



**TPC Benchmark™ C
Full Disclosure
Report**

**Unisys ES7000/600
Enterprise Server (8P)**

using

**Microsoft SQL Server 2005
Enterprise x64 Edition**

on

**Microsoft Windows Server 2003,
Enterprise x64 Edition**

**First Edition
November 7, 2005**

First Edition – November 2005

Unisys Corporation believes that the information in this document is accurate as of the publication date. The information in this document is subject to change without notice. Unisys Corporation assumes no responsibility for any errors that may appear in this document.

The pricing information in this document is believed to accurately reflect the current prices as of the publication date. However, Unisys Corporation and Microsoft Corporation provide no warranty on the pricing information in this document.

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 Benchmark C should not be used as a substitute for a specific customer application benchmark when critical capacity planning and/or product evaluation decisions are contemplated.

All performance data contained in this report was obtained in a rigorously controlled environment, and therefore results obtained in other operating environments may vary significantly. Unisys Corporation and Microsoft Corporation do not warrant or represent that a user can or will achieve similar performance expressed in transactions per minute (tpmC) or normalized price/performance (USD/tpmC). No warranty of system performance or price/performance is expressed or implied in this report.

Copyright © 2005 Unisys Corporation.

All Rights Reserved. Permission is hereby granted to reproduce this document in whole or in part provided the copyright notice printed above is set forth in full text on the title page of each item reproduced.

Printed in USA, November 2005.

Unisys is a registered trademark of Unisys Corporation.

Intel, Xeon and Xeon Processor MP are registered trademarks of Intel Corporation.

Microsoft, Windows, Visual C++ and SQL Server 2005 are registered trademarks of Microsoft Corporation.

TPC Benchmark, TPC-C and tpmC are trademarks of the Transaction Processing Performance Council.

Other product names used in this document may be trademarks and/or registered trademarks of their respective companies.

Overview

This report documents the methodology and results of the TPC Benchmark C (TPC-C) conducted on the Unisys Corporation ES7000/600 Enterprise Server (8P). The operating system on the server was Microsoft Windows Server 2003, Enterprise x64 Edition. The DBMS used was Microsoft SQL Server 2005 Enterprise x64 Edition. The operating system on the clients was Microsoft Windows 2003 Server. The clients ran Microsoft's Internet Information Server 6.0 (IIS) and COM+.

TPC Benchmark 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 required by the benchmark specification.

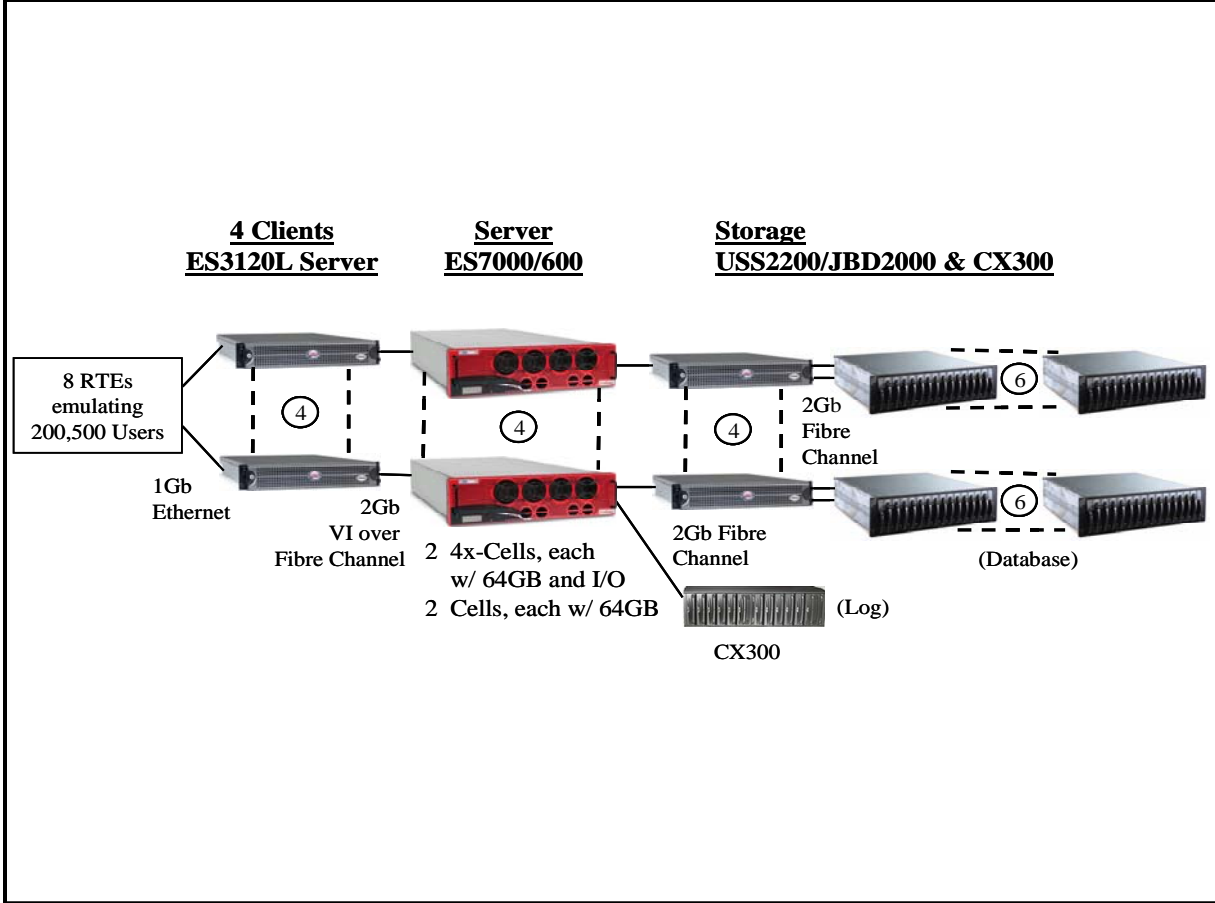
Executive Summary

The following pages contain the executive summary results of the benchmark.

Auditor

Tom Sawyer of Performance Metrics, Inc. verified compliance with the relevant TPC specification and audited the benchmark configuration, environment, and methodology used to produce and validate the test results, along with the pricing model used to calculate the cost per tpmC.

UNISYS	ES7000/600		TPC-C Rev. 5.4
	Enterprise Server (8P)		Report Date November 7, 2005
Total System Cost	TPC-C Throughput	Price Performance	Availability Date
\$915,523 USD	251,691 tpmC	\$3.64 USD/tpmC	May 5, 2006
Processors/ Cores/Threads	Database Manager	Operating System	Other Software
8/8/16 Database 8/8/16 Clients	Microsoft SQL Server 2005 Enterprise x64 Edition	Microsoft Windows Server 2003, Enterprise x64 Edition	Windows Server 2003 w/ IIS 6.0 and COM+ Microsoft Visual C++
			Number of Users
			200,500



System Components	Server		Each Client (4)	
	Qty.		Qty.	
Processors/Cores/Threads Cache	8/8/16	3.33GHz 64-bit Intel® Xeon™ Processor MP, 8MB Lvl 3 Cache	2/2/4	3.4GHz 64-bit Intel® Xeon™ Processor, 2MB Lvl 2 Cache
Memory	4	64 GB	2	1 GB
Disk Controllers	5 1	PCI Fibre Channel PCI SAS RAID (boot)	1	Inbuilt SCSI
Disk Drives	287 49 12 2	18GB FC 15K rpm 36GB FC 15K rpm 146GB FC 10K rpm 36GB SAS 10K rpm (boot media)	1	36GB SCSI 15K rpm
Total Storage		7.8 TB		34.3 GB
Other	4 2 1	Inbuilt 1Gb NIC (0 used) PCI VI-over-FC Controller IDE DVD-R/RW; CD-R/W	2 1 1	Inbuilt 1Gb NIC (1 used) PCI VI-over-FC Controller IDE CD-ROM

UNISYS	ES7000/600 Enterprise Server (8P)		TPC-C Rev. 5.4 TPC Pricing 1.0.1				
			Report Date				
			November 7, 2005				
Description	Part Number	Price Source	Unit Price	Qty.	Extended Price	3-yr. Maint. Price	
Server Hardware:							
SYS: ES7000/600, 8x 3.33GHz/8MB, 256GB Mem. eService Processor & Server Mngmt SW	ES7600083-256 Included	1	\$417,050	1	\$417,050	\$3,096	
CTRL: Fibre Channel HBA, 2-Port, 64-bit PCI	FC76222-P64	1	\$2,850	5	\$14,250		
CTRL: VI-over-FC HBA, 2Gb 2-Port, 64-bit PCI	FCH752323-PCX	1	\$2,138	2	\$4,276		
KIT: 1x RAID Controller, 1x 36GB Disk (boot media)	FAC7600361-IDK	1	\$618	1	\$618		
DISK: 1x 36GB 10Krpm SAS (boot media)	HDF4036100-X25	1	\$428	1	\$428		
I/F: Monitor, 17-inch LCD, Kybrd, Mse & Cable	ES70006-UIF	1	\$546	1	\$546		
Subtotal					\$437,168	\$3,096	
Server Software:							
O/S: Windows 2003 Server, Enterprise x64 Edition	P72-00274	2	\$2,334	1	\$2,334	** Inc. below	
APP: Microsoft SQL Server 2005 Enterprise x64 Edtn.	810-03134	2	\$23,432	8	\$187,456	** Inc. below	
SRVC: Microsoft Problem Resolution Services **		2	\$245	1	\$245	\$245	
Subtotal					\$189,790	\$245	
Storage Hardware:							
DISK: 1.5TB Pkg, 84x 18GB, 15Krpm *	JBD201815-P84	1	\$28,220	3	\$84,660	Spared	
DISK: 1.3TB Pkg, 70x 18GB, 15Krpm *	JBD201815-P70	1	\$24,281	1	\$24,281	Spared	
DISK: 2.0TB Pkg, 56x 36GB, 15Krpm *	JBD203615-P56	1	\$27,132	1	\$27,132	Spared	
DISK: 146GB, 10Krpm, 2Gb FC	CXR14610-2GF	1	\$1,435	12	\$17,220		
RCK: Storage Enclosure, FC 2Gb Copper/Copper I/F	JBD2002-SA	1	\$3,197	16	\$51,152	\$8,064	
RCK: Storage Enclosure, FC 2Gb Optical/Copper I/F	JBD2011-SA	1	\$3,413	8	\$27,304	\$4,320	
CTRL: Symmetric Disk Virt. 2xCPU, 512MB Mem	RMM20103-ELS	1	\$4,559	4	\$18,236	\$4,656	
CTRL: USS, Fibre Channel HBA, 1-Port, 64-bit PCI	RMM20701-TAR	1	\$1,805	12	\$21,660	\$5,472	
APP: Unisys Storage Sentinel 2200 SDV Software	USS10300-SW	1	\$5,472	1	\$5,472	\$4,068	
APP: Storage Sentinel SDV SW, 10TB License	USS20310-LIC	1	\$25,200	1	\$25,200		
CBL: FC, Copper, HSDC2 Conn's, 0.3m	JBD20003-CCL	1	\$53	16	\$848		
CBL: FC, Optical, LC->LC Conn's, 10m *	GCFAZLL20	3	\$38	15	\$570	Spared	
RCK: Rack Mount Kit, Disk Enclosure	JBD2001-RMK	1	\$190	24	\$4,560		
CTRL: DPE, 2 RAID Cntrl, 1GB Cache ea., 0 Disk	CX300-DPE	1	\$13,300	1	\$13,300	\$1,404	
SYS MGT: Storage, Navisphere Manager	CXN300-WRK	1	\$2,138	1	\$2,138	\$1,008	
SWTCH: KVM 16-Port PS/2-Cat5	KVM9163101-SWC	1	\$1,805	1	\$1,805		
I/F: Monitor, 17-inch LCD, Kybrd, Mse & Cable	ES70004-UIF	1	\$665	1	\$665		
ADPTR: Cat5 to PS/2	KVM9001301-CNV	1	\$114	8	\$912		
CBL: Ethernet, Cat5e, RJ45 Conn's, 10ft *	GCPO888910	3	\$1	10	\$10	Spared	
PWR: Distribution Strip, 9-Plug, 220V	SFR9-PWR	1	\$162	9	\$1,458		
CBL: Power, U.S. (Domestic), C20 - L6-20P	USE1936-LC6	1	\$86	9	\$774		
CAB: 36U x 19" x 41" Open Front Cabinet	HRT361941-OFT	1	\$1,425	3	\$4,275		
Subtotal					\$333,632	\$28,992	
Client Hardware:							
SYS: ES3120L w/ 1x 3.4GHz Proc., 0MB Mem	ESL312002-340	1	\$2,006	4	\$8,024	\$2,592	
PROC: 1x 3.4GHz Intel Xeon/2MB Cache	CPL3120342-2MB	1	\$1,196	4	\$4,784		
MEM: 2GB, 2x 1GB DIMMs DDR SDRAM	DIM3120021-2GB	1	\$864	4	\$3,456		
DISK: 36GB 15Krpm U320 3.5 Internal	HDP36115-DC4	1	\$385	4	\$1,540		
RCK: ES3120L HSBP Modul & SCSI Cable	HBP3120101-MOD	1	\$264	4	\$1,056		
RCK: ES3120L Universal Rack Kit	ESL3120-VRL	1	\$331	4	\$1,324		
CTRL: VI-over-FC HBA, 2Gb 2-Port, 64-bit PCI	FCH752323-PCX	1	\$2,138	4	\$8,552		
CDR: 24x Slimline CD-ROM & Cable	CDR12243-AIS	1	\$41	4	\$164		
Subtotal					\$28,900	\$2,592	
Client Software:							
O/S: Windows Server 2003, Standard Edition	P73-00295	2	\$719	4	\$2,876	** Inc. above	
ACC: Microsoft Visual C++ Standard Edition	254-00170	2	\$109	1	\$109	** Inc. above	
Subtotal					\$2,985	\$0	
Computer Resolutions Inc. 14% Volume Cash Discount (Ext.Price where Price Source=1)					(\$111,877)		
Total USD					\$880,598	\$34,925	
Notes:							
1. * 10% or minimum 2 spares are added in place of onsite service.				3-Year Cost of Ownership: \$915,523 USD			
2. HW & SW maintenance at 24 x 7 w/ 4 hr. max. response time for spares.							
3. Price Source: 1 = CRI Product Price, Unisys Maintenance Price 2 = Microsoft 3 = GoCables							
				tpmC Rating: 251,691			
				\$ / tpmC: \$3.64 USD			
Benchmark results and test methodology audited by Tom Sawyer of Performance Metrics, Inc.							
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 assumption 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 benchmarks 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.							

Numerical Quantities Summary

MQTh, Computed Maximum Qualified Throughput: 251,691 tpmC

Response Times, in seconds

Transaction	90th %ile	Average	Maximum
New-Order	0.40	0.27	5.25
Payment	0.39	0.26	5.27
Order-Status	0.40	0.27	4.92
Delivery (interactive portion)	0.28	0.19	1.00
Delivery (deferred portion)	0.19	0.14	4.80
Stock-Level	0.48	0.32	1.63
Menu	0.28	0.19	1.55

Response time delay added for emulated components, in seconds

RT Response time	0.1
Menu Response time	0.1

Transaction Mix, in percent of total transactions

New Order	44.92%
Payment	43.03%
Order-Status	4.01%
Delivery (interactive portion)	4.00%
Stock-Level	4.01%

Keying / Think Time Times, in seconds

Transaction	Minimum	Average	Maximum
New Order	18.01 / 0.00	18.01 / 12.03	18.03 / 120.31
Payment	3.01 / 0.00	3.01 / 12.03	3.03 / 120.31
Order-Status	2.01 / 0.00	2.01 / 10.07	2.03 / 100.70
Delivery (interactive portion)	2.01 / 0.00	2.01 / 5.06	2.03 / 50.61
Stock-Level	2.01 / 0.00	2.01 / 5.06	2.03 / 50.61

Test Duration

Ramp up time	117 minutes
Measurement interval (M)	120 minutes
Transactions (all types) completed during measurement interval	67,223,171
Ramp-down time	6 minutes

Checkpointing:

Number of checkpoints	4
Checkpoint interval	30 minutes

Table of Contents

Abstract.....	iii
Table of Contents	vii
Preface.....	xi
0. General Items	0-1
0.1. Order and Titles	0-1
0.2. Executive Summary Statement.....	0-1
0.3. Numerical Quantities Summary	0-1
0.4. Application Code Disclosure	0-1
0.5. Benchmark Sponsor	0-2
0.6. Parameter Settings.....	0-2
0.7. Configuration Diagrams.....	0-2
1. Clause 1: Logical Database Design.....	1-1
1.1. Table Definitions	1-1
1.2. Physical Organization of the Database.....	1-1
1.3. Insert and/or Delete Operations	1-1
1.4. Partitioning.....	1-1
1.5. Replication, Duplication or Additions	1-1
2. Clause 2: Transaction & Terminal Profiles.....	2-1
2.1. Random Number Generation	2-1
2.2. Input/Output Screen Layout	2-1
2.3. Priced Terminal Feature Verification.....	2-1
2.4. Presentation Managers or Intelligent Terminal	2-1
2.5. Transaction Statistics	2-1
2.6. Queuing Mechanism of Delivery	2-2
3. Clause 3: Transaction & System Properties.....	3-1
3.1. Transaction System Properties (ACID).....	3-1
3.2. Atomicity	3-1
3.2.1. Completed Transaction	3-1
3.2.2. Aborted Transactions	3-1
3.3. Consistency	3-1
3.4. Isolation	3-2

3.5.	Durability	3-2
3.5.1.	Loss of Log Disk and Loss of Data Disk.....	3-2
3.5.2.	Instantaneous Interruption and Loss of Memory.....	3-3
4.	Clause 4: Scaling & Database Population.....	4-1
4.1.	Initial Cardinality of Tables	4-1
4.2.	Constant Values	4-1
4.3.	Database Layout.....	4-2
4.4.	DBMS: Data Model and DBMS Interface/Access Language	4-2
4.5.	DBMS Partitions/Replications	4-2
4.6.	DBMS Space Requirements.....	4-2
5.	Clause 5: Performance Metrics & Response Time	5-1
5.1.	Measured Throughput (tpmC).....	5-1
5.2.	Response Times	5-1
5.3.	Keying and Think Times.....	5-1
5.4.	Response Time Frequency Distribution Curves	5-2
5.5.	Response Time versus Throughput Performance Curve	5-4
5.6.	New Order Think Time Frequency Distribution Curve.....	5-5
5.7.	New-Order Throughput vs. Time	5-5
5.8.	Determination of “Steady State”	5-6
5.9.	Work Performed During Steady State.....	5-6
5.10.	Measurement Interval Duration.....	5-6
5.11.	Regulation of Transaction Mix.....	5-7
5.12.	Transaction Statistics	5-7
5.13.	Checkpoint Statistics.....	5-8
6.	Clause 6: SUT, Driver & Communications Definition.....	6-1
6.1.	Remote Terminal Emulator (RTE) Description	6-1
6.2.	Loss of Terminal Connections	6-1
6.3.	Emulated Components	6-1
6.4.	Functional Diagrams	6-1
6.5.	Network Configuration.....	6-1
6.6.	Network Bandwidth	6-2
6.7.	Operator Intervention	6-2
7.	Clause 7: Pricing	7-1
7.1.	Pricing.....	7-1
7.1.1.	System Pricing.....	7-1
7.1.2.	Maintenance Pricing.....	7-1
7.1.3.	Discounts.....	7-1

7.2.	Availability	7-2
7.3.	Measured tpmC, Pricing, Price/Performance, and Availability Date	7-2
7.4.	Country-Specific Pricing.....	7-2
7.5.	Usage Pricing.....	7-2
8.	Clause 8 : Full Disclosure Availability.....	8-1
8.1.	Availability	8-1
9.	Clause 9 : Audit	9-1
9.1.	Auditor's Report	9-1
Appendix A -	Client Source	A-1
Appendix B -	Database Design.....	B-1
Appendix C -	Tunable Parameters	C-1
Appendix D -	RTE Code.....	D-1
Appendix E -	Disk Storage	E-1
Appendix F -	Third-Party Price Quotations.....	F-1

Figures

Figure 0.1: Benchmarked Configuration.....	0-3
Figure 0.2: Priced Configuration	0-3
Figure 5.1: New Order Response Time Distribution	5-2
Figure 5.2: Payment Response Time Distribution	5-2
Figure 5.3: Order Status Response Time Distribution.....	5-3
Figure 5.4: Delivery Response Time Distribution	5-3
Figure 5.5: Stock Level Response Time Distribution.....	5-4
Figure 5.6: New Order Response Time versus Throughput	5-4
Figure 5.7: New Order Think Time Distribution.....	5-5
Figure 5.8: Throughput (tpmC) versus Time	5-5

Tables

Table 4.1: Initial Cardinality of Database Table.....	4-1
Table 4.2: Constant C for NURand.....	4-1
Table 4.3: Disk Rack Configuration	4-3
Table 4.4: ES7000 Server HBA-PCI Slot Map.....	4-4
Table 4.5: Disk Management Configuration.....	4-5
Table 5.1: Response Time Data	5-1
Table 5.2: Keying Times.....	5-2
Table 5.3: Think Times.....	5-2
Table 5.4: Transaction Statistics	5-7
Table 5.5: Checkpoint Start Time and Duration.....	5-8

Document Structure

The TPC Benchmark C Standard Specification requires test sponsors to publish, submit to the TPC, and make available to the public, a full disclosure report for any result to be considered compliant with the specification. The required contents of the full disclosure report are specified in Clause 8.

This report is submitted to satisfy the specification's requirement for full disclosure. It documents the compliance of the benchmark implementation and execution reported for the Unisys ES7000/600 Enterprise Server (8P) using Microsoft SQL Server 2005 Enterprise x64 Edition on Microsoft Windows Server 2003, Enterprise x64 Edition.

TPC Benchmark C Overview

The Transaction Processing Performance Council (TPC) developed The TPC Benchmark™ C Standard Specification Revision 5.4. It is the intent of the TPC to develop a suite of benchmarks to measure the performance of computer systems executing a wide range of applications. Unisys and Microsoft Corporations are active participants in the TPC to define and develop such a suite of benchmarks.

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.

Despite the fact that this benchmark offers a rich environment that emulates many OLTP environments, 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.

0.1. Order and Titles

The order and titles of sections in the Test Sponsor's Full Disclosure report must correspond with the order and titles of sections from the TPC-C standard specification (i.e., this document). The intent is to make it as easy as possible for readers to compare and contrast material in different Full Disclosure reports. (8.1.1.1)

The order and titles of the sections in this report correspond with those from the TPC-C standard specification.

0.2. Executive Summary Statement

The TPC Executive Summary Statement must be included near the beginning of the Full Disclosure report. (8.1.1.2)

The TPC Executive Summary Statement is included near the beginning of this report.

0.3. Numerical Quantities Summary

The numerical quantities listed below must be summarized near the beginning of the Full Disclosure Report: (8.1.1.3)

- *Measurement interval in minutes,*
- *Number of checkpoints in the measurement interval,*
- *Checkpoint interval in minutes,*
- *Number of transactions (all types) completed within the measurement interval,*
- *Computed Maximum Qualified Throughput in tpmC,*
- *Ninetieth percentile, average and maximum response times for the New-Order, Payment, Order-Status, Stock-Level, Delivery (deferred and interactive) and Menu transactions,*
- *Time in seconds added to response time to compensate for delays associated with emulated components,*
- *Percentage of transaction mix for each transaction type.*

These numerical quantities are summarized near the beginning of this report.

0.4. Application Code Disclosure

The applicable 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 and output functions. (8.1.1.4)

Appendix A contains the client application code used in this TPC-C benchmark. Appendix B contains the SQL stored procedures that implement the TPC-C transactions.

0.5. Benchmark Sponsor

A statement identifying the benchmark sponsor(s) and other participating companies must be provided. (8.1.1.5)

Unisys Corporation sponsored this TPC benchmark C. Microsoft and Unisys developed the benchmark test. The benchmark was conducted at Unisys, Mission Viejo, California.

0.6. 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 but not limited to: (8.1.1.6)

- *Data Base tuning options*
- *Recovery/commit options*
- *Consistency/locking options*
- *Operating system and application configuration parameters*

Appendix C contains the configuration and system parameters used in running these TPC-C tests. It also contains all the client and server OS and SQL Server tunable parameters.

0.7. Configuration Diagrams

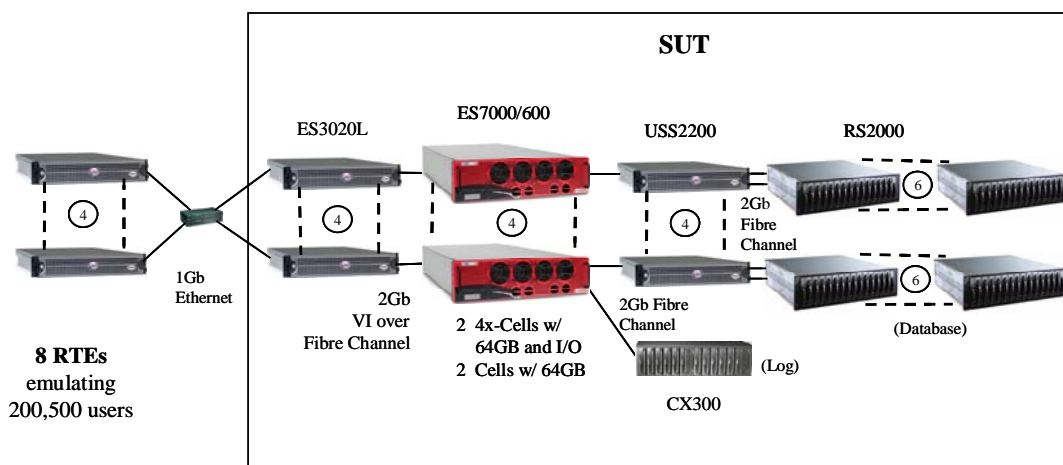
Diagrams of both measured and priced configurations must be provided, accompanied by a description of the differences. This includes, but is not limited to: (8.1.1.7)

- *Number and type of processors.*
- *Size of allocated memory, and any specific mapping/partitioning of memory unique to the test.*
- *Number and type of disk units (and controllers, if applicable).*
- *Number of channels or bus connections to disk units, including their protocol type.*
- *Number of LAN (e.g., Ethernet) connections, including routers, workstations, terminals, etc., that were physically used in the test or are incorporated into the pricing structure (see Clause 8.1.8).*
- *Type and the run-time execution location of software components (e.g., DBMS, client processes, transaction monitors, software drivers, etc.).*

The Remote Terminal Emulator (RTE) software used for these TPC-C tests is proprietary to Unisys. The benchmarked configuration of the RTE and Unisys ES7000/600 Enterprise Server (8P) is illustrated in Figure 0.1. Tables 4.3 and 4.5 contain a detailed explanation of the disk configuration.

The differences between the measured and priced configurations, if any, are described in the auditor's notes (attestation letter) in clause 9 of this document.

Figure 0.1: Benchmarked Configuration



Clients (each of 4)

ES3120L Server

2 x 3.4GHz Intel® Xeon™
w/ 1MB L2 cache,
2 GB memory,
1 x 36GB internal disk,
1 x PCI VI controller,
2 Inbuilt 1Gb Eth. cntrls.
(1 used).

Server

ES7000/600

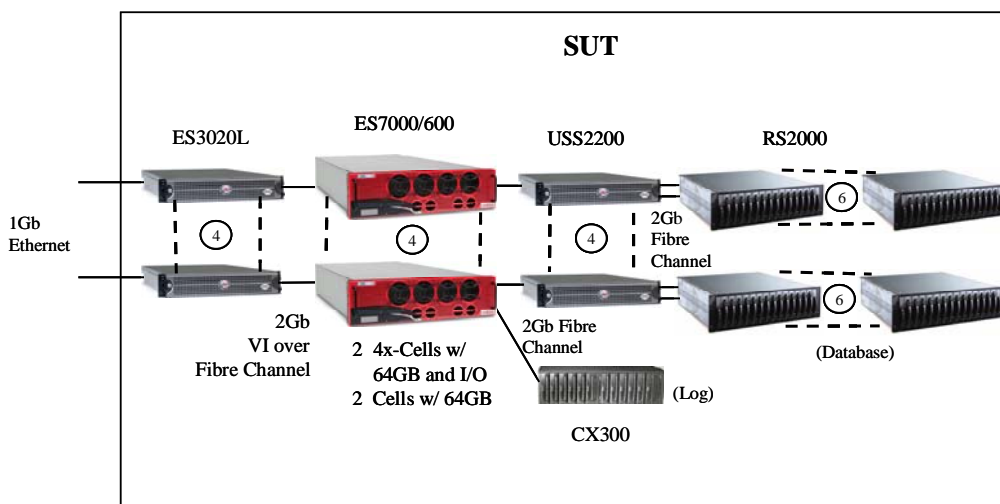
8 x 3.33GHz 64-bit Intel®
Xeon™ MP w/ 8MB L3 cache,
256 GB memory,
2 x 36GB SAS disk, internal ,
1 x PCI SAS RAID cntrl, internal,
5 x PCI Fibre Channel cntrls,
2 x PCI VI-over-FC cntrls,
4 Inbuilt 1Gb Eth. cntrls.
(0 used).

Storage

USS2200/RS2000 & CX300

329 x 18GB + 7 x 36GB
12 x 146GB
External Fibre Channel disks,
6 x FC RAID controllers

Figure 0.2: Priced Configuration



Clients (each of 4)

ES3120L Server

2 x 3.4GHz Intel® Xeon™
w/ 2MB L2 cache,
2 GB memory,
1 x 36GB internal disk,
1 x PCI VI controller,
2 Inbuilt 1Gb Eth. cntrls.
(1 used).

Server

ES7000/600

8 x 3.33GHz 64-bit Intel®
Xeon™ MP w/ 8MB L3 cache,
256 GB memory,
2 x 36GB SAS disk, internal ,
1 x PCI SAS RAID cntrl, internal,
5 x PCI Fibre Channel cntrls,
2 x PCI VI-over-FC cntrls,
4 Inbuilt 1Gb Eth. cntrls.
(0 used).

Storage

USS2200/RS2000 & CX300

287 x 18GB + 49 x 36GB
12 x 146GB
External Fibre Channel disks,
6 x FC RAID controllers

1.

Clause 1: Logical Database Design

1.1. Table Definitions

Listings must be provided for all table definition statements and all other statements used to setup the database. (8.1.2.1)

Appendix B contains the SQL definitions of all the required database files, filegroups, tables, indexes and stored procedures, plus a listing of the program used to load the database and establish the required initial populations of each table.

1.2. Physical Organization of the Database

The physical organization of tables and indices, within the database, must be disclosed. (8.1.2.2)

The disk space was allocated to SQL Server according to the data in Tables 4.3 and 4.5. The SQL definitions are contained in Appendix B.

1.3. Insert and/or 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 restriction 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 maximum key value for these new rows. (8.1.2.3)

There were no restrictions on insert and/or delete operations to any of the tables.

1.4. Partitioning

While there are few restrictions placed upon horizontal or vertical partitioning of tables and rows in the TPC-C benchmark (see Clause 1.6), any such partitioning must be disclosed. (8.1.2.4)

Partitioning was not used for any table in this implementation.

1.5. Replication, Duplication or Additions

Replication of tables, if used, must be disclosed (see Clause 1.4.6). (8.1.2.5)

Additional and/or duplicate attributes in any table must be disclosed along with a statement on the impact on performance (see Clause 1.4.7). (8.1.2.6)

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

2.

Clause 2: Transaction & Terminal Profiles

2.1. Random Number Generation

The method of verification for the random number generation must be disclosed. (8.1.3.1)

The drivers used the Unisys RTE program. The initial population of the database was performed by the loader program from the Microsoft TPC-C toolkit (V4.62). Both the Unisys RTE program and the loader program from the Microsoft TPC-C toolkit (V4.62) were independently audited.

2.2. Input/Output Screen Layout

The actual layout of the terminal input/output screens must be disclosed. (8.1.3.2)

The screen layouts are based on those in Clauses 2.4.3, 2.5.3, 2.6.3, 2.7.3, and 2.8.3 of the TPC Benchmark C Standard Specification. There are some minor differences in appearance due to the use of a web client implementation.

2.3. 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). (8.1.3.3)

This was verified by the auditor.

2.4. Presentation Managers or Intelligent Terminal

Any usage of presentation managers or intelligent terminals must be explained. (8.1.3.4)

Application code running on the client implemented the TPC-C user interface. A listing of this code is included in Appendix A. No presentation manager was used on the client, as screen manipulation and data input/output was handled for each user by the Microsoft Internet Explorer web browser running on each user PC.

2.5. Transaction Statistics

The percentage of home and remote order-lines in the New-Order transactions must be disclosed. (8.1.3.5)

The percentage of New-Order transactions that were rolled back as a result of an unused item number must be disclosed. (8.1.3.6)

The number of items per order entered by New-Order transactions must be disclosed. (8.1.3.7)

The percentage of home and remote Payment transactions must be disclosed. (8.1.3.8)

The percentage of Payment and Order-Status transactions that used non-primary key (C_LAST) access to the database must be disclosed. (8.1.3.9)

The percentage of Delivery transactions that were skipped as a result of an insufficient number of rows in the NEW-ORDER table must be disclosed. (8.1.3.10)

The mix (i.e., percentages) of transaction types seen by the SUT must be disclosed. (8.1.3.11)

Table 5.4 in Section 5 contains all these statistics.

2.6. Queuing Mechanism of Delivery

The queuing mechanism used to defer execution of the Delivery transaction must be disclosed (8.1.3.12).

Deferred deliveries are queued by making an entry in an array within the application process (tpcc.dll) running on the client systems. Background threads within the application process asynchronously process the queued delivery transactions and log the results to a file upon completion.

3.

Clause 3: Transaction & System Properties

3.1. 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. (8.1.4.1)

The TPC Benchmark C Standard Specification defines a set of transaction processing system properties that a system under test (SUT) must support during the execution of the benchmark. Those properties are Atomicity, Consistency, Isolation, and Durability (ACID).

This section defines each of these properties, describes the steps taken to ensure that they were present during the test and describes a series of tests done to demonstrate compliance with the specification. All ACID property tests were executed successfully.

3.2. Atomicity

The system under test must guarantee that data base 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.

3.2.1. Completed Transaction

Perform the Payment transaction for a randomly selected warehouse, district, and customer (by customer number) and verify that the records in the CUSTOMER, DISTRICT, and WAREHOUSE tables have been changed appropriately.

The balances from a randomly selected warehouse, district, and customer row were retrieved by customer number from a script. A Payment transaction was submitted with the same warehouse, district and customer identifiers for a known amount. After completion of the Payment transaction, the balances of the selected warehouse, district, and customer were again retrieved to verify that the changes had been made correctly.

3.2.2. Aborted Transactions

Perform the Payment transaction for a randomly selected warehouse, district, and customer (by customer number) and substitute a ROLLBACK of the transaction for the COMMIT of the transaction. Verify that the records in the CUSTOMER, DISTRICT, and WAREHOUSE tables have NOT been changed.

The balances from a randomly selected warehouse, district, and customer row were retrieved by customer number from a script. A Payment transaction was submitted with the same warehouse, district and customer identifiers that issued a ROLLBACK command rather than a COMMIT. After the transaction completed, the balances of the selected warehouse, district, and customer were again retrieved to verify that no changes had been made to the database.

3.3. Consistency

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

The benchmark specification requires explicit demonstration of the following four consistency conditions:

1. The sum of the district balances in a warehouse is equal to the warehouse balance;
2. For each district, the next order id minus one is equal to maximum order id in the ORDER table and equal to the maximum new order id in the NEW ORDER table;
3. For each district, the maximum order id minus minimum order id in the ORDER table plus one equals the number of rows in the NEW-ORDER table for that district;
4. For each district, the sum of the order line counts in the ORDER table equals the number of rows in the ORDER-LINE table for that district;

In order to demonstrate this consistency, the following steps were taken:

1. Prior to the start of a benchmark run, the consistency of the database was verified by testing successfully conditions 1-4 described above with a script.
2. A run under full user load was executed for over 10 minutes with a checkpoint during the run.
3. After completion of that test, the consistency of the database was again verified by successfully testing using the same consistency script as in step 1.

3.4. 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.

The benchmark specification defines seven required tests to be performed to demonstrate that required levels of transaction isolation are met. These tests, described in Clauses 3.4.2.1 - 3.4.2.7, were all performed from a script and verified by the auditor. In Isolation Test 7, Case A was observed. In addition, the phantom tests and stock level tests were executed and verified to be successful.

3.5. Durability

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

Three durability tests were executed to satisfy the requirements of the specification. The tests for loss of memory and instantaneous interruption were combined and performed with a fully scaled database with all emulated users. The loss of log and loss of data tests were performed on the same database with 26,280 emulated users. To the best of our knowledge, these tests prove that the fully scaled configuration used for the throughput test would also meet all durability tests.

3.5.1. Loss of Log Disk and Loss of Data Disk

The following steps were taken with only 26,280 emulated users to demonstrate durability in the case of loss of a log disk and loss of a data disk:

1. The database was backed up to extra space on a backup volume.
2. The D_NEXT_O_ID fields for all rows in the district table were summed up to determine the initial count of orders present in the database.
3. The RTE was started with 26,280 users. On the driver systems, committed and rolled back New-Order transactions were recorded in a "success" file.
4. After five minutes of running at steady state, a hot-pluggable log disk was removed from the disk cabinet, with no effect on the OS or SQLServer.

5. After 5 additional minutes of operation, a hot-pluggable data disk was removed from the disk cabinet.
6. Windows Enterprise and SQL Server encountered IO errors due to the missing disk and recorded these errors in the system event log and SQL Server error log, respectively. The RTEs also recorded errors.
7. First, the RTEs and clients were stopped, and then SQL Server was used to backup the transaction log to the backup volume.
8. Next, scripts were executed to drop the database and all its files. Then, SQL Server was shutdown.
9. A data disk was inserted in the disk cabinet to replace the one removed. The RAID controller, via Storage Sentinel Manager, was used to recreate the stripe set containing the new data disk. (The missing log drive was not replaced.)
10. The SUT was restarted, SQL Server was then restarted, and a new (empty) database created as part of the restore database process. That process loaded the initial database into the new database, but did not perform any recovery. Next the transaction log was restored, followed by transaction recovery. The latter step restored all committed transactions to the database.
11. Consistency condition 3 of Clause 3.3.2.3 was executed to verify database consistency.
12. Step 2 was repeated to determine the total number of orders. This number was subtracted from the count obtained previously in Step 2 to determine the number of additional orders added to the database.
13. The contents of the “success” files on the drivers were sampled to verify that the records in the “success” file for committed New-Order transactions had corresponding records in the ORDER table. Step 1 was repeated to determine the total number of orders (count2). Count2 minus count1 was not less than the number of committed New-Order records in the “success” file from the drivers.

3.5.2. Instantaneous Interruption and Loss of Memory

Instantaneous interruption and loss of memory tests were combined because the loss of power erased the contents of memory. Removing the primary power to the System Under Test while the benchmark was executing induced this failure.

1. The D_NEXT_O_ID fields for all rows in the district table were summed up to determine the initial count of orders present in the database (count1).
2. On the driver systems, committed and rolled back New-Order transactions were recorded in a “success” file.
3. The benchmark was executed at full load with all emulated users for a minimum of 5 minutes.
4. The system’s primary power was then turned off.
5. After transaction failures were noted by the RTEs, the RTEs and clients were shutdown.
6. Power was restored to the SUT, the system rebooted, SQL Server was restarted, and automatic database recovery was performed. The database recovery used the transaction log to reapply all committed transactions and rollback any (in progress) uncommitted transactions, so that the database disks were correct.
7. After recovery finished, Consistency Condition 3 of Clause 3.3.2.3 (no gaps in NO_O_ID) was executed to verify that the database was consistent.
8. Finally, step 1 was repeated to determine the total number of orders (count2). Count2 minus count1 was not less than the number of committed New-Order records in the “success” file from the drivers.
9. The contents of the “success” files on the drivers were sampled to verify that the records in the “success” file for committed New-Order transactions had corresponding records in the ORDER table.

4.

Clause 4: Scaling & Database Population

4.1. Initial Cardinality of Tables

The Cardinality (e.g., the number of rows) of each table, as it existed at the start of the benchmark run (see Clause 4.2), must be disclosed. If the database was over-scaled and inactive rows of the WAREHOUSE table were deleted (see Clause 4.2.2), the cardinality of the WAREHOUSE table as initially configured and the number of rows deleted must be disclosed. (8.1.5.1)

The TPC-C database for this test was configured with 20,200 warehouses. The cardinality of each table in the database is listed in Table 4.1

Table 4.1: Initial Cardinality of Database Table

Table	Occurrences
Warehouse	20,200
District	202,000
Customer	606,000,000
History	606,000,000
Order	606,000,000
New-Order	181,800,000
Order Line	6,059,984,194
Stock	2,020,000,000
Item	100,000

150 rows from the warehouse table were inactive while executing the measurement runs.

4.2. Constant Values

The following values were used as the constant C input values to the NURand function during Build and Run time for this implementation.

Table 4.2: Constant C for NURand

Function	Value
C_LAST (Build)	123
C_LAST (Run)	208

4.3. Database Layout

The distribution of tables and logs across all media must be explicitly depicted for the tested and priced systems. (8.1.5.2)

Tables 4.3 and 4.5 list the distribution of the database over 329 18GB disks, 7 36GB disks, and the transaction log over 6 mirrored pairs of 146GB disks for the benchmark configuration. In addition, there were 2 36GB mirrored disks in the host server containing Windows Server 2003, Enterprise x64 Edition and SQL Server 2005 Enterprise x64 Edition code and the Master database plus the paging file. Unused-space partitions on the database drives were used for database backup. These partitions were not used during the measurements.

4.4. DBMS: Data Model and DBMS Interface/Access Language

A statement must be provided that describes: (8.1.5.3)

- 1. The data model implemented by the DBMS used (e.g., relational, network, hierarchical).*
- 2. The database interface (e.g., embedded, call level) and access language (e.g., SQL, DL/1, COBOL, read/write) used to implement the TPC-C transactions. 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 is a relational DBMS.

The client software interfaced to SQL Server through Stored Procedures invoked through ODBC calls embedded in the C application code.

4.5. DBMS Partitions/Replications

The mapping of database partitions/replications must be explicitly described. (8.1.5.4)

No table partitioning or replication was done.

4.6. DBMS Space Requirements

Details of the 60-day space computation along with proof that the database is configured to sustain 8 hours of growth for dynamic tables (Order, Order-line, and History) must be disclosed (see Clause 4.2.3) (8.1.5.5).

Appendix E lists the space requirements for the 60-day space as well as the logical log space for eight hours.

Table 4.3: Disk Rack Configuration

Disk Rack Configuration																	
Controller	HBA	Rack	Raid Level	ID 0	ID 1	ID 2	ID 3	ID 4	ID 5	ID 6	ID 7	ID 8	ID 9	ID 10	ID 11	ID 12	ID 13
USS1	0	1	0	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
USS1	0	2	0	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
USS1	0	3	0	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
USS1	1	4	0	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
USS1	1	5	0	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
USS1	1	6	0	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
USS2	0	7	0	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
USS2	0	8	0	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
USS2	0	9	0	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
USS2	1	10	0	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
USS2	1	11	0	36GB	36GB	36GB	36GB	36GB	36GB	36GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
USS2	1	12	0	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
USS3	0	13	0	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
USS3	0	14	0	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
USS3	0	15	0	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
USS3	1	16	0	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
USS3	1	17	0	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
USS3	1	18	0	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
USS4	0	19	0	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
USS4	0	20	0	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
USS4	0	21	0	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
USS4	1	22	0	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
USS4	1	23	0	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
USS4	1	24	0	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
CX300	n/a	1,2	10	146GB	146GB	146GB	146GB	146GB	146GB	146GB	146GB	146GB	146GB	146GB	146GB	146GB	146GB

Table 4.4: ES7000 Server HBA-PCI Slot Map

CELL-3	64GB RAM					
CELL-2	64GB RAM					
CELL-1	4x3.33GHz Xeon Processor MP		VI - Controller - 2	FC -HBA - USS3	FC -HBA - USS4	
	64GB RAM					
CELL-0	4x3.33GHz Xeon Processor MP		VI - Controller - 1	FC -HBA - LOG	FC -HBA - USS1	FC -HBA - USS2
	64GB RAM					

Table 4.5: Disk Management Configuration

Disk Management Configuration				
System Disks	Logical Disk#	Partition 1		File System
		Drive Letter		
36 GB Disk	0	C: System	NTFS	Capacity=33.89GB
CD-ROM	CD-ROM 0	D:		

		Logical Disk#	Partition 1
			Size=764.60GB
			FS=Raw
			Junction Point
CX300	SP	1	C:\BigDb\dbLogs\tpcclog1
1,2	A		

Disk Management Configuration							
USS	HBA	Logical Disk#	Partition 1	Partition 2	Partition 3	Partition 4	
			Size=12.22GB	Size=17.59GB	Size=9.29GB	Size=80.53GB	
			FS=Raw	FS=Raw	FS=Raw	FS=NTFS	
			Junction Point	Junction Point	Junction Point	Junction Point	
1	1	2	C:\BigDb\cabA\ord1	C:\BigDb\cabA\cs1	C:\BigDb\cabA\misc1	C:\BigDb\dbBackups\backupA1	
		3	C:\BigDb\cabA\ord2	C:\BigDb\cabA\cs2	C:\BigDb\cabA\misc2	C:\BigDb\dbBackups\backupA2	
		4	C:\BigDb\cabA\ord3	C:\BigDb\cabA\cs3	C:\BigDb\cabA\misc3	C:\BigDb\dbBackups\backupA3	
		5	C:\BigDb\cabA\ord4	C:\BigDb\cabA\cs4	C:\BigDb\cabA\misc4	C:\BigDb\dbBackups\backupA4	
		6	C:\BigDb\cabA\ord5	C:\BigDb\cabA\cs5	C:\BigDb\cabA\misc5	C:\BigDb\dbBackups\backupA5	
		7	C:\BigDb\cabA\ord6	C:\BigDb\cabA\cs6	C:\BigDb\cabA\misc6	C:\BigDb\dbBackups\backupA6	
		8	C:\BigDb\cabA\ord7	C:\BigDb\cabA\cs7	C:\BigDb\cabA\misc7	Unallocated	
		9	C:\BigDb\cabA\ord8	C:\BigDb\cabA\cs8	C:\BigDb\cabA\misc8	Unallocated	
		10	C:\BigDb\cabA\ord9	C:\BigDb\cabA\cs9	C:\BigDb\cabA\misc9	Unallocated	
		11	C:\BigDb\cabA\ord10	C:\BigDb\cabA\cs10	C:\BigDb\cabA\misc10	Unallocated	
		12	C:\BigDb\cabA\ord11	C:\BigDb\cabA\cs11	C:\BigDb\cabA\misc11	Unallocated	
		13	C:\BigDb\cabA\ord12	C:\BigDb\cabA\cs12	C:\BigDb\cabA\misc12	Unallocated	
2	2	14	C:\BigDb\cabB\ord1	C:\BigDb\cabB\cs1	C:\BigDb\cabB\misc1	C:\BigDb\dbBackups\backupB1	
		15	C:\BigDb\cabB\ord2	C:\BigDb\cabB\cs2	C:\BigDb\cabB\misc2	C:\BigDb\dbBackups\backupB2	
		16	C:\BigDb\cabB\ord3	C:\BigDb\cabB\cs3	C:\BigDb\cabB\misc3	C:\BigDb\dbBackups\backupB3	
		17	C:\BigDb\cabB\ord4	C:\BigDb\cabB\cs4	C:\BigDb\cabB\misc4	C:\BigDb\dbBackups\backupB4	
		18	C:\BigDb\cabB\ord5	C:\BigDb\cabB\cs5	C:\BigDb\cabB\misc5	C:\BigDb\dbBackups\backupB5	
		19	C:\BigDb\cabB\ord6	C:\BigDb\cabB\cs6	C:\BigDb\cabB\misc6	C:\BigDb\dbBackups\backupB6	
		20	C:\BigDb\cabB\ord7	C:\BigDb\cabB\cs7	C:\BigDb\cabB\misc7	Unallocated	
		21	C:\BigDb\cabB\ord8	C:\BigDb\cabB\cs8	C:\BigDb\cabB\misc8	Unallocated	
		22	C:\BigDb\cabB\ord9	C:\BigDb\cabB\cs9	C:\BigDb\cabB\misc9	Unallocated*	
		23	C:\BigDb\cabB\ord10	C:\BigDb\cabB\cs10	C:\BigDb\cabB\misc10	Unallocated	
		24	C:\BigDb\cabB\ord11	C:\BigDb\cabB\cs11	C:\BigDb\cabB\misc11	Unallocated	
		25	C:\BigDb\cabB\ord12	C:\BigDb\cabB\cs12	C:\BigDb\cabB\misc12	Unallocated	
3	3	26	C:\BigDb\cabC\ord1	C:\BigDb\cabC\cs1	C:\BigDb\cabC\misc1	C:\BigDb\dbBackups\backupC1	
		27	C:\BigDb\cabC\ord2	C:\BigDb\cabC\cs2	C:\BigDb\cabC\misc2	C:\BigDb\dbBackups\backupC2	
		28	C:\BigDb\cabC\ord3	C:\BigDb\cabC\cs3	C:\BigDb\cabC\misc3	C:\BigDb\dbBackups\backupC3	
		29	C:\BigDb\cabC\ord4	C:\BigDb\cabC\cs4	C:\BigDb\cabC\misc4	C:\BigDb\dbBackups\backupC4	
		30	C:\BigDb\cabC\ord5	C:\BigDb\cabC\cs5	C:\BigDb\cabC\misc5	C:\BigDb\dbBackups\backupC5	
		31	C:\BigDb\cabC\ord6	C:\BigDb\cabC\cs6	C:\BigDb\cabC\misc6	C:\BigDb\dbBackups\backupC6	
		32	C:\BigDb\cabC\ord7	C:\BigDb\cabC\cs7	C:\BigDb\cabC\misc7	Unallocated	
		33	C:\BigDb\cabC\ord8	C:\BigDb\cabC\cs8	C:\BigDb\cabC\misc8	Unallocated	
		34	C:\BigDb\cabC\ord9	C:\BigDb\cabC\cs9	C:\BigDb\cabC\misc9	Unallocated	
		35	C:\BigDb\cabC\ord10	C:\BigDb\cabC\cs10	C:\BigDb\cabC\misc10	Unallocated	
		36	C:\BigDb\cabC\ord11	C:\BigDb\cabC\cs11	C:\BigDb\cabC\misc11	Unallocated	
		37	C:\BigDb\cabC\ord12	C:\BigDb\cabC\cs12	C:\BigDb\cabC\misc12	Unallocated	
4	4	38	C:\BigDb\cabD\ord1	C:\BigDb\cabD\cs1	C:\BigDb\cabD\misc1	C:\BigDb\dbBackups\backupD1	
		39	C:\BigDb\cabD\ord2	C:\BigDb\cabD\cs2	C:\BigDb\cabD\misc2	C:\BigDb\dbBackups\backupD2	
		40	C:\BigDb\cabD\ord3	C:\BigDb\cabD\cs3	C:\BigDb\cabD\misc3	C:\BigDb\dbBackups\backupD3	
		41	C:\BigDb\cabD\ord4	C:\BigDb\cabD\cs4	C:\BigDb\cabD\misc4	C:\BigDb\dbBackups\backupD4	
		42	C:\BigDb\cabD\ord5	C:\BigDb\cabD\cs5	C:\BigDb\cabD\misc5	C:\BigDb\dbBackups\backupD5	
		43	C:\BigDb\cabD\ord6	C:\BigDb\cabD\cs6	C:\BigDb\cabD\misc6	C:\BigDb\dbBackups\backupD6	
		44	C:\BigDb\cabD\ord7	C:\BigDb\cabD\cs7	C:\BigDb\cabD\misc7	Unallocated	
		45	C:\BigDb\cabD\ord8	C:\BigDb\cabD\cs8	C:\BigDb\cabD\misc8	Unallocated	
		46	C:\BigDb\cabD\ord9	C:\BigDb\cabD\cs9	C:\BigDb\cabD\misc9	Unallocated	
		47	C:\BigDb\cabD\ord10	C:\BigDb\cabD\cs10	C:\BigDb\cabD\misc10	Unallocated	
		48	C:\BigDb\cabD\ord11	C:\BigDb\cabD\cs11	C:\BigDb\cabD\misc11	Unallocated	
		49	C:\BigDb\cabD\ord12	C:\BigDb\cabD\cs12	C:\BigDb\cabD\misc12	Unallocated	

* Partition size is 200.15 GB

5. Clause 5: Performance Metrics & Response Time

5.1. Measured Throughput (tpmC)

Measured tpmC must be reported. (8.1.6.1)

The measured tpmC was 251,691

5.2. Response Times

Ninetieth percentile, maximum and average response times must be reported for all transaction types as well as for the Menu response time. (8.1.6.2)

Table 5.1: Response Time Data

Transaction	Average	Maximum	90th %ile
New-Order	0.27	5.25	0.40
Payment	0.26	5.27	0.39
Order Status	0.27	4.92	0.40
Delivery (interactive)	0.19	1.00	0.28
Delivery (deferred)	0.14	4.80	0.19
Stock-Level	0.32	1.63	0.48
Menu	0.19	1.55	0.28

5.3. Keying and Think Times

The minimum, the average, and the maximum keying and think times must be reported for each transaction type. (8.1.6.3)

Table 5.2: Keying Times

Transaction	Minimum	Average	Maximum
New-Order	18.01	18.01	18.03
Payment	3.01	3.01	3.03
Order Status	2.01	2.01	2.03
Delivery (interactive)	2.01	2.01	2.03
Stock-Level	2.01	2.01	2.03

Table 5.3: Think Times

Transaction	Minimum	Average	Maximum
New-Order	0.00	12.03	120.31
Payment	0.00	12.03	120.31
Order Status	0.00	10.07	100.70
Delivery (interactive)	0.00	5.06	50.61
Stock-Level	0.00	5.06	50.61

5.4. Response Time Frequency Distribution Curves

Response Time frequency distribution curves (see Clause 5.6.1) must be reported for each transaction type. (8.1.6.4)

Figure 5.1: New Order Response Time Distribution

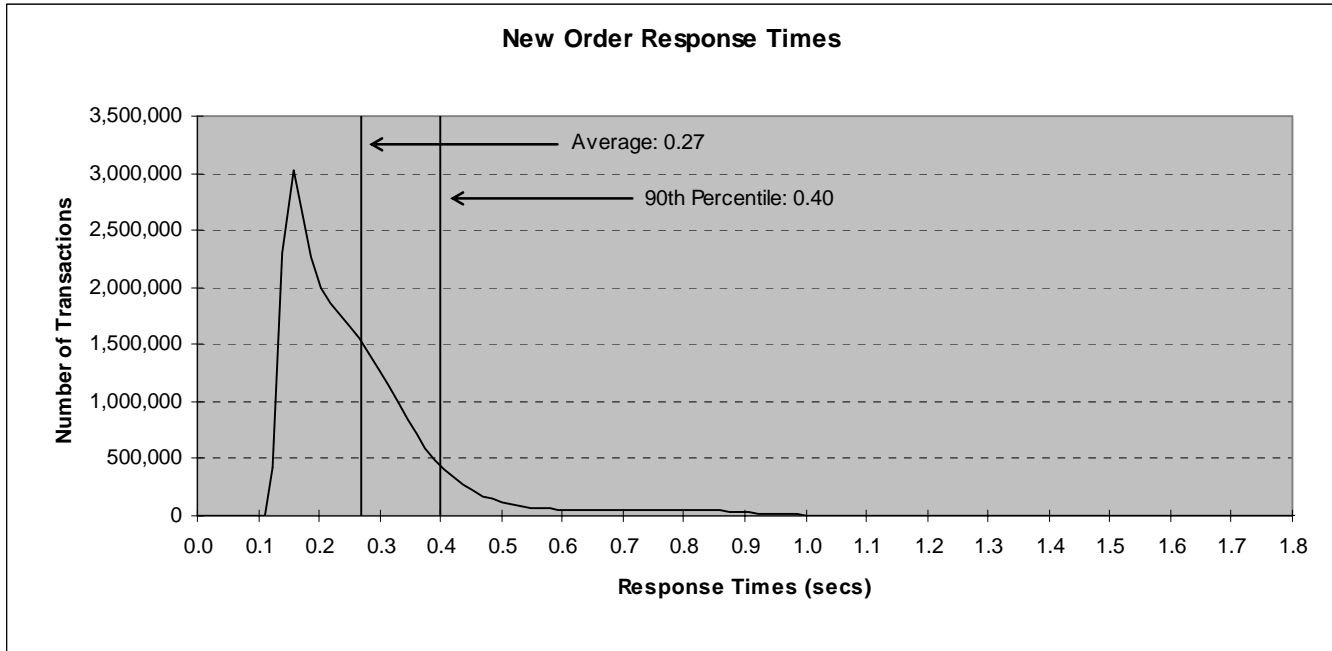


Figure 5.2: Payment Response Time Distribution

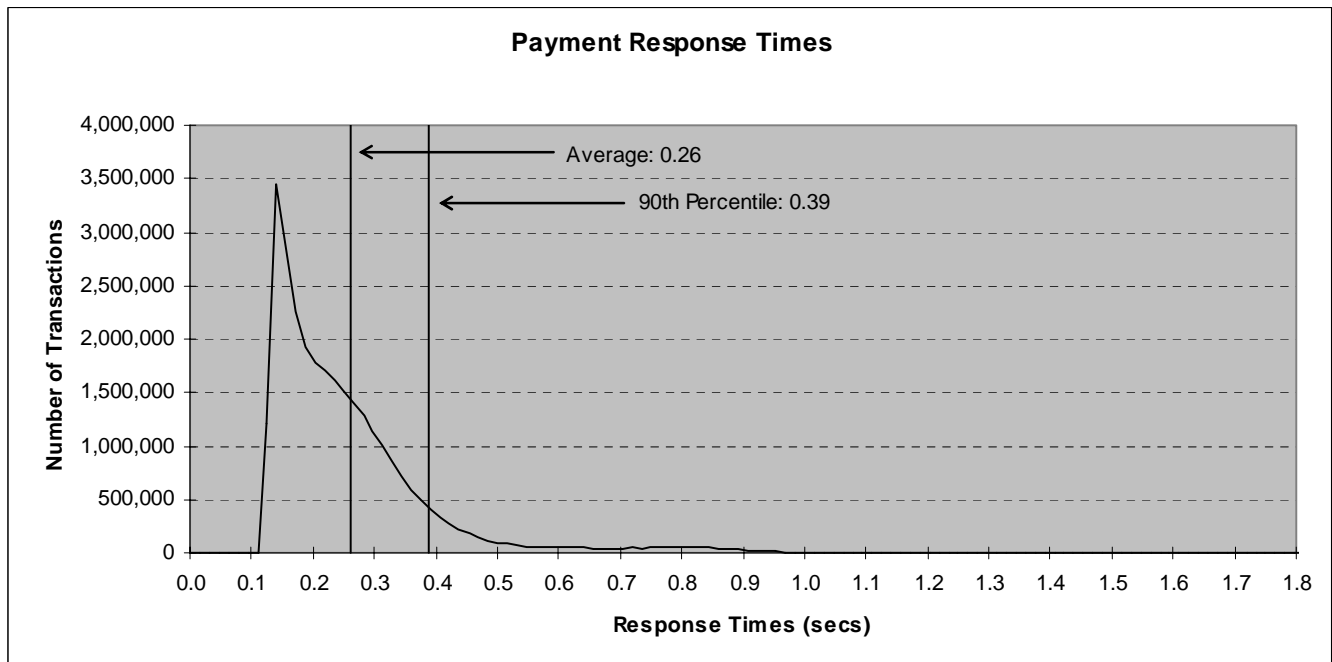


Figure 5.3: Order Status Response Time Distribution

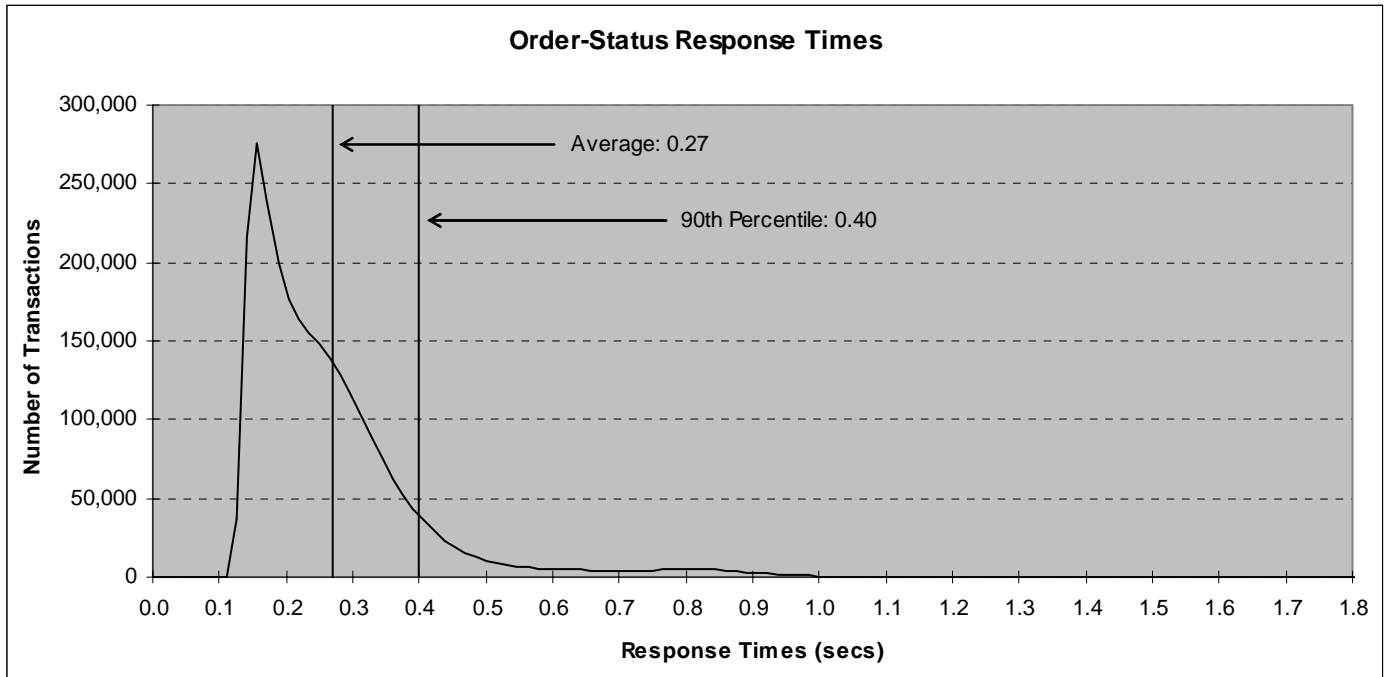


Figure 5.4: Delivery Response Time Distribution

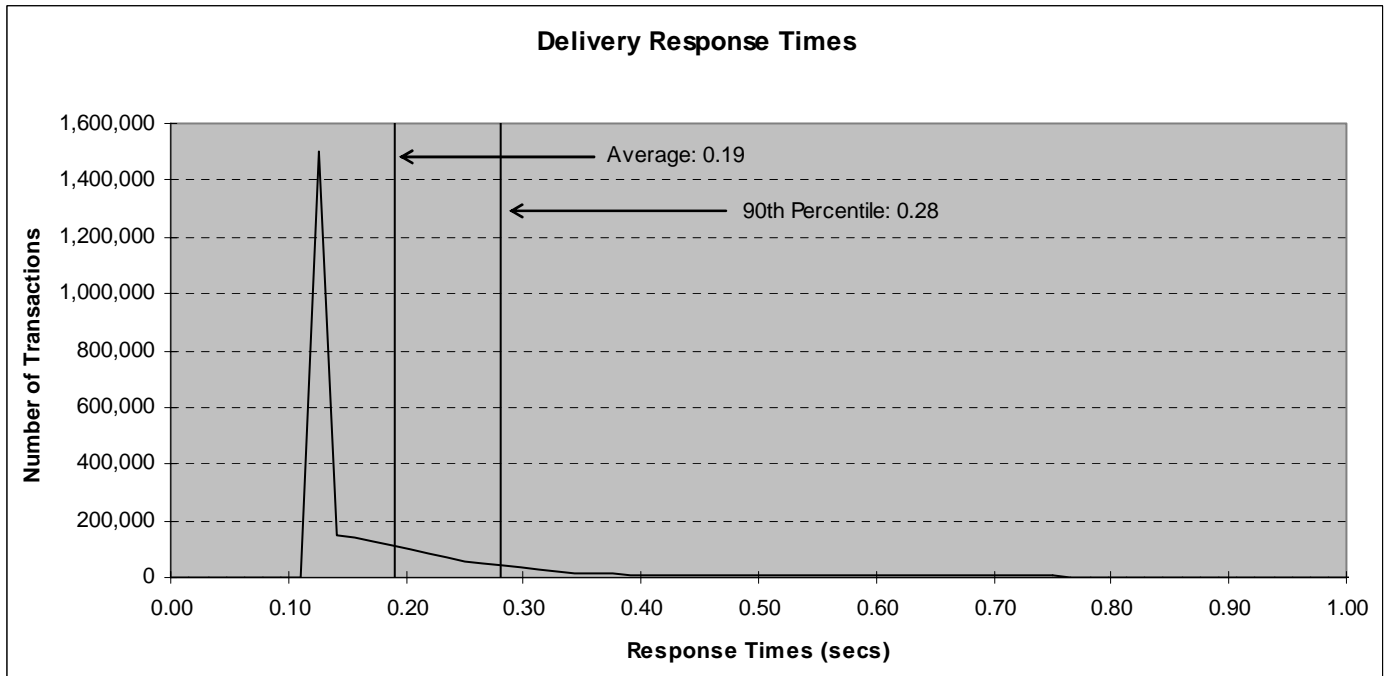
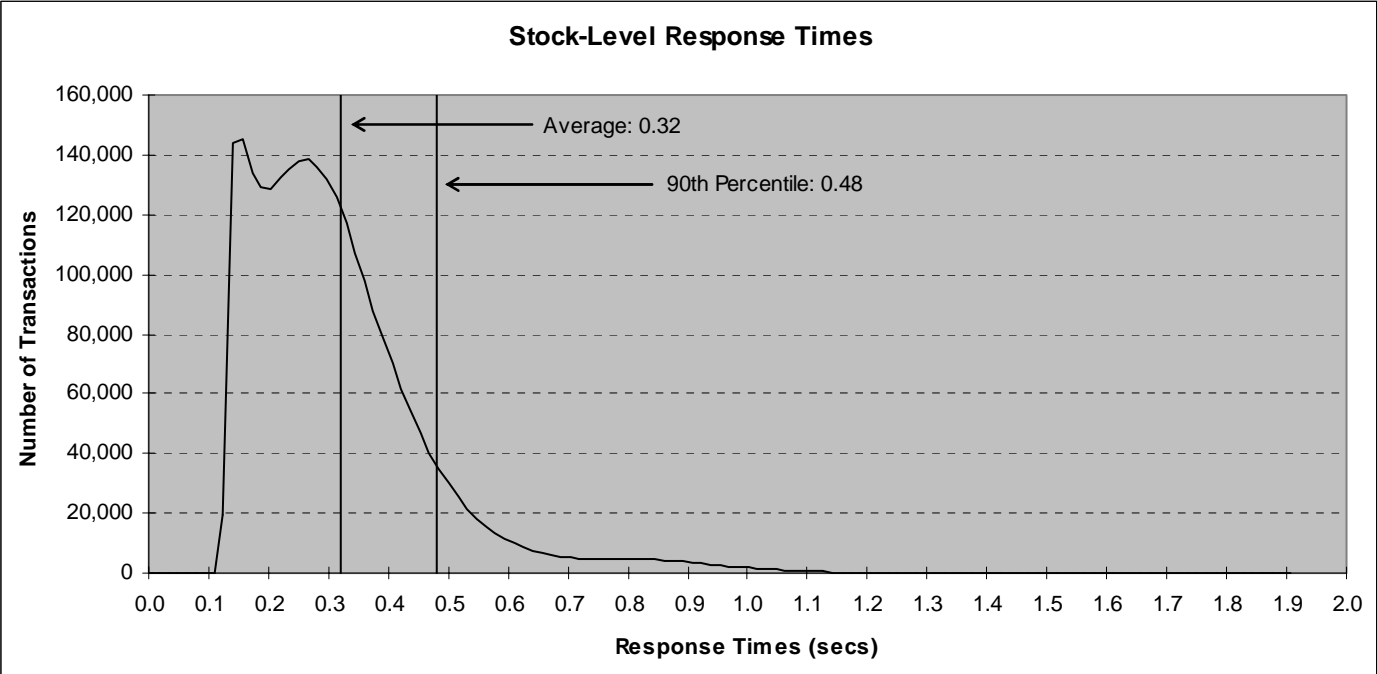


