver
c:\windows\system32\drivers\disk.sys
Kernel Driver Yes Boot
Running OK Normal No Yes

dxgkrnl LDDM Graphics Subsystem
c:\windows\system32\drivers\dxgkrnl.sys
Kernel Driver No Manual
Stopped OK Ignore No No

elexpress Intel(R) PRO/1000 PCI Express Network
Connection Driver
c:\windows\system32\drivers\ele6232e.sys
Kernel Driver No Manual
Stopped OK Normal No No

elrexpress Intel(R) PRO/1000 PCI Express
Network Connection Driver R
c:\windows\system32\drivers\elr62x64.sys
Kernel Driver No Manual
Stopped OK Normal No No

ebdrv Broadcom NetXtreme II 10 GigE VBD
c:\windows\system32\drivers\evbda.sys
Kernel Driver No Manual
Stopped OK Normal No No

elxstor elxstor
c:\windows\system32\drivers\elxstor.sys
Kernel Driver No Manual
Stopped OK Normal No No

errdev Microsoft Hardware Error Device Driver
c:\windows\system32\drivers\errdev.sys
Kernel Driver No Manual
Stopped OK Normal No No

exfat exFAT File System Driver
c:\windows\system32\drivers\exfat.sys
File System Driver No Manual

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Stopped OK Normal No No

fastfat FAT12/16/32 File System Driver
c:\windows\system32\drivers\fastfat.sys
File System Driver No Manual
Stopped OK Normal No No

fdc Floppy Disk Controller Driver
c:\windows\system32\drivers\fdc.sys
Kernel Driver No Manual
Stopped OK Normal No No

fileinfo File Information FS MiniFilter
c:\windows\system32\drivers\fileinfo.sys
File System Driver No Manual
Stopped OK Normal No No

filetrace Filetrace
c:\windows\system32\drivers\filetrace.sys
File System Driver No Manual
Stopped OK Normal No No

flpydisk Floppy Disk Driver
c:\windows\system32\drivers\flpydisk.sys
Kernel Driver No Manual
Stopped OK Normal No No

fltmgr FltMgr
c:\windows\system32\drivers\fltmgr.sys
File System Driver Yes Boot
Running OK Critical No Yes

fsdepends File System Dependency Minifilter
c:\windows\system32\drivers\fsdepends.sys
File System Driver No Manual
Stopped OK Critical No No

gagp30kx Microsoft Generic AGPv3.0 Filter for K8
Processor Platforms
c:\windows\system32\drivers\gagp30kx.sys
Kernel Driver No Manual
Stopped OK Normal No No

hdaudbus Microsoft UAA Bus Driver for High
Definition Audio
c:\windows\system32\drivers\hdaudbus.sys
Kernel Driver No Manual
Stopped OK Normal No No

hidbatt HID UPS Battery Driver
c:\windows\system32\drivers\hidbatt.sys
Kernel Driver No Manual
Stopped OK Normal No No

hidusb Microsoft HID Class Driver
c:\windows\system32\drivers\hidusb.sys
Kernel Driver Yes Manual
Running OK Ignore No Yes

hpcisss2 HpCISSs2
c:\windows\system32\drivers\hpcisss2.sys
Kernel Driver Yes Boot

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Running OK Normal No Yes
hpqcissb Smart Array Controllers Non-Miniport Bus
Driver c:\windows\system32\drivers\hpqcissb.sys
Kernel Driver Yes Boot
Running OK Normal No Yes
hpqcissd Smart Array Controllers Non-Miniport Disk
Driver c:\windows\system32\drivers\hpqcissd.sys
Kernel Driver Yes Boot
Running OK Normal No Yes
hpqilo2 hpqilo2
c:\windows\system32\drivers\hpqilo2.sys
Kernel Driver Yes Boot
Running OK Normal No Yes
hpqilo3chif HP ProLiant Management Controller
Driver (CHIF) c:\windows\system32\drivers\hpqilo3chif.sys
Kernel Driver Yes Manual
Running OK Normal No Yes
hpqilo3core HP ProLiant Management Controller
Driver (CORE) c:\windows\system32\drivers\hpqilo3core.sys
Kernel Driver Yes Manual
Running OK Normal No Yes
hpqilo3whea HP ProLiant Management Controller
Driver (WHEA) c:\windows\system32\drivers\hpqilo3whea.sys
Kernel Driver Yes Boot
Running OK Normal No Yes
hpsamd HPSAMD
c:\windows\system32\drivers\hpsamd.sys
Kernel Driver Yes Boot
Running OK Normal No Yes
http HTTP
c:\windows\system32\drivers\http.sys
Kernel Driver Yes Manual
Running OK Normal No Yes
hwpolicy Hardware Policy Driver
c:\windows\system32\drivers\hwpolicy.sys
Kernel Driver Yes Boot
Running OK Normal No Yes
i8042prt i8042 Keyboard and PS/2 Mouse Port Driver
c:\windows\system32\drivers\i8042prt.sys
Kernel Driver Yes Manual
Running OK Normal No Yes
iastorv iaStorV
c:\windows\system32\drivers\iastorv.sys
Kernel Driver No Manual
Stopped OK Normal No No
iirsp iirsp
c:\windows\system32\drivers\iirsp.sys
Kernel Driver No Manual

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Stopped OK Normal No No
intelide intelide
c:\windows\system32\drivers\intelide.sys
Kernel Driver No Manual
Stopped OK Critical No No
intelppm Intel Processor Driver
c:\windows\system32\drivers\intelppm.sys
Kernel Driver Yes Manual
Running OK Normal No Yes
ioatdma Intel(R) QuickData Technology Device
c:\windows\system32\drivers\qd260x64.sys
Kernel Driver No Manual
Stopped OK Normal No No
ipfilterdriver IP Traffic Filter Driver
c:\windows\system32\drivers\ipfltdrv.sys
Kernel Driver No Manual
Stopped OK Normal No No
ipmidrv IPMIDRV
c:\windows\system32\drivers\ipmidrv.sys
Kernel Driver Yes Manual
Running OK Normal No Yes
ipnat IP Network Address Translator
c:\windows\system32\drivers\ipnat.sys
Kernel Driver No Manual
Stopped OK Normal No No
isapnp isapnp
c:\windows\system32\drivers\isapnp.sys
Kernel Driver No Manual
Stopped OK Critical No No
iscsiprt iScsiPort Driver
c:\windows\system32\drivers\msiscsi.sys
Kernel Driver No Manual
Stopped OK Normal No No
kbdclass Keyboard Class Driver
c:\windows\system32\drivers\kbdclass.sys
Kernel Driver Yes Manual
Running OK Normal No Yes
kbdhid Keyboard HID Driver
c:\windows\system32\drivers\kbdhid.sys
Kernel Driver Yes Manual
Running OK Ignore No Yes
ksecdd KSecDD
c:\windows\system32\drivers\ksecdd.sys
Kernel Driver Yes Boot
Running OK Critical No Yes
ksecpkg KSecPkg
c:\windows\system32\drivers\ksecpkg.sys
Kernel Driver Yes Boot
Running OK Critical No Yes

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ksthunk Kernel Streaming Thunks
c:\windows\system32\drivers\ksthunk.sys
Kernel Driver No Manual
Stopped OK Normal No No
l2nd HP NC370 Multifunction Gigabit Server
Adapter c:\windows\system32\drivers\bxnd60a.sys
Kernel Driver No Manual
Stopped OK Normal No No
lltdio Link-Layer Topology Discovery Mapper I/O
Driver c:\windows\system32\drivers\lltdio.sys
Kernel Driver Yes Auto
Running OK Normal No Yes
lsi_fc LSI_FC
c:\windows\system32\drivers\lsi_fc.sys
Kernel Driver No Manual
Stopped OK Normal No No
lsi_sas LSI_SAS
c:\windows\system32\drivers\lsi_sas.sys
Kernel Driver No Manual
Stopped OK Normal No No
lsi_sas2 LSI_SAS2
c:\windows\system32\drivers\lsi_sas2.sys
Kernel Driver Yes Boot
Running OK Normal No Yes
lsi_scsi LSI_SCSI
c:\windows\system32\drivers\lsi_scsi.sys
Kernel Driver No Manual
Stopped OK Normal No No
luafv UAC File Virtualization
c:\windows\system32\drivers\luafv.sys
File System Driver Yes Auto
Running OK Normal No Yes
megasas megasas
c:\windows\system32\drivers\megasas.sys
Kernel Driver No Manual
Stopped OK Normal No No
megasr MegaSR
c:\windows\system32\drivers\megasr.sys
Kernel Driver No Manual
Stopped OK Normal No No
modem Modem
c:\windows\system32\drivers\modem.sys
Kernel Driver No Manual
Stopped OK Ignore No No
monitor Microsoft Monitor Class Function Driver
Service c:\windows\system32\drivers\monitor.sys
Kernel Driver Yes Manual
Running OK Normal No Yes
mouclass Mouse Class Driver
c:\windows\system32\drivers\mouclass.sys
Kernel Driver Yes Manual

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|-----------|---|---|--------------------|-----|--------|---------|-------|----------|---------|-----|-------------------|---|--|--------------------|-----|--------|---------|----|----------|----|-----|--|--|
| | Running | OK | Normal | No | Yes | | msrpc | MsRPC | Running | OK | Normal | No | Yes | | | | | | | | | | |
| mouhid | Mouse HID Driver | c:\windows\system32\drivers\mouhid.sys | Kernel Driver | Yes | Manual | Stopped | OK | Normal | No | No | nfrd960 | nfrd960 | c:\windows\system32\drivers\nfrd960.sys | Kernel Driver | No | Manual | Stopped | OK | Normal | No | No | | |
| mountmgr | Mount Point Manager | c:\windows\system32\drivers\mountmgr.sys | Kernel Driver | Yes | Boot | Running | OK | Critical | No | Yes | npfs | Npfs | c:\windows\system32\drivers\npfs.sys | File System Driver | Yes | System | Running | OK | Normal | No | Yes | | |
| mpio | Microsoft Multi-Path Bus Driver | c:\windows\system32\drivers\mpio.sys | Kernel Driver | Yes | Boot | Running | OK | Normal | No | Yes | nsiproxy | NSI proxy service driver. | c:\windows\system32\drivers\nsiproxy.sys | Kernel Driver | Yes | System | Running | OK | Normal | No | Yes | | |
| mpsdrv | Windows Firewall Authorization Driver | c:\windows\system32\drivers\mpsdrv.sys | Kernel Driver | Yes | Manual | Running | OK | Normal | No | Yes | ntfs | Ntfs | c:\windows\system32\drivers\ntfs.sys | File System Driver | Yes | Manual | Running | OK | Normal | No | Yes | | |
| mrx smb | SMB MiniRedirector Wrapper and Engine | c:\windows\system32\drivers\mrx smb.sys | File System Driver | Yes | Manual | Running | OK | Normal | No | Yes | null | Null | c:\windows\system32\drivers\null.sys | Kernel Driver | Yes | System | Running | OK | Normal | No | Yes | | |
| mrx smb10 | SMB 1.x MiniRedirector | c:\windows\system32\drivers\mrx smb10.sys | File System Driver | Yes | Manual | Running | OK | Normal | No | Yes | nvraid | nvraid | c:\windows\system32\drivers\nvraid.sys | Kernel Driver | No | Manual | Stopped | OK | Normal | No | No | | |
| mrx smb20 | SMB 2.0 MiniRedirector | c:\windows\system32\drivers\mrx smb20.sys | File System Driver | Yes | Manual | Running | OK | Normal | No | Yes | nvstor | nvstor | c:\windows\system32\drivers\nvstor.sys | Kernel Driver | No | Manual | Stopped | OK | Critical | No | No | | |
| msahci | msahci | c:\windows\system32\drivers\msahci.sys | Kernel Driver | No | Manual | Stopped | OK | Critical | No | No | nv_agp | NVIDIA nForce AGP Bus Filter | c:\windows\system32\drivers\nv_agp.sys | Kernel Driver | No | Manual | Stopped | OK | Normal | No | No | | |
| msdsm | Microsoft Multi-Path Device Specific Module | c:\windows\system32\drivers\msdsm.sys | Kernel Driver | Yes | Boot | Running | OK | Normal | No | Yes | nxnd6hp Adapter | HP Multifunctions 1/10 Gigabit Server Adapter | c:\windows\system32\drivers\hpnd6x64.sys | Kernel Driver | Yes | Manual | Running | OK | Normal | No | Yes | | |
| msfs | Msfs | c:\windows\system32\drivers\msfs.sys | File System Driver | Yes | System | Running | OK | Normal | No | Yes | ohci1394 (Legacy) | 1394 OHCI Compliant Host Controller | c:\windows\system32\drivers\ohci1394.sys | Kernel Driver | No | Manual | Stopped | OK | Normal | No | No | | |
| mshidkmdf | Pass-through HID to KMD Filter Driver | c:\windows\system32\drivers\mshidkmdf.sys | Kernel Driver | No | Manual | Stopped | OK | Ignore | No | No | parport | Parallel port driver | c:\windows\system32\drivers\parport.sys | Kernel Driver | No | Manual | Stopped | OK | Ignore | No | No | | |
| msisadrv | msisadrv | c:\windows\system32\drivers\msisadrv.sys | Kernel Driver | Yes | Boot | Running | OK | Critical | No | Yes | partmgr | Partition Manager | c:\windows\system32\drivers\partmgr.sys | Kernel Driver | Yes | Boot | Running | OK | Critical | No | Yes | | |
| | | | | | | | | | | | netbt | NetBT | c:\windows\system32\drivers\netbt.sys | Kernel Driver | Yes | System | | | | | | | |

| | | | | | |
|------------------|---|-----------|---|----------|--|
| pci | PCI Bus Driver c:\windows\system32\drivers\pci.sys Kernel Driver Yes Boot Running OK Critical No Yes | raspppoe | Remote Access PPOE Driver c:\windows\system32\drivers\raspppoe.sys Kernel Driver Yes Manual Running OK Normal No Yes | sbp2port | sbp2port c:\windows\system32\drivers\sbp2port.sys Kernel Driver No Manual Stopped OK Normal No No |
| pciide | pciide c:\windows\system32\drivers\pciide.sys Kernel Driver Yes Boot Running OK Critical No Yes | rassttp | WAN Miniport (SSTP) c:\windows\system32\drivers\rassttp.sys Kernel Driver Yes Manual Running OK Normal No Yes | scfilter | Smart card PnP Class Filter Driver c:\windows\system32\drivers\scfilter.sys Kernel Driver No Manual Stopped OK Normal No No |
| pcmcia | pcmcia c:\windows\system32\drivers\pcmcia.sys Kernel Driver No Manual Stopped OK Normal No No | rdbss | Redirected Buffering Sub System c:\windows\system32\drivers\rdbss.sys File System Driver Yes System Running OK Normal No Yes | secdrv | Security Driver c:\windows\system32\drivers\secdrv.sys Kernel Driver Yes Auto Running OK Normal No Yes |
| pcw | Performance Counters for Windows Driver c:\windows\system32\drivers\pcw.sys Kernel Driver Yes Boot Running OK Normal No Yes | rdpbus | Remote Desktop Device Redirector Bus Driver c:\windows\system32\drivers\rdpbus.sys Kernel Driver Yes Manual Running OK Normal No Yes | serenum | Serenum Filter Driver c:\windows\system32\drivers\serenum.sys Kernel Driver Yes Manual Running OK Normal No Yes |
| peauth | PEAUTH c:\windows\system32\drivers\peauth.sys Kernel Driver Yes Auto Running OK Normal No Yes | rdpcdd | RDP CDD c:\windows\system32\drivers\rdpcdd.sys Kernel Driver Yes System Running OK Ignore No Yes | serial | Serial port driver c:\windows\system32\drivers\serial.sys Kernel Driver Yes System Running OK Ignore No Yes |
| pptpminiport | WAN Miniport (PPTP) c:\windows\system32\drivers\raspttp.sys Kernel Driver Yes Manual Running OK Normal No Yes | rdpdr | Terminal Server Device Redirector Driver c:\windows\system32\drivers\rdpdr.sys Kernel Driver Yes Manual Running OK Normal No Yes | sermouse | Serial Mouse Driver c:\windows\system32\drivers\sermouse.sys Kernel Driver No Manual Stopped OK Normal No No |
| processor | Processor Driver c:\windows\system32\drivers\processr.sys Kernel Driver No Manual Stopped OK Normal No No | rdpenccd | RDP Encoder Mirror Driver c:\windows\system32\drivers\rdpenccd.sys Kernel Driver Yes System Running OK Ignore No Yes | sffdisk | SFF Storage Class Driver c:\windows\system32\drivers\sffdisk.sys Kernel Driver No Manual Stopped OK Normal No No |
| psched | QoS Packet Scheduler c:\windows\system32\drivers\pacer.sys Kernel Driver Yes System Running OK Normal No Yes | rdpprefmp | Reflector Display Driver used to gain access to graphics data c:\windows\system32\drivers\rdpprefmp.sys Kernel Driver Yes System Running OK Ignore No Yes | sffp_mmc | SFF Storage Protocol Driver for MMC c:\windows\system32\drivers\sffp_mmc.sys Kernel Driver No Manual Stopped OK Normal No No |
| ql2300 (wx64 IP) | QLogic Fibre Channel STOR Miniport Driver c:\windows\system32\drivers\ql2300.sys Kernel Driver Yes Boot Running OK Normal No Yes | rdpwd | RDP Winstation Driver c:\windows\system32\drivers\rdpwd.sys Kernel Driver Yes Manual Running OK Ignore No Yes | sffp_sd | SFF Storage Protocol Driver for SDBus c:\windows\system32\drivers\sffp_sd.sys Kernel Driver No Manual Stopped OK Normal No No |
| ql40xx | ql40xx c:\windows\system32\drivers\ql40xx.sys Kernel Driver No Manual Stopped OK Normal No No | rspnldr | Link-Layer Topology Discovery Responder c:\windows\system32\drivers\rspnldr.sys Kernel Driver Yes Auto Running OK Normal No Yes | sfloppy | High-Capacity Floppy Disk Drive c:\windows\system32\drivers\sfloppy.sys Kernel Driver No Manual Stopped OK Normal No No |
| rasacd | Remote Access Auto Connection Driver c:\windows\system32\drivers\rasacd.sys Kernel Driver No Manual Stopped OK Normal No No | s3cap | s3cap c:\windows\system32\drivers\vm3cap.sys Kernel Driver No Manual Stopped OK Normal No No | sisraid2 | SiSRaid2 c:\windows\system32\drivers\sisraid2.sys Kernel Driver No Manual Stopped OK Normal No No |
| rasagilevpn | WAN Miniport (IKEv2) c:\windows\system32\drivers\agilevpn.sys Kernel Driver Yes Manual Running OK Normal No Yes | sacdrv | sacdrv c:\windows\system32\drivers\sacdrv.sys Kernel Driver No Boot Stopped OK Ignore No No | sisraid4 | SiSRaid4 c:\windows\system32\drivers\sisraid4.sys Kernel Driver No Manual Stopped OK Normal No No |
| rasl2tp | WAN Miniport (L2TP) c:\windows\system32\drivers\rasl2tp.sys Kernel Driver Yes Manual | | | smb | Message-oriented TCP/IP and TCP/IPV6 Protocol (SMB session) c:\windows\system32\drivers\smb.sys |

| | | | | |
|----------|---|-----|----------|----|
| | Kernel Driver | No | Manual | |
| | Stopped | OK | Normal | No |
| spldr | Security Processor Loader Driver | | | |
| | c:\windows\system32\drivers\spldr.sys | | | |
| | Kernel Driver | Yes | Boot | |
| | Running | OK | Critical | No |
| srv | Server SMB 1.xxx Driver | | | |
| | c:\windows\system32\drivers\srv.sys | | | |
| | File System Driver | Yes | Manual | |
| | Running | OK | Normal | No |
| srv2 | Server SMB 2.xxx Driver | | | |
| | c:\windows\system32\drivers\srv2.sys | | | |
| | File System Driver | Yes | Manual | |
| | Running | OK | Normal | No |
| srvnet | srvnet | | | |
| | c:\windows\system32\drivers\srvnet.sys | | | |
| | File System Driver | Yes | Manual | |
| | Running | OK | Normal | No |
| stexstor | stexstor | | | |
| | c:\windows\system32\drivers\stexstor.sys | | | |
| | Kernel Driver | No | Manual | |
| | Stopped | OK | Normal | No |
| storflt | Disk Virtual Machine Bus Acceleration Filter Driver | | | |
| | c:\windows\system32\drivers\vmstorfl.sys | | | |
| | Kernel Driver | Yes | Boot | |
| | Running | OK | Normal | No |
| storvsc | storvsc | | | |
| | c:\windows\system32\drivers\storvsc.sys | | | |
| | Kernel Driver | No | Manual | |
| | Stopped | OK | Normal | No |
| storvsp | storvsp | | | |
| | c:\windows\system32\drivers\storvsp.sys | | | |
| | Kernel Driver | No | Manual | |
| | Stopped | OK | Normal | No |
| swenum | Software Bus Driver | | | |
| | c:\windows\system32\drivers\swenum.sys | | | |
| | Kernel Driver | Yes | Manual | |
| | Running | OK | Normal | No |
| tcpip | TCP/IP Protocol Driver | | | |
| | c:\windows\system32\drivers\tcpip.sys | | | |
| | Kernel Driver | Yes | Boot | |
| | Running | OK | Normal | No |
| tcpip6 | Microsoft IPv6 Protocol Driver | | | |
| | c:\windows\system32\drivers\tcpip.sys | | | |
| | Kernel Driver | No | Manual | |
| | Stopped | OK | Normal | No |
| tcpipreg | TCP/IP Registry Compatibility | | | |
| | c:\windows\system32\drivers\tcpipreg.sys | | | |
| | Kernel Driver | Yes | Auto | |

| | | | | | |
|----------|--|-----|----------|----|-----|
| | Running | OK | Normal | No | Yes |
| tdpipe | TDDPIPE | | | | |
| | c:\windows\system32\drivers\tdpipe.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| tdtcp | TDTCP | | | | |
| | c:\windows\system32\drivers\tdtcp.sys | | | | |
| | Kernel Driver | Yes | Manual | | |
| | Running | OK | Normal | No | Yes |
| tdx | NetIO Legacy TDI Support Driver | | | | |
| | c:\windows\system32\drivers\tdx.sys | | | | |
| | Kernel Driver | Yes | System | | |
| | Running | OK | Normal | No | Yes |
| termdd | Terminal Device Driver | | | | |
| | c:\windows\system32\drivers\termdd.sys | | | | |
| | Kernel Driver | Yes | System | | |
| | Running | OK | Normal | No | Yes |
| tssecsrv | Remote Desktop Services Security Filter Driver | | | | |
| | c:\windows\system32\drivers\tssecsrv.sys | | | | |
| | Kernel Driver | Yes | Manual | | |
| | Running | OK | Ignore | No | Yes |
| tunnel | Microsoft Tunnel Miniport Adapter Driver | | | | |
| | c:\windows\system32\drivers\tunnel.sys | | | | |
| | Kernel Driver | Yes | Manual | | |
| | Running | OK | Normal | No | Yes |
| uagp35 | Microsoft AGPv3.5 Filter | | | | |
| | c:\windows\system32\drivers\uagp35.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| udfs | udfs | | | | |
| | c:\windows\system32\drivers\udfs.sys | | | | |
| | File System Driver | No | Disabled | | |
| | Stopped | OK | Normal | No | No |
| uliagpkx | Uli AGP Bus Filter | | | | |
| | c:\windows\system32\drivers\uliagpkx.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| umbus | UMBus Enumerator Driver | | | | |
| | c:\windows\system32\drivers\umbus.sys | | | | |
| | Kernel Driver | Yes | Manual | | |
| | Running | OK | Normal | No | Yes |
| umpass | Microsoft UMPass Driver | | | | |
| | c:\windows\system32\drivers\umpass.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| usbccgp | Microsoft USB Generic Parent Driver | | | | |
| | c:\windows\system32\drivers\usbccgp.sys | | | | |
| | Kernel Driver | Yes | Manual | | |
| | Running | OK | Normal | No | Yes |

| | | | | | |
|----------|--|-----|----------|----|-----|
| usbhcci | Microsoft USB 2.0 Enhanced Host Controller Miniport Driver | | | | |
| | c:\windows\system32\drivers\usbhcci.sys | | | | |
| | Kernel Driver | Yes | Manual | | |
| | Running | OK | Normal | No | Yes |
| usbhub | Microsoft USB Standard Hub Driver | | | | |
| | c:\windows\system32\drivers\usbhub.sys | | | | |
| | Kernel Driver | Yes | Manual | | |
| | Running | OK | Normal | No | Yes |
| usbohci | Microsoft USB Open Host Controller Miniport Driver | | | | |
| | c:\windows\system32\drivers\usbohci.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| usbprint | Microsoft USB PRINTER Class | | | | |
| | c:\windows\system32\drivers\usbprint.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| usbser | Disk Array USB Port | | | | |
| | c:\windows\system32\drivers\usbser.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| usbstor | USB Mass Storage Driver | | | | |
| | c:\windows\system32\drivers\usbstor.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| usbuhci | Microsoft USB Universal Host Controller Miniport Driver | | | | |
| | c:\windows\system32\drivers\usbuhci.sys | | | | |
| | Kernel Driver | Yes | Manual | | |
| | Running | OK | Normal | No | Yes |
| vdrvroot | Microsoft Virtual Drive Enumerator Driver | | | | |
| | c:\windows\system32\drivers\vdrvroot.sys | | | | |
| | Kernel Driver | Yes | Boot | | |
| | Running | OK | Critical | No | Yes |
| vga | vga | | | | |
| | c:\windows\system32\drivers\vgapnp.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Ignore | No | No |
| vgasave | VgaSave | | | | |
| | c:\windows\system32\drivers\vga.sys | | | | |
| | Kernel Driver | Yes | System | | |
| | Running | OK | Ignore | No | Yes |
| vhdmp | vhdmp | | | | |
| | c:\windows\system32\drivers\vhdmp.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Normal | No | No |
| viaide | viaide | | | | |
| | c:\windows\system32\drivers\viaide.sys | | | | |
| | Kernel Driver | No | Manual | | |
| | Stopped | OK | Critical | No | No |

```

vid      Vid
        c:\windows\system32\drivers\vid.sys
        Kernel Driver  No      Manual
        Stopped  OK      Normal  No      No

vmbus    Virtual Machine Bus
        c:\windows\system32\drivers\vmbus.sys
        Kernel Driver  No      Manual
        Stopped  OK      Normal  No      No

vmbushid VMBusHID
        c:\windows\system32\drivers\vmbushid.sys
        Kernel Driver  No      Manual
        Stopped  OK      Ignore  No      No

volmgr   Volume Manager Driver
        c:\windows\system32\drivers\volmgr.sys
        Kernel Driver  Yes     Boot
        Running  OK      Critical No      Yes

volmgrx  Dynamic Volume Manager
        c:\windows\system32\drivers\volmgrx.sys
        Kernel Driver  Yes     Boot
        Running  OK      Critical No      Yes

volsnap  Storage volumes
        c:\windows\system32\drivers\volsnap.sys
        Kernel Driver  Yes     Boot
        Running  OK      Critical No      Yes

vsmraid  vsmraid
        c:\windows\system32\drivers\vsmraid.sys
        Kernel Driver  No      Manual
        Stopped  OK      Normal  No      No

wacompen Wacom Serial Pen HID Driver
        c:\windows\system32\drivers\wacompen.sys
        Kernel Driver  No      Manual
        Stopped  OK      Normal  No      No

wanarp   Remote Access IP ARP Driver
        c:\windows\system32\drivers\wanarp.sys
        Kernel Driver  No      Manual
        Stopped  OK      Normal  No      No

wanarpv6 Remote Access IPv6 ARP Driver
        c:\windows\system32\drivers\wanarpv6.sys
        Kernel Driver  Yes     System
        Running  OK      Normal  No      Yes

wd       Wd
        c:\windows\system32\drivers\wd.sys
        Kernel Driver  No      Manual
        Stopped  OK      Normal  No      No

wdf01000 Kernel Mode Driver Frameworks service
        c:\windows\system32\drivers\wdf01000.sys
        Kernel Driver  Yes     Boot
        Running  OK      Normal  No      Yes

wfpplwf WFP Lightweight Filter
        c:\windows\system32\drivers\wfpplwf.sys
        Kernel Driver  Yes     System

```

```

Running  OK      Normal  No      Yes

wimmount WIMMount
        c:\windows\system32\drivers\wimmount.sys
        File System Driver  No      Manual
        Stopped  OK      Normal  No      No

wmiacpi  Microsoft Windows Management Interface for
ACPI     c:\windows\system32\drivers\wmiacpi.sys
        Kernel Driver  No      Manual
        Stopped  OK      Normal  No      No

ws2ifsl  Winsock IFS Driver
        c:\windows\system32\drivers\ws2ifsl.sys
        Kernel Driver  No      Disabled
        Stopped  OK      Normal  No      No

wudfpf   User Mode Driver Frameworks Platform Driver
        c:\windows\system32\drivers\wudfpf.sys
        Kernel Driver  No      Manual
        Stopped  OK      Normal  No      No

[Environment Variables]

Variable Value      User Name
ComSpec  %SystemRoot%\system32\cmd.exe <SYSTEM>
FP_NO_HOST_CHECK NO      <SYSTEM>
OS       Windows_NT <SYSTEM>
Path     C:\Program
Files\HP\NCU;%SystemRoot%\system32;%SystemRoot%;%SystemRoot%\System32\Wbem;%SYSTEMROOT%\System32\WindowsPowerShell\
v1.0\;C:\Program Files (x86)\Microsoft SQL Server\80\Tools\Binn\;C:\Program Files\Microsoft SQL Server\90\Tools\
binn\;C:\Program Files (x86)\Microsoft SQL Server\90\Tools\Binn\;C:\Program Files (x86)\Microsoft SQL Server\90\Tools\Binn\
VShell\;Common7\IDE\;C:\Program Files (x86)\Microsoft Visual Studio 8\Common7\IDE\PrivateAssemblies\;C:\Program Files\Microsoft SQL Server\90\DT
S\Binn\;C:\Program Files\Microsoft Windows Performance Toolkit\
<SYSTEM>
PATHEXT .COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH;.MSC <SYSTEM>
PROCESSOR_ARCHITECTURE AMD64 <SYSTEM>
TEMP %SystemRoot%\TEMP <SYSTEM>
TMP %SystemRoot%\TEMP <SYSTEM>
USERNAME SYSTEM <SYSTEM>
windir %SystemRoot% <SYSTEM>
PSModulePath %SystemRoot%\system32\WindowsPowerShell\v1.0\Modules\ <SYSTEM>
NUMBER_OF_PROCESSORS 64 <SYSTEM>
PROCESSOR_LEVEL 6 <SYSTEM>
PROCESSOR_IDENTIFIER Intel64 Family 6 Model 46 Stepping 6, GenuineIntel <SYSTEM>
PROCESSOR_REVISION 2e06 <SYSTEM>
lib C:\Program Files\SQLXML 4.0\bin\ <SYSTEM>