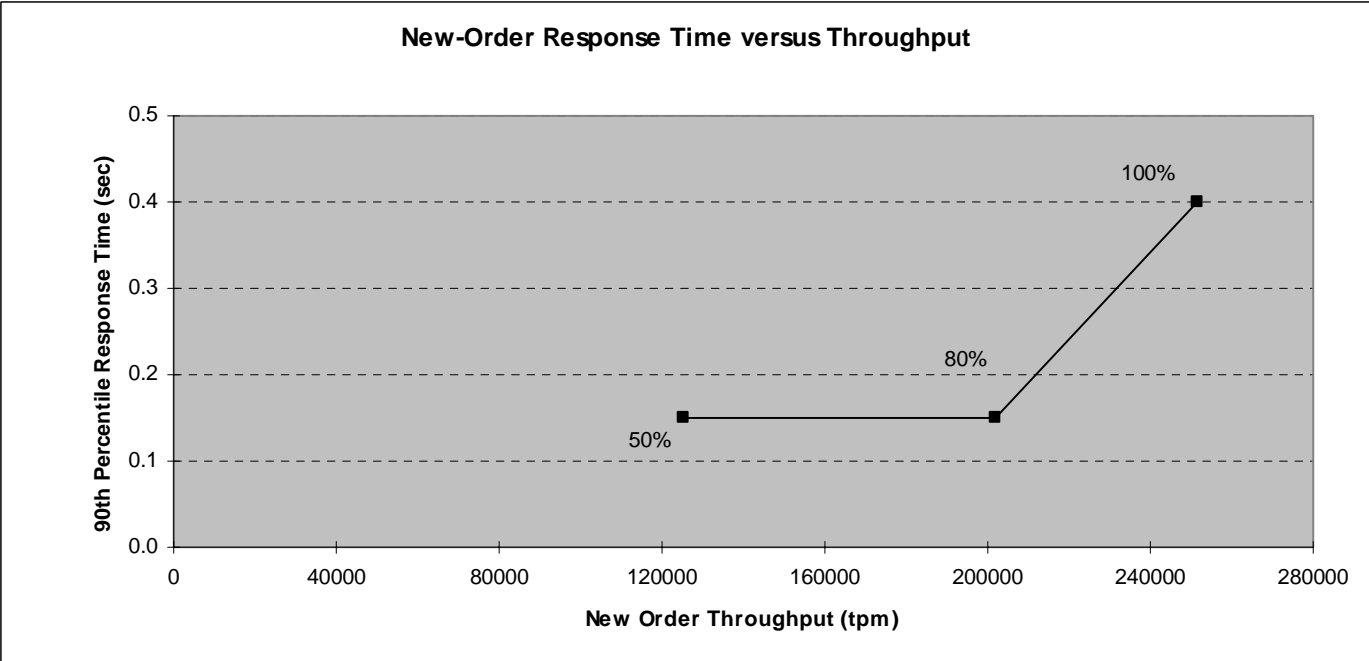
Figure 5.5: Stock Level Response Time Distribution



5.5. Response Time versus Throughput Performance Curve

The performance curve for response times versus throughput (Clause 5.6.2) must be reported for the New-Order transaction. (8.1.6.5)

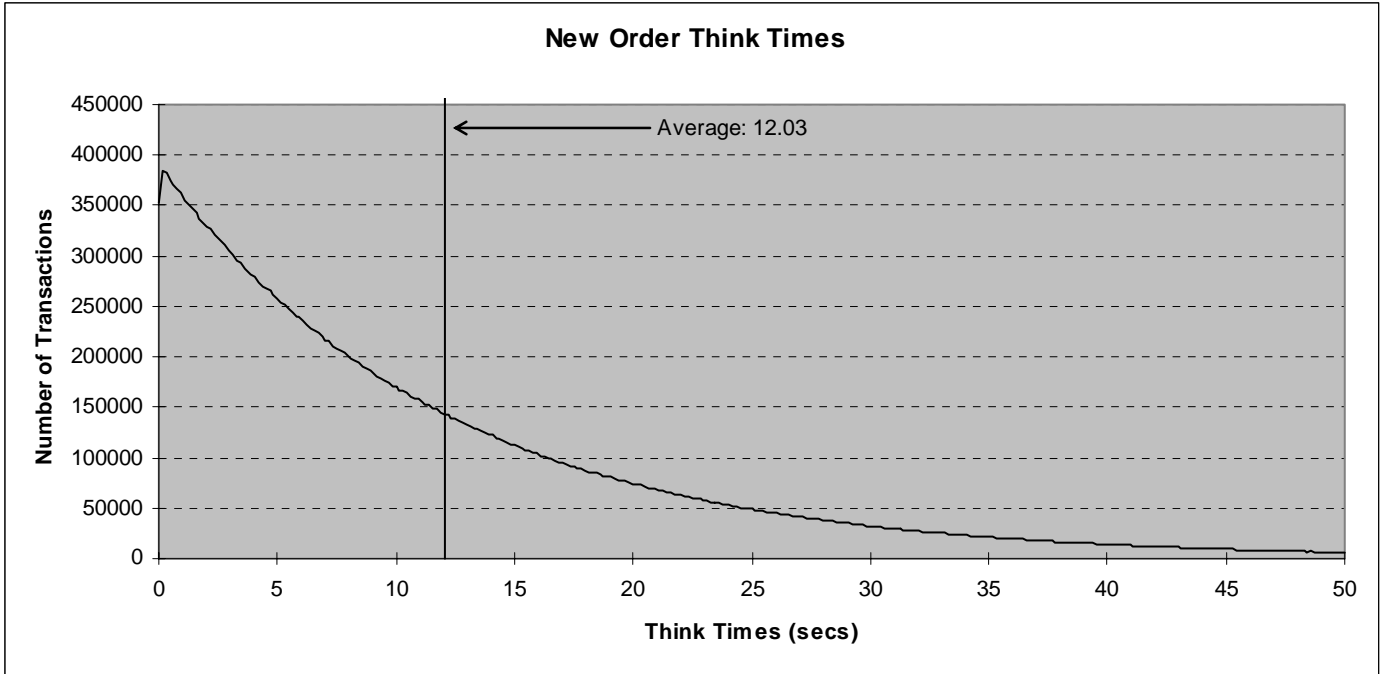
Figure 5.6: New Order Response Time versus Throughput



5.6. New Order Think Time Frequency Distribution Curve

Think Time frequency distribution curve (see Clause 5.6.3) must be reported for the New-Order transaction. (8.1.6.6)

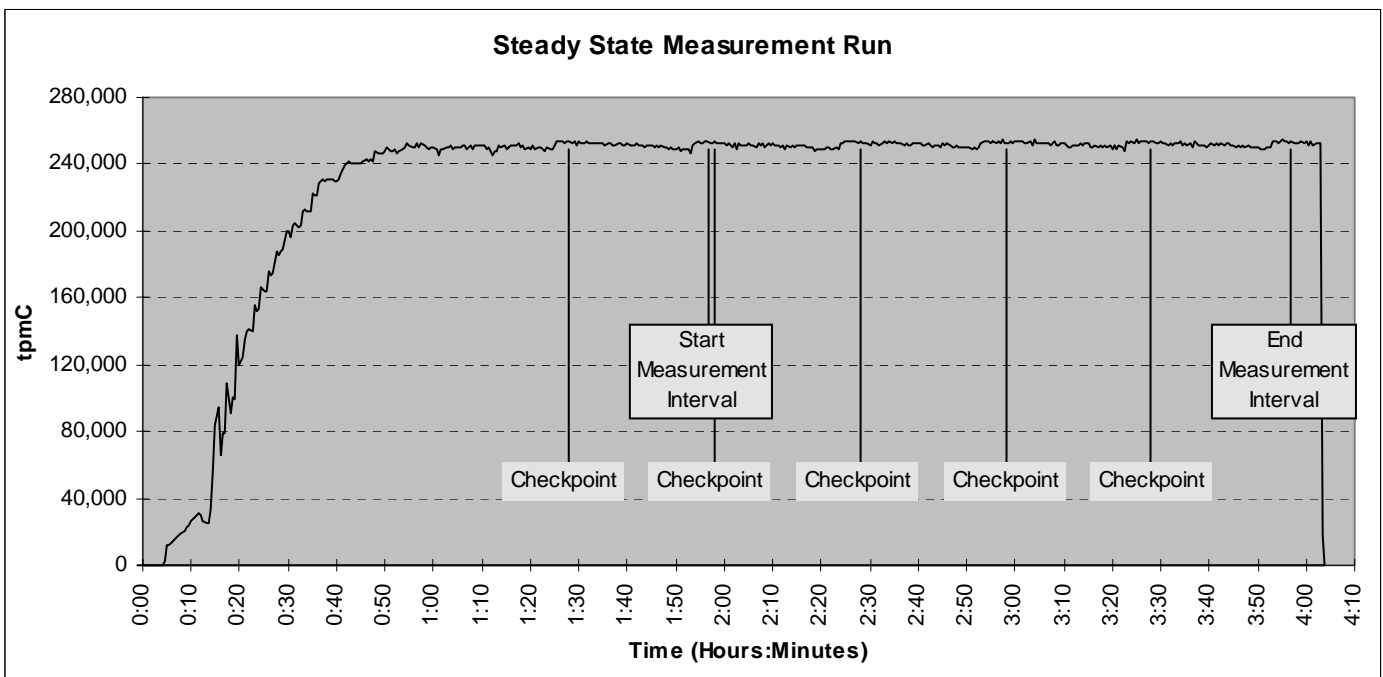
Figure 5.7: New Order Think Time Distribution



5.7. New-Order Throughput vs. Time

A graph of throughput versus elapsed time (Clause 5.6.4) must be reported for the New-Order transaction. (8.1.6.8)

Figure 5.8: Throughput (tpmC) versus Time



5.8. Determination of “Steady State”

The method used to determine that the SUT had reached a steady state prior to commencing the measurement interval (see Clause 5.5) must be described. (8.1.6.9)

The transaction throughput rate (tpmC) and response time were relatively constant after the initial ‘ramp up’ period. The throughput and response time behavior were determined by examining data reported for each 30-second interval over the duration of the benchmark. Ramp-up and steady state are discernible in the graph presented in Figure 5.8.

5.9. 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. (8.1.6.10)

The RTE selects a transaction type from the menu and prepares to request the appropriate blank form. A timestamp is taken before the form request is sent and after the response is returned. The difference between the two is saved off as the menu response time. The RTE then generates input data for the transaction to create a completed form and waits the appropriate key time. A timestamp is taken before the completed form is sent and after the response is returned. The difference between these two is saved off as the transaction response time. Both response times are padded with a 0.1 second delay per spec to account for the web browser delay. The appropriate transaction data and response times are logged and the RTE waits the required think time interval before repeating the process. Each RTE driver maintains its own log file. Log file contents are consolidated for the reports.

The RTE emulates web browsers (not terminals) in this client-server implementation. The RTE sends and receives HTML formatted data using HTTP through Ethernet LANs to a client application running on the client machine. The client application processes the request, sends the transaction to a COM+ component, waits for the transaction response, and returns an appropriately formatted HTML form back to the (emulated) web browser (RTE). When activated, the COM+ component calls a stored procedure on the data base server using Microsoft SQL Server ODBC, collects the response, and returns the result to the requestor.

To perform checkpoints at specific intervals, a utility was written to schedule checkpoints at parameter-specified intervals and record the start and end time of each checkpoint. The checkpoint script was started manually on one of the client machines after the RTE had all users logged in and sending transactions and a steady state had been achieved.

At each checkpoint, SQL Server wrote to disk all database pages in memory that had been updated but not yet physically written to the disk. Upon completion of the checkpoint, SQL Server also wrote records to the error log indicating that a checkpoint had completed.

5.10. Measurement Interval Duration

A statement of the duration of the measurement interval for the reported Maximum Qualified Throughput (tpmC) must be included. (8.1.6.12)

The measurement interval was 120 minutes.

5.11. 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. (8.1.6.13)

The RTE was given a weighed random distribution, which could not be adjusted during the run.

5.12. Transaction Statistics

The percentage of the total mix for each transaction type must be disclosed. (8.1.6.14)

The percentage of New-Order transactions rolled back as a result of invalid item number must be disclosed. (8.1.6.15)

The average number of order-lines entered per New-Order transaction must be disclosed. (8.1.6.16)

The percentage of remote order-lines entered per New-Order transaction must be disclosed. (8.1.6.17)

The percentage of remote Payment transactions must be disclosed. (8.1.6.18)

The percentage of customer selections by customer last name in the Payment and Order-Status transactions must be disclosed. (8.1.6.19)

The percentage of Delivery transactions skipped due to there being fewer than necessary orders in the New-Order table must be disclosed. (8.1.6.20)

Table 5.4 shows this information.

Table 5.4: Transaction Statistics

Transaction Type	Statistic	Value
New Order	Rolled back transactions	1.00%
	Home warehouse	99.00%
	Remote warehouse	1.00%
	Average Items per Order	10.00
Payment	Home warehouse	84.99%
	Remote warehouse	15.01%
	Non-primary key access	60.00%
Order Status	Non-primary key access	59.94%
Delivery	Skipped transactions (Interactive)	0
	Skipped transaction counts (Deferred)	0
	Skipped District counts (Deferred)	0
Transaction Mix	New Order	44.92%
	Payment	43.03%
	Order-Status	4.01%
	Delivery	4.00%
	Stock-Level	4.01%

5.13. Checkpoint Statistics

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. (8.1.6.21)

There are four checkpoints in the measurement interval. The first checkpoint starts approximately 68 seconds into the measurement interval. The checkpoint interval is 30 minutes (from the start of one to the start of the next) and a checkpoint lasts approximately 28.4 minutes.

The start time and duration in seconds of at least the four (4) longest checkpoints during the Measurement Interval must be disclosed (see Clause 5.5.2.2 (2)). (8.1.6.11)

Table 5.5: Checkpoint Start Time and Duration

Item	Start	End	Duration
Measurement Interval	1:56:53	3:56:53	7200
1st Checkpoint	1:58:01	2:26:23	1702
2nd Checkpoint	2:28:01	2:56:23	1702
3rd Checkpoint	2:58:01	3:26:23	1702
4th Checkpoint	3:28:01	3:56:22	1701

6. Clause 6: SUT, Driver & Communications Definition

6.1. Remote Terminal Emulator (RTE) Description

The RTE input parameters, code fragments, functions, etc. used to generate each transaction input field must be disclosed. (8.1.7.1)

The RTE used is proprietary to Unisys. Appendix D contains the profile used as input to this RTE.

6.2. Loss of Terminal Connections

The number of terminal connections lost during the Measurement Interval must be disclosed (see Clause 6.6.2). (8.1.7.2)

No terminal connections were lost.

6.3. Emulated Components

It must be demonstrated that the functionality and performance of the components being emulated in the Driver System are equivalent to that of the priced system. The results of the test described in Clause 6.6.3.4 must be disclosed. (8.1.7.3)

There were no emulated components in the benchmark configuration other than the emulated web browsers on the users' PCs.

6.4. Functional Diagrams

A complete functional diagram of both benchmark 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 (see Clause 6.6.3.6). (8.1.7.4)

Section 0.7 describes and shows functional diagrams of the benchmarked and priced systems.

6.5. Network Configuration

The network configuration of both the tested and proposed (target) services which are being represented and a thorough explanation of exactly which parts are being replaced with the Driver System must be disclosed (see Clause 6.6.4). (8.1.7.5)

Figures 0.1 and 0.2 in Section 0.7 also diagram the network configurations of the benchmark and configured systems and represent the RTEs connected via LAN replacing the user PCs that are directly connected via LAN.

6.6. Network Bandwidth

The bandwidth of the network(s) used in the tested/priced configuration must be disclosed. (8.1.7.6)

Local area networks (LANs) are used in the priced and tested configurations. The database server contains two (2) dual-port VI 2 gigabit-per-second LAN adapters. Each was direct connected to a VI adapter in the four (4) clients. These LAN segments run at 2 gigabit-per-second in the priced and tested configurations. Each client also contains two 10/100/1000 megabit-per-second inbuilt LAN controllers of which one was used in the tested configuration. A 10/100/1000 megabit-per-second switch was used to connect the clients to RTE driver systems emulating web browsers in the tested configuration. The 10/100/1000 LAN connections between the clients and switches run at 1000 megabits-per-second in the priced and tested configurations.

6.7. Operator Intervention

If the configuration requires operator intervention (see Clause 6.6.6), the mechanism and the frequency of this intervention must be disclosed. (8.1.7.7)

No operator intervention was required to sustain eight hours of operation at the reported throughput.

7.1. 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 date. 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(s) and effective date(s) must also be reported. (8.1.8.1)

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. (8.1.8.2)

System pricing should include subtotals for the following components: Server Hardware, Server Software, Client Hardware, Client Software, and Network Components used for terminal connection (see Clause 7.2.2.3). Clause 6.1 describes the Server and Client components. (8.1.8.7)

System pricing must include line item indication where non-sponsoring companies' brands are used. System pricing must also include line item indication of third party pricing. (8.1.8.8)

A detailed list of hardware and software components along with their part numbers and prices are given in the Executive Summary near the beginning of this document. Microsoft Windows Server 2003, Enterprise x64 Edition has been supplemented by Service Pack 1 and with Microsoft Knowledge Base # KB899008. Portions of the measured SQL Server 2005 binary will be available in Service Pack 1.

7.1.1. System Pricing

The hardware, software and support/maintenance products priced in this benchmark are detailed on page v.

7.1.2. Maintenance Pricing

Three-year support pricing for Unisys Corporation products is based on standard new product warranty, upgraded to provide 24 hours/day, 7 days/week support with four hour maximum response for hardware spare parts.

Microsoft defect support is included in the purchase price. Problem resolution service is provided on an incident by incident basis at \$245 per call.

Server disks are covered by Computer Resolutions, Inc.'s 3-year, return-to-factory warranty with seven-day maximum replenishment, and appropriate spares are included in the priced configuration.

7.1.3. Discounts

Computer Resolutions, Inc. provides a standard volume cash discount for the client, server and storage components of the priced configuration. Discount amount is shown on page v.

Prices for the three Microsoft products shown on page v include a discount. See Microsoft quote in Appendix F for amount per product

7.2. Availability

The committed delivery date for general availability (availability date) of products used in the price calculation must be reported. When the priced system includes 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. (8.1.8.3)

All components will be available by the date shown on page iv.

All hardware components will be available by January 3, 2006.

VI-over-FC HBA software can be obtained through the Unisys Corp. support website.

7.3. Measured tpmC, Pricing, Price/Performance, and Availability Date

A statement of the measured tpmC as well as the respective calculations for the 3-year pricing, price/performance (price/tpmC), and the availability date must be included. (8.1.8.4)

The measured tpmC, plus pricing calculations, price/performance, and availability are shown on pages iv and v.

7.4. Country-Specific Pricing

Additional Clause 7 related items might be included in the Full Disclosure Report for each country specific priced configuration. Country specific pricing is subject to Clause 7.1.7. (8.1.8.5)

None.

7.5. Usage Pricing

For any usage pricing, the sponsor must disclose: (8.1.8.6)

- *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:

- One (1) Microsoft Windows Server 2003, Enterprise x64 Edition license, 8 processor
- One (1) Microsoft SQL Server 2005 Enterprise x64 Edition license, 8 processor
- Four (4) Microsoft Windows 2003 Server licenses
- One (1) Microsoft Visual C++ Standard license

8.

Clause 8 : Full Disclosure Availability

8.1. Availability

The Full Disclosure Report must be readily available to the public at a reasonable charge, similar to charges for similar documents by that test sponsor. (8.2)

Copies of this Full Disclosure Report may be downloaded from the Transaction Processing Performance Council web site at www.tpc.org or obtained by contacting:

TPC Benchmark Administrator
Systems Analysis, Modeling & Measurement Group
Unisys Corporation, M/S 237
25725 Jeronimo Road
Mission Viejo, CA 92691
USA

9.1. 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. (8.1.9.1)

A review of the pricing model is required to ensure that all components required are priced (see Clause 9.2.8). The auditor is not required to review the final Full Disclosure Report or the final pricing prior to issuing the attestations letter. (8.1.9.2)

Tom Sawyer, a TPC certified auditor, audited this implementation of the TPC Benchmark C on the Unisys ES7000/600 Enterprise Server (8P) representing:

Performance Metrics, Inc.
P.O. Box 984
Klamath, CA 95548-0984

Phone: (707) 482-0575
Fax: (707) 482-0115
Email: Lorna@PerfMetrics.com

The attestation letter is shown on the next 2 pages.



PERFORMANCE METRICS INC.
TPC Certified Auditors

November 2, 2005

Jerrold Buggert
 Director of Modeling and Measurement
 Unisys Corporation
 25725 Jeronimo Road
 Mission Viejo, CA 92691

I have verified the TPC Benchmark™ C for the following configuration:

Platform: Unisys ES7000/600 Enterprise Server (8P)
 Database Manager: Microsoft SQL Server 2005 Enterprise x64 Edition
 Operating System: Microsoft Windows Server 2003 Enterprise x64 Edition
 Transaction Manager: Microsoft COM+ (included in Windows 2003, SP1)

Server: Unisys ES7000/600 Enterprise Server (8P)				
CPU's	Memory	Disks	90% Response	TpmC
8 Intel Xeon MP @ 3.33 GHz	Main: 256 GB	329 @ 18GB 7 @ 36GB 12 @ 146GB 2 @ 36GB (OS)	0.40 sec	251,691
4 Clients: Unisys ES3120L Server				
2 Intel Xeon @ 3.4 GHz	Main: 2 GB	1 @ 36GB	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 was properly scaled and populated with 20,200 warehouses, of which 20,050 were active during the Measured Interval. I verified that the unused warehouses had their respective warehouse rows deleted.

PERFORMANCE METRICS INC.
TPC Certified Auditors

- The ACID properties were successfully demonstrated.
- The durability data loss and log loss tests were demonstrated on a subset of the SUT with 2,628 active warehouses, running over 10% load.
- Input data was generated according to the specified percentages.
- Eight hours of mirrored log space was configured on the measured system.
- Eight hours of dynamic table growth space was configured on the measured system.
- The 60-day space calculation was verified – see Auditor’s Notes.
- Measurement cycle times included a 0.1 second menu and a 0.1 second response time delays for emulated Web browsers.
- There were 200,500 user contexts present on the system.
- Each emulated user started with a different random number seed.
- The NURand constants used for database load and at run time were 123 and 208 respectively.
- The steady state portion of the test was 2 hours (7200 seconds).
- One checkpoint was taken before the measured interval and after steady state was reached.
- Four checkpoints were taken during the measured interval.
- The system pricing was checked for major components and maintenance.

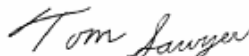
Auditor Notes:

There were four ES3120L clients in the measured configuration, each with dual 3.4GHz processors with 1MB cache, 800MHz FSB. The pricing uses four new ES3120L clients in the benchmark configuration, each with dual 3.4GHz processors with 2MB cache, 800MHz FSB because clients with the older processors in the measured configuration are no longer orderable through Unisys. This substitution is compliant with current substitution rules - TAB Id 401.

To satisfy the 60-day space requirement, 42 of the 18GB drives were upgraded to 36GB drives. This substitution was done in accordance with TAB ID 309. The pricing spared both sizes appropriately.

Portions of the measured SQL Server 2005 binary will be available in Service Pack 1.

Sincerely,



Tom Sawyer
Auditor

Appendix A - Client Source

tpcc.def

```
EXPORTS
  GetExtensionVersion
  HttpExtensionProc
```

tpcc.h

```
// tpcc.h
//
// Copyright Unisys, 2000

#include <time.h>

#define VERSIONINFO "----1.2.8 ----"

// TPCCHandler return codes
#define TPCCSEND 1
#define TPCCSENDEND 2
#define TPCCENDNOW 3

// TPCC Service return codes
#define SVC_BADITEMID 1
#define SVC_NOERROR 0
#define SVCERR_DEADLOCK -1
#define SVCERR_NOCUSTOMER -2
#define SVCERR_NOORDERS -3
#define SVCERR_DBLIB -4
#define SVCERR_EXCEPTION -5
#define SVCERR_DQFULL -6
#define SVCERR_DQSTART -7
#define SVCERR_ODBC -8

// Min/Max transaction data definitions
#define MIN_Did 1
#define MAX_Did 10
#define MIN_OL 5
#define MAX_OL 15
#define MIN_QUANTITY 1
#define MAX_QUANTITY 10
#define MIN_ITEM_ID 1
#define MAX_ITEM_ID 100000
#define MIN_CUST_ID 1
#define MAX_CUST_ID 3000
#define MIN_CARRIER 1
#define MAX_CARRIER 10
#define MIN_THRESHOLD 10
#define MAX_THRESHOLD 20

// pTPCC->iStatusId codes
#define INVALID_IID 1
#define STATUS_OK 0
```

```
#define ERR_CMD_UNKNOWN -10
#define ERRRTXT_CMD_UNKNOWN "Unrecognized Command"
#define ERR_ALREADY_LOGGEDIN -11
#define ERRRTXT_ALREADY_LOGGEDIN "Already Logged In"
#define ERR_TERMID -12
#define ERRRTXT_TERMID "TermId or SyncId in Error"
#define ERR_FORM_UNKNOWN -13
#define ERRRTXT_FORM_UNKNOWN "Unrecognized FormId"
#define ERR_WID_INVALID -14
#define ERR_DID_INVALID -15
#define ERR_MISSING_KEY -16
#define ERR_NOT_NUMERIC -17
#define ERR_THRESHOLD_RANGE -18
#define ERR_EMBEDDED_EMPTY_OL -19
#define ERR_QUANTITY_INVALID -20
#define ERR_OL_INVALID -21
#define ERR_OL_COUNT -22
#define ERR_TM_INTERFACE -23
#define ERR_SERVICE_RSLT -24
#define ERR_INPUT_TOOLONG -25
#define ERR_IDANDNAME_EMPTY -26
#define ERR_IDANDNAME_ENTERED -27
#define ERR_AMOUNT_BADFORM -28
#define ERR_AMOUNT_INVALID -29
#define ERR_CARRIER_INVALID -30
#define ERR_TERM_ALLOC -31

#define STATUS_LEN 30
#define NAME_LEN 16
#define ADDR_LEN 20
#define STATE_LEN 2
#define ZIP_LEN 9

#define CTEXT "Content-length: "
#define HTTPHdr "Content-type: text/html\r\nContent-length: \r\n\r\n"

typedef struct
{
  unsigned short year;
  unsigned short month;
  unsigned short day;
  unsigned short hour;
  unsigned short minute;
  unsigned short second;
} DATEDETAILS;

typedef struct
{
#ifdef LONG_WID
  long ol_supply_w_id;
#else
  short ol_supply_w_id;
#endif
  long ol_i_id;
  char ol_i_name[25];
  short ol_quantity;
```

```

    char ol_brand_generic[2];
    double ol_i_price;
    double ol_amount;
    short ol_stock;
} OL_NEW_ORDER_DATA;

typedef struct
{
    bool bTPRslt;
    short iTPRslt;
#ifdef LONG_WID
    long w_id;
#else
    short w_id;
#endif
#ifdef
    short d_id;
    long c_id;
    short o_ol_cnt;
    char c_last[NAME_LEN + 1];
    char c_credit[3];
    double c_discount;
    double w_tax;
    double d_tax;
    long o_id;
    short o_all_local;
    short o_commit_flag;
    DATEDETAILS o_entry_d;
    double total_amount;
    char execution_status[STATUS_LEN];
    OL_NEW_ORDER_DATA ol[MAX_OL];
} NEW_ORDER_DATA;

typedef struct
{
    bool bTPRslt;
    short iTPRslt;
#ifdef LONG_WID
    long w_id;
#else
    short w_id;
#endif
#ifdef
    short d_id;
    long c_id;
    short c_d_id;
#endif
#ifdef LONG_WID
    long c_w_id;
#else
    short c_w_id;
#endif
    double h_amount;
    DATEDETAILS h_date;
    char w_street_1[ADDR_LEN + 1];
    char w_street_2[ADDR_LEN + 1];
    char w_city[ADDR_LEN + 1];
    char w_state[STATE_LEN + 1];
    char w_zip[ZIP_LEN + 1];
    char d_street_1[ADDR_LEN + 1];
    char d_street_2[ADDR_LEN + 1];
    char d_city[ADDR_LEN + 1];
    char d_state[STATE_LEN + 1];
    char d_zip[ZIP_LEN + 1];

```

```

    char c_first[NAME_LEN + 1];
    char c_middle[3];
    char c_last[NAME_LEN + 1];
    char c_street_1[ADDR_LEN + 1];
    char c_street_2[ADDR_LEN + 1];
    char c_city[ADDR_LEN + 1];
    char c_state[STATE_LEN + 1];
    char c_zip[ZIP_LEN + 1];
    char c_phone[17];
    DATEDETAILS c_since;
    char c_credit[3];
    double c_credit_lim;
    double c_discount;
    double c_balance;
    char c_data[200+1];
    char execution_status[STATUS_LEN];
} PAYMENT_DATA;

typedef struct
{
    long ol_i_id;
#ifdef LONG_WID
    long ol_supply_w_id;
#else
    short ol_supply_w_id;
#endif
    short ol_quantity;
    double ol_amount;
    DATEDETAILS ol_delivery_d;
} OL_ORDER_STATUS_DATA;

typedef struct
{
    bool bTPRslt;
    short iTPRslt;
#ifdef LONG_WID
    long w_id;
#else
    short w_id;
#endif
    short d_id;
    long c_id;
    char c_first[NAME_LEN + 1];
    short o_ol_cnt;
    char c_middle[3];
    char c_last[NAME_LEN + 1];
    double c_balance;
    long o_id;
    DATEDETAILS o_entry_d;
    short o_carrier_id;
    OL_ORDER_STATUS_DATA olOrderStatusData[MAX_OL];
    char execution_status[STATUS_LEN];
} ORDER_STATUS_DATA;

typedef struct
{
    bool bTPRslt;
    short iTPRslt;
#ifdef LONG_WID
    long w_id;
#else

```

```

    short w_id;
#endif
    short o_carrier_id;
    long o_id[10];
    SYSTEMTIME QTime;           // time delivery was queued
    SYSTEMTIME EndTime;        // time delivery completed
} DELIVERY_DATA;

typedef struct
{
    bool bTPRslt;
    short iTPRslt;
#ifdef LONG_WID
    long w_id;
#else
    short w_id;
#endif
    short d_id;
    short thresh_hold;
    long low_stock;
    char execution_status[STATUS_LEN];
} STOCK_LEVEL_DATA;

```

tpcc.cpp

```

// tpcc.cpp
//
// Copyright Unisys, 1999
//

#include <windows.h>
#include <stdio.h>
#include <malloc.h>
#include <stdlib.h>
#include <string.h>
#include <winreg.h>
#include <httpext.h>

#include "..\tpccsvr\tpcc.h"
#include "tmon.h"
#include "diagio.h"
#include "term.h"
#include "delivery.h"
#include "tpcchandler.h"

#define EXTN_VERSION MAKELONG(HSE_VERSION_MINOR,HSE_VERSION_MAJOR)
#define TLS_NULL 0xFFFFFFFF
DWORD dwTlsInx;
CHAR * pTitle = "IIS TPCC COM DLL";
CRITICAL_SECTION csDllMain;

// Diagnostic logging settings
BOOL bSetEventLog = TRUE;
BOOL bSetConsole = FALSE;
UINT uSetDiagLevel = DIAG_INFO;

// TMon Interface Settings
INT iTMMaxMsg = 0;

```

```

// Term Interface Settings
INT iMaxTerms = 3000;

// Delivery Settings
long lSetDThreads = 8;
long lSetDQSize = DEFAULTDQSIZE;
char szSetPath[200] = "\\inetpub\wwwroot\\";

static CHAR * szTPCCError =
    HTTPHdr "<HTML>"
    "<HEAD><TITLE>Welcome To TPC-C</TITLE></HEAD><BODY>"
    "<B>TPCC Extension Error (TPCC Array Not Allocated)</B><BR>"
    "</BODY></HTML>";

static CHAR * szTMinError =
    HTTPHdr "<HTML>"
    "<HEAD><TITLE>Welcome To TPC-C</TITLE></HEAD><BODY>"
    "<B>TPCC Extension Error (TMin Failed)</B><BR>"
    "</BODY></HTML>";
INT iHHdrLen = 0;
INT iCTextLen = 0;

BOOL ThreadAttach(TPCC_STATE * pTPCC, CHAR * pDiag);
VOID ThreadDetach(TPCC_STATE * pTPCC);
VOID SendResponse(EXTENSION_CONTROL_BLOCK * pECB, CHAR * pMsg, CHAR *
pWork);
BOOL ReadRegistry(VOID);

//=====
//
// Function name: DllMain
//
//=====
BOOL WINAPI DllMain(HANDLE hInst, ULONG ul_reason_for_call,
LPVOID lpReserved)
{
    TPCC_STATE * pTPCC = NULL;
    CHAR szDiag[MAX_DIAG_SZ];
    UINT iTMMaxSz = 0;
    switch(ul_reason_for_call)
    {
        case DLL_PROCESS_ATTACH:
            // Process initialization

            InitializeCriticalSection(&csDllMain);
            ReadRegistry();
            DiagIoInit(pTitle, bSetConsole, bSetEventLog, uSetDiagLevel);
            wsprintf(szDiag,
                "(%s) EventLog = %d, Console = %d, DiagLevel = %d\n",
                "MaxTerms = %d\n",
                VERSIONINFO, bSetEventLog, bSetConsole, uSetDiagLevel, iMaxTerms);
            DiagIoWrite(szDiag, DIAG_FORCE);
#ifdef LONG_WID
            DiagIoWrite("tpccd11 - long w_id", DIAG_FORCE);
#endif
    }

    dwTlsInx = TlsAlloc();
    if (dwTlsInx == TLS_NULL)
    {
        wsprintf(szDiag, "PAttach(%ld): Tls Alloc Failed (%ld)\n",
            GetCurrentThreadId(), GetLastError());
        DiagIoWrite(szDiag, DIAG_ERROR);
    }
}

```

```

        return(FALSE);
    };
    if (TermInit(iMaxTerms))
        return(FALSE);
    iTMMaxSz = max(iTMMaxSz, sizeof(NEW_ORDER_DATA));
    iTMMaxSz = max(iTMMaxSz, sizeof(PAYMENT_DATA));
    iTMMaxSz = max(iTMMaxSz, sizeof(ORDER_STATUS_DATA));
    iTMMaxSz = max(iTMMaxSz, sizeof(DELIVERY_DATA));
    iTMMaxSz = max(iTMMaxSz, sizeof(STOCK_LEVEL_DATA));
    iTMMaxSz += 10;
    TMonInit(iTMMaxSz);
    if (DeliveryInit(lSetDThreads, lSetDQSize, szSetPath))
    {
        DeliveryTerm();
        return(FALSE);
    };
    iHHdrLen = strlen(HTTPHdr);
    iCTextLen = strlen(CTEXT);

    break;
case DLL_THREAD_ATTACH:
    // Move ThreadAttach call to HttpExt since the DllMain call
    // for Thread Attach did not reliably come before the first
    // call to HttpExtProc.
    break;
    case DLL_THREAD_DETACH:
        ThreadDetach(pTPCC);
        break;
    case DLL_PROCESS_DETACH:
        ThreadDetach(pTPCC);
        DeleteCriticalSection(&csDllMain);
        DeliveryTerm();
        TMonTerm();
        TermTerm();
        TlsFree(dwTlsInx);
        dwTlsInx = TLS_NULL;
        DiagIoTerm();
        break;
};
return TRUE;
}; // DllMain

//=====
//
// Function name: ThreadAttach
//
// Result:
// FALSE Thread state structure initialized
// TRUE Thread state structure initialization failure
//=====
BOOL ThreadAttach(TPCC_STATE * pTPCC, CHAR * pDiag)
{
    EnterCriticalSection(&csDllMain);
    try
    {
        pTPCC = (TPCC_STATE *) calloc(1, sizeof(TPCC_STATE));
        if (pTPCC == NULL)
        {
            wsprintf(pDiag, "ThrAtt(%ld): pTPCC Alloc Failed (%ld)\n",

```

```

        GetCurrentThreadId(), GetLastError);
        DiagIoWrite(pDiag, DIAG_ERROR);
        return(TRUE);
    };

    char filename[64];
    long threadId;
    threadId = GetCurrentThreadId();
    sprintf(filename, "c:\\temp\\testing%ld.txt", threadId);
    pTPCC->fp = fopen(filename, "w");
    if (pTPCC->fp != NULL)
    {
        fprintf(pTPCC->fp, "Init %ld\n", threadId);
        fflush(pTPCC->fp);
    }

    TlsSetValue(dwTlsInx, pTPCC);
    pTPCC->tsTMon.pszErrTxt = pTPCC->ErrTxt;
    if (TMonInit(&pTPCC->tsTMon))
    {
        wsprintf(pDiag, "ThrAtt(%ld): TMonInit %s\n",
            GetCurrentThreadId(), pTPCC->ErrTxt);
        DiagIoWrite(pDiag, DIAG_ERROR);
        return(TRUE);
    };
}
finally
{
    LeaveCriticalSection(&csDllMain);
};
return(FALSE);
}; // ThreadAttach

//=====
//
// Function name: ThreadDetach
//
//=====
VOID ThreadDetach(TPCC_STATE * pTPCC)
{
    EnterCriticalSection(&csDllMain);
    try
    {
        pTPCC = (TPCC_STATE *) TlsGetValue(dwTlsInx);
        if (pTPCC != NULL)
        {
            TMDone(&pTPCC->tsTMon);
            fclose(pTPCC->fp);
            free(pTPCC);
            pTPCC = NULL;
            TlsSetValue(dwTlsInx, pTPCC);
        };
    }
    finally
    {
        LeaveCriticalSection(&csDllMain);
    };
}; // ThreadDetach

//=====
//

```

```

// Function name: GetExtensionVersion
//
//=====
BOOL WINAPI GetExtensionVersion(HSE_VERSION_INFO *pVersion)
{
    pVersion->dwExtensionVersion = EXTN_VERSION;
    strncpy(pVersion->lpszExtensionDesc,pTitle,HSE_MAX_EXT_DLL_NAME_LEN);
    return TRUE;
}; // GetExtensionVersion

//=====
//
// Function name: HttpExtensionProc
//
//
// Returns:
//     HSE_STATUS_SUCCESS          send msg, drop connection
//     HSE_STATUS_SUCCESS_AND_KEEP_CONN  send msg, keep connection
//
//=====
DWORD WINAPI HttpExtensionProc(EXTENSION_CONTROL_BLOCK * pECB)
{
    TPCC_STATE * pTPCC;
    //DWORD dwRslt = HSE_STATUS_SUCCESS;
    DWORD dwRslt = HSE_STATUS_SUCCESS_AND_KEEP_CONN;
    UINT uRslt;

    pTPCC = (TPCC_STATE *) TlsGetValue(dwTlsInx);
    if (pTPCC == NULL)
    {
        CHAR szWork[200];
        ThreadAttach(pTPCC,szWork);
        pTPCC = (TPCC_STATE *) TlsGetValue(dwTlsInx);
        if (pTPCC == NULL)
        {
            SendResponse(pECB,szTPCCError,szWork);
            goto HttpXit;
        };
    };
    if (pTPCC->tsTMon.pTxnData == NULL)
        SendResponse(pECB,szTMinInitError,pTPCC->szHeader);
    TPCCclear(pTPCC);
    pTPCC->ConnID = pECB->ConnID;
    pTPCC->RecvMsg = pECB->lpszQueryString;
    uRslt = TPCCHandler(pTPCC);
    switch (uRslt)
    {
        case TPCCSEND:
            SendResponse(pECB,pTPCC->SendMsg,pTPCC->szHeader);
            dwRslt = HSE_STATUS_SUCCESS_AND_KEEP_CONN;
            break;
        case TPCCSENDEND:
            SendResponse(pECB,pTPCC->SendMsg,pTPCC->szHeader);
            break;
        case TPCCENDNOW:
        default:
            break;
    }; // switch (TPCCHandler result)

HttpXit:

```

```

        if (uRslt != TPCCSEND && pTPCC->fp)
        {
            fprintf(pTPCC->fp, "%ld %s (%ld,%ld) \n", pTPCC->iTermId,
pTPCC->ErrTxt, pTPCC->sWId, pTPCC->sDId);
            fflush(pTPCC->fp);
        }

        return(dwRslt);
}; // HttpExtensionProc

//=====
//
// Function name: SendResponse
//
//=====
VOID SendResponse(EXTENSION_CONTROL_BLOCK * pECB,CHAR * pMsg,CHAR * pWork)
{
    DWORD dwMsgBytes;
    DWORD dwDataBytes;
    CHAR * pCL;
    HSE_SEND_HEADER_EX_INFO HeaderExInfo;
    dwMsgBytes = strlen(pMsg);
    pCL=strstr(pMsg,CTEXT);
    dwDataBytes = dwMsgBytes - iHHdrLen;
    wsprintf(pWork,"%4ld",dwDataBytes);
    pCL += iCTextLen;
    strncpy(pCL,pWork,4);
    HeaderExInfo.pszHeader = pMsg;
    HeaderExInfo.cchHeader = dwMsgBytes;
    HeaderExInfo.pszStatus = "200 OK";
    HeaderExInfo.cchStatus = 6;
    HeaderExInfo.fKeepConn = TRUE;
    (*pECB->ServerSupportFunction)
        (pECB->ConnID,
        HSE_REQ_SEND_RESPONSE_HEADER_EX,
        &HeaderExInfo,
        NULL,
        NULL);
}; // SendResponse

//=====
//
// Function name: ReadRegistry
//
// Sets global operational parameters from registry if they exist.
// Otherwise, compiled in defaults apply.
//
// Result:
//     FALSE    Registry entry found
//     TRUE     Registry entry does not exist
//
//=====
BOOL ReadRegistry(VOID)
{
    HKEY hkTPCC;
    DWORD dwMax;
    DWORD dwRT;
    INT i;
    CHAR szValue[100];

```

```

if (RegOpenKeyEx(HKEY_LOCAL_MACHINE,"SOFTWARE\\Unisys\\TPCC",0,
KEY_READ, &hkTPCC) != ERROR_SUCCESS )
return(TRUE);
dwMax = sizeof(szValue);
if (RegQueryValueEx(hkTPCC,"EVENTLOG",0,&dwRT,(BYTE *) &szValue,&dwMax)
== ERROR_SUCCESS)
{
if (abs(atoi(szValue) == 0))
bSetEventLog = FALSE;
else
bSetEventLog = TRUE;
};
dwMax = sizeof(szValue);
if (RegQueryValueEx(hkTPCC,"CONSOLE",0,&dwRT,(BYTE *) &szValue,&dwMax)
== ERROR_SUCCESS )
{
if (abs(atoi(szValue) == 0))
bSetConsole = FALSE;
else
bSetConsole = TRUE;
};
dwMax = sizeof(szValue);
if (RegQueryValueEx(hkTPCC,"DIAGLEVEL",0,&dwRT,(BYTE *)
&szValue,&dwMax)
== ERROR_SUCCESS )
{
i = atoi(szValue);
if (i < DIAG_FORCE)
i = DIAG_FORCE;
else
if (i > DIAG_INFO)
i = DIAG_INFO;
uSetDiagLevel = i;
};
dwMax = sizeof(szValue);
if (RegQueryValueEx(hkTPCC,"MAXTERMS",0,&dwRT,(BYTE *) &szValue,&dwMax)
== ERROR_SUCCESS )
{
iMaxTerms = abs(atoi(szValue));
};
dwMax = sizeof(szValue);
if (RegQueryValueEx(hkTPCC,"DELIVERYTHREADS",0,&dwRT,(BYTE *)
&szValue,&dwMax)
== ERROR_SUCCESS )
{
lSetDThreads = abs(atoi(szValue));
};
dwMax = sizeof(szValue);
if (RegQueryValueEx(hkTPCC,"DQSIZE",0,&dwRT,(BYTE *) &szValue,&dwMax)
== ERROR_SUCCESS )
{
lSetDQSize = abs(atoi(szValue));
};
dwMax = sizeof(szValue);
if (RegQueryValueEx(hkTPCC,"DQPATH",0,&dwRT,(BYTE *) &szValue,&dwMax)
== ERROR_SUCCESS )
{
strcpy(szSetPath,szValue);
};
RegCloseKey(hkTPCC);
return(FALSE);

```

```
}; // ReadRegistry
```

tpcchandler.h

```

// tpcchandler.h
//
// Copyright Unisys, 1999

#define MAX_MSG_SZ 5000

typedef struct
{
LPVOID ConnID; // Active Connection Id
#ifdef LONG WID
LONG sWId; // TPCC WareHouse Id
#else
SHORT sWId; // TPCC WareHouse Id
#endif
SHORT sDId; // TPCC District Id
INT iSyncId; // TPCC Sync Id
INT iTermId; // TPCC Term Id
UINT uFormId; // TPCC Form Id
INT iStatusId; // TPCC Status Id
CHAR ErrTxt[500]; // Error text
CHAR szWork[200]; // Thread work area
CHAR szHeader[100]; // HTTP work area
CHAR * RecvMsg; // HTML message from ECB
CHAR SendMsg[MAX_MSG_SZ]; // HTML work area
TMON_STATE tsTMon; // TMon Interface
FILE *fp; // file for error
info
} TPCC_STATE;

BOOL TPCCclear(TPCC_STATE * pTPCC);
UINT TPCCHandler(TPCC_STATE * pTPCC);

```

tpcchandler.cpp

```

// tpcchandler.cpp
//
// Copyright Unisys, 1999
//
#include <windows.h>
#include <stdio.h>
#include <stdlib.h>
#include <string.h>

#include "..\tpccsvr\tpcc.h"
#include "tmon.h"
#include "diagio.h"
#include "delivery.h"
#include "tpcchandler.h"
#include "term.h"

#define INIT_RETRY 0

```

```

// pTPCC->iFormId - TPCC forms enumeration.
#define FORM_NULL 0
#define FORM_LOGON 1
#define FORM_MENU 2
#define FORM_NEWORDER 3
#define FORM_PAYMENT 4
#define FORM_DELIVERY 5
#define FORM_ORDERSTATUS 6
#define FORM_STOCKLEVEL 7
#define FORM_EXIT 8
#define FORM_MAX 9

// CMD= HTML Command Enumeration and Name
#define CMD_NULL 0
#define CMD_PROCESS 1
#define CMD_NEWORDER_FORM 2
#define CMD_PAYMENT_FORM 3
#define CMD_DELIVERY_FORM 4
#define CMD_ORDERSTATUS_FORM 5
#define CMD_STOCKLEVEL_FORM 6
#define CMD_EXIT 7
#define CMD_SUBMIT 8
#define CMD_MENU_FORM 9
#define CMD_MAX 10

static CHAR * szCmds[] =
{
    "Unknown",
    "Process",
    "..NewOrder..",
    "..Payment..",
    "..Delivery..",
    "..Order-Status..",
    "..Stock-Level..",
    "..Exit..",
    "Submit",
    "Menu"
};

static CHAR * szFormLogin =
HTTPhdr "<HTML>"
"<HEAD><TITLE>Welcome To TPC-C</TITLE></HEAD><BODY>"
"Please Identify your Warehouse and District for this session.<BR>"
"<FORM ACTION=\"tpcc.dll\" METHOD=\"GET\">"
"<INPUT TYPE=\"hidden\" NAME=\"STATUSID\" VALUE=\"0\">"
"<INPUT TYPE=\"hidden\" NAME=\"FORMID\" VALUE=\"1\">"
"<INPUT TYPE=\"hidden\" NAME=\"TERMID\" VALUE=\"-2\">"
"<INPUT TYPE=\"hidden\" NAME=\"SYNCID\" VALUE=\"0\">"
#ifdef LONG_WID
"Warehouse ID <INPUT NAME=\"w_id\" SIZE=6><BR>"
#else
"Warehouse ID <INPUT NAME=\"w_id\" SIZE=4><BR>"
#endif
"District ID <INPUT NAME=\"d_id\" SIZE=2><BR>"
"<HR>"
"<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"Submit\">"
"</FORM>";

static CHAR * szMenuList =
"<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..\">";

static CHAR * HTMLTrailer =
"</BODY></HTML>";

static CHAR * TERMIDTOKEN = "TERMID=";
static CHAR * SYNCIDTOKEN = "SYNCID=";
static CHAR * FORMIDTOKEN = "FORMID=";
static CHAR * STATUSIDTOKEN = "STATUSID=";
static CHAR * CMDTOKEN = "CMD=";
static CHAR * NEWORDER_SERVICE = "NEWORDER";
static CHAR * PAYMENT_SERVICE = "PAYMENT";
static CHAR * ORDERSTATUS_SERVICE = "ORDERSTS";
static CHAR * DELIVERY_SERVICE = "DELIVERY";
static CHAR * STOCKLEVEL_SERVICE = "STOCKLVL";
static CHAR * ZIPPIC = "XXXXX-XXXX";

BOOL ProcessLogin(CHAR * pIn, CHAR * pOut, TPCC_STATE * pTPCC);
BOOL ProcessForm(CHAR * pIn, CHAR * pOut, TPCC_STATE * pTPCC);
BOOL ProcessNewOrder(CHAR * pIn, CHAR * pOut, TPCC_STATE * pTPCC);
BOOL ProcessPayment(CHAR * pIn, CHAR * pOut, TPCC_STATE * pTPCC);
BOOL ProcessDelivery(CHAR * pIn, CHAR * pOut, TPCC_STATE * pTPCC);
BOOL ProcessOrderStatus(CHAR * pIn, CHAR * pOut, TPCC_STATE * pTPCC);
BOOL ProcessStockLevel(CHAR * pIn, CHAR * pOut, TPCC_STATE * pTPCC);
VOID FormatLogin(CHAR * pMsg, CHAR * pAddText);
BOOL GetHidden(CHAR * pMsg, UINT * uFormId, INT * iSyncId, INT * iTermId);
BOOL GetCmd(CHAR * pMsg, CHAR * pWork, UINT uLen);
BOOL GetLongKey(LONG * lRslt, CHAR * pHTML, CHAR * pKey, TPCC_STATE * pTPCC);
BOOL GetIntKey(INT * iRslt, CHAR * pHTML, CHAR * pKey, TPCC_STATE * pTPCC);
BOOL GetShortKey(SHORT * sRslt, CHAR * pHTML, CHAR * pKey, TPCC_STATE * pTPCC);
BOOL GetStringKey(CHAR * szRslt, CHAR * pHTML, CHAR * pKey,
    TPCC_STATE * pTPCC, UINT uMax);
BOOL GetAmountKey(DOUBLE * dRslt, CHAR * pHTML, CHAR * pKey,
    TPCC_STATE * pTPCC);
BOOL GetKeyValue(CHAR * pHTML, CHAR * pKey, CHAR * pValue, UINT uMax);
VOID FormatLogin(CHAR * pOut, CHAR * pAddText);
VOID FormatMenu(CHAR * pOut, TPCC_STATE * pTPCC);
VOID FormatNewOrder(CHAR * pOut, TPCC_STATE * pTPCC);
VOID FormatPayment(CHAR * pOut, TPCC_STATE * pTPCC);
VOID FormatDelivery(CHAR * pOut, TPCC_STATE * pTPCC);
VOID FormatOrderStatus(CHAR * pOut, TPCC_STATE * pTPCC);
VOID FormatStockLevel(CHAR * pOut, TPCC_STATE * pTPCC);
INT FormatFormHdr(CHAR * pOut, CHAR * pTitle, TPCC_STATE * pTPCC);
INT FormatRespHdr(CHAR * pOut, CHAR * pTitle, TPCC_STATE * pTPCC);
VOID FormatString(CHAR * pOut, CHAR * pPic, CHAR * pIn);
VOID UtilStrCpy(CHAR * pDest, CHAR * pSrc, INT n);
BOOL CheckNumeric(CHAR * pNum);
void WriteEventLog(char * pMsg, bool bError);

//=====
//
// Function name: TPCCclear
//
//=====
BOOL TPCCclear(TPCC_STATE * pTPCC)
{
    pTPCC->ConnID = 0;
}

```

```

pTPCC->sWId = 0;
pTPCC->sDId = 0;
pTPCC->iSyncId = 0;
pTPCC->iTermId = -2;
pTPCC->uFormId = FORM_NULL;
pTPCC->iStatusId = 0;
strcpy(pTPCC->ErrTxt, "");
return (FALSE);
}; // TPCCclear

//=====
//
// Function name: TPCCHandler
//
//=====
UINT TPCCHandler(TPCC_STATE * pTPCC)
{
    INT iSyncId;
    INT iTermId;
    UINT uCmdId;
    UINT uRslt = TPCCSENDEND; // default error handling
    TERM_STATE * pTerm;

    pTPCC->iStatusId = STATUS_OK;
    if (GetHidden(pTPCC->RecvMsg, &pTPCC->uFormId, &iSyncId, &iTermId))
    {
        uRslt = TPCCSEND;
        FormatLogin(pTPCC->SendMsg, pTPCC->ErrTxt);
        goto HdlrXit;
    };
    if (iTermId > 0)
    {
        pTerm = TermGet(iTermId);
        if (pTerm == NULL)
        {
            uRslt = TPCCSEND;
            strcpy(pTPCC->ErrTxt, "Invalid Term Id");
            FormatLogin(pTPCC->SendMsg, pTPCC->ErrTxt);
            goto HdlrXit;
        };
        pTPCC->sWId = pTerm->sWId;
        pTPCC->sDId = pTerm->sDId;
        pTPCC->iSyncId = pTerm->iSyncId;
        pTPCC->iTermId = pTerm->iTermId;
    };
    uCmdId = GetCmd(pTPCC->RecvMsg, pTPCC->szWork, sizeof(pTPCC->szWork));
    // Except for Submit(log in), sWId must already be set
    if (pTPCC->sWId == 0 && uCmdId != CMD_SUBMIT)
    {
        strcpy(pTPCC->ErrTxt, "Must log in first!");
        FormatLogin(pTPCC->SendMsg, pTPCC->ErrTxt);
        uRslt = TPCCSEND;
        goto HdlrXit;
    };
    // Check for multiple log in attempts
    if (pTPCC->sWId != 0 && uCmdId == CMD_SUBMIT)
    {
        strcpy(pTPCC->ErrTxt, ERRTXT_ALREADY_LOGGEDIN);
        pTPCC->iStatusId = ERR_ALREADY_LOGGEDIN;
        FormatMenu(pTPCC->SendMsg, pTPCC);
        uRslt = TPCCSEND;
    }
}

```

```

goto HdlrXit;
};
// If not logging in, validate hidden fields
if (uCmdId != CMD_SUBMIT)
{
    if (iTermId != pTPCC->iTermId || iTermId != iSyncId)
    {
        wsprintf(pTPCC->ErrTxt, "%s: Received %ld, %ld (%ld)",
            ERRTXT_TERMID, iTermId, iSyncId, pTPCC->iTermId);
        pTPCC->iStatusId = ERR_TERMID;
        FormatMenu(pTPCC->SendMsg, pTPCC);
        goto HdlrXit;
    };
};
// Process the command
switch (uCmdId)
{
    case CMD_SUBMIT:
        ProcessLogin(pTPCC->RecvMsg, pTPCC->SendMsg, pTPCC);
        break;
    case CMD_MENU_FORM:
        FormatMenu(pTPCC->SendMsg, pTPCC);
        break;
    case CMD_PROCESS:
        ProcessForm(pTPCC->RecvMsg, pTPCC->SendMsg, pTPCC);
        break;
    case CMD_NEWORDER_FORM:
        FormatNewOrder(pTPCC->SendMsg, pTPCC);
        break;
    case CMD_PAYMENT_FORM:
        FormatPayment(pTPCC->SendMsg, pTPCC);
        break;
    case CMD_DELIVERY_FORM:
        FormatDelivery(pTPCC->SendMsg, pTPCC);
        break;
    case CMD_ORDERSTATUS_FORM:
        FormatOrderStatus(pTPCC->SendMsg, pTPCC);
        break;
    case CMD_STOCKLEVEL_FORM:
        FormatStockLevel(pTPCC->SendMsg, pTPCC);
        break;
    case CMD_EXIT:
        TermFree(pTPCC->iTermId);
        strcpy(pTPCC->ErrTxt, "Logged Off");
        FormatLogin(pTPCC->SendMsg, pTPCC->ErrTxt);
        goto HdlrXit;
    default:
        strcpy(pTPCC->ErrTxt, ERRTXT_CMD_UNKNOWN);
        pTPCC->iStatusId = ERR_CMD_UNKNOWN;
        if (pTPCC->sWId == 0)
            FormatLogin(pTPCC->SendMsg, pTPCC->ErrTxt);
        else
            FormatMenu(pTPCC->SendMsg, pTPCC);
        break;
}; // switch (uCmdId)

uRslt = TPCCSEND;

HdlrXit:
return (uRslt);

```



```

}; // TPCCHandler

//=====
//
// Function name: ProcessLogin
//
// ProcessLogin extracts WId and DId from the incoming form. Assumes
// log in has not previously completed (sWId == 0 already verified).
//
// Result:
// FALSE - log in successful, sWId and sDId set in pTPCC,
// pOut contains menu.
// TRUE - log in failed, pOut contains log in form with
// error message.
//
//=====
BOOL ProcessLogin(CHAR * pIn,CHAR * pOut,TPCC_STATE * pTPCC)
{
#ifdef LONG_WID
    LONG sWId;
#else
    SHORT sWId;
#endif
    SHORT sDId;
    TERM_STATE * pTerm;

#ifdef LONG_WID
    if (GetLongKey(&sWId,pIn,"w_id",pTPCC))
#else
    if (GetShortKey(&sWId,pIn,"w_id",pTPCC))
#endif
    #endif
    {
        FormatLogin(pOut,pTPCC->ErrTxt);
        return(TRUE);
    };
    if (sWId < 1)
    {
        sprintf(pTPCC->ErrTxt,"Warehouse Id (%d) Invalid",sWId);
        pTPCC->iStatusId = ERR_WID_INVALID;
        FormatLogin(pOut,pTPCC->ErrTxt);
        return(TRUE);
    };
    if (GetShortKey(&sDId,pIn,"d_id",pTPCC))
    {
        FormatLogin(pOut,pTPCC->ErrTxt);
        return(TRUE);
    };
    if (sDId < MIN_DId || sDId > MAX_DId)
    {
        sprintf(pTPCC->ErrTxt,"DId Out of Range(%ld,%ld) - %ld",
            MIN_DId,MAX_DId,sDId);
        pTPCC->iStatusId = ERR_DID_INVALID;
        FormatLogin(pOut,pTPCC->ErrTxt);
        return(TRUE);
    };
    pTerm = TermAlloc();
    if (pTerm == NULL)
    {
        sprintf(pTPCC->ErrTxt,"Unable to Allocate Terminal Entry");
        pTPCC->iStatusId = ERR_TERM_ALLOC;
    }
}

```

```

FormatLogin(pOut,pTPCC->ErrTxt);
return(TRUE);
};
pTerm->ConnID = pTPCC->ConnID;
pTerm->iSyncId = pTerm->iTermId;
pTerm->sWId = abs(sWId);
pTerm->sDId = abs(sDId);
pTPCC->iTermId = pTerm->iTermId;
pTPCC->iSyncId = pTerm->iSyncId;
pTPCC->sWId = pTerm->sWId;
pTPCC->sDId = pTerm->sDId;
FormatMenu(pOut,pTPCC);
return(FALSE);
}; // ProcessLogin

//=====
//
// Function name: ProcessForm
//
// ProcessForm uses pTPCC->uFormId to determine which form input is
// present and ready for processing. Actual processing is done by
// the form specific routine.
//
// Result:
// FALSE - form processed, pOut contains response.
// TRUE - error processing form input, pOut contains reason.
//
//=====
BOOL ProcessForm(CHAR * pIn,CHAR * pOut,TPCC_STATE * pTPCC)
{
    switch (pTPCC->uFormId )
    {
        case FORM_NEWORDER:
            return(ProcessNewOrder(pIn,pOut,pTPCC));
        case FORM_PAYMENT:
            return(ProcessPayment(pIn,pOut,pTPCC));
        case FORM_DELIVERY:
            return(ProcessDelivery(pIn,pOut,pTPCC));
        case FORM_ORDERSTATUS:
            return(ProcessOrderStatus(pIn,pOut,pTPCC));
        case FORM_STOCKLEVEL:
            return(ProcessStockLevel(pIn,pOut,pTPCC));
        default:
            sprintf(pTPCC->ErrTxt,"%s (%ld)",
                ERRTXT_FORM_UNKNOWN,pTPCC->uFormId);
            pTPCC->iStatusId = ERR_FORM_UNKNOWN;
            FormatMenu(pOut,pTPCC);
            break;
    }
    return(TRUE);
}; // ProcessForm

//=====
//
// Function name: ProcessNewOrder
//
// ProcessNewOrder extracts the input data fields from pIn, processes
// the data, and returns a response in pOut.
//
// Result:
// FALSE - NewOrder processed successfully.

```

```

//      TRUE - NewOrder processing failed.
//
//=====
BOOL ProcessNewOrder(CHAR * pIn,CHAR * pOut,TPCC_STATE * pTPCC)
{
    NEW_ORDER_DATA * pnod;
    TMON_STATE * pTMon;
    CHAR szKey[20];
    CHAR * ptr;
    INT iInx;
    UINT u;
    UINT uLine;
    HRESULT hr;
    int iSize;
    int retCnt = 0;

    pTMon = &pTPCC->tsTMon;
    pnod = (NEW_ORDER_DATA *) pTMon->pTxnData;
    ZeroMemory(pnod,sizeof(NEW_ORDER_DATA));
    pnod->w_id = pTPCC->sWId;
    if (GetShortKey(&pnod->d_id,pIn,"DID*",pTPCC))
    {
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    if (pnod->d_id < MIN_DId || pnod->d_id > MAX_DId)
    {
        wsprintf(pTPCC->ErrTxt,"DId Out of Range(%ld,%ld) - %ld",
            MIN_DId,MAX_DId,pnod->d_id);
        pTPCC->iStatusId = ERR_DID_INVALID;
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    if (GetLongKey(&pnod->c_id,pIn,"CID*",pTPCC))
    {
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    pnod->o_ol_cnt = 0;
    ptr = pIn;
    for(u=0, uLine=0; u < MAX_OL; u++)
    {
        wsprintf(szKey,"SP%2.2d*",u);
        ptr = strstr(ptr,szKey);
#ifdef LONG_WID
        if (GetLongKey(&pnod->Ol[uLine].ol_supply_w_id,ptr,szKey,pTPCC))
#else
        if (GetShortKey(&pnod->Ol[uLine].ol_supply_w_id,ptr,szKey,pTPCC))
#endif
        {
            FormatMenu(pOut,pTPCC);
            return(TRUE);
        };
        wsprintf(szKey,"IID%2.2d*",u);
        if (GetLongKey(&pnod->Ol[uLine].ol_i_id,ptr,szKey,pTPCC))
        {
            FormatMenu(pOut,pTPCC);
            return(TRUE);
        };
        wsprintf(szKey,"Qty%2.2d*",u);
        if (GetShortKey(&pnod->Ol[uLine].ol_quantity,ptr,szKey,pTPCC))

```

```

{
    FormatMenu(pOut,pTPCC);
    return(TRUE);
};
if (pnod->Ol[uLine].ol_i_id != 0)
{
    if (pnod->Ol[uLine].ol_supply_w_id < 1)
    {
        wsprintf(pTPCC->ErrTxt,
            "Order Line %ld Contains Invalid WId %ld",
            u + 1,pnod->Ol[uLine].ol_supply_w_id);
        pTPCC->iStatusId = ERR_WID_INVALID;
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    if (pnod->Ol[uLine].ol_quantity < MIN_QUANTITY ||
        pnod->Ol[uLine].ol_quantity > MAX_QUANTITY)
    {
        wsprintf(pTPCC->ErrTxt,
            "Order Line %ld Contains Invalid Qty %d",
            u + 1,pnod->Ol[uLine].ol_quantity);
        pTPCC->iStatusId = ERR_QUANTITY_INVALID;
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    uLine++;
} // if (ol_i_id !=0)
else
{
    if (pnod->Ol[uLine].ol_supply_w_id != 0)
    {
        wsprintf(pTPCC->ErrTxt,
            "Order Line %ld WId Supplied with No Item",u + 1);
        pTPCC->iStatusId = ERR_OL_INVALID;
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    if (pnod->Ol[uLine].ol_quantity != 0)
    {
        wsprintf(pTPCC->ErrTxt,
            "Order Line %ld Qty Supplied with No Item",u + 1);
        pTPCC->iStatusId = ERR_OL_INVALID;
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
}; // empty order line
}; // for (u < MAX_OL)
pnod->o_ol_cnt = uLine;
if (pnod->o_ol_cnt < MIN_OL)
{
    wsprintf(pTPCC->ErrTxt,"Too Few Order Lines %d",pnod->o_ol_cnt);
    pTPCC->iStatusId = ERR_OL_COUNT;
    FormatMenu(pOut,pTPCC);
    return(TRUE);
};
iSize = pTMon->iSize;
do
{
    hr = pTMon->pIAAllTxn->NewOrder(&iSize,(unsigned char*)&pTMon-
>pTxnData);
    if (retCnt > 0) Sleep(1000);

```

```

}while ((FAILED(hr)) && (retCnt++ < INIT_RETRY));
if (FAILED(hr))
{
    pTPCC->iStatusId = ERR_TM_INTERFACE;
    wprintf(pTPCC->ErrTxt,
        "COM Interface to NewOrder Call Failed, HRESULT %x",
        hr);
    FormatMenu(pOut,pTPCC);
    return(TRUE);
};
pnod = (NEW_ORDER_DATA *) pTMon->pTxnData;
// Exclude invalid item id case
if (pnod->bTPRslt && pnod->iTPRslt < SVC_NOERROR)
{
    wprintf(pTPCC->ErrTxt,
        "New Order Service Returned Error(%ld): %s",
        pnod->iTPRslt, pnod->execution_status);
    pTPCC->iStatusId = ERR_SERVICE_RSLT;
    FormatMenu(pOut,pTPCC);
    return(TRUE);
};
if (pnod->iTPRslt == SVC_BADITEMID)
    pTPCC->iStatusId = INVALID_IID;

iInx = FormatRespHdr(pOut, "TPC-C New Order", pTPCC);
if (!pnod->bTPRslt)
{
    iInx += wprintf(pOut + iInx,
        "<PRE>                                New Order<BR>"
#ifdef LONG_WID
        "Warehouse: %6.6d  District: %2.2d          "
#else
        "Warehouse: %4.4d  District: %2.2d          "
#endif
        "Date: %2.2d-%2.2d-%4.4d %2.2d:%2.2d:%2.2d <BR>"
        "Customer: %4.4d  Name: %-16s  Credit: %-2s  ",
        pnod->w_id, pnod->d_id,
        pnod->o_entry_d.day, pnod->o_entry_d.month,
        pnod->o_entry_d.year, pnod->o_entry_d.hour,
        pnod->o_entry_d.minute, pnod->o_entry_d.second,
        pnod->c_id, pnod->c_last, pnod->c_credit);
    iInx += sprintf(pOut + iInx,
        "%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>",
        pnod->c_discount * 100, pnod->o_id, pnod->o_ol_cnt, pnod->w_tax *
100, pnod->d_tax * 100);
    for (u = 0; u < (UINT) pnod->o_ol_cnt; u++)
    {
        iInx += sprintf(pOut + iInx,
#ifdef LONG_WID
            " %6.6d  %6.6d  %-24s  %2.2d  %3.3d  %1.1s  %6.2f
$%7.2f <BR>",
#else
            " %4.4d  %6.6d  %-24s  %2.2d  %3.3d  %1.1s  %6.2f
$%7.2f <BR>",
#endif
            pnod->Ol[u].ol_supply_w_id, pnod->Ol[u].ol_i_id,

```

```

        pnod->Ol[u].ol_i_name, pnod->Ol[u].ol_quantity, pnod-
>Ol[u].ol_stock,
        pnod->Ol[u].ol_brand_generic, pnod->Ol[u].ol_i_price,
        pnod->Ol[u].ol_amount);
    };
    for(; u < MAX_OL; u++)
    {
        strcat(pOut + iInx, " <BR>");
        iInx += 5;
    };
    sprintf(pOut + iInx,
        "Execution Status: %24.24s          Total:  $%8.2f  "
        "</PRE><HR><BR>%s</FORM>%s",
        pnod->execution_status, pnod->total_amount,
        szMenuList, HTMLTrailer);
} // !bTPRslt
else
{
    iInx += wprintf(pOut + iInx,
        "<PRE>                                New Order<BR>"
#ifdef LONG_WID
        "Warehouse: %6.6d  District: %2.2d
Date:<BR>"
#else
        "Warehouse: %4.4d  District: %2.2d
Date:<BR>"
#endif
        "Customer: %4.4d  Name: %-16s  Credit: %-2s  "
        "%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>",
        pnod->w_id, pnod->d_id,
        pnod->c_id, pnod->c_last, pnod->c_credit,
        pnod->o_id);
    for(u = 0; u < MAX_OL; u++)
    {
        strcat(pOut + iInx, " <BR>");
        iInx += 5;
    };
    iInx += wprintf(pOut + iInx,
        "Execution Status: %24.24s          Total:"
        "</PRE><HR><BR>%s</FORM>%s",
        pnod->execution_status, szMenuList, HTMLTrailer);
}; // bTPRslt

return(FALSE);
}; // ProcessNewOrder

//=====
//
// Function name: ProcessPayment
//
// ProcessPayment extracts the input data fields from pIn, processes
// the data, and returns a response in pOut.
//
// Result:
// FALSE - Payment processed successfully.
// TRUE - Payment processing failed.

```

```

//
//=====
BOOL ProcessPayment (CHAR * pIn, CHAR * pOut, TPCC_STATE * pTPCC)
{
    PAYMENT_DATA * ppd;
    TMON_STATE * pTMon;
    CHAR szWork1[60];
    CHAR szZip1[20];
    CHAR szZip2[20];
    CHAR szZip3[20];
    INT iInx;
    HRESULT hr;
    int iSize;
    int retCnt = 0;

    pTMon = &pTPCC->tsTMon;
    ppd = (PAYMENT_DATA *) pTMon->pTxnData;
    ZeroMemory(ppd, sizeof(PAYMENT_DATA));
    ppd->w_id = pTPCC->sWid;
    // Get and validate DID
    if (GetShortKey(&ppd->d_id, pIn, "DID*", pTPCC))
    {
        FormatMenu(pOut, pTPCC);
        return(TRUE);
    };
    if (ppd->d_id < MIN_DID || ppd->d_id > MAX_DID)
    {
        wsprintf(pTPCC->ErrTxt, "DID Out of Range(%ld,%ld) - %ld",
            MIN_DID, MAX_DID, ppd->d_id);
        pTPCC->iStatusId = ERR_DID_INVALID;
        FormatMenu(pOut, pTPCC);
        return(TRUE);
    };
    // Get and validate customer Id and name
    if (GetLongKey(&ppd->c_id, pIn, "CID*", pTPCC))
    {
        FormatMenu(pOut, pTPCC);
        return(TRUE);
    };
    if (GetStringKey(ppd->c_last, pIn, "CLT*", pTPCC, NAME_LEN))
    {
        FormatMenu(pOut, pTPCC);
        return(TRUE);
    };
    if (ppd->c_id == 0 && ppd->c_last[0] == 0)
    {
        strcpy(pTPCC->ErrTxt, "Error - Customer Id and Name Empty");
        pTPCC->iStatusId = ERR_IDANDNAME_EMPTY;
        FormatMenu(pOut, pTPCC);
        return(TRUE);
    };
    if (ppd->c_id != 0 && ppd->c_last[0] != 0)
    {
        strcpy(pTPCC->ErrTxt,
            "Error - Specify Customer Id or Name, not Both");
        pTPCC->iStatusId = ERR_IDANDNAME_ENTERED;
        FormatMenu(pOut, pTPCC);
        return(TRUE);
    };
    // Get and validate customer DID
    if (GetShortKey(&ppd->c_d_id, pIn, "CDI*", pTPCC))

```

```

{
    FormatMenu(pOut, pTPCC);
    return(TRUE);
};
if (ppd->c_d_id < MIN_DID || ppd->c_d_id > MAX_DID)
{
    wsprintf(pTPCC->ErrTxt, "Cust DID Out of Range(%ld,%ld) - %ld",
        MIN_DID, MAX_DID, ppd->d_id);
    pTPCC->iStatusId = ERR_DID_INVALID;
    FormatMenu(pOut, pTPCC);
    return(TRUE);
};
// Get and validate customer WID
#ifdef LONG_WID
    if (GetLongKey(&ppd->c_w_id, pIn, "CWI*", pTPCC))
#else
    if (GetShortKey(&ppd->c_w_id, pIn, "CWI*", pTPCC))
#endif
{
    FormatMenu(pOut, pTPCC);
    return(TRUE);
};
if (ppd->c_w_id < 1)
{
    wsprintf(pTPCC->ErrTxt,
        "Payment Contains Invalid Customer WId %ld",
        ppd->c_w_id);
    pTPCC->iStatusId = ERR_WID_INVALID;
    FormatMenu(pOut, pTPCC);
    return(TRUE);
};
// Get and validate amount
if (GetAmountKey(&ppd->h_amount, pIn, "HAM*", pTPCC))
{
    FormatMenu(pOut, pTPCC);
    return(TRUE);
};
if (ppd->h_amount <= 0)
{
    wsprintf(pTPCC->ErrTxt,
        "Payment Amount Negative or Missing");
    pTPCC->iStatusId = ERR_AMOUNT_INVALID;
    FormatMenu(pOut, pTPCC);
    return(TRUE);
};
iSize = pTMon->iSize;
do
{
    hr = pTMon->pIAllTxn->Payment(&iSize, (unsigned char**) &pTMon-
    >pTxnData);
    if (retCnt > 0) Sleep(1000);
} while ((FAILED(hr)) && (retCnt++ < INIT_RETRY));

if (FAILED(hr))
{
    pTPCC->iStatusId = ERR_TM_INTERFACE;
    wsprintf(pTPCC->ErrTxt,
        "COM Interface to Payment Call Failed, HRESULT %x",
        hr);
    FormatMenu(pOut, pTPCC);
    return(TRUE);
}

```

```

};
ppd = (PAYMENT_DATA *) pTMon->pTxnData;
if (ppd->bTPRslt)
{
    wsprintf(pTPCC->ErrTxt,
        "Payment Service Returned Error(%ld): %s",
        ppd->iTPRslt, ppd->execution_status);
    pTPCC->iStatusId = ERR_SERVICE_RSLT;
    FormatMenu(pOut, pTPCC);
    return(TRUE);
};
iInx = FormatRespHdr(pOut, "TPC-C Payment", pTPCC);
FormatString(szZip1, ZIPPIC, ppd->w_zip);
FormatString(szZip2, ZIPPIC, ppd->d_zip);
FormatString(szZip3, ZIPPIC, ppd->c_zip);
FormatString(szWork1, "XXXXXX-XXX-XXX-XXXX", ppd->c_phone);
iInx += wsprintf(pOut + iInx,
    "<PRE>
        Date: %2.2d-%2.2d-%4.4d %2.2d:%2.2d:%2.2d <BR><BR>"
#ifdef LONG_WID
    "Warehouse: %6.6d"
#else
    "Warehouse: %4.4d"
#endif
    "
        District: %2.2d<BR>"
    "%-20s          %-20s<BR>"
    "%-20s          %-20s<BR>"
    "%-20s %-2s %10.10s      %-20s %-2s %10.10s<BR><BR>"
#ifdef LONG_WID
    "Customer: %4.4d Cust-Warehouse: %6.6d Cust-District: %2.2d<BR>"
#else
    "Customer: %4.4d Cust-Warehouse: %4.4d Cust-District: %2.2d<BR>"
#endif
    "Name:   %-16s %-2s %-16s      Since: %2.2d-%2.2d-%4.4d<BR>"
    "        %-20s          Credit: %-2s<BR>"
    "        %-20s          ",
    ppd->h_date.day, ppd->h_date.month,
    ppd->h_date.year, ppd->h_date.hour,
    ppd->h_date.minute, ppd->h_date.second,
    ppd->w_id, ppd->d_id,
    ppd->w_street_1, ppd->d_street_1,
    ppd->w_street_2, ppd->d_street_2,
    ppd->w_city, ppd->w_state, szZip1, ppd->d_city, ppd->d_state, szZip2,
    ppd->c_id, ppd->c_w_id, ppd->c_d_id,
    ppd->c_first, ppd->c_middle, ppd->c_last,
    ppd->c_since.day, ppd->c_since.month, ppd->c_since.year,
    ppd->c_street_1, ppd->c_credit, ppd->c_street_2);
iInx += sprintf(pOut + iInx, "%Disc:  %5.2f<BR>", ppd->c_discount *
100);
iInx += wsprintf(pOut + iInx,
    "
        %-20s %-2s %10.10s      Phone:  %-19.19s<BR><BR>",
    ppd->c_city, ppd->c_state, szZip3, szWork1);
iInx += sprintf(pOut + iInx,
    "Amount Paid:          $%7.2f      New Cust Balance: $%14.2f<BR>"
    "Credit Limit:        $%13.2f<BR><BR>",
    ppd->h_amount, ppd->c_balance, ppd->c_credit_lim);
if (ppd->c_credit[0] == 'B' && ppd->c_credit[1] == 'C')
{
    wsprintf(pOut + iInx,
        "Cust-Data: %50.50s<BR>          %50.50s<BR>"
        "%50.50s<BR>          %50.50s<BR>"

```

```

        "</PRE><HR><BR>%s</FORM>%s",
        ppd->c_data, (ppd->c_data + 50), (ppd->c_data + 100), (ppd->c_data +
150),
        szMenuList, HTMLTrailer);
    }
else
    {
        wsprintf(pOut + iInx,
            "Cust-Data: <BR><BR><BR><BR>"
            "</PRE><HR><BR>%s</FORM>%s",
            szMenuList, HTMLTrailer);
    };
return(FALSE);
}; // ProcessPayment
//=====
//
// Function name: ProcessDelivery
//
// ProcessDelivery extracts the input data fields from pIn, processes
// the data, and returns a response in pOut.
//
// Result:
// FALSE - Delivery processed successfully.
// TRUE - Delivery processing failed.
//
//=====
BOOL ProcessDelivery(CHAR * pIn, CHAR * pOut, TPCC_STATE * pTPCC)
{
    DELIVERY_DATA * pdd;
    TMON_STATE * pTMon;
    INT iInx;

    pTMon = &pTPCC->tsTMon;
    pdd = (DELIVERY_DATA *) pTMon->pTxnData;
    ZeroMemory(pdd, sizeof(DELIVERY_DATA));
    pdd->w_id = pTPCC->swid;
    // Get and validate carrier id
    if (GetShortKey(&pdd->o_carrier_id, pIn, "OCD*", pTPCC))
    {
        FormatMenu(pOut, pTPCC);
        return(TRUE);
    };
    if (pdd->o_carrier_id < MIN_CARRIER ||
        pdd->o_carrier_id > MAX_CARRIER)
    {
        wsprintf(pTPCC->ErrTxt, "Carrier Id Out of Range(%ld,%ld) - %ld",
            MIN_CARRIER, MAX_CARRIER, pdd->o_carrier_id);
        pTPCC->iStatusId = ERR_CARRIER_INVALID;
        FormatMenu(pOut, pTPCC);
        return(TRUE);
    };
    GetLocalTime(&pdd->QTime);
    DeliveryPost(pdd);
    if (pdd->bTPRslt)
    {
        wsprintf(pTPCC->ErrTxt,
            "Delivery Post Returned Error(%ld): Queue Request Failed",
            pdd->iTPRslt);

```

```

    pTPCC->iStatusId = ERR_SERVICE_RSLT;
    FormatMenu(pOut,pTPCC);
    return(TRUE);
};
iInx = FormatRespHdr(pOut,"TPC-C Delivery",pTPCC);
iInx += sprintf(pOut + iInx,
    "<PRE>
#ifdef LONG WID
    Warehouse: %6.6d<BR><BR>"
#else
    Warehouse: %4.4d<BR><BR>"
#endif
    "Carrier Number: %2.2d<BR><BR>"
    "Execution Status: %25.25s<BR>"
    "</PRE><HR><BR>%s</FORM>%s",
    pdd->w_id,pdd->o_carrier_id,"Delivery has been queued.",
    szMenuList,HTMLTrailer);

return(FALSE);
}; // ProcessDelivery

//=====
//
// Function name: ProcessOrderStatus
//
// ProcessOrderStatus extracts the input data fields from pIn,
// processes the data, and returns a response in pOut.
//
// Result:
// FALSE - OrderStatus processed successfully.
// TRUE - OrderStatus processing failed.
//=====
BOOL ProcessOrderStatus(CHAR * pIn,CHAR * pOut,TPCC_STATE * pTPCC)
{
    ORDER_STATUS_DATA * posd;
    TMON_STATE * pTMon;
    INT i;
    INT iInx;
    HRESULT hr;
    int iSize;
    int retCnt = 0;

    pTMon = &pTPCC->tsTMon;
    posd = (ORDER_STATUS_DATA *) pTMon->pTxnData;
    ZeroMemory(posd,sizeof(ORDER_STATUS_DATA));
    posd->w_id = pTPCC->sWId;
    if (GetShortKey(&posd->d_id,pIn,"DID*",pTPCC))
    {
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    if (posd->d_id < MIN_DId || posd->d_id > MAX_DId)
    {
        sprintf(pTPCC->ErrTxt,"DId Out of Range(%ld,%ld) - %ld",
            MIN_DId,MAX_DId,posd->d_id);
        pTPCC->iStatusId = ERR_DID_INVALID;
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
};

```

```

    if (GetLongKey(&posd->c_id,pIn,"CID*",pTPCC))
    {
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    if (GetStringKey(posd->c_last,pIn,"CLT*",pTPCC,NAME_LEN))
    {
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    if (posd->c_id == 0 && posd->c_last[0] == 0)
    {
        strcpy(pTPCC->ErrTxt,"Error - Customer Id and Name Empty");
        pTPCC->iStatusId = ERR_IDANDNAME_EMPTY;
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    if (posd->c_id != 0 && posd->c_last[0] != 0)
    {
        strcpy(pTPCC->ErrTxt,
            "Error - Specify Customer Id or Name, not Both");
        pTPCC->iStatusId = ERR_IDANDNAME_ENTERED;
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    iSize = pTMon->iSize;
    do
    {
        hr = pTMon->pIAllTxn->OrderStatus(&iSize,(unsigned char*)&pTMon-
            >pTxnData);
        if (retCnt > 0) Sleep(1000);
    }while ((FAILED(hr)) && (retCnt++ < INIT_RETRY));

    if (FAILED(hr))
    {
        pTPCC->iStatusId = ERR_TM_INTERFACE;

        sprintf(pTPCC->ErrTxt,
            "COM Interface to OrderStatus Call Failed, HRESULT %x",hr);

        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    posd = (ORDER_STATUS_DATA *) pTMon->pTxnData;
    if (posd->bTPRslt)
    {
        sprintf(pTPCC->ErrTxt,
            "Order Status Service Returned Error(%ld): %s",
            posd->iTPRslt,posd->execution_status);
        pTPCC->iStatusId = ERR_SERVICE_RSLT;
        DiagIoWrite(pTPCC->ErrTxt,DIAG_FORCE);
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    iInx = FormatRespHdr(pOut,"TPC-C Order-Status",pTPCC);
    iInx += sprintf(pOut + iInx,
        "<PRE>
#ifdef LONG WID
    Warehouse: %6.6d   District: %2.2d<BR>"
#else
    Warehouse: %4.4d   District: %2.2d<BR>"

```

```

#endif
    "Customer: %4.4d  Name: %-16s %-2s %-16s<BR>",
    posd->w_id,posd->d_id,
    posd->c_id,posd->c_first,posd->c_middle,posd->c_last);
    iInx += sprintf(pOut + iInx,"Cust-Balance: $%9.2f<BR><BR>",posd-
>c_balance);
    iInx += wsprintf(pOut + iInx,
    "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  Qty      Amount      Delivery-Date<BR>",
    posd->o_id,posd->o_entry_d.day,posd->o_entry_d.month,
    posd->o_entry_d.year,posd->o_entry_d.hour,
    posd->o_entry_d.minute,posd->o_entry_d.second,
    posd->o_carrier_id);
    for(i = 0; i < posd->o_ol_cnt; i++)
    {
        iInx += sprintf(pOut + iInx,
#ifdef LONG_WID
        " %6.6d      %6.6d      %2.2d      $%8.2f      %2.2d-%2.2d-
%4.4d<BR>",
#else
        " %4.4d      %6.6d      %2.2d      $%8.2f      %2.2d-%2.2d-
%4.4d<BR>",
#endif
        posd->OlOrderStatusData[i].ol_supply_w_id,
        posd->OlOrderStatusData[i].ol_i_id,
        posd->OlOrderStatusData[i].ol_quantity,
        posd->OlOrderStatusData[i].ol_amount,
        posd->OlOrderStatusData[i].ol_delivery_d.day,
        posd->OlOrderStatusData[i].ol_delivery_d.month,
        posd->OlOrderStatusData[i].ol_delivery_d.year);
    };
    wsprintf(pOut + iInx,
    "<BR></PRE><HR><BR>%s</FORM>%s",szMenuList,HTMLTrailer);

    return(FALSE);
}; // ProcessOrderStatus

//=====
//
// Function name: ProcessStockLevel
//
// ProcessStockLevel extracts the input data fields from pIn,
// processes the data, and returns a response in pOut.
//
// Result:
// FALSE - StockLevel processed successfully.
// TRUE - StockLevel processing failed.
//=====
BOOL ProcessStockLevel(CHAR * pIn,CHAR * pOut,TPCC_STATE * pTPCC)
{
    STOCK_LEVEL_DATA * psld;
    TMON_STATE * pTMon;
    HRESULT hr;
    INT iInx;
    int iSize;
    int retCnt = 0;

    pTMon = &pTPCC->tsTMon;

```

```

    psld = (STOCK_LEVEL_DATA *) pTMon->pTxnData;
    ZeroMemory(psld, sizeof(STOCK_LEVEL_DATA));
    psld->w_id = pTPCC->sWId;
    psld->d_id = pTPCC->sDId;
    psld->low_stock = 0;
    psld->execution_status[0] = 0;
    if (GetShortKey(&psld->thresh_hold,pIn,"TT*",pTPCC))
    {
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    if (psld->thresh_hold < MIN_THRESHOLD ||
        psld->thresh_hold > MAX_THRESHOLD)
    {
        wsprintf(pTPCC->ErrTxt,"Threshold Out of Range(%ld,%ld) - %ld",
            MIN_THRESHOLD,MAX_THRESHOLD,psld->thresh_hold);
        pTPCC->iStatusId = ERR_THRESHOLD_RANGE;
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    iSize = pTMon->iSize;
    do
    {
        hr = pTMon->pIAllTxn->StockLevel(&iSize,(unsigned char*)&pTMon-
>pTxnData);
        if (retCnt > 0) Sleep(1000);
    }while ((FAILED(hr)) && (retCnt++ < INIT_RETRY));

    if (FAILED(hr))
    {
        pTPCC->iStatusId = ERR_TM_INTERFACE;
        wsprintf(pTPCC->ErrTxt,
            "COM Interface to StockLevel Call Failed, HRESULT %x",
            hr);
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    psld = (STOCK_LEVEL_DATA *) pTMon->pTxnData;
    if (psld->bTPRslt)
    {
        wsprintf(pTPCC->ErrTxt,
            "Stock Level Service Returned Error(%ld): %s",
            psld->iTPRslt,psld->execution_status);
        pTPCC->iStatusId = ERR_SERVICE_RSLT;
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    iInx = FormatRespHdr(pOut,"TPC-C Stock Level",pTPCC);
    wsprintf(pOut + iInx,
        "<PRE>                                Stock-Level<BR>"
#ifdef LONG_WID
        "Warehouse: %6.6d  District: %2.2d<BR><BR>"
#else
        "Warehouse: %4.4d  District: %2.2d<BR><BR>"
#endif
        "Stock Level Threshold: %2.2d<BR><BR>"
        "low stock: %3.3ld</PRE><BR><HR>"
        "%s</FORM>%s",
        pTPCC->sWId,pTPCC->sDId,psld->thresh_hold,psld->low_stock,

```

```

        szMenuList,HTMLTrailer);

return(FALSE);

}; // ProcessStockLevel

//=====
//
// Function name: GetHidden
//
//=====
BOOL GetHidden(CHAR * pMsg,UINT * uFormId,INT * iSyncId,INT * iTermId)
{
    CHAR * pPtr;
    BOOL bRslt = TRUE;

    // Extract TERMID
    pPtr = strstr(pMsg,TERMIDTOKEN);
    if (pPtr == NULL)
        goto xit;
    pPtr += strlen(TERMIDTOKEN);
    *iTermId = atoi(pPtr);

    // Extract SYNCID
    pPtr = strstr(pMsg,SYNCIDTOKEN);
    if (pPtr == NULL)
        goto xit;
    pPtr += strlen(SYNCIDTOKEN);
    *iSyncId = atoi(pPtr);

    // Extract FORMID
    pPtr = strstr(pMsg,FORMIDTOKEN);
    if (pPtr == NULL)
        goto xit;
    pPtr += strlen(FORMIDTOKEN);
    *uFormId = abs(atoi(pPtr));

    bRslt = FALSE;

xit:

    return(bRslt);
}; // GetHidden

//=====
//
// Function name: GetCmd
//
//=====
BOOL GetCmd(CHAR * pMsg,CHAR * pWork,UINT uLen)
{
    UINT u;
    CHAR * ptr;
    CHAR * pUpd;

    // Check for CMD key
    if (!ptr = strstr(pMsg,CMDTOKEN))
        return(CMD_NULL);
    ptr += sizeof(CMDTOKEN);
    pUpd = pWork;

```

```

while (*ptr && *ptr != '&')
    *pUpd++ = *ptr++;
*pUpd = 0;

// Convert command name into command index
for(u=0; u < CMD_MAX; u++)
{
    if (!strcmp(szCmds[u],pWork))
        return(u);
};

// Command string not found
return(CMD_NULL);

}; // GetCmd

//=====
//
// Function name: GetLongKey
//
//=====
BOOL GetLongKey(LONG * lRslt,CHAR * pHTML,CHAR * pKey,TPCC_STATE * pTPCC)
{
    if (GetKeyValue(pHTML,pKey,pTPCC->szWork,sizeof(pTPCC->szWork)))
    {
        wsprintf(pTPCC->ErrTxt,"Error - Missing %s Key",pKey);
        pTPCC->iStatusId = ERR_MISSING_KEY;
        return(TRUE);
    };
    if (pTPCC->szWork[0] != 0 )
    {
        if (CheckNumeric(pTPCC->szWork))
        {
            wsprintf(pTPCC->ErrTxt,"Error - %s Value Not Numeric",pKey);
            pTPCC->iStatusId = ERR_NOT_NUMERIC;
            return(TRUE);
        };
    };
    *lRslt = atol(pTPCC->szWork);
    return(FALSE);
}; // GetLongKey

//=====
//
// Function name: GetIntKey
//
//=====
BOOL GetIntKey(INT * iRslt,CHAR * pHTML,CHAR * pKey,TPCC_STATE * pTPCC)
{
    if (GetKeyValue(pHTML,pKey,pTPCC->szWork,sizeof(pTPCC->szWork)))
    {
        wsprintf(pTPCC->ErrTxt,"Error - Missing %s Key",pKey);
        pTPCC->iStatusId = ERR_MISSING_KEY;
        return(TRUE);
    };
    if (pTPCC->szWork[0] != 0 )
    {
        if (CheckNumeric(pTPCC->szWork))
        {
            wsprintf(pTPCC->ErrTxt,"Error - %s Value Not Numeric",pKey);
            pTPCC->iStatusId = ERR_NOT_NUMERIC;

```



```

        return(TRUE);
    };
};
*iRslt = atoi(pTPCC->szWork);
return(FALSE);
}; // GetIntKey

//=====
//
// Function name: GetShortKey
//
//=====
BOOL GetShortKey(SHORT * sRslt,CHAR * pHTML,CHAR * pKey,TPCC_STATE *
pTPCC)
{
    if (GetKeyValue(pHTML,pKey,pTPCC->szWork,sizeof(pTPCC->szWork)))
    {
        fprintf(pTPCC->ErrTxt,"Error - Missing %s Key",pKey);
        pTPCC->iStatusId = ERR_MISSING_KEY;
        return(TRUE);
    };
    if (pTPCC->szWork[0] != 0 )
    {
        if (CheckNumeric(pTPCC->szWork))
        {
            fprintf(pTPCC->ErrTxt,"Error - %s Value Not Numeric",pKey);
            pTPCC->iStatusId = ERR_NOT_NUMERIC;
            return(TRUE);
        };
    };
    *sRslt = (SHORT) atoi(pTPCC->szWork);
    return(FALSE);
}; // GetShortKey

//=====
//
// Function name: GetStringKey
//
//=====
BOOL GetStringKey(CHAR * szRslt,CHAR * pHTML,CHAR * pKey,
TPCC_STATE * pTPCC,UINT uMax)
{
    UINT uLen;
    if (GetKeyValue(pHTML,pKey,pTPCC->szWork,sizeof(pTPCC->szWork)))
    {
        fprintf(pTPCC->ErrTxt,"Error - Missing %s Key",pKey);
        pTPCC->iStatusId = ERR_MISSING_KEY;
        return(TRUE);
    };
    uLen = strlen(pTPCC->szWork);
    if (uLen > uMax)
    {
        fprintf(pTPCC->ErrTxt,
            "Error - %s Key Input (%ld) Too Long (%ld)"
            ,pKey,uLen,uMax);
        pTPCC->iStatusId = ERR_INPUT_TOOLONG;
        return(TRUE);
    };
    _strupr(pTPCC->szWork);
    strcpy(szRslt,pTPCC->szWork);
    return(FALSE);
};

```

```

}; // GetStringKey

//=====
//
// Function name: GetAmountKey
//
//=====
BOOL GetAmountKey(DOUBLE * dRslt,CHAR * pHTML,CHAR * pKey,
TPCC_STATE * pTPCC)
{
    CHAR * ptr;
    BOOL bInvalid = FALSE;

    if (GetKeyValue(pHTML,pKey,pTPCC->szWork,sizeof(pTPCC->szWork)))
    {
        fprintf(pTPCC->ErrTxt,"Error - Missing %s Key",pKey);
        pTPCC->iStatusId = ERR_MISSING_KEY;
        return(TRUE);
    };
    ptr = pTPCC->szWork;
    while(*ptr)
    {
        if (*ptr == '.')
        {
            ptr++;
            if (!*ptr)
                break;
            if (*ptr < '0' || *ptr > '9')
            {
                bInvalid = TRUE;
                break;
            };
            ptr++;
            if (!*ptr)
                break;
            if (*ptr < '0' || *ptr > '9')
            {
                bInvalid = TRUE;
                break;
            };
            ptr++;
            if (*ptr)
            {
                bInvalid = TRUE;
                break;
            };
            break;
        }
        else
        if (*ptr < '0' || *ptr > '9')
        {
            bInvalid = TRUE;
            break;
        };
        ptr++;
    }; // while(*ptr)

    if (!bInvalid)
        *dRslt = atof(pTPCC->szWork);
    else
    {

```

```

    wsprintf(pTPCC->ErrTxt,
        "Error - Invalid Amount Format (%s)",pTPCC->szWork);
    pTPCC->iStatusId = ERR_AMOUNT_BADFORM;
};

return(bInvalid);

}; // GetAmountKey

//=====
//
// Function name: GetKeyValue
// This function parses an HTTP formatted string for specific key
// values. HTTP keys terminate with '='. HTTP values terminate
// with an '&' or '\0'.
//
// Result:
// FALSE - Key found, string value return in pValue
// TRUE - Key not found
//=====
BOOL GetKeyValue(CHAR * pHTML,CHAR * pKey,CHAR * pValue,UINT uMax)
{
    CHAR * ptr;
    if (!ptr=strstr(pHTML,pKey))
        return(TRUE);
    if (!ptr=strchr(ptr,'='))
        return(TRUE);
    ptr++;
    uMax--;
    while (*ptr && *ptr != '&' && uMax)
    {
        *pValue++ = *ptr++;
        uMax--;
    };
    *pValue = 0;
    return(FALSE);
}; // GetKeyValue

//=====
//
// Function name: FormatLogin
//
//=====
VOID FormatLogin(CHAR * pOut,CHAR * pAddText)
{
    wsprintf(pOut, "%s<BR>%s<BR>%s",szFormLogin,pAddText,HTMLTrailer);
}; // FormatLogin

//=====
//
// Function name: FormatMenu
//
//=====
VOID FormatMenu(CHAR * pOut,TPCC_STATE * pTPCC)
{
    wsprintf(pOut,
        "%s<HTML><HEAD><TITLE>TPC-C MainMenu</TITLE></HEAD><BODY>"
        "Select Desired Transaction.<BR><HR>"
        "<FORM ACTION=\"tpcc.dll\METHOD=\"GET\">"
        "<INPUT TYPE=\"hidden\" NAME=\"STATUSID\" VALUE=\"%d\">"

```

```

        "<INPUT TYPE=\"hidden\" NAME=\"TERMID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\" NAME=\"SYNCID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\" NAME=\"FORMID\" VALUE=\"%d\">"
        "%s</FORM><BR>%s<BR>%s",
        HTTPHdr,pTPCC->iStatusId,pTPCC->iTermId,pTPCC->iSyncId,FORM_MENU,
        szMenuList,pTPCC->ErrTxt,HTMLTrailer);
}; // FormatMenu

//=====
//
// Function name: FormatNewOrder
//
//=====
VOID FormatNewOrder(CHAR * pOut,TPCC_STATE * pTPCC)
{
    INT iInx;
    pTPCC->uFormId = FORM_NEWORDER;
    iInx = FormatFormHdr(pOut,"TPC-C New Order",pTPCC);
    iInx += wsprintf(pOut + iInx,
        "<PRE>
        New Order<BR>"
#ifdef LONG_WID
        "Warehouse: %6.6d District: <INPUT NAME=\"DID*\" SIZE=1>"
        Date:<BR>",
#else
        "Warehouse: %4.4d District: <INPUT NAME=\"DID*\" SIZE=1>"
        Date:<BR>",
#endif
        pTPCC->swId);
    strcpy(pOut + iInx,
        "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>"
#ifdef LONG_WID
        " <INPUT NAME=\"SP00*\" SIZE=6> <INPUT NAME=\"IID00*\" SIZE=6>
    <INPUT NAME=\"Qty00*\" SIZE=1><BR>"
        " <INPUT NAME=\"SP01*\" SIZE=6> <INPUT NAME=\"IID01*\" SIZE=6>
    <INPUT NAME=\"Qty01*\" SIZE=1><BR>"
        " <INPUT NAME=\"SP02*\" SIZE=6> <INPUT NAME=\"IID02*\" SIZE=6>
    <INPUT NAME=\"Qty02*\" SIZE=1><BR>"
        " <INPUT NAME=\"SP03*\" SIZE=6> <INPUT NAME=\"IID03*\" SIZE=6>
    <INPUT NAME=\"Qty03*\" SIZE=1><BR>"
        " <INPUT NAME=\"SP04*\" SIZE=6> <INPUT NAME=\"IID04*\" SIZE=6>
    <INPUT NAME=\"Qty04*\" SIZE=1><BR>"
        " <INPUT NAME=\"SP05*\" SIZE=6> <INPUT NAME=\"IID05*\" SIZE=6>
    <INPUT NAME=\"Qty05*\" SIZE=1><BR>"
        " <INPUT NAME=\"SP06*\" SIZE=6> <INPUT NAME=\"IID06*\" SIZE=6>
    <INPUT NAME=\"Qty06*\" SIZE=1><BR>"
        " <INPUT NAME=\"SP07*\" SIZE=6> <INPUT NAME=\"IID07*\" SIZE=6>
    <INPUT NAME=\"Qty07*\" SIZE=1><BR>"
        " <INPUT NAME=\"SP08*\" SIZE=6> <INPUT NAME=\"IID08*\" SIZE=6>
    <INPUT NAME=\"Qty08*\" SIZE=1><BR>"
        " <INPUT NAME=\"SP09*\" SIZE=6> <INPUT NAME=\"IID09*\" SIZE=6>
    <INPUT NAME=\"Qty09*\" SIZE=1><BR>"
        " <INPUT NAME=\"SP10*\" SIZE=6> <INPUT NAME=\"IID10*\" SIZE=6>
    <INPUT NAME=\"Qty10*\" SIZE=1><BR>"
        " <INPUT NAME=\"SP11*\" SIZE=6> <INPUT NAME=\"IID11*\" SIZE=6>
    <INPUT NAME=\"Qty11*\" SIZE=1><BR>"

```

```

" <INPUT NAME=\ "SP12*\ " SIZE=6> <INPUT NAME=\ "IID12*\ " SIZE=6>
<INPUT NAME=\ "Qty12*\ " SIZE=1><BR>"
" <INPUT NAME=\ "SP13*\ " SIZE=6> <INPUT NAME=\ "IID13*\ " SIZE=6>
<INPUT NAME=\ "Qty13*\ " SIZE=1><BR>"
" <INPUT NAME=\ "SP14*\ " SIZE=6> <INPUT NAME=\ "IID14*\ " SIZE=6>
<INPUT NAME=\ "Qty14*\ " SIZE=1><BR>"
#else
" <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>"
#endif
"Execution Status:
Total:<BR><HR>"
" <INPUT TYPE=\ "submit\ "NAME=\ "CMD\ " VALUE=\ "Process\ ">"
" <INPUT TYPE=\ "submit\ "NAME=\ "CMD\ " VALUE=\ "Menu\ ">"
" </FORM></BODY></HTML>");
}; // FormatNewOrder

//=====
//
// Function name: FormatPayment
//
//=====
VOID FormatPayment (CHAR * pOut,TPCC_STATE * pTPCC)
{
    INT iInx;
    pTPCC->uFormId = FORM_PAYMENT;
    iInx = FormatFormHdr (pOut, "TPC-C Payment",pTPCC);
    iInx += sprintf (pOut + iInx,
        "<PRE>
        "Date:<BR><BR>"
        "Warehouse: %6.6d",
    #ifdef LONG_WID
        "Warehouse: %6.6d",
    #else

```

```

        "Warehouse: %4.4d",
    #endif
    pTPCC->sWId);
    strcpy (pOut + iInx,
        "District: <INPUT NAME=\ "DID*\ "
        SIZE=1><BR><BR><BR><BR><BR>"
        "Customer: <INPUT NAME=\ "CID*\ " SIZE=4>"
    #ifdef LONG_WID
        "Cust-Warehouse: <INPUT NAME=\ "CWI*\ " SIZE=6> "
    #else
        "Cust-Warehouse: <INPUT NAME=\ "CWI*\ " SIZE=4> "
    #endif
        "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></PRE><HR>"
        " <INPUT TYPE=\ "submit\ "NAME=\ "CMD\ " VALUE=\ "Process\ ">"
        " <INPUT TYPE=\ "submit\ "NAME=\ "CMD\ " VALUE=\ "Menu\ ">"
        " </FORM></BODY></HTML>");
}; // FormatPayment

//=====
//
// Function name: FormatDelivery
//
//=====
VOID FormatDelivery (CHAR * pOut,TPCC_STATE * pTPCC)
{
    INT iInx;
    pTPCC->uFormId = FORM_DELIVERY;
    iInx = FormatFormHdr (pOut, "TPC-C Delivery",pTPCC);
    sprintf (pOut + iInx,
        "<PRE>
        Delivery<BR>"
    #ifdef LONG_WID
        "Warehouse: %6.6d<BR><BR>"
    #else
        "Warehouse: %4.4d<BR><BR>"
    #endif
        "Carrier Number: <INPUT NAME=\ "OCD*\ " SIZE=1><BR><BR>"
        "Execution Status:<BR></PRE><HR>"
        " <INPUT TYPE=\ "submit\ "NAME=\ "CMD\ " VALUE=\ "Process\ ">"
        " <INPUT TYPE=\ "submit\ "NAME=\ "CMD\ " VALUE=\ "Menu\ ">"
        " </FORM></BODY></HTML>",
    pTPCC->sWId);
}; // FormatDelivery

//=====
//
// Function name: FormatOrderStatus
//
//=====
VOID FormatOrderStatus (CHAR * pOut,TPCC_STATE * pTPCC)
{
    INT iInx;
    pTPCC->uFormId = FORM_ORDERSTATUS;
    iInx = FormatFormHdr (pOut, "TPC-C Order-Status",pTPCC);

```

```

        wsprintf(pOut + iInx,
            "<PRE>
Order-Status<BR>"
#ifdef LONG WID
            "Warehouse: %6.6d  "
#else
            "Warehouse: %4.4d  "
#endif
            "District: <INPUT NAME=\"DID*\" SIZE=1><BR>"
            "Customer: <INPUT NAME=\"CID*\" SIZE=4>  Name:
<INPUT NAME=\"CLT*\" SIZE=23><BR>"
            "Cust-Balance:<BR><BR>"
            "Order-Number:          Entry-Date:          Carrier-
Number:<BR>"
            "Supply-W  Item-Id  Qty  Amount  Delivery-
Date<BR></PRE><HR>"
            "<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"Process\">"
            "<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"Menu\">"
            "</FORM></BODY></HTML>",
            pTPCC->sWId);
}; // FormatOrderStatus

//=====
//
// Function name: FormatStockLevel
//
//=====
VOID FormatStockLevel (CHAR * pOut,TPCC_STATE * pTPCC)
{
    INT iInx;
    pTPCC->uFormId = FORM_STOCKLEVEL;
    iInx = FormatFormHdr(pOut,"TPC-C Stock Level",pTPCC);
    wsprintf(pOut + iInx,
        "<PRE>
Stock-Level<BR>"
#ifdef LONG WID
        "Warehouse: %6.6d  District: %2.2d<BR><BR>"
#else
        "Warehouse: %4.4d  District: %2.2d<BR><BR>"
#endif
        "Stock Level Threshold: <INPUT NAME=\"TT*\"SIZE=2><BR><BR>"
        "low stock:  <BR><HR>"
        "<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"Process\">"
        "<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"Menu\">"
        "</FORM></BODY></HTML>",
        pTPCC->sWId,pTPCC->sDId);
}; // FormatStockLevel

//=====
//
// Function name: FormatFormHdr
//
//=====
INT FormatFormHdr(CHAR * pOut,CHAR * pTitle,TPCC_STATE * pTPCC)
{
    return(wsprintf(pOut,
        "%s<HTML><HEAD><TITLE>%s</TITLE></HEAD>"
        "<FORM ACTION=\"tpcc.dll\" METHOD=\"GET\">"
        "<INPUT TYPE=\"hidden\" NAME=\"PI*\" VALUE=\"\">"
        "<INPUT TYPE=\"hidden\" NAME=\"STATUSID\" VALUE=\"0\">"
        "<INPUT TYPE=\"hidden\" NAME=\"FORMID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\" NAME=\"TERMINID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\" NAME=\"SYNCRID\" VALUE=\"%d\">",

```

```

        HTTPHdr,pTitle,pTPCC->uFormId,pTPCC->iTermId,pTPCC->iSyncId
    );
}; // FormatFormHdr

//=====
//
// Function name: FormatRespHdr
//
//=====
INT FormatRespHdr(CHAR * pOut,CHAR * pTitle,TPCC_STATE * pTPCC)
{
    return(wsprintf(pOut,
        "%s<HTML><HEAD><TITLE>%s</TITLE></HEAD>"
        "<FORM ACTION=\"tpcc.dll\" METHOD=\"GET\">"
        "<INPUT TYPE=\"hidden\" NAME=\"STATUSID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\" NAME=\"FORMID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\" NAME=\"TERMINID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\" NAME=\"SYNCRID\" VALUE=\"%d\">",
        HTTPHdr,pTitle,pTPCC->iStatusId,pTPCC->uFormId,
        pTPCC->iTermId,pTPCC->iSyncId
    );
}; // FormatRespHdr

//=====
//
// Function name: FormatString
//
// Encodes formatted string for HTML transmission.
//
//=====
VOID FormatString(CHAR * pOut,CHAR * pPic,CHAR * pIn)
{
    while(*pPic)
    {
        if (*pPic == 'X' )
        {
            if (*pIn)
                *pOut++ = *pIn++;
            else
                *pOut++ = ' ';
        }
        else
            *pOut++ = *pPic;
        pPic++;
    };
    *pOut = 0;
}; // FormatString

//=====
//
// FUNCTION: UtilStrCpy
//
// Copies n characters from string pSrc to pDst and places a null
// null character at the end of the destination string. Unlike
// strncpy this function ensures that the result string is always
// null terminated.
//
//=====
VOID UtilStrCpy(CHAR * pDest,CHAR * pSrc,INT n)
{
    strncpy(pDest,pSrc,n);
    pDest[n] = '\0';

```

```

    return;
}; // UtilStrCpy

//=====
//
// Function name: CheckNumeric
//
// Result
// FALSE - string is all numeric
// TRUE - sting contains non-numeric characters
//
//=====
BOOL CheckNumeric(CHAR * pNum)
{
    if (*pNum == 0 )
        return(TRUE);
    while (*pNum && isdigit(*pNum))
        pNum++;
    return(*pNum);
}; // CheckNumeric

//=====
//
// Function name: WriteEventLog
//
//=====
void WriteEventLog(char * pMsg,bool bError)
{
    WORD wType;
    char szHeader[100];
    char * pDMsgs[2];

    char *pProgId = "Testing";

    HANDLE hEventLog = NULL;
    if (bError)
        wType = EVENTLOG_ERROR_TYPE;
    else
        wType = EVENTLOG_INFORMATION_TYPE;
    hEventLog = RegisterEventSource(NULL,pProgId);
    wsprintf(szHeader,"%s (%ld)\n",pProgId,GetCurrentThreadId());
    pDMsgs[0] = szHeader;
    pDMsgs[1] = pMsg;
    if (hEventLog != NULL)
    {
        ReportEvent(hEventLog, // event log handle
                   wType, // event type
                   0, // category zero
                   0, // no event identifier
                   NULL, // no user security identifier
                   2, // # of substitution strings
                   0, // no binary data
                   (LPCTSTR *) pDMsgs, // address of string array
                   NULL); // address of binary data
        DeregisterEventSource(hEventLog);
    }
    return;
}; // WriteEventLog

```

delivery.h

```

// delivery.h
//
// Copyright Unisys, 1999

#define DEFAULTDQSIZE 2000

bool DeliveryInit(long lSetThreads,long lSetQSize,char * pszPath);
void DeliveryTerm(void);
bool DeliveryPost(DELIVERY_DATA * pdd);

```

delivery.cpp

```

// delivery.cpp
//
// Copyright Unisys, 1999

#include <windows.h>
#include <stdio.h>
#include <time.h>
#include <sys\timeb.h>
#include <process.h>

#include "..\tpccsvr\tpcc.h"
#include "tmon.h"
#include "diagio.h"
#include "delivery.h"

CRITICAL_SECTION csDQRead;
CRITICAL_SECTION csDQWrite;
HANDLE hDQRead;
HANDLE hDQStart;
bool bDQStarted = FALSE;
bool bDQQuit = FALSE;
long lDeliveryThreads;
long lDQSize;
char szPath[200];
long lDeliveryActive = 0;
typedef struct
{
    bool bInUse;
    DELIVERY_DATA ddEntry;
} DELIVERY_QUEUE;
DELIVERY_QUEUE * pdQ;
long lDQNextWrite = 0;
long lDQNextRead = 0;

bool DoDQStart(void);
UINT WINAPI DoDelivery(void * Unused);
void CalculateElapsed(int * pElapsed,LPSYSTEMTIME lpBegin,
                     LPSYSTEMTIME lpEnd);

//=====
//
// Function name: DeliveryInit
//
//=====
bool DeliveryInit(long lSetThreads,long lSetQSize,char * pszPath)

```

```

{
char szDiag[MAX_DIAG_SZ];

lDeliveryThreads = lSetThreads;
lDQSize = lSetQSize;
if (lDQSize <= 0)
    lDQSize = DEFAULTDQSIZE;
strcpy(szPath,pszPath);
InitializeCriticalSection(&csDQRead);
InitializeCriticalSection(&csDQWrite);
hDQRead = CreateEvent(NULL,TRUE,FALSE,NULL);
if (!hDQRead)
{
    wsprintf(szDiag,"DeliveryInit: Create DQRead Event Failure (%ld)\n",
        GetLastError());
    DiagIoWrite(szDiag,DIAG_ERROR);
    return(TRUE);
};
pDQ = (DELIVERY_QUEUE *) calloc(lDQSize,sizeof(DELIVERY_QUEUE));
if (pDQ == NULL)
{
    DiagIoWrite("DeliveryInit: Allocate Delivery Queue
Failure\n",DIAG_ERROR);
    return(TRUE);
};
wsprintf(szDiag,
    "DeliveryInit: Threads = %ld, DQSize(entries) = %ld\n",
    lDeliveryThreads,lDQSize);
DiagIoWrite(szDiag,DIAG_FORCE);
return(FALSE);
}; // DeliveryInit

//=====
//
// Function name: DoDQStart
//
//=====
bool DoDQStart(void)
{
    UINT uThread;
    ULONG hThread;
    DWORD dwRslt;
    char szDiag[MAX_DIAG_SZ];
    void * Unused = NULL;
    int i;

    bDQStarted = TRUE;
    hDQStart = CreateEvent(NULL,TRUE,FALSE,NULL);
    if (!hDQStart)
    {
        wsprintf(szDiag,"DoDQStart: Create Event Failure (%ld)\n",
            GetLastError());
        DiagIoWrite(szDiag,DIAG_ERROR);
        return(TRUE);
    };
    for (i = 0; i < lDeliveryThreads; i++)
    {
        hThread =
            _beginthreadex(NULL,
                0,
                DoDelivery,

```

```

        Unused,
        0,
        &uThread);
    if (hThread == 0)
    {
        wsprintf(szDiag,
            "DoDQStart: Begin Delivery Thread(%d) Failed(%ld)\n",
            i + 1,errno);
        DiagIoWrite(szDiag,DIAG_ERROR);
        return(TRUE);
    };
    dwRslt = WaitForSingleObject(hDQStart,60000);
    if (dwRslt == WAIT_TIMEOUT)
    {
        DiagIoWrite("DoDQStart: Wait Delivery Start Timed
Out\n",DIAG_ERROR);
        return(TRUE);
    };
    if (lDeliveryActive != (i + 1))
    {
        wsprintf(szDiag,
            "DoDQStart: Delivery Thread Initialization Failed(%ld)\n",
            i + 1);
        DiagIoWrite(szDiag,DIAG_ERROR);
        return(TRUE);
    };
    ResetEvent(hDQStart);
}; // for (lDeliveryThreads)
CloseHandle(hDQStart);
return(FALSE);
}; // DoDQStart

//=====
//
// Function name: DeliveryTerm
//
//=====
void DeliveryTerm(void)
{
    int i = 0;
    bDQQuit = TRUE;
    while (i < 12 && lDeliveryActive > 0)
    {
        SetEvent(hDQRead);
        Sleep(5000);
        i++;
    };
    if (lDeliveryActive != 0)
    {
        CHAR szDiag[MAX_DIAG_SZ];
        wsprintf(szDiag,
            "DeliveryTerm: %ld DeliveryThreads still active\n",
            lDeliveryThreads);
        DiagIoWrite(szDiag,DIAG_ERROR);
    };
    free(pDQ);
    CloseHandle(hDQRead);
    DeleteCriticalSection(&csDQWrite);
    DeleteCriticalSection(&csDQRead);
    return;
}; // DeliveryTerm

```

```

//=====
//
// Function name: DeliveryPost
//
//=====
bool DeliveryPost(DELIVERY_DATA * pPost)
{
    DELIVERY_QUEUE * pDQSlot;
    DELIVERY_DATA * pddEntry;
    if (!bdQStarted)
    {
        if (DoDQStart())
        {
            pPost->bTPRslt = TRUE;
            pPost->iTPRslt = SVCERR_DQSTART;
            return(TRUE);
        };
    };
    try
    {
        EnterCriticalSection(&csDQWrite);
        pDQSlot = &pDQ[LDQNextWrite];
        if (pDQSlot->bInUse)
        {
            char szDiag[MAX_DIAG_SZ];
            pPost->bTPRslt = TRUE;
            pPost->iTPRslt = SVCERR_DQFULL;
            wsprintf(szDiag,
                "Delivery Post: Queue Limit (%d) Exceeded\n",
                LDQSize);
            DiagIoWrite(szDiag,DIAG_ERROR);
            return(TRUE);
        };
        pddEntry = &pDQSlot->ddEntry;
        memcpy(pddEntry,pPost,sizeof(DELIVERY_DATA));
        pDQSlot->bInUse = TRUE;
        if (LDQNextWrite == LDQNextRead)
            SetEvent(hDQRead);
        LDQNextWrite++;
        if (LDQNextWrite == LDQSize)
            LDQNextWrite = 0;
    }
    finally
    {
        LeaveCriticalSection(&csDQWrite);
    };
    pPost->bTPRslt = FALSE;
    pPost->iTPRslt = SVC_NOERROR;
    return(FALSE);
}; // DeliveryPost

//=====
//
// Function name: DoDelivery
//
//=====
UINT WINAPI DoDelivery(void * Unused)
{
    FILE *fpLog;
    char szLogTitle[300];

```

```

bool bFlush = FALSE;
DELIVERY_QUEUE * pDQSlot;
DELIVERY_DATA * pddEntry;
DELIVERY_DATA * pdd;
TMON_STATE tsState;
TMON_STATE * pTMon;
HRESULT hr;
int iSize;
long lMyId;
char szTMErrTxt[500];
char szDiag[MAX_DIAG_SZ];
int iElapsed;
int iInx;
long lDQReport = 0;
bool bdQReport = FALSE;

lMyId = InterlockedIncrement(&lDeliveryActive);
pTMon = &tsState;
pTMon->pIAllTxn = NULL;
pTMon->pTxnData = NULL;
pTMon->pszErrTxt = szTMErrTxt;
if (TMInit(pTMon))
{
    wsprintf(szDiag,"DoDelivery(%ld): TMInit %s\n",lMyId,szTMErrTxt);
    DiagIoWrite(szDiag,DIAG_ERROR);
    InterlockedDecrement(&lDeliveryActive);
    SetEvent(hDQStart);
    return(1);
};
wsprintf(szLogTitle,"%sdelilog%ld",szPath,lMyId);
fpLog = fopen(szLogTitle,"ab");
if (!fpLog)
{
    wsprintf(szDiag,
        "DoDelivery(%ld): LogFile %s Open Failed (%ld)\n",
        lMyId,szLogTitle,GetLastError());
    DiagIoWrite(szDiag,DIAG_ERROR);
    InterlockedDecrement(&lDeliveryActive);
    SetEvent(hDQStart);
    return(1);
};
wsprintf(szDiag,"DoDelivery(%ld): Initialized\n",lMyId);
DiagIoWrite(szDiag,DIAG_FORCE);
SetEvent(hDQStart);

while (!bdQQuit)
{
    EnterCriticalSection(&csDQRead);
    WaitForSingleObject(hDQRead,INFINITE);
    if (bdQQuit)
    {
        LeaveCriticalSection(&csDQRead);
        break;
    };
    pDQSlot = &pDQ[LDQNextRead];
    if (!pDQSlot->bInUse)
    {
        wsprintf(szDiag,
            "DoDelivery(%ld): QSlot for Read Not InUse (%ld)\n",
            lMyId);

```

```

    DiagIoWrite(szDiag,DIAG_ERROR);
    LeaveCriticalSection(&csDQRead);
    break;
};
pddEntry = &pDQSlot->ddEntry;
pdd = (DELIVERY_DATA *) pTMon->pTxnData;
memcpy(pdd,pddEntry,sizeof(DELIVERY_DATA));
EnterCriticalSection(&csDQWrite);
pDQSlot->bInUse = FALSE;
LDQNextRead++;
if (LDQNextRead == LDQSize)
{
    LDQNextRead = 0;
    bdQReport = TRUE;
    LDQReport = LDQNextWrite;
};
if (LDQNextRead == LDQNextWrite)
    ResetEvent(hDQRead);
LeaveCriticalSection(&csDQWrite);
LeaveCriticalSection(&csDQRead);
// Process delivery transaction
iSize = pTMon->iSize;
hr = pTMon->pIAllTxn->Delivery(&iSize,(unsigned char**) &pTMon-
>pTxnData);
if (FAILED(hr))
{
    wsprintf(szDiag,
        "DoDelivery(%ld): COM Interface Call Failed HRESULT %x\n",
        lMyId,hr);
    DiagIoWrite(szDiag,DIAG_ERROR);
    break;
};
pdd = (DELIVERY_DATA *) pTMon->pTxnData;
GetLocalTime(&pdd->EndTime);
iElapsed = 9999999;
if (!pdd->bTPRslt)
    CalculateElapsed(&iElapsed,&pdd->QTime,&pdd->EndTime);
iInx = wsprintf(szDiag,
"%4.4d/%2.2d/%2.2d,%2.2d:%2.2d:%2.2d:%3.3d,%2.2d:%2.2d:%2.2d:%3.3d,"
"%d,%d,%d,%d,%d,%d,%d,%d,%d,%d,%d,%d\r\n",
pdd->EndTime.wYear,pdd->EndTime.wMonth,pdd->EndTime.wDay,
pdd->QTime.wHour,pdd->QTime.wMinute,
pdd->QTime.wSecond,pdd->QTime.wMilliseconds,
pdd->EndTime.wHour,pdd->EndTime.wMinute,
pdd->EndTime.wSecond,pdd->EndTime.wMilliseconds,
iElapsed,pdd->w_id,pdd->o_carrier_id,
pdd->o_id[0],pdd->o_id[1],pdd->o_id[2],pdd->o_id[3],pdd->o_id[4],
pdd->o_id[5],pdd->o_id[6],pdd->o_id[7],pdd->o_id[8],pdd->o_id[9]
);
fwrite(szDiag,iInx,1,fpLog);
if (bdQReport)
{
    wsprintf(szDiag,"DoDelivery(%ld): DQDepth
%ld\n",lMyId,LDQReport);
    DiagIoWrite(szDiag,DIAG_FORCE);
    bdQReport = FALSE;
};
}; // while !bdQQuit
if (fpLog)

```

```

    fclose(fpLog);
    TMDone(pTMon);
    InterlockedDecrement(&lDeliveryActive);
    wsprintf(szDiag,"DoDelivery(%ld): Shutdown\n",lMyId);
    DiagIoWrite(szDiag,DIAG_FORCE);
    return(0);
}; // DoDelivery

//=====
//
// Function name: CalculateElapsed (milliseconds)
//
//=====
void CalculateElapsed(int * pElapsed,LPSYSTEMTIME lpBegin,
                    LPSYSTEMTIME lpEnd)
{
    int tmBegin;
    int tmEnd;
    tmBegin = (lpBegin->wHour * 3600000) + (lpBegin->wMinute * 60000) +
        (lpBegin->wSecond * 1000) + lpBegin->wMilliseconds;
    tmEnd = (lpEnd->wHour * 3600000) + (lpEnd->wMinute * 60000) +
        (lpEnd->wSecond * 1000) + lpEnd->wMilliseconds;
    *pElapsed = tmEnd - tmBegin;
    // Check for day boundry, this will function for 24 hour period but
    // will fail over a 48 hours period.
    if (*pElapsed < 0)
        *pElapsed = *pElapsed + (24 * 60 * 60 * 1000);
    return;
}; // CalculateElapsed

term.h

// term.h
//
// Copyright Unisys, 1999

#include <sys\timeb.h>

#define TMILLI_TIMEOUT 3600000 // One hour

typedef struct
{
    BOOL bInUse; // In use flag
    INT iTermId; // TermId
    LPVOID ConnID; // Connection Id
    INT iSyncId; // Sync Id
#ifdef LONG_WID
    LONG sWId; // TPCC WareHouse Id
#else
    SHORT sWId;
#endif
    SHORT sDIId; // TPCC District Id
    struct_timeb tbLastAccess; // Last activity timestamp
} TERM_STATE;

BOOL TermInit(INT iSetMaxTerm);
VOID TermTerm(VOID);
TERM_STATE * TermAlloc(VOID);
TERM_STATE * TermGet(INT iTermId);

```



```
BOOL TermFree(INT iTermId);
```

term.cpp

```
// term.cpp
//
// Copyright Unisys, 1999
//
#include <windows.h>
#include <stdio.h>
#include "diagio.h"
#include "timesupp.h"
#include "term.h"

TERM_STATE * pTArray;
INT iNextTerm = 0;
INT iMaxTerm = 0;
CRITICAL_SECTION csTerm;

VOID TermMaint (VOID);

//=====
//
// Function name: TermInit
// Creates and initializes the first TERMINITIAL TArray entries.
// Initializes critical section to control access to TArray. Assumes
// access to function is single threaded, no other threads will start
// until this function completes and that function is called once
// (DLL_PROCESS_ATTACH) .
//
// Returns:
// FALSE TArray allocated and initialized
// TRUE TArray allocation failure
//=====
BOOL TermInit (INT iSetMaxTerm)
{
    INT iTermId;
    CHAR szDiag[MAX_DIAG_SZ];
    if (pTArray != NULL)
    {
        wsprintf(szDiag, "TermInit(%ld): TArray Already Initialized\n",
            GetCurrentThreadId());
        DiagIoWrite(szDiag, DIAG_ERROR);
        return(TRUE);
    };
    InitializeCriticalSection(&csTerm);
    iMaxTerm = iSetMaxTerm;
    pTArray = (TERM_STATE *) malloc(sizeof(TERM_STATE) * (iMaxTerm + 1));
    if (pTArray == NULL)
    {
        wsprintf(szDiag, "TermInit(%ld): malloc failed (%ld)\n",
            GetCurrentThreadId(), GetLastError());
        DiagIoWrite(szDiag, DIAG_ERROR);
        return(TRUE);
    }
    for (iTermId = 1; iTermId <= iMaxTerm; iTermId++)
        TermFree(iTermId);
    iNextTerm = 1;
    return(FALSE);
};
```

```
}; // TermInit
//=====
//
// Function name: TermTerm
// Frees TArray and deletes csTerm critical section. Assumes access
// to function is single threaded and no other threads are actively
// accessing TArray entries (DLL_PROCESS_DETACH) .
//=====
VOID TermTerm(VOID)
{
    DeleteCriticalSection(&csTerm);
    if (pTArray != NULL)
        free(pTArray);
    iNextTerm = 0;
    iMaxTerm = 0;
}; // TermTerm
//=====
//
// Function name: TermAlloc
// Allocates empty TArray. Uses iNextTerm to start search.
// Returns:
// > 0 TArray entry index (iTermId)
// < 0 Empty TArray entry not available
//=====
TERM_STATE * TermAlloc(VOID)
{
    INT iTermId = -1;
    if (pTArray == NULL)
    {
        CHAR szDiag[MAX_DIAG_SZ];
        wsprintf(szDiag, "TermAlloc(%ld): Term Array Not Allocated\n",
            GetCurrentThreadId());
        DiagIoWrite(szDiag, DIAG_ERROR);
        return(NULL);
    };
    EnterCriticalSection(&csTerm);
    try
    {
        while(iNextTerm <= iMaxTerm)
        {
            if (!pTArray[iNextTerm].bInUse)
            {
                pTArray[iNextTerm].bInUse = TRUE;
                _ftime(&pTArray[iNextTerm].tbLastAccess);
                iTermId = iNextTerm;
                iNextTerm++;
                break;
            };
            iNextTerm++;
        }; // while(iNextTerm <= iMaxTerm) (1st Try)
        if (iTermId <= 0)
        {
            // No entry found. Perform maint and try again
            TermMaint();
            iNextTerm = 1;
            while(iNextTerm <= iMaxTerm)
```

```

    {
        if (!pTArray[iNextTerm].bInUse)
        {
            pTArray[iNextTerm].bInUse = TRUE;
            _ftime(&pTArray[iNextTerm].tbLastAccess);
            iTermId = iNextTerm;
            iNextTerm++;
            break;
        };
        iNextTerm++;
    }; // while(iNextTerm <= iMaxTerm) (2nd Try)
}; // if (iTermId <= 0)
if (iTermId <= 0)
    iNextTerm = 1;
}
finally
{
    LeaveCriticalSection(&csTerm);
};

if (iTermId > 0)
    return(&pTArray[iTermId]);
else
    return(NULL);

}; // TermAlloc

//=====
//
// Function name: TermMaint
// Clears entries whose last access time exceeds TMILLI_TIMEOUT.
// Assumes caller has entered csTerm.
//
//=====
VOID TermMaint (VOID)
{
    INT iTermId;
    TMILLI tmElapsed;
    // Free entries that have timed out
    for (iTermId = 1; iTermId <= iMaxTerm; iTermId++)
    {
        if (pTArray[iTermId].bInUse)
        {
            tmElapsed = TimebElapsed(&pTArray[iTermId].tbLastAccess);
            if (tmElapsed > TMILLI_TIMEOUT)
                TermFree(iTermId);
        };
    };
}; // TermMaint

//=====
//
// Function name: TermGet
// Returns pointer to TArray slot at iTermId.
//
// Returns:
// FALSE TArray entry made available
// TRUE iTermId invalid.
//
//=====

```

```

TERM_STATE * TermGet (INT iTermId)
{
    TERM_STATE * pTerm;
    TMILLI tmElapsed;
    if (iTermId <= 0 || iTermId > iMaxTerm)
    {
        CHAR szDiag[MAX_DIAG_SZ];
        wsprintf(szDiag, "TermGet (%ld): Invalid TermId (%ld)\n",
            GetCurrentThreadId(), iTermId);
        DiagIoWrite(szDiag, DIAG_ERROR);
        return (NULL);
    };
    pTerm = &pTArray[iTermId];
    if (!pTerm->bInUse)
        return (NULL);
    tmElapsed = TimebElapsed(&pTerm->tbLastAccess);
    if (tmElapsed > TMILLI_TIMEOUT)
        return (NULL); // Entry destined to be freed by maint
    _ftime(&pTArray[iTermId].tbLastAccess);
    return (&pTArray[iTermId]);
}; // TermGet

//=====
//
// Function name: TermFree
// Initializes contents of TArray slot at iTermId.
//
// Returns:
// FALSE TArray entry made available
// TRUE iTermId invalid.
//
//=====
BOOL TermFree (INT iTermId)
{
    TERM_STATE * pTerm;
    if (iTermId <= 0 || iTermId > iMaxTerm)
    {
        CHAR szDiag[MAX_DIAG_SZ];
        wsprintf(szDiag, "TermFree (%ld): Invalid TermId (%ld)\n",
            GetCurrentThreadId(), iTermId);
        DiagIoWrite(szDiag, DIAG_ERROR);
        return (TRUE);
    };
    pTerm = &pTArray[iTermId];
    pTerm->ConnID = 0;
    pTerm->sWid = 0;
    pTerm->sDId = 0;
    pTerm->iSyncId = 0;
    pTerm->iTermId = iTermId;
    TimebClear(&pTerm->tbLastAccess);
    pTerm->bInUse = FALSE;
    return (FALSE);
}; // TermFree

tmon.h

// tmon.h
//
// Copyright Unisys, 1999