```

```

TEMP %USERPROFILE%\AppData\Local\Temp NT
AUTHORITY\SYSTEM
TMP %USERPROFILE%\AppData\Local\Temp NT
AUTHORITY\SYSTEM
TEMP %USERPROFILE%\AppData\Local\Temp NT
AUTHORITY\LOCAL SERVICE
TMP %USERPROFILE%\AppData\Local\Temp NT
AUTHORITY\LOCAL SERVICE
TEMP %USERPROFILE%\AppData\Local\Temp NT
AUTHORITY\NETWORK SERVICE
TMP %USERPROFILE%\AppData\Local\Temp NT
AUTHORITY\NETWORK SERVICE
TEMP %USERPROFILE%\AppData\Local\Temp
WORLDWDCUP\Administrator
TMP %USERPROFILE%\AppData\Local\Temp
WORLDWDCUP\Administrator

[Print Jobs]

Can't Collect Information

[Network Connections]

Local Name Remote Name Type
Status User Name
Y: \\.\c$ Disk Current Connection
WORLDWDCUP\Administrator

[Running Tasks]

Name Path Process ID Priority Min
Working Set Max Working Set Start Time
Version Size File Date
system idle process Not Available 0 0
Not Available Not Available Not Available Not Available
Available Not Available Not Available Not Available
system Not Available 4 8 Not Available Not Available 8/25/2010 11:35 PM Not Available Not Available Not Available
smss.exe Not Available 720 11 200 1380 8/25/2010 11:35 PM Not Available
Not Available Not Available
csrss.exe c:\windows\system32\csrss.exe 876 13 200 1380 8/25/2010 11:36 PM
6.1.7600.16385 7.50 KB (7,680 bytes) 7/13/2009 6:19 PM
csrss.exe c:\windows\system32\csrss.exe 920 13 200 1380 8/25/2010 11:36 PM
6.1.7600.16385 7.50 KB (7,680 bytes) 7/13/2009 6:19 PM
wininit.exe c:\windows\system32\wininit.exe 928 13 200 1380 8/25/2010 11:36 PM 6.1.7600.16385 126.00 KB (129,024 bytes) 7/13/2009
6:52 PM
winlogon.exe c:\windows\system32\winlogon.exe 968 13 200 1380 8/25/2010 11:36 PM 6.1.7600.16385 380.00 KB (389,120 bytes) 7/13/2009
6:52 PM

```



```

services.exe c:\windows\system32\services.exe
1016 9 200 1380
8/25/2010 11:36 PM 6.1.7600.16385
321.00 KB (328,704 bytes) 7/13/2009
6:19 PM
lsass.exe c:\windows\system32\lsass.exe 624 9
200 1380 8/25/2010 11:36 PM
6.1.7600.16385 30.50 KB (31,232 bytes)
7/13/2009 6:20 PM
lsm.exe c:\windows\system32\lsm.exe 572 8
200 1380 8/25/2010 11:36 PM
6.1.7600.16385 325.50 KB (333,312
bytes) 7/13/2009 7:17 PM
svchost.exe c:\windows\system32\svchost.exe
484 8 200 1380
8/25/2010 11:36 PM 6.1.7600.16385
26.50 KB (27,136 bytes) 7/13/2009
6:31 PM
svchost.exe c:\windows\system32\svchost.exe
520 8 200 1380
8/25/2010 11:36 PM 6.1.7600.16385
26.50 KB (27,136 bytes) 7/13/2009
6:31 PM
svchost.exe c:\windows\system32\svchost.exe
768 8 200 1380
8/25/2010 11:36 PM 6.1.7600.16385
26.50 KB (27,136 bytes) 7/13/2009
6:31 PM
svchost.exe c:\windows\system32\svchost.exe
816 8 200 1380
8/25/2010 11:36 PM 6.1.7600.16385
26.50 KB (27,136 bytes) 7/13/2009
6:31 PM
svchost.exe c:\windows\system32\svchost.exe
12 8 200 1380
8/25/2010 11:36 PM 6.1.7600.16385
26.50 KB (27,136 bytes) 7/13/2009
6:31 PM
svchost.exe c:\windows\system32\svchost.exe
444 8 200 1380
8/25/2010 11:36 PM 6.1.7600.16385
26.50 KB (27,136 bytes) 7/13/2009
6:31 PM
svchost.exe c:\windows\system32\svchost.exe
1136 8 200 1380
8/25/2010 11:36 PM 6.1.7600.16385
26.50 KB (27,136 bytes) 7/13/2009
6:31 PM
cissesrv.exe c:\program
files\hp\cissesrv\cissesrv.exe 2316 8
200 1380 8/25/2010 11:36 PM
6.20.0.64 163.50 KB (167,424 bytes)
3/19/2010 12:25 PM
portmap.exe c:\program files (x86)\qlogic
corporation\sansurfer\portmap.exe 2352 8
200 1380 8/25/2010 11:36 PM
1.14.4.1 148.00 KB (151,552 bytes)
7/23/2010 3:04 PM

```

```

proliantmonitor.exe c:\program files\hewlett-
packard\ilo 3\service\proliantmonitor.exe
2448 8 200 1380
8/25/2010 11:36 PM 3.1.0.0 261.60 KB
(267,880 bytes) 5/26/2010 4:27 PM
svchost.exe c:\windows\system32\svchost.exe
2476 8 200 1380
8/25/2010 11:36 PM 6.1.7600.16385
26.50 KB (27,136 bytes) 7/13/2009
6:31 PM
svchost.exe c:\windows\system32\svchost.exe
2884 8 200 1380
8/25/2010 11:36 PM 6.1.7600.16385
26.50 KB (27,136 bytes) 7/13/2009
6:31 PM
taskhost.exe c:\windows\system32\taskhost.exe
3136 8 200 1380
8/25/2010 11:36 PM 6.1.7600.16385
67.50 KB (69,120 bytes) 7/13/2009
6:31 PM
dwm.exe c:\windows\system32\dwm.exe 3696 8
200 1380 8/25/2010 11:36 PM
6.1.7600.16385 117.50 KB (120,320
bytes) 7/13/2009 6:37 PM
explorer.exe c:\windows\explorer.exe
3716 8 200 1380
8/25/2010 11:36 PM 6.1.7600.16385
2.74 MB (2,868,224 bytes) 7/13/2009
6:56 PM
cpqteam.exe c:\program
files\hp\ncu\cpqteam.exe 3876 8 200
1380 8/25/2010 11:36 PM 9.70.0.16
81.00 KB (82,944 bytes) 3/18/2009
5:24 AM
svchost.exe c:\windows\system32\svchost.exe
3964 8 200 1380
8/25/2010 11:36 PM 6.1.7600.16385
26.50 KB (27,136 bytes) 7/13/2009
6:31 PM
sppsvc.exe c:\windows\system32\sppsvc.exe
2688 8 200 1380
8/25/2010 11:37 PM 6.1.7600.16385
3.36 MB (3,524,608 bytes) 7/13/2009
8:05 PM
msdtc.exe c:\windows\system32\msdtc.exe 4704 8
200 1380 8/25/2010 11:43 PM
2001.12.8530.16385 138.50 KB (141,824
bytes) 7/13/2009 6:59 PM
csrss.exe c:\windows\system32\csrss.exe 2576 13
200 1380 8/26/2010 4:56 AM
6.1.7600.16385 7.50 KB (7,680 bytes)
7/13/2009 6:19 PM
winlogon.exe c:\windows\system32\winlogon.exe
3820 13 200 1380
8/26/2010 4:56 AM 6.1.7600.16385
380.00 KB (389,120 bytes) 7/13/2009
6:52 PM
logonui.exe c:\windows\system32\logonui.exe
2724 13 200 1380
8/26/2010 4:56 AM 6.1.7600.16385
27.00 KB (27,648 bytes) 7/13/2009
6:52 PM

```

```

rdpclip.exe c:\windows\system32\rdpclip.exe
4836 8 200 1380
8/26/2010 4:56 AM 6.1.7600.16385
204.50 KB (209,408 bytes) 7/13/2009
7:17 PM
msinfo32.exe c:\windows\system32\msinfo32.exe
4880 8 200 1380
8/27/2010 11:49 AM 6.1.7600.16385
370.00 KB (378,880 bytes) 7/13/2009
6:31 PM
wmiprvse.exe c:\windows\system32\wbem\wmiprvse.exe
4652 8 200 1380
8/27/2010 11:49 AM 6.1.7600.16385
360.00 KB (368,640 bytes) 7/13/2009
6:47 PM
wmiprvse.exe c:\windows\system32\wbem\wmiprvse.exe
3496 8 200 1380
8/27/2010 11:49 AM 6.1.7600.16385
360.00 KB (368,640 bytes) 7/13/2009
6:47 PM
[Loaded Modules]
Name Version Size File Date Manufacturer
Path
csrss 6.1.7600.16385 7.50 KB (7,680 bytes)
7/13/2009 6:19 PM Microsoft Corporation
c:\windows\system32\csrss.exe
ntdll 6.1.7600.16385 1.66 MB (1,736,792
bytes) 7/13/2009 6:22 PM Microsoft Corporation
c:\windows\system32\ntdll.dll
csrssrv 6.1.7600.16385 42.50 KB (43,520 bytes)
7/13/2009 6:19 PM Microsoft Corporation
c:\windows\system32\csrssrv.dll
basesrv 6.1.7600.16385 51.50 KB (52,736 bytes)
7/13/2009 6:18 PM Microsoft Corporation
c:\windows\system32\basesrv.dll
winsrv 6.1.7600.16385 209.00 KB (214,016
bytes) 7/13/2009 6:38 PM Microsoft Corporation
c:\windows\system32\winsrv.dll
user32 6.1.7600.16385 985.00 KB (1,008,640
bytes) 7/13/2009 6:38 PM Microsoft Corporation
c:\windows\system32\user32.dll
gdi32 6.1.7600.16385 395.00 KB (404,480
bytes) 7/13/2009 6:39 PM Microsoft Corporation
c:\windows\system32\gdi32.dll
kernel32 6.1.7600.16385 1.11 MB (1,162,240
bytes) 7/13/2009 6:28 PM Microsoft Corporation
c:\windows\system32\kernel32.dll
kernelbase 6.1.7600.16385 411.50 KB
(421,376 bytes) 7/13/2009 6:20 PM Microsoft
Corporation
c:\windows\system32\kernelbase.dll
lpk 6.1.7600.16385 41.00 KB (41,984 bytes)
7/13/2009 6:38 PM Microsoft Corporation
c:\windows\system32\lpk.dll
usp10 1.626.7600.16385 782.50 KB (801,280
bytes) 7/13/2009 6:38 PM Microsoft Corporation
c:\windows\system32\usp10.dll

```

```

msvcrt 7.0.7600.16385 620.00 KB (634,880
bytes) 7/13/2009 6:19 PM Microsoft Corporation
c:\windows\system32\msvcrt.dll
sxssrv 6.1.7600.16385 31.00 KB (31,744 bytes)
7/13/2009 6:26 PM Microsoft Corporation
c:\windows\system32\sxssrv.dll
sxs 6.1.7600.16385 569.50 KB (583,168
bytes) 7/13/2009 6:27 PM Microsoft Corporation
c:\windows\system32\sxs.dll
rpcrt4 6.1.7600.16385 1.17 MB (1,221,632
bytes) 7/13/2009 6:23 PM Microsoft Corporation
c:\windows\system32\rpcrt4.dll
cryptbase 6.1.7600.16385 43.00 KB (44,032 bytes)
7/13/2009 6:20 PM Microsoft Corporation
c:\windows\system32\cryptbase.dll
wininit 6.1.7600.16385 126.00 KB (129,024
bytes) 7/13/2009 6:52 PM Microsoft Corporation
c:\windows\system32\wininit.exe
sechost 6.1.7600.16385 111.00 KB (113,664
bytes) 7/13/2009 6:20 PM Microsoft Corporation
c:\windows\system32\sechost.dll
profapi 6.1.7600.16385 43.00 KB (44,032 bytes)
7/13/2009 6:20 PM Microsoft Corporation
c:\windows\system32\profapi.dll
imm32 6.1.7600.16385 163.50 KB (167,424
bytes) 7/13/2009 6:38 PM Microsoft Corporation
c:\windows\system32\imm32.dll
mactf 6.1.7600.16385 1.02 MB (1,067,008
bytes) 7/13/2009 6:40 PM Microsoft Corporation
c:\windows\system32\mactf.dll
rpcrtremote 6.1.7600.16385 63.50 KB
(65,024 bytes) 7/13/2009 6:59 PM Microsoft
Corporation
c:\windows\system32\rpcrtremote.dll
apphelp 6.1.7600.16385 330.50 KB (338,432
bytes) 7/13/2009 6:21 PM Microsoft Corporation
c:\windows\system32\apphelp.dll
ws2_32 6.1.7600.16385 289.50 KB (296,448
bytes) 7/13/2009 6:21 PM Microsoft Corporation
c:\windows\system32\ws2_32.dll
nsi 6.1.7600.16385 13.50 KB (13,824 bytes)
7/13/2009 6:21 PM Microsoft Corporation
c:\windows\system32\nsi.dll
mswsock 6.1.7600.16385 312.50 KB (320,000
bytes) 7/13/2009 6:21 PM Microsoft Corporation
c:\windows\system32\mswsock.dll
wshtcpip 6.1.7600.16385 13.00 KB (13,312 bytes)
7/13/2009 6:21 PM Microsoft Corporation
c:\windows\system32\wshtcpip.dll
wshp6 6.1.7600.16385 13.50 KB (13,824 bytes)
7/13/2009 6:21 PM Microsoft Corporation
c:\windows\system32\wshp6.dll
secur32 6.1.7600.16385 27.50 KB (28,160 bytes)
7/13/2009 6:50 PM Microsoft Corporation
c:\windows\system32\secur32.dll
sspikli 6.1.7600.16385 133.00 KB (136,192
bytes) 7/13/2009 6:20 PM Microsoft Corporation
c:\windows\system32\sspikli.dll
credssp 6.1.7600.16385 20.00 KB (20,480 bytes)
7/13/2009 6:50 PM Microsoft Corporation
c:\windows\system32\credssp.dll

```

```

advapi32 6.1.7600.16385 856.50 KB (877,056
bytes) 7/13/2009 7:41 PM Microsoft Corporation
c:\windows\system32\advapi32.dll
winlogon 6.1.7600.16385 380.00 KB (389,120
bytes) 7/13/2009 6:52 PM Microsoft Corporation
c:\windows\system32\winlogon.exe
winsta 6.1.7600.16385 228.00 KB (233,472
bytes) 7/13/2009 7:17 PM Microsoft Corporation
c:\windows\system32\winsta.dll
uxinit 6.1.7600.16385 24.50 KB (25,088 bytes)
7/13/2009 6:54 PM Microsoft Corporation
c:\windows\system32\uxinit.dll
slc 6.1.7600.16385 30.00 KB (30,720 bytes)
7/13/2009 6:51 PM Microsoft Corporation
c:\windows\system32\slc.dll
mpr 6.1.7600.16385 79.00 KB (80,896 bytes)
7/13/2009 7:10 PM Microsoft Corporation
c:\windows\system32\mpr.dll
uxtheme 6.1.7600.16385 324.50 KB (332,288
bytes) 7/13/2009 6:55 PM Microsoft Corporation
c:\windows\system32\uxtheme.dll
services 6.1.7600.16385 321.00 KB (328,704
bytes) 7/13/2009 6:19 PM Microsoft Corporation
c:\windows\system32\services.exe
scext 6.1.7600.16385 87.00 KB (89,088 bytes)
7/13/2009 6:31 PM Microsoft Corporation
c:\windows\system32\scext.dll
sceerv 6.1.7600.16385 396.50 KB (406,016
bytes) 7/13/2009 6:49 PM Microsoft Corporation
c:\windows\system32\sceerv.dll
srvcli 6.1.7600.16385 124.50 KB (127,488
bytes) 7/13/2009 6:53 PM Microsoft Corporation
c:\windows\system32\srvcli.dll
authz 6.1.7600.16385 173.50 KB (177,664
bytes) 7/13/2009 6:50 PM Microsoft Corporation
c:\windows\system32\authz.dll
ubpm 6.1.7600.16385 209.00 KB (214,016
bytes) 7/13/2009 6:31 PM Microsoft Corporation
c:\windows\system32\ubpm.dll
wtsapi32 6.1.7600.16385 53.00 KB (54,272 bytes)
7/13/2009 7:17 PM Microsoft Corporation
c:\windows\system32\wtsapi32.dll
lsass 6.1.7600.16385 30.50 KB (31,232 bytes)
7/13/2009 6:20 PM Microsoft Corporation
c:\windows\system32\lsass.exe
sspisrv 6.1.7600.16385 28.00 KB (28,672 bytes)
7/13/2009 6:20 PM Microsoft Corporation
c:\windows\system32\sspisrv.dll
lsasrv 6.1.7600.16385 1.38 MB (1,446,912
bytes) 7/13/2009 6:51 PM Microsoft Corporation
c:\windows\system32\lsasrv.dll
samsv 6.1.7600.16385 740.00 KB (757,760
bytes) 7/13/2009 6:54 PM Microsoft Corporation
c:\windows\system32\samsv.dll
cryptdll 6.1.7600.16385 64.50 KB (66,048 bytes)
7/13/2009 6:49 PM Microsoft Corporation
c:\windows\system32\cryptdll.dll
msasn1 6.1.7600.16385 43.00 KB (44,032 bytes)
7/13/2009 6:49 PM Microsoft Corporation
c:\windows\system32\msasn1.dll
wevtapi 6.1.7600.16385 418.00 KB (428,032
bytes) 7/13/2009 6:46 PM Microsoft Corporation
c:\windows\system32\wevtapi.dll

```

```

cngaudit 6.1.7600.16385 18.50 KB (18,944 bytes)
7/13/2009 6:49 PM Microsoft Corporation
c:\windows\system32\cngaudit.dll
ncrypt 6.1.7600.16385 300.00 KB (307,200
bytes) 7/13/2009 6:49 PM Microsoft Corporation
c:\windows\system32\ncrypt.dll
bcrypt 6.1.7600.16385 121.00 KB (123,904
bytes) 7/13/2009 6:49 PM Microsoft Corporation
c:\windows\system32\bcrypt.dll
msprvs 6.1.7600.16385 2.00 KB (2,048 bytes)
7/13/2009 6:50 PM Microsoft Corporation
c:\windows\system32\msprvs.dll
netjoin 6.1.7600.16385 184.50 KB (188,928
bytes) 7/13/2009 6:53 PM Microsoft Corporation
c:\windows\system32\netjoin.dll
negoexts 6.1.7600.16385 114.50 KB (117,248
bytes) 7/13/2009 6:50 PM Microsoft Corporation
c:\windows\system32\negoexts.dll
kerberos 6.1.7600.16385 697.50 KB (714,240
bytes) 7/13/2009 6:51 PM Microsoft Corporation
c:\windows\system32\kerberos.dll
cryptsp 6.1.7600.16385 78.00 KB (79,872 bytes)
7/13/2009 6:53 PM Microsoft Corporation
c:\windows\system32\cryptsp.dll
msvl_0 6.1.7600.16385 304.00 KB (311,296
bytes) 7/13/2009 6:50 PM Microsoft Corporation
c:\windows\system32\msvl_0.dll
netlogon 6.1.7600.16385 676.50 KB (692,736
bytes) 7/13/2009 6:53 PM Microsoft Corporation
c:\windows\system32\netlogon.dll
dnsapi 6.1.7600.16385 348.00 KB (356,352
bytes) 7/13/2009 6:21 PM Microsoft Corporation
c:\windows\system32\dnsapi.dll
logoncli 6.1.7600.16385 182.00 KB (186,368
bytes) 7/13/2009 6:53 PM Microsoft Corporation
c:\windows\system32\logoncli.dll
schannel 6.1.7600.16385 340.50 KB (348,672
bytes) 7/13/2009 6:50 PM Microsoft Corporation
c:\windows\system32\schannel.dll
crypt32 6.1.7600.16385 1.39 MB (1,454,592
bytes) 7/13/2009 6:50 PM Microsoft Corporation
c:\windows\system32\crypt32.dll
wdigest 6.1.7600.16385 205.50 KB (210,432
bytes) 7/13/2009 6:50 PM Microsoft Corporation
c:\windows\system32\wdigest.dll
rsaenh 6.1.7600.16385 274.66 KB (281,256
bytes) 7/13/2009 6:53 PM Microsoft Corporation
c:\windows\system32\rsaenh.dll
tspkg 6.1.7600.16385 84.00 KB (86,016 bytes)
7/13/2009 6:50 PM Microsoft Corporation
c:\windows\system32\tspkg.dll
pku2u 6.1.7600.16385 235.00 KB (240,640
bytes) 7/13/2009 6:50 PM Microsoft Corporation
c:\windows\system32\pku2u.dll
bcryptprimitives 6.1.7600.16385 291.32 KB
(298,312 bytes) 7/13/2009 6:49 PM Microsoft
Corporation
c:\windows\system32\bcryptprimitives.dll
efslsaext 6.1.7600.16385 55.50 KB (56,832 bytes)
7/13/2009 6:50 PM Microsoft Corporation
c:\windows\system32\efslsaext.dll

```

scecli 6.1.7600.16385 227.00 KB (232,448 bytes) 7/13/2009 6:49 PM Microsoft Corporation c:\windows\system32\scecli.dll

rassfm 6.1.7600.16385 28.50 KB (29,184 bytes) 7/13/2009 7:10 PM Microsoft Corporation c:\windows\system32\rassfm.dll

iphlpapi 6.1.7600.16385 142.50 KB (145,920 bytes) 7/13/2009 6:21 PM Microsoft Corporation c:\windows\system32\iphlpapi.dll

winnsi 6.1.7600.16385 25.50 KB (26,112 bytes) 7/13/2009 6:21 PM Microsoft Corporation c:\windows\system32\winnsi.dll

netutils 6.1.7600.16385 28.00 KB (28,672 bytes) 7/13/2009 6:53 PM Microsoft Corporation c:\windows\system32\netutils.dll

userenv 6.1.7600.16385 104.50 KB (107,008 bytes) 7/13/2009 6:50 PM Microsoft Corporation c:\windows\system32\userenv.dll

efssvc 6.1.7600.16385 36.50 KB (37,376 bytes) 7/13/2009 6:50 PM Microsoft Corporation c:\windows\system32\efssvc.dll

efscore 6.1.7600.16385 297.00 KB (304,128 bytes) 7/13/2009 6:50 PM Microsoft Corporation c:\windows\system32\efscore.dll

efsutil 6.1.7600.16385 34.00 KB (34,816 bytes) 7/13/2009 6:50 PM Microsoft Corporation c:\windows\system32\efsutil.dll

gpapi 6.1.7600.16385 94.50 KB (96,768 bytes) 7/13/2009 6:54 PM Microsoft Corporation c:\windows\system32\gpapi.dll

samcli 6.1.7600.16385 65.50 KB (67,072 bytes) 7/13/2009 6:53 PM Microsoft Corporation c:\windows\system32\samcli.dll

samlib 6.1.7600.16385 104.50 KB (107,008 bytes) 7/13/2009 6:53 PM Microsoft Corporation c:\windows\system32\samlib.dll

wldap32 6.1.7600.16385 304.50 KB (311,808 bytes) 7/13/2009 6:54 PM Microsoft Corporation c:\windows\system32\wldap32.dll

certpoleng 6.1.7600.16385 70.00 KB (71,680 bytes) 7/13/2009 6:52 PM Microsoft Corporation c:\windows\system32\certpoleng.dll

dssenh 6.1.7600.16385 186.41 KB (190,880 bytes) 7/13/2009 6:53 PM Microsoft Corporation c:\windows\system32\dssenh.dll

cryptnet 6.1.7600.16385 135.50 KB (138,752 bytes) 7/13/2009 6:49 PM Microsoft Corporation c:\windows\system32\cryptnet.dll

lsm 6.1.7600.16385 325.50 KB (333,312 bytes) 7/13/2009 7:17 PM Microsoft Corporation c:\windows\system32\lsm.exe

sysntfy 6.1.7600.16385 22.50 KB (23,040 bytes) 7/13/2009 6:52 PM Microsoft Corporation c:\windows\system32\sysntfy.dll

wmsgapi 6.1.7600.16385 14.50 KB (14,848 bytes) 7/13/2009 6:52 PM Microsoft Corporation c:\windows\system32\wmsgapi.dll

pcwum 6.1.7600.16385 36.00 KB (36,864 bytes) 7/13/2009 6:19 PM Microsoft Corporation c:\windows\system32\pcwum.dll

ole32 6.1.7600.16385 1.99 MB (2,084,352 bytes) 7/13/2009 7:02 PM Microsoft Corporation c:\windows\system32\ole32.dll

ntmarta 6.1.7600.16385 158.50 KB (162,304 bytes) 7/13/2009 6:50 PM Microsoft Corporation c:\windows\system32\ntmarta.dll

clbcatq 2001.12.8530.16385 593.50 KB (607,744 bytes) 7/13/2009 7:00 PM Microsoft Corporation c:\windows\system32\clbcatq.dll

oleaut32 6.1.7600.16385 841.00 KB (861,184 bytes) 7/13/2009 6:59 PM Microsoft Corporation c:\windows\system32\oleaut32.dll

lsmproxy 6.1.7600.16385 47.50 KB (48,640 bytes) 7/13/2009 7:17 PM Microsoft Corporation c:\windows\system32\lsmproxy.dll

svchost 6.1.7600.16385 26.50 KB (27,136 bytes) 7/13/2009 6:31 PM Microsoft Corporation c:\windows\system32\svchost.exe

umppmgrp 6.1.7600.16385 395.00 KB (404,480 bytes) 7/13/2009 6:27 PM Microsoft Corporation c:\windows\system32\umppmgrp.dll

spinf 6.1.7600.16385 103.00 KB (105,472 bytes) 7/13/2009 6:26 PM Microsoft Corporation c:\windows\system32\spinf.dll

devrtl 6.1.7600.16385 57.00 KB (58,368 bytes) 7/13/2009 6:26 PM Microsoft Corporation c:\windows\system32\devrtl.dll

umpo 6.1.7600.16385 160.00 KB (163,840 bytes) 7/13/2009 6:27 PM Microsoft Corporation c:\windows\system32\umpo.dll

setupapi 6.1.7600.16385 1.81 MB (1,899,520 bytes) 7/13/2009 6:27 PM Microsoft Corporation c:\windows\system32\setupapi.dll

cfgmgr32 6.1.7600.16385 202.50 KB (207,360 bytes) 7/13/2009 6:26 PM Microsoft Corporation c:\windows\system32\cfgmgr32.dll

devobj 6.1.7600.16385 91.00 KB (93,184 bytes) 7/13/2009 6:26 PM Microsoft Corporation c:\windows\system32\devobj.dll

rpcss 6.1.7600.16385 497.50 KB (509,440 bytes) 7/13/2009 7:00 PM Microsoft Corporation c:\windows\system32\rpcss.dll

wmidcpv 6.1.7600.16385 187.00 KB (191,488 bytes) 7/13/2009 6:47 PM Microsoft Corporation c:\windows\system32\wbem\wmidcpv.dll

fastprox 6.1.7600.16385 888.00 KB (909,312 bytes) 7/13/2009 6:47 PM Microsoft Corporation c:\windows\system32\wbem\fastprox.dll

wbemcomn 6.1.7600.16385 517.50 KB (529,920 bytes) 7/13/2009 6:47 PM Microsoft Corporation c:\windows\system32\wbemcomn.dll

ntdsapi 6.1.7600.16385 148.50 KB (152,064 bytes) 7/13/2009 6:54 PM Microsoft Corporation c:\windows\system32\ntdsapi.dll

wbemprox 6.1.7600.16385 42.50 KB (43,520 bytes) 7/13/2009 6:46 PM Microsoft Corporation c:\windows\system32\wbem\wbemprox.dll

wbemsvc 6.1.7600.16385 63.00 KB (64,512 bytes) 7/13/2009 6:46 PM Microsoft Corporation c:\windows\system32\wbem\wbemsvc.dll

wmiutils 6.1.7600.16385 134.00 KB (137,216 bytes) 7/13/2009 6:47 PM Microsoft Corporation c:\windows\system32\wbem\wmiutils.dll

wintrust 6.1.7600.16385 215.00 KB (220,160 bytes) 7/13/2009 6:49 PM Microsoft Corporation c:\windows\system32\wintrust.dll

rpcepmap 6.1.7600.16385 65.50 KB (67,072 bytes) 7/13/2009 6:21 PM Microsoft Corporation c:\windows\system32\rpcepmap.dll

firewallapi 6.1.7600.16385 730.50 KB (748,032 bytes) 7/13/2009 7:08 PM Microsoft Corporation c:\windows\system32\firewallapi.dll

version 6.1.7600.16385 28.50 KB (29,184 bytes) 7/13/2009 6:57 PM Microsoft Corporation c:\windows\system32\version.dll

fwpuclnt 6.1.7600.16385 316.50 KB (324,096 bytes) 7/13/2009 7:09 PM Microsoft Corporation c:\windows\system32\fwpuclnt.dll

wevtvsc 6.1.7600.16385 1.57 MB (1,646,080 bytes) 7/13/2009 6:49 PM Microsoft Corporation c:\windows\system32\wevtvsc.dll

dhcpcore 6.1.7600.16385 307.00 KB (314,368 bytes) 7/13/2009 6:21 PM Microsoft Corporation c:\windows\system32\dhcpcore.dll