```

```
#include "..\tpccproxy\tpccproxy.h"
```

```
typedef struct
```

```
{
    CHAR * pszErrTxt;           // Error text
    INT iSize;
    ITPCC * pIAllTxn;
    CHAR * pTxnData;           // TM buffer area
} TMON_STATE;
```

```
VOID TMonInit(INT iSetMaxMsg);
VOID TMonTerm(VOID);
BOOL TMinic(TMON_STATE * pTMon);
VOID TMDone(TMON_STATE * pTMon);
```

tmon.cpp

```
// tmon.cpp
```

```
//
// Copyright Unisys, 1999
//
```

```
// needed for CoInitializeEx
#define _WIN32_WINNT 0x0400
```

```
#include <windows.h>
#include <stdio.h>
```

```
#include "..\tpccproxy\tpccproxy_i.c"
#include "..\tpccsvr\tpccsvr_i.c"
```

```
#include "tmon.h"
```

```
INT iTMMaxSz;
```

```
//=====
//
// Function name: TMonInit
//
//=====
```

```
VOID TMonInit(INT iSetMaxMsg)
{
    iTMMaxSz = iSetMaxMsg;
}; // TMonInit
```

```
//=====
//
// Function name: TMonTerm
//
//=====
```

```
VOID TMonTerm(VOID)
{
}; // TMonTerm
```

```
//=====
//
// Function name: TMinic
```

```
//
// Result:
// FALSE Initialization completed successfully
// TRUE Initialization failed
//
//=====
BOOL TMinic(TMON_STATE * pTMon)
{
    HRESULT hr = NULL;
    long lRet = 0;

    pTMon->pIAllTxn = NULL;
    pTMon->pTxnData = NULL;
    pTMon->iSize = 0;
    // Must have ErrTxt message area set before init
    if (pTMon->pszErrTxt == NULL)
        return(TRUE);

    hr = CoInitializeEx(NULL, COINIT_MULTITHREADED);
    if (FAILED(hr))
    {
        wsprintf(pTMon->pszErrTxt, "COM Initialize Failed, HRESULT %x\n", hr);
        return(TRUE);
    };

    hr = CoCreateInstance(CLSID_TPCC, NULL, CLSCTX_SERVER, IID_ITPCC,
        (void **) &pTMon->pIAllTxn);
    if (FAILED(hr))
    {
        wsprintf(pTMon->pszErrTxt, "COM Create Instance Failed, HRESULT
%x\n", hr);
        return(TRUE);
    };
    hr = (pTMon->pIAllTxn->CallSetComplete());
    if (FAILED(hr))
    {
        wsprintf(pTMon->pszErrTxt, "COM Call SetComplete Failed, HRESULT
%x\n", hr);
        return(TRUE);
    };
    pTMon->pTxnData = (char *) CoTaskMemAlloc(iTMMaxSz);
    if (!pTMon->pTxnData)
    {
        wsprintf(pTMon->pszErrTxt, "COM Allocate TxnData Failed\n");
        return(TRUE);
    };
    pTMon->iSize = iTMMaxSz;
    return(FALSE);
}; // TMinic

//=====
//
// Function name: TMDone
//
//=====
VOID TMDone(TMON_STATE * pTMon)
{
    CoTaskMemFree(pTMon->pTxnData);
    pTMon->pIAllTxn->Release();
    pTMon->pIAllTxn = NULL;
    CoUninitialize();
}
```

```
}; // TMDone
```

timesupp.c

```
// timesupp.c
//
// Copyright Unisys, 1997 1998 1999
//

#include <stdio.h>
#include "timesupp.h"

// These global variables are used for implementing hi resolution time
stamps
// based on the QueryPerformanceCounter() API.
// These variables should be initialized at startup by a single call to
// InitHiresTime().
struct _timeb tbInitialTimeb;
LARGE_INTEGER liInitialTickCount;
LARGE_INTEGER liTickFreq;
DOUBLE dTickSecs; // period of ticks in seconds
DOUBLE dTickMillisecs; // period of ticks in milliseconds
BOOL bHRT = FALSE; // true => using HRT

//=====
//
// Function name: InitHiresTime
//
//=====
BOOL InitHiresTime(BOOL bOn)
{
    bHRT = bOn;
    if (bOn == FALSE)
        return(TRUE);

    //printf("InitHiresTime: Setup hi res timing using
    QueryPerformanceFrequency() / QueryPerformanceCounter()\n");

    // Get performance counter tick frequency
    if(!QueryPerformanceFrequency(&liTickFreq))
    {
        //printf("InitHiresTime: QueryPerformanceFrequency
        indicates no hi res timer supported\n");
        return(FALSE);
    }

    // Set tick period info
    dTickSecs = 1.0 / (DOUBLE)liTickFreq.QuadPart;
    dTickMillisecs = 1000.0 / (DOUBLE)liTickFreq.QuadPart;

    // Establish initial time
    _ftime(&tbInitialTimeb);

    // Establish initial tick count associated with this initial time
    if(!QueryPerformanceCounter(&liInitialTickCount))
    {
        //printf("InitHiresTime: QueryPerformanceCounter call to
        set initial tick count failed\n");
    }
}
```

```
        return(FALSE);
    }

/*
// Printout some info
printf("InitHiresTime: tick frequency           : %I64d\n"
        "InitHiresTime: tick period (secs)       :
%18.16f\n"
        "InitHiresTime: tick period (milliseconds) :
%15.12f\n",
        liTickFreq.QuadPart, dTickSecs, dTickMillisecs);

printf("InitHiresTime: Initial _ftime           : %d secs %d
millisecs\n",
        tbInitialTimeb.time,
        tbInitialTimeb.millitm);

printf("InitHiresTime: Initial tick count       :
%I64d\n",liInitialTickCount.QuadPart);
*/
return(TRUE);
} //InitHiresTime

//=====
//
// Function name: TimebCopy
// Structure contents copy of _timeb source to _timeb dest.
//
//=====
VOID TimebCopy(struct _timeb * p_tbDest, struct _timeb * p_tbSource)
{
    p_tbDest->time = p_tbSource->time;
    p_tbDest->millitm = p_tbSource->millitm;
    p_tbDest->dstflag = p_tbSource->dstflag;
    p_tbDest->timezone = p_tbSource->timezone;
}; // TimebCopy

//=====
//
// Function name: TimebDiff
// Time difference in milliseconds between _timeb_t1 and _timeb_t2.
//
//=====
TMILLI TimebDiff(struct _timeb * p_tb1, struct _timeb * p_tb2)
{
    LONG lRslt;
    lRslt = ((p_tb2->time - p_tb1->time) * 1000) +
            (p_tb2->millitm - p_tb1->millitm);
    if (lRslt < 0)
        return(0);
    else
        return((TMILLI) lRslt);
}; // TimebDiff

//=====
//
// Function name: TimebElapsedd
//
```

```

//=====
TMILLI TimebElapsed(struct _timeb * p_tb1)
{
    struct _timeb_tb2;
    TimebStamp(&_tb2);

    return (TimebDiff(p_tb1,&_tb2));
}; // TimebElapsed

//=====
//
// Function name: TimebClear
//
//=====
VOID TimebClear(struct _timeb * p_tb1)
{
    p_tb1->time = 0;
    p_tb1->millitm = 0;
}; // TimebClear

//=====
//
// Function name: TimebToString
// Converts timeb to yyyy:mm:dd,hh:mm:ss.sss format
//
//=====
CHAR * TimebToString(struct _timeb * p_tb1,CHAR * psz,BOOL bMillis)
{
    struct tm * ptm;
    INT iInx;
    ptm = localtime(&p_tb1->time);
    iInx = wsprintf(psz,"%4.4d/%2.2d/%2.2d,%2.2d:%2.2d:%2.2d",
        ptm->tm_year + 1900,ptm->tm_mon + 1,ptm->tm_mday,
        ptm->tm_hour,ptm->tm_min,ptm->tm_sec);
    if (bMillis)
        wsprintf(psz + iInx,"%3.3d",p_tb1->millitm);
    return(psz);
}; // TimebToString

//=====
//
// Function name: TimebFromString
// Converts yyyy:mm:dd,hh:mm:ss.sss (TimebToString) format to timeb
//
//=====
BOOL TimebFromString(struct _timeb * p_tb1,CHAR * psz)
{
    struct tm tmTime;
    struct tm * ptm;
    UINT uLen;

    ptm = &tmTime;
    uLen = strlen(psz);
    if (uLen < (TIMEB_STRING_SZ - 4)) // millis are optional
    {
        p_tb1->time = 0;
        p_tb1->millitm = 0;
        return (TRUE);
    }
};

```

```

// Clear fields that won't be set
ptm->tm_wday = 0;
ptm->tm_yday = 0;
ptm->tm_isdst = -1;
// Set tm struct fields from string
ptm->tm_year = (atoi(psz)) - 1900;
psz += 5;
ptm->tm_mon = (atoi(psz)) - 1;
psz += 3;
ptm->tm_mday = atoi(psz);
psz += 3;
ptm->tm_hour = atoi(psz);
psz += 3;
ptm->tm_min = atoi(psz);
psz += 3;
ptm->tm_sec = atoi(psz);
if (uLen >= TIMEB_STRING_SZ) // Millis present
{
    psz += 3;
    p_tb1->millitm = atoi(psz);
}
else
    p_tb1->millitm = 0;
p_tb1->time = mktime(ptm);
return(FALSE);
}; // TimebFromString

//=====
//
// Function name: TimebAddSecs
//
//=====
VOID TimebAddSecs(struct _timeb * p_tb1,INT iSeconds)
{
    p_tb1->time += iSeconds;
}; // TimebAddSecs

//=====
//
// Function name: TimebAddMilliseconds
//
//=====
VOID TimebAddMilliseconds(struct _timeb * p_tb, TMILLI tmMilliseconds)
{
    time_t ttSecs;
    unsigned short utm;

    ttSecs = tmMilliseconds / 1000;
    if(ttSecs)
    {
        utm = p_tb->millitm += (unsigned short) tmMilliseconds -
(ttSecs * 1000);
    }
    else
    {
        utm = p_tb->millitm += (unsigned short) tmMilliseconds;
    }

    if(utm > 999)
    {
        p_tb->millitm -= 1000;
    }
};

```

```

        ttSecs++;
    }

    p_tb->time += ttSecs;

}; //TimebAddMillisecs

//=====
//
// Function name: TimebSeed
//
//=====
ULONG TimebSeed(VOID)
{
    ULONG ulSeed;
    struct _timeb tb_1;
    _ftime(&tb_1);
    ulSeed = ((tb_1.time % TIMEBSEED_MOD) * TIMEBSEED_SHIFT) +
    tb_1.millitm;
    return(ulSeed);
}; // TimebSeed

//=====
//
// Function name: TimebStamp
//
// This functions generates a struct _timeb timestamp and
returns it
//
// in *p_tb. It does this as follows:
//
// 1. Using the QueryPerformanceCounter(), calculates clock
ticks
//
//     elapsed from liInitTickCount.
//
// 2. Converts this to a DOUBLE elapsed millisecs.
//
// 3. Rounds this to a TMILLI (ULONG) elapsed millisecs.
//
// 4. Gets a copy of tbInitialTimeb.
//
// 5. Add elapsed millisecs to this tbInitialTimeb and writes
this
//
//     _timeb into *p_tb.
//=====
BOOL TimebStamp(struct _timeb * p_tb)
{
    LARGE_INTEGER liTickCount;
    TMILLI tmMillisecs;
    DOUBLE d1,d2;

    if (bHRT == FALSE)
    {
        _ftime(p_tb);
        return (TRUE);
    }

    if( !QueryPerformanceCounter(&liTickCount) )
return (FALSE);

    d1 = (DOUBLE)(liTickCount.QuadPart -liInitialTickCount.QuadPart);
    d2 = dTickMillisecs * d1;

```

```

    d1 = d2 + 0.5;

    tmMillisecs = (TMILLI) d1;

    TimebCopy(p_tb, &tbInitialTimeb);
    TimebAddMillisecs(p_tb, tmMillisecs);

    return(TRUE);
} //TimebStamp

```

timesupp.h

```

// timesupp.h

#include <windows.h>
#include <time.h>
#include <sys\timeb.h>

#define TIMEBSEED_MOD 10000
#define TIMEBSEED_SHIFT 1000
#define TIMEB_STRING_SZ 23
#define TIMEB_STRING_DATESZ 10
#define TIMEB_STRING_TIMEOFFSET 11
#define TIMEB_STRING_TIMESZ 12

typedef ULONG TMILLI;
typedef ULONG TMICRO;

TMILLI TimebDiff(struct _timeb * p_tb1, struct _timeb * p_tb2);
VOID TimebCopy(struct _timeb * p_tbDest, struct _timeb * p_tbSource);
TMILLI TimebElapsed(struct _timeb * p_tb1);
VOID TimebClear(struct _timeb * p_tb1);
CHAR * TimebToString(struct _timeb * p_tb1, CHAR * psz, BOOL bMillis);
BOOL TimebFromString(struct _timeb * p_tb1, CHAR * psz);
VOID TimebAddSecs(struct _timeb * p_tb1, INT iSeconds);
ULONG TimebSeed(VOID);

BOOL InitHiresTime(BOOL bOn);
VOID TimebAddMillisecs(struct _timeb * p_tb, TMILLI tmMillisecs);
BOOL TimebStamp(struct _timeb * p_tb);

```

diagio.h

```

// diagio.h
//
// Copyright Unisys, 1999

// Environment variable defaults
#define DEFAULTDIAGLEVEL DIAG_INFO
#define DEFAULTTEVENTLOG 0

#define DIAGNOSTICS TRUE
#define MAX_DIAG_SZ 2000

// Severity level of diagnostic report
#define DIAG_FORCE 1
#define DIAG_ERROR 2

```

```

#define DIAG_STATE 3
#define DIAG_INFO 4

VOID DiagIoInit(CHAR * pDiagId,BOOL bConsole,BOOL bEvent,UINT uLevel);
VOID DiagIoTerm(VOID);
VOID DiagIoWrite(CHAR * pDiagBuffer, UINT uSeverity);

```

diagio.cpp

```

// diagio.cpp
//
// Copyright Unisys, 1999
//
#include <windows.h>
#include <stdio.h>
#include "diagio.h"

CRITICAL_SECTION csDiagIo;
HANDLE hEventLog = NULL;
UINT uDiagLevel;
BOOL bEventLog;
BOOL bConsoleLog;
CHAR * pDiagHdr;
CHAR * pEventHost;
CHAR * pErrHdr =
    {"*** ERROR *** ERROR *** ERROR *** ERROR *** ERROR ***"};

INT WriteEventLog(CHAR * pDMsgs[],UINT uMsgCnt,UINT uSeverity);

//=====
//
// Function name: DiagIoInit
//
//=====
VOID DiagIoInit(CHAR * pDiagId,BOOL bConsole,BOOL bEvent,UINT uLevel)
{
    if (DIAGNOSTICS)
    {
        InitializeCriticalSection(&csDiagIo);

        uDiagLevel = uLevel;
        bEventLog = bEvent;
        bConsoleLog = bConsole;
        pEventHost = (CHAR *) malloc(10);
        strcpy(pEventHost,""); // local host
        pDiagHdr = (CHAR *) malloc(strlen(pDiagId) + 1);
        strcpy(pDiagHdr,pDiagId);
        if (bEventLog)
        {
            hEventLog = RegisterEventSource(pEventHost,pDiagId);
            if (hEventLog == NULL)
            {
                bEventLog = FALSE;
                if (bConsoleLog)
                    fprintf(stdout,
                        "%s: Event Log Register Failed (%ld)\n"
                        "Event Log Will NOT be Used\n",
                        pDiagHdr,GetLastError());
            }
        }
    }
}

```

```

    else
    {
        if (bConsoleLog)
            fprintf(stdout,"%s: Event Logging to LocalHost as %s\n",
                pDiagHdr,pDiagHdr);
    }
}; // if bEventLog
}; // if Diagnostics
}; // DiagIoInit

//=====
//
// Function name: DiagIoTerm
//
//=====
VOID DiagIoTerm(VOID)
{
    if (DIAGNOSTICS)
    {
        DeleteCriticalSection(&csDiagIo);
        if (hEventLog != NULL)
            DeregisterEventSource(hEventLog);
        free(pDiagHdr);
        free(pEventHost);
    }
}; // DiagIoTerm

//=====
//
// Function name: DiagIoWrite
//
//=====
VOID DiagIoWrite(CHAR * pDiagBuffer, UINT uSeverity)
{
    CHAR * pDMsgs[3];
    UINT uMsgCnt = 0;
    INT iERslt = 0;
    if (DIAGNOSTICS)
    {
        if (uDiagLevel >= uSeverity)
        {
            EnterCriticalSection(&csDiagIo);
            try
            {
                if (uSeverity == DIAG_ERROR)
                {
                    pDMsgs[0] = pDiagHdr;
                    pDMsgs[1] = pErrHdr;
                    pDMsgs[2] = pDiagBuffer;
                    uMsgCnt = 3;
                }
                else
                {
                    pDMsgs[0] = pDiagHdr;
                    pDMsgs[1] = pDiagBuffer;
                    uMsgCnt = 2;
                }
            }
            if (bEventLog)
                iERslt = WriteEventLog(pDMsgs,uMsgCnt,uSeverity);
            if (bConsoleLog)

```

```

    {
        if (uMsgCnt == 3)
            fprintf(stdout, "\n%s:
%s\n%s", pDMsgs[0], pDMsgs[1], pDMsgs[2]);
        else
            fprintf(stdout, "\n%s: %s", pDMsgs[0], pDMsgs[1]);
        if (iERslt != 0)
            fprintf(stdout,
                "EventLog Write Failed (%ld), No Longer in Use\n",
                iERslt);
    };
}
finally
{
    LeaveCriticalSection(&csDiagIo);
};
}; // if uDiagLevel >= uSeverity
}; // if Diagnostics
}; // DiagIoWrite

INT WriteEventLog(CHAR * pDMsgs[], UINT uMsgCnt, UINT uSeverity)
{
    WORD wType;
    WORD wCount;
    wCount = uMsgCnt;
    switch (uSeverity)
    {
        case DIAG_ERROR:
            wType = EVENTLOG_ERROR_TYPE;
            break;
        default:
            wType = EVENTLOG_INFORMATION_TYPE;
            break;
    };
    if (wType != 0)
    {
        if (!ReportEvent(hEventLog, // event log handle
            wType, // event type
            0, // category zero
            uSeverity, // no event identifier
            NULL, // no user security identifier
            wCount, // # of substitution strings
            0, // no binary data
            (LPCTSTR *) pDMsgs, // address of string array
            NULL)) // address of binary
        {
            DeregisterEventSource(hEventLog);
            hEventLog = NULL;
            bEventLog = FALSE;
            return(GetLastError());
        }; // ReportEvent failed
    }; // if wType != 0
    return(0);
}; // WriteEventLog

```

tpccproxy.def

```
LIBRARY "tpcc_com_ps"
```

```
DESCRIPTION 'Proxy/Stub DLL'

EXPORTS
    DllGetClassObject @1 PRIVATE
    DllCanUnloadNow @2 PRIVATE
    DllRegisterServer @3 PRIVATE
    DllUnregisterServer @4 PRIVATE

```

tpccproxy.idl

```

// tpccproxy.idl
//
// Copyright Unisys, 1999
// Copyright Microsoft, 1999

// Forward declare all types defined
// Interface ITPCC;
import "oaidl.idl";
import "ocidl.idl";

[
    object,
    uuid(FEEE6AA2-84B1-11d2-BA47-00C04FBFE08B),
    helpstring("ITPCC Interface"),
    pointer_default(unique)
]
interface ITPCC : IUnknown
{
    HRESULT _stdcall NewOrder
    (
        [in, out] int * iSize,
        [in, out, size_is(*iSize)] char ** pTData
    );
    HRESULT _stdcall Payment
    (
        [in, out] int * iSize,
        [in, out, size_is(*iSize)] char ** pTData
    );
    HRESULT _stdcall Delivery
    (
        [in] int * iSize,
        [in, out, size_is(*iSize)] char ** pTData
    );
    HRESULT _stdcall StockLevel
    (
        [in, out] int* iSize,
        [in, out, size_is(*iSize)] char ** pTData
    );
    HRESULT _stdcall OrderStatus
    (
        [in, out] int* iSize,
        [in, out, size_is(*iSize)] char ** pTData
    );
};

```



```

        HRESULT __stdcall CallSetComplete
        (
        );
}; // interface ITPCC

```

tpccsvr.def

; tpccsvr.def : Declares the module parameters.

```

LIBRARY      "tpcc_com_all.dll"

EXPORTS
    DllCanUnloadNow      @1 PRIVATE
    DllGetClassObject    @2 PRIVATE
    DllRegisterServer    @3 PRIVATE
    DllUnregisterServer  @4 PRIVATE

```

tpccsvr.idl

```

// tpccsvr.idl
//
// Copyright Unisys, 1999
// Copyright Microsoft, 1999

```

```

interface TPCC;

import "oaidl.idl";
import "ocidl.idl";
import "..\tpccproxy\tpccproxy.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;
    };
};

```

tpccsvr.h

```

// tpccsvr.h
//
// Copyright Unisys, 1999

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(int * iSize,UCHAR ** pTData);
    HRESULT __stdcall Payment(int * iSize,UCHAR ** pTData);
    HRESULT __stdcall Delivery(int * iSize,UCHAR ** pTData);
    HRESULT __stdcall StockLevel( int* iSize, UCHAR ** pTData);
    HRESULT __stdcall OrderStatus(int* iSize, UCHAR ** pTData);
    HRESULT __stdcall CallSetComplete();

    // IObjectControl
    STDMETHODIMP_(BOOL) CanBePooled() {return m_bCanBePooled;}
    STDMETHODIMP Activate() {return S_OK;} // no transactions enlistment
    STDMETHODIMP_(void) Deactivate() { }

    // IObjectConstruct
    STDMETHODIMP Construct(IDispatch * pUnk);

    // state
private:
    bool m_bCanBePooled;
    long m_lRefId;
    int m_iMaxRetry;
    int m_iTryCount;
    bool m_bTPRslt;
    int m_iTPRslt;
    union
    {
        NEW_ORDER_DATA NOData;
        PAYMENT_DATA PYData;
        DELIVERY_DATA DLData;
        ORDER_STATUS_DATA OSData;
        STOCK_LEVEL_DATA SLData;
    } m_TData;
    SQLHDBC m_hdbc;
    SQLHSTMT m_hstmt;
    SQLHSTMT m_hstmtNewOrder;
    SQLHSTMT m_hstmtPayment;
    SQLHSTMT m_hstmtDelivery;

```

```

    SQLHSTMT m_hstmtOrderStatus;
    SQLHSTMT m_hstmtStockLevel;
    SQLHDESC m_descNewOrderCols1;
    SQLHDESC m_descNewOrderCols2;
    SQLHDESC m_descOrderStatusCols1;
    SQLHDESC m_descOrderStatusCols2;
    SQLUIINTEGER m_BindOffset;
    SQLUIINTEGER m_RowsFetched;
    int m_no_commit_flag;

    bool InitNOParams(void);
    bool InitPYParams(void);
    bool InitDLParams(void);
    bool InitOSParams(void);
    bool InitSLParams(void);
    bool CheckDBError(char * pSource);
}; // Class CTPCC_Common

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)
        COM_INTERFACE_ENTRY_CHAIN(CTPCC_Common)
    END_COM_MAP()
}; // Class CTPCC

```

tpccsvr.cpp

```

// tpccsvr.cpp
//
// Copyright Unisys, 1999
// Copyright Microsoft, 1999

#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 <time.h>
#include <sys\timeb.h>

```

```

#define DBNTWIN32
#include <sqltypes.h>
#include <sql.h>
#include <sqlext.h>

#ifdef USE_SNAC
#include <sqlncli.h>
#else
#include <odbcss.h>
#endif

#include "..\tpccproxy\tpccproxy.h"
#include "..\tpccsvr\tpcc.h"

#include "resource.h"
#include "..\tpccsvr\tpccsvr_i.h"
#include "..\tpccsvr\tpccsvr_i.c"
#include "tpccsvr.h"
#include "..\tpccproxy\tpccproxy_i.c"

CComModule _Module;

BEGIN_OBJECT_MAP(ObjectMap)
    OBJECT_ENTRY(CLSID_TPCC, CTPCC)
END_OBJECT_MAP()

FILE *fp;
char pProgId[100];
char * pPName = "TPCC Server";
int iInstance = 1;
char szServer[100] = "hostname";
char szMyHost[MAX_COMPUTERNAME_LENGTH + 1];
char szUser[100] = "sa";
char szPassword[100] = "";
char szDatabase[100] = "tpcc";
int iDeadlockRetry = 5;

static SQLHENV henv = SQL_NULL_HENV; // ODBC environment handle
long lCount = 0;
long lActive = 0;

bool ReadRegistry(VOID);
void WriteEventLog(char * pMsg, bool bError);
CHAR * TimeStamp(char *timeStr);

int iSPNumber = 0;
wchar_t wszSPNumber[100];

////////////////////////////////////
///
// DLL Entry Point

extern "C"
BOOL WINAPI DllMain(HINSTANCE hInst, ULONG ul_reason_for_call, LPVOID
lpReserved)
{
    char szDiag[300];
    DWORD dwCNSize = MAX_COMPUTERNAME_LENGTH;
    try
    {
        switch(ul_reason_for_call)

```

```

{
    case DLL_PROCESS_ATTACH:
        if (fp == NULL)
            fp = fopen("c:\\temp\\tpccsvr.txt", "w");

        _Module.Init(ObjectMap,hInst);
        DisableThreadLibraryCalls(hInst);
        wsprintf(pProgId,"%s%d",pPName,iInstance);
        if (ReadRegistry())
        {
            WriteEventLog("DllMain: Registry Key Not Present\n",TRUE);
            return(FALSE);
        };

wsprintf(pProgId,"%s%d(%s,%d)",pPName,iInstance,szServer,iSPNumber);
    GetComputerName(szMyHost,&dwCNSize);
    szMyHost[dwCNSize] = 0;
    if (SQLAllocHandleStd(SQL_HANDLE_ENV,SQL_NULL_HANDLE,&henv) !=
SQL_SUCCESS)
    {
        wsprintf(szDiag,"DllMain(%s): Allocate Environment
Failed\n"
                "ServerName=%s,DB=%s,User=%s,PW=%s,Retries=%d\n",
                VERSIONINFO,szServer,szDatabase,szUser,szPassword,iDeadlockRetry);
        WriteEventLog(szDiag,FALSE);
        return FALSE;
    };

        #ifdef LONG_WID
            WriteEventLog("tpccsvr - long w_id", false);
        #endif
        #ifdef USE_SNAC
            WriteEventLog("tpccsvr - using SNAC instead
of ODBC", false);
        #endif

        wsprintf(szDiag,"DllMain(%s): Initialization Complete\n"
                "ServerName=%s,DB=%s,User=%s,PW=%s,Retries=%d\n",
                VERSIONINFO,szServer,szDatabase,szUser,szPassword,iDeadlockRetry);
        WriteEventLog(szDiag,FALSE);
        break;

        case DLL_PROCESS_DETACH:
            WriteEventLog("DllMain: Closing down for Process
Detach\n",FALSE);
            if (henv != NULL)
                SQLFreeEnv(henv);
            _Module.Term();
            //if (fp != NULL)
            //    fclose(fp);

            break;
    }; // switch ul_reason_for_call
}
catch (...)
{
    wsprintf(szDiag,"DllMain: Unhandled exception during %s call\n",
            ul_reason_for_call == DLL_PROCESS_ATTACH ? "ATTACH" : "DETACH");
    WriteEventLog(szDiag,TRUE);
    return FALSE;
}

```

```

};
return TRUE;
}; // DllMain
STDAPI DllCanUnloadNow(void)
{
    return (_Module.GetLockCount()==0) ? S_OK : S_FALSE;
};
STDAPI DllGetClassObject(REFCLSID rclsid,REFIID riid,LPVOID* ppv)
{
    return _Module.GetClassObject(rclsid,riid,ppv);
};
STDAPI DllRegisterServer(void)
{
    WriteEventLog("DllRegisterServer", FALSE);

    // registers object, typelib and all interfaces in typelib
    return _Module.RegisterServer(TRUE);
};
STDAPI DllUnregisterServer(void)
{
    WriteEventLog("DllUnregisterServer", FALSE);

    _Module.UnregisterServer();
    return S_OK;
};
inline void ReleaseInterface(IUnknown *pUnk)
{
    if (pUnk)
    {
        pUnk->Release();
        pUnk = NULL;
    };
};
CTPCC_Common::CTPCC_Common()
{
    char szDiag[300];
    Sleep(100);
    m_bCanBePooled = TRUE;
    m_iMaxRetry = iDeadlockRetry;
    m_lRefId = InterlockedIncrement(&lCount);
    InterlockedIncrement(&lActive);
    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;
    wsprintf(szDiag,"CTPCC_Common: Initialized %ld\n",m_lRefId);
}

```

```

    WriteEventLog(szDiag, FALSE);
};

CTPCC_Common::~CTPCC_Common()
{
    char szDiag[300];
    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);
    InterlockedDecrement(&lActive);
    wsprintf(szDiag, "~CTPCC_Common(%ld): Database closed\n", m_lRefId);
    WriteEventLog(szDiag, FALSE);
};

HRESULT CTPCC_Common::CallSetComplete()
{
    IObjectContext * pObjectContext = NULL;
    HRESULT hr = CoGetObjectContext( IID_IObjectContext, (void
**) &pObjectContext );
    pObjectContext->SetComplete();
    ReleaseInterface(pObjectContext);
    return hr;
};

bool CTPCC_Common::CheckDBError(char * pSource)
{
    RETCODE rc;
    SDWORD lNativeError;
    char szState[6];
    char szMsg[SQL_MAX_MESSAGE_LENGTH];
    char szTmp[7 * (SQL_MAX_MESSAGE_LENGTH + 2)];
    int iInx;
    int iMsgs = 0;
    bool bRslt = FALSE;
    iInx = wsprintf(szTmp, "%s", pSource);
    while (iMsgs < 6)
    {
        rc = SQLError(henv, m_hdbc, m_hstmt, (BYTE *) &szState, &lNativeError,
        (BYTE *) &szMsg, sizeof(szMsg), NULL);
        if (rc == SQL_NO_DATA)
            break;
        iMsgs++;
        // check for deadlock
        if (lNativeError == 1205)
        {
            iInx += wsprintf(szTmp + iInx, "Deadlock retry
(%d)\n", m_iTryCount);
            Sleep(10 * m_iTryCount);
            continue;
        };
        bRslt = TRUE;
        iInx += wsprintf(szTmp + iInx, "(%ld)%s\n", lNativeError, szMsg);
    }; // while iMsgs
    SQLFreeStmt(m_hstmt, SQL_CLOSE);
    WriteEventLog(szTmp, TRUE);
};

```

```

    if ((fp = fopen("c:\\temp\\dberror.txt", "a")) != NULL)
    {
        fprintf(fp, "%s\n", szTmp);
        fclose(fp);
    }

    return(bRslt);
}; // CheckDBError

STDMETHODIMP CTPCC_Common::Construct(IDispatch * pUnk)
{
    char szDiag[300];
    char szConnectStr[256];
    char szOutStr[1024];
    SQLSMALLINT iOutStrLen;
    char buffer[128];
    RETCODE rc;

    try
    {
        if (SQLAllocHandle(SQL_HANDLE_DBC, henv, &m_hdbc) != SQL_SUCCESS)
        {
            wsprintf(szDiag, "Construct(%ld): Allocate DBC Handle
failed\n", m_lRefId);
            CheckDBError(szDiag);
            return(E_FAIL);
        };
        if (SQLSetConnectOption(m_hdbc, SQL_PACKET_SIZE, 4096) != SQL_SUCCESS)
        {
            wsprintf(szDiag,
            "Construct(%ld): Set Connection Packet Size failed\n",
            m_lRefId);
            CheckDBError(szDiag);
            return(E_FAIL);
        };
        wsprintf(szConnectStr,
#ifdef USE_SNAC
        "DRIVER=SQL Native
Client;SERVER=%s;UID=%s;PWD=%s;DATABASE=%s;WSID=%s-%ld",
        szServer, szUser, szPassword, szDatabase, szMyHost, m_lRefId);
#else
        "DRIVER=SQL Server;SERVER=%s;UID=%s;PWD=%s;DATABASE=%s;WSID=%s-
%ld",
        szServer, szUser, szPassword, szDatabase, szMyHost, m_lRefId);
#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)
        {
            wsprintf(szDiag, "Construct(%ld): Connect failed\n", m_lRefId);
            CheckDBError(szDiag);
            return(E_FAIL);
        };
        if (SQLAllocHandle(SQL_HANDLE_STMT, m_hdbc, &m_hstmt) != SQL_SUCCESS)
        {
            wsprintf(szDiag, "Construct(%ld): Allocate STMT Handle
failed\n", m_lRefId);
            CheckDBError(szDiag);
        };
    }
};

```

```

        return(E_FAIL);
    };

    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)
    {
        wsprintf(szDiag,"Construct(%ld): Set DB Options
failed\n",m_lRefId);
        CheckDBError(szDiag);
        return(E_FAIL);
    };
    SQLFreeHandle(SQL_HANDLE_STMT,m_hstmt);

    if (InitNOParams())
        return(E_FAIL);
    if (InitPYParams())
        return(E_FAIL);
    if (InitDLParams())
        return(E_FAIL);
    if (InitOSParams())
        return(E_FAIL);
    if (InitSLParams())
        return(E_FAIL);
    }
    catch (...)
    {
        wsprintf(szDiag,"Construct(%ld): Unhandled exception\n",m_lRefId);
        WriteEventLog(szDiag,TRUE);
        return(E_FAIL);
    };

    wsprintf(szDiag,"Construct(%ld): Db connection
initialized\n",m_lRefId);
    WriteEventLog(szDiag,FALSE);
    return(S_OK);
}; // Construct

//=====
// FUNCTION: UtilStrCpy
//
// Copies n characters from string pSrc to pDst and places a null
// null character at the end of the destination string. Unlike
// strncpy this function ensures that the result string is always
// null terminated.
//
//=====
inline static void UtilStrCpy(char * pDest, const unsigned char * pSrc,
int n)
{
    strncpy(pDest, (char *)pSrc,n);
    pDest[n] = '\0';
    return;
}; // UtilStrCpy

bool CTPCC_Common::InitNOParams(void)
{
    char szDiag[300];
    int i, j;

```

```

        if (SQLAllocHandle(SQL_HANDLE_STMT,m_hdbc,&m_hstmtNewOrder) !=
SQL_SUCCESS
        || SQLAllocHandle(SQL_HANDLE_DESC,m_hdbc,&m_descNewOrderCols1) !=
SQL_SUCCESS
        || SQLAllocHandle(SQL_HANDLE_DESC,m_hdbc,&m_descNewOrderCols2) !=
SQL_SUCCESS
        )
        {
            wsprintf(szDiag,"InitNOParams(%ld): Allocate Stmt Handles
failed\n",m_lRefId);
            CheckDBError(szDiag);
            return(TRUE);
        };

        m_hstmt = m_hstmtNewOrder;

        if (SQLSetStmtAttrW(m_hstmt,SQL_ATTR_APP_ROW_DESC,
m_descNewOrderCols1,SQL_IS_POINTER) != SQL_SUCCESS)
        {
            wsprintf(szDiag,"InitNOParams(%ld): SetStmtAttr NOCols1
failed\n",m_lRefId);
            CheckDBError(szDiag);
            return(TRUE);
        };

        i = 0;
#ifdef LONG_WID
        if
(SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_SLONG,SQL_INTEGER,
#else
        if
(SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_SSHORT,SQL_SMALLINT,
#endif
0,0,&m_TData.NOData.w_id,0,NULL) != SQL_SUCCESS
        ||
SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_UTINYINT,SQL_TINYINT,
0,0,&m_TData.NOData.d_id,0,NULL) != SQL_SUCCESS
        ||
SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_SLONG,SQL_INTEGER,
0,0,&m_TData.NOData.c_id,0,NULL) != SQL_SUCCESS
        ||
SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_UTINYINT,SQL_TINYINT,
0,0,&m_TData.NOData.o_ol_cnt,0,NULL) != SQL_SUCCESS
        ||
SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_UTINYINT,SQL_TINYINT,
0,0,&m_TData.NOData.o_all_local,0,NULL) != SQL_SUCCESS
        )
        {
            wsprintf(szDiag,"InitNOParams(%ld): Bind Param failed\n",m_lRefId);
            CheckDBError(szDiag);
            return(TRUE);
        };

        for (j=0; j < MAX_OL; j++)
        {
            if
(SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_SLONG,SQL_INTEGER,
0,0,&m_TData.NOData.OL[j].ol_i_id,0,NULL) != SQL_SUCCESS
#ifdef LONG_WID
            ||
SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_SLONG,SQL_INTEGER,

```

```

#else
    ||
    SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SSHORT, SQL_SMALLINT,
    #endif
                    0, 0, &m_TData.NOData.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_TData.NOData.Ol[j].ol_quantity, 0, NULL) !=
    SQL_SUCCESS
    )
    {
        wsprintf(szDiag, "InitNOParams(%ld): Bind Param(%d)
failed\n", m_lRefId, j);
        CheckDBError(szDiag);
        return(TRUE);
    };
};

// set the bind offset pointer
if (SQLSetStmtAttrW(m_hstmt, SQL_ATTR_ROW_BIND_OFFSET_PTR,
&m_BindOffset, SQL_IS_POINTER) != SQL_SUCCESS)
{
    wsprintf(szDiag, "InitNOParams(%ld): SetStmtAttr BindOffset
failed\n", m_lRefId);
    CheckDBError(szDiag);
    return(TRUE);
};

i = 0;
if (SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.NOData.Ol[0].ol_i_name,
sizeof(m_TData.NOData.Ol[j].ol_i_name), NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt, ++i, SQL_C_SSHORT, &m_TData.NOData.Ol[0].ol_stock,
0, NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.NOData.Ol[0].ol_brand_generic,
sizeof(m_TData.NOData.Ol[j].ol_brand_generic), NULL) !=
SQL_SUCCESS
    ||
SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE, &m_TData.NOData.Ol[0].ol_i_price,
0, NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE, &m_TData.NOData.Ol[0].ol_amount,
0, NULL) != SQL_SUCCESS
    )
    {
        wsprintf(szDiag, "InitNOParams(%ld): Bind Col Ol %d
failed\n", m_lRefId, j);
        CheckDBError(szDiag);
        return(TRUE);
    };

// 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)
{
    wsprintf(szDiag, "InitNOParams(%ld): SetStmtAttr NOCols2
failed\n", m_lRefId);
    CheckDBError(szDiag);
    return(TRUE);
};

```

```

};

i = 0;
if (SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE, &m_TData.NOData.w_tax,
0, NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE, &m_TData.NOData.d_tax,
0, NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_SLONG, &m_TData.NOData.o_id,
0, NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.NOData.c_last,
sizeof(m_TData.NOData.c_last), NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE, &m_TData.NOData.c_discount,
0, NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.NOData.c_credit,
sizeof(m_TData.NOData.c_credit), NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt, ++i, SQL_C_TYPE_TIMESTAMP, &m_TData.NOData.o_entry_d,
0, NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_SLONG, &m_no_commit_flag,
0, NULL) != SQL_SUCCESS
    )
    {
        wsprintf(szDiag, "InitNOParams(%ld): Bind Col failed\n", m_lRefId);
        CheckDBError(szDiag);
        return(TRUE);
    };
    return(FALSE);
}; // InitNOParams

HRESULT CTPCC_Common::NewOrder(int * iSize, UCHAR ** pTData)
{
    NEW_ORDER_DATA * pnod;
    RETCODE rc;
    bool bRetry;
    bool bUnique;
    char szDiag[300];

    // 0          1          2
    // 012345678901234567890123456789
    wchar_t szSqlTemplate[] = L"{call tpcc_neworder(?,?,?,?,?,
L"?,?,?,?,?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?,"
L"?,?,?,?,?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?,"
L"?,?,?,?,?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?)";
    wchar_t szSqlTemplateNew[] = L"{call tpcc_neworder_new(?,?,?,?,?,
L"?,?,?,?,?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?,"
L"?,?,?,?,?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?,"
L"?,?,?,?,?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?)";

    // If supplied, insert stored procedure number into name
    if (iSPNumber)
        wcsncpy(&szSqlTemplate[8], wszSPNumber, 2);

    int i, j;

    pnod = (NEW_ORDER_DATA *) *pTData;
    try
    {
        m_hstmt = m_hstmtNewOrder;
        m_bTPRslt = TRUE;
        m_iTPRslt = SVCERR_DEADLOCK;
    }
};

```

```

// 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)
{
    wsprintf(szDiag,"NewOrder(%ld): SetStmtAttr NOCols1\n",m_lRefId);
    CheckDBError(szDiag);
    pnod->bTPRslt = TRUE;
    pnod->iTPRslt = SVCERR_ODBC;
    strcpy(pnod->execution_status,"Error, Bind NOCols1 Failed");
    return(S_OK);
};

// check whether any order lines are for a remote warehouse
pnod->o_all_local = 1;
for (i = 0; i < pnod->o_ol_cnt; i++)
{
    if (pnod->Ol[i].ol_supply_w_id != pnod->w_id)
    {
        pnod->o_all_local = 0;
        break;
    };
};

#ifdef YUKON
    // check if all ol_i_id are unique - we'll use tpcc_neworder_new
    bUnique = TRUE;
    for (i = 0; i < pnod->o_ol_cnt; i++)
    {
        for (j = i + 1; j < pnod->o_ol_cnt; j++)
        {
            if (pnod->Ol[i].ol_i_id == pnod->Ol[j].ol_i_id)
            {
                bUnique = FALSE;
                break;
            };
        };
        if (bUnique == FALSE)
            break;
    };
#else
    //if not YUKON handle all as if ol_i_id not unique - use
    tpcc_neworder
        bUnique = FALSE;
#endif

// clip statement buffer based on number of parameters
// fixed part is 29 (33) chars and variable part is 6 chars per
line item
wcscopy(&szSqlTemplate[29 + pnod->o_ol_cnt * 6],L"");
wcscopy(&szSqlTemplateNew[33 + pnod->o_ol_cnt * 6],L"");

memcpy(&m_TData.NOData, pnod, sizeof(NEW_ORDER_DATA));
for (m_iTryCount = 1; m_iTryCount <= m_iMaxRetry; m_iTryCount++)
{
    bRetry = FALSE;
    m_BindOffset = 0;

    if (bUnique == TRUE)
        rc = SQLExecDirectW(m_hstmt, (SQLWCHAR *)
szSqlTemplateNew,SQL_NTS);
    else

```

```

        rc = SQLExecDirectW(m_hstmt, (SQLWCHAR *)
szSqlTemplate,SQL_NTS);

        if (m_iTryCount > 1 && (rc == SQL_SUCCESS || rc ==
SQL_SUCCESS_WITH_INFO))
        {
            wsprintf(szDiag,"NewOrder(%ld): Execute Direct Attempt %ld
SUCCESS \n",m_lRefId, m_iTryCount);
            WriteEventLog(szDiag, FALSE);
        }

        if (rc != SQL_SUCCESS && rc != SQL_SUCCESS_WITH_INFO)
        {
            wsprintf(szDiag,"NewOrder(%ld): Execute Direct\n",m_lRefId);
            if (CheckDBError(szDiag))
            {
                m_iTPRslt = SVCERR_ODBC;
                break;
            };
            continue;
        }

// Get order line results
m_TData.NOData.total_amount = 0;
for (i = 0; i < m_TData.NOData.o_ol_cnt; i++)
{
    // set the bind offset value...
    m_BindOffset = i * sizeof(m_TData.NOData.Ol[0]);
    if (SQLFetch(m_hstmt) == SQL_ERROR)
    {
        wsprintf(szDiag,"NewOrder(%ld): Fetch
Ol\n",m_lRefId);

        if (CheckDBError(szDiag))
            m_iTPRslt = SVCERR_ODBC;
        else
            bRetry = TRUE;
        break;
    };

    if ((bUnique == FALSE) || (i ==
m_TData.NOData.o_ol_cnt - 1))
    {
        // move to the next resultset
        if (SQLMoreResults(m_hstmt) == SQL_ERROR)
        {
            wsprintf(szDiag,"NewOrder(%ld):
MoreResults Ol%d\n",m_lRefId,(i + 1));
            if (CheckDBError(szDiag))
                m_iTPRslt = SVCERR_ODBC;
            else
                bRetry = TRUE;
            break;
        };
    };

    m_TData.NOData.total_amount +=
m_TData.NOData.Ol[i].ol_amount;
}; // for o_ol_cnt
if (m_iTPRslt == SVCERR_ODBC)
    break;
if (bRetry)
    continue;

```

```

// 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)
{
    wsprintf(szDiag,"NewOrder(%ld): SetStmtAttr
NOCols2\n",m_lRefId);
    if (CheckDBError(szDiag))
    {
        m_iTPRslt = SVCERR_ODBC;
        break;
    };
    continue;
};
if (SQLFetch(m_hstmt) == SQL_ERROR)
{
    wsprintf(szDiag,"NewOrder(%ld): Fetch\n",m_lRefId);
    if (CheckDBError(szDiag))
    {
        m_iTPRslt = SVCERR_ODBC;
        break;
    };
    continue;
};

SQLFreeStmt(m_hstmt,SQL_CLOSE);

if (m_no_commit_flag == 1)
{
    m_TData.NOData.total_amount *=
        ((1 + m_TData.NOData.w_tax + m_TData.NOData.d_tax) *
        (1 - m_TData.NOData.c_discount));
    m_bTPRslt = FALSE;
    m_iTPRslt = SVC_NOERROR;
}
else
    m_iTPRslt = SVC_BADITEMID;
break;
}; // for m_iMaxRetry
memcpy(pnod,&m_TData.NOData,sizeof(NEW_ORDER_DATA));
pnod->bTPRslt = m_bTPRslt;
pnod->iTPRslt = m_iTPRslt;
if (!m_bTPRslt)
{
    strcpy(pnod->execution_status,"Transaction committed.");
    return(S_OK);
};
if (m_iTPRslt == SVC_BADITEMID)
{
    strcpy(pnod->execution_status,"Item number is not valid.");
    return(S_OK);
};
if (m_iTPRslt == SVCERR_DEADLOCK)
    wsprintf(pnod->execution_status,"Hit retry
max(%d).",m_iMaxRetry);
else
    strcpy(pnod->execution_status,"DBTranAbort, Check Input Data");
return(S_OK);
}
catch (...)
{

```

```

wsprintf(szDiag,"NewOrder(%ld): Unhandled exception\n",m_lRefId);
    WriteEventLog(szDiag,TRUE);
    m_bCanBePooled = FALSE;
    pnod->bTPRslt = TRUE;
    pnod->iTPRslt = SVCERR_EXCEPTION;
    strcpy(pnod->execution_status,"Error, Unhandled exception");
    return(S_OK);
};
}; // NewOrder
bool CTPCC_Common::InitPYParams(void)
{
    int i;
    char szDiag[300];
    if (SQLAllocHandle(SQL_HANDLE_STMT,m_hdbc,&m_hstmtPayment) !=
SQL_SUCCESS)
    {
        wsprintf(szDiag,"InitPYParams(%ld): Allocate Stmt Handle
failed\n",m_lRefId);
        CheckDBError(szDiag);
        return(TRUE);
    };
    m_hstmt = m_hstmtPayment;
    i = 0;
#ifdef LONG_WID
    if
    (SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_SLONG,SQL_INTEGER,
        0,0,&m_TData.PYData.w_id,0,NULL) != SQL_SUCCESS
        ||
    SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_SLONG,SQL_INTEGER,
#else
    if
    (SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_SSHORT,SQL_SMALLINT,
        0,0,&m_TData.PYData.w_id,0,NULL) != SQL_SUCCESS
        ||
    SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_SSHORT,SQL_SMALLINT,
#endif
        0,0,&m_TData.PYData.c_w_id,0,NULL) != SQL_SUCCESS
        ||
    SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_DOUBLE,SQL_NUMERIC,
        6,2,&m_TData.PYData.h_amount,0,NULL) != SQL_SUCCESS
        ||
    SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_UTINYINT,SQL_TINYINT,
        0,0,&m_TData.PYData.d_id, 0, NULL) != SQL_SUCCESS
        ||
    SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_UTINYINT,SQL_TINYINT,
        0,0,&m_TData.PYData.c_d_id,0,NULL) != SQL_SUCCESS
        ||
    SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_SLONG,SQL_INTEGER,
        0,0,&m_TData.PYData.c_id,0,NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_CHAR,SQL_CHAR,
        sizeof(m_TData.PYData.c_last),0,&m_TData.PYData.c_last,
        sizeof(m_TData.PYData.c_last), NULL) != SQL_SUCCESS
    )
    {
        wsprintf(szDiag,"InitPYParams(%ld): Bind Param
failed\n",m_lRefId);
        CheckDBError(szDiag);
        return(TRUE);
    };
    i = 0;

```



```

if (SQLBindCol(m_hstmt, ++i, SQL_C_SLONG, &m_TData.PYData.
    c_id, 0, NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.PYData.c_last,
        sizeof(m_TData.PYData.c_last), NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt, ++i, SQL_C_TYPE_TIMESTAMP, &m_TData.PYData.h_date,
    0, NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.PYData.w_street_1,
        sizeof(m_TData.PYData.w_street_1), NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.PYData.w_street_2,
        sizeof(m_TData.PYData.w_street_2), NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.PYData.w_city,
        sizeof(m_TData.PYData.w_city), NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.PYData.w_state,
        sizeof(m_TData.PYData.w_state), NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.PYData.w_zip,
        sizeof(m_TData.PYData.w_zip), NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.PYData.d_street_1,
        sizeof(m_TData.PYData.d_street_1), NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.PYData.d_street_2,
        sizeof(m_TData.PYData.d_street_2), NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.PYData.d_city,
        sizeof(m_TData.PYData.d_city), NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.PYData.d_state,
        sizeof(m_TData.PYData.d_state), NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.PYData.d_zip,
        sizeof(m_TData.PYData.d_zip), NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.PYData.c_first,
        sizeof(m_TData.PYData.c_first), NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.PYData.c_middle,
        sizeof(m_TData.PYData.c_middle), NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.PYData.c_street_1,
        sizeof(m_TData.PYData.c_street_1), NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.PYData.c_street_2,
        sizeof(m_TData.PYData.c_street_2), NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.PYData.c_city,
        sizeof(m_TData.PYData.c_city), NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.PYData.c_state,
        sizeof(m_TData.PYData.c_state), NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.PYData.c_zip,
        sizeof(m_TData.PYData.c_zip), NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.PYData.c_phone,
        sizeof(m_TData.PYData.c_phone), NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt, ++i, SQL_C_TYPE_TIMESTAMP, &m_TData.PYData.c_since,
    0, NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.PYData.c_credit,
        sizeof(m_TData.PYData.c_credit), NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE, &m_TData.PYData.c_credit_lim,
        0, NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE, &m_TData.PYData.c_discount,
        0, NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE, &m_TData.PYData.c_balance,
        0, NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.PYData.c_data,
        sizeof(m_TData.PYData.c_data), NULL) != SQL_SUCCESS
    )
    {
        wsprintf(szDiag, "InitPYParams(%ld): Bind Col failed\n", m_lRefId);
        CheckDBError(szDiag);
        return(TRUE);
    }

```

```

    };
    return(FALSE);
}; // InitPYParams

HRESULT CTPCC_Common::Payment(int * iSize, UCHAR ** pTData)
{
    PAYMENT_DATA * ppd;
    RETCODE rc;
    char szDiag[300];

    wchar_t szSqlTemplate[] = L"{call tpcc_payment(?,?,?,?,,?)}";
    // If supplied, insert stored procedure number into name
    if (ispNumber)
        wcsncpy(&szSqlTemplate[8], wszSPNumber, 2);

    ppd = (PAYMENT_DATA *) *pTData;
    try
    {
        m_hstmt = m_hstmtPayment;
        m_bTPRslt = TRUE;
        m_iTPRslt = SVCERR_DEADLOCK;
        if (ppd->c_id != 0)
            ppd->c_last[0] = 0;
        memcpy(&m_TData.PYData, ppd, sizeof(PAYMENT_DATA));
        for (m_iTryCount = 1; m_iTryCount <= m_iMaxRetry; m_iTryCount++)
        {
            rc = SQLExecDirectW(m_hstmt, (SQLWCHAR *) szSqlTemplate, SQL_NTS);

            if (m_iTryCount > 1 && (rc == SQL_SUCCESS || rc ==
                SQL_SUCCESS_WITH_INFO))
            {
                wsprintf(szDiag, "Payment(%ld): Execute Direct Attempt %ld
SUCCESS \n", m_lRefId, m_iTryCount);
                WriteEventLog(szDiag, FALSE);
            }

            if (rc != SQL_SUCCESS && rc != SQL_SUCCESS_WITH_INFO)
            {
                wsprintf(szDiag, "Payment(%ld): Execute Direct\n", m_lRefId);
                if (CheckDBError(szDiag))
                {
                    m_iTPRslt = SVCERR_ODBC;
                    break;
                }
            };
            continue;
        };
        if (SQLFetch(m_hstmt) == SQL_ERROR)
        {
            wsprintf(szDiag, "Payment(%ld): Fetch\n", m_lRefId);
            if (CheckDBError(szDiag))
            {
                m_iTPRslt = SVCERR_ODBC;
                break;
            }
        };
        continue;
    };
    SQLFreeStmt(m_hstmt, SQL_CLOSE);
    if (m_TData.PYData.c_id == 0)
        m_iTPRslt = SVCERR_NOCUSTOMER;
    else

```

```

    {
        m_bTPRslt = FALSE;
        m_iTPRslt = SVC_NOERROR;
    }
    break;
}; // for m_iMaxRetry
memcpy(ppd, &m_TData.PYData, sizeof(PAYMENT_DATA));
ppd->bTPRslt = m_bTPRslt;
ppd->iTPRslt = m_iTPRslt;
if (!m_bTPRslt)
{
    strcpy(ppd->execution_status, "Transaction committed.");
    return(S_OK);
};
if (m_iTPRslt == SVCERR_NOCUSTOMER)
{
    strcpy(ppd->execution_status, "Invalid Customer id,name.");
    return(S_OK);
};
if (m_iTPRslt == SVCERR_DEADLOCK)
    sprintf(ppd->execution_status, "Hit retry max(%d).", m_iMaxRetry);
else
    strcpy(ppd->execution_status, "DBTranAbort, Check Input Data");
return(S_OK);
}
catch (...)
{
    sprintf(szDiag, "Payment(%ld): Unhandled exception\n", m_lRefId);
    WriteEventLog(szDiag, TRUE);
    m_bCanBePooled = FALSE;
    ppd->bTPRslt = TRUE;
    ppd->iTPRslt = SVCERR_EXCEPTION;
    strcpy(ppd->execution_status, "Error, Unhandled exception");
    return(S_OK);
};
}; // Payment

bool CTPCC_Common::InitDLParams(void)
{
    int i;
    char szDiag[300];
    if (SQLAllocHandle(SQL_HANDLE_STMT, m_hdbc, &m_hstmtDelivery) !=
SQL_SUCCESS)
    {
        sprintf(szDiag, "InitDLParams(%ld): Allocate Stmt Handle
failed\n", m_lRefId);
        CheckDBError(szDiag);
        return(TRUE);
    };
    m_hstmt = m_hstmtDelivery;
    i = 0;
#ifdef LONG_WID
    if
(SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SLONG, SQL_INTEGER,
#else
    if
(SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SSHORT, SQL_SMALLINT,
#endif
        0, 0, &m_TData.DLData.w_id, 0, NULL) != SQL_SUCCESS
    ||
SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SSHORT, SQL_SMALLINT,

```

```

        0, 0, &m_TData.DLData.o_carrier_id, 0, NULL) != SQL_SUCCESS
    )
    {
        sprintf(szDiag, "InitDLParams(%ld): Bind Param
failed\n", m_lRefId);
        CheckDBError(szDiag);
        return(TRUE);
    };
    for (i = 0; i < 10; i++)
    {
        if
(SQLBindCol(m_hstmt, (UWORD)(i+1), SQL_C_SLONG, &m_TData.DLData.o_id[i],
0, NULL) != SQL_SUCCESS)
        {
            sprintf(szDiag, "InitPYParams(%ld): Bind Col (%d)
failed\n", m_lRefId, (i+1));
            CheckDBError(szDiag);
            return(TRUE);
        };
    };
    return(FALSE);
}; // InitDLParams

HRESULT CTPCC_Common::Delivery(int * iSize, UCHAR ** pTData)
{
    DELIVERY_DATA * pdd;
    RETCODE rc;
    char szDiag[300];

    wchar_t szSqlTemplate[] = L"call tpcc_delivery(?,?)";

    // If supplied, insert stored procedure number into name
    if (iSPNumber)
        wcsncpy(&szSqlTemplate[8], wszSPNumber, 2);

    pdd = (DELIVERY_DATA *) *pTData;
    try
    {
        m_hstmt = m_hstmtDelivery;
        m_bTPRslt = TRUE;
        m_iTPRslt = SVCERR_DEADLOCK;
        memcpy(&m_TData.DLData, pdd, sizeof(DELIVERY_DATA));
        for (m_iTryCount = 1; m_iTryCount <= m_iMaxRetry; m_iTryCount++)
        {
            rc = SQLExecDirectW(m_hstmt, (SQLWCHAR *)
szSqlTemplate, SQL_NTS);

            if (m_iTryCount > 1 && (rc == SQL_SUCCESS || rc ==
SQL_SUCCESS_WITH_INFO))
            {
                sprintf(szDiag, "Delivery(%ld): Execute Direct Attempt %ld
SUCCESS \n", m_lRefId, m_iTryCount);
                WriteEventLog(szDiag, FALSE);
            }

            if (rc != SQL_SUCCESS && rc != SQL_SUCCESS_WITH_INFO)
            {
                sprintf(szDiag, "Delivery(%ld): Execute Direct\n", m_lRefId);
                if (CheckDBError(szDiag))
                {

```

```

        m_iTPRslt = SVCERR_ODBC;
        break;
    };
    continue;
};
if ( SQLFetch(m_hstmt) == SQL_ERROR )
{
    wsprintf(szDiag, "Delivery(%ld): Fetch\n", m_lRefId);
    if (CheckDBError(szDiag))
    {
        m_iTPRslt = SVCERR_ODBC;
        break;
    };
    continue;
};
SQLFreeStmt(m_hstmt, SQL_CLOSE);
m_bTPRslt = FALSE;
m_iTPRslt = SVC_NOERROR;
break;
}; // for m_iMaxRetry
memcpy(pdd, &m_TData.DLData, sizeof(DELIVERY_DATA));
pdd->bTPRslt = m_bTPRslt;
pdd->iTPRslt = m_iTPRslt;
return(S_OK);
}
catch (...)
{
    wsprintf(szDiag, "Delivery(%ld): Unhandled exception\n", m_lRefId);
    WriteEventLog(szDiag, TRUE);
    m_bCanBePooled = FALSE;
    pdd->bTPRslt = TRUE;
    pdd->iTPRslt = SVCERR_EXCEPTION;
    return(S_OK);
};
}; // Delivery

bool CTPCC_Common::InitOSParams(void)
{
    char szDiag[300];
    int i;
    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
    )
    {
        wsprintf(szDiag, "InitOSParams(%ld): Allocate Stmt Handles
failed\n", m_lRefId);
        CheckDBError(szDiag);
        return(TRUE);
    };

    m_hstmt = m_hstmtOrderStatus;

    if (SQLSetStmtAttrW(m_hstmt, SQL_ATTR_APP_ROW_DESC,
        m_descOrderStatusCols1, SQL_IS_POINTER) != SQL_SUCCESS)
    {
        wsprintf(szDiag, "InitOSParams(%ld): SetStmtAttr OSCols1
failed\n", m_lRefId);

```

```

        CheckDBError(szDiag);
        return(TRUE);
    };

    i = 0;
#ifdef LONG_WID
    if
    (SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SLONG, SQL_INTEGER,
#else
    if
    (SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SSHORT, SQL_SMALLINT,
#endif
        0, 0, &m_TData.OSData.w_id, 0, NULL) != SQL_SUCCESS
        ||
    SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_UTINYINT, SQL_TINYINT,
        0, 0, &m_TData.OSData.d_id, 0, NULL) != SQL_SUCCESS
        ||
    SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SLONG, SQL_INTEGER,
        0, 0, &m_TData.OSData.c_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_CHAR, SQL_CHAR,
        sizeof(m_TData.OSData.c_last), 0, &m_TData.OSData.c_last,
        sizeof(m_TData.OSData.c_last), NULL) != SQL_SUCCESS
    )
    {
        wsprintf(szDiag, "InitOSParams(%ld): Bind Param failed\n", m_lRefId);
        CheckDBError(szDiag);
        return(TRUE);
    };

    // configure block cursor
    if (SQLSetStmtAttrW(m_hstmt, SQL_ATTR_ROW_BIND_TYPE,
        (SQLPOINTER) sizeof(m_TData.OSData.OLOrderStatusData[0]), 0) !=
SQL_SUCCESS
        || SQLSetStmtAttrW(m_hstmt, SQL_ATTR_ROWS_FETCHED_PTR,
        &m_RowsFetched, 0) != SQL_SUCCESS
    )
    {
        wsprintf(szDiag, "InitOSParams(%ld): SetStmtAttr RowsFetched
failed\n", m_lRefId);
        CheckDBError(szDiag);
        return(TRUE);
    };

    i = 0;
#ifdef LONG_WID
    if (SQLBindCol(m_hstmt, ++i, SQL_C_SLONG,
#else
    if (SQLBindCol(m_hstmt, ++i, SQL_C_SSHORT,
#endif
        &m_TData.OSData.OLOrderStatusData[0].ol_supply_w_id, 0, NULL)
!= SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_SLONG,
        &m_TData.OSData.OLOrderStatusData[0].ol_i_id, 0, NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_SSHORT,
        &m_TData.OSData.OLOrderStatusData[0].ol_quantity, 0, NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE,
        &m_TData.OSData.OLOrderStatusData[0].ol_amount, 0, NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_TYPE_TIMESTAMP,

```

```

        &m_TData.OSData.OlOrderStatusData[0].ol_delivery_d, 0, NULL)
!= SQL_SUCCESS
    }
    {
        wsprintf(szDiag,"InitOSParams(%ld): Bind Col Ol
failed\n",m_lRefId);
        CheckDBError(szDiag);
        return(TRUE);
    };

    if (SQLSetStmtAttrW(m_hstmt,SQL_ATTR_APP_ROW_DESC,
m_descOrderStatusCols2,SQL_IS_POINTER) != SQL_SUCCESS)
    {
        wsprintf(szDiag,"InitOSParams(%ld): SetStmtAttr OSCols2
failed\n",m_lRefId);
        CheckDBError(szDiag);
        return(TRUE);
    };

    i = 0;
    if (SQLBindCol(m_hstmt,++i,SQL_C_SLONG,&m_TData.OSData.c_id,
0,NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt,++i,SQL_C_CHAR,&m_TData.OSData.c_last,
sizeof(m_TData.OSData.c_last),NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt,++i,SQL_C_CHAR,&m_TData.OSData.c_first,
sizeof(m_TData.OSData.c_first),NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt,++i,SQL_C_CHAR,&m_TData.OSData.c_middle,
sizeof(m_TData.OSData.c_middle), NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt,++i,SQL_C_TYPE_TIMESTAMP,&m_TData.OSData.o_entry_d,
0,NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt,++i,SQL_C_SSHORT,&m_TData.OSData.o_carrier_id,
0,NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt,++i,SQL_C_DOUBLE,&m_TData.OSData.c_balance,
0,NULL) != SQL_SUCCESS
    || SQLBindCol(m_hstmt,++i,SQL_C_SLONG,&m_TData.OSData.o_id,
0,NULL) != SQL_SUCCESS
    )
    {
        wsprintf(szDiag,"InitOSParams(%ld): Bind Col failed\n",m_lRefId);
        CheckDBError(szDiag);
        return(TRUE);
    };
    return(FALSE);
}; // InitOSParams

HRESULT CTPCC_Common::OrderStatus(int * iSize,UCHAR ** pTData)
{
    ORDER_STATUS_DATA * posd;
    RETCODE rc;
    char szDiag[300];

    wchar_t szSqlTemplate[] = L"{call tpcc_orderstatus(?,?,?,?)}";

    // If supplied, insert stored procedure number into name
    if (iSPNumber)
        wcsncpy(&szSqlTemplate[8],wszSPNumber,2);

    posd = (ORDER_STATUS_DATA *) *pTData;
    try

```

```

    {
        m_hstmt = m_hstmtOrderStatus;
        m_bTPRslt = TRUE;
        m_iTPRslt = SVCERR_DEADLOCK;
        if (SQLSetStmtAttrW(m_hstmt,SQL_ATTR_APP_ROW_DESC,
m_descOrderStatusCols1,SQL_IS_POINTER) != SQL_SUCCESS)
        {
            wsprintf(szDiag,"OrderStatus(%ld): SetStmtAttr
OSCols1\n",m_lRefId);
            CheckDBError(szDiag);
            posd->bTPRslt = TRUE;
            posd->iTPRslt = SVCERR_ODBC;
            strcpy(posd->execution_status,"Error, SetStmt OSCols1");
            return(S_OK);
        };
        if (posd->c_id != 0)
            posd->c_last[0] = 0;
        memcpy(&m_TData.OSData,posd,sizeof(ORDER_STATUS_DATA));
        for (m_iTryCount = 1; m_iTryCount <= m_iMaxRetry; m_iTryCount++)
        {
            // configure block cursor
            if
(SQLSetStmtAttrW(m_hstmt,SQL_ATTR_ROW_ARRAY_SIZE,(SQLPOINTER)1,0) !=
SQL_SUCCESS)
            {
                wsprintf(szDiag,"OrderStatus(%ld): SetStmtAttr
RowArraySize\n",m_lRefId);
                if (CheckDBError(szDiag))
                {
                    m_iTPRslt = SVCERR_ODBC;
                    break;
                };
                continue;
            };
            rc = SQLExecDirectW(m_hstmt,(SQLWCHAR*) szSqlTemplate,SQL_NTS);

            if (m_iTryCount > 1 && (rc == SQL_SUCCESS || rc ==
SQL_SUCCESS_WITH_INFO))
            {
                wsprintf(szDiag,"OrderStatus(%ld): Execute Direct Attempt %ld
SUCCESS \n",m_lRefId, m_iTryCount);
                WriteEventLog(szDiag, FALSE);
            }

            if ( ((rc == SQL_SUCCESS_WITH_INFO) && (m_RowsFetched != 0)) ||
(rc == SQL_ERROR) )
            {
                wsprintf(szDiag,"OrderStatus(%ld): Execute
Direct\n",m_lRefId);
                if (CheckDBError(szDiag))
                {
                    m_iTPRslt = SVCERR_ODBC;
                    break;
                };
                continue;
            };
            // configure block cursor
            if (SQLSetStmtAttrW(m_hstmt,SQL_ATTR_ROW_ARRAY_SIZE,
(SQLPOINTER)MAX_OL, 0) != SQL_SUCCESS)
            {

```

```

        wsprintf(szDiag,"OrderStatus(%ld): SetStmtAttr RowArraySize
MAX_OL\n",m_lRefId);
        if (CheckDBError(szDiag))
        {
            m_iTPRslt = SVCERR_ODBC;
            break;
        };
        continue;
    };
    rc = SQLFetchScroll(m_hstmt,SQL_FETCH_NEXT,0);
    if ( ((rc == SQL_SUCCESS_WITH_INFO) && (m_RowsFetched != 0)) ||
(rc == SQL_ERROR) )
    {
        wsprintf(szDiag,"OrderStatus(%ld): FetchScroll\n",m_lRefId);
        if (CheckDBError(szDiag))
        {
            m_iTPRslt = SVCERR_ODBC;
            break;
        };
        continue;
    };
    m_TData.OSData.o_ol_cnt = (short)m_RowsFetched;

    if (m_TData.OSData.o_ol_cnt != 0)
    {
        if
(SQLSetStmtAttrW(m_hstmt,SQL_ATTR_APP_ROW_DESC,m_descOrderStatusCols2,
SQL_IS_POINTER) != SQL_SUCCESS)
        {
            wsprintf(szDiag,"OrderStatus(%ld): SetStmtAttr
OSCols2\n",m_lRefId);
            if (CheckDBError(szDiag))
            {
                m_iTPRslt = SVCERR_ODBC;
                break;
            };
            continue;
        };
        if (SQLMoreResults(m_hstmt) == SQL_ERROR)
        {
            wsprintf(szDiag,"OrderStatus(%ld):
MoreResults\n",m_lRefId);
            if (CheckDBError(szDiag))
            {
                m_iTPRslt = SVCERR_ODBC;
                break;
            };
            continue;
        };
        if (SQLFetch(m_hstmt) == SQL_ERROR)
        {
            wsprintf(szDiag,"OrderStatus(%ld): Fetch\n",m_lRefId);
            CheckDBError(szDiag);
            if (SQLSetStmtAttrW(m_hstmt,SQL_ATTR_APP_ROW_DESC,
m_descOrderStatusCols1,SQL_IS_POINTER) != SQL_SUCCESS)
            {
                wsprintf(szDiag,"OrderStatus(%ld): SetStmtAttr (Fetch)
OSCols1\n",m_lRefId);
                CheckDBError(szDiag);
                posd->bTPRslt = TRUE;
                posd->iTPRslt = SVCERR_ODBC;
            }
        }
    }
}

```

```

        strcpy(posd->execution_status,"Error, SetStmt Cols1
Fetch");
        return(S_OK);
    };
    memcpy(&m_TData.OSData,posd,sizeof(ORDER_STATUS_DATA));
    Sleep(20);
    continue;
};
}; // order lines exist
SQLFreeStmt(m_hstmt,SQL_CLOSE);
if (m_TData.OSData.o_ol_cnt == 0)
    m_iTPRslt = SVCERR_NOORDERS;
else
    if (m_TData.OSData.c_id == 0 && m_TData.OSData.c_last[0] == 0)
        m_iTPRslt = SVCERR_NOCUSTOMER;
    else
    {
        m_bTPRslt = FALSE;
        m_iTPRslt = SVC_NOERROR;
    };
    break;
}; // for m_iMaxRetry
memcpy(posd,&m_TData.OSData,sizeof(ORDER_STATUS_DATA));
posd->bTPRslt = m_bTPRslt;
posd->iTPRslt = m_iTPRslt;
if (!m_bTPRslt)
{
    strcpy(posd->execution_status,"Transaction committed.");
    return(S_OK);
};
if (m_iTPRslt == SVCERR_NOCUSTOMER)
{
    strcpy(posd->execution_status,"Invalid Customer id,name.");
    return(S_OK);
};
if (m_iTPRslt == SVCERR_NOORDERS)
{
    strcpy(posd->execution_status,"Customer has no orders.");
    return(S_OK);
};
if (m_iTPRslt == SVCERR_DEADLOCK)
    wsprintf(posd->execution_status,"Hit retry
max(%d).",m_iMaxRetry);
else
    strcpy(posd->execution_status,"DBTranAbort, Check Input Data");
return(S_OK);
}
catch (...)
{
    wsprintf(szDiag,"OrderStatus(%ld): Unhandled exception\n",m_lRefId);
    WriteEventLog(szDiag,TRUE);
    m_bCanBePooled = FALSE;
    posd->bTPRslt = TRUE;
    posd->iTPRslt = SVCERR_EXCEPTION;
    strcpy(posd->execution_status,"Error, Unhandled exception");
    return(S_OK);
};
}; // Orderstatus
bool CTPCC_Common::InitSLParams(void)
{