dhcpcore6 6.1.7600.16385 219.00 KB (224,256 bytes) 7/13/2009 6:21 PM Microsoft Corporation c:\windows\system32\dhcpcore6.dll

lmhsvc 6.1.7600.16385 23.00 KB (23,552 bytes) 7/13/2009 7:09 PM Microsoft Corporation c:\windows\system32\lmhsvc.dll

nrpsrv 6.1.7600.16385 14.50 KB (14,848 bytes) 7/13/2009 7:09 PM Microsoft Corporation c:\windows\system32\nrpsrv.dll

nlaapi 6.1.7600.16385 68.50 KB (70,144 bytes) 7/13/2009 7:09 PM Microsoft Corporation c:\windows\system32\nlaapi.dll

rasadhlp 6.1.7600.16385 16.00 KB (16,384 bytes) 7/13/2009 7:10 PM Microsoft Corporation c:\windows\system32\rasadhlp.dll

winrnr 6.1.7600.16385 28.00 KB (28,672 bytes) 7/13/2009 6:53 PM Microsoft Corporation c:\windows\system32\winrnr.dll

napinsp 6.1.7600.16385 66.50 KB (68,096 bytes) 7/13/2009 7:10 PM Microsoft Corporation c:\windows\system32\napinsp.dll

gpsvc 6.1.7600.16385 758.00 KB (776,192 bytes) 7/13/2009 6:54 PM Microsoft Corporation c:\windows\system32\gpsvc.dll

profsvc 6.1.7600.16385 203.50 KB (208,384 bytes) 7/13/2009 6:50 PM Microsoft Corporation c:\windows\system32\profsvc.dll

shlwapi 6.1.7600.16385 439.00 KB (449,536 bytes) 7/13/2009 6:55 PM Microsoft Corporation c:\windows\system32\shlwapi.dll

atl 3.5.2284.0 88.50 KB (90,624 bytes) 7/13/2009 7:34 PM Microsoft Corporation c:\windows\system32\atl.dll

dsrole 6.1.7600.16385 32.00 KB (32,768 bytes) 7/13/2009 6:50 PM Microsoft Corporation c:\windows\system32\dsrole.dll

sens 6.1.7600.16385 63.00 KB (64,512 bytes) 7/13/2009 6:34 PM Microsoft Corporation c:\windows\system32\sens.dll

shsvcs 6.1.7600.16385 361.00 KB (369,664 bytes) 7/13/2009 6:55 PM Microsoft Corporation c:\windows\system32\shsvcs.dll

schedsvcs 6.1.7600.16385 1.05 MB (1,104,384 bytes) 7/13/2009 6:47 PM Microsoft Corporation c:\windows\system32\schedsvcs.dll

shell32 6.1.7600.16385 13.51 MB (14,161,920 bytes) 7/13/2009 7:04 PM Microsoft Corporation c:\windows\system32\shell32.dll

netapi32 6.1.7600.16385 71.00 KB (72,704 bytes) 7/13/2009 6:53 PM Microsoft Corporation c:\windows\system32\netapi32.dll

wkscli 6.1.7600.16385 70.00 KB (71,680 bytes) 7/13/2009 6:53 PM Microsoft Corporation c:\windows\system32\wkscli.dll

ktmw32 6.1.7600.16385 22.50 KB (23,040 bytes) 7/13/2009 6:19 PM Microsoft Corporation c:\windows\system32\ktmw32.dll

xmllite 1.3.1000.0 195.00 KB (199,680 bytes) 7/13/2009 7:41 PM Microsoft Corporation c:\windows\system32\xmllite.dll

taskcomp 6.1.7600.16385 462.50 KB (473,600 bytes) 7/13/2009 6:47 PM Microsoft Corporation c:\windows\system32\taskcomp.dll

comctl32 6.10.7600.16385 1.94 MB (2,030,080 bytes) 7/13/2009 6:56 PM Microsoft Corporation c:\windows\winsxs\amd64_microsoft.windows.c

ommon-controls_6595b64144ccf1df.6.0.7600.16385_none_fa645303170382f6\comctl32.dll

propsys 7.0.7600.16385 1.16 MB (1,212,416 bytes) 7/13/2009 6:56 PM Microsoft Corporation c:\windows\system32\propsys.dll

srvsvc 6.1.7600.16385 230.00 KB (235,520 bytes) 7/13/2009 6:53 PM Microsoft Corporation c:\windows\system32\srvsvc.dll

browser 6.1.7600.16385 133.00 KB (136,192 bytes) 7/13/2009 6:53 PM Microsoft Corporation c:\windows\system32\browser.dll

sscore 6.1.7600.16385 13.00 KB (13,312 bytes) 7/13/2009 6:53 PM Microsoft Corporation c:\windows\system32\sscore.dll

clusapi 6.1.7600.16385 307.00 KB (314,368 bytes) 7/13/2009 6:34 PM Microsoft Corporation c:\windows\system32\clusapi.dll

resutils 6.1.7600.16385 84.00 KB (86,016 bytes) 7/13/2009 6:34 PM Microsoft Corporation c:\windows\system32\resutils.dll

dhcpcsvc6 6.1.7600.16385 53.00 KB (54,272 bytes) 7/13/2009 6:21 PM Microsoft Corporation c:\windows\system32\dhcpcsvc6.dll

dhcpcsvc 6.1.7600.16385 85.00 KB (87,040 bytes) 7/13/2009 6:21 PM Microsoft Corporation c:\windows\system32\dhcpcsvc.dll

ikeext 6.1.7600.16385 826.00 KB (845,824 bytes) 7/13/2009 7:10 PM Microsoft Corporation c:\windows\system32\ikeext.dll

wmivsc 6.1.7600.16385 237.00 KB (242,688 bytes) 7/13/2009 6:47 PM Microsoft Corporation c:\windows\system32\wbem\wmivsc.dll

iphlpvc 6.1.7600.16385 552.50 KB (565,760 bytes) 7/13/2009 7:09 PM Microsoft Corporation c:\windows\system32\iphlpvc.dll

rtutils 6.1.7600.16385 50.50 KB (51,712 bytes) 7/13/2009 7:09 PM Microsoft Corporation c:\windows\system32\rtutils.dll

sqmapi 6.1.7600.16385 229.50 KB (235,008 bytes) 7/13/2009 6:40 PM Microsoft Corporation c:\windows\system32\sqmapi.dll

wdscore 6.1.7600.16385 265.00 KB (271,360 bytes) 7/13/2009 6:28 PM Microsoft Corporation c:\windows\system32\wdscore.dll

vssapi 6.1.7600.16385 1.66 MB (1,745,408 bytes) 7/13/2009 6:38 PM Microsoft Corporation c:\windows\system32\vssapi.dll

vsstrace 6.1.7600.16385 75.00 KB (76,800 bytes) 7/13/2009 6:36 PM Microsoft Corporation c:\windows\system32\vsstrace.dll

wbemcore 6.1.7600.16385 1.16 MB (1,220,096 bytes) 7/13/2009 6:48 PM Microsoft Corporation c:\windows\system32\wbem\wbemcore.dll

esscli 6.1.7600.16385 430.00 KB (440,320 bytes) 7/13/2009 6:47 PM Microsoft Corporation c:\windows\system32\wbem\esscli.dll

netprofm 6.1.7600.16385 449.00 KB (459,776 bytes) 7/13/2009 7:12 PM Microsoft Corporation c:\windows\system32\netprofm.dll

nci 6.1.7600.16385 87.50 KB (89,600 bytes) 7/13/2009 7:09 PM Microsoft Corporation c:\windows\system32\nci.dll

repdrvfs 6.1.7600.16385 441.00 KB (451,584 bytes) 7/13/2009 6:47 PM Microsoft Corporation c:\windows\system32\wbem\repdrvfs.dll

wmiprvsd 6.1.7600.16385 732.50 KB (750,080 bytes) 7/13/2009 6:48 PM Microsoft Corporation c:\windows\system32\wbem\wmiprvsd.dll

ncobjapi 6.1.7600.16385 67.50 KB (69,120 bytes) 7/13/2009 6:47 PM Microsoft Corporation c:\windows\system32\ncobjapi.dll

wbemess 6.1.7600.16385 494.00 KB (505,856 bytes) 7/13/2009 6:47 PM Microsoft Corporation c:\windows\system32\wbem\wbemess.dll

ncprov 6.1.7600.16385 76.50 KB (78,336 bytes) 7/13/2009 6:47 PM Microsoft Corporation c:\windows\system32\wbem\ncprov.dll

npmproxy 6.1.7600.16385 31.00 KB (31,744 bytes) 7/13/2009 7:12 PM Microsoft Corporation c:\windows\system32\npmproxy.dll

certprop 6.1.7600.16385 78.50 KB (80,384 bytes) 7/13/2009 6:50 PM Microsoft Corporation c:\windows\system32\certprop.dll

winscard 6.1.7600.16385 212.50 KB (217,600 bytes) 7/13/2009 6:50 PM Microsoft Corporation c:\windows\system32\winscard.dll

sessenv 6.1.7600.16385 102.50 KB (104,960 bytes) 7/13/2009 7:17 PM Microsoft Corporation c:\windows\system32\sessenv.dll

rasapi32 6.1.7600.16385 375.50 KB (384,512 bytes) 7/13/2009 7:10 PM Microsoft Corporation c:\windows\system32\rasapi32.dll

rasman 6.1.7600.16385 98.00 KB (100,352 bytes) 7/13/2009 7:10 PM Microsoft Corporation c:\windows\system32\rasman.dll

appmgmts 6.1.7600.16385 189.00 KB (193,536 bytes) 7/13/2009 6:54 PM Microsoft Corporation c:\windows\system32\appmgmts.dll

adslidpc 6.1.7600.16385 231.00 KB (236,544 bytes) 7/13/2009 6:53 PM Microsoft Corporation c:\windows\system32\adslidpc.dll

es 2001.12.8530.16385 393.50 KB (402,944 bytes) 7/13/2009 7:00 PM Microsoft Corporation c:\windows\system32\es.dll

nsisvc 6.1.7600.16385 25.00 KB (25,600 bytes) 7/13/2009 6:21 PM Microsoft Corporation c:\windows\system32\nsisvc.dll

sppuinotify 6.1.7600.16385 64.00 KB (65,536 bytes) 7/13/2009 6:52 PM Microsoft Corporation c:\windows\system32\sppuinotify.dll

urlmon 8.0.7600.16385 1.42 MB (1,492,480 bytes) 7/13/2009 7:01 PM Microsoft Corporation c:\windows\system32\urlmon.dll

iertutil 8.0.7600.16385 2.33 MB (2,440,704 bytes) 7/13/2009 6:59 PM Microsoft Corporation c:\windows\system32\iertutil.dll

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sppcomapi 6.1.7600.16385 226.50 KB (231,936 bytes) 7/13/2009 6:51 PM Microsoft Corporation c:\windows\system32\sppcomapi.dll

sppcext 6.1.7600.16385 1.15 MB (1,203,712 bytes) 7/13/2009 6:52 PM Microsoft Corporation c:\windows\system32\sppcext.dll

winhttp 6.1.7600.16385 428.50 KB (438,784 bytes) 7/13/2009 7:11 PM Microsoft Corporation c:\windows\system32\winhttp.dll

webio 6.1.7600.16385 385.50 KB (394,752 bytes) 7/13/2009 7:11 PM Microsoft Corporation c:\windows\system32\webio.dll

tapi32 6.1.7600.16385 243.00 KB (248,832 bytes) 7/13/2009 7:41 PM Microsoft Corporation c:\windows\system32\tapi32.dll

msi 5.0.7600.16385 3.06 MB (3,211,776 bytes) 7/13/2009 6:51 PM Microsoft Corporation c:\windows\system32\msi.dll

slwga 6.1.7600.16385 14.50 KB (14,848 bytes) 7/13/2009 6:52 PM Microsoft Corporation c:\windows\system32\slwga.dll

cryptui 6.1.7600.16385 1.02 MB (1,065,984 bytes) 7/13/2009 6:49 PM Microsoft Corporation c:\windows\system32\cryptui.dll

uxsms 6.1.7600.16385 38.00 KB (38,912 bytes) 7/13/2009 6:37 PM Microsoft Corporation c:\windows\system32\uxsms.dll

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umrdp 6.1.7600.16385 190.50 KB (195,072 bytes) 7/13/2009 7:18 PM Microsoft Corporation c:\windows\system32\umrdp.dll

winspool 6.1.7600.16385 431.50 KB (441,856 bytes) 7/13/2009 7:39 PM Microsoft Corporation c:\windows\system32\winspool.drv

umb 6.1.7600.16385 58.50 KB (59,904 bytes) 7/13/2009 6:35 PM Microsoft Corporation c:\windows\system32\umb.dll

netman 6.1.7600.16385 352.00 KB (360,448 bytes) 7/13/2009 7:08 PM Microsoft Corporation c:\windows\system32\netman.dll

netshell 6.1.7600.16385 2.53 MB (2,651,136 bytes) 7/13/2009 7:09 PM Microsoft Corporation c:\windows\system32\netshell.dll

rasdlg 6.1.7600.16385 840.50 KB (860,672 bytes) 7/13/2009 7:10 PM Microsoft Corporation c:\windows\system32\rasdlg.dll

mprapi 6.1.7600.16385 215.50 KB (220,672 bytes) 7/13/2009 7:10 PM Microsoft Corporation c:\windows\system32\mprapi.dll

netcfgx 6.1.7600.16385 505.00 KB (517,120 bytes) 7/13/2009 7:08 PM Microsoft Corporation c:\windows\system32\netcfgx.dll

hnetcfg 6.1.7600.16385 414.50 KB (424,448 bytes) 7/13/2009 7:08 PM Microsoft Corporation c:\windows\system32\hnetcfg.dll

dnssrslvr 6.1.7600.16385 178.00 KB (182,272 bytes) 7/13/2009 6:21 PM Microsoft Corporation c:\windows\system32\dnssrslvr.dll

dnsextd 6.1.7600.16385 8.00 KB (8,192 bytes) 7/13/2009 7:12 PM Microsoft Corporation c:\windows\system32\dnsextd.dll

wkssvc 6.1.7600.16385 116.00 KB (118,784 bytes) 7/13/2009 6:53 PM Microsoft Corporation c:\windows\system32\wkssvc.dll

cryptsv 6.1.7600.16385 171.00 KB (175,104 bytes) 7/13/2009 6:49 PM Microsoft Corporation c:\windows\system32\cryptsv.dll

nlascv 6.1.7600.16385 295.00 KB (302,080 bytes) 7/13/2009 7:09 PM Microsoft Corporation c:\windows\system32\nlascv.dll

ncsi 6.1.7600.16385 204.50 KB (209,408 bytes) 7/13/2009 7:08 PM Microsoft Corporation c:\windows\system32\ncsi.dll

esent 6.1.7600.16385 2.45 MB (2,565,120 bytes) 7/13/2009 6:50 PM Microsoft Corporation c:\windows\system32\esent.dll

psapi 6.1.7600.16385 9.00 KB (9,216 bytes) 7/13/2009 6:26 PM Microsoft Corporation c:\windows\system32\psapi.dll

ssdpapi 6.1.7600.16385 50.00 KB (51,200 bytes) 7/13/2009 7:10 PM Microsoft Corporation c:\windows\system32\ssdpapi.dll

wsmvc 6.1.7600.16385 1.93 MB (2,018,816 bytes) 7/13/2009 6:49 PM Microsoft Corporation c:\windows\system32\wsmvc.dll

httpapi 6.1.7600.16385 44.00 KB (45,056 bytes) 7/13/2009 6:21 PM Microsoft Corporation c:\windows\system32\httpapi.dll

wevtfd 6.1.7600.16385 114.00 KB (116,736 bytes) 7/13/2009 6:46 PM Microsoft Corporation c:\windows\system32\wevtfd.dll

sensapi 6.1.7600.16385 15.50 KB (15,872 bytes) 7/13/2009 6:34 PM Microsoft Corporation c:\windows\system32\sensapi.dll

bfe 6.1.7600.16385 687.00 KB (703,488 bytes) 7/13/2009 7:09 PM Microsoft Corporation c:\windows\system32\bfe.dll

mpssvc 6.1.7600.16385 805.50 KB (824,832 bytes) 7/13/2009 7:09 PM Microsoft Corporation c:\windows\system32\mpssvc.dll

wfapigp 6.1.7600.16385 22.00 KB (22,528 bytes) 7/13/2009 7:08 PM Microsoft Corporation c:\windows\system32\wfapigp.dll

dps 6.1.7600.16385 159.00 KB (162,816 bytes) 7/13/2009 6:31 PM Microsoft Corporation c:\windows\system32\dps.dll

taskschd 6.1.7600.16385 1.11 MB (1,168,896 bytes) 7/13/2009 6:47 PM Microsoft Corporation c:\windows\system32\taskschd.dll

wdi 6.1.7600.16385 88.50 KB (90,624 bytes) 7/13/2009 6:31 PM Microsoft Corporation c:\windows\system32\wdi.dll

radardt 6.1.7600.16385 95.50 KB (97,792 bytes) 7/13/2009 6:32 PM Microsoft Corporation c:\windows\system32\radardt.dll

wdiasqmodule 6.1.7600.16385 35.00 KB (35,840 bytes) 7/13/2009 6:40 PM Microsoft Corporation c:\windows\system32\wdiasqmodule.dll

cissesrv 6.20.0.64 163.50 KB (167,424 bytes) 3/19/2010 12:25 PM Hewlett-Packard Company c:\program files\hp\cissesrv\cissesrv.exe

portmap 1.14.4.1 148.00 KB (151,552 bytes) 7/23/2010 3:04 PM c:\program files (x86)\qlogic corporation\sansurfer\portmap.exe

wow64 6.1.7600.16385 237.50 KB (243,200 bytes) 7/13/2009 6:26 PM Microsoft Corporation c:\windows\system32\wow64.dll

wow64win 6.1.7600.16385 353.50 KB (361,984 bytes) 7/13/2009 6:38 PM Microsoft Corporation c:\windows\system32\wow64win.dll

wow64cpu 6.1.7600.16385 13.00 KB (13,312 bytes) 7/13/2009 6:26 PM Microsoft Corporation c:\windows\system32\wow64cpu.dll

ProLiantMonitor 3.1.0.0 261.60 KB (267,880 bytes) 5/26/2010 4:27 PM Hewlett-Packard Company c:\program files\hewlett-packard\ilo3\service\proliantmonitor.exe

regsvc 6.1.7600.16385 155.50 KB (159,232 bytes) 7/13/2009 6:31 PM Microsoft Corporation c:\windows\system32\regsvc.dll

termsrv 6.1.7600.16385 690.00 KB (706,560 bytes) 7/13/2009 7:17 PM Microsoft Corporation c:\windows\system32\termsrv.dll

icaapi 6.1.7600.16385 22.00 KB (22,528 bytes) 7/13/2009 7:16 PM Microsoft Corporation c:\windows\system32\icaapi.dll

regapi 6.1.7600.16385 92.50 KB (94,720 bytes) 7/13/2009 7:17 PM Microsoft Corporation c:\windows\system32\regapi.dll

tlscsp 6.1.7600.16385 72.00 KB (73,728 bytes) 7/13/2009 7:16 PM Microsoft Corporation c:\windows\system32\tlscsp.dll

rdpcorekmts 6.1.7600.16385 146.00 KB (149,504 bytes) 7/13/2009 7:17 PM Microsoft Corporation c:\windows\system32\rdpcorekmts.dll

rdpwsx 6.1.7600.16385 74.50 KB (76,288 bytes) 7/13/2009 7:17 PM Microsoft Corporation c:\windows\system32\rdpwsx.dll

taskhost 6.1.7600.16385 67.50 KB (69,120 bytes) 7/13/2009 6:31 PM Microsoft Corporation c:\windows\system32\taskhost.exe

msctfmonitor 6.1.7600.16385 27.50 KB (28,160 bytes) 7/13/2009 6:39 PM Microsoft Corporation c:\windows\system32\msctfmonitor.dll

msutb 6.1.7600.16385 230.00 KB (235,520 bytes) 7/13/2009 6:39 PM Microsoft Corporation c:\windows\system32\msutb.dll

dimsjob 6.1.7600.16385 39.50 KB (40,448 bytes) 7/13/2009 6:53 PM Microsoft Corporation c:\windows\system32\dimsjob.dll

dwm 6.1.7600.16385 117.50 KB (120,320 bytes) 7/13/2009 6:37 PM Microsoft Corporation c:\windows\system32\dwm.exe

dwmredir 6.1.7600.16385 125.50 KB (128,512 bytes) 7/13/2009 6:37 PM Microsoft Corporation c:\windows\system32\dwmredir.dll

dwmcore 6.1.7600.16385 1.56 MB (1,634,304 bytes) 7/13/2009 6:39 PM Microsoft Corporation c:\windows\system32\dwmcore.dll

windowscodecs 6.1.7600.16385 1.13 MB (1,189,888 bytes) 7/13/2009 6:42 PM Microsoft Corporation c:\windows\system32\windowscodecs.dll

d3d10_1 6.1.7600.16385 192.50 KB (197,120 bytes) 7/13/2009 6:41 PM Microsoft Corporation c:\windows\system32\d3d10_1.dll

d3d10_lcore 6.1.7600.16385 311.50 KB (318,976 bytes) 7/13/2009 6:41 PM Microsoft Corporation c:\windows\system32\d3d10_lcore.dll

dxgi 6.1.7600.16385 643.00 KB (658,432 bytes) 7/13/2009 6:41 PM Microsoft Corporation c:\windows\system32\dxgi.dll

dwmapi 6.1.7600.16385 80.50 KB (82,432 bytes) 7/13/2009 6:37 PM Microsoft Corporation c:\windows\system32\dwmapi.dll

explorer 6.1.7600.16385 2.74 MB (2,868,224 bytes) 7/13/2009 6:56 PM Microsoft Corporation c:\windows\explorer.exe

explorerframe 6.1.7600.16385 1.78 MB (1,863,680 bytes) 7/13/2009 6:57 PM Microsoft Corporation c:\windows\system32\explorerframe.dll

duser 6.1.7600.16385 254.50 KB (260,608 bytes) 7/13/2009 6:39 PM Microsoft Corporation c:\windows\system32\duser.dll

dui70 6.1.7600.16385 954.00 KB (976,896 bytes) 7/13/2009 6:41 PM Microsoft Corporation c:\windows\system32\dui70.dll

powrprof 6.1.7600.16385 163.50 KB (167,424 bytes) 7/13/2009 6:27 PM Microsoft Corporation c:\windows\system32\powrprof.dll

gdipplus 6.1.7600.16385 2.06 MB (2,165,248 bytes) 7/13/2009 6:40 PM Microsoft Corporation c:\windows\winsxs\amd64_microsoft.windows.gdipplus_6595b64144ccf1df_1.1.7600.16385_none_2b4f45e87195fcc4_gdipplus.dll

ehstorshell 6.1.7600.16385 198.50 KB (203,264 bytes) 7/13/2009 7:00 PM Microsoft

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ntshrui 6.1.7600.16385 498.00 KB (509,952 bytes) 7/13/2009 6:57 PM Microsoft Corporation
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cscapi 6.1.7600.16385 45.00 KB (46,080 bytes) 7/13/2009 6:24 PM Microsoft Corporation
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iconcodservice 6.1.7600.16385 14.00 KB (14,336 bytes) 7/13/2009 6:37 PM Microsoft Corporation
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sndvolss 6.1.7600.16385 220.00 KB (225,280 bytes) 7/13/2009 7:19 PM Microsoft Corporation
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hid 6.1.7600.16385 29.50 KB (30,208 bytes) 7/13/2009 7:06 PM Microsoft Corporation
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mmdevapi 6.1.7600.16385 277.50 KB (284,160 bytes) 7/13/2009 7:18 PM Microsoft Corporation
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timedate 6.1.7600.16385 503.00 KB (515,072 bytes) 7/13/2009 6:56 PM Microsoft Corporation
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winbrand 6.1.7600.16385 16.00 KB (16,384 bytes) 7/13/2009 6:30 PM Microsoft Corporation
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actxprxy 6.1.7600.16385 936.50 KB (958,976 bytes) 7/13/2009 7:41 PM Microsoft Corporation
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shdocvw 6.1.7600.16385 191.50 KB (196,096 bytes) 7/13/2009 6:55 PM Microsoft Corporation
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linkinfo 6.1.7600.16385 29.00 KB (29,696 bytes) 7/13/2009 6:55 PM Microsoft Corporation
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msls31 3.10.349.0 217.00 KB (222,208 bytes) 7/13/2009 6:39 PM Microsoft Corporation
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authui 6.1.7600.16385 1.84 MB (1,926,144 bytes) 7/13/2009 6:58 PM Microsoft Corporation
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winmm 6.1.7600.16385 212.50 KB (217,600 bytes) 7/13/2009 7:18 PM Microsoft Corporation
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stobject 6.1.7600.16385 250.00 KB (256,000 bytes) 7/13/2009 6:56 PM Microsoft Corporation
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batmeter 6.1.7600.16385 730.50 KB (748,032 bytes) 7/13/2009 6:56 PM Microsoft Corporation
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prnfldr 6.1.7600.16385 407.00 KB (416,768 bytes) 7/13/2009 7:40 PM Microsoft Corporation
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dxdp 6.1.7600.16385 449.00 KB (459,776 bytes) 7/13/2009 7:21 PM Microsoft Corporation
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syncreg 2007.94.7600.16385 72.00 KB (73,728 bytes) 7/13/2009 7:22 PM Microsoft Corporation
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pnidui 6.1.7600.16385 1.72 MB (1,807,872 bytes) 7/13/2009 7:08 PM Microsoft Corporation
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qutil 6.1.7600.16385 105.00 KB (107,520 bytes) 7/13/2009 7:07 PM Microsoft Corporation
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actioncenter 6.1.7600.16385 762.50 KB (780,800 bytes) 7/13/2009 6:56 PM Microsoft Corporation
c:\windows\system32\actioncenter.dll
imapi2 6.1.7600.16385 493.50 KB (505,344 bytes) 7/13/2009 7:01 PM Microsoft Corporation
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hgcp1 6.1.7600.16385 324.50 KB (332,288 bytes) 7/13/2009 6:57 PM Microsoft Corporation
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qagent 6.1.7600.16385 259.00 KB (265,216 bytes) 7/13/2009 7:07 PM Microsoft Corporation
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werconcp1 6.1.7600.16385 1.22 MB (1,280,512 bytes) 7/13/2009 6:41 PM Microsoft Corporation
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wer 6.1.7600.16385 473.00 KB (484,352 bytes) 7/13/2009 6:41 PM Microsoft Corporation
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framedynos 6.1.7600.16385 288.50 KB (295,424 bytes) 7/13/2009 6:47 PM Microsoft Corporation
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werocplsupport 6.1.7600.16385 82.50 KB (84,480 bytes) 7/13/2009 6:40 PM Microsoft Corporation
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msxml6 6.30.7600.16385 1.91 MB (1,999,360 bytes) 7/13/2009 7:43 PM Microsoft Corporation
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hcproviders 6.1.7600.16385 30.50 KB (31,232 bytes) 7/13/2009 6:56 PM Microsoft Corporation
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ieproxy 8.0.7600.16385 438.00 KB (448,512 bytes) 7/13/2009 6:58 PM Microsoft Corporation
c:\program files\internet explorer\ieproxy.dll
drprov 6.1.7600.16385 24.00 KB (24,576 bytes) 7/13/2009 7:17 PM Microsoft Corporation
c:\windows\system32\drprov.dll
ntlanman 6.1.7600.16385 126.50 KB (129,536 bytes) 7/13/2009 6:48 PM Microsoft Corporation
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ieframe 8.0.7600.16385 11.78 MB (12,352,000 bytes) 7/13/2009 7:16 PM Microsoft Corporation
c:\windows\system32\ieframe.dll
oleacc 7.0.0.0 324.00 KB (331,776 bytes) 7/13/2009 6:39 PM Microsoft Corporation
c:\windows\system32\oleacc.dll
structuredquery 7.0.7600.16385 472.50 KB (483,840 bytes) 7/13/2009 7:29 PM Microsoft Corporation
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networkexplorer 6.1.7600.16385 1.60 MB (1,672,704 bytes) 7/13/2009 7:08 PM Microsoft

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c:\windows\system32\networkexplorer.dll
mlang 6.1.7600.16385 221.50 KB (226,816 bytes) 7/13/2009 6:55 PM Microsoft Corporation
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wininet 8.0.7600.16385 1.14 MB (1,193,472 bytes) 7/13/2009 7:00 PM Microsoft Corporation
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normaliz 6.1.7600.16385 2.50 KB (2,560 bytes) 7/13/2009 6:26 PM Microsoft Corporation
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searchfolder 6.1.7600.16385 845.00 KB (865,280 bytes) 7/13/2009 6:59 PM Microsoft Corporation
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shacct 6.1.7600.16385 132.00 KB (135,168 bytes) 7/13/2009 6:55 PM Microsoft Corporation
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netplwiz 6.1.7600.16385 188.50 KB (193,024 bytes) 7/13/2009 6:55 PM Microsoft Corporation
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credui 6.1.7600.16385 213.00 KB (218,112 bytes) 7/13/2009 6:53 PM Microsoft Corporation
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ehstorapi 6.1.7600.16385 141.50 KB (144,896 bytes) 7/13/2009 7:00 PM Microsoft Corporation
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msftedit 5.41.21.2509 781.00 KB (799,744 bytes) 7/13/2009 6:39 PM Microsoft Corporation
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cpqteam 9.70.0.16 81.00 KB (82,944 bytes) 3/18/2009 5:24 AM Hewlett-Packard Company
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ipsecsv 6.1.7600.16385 488.50 KB (500,224 bytes) 7/13/2009 7:08 PM Microsoft Corporation
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fwremotesvr 6.1.7600.16385 74.00 KB (75,776 bytes) 7/13/2009 7:08 PM Microsoft Corporation
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sppsvc 6.1.7600.16385 3.36 MB (3,524,608 bytes) 7/13/2009 8:05 PM Microsoft Corporation
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sppwinob 6.1.7600.16385 409.00 KB (418,816 bytes) 7/13/2009 6:51 PM Microsoft Corporation
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sppobjs 6.1.7600.16385 1.03 MB (1,082,880 bytes) 7/13/2009 6:52 PM Microsoft Corporation
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msdtc 2001.12.8530.16385 138.50 KB (141,824 bytes) 7/13/2009 6:59 PM Microsoft Corporation
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msdtctm 2001.12.8530.16385 1.44 MB (1,509,888 bytes) 7/13/2009 7:00 PM Microsoft Corporation
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msdtcprx 2001.12.8530.16385 72.00 KB (745,472 bytes) 7/13/2009 6:59 PM Microsoft Corporation
c:\windows\system32\msdtcprx.dll
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xolehlp 2001.12.8530.16385 58.00 KB (59,392 bytes)
7/13/2009 6:59 PM Microsoft Corporation
c:\windows\system32\xolehlp.dll
comres 2001.12.8530.16385 1.24 MB (1,297,408
bytes) 7/13/2009 6:59 PM Microsoft Corporation
c:\windows\system32\comres.dll
msdtcvsplres 2001.12.8530.16385 21.00 KB
(21,504 bytes) 7/13/2009 6:59 PM Microsoft
Corporation
c:\windows\system32\msdtcvsplres.dll
mtxoci 2001.12.8530.16385 153.00 KB (156,672
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c:\windows\system32\mtxoci.dll
logonui 6.1.7600.16385 27.00 KB (27,648 bytes)
7/13/2009 6:52 PM Microsoft Corporation
c:\windows\system32\logonui.exe
vaultcredprovider 6.1.7600.16385 78.50 KB
(80,384 bytes) 7/13/2009 6:53 PM Microsoft
Corporation
c:\windows\system32\vaultcredprovider.dll
smartcardcredentialprovider 6.1.7600.16385
185.50 KB (189,952 bytes) 7/13/2009
6:50 PM Microsoft Corporation
c:\windows\system32\smartcardcredentialprov
ider.dll
certcredprovider 6.1.7600.16385 126.00 KB
(129,024 bytes) 7/13/2009 6:49 PM Microsoft
Corporation
c:\windows\system32\certcredprovider.dll
rasplap 6.1.7600.16385 396.00 KB (405,504
bytes) 7/13/2009 7:10 PM Microsoft Corporation
c:\windows\system32\rasplap.dll
rdpclip 6.1.7600.16385 204.50 KB (209,408
bytes) 7/13/2009 7:17 PM Microsoft Corporation
c:\windows\system32\rdpclip.exe
msinfo32 6.1.7600.16385 370.00 KB (378,880
bytes) 7/13/2009 6:31 PM Microsoft Corporation
c:\windows\system32\msinfo32.exe
mfc42u 6.6.8063.0 1.29 MB (1,357,312
bytes) 7/13/2009 7:35 PM Microsoft Corporation
c:\windows\system32\mfc42u.dll
odbc32 6.1.7600.16385 696.00 KB (712,704
bytes) 7/13/2009 7:29 PM Microsoft Corporation
c:\windows\system32\odbc32.dll
comdlg32 6.1.7600.16385 581.50 KB (595,456
bytes) 7/13/2009 6:55 PM Microsoft Corporation
c:\windows\system32\comdlg32.dll
odbcint 6.1.7600.16385 224.00 KB (229,376
bytes) 7/13/2009 7:28 PM Microsoft Corporation
c:\windows\system32\odbcint.dll
thumbcache 6.1.7600.16385 110.50 KB
(113,152 bytes) 7/13/2009 6:55 PM Microsoft
Corporation
c:\windows\system32\thumbcache.dll
wmiprvse 6.1.7600.16385 360.00 KB (368,640
bytes) 7/13/2009 6:47 PM Microsoft Corporation
c:\windows\system32\wbem\wmiprvse.exe

```

```

cimwin32 6.1.7600.16385 1.96 MB (2,055,168
bytes) 7/13/2009 6:48 PM Microsoft Corporation
c:\windows\system32\wbem\cimwin32.dll
security 6.1.7600.16385 5.00 KB (5,120 bytes)
7/13/2009 6:50 PM Microsoft Corporation
c:\windows\system32\security.dll
browcli 6.1.7600.16385 57.00 KB (58,368 bytes)
7/13/2009 6:53 PM Microsoft Corporation
c:\windows\system32\browcli.dll
schedcli 6.1.7600.16385 23.50 KB (24,064 bytes)
7/13/2009 6:53 PM Microsoft Corporation
c:\windows\system32\schedcli.dll
wmi 6.1.7600.16385 5.00 KB (5,120 bytes)
7/13/2009 7:41 PM Microsoft Corporation
c:\windows\system32\wmi.dll
ntevt 6.1.7600.16385 260.00 KB (266,240
bytes) 7/13/2009 6:47 PM Microsoft Corporation
c:\windows\system32\wbem\ntevt.dll
provthrd 6.1.7600.16385 300.00 KB (307,200
bytes) 7/13/2009 6:47 PM Microsoft Corporation
c:\windows\system32\provthrd.dll
msvcirt 7.0.7600.16385 76.50 KB (78,336 bytes)
7/13/2009 6:18 PM Microsoft Corporation
c:\windows\system32\msvcirt.dll
wsock32 6.1.7600.16385 18.00 KB (18,432 bytes)
7/13/2009 7:10 PM Microsoft Corporation
c:\windows\system32\wsock32.dll
wmiperfclass 6.1.7600.16385 133.00 KB
(136,192 bytes) 7/13/2009 6:31 PM Microsoft
Corporation
c:\windows\system32\wbem\wmiperfclass.dll
pdh 6.1.7600.16385 293.00 KB (300,032
bytes) 7/13/2009 6:31 PM Microsoft Corporation
c:\windows\system32\pdh.dll

```

[Services]

| Display Name | Name | State | Start Mode | Path | Error Control |
|-----------------------------------|--|---------|-------------|---------------|---------------|
| | Service Type | | | | |
| | Start Name | | | Tag ID | |
| Application Experience | AeLookupSvc | Stopped | Manual | Share Process | |
| | c:\windows\system32\svchost.exe -k netsvcs | Normal | localSystem | 0 | |
| Application Layer Gateway Service | ALG | Stopped | Manual | Own Process | |
| | c:\windows\system32\alg.exe | Normal | NT | | |
| AUTHORITY\LocalService | 0 | | | | |
| Application Identity | AppIDSvc | Stopped | Manual | Share Process | |
| | c:\windows\system32\svchost.exe -k | Normal | localSystem | 0 | |
| localserviceandnoimpersonation | 0 | Normal | NT | | |
| Authority\LocalService | 0 | | | | |
| Application Information | Appinfo | Stopped | Manual | Share Process | |
| | c:\windows\system32\svchost.exe -k netsvcs | Normal | localSystem | 0 | |
| Application Management | AppMgmt | Running | Manual | Share Process | |
| | c:\windows\system32\svchost.exe -k netsvcs | Normal | localSystem | 0 | |

```

Windows Audio Endpoint Builder
AudioEndpointBuilder Stopped
Manual Share Process
c:\windows\system32\svchost.exe -k
localsystemnetworkrestricted Normal LocalSystem
0
Windows Audio AudioSrv Stopped Manual
Share Process
c:\windows\system32\svchost.exe -k
localservicenetworkrestricted Normal NT
AUTHORITY\LocalService 0
Base Filtering Engine BFE Running
Auto Share Process
c:\windows\system32\svchost.exe -k
localservicenetwork Normal NT
AUTHORITY\LocalService 0
Background Intelligent Transfer Service BITS
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Computer Browser Browser Running Auto
Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Certificate Propagation CertPropSvc
Running Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
HP Smart Array SAS/SATA Event Notification Service
Cissesrv Running Auto Own Process
"c:\program files\hp\cissesrv\cissesrv.exe"
Normal LocalSystem 0
Microsoft .NET Framework NGEN v2.0.50727_X86
clr_optimization_v2.0.50727_32
Stopped Manual Own Process
c:\windows\microsoft.net\framework\v2.0.507
27\mscorsvw.exe Ignore LocalSystem 0
Microsoft .NET Framework NGEN v2.0.50727_X64
clr_optimization_v2.0.50727_64
Stopped Manual Own Process
c:\windows\microsoft.net\framework64\v2.0.5
0727\mscorsvw.exe Ignore LocalSystem 0
COM+ System Application COMSysApp Stopped
Manual Own Process
c:\windows\system32\dllhost.exe
/processid:{02d4b3f1-fd88-11d1-960d-00805fc79235}
Normal LocalSystem 0
HP ProLiant Remote IML Service CpqRcm3
Running Auto Share Process
"c:\program files\hewlett-packard\ilo
3\service\proliantmonitor.exe" Normal
LocalSystem 0
Cryptographic Services CryptSvc Running
Auto Share Process
c:\windows\system32\svchost.exe -k
networkservice Normal NT
Authority\NetworkService 0
DCOM Server Process Launcher DcomLaunch
Running Auto Share Process
c:\windows\system32\svchost.exe -k

```

```

dcomlaunch Normal LocalSystem 0
Disk Defragmenter defragsvc Stopped Manual Own
Process c:\windows\system32\svchost.exe -k
defragsvc Normal LocalSystem 0
DHCP Client Dhcp Running Auto
Share Process
c:\windows\system32\svchost.exe -k
localservicenetworkrestricted Normal NT
Authority\LocalService 0
DNS Client Dnscache Running Auto
Share Process
c:\windows\system32\svchost.exe -k
networkservice Normal NT
AUTHORITY\NetworkService 0
Wired AutoConfig dot3svc Stopped Manual
Share Process
c:\windows\system32\svchost.exe -k
localsystemnetworkrestricted Normal LocalSystem
0
Diagnostic Policy Service DPS Running
Auto Share Process
c:\windows\system32\svchost.exe -k
localservicenetwork Normal NT
AUTHORITY\LocalService 0
Extensible Authentication Protocol EapHost
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Encrypting File System (EFS) EFS Running
Auto Share Process
c:\windows\system32\lsass.exe Normal
LocalSystem 0
Windows Event Log eventlog Running Auto
Share Process
c:\windows\system32\svchost.exe -k
localservicenetworkrestricted Normal NT
AUTHORITY\LocalService 0
COM+ Event System EventSystem Running
Auto Share Process
c:\windows\system32\svchost.exe -k
localservice Normal NT
AUTHORITY\LocalService 0
Microsoft Fibre Channel Platform Registration Service
FCRegSvc Stopped Manual Share Process
c:\windows\system32\svchost.exe -k
localservicenetworkrestricted Normal NT
AUTHORITY\LocalService 0
Function Discovery Provider Host fdPHost
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k
localservice Normal NT
AUTHORITY\LocalService 0
Function Discovery Resource Publication FDResPub
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k
localserviceandnoimpersonation Normal NT
AUTHORITY\LocalService 0
Windows Font Cache Service FontCache Stopped
Manual Share Process
c:\windows\system32\svchost.exe -k
localserviceandnoimpersonation Normal NT
AUTHORITY\LocalService 0

```

```

Group Policy Client gpsvc Running Auto
Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Human Interface Device Access hiderv Stopped
Manual Share Process
c:\windows\system32\svchost.exe -k
localsystemnetworkrestricted Normal LocalSystem
0
Health Key and Certificate Management hkmsvc
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
IKE and AuthIP IPsec Keying Modules IKEEXT
Running Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
PnP-X IP Bus Enumerator IPBusEnum Stopped
Disabled Share Process
c:\windows\system32\svchost.exe -k
localsystemnetworkrestricted Normal LocalSystem
0
IP Helper iphlpsvc Running Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
CNG Key Isolation KeyIso Stopped Manual
Share Process
c:\windows\system32\lsass.exe Normal
LocalSystem 0
KtmRm for Distributed Transaction Coordinator
KtmRm Stopped Manual Share Process
c:\windows\system32\svchost.exe -k
networkserviceandnoimpersonation Normal NT
AUTHORITY\NetworkService 0
Server LanmanServer Running Auto
Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Workstation LanmanWorkstation Running
Auto Share Process
c:\windows\system32\svchost.exe -k
networkservice Normal NT
AUTHORITY\NetworkService 0
Link-Layer Topology Discovery Mapper lltdsvc
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k
localservice Normal NT
AUTHORITY\LocalService 0
TCP/IP NetBIOS Helper lmhosts Running
Manual Share Process
c:\windows\system32\svchost.exe -k
localservicenetworkrestricted Normal NT
AUTHORITY\LocalService 0
Multimedia Class Scheduler MMCSS Stopped
Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Windows Firewall MpsSvc Running Auto
Share Process
c:\windows\system32\svchost.exe -k
localservicenetwork Normal NT
Authority\LocalService 0

```

```

Distributed Transaction Coordinator MSDTC
Running Auto Own Process
c:\windows\system32\msdtc.exe Normal NT
AUTHORITY\NetworkService 0
SQL Server FullText Search (MSSQLSERVER)
msftesql Stopped Disabled Own Process
"c:\program files\microsoft sql
server\mssql.1\mssql\bin\msftesql.exe" -s:mssql.1 -
f:mssqlserver Normal LocalSystem 0
Microsoft iSCSI Initiator Service MSiSCSI
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Windows Installer msiserver Stopped Manual Own
Process c:\windows\system32\msiexec.exe /v
Normal LocalSystem 0
SQL Server (MSSQLSERVER) MSSQLSERVER
Stopped Manual Own Process
"c:\program files\microsoft sql
server\mssql.1\mssql\bin\sqlservr.exe" -smssqlserver
Normal LocalSystem 0
SQL Server Active Directory Helper
MSSQLServerADHelper Stopped Disabled Own
Process "c:\program files\microsoft sql
server\90\shared\sqladhlp90.exe" Normal NT
AUTHORITY\NetworkService 0
Network Access Protection Agent napagent
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k
networkservice Normal NT
AUTHORITY\NetworkService 0
Netlogon Netlogon Stopped Manual Share Process
c:\windows\system32\lsass.exe Normal
LocalSystem 0
Network Connections Netman Running Manual
Share Process
c:\windows\system32\svchost.exe -k
localsystemnetworkrestricted Normal LocalSystem
0
Network List Service netprofm Running
Manual Share Process
c:\windows\system32\svchost.exe -k
localservice Normal NT
AUTHORITY\LocalService 0
Network Location Awareness NlaSvc Running
Auto Share Process
c:\windows\system32\svchost.exe -k
networkservice Normal NT
AUTHORITY\NetworkService 0
Network Store Interface Service nsi
Running Auto Share Process
c:\windows\system32\svchost.exe -k
localservice Normal NT
Authority\LocalService 0
ONC/RPC Portmapper oncpportmap Running
Auto Own Process c:\program
files (x86)\qlogic corporation\sansurfer\portmap.exe
Normal LocalSystem 0
Office Source Engine ose Stopped
Manual Own Process "c:\program
files (x86)\common files\microsoft shared\source

```



```

engine\ose.exe"      Normal    LocalSystem      0
Performance Counter DLL Host PerfHost Stopped
Manual Own Process
c:\windows\syswow64\perfhst.exe
Normal NT AUTHORITY\LocalService 0
Performance Logs & Alerts pla Stopped
Manual Share Process
c:\windows\system32\svchost.exe -k
localservicenetwork Normal NT
AUTHORITY\LocalService 0
Plug and Play PlugPlay Running Auto
Share Process
c:\windows\system32\svchost.exe -k
dcomlaunch Normal LocalSystem 0
IPsec Policy Agent PolicyAgent Running
Manual Share Process
c:\windows\system32\svchost.exe -k
networkservicenetworkrestricted Normal NT
Authority\NetworkService 0
Power Power Running Auto Share Process
c:\windows\system32\svchost.exe -k
dcomlaunch Normal LocalSystem 0
User Profile Service ProfSvc Running
Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
HP ProLiant Health Monitor Service
ProLiantMonitor Running Auto
Share Process "c:\program
files\hewlett-packard\ilo
3\service\proliantmonitor.exe"
LocalSystem 0
Protected Storage ProtectedStorage Stopped
Manual Share Process
c:\windows\system32\lsass.exe Normal
LocalSystem 0
Remote Access Auto Connection Manager RasAuto
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Remote Access Connection Manager RasMan
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Routing and Remote Access RemoteAccess
Stopped Disabled Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Remote Registry RemoteRegistry Running
Auto Share Process
c:\windows\system32\svchost.exe -k regsvcs
Normal NT AUTHORITY\LocalService 0
RPC Endpoint Mapper RpcEptMapper Running
Auto Share Process
c:\windows\system32\svchost.exe -k rpcss
Normal NT AUTHORITY\NetworkService 0

```

```

Remote Procedure Call (RPC) Locator RpcLocator
Stopped Manual Own Process
c:\windows\system32\locator.exe
Normal NT AUTHORITY\NetworkService 0
Remote Procedure Call (RPC) RpcSs Running
Auto Share Process
c:\windows\system32\svchost.exe -k rpcss
Normal NT AUTHORITY\NetworkService 0
Resultant Set of Policy Provider RSoPProv
Stopped Manual Share Process
c:\windows\system32\rsopprov.exe
Normal LocalSystem 0
Special Administration Console Helper sacsvr
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Security Accounts Manager SamSs Running
Auto Share Process
c:\windows\system32\lsass.exe Normal
LocalSystem 0
Smart Card SCardSvr Stopped Manual
Share Process
c:\windows\system32\svchost.exe -k
localserviceandnoimpersonation Normal NT
AUTHORITY\LocalService 0
Task Scheduler Schedule Running Auto
Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Smart Card Removal Policy SCPolicySvc
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Secondary Logon seclogon Stopped Manual
Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
System Event Notification Service SENS
Running Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Remote Desktop Configuration SessionEnv
Running Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Internet Connection Sharing (ICS) SharedAccess
Stopped Disabled Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Shell Hardware Detection ShellHWDetection
Running Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs
Ignore LocalSystem 0
SNMP Trap SNMPTRAP Stopped Manual Own Process
c:\windows\system32\snmptrap.exe
Normal NT AUTHORITY\LocalService 0
Print Spooler Spooler Stopped Manual Own
Process c:\windows\system32\spoolsv.exe
Normal LocalSystem 0

```

```

Software Protection sppsvc Running Auto Own
Process c:\windows\system32\sppsvc.exe
Normal NT AUTHORITY\NetworkService 0
SPP Notification Service sppuinotify
Running Manual Share Process
c:\windows\system32\svchost.exe -k
localservice Normal NT
AUTHORITY\LocalService 0
SQL Server Browser SQLBrowser Stopped
Disabled Own Process "c:\program
files(x86)\microsoft sql
server\90\shared\sqlbrowser.exe"
LocalSystem 0
SQL Server Agent (MSSQLSERVER)
SQLSERVERAGENT Stopped Manual Own
Process "c:\program files\microsoft sql
server\mssql.1\mssql\bin\sqlagent90.exe" -i
mssqlserver Normal LocalSystem 0
SQL Server VSS Writer SQLWriter Stopped
Disabled Own Process "c:\program
files\microsoft sql server\90\shared\sqlwriter.exe"
Normal LocalSystem 0
SSDP Discovery SSDPSRV Stopped Disabled
Share Process
c:\windows\system32\svchost.exe -k
localserviceandnoimpersonation Normal NT
AUTHORITY\LocalService 0
Secure Socket Tunneling Protocol Service
SstpSvc Stopped Manual Share Process
c:\windows\system32\svchost.exe -k
localservice Normal NT
Authority\LocalService 0
Microsoft Software Shadow Copy Provider swprv
Stopped Manual Own Process
c:\windows\system32\svchost.exe -k swprv
Normal LocalSystem 0
HP ProLiant System Shutdown Service sysdown
Running Auto Share Process
"c:\program files\hewlett-packard\ilo
3\service\proliantmonitor.exe"
LocalSystem 0
Telephony Tapisrv Stopped Manual Own Process
c:\windows\system32\svchost.exe -k tapisrv
Normal NT AUTHORITY\NetworkService 0
TPM Base Services TBS Stopped Manual
Share Process
c:\windows\system32\svchost.exe -k
localserviceandnoimpersonation Normal NT
AUTHORITY\LocalService 0
Remote Desktop Services TermService
Running Manual Share Process
c:\windows\system32\svchost.exe -k termsvcs
Normal NT Authority\NetworkService 0
Thread Ordering Server THREADORDER
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k
localservice Normal NT
AUTHORITY\LocalService 0

```

```

Distributed Link Tracking Client      TrkWks
Running Auto Share Process
c:\windows\system32\svchost.exe -k
localsystemnetworkrestricted Normal LocalSystem
0
Windows Modules Installer           TrustedInstaller
Stopped Manual Own Process
c:\windows\servicing\trustedinstaller.exe
Normal LocalSystem 0
Interactive Services Detection       UI0Detect
Stopped Manual Own Process
c:\windows\system32\ui0detect.exe
Normal LocalSystem 0
Remote Desktop Services UserMode Port Redirector
UmRdpService Running Manual
Share Process
c:\windows\system32\svchost.exe -k
localsystemnetworkrestricted Normal LocalSystem
0
UPnP Device Host                    upnphost Stopped Disabled
Share Process
c:\windows\system32\svchost.exe -k
localserviceandnoimpersonation Normal NT
AUTHORITY\LocalService 0
Desktop Window Manager Session Manager UxSms
Running Auto Share Process
c:\windows\system32\svchost.exe -k
localsystemnetworkrestricted Normal LocalSystem
0
Credential Manager VaultSvc Stopped Manual
Share Process
c:\windows\system32\lsass.exe Normal
LocalSystem 0
Virtual Disk                         vds Stopped Manual Own
Process c:\windows\system32\vds.exe Normal
LocalSystem 0
Volume Shadow Copy VSS Stopped Manual Own
Process c:\windows\system32\vssvc.exe Normal
LocalSystem 0
Windows Time                         W32Time Stopped Disabled
Share Process
c:\windows\system32\svchost.exe -k
localservice Normal NT
AUTHORITY\LocalService 0
Windows Color System                 WcsPlugInService
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k wcssvc
Normal NT AUTHORITY\LocalService 0

Diagnostic Service Host              WdiServiceHost
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k
localservice Normal NT
AUTHORITY\LocalService 0
Diagnostic System Host              WdiSystemHost
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k
localsystemnetworkrestricted Normal LocalSystem
0
Windows Event Collector              Wecsvc Stopped
Manual Share Process
c:\windows\system32\svchost.exe -k

```

```

networkservice Normal NT
AUTHORITY\NetworkService 0
Problem Reports and Solutions Control Panel Support
werocplsupport Stopped Manual
Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Windows Error Reporting Service      WerSvc
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k
wersvcgroup Ignore LocalSystem 0

WinHTTP Web Proxy Auto-Discovery Service
WinHttpAutoProxySvc Stopped Manual
Share Process
c:\windows\system32\svchost.exe -k
localservice Normal NT
AUTHORITY\LocalService 0
Windows Management Instrumentation Winmgmt
Running Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs
Ignore LocalSystem 0
Windows Remote Management (WS-Management)
WinRM Running Auto Share Process
c:\windows\system32\svchost.exe -k
networkservice Normal NT
AUTHORITY\NetworkService 0
WMI Performance Adapter             wmiApSrv Stopped
Manual Own Process
c:\windows\system32\wbem\wmiaprv.exe
Normal LocalSystem 0
Portable Device Enumerator Service WPDBusEnum
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k
localsystemnetworkrestricted Normal LocalSystem
0
Windows Update                      wuauclt Stopped Disabled
Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Windows Driver Foundation - User-mode Driver
Framework wudfsvc Stopped Manual Share Process
c:\windows\system32\svchost.exe -k
localsystemnetworkrestricted Normal LocalSystem
0

[Program Groups]

Group Name Name User Name
Start Menu Default:Start Menu Default
Start Menu\Programs Default:Start Menu\Programs
Default
Start Menu\Programs\Accessories Default:Start
Menu\Programs\Accessories Default
Start Menu\Programs\Accessories\Accessibility
Default:Start
Menu\Programs\Accessories\Accessibility Default
Start Menu\Programs\Accessories\System Tools
Default:Start
Menu\Programs\Accessories\System Tools Default
Start Menu\Programs\Maintenance Default:Start
Menu\Programs\Maintenance Default
Start Menu
Public:Start Menu Public

```

```

Start Menu\Programs Public:Start Menu\Programs
Public
Start Menu\Programs\Accessories Public:Start
Menu\Programs\Accessories Public
Start Menu\Programs\Accessories\Accessibility
Public:Start
Menu\Programs\Accessories\Accessibility Public
Start Menu\Programs\Accessories\System Tools
Public:Start
Menu\Programs\Accessories\System Tools Public
Start Menu\Programs\Accessories\Windows PowerShell
Public:Start
Menu\Programs\Accessories\Windows PowerShell
Public
Start Menu\Programs\Administrative Tools
Public:Start Menu\Programs\Administrative
Tools Public
Start Menu\Programs\Administrative Tools\Terminal
Services Public:Start Menu\Programs\Administrative
Tools\Terminal Services Public
Start Menu\Programs\HP System Tools Public:Start
Menu\Programs\HP System Tools Public
Start Menu\Programs\HP System Tools\HP Array
Configuration Utility (64-bit) Public:Start
Menu\Programs\HP System Tools\HP Array Configuration
Utility (64-bit) Public
Start Menu\Programs\HP System Tools\HP Array
Configuration Utility CLI Public:Start
Menu\Programs\HP System Tools\HP Array Configuration
Utility CLI Public
Start Menu\Programs\KrView Public:Start
Menu\Programs\KrView Public
Start Menu\Programs\Maintenance Public:Start
Menu\Programs\Maintenance Public
Start Menu\Programs\Microsoft SQL Server 2005
Public:Start Menu\Programs\Microsoft
SQL Server 2005 Public
Start Menu\Programs\Microsoft SQL Server
2005\Analysis Services Public:Start
Menu\Programs\Microsoft SQL Server 2005\Analysis
Services Public
Start Menu\Programs\Microsoft SQL Server
2005\Configuration Tools Public:Start
Menu\Programs\Microsoft SQL Server 2005\Configuration
Tools Public
Start Menu\Programs\Microsoft SQL Server
2005\Documentation and Tutorials Public:Start
Menu\Programs\Microsoft SQL Server 2005\Documentation
and Tutorials Public
Start Menu\Programs\Microsoft SQL Server
2005\Documentation and Tutorials\Tutorials
Public:Start Menu\Programs\Microsoft SQL
Server 2005\Documentation and Tutorials\Tutorials
Public
Start Menu\Programs\Microsoft SQL Server
2005\Performance Tools Public:Start
Menu\Programs\Microsoft SQL Server 2005\Performance
Tools Public
Start Menu\Programs\Microsoft Visual Studio 2005
Public:Start Menu\Programs\Microsoft Visual
Studio 2005 Public
Start Menu\Programs\Microsoft Visual Studio
2005\Visual Studio Tools Public:Start

```

```

Menu\Programs\Microsoft Visual Studio 2005\Visual
Studio Tools Public
Start Menu\Programs\Startup Public:Start
Menu\Programs\Startup Public
Start Menu WORLDLCUP\Administrator:Start Menu
WORLDLCUP\Administrator
Start Menu\Programs WORLDLCUP\Administrator:Start
Menu\Programs WORLDLCUP\Administrator
Start Menu\Programs\Accessories
WORLDLCUP\Administrator:Start
Menu\Programs\Accessories WORLDLCUP\Administrator

Start Menu\Programs\Accessories\Accessibility
WORLDLCUP\Administrator:Start
Menu\Programs\Accessories\Accessibility
WORLDLCUP\Administrator
Start Menu\Programs\Accessories\System Tools
WORLDLCUP\Administrator:Start
Menu\Programs\Accessories\System Tools
WORLDLCUP\Administrator
Start Menu\Programs\Administrative Tools
WORLDLCUP\Administrator:Start
Menu\Programs\Administrative Tools
WORLDLCUP\Administrator
Start Menu\Programs\AMD System Analysis Tools
WORLDLCUP\Administrator:Start
Menu\Programs\AMD System Analysis Tools
WORLDLCUP\Administrator
Start Menu\Programs\AMD System Analysis
Tools\clkconfig WORLDLCUP\Administrator:Start
Menu\Programs\AMD System Analysis Tools\clkconfig
WORLDLCUP\Administrator
Start Menu\Programs\AMD System Analysis
Tools\configmgr WORLDLCUP\Administrator:Start
Menu\Programs\AMD System Analysis Tools\configmgr
WORLDLCUP\Administrator
Start Menu\Programs\AMD System Analysis Tools\CpuSpy
WORLDLCUP\Administrator:Start
Menu\Programs\AMD System Analysis Tools\CpuSpy
WORLDLCUP\Administrator
Start Menu\Programs\AMD System Analysis
Tools\HotkeyEvent WORLDLCUP\Administrator:Start
Menu\Programs\AMD System Analysis Tools\HotkeyEvent
WORLDLCUP\Administrator
Start Menu\Programs\AMD System Analysis Tools\mreport
WORLDLCUP\Administrator:Start
Menu\Programs\AMD System Analysis Tools\mreport
WORLDLCUP\Administrator
Start Menu\Programs\AMD System Analysis
Tools\MultEvent WORLDLCUP\Administrator:Start
Menu\Programs\AMD System Analysis Tools\MultEvent
WORLDLCUP\Administrator
Start Menu\Programs\AMD System Analysis
Tools\MultiProbe WORLDLCUP\Administrator:Start
Menu\Programs\AMD System Analysis Tools\MultiProbe
WORLDLCUP\Administrator
Start Menu\Programs\AMD System Analysis Tools\SysCAT
WORLDLCUP\Administrator:Start
Menu\Programs\AMD System Analysis Tools\SysCAT
WORLDLCUP\Administrator
Start Menu\Programs\KrView
WORLDLCUP\Administrator:Start

```

```

Menu\Programs\KrView WORLDLCUP\Administrator
Start Menu\Programs\Maintenance
WORLDLCUP\Administrator:Start
Menu\Programs\Maintenance WORLDLCUP\Administrator

Start Menu\Programs\Microsoft Windows Performance
Toolkit WORLDLCUP\Administrator:Start
Menu\Programs\Microsoft Windows Performance Toolkit
WORLDLCUP\Administrator
Start Menu\Programs\QLogic Management Suite
WORLDLCUP\Administrator:Start
Menu\Programs\QLogic Management Suite
WORLDLCUP\Administrator
Start Menu\Programs\Startup
WORLDLCUP\Administrator:Start
Menu\Programs\Startup WORLDLCUP\Administrator