```

```

char szDiag[300];
int i = 0;
if (SQLAllocHandle(SQL_HANDLE_STMT,m_hdbc,&m_hstmtStockLevel) !=
SQL_SUCCESS )
{
    wsprintf(szDiag,"InitSLParams(%ld): Allocate Stmt Handle
failed\n",m_lRefId);
    CheckDBError(szDiag);
    return(TRUE);
};
m_hstmt = m_hstmtStockLevel;
#ifdef LONG_WID
if
(SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_SLONG,SQL_INTEGER,
#else
if
(SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_SSHORT,SQL_SMALLINT,
#endif
    0,0,&m_TData.SLData.w_id, 0, NULL) != SQL_SUCCESS
    ||
SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_UTINYINT,SQL_TINYINT,
    0,0,&m_TData.SLData.d_id, 0, NULL) != SQL_SUCCESS
    ||
SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_SSHORT,SQL_SMALLINT,
    0,0,&m_TData.SLData.thresh_hold, 0, NULL) != SQL_SUCCESS
    )
{
    wsprintf(szDiag,"InitSLParams(%ld): Bind Param failed\n",m_lRefId);
    CheckDBError(szDiag);
    return(TRUE);
};
if (SQLBindCol(m_hstmt,1,SQL_C_SLONG,
&m_TData.SLData.low_stock,0,NULL) != SQL_SUCCESS)
{
    wsprintf(szDiag,"InitSLParams(%ld): Bind Column failed\n",m_lRefId);
    CheckDBError(szDiag);
    return(TRUE);
};
return(FALSE);
}; // InitSLParams

HRESULT CTPCC_Common::StockLevel(int * iSize,UCHAR ** pTData)
{
    STOCK_LEVEL_DATA * psld;
    RETCODE rc;
    char szDiag[300];

    wchar_t szSqlTemplate[] = L"{call tpcc_stocklevel(?,?,?)}";

    // If supplied, insert stored procedure number into name
    if (iSPNumber)
        wcsncpy(&szSqlTemplate[8],wszSPNumber,2);

    psld = (STOCK_LEVEL_DATA *) *pTData;
    try
    {
        m_hstmt = m_hstmtStockLevel;
        m_bTPRslt = TRUE;
        m_iTPRslt = SVCERR_DEADLOCK;
        memcpy(&m_TData.SLData,psld,sizeof(STOCK_LEVEL_DATA));
        for (m_iTryCount = 1; m_iTryCount <= m_iMaxRetry; m_iTryCount++)

```

```

{
        rc = SQLExecDirectW(m_hstmt,(SQLWCHAR*)
szSqlTemplate,SQL_NTS);

        if (m_iTryCount > 1 && (rc == SQL_SUCCESS || rc ==
SQL_SUCCESS_WITH_INFO))
        {
            wsprintf(szDiag,"StockLevel(%ld): Execute Direct Attempt %ld
SUCCESS \n",m_lRefId, m_iTryCount);
            WriteEventLog(szDiag, FALSE);
        }

        if (rc != SQL_SUCCESS && rc != SQL_SUCCESS_WITH_INFO)
        {
            wsprintf(szDiag,"StockLevel(%ld): Execute Direct\n",m_lRefId);
            if (CheckDBError(szDiag))
            {
                m_iTPRslt = SVCERR_ODBC;
                break;
            };
            continue;
        };
        if (SQLFetch(m_hstmt) == SQL_ERROR)
        {
            wsprintf(szDiag,"StockLevel(%ld): Fetch\n",m_lRefId);
            if (CheckDBError(szDiag))
            {
                m_iTPRslt = SVCERR_ODBC;
                break;
            };
            continue;
        };
        SQLFreeStmt(m_hstmt,SQL_CLOSE);
        m_bTPRslt = FALSE;
        m_iTPRslt = SVC_NOERROR;
        break;
    }; // for m_iMaxRetry
    memcpy(psld,&m_TData.SLData,sizeof(STOCK_LEVEL_DATA));
    psld->bTPRslt = m_bTPRslt;
    psld->iTPRslt = m_iTPRslt;
    if (!m_bTPRslt)
    {
        strcpy(psld->execution_status,"Transaction committed.");
        return(S_OK);
    };
    if (m_iTPRslt == SVCERR_DEADLOCK)
        wsprintf(psld->execution_status,"Hit retry
max(%d).",m_iMaxRetry);
    else
        strcpy(psld->execution_status,"DBTranAbort, Check Input Data");
    return(S_OK);
}
catch (...)
{
    wsprintf(szDiag,"StockLevel(%ld): Unhandled exception\n",m_lRefId);
    WriteEventLog(szDiag,TRUE);
    m_bCanBePooled = FALSE;
    psld->bTPRslt = TRUE;
    psld->iTPRslt = SVCERR_EXCEPTION;
    strcpy(psld->execution_status,"Error, Unhandled exception");
    return(S_OK);
}

```

```

};
}; // Stocklevel

//=====
//
// Function name: ReadRegistry
//
// Sets global operational parameters from registry if they exist.
// Otherwise, compiled in defaults apply.
//
// Result:
// FALSE Registry entry found
// TRUE Registry entry does not exist
//
//=====
bool ReadRegistry(VOID)
{
    HKEY hkTPCC;
    DWORD dwMax;
    DWORD dwRT;
    CHAR * pszEnvData;
    char szValue[100];
    if (RegOpenKeyEx(HKEY_LOCAL_MACHINE,"SOFTWARE\\Unisys\\TPCC",0,
        KEY_READ, &hkTPCC) != ERROR_SUCCESS )
        return(TRUE);
    dwMax = sizeof(szValue);
    if (RegQueryValueEx(hkTPCC,"SERVERNAME",0,&dwRT,(BYTE *)
&szValue,&dwMax)
    == ERROR_SUCCESS)
        strcpy(szServer,szValue);
    dwMax = sizeof(szValue);
    if (RegQueryValueEx(hkTPCC,"DATABASE",0,&dwRT,(BYTE *) &szValue,&dwMax)
    == ERROR_SUCCESS)
        strcpy(szDatabase,szValue);
    dwMax = sizeof(szValue);
    if (RegQueryValueEx(hkTPCC,"USER",0,&dwRT,(BYTE *) &szValue,&dwMax)
    == ERROR_SUCCESS)
        strcpy(szUser,szValue);
    dwMax = sizeof(szValue);
    if (RegQueryValueEx(hkTPCC,"PASSWORD",0,&dwRT,(BYTE *) &szValue,&dwMax)
    == ERROR_SUCCESS)
        strcpy(szPassword,szValue);
    dwMax = sizeof(szValue);
    if (RegQueryValueEx(hkTPCC,"MAXRETRY",0,&dwRT,(BYTE *) &szValue,&dwMax)
    == ERROR_SUCCESS )
        iDeadlockRetry = abs(atoi(szValue));
    RegCloseKey(hkTPCC);
    if ((pszEnvData = getenv("WEBINSTANCE")) != NULL)
        strcpy(szServer,pszEnvData);
    if ((pszEnvData = getenv("WEBDATABASE")) != NULL)
        strcpy(szDatabase,pszEnvData);
    if ((pszEnvData = getenv("WEBDRIVERNO")) != NULL)
        iInstance = abs(atoi(pszEnvData));
    if ((pszEnvData = getenv("WEBSNUMBER")) != NULL)
    {
        iSPNumber = abs(atoi(pszEnvData));
        sprintf(wszSPNumber,L"%2.2d",iSPNumber);
    }
};

return(FALSE);
}; // ReadRegistry

```

```

//=====
//
// Function name: WriteEventLog
//
//=====
void WriteEventLog(char * pMsg,bool bError)
{
    WORD wType;
    char szHeader[100];
    char * pDMsgs[2];
    HANDLE hEventLog = NULL;
    if (bError)
        wType = EVENTLOG_ERROR_TYPE;
    else
        wType = EVENTLOG_INFORMATION_TYPE;
    hEventLog = RegisterEventSource(NULL,pProgId);
    sprintf(szHeader,"%s (%d)\n",pProgId,GetCurrentThreadId());
    pDMsgs[0] = szHeader;
    pDMsgs[1] = pMsg;
    if (hEventLog != NULL)
    {
        ReportEvent(hEventLog, // event log handle
            wType, // event type
            0, // category zero
            0, // no event identifier
            NULL, // no user security identifier
            2, // # of substitution strings
            0, // no binary data
            (LPCTSTR *) pDMsgs, // address of string array
            NULL); // address of binary data
        DeregisterEventSource(hEventLog);
    }
};

char szTimeStr[64];
TimeStamp(szTimeStr);

//if (bError &&(fp != NULL))
if ((fp != NULL))
{
    fprintf(fp, "%s (%d) %s\n", szTimeStr, GetCurrentThreadId(),
pMsg);
    fflush(fp);
}
return;
}; // WriteEventLog

//=====
//
// Function name: TimebToString
// Converts timeb to yyyy:mm:dd,hh:mm:ss.sss format
//
//=====
CHAR * TimeStamp(char *timeStr)
{
    struct _timeb tb;
    struct tm *ptm;

    _ftime(& tb);
    ptm = localtime(&tb.time);

```

```
wsprintf(timeStr, "%4.4d/%2.2d/%2.2d,%2.2d:%2.2d:%2.2d.%3.3d",
    ptm->tm_year + 1900, ptm->tm_mon + 1, ptm->tm_mday,
    ptm->tm_hour, ptm->tm_min, ptm->tm_sec, tb.millitm);
return(timeStr);
}; // TimebToString
```


Appendix B - Database Design

Build Scripts

BACKUP.SQL

```
declare @startdate datetime
declare @enddate datetime
select @startdate = getdate()
select 'Start date:', convert (varchar(30),@startdate,9)
backup database tpcc to
    DISK = 'C:\Bigdb\dbbackups\BackupA1\backupA1.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupB1\backupB1.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupC1\backupC1.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupD1\backupD1.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupA2\backupA2.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupB2\backupB2.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupC2\backupC2.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupD2\backupD2.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupA3\backupA3.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupB3\backupB3.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupC3\backupC3.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupD3\backupD3.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupA4\backupA4.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupB4\backupB4.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupC4\backupC4.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupD4\backupD4.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupA5\backupA5.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupB5\backupB5.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupC5\backupC5.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupD5\backupD5.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupA6\backupA6.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupB6\backupB6.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupC6\backupC6.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupD6\backupD6.dmp'
with format, stats = 1
select @enddate = getdate()
select 'End date:', convert (varchar(30),@enddate,9)
select 'Elapsed time (in seconds):', datediff(second, @startdate,
@enddate)
go
restore verifyonly from
    DISK = 'C:\Bigdb\dbbackups\BackupA1\backupA1.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupB1\backupB1.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupC1\backupC1.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupD1\backupD1.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupA2\backupA2.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupB2\backupB2.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupC2\backupC2.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupD2\backupD2.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupA3\backupA3.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupB3\backupB3.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupC3\backupC3.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupD3\backupD3.dmp',
    DISK = 'C:\Bigdb\dbbackups\BackupA4\backupA4.dmp',
```

```
DISK = 'C:\Bigdb\dbbackups\BackupB4\backupB4.dmp',
DISK = 'C:\Bigdb\dbbackups\BackupC4\backupC4.dmp',
DISK = 'C:\Bigdb\dbbackups\BackupD4\backupD4.dmp',
DISK = 'C:\Bigdb\dbbackups\BackupA5\backupA5.dmp',
DISK = 'C:\Bigdb\dbbackups\BackupB5\backupB5.dmp',
DISK = 'C:\Bigdb\dbbackups\BackupC5\backupC5.dmp',
DISK = 'C:\Bigdb\dbbackups\BackupD5\backupD5.dmp',
DISK = 'C:\Bigdb\dbbackups\BackupA6\backupA6.dmp',
DISK = 'C:\Bigdb\dbbackups\BackupB6\backupB6.dmp',
DISK = 'C:\Bigdb\dbbackups\BackupC6\backupC6.dmp',
DISK = 'C:\Bigdb\dbbackups\BackupD6\backupD6.dmp'
```

Go

CREATEDB.SQL

```
SET ANSI_NULL_DFLT_OFF ON
go
use master
go
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)
)
insert into tpcc_timer values (0,0)
go
update tpcc_timer
set start_date = (select convert(char(30), getdate(),9))
go
CREATE DATABASE tpcc
ON PRIMARY
(
    NAME = MSSQL_tpcc_root,
    FILENAME = "C:\Bigdb\dbRoots\tpcc_root.mdf",
    SIZE = 10MB, FILEGROWTH = 0),
FILEGROUP MSSQL_misc_fg
(
    NAME = MSSQL_miscA1,
    FILENAME = "C:\Bigdb\cabA\misc1",
    SIZE = 9500MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscB1,
    FILENAME = "C:\Bigdb\cabB\misc1",
    SIZE = 9500MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscC1,
    FILENAME = "C:\Bigdb\cabC\misc1",
    SIZE = 9500MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscD1,
    FILENAME = "C:\Bigdb\cabD\misc1",
    SIZE = 9500MB, FILEGROWTH = 0),
```



```

    SIZE      = 9500MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscB12,
  FILENAME = "C:\Bigdb\cabB\misc12\",
  SIZE      = 9500MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscC12,
  FILENAME = "C:\Bigdb\cabC\misc12\",
  SIZE      = 9500MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscD12,
  FILENAME = "C:\Bigdb\cabD\misc12\",
  SIZE      = 9500MB,  FILEGROWTH = 0),
FILEGROUP  MSSQL_cs_fg
(  NAME = MSSQL_csC1,
  FILENAME = "C:\Bigdb\cabC\cs1\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csD1,
  FILENAME = "C:\Bigdb\cabD\cs1\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csA1,
  FILENAME = "C:\Bigdb\cabA\cs1\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csB1,
  FILENAME = "C:\Bigdb\cabB\cs1\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csC2,
  FILENAME = "C:\Bigdb\cabC\cs2\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csD2,
  FILENAME = "C:\Bigdb\cabD\cs2\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csA2,
  FILENAME = "C:\Bigdb\cabA\cs2\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csB2,
  FILENAME = "C:\Bigdb\cabB\cs2\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csC3,
  FILENAME = "C:\Bigdb\cabC\cs3\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csD3,
  FILENAME = "C:\Bigdb\cabD\cs3\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csA3,
  FILENAME = "C:\Bigdb\cabA\cs3\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csB3,
  FILENAME = "C:\Bigdb\cabB\cs3\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csC4,
  FILENAME = "C:\Bigdb\cabC\cs4\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csD4,
  FILENAME = "C:\Bigdb\cabD\cs4\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csA4,
  FILENAME = "C:\Bigdb\cabA\cs4\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csB4,
  FILENAME = "C:\Bigdb\cabB\cs4\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csC5,
  FILENAME = "C:\Bigdb\cabC\cs5\",

```

```

    SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csD5,
  FILENAME = "C:\Bigdb\cabD\cs5\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csA5,
  FILENAME = "C:\Bigdb\cabA\cs5\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csB5,
  FILENAME = "C:\Bigdb\cabB\cs5\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csC6,
  FILENAME = "C:\Bigdb\cabC\cs6\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csD6,
  FILENAME = "C:\Bigdb\cabD\cs6\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csA6,
  FILENAME = "C:\Bigdb\cabA\cs6\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csB6,
  FILENAME = "C:\Bigdb\cabB\cs6\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csC7,
  FILENAME = "C:\Bigdb\cabC\cs7\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csD7,
  FILENAME = "C:\Bigdb\cabD\cs7\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csA7,
  FILENAME = "C:\Bigdb\cabA\cs7\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csB7,
  FILENAME = "C:\Bigdb\cabB\cs7\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csC8,
  FILENAME = "C:\Bigdb\cabC\cs8\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csD8,
  FILENAME = "C:\Bigdb\cabD\cs8\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csA8,
  FILENAME = "C:\Bigdb\cabA\cs8\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csB8,
  FILENAME = "C:\Bigdb\cabB\cs8\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csC9,
  FILENAME = "C:\Bigdb\cabC\cs9\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csD9,
  FILENAME = "C:\Bigdb\cabD\cs9\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csA9,
  FILENAME = "C:\Bigdb\cabA\cs9\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csB9,
  FILENAME = "C:\Bigdb\cabB\cs9\",
  SIZE      = 18000MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csC10,
  FILENAME = "C:\Bigdb\cabC\cs10\",
  SIZE      = 18000MB,  FILEGROWTH = 0),

```

```

( NAME = MSSQL_csD10,
  FILENAME = "C:\Bigdb\cabD\cs10\",
  SIZE     = 18000MB, FILEGROWTH = 0),
( NAME = MSSQL_csA10,
  FILENAME = "C:\Bigdb\cabA\cs10\",
  SIZE     = 18000MB, FILEGROWTH = 0),
( NAME = MSSQL_csB10,
  FILENAME = "C:\Bigdb\cabB\cs10\",
  SIZE     = 18000MB, FILEGROWTH = 0),
( NAME = MSSQL_csC11,
  FILENAME = "C:\Bigdb\cabC\cs11\",
  SIZE     = 18000MB, FILEGROWTH = 0),
( NAME = MSSQL_csD11,
  FILENAME = "C:\Bigdb\cabD\cs11\",
  SIZE     = 18000MB, FILEGROWTH = 0),
( NAME = MSSQL_csA11,
  FILENAME = "C:\Bigdb\cabA\cs11\",
  SIZE     = 18000MB, FILEGROWTH = 0),
( NAME = MSSQL_csB11,
  FILENAME = "C:\Bigdb\cabB\cs11\",
  SIZE     = 18000MB, FILEGROWTH = 0),
( NAME = MSSQL_csC12,
  FILENAME = "C:\Bigdb\cabC\cs12\",
  SIZE     = 18000MB, FILEGROWTH = 0),
( NAME = MSSQL_csD12,
  FILENAME = "C:\Bigdb\cabD\cs12\",
  SIZE     = 18000MB, FILEGROWTH = 0),
( NAME = MSSQL_csA12,
  FILENAME = "C:\Bigdb\cabA\cs12\",
  SIZE     = 18000MB, FILEGROWTH = 0),
( NAME = MSSQL_csB12,
  FILENAME = "C:\Bigdb\cabB\cs12\",
  SIZE     = 18000MB, FILEGROWTH = 0),
FILEGROUP MSSQL_ord_fg
( NAME = MSSQL_ordD1,
  FILENAME = "C:\Bigdb\cabD\ord1\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordA1,
  FILENAME = "C:\Bigdb\cabA\ord1\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordB1,
  FILENAME = "C:\Bigdb\cabB\ord1\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordC1,
  FILENAME = "C:\Bigdb\cabC\ord1\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordD2,
  FILENAME = "C:\Bigdb\cabD\ord2\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordA2,
  FILENAME = "C:\Bigdb\cabA\ord2\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordB2,
  FILENAME = "C:\Bigdb\cabB\ord2\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordC2,
  FILENAME = "C:\Bigdb\cabC\ord2\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordD3,
  FILENAME = "C:\Bigdb\cabD\ord3\",
  SIZE     = 12500MB, FILEGROWTH = 0),

```

```

( NAME = MSSQL_ordA3,
  FILENAME = "C:\Bigdb\cabA\ord3\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordB3,
  FILENAME = "C:\Bigdb\cabB\ord3\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordC3,
  FILENAME = "C:\Bigdb\cabC\ord3\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordD4,
  FILENAME = "C:\Bigdb\cabD\ord4\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordA4,
  FILENAME = "C:\Bigdb\cabA\ord4\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordB4,
  FILENAME = "C:\Bigdb\cabB\ord4\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordC4,
  FILENAME = "C:\Bigdb\cabC\ord4\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordD5,
  FILENAME = "C:\Bigdb\cabD\ord5\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordA5,
  FILENAME = "C:\Bigdb\cabA\ord5\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordB5,
  FILENAME = "C:\Bigdb\cabB\ord5\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordC5,
  FILENAME = "C:\Bigdb\cabC\ord5\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordD6,
  FILENAME = "C:\Bigdb\cabD\ord6\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordA6,
  FILENAME = "C:\Bigdb\cabA\ord6\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordB6,
  FILENAME = "C:\Bigdb\cabB\ord6\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordC6,
  FILENAME = "C:\Bigdb\cabC\ord6\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordD7,
  FILENAME = "C:\Bigdb\cabD\ord7\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordA7,
  FILENAME = "C:\Bigdb\cabA\ord7\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordB7,
  FILENAME = "C:\Bigdb\cabB\ord7\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordC7,
  FILENAME = "C:\Bigdb\cabC\ord7\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordD8,
  FILENAME = "C:\Bigdb\cabD\ord8\",
  SIZE     = 12500MB, FILEGROWTH = 0),
( NAME = MSSQL_ordA8,

```

```

FILENAME = "C:\Bigdb\cabA\ord8\",
SIZE = 12500MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordB8,
FILENAME = "C:\Bigdb\cabB\ord8\",
SIZE = 12500MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordC8,
FILENAME = "C:\Bigdb\cabC\ord8\",
SIZE = 12500MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordD9,
FILENAME = "C:\Bigdb\cabD\ord9\",
SIZE = 12500MB, FILEGROWTH = 0),
(
NAME = MSSQL_orda9,
FILENAME = "C:\Bigdb\cabA\ord9\",
SIZE = 12500MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordB9,
FILENAME = "C:\Bigdb\cabB\ord9\",
SIZE = 12500MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordC9,
FILENAME = "C:\Bigdb\cabC\ord9\",
SIZE = 12500MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordD10,
FILENAME = "C:\Bigdb\cabD\ord10\",
SIZE = 12500MB, FILEGROWTH = 0),
(
NAME = MSSQL_orda10,
FILENAME = "C:\Bigdb\cabA\ord10\",
SIZE = 12500MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordB10,
FILENAME = "C:\Bigdb\cabB\ord10\",
SIZE = 12500MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordC10,
FILENAME = "C:\Bigdb\cabC\ord10\",
SIZE = 12500MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordD11,
FILENAME = "C:\Bigdb\cabD\ord11\",
SIZE = 12500MB, FILEGROWTH = 0),
(
NAME = MSSQL_orda11,
FILENAME = "C:\Bigdb\cabA\ord11\",
SIZE = 12500MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordB11,
FILENAME = "C:\Bigdb\cabB\ord11\",
SIZE = 12500MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordC11,
FILENAME = "C:\Bigdb\cabC\ord11\",
SIZE = 12500MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordD12,
FILENAME = "C:\Bigdb\cabD\ord12\",
SIZE = 12500MB, FILEGROWTH = 0),
(
NAME = MSSQL_orda12,
FILENAME = "C:\Bigdb\cabA\ord12\",
SIZE = 12500MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordB12,
FILENAME = "C:\Bigdb\cabB\ord12\",
SIZE = 12500MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordC12,
FILENAME = "C:\Bigdb\cabC\ord12\",
SIZE = 12500MB, FILEGROWTH = 0)
LOG ON
(
NAME = MSSQL_tpcc_log1,
FILENAME = "C:\Bigdb\dblogs\tpcclog1\",
SIZE = 764500MB, FILEGROWTH = 0)
update tpcc_timer

```

```

set end_date = (select convert(char(30), getdate(),9))
go
select "Elapsed time (in seconds): ", datediff(second,(select start_date
from tpcc_timer),(select end_date from tpcc_timer))
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. 4.62
--           Copyright Microsoft, 2005
--
--           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. 4.62
--           Copyright Microsoft, 2005
--
--           Sets database options after load
--
-----

```

```

EXEC sp_dboption tpcc,'trunc. log on chkpt.',FALSE
GO
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 2005      --
-- 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, 'auto update statistics', FALSE
EXEC sp_dboption tpcc, 'auto create 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

```

REMOVEDB.SQL

```

-----
--
-- File:      REMOVEDB.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.62
--           Copyright Microsoft, 2005
--
-----

USE master
GO

-----
-- remove any existing database and backup files
-----

EXEC sp_dbremove tpcc, dropdev
GO

```

RESTORE.SQL

```

declare @startdate datetime
declare @enddate datetime
select @startdate = getdate()
select 'Start date:', convert(varchar(30),@startdate,9)
restore database tpcc from
    DISK = 'C:\Bigdb\dbbackups\backupA1\backupA1.dmp',
    DISK = 'C:\Bigdb\dbbackups\backupB1\backupB1.dmp',

```

```

DISK = 'C:\Bigdb\dbbackups\backupC1\backupC1.dmp',
DISK = 'C:\Bigdb\dbbackups\backupD1\backupD1.dmp',
DISK = 'C:\Bigdb\dbbackups\backupA2\backupA2.dmp',
DISK = 'C:\Bigdb\dbbackups\backupB2\backupB2.dmp',
DISK = 'C:\Bigdb\dbbackups\backupC2\backupC2.dmp',
DISK = 'C:\Bigdb\dbbackups\backupD2\backupD2.dmp',
DISK = 'C:\Bigdb\dbbackups\backupA3\backupA3.dmp',
DISK = 'C:\Bigdb\dbbackups\backupB3\backupB3.dmp',
DISK = 'C:\Bigdb\dbbackups\backupC3\backupC3.dmp',
DISK = 'C:\Bigdb\dbbackups\backupD3\backupD3.dmp',
DISK = 'C:\Bigdb\dbbackups\backupA4\backupA4.dmp',
DISK = 'C:\Bigdb\dbbackups\backupB4\backupB4.dmp',
DISK = 'C:\Bigdb\dbbackups\backupC4\backupC4.dmp',
DISK = 'C:\Bigdb\dbbackups\backupD4\backupD4.dmp',
DISK = 'C:\Bigdb\dbbackups\backupA5\backupA5.dmp',
DISK = 'C:\Bigdb\dbbackups\backupB5\backupB5.dmp',
DISK = 'C:\Bigdb\dbbackups\backupC5\backupC5.dmp',
DISK = 'C:\Bigdb\dbbackups\backupD5\backupD5.dmp',
DISK = 'C:\Bigdb\dbbackups\BackupA6\backupA6.dmp',
DISK = 'C:\Bigdb\dbbackups\BackupB6\backupB6.dmp',
DISK = 'C:\Bigdb\dbbackups\BackupC6\backupC6.dmp',
DISK = 'C:\Bigdb\dbbackups\BackupD6\backupD6.dmp'
with replace, stats = 1
select @enddate = getdate()
select 'End date:', convert(varchar(30),@enddate,9)
select 'Elapsed time (in seconds):', datediff(second, @startdate,
@enddate)
go
use tpcc
EXEC sp_tableoption 'new_order','pintable',false
Go

```

TEMPDB.SQL

```

ALTER database tempdb
add file
( NAME = tempdbA11,
  FILENAME = 'C:\Bigdb\dbbackups\backupA11\tempdbA11.mdf',
  SIZE = 15000 MB,
  FILEGROWTH = 10%,
  MAXSIZE = 74210 MB),
( NAME = tempdbB11,
  FILENAME = 'C:\Bigdb\dbbackups\backupB11\tempdbB11.mdf',
  SIZE = 15000 MB,
  FILEGROWTH = 10%,
  MAXSIZE = 74210 MB),
( NAME = tempdbC11,
  FILENAME = 'C:\Bigdb\dbbackups\backupC11\tempdbC11.mdf',
  SIZE = 15000 MB,
  FILEGROWTH = 10%,
  MAXSIZE = 74210 MB),
( NAME = tempdbD11,
  FILENAME = 'C:\Bigdb\dbbackups\backupD11\tempdbD11.mdf',
  SIZE = 15000 MB,
  FILEGROWTH = 10%,
  MAXSIZE = 74210 MB),
( NAME = tempdbA12,
  FILENAME = 'C:\Bigdb\dbbackups\backupA12\tempdbA12.mdf',

```

```

  SIZE = 15000 MB,
  FILEGROWTH = 10%,
  MAXSIZE = 74210 MB),
( NAME = tempdbB12,
  FILENAME = 'C:\Bigdb\dbbackups\backupB12\tempdbB12.mdf',
  SIZE = 15000 MB,
  FILEGROWTH = 10%,
  MAXSIZE = 74210 MB),
( NAME = tempdbC12,
  FILENAME = 'C:\Bigdb\dbbackups\backupC12\tempdbC12.mdf',
  SIZE = 15000 MB,
  FILEGROWTH = 10%,
  MAXSIZE = 74210 MB)
go
ALTER database tempdb
add log file
( NAME = tempdblogD12,
  FILENAME = 'C:\Bigdb\dbbackups\backupD12\tempdblogD12.ldf',
  SIZE = 15000 MB,
  FILEGROWTH = 10%,
  MAXSIZE = 74210 MB)
Go

```

VERIFYTPCCLOAD

```

-----
-- File:      VerifyTPCCLoad.SQL
--            Microsoft TPC-C Benchmark Kit Ver. 4.62
--            Copyright Microsoft, 2005
--
-----
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_ORDER_LINE,
     @ORDER_LINE_TARGET,
     @ORDER_LINE_TARGET_LOW,
     @ORDER_LINE_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 'Orders 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 'New Order 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

```

Indexes and Tables

IDXCUSCL.SQL

```

-----
--
-- File: IDXCUSCL.SQL
-- Microsoft TPC-C Benchmark Kit Ver. 4.62
-- Copyright Microsoft, 2005
--
-- 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_cs_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. 4.62
-- Copyright Microsoft, 2005
--
--          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_cs_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. 4.62
-- Copyright Microsoft, 2005
--
--          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_misc_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. 4.62
-- Copyright Microsoft, 2005
--
--          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_misc_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. 4.62
--           Copyright Microsoft, 2005
--
--           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_c1' )
DROP INDEX item.item_c1
```

```
CREATE UNIQUE CLUSTERED INDEX item_c1 ON item(i_id)
ON MSSQL_misc_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. 4.62
--           Copyright Microsoft, 2005
--
--           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_c1' )
DROP INDEX new_order.new_order_c1
```

```
CREATE UNIQUE CLUSTERED INDEX new_order_c1 ON new_order(no_w_id, no_d_id,
no_o_id)
ON MSSQL_ord_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. 4.62
--           Copyright Microsoft, 2005
--
--           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_c1' )
DROP INDEX order_line.order_line_c1
```

```
CREATE UNIQUE CLUSTERED INDEX order_line_c1 ON order_line(ol_w_id,
ol_d_id, ol_o_id, ol_number)
ON MSSQL_ord_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. 4.62
--           Copyright Microsoft, 2005
--
--           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_c1' )
  DROP INDEX orders.orders_c1

CREATE UNIQUE CLUSTERED INDEX orders_c1 ON orders(o_w_id, o_d_id, o_id)
  ON MSSQL_ord_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. 4.62
--           Copyright Microsoft, 2005
--
--           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_nc1' )
--  DROP INDEX orders.orders_nc1

--CREATE INDEX orders_nc1 ON orders(o_w_id, o_d_id, o_c_id, o_id)
--  ON MSSQL_ord_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. 4.62
--           Copyright Microsoft, 2005
--
--           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_c1' )
  DROP INDEX stock.stock_c1

CREATE UNIQUE CLUSTERED INDEX stock_c1 ON stock(s_i_id, s_w_id)
  ON MSSQL_cs_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. 4.62
--           Copyright Microsoft, 2005
--
```

```

--
--          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_c1' )
    DROP INDEX warehouse.warehouse_c1

CREATE UNIQUE CLUSTERED INDEX warehouse_c1 ON warehouse(w_id)
    WITH FILLFACTOR=100 ON MSSQL_misc_fg

SELECT @enddate = GETDATE()
SELECT 'End date:',
       CONVERT(VARCHAR(30),@enddate,21)
SELECT 'Elapsed time (in seconds): ',
       DATEDIFF(second, @startdate, @enddate)
GO

```

TABLES.SQL

```

-----
--
-- File:    TABLES.SQL
--          Microsoft TPC-C Benchmark Kit Ver. 4.62
--          Copyright Microsoft, 2005
--
--          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_misc_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_misc_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            text
) on MSSQL_cs_fg
textimage_on MSSQL_misc_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_misc_fg
go

create table new_order
(
    no_o_id           int,
    no_d_id           tinyint,
    no_w_id           int
) on MSSQL_ord_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_ord_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_ord_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_misc_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_cs_fg
Go

```

Stored Procedures

DELIVERY.SQL

```

-----
-- File:      DELIVERY.SQL
-- Microsoft TPC-C Benchmark Kit Ver. 4.62
-- Copyright Microsoft, 2005
--
--          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 uplock)
            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

```


NEWORD.SQL

```

-----
--
-- File:      NEWORD.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.62
--           Copyright Microsoft, 2005
--
--           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 @s_w_id10
        WHEN 11 THEN @s_w_id11
        WHEN 12 THEN @s_w_id12
        WHEN 13 THEN @s_w_id13
        WHEN 14 THEN @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
        WHEN 15 THEN @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 - @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
-----
-- 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 nuthin!!!
-----
      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
SET QUOTED_IDENTIFIER OFF
GO
SET ANSI_NULLS OFF
GO
-- 8666: full showplan text info (to see if rowset sharing)
--dbcc traceon(8666)
--go
-- prevent sort over tvf
dbcc traceon(8710)
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
-- 1q 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 proc 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.ol_qty,info.i_price * info.ol_qty,
       info.w_id,
       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 -- filters out invalid items
and 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 ((@commit_flag = 1) and (@rowcount = 1))
    commit transaction n
else
    -- all that work for nothing.
    rollback transaction n

end
go

```

ORDSTAT.SQL

```

-----
-- File:      ORDSTAT.SQL
-- Microsoft TPC-C Benchmark Kit Ver. 4.62
-- Copyright Microsoft, 2005
--
-- 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. 4.62
-- Copyright Microsoft, 2005
--
--          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),
        @d_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
```

STOCKLEV.SQL

```
-----
--
-- File:      STOCKLEV.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.62
--           Copyright Microsoft, 2005
--
--           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
```

VERSION.SQL

```
-----
--
-- File:      VERSION.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.62
--           Copyright Microsoft, 2005
--
--           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
```

Loader Source

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, TPCCLDR_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 = DEFPLDPACKSIZE;
    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 throught */
    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 = atol(ptr+2);
    break;

case 'W':
    pargs->num_warehouses = atol(ptr+2);
    break;

case 's':
    pargs->starting_warehouse = atol(ptr+2);
    break;

case 't':
    {
        pargs->tables_all = FALSE;
        if (strcmp(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':
            pargs->loader_res_file = ptr+2;
            break;
        case 'L':
            pargs->log_path = ptr+2;
            break;
        case 'p':
            pargs->pack_size = atol(ptr+2);
            break;
        case 'i':
            pargs->build_index = atol(ptr+2);
            break;
        case 'o':
            pargs->index_order = atol(ptr+2);
            break;
        case 'c':
            pargs->scale_down = atol(ptr+2);
            break;
        case 'd':
            pargs->index_script_path = ptr+2;
            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
%ld\n", (long) BATCH);
    printf("-p TDS packet size
%ld\n", (long) DEF_LDPACKSIZE);
    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
%ld\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);
}

```

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("[%ld]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("[%ld]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("[%ld]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("[%ld]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("[%ld]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("[%ld]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("[%ld]DBG: Entering NURand()...\n", (int)
GetCurrentThreadId());
#endif

```

```

    rand_num = (((RandomNumber(0,iConst) | RandomNumber(x,y)) + C) % (y-
x+1))+x;

#ifdef DEBUG
    printf("[%ld]DBG: NURand: num = %d\n", (int) GetCurrentThreadId(),
rand_num);
#endif

    return rand_num;
}

```

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

    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[] =
"0123456789ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz";
    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[] =
"0123456789ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz";
    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;
}

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 el_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:          TPCC.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;
    char *tables_all; // set
    if loading all tables
    char *table_item; // set
    if loading ITEM table specifically
    char *table_warehouse; // set if
    loading WAREHOUSE, DISTRICT, and STOCK
    char *table_customer; // set
    if loading CUSTOMER and HISTORY
    char *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
    long
    char
} TPCCLDR_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();

```

```

index_order;
scale_down;
*index_script_path;

```

```

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;
    long                  ol_i_id;
    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;

TPCC_LDR_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*****");
    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\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          rcint;
        char           bcphint[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 != SUCCEED)
            HandleErrorDBC(i_hdbc1);

        if ((aptr->build_index == 1) && (aptr->index_order == 1))
        {
            sprintf(bcphint, "tablock, order (i_id), ROWS_PER_BATCH =
100000");
            rc = bcp_control(i_hdbc1, BCPHINTS, (void*) bcphint);
            if (rc != SUCCEED)
                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 != SUCCEEDED)
            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("idxitmcl");
}

```

```

//=====
//
// 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("idxwarcl");

    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, "warehouse.err");
    rc = bcp_init(w_hdbc1, name, NULL, err_log_path, DB_IN);

    if (rc != SUCCEEDED)
        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 != SUCCEEDED)
            HandleErrorDBC(w_hdbc1);
    }

    i = 0;
}

```

```

    rc = bcp_bind(w_hdbc1, (BYTE *) &w_id, 0, SQL_VARLEN_DATA, NULL,
0, SQLINT4, ++i);
    if (rc != SUCCEEDED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *) &w_ytd, 0, SQL_VARLEN_DATA, NULL,
0, SQLFLT8, ++i);
    if (rc != SUCCEEDED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *) &w_tax, 0, SQL_VARLEN_DATA, NULL,
0, SQLFLT8, ++i);
    if (rc != SUCCEEDED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *) w_name, 0, W_NAME_LEN, NULL, 0, 0,
++i);
    if (rc != SUCCEEDED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *) w_street_1, 0, ADDRESS_LEN, NULL,
0, 0, ++i);
    if (rc != SUCCEEDED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *) w_street_2, 0, ADDRESS_LEN, NULL,
0, 0, ++i);
    if (rc != SUCCEEDED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *) w_city, 0, ADDRESS_LEN, NULL, 0,
0, ++i);
    if (rc != SUCCEEDED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *) w_state, 0, STATE_LEN, NULL, 0, 0,
++i);
    if (rc != SUCCEEDED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *) w_zip, 0, ZIP_LEN, NULL, 0, 0,
++i);
    if (rc != SUCCEEDED)
        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 != SUCCEEDED)
            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("idxwarcl");

    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 != SUCCEEDED)
        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 != SUCCEEDED)
            HandleErrorDBC(w_hdbc1);
    }

    i = 0;
    rc = bcp_bind(w_hdbc1, (BYTE *) &d_id, 0, SQL_VARLEN_DATA, NULL,
0, SQLINT2, ++i);
    if (rc != SUCCEEDED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *) &d_w_id, 0, SQL_VARLEN_DATA, NULL,
0, SQLINT4, ++i);
    if (rc != SUCCEEDED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *) &d_ytd, 0, SQL_VARLEN_DATA, NULL,
0, SQLFLT8, ++i);
    if (rc != SUCCEEDED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *) &d_next_o_id, 0, SQL_VARLEN_DATA,
NULL, 0, SQLINT4, ++i);
    if (rc != SUCCEEDED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *) &d_tax, 0, SQL_VARLEN_DATA, NULL,
0, SQLFLT8, ++i);
    if (rc != SUCCEEDED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *) d_name, 0, D_NAME_LEN, NULL, 0, 0,
++i);
    if (rc != SUCCEEDED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *) d_street_1, 0, ADDRESS_LEN, NULL,
0, 0, ++i);
    if (rc != SUCCEEDED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *) d_street_2, 0, ADDRESS_LEN, NULL,
0, 0, ++i);
    if (rc != SUCCEEDED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *) d_city, 0, ADDRESS_LEN, NULL, 0,
0, ++i);
    if (rc != SUCCEEDED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *) d_state, 0, STATE_LEN, NULL, 0, 0,
++i);
    if (rc != SUCCEEDED)
        HandleErrorDBC(w_hdbc1);
    rc = bcp_bind(w_hdbc1, (BYTE *) d_zip, 0, ZIP_LEN, NULL, 0, 0,
++i);
    if (rc != SUCCEEDED)
        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 != SUCCEEDED)
                    HandleErrorDBC(w_hdbc1);

                district_rows_loaded++;
                CheckForCommit(w_hdbc1, w_hstmt1,
district_rows_loaded, "district", &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,
                                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_d_id = 0;
        customer_buf[i].c_w_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];
char      c_since[C_SINCE_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 != SUCCEEDED)
            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 != SUCCEEDED)
        HandleErrorDBC(c_hdbc2);
    rc = bcp_bind(c_hdbc2, (BYTE *) &c_d_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT2, ++i);
    if (rc != SUCCEEDED)
        HandleErrorDBC(c_hdbc2);
    rc = bcp_bind(c_hdbc2, (BYTE *) &c_w_id, 0, SQL_VARLEN_DATA, NULL,
0, SQLINT4, ++i);
    if (rc != SUCCEEDED)
        HandleErrorDBC(c_hdbc2);
    rc = bcp_bind(c_hdbc2, (BYTE *) &c_d_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT2, ++i);
    if (rc != SUCCEEDED)
        HandleErrorDBC(c_hdbc2);
    rc = bcp_bind(c_hdbc2, (BYTE *) &c_w_id, 0, SQL_VARLEN_DATA, NULL,
0, SQLINT4, ++i);
    if (rc != SUCCEEDED)
        HandleErrorDBC(c_hdbc2);
    rc = bcp_bind(c_hdbc2, (BYTE *) &h_date, 0, H_DATE_LEN, NULL, 0,
SQLCHARACTER, ++i);
    if (rc != SUCCEEDED)
        HandleErrorDBC(c_hdbc2);
    rc = bcp_bind(c_hdbc2, (BYTE *) &h_amount, 0, SQL_VARLEN_DATA, NULL,
0, SQLFLT8, ++i);
    if (rc != SUCCEEDED)
        HandleErrorDBC(c_hdbc2);
    rc = bcp_bind(c_hdbc2, (BYTE *) h_data, 0, H_DATA_LEN, NULL, 0, 0,
++i);
    if (rc != SUCCEEDED)
        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 != SUCCEEDED)
        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("idxnodcl");
        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 loading threads here...
        // 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);

        // Generate ORDER-LINE data
        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_delivery_d);
        }
        else
        {
            orders_buf[o_id].o_ol[ol].ol_amount =
RandomNumber(1,999999)/100.0;
properly during load

            // Added to insure ol_delivery_d set
            // odbc datetime format

            strcpy(orders_buf[o_id].o_ol[ol].ol_delivery_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++)
    {
        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;
        o_c_id       = orders_buf[i].o_c_id;
        o_carrier_id = orders_buf[i].o_carrier_id;
        o_ol_cnt     = orders_buf[i].o_ol_cnt;
        o_all_local  = 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("idxnodcl");
    }
}
//=====

```

```

//
// 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      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 != SUCCEED)
        HandleErrorDBC(o_hdbc3);
    rc = bcp_bind(o_hdbc3, (BYTE *) &o_d_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT2, ++i);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc3);
    rc = bcp_bind(o_hdbc3, (BYTE *) &o_w_id, 0, SQL_VARLEN_DATA, NULL,
0, SQLINT4, ++i);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc3);
    rc = bcp_bind(o_hdbc3, (BYTE *) &ol, 0, SQL_VARLEN_DATA, NULL, 0,
SQLFLT8, ++i);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc3);
    rc = bcp_bind(o_hdbc3, (BYTE *) &ol_i_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT4, ++i);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc3);
    rc = bcp_bind(o_hdbc3, (BYTE *) &ol_delivery_d, 0,
OL_DELIVERY_D_LEN, NULL, 0, SQLCHARACTER, ++i);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc3);
    rc = bcp_bind(o_hdbc3, (BYTE *) &ol_amount, 0, SQL_VARLEN_DATA, NULL,
0, SQLFLT8, ++i);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc3);
    rc = bcp_bind(o_hdbc3, (BYTE *) &ol_supply_w_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT4, ++i);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc3);
    rc = bcp_bind(o_hdbc3, (BYTE *) &ol_quantity, 0, SQL_VARLEN_DATA,
NULL, 0, SQLINT2, ++i);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc3);
    rc = bcp_bind(o_hdbc3, (BYTE *) ol_dist_info, 0, DIST_INFO_LEN, NULL,
0, 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++)
    {
        ol            = orders_buf[i].o_ol[j].ol;
        ol_i_id       = orders_buf[i].o_ol[j].ol_i_id;
        ol_supply_w_id = orders_buf[i].o_ol[j].ol_supply_w_id;
        ol_quantity   = orders_buf[i].o_ol[j].ol_quantity;
        ol_amount     = 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].ol_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
(%d rows)\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 *fp1;

    i = 1;
    while (( rc2 = SQLGetDiagRec(SQL_HANDLE_DBC , hdbc1, i, SqlState ,
&NativeError,
                                Msg, sizeof(Msg) , &MsgLen )) !=
SQL_NO_DATA )
    {
        printf( szLastError , "%s" , Msg );

        _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");
        fp1 = fopen(err_log_path,"a+");
        if (fp1 == NULL)
            printf("ERROR: Unable to open errorlog file.\n");
        else
        {
            fprintf(fp1, "[%s : %s] %s\nSQLState: %s\n" ,
datebuf, timebuf, szLastError, SqlState);
            fclose(fp1);
        }

        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        *fp1;

i = 1;
while (( rc2 = SQLGetDiagRec(SQL_HANDLE_STMT , hstmt1, i, SqlState
, &NativeError,
                                Msg, sizeof(Msg) , &MsgLen ) !=
SQL_NO_DATA )
{
    if (total_db_errors >= MAX_SQL_ERRORS)
    {
        printf(">>>> Maximum SQL errors of %d exceeded.
Terminating TPCCLDR.<<<<\n",total_db_errors);
        exit(9);
    }
    total_db_errors++;

    sprintf( szLastError , "%s" , Msg );

    _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");
    fp1 = fopen(err_log_path,"a+");
    if (fp1 == NULL)
        printf("ERROR: Unable to open errorlog file.\n");
    else
    {
        fprintf(fp1, "[%s : %s] %s\nSQLState: %s\n" ,
datebuf, timebuf, szLastError, SqlState);
        fclose(fp1);
    }

    i++;
}
}
//=====
//
// Function   : FormatDate
//
//=====
void FormatDate ( char* szTimeCOutput )
{
    struct tm when;
    time_t now;

    time( &now );
    when = *localtime( &now );

    mktime( &when );

```

```

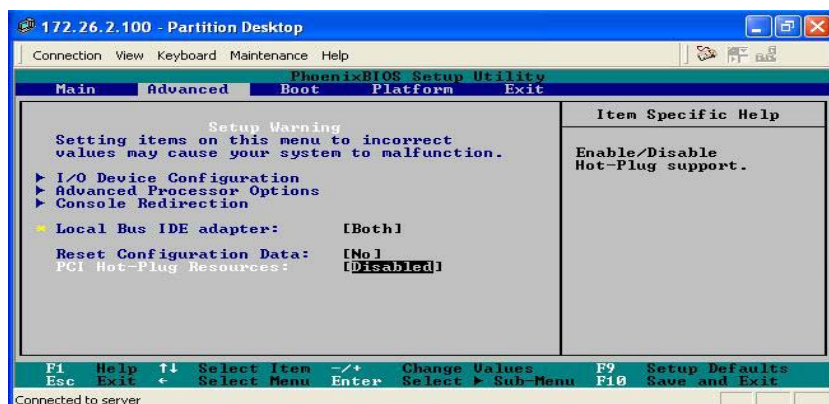
// odbc datetime format
strftime( szTimeCOutput , 30 , "%Y-%m-%d %H:%M:%S.000", &when );

return;
}

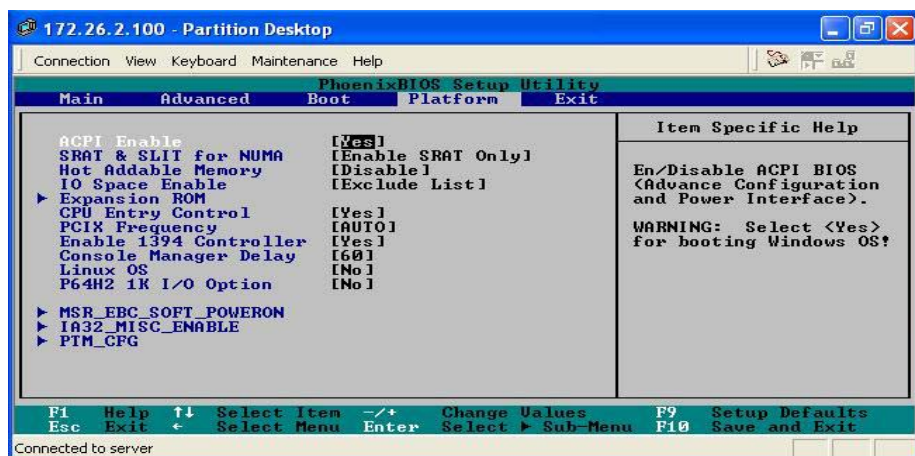
```

Appendix C - Tunable Parameters

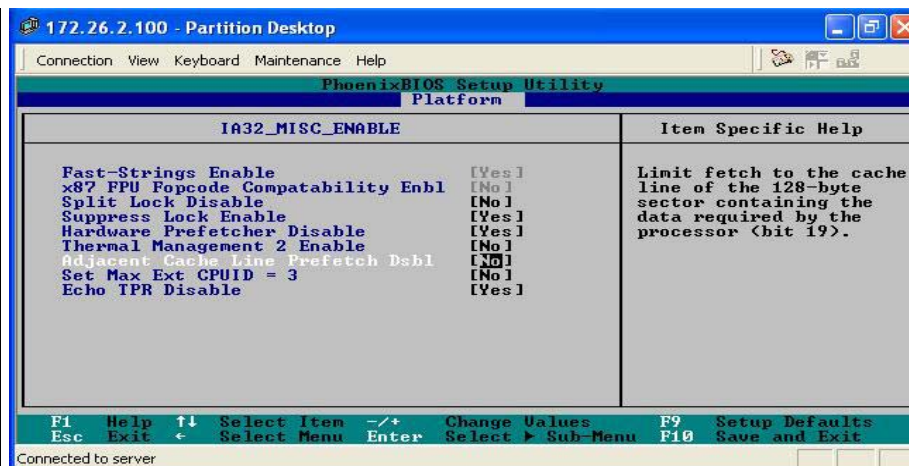
Hot-plug Support (BIOS)



Platform Information (BIOS ACPI)



Platform Information (BIOS Prefetch)



BOOT.INI

```
[boot loader]
timeout=10
default=multi(0)disk(0)rdisk(0)partition(1)\WINDOWS
[operating systems]
multi(0)disk(0)rdisk(0)partition(1)\WINDOWS="Windows Server 2003
Enterprise x64 Edition /EXTINTVEC" /noexecute=optout /fastdetect
/EXTINTVEC
```

/EXTINTVEC provides support for more than 255 interrupts in Microsoft Windows Server 2003 with Service Pack 1 (SP1), Enterprise Edition, operating system.

User Rights Assignment

The Group Policy Editor of the OS was used to modify an entry under User Rights Assignment. Specifically, the right to "Lock pages in memory" was given to the Administrators group so that SQL Server 2005 could use large amounts of physical memory.

Hyperthreading.txt

OS Processor <-> Physical/Logical Mapping

OS Processor	Phys. Package	Logical Processor
0	0	0
1	0	1
2	1	0
3	1	1
4	2	0
5	2	1
6	3	0
7	3	1
8	4	0
9	4	1
10	5	0
11	5	1
12	6	0
13	6	1
14	7	0
15	7	1

Microsoft SQL Server Startup Parameters

```
SET MAXOUTSTANDINGWRITE=500
REM ***** NORMAL RUN *****
"C:\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL\Binn\sqlservr.exe" -c
-x -T661 -T677 -T697 -T834 -T3502 -T8011 -T8012 -T8018 -T8019 -T8020 -
T8193 -T8744
```

where:

where:

```
-c Start SQL Server independent of the Service Control Manager
-x Disable the keeping of CPU timeand cache hit ratio statistic
-T661 - Disable the ghost record removal process
-T677 - Disable checks in Access Methods, flag not needed in RTM, disabled
by default.
-T697 - Disable schema latch super latch
-T834 - Use Large Pages
-T3502 - Display checkpoint information in errorlog
-T8011 - Disable ring buffer for resource monitor
-T8012 - Disable ring buffer for schedulers
-T8018 - Disable exception ring buffer
-T8019 - Disable stack collection for exception ring buffers
-T8020 - Disable working set trimming
-T8193 - Enable Large pages support
-T8744 - Disable pre-fetch
```

Microsoft SQL Server Configuration Parameters

Sydbtune.ver

```
1> 2> 3> 4> 5> 6> 7> 8> 9> 10> 11> 12> -----
--
-- File:   VERSION.SQL
--
--         Microsoft TPC-C Benchmark Kit Ver. 4.62
--
--         Copyright Microsoft, 2005
--
--         - 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'))
-----
9.00.1399.06           RTM           Enterprise Edition (64-bit)
(1 row affected)
1> 2> 3>
SELECT  CONVERT(char(30), GETDATE(), 21)
-----
2005-10-20 13:44:47.373
(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. 4.62
--
--         Copyright Microsoft, 2005
--
--         - Collects SQL Server configuration parameters
--
```



```

--
--
-----
PRINT ' '
SELECT CONVERT(char(30), GETDATE(), 21)
PRINT ' '

-----
2005-10-20 13:44:47.547

(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    65535
65535
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
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          0
0
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    254000
254000
max text repl size (B)             0 2147483647    65536
65536
max worker threads                 128         32767         348
348
media retention                     0         365          0
0
min memory per query (KB)          512 2147483647    1024
1024
min server memory (MB)             0 2147483647          0
0
nested triggers                    0          1          1
1
network packet size (B)            512         32767         4096
4096
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>

```

Storage Configuration Information

Log DPE-Cache Configuration

```

SP Read Cache State             Disabled
SP Write Cache State            Enabled
Cache Page size:                16
Write Cache Mirrored:          YES
Low Watermark:                  20
High Watermark:                 80
SPA Cache pages:                27253
SPB Cache pages:                0
Unassigned Cache Pages:         0

```

```

Read Hit Ratio:                 N/A
Write Hit Ratio:                 0
Prct Dirty Cache Pages =       0
Prct Cache Pages Owned =       0
SPA Read Cache State            Disabled
SPB Read Cache State            Disabled
SPA Write Cache State           Enabled
SPB Write Cache State           Enabled
System Buffer (spA):            454 MB
System Buffer (spB):            454 MB
SPS Test Day:                   Saturday
SPS Test Time:                  18:00
SPA Physical Memory Size =      1022
SPB Physical Memory Size =      1022
Physical memory size of Front-End = Switch not supported
Physical memory size of Back-End = Switch not supported
SPA Free Memory Size =          56
SPB Free Memory Size =          56
Free Memory Size of Front-End = Switch not supported
Free Memory Size of Back-End =  Switch not supported
SPA Read Cache Size =           0
SPB Read Cache Size =           0
SPA Write Cache Size =          512
SPB Write Cache Size =          512
SPA Optimized Raid 3 Memory Size = 0
SPB Optimized Raid 3 Memory Size = 0

```

Log DPE LUN Configurations

Lun 0

```

Statistics logging is disabled.
Certain fields are not printed if statistics
logging is not enabled.
Prefetch size (blocks) =        0
Prefetch multiplier =           4
Segment size (blocks) =         0
Segment multiplier =            4
Maximum prefetch (blocks) =     4096
Prefetch Disable Size (blocks) = 4097
Prefetch idle count =           40

Variable length prefetching YES
Prefetched data retained YES

Read cache configured according to
specified parameters.

Total Hard Errors:               0
Total Soft Errors:               0
Total Queue Length:              0
Name                             LUN 0
Minimum latency reads N/A

```

```

RAID Type:                RAID1/0
RAIDGroup ID:             0
State:                    Bound
Stripe Crossing:          0
Element Size:             256
Current owner:            SP A
Offset:                   0
Auto-trespass:            DISABLED
Auto-assign:              DISABLED
Write cache:              ENABLED
Read cache:               DISABLED
Idle Threshold:           0
Idle Delay Time:          20
Write Aside Size:         1023
Default Owner:            SP A
Rebuild Priority:         ASAP
Verify Priority:          ASAP
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt:             100
Prct Bound:               100
LUN Capacity (Megabytes): 782956
LUN Capacity (Blocks):   1603494912
UID:

```

```
60:06:01:60:83:40:0F:00:AC:18:95:E9:6D:3B:DA:11
```

```

Bus 0 Enclosure 0 Disk 11 Queue Length: 0
Bus 0 Enclosure 0 Disk 9 Queue Length: 0
Bus 0 Enclosure 0 Disk 7 Queue Length: 0
Bus 0 Enclosure 0 Disk 5 Queue Length: 0
Bus 0 Enclosure 0 Disk 3 Queue Length: 134
Bus 0 Enclosure 0 Disk 1 Queue Length: 168
Bus 0 Enclosure 0 Disk 10 Queue Length: 0
Bus 0 Enclosure 0 Disk 8 Queue Length: 0
Bus 0 Enclosure 0 Disk 6 Queue Length: 0
Bus 0 Enclosure 0 Disk 4 Queue Length: 134
Bus 0 Enclosure 0 Disk 2 Queue Length: 167
Bus 0 Enclosure 0 Disk 0 Queue Length: 178
Bus 0 Enclosure 0 Disk 11 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 9 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 7 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 5 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 3 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 1 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 10 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 8 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 6 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 4 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 2 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 0 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 11 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 9 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 7 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 5 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 3 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 1 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 10 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 8 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 6 Hard Write Errors: 0

```

```

Bus 0 Enclosure 0 Disk 4 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 2 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 0 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 11 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 9 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 7 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 5 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 3 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 1 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 10 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 8 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 6 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 4 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 2 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 0 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 11 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 9 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 7 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 5 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 3 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 1 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 10 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 8 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 6 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 4 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 2 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 0 Soft Write Errors: 0

```

```

Bus 0 Enclosure 0 Disk 11 Enabled
Bus 0 Enclosure 0 Disk 9 Enabled
Bus 0 Enclosure 0 Disk 7 Enabled
Bus 0 Enclosure 0 Disk 5 Enabled
Bus 0 Enclosure 0 Disk 3 Enabled
Bus 0 Enclosure 0 Disk 1 Enabled
Bus 0 Enclosure 0 Disk 10 Enabled
Bus 0 Enclosure 0 Disk 8 Enabled
Bus 0 Enclosure 0 Disk 6 Enabled
Bus 0 Enclosure 0 Disk 4 Enabled
Bus 0 Enclosure 0 Disk 2 Enabled
Bus 0 Enclosure 0 Disk 0 Enabled
Is Private: NO
Snapshots List: None
MirrorView Name if any: Not Mirrored

```

Fibre Channel HBAUtility Settings

Setting tuning values to IOPs

Select IOPs to which values are to be set

IOP No.	Max Lun Qu...	Max Target ...	II Delay
<input type="checkbox"/> 0	31	127	0
<input type="checkbox"/> 1	31	127	12
<input type="checkbox"/> 2	31	127	12
<input type="checkbox"/> 3	31	127	12

Select values to be set

Max LUN Queue Depth

Max Target Queue Depth

II Delay

Database USS Configuration Info (common to USS 1-9)

CSMMMC - [Unisys Storage Sentinel, Disk Virtualization] \ MV-USS-9 \ Virtual Disks

Console Window Help

Action View Help Favorites

Tree	Virtual Disk Name	Virtual Disk Type	Client Name	Permission	Status	Capacity (GB)
Unisys Storage Sentinel	VD1	Striped	ZORRO-SQL	Read-Write	OK	119.63
Disk Virtualization	VD2	Striped	ZORRO-SQL	Read-Write	OK	119.63
MV-USS-9	VD3	Striped	ZORRO-SQL	Read-Write	OK	119.63
Virtual Disks	VD4	Striped	ZORRO-SQL	Read-Write	OK	119.63
Storage Clients	VD5	Striped	ZORRO-SQL	Read-Write	OK	119.63
Devices	VD6	Striped	ZORRO-SQL	Read-Write	OK	119.63
Storage Pools	VD7	Striped	ZORRO-SQL	Read-Write	OK	119.63
MV-USS-11	VD8	Striped	ZORRO-SQL	Read-Write	OK	119.63
Virtual Disks	VD9	Striped	ZORRO-SQL	Read-Write	OK	119.63
Storage Clients	VD10	Striped	ZORRO-SQL	Read-Write	OK	119.63
Devices	VD11	Striped	ZORRO-SQL	Read-Write	OK	119.63
Storage Pools	VD12	Striped	ZORRO-SQL	Read-Write	OK	119.63
MV-USS-14						
Virtual Disks						
Storage Clients						
Devices						
Storage Pools						
USS16						
Virtual Disks						
Storage Clients						
Devices						
Storage Pools						
Tape Virtualization						

Windows Enterprise Server Configuration Information

System Information report written at: 10/19/05 18:16:23

System Name: TPCC-ZORRO

[System Summary]

Item Value

OS Name Microsoft(R) Windows(R) Server 2003 Enterprise x64 Edition

Version 5.2.3790 Service Pack 1 Build 3790

Other OS Description Not Available

OS Manufacturer Microsoft Corporation

System Name TPCC-ZORRO

System Manufacturer UNISYS

System Model JOPLIN

System Type x64-based PC

Processor EM64T Family 15 Model 4 Stepping 1 GenuineIntel ~3333 Mhz

Processor EM64T Family 15 Model 4 Stepping 1 GenuineIntel ~3333 Mhz

Processor EM64T Family 15 Model 4 Stepping 1 GenuineIntel ~3333 Mhz

Processor EM64T Family 15 Model 4 Stepping 1 GenuineIntel ~3333 Mhz

Processor EM64T Family 15 Model 4 Stepping 1 GenuineIntel ~3333 Mhz

Processor EM64T Family 15 Model 4 Stepping 1 GenuineIntel ~3333 Mhz

Processor EM64T Family 15 Model 4 Stepping 1 GenuineIntel ~3333 Mhz

Processor EM64T Family 15 Model 4 Stepping 1 GenuineIntel ~3333 Mhz

Processor EM64T Family 15 Model 4 Stepping 1 GenuineIntel ~3333 Mhz

Processor EM64T Family 15 Model 4 Stepping 1 GenuineIntel ~3333 Mhz

Processor EM64T Family 15 Model 4 Stepping 1 GenuineIntel ~3333 Mhz

Processor EM64T Family 15 Model 4 Stepping 1 GenuineIntel ~3333 Mhz

Processor EM64T Family 15 Model 4 Stepping 1 GenuineIntel ~3333 Mhz

Processor EM64T Family 15 Model 4 Stepping 1 GenuineIntel ~3333 Mhz

Processor EM64T Family 15 Model 4 Stepping 1 GenuineIntel ~3333 Mhz

Processor EM64T Family 15 Model 4 Stepping 1 GenuineIntel ~3333 Mhz

BIOS Version/Date Phoenix Technologies LTD BIOS Release 1.77.001,
7/21/2005

SMBIOS Version 2.31

Windows Directory C:\WINDOWS

System Directory C:\WINDOWS\system32

Boot Device \Device\HarddiskVolumel

Locale United States

Hardware Abstraction Layer Version = "5.2.3790.1830
(srv03_sp1_rtm.050324-1447)"

User Name TPCC-ZORRO\Administrator

Time Zone Pacific Daylight Time
Total Physical Memory 262,013.48 MB
Available Physical Memory 615.12 MB
Total Virtual Memory 252.41 GB
Available Virtual Memory 1.86 GB
Page File Space 2.00 GB
Page File C:\pagefile.sys

[Hardware Resources]

[Conflicts/Sharing]

Resource	Device	
I/O Port 0x00000000-0x00001FFF		PCI bus
I/O Port 0x00000000-0x00001FFF		Direct memory access controller
I/O Port 0x00002000-0x00002FFF		PCI bus
I/O Port 0x00002000-0x00002FFF		Intel(R) P64H2 PCI to PCI Bridge - 1460
I/O Port 0x00002000-0x00002FFF		Adaptec ASC-48300 SAS/SATA Host Adapter
IRQ 10 Intel(R) 82801DB/DBM SMBus Controller - 24C3		
IRQ 10 Intel(R) P64H2 PCI Hot Plug Controller - 1462		
IRQ 10 Intel(R) P64H2 PCI Hot Plug Controller - 1462		
IRQ 10 Intel(R) P64H2 PCI Hot Plug Controller - 1462		
IRQ 10 Intel(R) P64H2 PCI Hot Plug Controller - 1462		
IRQ 10 Intel(R) P64H2 PCI Hot Plug Controller - 1462		
IRQ 10 Intel(R) P64H2 PCI Hot Plug Controller - 1462		
IRQ 10 Intel(R) P64H2 PCI Hot Plug Controller - 1462		
IRQ 10 Intel(R) P64H2 PCI Hot Plug Controller - 1462		
Memory Address 0xE3F00000-0xE3FFFFFF		Intel(R) P64H2 PCI to PCI Bridge - 1460
Memory Address 0xE3F00000-0xE3FFFFFF		PCI standard PCI-to-PCI bridge
Memory Address 0xF0E00000-0xF0FFFFFF		Intel(R) P64H2 PCI to PCI Bridge - 1460
Memory Address 0xF0E00000-0xF0FFFFFF		PCI standard PCI-to-PCI bridge
I/O Port 0x00003000-0x00003FFF		PCI bus
I/O Port 0x00003000-0x00003FFF		Intel(R) P64H2 PCI to PCI Bridge - 1460
I/O Port 0x00003000-0x00003FFF		Intel(R) PRO/1000 MT Dual Port Network Connection
Memory Address 0xE7E00000-0xE7FFFFFF		Intel(R) P64H2 PCI to PCI Bridge - 1460
Memory Address 0xE7E00000-0xE7FFFFFF		PCI standard PCI-to-PCI bridge
Memory Address 0xE5000000-0xE8FFFFFF		PCI bus

```

Memory Address 0xE5000000-0xE8FFFFFF Intel(R) P64H2 PCI to PCI Bridge -
1460
Memory Address 0xE5000000-0xE8FFFFFF PCI standard PCI-to-PCI bridge

Memory Address 0xE5000000-0xE8FFFFFF Unisys Intelligent Fibre Channel
Fabric Bus Adapter

Memory Address 0xE1000000-0xE1FFFFFF Intel(R) P64H2 PCI to PCI Bridge -
1460
Memory Address 0xE1000000-0xE1FFFFFF PCI standard PCI-to-PCI bridge

Memory Address 0xE1000000-0xE1FFFFFF Unisys Intelligent Fibre Channel
Fabric Bus Adapter

Memory Address 0xE9000000-0xEDFFFFFF PCI bus
Memory Address 0xE9000000-0xEDFFFFFF Intel(R) P64H2 PCI to PCI Bridge -
1460
Memory Address 0xE9000000-0xEDFFFFFF PCI standard PCI-to-PCI bridge

Memory Address 0xE9000000-0xEDFFFFFF Unisys Intelligent Fibre Channel
Fabric Bus Adapter

Memory Address 0xA0000-0xFFFF PCI bus
Memory Address 0xA0000-0xFFFF UNISYS Console Manager 3

I/O Port 0x00004000-0x0000FFFF PCI bus
I/O Port 0x00004000-0x0000FFFF Intel(R) P64H2 PCI to PCI Bridge -
1460

Memory Address 0xECE00000-0xECEFFFFFF Intel(R) P64H2 PCI to PCI Bridge -
1460
Memory Address 0xECE00000-0xECEFFFFFF PCI standard PCI-to-PCI bridge

Memory Address 0xEA000000-0xEAFFFFFFFF Intel(R) P64H2 PCI to PCI Bridge -
1460
Memory Address 0xEA000000-0xEAFFFFFFFF PCI standard PCI-to-PCI bridge

Memory Address 0xEA000000-0xEAFFFFFFFF Unisys Intelligent Fibre Channel
Fabric Bus Adapter

Memory Address 0xECF00000-0xECFFFFFF Intel(R) P64H2 PCI to PCI Bridge -
1460
Memory Address 0xECF00000-0xECFFFFFF PCI standard PCI-to-PCI bridge

Memory Address 0xEE000000-0xF0FFFFFF PCI bus
Memory Address 0xEE000000-0xF0FFFFFF Intel(R) P64H2 PCI to PCI Bridge -
1460
Memory Address 0xEE000000-0xF0FFFFFF PCI standard PCI-to-PCI bridge