[Startup Programs]
Program Command User Name Location
CPQTEAM "c:\program files\hp\ncu\cpqteam.exe"
Public
HKLM\SOFTWARE\Microsoft\Windows\CurrentVers
ion\Run
ATIModeChange ati2mdxx.exe Public
HKLM\SOFTWARE\Microsoft\Windows\CurrentVers
ion\Run
QLogicSaveSystemInfo rundll32.exe
qlco1006.dll,qlsavesysteminfo Public
HKLM\SOFTWARE\Microsoft\Windows\CurrentVers
ion\Run

[OLE Registration]
Object Local Server
WordPad Document "programfiles%\windows
nt\accessories\wordpad.exe"
Paintbrush Picture %systemroot%\system32\mspaint.exe

Package Not Available
Microsoft PenInputPanel Control Not Available

[Windows Error Reporting]
Time Type Details
7/28/2010 4:18 PM Application Error Faulting
application name: SQLCMD.EXE, version:
2005.90.4035.0, time stamp:
0x492b15af&#x000d;&#x000a;Faulting module name:
kernel32.dll, version: 6.1.7600.16385, time stamp:
0x4a5bdfdf&#x000d;&#x000a;Exception code:
0xc0000005&#x000d;&#x000a;Fault offset:
0x00000000&#x000d;&#x000a;Faulting process
id: 0x1638&#x000d;&#x000a;Faulting application start
time: 0x01cb2e706e9ce351&#x000d;&#x000a;Faulting
application path: C:\Program Files\Microsoft SQL
Server\90\Tools\bin\SQLCMD.EXE&#x000d;&#x000a;Faulti
ng module path:
C:\Windows\system32\kernel32.dll&#x000d;&#x000a;Repor
t Id: cf5fc950-9a63-11df-82fd-0018fe2e2246

```

```

7/13/2010 1:47 PM Application Error Faulting
application name: sleep.exe, version: 0.0.0.0, time
stamp: 0x2fb0ba06&#x000d;&#x000a;Faulting module
name: sleep.exe, version: 0.0.0.0, time stamp:
0x2fb0ba06&#x000d;&#x000a;Exception code:
0xc0000005&#x000d;&#x000a;Fault offset:
0x0000566f&#x000d;&#x000a;Faulting process id:
0x1298&#x000d;&#x000a;Faulting application start
time: 0x01cb2291e5432f79&#x000d;&#x000a;Faulting
application path:
C:\mstpcc.468\tools\sleep\sleep.exe&#x000d;&#x000a;Fa
ulting module path:
C:\mstpcc.468\tools\sleep\sleep.exe&#x000d;&#x000a;Re
port Id: 2376af3c-8e85-11df-abb9-0026551bee88
7/13/2010 1:44 PM Application Error Faulting
application name: sleep.exe, version: 0.0.0.0, time
stamp: 0x2fb0ba06&#x000d;&#x000a;Faulting module
name: sleep.exe, version: 0.0.0.0, time stamp:
0x2fb0ba06&#x000d;&#x000a;Exception code:
0xc0000005&#x000d;&#x000a;Fault offset:
0x0000566f&#x000d;&#x000a;Faulting process id:
0x1764&#x000d;&#x000a;Faulting application start
time: 0x01cb229173af6cfc&#x000d;&#x000a;Faulting
application path:
C:\mstpcc.468\tools\sleep\sleep.exe&#x000d;&#x000a;Fa
ulting module path:
C:\mstpcc.468\tools\sleep\sleep.exe&#x000d;&#x000a;Re
port Id: b17fe3bc-8e84-11df-abb9-0026551bee88
7/13/2010 1:42 PM Application Error Faulting
application name: sleep.exe, version: 0.0.0.0, time
stamp: 0x2fb0ba06&#x000d;&#x000a;Faulting module
name: sleep.exe, version: 0.0.0.0, time stamp:
0x2fb0ba06&#x000d;&#x000a;Exception code:
0xc0000005&#x000d;&#x000a;Fault offset:
0x0000566f&#x000d;&#x000a;Faulting process id:
0x17dc&#x000d;&#x000a;Faulting application start
time: 0x01cb2291372679e3&#x000d;&#x000a;Faulting
application path:
C:\mstpcc.468\tools\sleep\sleep.exe&#x000d;&#x000a;Fa
ulting module path:
C:\mstpcc.468\tools\sleep\sleep.exe&#x000d;&#x000a;Re
port Id: 756a9bb4-8e84-11df-abb9-0026551bee88
7/10/2010 1:19 PM Application Error Faulting
application name: sleep.exe, version: 0.0.0.0, time
stamp: 0x2fb0ba06&#x000d;&#x000a;Faulting module
name: sleep.exe, version: 0.0.0.0, time stamp:
0x2fb0ba06&#x000d;&#x000a;Exception code:
0xc0000005&#x000d;&#x000a;Fault offset:
0x0000566f&#x000d;&#x000a;Faulting process id:
0xb5c&#x000d;&#x000a;Faulting application start time:
0x01cb203287bf211a&#x000d;&#x000a;Faulting
application path:
C:\mstpcc.468\tools\sleep\sleep.exe&#x000d;&#x000a;Fa
ulting module path:
C:\mstpcc.468\tools\sleep\sleep.exe&#x000d;&#x000a;Re
port Id: c62fd0c-8c25-11df-abb9-0026551bee88
7/10/2010 6:39 AM Application Error Faulting
application name: sleep.exe, version: 0.0.0.0, time
stamp: 0x2fb0ba06&#x000d;&#x000a;Faulting module
name: sleep.exe, version: 0.0.0.0, time stamp:
0x2fb0ba06&#x000d;&#x000a;Exception code:
0xc0000005&#x000d;&#x000a;Fault offset:
0x0000566f&#x000d;&#x000a;Faulting process id:

```

```

0x138c&#x000d;&#x000a;Faulting application start
time: 0x01cblf8ea146b86&#x000d;&#x000a;Faulting
application path:
C:\mstpcc.468\tools\sleep\sleep.exe&#x000d;&#x000a;Fa
ulting module path:
C:\mstpcc.468\tools\sleep\sleep.exe&#x000d;&#x000a;Re
port Id: eeb424ae-8bed-11df-abb9-0026551bee88
7/9/2010 12:09 AM Application Error Faulting
application name: LSIUtil_amd64.exe, version:
0.0.0.0, time stamp:
0x4b7adee6&#x000d;&#x000a;Faulting module name:
ntdll.dll, version: 6.1.7600.16385, time stamp:
0x4a5be02b&#x000d;&#x000a;Exception code:
0xc0000005&#x000d;&#x000a;Fault offset:
0x000000000054f2d&#x000d;&#x000a;Faulting process
id: 0xc54&#x000d;&#x000a;Faulting application start
time: 0x01cblef8ea146b86&#x000d;&#x000a;Faulting
application path: C:\temp\LSIUTIL-1.65\LSIUtil Kit
1.65\Windows\LSIUtil_amd64.exe&#x000d;&#x000a;Faultin
g module path:
C:\Windows\SYSTEM32\ntdll.dll&#x000d;&#x000a;Report
Id: 2eda2c47-8aee-11df-892a-0026551bee88
7/8/2010 11:53 PM Application Error Faulting
application name: LSIUtil_amd64.exe, version:
0.0.0.0, time stamp:
0x4b7adee6&#x000d;&#x000a;Faulting module name:
ntdll.dll, version: 6.1.7600.16385, time stamp:
0x4a5be02b&#x000d;&#x000a;Exception code:
0xc0000005&#x000d;&#x000a;Fault offset:
0x000000000054f2d&#x000d;&#x000a;Faulting process
id: 0xc54&#x000d;&#x000a;Faulting application start
time: 0x01cblef8ea146b86&#x000d;&#x000a;Faulting
application path: C:\temp\LSIUTIL-1.65\LSIUtil Kit
1.65\Windows\LSIUtil_amd64.exe&#x000d;&#x000a;Faultin
g module path:
C:\Windows\SYSTEM32\ntdll.dll&#x000d;&#x000a;Report
Id: 0496621a-8aec-11df-892a-0026551bee88
7/8/2010 4:25 PM Application Error Not Available

7/8/2010 4:22 PM Application Error Not Available

7/8/2010 4:22 PM Application Error Not Available

8/16/2010 10:03 PM Windows Error Reporting
Fault bucket , type 0&#x000d;&#x000a;Event
Name: BlueScreen&#x000d;&#x000a;Response: Not
available&#x000d;&#x000a;Cab Id:
0&#x000d;&#x000a;&#x000d;&#x000a;Problem
signature:&#x000d;&#x000a;P1: &#x000d;&#x000a;P2:
&#x000d;&#x000a;P3: &#x000d;&#x000a;P4:
&#x000d;&#x000a;P5: &#x000d;&#x000a;P6:
&#x000d;&#x000a;P7: &#x000d;&#x000a;P8:
&#x000d;&#x000a;P9: &#x000d;&#x000a;P10:
&#x000d;&#x000a;&#x000d;&#x000a;Attached
files:&#x000d;&#x000a;C:\Windows\Minidump\081610-
993757-
01.dmp&#x000d;&#x000a;C:\Users\Administrator\AppData\
Local\Temp\WER-995177-
0.sysdata.xml&#x000d;&#x000a;&#x000d;&#x000a;These
files may be available
here:&#x000d;&#x000a;C:\Users\Administrator\AppData\L
ocal\Microsoft\Windows\WER\ReportArchive\Kernel_0_0_c
ab_0a3356b7&#x000d;&#x000a;&#x000d;&#x000a;Analysis
symbol:

```

```

symbol: &#x000d;&#x000a;Rechecking for solution:
0&#x000d;&#x000a;Report Id: 081610-993757-
01&#x000d;&#x000a;Report Status: 2
8/16/2010 9:13 PM Windows Error Reporting
Fault bucket , type 0&#x000d;&#x000a;Event
Name: BlueScreen&#x000d;&#x000a;Response: Not
available&#x000d;&#x000a;Cab Id:
0&#x000d;&#x000a;&#x000d;&#x000a;Problem
signature:&#x000d;&#x000a;P1: &#x000d;&#x000a;P2:
&#x000d;&#x000a;P3: &#x000d;&#x000a;P4:
&#x000d;&#x000a;P5: &#x000d;&#x000a;P6:
&#x000d;&#x000a;P7: &#x000d;&#x000a;P8:
&#x000d;&#x000a;P9: &#x000d;&#x000a;P10:
&#x000d;&#x000a;&#x000d;&#x000a;Attached
files:&#x000d;&#x000a;C:\Windows\Minidump\081610-
829254-
01.dmp&#x000d;&#x000a;C:\Users\Administrator\AppData\
Local\Temp\WER-836399-
0.sysdata.xml&#x000d;&#x000a;&#x000d;&#x000a;These
files may be available
here:&#x000d;&#x000a;C:\Users\Administrator\AppData\L
ocal\Microsoft\Windows\WER\ReportArchive\Kernel_0_0_c
ab_04b5052e&#x000d;&#x000a;&#x000d;&#x000a;Analysis
symbol: &#x000d;&#x000a;Rechecking for solution:
0&#x000d;&#x000a;Report Id: 081610-829254-
01&#x000d;&#x000a;Report Status: 2
8/16/2010 8:44 PM Windows Error Reporting
Fault bucket , type 0&#x000d;&#x000a;Event
Name: BlueScreen&#x000d;&#x000a;Response: Not
available&#x000d;&#x000a;Cab Id:
0&#x000d;&#x000a;&#x000d;&#x000a;Problem
signature:&#x000d;&#x000a;P1: &#x000d;&#x000a;P2:
&#x000d;&#x000a;P3: &#x000d;&#x000a;P4:
&#x000d;&#x000a;P5: &#x000d;&#x000a;P6:
&#x000d;&#x000a;P7: &#x000d;&#x000a;P8:
&#x000d;&#x000a;P9: &#x000d;&#x000a;P10:
&#x000d;&#x000a;&#x000d;&#x000a;Attached
files:&#x000d;&#x000a;C:\Windows\Minidump\081610-
837444-
01.dmp&#x000d;&#x000a;C:\Users\Administrator\AppData\
Local\Temp\WER-844807-
0.sysdata.xml&#x000d;&#x000a;&#x000d;&#x000a;These
files may be available
here:&#x000d;&#x000a;C:\Users\Administrator\AppData\L
ocal\Microsoft\Windows\WER\ReportArchive\Kernel_0_0_c
ab_083cbe5f&#x000d;&#x000a;&#x000d;&#x000a;Analysis
symbol: &#x000d;&#x000a;Rechecking for solution:
0&#x000d;&#x000a;Report Id: 081610-837444-
01&#x000d;&#x000a;Report Status: 2
8/16/2010 8:38 PM Windows Error Reporting
Fault bucket , type 0&#x000d;&#x000a;Event
Name: PnPDriverInstallError&#x000d;&#x000a;Response:
Not available&#x000d;&#x000a;Cab Id:
0&#x000d;&#x000a;&#x000d;&#x000a;Problem
signature:&#x000d;&#x000a;P1: x64&#x000d;&#x000a;P2:
0000054&#x000d;&#x000a;P3:
disk.inf&#x000d;&#x000a;P4:
152e65409Fca83e7ce6508541bdf8039a483f81&#x000d;&#x00
0a;P5: disk_install&#x000d;&#x000a;P6:
&#x000d;&#x000a;P7: &#x000d;&#x000a;P8:
&#x000d;&#x000a;P9: &#x000d;&#x000a;P10:
&#x000d;&#x000a;&#x000d;&#x000a;Attached
files:&#x000d;&#x000a;C:\Windows\Temp\DMI2413.tmp.log

```