Memory Address 0xEE000000-0xF0FFFFFF Unisys Intelligent Fibre Channel
Fabric Bus Adapter

```

[DMA]

```

Resource      Device Status
Channel 4     Direct memory access controller      OK

```

[Forced Hardware]

Device PNP Device ID

[I/O]

```

Resource      Device Status
0x00000000-0x00001FFF PCI bus OK
0x00000000-0x00001FFF Direct memory access controller      OK
0x00000800-0x0000081F Intel(R) 82801DB/DBM USB Universal Host Controller
- 24C2 OK
0x00000820-0x0000083F Intel(R) 82801DB/DBM USB Universal Host Controller
- 24C4 OK
0x00000840-0x0000085F Intel(R) 82801DB/DBM USB Universal Host Controller
- 24C7 OK
0x00001F00-0x00001FFF UNISYS Console Manager 3      OK
0x000003B0-0x000003BB UNISYS Console Manager 3      OK
0x000003C0-0x000003DF UNISYS Console Manager 3      OK
0x00001110-0x0000111F PCI Device      OK
0x00001100-0x0000110F PCI Device      OK
0x00000010-0x0000001F Motherboard resources OK
0x00000024-0x00000025 Motherboard resources OK
0x00000028-0x00000029 Motherboard resources OK
0x0000002C-0x0000002D Motherboard resources OK
0x00000030-0x00000031 Motherboard resources OK
0x00000034-0x00000035 Motherboard resources OK
0x00000038-0x00000039 Motherboard resources OK
0x0000003C-0x0000003D Motherboard resources OK
0x00000050-0x00000053 Motherboard resources OK
0x00000060-0x00000060 Motherboard resources OK
0x00000064-0x00000064 Motherboard resources OK
0x00000072-0x00000077 Motherboard resources OK
0x00000080-0x00000080 Motherboard resources OK
0x00000090-0x0000009F Motherboard resources OK
0x000000A4-0x000000A5 Motherboard resources OK
0x000000A8-0x000000A9 Motherboard resources OK
0x000000AC-0x000000AD Motherboard resources OK
0x000000B0-0x000000B5 Motherboard resources OK
0x000000B8-0x000000B9 Motherboard resources OK
0x000000BC-0x000000BD Motherboard resources OK
0x0000002E-0x0000002F Motherboard resources OK
0x0000004D-0x0000004D1 Motherboard resources OK
0x00000CF9-0x00000CF9 Motherboard resources OK
0x00000D00-0x00000D7F Motherboard resources OK
0x00000E80-0x00000EBF Motherboard resources OK
0x00001092-0x00001092 Motherboard resources OK
0x00001300-0x0000133F Motherboard resources OK
0x000013F8-0x000013FF Motherboard resources OK
0x00001454-0x00001454 Motherboard resources OK
0x000014D4-0x000014D4 Motherboard resources OK
0x00001500-0x0000157F Motherboard resources OK
0x000023F8-0x000023FF Motherboard resources OK
0x00000081-0x0000008F Direct memory access controller      OK
0x000000C0-0x000000DF Direct memory access controller      OK
0x000000F0-0x000000FE Numeric data processor OK
0x00000020-0x00000021 Programmable interrupt controller      OK
0x000000A0-0x000000A1 Programmable interrupt controller      OK
0x00000070-0x00000071 System CMOS/real time clock      OK

```

0x00000061-0x00000061 System speaker OK
 0x00000040-0x00000043 System timer OK
 0x000003F8-0x000003FF Communications Port (COM1) OK
 0x00000880-0x0000088F Intel(R) 82801DB Ultra ATA Storage Controller-24CB
 OK
 0x000001F0-0x000001F7 Primary IDE Channel OK
 0x000003F6-0x000003F6 Primary IDE Channel OK
 0x00000170-0x00000177 Secondary IDE Channel OK
 0x00000376-0x00000376 Secondary IDE Channel OK
 0x00000860-0x0000087F Intel(R) 82801DB/DBM SMBus Controller - 24C3 OK

0x00002000-0x00002FFF PCI bus OK
 0x00002000-0x00002FFF Intel(R) P64H2 PCI to PCI Bridge - 1460 OK
 0x00002000-0x00002FFF Adaptec ASC-48300 SAS/SATA Host Adapter OK

0x00003000-0x00003FFF PCI bus OK
 0x00003000-0x00003FFF Intel(R) P64H2 PCI to PCI Bridge - 1460 OK

0x00003000-0x00003FFF Intel(R) PRO/1000 MT Dual Port Network Connection
 OK

0x00003040-0x0000307F Intel(R) PRO/1000 MT Dual Port Network Connection
 #2 OK

0x00004000-0x0000FFFF PCI bus OK
 0x00004000-0x0000FFFF Intel(R) P64H2 PCI to PCI Bridge - 1460 OK

[IRQs]

Resource	Device	Status
IRQ 9	Microsoft ACPI-Compliant System	OK
IRQ 16	Intel(R) 82801DB/DBM USB Universal Host Controller - 24C2	OK
IRQ 19	Intel(R) 82801DB/DBM USB Universal Host Controller - 24C4	OK
IRQ 18	Intel(R) 82801DB/DBM USB Universal Host Controller - 24C7	OK
IRQ 23	Intel(R) 82801DB/DBM USB 2.0 Enhanced Host Controller - 24CD	OK
IRQ 22	Texas Instruments OHCI Compliant IEEE 1394 Host Controller	OK

IRQ 13	Numeric data processor	OK
IRQ 8	System CMOS/real time clock	OK
IRQ 0	System timer	OK
IRQ 4	Communications Port (COM1)	OK
IRQ 14	Primary IDE Channel	OK
IRQ 15	Secondary IDE Channel	OK
IRQ 10	Intel(R) 82801DB/DBM SMBus Controller - 24C3	OK
IRQ 10	Intel(R) P64H2 PCI Hot Plug Controller - 1462	OK
IRQ 10	Intel(R) P64H2 PCI Hot Plug Controller - 1462	OK
IRQ 10	Intel(R) P64H2 PCI Hot Plug Controller - 1462	OK
IRQ 10	Intel(R) P64H2 PCI Hot Plug Controller - 1462	OK
IRQ 10	Intel(R) P64H2 PCI Hot Plug Controller - 1462	OK
IRQ 10	Intel(R) P64H2 PCI Hot Plug Controller - 1462	OK
IRQ 10	Intel(R) P64H2 PCI Hot Plug Controller - 1462	OK
IRQ 10	Intel(R) P64H2 PCI Hot Plug Controller - 1462	OK
IRQ 10	Intel(R) P64H2 PCI Hot Plug Controller - 1462	OK
IRQ 10	Intel(R) P64H2 PCI Hot Plug Controller - 1462	OK
IRQ 10	Intel(R) P64H2 PCI Hot Plug Controller - 1462	OK
IRQ 48	Adaptec ASC-48300 SAS/SATA Host Adapter	OK
IRQ 72	Intel(R) PRO/1000 MT Dual Port Network Connection	OK

IRQ 73 Intel(R) PRO/1000 MT Dual Port Network Connection #2 OK
 IRQ 120 Emulex LP 10000 - Unisys VI OK
 IRQ 121 Emulex LP 10000 - Unisys VI OK
 IRQ 144 Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
 IRQ 168 Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
 IRQ 192 Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
 IRQ 504 Emulex LP 10000 - Unisys VI OK
 IRQ 505 Emulex LP 10000 - Unisys VI OK
 IRQ 528 Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
 IRQ 552 Unisys Intelligent Fibre Channel Fabric Bus Adapter OK

[Memory]

Resource	Device	Status
0xA0000-0xFFFFF	PCI bus	OK
0xA0000-0xFFFFF	UNISYS Console Manager 3	OK
0xF5000000-0xF7FFFFFFF	PCI bus	OK
0xF7FFFC00-0xF7FFFFFFF	Intel(R) 82801DB/DBM USB 2.0 Enhanced Host Controller - 24CD	OK
0xF6000000-0xF6FFFFFFF	UNISYS Console Manager 3	OK
0xF7EFF000-0xF7FFFFFFF	UNISYS Console Manager 3	OK
0xF7EFE800-0xF7EFEFFF	Texas Instruments OHCI Compliant IEEE 1394 Host Controller	OK
0xF7EF8000-0xF7EFBFFF	Texas Instruments OHCI Compliant IEEE 1394 Host Controller	OK
0xF7EFC000-0xF7EFCFFF	PCI Device	OK
0xF7EFD000-0xF7EFDFFF	PCI Device	OK
0xC0000-0xFFFFF	Motherboard resources	OK
0xF7FFF800-0xF7FFBFFF	Intel(R) 82801DB Ultra ATA Storage Controller-24CB	OK
0xF3000000-0xF4FFFFFFF	PCI bus	OK
0xF4F00000-0xF4FFFFFFF	Intel(R) P64H2 PCI to PCI Bridge - 1460	OK
0xF3F00000-0xF3FFFFFFF	Intel(R) P64H2 PCI to PCI Bridge - 1460	OK
0xF4FC0000-0xF4FFFFFFF	Adaptec ASC-48300 SAS/SATA Host Adapter	OK
0xF3FE0000-0xF3FFFFFFF	Adaptec ASC-48300 SAS/SATA Host Adapter	OK
0xF1000000-0xF2FFFFFFF	PCI bus	OK
0xF2F00000-0xF2FFFFFFF	Intel(R) P64H2 PCI to PCI Bridge - 1460	OK
0xF2FE0000-0xF2FFFFFFF	Intel(R) PRO/1000 MT Dual Port Network Connection	OK
0xF2FC0000-0xF2FDFFF	Intel(R) PRO/1000 MT Dual Port Network Connection #2	OK
0xF1F00000-0xF1FFFFFFF	Intel(R) P64H2 PCI to PCI Bridge - 1460	OK
0xF1FFFC00-0xF1FFFCFF	Intel(R) P64H2 PCI Hot Plug Controller - 1462	OK
0xEE000000-0xF0FFFFFFF	PCI bus	OK
0xEE000000-0xF0FFFFFFF	Intel(R) P64H2 PCI to PCI Bridge - 1460	OK
0xEE000000-0xF0FFFFFFF	PCI standard PCI-to-PCI bridge	OK
0xEE000000-0xF0FFFFFFF	Unisys Intelligent Fibre Channel Fabric Bus Adapter	OK
0xF0F00000-0xF0FFFFFFF	Intel(R) P64H2 PCI to PCI Bridge - 1460	OK

```

0xEEF00000-0xEEFFFFFF Intel(R) P64H2 PCI to PCI Bridge - 1460 OK
0xF0FFE000-0xF0FFFEFF Emulex LP 10000 - Unisys VI OK
0xF0FFFC00-0xF0FFFCFF Emulex LP 10000 - Unisys VI OK
0xF0FFFD000-0xF0FFDFDF Emulex LP 10000 - Unisys VI OK
0xF0FFF800-0xF0FFF8FF Emulex LP 10000 - Unisys VI OK
0xEEFFFC00-0xEEFFFCFF Intel(R) P64H2 PCI Hot Plug Controller - 1462
OK
0xF0E00000-0xF0E0FFFF Intel(R) P64H2 PCI to PCI Bridge - 1460 OK
0xF0E00000-0xF0E0FFFF PCI standard PCI-to-PCI bridge OK
0xF0E0FF000-0xF0E0FFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter
OK
0xEEEFFC00-0xEEEFFCFF Intel(R) P64H2 PCI Hot Plug Controller - 1462
OK
0xE9000000-0xEDFFFFFF PCI bus OK
0xE9000000-0xEDFFFFFF Intel(R) P64H2 PCI to PCI Bridge - 1460 OK
0xE9000000-0xEDFFFFFF PCI standard PCI-to-PCI bridge OK
0xE9000000-0xEDFFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter
OK
0xECF00000-0xECFFFFFF Intel(R) P64H2 PCI to PCI Bridge - 1460 OK
0xECF00000-0xECFFFFFF PCI standard PCI-to-PCI bridge OK
0xEA000000-0xEAFFFFFF Intel(R) P64H2 PCI to PCI Bridge - 1460 OK
0xEA000000-0xEAFFFFFF PCI standard PCI-to-PCI bridge OK
0xEA000000-0xEAFFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter
OK
0xECFFF000-0xECFFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter
OK
0xEAFFFC00-0xEAFFFCFF Intel(R) P64H2 PCI Hot Plug Controller - 1462
OK
0xECE00000-0xECEFFFFFF Intel(R) P64H2 PCI to PCI Bridge - 1460 OK
0xECE00000-0xECEFFFFFF PCI standard PCI-to-PCI bridge OK
0xECEFF000-0xECEFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter
OK
0xE9FFFC00-0xE9FFFCFF Intel(R) P64H2 PCI Hot Plug Controller - 1462
OK
0xE5000000-0xE8FFFFFF PCI bus OK
0xE5000000-0xE8FFFFFF Intel(R) P64H2 PCI to PCI Bridge - 1460 OK
0xE5000000-0xE8FFFFFF PCI standard PCI-to-PCI bridge OK
0xE5000000-0xE8FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter
OK
0xE7F00000-0xE7FFFFFF Intel(R) P64H2 PCI to PCI Bridge - 1460 OK
0xE5F00000-0xE5FFFFFF Intel(R) P64H2 PCI to PCI Bridge - 1460 OK
0xE7FFE000-0xE7FFFEFF Emulex LP 10000 - Unisys VI OK
0xE7FFFC00-0xE7FFFCFF Emulex LP 10000 - Unisys VI OK
0xE7FFD000-0xE7FFDFFF Emulex LP 10000 - Unisys VI OK
0xE7FFF800-0xE7FFF8FF Emulex LP 10000 - Unisys VI OK
0xE5FFFC00-0xE5FFFCFF Intel(R) P64H2 PCI Hot Plug Controller - 1462
OK
0xE7E00000-0xE7E0FFFF Intel(R) P64H2 PCI to PCI Bridge - 1460 OK
0xE7E00000-0xE7E0FFFF PCI standard PCI-to-PCI bridge OK

```

```

0xE7EFF000-0xE7EFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter
OK
0xE5EFFC00-0xE5EFFCFF Intel(R) P64H2 PCI Hot Plug Controller - 1462
OK
0xE0000000-0xE4FFFFFF PCI bus OK
0xE3F00000-0xE3FFFFFF Intel(R) P64H2 PCI to PCI Bridge - 1460 OK
0xE3F00000-0xE3FFFFFF PCI standard PCI-to-PCI bridge OK
0xE1000000-0xE1FFFFFF Intel(R) P64H2 PCI to PCI Bridge - 1460 OK
0xE1000000-0xE1FFFFFF PCI standard PCI-to-PCI bridge OK
0xE1000000-0xE1FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter
OK
0xE3FFF000-0xE3FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter
OK
0xE1FFFC00-0xE1FFFCFF Intel(R) P64H2 PCI Hot Plug Controller - 1462
OK
0xE0F00000-0xE0FFFFFF Intel(R) P64H2 PCI to PCI Bridge - 1460 OK
0xE0FFFC00-0xE0FFFCFF Intel(R) P64H2 PCI Hot Plug Controller - 1462
OK
[Components]
[Multimedia]
[Audio Codecs]
CODEC Manufacturer Description Status File Version Size
Creation Date
c:\windows\system32\msgsm32.acm Microsoft Corporation OK
C:\WINDOWS\system32\MSGSM32.ACM 5.2.3790.1830
(srv03_spl_rtm.050324-1447) 34.50 KB (35,328 bytes) 3/25/2005
11:00 AM
c:\windows\system32\imaadp32.acm Microsoft Corporation OK
C:\WINDOWS\system32\IMAADP32.ACM 5.2.3790.1830
(srv03_spl_rtm.050324-1447) 24.00 KB (24,576 bytes) 3/25/2005
11:00 AM
c:\windows\system32\msg711.acm Microsoft Corporation OK
C:\WINDOWS\system32\MSG711.ACM 5.2.3790.1830
(srv03_spl_rtm.050324-1447) 13.50 KB (13,824 bytes) 3/25/2005
11:00 AM
c:\windows\system32\tsssoft32.acm DSP GROUP, INC. OK
C:\WINDOWS\system32\TSSOFT32.ACM 1.01 13.50 KB (13,824
bytes) 3/25/2005 11:00 AM
c:\windows\system32\msadp32.acm Microsoft Corporation OK
C:\WINDOWS\system32\MSADP32.ACM 5.2.3790.1830
(srv03_spl_rtm.050324-1447) 23.50 KB (24,064 bytes) 3/25/2005
11:00 AM
[Video Codecs]
CODEC Manufacturer Description Status File Version Size
Creation Date

```



```

c:\windows\system32\msrle32.dll      Microsoft Corporation      OK
C:\WINDOWS\system32\MSRLE32.DLL    5.2.3790.1830
(srv03_sp1_rtm.050324-1447)      15.50 KB (15,872 bytes)   3/25/2005
11:00 AM
c:\windows\system32\msyuv.dll      Microsoft Corporation      OK
C:\WINDOWS\system32\MSYUV.DLL     5.2.3790.1830 (srv03_sp1_rtm.050324-
1447) 21.00 KB (21,504 bytes)   3/24/2005 9:21 AM
c:\windows\system32\iyuv_32.dll    Microsoft Corporation      OK
C:\WINDOWS\system32\IYUV_32.DLL   5.2.3790.1830
(srv03_sp1_rtm.050324-1447)      52.50 KB (53,760 bytes)   3/24/2005 9:19
AM
c:\windows\system32\msvidc32.dll   Microsoft Corporation      OK
C:\WINDOWS\system32\MSVIDC32.DLL  5.2.3790.1830
(srv03_sp1_rtm.050324-1447)      43.00 KB (44,032 bytes)   3/25/2005
11:00 AM
c:\windows\system32\tsbyuv.dll     Microsoft Corporation      OK
C:\WINDOWS\system32\TSBYUV.DLL    5.2.3790.1830
(srv03_sp1_rtm.050324-1447)      12.50 KB (12,800 bytes)   3/24/2005 9:34
AM

```

[CD-ROM]

```

Item      Value
Drive     D:
Description  CD-ROM Drive
Media Loaded  No
Media Type  CD-ROM
Name       TOSHIBA CD/DVDW SD-R6472
Manufacturer (Standard CD-ROM drives)
Status     OK
Transfer Rate Not Available
SCSI Target ID 0
PNP Device ID IDE\CDROMTOSHIBA_CD/DVDW_SD-
R6472_____TR50____\3534323430373434323520202020202020202020
Driver c:\windows\system32\drivers\cdrom.sys (5.2.3790.1830
(srv03_sp1_rtm.050324-1447), 75.50 KB (77,312 bytes), 3/25/2005 11:00 AM)

```

[Sound Device]

```
Item      Value
```

[Display]

```

Item      Value
Name      UNISYS Console Manager 3
PNP Device ID
          PCI\VEN_1002&DEV_4C52&SUBSYS_C2201018&REV_64\4&29817089&0&08F0

Adapter Type  ATI MACH64, Unisys Corporation compatible
Adapter Description  UNISYS Console Manager 3
Adapter RAM   4.00 MB (4,194,304 bytes)
Installed Drivers  vga.dll, cm3disp.dll
Driver Version 8.0.0.25
INF File     oem1.inf (cm3 section)
Color Planes 1
Color Table Entries  65536
Resolution   1024 x 768 x 60 hertz

```

```

Bits/Pixel 16
Memory Address 0xF6000000-0xF6FFFFFF
I/O Port      0x00001F00-0x00001FFF
Memory Address 0xF7EFFF00-0xF7EFFFFF
Memory Address 0xA0000-0xFFFFF
I/O Port      0x000003B0-0x000003BB
I/O Port      0x000003C0-0x000003DF
Driver c:\windows\system32\drivers\cm3mini.sys (8.0.0.25, 13.50 KB
(13,824 bytes), 10/13/2005 7:47 AM)

[Infrared]

Item      Value

[Input]

[Keyboard]

Item      Value
Description  USB Human Interface Device
Name        Enhanced (101- or 102-key)
Layout      00000409
PNP Device ID  USB\VID_0557&PID_2221&MI_00\6&14CD2FAC&0&0000
Number of Function Keys 12
Driver c:\windows\system32\drivers\hidusb.sys (5.2.3790.1830
(srv03_sp1_rtm.050324-1447), 18.50 KB (18,944 bytes), 3/25/2005 11:00 AM)

[Pointing Device]

Item      Value
Hardware Type  USB Human Interface Device
Number of Buttons 5
Status OK
PNP Device ID  USB\VID_0557&PID_2221&MI_01\6&14CD2FAC&0&0001
Power Management Supported No
Double Click Threshold 6
Handedness    Right Handed Operation
Driver c:\windows\system32\drivers\hidusb.sys (5.2.3790.1830
(srv03_sp1_rtm.050324-1447), 18.50 KB (18,944 bytes), 3/25/2005 11:00 AM)

[Modem]

Item      Value

[Network]

[Adapter]

Item      Value
Name      [00000001] Intel(R) PRO/1000 MT Dual Port Network Connection
Adapter Type  Ethernet 802.3
Product Type  Intel(R) PRO/1000 MT Dual Port Network Connection

```

Installed Yes
PNP Device ID
PCI\VEN_8086&DEV_1079&SUBSYS_10798086&REV_03\4&226B0D81&0&08E8

Last Reset 10/19/2005 5:52 PM
Index 1
Service Name E1000
IP Address 192.59.13.7
IP Subnet 255.255.255.0
Default IP Gateway 192.59.13.250
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 08:00:0B:1E:08:A0
Memory Address 0xF2FE0000-0xF2FFFFFF
I/O Port 0x00003000-0x00003FFF
IRQ Channel IRQ 72

Driver c:\windows\system32\drivers\elg5132e.sys (8.1.8.0 built by:
WinDDK, 227.50 KB (232,960 bytes), 10/12/2005 9:48 AM)

Name [00000002] Intel(R) PRO/1000 MT Dual Port Network Connection

Adapter Type Ethernet 802.3
Product Type Intel(R) PRO/1000 MT Dual Port Network Connection
Installed Yes
PNP Device ID
PCI\VEN_8086&DEV_1079&SUBSYS_10798086&REV_03\4&226B0D81&0&09E8

Last Reset 10/19/2005 5:52 PM
Index 2
Service Name E1000
IP Address 192.168.91.207
IP Subnet 255.255.255.0
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 08:00:0B:1E:08:A1
Memory Address 0xF2FC0000-0xF2FDFFFF
I/O Port 0x00003040-0x0000307F
IRQ Channel IRQ 73

Driver c:\windows\system32\drivers\elg5132e.sys (8.1.8.0 built by:
WinDDK, 227.50 KB (232,960 bytes), 10/12/2005 9:48 AM)

Name [00000003] 1394 Net Adapter
Adapter Type Not Available
Product Type 1394 Net Adapter
Installed Yes
PNP Device ID V1394\NIC1394\CD00008000B00
Last Reset 10/19/2005 5:52 PM
Index 3
Service Name NIC1394
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
Driver c:\windows\system32\drivers\nic1394.sys (5.2.3790.1830
(srv03_spl_rtm.050324-1447), 90.00 KB (92,160 bytes), 10/12/2005 9:48 AM)

Name [00000004] RAS Async Adapter
Adapter Type Not Available
Product Type RAS Async Adapter
Installed Yes
PNP Device ID Not Available
Last Reset 10/19/2005 5:52 PM
Index 4
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 Not Available

Name [00000005] WAN Miniport (L2TP)
Adapter Type Not Available
Product Type WAN Miniport (L2TP)
Installed Yes
PNP Device ID ROOT\MS_L2TPMINIPORT\0000
Last Reset 10/19/2005 5:52 PM
Index 5
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

Name [00000006] WAN Miniport (PPTP)
Adapter Type Wide Area Network (WAN)
Product Type WAN Miniport (PPTP)
Installed Yes
PNP Device ID ROOT\MS_PPTPMINIPORT\0000
Last Reset 10/19/2005 5:52 PM
Index 6
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 50:50:54:50:30:30

Name [00000007] WAN Miniport (PPPOE)

Adapter Type Wide Area Network (WAN)
Product Type WAN Miniport (PPPOE)
Installed Yes
PNP Device ID ROOT\MS_PPPOEMINIPOINT\0000
Last Reset 10/19/2005 5:52 PM
Index 7
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 33:50:6F:45:30:30

Name [00000008] Direct Parallel
Adapter Type Not Available
Product Type Direct Parallel
Installed Yes
PNP Device ID ROOT\MS_PTIMINIPOINT\0000
Last Reset 10/19/2005 5:52 PM
Index 8
Service Name Raspti
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 [00000009] WAN Miniport (IP)
Adapter Type Not Available
Product Type WAN Miniport (IP)
Installed Yes
PNP Device ID ROOT\MS_NDISWANIP\0000
Last Reset 10/19/2005 5:52 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

[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 63.93 KB (65,467 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 RSVP UDP Service Provider
Connectionless Service Yes
Guarantees Delivery No
Guarantees Sequencing No
Maximum Address Size 16 bytes
Maximum Message Size 63.93 KB (65,467 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

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

[WinSock]

Item Value
 File c:\windows\system32\wsock32.dll
 Size 24.50 KB (25,088 bytes)
 Version 5.2.3790.1830 (srv03_sp1_rtm.050324-1447)

[Ports]

[Serial]

Item Value
 Name Communications Port (COM1)
 Status OK
 PNP Device ID ACPI\PNP0501\15
 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
 I/O Port 0x000003F8-0x000003FF
 IRQ Channel IRQ 4
 Driver c:\windows\system32\drivers\serial.sys (5.2.3790.1830
 (srv03_sp1_rtm.050324-1447), 118.50 KB (121,344 bytes), 3/25/2005 11:00
 AM)

[Parallel]

Item Value

[Storage]

[Drives]

Item Value
 Drive C:
 Description Local Fixed Disk
 Compressed No
 File System NTFS
 Size 33.89 GB (36,388,605,952 bytes)
 Free Space 24.49 GB (26,300,493,824 bytes)
 Volume Name
 Volume Serial Number F066F689

Drive D:
 Description CD-ROM Disc

[Disks]

Item Value
 Description Disk drive
 Manufacturer (Standard disk drives)
 Model ADAPTEC RAID 1 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 7
 SCSI Logical Unit 0
 SCSI Port 3
 SCSI Target ID 0
 Sectors/Track 63
 Size 33.90 GB (36,396,864,000 bytes)
 Total Cylinders 4,425
 Total Sectors 71,087,625
 Total Tracks 1,128,375
 Tracks/Cylinder 255
 Partition Disk #0, Partition #0
 Partition Size 33.89 GB (36,388,606,464 bytes)
 Partition Starting Offset 32,256 bytes
 Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model DGC RAID 10 0206
 Bytes/Sector 512

Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 48
Sectors/Track 63
Size 764.60 GB (820,981,647,360 bytes)
Total Cylinders 99,812
Total Sectors 1,603,479,780
Total Tracks 25,452,060
Tracks/Cylinder 255
Partition Disk #1, Partition #0
Partition Size 764.60 GB (820,981,615,104 bytes)
Partition Starting Offset 32,256 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 36
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #13, Partition #0
Partition Size 12.22 GB (13,119,289,344 bytes)
Partition Starting Offset 32,256 bytes
Partition Disk #13, Partition #1
Partition Size 17.59 GB (18,885,242,880 bytes)
Partition Starting Offset 13,119,321,600 bytes
Partition Disk #13, Partition #2
Partition Size 9.29 GB (9,977,264,640 bytes)
Partition Starting Offset 32,004,564,480 bytes
Partition Disk #13, Partition #3
Partition Size 80.53 GB (86,464,143,360 bytes)
Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 37
Sectors/Track 63

Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #12, Partition #0
Partition Size 12.22 GB (13,119,289,344 bytes)
Partition Starting Offset 32,256 bytes
Partition Disk #12, Partition #1
Partition Size 17.59 GB (18,885,242,880 bytes)
Partition Starting Offset 13,119,321,600 bytes
Partition Disk #12, Partition #2
Partition Size 9.29 GB (9,977,264,640 bytes)
Partition Starting Offset 32,004,564,480 bytes
Partition Disk #12, Partition #3
Partition Size 80.53 GB (86,464,143,360 bytes)
Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 38
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #11, Partition #0
Partition Size 12.22 GB (13,119,289,344 bytes)
Partition Starting Offset 32,256 bytes
Partition Disk #11, Partition #1
Partition Size 17.59 GB (18,885,242,880 bytes)
Partition Starting Offset 13,119,321,600 bytes
Partition Disk #11, Partition #2
Partition Size 9.29 GB (9,977,264,640 bytes)
Partition Starting Offset 32,004,564,480 bytes
Partition Disk #11, Partition #3
Partition Size 80.53 GB (86,464,143,360 bytes)
Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 39

Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #10, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #10, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #10, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #10, Partition #3
 Partition Size 80.53 GB (86,464,143,360 bytes)
 Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0

SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 40
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255

Partition Disk #9, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #9, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #9, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #9, Partition #3
 Partition Size 80.53 GB (86,464,143,360 bytes)
 Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 0

SCSI Target ID 41
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #8, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #8, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #8, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #8, Partition #3
 Partition Size 80.53 GB (86,464,143,360 bytes)
 Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0

SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 42
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255

Partition Disk #7, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #7, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #7, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #7, Partition #3
 Partition Size 80.53 GB (86,464,143,360 bytes)
 Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0

SCSI Port 0
 SCSI Target ID 43
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #6, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #6, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #6, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #6, Partition #3
 Partition Size 80.53 GB (86,464,143,360 bytes)
 Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 44
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #5, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #5, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #5, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #5, Partition #3
 Partition Size 80.53 GB (86,464,143,360 bytes)
 Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0

SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 45
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #4, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #4, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #4, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #4, Partition #3
 Partition Size 80.53 GB (86,464,143,360 bytes)
 Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 46
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #3, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #3, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #3, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #3, Partition #3
 Partition Size 80.53 GB (86,464,143,360 bytes)
 Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4

SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 47
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #2, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #2, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #2, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #2, Partition #3
 Partition Size 80.53 GB (86,464,143,360 bytes)
 Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 24
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #25, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #25, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #25, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #25, Partition #3
 Partition Size 80.53 GB (86,464,143,360 bytes)
 Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk

Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 25
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #24, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #24, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #24, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #24, Partition #3
 Partition Size 80.53 GB (86,464,143,360 bytes)
 Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 26
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #23, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #23, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #23, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #23, Partition #3
 Partition Size 80.53 GB (86,464,143,360 bytes)
 Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes

Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 27
 Sectors/Track 63
 Size 239.26 GB (256,900,170,240 bytes)
 Total Cylinders 31,233
 Total Sectors 501,758,145
 Total Tracks 7,964,415
 Tracks/Cylinder 255
 Partition Disk #22, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #22, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #22, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #22, Partition #3
 Partition Size 200.15 GB (214,910,115,840 bytes)
 Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 28
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #21, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #21, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #21, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #21, Partition #3
 Partition Size 80.53 GB (86,464,143,360 bytes)
 Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512

Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 29
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #20, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #20, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #20, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #20, Partition #3
 Partition Size 80.53 GB (86,464,143,360 bytes)
 Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 30
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #19, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #19, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #19, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #19, Partition #3
 Partition Size 80.53 GB (86,464,143,360 bytes)
 Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0

Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 31
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #18, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #18, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #18, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #18, Partition #3
 Partition Size 80.53 GB (86,464,143,360 bytes)
 Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 32
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #17, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #17, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #17, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #17, Partition #3
 Partition Size 80.53 GB (86,464,143,360 bytes)
 Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation

Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 33
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #16, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #16, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #16, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #16, Partition #3
 Partition Size 80.53 GB (86,464,143,360 bytes)
 Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 34
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #15, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #15, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #15, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #15, Partition #3
 Partition Size 80.53 GB (86,464,143,360 bytes)
 Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver

Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 35
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #14, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #14, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #14, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #14, Partition #3
 Partition Size 80.53 GB (86,464,143,360 bytes)
 Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #49, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #49, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #49, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #49, Partition #3
 Partition Size 80.53 GB (86,464,143,360 bytes)
 Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 1
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #48, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #48, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #48, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #48, Partition #3
 Partition Size 80.53 GB (86,464,143,360 bytes)
 Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 2
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #47, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #47, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #47, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #47, Partition #3
 Partition Size 80.53 GB (86,464,143,360 bytes)
 Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 3
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #46, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #46, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #46, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #46, Partition #3
 Partition Size 80.53 GB (86,464,143,360 bytes)
 Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 4
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #45, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #45, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #45, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #45, Partition #3
 Partition Size 80.53 GB (86,464,143,360 bytes)

Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 5
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #44, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #44, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #44, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #44, Partition #3
 Partition Size 80.53 GB (86,464,143,360 bytes)
 Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 6
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #43, Partition #0
 Partition Size 12.22 GB (13,119,289,344 bytes)
 Partition Starting Offset 32,256 bytes
 Partition Disk #43, Partition #1
 Partition Size 17.59 GB (18,885,242,880 bytes)
 Partition Starting Offset 13,119,321,600 bytes
 Partition Disk #43, Partition #2
 Partition Size 9.29 GB (9,977,264,640 bytes)
 Partition Starting Offset 32,004,564,480 bytes
 Partition Disk #43, Partition #3

Partition Size 80.53 GB (86,464,143,360 bytes)
Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 7
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #42, Partition #0
Partition Size 12.22 GB (13,119,289,344 bytes)
Partition Starting Offset 32,256 bytes
Partition Disk #42, Partition #1
Partition Size 17.59 GB (18,885,242,880 bytes)
Partition Starting Offset 13,119,321,600 bytes
Partition Disk #42, Partition #2
Partition Size 9.29 GB (9,977,264,640 bytes)
Partition Starting Offset 32,004,564,480 bytes
Partition Disk #42, Partition #3
Partition Size 80.53 GB (86,464,143,360 bytes)
Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 8
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #41, Partition #0
Partition Size 12.22 GB (13,119,289,344 bytes)
Partition Starting Offset 32,256 bytes
Partition Disk #41, Partition #1
Partition Size 17.59 GB (18,885,242,880 bytes)
Partition Starting Offset 13,119,321,600 bytes
Partition Disk #41, Partition #2
Partition Size 9.29 GB (9,977,264,640 bytes)
Partition Starting Offset 32,004,564,480 bytes

Partition Disk #41, Partition #3
Partition Size 80.53 GB (86,464,143,360 bytes)
Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 9
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #40, Partition #0
Partition Size 12.22 GB (13,119,289,344 bytes)
Partition Starting Offset 32,256 bytes
Partition Disk #40, Partition #1
Partition Size 17.59 GB (18,885,242,880 bytes)
Partition Starting Offset 13,119,321,600 bytes
Partition Disk #40, Partition #2
Partition Size 9.29 GB (9,977,264,640 bytes)
Partition Starting Offset 32,004,564,480 bytes
Partition Disk #40, Partition #3
Partition Size 80.53 GB (86,464,143,360 bytes)
Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 10
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #39, Partition #0
Partition Size 12.22 GB (13,119,289,344 bytes)
Partition Starting Offset 32,256 bytes
Partition Disk #39, Partition #1
Partition Size 17.59 GB (18,885,242,880 bytes)
Partition Starting Offset 13,119,321,600 bytes
Partition Disk #39, Partition #2
Partition Size 9.29 GB (9,977,264,640 bytes)

Partition Starting Offset 32,004,564,480 bytes
Partition Disk #39, Partition #3
Partition Size 80.53 GB (86,464,143,360 bytes)
Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 11
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #38, Partition #0
Partition Size 12.22 GB (13,119,289,344 bytes)
Partition Starting Offset 32,256 bytes
Partition Disk #38, Partition #1
Partition Size 17.59 GB (18,885,242,880 bytes)
Partition Starting Offset 13,119,321,600 bytes
Partition Disk #38, Partition #2
Partition Size 9.29 GB (9,977,264,640 bytes)
Partition Starting Offset 32,004,564,480 bytes
Partition Disk #38, Partition #3
Partition Size 80.53 GB (86,464,143,360 bytes)
Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 12
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #37, Partition #0
Partition Size 12.22 GB (13,119,289,344 bytes)
Partition Starting Offset 32,256 bytes
Partition Disk #37, Partition #1
Partition Size 17.59 GB (18,885,242,880 bytes)
Partition Starting Offset 13,119,321,600 bytes
Partition Disk #37, Partition #2

Partition Size 9.29 GB (9,977,264,640 bytes)
Partition Starting Offset 32,004,564,480 bytes
Partition Disk #37, Partition #3
Partition Size 80.53 GB (86,464,143,360 bytes)
Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 13
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #36, Partition #0
Partition Size 12.22 GB (13,119,289,344 bytes)
Partition Starting Offset 32,256 bytes
Partition Disk #36, Partition #1
Partition Size 17.59 GB (18,885,242,880 bytes)
Partition Starting Offset 13,119,321,600 bytes
Partition Disk #36, Partition #2
Partition Size 9.29 GB (9,977,264,640 bytes)
Partition Starting Offset 32,004,564,480 bytes
Partition Disk #36, Partition #3
Partition Size 80.53 GB (86,464,143,360 bytes)
Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 14
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #35, Partition #0
Partition Size 12.22 GB (13,119,289,344 bytes)
Partition Starting Offset 32,256 bytes
Partition Disk #35, Partition #1
Partition Size 17.59 GB (18,885,242,880 bytes)
Partition Starting Offset 13,119,321,600 bytes

Partition Disk #35, Partition #2
Partition Size 9.29 GB (9,977,264,640 bytes)
Partition Starting Offset 32,004,564,480 bytes
Partition Disk #35, Partition #3
Partition Size 80.53 GB (86,464,143,360 bytes)
Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 15
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #34, Partition #0
Partition Size 12.22 GB (13,119,289,344 bytes)
Partition Starting Offset 32,256 bytes
Partition Disk #34, Partition #1
Partition Size 17.59 GB (18,885,242,880 bytes)
Partition Starting Offset 13,119,321,600 bytes
Partition Disk #34, Partition #2
Partition Size 9.29 GB (9,977,264,640 bytes)
Partition Starting Offset 32,004,564,480 bytes
Partition Disk #34, Partition #3
Partition Size 80.53 GB (86,464,143,360 bytes)
Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 16
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #33, Partition #0
Partition Size 12.22 GB (13,119,289,344 bytes)
Partition Starting Offset 32,256 bytes
Partition Disk #33, Partition #1
Partition Size 17.59 GB (18,885,242,880 bytes)

Partition Starting Offset 13,119,321,600 bytes
Partition Disk #33, Partition #2
Partition Size 9.29 GB (9,977,264,640 bytes)
Partition Starting Offset 32,004,564,480 bytes
Partition Disk #33, Partition #3
Partition Size 80.53 GB (86,464,143,360 bytes)
Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 17
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #32, Partition #0
Partition Size 12.22 GB (13,119,289,344 bytes)
Partition Starting Offset 32,256 bytes
Partition Disk #32, Partition #1
Partition Size 17.59 GB (18,885,242,880 bytes)
Partition Starting Offset 13,119,321,600 bytes
Partition Disk #32, Partition #2
Partition Size 9.29 GB (9,977,264,640 bytes)
Partition Starting Offset 32,004,564,480 bytes
Partition Disk #32, Partition #3
Partition Size 80.53 GB (86,464,143,360 bytes)
Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 18
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #31, Partition #0
Partition Size 12.22 GB (13,119,289,344 bytes)
Partition Starting Offset 32,256 bytes
Partition Disk #31, Partition #1

Partition Size 17.59 GB (18,885,242,880 bytes)
Partition Starting Offset 13,119,321,600 bytes
Partition Disk #31, Partition #2
Partition Size 9.29 GB (9,977,264,640 bytes)
Partition Starting Offset 32,004,564,480 bytes
Partition Disk #31, Partition #3
Partition Size 80.53 GB (86,464,143,360 bytes)
Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 19
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #30, Partition #0
Partition Size 12.22 GB (13,119,289,344 bytes)
Partition Starting Offset 32,256 bytes
Partition Disk #30, Partition #1
Partition Size 17.59 GB (18,885,242,880 bytes)
Partition Starting Offset 13,119,321,600 bytes
Partition Disk #30, Partition #2
Partition Size 9.29 GB (9,977,264,640 bytes)
Partition Starting Offset 32,004,564,480 bytes
Partition Disk #30, Partition #3
Partition Size 80.53 GB (86,464,143,360 bytes)
Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 20
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #29, Partition #0
Partition Size 12.22 GB (13,119,289,344 bytes)
Partition Starting Offset 32,256 bytes

Partition Disk #29, Partition #1
Partition Size 17.59 GB (18,885,242,880 bytes)
Partition Starting Offset 13,119,321,600 bytes
Partition Disk #29, Partition #2
Partition Size 9.29 GB (9,977,264,640 bytes)
Partition Starting Offset 32,004,564,480 bytes
Partition Disk #29, Partition #3
Partition Size 80.53 GB (86,464,143,360 bytes)
Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 21
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #28, Partition #0
Partition Size 12.22 GB (13,119,289,344 bytes)
Partition Starting Offset 32,256 bytes
Partition Disk #28, Partition #1
Partition Size 17.59 GB (18,885,242,880 bytes)
Partition Starting Offset 13,119,321,600 bytes
Partition Disk #28, Partition #2
Partition Size 9.29 GB (9,977,264,640 bytes)
Partition Starting Offset 32,004,564,480 bytes
Partition Disk #28, Partition #3
Partition Size 80.53 GB (86,464,143,360 bytes)
Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 22
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #27, Partition #0
Partition Size 12.22 GB (13,119,289,344 bytes)

Partition Starting Offset 32,256 bytes
Partition Disk #27, Partition #1
Partition Size 17.59 GB (18,885,242,880 bytes)
Partition Starting Offset 13,119,321,600 bytes
Partition Disk #27, Partition #2
Partition Size 9.29 GB (9,977,264,640 bytes)
Partition Starting Offset 32,004,564,480 bytes
Partition Disk #27, Partition #3
Partition Size 80.53 GB (86,464,143,360 bytes)
Partition Starting Offset 41,981,829,120 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 23
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #26, Partition #0
Partition Size 12.22 GB (13,119,289,344 bytes)
Partition Starting Offset 32,256 bytes
Partition Disk #26, Partition #1
Partition Size 17.59 GB (18,885,242,880 bytes)
Partition Starting Offset 13,119,321,600 bytes
Partition Disk #26, Partition #2
Partition Size 9.29 GB (9,977,264,640 bytes)
Partition Starting Offset 32,004,564,480 bytes
Partition Disk #26, Partition #3
Partition Size 80.53 GB (86,464,143,360 bytes)
Partition Starting Offset 41,981,829,120 bytes

[SCSI]

Item Value
Name Adaptec ASC-48300 SAS/SATA Host Adapter
Manufacturer Adaptec
Status OK
PNP Device ID
PCI\VEN_9005&DEV_0410&SUBSYS_04109005&REV_08\4&2AAD566B&0&08F8

Memory Address 0xF4FC0000-0xF4FFFFFF
Memory Address 0xF3FE0000-0xF3FFFFFF
I/O Port 0x00002000-0x00002FFF
IRQ Channel IRQ 48
Driver c:\windows\system32\drivers\adp94xx.sys (1.0.317.627 built by:
WinDDK, 463.50 KB (474,624 bytes), 10/12/2005 9:31 AM)

Name Adaptec Processor Device (Pseudo)
Manufacturer Adaptec

Status OK
PNP Device ID
SCSI\PROCESSOR&VEN_ADAPTEC&PROD_HOSTRAID&REV_1.0\5&344567F4&0&77E0

Name Unisys Intelligent Fibre Channel Fabric Bus Adapter
Manufacturer Unisys Corporation
Status OK
PNP Device ID
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\5&17F7F795&0&0008F8

Memory Address 0xEE000000-0xF0FFFFFF
Memory Address 0xF0EFFF00-0xF0EFFFFFFF
IRQ Channel IRQ 144
Driver c:\windows\system32\drivers\ifxp.sys (02.058.00.018, 8.00 KB
(8,192 bytes), 10/13/2005 8:35 AM)

Name Unisys Intelligent Fibre Channel Fabric Bus Adapter
Manufacturer Unisys Corporation
Status OK
PNP Device ID
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\5&63CB3C2&0&0008E8

Memory Address 0xEA000000-0xEAFFFFFF
Memory Address 0xECFFF000-0xECFFFFFFF
IRQ Channel IRQ 168
Driver c:\windows\system32\drivers\ifxp.sys (02.058.00.018, 8.00 KB
(8,192 bytes), 10/13/2005 8:35 AM)

Name Unisys Intelligent Fibre Channel Fabric Bus Adapter
Manufacturer Unisys Corporation
Status OK
PNP Device ID
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\5&34FD2864&0&0008F8

Memory Address 0xE9000000-0xEDFFFFFF
Memory Address 0xECEFF000-0xECEFFFFFFF
IRQ Channel IRQ 192
Driver c:\windows\system32\drivers\ifxp.sys (02.058.00.018, 8.00 KB
(8,192 bytes), 10/13/2005 8:35 AM)

Name Unisys Intelligent Fibre Channel Fabric Bus Adapter
Manufacturer Unisys Corporation
Status OK
PNP Device ID
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\5&260AC241&0&0008F8

Memory Address 0xE5000000-0xE8FFFFFF
Memory Address 0xE7EFFF00-0xE7EFFFFFFF
IRQ Channel IRQ 528
Driver c:\windows\system32\drivers\ifxp.sys (02.058.00.018, 8.00 KB
(8,192 bytes), 10/13/2005 8:35 AM)

Name Unisys Intelligent Fibre Channel Fabric Bus Adapter
Manufacturer Unisys Corporation
Status OK
PNP Device ID
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\5&286E042C&0&0008E8

Memory Address 0xE1000000-0xE1FFFFFF
 Memory Address 0xE3FFF000-0xE3FFFFFF
 IRQ Channel IRQ 552
 Driver c:\windows\system32\drivers\ifxp.sys (02.058.00.018, 8.00 KB (8,192 bytes), 10/13/2005 8:35 AM)

[IDE]

Item Value
 Name Intel(R) 82801DB Ultra ATA Storage Controller-24CB
 Manufacturer Intel
 Status OK
 PNP Device ID
 PCI\VEN_8086&DEV_24CB&SUBSYS_24C28086&REV_02\3&267A616A&0&F9

I/O Port 0x00000880-0x0000088F
 Memory Address 0xF7FFF800-0xF7FFFBFF
 Driver c:\windows\system32\drivers\intelide.sys (5.2.3790.1830 (srv03_spl_rtm.050324-1447), 9.00 KB (9,216 bytes), 10/12/2005 9:48 AM)

Name Primary IDE Channel
 Manufacturer (Standard IDE ATA/ATAPI controllers)
 Status OK
 PNP Device ID PCI\IDE\IDECHANNEL\4&291FD35B&0&0
 I/O Port 0x000001F0-0x000001F7
 I/O Port 0x000003F6-0x000003F6
 IRQ Channel IRQ 14
 Driver c:\windows\system32\drivers\atapi.sys (5.2.3790.1830 (srv03_spl_rtm.050324-1447), 145.00 KB (148,480 bytes), 3/25/2005 11:00 AM)

Name Secondary IDE Channel
 Manufacturer (Standard IDE ATA/ATAPI controllers)
 Status OK
 PNP Device ID PCI\IDE\IDECHANNEL\4&291FD35B&0&1
 I/O Port 0x00000170-0x00000177
 I/O Port 0x00000376-0x00000376
 IRQ Channel IRQ 15
 Driver c:\windows\system32\drivers\atapi.sys (5.2.3790.1830 (srv03_spl_rtm.050324-1447), 145.00 KB (148,480 bytes), 3/25/2005 11:00 AM)

[Printing]

Name	Driver	Port	Name	Server Name
------	--------	------	------	-------------

[Problem Devices]

Device PNP Device ID Error Code
 Console Manager Network Connection USB\VID_0432&PID_0012\5&2873F1A0&0&1
 The drivers for this device are not installed.
 1394 Net Adapter V1394\NIC1394\CD00008000B00 This device is disabled.
 PCI Device
 PCI\VEN_1018&DEV_C310&SUBSYS_C3101018&REV_00\4&29817089&0&18F0
 The drivers for this device are not installed.
 Not Available ACPI\UNO4500\0 The drivers for this device are not installed.

Not Available ACPI\UNO4501\0 The drivers for this device are not installed.

[USB]

Device PNP Device ID
 Intel(R) 82801DB/DBM USB Universal Host Controller - 24C2
 PCI\VEN_8086&DEV_24C2&SUBSYS_24C28086&REV_02\3&267A616A&0&E8
 Intel(R) 82801DB/DBM USB Universal Host Controller - 24C4
 PCI\VEN_8086&DEV_24C4&SUBSYS_24C28086&REV_02\3&267A616A&0&E9
 Intel(R) 82801DB/DBM USB Universal Host Controller - 24C7
 PCI\VEN_8086&DEV_24C7&SUBSYS_24C28086&REV_02\3&267A616A&0&EA
 Intel(R) 82801DB/DBM USB 2.0 Enhanced Host Controller - 24CD
 PCI\VEN_8086&DEV_24CD&SUBSYS_24C08086&REV_02\3&267A616A&0&EF

[Software Environment]

[System Drivers]

Name	Description	File	Type	Started	Start	Mode	State	Status
	Error Control	Accept	Pause	Accept	Stop			
abiosdsk	Abiosdsk		Not Available	Kernel	Driver	No		
	Disabled	Stopped	OK	Ignore	No	No		
acpi	Microsoft ACPI Driver	c:\windows\system32\drivers\acpi.sys	Kernel	Driver	Kernel			
Driver	Yes	Boot	Running	OK	Normal	No	Yes	
acpiec	ACPIEC	c:\windows\system32\drivers\acpiec.sys	Kernel	Driver	Kernel	Driver		
	No	Disabled	Stopped	OK	Normal	No	No	
adp94xx	adp94xx	c:\windows\system32\drivers\adp94xx.sys	Kernel	Driver	Kernel	Driver		
	Yes	Boot	Running	OK	Normal	No	Yes	
adpu160m	adpu160m		Not Available	Kernel	Driver	No		
	Disabled	Stopped	OK	Normal	No	No		
adpu320	adpu320		Not Available	Kernel	Driver	No	Disabled	
	Stopped	OK	Normal	No	No			
afd	AFD	c:\windows\system32\drivers\afd.sys	Kernel	Driver	Kernel	Driver	Yes	
	System	Running	OK	Normal	No	Yes		
aic78u2	aic78u2		Not Available	Kernel	Driver	No	Disabled	
	Stopped	OK	Normal	No	No			
aic78xx	aic78xx		Not Available	Kernel	Driver	No	Disabled	
	Stopped	OK	Normal	No	No			
aliide	AliIde		Not Available	Kernel	Driver	No	Disabled	
	Stopped	OK	Normal	No	No			
amdide	AmdIde		Not Available	Kernel	Driver	No	Disabled	
	Stopped	OK	Normal	No	No			
arc	arc		Not Available	Kernel	Driver	No	Disabled	
	Stopped	OK	Normal	No	No			
arp1394	1394 ARP Client Protocol							
	c:\windows\system32\drivers\arp1394.sys		Kernel	Driver	Kernel	Driver	No	
	Manual	Stopped	OK	Normal	No	No		
asynctmac	RAS Asynchronous Media Driver							
	c:\windows\system32\drivers\asynctmac.sys		Kernel	Driver	Kernel	Driver	No	
	Manual	Stopped	OK	Normal	No	No		

atapi	Standard IDE/ESDI Hard Disk Controller	c:\windows\system32\drivers\atapi.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No	Yes
atdisk	Atdisk Not Available	Kernel Driver	No	Disabled	Stopped OK	Ignore	No	No	
atmarpc	ATM ARP Client Protocol	c:\windows\system32\drivers\atmarpc.sys	Kernel Driver	No	Manual	Stopped OK	Normal	No	No
audstub	Audio Stub Driver	c:\windows\system32\drivers\audstub.sys	Kernel Driver	Yes	Manual	Running OK	Normal	No	Yes
beep	Beep	c:\windows\system32\drivers\beep.sys	Kernel Driver	Yes	System	Running OK	Normal	No	Yes
cdac15ba	CdaC15BA	c:\windows\system32\drivers\cdac15ba.sys	Kernel Driver	Yes	Kernel	Driver	Yes	Auto	Running OK
cdad10ba	CdaD10BA	c:\windows\system32\drivers\cdad10ba.sys	Kernel Driver	Yes	Kernel	Driver	Yes	Auto	Running OK
cdfs	Cdfs	c:\windows\system32\drivers\cdfs.sys	File System Driver	Yes	Disabled	Running OK	Normal	No	Yes
cdrom	CD-ROM Driver	c:\windows\system32\drivers\cdrom.sys	Kernel Driver	Yes	System	Running OK	Normal	No	Yes
changer	Changer Not Available	Kernel Driver	No	System	Stopped OK	Ignore	No	No	
clusdisk	Cluster Disk Driver	c:\windows\system32\drivers\clusdisk.sys	Kernel Driver	No	Disabled	Stopped OK	Normal	No	No
cm3	cm3	c:\windows\system32\drivers\cm3mini.sys	Kernel Driver	Yes	Manual	Running OK	Ignore	No	Yes
cmdide	CmdIde Not Available	Kernel Driver	No	Disabled	Stopped OK	Normal	No	No	
cpqccissm	cpqccissm	Not Available	Kernel Driver	No	Disabled	Stopped OK	Normal	No	No
crcdisk	CRC Disk Filter Driver	c:\windows\system32\drivers\crcdisk.sys	Kernel Driver	Yes	Kernel	Driver	Yes	Boot	Running OK
dfsdriver	DfsDriver	c:\windows\system32\drivers\dfs.sys	File System Driver	Yes	Boot	Running OK	Normal	No	Yes
disk	Disk Driver	c:\windows\system32\drivers\disk.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No	Yes
dmboot	dmboot	c:\windows\system32\drivers\dmboot.sys	Kernel Driver	No	Disabled	Stopped OK	Normal	No	No
dmio	Logical Disk Manager Driver	c:\windows\system32\drivers\dmio.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No	Yes
dmload	dmload	c:\windows\system32\drivers\dmload.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No	Yes
dpti2o	dpti2o Not Available	Kernel Driver	No	Disabled	Stopped OK	Normal	No	No	
e1000	Intel(R) PRO/1000 Device Driver	c:\windows\system32\drivers\elg5132e.sys	Kernel Driver	Yes	Manual	Running OK	Normal	No	Yes
elxstor	elxstor	c:\windows\system32\drivers\elxstor.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No	Yes
em	em	??c:\windows\system32\drivers\em.sys	Kernel Driver	No	Manual	Stopped OK	Normal	No	No
fastfat	Fastfat	c:\windows\system32\drivers\fastfat.sys	File System Driver	No	Disabled	Stopped OK	Normal	No	No

fdc	Fdc	c:\windows\system32\drivers\fdc.sys	Kernel Driver	No	System	Stopped OK	Ignore	No	No
fips	Fips	c:\windows\system32\drivers\fips.sys	Kernel Driver	Yes	System	Running OK	Normal	No	Yes
flpydisk	Flpydisk	c:\windows\system32\drivers\flpydisk.sys	Kernel Driver	No	Kernel	Driver	No	System	Stopped OK
fltmgr	FltMgr	c:\windows\system32\drivers\fltmgr.sys	File System Driver	Yes	Boot	Running OK	Normal	No	Yes
ftdisk	Volume Manager Driver	c:\windows\system32\drivers\ftdisk.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No	Yes
gpc	Generic Packet Classifier	c:\windows\system32\drivers\msgpc.sys	Kernel Driver	Yes	Manual	Running OK	Normal	No	Yes
hidusb	Microsoft HID Class Driver	c:\windows\system32\drivers\hidusb.sys	Kernel Driver	Yes	Manual	Running OK	Ignore	No	Yes
hpciss	hpciss Not Available	Kernel Driver	No	Disabled	Stopped OK	Normal	No	No	
http	HTTP	c:\windows\system32\drivers\http.sys	Kernel Driver	No	Manual	Stopped OK	Normal	No	No
i2omgmt	i2omgmt Not Available	Kernel Driver	No	System	Stopped OK	Normal	No	No	
ifba	Unisys Intelligent Fibre Channel Adapter SCSI Processor	c:\windows\system32\drivers\ifba.sys	Kernel Driver	Yes	Manual	Running OK	Normal	No	Yes
ifdisk	Unisys Intelligent Fibre Channel Fabric Disk Driver	c:\windows\system32\drivers\ifdisk.sys	Kernel Driver	Yes	System	Running OK	Normal	No	Yes
ifip	Unisys Intelligent Fibre Channel Fabric Bus Enumerator	c:\windows\system32\drivers\ifip.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No	Yes
ifxp	Unisys Intelligent Fibre Channel Fabric Bus Adapter	c:\windows\system32\drivers\ifxp.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No	Yes
iirsp	iirsp Not Available	Kernel Driver	No	Disabled	Stopped OK	Normal	No	No	
imapi	CD-Burning Filter Driver	c:\windows\system32\drivers\imapi.sys	Kernel Driver	Yes	System	Running OK	Normal	No	Yes
intelide	IntelIde	c:\windows\system32\drivers\intelide.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No	Yes
intelppm	Intel Processor Driver	c:\windows\system32\drivers\intelppm.sys	Kernel Driver	Yes	Manual	Running OK	Normal	No	Yes
ip6fw	IPv6 Windows Firewall Driver	c:\windows\system32\drivers\ip6fw.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
ipinip	IP in IP Tunnel Driver	c:\windows\system32\drivers\ipinip.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

ipsec	IPSEC driver	c:\windows\system32\drivers\ipsec.sys	Kernel Driver	Yes	Normal	No	Yes	ndproxy	NDIS Proxy	c:\windows\system32\drivers\ndproxy.sys	Kernel Driver	Yes	Manual	Running OK	Normal	No	Yes
isapnp	PnP ISA/EISA Bus Driver	c:\windows\system32\drivers\isapnp.sys	Kernel Driver	Yes	Boot	Running OK	Critical	netbios	NetBIOS Interface	c:\windows\system32\drivers\netbios.sys	File System Driver	Yes	System	Running OK	Normal	No	Yes
kbdclass	Keyboard Class Driver	c:\windows\system32\drivers\kbdclass.sys	Kernel Driver	Yes	System	Running OK	Normal	netbt	NetBios over Tcpip	c:\windows\system32\drivers\netbt.sys	Kernel Driver	Yes	System	Running OK	Normal	No	Yes
kbdhid	Keyboard HID Driver	c:\windows\system32\drivers\kbdhid.sys	Kernel Driver	Yes	System	Running OK	Ignore	nfrd960	nfrd960	Not Available	Kernel Driver	No	Disabled	Stopped	OK	Normal	No
ksecdd	KSecDD	c:\windows\system32\drivers\ksecdd.sys	Kernel Driver	Yes	Boot	Running OK	Normal	nic1394	1394 Net Driver	c:\windows\system32\drivers\nic1394.sys	Kernel Driver	No	Manual	Stopped	OK	Normal	No
ksthunk	Kernel Streaming WOW64 Thunk Service	c:\windows\system32\drivers\ksthunk.sys	Kernel Driver	Yes	Manual	Running OK	Normal	npfs	Npfs	c:\windows\system32\drivers\npfs.sys	File System Driver	Yes	System	Running OK	Normal	No	Yes
lp6nds35	lp6nds35	Not Available	Kernel Driver	No	Disabled	Stopped	OK	ntfs	Ntfs	c:\windows\system32\drivers\ntfs.sys	File System Driver	Yes	Disabled	Running OK	Normal	No	Yes
lpkxdrv	lpkxdrv	c:\windows\system32\drivers\lpkxdrv.sys	Kernel Driver	Yes	Manual	Running OK	Normal	null	Null	c:\windows\system32\drivers\null.sys	Kernel Driver	Yes	System	Running OK	Normal	No	Yes
mmdd	mmdd	c:\windows\system32\drivers\mmdd.sys	Kernel Driver	Yes	System	Running OK	Ignore	ohci1394	Texas Instruments OHCI Compliant IEEE 1394 Host Controller	c:\windows\system32\drivers\ohci1394.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No	Yes
modem	Modem	c:\windows\system32\drivers\modem.sys	Kernel Driver	No	Manual	Stopped	OK	parport	Parport	c:\windows\system32\drivers\parport.sys	Kernel Driver	No	Manual	Stopped	OK	Ignore	No
mouclass	Mouse Class Driver	c:\windows\system32\drivers\mouclass.sys	Kernel Driver	Yes	System	Running OK	Normal	partmgr	Partition Manager	c:\windows\system32\drivers\partmgr.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No	Yes
mouhid	Mouse HID Driver	c:\windows\system32\drivers\mouhid.sys	Kernel Driver	Yes	Manual	Running OK	Ignore	pci	PCI Bus Driver	c:\windows\system32\drivers\pci.sys	Kernel Driver	Yes	Boot	Running OK	Critical	No	Yes
mountmgr	Mount Point Manager	c:\windows\system32\drivers\mountmgr.sys	Kernel Driver	Yes	Boot	Running OK	Normal	pciide	PCIIde	c:\windows\system32\drivers\pciide.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No	Yes
mraid35x	mraid35x	Not Available	Kernel Driver	No	Disabled	Stopped	OK	pcmcia	Pcmcia	c:\windows\system32\drivers\pcmcia.sys	Kernel Driver	No	Disabled	Stopped	OK	Normal	No
mrxdav	WebDav Client Redirector	c:\windows\system32\drivers\mrxdav.sys	File System Driver	No	No	Manual	Stopped	pdcomp	PDCOMP	Not Available	Kernel Driver	No	Manual	Stopped	OK	Ignore	No
mrxsm	MRXSMB	c:\windows\system32\drivers\mrxsm.sys	File System Driver	Yes	System	Running OK	Normal	pdframe	PDFRAME	Not Available	Kernel Driver	No	Manual	Stopped	OK	Ignore	No
msfs	Msfs	c:\windows\system32\drivers\msfs.sys	File System Driver	Yes	System	Running OK	Normal	pdreli	PDRELI	Not Available	Kernel Driver	No	Manual	Stopped	OK	Ignore	No
mssmbios	Microsoft System Management BIOS Driver	c:\windows\system32\drivers\mssmbios.sys	Kernel Driver	Yes	Manual	Running OK	Normal	pdrframe	PDRFRAME	Not Available	Kernel Driver	No	Manual	Stopped	OK	Ignore	No
mup	Mup	c:\windows\system32\drivers\mup.sys	File System Driver	Yes	Boot	Running OK	Normal	pptpminiport	WAN Miniport (PPTP)	c:\windows\system32\drivers\rasppptp.sys	Kernel Driver	Yes	Manual	Running OK	Normal	No	Yes
ndis	NDIS System Driver	c:\windows\system32\drivers\ndis.sys	Kernel Driver	Yes	Boot	Running OK	Normal	ptilink	Direct Parallel Link Driver	c:\windows\system32\drivers\ptilink.sys	Kernel Driver	Yes	Manual	Running OK	Normal	No	Yes
ndistapi	Remote Access NDIS TAPI Driver	c:\windows\system32\drivers\ndistapi.sys	Kernel Driver	Yes	Manual	Running OK	Normal	ql2300	ql2300	Not Available	Kernel Driver	No	Disabled	Stopped	OK	Normal	No
ndisuio	NDIS Usermode I/O Protocol	c:\windows\system32\drivers\ndisuio.sys	Kernel Driver	No	Manual	Stopped	OK	rasacd	Remote Access Auto Connection Driver	c:\windows\system32\drivers\rasacd.sys	Kernel Driver	Yes	System	Running OK	Normal	No	Yes
ndiswan	Remote Access NDIS WAN Driver	c:\windows\system32\drivers\ndiswan.sys	Kernel Driver	Yes	Manual	Running OK	Normal	rasl2tp	WAN Miniport (L2TP)	c:\windows\system32\drivers\rasl2tp.sys	Kernel Driver	Yes	Manual	Running OK	Normal	No	Yes
								rasppoe	Remote Access PPPoE Driver	c:\windows\system32\drivers\rasppoe.sys	Kernel Driver	Yes	Manual	Running OK	Normal	No	Yes

```

raspti Direct Parallel c:\windows\system32\drivers\raspti.sys
Kernel Driver Yes Manual Running OK Normal No Yes

rdbss Rdbss c:\windows\system32\drivers\rdbss.sys File System Driver
Yes System Running OK Normal No Yes

rdpcdd RDPCCD 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

rdpwd RDPWD c:\windows\system32\drivers\rdpwd.sys Kernel Driver Yes
Manual Running OK Ignore No Yes

redbook Digital CD Audio Playback Filter Driver
c:\windows\system32\drivers\redbook.sys Kernel 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

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 Manual Running OK Ignore No Yes

sfloppy Sfloppy c:\windows\system32\drivers\sfloppy.sys Kernel Driver
No System Stopped OK Ignore No No

simbad Simbad Not Available Kernel Driver No Disabled
Stopped OK Normal No No

srv Srv c:\windows\system32\drivers\srv.sys File System Driver
Yes Manual Running OK Normal No Yes

swenum Software Bus Driver c:\windows\system32\drivers\swenum.sys
Kernel Driver Yes Manual Running OK Normal No Yes

symc8xx symc8xx Not Available Kernel Driver No Disabled
Stopped OK Normal No No

symmpi symmpi Not Available Kernel Driver No Disabled
Stopped OK Normal No No

sym_hi sym_hi Not Available Kernel Driver No Disabled
Stopped OK Normal No No

sym_u3 sym_u3 Not Available Kernel Driver No Disabled
Stopped OK Normal No No

tbdriver TbDriver c:\windows\system32\drivers\tbdriver.sys
Kernel Driver Yes Boot Running OK Normal No Yes

tcipip TCP/IP Protocol Driver c:\windows\system32\drivers\tcipip.sys Kernel
Driver Yes System Running OK Normal No Yes

tdpipe TDPIPE c:\windows\system32\drivers\tdpipe.sys Kernel Driver
No Manual Stopped OK Ignore No No

tdtcp TDTCP c:\windows\system32\drivers\tdtcp.sys Kernel Driver Yes
Manual Running OK Ignore No Yes

termdd Terminal Device Driver c:\windows\system32\drivers\termdd.sys
Kernel Driver Yes System Running OK Normal No Yes

toside TosIde Not Available Kernel Driver No Disabled
Stopped OK Normal No No

udfs Udfs c:\windows\system32\drivers\udfs.sys File System Driver
No Disabled Stopped OK Normal No No

ultra ultra Not Available Kernel Driver No Disabled
Stopped OK Normal No No

```

```

update Microcode Update Driver
c:\windows\system32\drivers\update.sys Kernel Driver Yes
Manual Running OK Normal No Yes

usbccgp Microsoft USB Generic Parent Driver
c:\windows\system32\drivers\usbccgp.sys Kernel Driver Yes
Manual Running OK Normal No Yes

usbhci Microsoft USB 2.0 Enhanced Host Controller Miniport Driver
c:\windows\system32\drivers\usbhci.sys Kernel Driver Yes
Manual Running OK Normal No Yes

usbhub USB2 Enabled Hub c:\windows\system32\drivers\usbhub.sys
Kernel Driver Yes Manual Running OK Normal No Yes

usbstor usbstor 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

vga vga c:\windows\system32\drivers\vgapnp.sys Kernel Driver
No Manual Stopped OK Ignore No No

vgasave VGA Display Controller. c:\windows\system32\drivers\vga.sys
Kernel Driver Yes System Running OK Ignore No Yes

viaide ViaIde Not Available Kernel Driver No Disabled
Stopped OK Normal No No

volsnap Storage volumes c:\windows\system32\drivers\volsnap.sys
Kernel Driver Yes Boot Running OK Normal No Yes

wanarp Remote Access IP ARP Driver
c:\windows\system32\drivers\wanarp.sys Kernel Driver Yes
Manual Running OK Normal No Yes

wdica WDICA Not Available Kernel Driver No Manual Stopped OK
Ignore No No

wlbs Network Load Balancing c:\windows\system32\drivers\wlbs.sys Kernel
Driver No Manual Stopped OK Normal No No

```

[Signed Drivers]

Device Name	Signed	Device Class	Driver Version	Driver Date	Driver Name	Device ID
Unisys Intelligent Fibre Channel Fabric Disk	Yes	Channel Fabric Disk	2.58.0.7	7/26/2004	Unisys Corporation	oem5.inf
Not Available						
SCSI\DISK&VEN_UNISYS_VIRTUALSTORAGE_01.0\1&2D12BED1&0&C33F008610						
00001000000000000000000000000000						
Unisys Intelligent Fibre Channel Fabric Disk	Yes	Channel Fabric Disk	2.58.0.7	7/26/2004	Unisys Corporation	oem5.inf
Not Available						
SCSI\DISK&VEN_UNISYS_VIRTUALSTORAGE_01.0\1&2D12BED1&0&C33F008610						
00001000000000000000000000000000						
Unisys Intelligent Fibre Channel Fabric Disk	Yes	Channel Fabric Disk	2.58.0.7	7/26/2004	Unisys Corporation	oem5.inf
Not Available						
SCSI\DISK&VEN_UNISYS_VIRTUALSTORAGE_01.0\1&2D12BED1&0&C33F008610						
00001000000000000000000000000000						
Unisys Intelligent Fibre Channel Fabric Disk	Yes	Channel Fabric Disk	2.58.0.7	7/26/2004	Unisys Corporation	oem5.inf
Not Available						
SCSI\DISK&VEN_UNISYS_VIRTUALSTORAGE_01.0\1&2D12BED1&0&C33F008610						
00001000000000000000000000000000						

Plug and Play Software Device Enumerator	No	SYSTEM	5.2.3790.1830	10/1/2002	Standard system devices)	machine.inf	Not Available	Security Driver	Not Available	LEGACYDRIVER	Not Available	Not Available
Available								Available	Not Available	Not Available	Not Available	Not Available
Terminal Server Mouse Driver	No	SYSTEM	5.2.3790.1830	10/1/2002	(Standard system devices)	machine.inf	Not Available	ROOT\LEGACY_SECDRV\0000				
Available								RDPWD	Not Available	LEGACYDRIVER	Not Available	Not Available
Terminal Server Keyboard Driver	No	SYSTEM	5.2.3790.1830	10/1/2002	(Standard system devices)	machine.inf	Not Available	Available	Not Available	Not Available	Not Available	Not Available
Available								RDPCDD	Not Available	LEGACYDRIVER	Not Available	Not Available
Terminal Server Device Redirector	No	SYSTEM	5.2.3790.1830	10/1/2002	(Standard system devices)	machine.inf	Not Available	Available	Not Available	Not Available	Not Available	Not Available
Available								ROOT\LEGACY_RASACD\0000				
Direct Parallel	No	NET	5.2.3790.1830	10/1/2002			Not Available	PCIIde	Not Available	LEGACYDRIVER	Not Available	Not Available
Available								Available	Not Available	Not Available	Not Available	Not Available
WAN Miniport (PPTP)	No	NET	5.2.3790.1830	10/1/2002			Not Available	Partition Manager	Not Available	LEGACYDRIVER	Not Available	Not Available
Available								Available	Not Available	Not Available	Not Available	Not Available
WAN Miniport (PPPOE)	No	NET	5.2.3790.1830	10/1/2002			Not Available	Null	Not Available	LEGACYDRIVER	Not Available	Not Available
Available								Available	Not Available	Not Available	Not Available	Not Available
WAN Miniport (IP)	No	NET	5.2.3790.1830	10/1/2002			Not Available	NetBios over Tcpip	Not Available	LEGACYDRIVER	Not Available	Not Available
Available								Available	Not Available	Not Available	Not Available	Not Available
WAN Miniport (L2TP)	No	NET	5.2.3790.1830	10/1/2002			Not Available	NDProxy	Not Available	LEGACYDRIVER	Not Available	Not Available
Available								Available	Not Available	Not Available	Not Available	Not Available
Video Codecs	No	MEDIA	5.2.3790.1830	10/1/2002	(Standard system devices)	wave.inf	Not Available	NDIS Usermode I/O Protocol	Not Available	LEGACYDRIVER	Not Available	Not Available
Legacy Video Capture Devices	No	MEDIA	5.2.3790.1830	10/1/2002	(Standard system devices)	wave.inf	Not Available	Available	Not Available	Not Available	Not Available	Not Available
Media Control Devices	No	MEDIA	5.2.3790.1830	10/1/2002	(Standard system devices)	wave.inf	Not Available	Remote Access NDIS TAPI Driver	Not Available	LEGACYDRIVER	Not Available	Not Available
Legacy Audio Drivers	No	MEDIA	5.2.3790.1830	10/1/2002	(Standard system devices)	wave.inf	Not Available	Available	Not Available	Not Available	Not Available	Not Available
Audio Codecs	No	MEDIA	5.2.3790.1830	10/1/2002	(Standard system devices)	wave.inf	Not Available	NDIS System Driver	Not Available	LEGACYDRIVER	Not Available	Not Available
Remote Access IP ARP Driver	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available	Not Available	Available	Not Available	Not Available	Not Available	Not Available
volsnap	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available	Not Available	mountmgr	Not Available	LEGACYDRIVER	Not Available	Not Available
VGA Display Controller.	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available	Not Available	Available	Not Available	Not Available	Not Available	Not Available
TDTCP	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available	Not Available	mnmdd	Not Available	LEGACYDRIVER	Not Available	Not Available
TCP/IP Protocol Driver	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available	Not Available	Available	Not Available	Not Available	Not Available	Not Available
TbDriver	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available	Not Available	ksecdd	Not Available	LEGACYDRIVER	Not Available	Not Available
	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available	Not Available	Available	Not Available	Not Available	Not Available	Not Available
	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available	Not Available	IPSEC driver	Not Available	LEGACYDRIVER	Not Available	Not Available
	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available	Not Available	Available	Not Available	Not Available	Not Available	Not Available
	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available	Not Available	IP Network Address Translator	Not Available	LEGACYDRIVER	Not Available	Not Available
	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available	Not Available	Available	Not Available	Not Available	Not Available	Not Available
	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available	Not Available	Generic Packet Classifier	Not Available	LEGACYDRIVER	Not Available	Not Available
	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available	Not Available	Available	Not Available	Not Available	Not Available	Not Available
	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available	Not Available	Fips	Not Available	LEGACYDRIVER	Not Available	Not Available
	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available	Not Available	Available	Not Available	Not Available	Not Available	Not Available
	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available	Not Available	em	Not Available	LEGACYDRIVER	Not Available	Not Available
	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available	Not Available	Available	Not Available	Not Available	Not Available	Not Available
	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available	Not Available	elxstor	Not Available	LEGACYDRIVER	Not Available	Not Available
	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available	Not Available	Available	Not Available	Not Available	Not Available	Not Available

STORAGE\VOLUME\1&30A96598&0&SIGNATUREC8870000OFFSET9C64FE00LENGTH
1421AA2000
Generic volume No VOLUME 5.2.3790.1830 10/1/2002 Microsoft
volume.inf Not Available
STORAGE\VOLUME\1&30A96598&0&SIGNATUREC8870000OFFSET7739EE600LENGTH
252B0FA00
Generic volume No VOLUME 5.2.3790.1830 10/1/2002 Microsoft
volume.inf Not Available
STORAGE\VOLUME\1&30A96598&0&SIGNATUREC8870000OFFSET30DF8F600LENGTH
465A5F000
Generic volume No VOLUME 5.2.3790.1830 10/1/2002 Microsoft
volume.inf Not Available
STORAGE\VOLUME\1&30A96598&0&SIGNATUREC8870000OFFSET7E00LENGTH30DF8
7800
Generic volume No VOLUME 5.2.3790.1830 10/1/2002 Microsoft
volume.inf Not Available
STORAGE\VOLUME\1&30A96598&0&SIGNATUREBB5AE01OFFSET9C64FE00LENGTH1
421AA2000
Generic volume No VOLUME 5.2.3790.1830 10/1/2002 Microsoft
volume.inf Not Available
STORAGE\VOLUME\1&30A96598&0&SIGNATUREBB5AE01OFFSET7739EE600LENGTH2
52B0FA00
Generic volume No VOLUME 5.2.3790.1830 10/1/2002 Microsoft
volume.inf Not Available
STORAGE\VOLUME\1&30A96598&0&SIGNATUREBB5AE01OFFSET30DF8F600LENGTH4
65A5F000
Generic volume No VOLUME 5.2.3790.1830 10/1/2002 Microsoft
volume.inf Not Available
STORAGE\VOLUME\1&30A96598&0&SIGNATUREBB5AE01OFFSET7E00LENGTH30DF87
800
Generic volume No VOLUME 5.2.3790.1830 10/1/2002 Microsoft
volume.inf Not Available
STORAGE\VOLUME\1&30A96598&0&SIGNATUREC8870007OFFSET9C64FE00LENGTH
1421AA2000
Generic volume No VOLUME 5.2.3790.1830 10/1/2002 Microsoft
volume.inf Not Available
STORAGE\VOLUME\1&30A96598&0&SIGNATUREC8870007OFFSET7739EE600LENGTH
252B0FA00
Generic volume No VOLUME 5.2.3790.1830 10/1/2002 Microsoft
volume.inf Not Available
STORAGE\VOLUME\1&30A96598&0&SIGNATUREC8870007OFFSET30DF8F600LENGTH
465A5F000
Generic volume No VOLUME 5.2.3790.1830 10/1/2002 Microsoft
volume.inf Not Available
STORAGE\VOLUME\1&30A96598&0&SIGNATUREC8870007OFFSET7E00LENGTH30DF8
7800
Generic volume No VOLUME 5.2.3790.1830 10/1/2002 Microsoft
volume.inf Not Available
STORAGE\VOLUME\1&30A96598&0&SIGNATUREBB5AE06OFFSET9C64FE00LENGTH1
421AA2000
Generic volume No VOLUME 5.2.3790.1830 10/1/2002 Microsoft
volume.inf Not Available
STORAGE\VOLUME\1&30A96598&0&SIGNATUREBB5AE06OFFSET7739EE600LENGTH2
52B0FA00
Generic volume No VOLUME 5.2.3790.1830 10/1/2002 Microsoft
volume.inf Not Available
STORAGE\VOLUME\1&30A96598&0&SIGNATUREBB5AE06OFFSET30DF8F600LENGTH4
65A5F000

Generic volume No VOLUME 5.2.3790.1830 10/1/2002 Microsoft
volume.inf Not Available
STORAGE\VOLUME\1&30A96598&0&SIGNATUREBB5AE06OFFSET7E00LENGTH30DF87
800
Generic volume No VOLUME 5.2.3790.1830 10/1/2002 Microsoft
volume.inf Not Available
STORAGE\VOLUME\1&30A96598&0&SIGNATUREC8870006OFFSET9C64FE00LENGTH
1421AA2000
Generic volume No VOLUME 5.2.3790.1830 10/1/2002 Microsoft
volume.inf Not Available
STORAGE\VOLUME\1&30A96598&0&SIGNATUREC8870006OFFSET7739EE600LENGTH
252B0FA00
Generic volume No VOLUME 5.2.3790.1830 10/1/2002 Microsoft
volume.inf Not Available
STORAGE\VOLUME\1&30A96598&0&SIGNATUREC8870006OFFSET30DF8F600LENGTH
465A5F000
Generic volume No VOLUME 5.2.3790.1830 10/1/2002 Microsoft
volume.inf Not Available
STORAGE\VOLUME\1&30A96598&0&SIGNATUREC8870006OFFSET7E00LENGTH30DF8
7800
Generic volume No VOLUME 5.2.3790.1830 10/1/2002 Microsoft
volume.inf Not Available
STORAGE\VOLUME\1&30A96598&0&SIGNATUREC8870005OFFSET9C64FE00LENGTH
1421AA2000
Generic volume No VOLUME 5.2.3790.1830 10/1/2002 Microsoft
volume.inf Not Available
STORAGE\VOLUME\1&30A96598&0&SIGNATUREC8870005OFFSET7739EE600LENGTH
252B0FA00
Generic volume No VOLUME 5.2.3790.1830 10/1/2002 Microsoft
volume.inf Not Available
STORAGE\VOLUME\1&30A96598&0&SIGNATUREC8870005OFFSET30DF8F600LENGTH
465A5F000
Generic volume No VOLUME 5.2.3790.1830 10/1/2002 Microsoft
volume.inf Not Available
STORAGE\VOLUME\1&30A96598&0&SIGNATUREC8870005OFFSET7E00LENGTH30DF8
7800
Generic volume No VOLUME 5.2.3790.1830 10/1/2002 Microsoft
volume.inf Not Available
STORAGE\VOLUME\1&30A96598&0&SIGNATURED00F1B28OFFSET7E00LENGTHBF265
14A00
Generic volume No VOLUME 5.2.3790.1830 10/1/2002 Microsoft
volume.inf Not Available
STORAGE\VOLUME\1&30A96598&0&SIGNATUREE7A1E7A1OFFSET7E00LENGTH878EE
1200
Volume Manager No SYSTEM 5.2.3790.1830 10/1/2002 (Standard
system devices) machine.inf Not Available ROOT\FDIDISK\0000
Logical Disk Manager No SYSTEM 5.2.3790.1830 10/1/2002
(Standard system devices) machine.inf Not Available
ROOT\DMIO\0000
ACPI Fixed Feature Button No SYSTEM 5.2.3790.1830 10/1/2002
(Standard system devices) machine.inf Not Available
ACPI\FIXEDBUTTON\2&DABA3FF&0
Intel Processor No PROCESSOR 5.2.3790.1830 10/1/2002
Intel cpu.inf Not Available ACPI\GENUINEINTEL_
_EM64T_FAMILY_15_MODEL_4\15
Intel Processor No PROCESSOR 5.2.3790.1830 10/1/2002
Intel cpu.inf Not Available ACPI\GENUINEINTEL_
_EM64T_FAMILY_15_MODEL_4\14

Intel Processor	No	PROCESSOR	5.2.3790.1830	10/1/2002
Intel cpu.inf	Not Available	ACPI\GENUINEINTEL_-		
_EM64T_FAMILY_15_MODEL_4\13				
Intel Processor	No	PROCESSOR	5.2.3790.1830	10/1/2002
Intel cpu.inf	Not Available	ACPI\GENUINEINTEL_-		
_EM64T_FAMILY_15_MODEL_4\12				
Intel Processor	No	PROCESSOR	5.2.3790.1830	10/1/2002
Intel cpu.inf	Not Available	ACPI\GENUINEINTEL_-		
_EM64T_FAMILY_15_MODEL_4\11				
Intel Processor	No	PROCESSOR	5.2.3790.1830	10/1/2002
Intel cpu.inf	Not Available	ACPI\GENUINEINTEL_-		
_EM64T_FAMILY_15_MODEL_4\10				
Intel Processor	No	PROCESSOR	5.2.3790.1830	10/1/2002
Intel cpu.inf	Not Available	ACPI\GENUINEINTEL_-		
_EM64T_FAMILY_15_MODEL_4\9				
Intel Processor	No	PROCESSOR	5.2.3790.1830	10/1/2002
Intel cpu.inf	Not Available	ACPI\GENUINEINTEL_-		
_EM64T_FAMILY_15_MODEL_4\8				
Intel Processor	No	PROCESSOR	5.2.3790.1830	10/1/2002
Intel cpu.inf	Not Available	ACPI\GENUINEINTEL_-		
_EM64T_FAMILY_15_MODEL_4\7				
Intel Processor	No	PROCESSOR	5.2.3790.1830	10/1/2002
Intel cpu.inf	Not Available	ACPI\GENUINEINTEL_-		
_EM64T_FAMILY_15_MODEL_4\6				
Intel Processor	No	PROCESSOR	5.2.3790.1830	10/1/2002
Intel cpu.inf	Not Available	ACPI\GENUINEINTEL_-		
_EM64T_FAMILY_15_MODEL_4\5				
Intel Processor	No	PROCESSOR	5.2.3790.1830	10/1/2002
Intel cpu.inf	Not Available	ACPI\GENUINEINTEL_-		
_EM64T_FAMILY_15_MODEL_4\4				
Intel Processor	No	PROCESSOR	5.2.3790.1830	10/1/2002
Intel cpu.inf	Not Available	ACPI\GENUINEINTEL_-		
_EM64T_FAMILY_15_MODEL_4\3				
Intel Processor	No	PROCESSOR	5.2.3790.1830	10/1/2002
Intel cpu.inf	Not Available	ACPI\GENUINEINTEL_-		
_EM64T_FAMILY_15_MODEL_4\2				
Intel Processor	No	PROCESSOR	5.2.3790.1830	10/1/2002
Intel cpu.inf	Not Available	ACPI\GENUINEINTEL_-		
_EM64T_FAMILY_15_MODEL_4\1				
Intel Processor	No	PROCESSOR	5.2.3790.1830	10/1/2002
Intel cpu.inf	Not Available	ACPI\GENUINEINTEL_-		
_EM64T_FAMILY_15_MODEL_4\0				
Not Available	Not Available	Not Available	Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	ACPI\UNO4501\0
Not Available	Not Available	Not Available	Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	ACPI\UNO4500\0
Intel(R) P64H2 PCI Hot Plug Controller - 1462	No	SYSTEM	5.2.3790.1830	10/1/2002
Intel machine.inf	Not Available			
PCI\VEN_8086&DEV_1462&SUBSYS_14628086&REV_04\4&1A7940C9&0&F8F8				
Intel(R) P64H2 PCI to PCI Bridge - 1460	No	SYSTEM	5.2.3790.1830	10/1/2002
Intel machine.inf	Not Available			
PCI\VEN_8086&DEV_1460&SUBSYS_00000000&REV_04\3&27265218&0&F8				
Intel(R) P64H2 I/O Advanced Programmable Interrupt Controller - 1461	No	SYSTEM	5.2.3790.1830	10/1/2002
Intel machine.inf	Not Available			
PCI\VEN_8086&DEV_1461&SUBSYS_00000000&REV_04\3&27265218&0&F0				

Intel(R) P64H2 PCI Hot Plug Controller - 1462	No	SYSTEM	5.2.3790.1830	10/1/2002
Intel machine.inf	Not Available			
PCI\VEN_8086&DEV_1462&SUBSYS_14628086&REV_04\4&2A07EEE9&0&F8E8				
Unisys Intelligent Fibre Channel Adapter SCSI Processor	No	SYSTEM	2.58.0.6	7/26/2004
Unisys Corporation	oem4.inf			
Not Available SCSI\PROCESSORUNISYS_FC76222-				
P64_V2_\6&A179509&0&7533560B00080010				
Unisys Intelligent Fibre Channel Adapter SCSI Processor	No	SYSTEM	2.58.0.6	7/26/2004
Unisys Corporation	oem4.inf			
Not Available SCSI\PROCESSORUNISYS_FC76222-				
P64_V2_\6&A179509&0&7433560B00080010				
Unisys Intelligent Fibre Channel Fabric Bus Adapter	No	SCSIADAPTER	2.58.0.18	7/26/2004
Unisys Corporation	oem3.inf			
Not Available				
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\5&286E042C&0&0008E8				
PCI standard PCI-to-PCI bridge	No	SYSTEM	5.2.3790.1830	10/1/2002
(Standard system devices)	machine.inf	Not Available		
Available				
PCI\VEN_8086&DEV_0309&SUBSYS_00000000&REV_01\4&2A07EEE9&0&08E8				
Intel(R) P64H2 PCI to PCI Bridge - 1460	No	SYSTEM	5.2.3790.1830	10/1/2002
Intel machine.inf	Not Available			
PCI\VEN_8086&DEV_1460&SUBSYS_00000000&REV_04\3&27265218&0&E8				
Intel(R) P64H2 I/O Advanced Programmable Interrupt Controller - 1461	No	SYSTEM	5.2.3790.1830	10/1/2002
Intel machine.inf	Not Available			
PCI\VEN_8086&DEV_1461&SUBSYS_00000000&REV_04\3&27265218&0&E0				
PCI bus	No	SYSTEM	5.2.3790.1830	10/1/2002
(Standard system devices)	machine.inf	Not Available		
Available				
ACPI\PNP0A03\E				
Intel(R) P64H2 PCI Hot Plug Controller - 1462	No	SYSTEM	5.2.3790.1830	10/1/2002
Intel machine.inf	Not Available			
PCI\VEN_8086&DEV_1462&SUBSYS_14628086&REV_04\4&2DFEAC3&0&F8F8				
Unisys Intelligent Fibre Channel Adapter SCSI Processor	No	SYSTEM	2.58.0.6	7/26/2004
Unisys Corporation	oem4.inf			
Not Available SCSI\PROCESSORUNISYS_FC76222-				
P64_V2_\6&32F92BA6&0&B104560B00080010				
Unisys Intelligent Fibre Channel Adapter SCSI Processor	No	SYSTEM	2.58.0.6	7/26/2004
Unisys Corporation	oem4.inf			
Not Available SCSI\PROCESSORUNISYS_FC76222-				
P64_V2_\6&32F92BA6&0&B004560B00080010				
Unisys Intelligent Fibre Channel Fabric Bus Adapter	No	SCSIADAPTER	2.58.0.18	7/26/2004
Unisys Corporation	oem3.inf			
Not Available				
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\5&260AC241&0&0008F8				
PCI standard PCI-to-PCI bridge	No	SYSTEM	5.2.3790.1830	10/1/2002
(Standard system devices)	machine.inf	Not Available		
Available				
PCI\VEN_8086&DEV_0309&SUBSYS_00000000&REV_01\4&2DFEAC3&0&08F8				
Intel(R) P64H2 PCI to PCI Bridge - 1460	No	SYSTEM	5.2.3790.1830	10/1/2002
Intel machine.inf	Not Available			
PCI\VEN_8086&DEV_1460&SUBSYS_00000000&REV_04\3&146CA173&0&F8				

Intel(R) P64H2 I/O Advanced Programmable Interrupt Controller - 1461
 No SYSTEM 5.2.3790.1830 10/1/2002 Intel machine.inf
 Not Available
 PCI\VEN_8086&DEV_1461&SUBSYS_00000000&REV_04\3&146CA173&0&F0

Intel(R) P64H2 PCI Hot Plug Controller - 1462 No SYSTEM
 5.2.3790.1830 10/1/2002 Intel machine.inf Not Available
 PCI\VEN_8086&DEV_1462&SUBSYS_14628086&REV_04\4&1E703CA3&0&F8E8

Emulex LP 10000 - Unisys VI No UNISYS_VI Not Available Not
 Available Emulex oem7.inf Not Available
 PCI\VEN_10DF&DEV_FA00&SUBSYS_FA0010DF&REV_01\4&1E703CA3&0&09E8

Emulex LP 10000 - Unisys VI No UNISYS_VI Not Available Not
 Available Emulex oem7.inf Not Available
 PCI\VEN_10DF&DEV_FA00&SUBSYS_FA0010DF&REV_01\4&1E703CA3&0&08E8

Intel(R) P64H2 PCI to PCI Bridge - 1460 No SYSTEM 5.2.3790.1830
 10/1/2002 Intel machine.inf Not Available
 PCI\VEN_8086&DEV_1460&SUBSYS_00000000&REV_04\3&146CA173&0&E8

Intel(R) P64H2 I/O Advanced Programmable Interrupt Controller - 1461
 No SYSTEM 5.2.3790.1830 10/1/2002 Intel machine.inf
 Not Available
 PCI\VEN_8086&DEV_1461&SUBSYS_00000000&REV_04\3&146CA173&0&E0

PCI bus No SYSTEM 5.2.3790.1830 10/1/2002 (Standard system
 devices) machine.inf Not Available ACPI\PNP0A03\D

Intel(R) P64H2 PCI Hot Plug Controller - 1462 No SYSTEM
 5.2.3790.1830 10/1/2002 Intel machine.inf Not Available
 PCI\VEN_8086&DEV_1462&SUBSYS_14628086&REV_04\4&22394B12&0&F8F8

Unisys Intelligent Fibre Channel Adapter SCSI Processor No SYSTEM
 2.58.0.6 7/26/2004 Unisys Corporation oem4.inf
 Not Available SCSI\PROCESSORUNISYS_FC76222-
 P64_V2_\6&3B08969C&0&ED04560B00080010

Unisys Intelligent Fibre Channel Adapter SCSI Processor No SYSTEM
 2.58.0.6 7/26/2004 Unisys Corporation oem4.inf
 Not Available SCSI\PROCESSORUNISYS_FC76222-
 P64_V2_\6&3B08969C&0&EC04560B00080010

Unisys Intelligent Fibre Channel Fabric Bus Adapter No SCSIADAPTER
 2.58.0.18 7/26/2004 Unisys Corporation oem3.inf
 Not Available
 PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\5&34FD2864&0&0008F8

PCI standard PCI-to-PCI bridge No SYSTEM 5.2.3790.1830
 10/1/2002 (Standard system devices) machine.inf Not
 Available
 PCI\VEN_8086&DEV_0309&SUBSYS_00000000&REV_01\4&22394B12&0&08F8

Intel(R) P64H2 PCI to PCI Bridge - 1460 No SYSTEM 5.2.3790.1830
 10/1/2002 Intel machine.inf Not Available
 PCI\VEN_8086&DEV_1460&SUBSYS_00000000&REV_04\3&172E68DD&0&F8

Intel(R) P64H2 I/O Advanced Programmable Interrupt Controller - 1461
 No SYSTEM 5.2.3790.1830 10/1/2002 Intel machine.inf
 Not Available
 PCI\VEN_8086&DEV_1461&SUBSYS_00000000&REV_04\3&172E68DD&0&F0

Intel(R) P64H2 PCI Hot Plug Controller - 1462 No SYSTEM
 5.2.3790.1830 10/1/2002 Intel machine.inf Not Available
 PCI\VEN_8086&DEV_1462&SUBSYS_14628086&REV_04\4&1B67A8B9&0&F8E8

Unisys Intelligent Fibre Channel Adapter SCSI Processor No SYSTEM
 2.58.0.6 7/26/2004 Unisys Corporation oem4.inf
 Not Available SCSI\PROCESSORUNISYS_FC76222-
 P64_V2_\6&DCE4A85&0&E904560B00080010

Unisys Intelligent Fibre Channel Adapter SCSI Processor No SYSTEM
 2.58.0.6 7/26/2004 Unisys Corporation oem4.inf
 Not Available SCSI\PROCESSORUNISYS_FC76222-
 P64_V2_\6&DCE4A85&0&E804560B00080010

Unisys Intelligent Fibre Channel Fabric Bus Adapter No SCSIADAPTER
 2.58.0.18 7/26/2004 Unisys Corporation oem3.inf
 Not Available
 PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\5&63CB3C2&0&0008E8

PCI standard PCI-to-PCI bridge No SYSTEM 5.2.3790.1830
 10/1/2002 (Standard system devices) machine.inf Not
 Available
 PCI\VEN_8086&DEV_0309&SUBSYS_00000000&REV_01\4&1B67A8B9&0&08E8

Intel(R) P64H2 PCI to PCI Bridge - 1460 No SYSTEM 5.2.3790.1830
 10/1/2002 Intel machine.inf Not Available
 PCI\VEN_8086&DEV_1460&SUBSYS_00000000&REV_04\3&172E68DD&0&E8

Intel(R) P64H2 I/O Advanced Programmable Interrupt Controller - 1461
 No SYSTEM 5.2.3790.1830 10/1/2002 Intel machine.inf
 Not Available
 PCI\VEN_8086&DEV_1461&SUBSYS_00000000&REV_04\3&172E68DD&0&E0

PCI bus No SYSTEM 5.2.3790.1830 10/1/2002 (Standard system
 devices) machine.inf Not Available ACPI\PNP0A03\4

Intel(R) P64H2 PCI Hot Plug Controller - 1462 No SYSTEM
 5.2.3790.1830 10/1/2002 Intel machine.inf Not Available
 PCI\VEN_8086&DEV_1462&SUBSYS_14628086&REV_04\4&16D68E&0&F8F8

Unisys Intelligent Fibre Channel Adapter SCSI Processor No SYSTEM
 2.58.0.6 7/26/2004 Unisys Corporation oem4.inf
 Not Available SCSI\PROCESSORUNISYS_FC76222-
 P64_V2_\6&2C288843&0&0D0A560B00080010

Unisys Intelligent Fibre Channel Adapter SCSI Processor No SYSTEM
 2.58.0.6 7/26/2004 Unisys Corporation oem4.inf
 Not Available SCSI\PROCESSORUNISYS_FC76222-
 P64_V2_\6&2C288843&0&0C0A560B00080010

Unisys Intelligent Fibre Channel Fabric Bus Adapter No SCSIADAPTER
 2.58.0.18 7/26/2004 Unisys Corporation oem3.inf
 Not Available
 PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\5&17F7F795&0&0008F8

PCI standard PCI-to-PCI bridge No SYSTEM 5.2.3790.1830
 10/1/2002 (Standard system devices) machine.inf Not
 Available
 PCI\VEN_8086&DEV_0309&SUBSYS_00000000&REV_01\4&16D68E&0&08F8

Intel(R) P64H2 PCI to PCI Bridge - 1460 No SYSTEM 5.2.3790.1830
 10/1/2002 Intel machine.inf Not Available
 PCI\VEN_8086&DEV_1460&SUBSYS_00000000&REV_04\3&29E81982&0&F8

Intel(R) P64H2 I/O Advanced Programmable Interrupt Controller - 1461
 No SYSTEM 5.2.3790.1830 10/1/2002 Intel machine.inf
 Not Available
 PCI\VEN_8086&DEV_1461&SUBSYS_00000000&REV_04\3&29E81982&0&F0

Intel(R) P64H2 PCI Hot Plug Controller - 1462 No SYSTEM
 5.2.3790.1830 10/1/2002 Intel machine.inf Not Available
 PCI\VEN_8086&DEV_1462&SUBSYS_14628086&REV_04\4&1EF5336&0&F8E8

Emulex LP 10000 - Unisys VI No UNISYS_VI Not Available Not
 Available Emulex oem7.inf Not Available
 PCI\VEN_10DF&DEV_FA00&SUBSYS_FA0010DF&REV_01\4&1EF5336&0&09E8

Emulex LP 10000 - Unisys VI No UNISYS_VI Not Available Not
 Available Emulex oem7.inf Not Available
 PCI\VEN_10DF&DEV_FA00&SUBSYS_FA0010DF&REV_01\4&1EF5336&0&08E8

Intel(R) P64H2 PCI to PCI Bridge - 1460 No SYSTEM 5.2.3790.1830
 10/1/2002 Intel machine.inf Not Available
 PCI\VEN_8086&DEV_1460&SUBSYS_00000000&REV_04\3&29E81982&0&E8

Intel(R) P64H2 I/O Advanced Programmable Interrupt Controller - 1461
 No SYSTEM 5.2.3790.1830 10/1/2002 Intel machine.inf
 Not Available
 PCI\VEN_8086&DEV_1461&SUBSYS_00000000&REV_04\3&29E81982&0&E0

PCI bus No SYSTEM 5.2.3790.1830 10/1/2002 (Standard system
 devices) machine.inf Not Available ACPI\PNP0A03\3

Intel(R) P64H2 PCI Hot Plug Controller - 1462 No SYSTEM
 5.2.3790.1830 10/1/2002 Intel machine.inf Not Available
 PCI\VEN_8086&DEV_1462&SUBSYS_14628086&REV_04\4&28BE6AA6&0&F8F8

Intel(R) P64H2 PCI to PCI Bridge - 1460 No SYSTEM 5.2.3790.1830
 10/1/2002 Intel machine.inf Not Available
 PCI\VEN_8086&DEV_1460&SUBSYS_00000000&REV_04\3&1070020&0&F8

Intel(R) P64H2 I/O Advanced Programmable Interrupt Controller - 1461
 No SYSTEM 5.2.3790.1830 10/1/2002 Intel machine.inf
 Not Available
 PCI\VEN_8086&DEV_1461&SUBSYS_00000000&REV_04\3&1070020&0&F0

Intel(R) PRO/1000 MT Dual Port Network Connection No NET
 8.1.8.0 10/1/2002 Intel netelg3e.inf Not Available
 PCI\VEN_8086&DEV_1079&SUBSYS_10798086&REV_03\4&226B0D81&0&09E8

Intel(R) PRO/1000 MT Dual Port Network Connection No NET
 8.1.8.0 10/1/2002 Intel netelg3e.inf Not Available
 PCI\VEN_8086&DEV_1079&SUBSYS_10798086&REV_03\4&226B0D81&0&08E8

Intel(R) P64H2 PCI to PCI Bridge - 1460 No SYSTEM 5.2.3790.1830
 10/1/2002 Intel machine.inf Not Available
 PCI\VEN_8086&DEV_1460&SUBSYS_00000000&REV_04\3&1070020&0&E8

Intel(R) P64H2 I/O Advanced Programmable Interrupt Controller - 1461
 No SYSTEM 5.2.3790.1830 10/1/2002 Intel machine.inf
 Not Available
 PCI\VEN_8086&DEV_1461&SUBSYS_00000000&REV_04\3&1070020&0&E0

PCI bus No SYSTEM 5.2.3790.1830 10/1/2002 (Standard system
 devices) machine.inf Not Available ACPI\PNP0A03\2

Adaptec Processor Device (Pseudo) No SCSIADAPTER 1.0.317.627
 4/28/2005 Adaptec oem0.inf Not Available

SCSI\PROCESSOR&VEN_ADAPTEC&PROD_HOSTRAID&REV_1.0\5&344567F4&0&77E0

Disk drive No DISKDRIVE 5.2.3790.1830 10/1/2002
 (Standard disk drives) disk.inf Not Available
 SCSI\DISK&VEN_ADAPTEC&PROD_RAID_1&REV_1.0\5&344567F4&0&700

Adaptec ASC-48300 SAS/SATA Host Adapter No SCSIADAPTER
 1.0.317.627 4/28/2005 Adaptec oem0.inf Not Available
 PCI\VEN_9005&DEV_0410&SUBSYS_04109005&REV_08\4&2AAD566B&0&08F8

Intel(R) P64H2 PCI to PCI Bridge - 1460 No SYSTEM 5.2.3790.1830
 10/1/2002 Intel machine.inf Not Available
 PCI\VEN_8086&DEV_1460&SUBSYS_00000000&REV_04\3&13C0B0C5&0&F8

Intel(R) P64H2 I/O Advanced Programmable Interrupt Controller - 1461
 No SYSTEM 5.2.3790.1830 10/1/2002 Intel machine.inf
 Not Available
 PCI\VEN_8086&DEV_1461&SUBSYS_00000000&REV_04\3&13C0B0C5&0&F0

Intel(R) P64H2 PCI to PCI Bridge - 1460 No SYSTEM 5.2.3790.1830
 10/1/2002 Intel machine.inf Not Available
 PCI\VEN_8086&DEV_1460&SUBSYS_00000000&REV_04\3&13C0B0C5&0&E8

Intel(R) P64H2 I/O Advanced Programmable Interrupt Controller - 1461
 No SYSTEM 5.2.3790.1830 10/1/2002 Intel machine.inf
 Not Available
 PCI\VEN_8086&DEV_1461&SUBSYS_00000000&REV_04\3&13C0B0C5&0&E0

PCI bus No SYSTEM 5.2.3790.1830 10/1/2002 (Standard system
 devices) machine.inf Not Available ACPI\PNP0A03\1

Intel(R) 82801DB/DBM SMBus Controller - 24C3 No SYSTEM 5.2.3790.1830
 10/1/2002 Intel machine.inf Not Available
 PCI\VEN_8086&DEV_24C3&SUBSYS_24C28086&REV_02\3&267A616A&0&FB

Secondary IDE Channel No HDC 5.2.3790.1830 10/1/2002
 (Standard IDE ATA/ATAPI controllers) mshdc.inf Not Available
 PCIIDE\IDECHANNEL\4&291FD35B&0&1

CD-ROM Drive No CDROM 5.2.3790.1830 10/1/2002 (Standard CD-
 ROM drives) cdrom.inf Not Available IDE\CDROMTOSHIBA_CD\DVDW_SD-
 R6472_____TR50_\353432343037343432352020202020202020

Primary IDE Channel No HDC 5.2.3790.1830 10/1/2002
 (Standard IDE ATA/ATAPI controllers) mshdc.inf Not Available
 PCIIDE\IDECHANNEL\4&291FD35B&0&0

Intel(R) 82801DB Ultra ATA Storage Controller-24CB No HDC
 5.2.3790.1830 10/1/2002 Intel mshdc.inf Not Available
 PCI\VEN_8086&DEV_24CB&SUBSYS_24C28086&REV_02\3&267A616A&0&F9

Communications Port No PORTS 5.2.3790.1830 10/1/2002
 (Standard port types) msports.inf Not Available
 ACPI\PNP0501\15

Generic Bus No SYSTEM 5.2.3790.1830 10/1/2002 (Standard
 system devices) machine.inf Not Available ACPI\PNP0A05\2

System timer No SYSTEM 5.2.3790.1830 10/1/2002 (Standard
 system devices) machine.inf Not Available ACPI\PNP0100\14

System speaker No SYSTEM 5.2.3790.1830 10/1/2002 (Standard
 system devices) machine.inf Not Available ACPI\PNP0800\14

System CMOS/real time clock No SYSTEM 5.2.3790.1830 10/1/2002
(Standard system devices) machine.inf Not Available
ACPI\PNP0B00\14

Programmable interrupt controller No SYSTEM 5.2.3790.1830
10/1/2002 (Standard system devices) machine.inf Not
Available ACPI\PNP0000\14

Numeric data processor No SYSTEM 5.2.3790.1830 10/1/2002
(Standard system devices) machine.inf Not Available
ACPI\PNP0C04\14

Direct memory access controller No SYSTEM 5.2.3790.1830
10/1/2002 (Standard system devices) machine.inf Not
Available ACPI\PNP0200\1E

Motherboard resources No SYSTEM 5.2.3790.1830 10/1/2002
(Standard system devices) machine.inf Not Available
ACPI\PNP0C02\0

Intel(R) 82801DB LPC Interface Controller - 24C0 No SYSTEM
5.2.3790.1830 10/1/2002 Intel machine.inf Not Available
PCI\VEN_8086&DEV_24C0&SUBSYS_00000000&REV_02\3&267A616A&0&F8

PCI Device Not Available UNKNOWN Not Available Not Available Not
Available Not Available Not Available
PCI\VEN_1018&DEV_C310&SUBSYS_C3101018&REV_00\4&29817089&0&18F0

1394 Net Adapter No NET 5.2.3790.1830 10/1/2002
Microsoft net1394.inf Not Available
V1394\NIC1394\CD00008000B00

Texas Instruments OHCI Compliant IEEE 1394 Host Controller No 1394
5.2.3790.1830 10/1/2002 Texas Instruments 1394.inf
Not Available
PCI\VEN_104C&DEV_8023&SUBSYS_8023104C&REV_00\4&29817089&0&10F0

Default Monitor No MONITOR 5.2.3790.1830 10/1/2002
(Standard monitor types) monitor.inf Not Available
DISPLAY\DEFAULT_MONITOR\5&39915350&0&22446688&01&01

UNISYS Console Manager 3 No DISPLAY 8.0.0.25 6/28/2005
Unisys Corporation oem1.inf Not Available
PCI\VEN_1002&DEV_4C52&SUBSYS_C2201018&REV_64\4&29817089&0&08F0

Intel(R) 82801 PCI Bridge - 244E No SYSTEM 5.2.3790.1830
10/1/2002 Intel machine.inf Not Available
PCI\VEN_8086&DEV_244E&SUBSYS_00000000&REV_82\3&267A616A&0&F0

USB Root Hub No USB 5.2.3790.1830 10/1/2002 (Standard USB
Host Controller) usbport.inf Not Available
USB\ROOT_HUB20\4&1EC5C38A&0

Intel(R) 82801DB/DBM USB 2.0 Enhanced Host Controller - 24CD No
USB 5.2.3790.1830 10/1/2002 Intel usbport.inf Not
Available
PCI\VEN_8086&DEV_24CD&SUBSYS_24C08086&REV_02\3&267A616A&0&EF

HID-compliant mouse No MOUSE 5.2.3790.1830 10/1/2002
Microsoft msmouse.inf Not Available
HID\VID_0557&PID_2221&MI_01\7&1236125D&0&0000

USB Human Interface Device No HIDCLASS 5.2.3790.1830
10/1/2002 (Standard system devices) input.inf Not
Available USB\VID_0557&PID_2221&MI_01\6&14CD2FAC&0&0001

HID Keyboard Device No KEYBOARD 5.2.3790.1830 10/1/2002
(Standard keyboards) keyboard.inf Not Available
HID\VID_0557&PID_2221&MI_00\7&360D501F&0&0000

USB Human Interface Device No HIDCLASS 5.2.3790.1830
10/1/2002 (Standard system devices) input.inf Not
Available USB\VID_0557&PID_2221&MI_00\6&14CD2FAC&0&0000

USB Composite Device No USB 5.2.3790.1830 10/1/2002
(Standard USB Host Controller) usb.inf Not Available
USB\VID_0557&PID_2221\5&DE732DA&0&1

USB Root Hub No USB 5.2.3790.1830 10/1/2002 (Standard USB
Host Controller) usbport.inf Not Available
USB\ROOT_HUB\4&354A38F3&0

Intel(R) 82801DB/DBM USB Universal Host Controller - 24C7 No USB
5.2.3790.1830 10/1/2002 Intel usbport.inf Not Available
PCI\VEN_8086&DEV_24C7&SUBSYS_24C28086&REV_02\3&267A616A&0&EA

Console Manager Network Connection Not Available NET Not Available
Not Available Not Available Not Available Not Available
USB\VID_0432&PID_0012\5&2873F1A0&0&1

USB Root Hub No USB 5.2.3790.1830 10/1/2002 (Standard USB
Host Controller) usbport.inf Not Available
USB\ROOT_HUB\4&2498C13B&0

Intel(R) 82801DB/DBM USB Universal Host Controller - 24C4 No USB
5.2.3790.1830 10/1/2002 Intel usbport.inf Not Available
PCI\VEN_8086&DEV_24C4&SUBSYS_24C28086&REV_02\3&267A616A&0&E9

USB Root Hub No USB 5.2.3790.1830 10/1/2002 (Standard USB
Host Controller) usbport.inf Not Available
USB\ROOT_HUB\4&2699692C&0

Intel(R) 82801DB/DBM USB Universal Host Controller - 24C2 No USB
5.2.3790.1830 10/1/2002 Intel usbport.inf Not Available
PCI\VEN_8086&DEV_24C2&SUBSYS_24C28086&REV_02\3&267A616A&0&E8

PCI bus No SYSTEM 5.2.3790.1830 10/1/2002 (Standard system
devices) machine.inf Not Available ACPI\PNP0A03\0

Microsoft ACPI-Compliant System No SYSTEM 5.2.3790.1830
10/1/2002 Microsoft acpi.inf Not Available
ACPI_HAL\PNP0C08\0

ACPI Multiprocessor x64-based PC No COMPUTER 5.2.3790.1830
10/1/2002 (Standard computers) hal.inf Not Available
ROOT\ACPI_HAL\0000

Not Available Not Available Not Available Not Available Not Available
Not Available Not Available Not Available Not Available HTREE\ROOT\0

[Environment Variables]

Variable	Value	User Name
ComSpec	%SystemRoot%\system32\cmd.exe	<SYSTEM>
Path	%SystemRoot%\system32;%SystemRoot%;%SystemRoot%\System32\Wbem;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\DTS\Binn\;C:\Program Files (x86)\Microsoft SQL Server\90\Tools\Binn\VSShell\Common7\IDE\	<SYSTEM>
windir	%SystemRoot%	<SYSTEM>
FP_NO_HOST_CHECK	NO	<SYSTEM>
OS	Windows NT	<SYSTEM>
PROCESSOR_ARCHITECTURE	AMD64	<SYSTEM>
PROCESSOR_LEVEL	15	<SYSTEM>
PROCESSOR_IDENTIFIER	EM64T Family 15 Model 4 Stepping 1, GenuineIntel	<SYSTEM>

```

PROCESSOR_REVISION    0401    <SYSTEM>
NUMBER_OF_PROCESSORS  16      <SYSTEM>
ClusterLog           C:\WINDOWS\Cluster\cluster.log    <SYSTEM>
PATHEXT .COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH    <SYSTEM>

TEMP %SystemRoot%\TEMP    <SYSTEM>
TMP  %SystemRoot%\TEMP    <SYSTEM>
TEMP %USERPROFILE%\Local Settings\Temp NT AUTHORITY\SYSTEM
TMP  %USERPROFILE%\Local Settings\Temp NT AUTHORITY\SYSTEM
TEMP %USERPROFILE%\Local Settings\Temp NT AUTHORITY\LOCAL SERVICE

TMP  %USERPROFILE%\Local Settings\Temp NT AUTHORITY\LOCAL SERVICE

TEMP %USERPROFILE%\Local Settings\Temp NT AUTHORITY\NETWORK SERVICE

TMP  %USERPROFILE%\Local Settings\Temp NT AUTHORITY\NETWORK SERVICE

TEMP %USERPROFILE%\Local Settings\Temp TPCC-ZORRO\Administrator

TMP  %USERPROFILE%\Local Settings\Temp TPCC-ZORRO\Administrator

```

[Print Jobs]

Document	Size	Owner	Notify	Status	Time Submitted	Start Time
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
system	idle process	Not Available	0	0	Not Available
Available	Not Available	Not Available	Not Available	Not Available	Not Available
system	Not Available	4	8	0	1413120
Available	Not Available	Not Available	Not Available	Not Available	Not Available
smss.exe	Not Available	680	11	204800	1413120 10/19/2005 5:56 PM
5:56 PM	Not Available	Not Available	Not Available	Not Available	Not Available
csrss.exe	Not Available	792	13	Not Available	Not Available
10/19/2005 5:56 PM	Not Available	Not Available	Not Available	Not Available	Not Available
winlogon.exe	c:\windows\system32\winlogon.exe	832	13	204800	1413120 10/19/2005 5:56 PM
1413120 10/19/2005 5:56 PM	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	901.00 KB (922,624 bytes)	3/25/2005 11:00 AM		
services.exe	c:\windows\system32\services.exe	892	9	204800	1413120 10/19/2005 5:56 PM
1413120 10/19/2005 5:56 PM	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	216.50 KB (221,696 bytes)	3/25/2005 11:00 AM		
lsass.exe	c:\windows\system32\lsass.exe	904	9	204800	1413120 10/19/2005 5:56 PM
1413120 10/19/2005 5:56 PM	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	14.00 KB (14,336 bytes)	3/25/2005 11:00 AM		
svchost.exe	c:\windows\system32\svchost.exe	384	8	204800	1413120 10/19/2005 5:56 PM
1413120 10/19/2005 5:56 PM	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	24.50 KB (25,088 bytes)	3/25/2005 11:00 AM		

svchost.exe	Not Available	528	8	Not Available	Not Available
10/19/2005 5:56 PM	Not Available	Not Available	Not Available	Not Available	Not Available
svchost.exe	c:\windows\system32\svchost.exe	584	8	204800	1413120 10/19/2005 5:56 PM
1413120 10/19/2005 5:56 PM	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	24.50 KB (25,088 bytes)	3/25/2005 11:00 AM		
mnmsrvc.exe	c:\windows\syswow64\mnmsrvc.exe	1104	8	204800	1413120 10/19/2005 5:56 PM
1413120 10/19/2005 5:56 PM	5.2.3790.1830	32.00 KB (32,768 bytes)	10/12/2005 4:54 PM		
rundll32.exe	c:\windows\system32\rundll32.exe	1556	8	204800	1413120 10/19/2005 5:56 PM
1413120 10/19/2005 5:56 PM	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	36.50 KB (37,376 bytes)	3/25/2005 11:00 AM		
svchost.exe	Not Available	1560	8	Not Available	Not Available
10/19/2005 5:56 PM	Not Available	Not Available	Not Available	Not Available	Not Available
svchost.exe	c:\windows\system32\svchost.exe	1624	8	204800	1413120 10/19/2005 5:56 PM
1413120 10/19/2005 5:56 PM	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	24.50 KB (25,088 bytes)	3/25/2005 11:00 AM		
wmiprvse.exe	Not Available	1876	8	Not Available	Not Available
10/19/2005 5:57 PM	Not Available	Not Available	Not Available	Not Available	Not Available
explorer.exe	c:\windows\explorer.exe	2036	8	204800	1413120 10/19/2005 5:57 PM
1413120 10/19/2005 5:57 PM	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	1.30 MB (1,364,480 bytes)	3/25/2005 11:00 AM		
cmd.exe	c:\windows\system32\cmd.exe	1964	8	204800	1413120 10/19/2005 5:59 PM
10/19/2005 5:59 PM	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	538.50 KB (551,424 bytes)	3/25/2005 11:00 AM		
sqlservr.exe	c:\program files\microsoft sql server\mssql.1\mssql\binn\sqlservr.exe	1976	13	204800	1413120 10/19/2005 5:59 PM
1413120 10/19/2005 5:59 PM	2005.090.1399.00 built by bk Hessib	49.44 MB (51,840,512 bytes)	10/19/2005 4:52 PM		
mmc.exe	c:\windows\system32\mmc.exe	1300	8	204800	1413120 10/19/2005 6:04 PM
10/19/2005 6:04 PM	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	1.83 MB (1,920,512 bytes)	3/25/2005 11:00 AM		
csrss.exe	Not Available	1552	13	Not Available	Not Available
10/19/2005 6:10 PM	Not Available	Not Available	Not Available	Not Available	Not Available
winlogon.exe	c:\windows\system32\winlogon.exe	1544	13	204800	1413120 10/19/2005 6:10 PM
1413120 10/19/2005 6:10 PM	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	901.00 KB (922,624 bytes)	3/25/2005 11:00 AM		
rdpclip.exe	c:\windows\system32\rdpclip.exe	608	8	204800	1413120 10/19/2005 6:11 PM
1413120 10/19/2005 6:11 PM	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	99.00 KB (101,376 bytes)	10/12/2005 4:51 PM		
explorer.exe	c:\windows\explorer.exe	232	8	204800	1413120 10/19/2005 6:11 PM
1413120 10/19/2005 6:11 PM	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	1.30 MB (1,364,480 bytes)	3/25/2005 11:00 AM		
helpctr.exe	c:\windows\pchealth\helpctr\binaries\helpctr.exe	2632	8	204800	1413120 10/19/2005 6:11 PM
1413120 10/19/2005 6:11 PM	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	1.30 MB (1,363,456 bytes)	10/12/2005 4:53 PM		
wmiprvse.exe	Not Available	2816	8	Not Available	Not Available
10/19/2005 6:11 PM	Not Available	Not Available	Not Available	Not Available	Not Available
helpsvc.exe	c:\windows\pchealth\helpctr\binaries\helpsvc.exe	2824	8	204800	1413120 10/19/2005 6:11 PM
1413120 10/19/2005 6:11 PM	5.2.3790.1830				

(srv03_sp1_rtm.050324-1447) 1.52 MB (1,591,296 bytes) 10/12/2005 4:53 PM

[Loaded Modules]

Name	Version	Size	File Date	Manufacturer	Path
winlogon	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	901.00 KB (922,624 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\winlogon.exe
ntdll	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	1.20 MB (1,257,472 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\ntdll.dll
kernel32	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	1.43 MB (1,500,160 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\kernel32.dll
advapi32	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	1.00 MB (1,051,136 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\advapi32.dll
rpcrt4	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	1.63 MB (1,714,176 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\rpcrt4.dll
crypt32	5.131.3790.1830	(srv03_sp1_rtm.050324-1447)	1.36 MB (1,428,992 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\crypt32.dll
msasn1	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	152.50 KB (156,160 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\msasn1.dll
msvcrt	7.0.3790.1830	(srv03_sp1_rtm.050324-1447)	508.00 KB (520,192 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\msvcrt.dll
user32	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	1.04 MB (1,085,952 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\user32.dll
gdi32	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	592.00 KB (606,208 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\gdi32.dll
nddeapi	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	25.00 KB (25,600 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\nddeapi.dll
profmap	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	36.00 KB (36,864 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\profmap.dll
netapi32	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	589.00 KB (603,136 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\netapi32.dll
userenv	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	1.02 MB (1,069,056 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\userenv.dll
psapi	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	29.00 KB (29,696 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\psapi.dll
regapi	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	108.50 KB (111,104 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\regapi.dll
secur32	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	120.00 KB (122,880 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\secur32.dll

setupapi	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	1.45 MB (1,523,200 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\setupapi.dll
version	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	28.00 KB (28,672 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\version.dll
winsta	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	89.00 KB (91,136 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\winsta.dll
ws2_32	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	176.50 KB (180,736 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\ws2_32.dll
ws2help	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	30.50 KB (31,232 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\ws2help.dll
msgina	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	1.14 MB (1,193,472 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\msgina.dll
shsvcs	6.00.3790.1830	(srv03_sp1_rtm.050324-1447)	193.50 KB (198,144 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\shsvcs.dll
shlwapi	6.00.3790.2523	(srv03_sp1_gdr.050902-1400)	607.00 KB (621,568 bytes)	10/5/2005 3:19 PM	Microsoft Corporation c:\windows\system32\shlwapi.dll
sfc	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	6.00 KB (6,144 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\sfc.dll
sfc_os	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	183.50 KB (187,904 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\sfc_os.dll
wintrust	5.131.3790.1830	(srv03_sp1_rtm.050324-1447)	297.50 KB (304,640 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\wintrust.dll
imagehlp	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	57.50 KB (58,880 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\imagehlp.dll
ole32	5.2.3790.2492	(srv03_sp1_gdr.050720-1524)	2.43 MB (2,543,104 bytes)	8/26/2005 4:43 PM	Microsoft Corporation c:\windows\system32\ole32.dll
comctl32	6.0	(srv03_sp1_rtm.050324-1447)	1.51 MB (1,584,128 bytes)	10/12/2005 9:37 AM	Microsoft Corporation c:\windows\winsxs\amd64_microsoft.windows.common-controls_6595b64144ccf1df_6.0.3790.1830_x-ww_aced72af\comctl32.dll
winscard	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	230.00 KB (235,520 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\winscard.dll
wtsapi32	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	29.00 KB (29,696 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\wtsapi32.dll
winmm	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	303.50 KB (310,784 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\winmm.dll
sxs	5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	1.91 MB (2,003,968 bytes)	3/25/2005 11:00 AM	Microsoft Corporation c:\windows\system32\sxs.dll
shell32	6.00.3790.2534	(srv03_sp1_gdr.050922-2352)	10.01 MB (10,491,392 bytes)	9/27/2005 5:28 PM	Microsoft Corporation c:\windows\system32\shell32.dll

```

rsaenh 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 241.96 KB (247,768
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\rsaenh.dll
wldap32 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 390.00 KB (399,360
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\wldap32.dll
cscdll 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 151.50 KB (155,136
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\cscdll.dll
dimsntfy 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 28.00 KB
(28,672 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\dimsntfy.dll
wlnotify 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 148.00 KB
(151,552 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\wlnotify.dll
mpr 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 115.00 KB (117,760
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\mpr.dll
oleaut32 5.2.3790.1830 1.06 MB (1,116,160 bytes) 3/25/2005
11:00 AM Microsoft Corporation c:\windows\system32\oleaut32.dll

winpool 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 247.00 KB
(252,928 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\winpool.drv
comctl32 5.82 (srv03_sp1_rtm.050324-1447) 934.50 KB (956,928
bytes) 10/12/2005 9:37 AM Microsoft Corporation
c:\windows\winsxs\amd64_microsoft.windows.common-
controls_6595b64144ccf1df_5.82.3790.1830_x-ww_4d792d2a\comctl32.dll
uxtheme 6.00.3790.1830 (srv03_sp1_rtm.050324-1447) 494.50 KB (506,368
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\uxtheme.dll
samlib 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 69.00 KB (70,656
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\samlib.dll
clbcatq 2001.12.4720.2492 (srv03_sp1_gdr.050720-1524) 859.50 KB
(880,128 bytes) 8/26/2005 4:43 PM Microsoft Corporation
c:\windows\system32\clbcatq.dll
comres 2001.12.4720.1830 (srv03_sp1_rtm.050324-1447) 779.50 KB
(798,208 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\comres.dll
xpsp2res 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 2.77 MB
(2,899,456 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\xpsp2res.dll
cscui 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 441.00 KB (451,584
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\cscui.dll
ntmarta 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 222.50 KB (227,840
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\ntmarta.dll
services 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 216.50 KB
(221,696 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\services.exe
ncobjapi 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 80.00 KB
(81,920 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\ncobjapi.dll
msvc60 7.0.3790.1830 (srv03_sp1_rtm.050324-1447) 919.50 KB (941,568
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\msvc60.dll

```

```

scserv 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 594.50 KB (608,768
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\scserv.dll
authz 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 167.00 KB (171,008
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\authz.dll
umpnpgmr 5.2.3790.2477 (srv03_sp1_gdr.050629-1534) 205.00 KB
(209,920 bytes) 6/30/2005 10:06 AM Microsoft Corporation
c:\windows\system32\umpnpgmr.dll
eventlog 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 127.00 KB
(130,048 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\eventlog.dll
lsass 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 14.00 KB (14,336
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\lsass.exe
lsasrv 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 1.50 MB (1,568,256
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\lsasrv.dll
ntdsapi 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 127.50 KB (130,560
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\ntdsapi.dll
dnsapi 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 297.50 KB (304,640
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\dnsapi.dll
samsrv 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 1.01 MB (1,059,328
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\samsrv.dll
cryptdll 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 47.00 KB
(48,128 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\cryptdll.dll
msprivs 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 47.50 KB (48,640
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\msprivs.dll
kerberos 5.2.3790.2464 (srv03_sp1_gdr.050613-1636) 701.00 KB
(717,824 bytes) 6/30/2005 4:00 PM Microsoft Corporation
c:\windows\system32\kerberos.dll
msvl_0 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 253.00 KB (259,072
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\msvl_0.dll
iphlpapi 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 177.00 KB
(181,248 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\iphlpapi.dll
netlogon 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 666.00 KB
(681,984 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\netlogon.dll
w32time 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 400.50 KB (410,112
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\w32time.dll
schannel 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 248.00 KB
(253,952 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\schannel.dll
wdigest 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 130.50 KB (133,632
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\wdigest.dll
rassfm 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 36.00 KB (36,864
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\rassfm.dll

```

kdcsvc 5.2.3790.2464 (srv03_sp1_gdr.050613-1636) 410.50 KB (420,352 bytes) 6/30/2005 4:00 PM Microsoft Corporation
c:\windows\system32\kdcsvc.dll
ntdsa 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 2.81 MB (2,948,096 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\ntdsa.dll
esent 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 2.26 MB (2,366,976 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\esent.dll
ntdsatq 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 51.00 KB (52,224 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\ntdsatq.dll
msock 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 478.00 KB (489,472 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\msock.dll
scecli 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 308.00 KB (315,392 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\scecli.dll
ws03res 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 794.00 KB (813,056 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\ws03res.dll
hnetcfg 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 561.00 KB (574,464 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\hnetcfg.dll
wshtcpip 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 29.00 KB (29,696 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\wshtcpip.dll
pstorsvc 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 36.00 KB (36,864 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\pstorsvc.dll
psbase 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 124.00 KB (126,976 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\psbase.dll
dssenh 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 226.96 KB (232,408 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\dssenh.dll
cryptnet 5.131.3790.1830 (srv03_sp1_rtm.050324-1447) 108.50 KB (111,104 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\cryptnet.dll
sensapi 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 10.50 KB (10,752 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\sensapi.dll
svchost 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 24.50 KB (25,088 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\svchost.exe
rpcss 5.2.3790.2492 (srv03_sp1_gdr.050720-1524) 675.00 KB (691,200 bytes) 8/26/2005 4:43 PM Microsoft Corporation
c:\windows\system32\rpcss.dll
wkssvc 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 221.00 KB (226,304 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\wkssvc.dll
dmserver 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 36.50 KB (37,376 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\dmserver.dll
es 2001.12.4720.2492 (srv03_sp1_gdr.050720-1524) 357.00 KB (365,568 bytes) 8/26/2005 4:43 PM Microsoft Corporation
c:\windows\system32\es.dll

srsvcs 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 156.50 KB (160,256 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\srsvcs.dll
ntlsapi 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 11.00 KB (11,264 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\ntlsapi.dll
seclogon 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 27.50 KB (28,160 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\seclogon.dll
wmisvc 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 227.00 KB (232,448 bytes) 10/12/2005 4:51 PM Microsoft Corporation
c:\windows\system32\wbem\wmisvc.dll
vssapi 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 1.26 MB (1,320,960 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\vssapi.dll
atl 3.05.2284 96.50 KB (98,816 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\atl.dll
comsvcs 2001.12.4720.2517 (srv03_sp1_gdr.050825-1636) 2.06 MB (2,156,544 bytes) 8/26/2005 4:43 PM Microsoft Corporation
c:\windows\system32\comsvcs.dll
sens 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 63.50 KB (65,024 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\sens.dll
wiarpc 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 57.00 KB (58,368 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\wiarpc.dll
wbemcore 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 1.24 MB (1,299,968 bytes) 10/12/2005 4:51 PM Microsoft Corporation
c:\windows\system32\wbem\wbemcore.dll
esscli 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 626.50 KB (641,536 bytes) 10/12/2005 4:51 PM Microsoft Corporation
c:\windows\system32\wbem\esscli.dll
wbemcomn 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 524.00 KB (536,576 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\wbem\wbemcomn.dll
fastprox 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 866.50 KB (887,296 bytes) 10/12/2005 4:51 PM Microsoft Corporation
c:\windows\system32\wbem\fastprox.dll
wbemsvcs 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 58.00 KB (59,392 bytes) 10/12/2005 4:51 PM Microsoft Corporation
c:\windows\system32\wbem\wbemsvcs.dll
wmiutils 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 171.00 KB (175,104 bytes) 10/12/2005 4:51 PM Microsoft Corporation
c:\windows\system32\wbem\wmiutils.dll
repdrvfs 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 353.50 KB (361,984 bytes) 10/12/2005 4:51 PM Microsoft Corporation
c:\windows\system32\wbem\repdrvfs.dll
wmiprvsd 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 743.00 KB (760,832 bytes) 10/12/2005 4:51 PM Microsoft Corporation
c:\windows\system32\wbem\wmiprvsd.dll
wbemess 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 532.50 KB (545,280 bytes) 10/12/2005 4:51 PM Microsoft Corporation
c:\windows\system32\wbem\wbemess.dll
ncprov 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 73.00 KB (74,752 bytes) 10/12/2005 4:51 PM Microsoft Corporation
c:\windows\system32\wbem\ncprov.dll
netman 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 457.00 KB (467,968 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\netman.dll

```

mprapi 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 154.50 KB (158,208
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\mprapi.dll
activeds 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 348.50 KB
(356,864 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\activeds.dll
adslrpc 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 240.50 KB (246,272
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\adslrpc.dll
credui 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 202.00 KB (206,848
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\credui.dll
rtutils 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 66.00 KB (67,584
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\rtutils.dll
netshell 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 2.32 MB
(2,437,120 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\netshell.dll
clusapi 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 127.00 KB (130,048
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\clusapi.dll
rasapi32 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 410.00 KB
(419,840 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\rasapi32.dll
rasman 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 95.50 KB (97,792
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\rasman.dll
tapi32 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 332.50 KB (340,480
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\tapi32.dll
wininet 6.00.3790.2509 (srv03_sp1_gdr.050815-1517) 1.13 MB (1,186,304
bytes) 10/5/2005 3:19 PM Microsoft Corporation
c:\windows\system32\wininet.dll
wzcsapi 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 49.00 KB (50,176
bytes) 3/24/2005 9:35 AM Microsoft Corporation
c:\windows\system32\wzcsapi.dll
wzcsvc 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 492.00 KB (503,808
bytes) 3/24/2005 9:35 AM Microsoft Corporation
c:\windows\system32\wzcsvc.dll
wmi 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 5.50 KB (5,632 bytes)
3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\wmi.dll
dhcpcsvc 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 219.00 KB
(224,256 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\dhcpcsvc.dll
rasdlg 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 859.50 KB (880,128
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\rasdlg.dll
rasadhlp 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 12.00 KB
(12,288 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\rasadhlp.dll
actxprxy 6.00.3790.1830 (srv03_sp1_rtm.050324-1447) 220.50 KB
(225,792 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\actxprxy.dll
netcfgx 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 1.29 MB (1,354,240
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\netcfgx.dll

```

```

winipsec 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 52.50 KB
(53,760 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\winipsec.dll
pchsvc 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 76.00 KB (77,824
bytes) 10/12/2005 4:53 PM Microsoft Corporation
c:\windows\pchealth\helpctr\binaries\pchsvc.dll
wbemcons 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 65.50 KB
(67,072 bytes) 10/12/2005 4:51 PM Microsoft Corporation
c:\windows\system32\wbem\wbemcons.dll
mnmsrvc 5.2.3790.1830 32.00 KB (32,768 bytes) 10/12/2005 4:54 PM
Microsoft Corporation c:\windows\syswow64\mnmsrvc.exe
wow64 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 245.00 KB (250,880
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\wow64.dll
wow64win 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 280.00 KB
(286,720 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\wow64win.dll
wow64cpu 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 18.50 KB
(18,944 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\wow64cpu.dll
rundll32 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 36.50 KB
(37,376 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\rundll32.exe
termsrv 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 354.50 KB (363,008
bytes) 10/12/2005 4:51 PM Microsoft Corporation
c:\windows\system32\termsrv.dll
icaapi 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 27.50 KB (28,160
bytes) 10/12/2005 4:51 PM Microsoft Corporation
c:\windows\system32\icaapi.dll
mstlsapi 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 187.00 KB
(191,488 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\mstlsapi.dll
rdpwsx 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 170.13 KB (174,216
bytes) 10/12/2005 4:51 PM Microsoft Corporation
c:\windows\system32\rdpwsx.dll
explorer 6.00.3790.1830 (srv03_sp1_rtm.050324-1447) 1.30 MB
(1,364,480 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\explorer.exe
browseui 6.00.3790.1830 (srv03_sp1_rtm.050324-1447) 1.53 MB
(1,601,536 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\browseui.dll
shdocvw 6.00.3790.2523 (srv03_sp1_gdr.050902-1400) 2.31 MB (2,418,176
bytes) 10/5/2005 3:19 PM Microsoft Corporation
c:\windows\system32\shdocvw.dll
cryptui 5.131.3790.1830 (srv03_sp1_rtm.050324-1447) 705.50 KB (722,432
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\cryptui.dll
apphelp 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 241.00 KB (246,784
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\apphelp.dll
themeui 6.00.3790.1830 (srv03_sp1_rtm.050324-1447) 530.50 KB (543,232
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\themeui.dll
msimg32 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 6.50 KB (6,656 bytes)
3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\msimg32.dll
linkinfo 5.2.3790.2521 (srv03_sp1_gdr.050831-1530) 31.00 KB
(31,744 bytes) 9/27/2005 5:28 PM Microsoft Corporation
c:\windows\system32\linkinfo.dll

```