```

.xml&#x000d;&#x000a;C:\Windows\inf\disk.inf&#x000d;&#
x000a;C:\Windows\Temp\WER24C0.tmp_hdm&#x000d;&#x000a
;C:\Windows\Temp\WER283A.tmp_mmp&#x000d;&#x000a;&#x0
00d;&#x000a;These files may be available
here:&#x000d;&#x000a;C:\ProgramData\Microsoft\Windows
\WER\ReportQueue\NonCritical_x64_dfb934f1ee7c48b62f5e
c24abf9236b7a72e08e_cab_0fc32886&#x000d;&#x000a;&#x0
0d;&#x000a;Analysis symbol:
&#x000d;&#x000a;Rechecking for solution:
0&#x000d;&#x000a;Report Id: 3468aa4b-a976-11df-999a-
0026551b8eb&#x000d;&#x000a;Report Status: 4
8/13/2010 8:07 PM Windows Error Reporting
Fault bucket , type 0&#x000d;&#x000a;Event
Name: PnPDeviceProblemCode&#x000d;&#x000a;Response:
Not available&#x000d;&#x000a;Cab Id:
0&#x000d;&#x000a;&#x000d;&#x000a;Problem
signature:&#x000d;&#x000a;P1: x64&#x000d;&#x000a;P2:
PCI\VEN_8086&DEV_150E&SUBSYS_1780103C&REV_01&#x000d;&
#x000a;P3: {4d36e972-e325-11ce-bfcl-
08002be10318}&#x000d;&#x000a;P4:
0000001F&#x000d;&#x000a;P5:
elr62x64.sys&#x000d;&#x000a;P6:
11.4.16.0&#x000d;&#x000a;P7: 04-30-
2010&#x000d;&#x000a;P8: &#x000d;&#x000a;P9:
&#x000d;&#x000a;P10:
&#x000d;&#x000a;&#x000d;&#x000a;Attached
files:&#x000d;&#x000a;C:\Users\Administrator\AppData\
Local\Temp\DMIE11B.tmp.log.xml&#x000d;&#x000a;C:\Wind
ows\inf\oem37.inf&#x000d;&#x000a;&#x000d;&#x000a;Thes
e files may be available
here:&#x000d;&#x000a;C:\Users\Administrator\AppData\L
ocal\Microsoft\Windows\WER\ReportQueue\NonCritical_x6
4_557010blal14327adf0d12c5da144bc4104f8227_cab_1245e12
&#x000d;&#x000a;&#x000d;&#x000a;Analysis symbol:
&#x000d;&#x000a;Rechecking for solution:
0&#x000d;&#x000a;Report Id: 759af805-a716-11df-8ba1-
f4ce46a511b8&#x000d;&#x000a;Report Status: 4
8/13/2010 8:03 PM Windows Error Reporting
Fault bucket , type 0&#x000d;&#x000a;Event
Name: PnPDriverNotFound&#x000d;&#x000a;Response: Not
available&#x000d;&#x000a;Cab Id:
0&#x000d;&#x000a;&#x000d;&#x000a;Problem
signature:&#x000d;&#x000a;P1: x64&#x000d;&#x000a;P2:
PCI\VEN_8086&DEV_150E&SUBSYS_1780103C&REV_01&#x000d;&
#x000a;P3: &#x000d;&#x000a;P4: &#x000d;&#x000a;P5:
&#x000d;&#x000a;P6: &#x000d;&#x000a;P7:
&#x000d;&#x000a;P8: &#x000d;&#x000a;P9:
&#x000d;&#x000a;P10:
&#x000d;&#x000a;&#x000d;&#x000a;Attached
files:&#x000d;&#x000a;&#x000d;&#x000a;These files may
be available
here:&#x000d;&#x000a;C:\ProgramData\Microsoft\Windows
\WER\ReportQueue\NonCritical_x64_5b3612e98f75371f331b
6f720a81656c716c8e_0f35d374&#x000d;&#x000a;&#x000d;&#
x000a;Analysis symbol: &#x000d;&#x000a;Rechecking for
solution: 0&#x000d;&#x000a;Report Id: d7412d8b-a715-
11df-8ba1-0026551b8eb&#x000d;&#x000a;Report Status:
4
8/13/2010 8:02 PM Windows Error Reporting
Fault bucket , type 0&#x000d;&#x000a;Event
Name: PnPDriverNotFound&#x000d;&#x000a;Response: Not
available&#x000d;&#x000a;Cab Id:
0&#x000d;&#x000a;&#x000d;&#x000a;Problem

```

signature:
P1: x64
P2: PCI\VEN_8086&DEV_150E&SUBSYS_1780103C&REV_01
P3: 
P4: 
P5: 
P6: 
P7: 
P8: 
P9: 
P10:


Attached files:

These files may be available
here:
C:\ProgramData\Microsoft\Windows\WER\ReportQueue\NonCritical_x64_5b3612e98f75371f331b6f720a81656c716c8e_058d55dc

Analysis symbol: 
Rechecking for solution: 0
Report Id: c4199ad6-a715-11df-8ba1-0026551b8eb8
Report Status: 4
8/13/2010 8:02 PM Windows Error Reporting
Fault bucket , type 0
Event Name: PnPDriverNotFound
Response: Not available
Cab Id: 0

Problem signature:
P1: x64
P2: PCI\VEN_8086&DEV_150E&SUBSYS_1780103C&REV_01
P3: 
P4: 
P5: 
P6: 
P7: 
P8: 
P9: 
P10:


Attached files:

These files may be available
here:
C:\ProgramData\Microsoft\Windows\WER\ReportQueue\NonCritical_x64_5b3612e98f75371f331b6f720a81656c716c8e_0d14d7e7

Analysis symbol: 
Rechecking for solution: 0
Report Id: b0e15e80-a715-11df-8ba1-0026551b8eb8
Report Status: 4
8/13/2010 8:01 PM Windows Error Reporting
Fault bucket , type 0
Event Name: PnPDriverNotFound
Response: Not available
Cab Id: 0

Problem signature:
P1: x64
P2: PCI\VEN_8086&DEV_150E&SUBSYS_1780103C&REV_01
P3: 
P4: 
P5: 
P6: 
P7: 
P8: 
P9: 
P10:


Attached files:

These files may be available
here:
C:\ProgramData\Microsoft\Windows\WER\ReportQueue\NonCritical_x64_5b3612e98f75371f331b6f720a81656c716c8e_cab_0db45c23

Analysis symbol: 
Rechecking for solution: 0
Report Id: 9d410f3-a715-11df-8ba1-0026551b8eb8
Report Status: 4
8/13/2010 8:01 PM Windows Error Reporting
Fault bucket , type 0
Event Name: PnPDriverInstallError
Response: Not available
Cab Id:

0

Problem signature:
P1: x64
P2: 000005B4
P3: disk.inf
P4: 152e65409fca83e7ce6508541bdfd8039a483f81
P5: disk_install
P6: 
P7: 
P8: 
P9: 
P10: 
Attached files:

These files may be available
here:
C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportQueue\NonCritical_x64_dfb934f1ee7c48b62f5ec24abf9236b7a72e08e_10979e32

Analysis symbol: 
Rechecking for solution: 0
Report Id: 5e69d222-a715-11df-8ba1-0026551b8eb8
Report Status: 6
8/12/2010 10:37 PM Windows Error Reporting
Fault bucket , type 0
Event Name: BlueScreen
Response: Not available
Cab Id: 0

Problem signature:
P1: 
P2: 
P3: 
P4: 
P5: 
P6: 
P7: 
P8: 
P9: 
P10: 
Attached files:
C:\Windows\Minidump\081210-826196-01.dmp
C:\Users\Administrator\AppData\Local\Temp\WER-833326-0_sysdata.xml

These files may be available
here:
C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportArchive\Kernel_0_0_cab_04b5a6c9

Analysis symbol: 
Rechecking for solution: 0
Report Id: 081210-826196-01
Report Status: 2
8/11/2010 3:13 PM Windows Error Reporting
Fault bucket , type 0
Event Name: AppHangBl
Response: Not available
Cab Id: 0

Problem signature:
P1: explorer.exe
P2: 6.1.7600.16385
P3: 4a5bc9bb
P4: 91f6
P5: 16897
P6: 
P7: 
P8: 
P9: 
P10: 
Attached files:

These files may be available
here:
C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportArchive\AppHang_explorer.exe_20b326f6445c5d6fce63e07ae9f6290c0ae17_0e8441b1

Analysis symbol: 
Rechecking for solution: 0
Report Id: 0437de70-a55b-11df-bc69-0018fe2e2246
Report Status: 2

8/10/2010 7:50 PM Windows Error Reporting
Fault bucket , type 0
Event Name: PnPDriverNotFound
Response: Not available
Cab Id: 0

Problem signature:
P1: x64
P2: PCI\VEN_103C&DEV_3306&SUBSYS_3309103C&REV_04
P3: 
P4: 
P5: 
P6: 
P7: 
P8: 
P9: 
P10:


Attached files:

These files may be available
here:
C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportQueue\NonCritical_x64_489f5b92c7689fed4eb9eb63f32fade4a97676_0c66143b

Analysis symbol: 
Rechecking for solution: 0
Report Id: 861ae99f-a4b8-11df-b2cb-0018fe2e2246
Report Status: 4
8/4/2010 10:01 PM Windows Error Reporting
Fault bucket , type 0
Event Name: AppHangBl
Response: Not available
Cab Id: 0

Problem signature:
P1: mmc.exe
P2: 6.1.7600.16385
P3: 4a5bc808
P4: 5ea8
P5: 16384
P6: 
P7: 
P8: 
P9: 
P10: 

Attached files:

These files may be available
here:
C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportArchive\AppHang_mmc.exe_a6434dde6ac79f5ce80a2c522d3ecd236fdddf3_0c4c9498

Analysis symbol: 
Rechecking for solution: 0
Report Id: dc2576b2-a013-11df-8c21-0018fe2e2246
Report Status: 0
8/2/2010 6:29 PM Windows Error Reporting
Fault bucket , type 0
Event Name: AppHangBl
Response: Not available
Cab Id: 0

Problem signature:
P1: mmc.exe
P2: 6.1.7600.16385
P3: 4a5bc808
P4: 5ea8
P5: 16384
P6: 
P7: 
P8: 
P9: 
P10: 

Attached files:

These files may be available
here:
C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportArchive\AppHang_mmc.exe_a6434dde6ac79f5ce80a2c522d3ecd236fdddf3_0e2854d5

Analysis symbol: 
Rechecking for solution:

0
Report Id: ecccd353-9e63-11df-a849-0018fe2e2246
Report Status: 0
8/2/2010 6:23 PM Windows Error Reporting
Fault bucket, type 0
Event Name: AppHangBl
Response: Not available
Cab Id: 0

Problem signature:
P1: mmc.exe
P2: 6.1.7600.16385
P3: 4a5bc808
P4: 5ea8
P5: 2
P6: 
P7: 
P8: 
P9: 
P10: 

Attached files:

These files may be available
here:
C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportArchive\AppHang_mmc.exe_79faf2563fcf1a7d02e4a358c1c4147b5ca34ec_0cf61611

Analysis symbol:

Rechecking for solution: 0
Report Id: f8c1f04b-9e62-11df-a849-0018fe2e2246
Report Status: 0
8/2/2010 6:14 PM Windows Error Reporting
Fault bucket, type 0
Event Name: AppHangBl
Response: Not available
Cab Id: 0

Problem signature:
P1: mmc.exe
P2: 6.1.7600.16385
P3: 4a5bc808
P4: 5ea8
P5: 2
P6: 
P7: 
P8: 
P9: 
P10: 

Attached files:

These files may be available
here:
C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportArchive\AppHang_mmc.exe_79faf2563fcf1a7d02e4a358c1c4147b5ca34ec_0425dbdf

Analysis symbol:

Rechecking for solution: 0
Report Id: b6d8e5d2-9e61-11df-a849-0018fe2e2246
Report Status: 0
8/2/2010 3:06 PM Windows Error Reporting
Fault bucket, type 0
Event Name: BlueScreen
Response: Not available
Cab Id: 0

Problem signature:
P1: 
P2: 
P3: 
P4: 
P5: 
P6: 
P7: 
P8: 
P9: 
P10: 

Attached files:

These files may be available
here:
C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportArchive\Local\Temp\WER-859503-0.sysdata.xml

These files may be available

here:
C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportArchive\Kernel_0_0_cab_048768c0

Analysis symbol:

Rechecking for solution: 0
Report Id: 080210-852327-01
Report Status: 2
7/31/2010 12:06 PM Windows Error Reporting
Fault bucket, type 0
Event Name: BlueScreen
Response: Not available
Cab Id: 0

Problem signature:
P1: 
P2: 
P3: 
P4: 
P5: 
P6: 
P7: 
P8: 
P9: 
P10: 

Attached files:
C:\Windows\Minidump\073010-855135-01.dmp
C:\Users\Administrator\AppData\Local\Temp\WER-862498-0.sysdata.xml

These files may be available
here:
C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportArchive\Kernel_0_0_cab_098104c9

Analysis symbol:

Rechecking for solution: 0
Report Id: 073010-855135-01
Report Status: 2
7/28/2010 4:18 PM Windows Error Reporting
Fault bucket, type 0
Event Name: APPCRASH
Response: Not available
Cab Id: 0

Problem signature:
P1: SQLCMD.EXE
P2: 2005.90.4035.0
P3: 492b15af
P4: kernel32.dll
P5: 6.1.7600.16385
P6: 4a5bdfdf
P7: c0000005
P8: 00000000000224a
P9: 
P10: 

Attached files:

These files may be available
here:
C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportArchive\SQLCMD.EXE_9d43fceb162f1e6385f0f9e167c82126df1d8e_09bd8b47

Analysis symbol:

Rechecking for solution: 0
Report Id: cf5fc950-9a63-11df-82fd-0018fe2e2246
Report Status: 0
7/28/2010 4:17 PM Windows Error Reporting
Fault bucket, type 0
Event Name: AppHangTransient
Response: Not available
Cab Id: 0

Problem signature:
P1: wordpad.exe
P2: 6.1.7600.16385
P3: 4a5b2ca2
P4:

unknown
P5: unknown
P6: unknown
P7: unknown
P8: 
P9: 
P10: 

Attached files:

These files may be available
here:


Analysis symbol:

Rechecking for solution: 0
Report Id: 93cdbcf5-9a63-11df-82fd-0018fe2e2246
Report Status: 1
7/27/2010 9:33 PM Windows Error Reporting
Fault bucket, type 0
Event Name: AppHangBl
Response: Not available
Cab Id: 0

Problem signature:
P1: PROFILER90.EXE
P2: 2005.90.4035.0
P3: 492b1677
P4: 13f2
P5: 256
P6: 
P7: 
P8: 
P9: 
P10: 

Attached files:

These files may be available
here:
C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportArchive\AppHang_PROFILER90.EXE_e6ac35ba4aa08879ad3af4406ce73962c213c73_155ad25f

Analysis symbol:

Rechecking for solution: 0
Report Id: 883a020e-99c6-11df-82fd-0018fe2e2246
Report Status: 0
7/23/2010 3:17 PM Windows Error Reporting
Fault bucket, type 0
Event Name: AppHangBl
Response: Not available
Cab Id: 0

Problem signature:
P1: mmc.exe
P2: 6.1.7600.16385
P3: 4a5bc808
P4: 5ea8
P5: 16384
P6: 
P7: 
P8: 
P9: 
P10: 

Attached files:

These files may be available
here:
C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportArchive\AppHang_mmc.exe_a6434d6eac79f5ce80a2c522d3ecd236fddff3_0e8c6cb

Analysis symbol:

Rechecking for solution: 0
Report Id: 61688af4-966d-11df-80ca-0018fe2e2246
Report Status: 0
7/20/2010 8:55 PM Windows Error Reporting
Fault bucket, type 0
Event Name: PnPDeviceProblemCode
Response: Not available
Cab Id: 0

Problem signature:
P1: x64
P2: USB\UNKNOWN
P3: {36fc9e60-c465-11cf-8056-444553540000}
P4:

000002B
P5:
unknown
P6: unknown
P7:
unknown
P8: 
P9:

P10:


Attached
files:

These files may
be available
here:
C:\ProgramData\Microsoft\Windows
\WER\ReportQueue\NonCritical_x64_8dd2a6bea57836935d86
a299b4735d5c6f632592_1b246d6e


Analysis symbol: 
Rechecking
for solution: 0
Report Id: 18396058-
9441-11df-89cd-0018fe2e2246
Report
Status: 4
7/14/2010 4:40 PM Windows Error Reporting
Fault bucket , type 0
Event
Name: AppHangProcBl
Response: Not
available
Cab Id:
0

Problem
signature:
P1:
iexplore.exe
P2:
8.0.7600.16385
P3:
4a5bc69e
P4: d4e4
P5:
32
P6: iexplore.exe
P7:
8.0.7600.16385
P8: 
P9:

P10:


Attached
files:

These files may
be available
here:
C:\Users\Administrator\AppData\L
ocal\Microsoft\Windows\WER\ReportArchive\AppHang_iexp
lore.exe_7587965eaa78b9c66e1587d39c7454fd928ff_Occl1d
078

Analysis symbol:

Rechecking for solution:
0
Report Id: 7a7aaef1-8f66-11df-bb1b-
002651bee8
Report Status: 0
7/13/2010 1:47 PM Windows Error Reporting
Fault bucket , type 0
Event
Name: APPCRASH
Response: Not
available
Cab Id:
0

Problem
signature:
P1:
sleep.exe
P2:
0.0.0.0
P3:
2fb0ba06
P4:
sleep.exe
P5:
0.0.0.0
P6:
2fb0ba06
P7:
c0000005
P8:
0000566f
P9: 
P10:


Attached
files:

These files may
be available
here:
C:\Users\Administrator\AppData\L
ocal\Microsoft\Windows\WER\ReportArchive\AppCrash_sle
ep.exe_e4d6edaec3483adca39abc17680c4ff8aae021_lad7f7
7

Analysis symbol:

Rechecking for solution:
0
Report Id: 2376af3c-8e85-11df-abb9-
002651bee8
Report Status: 0
7/13/2010 1:44 PM Windows Error Reporting
Fault bucket , type 0
Event
Name: APPCRASH
Response: Not

available
Cab Id:
0

Problem
signature:
P1:
sleep.exe
P2:
0.0.0.0
P3:
2fb0ba06
P4:
sleep.exe
P5:
0.0.0.0
P6:
2fb0ba06
P7:
c0000005
P8:
0000566f
P9: 
P10:


Attached
files:


These files may
be available
here:
C:\Users\Administrator\AppData\L
ocal\Microsoft\Windows\WER\ReportArchive\AppCrash_sle
ep.exe_e4d6edaec3483adca39abc17680c4ff8aae021_lc98669
a

Analysis symbol:

Rechecking for solution:
0
Report Id: b17fe3bc-8e84-11df-abb9-
002651bee8
Report Status: 0
7/13/2010 1:42 PM Windows Error Reporting
Fault bucket , type 0
Event
Name: APPCRASH
Response: Not
available
Cab Id:
0

Problem
signature:
P1:
sleep.exe
P2:
0.0.0.0
P3:
2fb0ba06
P4:
sleep.exe
P5:
0.0.0.0
P6:
2fb0ba06
P7:
c0000005
P8:
0000566f
P9: 
P10:


Attached
files:

These files may
be available
here:
C:\Users\Administrator\AppData\L
ocal\Microsoft\Windows\WER\ReportArchive\AppCrash_sle
ep.exe_e4d6edaec3483adca39abc17680c4ff8aae021_l1e1632
9

Analysis symbol:

Rechecking for solution:
0
Report Id: 756a9bb4-8e84-11df-abb9-
002651bee8
Report Status: 0
7/10/2010 1:19 PM Windows Error Reporting
Fault bucket , type 0
Event
Name: APPCRASH
Response: Not
available
Cab Id:
0

Problem
signature:
P1:
sleep.exe
P2:
0.0.0.0
P3:
0.0.0.0
P4:
sleep.exe
P5:
0.0.0.0
P6:
2fb0ba06
P7:
c0000005
P8:
0000566f
P9: 
P10:


Attached
files:

These files may
be available
here:
C:\Users\Administrator\AppData\L

ocal\Microsoft\Windows\WER\ReportArchive\AppCrash_sle
ep.exe_e4d6edaec3483adca39abc17680c4ff8aae021_of76ece
7

Analysis symbol:

Rechecking for solution:
0
Report Id: c62dfd0c-8c25-11df-abb9-
002651bee8
Report Status: 0
7/10/2010 6:39 AM Windows Error Reporting
Fault bucket , type 0
Event
Name: APPCRASH
Response: Not
available
Cab Id:
0

Problem
signature:
P1:
sleep.exe
P2:
0.0.0.0
P3:
2fb0ba06
P4:
sleep.exe
P5:
0.0.0.0
P6:
2fb0ba06
P7:
c0000005
P8:
0000566f
P9: 
P10:


Attached
files:

These files may
be available
here:
C:\Users\Administrator\AppData\L
ocal\Microsoft\Windows\WER\ReportArchive\AppCrash_sle
ep.exe_e4d6edaec3483adca39abc17680c4ff8aae021_1350fb9
0

Analysis symbol:

Rechecking for solution:
0
Report Id: eeb424ae-8bed-11df-abb9-
002651bee8
Report Status: 0
7/10/2010 4:21 AM Windows Error Reporting
Fault bucket , type 0
Event
Name: PnPDeviceProblemCode
Response:
Not available
Cab Id:
0

Problem
signature:
P1: x64
P2:
USB\UNKNOWN
P3: {36fc9e60-c465-11cf-
8056-444553540000}
P4:
000002B
P5:
unknown
P6: unknown
P7:
unknown
P8: 
P9:

P10:


Attached
files:
C:\Users\Administrator\AppData\
Local\Temp\DMI3C83.tmp.log.xml
C:\Wind
ows\inf\usb.inf

These
files may be available
here:
C:\Users\Administrator\AppData\L
ocal\Microsoft\Windows\WER\ReportQueue\NonCritical_x6
4_8dd2a6bea57836935d86a299b4735d5c6f632592_cab_0e9a3d
2e

Analysis symbol:

Rechecking for solution:
0
Report Id: 9b5c68bd-8bda-11df-abb9-
002651bee8
Report Status: 6
7/9/2010 1:33 PM Windows Error Reporting
Fault bucket , type 0
Event
Name: ShellBrowserCancel
Response: Not
available
Cab Id:
0

Problem
signature:
P1: {54a754c0-4BF0-11D1-
83EE-00A0C90DC849}
P2:
Network
P3: 
P4:

P5: 
P6:


P7: 
P8:

P9: 
P10:


Attached
files:

These files may
be available
here:



Analysis symbol: 
Rechecking for
solution: 0
Report Id: a0ecfaa8-8b5e-
11df-892a-0026551bee88
Report Status:
0
7/9/2010 1:33 PM Windows Error Reporting
Fault bucket, type 0
Event
Name: ShellBrowserCancel
Response: Not
available
Cab Id:
0

Problem
signature:
P1: {54A754C0-4BF0-11D1-
83EE-00A0C9D0C849}
P2:
Network
P3: 
P4:

P5: 
P6:

P7: 
P8:

P9: 
P10:


Attached
files:
C:\Users\Administrator\AppData\
Local\Temp\WER33FC.tmp.WERInternalMetadata.xml


These files may be available
here:
C:\Users\Administrator\AppData\L
ocal\Microsoft\Windows\WER\ReportQueue\AppHang_{54A75
4C0-4BF0-
1_6b8922906fc1eabee75f86e17d5a3f434a2_cab_0965340b&


Analysis symbol:

Rechecking for solution:
0
Report Id: a0ecfaa8-8b5e-11df-892a-
0026551bee88
Report Status: 4
7/9/2010 12:09 AM Windows Error Reporting
Fault bucket, type 0
Event
Name: APPCRASH
Response: Not
available
Cab Id:
0

Problem
signature:
P1:
LSIUtl_amd64.exe
P2:
0.0.0.0
P3:
4b7adee6
P4:
ntdll.dll
P5:
6.1.7600.16385
P6:
4a5be02b
P7:
c0000005
P8:
000000000054f2d
P9:

P10:


Attached
files:

These files may
be available
here:
C:\Users\Administrator\AppData\L
ocal\Microsoft\Windows\WER\ReportArchive\AppCrash_LSI
Utl_amd64.exe_9198b27aacca39885543c112de48e021fb33_0
b2c5e18

Analysis
symbol: 
Rechecking for solution:
0
Report Id: 2eda2c47-8aee-11df-892a-
0026551bee88
Report Status: 0
7/8/2010 11:54 PM Windows Error Reporting
Fault bucket, type 0
Event
Name: APPCRASH
Response: Not
available
Cab Id:
0

Problem

signature:
P1:
LSIUtl_amd64.exe
P2:
0.0.0.0
P3:
4b7adee6
P4:
ntdll.dll
P5:
6.1.7600.16385
P6:
4a5be02b
P7:
c0000005
P8:
000000000054f2d
P9:

P10:


Attached
files:

These files may
be available
here:
C:\Users\Administrator\AppData\L
ocal\Microsoft\Windows\WER\ReportArchive\AppCrash_LSI
Utl_amd64.exe_9198b27aacca39885543c112de48e021fb33_0
32eefcc

Analysis
symbol: 
Rechecking for solution:
0
Report Id: 0496621a-8aec-11df-892a-
0026551bee88
Report Status: 0
7/8/2010 11:21 PM Windows Error Reporting
Fault bucket, type 0
Event
Name: PnDriverNotFound
Response: Not
available
Cab Id:
0

Problem
signature:
P1: x64
P2:
PCI\VEN_103C&DEV_3306&SUBSYS_3309103C&REV_04&

P3: 
P4: 
P5:

P6: 
P7:

P8: 
P9:

P10:


Attached
files:

These files may
be available
here:
C:\Users\Administrator\AppData\L
ocal\Microsoft\Windows\WER\ReportQueue\NonCritical_x6
4_489f5b92c7689fed4eb9eb63f32fade4a97676_0d691287�
00d;

Analysis symbol:

Rechecking for solution:
0
Report Id: 9706d560-8ae7-11df-892a-
0026551bee88
Report Status: 4
7/8/2010 11:21 PM Windows Error Reporting
Fault bucket, type 0
Event
Name: PnDriverNotFound
Response: Not
available
Cab Id:
0

Problem
signature:
P1: x64
P2:
PCI\VEN_103C&DEV_3307&SUBSYS_3309103C&REV_04&

P3: 
P4: 
P5:

P6: 
P7:

P8: 
P9:

P10:


Attached
files:

These files may
be available
here:
C:\Users\Administrator\AppData\L
ocal\Microsoft\Windows\WER\ReportQueue\NonCritical_x6
4_87486cf7b1074d7ca6414194e5447eda145380_0d691249�
00d;

Analysis symbol:

Rechecking for solution:
0
Report Id: 9706d55f-8ae7-11df-892a-
0026551bee88
Report Status: 4

7/8/2010 8:26 PM Windows Error Reporting
Fault bucket, type 0
Event
Name: PnDriverNotFound
Response: Not
available
Cab Id:
0

Problem
signature:
P1: x64
P2:
PCI\VEN_103C&DEV_3306&SUBSYS_3309103C&REV_04&

P3: 
P4: 
P5:

P6: 
P7:

P8: 
P9:

P10:


Attached
files:

These files may
be available
here:
C:\Users\Administrator\AppData\L
ocal\Microsoft\Windows\WER\ReportQueue\NonCritical_x6
4_489f5b92c7689fed4eb9eb63f32fade4a97676_08a76cf5�
00d;

Analysis symbol:

Rechecking for solution:
0
Report Id: 1942dd52-8acf-11df-8ff0-
0026551bee88
Report Status: 6
7/8/2010 8:26 PM Windows Error Reporting
Fault bucket, type 0
Event
Name: PnDriverNotFound
Response: Not
available
Cab Id:
0

Problem
signature:
P1: x64
P2:
PCI\VEN_103C&DEV_3307&SUBSYS_3309103C&REV_04&

P3: 
P4: 
P5:

P6: 
P7:

P8: 
P9:

P10:


Attached
files:

These files may
be available
here:
C:\Users\Administrator\AppData\L
ocal\Microsoft\Windows\WER\ReportQueue\NonCritical_x6
4_87486cf7b1074d7ca6414194e5447eda145380_08a76cb7�
00d;

Analysis symbol:

Rechecking for solution:
0
Report Id: 1942d51-8acf-11df-8ff0-
0026551bee88
Report Status: 6
7/8/2010 4:25 PM Windows Error Reporting
Fault bucket, type 0
Event
Name: APPCRASH
Response: Not
available
Cab Id:
0

Problem
signature:
P1:
mmc.exe
P2:
6.1.7600.16385
P3:
4a5bc808
P4:
dmdskmgr.dll
P5:
6.1.7600.16385
P6:
4a5bdee0
P7:
c0000005
P8:
000000000006e66
P9:

P10:


Attached
files:

These files may
be available
here:
C:\Users\Administrator\AppData\L
ocal\Microsoft\Windows\WER\ReportArchive\AppCrash_mmc
.exe_dab2a494edcde77539b2374f18f6fe69f62f2b67_079370a

c#\x000d;\x000a;\x000d;\x000a;Analysis symbol:
&\x000d;\x000a;Rechecking for solution:
0&\x000d;\x000a;Report Id: 6def47b5-8aad-11df-a4c8-
0026551bee88&\x000d;\x000a;Report Status: 0
7/8/2010 4:22 PM Windows Error Reporting
Fault bucket , type 0&\x000d;\x000a;Event
Name: APPCRASH&\x000d;\x000a;Response: Not
available&\x000d;\x000a;Cab Id:
0&\x000d;\x000a;\x000d;\x000a;Problem
signature:&\x000d;\x000a;P1:
mmc.exe&\x000d;\x000a;P2:
6.1.7600.16385&\x000d;\x000a;P3:
4a5bc808&\x000d;\x000a;P4:
dmdskmgr.dll&\x000d;\x000a;P5:
6.1.7600.16385&\x000d;\x000a;P6:
4a5bdee0&\x000d;\x000a;P7:
c0000005&\x000d;\x000a;P8:
00000000000062f2&\x000d;\x000a;P9:
&\x000d;\x000a;P10:
&\x000d;\x000a;\x000d;\x000a;Attached
files:&\x000d;\x000a;\x000d;\x000a;These files may
be available
here:&\x000d;\x000a;C:\Users\Administrator\AppData\L
ocal\Microsoft\Windows\WER\ReportArchive\AppCrash_mmc
.exe_14a62bde8af5345elf7f5a794c61ac64aa08ba5_0a38d374
&\x000d;\x000a;\x000d;\x000a;Analysis symbol:
&\x000d;\x000a;Rechecking for solution:
0&\x000d;\x000a;Report Id: 06dcf908-8aad-11df-a4c8-
0026551bee88&\x000d;\x000a;Report Status: 0
7/8/2010 4:22 PM Windows Error Reporting
Fault bucket , type 0&\x000d;\x000a;Event
Name: APPCRASH&\x000d;\x000a;Response: Not
available&\x000d;\x000a;Cab Id:
0&\x000d;\x000a;\x000d;\x000a;Problem
signature:&\x000d;\x000a;P1:
mmc.exe&\x000d;\x000a;P2:
6.1.7600.16385&\x000d;\x000a;P3:
4a5bc808&\x000d;\x000a;P4:
dmdskmgr.dll&\x000d;\x000a;P5:
6.1.7600.16385&\x000d;\x000a;P6:
4a5bdee0&\x000d;\x000a;P7:
c0000005&\x000d;\x000a;P8:
00000000000062f2&\x000d;\x000a;P9:
&\x000d;\x000a;P10:
&\x000d;\x000a;\x000d;\x000a;Attached
files:&\x000d;\x000a;\x000d;\x000a;These files may
be available
here:&\x000d;\x000a;C:\Users\Administrator\AppData\L
ocal\Microsoft\Windows\WER\ReportArchive\AppCrash_mmc
.exe_14a62bde8af5345elf7f5a794c61ac64aa08ba5_0bfcc36
&\x000d;\x000a;\x000d;\x000a;Analysis symbol:
&\x000d;\x000a;Rechecking for solution:
0&\x000d;\x000a;Report Id: 06dcd1f8-8aad-11df-a4c8-
0026551bee88&\x000d;\x000a;Report Status: 0
7/8/2010 3:41 PM Windows Error Reporting
Fault bucket , type 0&\x000d;\x000a;Event
Name: PnPDriverInstallError&\x000d;\x000a;Response:
Not available&\x000d;\x000a;Cab Id:
0&\x000d;\x000a;\x000d;\x000a;Problem
signature:&\x000d;\x000a;P1: x64&\x000d;\x000a;P2:
000005B4&\x000d;\x000a;P3:
disk.inf&\x000d;\x000a;P4:
152e65409fca83e7ce6508541bdfd8039a483f81&\x000d;\x00

0a;P5: disk_install&\x000d;\x000a;P6:
&\x000d;\x000a;P7: &\x000d;\x000a;P8:
&\x000d;\x000a;P9: &\x000d;\x000a;P10:
&\x000d;\x000a;\x000d;\x000a;Attached
files:&\x000d;\x000a;\x000d;\x000a;These files may
be available
here:&\x000d;\x000a;C:\Users\Administrator\AppData\L
ocal\Microsoft\Windows\WER\ReportQueue\NonCritical_x6
4_dfb934flee7c48b62f5ec24abf9236b7a72e08e_0ed9d1ef&\x
000d;\x000a;\x000d;\x000a;Analysis symbol:
&\x000d;\x000a;Rechecking for solution:
0&\x000d;\x000a;Report Id: 43efd1ca-8aa7-11df-a192-
0026551bee88&\x000d;\x000a;Report Status: 4
7/8/2010 3:36 PM Windows Error Reporting
Fault bucket , type 0&\x000d;\x000a;Event
Name: PnPDriverInstallError&\x000d;\x000a;Response:
Not available&\x000d;\x000a;Cab Id:
0&\x000d;\x000a;\x000d;\x000a;Problem
signature:&\x000d;\x000a;P1: x64&\x000d;\x000a;P2:
000005B4&\x000d;\x000a;P3:
disk.inf&\x000d;\x000a;P4:
152e65409fca83e7ce6508541bdfd8039a483f81&\x000d;\x00
0a;P5: disk_install&\x000d;\x000a;P6:
&\x000d;\x000a;P7: &\x000d;\x000a;P8:
&\x000d;\x000a;P9: &\x000d;\x000a;P10:
&\x000d;\x000a;\x000d;\x000a;Attached
files:&\x000d;\x000a;\x000d;\x000a;These files may
be available
here:&\x000d;\x000a;C:\Users\Administrator\AppData\L
ocal\Microsoft\Windows\WER\ReportQueue\NonCritical_x6
4_dfb934flee7c48b62f5ec24abf9236b7a72e08e_0ec53dbc&\x
000d;\x000a;\x000d;\x000a;Analysis symbol:
&\x000d;\x000a;Rechecking for solution:
0&\x000d;\x000a;Report Id: 91108a53-8aa6-11df-a192-
0026551bee88&\x000d;\x000a;Report Status: 4
7/8/2010 3:31 PM Windows Error Reporting
Fault bucket , type 0&\x000d;\x000a;Event
Name: PnPDriverInstallError&\x000d;\x000a;Response:
Not available&\x000d;\x000a;Cab Id:
0&\x000d;\x000a;\x000d;\x000a;Problem
signature:&\x000d;\x000a;P1: x64&\x000d;\x000a;P2:
000005B4&\x000d;\x000a;P3:
disk.inf&\x000d;\x000a;P4:
152e65409fca83e7ce6508541bdfd8039a483f81&\x000d;\x00
0a;P5: disk_install&\x000d;\x000a;P6:
&\x000d;\x000a;P7: &\x000d;\x000a;P8:
&\x000d;\x000a;P9: &\x000d;\x000a;P10:
&\x000d;\x000a;\x000d;\x000a;Attached
files:&\x000d;\x000a;\x000d;\x000a;These files may
be available
here:&\x000d;\x000a;C:\Users\Administrator\AppData\L
ocal\Microsoft\Windows\WER\ReportQueue\NonCritical_x6
4_dfb934flee7c48b62f5ec24abf9236b7a72e08e_0ec095a&\x
000d;\x000a;\x000d;\x000a;Analysis symbol:
&\x000d;\x000a;Rechecking for solution:
0&\x000d;\x000a;Report Id: de2ee17c-8aa5-11df-a192-
0026551bee88&\x000d;\x000a;Report Status: 4
7/8/2010 3:26 PM Windows Error Reporting
Fault bucket , type 0&\x000d;\x000a;Event
Name: PnPDriverInstallError&\x000d;\x000a;Response:
Not available&\x000d;\x000a;Cab Id:
0&\x000d;\x000a;\x000d;\x000a;Problem
signature:&\x000d;\x000a;P1: x64&\x000d;\x000a;P2:

000005B4&\x000d;\x000a;P3:
scsidev.inf&\x000d;\x000a;P4:
b048cbb943a60f43985276b30a65bc854a8b0626&\x000d;\x00
0a;P5: NODRV&\x000d;\x000a;P6: &\x000d;\x000a;P7:
&\x000d;\x000a;P8: &\x000d;\x000a;P9:
&\x000d;\x000a;P10:
&\x000d;\x000a;\x000d;\x000a;Attached
files:&\x000d;\x000a;\x000d;\x000a;These files may
be available
here:&\x000d;\x000a;C:\Users\Administrator\AppData\L
ocal\Microsoft\Windows\WER\ReportQueue\NonCritical_x6
4_87f91516990e06ed4f05e043746fb555541742_0ecc1507&\x0
0d;\x000a;\x000d;\x000a;Analysis symbol:
&\x000d;\x000a;Rechecking for solution:
0&\x000d;\x000a;Report Id: 2b4d38a5-8aa5-11df-a192-
0026551bee88&\x000d;\x000a;Report Status: 4
7/8/2010 3:21 PM Windows Error Reporting
Fault bucket , type 0&\x000d;\x000a;Event
Name: PnPDriverInstallError&\x000d;\x000a;Response:
Not available&\x000d;\x000a;Cab Id:
0&\x000d;\x000a;\x000d;\x000a;Problem
signature:&\x000d;\x000a;P1: x64&\x000d;\x000a;P2:
000005B4&\x000d;\x000a;P3:
disk.inf&\x000d;\x000a;P4:
152e65409fca83e7ce6508541bdfd8039a483f81&\x000d;\x00
0a;P5: disk_install&\x000d;\x000a;P6:
&\x000d;\x000a;P7: &\x000d;\x000a;P8:
&\x000d;\x000a;P9: &\x000d;\x000a;P10:
&\x000d;\x000a;\x000d;\x000a;Attached
files:&\x000d;\x000a;\x000d;\x000a;These files may
be available
here:&\x000d;\x000a;C:\Users\Administrator\AppData\L
ocal\Microsoft\Windows\WER\ReportQueue\NonCritical_x6
4_dfb934flee7c48b62f5ec24abf9236b7a72e08e_0eb780a5&\x
000d;\x000a;\x000d;\x000a;Analysis symbol:
&\x000d;\x000a;Rechecking for solution:
0&\x000d;\x000a;Report Id: 78692e6d-8aa4-11df-a192-
0026551bee88&\x000d;\x000a;Report Status: 4
7/8/2010 3:16 PM Windows Error Reporting
Fault bucket , type 0&\x000d;\x000a;Event
Name: PnPDriverInstallError&\x000d;\x000a;Response:
Not available&\x000d;\x000a;Cab Id:
0&\x000d;\x000a;\x000d;\x000a;Problem
signature:&\x000d;\x000a;P1: x64&\x000d;\x000a;P2:
000005B4&\x000d;\x000a;P3:
disk.inf&\x000d;\x000a;P4:
152e65409fca83e7ce6508541bdfd8039a483f81&\x000d;\x00
0a;P5: disk_install&\x000d;\x000a;P6:
&\x000d;\x000a;P7: &\x000d;\x000a;P8:
&\x000d;\x000a;P9: &\x000d;\x000a;P10:
&\x000d;\x000a;\x000d;\x000a;Attached
files:&\x000d;\x000a;\x000d;\x000a;These files may
be available
here:&\x000d;\x000a;C:\Users\Administrator\AppData\L
ocal\Microsoft\Windows\WER\ReportQueue\NonCritical_x6
4_dfb934flee7c48b62f5ec24abf9236b7a72e08e_0eb2ec04&\x
000d;\x000a;\x000d;\x000a;Analysis symbol:
&\x000d;\x000a;Rechecking for solution:
0&\x000d;\x000a;Report Id: c57b9eb5-8aa3-11df-a192-
0026551bee88&\x000d;\x000a;Report Status: 4
7/8/2010 3:11 PM Windows Error Reporting
Fault bucket , type 0&\x000d;\x000a;Event
Name: PnPDriverInstallError&\x000d;\x000a;Response:



Attached files:
C:\Users\Administrator\AppData\Local\Temp\DMI\F844.tmp.log.xml
C:\Windows\inf\oem26.inf

These files may be available here:
C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportQueue\NonCritical_x64_ba3558baef9d2e3e4ff6d7933262522a8f3c_cab_107cf872

Analysis symbol:
Rechecking for solution: 0
Report Id: b9b0b808-8935-11df-aab3-9cac727746c0
Report Status: 4 7/6/2010 7:27 PM Windows Error Reporting Fault bucket , type 0
Event Name: ShellBrowserCancel
Response: Not available
Cab Id: 0

Problem signature:
P1: {F3364BA0-65B9-11CE-A9BA-00AA004AE837}
P2: Local
P3: 
P4: 
P5: 
P6: 
P7: 
P8: 
P9: 
P10: 

Attached files:

These files may be available here:


Analysis symbol:
Rechecking for solution: 0
Report Id: 83e5c17f-8934-11df-aab3-9cac727746c0
Report Status: 0 7/6/2010 7:27 PM Windows Error Reporting Fault bucket , type 0
Event Name: ShellBrowserCancel
Response: Not available
Cab Id: 0

Problem signature:
P1: {F3364BA0-65B9-11CE-A9BA-00AA004AE837}
P2: Local
P3: 
P4: 
P5: 
P6: 
P7: 
P8: 
P9: 
P10: 

Attached files:

These files may be available here:
C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportQueue\NonCritical_x64_BA0-65B9-1_03f722b1c3a9f7342b324b90c4342939636d4_0fe90a7c

Analysis symbol:
Rechecking for solution: 0
Report Id: 83e5c17f-8934-11df-aab3-9cac727746c0
Report Status: 4 7/6/2010 7:21 PM Windows Error Reporting Fault bucket , type 0
Event Name: PnPRequestAdditionalSoftware
Response: Not available
Cab Id: 0

Problem signature:
P1: x64
P2: USB\VID_03F0&PID_7029&REV_0002&MI_01
P3: 6.1.0.0
P4: 0409
P5: input.inf
P6: *
P7:


P8: 
P9: 
P10: 

Attached files:

These files may be available here:
C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportQueue\NonCritical_x64_885b928beb14477d25e28b48e3f8b6e01477ca_0e178e3b

Analysis symbol:
Rechecking for solution: 0
Report Id: acf50042-8933-11df-aab3-9cac727746c0
Report Status: 6 7/6/2010 7:21 PM Windows Error Reporting Fault bucket , type 0
Event Name: PnPRequestAdditionalSoftware
Response: Not available
Cab Id: 0

Problem signature:
P1: x64
P2: USB\VID_03F0&PID_7029&REV_0002&MI_00
P3: 6.1.0.0
P4: 0409
P5: input.inf
P6: *
P7: 
P8: 
P9: 
P10: 

Attached files:

These files may be available here:
C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportQueue\NonCritical_x64_b4a1263dc6c8451f572570e99e2ec7b09e1f27_0e17899a

Analysis symbol:
Rechecking for solution: 0
Report Id: acf50041-8933-11df-aab3-9cac727746c0
Report Status: 6 7/6/2010 7:18 PM Windows Error Reporting Fault bucket , type 0
Event Name: PnPDriverInstallError
Response: Not available
Cab Id: 0

Problem signature:
P1: x64
P2: 00005B4
P3: lsi_sas2.inf
P4: eb63fabff756f60c4bb3577640bfe4d74823735c
P5: LSI_SAS_Inst
P6: 
P7: 
P8: 
P9: 
P10: 

Attached files:

These files may be available here:
C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportQueue\NonCritical_x64_e3aff5a9dd19212578856ab58872c15517b4295_0e153d6d

Analysis symbol:
Rechecking for solution: 0
Report Id: 53359e6d-8933-11df-aab3-9cac727746c0
Report Status: 6 7/6/2010 7:11 PM Windows Error Reporting Fault bucket , type 0
Event Name: PnPDriverInstallError
Response: Not available
Cab Id: 0

Problem signature:
P1: x64
P2: 00005B4
P3:

lsi_sas2.inf
P4: eb63fabff756f60c4bb3577640bfe4d74823735c
P5: LSI_SAS_Inst
P6: 
P7: 
P8: 
P9: 
P10: 

Attached files:
C:\Users\Administrator\AppData\Local\Temp\DMI\26F6.tmp.log.xml
C:\Windows\inf\oem15.inf

These files may be available here:
C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportQueue\NonCritical_x64_e3aff5a9dd19212578856ab58872c15517b4295_cab_0e0e2710

Analysis symbol:
Rechecking for solution: 0
Report Id: 3e5c534f-8932-11df-aab3-0026551bee8a
Report Status: 6 7/6/2010 7:05 PM Windows Error Reporting Fault bucket , type 0
Event Name: PnPDriverNotFound
Response: Not available
Cab Id: 0

Problem signature:
P1: x64
P2: PCI\VEN_103C&DEV_3307&SUBSYS_3309103C&REV_04
P3: 
P4: 
P5: 
P6: 
P7: 
P8: 
P9: 
P10: 

Attached files:

These files may be available here:
C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportQueue\NonCritical_x64_87486cf7b1074d7ca6414194e5447eda145380_0e0107bd

Analysis symbol:
Rechecking for solution: 0
Report Id: 764507a6-8931-11df-aab3-0026551bee8a
Report Status: 6 7/6/2010 7:05 PM Windows Error Reporting Fault bucket , type 0
Event Name: PnPDriverInstallError
Response: Not available
Cab Id: 0

Problem signature:
P1: x64
P2: 00005B4
P3: machine.inf
P4: df95759f06f2b294195272ceda0673fa5a8ac0c
P5: PCI_DRV
P6: 
P7: 
P8: 
P9: 
P10: 

Attached files:

These files may be available here:
C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportQueue\NonCritical_x64_7591cd9dd1bad6c0bd4b2c26d9f571fa7da51de_0e00d384

Analysis symbol:
Rechecking for solution: 0
Report Id: 6e4aaaf-8931-11df-aab3-0026551bee8a
Report Status: 6 7/6/2010 6:59 PM Windows Error Reporting Fault bucket , type 0
Event Name: PnPDriverInstallError
Response:

Not available;Cab Id:
0;Problem
signature:P1: x64;P2:
00005B4;P3:
machine.inf;P4:
df95759f06f2b294195272ceda0a673fa5a8ac0c;P5:
PCI_DRV;P6:
0;P7:
0;P8:
0;P9:
0;Attached
files:C:\Users\Administrator\AppData\Local\Temp\DMI4304.tmp.log.xml;C:\Windows\inf\machine.inf;These files may be available
here:C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportQueue\NonCritical_x64_7591cd9dd1bad6c0bd4b2c26d9f571fa7da51de_cab_0e3ba331;Analysis symbol:
0;Rechecking for solution:
0;Report Id: a39da0c7-8930-11df-aab3-0026551bee8a;Report Status: 6
7/6/2010 6:53 PM Windows Error Reporting
Fault bucket, type 0;Event Name: PnPDriverInstallError;Response: Not available;Cab Id:
0;Problem
signature:P1: x64;P2:
00005B4;P3:
usbport.inf;P4:
fb540520c0834f85034b795e448f4d1eb6ee7714;P5:
UHCI.Dev;P6:
0;P7:
0;P8:
0;P9:
0;Attached
files:C:\Users\Administrator\AppData\Local\Temp\DMI317C.tmp.log.xml;C:\Windows\inf\usbport.inf;These files may be available
here:C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportQueue\NonCritical_x64_715f882578ade7302f4d14cea780931e9a448f74_cab_0e3e31aa;Analysis symbol:
0;Rechecking for solution:
0;Report Id: cef8d36d-892f-11df-aab3-0026551bee8a;Report Status: 6
7/6/2010 6:52 PM Windows Error Reporting
Fault bucket, type 0;Event Name: AppHangXProcBl;Response: Not available;Cab Id:
0;Problem
signature:P1:
mmc.exe;P2:
6.1.7600.16385;P3:
4a5bc808;P5:
384;P6:
svchost.exe;P7:
0.0.0;P8:
0;P9:
0;Attached
files:These files may be available
here:C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportArchive\

exe_beebfilea76cel6ae71d385d34a8ccc61d287896b_l38ce59d
0;Analysis symbol:
0;Rechecking for solution:
0;Report Id: 9b438f1a-892f-11df-aab3-0026551bee8a;Report Status: 2
7/6/2010 6:48 PM Windows Error Reporting
Fault bucket, type 0;Event Name: PnPDriverInstallError;Response: Not available;Cab Id:
0;Problem
signature:P1: x64;P2:
00005B4;P3:
machine.inf;P4:
df95759f06f2b294195272ceda0a673fa5a8ac0c;P5:
PCI_DRV_ROOT;P6:
0;P7:
0;P8:
0;P9:
0;Attached
files:C:\Users\Administrator\AppData\Local\Temp\DMI9C8D.tmp.log.xml;C:\Windows\inf\machine.inf;These files may be available
here:C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportQueue\NonCritical_x64_943d26c26cf23ca76a1ce87206cbad2f5daf693e_cab_0e319cf;Analysis symbol:
0;Rechecking for solution:
0;Report Id: 1c041f93-892f-11df-aab3-0026551bee8a;Report Status: 6
7/6/2010 6:44 PM Windows Error Reporting
Fault bucket, type 0;Event Name: AppHangBl;Response: Not available;Cab Id:
0;Problem
signature:P1:
mmc.exe;P2:
6.1.7600.16385;P3:
4a5bc808;P5:
256;P7:
0;P8:
0;P9:
0;Attached
files:These files may be available
here:C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportArchive\AppHang_mmc.exe_f6cd73a31c9ffb261150c28f1458ea528640a8aa_0ad5f5f2;Analysis symbol:
0;Rechecking for solution:
0;Report Id: 8c05alc1-892e-11df-aab3-0026551bee8a;Report Status: 2
6/23/2010 3:02 PM Windows Error Reporting
Fault bucket, type 0;Event Name: AppHangBl;Response: Not available;Cab Id:
0;Problem
signature:P1:
mmc.exe;P2:
6.1.7600.16385;P3:
4a5bc808;P5:
257;P7:
0;P8:
0;P9:
0;Attached
files:These files may be available
here:C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportArchive\

0;Attached
files:These files may be available
here:C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportArchive\AppHang_mmc.exe_b894c3bbdd8c791fbb7064f7d7c74beldea27b62_0595d27a;Analysis symbol:
0;Rechecking for solution:
0;Report Id: 4d6c1ddd-7ed8-11df-a396-18a9054dd9e0;Report Status: 0
6/9/2010 7:02 PM Windows Error Reporting
Fault bucket, type 0;Event Name: AppHangXProcBl;Response: Not available;Cab Id:
0;Problem
signature:P1:
iexplore.exe;P2:
8.0.7600.16385;P3:
4a5bc69e;P5:
32;P6:
8.0.7600.16385;P8:
0;P9:
0;Attached
files:These files may be available
here:C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportArchive\AppHang_iexplore.exe_7574509a9efb630d6ae4611164ddd7b79d2798_0f00b64c;Analysis symbol:
0;Rechecking for solution:
0;Report Id: 7a6bfeb2-73f9-11df-8a89-18a9054dd9e0;Report Status: 0
4/29/2010 8:21 PM Windows Error Reporting
Fault bucket, type 0;Event Name: AppHangXProcBl;Response: Not available;Cab Id:
0;Problem
signature:P1:
iexplore.exe;P2:
8.0.7600.16385;P3:
4a5bc69e;P5:
32;P6:
8.0.7600.16385;P8:
0;P9:
0;Attached
files:These files may be available
here:C:\Users\Administrator\AppData\Local\Microsoft\Windows\WER\ReportArchive\AppHang_iexplore.exe_abe2eb5558495d35bdba43b2c405035938137a3_0731209e;Analysis symbol:
0;Rechecking for solution:
0;Report Id: c74d788a-53cc-11df-8ede-18a9054dd9e0;Report Status: 0
4/15/2010 7:55 PM Windows Error Reporting
Fault bucket, type 0;Event Name: AppHangBl;Response: Not available;Cab Id:
0;Problem
signature:P1:
perfmon.exe;P2:
6.1.7600.16385;P3:
4a5bc3e0;P5:

2
P6: 
P7:

P8: 
P9:

P10:


Attached
files:

These files may
be available
here:
C:\Users\Administrator\AppData\L
ocal\Microsoft\Windows\WER\ReportArchive\AppHang_perf
mon.exe_be466994b8f4f465aced1d9a194dba40e5b6a79_0c84c
4fe

Analysis symbol:

Rechecking for solution:
0
Report Id: cb5da72e-48c8-11df-897a-
18a9054dd9e0
Report Status: 0
8/11/2010 3:13 PM Application Hang The program
Explorer.EXE version 6.1.7600.16385 stopped
interacting with Windows and was closed. To see if
more information about the problem is available,
check the problem history in the Action Center
control panel.
 Process ID:
63c
 Start Time:
01cb396445d974d8
 Termination Time:
6988
 Application Path:
C:\Windows\Explorer.EXE
 Report Id:
0437de70-a55b-11df-bc69-0018fe22246

8/4/2010 10:01 PM Application Hang The program
mmc.exe version 6.1.7600.16385 stopped interacting
with Windows and was closed. To see if more
information about the problem is available, check the
problem history in the Action Center control
panel.
 Process ID:
11b0
 Start Time:
01cb34200a2701a0
 Termination Time:
7
 Application Path:
C:\Windows\system32\mmc.exe
 Report
Id: dc2576b2-a013-11df-8c21-
0018fe22246

8/2/2010 6:29 PM Application Hang The program
mmc.exe version 6.1.7600.16385 stopped interacting
with Windows and was closed. To see if more
information about the problem is available, check the
problem history in the Action Center control
panel.
 Process ID:
40c
 Start Time:
01cb327074a322eb
 Termination Time:
18
 Application Path:
C:\Windows\system32\mmc.exe
 Report
Id: eccc353-9e63-11df-a849-
0018fe22246

8/2/2010 6:23 PM Application Hang The program
mmc.exe version 6.1.7600.16385 stopped interacting
with Windows and was closed. To see if more
information about the problem is available, check the
problem history in the Action Center control
panel.
 Process ID:
c30
 Start Time:
01cb326f8a8d6047
 Termination Time:
234
 Application Path:
C:\Windows\system32\mmc.exe
 Report
Id: f8c1f04b-9e62-11df-a849-
0018fe22246

8/2/2010 6:14 PM Application Hang The program
mmc.exe version 6.1.7600.16385 stopped interacting

with Windows and was closed. To see if more
information about the problem is available, check the
problem history in the Action Center control
panel.
 Process ID:
a60
 Start Time:
01cb326e21affe58
 Termination Time:
553
 Application Path:
C:\Windows\system32\mmc.exe
 Report
Id: b6d8e5d2-9e61-11df-a849-
0018fe22246

7/27/2010 9:33 PM Application Hang The program
PROFILER90.EXE version 2005.90.4035.0 stopped
interacting with Windows and was closed. To see if
more information about the problem is available,
check the problem history in the Action Center
control panel.
 Process ID:
afc
 Start Time:
01cb2dc370da9845
 Termination Time:
3
 Application Path: C:\Program Files
(x86)\Microsoft SQL
Server\90\Tools\bin\PROFILER90.EXE

Report Id: 883a020e-99c6-11df-82fd-
0018fe22246

7/23/2010 3:17 PM Application Hang The program
mmc.exe version 6.1.7600.16385 stopped interacting
with Windows and was closed. To see if more
information about the problem is available, check the
problem history in the Action Center control
panel.
 Process ID:
13b0
 Start Time:
01cb2a7968654370
 Termination Time:
71
 Application Path:
C:\Windows\system32\mmc.exe
 Report
Id: 61688af4-966d-11df-80ca-
0018fe22246

7/14/2010 4:40 PM Application Hang The program
iexplore.exe version 8.0.7600.16385 stopped
interacting with Windows and was closed. To see if
more information about the problem is available,
check the problem history in the Action Center
control panel.
 Process ID:
338
 Start Time:
01cb23731e286c89
 Termination Time:
0
 Application Path: c:\program files
(x86)\internet explorer\iexplore.exe

Report Id: 7a7aaef1-8f66-11df-bb1b-
0026551bee88

7/6/2010 6:52 PM Application Hang The program
mmc.exe version 6.1.7600.16385 stopped interacting
with Windows and was closed. To see if more
information about the problem is available, check the
problem history in the Action Center control
panel.
 Process ID:
12c8
 Start Time:
01cb1d3b505f98
 Termination Time:
0
 Application Path:
C:\Windows\system32\mmc.exe
 Report
Id: 9b438f1a-892f-11df-aab3-
0026551bee8a

7/6/2010 6:44 PM Application Hang The program
mmc.exe version 6.1.7600.16385 stopped interacting
with Windows and was closed. To see if more
information about the problem is available, check the

problem history in the Action Center control
panel.
 Process ID:
dbc
 Start Time:
01cb1d3af3a6e8af
 Termination Time:
31
 Application Path:
C:\Windows\system32\mmc.exe
 Report
Id: 8c05a1c1-892e-11df-aab3-
0026551bee8a

6/23/2010 3:02 PM Application Hang The program
mmc.exe version 6.1.7600.16385 stopped interacting
with Windows and was closed. To see if more
information about the problem is available, check the
problem history in the Action Center control
panel.
 Process ID:
840
 Start Time:
01cb12e3ea521294
 Termination Time:
16
 Application Path:
C:\Windows\system32\mmc.exe
 Report
Id: 4d6c1ddd-7ed8-11df-a396-
18a9054dd9e0

6/9/2010 7:02 PM Application Hang The program
iexplore.exe version 8.0.7600.16385 stopped
interacting with Windows and was closed. To see if
more information about the problem is available,
check the problem history in the Action Center
control panel.
 Process ID:
ad4
 Start Time:
01cb080625c7ecf1
 Termination Time:
0
 Application Path: C:\Program Files
(x86)\Internet Explorer\iexplore.exe

Report Id: 7a6bfeb2-73f9-11df-8a89-
18a9054dd9e0

4/29/2010 8:21 PM Application Hang The program
iexplore.exe version 8.0.7600.16385 stopped
interacting with Windows and was closed. To see if
more information about the problem is available,
check the problem history in the Action Center
control panel.
 Process ID:
ae0
 Start Time:
01cae7d95eca8a24
 Termination Time:
0
 Application Path: c:\program files
(x86)\internet explorer\iexplore.exe

Report Id: c74d788a-53cc-11df-8ede-
18a9054dd9e0

4/15/2010 7:55 PM Application Hang The program
perfmon.exe version 6.1.7600.16385 stopped
interacting with Windows and was closed. To see if
more information about the problem is available,
check the problem history in the Action Center
control panel.
 Process ID:
9ac
 Start Time:
01cadcd58504386f
 Termination Time:
0
 Application Path:
C:\Windows\system32\perfmon.exe

Report Id: cb5da72e-48c8-11df-897a-
18a9054dd9e0

sqlserver_socket.txt

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\MSSQL.1\MSSQLServer\SuperSocketNetLib
Class Name: <NO CLASS>
Last Write Time: 3/23/2010 - 9:14 PM
Value 0
Name: ForceEncryption
Type: REG_DWORD
Data: 0
Value 1
Name: HideInstance
Type: REG_DWORD
Data: 0
Value 2
Name: Certificate
Type: REG_SZ
Data:
Value 3
Name: DisplayName
Type: REG_SZ
Data: SQL Server Network Configuration

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\MSSQL.1\MSSQLServer\SuperSocketNetLib\AdminCon
nection
Class Name: <NO CLASS>
Last Write Time: 3/23/2010 - 9:14 PM
Value 0
Name: DisplayName
Type: REG_SZ
Data: Dedicated Administrative
Connection

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\MSSQL.1\MSSQLServer\SuperSocketNetLib\AdminCon
nection\Tcp
Class Name: <NO CLASS>
Last Write Time: 3/23/2010 - 9:14 PM
Value 0
Name: TcpDynamicPorts
Type: REG_SZ
Data: 1434
Value 1
Name: DisplayName
Type: REG_SZ
Data: TCP/IP

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\MSSQL.1\MSSQLServer\SuperSocketNetLib\Np

Class Name: <NO CLASS>
Last Write Time: 3/23/2010 - 9:14 PM
Value 0
Name: Enabled
Type: REG_DWORD
Data: 0

Value 1
Name: PipeName
Type: REG_SZ
Data: \\.\pipe\sql\query

Value 2
Name: DisplayName
Type: REG_SZ
Data: Named Pipes

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\MSSQL.1\MSSQLServer\SuperSocketNetLib\Sm
Class Name: <NO CLASS>
Last Write Time: 3/23/2010 - 9:14 PM
Value 0
Name: Enabled
Type: REG_DWORD
Data: 0x1

Value 1
Name: DisplayName
Type: REG_SZ
Data: Shared Memory

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\MSSQL.1\MSSQLServer\SuperSocketNetLib\Tcp
Class Name: <NO CLASS>
Last Write Time: 7/20/2010 - 1:48 PM
Value 0
Name: Enabled
Type: REG_DWORD
Data: 0x1

Value 1
Name: ListenOnAllIPs
Type: REG_DWORD
Data: 0

Value 2
Name: NoDelay
Type: REG_DWORD
Data: 0

Value 3
Name: KeepAlive
Type: REG_DWORD
Data: 0x7530

Value 4
Name: DisplayName
Type: REG_SZ
Data: TCP/IP

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\MSSQL.1\MSSQLServer\SuperSocketNetLib\Tcp\IP1
Class Name: <NO CLASS>
Last Write Time: 7/16/2010 - 6:44 AM
Value 0
Name: Enabled
Type: REG_DWORD
Data: 0x1

Value 1
Name: Active
Type: REG_DWORD
Data: 0x1

Value 2
Name: TcpPort
Type: REG_SZ
Data: 2001

Value 3
Name: TcpDynamicPorts
Type: REG_SZ
Data:

Value 4
Name: DisplayName
Type: REG_SZ
Data: Specific IP Address

Value 5
Name: IpAddress
Type: REG_SZ
Data: 130.168.211.71

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\MSSQL.1\MSSQLServer\SuperSocketNetLib\Tcp\IP2
Class Name: <NO CLASS>
Last Write Time: 7/16/2010 - 6:44 AM
Value 0
Name: Enabled
Type: REG_DWORD
Data: 0x1

Value 1
Name: Active
Type: REG_DWORD
Data: 0x1

Value 2
Name: TcpPort
Type: REG_SZ
Data: 2002

Value 3
Name: TcpDynamicPorts
Type: REG_SZ
Data:

```
Value 4
Name:      DisplayName
Type:      REG_SZ
Data:      Specific IP Address
```

```
Value 5
Name:      IPAddress
Type:      REG_SZ
Data:      130.168.211.72
```

```
Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\MSSQL.1\MSSQLServer\SuperSocketNetLib\Tcp\IP3
Class Name: <NO CLASS>
Last Write Time: 7/16/2010 - 6:44 AM
```

```
Value 0
Name:      Enabled
Type:      REG_DWORD
Data:      0x1
```

```
Value 1
Name:      Active
Type:      REG_DWORD
Data:      0x1
```

```
Value 2
Name:      TcpPort
Type:      REG_SZ
Data:      2003
```

```
Value 3
Name:      TcpDynamicPorts
Type:      REG_SZ
Data:
```

```
Value 4
Name:      DisplayName
Type:      REG_SZ
Data:      Specific IP Address
```

```
Value 5
Name:      IPAddress
Type:      REG_SZ
Data:      130.168.211.73
```

```
Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\MSSQL.1\MSSQLServer\SuperSocketNetLib\Tcp\IP4
Class Name: <NO CLASS>
Last Write Time: 7/16/2010 - 6:44 AM
```

```
Value 0
Name:      Enabled
Type:      REG_DWORD
Data:      0x1
```

```
Value 1
Name:      Active
Type:      REG_DWORD
Data:      0x1
```

```
Value 2
```

```
Name:      TcpPort
Type:      REG_SZ
Data:      2004
```

```
Value 3
Name:      TcpDynamicPorts
Type:      REG_SZ
Data:
```

```
Value 4
Name:      DisplayName
Type:      REG_SZ
Data:      Specific IP Address
```

```
Value 5
Name:      IPAddress
Type:      REG_SZ
Data:      130.168.211.74
```

```
Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\MSSQL.1\MSSQLServer\SuperSocketNetLib\Tcp\IPAll
Class Name: <NO CLASS>
Last Write Time: 3/24/2010 - 7:55 AM
```

```
Value 0
Name:      TcpPort
Type:      REG_SZ
Data:      2001[0x1],2002[0x2],2003[0x4],2004[0x8]
```

```
Value 1
Name:      TcpDynamicPorts
Type:      REG_SZ
Data:
```

```
Value 2
Name:      DisplayName
Type:      REG_SZ
Data:      Any IP Address
```

```
Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\MSSQL.1\MSSQLServer\SuperSocketNetLib\Via
Class Name: <NO CLASS>
Last Write Time: 3/23/2010 - 9:14 PM
```

```
Value 0
Name:      Enabled
Type:      REG_DWORD
Data:      0
```

```
Value 1
Name:      DefaultServerPort
Type:      REG_SZ
Data:      0:1433
```

```
Value 2
Name:      ListenInfo
Type:      REG_SZ
Data:      0:1433
```

```
Value 3
Name:      DisplayName
Type:      REG_SZ
Data:      VIA
```

sydbtune.ver

```
1> 2> 3> 4> 5> 6> 7> 8> 9> 10> 11> 12> -----
-----
--
-- File:   VERSION.SQL
--
--        Microsoft TPC-C Benchmark Kit Ver. 4.68
--
--        Copyright Microsoft, 2006
--
--        - Extracts current version of SQL Server
-----
```

```
USE master
1> 2> 3> 4> 5>
SELECT CONVERT(char(20),
SERVERPROPERTY('ProductVersion')),
        CONVERT(char(20),
SERVERPROPERTY('ProductLevel')),
        CONVERT(char(29), SERVERPROPERTY('Edition'))
-----
9.00.4035.00      SP3      Enterprise
Edition (64-bit)
```

```
(1 row affected)
1> 2> 3>
SELECT CONVERT(char(30), GETDATE(), 21)
```

```
-----
2010-04-06 10:09:59.327
```

```
(1 row affected)
1>
1> 2> 3> 4> 5> 6> 7> 8> 9> 10> 11> 12> 13> 14>
-----
```

```
-- File:   CONFIG.SQL
--
--        Microsoft TPC-C Benchmark Kit Ver. 4.68
--
```

```

--      Copyright Microsoft, 2006
--
--
--      - Collects SQL Server configuration
parameters  --
-----
PRINT ' '
SELECT CONVERT(char(30), GETDATE(), 21)
PRINT ' '

-----
2010-04-06 10:09:59.417

(1 row affected)

1> 2> 3> Configuration option 'show advanced options'
changed from 1 to 1. Run the RECONFIGURE statement to
install.

sp_configure 'show advanced',1
1> 2> 3>
RECONFIGURE WITH OVERRIDE
1> 2> 3>
sp_configure
name                minimum
maximum  config_value run_value
-----
Ad Hoc Distributed Queries          0
1 0 0
affinity I/O mask -2147483648
2147483647 0 0
affinity mask -2147483648
2147483647 16777215 16777215
affinity64 I/O mask -2147483648
2147483647 0 0
affinity64 mask -2147483648
2147483647 0 0
Agent XPs 0
1 0 0
allow updates 0
1 0 0
awe enabled 0
1 0 0
blocked process threshold 0
86400 0 0
c2 audit mode 0
1 0 0
clr enabled 0
1 0 0
common criteria compliance enabled 0
1 0 0
cost threshold for parallelism 0
32767 5 5
cross db ownership chaining 0
1 0 0
cursor threshold -1
2147483647 -1 -1

```

```

Database Mail XPs 0
1 0 0
default full-text language 0
2147483647 1033 1033
default language 0
9999 0 0
default trace enabled 0
1 1 1
disallow results from triggers 0
1 0 0
fill factor (%) 0
100 0 0
ft crawl bandwidth (max) 0
32767 100 100
ft crawl bandwidth (min) 0
32767 0 0
ft notify bandwidth (max) 0
32767 100 100
ft notify bandwidth (min) 0
32767 0 0
in-doubt xact resolution 0
2 0 0
index create memory (KB) 704
2147483647 704 704
lightweight pooling 0
1 1 1
locks 5000
2147483647 0 0
max degree of parallelism 0
64 1 1
max full-text crawl range 0
256 4 4
max server memory (MB) 16
2147483647 0 2147483647
max text repl size (B) 0
2147483647 65536 65536
max worker threads 128
32767 3400 3400
media retention 0
365 0 0
min memory per query (KB) 512
2147483647 512 512
min server memory (MB) 0
2147483647 0 0
nested triggers 0
1 1 1
network packet size (B) 512
32767 2048 2048
Ole Automation Procedures 0
1 0 0
open objects 0
2147483647 0 0
PH timeout (s) 1
3600 60 60
precompute rank 0
1 0 0
priority boost 0
1 1 1
query governor cost limit 0
2147483647 0 0
query wait (s) -1
2147483647 -1 -1

```

```

recovery interval (min) 0
32767 32767 32767
remote access 0
1 1 1
remote admin connections 0
1 0 0
remote login timeout (s) 0
2147483647 20 20
remote proc trans 0
1 0 0
remote query timeout (s) 0
2147483647 600 600
Replication XPs 0
1 0 0
scan for startup procs 0
1 0 0
server trigger recursion 0
1 1 1
set working set size 0
1 0 0
show advanced options 0
1 1 1
SMO and DMO XPs 0
1 1 1
SQL Mail XPs 0
1 0 0
transform noise words 0
1 0 0
two digit year cutoff 1753
9999 2049 2049
user connections 0
32767 0 0
user options 0
32767 0 0
Web Assistant Procedures 0
1 0 0
xp_cmdshell 0
1 0 0

1>

```

tpcc.txt

```

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\TPC
C
Class Name: <NO CLASS>
Last Write Time: 8/18/2010 - 2:55 PM
Value 0
Name: Path
Type: REG_DWORD
Data: C:\inetpub\wwwroot\

Value 1
Name: NumberOfDeliveryThreads
Type: REG_DWORD
Data: 0xf

Value 2
Name: MaxConnections

```


Type: REG_DWORD
Data: 0xc350

Value 3
Name: MaxPendingDeliveries
Type: REG_DWORD
Data: 0x7d0

Value 4
Name: DB_Protocol
Type: REG_SZ
Data: ODBC

Value 5
Name: TxnMonitor
Type: REG_SZ
Data: COM

Value 6
Name: DbServer
Type: REG_SZ
Data: tcp:130.168.211.71,2001

Value 7
Name: DbName
Type: REG_SZ
Data: tpcc

Value 8
Name: DbUser
Type: REG_SZ
Data: sa

Value 9
Name: DbPassword
Type: REG_SZ
Data:

Value 10
Name: COM_SinglePool
Type: REG_SZ
Data: YES

Value 11
Name: CallNoDuplicatesNewOrder
Type: REG_DWORD
Data: 0x1

w3svc.txt

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\services\
W3SVC
Class Name: <NO CLASS>
Last Write Time: 5/14/2010 - 1:27 PM
Value 0
Name: Type
Type: REG_DWORD

Data: 0x20

Value 1
Name: Start
Type: REG_DWORD
Data: 0x2

Value 2
Name: ErrorControl
Type: REG_DWORD
Data: 0x1

Value 3
Name: ImagePath
Type: REG_EXPAND_SZ
Data: %windir%\system32\svchost.exe -k iissvcs

Value 4
Name: DisplayName
Type: REG_SZ
Data: @%windir%\system32\inetsrv\iisres.dll,-30003

Value 5
Name: DependOnService
Type: REG_MULTI_SZ
Data: WAS HTTP

Value 6
Name: ObjectName
Type: REG_SZ
Data: LocalSystem

Value 7
Name: Description
Type: REG_SZ
Data: @%windir%\system32\inetsrv\iisres.dll,-30004

Value 8
Name: RequiredPrivileges
Type: REG_MULTI_SZ
Data: SeAssignPrimaryTokenPrivilege
SeAuditPrivilege
SeBackupPrivilege
SeChangeNotifyPrivilege
SeCreateGlobalPrivilege
SeDebugPrivilege
SeImpersonatePrivilege
SeIncreaseQuotaPrivilege
SeRestorePrivilege
SeTcbPrivilege

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\services\
W3SVC\Parameters
Class Name: <NO CLASS>
Last Write Time: 5/14/2010 - 3:50 PM
Value 0
Name: MajorVersion

Type: REG_DWORD
Data: 0x7

Value 1
Name: MinorVersion
Type: REG_DWORD
Data: 0x5

Value 2
Name: AccessDeniedMessage
Type: REG_SZ
Data: Error: Access is Denied.

Value 3
Name: InstallPath
Type: REG_EXPAND_SZ
Data: %windir%\system32\inetsrv

Value 4
Name: ServiceDll
Type: REG_EXPAND_SZ
Data: %windir%\system32\inetsrv\iisw3adm.dll

Value 5
Name: AcceptExOutstanding
Type: REG_DWORD
Data: 0x28

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\services\
W3SVC\Parameters\ADLaunch
Class Name: <NO CLASS>
Last Write Time: 7/13/2009 - 11:53 PM

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\services\
W3SVC\Parameters\ADLaunch\AdvancedDataFactory
Class Name: <NO CLASS>
Last Write Time: 7/13/2009 - 11:53 PM

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\services\
W3SVC\Parameters\ADLaunch\RDSServer.DataFactory
Class Name: <NO CLASS>
Last Write Time: 7/13/2009 - 11:53 PM

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\services\
W3SVC\Performance
Class Name: <NO CLASS>
Last Write Time: 5/14/2010 - 1:27 PM
Value 0
Name: Close
Type: REG_SZ
Data: CloseW3PerformanceData

Value 1
Name: Open
Type: REG_SZ
Data: OpenW3PerformanceData

Value 2
Name: Collect
Type: REG_SZ
Data: CollectW3PerformanceData

Value 3
Name: Library
Type: REG_EXPAND_SZ
Data: %windir%\system32\inetsrv\w3ctrs.dll

Value 4
Name: InstallType
Type: REG_DWORD
Data: 0x1

Value 5
Name: PerfIniFile
Type: REG_SZ
Data: w3ctrs.ini

Value 6
Name: First Counter
Type: REG_DWORD
Data: 0x1694

Value 7
Name: Last Counter
Type: REG_DWORD
Data: 0x179a

Value 8
Name: First Help
Type: REG_DWORD
Data: 0x1695

Value 9
Name: Last Help
Type: REG_DWORD
Data: 0x179b

Value 10
Name: Object List
Type: REG_SZ
Data: 5780 5954

Appendix D: 60-Day Space

| | | | | | | | | | | | |
|----------------------------|-----------------------|------------------------|----------------------|-----------------------|----------------------|----------------------|----------------------|---------------------|-----------------------|-----------------------|--------------|
| tpmC | 1,807,347 | | | | | | | | | | |
| | Data Before KB | Index Before KB | Data After KB | Index After KB | Data Grow KB | Index Grow KB | Total Grow KB | KB/New-Order | 8-Hr Growth KB | 8-Hr Growth MB | |
| History | 252,262,776 | 945,392 | 304,586,320 | 1,910,656 | 52,323,544 | 965,264 | 53,288,808 | 0.0602 | 52,212,982.59 | 50,989.24 | |
| Order | 141,061,232 | 337,408 | 189,927,624 | 655,016 | 48,866,392 | 317,608 | 49,184,000 | 0.0555 | 48,191,044.84 | 47,061.57 | |
| Order-Line | 2,832,777,816 | 6,687,912 | 3,836,680,920 | 13,370,992 | 1,003,903,104 | 6,683,080 | 1,010,586,184 | 1.1414 | 990,183,883.12 | 966,976.45 | |
| | | | | | | | | | | | 1,065,027.26 |
| | sum(*) Before | | sum(*) After | | Num New-Order | | | | | | |
| d_next_o_id | 4,321,440,000 | | 5,206,841,561 | | 885,401,561 | | | | | | |
| | Before MB | | After MB | | Grow MB | | | KB/New-Order | 8-Hr Growth MB | 8-Hr Growth GB | |
| Log | 57,559.00 | | 5,631,397.87 | | 5,573,838.87 | | | 6.4464 | 5,461,310.97 | 5,333.31 | |
| | | | | | | | | 6,601.0655 | bytes | | |
| | 6,858,000.00 | 0.83929718 | 82.114288 | | | | | | | | |
| Database tpcc log used (%) | | | | | | | | | | | |

Appendix E: *Third Party Letters*

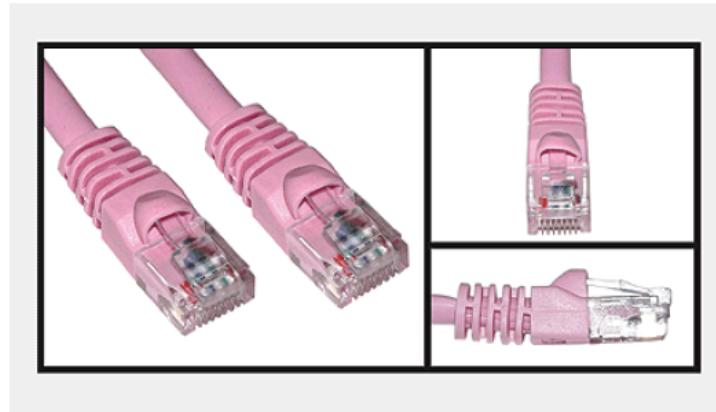
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| Quantity | Price |
|-----------|--------|
| 1 - 2 | \$1.70 |
| 3 - 4 | \$1.67 |
| 5 - 7 | \$1.63 |
| 8 - 11 | \$1.61 |
| 12 - 15 | \$1.59 |
| 16 - 19 | \$1.58 |
| 20 - 29 | \$1.57 |
| 30 - 39 | \$1.55 |
| 40 - 49 | \$1.54 |
| 50 - 99 | \$1.52 |
| 100 - 199 | \$1.34 |
| 200 - 299 | \$1.31 |
| 300 - 499 | \$1.27 |
| 500 - 999 | \$1.19 |
| 1000 + | \$1.16 |

Search

- [Bulk Cable](#)
- [Network Patch Cables](#)
 - [Cat5e Ethernet Cables - Cat 5e Network Patch Cables](#)
 - [Cat6 Ethernet Cables - Cat 6 Network Patch Cables](#)
 - [Ethernet CAT6 Patch Cables; 6in](#)
 - [Ethernet CAT6 Patch Cables; 9in](#)
 - [Ethernet CAT6 Patch Cables; 1ft](#)
 - [Ethernet CAT6 Patch Cables; 2ft](#)
 - [Ethernet CAT6 Patch Cables; 3ft](#)
 - [Ethernet CAT6 Patch Cables; 5ft](#)
 - [Ethernet CAT6 Patch Cables; 7ft](#)



ADD TO CART TO ESTIMATE SHIPPING

- [7ft Gray Cat 6 Patch Cable, Molded](#)
\$1.20 each
- [7ft Pink Cat 6 Patch Cable, Molded](#)
As low as \$1.16
- [7ft Blue Cat 6 Patch Cable, Molded](#)
As low as \$1.16
- [7ft Black Cat 6 Patch Cable, Molded](#)
As low as \$1.16
- [7ft Brown Cat 6 Patch Cable, Molded](#)
As low as \$1.16
- [7ft Green Cat 6 Patch Cable, Molded](#)
As low as \$1.16
- [7ft Gray Cat 6 Patch Cable, Molded](#)
As low as \$1.16
- [7ft Purple Cat 6 Patch Cable, Molded](#)
As low as \$1.16










Meets or exceeds the ANSI/TIA/EIA-568-B.2-1 standard for CAT 6 CMR, communication riser cable, and certified by UL, Underwriters Laboratories. Our CAT 6 patch cables come with a molded strain relief to protect the cable from tugs and pulls, special CAT 6 rated gold plated RJ45 connectors on each end and boots to protect the tab of the RJ45 connector from being snagged. Packaged individually in labeled bags.

Part #: CB242-7PK [Tell a Friend](#)

Condition: New

Mfg: Abergetty

Other great items you might enjoy:

| | | | | |
|---|---|--|---|---|
|  |  |  |  |  |
| 7ft Yellow Cat 6 Patch Cable, Molded As low as \$1.16 | 5ft Yellow Cat 6 Patch Cable, Molded As low as \$1.13 | 7ft Gray Cat 6 Patch Cable, Molded As low as \$1.16 | 5ft Blue Cat 6 Patch Cable, Molded As low as \$1.13 | 3ft Yellow Cat 6 Patch Cable, Molded As low as \$0.85 |
|  |  |  |  | |
| 10ft Blue Cat 6 Patch Cable, Molded As low as \$1.77 | 10ft Yellow Cat 6 Patch Cable, Molded As low as \$1.77 | 14ft Blue Cat 6 Patch Cable, Molded As low as \$2.41 | 10ft Red Cat 6 Patch Cable, Molded As low as \$1.77 | |

August 23, 2010

Hewlett-Packard
David Adams
20555 SH 249
Houston, TX 77070

Here is the information you requested regarding pricing for several Microsoft products to be used in conjunction with your TPC-C benchmark testing.

All pricing shown is in US Dollars (\$).

| Part Number | Description | Unit Price | Quantity | Price |
|-------------|--|------------|----------|----------|
| 810-03134 | SQL Server 2005 Enterprise Edition <i>Per Processor License</i> <i>Discount Schedule: Open Program - Level C</i> <i>Unit Price reflects a 6% discount from the retail unit price of \$24,999.</i> | \$23,432 | 4 | \$93,728 |
| P72-04217 | Windows Server 2008 R2 Enterprise Edition <i>Server License with 25 CALs</i> <i>Discount Schedule: Open Program - Level C</i> <i>Unit Price reflects a 43% discount from the retail unit price of \$3,999.</i> | \$2,280 | 9 | \$20,520 |
| P73-04980 | Windows Server 2008 R2 Standard Edition <i>Server License with 5 CALs</i> <i>Discount Schedule: Open Program - Level C</i> <i>Unit Price reflects a 29% discount from the retail unit price of \$999.</i> | \$711 | 4 | \$2,844 |
| 127-00166 | Visual Studio 2008 Standard Edition <i>Full License</i> <i>No Discount Applied</i> | \$275 | 1 | \$275 |
| N/A | Microsoft Problem Resolution Services <i>Professional Support</i> <i>(1 Incident).</i> | \$259 | 1 | \$259 |

SQL Server 2005 Enterprise Edition, Windows Server 2008 R2 Enterprise Edition, Windows Server 2008 R2 Standard Edition, and Visual Studio 2008 Standard Edition are currently orderable and available through Microsoft's normal distribution channels. A list of Microsoft's resellers can be found at the Microsoft Product Information Center at <http://www.microsoft.com/products/info/render.aspx?view=22&type=how>

Defect support is included in the purchase price. Additional support is available from Microsoft PSS on an incident by incident basis at \$259 per call.

This quote is valid for the next 90 days.

Reference ID: TPCC_g3wOpiq6ZAsO5Qblvb7N9cl1uGYEbDe4_V1.0.0.



QUOTE-0004

Microland Electronics

DATE: AUGUST 23, 2010

1883 Ringwood Ave San Jose, CA 95131
 Tel 408.850.9102 Fax 408.441.1767
 raymondh@microlandusa.com

TO David Adams
 Hewlett-Packard Company
 11445 COMPAQ CENTER DR W
 MAILSTOP M0704-402
 HOUSTON, TX 77070
 Customer ID: HEWLETPP

| SALESPERSON | JOB | SHIPPING METHOD | SHIPPING TERMS | DELIVERY DATE | PAYMENT TERMS | DUE DATE |
|---------------|-----------------|-----------------|----------------|---------------|---------------|----------|
| Raymond Huang | Account Manager | Upon request | Prepaid & bill | Upon request | C.C. | |

| QTY | ITEM # | DESCRIPTION | UNIT PRICE | | LINE TOTAL |
|-----|----------|---|------------|--|------------|
| 10 | LSI00189 | LSI 9200_16e (All LSI controller cards come with 3 year warranty) *Actual shipping cost, sales tax, C.C fee will be added to total amount | \$498.00 | | \$4,980.00 |

| | |
|-----------|------------|
| SUBTOTAL | \$4,980.00 |
| SALES TAX | |
| C.C FEE | |
| SHIPPING | |
| TOTAL | |

Quotation prepared by: Raymond Huang

This is a quotation on the goods named, subject to the conditions noted below: (Describe any conditions pertaining to these prices and any additional terms of the agreement. You may want to include contingencies that will affect the quotation.)

To accept this quotation, sign here and return: _____

THANK YOU FOR YOUR BUSINESS!

Appendix F:

Price Verification and Availability

The d2700 drive enclosure is currently available. The 120 GB SSD drives are currently available. The SSD drives will not be supported in the D2700 enclosure until October 15, 2010. All other hardware is currently available

HP Direct: 800-203-6748

For price verification before order date: e-mail hp.pricing.desk@hp.com

Appendix G:TPC-Energy Disclosure Report

A.1. TPC-Energy Clause 2-related items (Methodology)

A.1.1. Minimum ambient temperature

The minimum ambient temperature must be disclosed

Minimum Temperature reported by EMSC = 21.28 C

A.1.2. External electric power source characteristics

The characteristics of the external electric power source must be disclosed. In particular, the voltage, frequency in Hertz, and phase information must be reported.

The external electric power source has the following characteristics: 208V, 60Hz, single phase.

A.1.3. Air-pressure alterations

A statement is required that assures that nothing was done to alter the air-pressure in the measurement environment.

Nothing was done to alter the air-pressure in the measurement environment.

A.1.4. Temperature measurement

A description of where the temperature was measured and how it was determined that this was representative of the lowest ambient temperature is required.

Temperature was measured at the SUT air inlet and the air conditioning returns blow cold air at SUT air inlet.

A.1.5. Cooling method

If a method of cooling other than circulation of ambient air is employed in the REC, a statement describing this method must be included.

No other method of cooling was used.

A.1.6. PTD license

To be compliant with licenses associated with EMS, the following statement must be included in every FDR which contains a TPC-Energy Metric:

The power and temperature characteristics of the MEC were measured using TPC's Energy Measurement Software (EMS). This includes the EMS-PTD, a modified version of the SPEC PTDaemon, which is provided under license from the Standard Performance Evaluation Corporation (SPEC).

A.2. TPC-Energy Clause 3-related items (Metrics)

A.2.1. Primary Metric

The normalized work derived from the Performance Metric (as described in Clause 3.2.1) must be disclosed

2.46 watts / ktpmC

The computation for total energy used for each measurement segment that contributes to a Performance Metric must be disclosed. If the energy of the entire Priced Configuration is not derived from direct measurements, the methods for deriving the energy for components that were not measured must be disclosed (See Clause 7.3.3.4)

| PMU | Full Load Energy | | | | | | | | | | Reported Seconds | Adjusted Average Watts |
|-----------------------|---------------------------------|--------------------------|--------------------------|-----------------------|------------------------|--------------------------|--------------------------|----------------------------|-------------------------|-------------------------|------------------|------------------------|
| | Full Load Average Watts Reading | % of Reading Uncertainty | Watts Reading Correction | Wattage Range Setting | % of Range Uncertainty | Wattage Range Correction | Total Wattage Correction | Accuracy Correction Factor | Reported Watt / Seconds | Adjusted Watt / Seconds | | |
| DB Server PMU-1 | 1624.76 | 0.10% | +1.62 | 3000 | 0.10% | +3.00 | +4.62 | 0.28% | 11,699,911 | 11,733,214 | 7,200 | 1,629.61 |
| DB Server Total | 1624.76 | | | | | | | | 11,699,911 | 11,733,214 | | 1,629.61 |
| Storage PMU-1 | 714.92 | 0.10% | +0.71 | 1500 | 0.10% | +1.50 | +2.21 | 0.31% | 5,148,140 | 5,164,090 | 7,200 | 717.23 |
| Storage PMU-2 | 481.74 | 0.10% | +0.48 | 1500 | 0.10% | +1.50 | +1.98 | 0.41% | 3,469,030 | 3,483,301 | 7,200 | 483.79 |
| Storage PMU-3 | 474.16 | 0.10% | +0.47 | 1500 | 0.10% | +1.50 | +1.97 | 0.42% | 3,414,434 | 3,428,650 | 7,200 | 476.20 |
| Storage Total | 1670.82 | | | | | | | | 12,031,604 | 12,076,040 | | 1,677.23 |
| App Server PMU-1 | 989.84 | 0.10% | +0.99 | 3000 | 0.10% | +3.00 | +3.99 | 0.40% | 7,127,791 | 7,156,522 | 7,200 | 993.96 |
| App Server Total | 989.84 | | | | | | | | 7,127,791 | 7,156,522 | | 993.96 |
| 5 x Monitor NamePlate | 140 | 0.00% | +0.00 | 0 | 0.00% | +0.00 | +0.00 | 0.00% | 1,008,000 | 1,008,000 | 7,200 | 140.00 |
| Misc Total | 140 | | | | | | | | 1,008,000 | 1,008,000 | | 140.00 |
| REC Total | 4425.42 | | | | | | | | 31867305.9 | 31,973,776 | | 4441 |

All monitors power consumption in the Miscellaneous Subsystem were calculated using nameplate values.

The duration of each measurement that produces a Performance Metric must be disclosed

The duration of the measured runs were 120 minutes. The idle measurements were 10 minutes.

The average power requirement for each measurement that produces one of these metrics,

TPC-C measurement interval average power requirement:

| | Secondary Metrics | Additional Numerical Quantities | | | |
|--------------------|-------------------|---------------------------------|--------------------|-----------------|---------------|
| | Watts / KtpmC | Full Load Avg Watts | Full Load % of REC | Idle Avg. Watts | Idle % of REC |
| Database Server | 0.90 | 1,629.61 | 36.7% | 1,286.63 | 33.5% |
| Storage | 0.93 | 1,677.23 | 37.8% | 1,614.07 | 42.0% |
| Application Server | 0.55 | 993.96 | 22.4% | 803.76 | 20.9% |
| Miscellaneous | 0.08 | 140.00 | 3.2% | 140.00 | 3.6% |
| Total REC | 2.46 | 4441 | 100% | 3844 | 100% |

The TPC-Energy Primary Metric must be disclosed, including the calculation that is used to derive it.

| Throughput MI Minutes | Reported tpmC | SUT Total Work | REC Energy Consumption | Watts / tpmC | Watts / KtpmC |
|-----------------------|---------------|--------------------------|------------------------|--------------|---------------|
| 120 | 1,807,347 | 216,881,640 | SUT Total Work | 0.00246 | 2.46 |
| | REC - Secs | REC Energy Consumption - | | | |
| | 31,973,776 | 532,896 | | | |

Total REC Energy Consumption = 532,896 Watt-minutes
 SUT Total Work = 216,881,640 transactions

$532,896 \text{ Watt-minutes} / 216,881,640 \text{ transactions} = 0.00246 \text{ watts} / \text{tpmC}$
 $0.00246 \text{ watts} / \text{tpmC} * 1000 = 2.46 \text{ watts} / \text{ktpmC}$

A.2.2. Secondary Metrics At Reported Performance

If the TPC-Energy Secondary Metrics are reported, the components of the REC that are included in each subsystem must be identified. This can be achieved with separate lists to be included in the FDR or with a specific designation in the price spreadsheet. Every component in the REC that consumes energy must be included in exactly one subsystem.

| Description | Part Number | Qty |
|---|-------------|-----|
| Server Subsystem | | |
| HP ProLiant DL580 G7 Configure-to-order Server | 588857-B21 | 1 |
| HP DL580 G7 Intel Xeon X7560 (2.26GHz/8-core/24MB/130W) FIO 2-processor Kit | 588143-L21 | 1 |
| HP DL580 G7 Intel Xeon X7560 (2.26GHz/8-core/24MB/130W) Processor Kit | 588143-B21 | 2 |
| HP 16GB 4Rx4 PC3-8500R-7 Kit | 500666-B21 | 64 |
| HP DL580G7 Memory Board | 588141-B21 | 6 |
| HP DL580 G7 PCI Express Kit | 588137-B21 | 1 |
| HP StorageWorks 82Q 8Gb Dual Port PCI-e Fibre Channel Host Bus Adapter | AJ764A | 1 |
| HP 72GB 6G SAS 15K SFF (2.5-inch) | 512545-B21 | 2 |
| HP 146GB 6G SAS 15K SFF (2.5-inch) | 512547-B21 | 2 |
| LSI 9200_16e | LSI00189 | 8 |
| LSI 9200_16e (10% spares) | LSI00189 | 2 |
| Storage Subsystem | | |
| HP 300GB 6G SAS 10K SFF (2.5-inch) Dual Port Enterprise 3yr Warranty | 507127-B21 | 128 |
| HP 120GB 3G SATA 2.5in MDL | 572073-B21 | 256 |
| HP StorageWorks D2700 Disk Enclosure | AJ941A | 17 |
| HP StorageWorks P2000 G3 MSA FC Dual Controller SFF | AP846A | 1 |
| Application Server Subsystem | | |
| HP DL360G7 CTO Chassis | 579237-B21 | 4 |
| HP X5670 DL360G6/G7 FIO Kit | 588062-L21 | 8 |
| HP 460W CS HE Power Supply Kit | 503296-B21 | 4 |
| HP NC365T 4-port Ethernet Server Adapter | 593722-B21 | 8 |
| HP 2GB 2Rx8 PC3-10600R-9 Kit | 500656-B21 | 48 |
| HP 300GB 6G SAS 10K SFF (2.5-inch) Dual Port Enterprise 3yr Warranty | 507127-B21 | 16 |
| HP ProCurve 2910al-48G Switch | J9147A#ABA | 1 |
| Miscellaneous Subsystem | | |
| HP LE1851w 18.5-Inch wide Monitor | NK033AA#ABA | 5 |

For each defined subsystem, the calculations defined for the TPC-Energy Secondary Metrics in Clause 3.3 must be reported, using the Performance Metric of the entire SUT and the energy consumption for each REC subsystem.

| | Secondary Metrics | Additional Numerical Quantities | | | |
|--------------------|-------------------|---------------------------------|--------------------|-----------------|---------------|
| | Watts / KtpmC | Full Load Avg Watts | Full Load % of REC | Idle Avg. Watts | Idle % of REC |
| Database Server | 0.90 | 1,629.61 | 36.7% | 1,286.63 | 33.5% |
| Storage | 0.93 | 1,677.23 | 37.8% | 1,614.07 | 42.0% |
| Application Server | 0.55 | 993.96 | 22.4% | 803.76 | 20.9% |
| Miscellaneous | 0.08 | 140.00 | 3.2% | 140.00 | 3.6% |
| Total REC | 2.46 | 4441 | 100% | 3844 | 100% |

| | | | |
|----------------------|------------------|-----------------------|-----------------------|
| Reported tpmC | 1,807,347 | Sut Total Work | 216,881,640.00 |
| KtpmC | 1807.347 | MI in Minutes | 120 |

1,807,347tpmC * 120 minutes MI = 216,881,640 transactions (SUT Total Work)

195,553 Watt-min / 216,881,640 transactions x 1000 = 0.90 DBServer watts/KtpmC

201,267 Watt-min / 216,881,640 transactions x 1000 = 0.93 Storage watts/KtpmC

119,275 Watt-min / 216,881,640 transactions x 1000 = 0.55 AppServer watts/KtpmC

16,800 Watt-min / 216,881,640 transactions x 1000 = 0.08 Misc. watts/KtpmC

A.2.3. Idle Power reporting

The Idle Power measurement/calculation for the REC must be reported as numerical quantities.

The Idle power measurement for REC = 3844 Watts.

If TPC-Energy Secondary Metrics are reported, then the Idle Power measurement/calculation for each subsystem must also be reported as numerical quantities.

| Idle Load Energy | | | | | | | | | | | | |
|-----------------------|----------------------------|--------------------------|--------------------------|-----------------------|------------------------|--------------------------|--------------------------|----------------------------|-------------------------|-------------------------|------------------|------------------------|
| PMU | Idle Average Watts Reading | % of Reading Uncertainty | Watts Reading Correction | Wattage Range Setting | % of Range Uncertainty | Wattage Range Correction | Total Wattage Correction | Accuracy Correction Factor | Reported Watt / Seconds | Adjusted Watt / Seconds | Reported Seconds | Adjusted Average Watts |
| DB Server PMU-1 | 1280.21 | 0.10% | +1.28 | 3000 | 0.10% | +3.00 | +4.28 | 0.33% | 769,405 | 771,977 | 600 | 1,286.63 |
| DB Server Total | 1280.21 | | | | | | | | 769,405 | 771,977 | | 1,286.63 |
| Storage PMU-1 | 704.75 | 0.10% | +0.70 | 1500 | 0.10% | +1.50 | +2.20 | 0.31% | 423,554 | 424,879 | 600 | 708.13 |
| Storage PMU-2 | 454.16 | 0.10% | +0.45 | 1500 | 0.10% | +1.50 | +1.95 | 0.43% | 272,949 | 274,123 | 600 | 456.87 |
| Storage PMU-3 | 446.37 | 0.10% | +0.45 | 1500 | 0.10% | +1.50 | +1.95 | 0.44% | 268,268 | 269,437 | 600 | 449.06 |
| Storage Total | 1605.28 | | | | | | | | 964,770 | 968,439 | | 1,614.07 |
| App Server PMU-1 | 798.62 | 0.10% | +0.80 | 3000 | 0.10% | +3.00 | +3.80 | 0.48% | 479,971 | 482,253 | 600 | 803.76 |
| App Server Total | 798.62 | | | | | | | | 479,971 | 482,253 | | 803.76 |
| 5 x Monitor NamePlate | 140 | 0.00% | +0.00 | 0 | 0.00% | +0.00 | +0.00 | 0.00% | 84,000 | 84,000 | 600 | 140.00 |
| Misc Total | 140 | | | | | | | | 84,000 | 84,000 | | 140.00 |
| REC Total | 3824.11 | | | | | | | | 2298145.3 | 2306670 | | 3844 |

The length of time between the conclusion of the performance measurement and the start of the idle measurement must be reported.

Idle measurement was started 2 minutes and 26 seconds after the conclusion of the performance measurement.

The duration of the idle measurement must be reported

Idle measurement duration was 10 minutes.

A statement is required that assures that the system is in a state that is ready to run the Application(s) of the benchmark for the duration of the idle measurement.

The system is in a state that is ready to run the Application(s) of the benchmark for the duration of the idle measurement. This was verified by executing one transaction after the idle measurement interval was completed. The transaction time was compared to the allowed 90th percentile and found to meet the required specifications.

A.2.4. Disclosure requirements when only part of the REC is measured for power

If all PMU's of the REC are not measured for energy use, the FDR must include a description of which PMUs of REC were measured with a power analyzer. The FDR must disclose which PMUs of the REC were computed based on the energy measurements of similar PMUs. A diagram must be included that identifies the portions of the configuration which were measured for energy use and which were calculated. This diagram may be combined with other diagrams required by the TPC Benchmark Standard.

- The method used to determine which PMUs were measured must be disclosed.
- The power values for the each partial-REC measurement for duration of the performance and idle measurements must be disclosed.
- The calculation for the power requirements of the entire REC and, if applicable, each subsystem must be disclosed.

See substitution section below for details.

A.2.5. Disclosure requirements when component substitution is used

If the TPC Benchmark Standard allows the Priced Configuration to differ from the Measured Configuration, the methods used to assign energy or power characteristics to the substitute components must be disclosed

Component substitution was not used

The method used to determine which PMUs were measured must be disclosed

Component substitution was not used

The power values for the each partial-REC measurement for duration of the performance and idle measurements must be disclosed.

Component substitution was not used

A.3. TPC-Energy Clause 4-related items (Drivers /Controller)

A statement indicating the version of EMS used must be included in the FDR, including a statement that no alterations of this code were made for the benchmark, except as specified by Clause 7.3.4.3. This includes levels for the EMS-PTD Manager, EMS-PTD and EMS-controller

EMS version was 1.2.0 and no alterations were made.

Input parameters for the EMS software must be disclosed

The following EMS script was used to configure the EMS software

```
start log power-storage1 > Storage1
sleep 5
start log power-storage2 > Storage2
sleep 5
start log power-storage3 > Storage3
sleep 5
start log power-DL580G7 > DL580G7
sleep 5
start log power-WebClients > WebClients
sleep 5
start log temperature > REC-Temperature
sleep 5
time sync
sleep 5
set sample 1000 > Storage1
sleep 5
set sample 1000 > Storage2
sleep 5
set sample 1000 > Storage3
sleep 5
set sample 1000 > DL580G7
sleep 5
```

```

set sample 1000 > WebClients
sleep 5
set sample 10000 > REC-Temperature
sleep 5
start data "run 1"

```

Any changes in the EMS components must be documented. Documentation must include a description of the issue, the reason the change was necessary for disclosure of the Result, and the changes made to resolve it. Any change to TPC-Provided Code must be included with the submission as a Supporting File.

No changes to EMS components were made.

A.4. TPC-Energy Clause 6-related items (Instrumentation)

A.4.1. Power Analyzer information

| Power Analyzer Specifications and Settings | | | | | | | | | |
|---|----------|-------|---------------|------------------|-----------------------|-----------------------|-----------------------|--------------|------------|
| PMU | Make | Model | Serial Number | Calibration Date | Wattage Range Setting | Voltage Range Setting | Current Range Setting | % of reading | % of Range |
| DB Server PMU-1 | Yokogawa | WT210 | 91J716746 | 12/10/2009 | 3000 | 300 | 10 | 0.10% | 0.10% |
| Storage PMU-1 | Yokogawa | WT210 | 91K112854 | 2/8/2010 | 1500 | 300 | 5 | 0.10% | 0.10% |
| Storage PMU-2 | Yokogawa | WT210 | 91GB45372 | 12/10/2009 | 1500 | 300 | 5 | 0.10% | 0.10% |
| Storage PMU-3 | Yokogawa | WT210 | 91K112851 | 2/8/2010 | 1500 | 300 | 5 | 0.10% | 0.10% |
| App Server PMU-1 | Yokogawa | WT210 | 91K208942 | 3/19/2010 | 3000 | 300 | 10 | 0.10% | 0.10% |
| 5 x Monitor NamePlate | N/A | | | | | | | | |

A.4.2. Temperature Sensor information

Make and model.

Accuracy and the source of info

Digi Watchport/H Temperature Probe.

Temperature accuracy from Manufactures Datasheet:

+/- 3.6° F (+/- 2° C) at -40° F to 14° F (-40° C to -10° C)

+/- 0.9° F (+/- 0.5° C) at 14° F to 185° F (-10° C to 85° C)

A.5. PC-Energy Clause 8-related items

A.5.1. Auditor's attestation letter.



August 27, 2010

Mr. David Adams
Database Performance Engineer
Hewlett-Packard Company
20555 SH 249
Houston, TX 77070

I have verified on-site the TPC Benchmark™ C for the following configuration:
Platform: HP ProLiant DL580G7
Database Manager: Microsoft SQL Server 2005 Enterprise X64 Edition SP3
Operating System: Microsoft Windows Server 2008 R2 Enterprise Edition
Transaction Monitor: Microsoft COM+

| System Under Test: | | | | |
|-----------------------------|---------------|---|--------------|------------------|
| CPU's | Memory | Disks (total) | 90% Response | TpmC |
| 4 Xeon 8 core @ 2.27 Ghz | Main: 1024 GB | 128 @ 300 GB 256 @ 120 GB 2 @ 146 GB 2 @ 72GB | 0.49 | 1,807,347 |
| Clients: 4 DL360 G7 | | | | |
| 2 Xeon 6 core @ 2.93 Ghz | 24 GB | 4 @ 300 GB | NA | NA |

In addition to the performance metric, the energy consumption was measured during the performance runs in compliance with the TPC-Energy specification.

- The power analyzers used were verified to be approved and calibrated within one year prior to this measurement.
- The energy measurements met all requirements of the specification unless an exception is noted below.
- The calculations for the TPC-Energy Primary Metric were verified as completed correctly.
- The EMS software was verified to be the correct version and without any changes.
- The executive summary page and the FDR were verified for accuracy.

Auditor's Notes: None

Sincerely,

Lorna Livingtree

Lorna Livingtree, Certified Auditor



A.6. TPC-Energy Supporting Files Index

A.7.

| Clause | Description | Path |
|--------|-------------------------|--|
| 7.4.1 | PTDM Log Files (XML) | power-DL580G7-008.xml |
| 7.4.1 | PTDM Log Files (XML) | power-storage1-008.xml |
| 7.4.1 | PTDM Log Files (XML) | power-storage2-008.xml |
| 7.4.1 | PTDM Log Files (XML) | power-storage3-008.xml |
| 7.4.1 | PTDM Log Files (XML) | power-WebClients-008.xml |
| 7.4.1 | PTDM Log Files (XML) | temperature-008.xml |
| 7.4.1 | PTDM Log Files (txt) | power-DL580G7-008_Idle.txt |
| 7.4.1 | PTDM Log Files (txt) | power-DL580G7-008_MI.txt |
| 7.4.1 | PTDM Log Files (txt) | power-storage1-008_Idle.txt |
| 7.4.1 | PTDM Log Files (txt) | power-storage1-008_MI.txt |
| 7.4.1 | PTDM Log Files (txt) | power-storage2-008_Idle.txt |
| 7.4.1 | PTDM Log Files (txt) | power-storage2-008_MI.txt |
| 7.4.1 | PTDM Log Files (txt) | power-storage3-008_Idle.txt |
| 7.4.1 | PTDM Log Files (txt) | power-storage3-008_MI.txt |
| 7.4.1 | PTDM Log Files (txt) | power-WebClients-007_MI-Run3.txt |
| 7.4.1 | PTDM Log Files (txt) | power-WebClients-008_Idle.txt |
| 7.4.1 | PTDM Log Files (txt) | power-WebClients-008_MI.txt |
| 7.4.1 | PTDM Log Files (txt) | temperature-008_Idle.txt |
| 7.4.1 | PTDM Log Files (txt) | temperature-008_MI.txt |
| N/A | EMS script | Collect.ems |
| N/A | Calculation Spreadsheet | DL585G7-TPC-C-Energy_calculations.xlsx |