```

ntshrui 6.00.3790.1830 (srv03_sp1_rtm.050324-1447) 184.00 KB (188,416
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\ntshrui.dll
webcheck 6.00.3790.1830 (srv03_sp1_rtm.050324-1447) 439.00 KB
(449,536 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\webcheck.dll
wsock32 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 24.50 KB (25,088
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\wsock32.dll
stobject 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 142.50 KB
(145,920 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\stobject.dll
batmeter 6.00.3790.1830 (srv03_sp1_rtm.050324-1447) 41.50 KB
(42,496 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\batmeter.dll
powrprof 6.00.3790.1830 (srv03_sp1_rtm.050324-1447) 32.50 KB
(33,280 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\powrprof.dll
drprov 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 24.00 KB (24,576
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\drprov.dll
ntlanman 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 71.50 KB
(73,216 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\ntlanman.dll
netui0 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 130.00 KB (133,120
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\netui0.dll
netui1 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 338.50 KB (346,624
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\netui1.dll
davclnt 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 38.00 KB (38,912
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\davclnt.dll
urlmon 6.00.3790.1830 (srv03_sp1_rtm.050324-1447) 1.02 MB (1,074,176
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32?urlmon.dll
cmd 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 538.50 KB (551,424
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\cmd.exe
sqlservr 2005.090.1399.00 built by bk Hessib from
BADRIDDEDEV5_e_m6_b3_badr5 49.44 MB (51,840,512 bytes) 10/19/2005
4:52 PM Microsoft Corporation c:\program files\microsoft sql
server\mssql.1\mssql\binn\sqlservr.exe
msvcr80 8.00.50727.26 803.50 KB (822,784 bytes) 8/30/2005 8:50 PM
Microsoft Corporation
c:\windows\winsxs\amd64_microsoft.vc80.crt_1fc8b3b9a1e18e3b_8.0.50
727.26_x-ww_3fe85033\msvcr80.dll
msvcp80 8.00.50727.26 1.05 MB (1,097,728 bytes) 8/30/2005 8:53 PM
Microsoft Corporation
c:\windows\winsxs\amd64_microsoft.vc80.crt_1fc8b3b9a1e18e3b_8.0.50
727.26_x-ww_3fe85033\msvcp80.dll
opends60 2005.090.1314.00 22.21 KB (22,744 bytes)
9/3/2005 12:07 PM Microsoft Corporation c:\program
files\microsoft sql server\mssql.1\mssql\binn\opends60.dll
instapi 2005.090.1314.00 40.71 KB (41,688 bytes) 9/3/2005 12:03
PM Microsoft Corporation c:\program files\microsoft sql
server\90\shared\instapi.dll
sqllevn70 2005.090.1314.00 1.57 MB (1,641,688 bytes)
9/3/2005 12:09 PM Microsoft Corporation c:\program

```

```

files\microsoft sql server\mssql.1\mssql\binn\resources\1033\sqllevn70.rll
sqlos 2005.090.1314.00 15.71 KB (16,088 bytes) 9/3/2005 12:10
PM Microsoft Corporation c:\program files\microsoft sql
server\mssql.1\mssql\binn\sqlos.dll
mscoree 2.0.50727.26 (RTM.050727-2600) 441.00 KB (451,584 bytes)
8/30/2005 9:01 PM Microsoft Corporation
c:\windows\system32\mscoree.dll
xolehlp 2001.12.4720.1830 (srv03_sp1_rtm.050324-1447) 10.50 KB
(10,752 bytes) 10/12/2005 4:51 PM Microsoft Corporation
c:\windows\system32\xolehlp.dll
msdtcprx 2001.12.4720.2492 (srv03_sp1_gdr.050720-1524) 805.00
KB (824,320 bytes) 8/26/2005 4:43 PM Microsoft Corporation
c:\windows\system32\msdtcprx.dll
mtxclu 2001.12.4720.2492 (srv03_sp1_gdr.050720-1524) 141.50 KB
(144,896 bytes) 8/26/2005 4:43 PM Microsoft Corporation
c:\windows\system32\mtxclu.dll
resutils 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 98.50 KB
(100,864 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\resutils.dll
winrnr 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 30.00 KB (30,720
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\winrnr.dll
security 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 6.00 KB (6,144
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\security.dll
uvipl 1, 0, 0, 1 51.50 KB (52,736 bytes) 10/13/2005 10:51 AM
Unisys Corporation c:\windows\system32\uvipl.dll
mmc 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 1.83 MB (1,920,512
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\mmc.exe
mfc42u 6.50.9146.0 1.39 MB (1,462,272 bytes) 3/25/2005 11:00 AM
Microsoft Corporation c:\windows\system32\mfc42u.dll
mmcbase 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 106.50 KB (109,056
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\mmcbase.dll
comdlg32 6.00.3790.1830 (srv03_sp1_rtm.050324-1447) 446.50 KB
(457,216 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\comdlg32.dll
oleacc 4.2.5406.0 (srv03_sp1_rtm.050324-1447) 374.50 KB (383,488
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\oleacc.dll
mmcndmgr 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 2.23 MB
(2,336,256 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\mmcndmgr.dll
msxml3 8.70.1104.0 2.04 MB (2,141,184 bytes) 3/25/2005 11:00 AM
Microsoft Corporation c:\windows\system32\msxml3.dll
smlogcfg 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 711.50 KB
(728,576 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\smlogcfg.dll
odbc32 3.526.1830.0 (srv03_sp1_rtm.050324-1447) 408.00 KB (417,792
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\odbc32.dll
pdh 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 563.00 KB (576,512
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\pdh.dll
odbcbcsp 2000.086.1830.00 (srv03_sp1_rtm.050324-1447) 32.00 KB (32,768
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\odbcbcsp.dll

```

```

odbcint 3.526.1830.0 (srv03_spl_rtm.050324-1447) 96.00 KB (98,304
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\odbcint.dll
mlang 6.00.3790.1830 (srv03_spl_rtm.050324-1447) 686.00 KB (702,464
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\mlang.dll
sysmon 5.2.3790.1830 (srv03_spl_rtm.050324-1447) 392.50 KB (401,920
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\sysmon.ocx
perfdisk 5.2.3790.1830 (srv03_spl_rtm.050324-1447) 34.50 KB
(35,328 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\perfdisk.dll
perfos 5.2.3790.1830 (srv03_spl_rtm.050324-1447) 30.50 KB (31,232
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\perfos.dll
rdpsnd 5.2.3790.1830 (srv03_spl_rtm.050324-1447) 25.00 KB (25,600
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\rdpsnd.dll
scredir 5.2.3790.1830 (srv03_spl_rtm.050324-1447) 38.50 KB (39,424
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\scredir.dll
msacm32 5.2.3790.1830 (srv03_spl_rtm.050324-1447) 31.00 KB (31,744
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\msacm32.drv
msacm32 5.2.3790.1830 (srv03_spl_rtm.050324-1447) 112.00 KB (114,688
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\msacm32.dll
imaadp32 5.2.3790.1830 (srv03_spl_rtm.050324-1447) 24.00 KB
(24,576 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\imaadp32.acm
msadp32 5.2.3790.1830 (srv03_spl_rtm.050324-1447) 23.50 KB (24,064
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\msadp32.acm
msg711 5.2.3790.1830 (srv03_spl_rtm.050324-1447) 13.50 KB (13,824
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\msg711.acm
msgsm32 5.2.3790.1830 (srv03_spl_rtm.050324-1447) 34.50 KB (35,328
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\msgsm32.acm
tssoft32 1.01 13.50 KB (13,824 bytes) 3/25/2005 11:00 AM
DSP GROUP, INC. c:\windows\system32\tssoft32.acm
tsd32 1.03 24.50 KB (25,088 bytes) 3/25/2005 11:00 AM DSP
GROUP, INC. c:\windows\system32\tsd32.dll
rdpclip 5.2.3790.1830 (srv03_spl_rtm.050324-1447) 99.00 KB (101,376
bytes) 10/12/2005 4:51 PM Microsoft Corporation
c:\windows\system32\rdpclip.exe
helpctr 5.2.3790.1830 (srv03_spl_rtm.050324-1447) 1.30 MB (1,363,456
bytes) 10/12/2005 4:53 PM Microsoft Corporation
c:\windows\pchealth\helpctr\binaries\helpctr.exe
hcappres 5.2.3790.1830 (srv03_spl_rtm.050324-1447) 7.50 KB (7,680
bytes) 10/12/2005 4:53 PM Microsoft Corporation
c:\windows\pchealth\helpctr\binaries\hcappres.dll
itss 5.2.3790.2435 (srv03_spl_gdr.050501-0904) 208.50 KB (213,504
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\itss.dll
pchshell 5.2.3790.1830 (srv03_spl_rtm.050324-1447) 155.00 KB
(158,720 bytes) 10/12/2005 4:53 PM Microsoft Corporation
c:\windows\pchealth\helpctr\binaries\pchshell.dll

```

```

mshtml 6.00.3790.2541 (srv03_spl_gdr.051004-1419) 5.66 MB (5,933,568
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\mshtml.dll
msls31 3.10.349.0 357.00 KB (365,568 bytes) 3/25/2005 11:00 AM
Microsoft Corporation c:\windows\system32\msls31.dll
msimtf 5.2.3790.1830 (srv03_spl_rtm.050324-1447) 380.50 KB (389,632
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\msimtf.dll
msctf 5.2.3790.1830 (srv03_spl_rtm.050324-1447) 617.50 KB (632,320
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\msctf.dll
shdoclc 6.00.3790.1830 (srv03_spl_rtm.050324-1447) 589.50 KB (603,648
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\shdoclc.dll
jscript 5.6.0.8827 974.50 KB (997,888 bytes) 3/25/2005 11:00 AM
Microsoft Corporation c:\windows\system32\jscript.dll
imm32 5.2.3790.1830 (srv03_spl_rtm.050324-1447) 208.00 KB (212,992
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\imm32.dll
mshtml 6.00.3790.1830 (srv03_spl_rtm.050324-1447) 905.50 KB
(927,232 bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\mshtml.dll
vbscript 5.6.0.8827 646.50 KB (662,016 bytes) 3/25/2005
11:00 AM Microsoft Corporation c:\windows\system32\vbscript.dll
msinfo 5.2.3790.1830 (srv03_spl_rtm.050324-1447) 636.00 KB (651,264
bytes) 10/12/2005 4:53 PM Microsoft Corporation
c:\windows\pchealth\helpctr\binaries\msinfo.dll
riched32 5.2.3790.1830 (srv03_spl_rtm.050324-1447) 7.00 KB (7,168
bytes) 3/25/2005 11:00 AM Microsoft Corporation
c:\windows\system32\riched32.dll
riched20 5.31.23.1224 1.10 MB (1,157,120 bytes) 3/25/2005
11:00 AM Microsoft Corporation c:\windows\system32\riched20.dll
wbemprox 5.2.3790.1830 (srv03_spl_rtm.050324-1447) 38.00 KB
(38,912 bytes) 10/12/2005 4:51 PM Microsoft Corporation
c:\windows\system32\wbem\wbemprox.dll
helpsvc 5.2.3790.1830 (srv03_spl_rtm.050324-1447) 1.52 MB (1,591,296
bytes) 10/12/2005 4:53 PM Microsoft Corporation
c:\windows\pchealth\helpctr\binaries\helpsvc.exe

[Services]
Display Name Name State Start Mode Service Type Path Error
Control Start Name Tag ID
Application Experience Lookup Service AeLookupSvc Stopped Manual Share
Process c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem
0
Alerter Alerter Stopped Disabled Share Process
c:\windows\system32\svchost.exe -k localservice Normal NT
AUTHORITY\LocalService 0
Application Layer Gateway Service ALG Stopped Manual Own Process
c:\windows\system32\alg.exe Normal NT AUTHORITY\LocalService
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\v2.0.50727\aspnet_state.exe
Normal NT AUTHORITY\NetworkService 0
Windows Audio AudioSrv Stopped Disabled Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem
0
Background Intelligent Transfer Service BITS Stopped Manual Share
Process c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem
0
Computer Browser Browser Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem
0
Indexing Service CiSvc Stopped Disabled Share Process
c:\windows\system32\cisvc.exe Normal LocalSystem 0
ClipBook ClipSrv Stopped Disabled Own Process
c:\windows\system32\clipsrv.exe Normal LocalSystem 0

.NET Runtime Optimization Service v2.0.50727_X86
clr_optimization_v2.0.50727_32 Stopped Manual Own Process
c:\windows\microsoft.net\framework\v2.0.50727\mscorsvw.exe Ignore
LocalSystem 0
.NET Runtime Optimization Service v2.0.50727_x64
clr_optimization_v2.0.50727_64 Stopped Manual Own Process
c:\windows\microsoft.net\framework64\v2.0.50727\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
Cryptographic Services CryptSvc Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem
0
DCOM Server Process Launcher DcomLaunch Running Auto Share Process
c:\windows\system32\svchost.exe -k dcomlaunch Normal
LocalSystem 0
Distributed File System Dfs Stopped Manual Own Process
c:\windows\system32\dfssvc.exe Normal LocalSystem 0

DHCP Client Dhcp Stopped Manual Share Process
c:\windows\system32\svchost.exe -k networkservice Normal NT
AUTHORITY\NetworkService 0
Logical Disk Manager Administrative Service dmadm Stopped Manual Share
Process c:\windows\system32\dmadmin.exe /com Normal LocalSystem 0

Logical Disk Manager dmserver Running Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem
0
DNS Client Dnscache Stopped Manual Share Process
c:\windows\system32\svchost.exe -k networkservice Normal NT
AUTHORITY\NetworkService 0
Error Reporting Service ERSvc Stopped Manual Share Process
c:\windows\system32\svchost.exe -k winerr Ignore LocalSystem
0
Event Log Eventlog Running Auto Share Process
c:\windows\system32\services.exe Normal LocalSystem 0

COM+ Event System EventSystem Running Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem
0

```

```

Help and Support helpsvc Running Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem
0
Human Interface Device Access HidServ Stopped Disabled Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem
0
HTTP SSL HTTPFilter Stopped Manual Share Process
c:\windows\system32\lsass.exe Normal LocalSystem 0
IAS Jet Database Access IASJet Stopped Manual Share Process
c:\windows\syswow64\svchost.exe -k iasjet Normal LocalSystem
0
IMAPI CD-Burning COM Service ImapiService Stopped Disabled Own
Process c:\windows\system32\imapi.exe Normal LocalSystem 0
Intersite Messaging IsmServ Stopped Disabled Own Process
c:\windows\system32\ismserv.exe Normal LocalSystem 0

Kerberos Key Distribution Center kdc Stopped Disabled Share
Process c:\windows\system32\lsass.exe Normal LocalSystem 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 netsvcs Normal LocalSystem
0
License Logging LicenseService Stopped Disabled Own Process
c:\windows\system32\llssrv.exe Normal NT
AUTHORITY\NetworkService 0
TCP/IP NetBIOS Helper LmHosts Stopped Manual Share Process
c:\windows\system32\svchost.exe -k localservice Normal NT
AUTHORITY\LocalService 0
Messenger Messenger Stopped Disabled Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem
0
NetMeeting Remote Desktop Sharing mnmsrvc Running Auto Own Process
c:\windows\system32\mnmsrvc.exe Normal LocalSystem 0

Distributed Transaction Coordinator MSDTC Stopped Manual Own Process
c:\windows\system32\msdtc.exe Normal NT AUTHORITY\NetworkService
0
Windows Installer MSIServer Stopped Manual Share 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\binn\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 DDE NetDDE Stopped Disabled Share Process
c:\windows\system32\netdde.exe Normal LocalSystem 0

Network DDE DSDM NetDDEdsdm Stopped Disabled Share Process
c:\windows\system32\netdde.exe Normal LocalSystem 0

Net Logon 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 netsvcs	Normal	LocalSystem	0	
Network Location Awareness (NLA)	Nla	Running	Manual	Share Process
c:\windows\system32\svchost.exe -k netsvcs	Normal	LocalSystem	0	
File Replication	NtFrs	Stopped	Manual	Own Process
c:\windows\system32\ntfrs.exe	Ignore	LocalSystem	0	
NT LM Security Support Provider	NtLmSsp	Stopped	Manual	Share Process
c:\windows\system32\lsass.exe	Normal	LocalSystem	0	
Removable Storage	NtmsSvc	Stopped	Manual	Share Process
c:\windows\system32\svchost.exe -k netsvcs	Normal	LocalSystem	0	
Office Source Engine files (x86)\common files\microsoft shared\source engine\ose.exe"	ose	Stopped	Manual	Own Process
c:\program files\microsoft shared\source engine\ose.exe"	Normal	LocalSystem	0	
Plug and Play	PlugPlay	Running	Auto	Share Process
c:\windows\system32\services.exe	Normal	LocalSystem	0	
IPSEC Services	PolicyAgent	Stopped	Manual	Share Process
c:\windows\system32\lsass.exe	Normal	LocalSystem	0	
Protected Storage	ProtectedStorage	Running	Auto	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	
Remote Desktop Help Session Manager	RDSessMgr	Stopped	Manual	Own Process
c:\windows\system32\sessmgr.exe	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	0	
Remote Procedure Call (RPC) Locator	RpcLocator	Stopped	Manual	Own Process
c:\windows\system32\locator.exe	Normal	NT	0	
Remote Procedure Call (RPC)	RpcSs	Running	Auto	Share Process
c:\windows\system32\svchost.exe -k rpcss	Normal	NT	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\scardsvr.exe	Ignore	NT	0	
Task Scheduler	Schedule	Stopped	Manual	Share Process
c:\windows\system32\svchost.exe -k netsvcs	Normal	LocalSystem	0	

Secondary Logon	seclogon	Running	Auto	Share Process
c:\windows\system32\svchost.exe -k netsvcs	Ignore	LocalSystem	0	
System Event Notification	SENS	Running	Manual	Share Process
c:\windows\system32\svchost.exe -k netsvcs	Normal	LocalSystem	0	
Windows Firewall/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	
Print Spooler	Spooler	Stopped	Manual	Own Process
c:\windows\system32\spoolsv.exe	Normal	LocalSystem	0	
SQL Server Browser	SQLBrowser	Stopped	Disabled	Own Process
"c:\program files (x86)\microsoft sql server\90\shared\sqlbrowser.exe"	Normal	LocalSystem	0	
SQL Server Agent (MSSQLSERVER)	SQLSERVERAGENT	Stopped	Manual	Own Process
"c:\program files\microsoft sql server\mssql.1\mssql\binn\sqlagent90.exe" -i mssqlserver	Normal	LocalSystem	0	
SQL Server VSS Writer	SQLWriter	Stopped	Manual	Own Process
"c:\program files\microsoft sql server\90\shared\sqlwriter.exe"	Normal	LocalSystem	0	
Windows Image Acquisition (WIA)	stisvc	Stopped	Disabled	Share Process
c:\windows\system32\svchost.exe -k imgsvc	Normal	NT	0	
Microsoft Software Shadow Copy Provider	swprv	Stopped	Manual	Own Process
c:\windows\system32\svchost.exe -k swprv	Normal	LocalSystem	0	
Performance Logs and Alerts	SysmonLog	Stopped	Auto	Own Process
c:\windows\system32\smlogsvc.exe	Normal	NT	0	
Telephony	TapiSrv	Stopped	Manual	Share Process
c:\windows\system32\svchost.exe -k tapisrv	Normal	LocalSystem	0	
Terminal Services	TermService	Running	Manual	Share Process
c:\windows\system32\svchost.exe -k termsvcs	Normal	LocalSystem	0	
Themes	Themes	Stopped	Disabled	Share Process
c:\windows\system32\svchost.exe -k netsvcs	Normal	LocalSystem	0	
Telnet	TlntSvr	Stopped	Disabled	Own Process
c:\windows\system32\tlntsvr.exe	Normal	NT	0	
Distributed Link Tracking Server	TrkSvr	Stopped	Disabled	Share Process
c:\windows\system32\svchost.exe -k netsvcs	Normal	LocalSystem	0	
Distributed Link Tracking Client	TrkWks	Stopped	Manual	Share Process
c:\windows\system32\svchost.exe -k netsvcs	Normal	LocalSystem	0	
Terminal Services Session Directory	Tssdis	Stopped	Disabled	Own Process
c:\windows\system32\tssdis.exe	Normal	LocalSystem	0	
Windows User Mode Driver Framework	UMWdf	Stopped	Manual	Own Process
c:\windows\system32\wdmfmgr.exe	Normal	NT	0	

```

Uninterruptible Power Supply UPS Stopped Manual Own Process
c:\windows\system32\ups.exe Normal NT AUTHORITY\LocalService
0
Virtual Disk Service 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
WebClient WebClient Stopped Disabled Share Process
c:\windows\system32\svchost.exe -k localservice Normal NT
AUTHORITY\LocalService 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
Portable Media Serial Number Service WmdmPmSN Stopped Manual Share
Process c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem
0
Windows Management Instrumentation Driver Extensions Wmi Stopped Manual
Share Process c:\windows\system32\svchost.exe -k netsvcs Normal
LocalSystem 0
WMI Performance Adapter WmiApSrv Stopped Manual Own Process
c:\windows\system32\wbem\wmiapsrv.exe Normal LocalSystem 0

Automatic Updates wuauclt Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem
0
Wireless Configuration WZCSVC Stopped Disabled Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem
0
Network Provisioning Service xmlprov Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem
0

```

[Program Groups]

Group Name	Name	User Name
Accessories	Default User:Accessories	Default User
Accessories\Accessibility	Default User:Accessories\Accessibility	Default User
Accessories\Entertainment	Default User:Accessories\Entertainment	Default User
Startup	Default User:Startup	Default User
Accessories	All Users:Accessories	All Users
Accessories\Accessibility	All Users:Accessories\Accessibility	All Users
Accessories\Communications	All Users:Accessories\Communications	All Users
Accessories\Entertainment	All Users:Accessories\Entertainment	All Users
Accessories\System Tools	All Users:Accessories\System Tools	All Users
Administrative Tools	All Users:Administrative Tools	All Users

```

Microsoft SQL Server 2005 CTP All Users:Microsoft SQL Server 2005 CTP
All Users
Microsoft SQL Server 2005 CTP\Analysis Services All Users:Microsoft
SQL Server 2005 CTP\Analysis Services All Users
Microsoft SQL Server 2005 CTP\Configuration Tools All Users:Microsoft
SQL Server 2005 CTP\Configuration Tools All Users
Microsoft SQL Server 2005 CTP\Documentation and Tutorials All
Users:Microsoft SQL Server 2005 CTP\Documentation and Tutorials All
Users
Microsoft SQL Server 2005 CTP\Documentation and Tutorials\Tutorials All
Users:Microsoft SQL Server 2005 CTP\Documentation and Tutorials\Tutorials
All Users
Microsoft SQL Server 2005 CTP\Performance Tools All Users:Microsoft
SQL Server 2005 CTP\Performance Tools All Users
Startup All Users:Startup All Users
Accessories NT AUTHORITY\SYSTEM:Accessories NT AUTHORITY\SYSTEM
Accessories\Accessibility NT
AUTHORITY\SYSTEM:Accessories\Accessibility NT AUTHORITY\SYSTEM
Accessories\Entertainment NT
AUTHORITY\SYSTEM:Accessories\Entertainment NT AUTHORITY\SYSTEM
Startup NT AUTHORITY\SYSTEM:Startup NT AUTHORITY\SYSTEM
Accessories TPCC-ZORRO\Administrator:Accessories TPCC-
ZORRO\Administrator
Accessories\Accessibility TPCC-
ZORRO\Administrator:Accessories\Accessibility TPCC-
ZORRO\Administrator
Accessories\Entertainment TPCC-
ZORRO\Administrator:Accessories\Entertainment TPCC-
ZORRO\Administrator
Administrative Tools TPCC-ZORRO\Administrator:Administrative Tools
TPCC-ZORRO\Administrator
Startup TPCC-ZORRO\Administrator:Startup TPCC-ZORRO\Administrator

[Startup Programs]

```

Program	Command	User	Name	Location	Startup
desktop	desktop.ini	NT AUTHORITY\SYSTEM			Startup
desktop	desktop.ini	TPCC-ZORRO\Administrator			Startup
desktop	desktop.ini	.DEFAULT			Startup
desktop	desktop.ini	All Users			Common Startup

[OLE Registration]

Object	Local Server
Sound (OLE2)	sndrec32.exe
Media Clip	mplay32.exe
Video Clip	mplay32.exe /avi
MIDI Sequence	mplay32.exe /midi
Sound	Not Available
Media Clip	Not Available
WordPad Document	"%programfiles%\windows nt\accessories\wordpad.exe"

Bitmap Image mspaint.exe

[Windows Error Reporting]

Time Type Details

[Internet Settings]

[Internet Explorer]

[Following are sub-categories of this main category]
 [Summary]

Item Value
 Version 6.0.3790.1830
 Build 63790.1830
 Application Path C:\Program Files\Internet Explorer
 Language English (United States)
 Active Printer Not Available

Cipher Strength 128-bit
 Content Advisor Disabled
 IEAK Install No

[File Versions]

File	Version	Size	Date	Path	Company
actxprxy.dll	6.0.3790.1830	221 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
advpack.dll	6.0.3790.1830	146 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
asctrls.ocx	6.0.3790.1830	147 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
browseui.dll	6.0.3790.1830	1,564 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
cdfview.dll	6.0.3790.1830	216 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
comctl32.dll	5.82.3790.1830	935 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
dxttrans.dll	6.3.3790.2523	324 KB	10/5/2005 3:19:16 PM	C:\WINDOWS\system32	Microsoft Corporation
dxtmsft.dll	6.3.3790.1830	549 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
iecont.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
iecontlc.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
iedkcs32.dll	16.0.3790.1830	417 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
iepeers.dll	6.0.3790.2523	361 KB	10/5/2005 3:19:16 PM	C:\WINDOWS\system32	Microsoft Corporation
iesetup.dll	6.0.3790.1830	71 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
ieuinit.inf	Not Available	24 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Not Available
iexplore.exe	6.0.3790.1830	94 KB	3/25/2005 12:00:00 PM	C:\Program Files\Internet Explorer	Microsoft Corporation
imgutil.dll	6.0.3790.1830	61 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation

inetctl.cpl	6.0.3790.1830	428 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
inetctlc.dll	6.0.3790.1830	110 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
inseng.dll	6.0.3790.1830	147 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
mlang.dll	6.0.3790.1830	686 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
msencode.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
mshta.exe	6.0.3790.1830	38 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
mshtml.dll	6.0.3790.2541	5,795 KB	10/5/2005 3:19:16 PM	C:\WINDOWS\system32	Microsoft Corporation
mshtml.tlb	6.0.3790.1830	1,320 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
mshtmlmled.dll	6.0.3790.1830	906 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
mshtmlmer.dll	6.0.3790.1830	56 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
msident.dll	6.0.3790.1830	69 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
msidntld.dll	6.0.3790.1830	16 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
msieftpl.dll	6.0.3790.1830	369 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
msrating.dll	6.0.3790.1830	240 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
mstime.dll	6.0.3790.2529	878 KB	10/5/2005 3:19:16 PM	C:\WINDOWS\system32	Microsoft Corporation
occache.dll	6.0.3790.1830	126 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
proctexe.ocx	<File Missing>	Not Available	Not Available	Not Available	Not Available
sendmail.dll	6.0.3790.1830	64 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
shdoclc.dll	6.0.3790.1830	590 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
shdocvw.dll	6.0.3790.2523	2,362 KB	10/5/2005 3:19:16 PM	C:\WINDOWS\system32	Microsoft Corporation
shfolder.dll	6.0.3790.1830	34 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
shlwapi.dll	6.0.3790.2523	607 KB	10/5/2005 3:19:16 PM	C:\WINDOWS\system32	Microsoft Corporation
tdc.ocx	1.3.0.3130	91 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
url.dll	6.0.3790.1830	40 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
urlmon.dll	6.0.3790.1830	1,049 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
webcheck.dll	6.0.3790.1830	439 KB	3/25/2005 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
wininet.dll	6.0.3790.2509	1,159 KB	10/5/2005 3:19:16 PM	C:\WINDOWS\system32	Microsoft Corporation

[Connectivity]

Item Value
 Connection Preference Never dial

LAN Settings

AutoConfigProxy wininet.dll
AutoProxyDetectMode Disabled
AutoConfigURL
Proxy Disabled
ProxyServer
ProxyOverride

[Cache]

[Following are sub-categories of this main category]
[Summary]

Item	Value
Page Refresh Type	Automatic
Temporary Internet Files Folder	C:\Documents and Settings\Administrator\Local Settings\Temporary Internet Files
Total Disk Space	Not Available
Available Disk Space	Not Available
Maximum Cache Size	Not Available
Available Cache Size	Not Available

[List of Objects]

Program File	Status	CodeBase
No cached object information available		

[Content]

[Following are sub-categories of this main category]
[Summary]

Item	Value
Content Advisor	Disabled

[Personal Certificates]

Issued To	Issued By	Validity	Signature Algorithm
No personal certificate information available			

[Other People Certificates]

Issued To	Issued By	Validity	Signature Algorithm
No other people certificate information available			

[Publishers]

Name
No publisher information available

[Security]

Zone	Security Level
My Computer	Custom
Local intranet	Custom

Trusted sites Low
Internet Custom
Restricted sites Custom

Windows Enterprise Server Registry Information

Software_Microsoft_MicrosoftSQLServer

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM
Value 0
Name: SsrpActiveServer
Type: REG_SZ
Data:

Value 1
Name: InstalledInstances
Type: REG_MULTI_SZ
Data: MSSQLSERVER

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\90
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:16 PM
Value 0
Name: SharedCode
Type: REG_SZ
Data: C:\Program Files\Microsoft SQL Server\90\Shared\

Value 1
Name: VerSpecificRootDir
Type: REG_SZ
Data: C:\Program Files\Microsoft SQL Server\90\

Value 2
Name: EnableErrorReporting
Type: REG_DWORD
Data: 0

Value 3
Name: ErrorReportingDir
Type: REG_SZ
Data: C:\Program Files\Microsoft SQL Server\90\Shared\ErrorDumps\

Value 4
Name: CustomerFeedback
Type: REG_DWORD
Data: 0

Value 5
 Name: TimeOfReporting
 Type: REG_DWORD
 Data: 0xf0

Value 6
 Name: CollectorParameters
 Type: REG_SZ
 Data:

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\90\Bootstrap
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:09 PM
 Value 0
 Name: BootstrapDir
 Type: REG_SZ
 Data: C:\Program Files\Microsoft SQL Server\90\Setup\Bootstrap\

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\90\Bootstrap\MSIRefCount
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:09 PM
 Value 0
 Name: Uninstall
 Type: REG_SZ
 Data: {11111111-1111-1111-1111-111111111111}, {79F1B65E-8FC0-4D03-954D-F9E71C85AEC7}, {73D8B59D-0BFF-4B5B-A031-FAB3AC629E56}

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\90\Bootstrap\Setup
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:09 PM
 Value 0
 Name: PatchLevel
 Type: REG_SZ
 Data: 9.00.1314.06

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\90\Cost
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:12 PM
 Value 0
 Name: SQLSetup
 Type: REG_SZ
 Data: 8388608

Value 1
 Name: ToolsSetup
 Type: REG_SZ
 Data: 26214400

Value 2
 Name: MSXML6

Type: REG_SZ
 Data: 15728640

Value 3
 Name: bol
 Type: REG_SZ
 Data: 178257920

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\90\Machines
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:12 PM
 Value 0
 Name: OriginalMachineName
 Type: REG_SZ
 Data: TPCC-ZORRO

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\90\NodeConfiguration
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:16 PM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\90\NodeConfiguration\Node0
 Class Name: <NO CLASS>
 Last Write Time: 10/18/2005 - 9:57 PM
 Value 0
 Name: CPUMask
 Type: REG_DWORD
 Data: 0xf

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\90\NodeConfiguration\Node1
 Class Name: <NO CLASS>
 Last Write Time: 10/18/2005 - 9:57 PM
 Value 0
 Name: CPUMask
 Type: REG_DWORD
 Data: 0xf0

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\90\NodeConfiguration\Node2
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:16 PM
 Value 0
 Name: CPUMask
 Type: REG_DWORD
 Data: 0xf00

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\90\NodeConfiguration\Node3
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:16 PM
 Value 0

Name: CPUMask
Type: REG_DWORD
Data: 0xf000

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\90\Tools
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:12 PM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\90\Tools\ClientSetup
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:12 PM

Value 0
Name: SQLBinRoot
Type: REG_SZ
Data: C:\Program Files\Microsoft SQL Server\90\Shared\

Value 1
Name: SQLPath
Type: REG_SZ
Data: C:\Program Files\Microsoft SQL Server\90\Tools

Value 2
Name: Path
Type: REG_SZ
Data: C:\Program Files\Microsoft SQL Server\90\Tools\bin\

Value 3
Name: checksum
Type: REG_BINARY
Data:

00000000 39 31 33 66 66 66 30 65 - 62 38 32 62 30 34 37 62
913fff0eb82b047b
00000010 31 30 35 31 36 38 32 31 - 30 30 63 66 30 32 66 61
1051682100cf02fa
00000020 33 61 66 30 61 38 32 66 - 63 38 65 63 62 61 66 38
3af0a82fc8ecbaf8
00000030 35 34 39 31 30 38 34 34 - 31 65 38 34 35 32 38 35
549108441e845285
00000040 66 33 35 31 37 65 65 65 - 64 30 38 34 62 61 66 36
f3517eed084baf6
00000050 32 62 35 32 39 33 30 61 - 63 37 35 61 61 39 35 63
2b52930ac75aa95c
00000060 34 64 31 32 34 32 61 38 - 63 36 35 32 62 64 38 30
4d1242a8c652bd80
00000070 39 39 38 34 62 35 35 36 - 61 32 62 30 63 62 62 31
9984b556a2b0cbb1
00000080 62 38 34 39 34 32 39 30 - 33 36 37 61 31 64 65 63
b8494290367aldec
00000090 36 38 33 39 33 33 34 64 - 66 39 36 33 32 64 63 32
6839334df9632dc2
000000a0 65 34 65 38 37 30 35 37 - 32 33 31 32 34 64 39 62
e4e8705723124d9b
35 36 65 63 32 66 63 36 - 00 56ec2fc6.

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\90\Tools\ClientSetup\CurrentVersion
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM

Value 0
Name: Language
Type: REG_DWORD
Data: 0x409

Value 1
Name: CurrentVersion
Type: REG_SZ
Data: 9.00.1314.06

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\90\Tools\Service Manager
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM

Value 0
Name: Services
Type: REG_MULTI_SZ
Data: ;

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\90\Tools\Setup
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:12 PM

Value 0
Name: Version
Type: REG_SZ
Data: 9.00.1314.06

Value 1
Name: Language
Type: REG_DWORD
Data: 0x409

Value 2
Name: ProductCode
Type: REG_SZ
Data: {73D8B59D-0BFF-4B5B-A031-FAB3AC629E56}

Value 3
Name: FeatureList
Type: REG_SZ
Data: Client_Components=3 SQL_Documentation=3 Connectivity=3
SQL_Tools90=3 SQL_BooksOnline=3

Value 4
Name: PatchLevel
Type: REG_SZ
Data: 9.00.1314.06

Value 5
Name: SQLPath
Type: REG_SZ
Data: C:\Program Files\Microsoft SQL Server\90\Tools\

Value 6
 Name: checksum
 Type: REG_BINARY
 Data:
 00000000 39 31 33 66 66 66 30 65 - 62 38 32 62 30 34 37 62
 913fff0eb82b047b
 00000010 31 30 35 31 36 38 32 31 - 30 30 63 66 30 32 66 61
 1051682100cf02fa
 00000020 33 61 66 36 30 35 66 36 - 63 36 61 33 36 36 64 66
 3af605f6c6a366df
 00000030 30 38 35 66 35 64 31 36 - 65 63 62 38 63 62 65 35
 085f5d16ecb8cbe5
 00000040 63 64 62 65 63 32 38 64 - 32 66 39 35 34 66 32 31
 cdbec28d2f954f21
 00000050 34 33 32 31 64 39 36 62 - 38 36 66 63 33 31 31 63
 4321d96b86fc311c
 00000060 39 35 65 65 62 33 65 35 - 35 32 30 37 32 30 32 35
 95eeb3e552072025
 00000070 30 31 61 38 61 32 35 36 - 32 36 61 36 37 61 33 39
 01a8a25626a67a39
 00000080 66 35 31 36 63 31 32 35 - 63 34 39 32 61 64 34 61
 f516c125c492ad4a
 00000090 32 61 64 65 35 31 31 36 - 38 32 30 39 35 61 61 39
 2ade511682095aa9
 000000a0 32 38 64 65 63 30 35 37 - 31 34 37 61 34 31 30 34
 28dec057147a4104
 39 30 38 37 33 38 37 66 - 00 9087387f.

Value 7
 Name: Edition
 Type: REG_SZ
 Data: Enterprise Edition (64-bit)

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\90\Tools\Shortcut
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:09 PM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\90\Tools\Shortcut\SQL Server Error and Usage Reporting
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:09 PM

Value 0
 Name: 1033
 Type: REG_SZ
 Data:

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\90\Uninstall Info
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:12 PM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\90\Uninstall Info\{73D8B59D-0BFF-4B5B-A031-FAB3AC629E56}
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:12 PM

Value 0
 Name: Product
 Type: REG_SZ
 Data: Client_Components

Value 1
 Name: SetupHive
 Type: REG_SZ
 Data: 90\Tools

Value 2
 Name: RemoveList
 Type: REG_SZ
 Data: Client_Components,Connectivity,SQL_Tools90,SQL_WarehouseDevWorkbench,SDK,S QLXML,Tools_Legacy,TOOLS_BC_DEP,SQL_Documentation,SQL_BooksOnline,SQL_Data baseSamples,SQL_AdventureWorksSamples,SQL_AdventureWorksDWSamples,SQL_Adve ntureWorksASSamples,SQL_Samples

Value 3
 Name: ModifyPath
 Type: REG_SZ
 Data: "C:\Program Files\Microsoft SQL Server\90\Setup Bootstrap\setup.exe" /resumesetup /productcode {73D8B59D-0BFF-4B5B-A031-FAB3AC629E56} /I {73D8B59D-0BFF-4B5B-A031-FAB3AC629E56}

Value 4
 Name: UninstallPath
 Type: REG_SZ
 Data: "C:\Program Files\Microsoft SQL Server\90\Setup Bootstrap\setup.exe" /resumesetup /productcode {73D8B59D-0BFF-4B5B-A031-FAB3AC629E56} /X {73D8B59D-0BFF-4B5B-A031-FAB3AC629E56}

Value 5
 Name: Status
 Type: REG_DWORD
 Data: 0

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\90\Uninstall Info\{79F1B65E-8FC0-4D03-954D-F9E71C85AEC7}
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:09 PM

Value 0
 Name: Product
 Type: REG_SZ
 Data: SQL_Engine

Value 1
 Name: SetupHive
 Type: REG_SZ
 Data: MSSQL.1

Value 2
 Name: RemoveList
 Type: REG_SZ
 Data: SQL_Engine,SQL_Data_Files,SQL_Replication,SQL_FullText,SQL_SharedTools,SQL _BC_DEP

Value 3
Name: ModifyPath
Type: REG_SZ
Data: "C:\Program Files\Microsoft SQL Server\90\Setup
Bootstrap\setup.exe" /resumesetup /productcode {79F1B65E-8FC0-4D03-954D-
F9E71C85AEC7} /I {79F1B65E-8FC0-4D03-954D-F9E71C85AEC7}

Value 4
Name: UninstallPath
Type: REG_SZ
Data: "C:\Program Files\Microsoft SQL Server\90\Setup
Bootstrap\setup.exe" /resumesetup /productcode {79F1B65E-8FC0-4D03-954D-
F9E71C85AEC7} /X {79F1B65E-8FC0-4D03-954D-F9E71C85AEC7}

Value 5
Name: Status
Type: REG_DWORD
Data: 0

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\BC
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:06 PM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\BC\CurrentVersion
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:06 PM

Value 0
Name: Version
Type: REG_SZ
Data: 8.05.1041

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\BC\MSIRefCount
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:06 PM

Value 0
Name: Uninstall
Type: REG_SZ
Data: {11111111-1111-1111-1111-111111111111},{79F1B65E-8FC0-
4D03-954D-F9E71C85AEC7}

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\ExceptionMessageBox
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM

Value 0
Name: ShowFeedbackButton
Type: REG_DWORD
Data: 0x1

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\Instance Names

Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\Instance Names\SQL
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM

Value 0
Name: MSSQLSERVER
Type: REG_SZ
Data: MSSQL.1

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\MSSQL.1
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM

Value 0
Name: <NO NAME>
Type: REG_SZ
Data: MSSQLSERVER

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\MSSQL.1\CPE
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM

Value 0
Name: ErrorDumpDir
Type: REG_SZ
Data: C:\Program Files\Microsoft SQL
Server\MSSQL.1\MSSQL\LOG\

Value 1
Name: EnableErrorReporting
Type: REG_DWORD
Data: 0

Value 2
Name: CustomerFeedback
Type: REG_DWORD
Data: 0

Value 3
Name: TimeOfReporting
Type: REG_DWORD
Data: 0x3c

Value 4
Name: CollectorParameters
Type: REG_SZ
Data: SQL MSSQL.1

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\MSSQL.1\MSSQLServer
Class Name: <NO CLASS>
Last Write Time: 10/20/2005 - 11:05 PM
Value 0

Name: AuditLevel
 Type: REG_DWORD
 Data: 0x2

Value 1
 Name: DebugClassID
 Type: REG_SZ
 Data: {6D1A529A-CA45-4336-B7EA-4AF99288603D}

Value 2
 Name: DefaultLogin
 Type: REG_SZ
 Data: guest

Value 3
 Name: LoginMode
 Type: REG_DWORD
 Data: 0x2

Value 4
 Name: Map_
 Type: REG_SZ
 Data: \

Value 5
 Name: Map#
 Type: REG_SZ
 Data: -

Value 6
 Name: Map\$
 Type: REG_SZ
 Data:

Value 7
 Name: SetHostName
 Type: REG_DWORD
 Data: 0

Value 8
 Name: Tapeloadwaittime
 Type: REG_DWORD
 Data: 0xffffffff

Value 9
 Name: BackupDirectory
 Type: REG_SZ
 Data: C:\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL\Backup

Value 10
 Name: SysDb
 Type: REG_DWORD
 Data: 0x1

Value 11
 Name: uptime_pid
 Type: REG_DWORD
 Data: 0x154

Value 12
 Name: uptime_time_utc
 Type: REG_BINARY
 Data: 28 68 a1 6c 05 d6 c5 01 - (h;l.ÖÅ.

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\MSSQL.1\MSSQLServer\CurrentVersion
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:09 PM

Value 0
 Name: Language
 Type: REG_DWORD
 Data: 0x409

Value 1
 Name: CurrentVersion
 Type: REG_SZ
 Data: 9.00.1314.06

Value 2
 Name: RegisteredOwner
 Type: REG_SZ
 Data:

Value 3
 Name: SerialNumber
 Type: REG_SZ
 Data:

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\MSSQL.1\MSSQLServer\Parameters
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:09 PM

Value 0
 Name: SQLArg0
 Type: REG_SZ
 Data: -dC:\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL\DATA\master.mdf

Value 1
 Name: SQLArg1
 Type: REG_SZ
 Data: -eC:\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL\LOG\ERRORLOG

Value 2
 Name: SQLArg2
 Type: REG_SZ
 Data: -lC:\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL\DATA\mastlog.ldf

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\MSSQL.1\MSSQLServer\SuperSocketNetLib
 Class Name: <NO CLASS>

Last Write Time: 10/13/2005 - 1:09 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\AdminConnection
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 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\AdminConnection\Tcp
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 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: 10/13/2005 - 1:09 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: 10/13/2005 - 1:09 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: 10/13/2005 - 1:37 PM

Value 0
Name: Enabled
Type: REG_DWORD
Data: 0x1

Value 1
Name: ListenOnAllIPs
Type: REG_DWORD
Data: 0x1

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: 10/13/2005 - 1:09 PM

Value 0
Name: Enabled

```

Type:      REG_DWORD
Data:      0

Value 1
Name:      Active
Type:      REG_DWORD
Data:      0x1

Value 2
Name:      TcpPort
Type:      REG_SZ
Data:      1433

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:      192.59.13.7

Key Name:   HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\MSSQL.1\MSSQLServer\SuperSocketNetLib\Tcp\IP2
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM
Value 0
Name:      Enabled
Type:      REG_DWORD
Data:      0

Value 1
Name:      Active
Type:      REG_DWORD
Data:      0x1

Value 2
Name:      TcpPort
Type:      REG_SZ
Data:      1433

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:      192.168.91.207

Key Name:   HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\MSSQL.1\MSSQLServer\SuperSocketNetLib\Tcp\IP3
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM
Value 0
Name:      Enabled
Type:      REG_DWORD
Data:      0

Value 1
Name:      Active
Type:      REG_DWORD
Data:      0x1

Value 2
Name:      TcpPort
Type:      REG_SZ
Data:      1433

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:      127.0.0.1

Key Name:   HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\MSSQL.1\MSSQLServer\SuperSocketNetLib\Tcp\IPAll
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM
Value 0
Name:      TcpPort
Type:      REG_SZ
Data:      1433

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: 10/18/2005 - 8:26 PM
 Value 0
 Name: Enabled
 Type: REG_DWORD
 Data: 0x1

 Value 1
 Name: DefaultServerPort
 Type: REG_SZ
 Data: 0:1401[0x1],1:1402[0x2],2:1403[0x4],3:1404[0x8]

 Value 2
 Name: ListenInfo
 Type: REG_SZ
 Data: 0:1401[0x1],1:1402[0x2],2:1403[0x4],3:1404[0x8]

 Value 3
 Name: DisplayName
 Type: REG_SZ
 Data: VIA

 Value 4
 Name: VendorDLL
 Type: REG_SZ
 Data: Uvip1.dll

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
 Server\MSSQL.1\Providers
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:09 PM
 Value 0
 Name: AllowInProcess
 Type: REG_DWORD
 Data: 0x1

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
 Server\MSSQL.1\Providers\ADSDSOObject
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:09 PM
 Value 0
 Name: AllowInProcess
 Type: REG_DWORD
 Data: 0x1

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
 Server\MSSQL.1\Providers\DB2OLEDB
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:09 PM
 Value 0
 Name: AllowInProcess
 Type: REG_DWORD
 Data: 0x1

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
 Server\MSSQL.1\Providers\Microsoft.Jet.OLEDB.4.0
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:09 PM
 Value 0
 Name: AllowInProcess
 Type: REG_DWORD
 Data: 0x1

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
 Server\MSSQL.1\Providers\MSDAORA
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:09 PM
 Value 0
 Name: AllowInProcess
 Type: REG_DWORD
 Data: 0x1

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
 Server\MSSQL.1\Providers\MSDASQL
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:09 PM
 Value 0
 Name: AllowInProcess
 Type: REG_DWORD
 Data: 0x1

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
 Server\MSSQL.1\Providers\MSIDXS
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:09 PM
 Value 0
 Name: AllowInProcess
 Type: REG_DWORD
 Data: 0x1

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
 Server\MSSQL.1\Providers\MSQLImpProv
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:09 PM
 Value 0
 Name: AllowInProcess
 Type: REG_DWORD
 Data: 0x1

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
 Server\MSSQL.1\Providers\MSSEARCHSQL
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:09 PM
 Value 0
 Name: AllowInProcess
 Type: REG_DWORD

```

Data: 0x1

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\MSSQL.1\Providers\SQLNCLI
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM
Value 0
  Name: AllowInProcess
  Type: REG_DWORD
  Data: 0x1

Value 1
  Name: DisallowAdhocAccess
  Type: REG_DWORD
  Data: 0

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\MSSQL.1\Security
Class Name: <NO CLASS>
Last Write Time: 10/19/2005 - 11:53 AM
Value 0
  Name: Entropy
  Type: REG_BINARY
  Data:
00000000 0a 51 3d 15 a1 87 a9 60 - 61 6b 8f df 46 c8 1f 76
.Q=.i.®\`ak.BPÈ.v
00000010 1e 58 fa 87 5c fc 75 92 - c4 1e 51 27 06 69 77 82
.Xú.\úu.Ä.Q'.iw.
00000020 f3 d9 ec b2 6e 66 e9 20 - 6a 1f 2c 47 3e d0 4a a7  óÛì²nfé
j.,G>EJ$
00000030 f9 6d 4b 64 69 f1 44 99 - ef 39 be e6 b6 c3 01 30
ùmKdiñD.i9%æ¶Ä.0
00000040 60 a6 19 27 d0 1e 7b 1c - 4d 93 97 72 d1 d4 6c 41
`|. 'D. { .M. rÑÔ1A
00000050 0f 86 ec 0f 61 1a 37 96 - 0b bc 58 74 8c 6c a0 f5
..i.a.7..¼Xt.l ö
00000060 05 bb 2c 86 88 02 83 0e - eb ba 93 3c 36 b1 a6 65
.».....ë°. <6±|e
00000070 a2 e6 08 23 09 d1 07 0f - 37 2b a1 7b fa 2c 62 1d  çæ.#
Ñ..7+;{ú,b.
00000080 35 33 ea 32 13 28 bf 6d - fe 56 5e e5 52 dd db 0e
53ê2.(¿mpV^âRÝÛ.
00000090 0c b5 86 1a 9c 4a 59 9c - a7 c9 f9 ea 94 ac 46 23
.µ...JY. $Èùê.-F#
000000a0 e3 28 32 21 02 e0 0a fd - a2 8f ff 82 e4 d0 a1 98
ã(2!.à.ýç.ÿ.ãDj.
000000b0 86 9a a5 ed 81 49 09 61 - a8 21 1c d4 48 6e e9 42  ..¥í.I
a"! .ÔHnéB
000000c0 47 03 5b 9d e3 44 52 35 - dd 0b 03 54 d7 e5 dc 76
G.[.ãDR5Ý..TxãÛv
000000d0 f3 ce ce d9 d3 6f 4c 68 - 34 ee 0b a4 4e 31 40 41
óîîÛóLh4î.µN1@A
000000e0 12 bd 63 66 47 6d ec 46 - 90 f3 0b 63 c1 b2 4b c9
.½cfGmîF.ó.cÄ²KÉ
000000f0 25 01 49 e9 d0 34 93 fa - ec 29 29 3e ea 22 b0 c9
%.IéD4.úì)>ê"°É

```

```

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\MSSQL.1\Setup
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM
Value 0
  Name: AGTGroup
  Type: REG_SZ
  Data: S-1-5-21-2686233184-195144574-3616718390-1005

Value 1
  Name: SQLGroup
  Type: REG_SZ
  Data: S-1-5-21-2686233184-195144574-3616718390-1006

Value 2
  Name: FTSGroup
  Type: REG_SZ
  Data: S-1-5-21-2686233184-195144574-3616718390-1007

Value 3
  Name: Version
  Type: REG_SZ
  Data: 9.00.1314.06

Value 4
  Name: Language
  Type: REG_DWORD
  Data: 0x409

Value 5
  Name: Resume
  Type: REG_DWORD
  Data: 0

Value 6
  Name: ProductCode
  Type: REG_SZ
  Data: {79F1B65E-8FC0-4D03-954D-F9E71C85AEC7}

Value 7
  Name: SqlProgramDir
  Type: REG_SZ
  Data: C:\Program Files\Microsoft SQL Server\

Value 8
  Name: checksum
  Type: REG_BINARY
  Data:
00000000 39 31 33 66 66 66 30 65 - 62 38 32 62 30 34 37 62
913fff0eb82b047b
00000010 31 30 35 31 36 38 32 31 - 30 30 63 63 36 61 31 32
1051682100cc6a12
00000020 32 37 37 65 39 34 64 66 - 33 61 35 30 37 35 31 32
277e94df3a507512
00000030 66 36 34 62 66 66 66 35 - 31 39 38 39 30 61 61 33
f64bfff519890aa3

```



```

00000040 61 64 38 30 33 38 64 30 - 66 31 62 66 66 39 65 36
ad8038d0f1bfff9e6
00000050 64 64 65 34 65 39 34 66 - 32 65 62 32 37 63 39 66
dde4e94f2eb27c9f
00000060 31 31 64 63 61 34 38 65 - 38 65 38 33 38 35 37 64
11dca48e8e83857d
00000070 64 62 39 33 65 32 37 64 - 37 30 61 38 33 34 61 33
db93e27d70a834a3
00000080 64 61 35 37 62 30 64 38 - 62 62 64 65 62 63 30 39
da57b0d8bbdebc09
00000090 39 65 33 35 36 61 39 63 - 37 39 37 34 39 61 36 63
9e356a9c79749a6c
000000a0 33 66 39 64 37 66 66 39 - 61 31 31 36 34 62 32 33
3f9d7ff9a1164b23
61 36 33 64 33 63 62 64 - 00

```

a63d3cbd.

```

Value 9
Name:      Edition
Type:      REG_SZ
Data:      Enterprise Edition (64-bit)

Value 10
Name:      SqlCluster
Type:      REG_DWORD
Data:      0

Value 11
Name:      FeatureList
Type:      REG_SZ
Data:      SQL_Engine=3 SQL_Data_Files=3 SQL_SharedTools=3
SQL_BC_DEP=3

Value 12
Name:      PatchLevel
Type:      REG_SZ
Data:      9.00.1314.06

Value 13
Name:      Collation
Type:      REG_SZ
Data:      Latin1_General_BIN

Value 14
Name:      FirstStart
Type:      REG_DWORD
Data:      0

Value 15
Name:      SQLDataRoot
Type:      REG_SZ
Data:      C:\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL

Value 16
Name:      SQLPath
Type:      REG_SZ
Data:      C:\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL

Value 17
Name:      SQLBinRoot

```

```

Type:      REG_SZ
Data:      C:\Program Files\Microsoft SQL
Server\MSSQL.1\MSSQL\Binn

Key Name:   HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\MSSQL.1\SQLServerAgent
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM
Value 0
Name:      JobHistoryMaxRowsPerJob
Type:      REG_DWORD
Data:      0x64

Value 1
Name:      SysAdminOnly
Type:      REG_DWORD
Data:      0x1

Value 2
Name:      DownloadedMaxRows
Type:      REG_DWORD
Data:      0x64

Value 3
Name:      ErrorLogFile
Type:      REG_SZ
Data:      C:\Program Files\Microsoft SQL
Server\MSSQL.1\MSSQL\LOG\SQLAGENT.OUT

Value 4
Name:      ErrorLoggingLevel
Type:      REG_DWORD
Data:      0x3

Value 5
Name:      JobHistoryMaxRows
Type:      REG_DWORD
Data:      0x3e8

Value 6
Name:      MSXServerName
Type:      REG_SZ

Value 7
Name:      NonAlertableErrors
Type:      REG_SZ
Data:      1204,4002

Value 8
Name:      RestartServer
Type:      REG_DWORD
Data:      0x1

Value 9
Name:      ServerHost
Type:      REG_SZ

```

Value 10
Name: WorkingDirectory
Type: REG_SZ
Data: C:\Program Files\Microsoft SQL
Server\MSSQL.1\MSSQL\JOBS\

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\MSSQL.1\SQLServerSCP
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\Services
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\Services\Analysis Server
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM

Value 0
Name: Name
Type: REG_SZ
Data: MSSQLServerOLAPService

Value 1
Name: LName
Type: REG_SZ
Data: MSOLAP\$

Value 2
Name: Type
Type: REG_DWORD
Data: 0x5

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\Services\Full Text
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM

Value 0
Name: LName
Type: REG_SZ
Data: msftesql\$

Value 1
Name: Name
Type: REG_SZ
Data: msftesql

Value 2
Name: Type
Type: REG_DWORD
Data: 0x3

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\Services\Notification Services
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM

Value 0
Name: LName
Type: REG_SZ
Data: NS\$

Value 1
Name: Name
Type: REG_SZ
Data: NsService

Value 2
Name: Type
Type: REG_DWORD
Data: 0x8

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\Services\Report Server
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM

Value 0
Name: Name
Type: REG_SZ
Data: ReportServer

Value 1
Name: LName
Type: REG_SZ
Data: ReportServer\$

Value 2
Name: Type
Type: REG_DWORD
Data: 0x6

Value 3
Name: GroupPrefix
Type: REG_SZ
Data: SQLServer2005ReportServerUser\$TPCC-ZORRO\$

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\Services\ReportServer
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM

Value 0
Name: LName
Type: REG_SZ
Data: ReportServer\$

Value 1
Name: Name
Type: REG_SZ
Data: ReportServer

Value 2
 Name: Type
 Type: REG_DWORD
 Data: 0x6

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\Services\SQL Agent
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:09 PM

Value 0
 Name: Name
 Type: REG_SZ
 Data: SQLSERVERAGENT

Value 1
 Name: LName
 Type: REG_SZ
 Data: SQLAgent\$

Value 2
 Name: Type
 Type: REG_DWORD
 Data: 0x2

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\Services\SQL Browser
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:09 PM

Value 0
 Name: LName
 Type: REG_SZ
 Data:

Value 1
 Name: Name
 Type: REG_SZ
 Data: SQLBrowser

Value 2
 Name: Type
 Type: REG_DWORD
 Data: 0x7

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\Services\SQL Server
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:09 PM

Value 0
 Name: Name
 Type: REG_SZ
 Data: MSSQLServer

Value 1
 Name: LName
 Type: REG_SZ
 Data: MSSQL\$

Value 2
 Name: Type
 Type: REG_DWORD
 Data: 0x1

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\Services\SSIS Server
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:09 PM

Value 0
 Name: GroupPrefix
 Type: REG_SZ
 Data: SQLServer2005DTSUser\$TPCC-ZORRO

Value 1
 Name: LName
 Type: REG_SZ
 Data:

Value 2
 Name: Name
 Type: REG_SZ
 Data: MsDtsServer

Value 3
 Name: Type
 Type: REG_DWORD
 Data: 0x4

Software_Microsoft_MSSQLServer

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:09 PM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:09 PM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\SNI9.0
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:09 PM

Value 0
 Name: ProtocolsSupported
 Type: REG_MULTI_SZ
 Data: sm
 tcp
 np
 via

Value 1

Name: ProtocolOrder
Type: REG_MULTI_SZ
Data: sm
tcp
np

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\SNI9.0\GeneralFlags

Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM

Value 0
Name: NumberOfFlags
Type: REG_DWORD
Data: 0x2

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\SNI9.0\GeneralFlags\Flag1

Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM

Value 0
Name: Label
Type: REG_SZ
Data: Force protocol encryption

Value 1
Name: Value
Type: REG_DWORD
Data: 0

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\SNI9.0\GeneralFlags\Flag2

Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM

Value 0
Name: Label
Type: REG_SZ
Data: Trust Server Certificate

Value 1
Name: Value
Type: REG_DWORD
Data: 0

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\SNI9.0\LastConnect

Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\SNI9.0\np
Class Name: <NO CLASS>

Last Write Time: 10/13/2005 - 1:09 PM

Value 0
Name: DLLname
Type: REG_SZ
Data: SQLNCLI

Value 1
Name: NumberOfFlags
Type: REG_DWORD
Data: 0

Value 2
Name: NumberOfProperties
Type: REG_DWORD
Data: 0x1

Value 3
Name: ProtocolName
Type: REG_SZ
Data: Named Pipes

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\SNI9.0\np\Property1

Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM

Value 0
Name: Name
Type: REG_SZ
Data: Default Pipe

Value 1
Name: Value
Type: REG_SZ
Data: sql\query

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\SNI9.0\sm

Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM

Value 0
Name: DLLname
Type: REG_SZ
Data: SQLNCLI

Value 1
Name: NumberOfFlags
Type: REG_DWORD
Data: 0

Value 2
Name: NumberOfProperties
Type: REG_DWORD
Data: 0

Value 3
Name: ProtocolName

Type: REG_SZ
Data: Shared Memory

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\SNI9.0\tcp
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM
Value 0
Name: DLLname
Type: REG_SZ
Data: SQLNCLI

Value 1
Name: NumberOfFlags
Type: REG_DWORD
Data: 0

Value 2
Name: NumberOfProperties
Type: REG_DWORD
Data: 0x3

Value 3
Name: ProtocolName
Type: REG_SZ
Data: TCP/IP

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\SNI9.0\tcp\Proper
ty1
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM
Value 0
Name: Name
Type: REG_SZ
Data: Default Port

Value 1
Name: Value
Type: REG_DWORD
Data: 0x599

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\SNI9.0\tcp\Proper
ty2
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM
Value 0
Name: Name
Type: REG_SZ
Data: KEEPALIVE (in milliseconds)

Value 1
Name: Value
Type: REG_DWORD
Data: 0x7530

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\SNI9.0\tcp\Proper
ty3
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM
Value 0
Name: Name
Type: REG_SZ
Data: KEEPALIVEINTERVAL (in milliseconds)

Value 1
Name: Value
Type: REG_DWORD
Data: 0x3e8

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\SNI9.0\VIA
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM
Value 0
Name: DLLname
Type: REG_SZ
Data: SQLNCLI

Value 1
Name: NumberOfFlags
Type: REG_DWORD
Data: 0

Value 2
Name: NumberOfProperties
Type: REG_DWORD
Data: 0x2

Value 3
Name: ProtocolName
Type: REG_SZ
Data: VIA

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\SNI9.0\VIA\Proper
ty1
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM
Value 0
Name: Name
Type: REG_SZ
Data: Default Server Port

Value 1
Name: Value
Type: REG_SZ
Data: 0:1433

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\SNI9.0\VIA\Proper
ty2
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM
Value 0
Name: Name
Type: REG_SZ
Data: Default Client NIC
Value 1
Name: Value
Type: REG_SZ
Data: 0

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\MSSQLServer
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\MSSQLServer\CurrentVersi
on
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM
Value 0
Name: CurrentVersion
Type: REG_SZ
Data: 9.00.1314.06

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\MSSQLServer\SuperSocketN
etLib
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:35 PM
Value 0
Name: ProtocolList
Type: REG_MULTI_SZ
Data: tcp
np

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\MSSQLServer\SuperSocketN
etLib\Np
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:35 PM
Value 0
Name: PipeName
Type: REG_SZ
Data: \\.\pipe\sql\query

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\MSSQLServer\SuperSocketN
etLib\Tcp
Class Name: <NO CLASS>

Last Write Time: 10/13/2005 - 1:09 PM
Value 0
Name: TcpPort
Type: REG_SZ
Data: 1433

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Setup
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:09 PM
Value 0
Name: SQLPath
Type: REG_SZ
Data: C:\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL

Software_Unisys_IntelligentFibre

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\UNISYS\Intelligent Fibre
Utility
Class Name: <NO CLASS>
Last Write Time: 7/28/2005 - 2:54 PM
Value 0
Name: AccessTuning
Type: REG_DWORD
Data: 0x1

CurrentControlSet\Control\Session Manager\I/O System

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Session Manager\I/O
System
Class Name: <NO CLASS>
Last Write Time: 8/16/2005 - 4:46 PM
Value 0
Name: CountOperations
Type: REG_DWORD
Data: 0

CurrentControlSet\Services\Ifba

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ifba
Class Name: <NO CLASS>
Last Write Time: 10/20/2005 - 8:53 PM
Value 0
Name: Type
Type: REG_DWORD
Data: 0x1

```

Value 1
  Name:      Start
  Type:     REG_DWORD
  Data:     0x3

Value 2
  Name:     ErrorControl
  Type:    REG_DWORD
  Data:    0x1

Value 3
  Name:     Tag
  Type:    REG_DWORD
  Data:    0x4

Value 4
  Name:     ImagePath
  Type:    REG_EXPAND_SZ
  Data:    system32\DRIVERS\ifba.sys

Value 5
  Name:     DisplayName
  Type:    REG_SZ
  Data:    Unisys Intelligent Fibre Channel Adapter SCSI Processor

Value 6
  Name:     Group
  Type:    REG_SZ
  Data:    SCSI Class

```

```

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ifba\Security
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 8:37 AM
Value 0
  Name:      Security
  Type:     REG_BINARY
  Data:
00000000  01 00 14 80 b8 00 00 00 - c4 00 00 00 14 00 00 00
.....Ä.....
00000010  30 00 00 00 02 00 1c 00 - 01 00 00 00 02 80 14 00
0.....
00000020  ff 01 0f 00 01 01 00 00 - 00 00 00 01 00 00 00 00
ÿ.....
00000030  02 00 88 00 06 00 00 00 - 00 00 14 00 fd 01 02 00
.....ÿ...
00000040  01 01 00 00 00 00 00 05 - 12 00 00 00 00 00 18 00
.....
00000050  ff 01 0f 00 01 02 00 00 - 00 00 00 05 20 00 00 00  ÿ.....
...
00000060  20 02 00 00 00 00 14 00 - 8d 01 02 00 01 01 00 00
.....
00000070  00 00 00 05 04 00 00 00 - 00 00 14 00 8d 01 02 00
.....
00000080  01 01 00 00 00 00 00 05 - 06 00 00 00 00 00 14 00
.....
00000090  00 01 00 00 01 01 00 00 - 00 00 00 05 0b 00 00 00
.....

```

```

000000a0  00 00 18 00 fd 01 02 00 - 01 02 00 00 00 00 00 05
.....ÿ.....
000000b0  20 00 00 00 23 02 00 00 - 01 01 00 00 00 00 00 05
...#.....
000000c0  12 00 00 00 01 01 00 00 - 00 00 00 05 12 00 00 00
.....

```

```

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ifba\Enum
Class Name: <NO CLASS>
Last Write Time: 10/20/2005 - 8:53 PM
Value 0

```

```

  Name:      0
  Type:     REG_SZ
  Data:     SCSI\ProcessorUNISYS_FC76222-
P64_____v2__\6&2c288843&0&0C0A560B00080010

```

```

Value 1
  Name:      Count
  Type:     REG_DWORD
  Data:     0xa

```

```

Value 2
  Name:      NextInstance
  Type:     REG_DWORD
  Data:     0xa

```

```

Value 3
  Name:      1
  Type:     REG_SZ
  Data:     SCSI\ProcessorUNISYS_FC76222-
P64_____v2__\6&2c288843&0&0D0A560B00080010

```

```

Value 4
  Name:      2
  Type:     REG_SZ
  Data:     SCSI\ProcessorUNISYS_FC76222-
P64_____v2__\6&dce4a85&0&E804560B00080010

```

```

Value 5
  Name:      3
  Type:     REG_SZ
  Data:     SCSI\ProcessorUNISYS_FC76222-
P64_____v2__\6&dce4a85&0&E904560B00080010

```

```

Value 6
  Name:      4
  Type:     REG_SZ
  Data:     SCSI\ProcessorUNISYS_FC76222-
P64_____v2__\6&3b08969c&0&EC04560B00080010

```

```

Value 7
  Name:      5
  Type:     REG_SZ
  Data:     SCSI\ProcessorUNISYS_FC76222-
P64_____v2__\6&3b08969c&0&ED04560B00080010

```

Value 8
Name: 6
Type: REG_SZ
Data: SCSI\ProcessorUNISYS_FC76222-
P64_____v2___\6&32f92ba6&0&B004560B00080010

Value 9
Name: 7
Type: REG_SZ
Data: SCSI\ProcessorUNISYS_FC76222-
P64_____v2___\6&32f92ba6&0&B104560B00080010

Value 10
Name: 8
Type: REG_SZ
Data: SCSI\ProcessorUNISYS_FC76222-
P64_____v2___\6&a179509&0&7433560B00080010

Value 11
Name: 9
Type: REG_SZ
Data: SCSI\ProcessorUNISYS_FC76222-
P64_____v2___\6&a179509&0&7533560B00080010

CurrentControlSet\Services\Ifdisk

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ifdisk
Class Name: <NO CLASS>
Last Write Time: 10/20/2005 - 8:53 PM

Value 0
Name: Type
Type: REG_DWORD
Data: 0x1

Value 1
Name: Start
Type: REG_DWORD
Data: 0x1

Value 2
Name: ErrorControl
Type: REG_DWORD
Data: 0x1

Value 3
Name: ImagePath
Type: REG_EXPAND_SZ
Data: system32\DRIVERS\ifdisk.sys

Value 4
Name: DisplayName
Type: REG_SZ
Data: Unisys Intelligent Fibre Channel Fabric Disk Driver

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ifdisk\Security
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 8:53 AM

Value 0
Name: Security
Type: REG_BINARY
Data:
00000000 01 00 14 80 b8 00 00 00 - c4 00 00 00 14 00 00 00
.....Ä.....
00000010 30 00 00 00 02 00 1c 00 - 01 00 00 00 02 80 14 00
0.....
00000020 ff 01 0f 00 01 01 00 00 - 00 00 00 01 00 00 00 00
ÿ.....
00000030 02 00 88 00 06 00 00 00 - 00 00 14 00 fd 01 02 00
.....ÿ...
00000040 01 01 00 00 00 00 00 05 - 12 00 00 00 00 00 18 00
.....
00000050 ff 01 0f 00 01 02 00 00 - 00 00 00 05 20 00 00 00 ÿ.....
...
00000060 20 02 00 00 00 00 14 00 - 8d 01 02 00 01 01 00 00
.....
00000070 00 00 00 05 04 00 00 00 - 00 00 14 00 8d 01 02 00
.....
00000080 01 01 00 00 00 00 00 05 - 06 00 00 00 00 00 14 00
.....
00000090 00 01 00 00 01 01 00 00 - 00 00 00 05 0b 00 00 00
.....
000000a0 00 00 18 00 fd 01 02 00 - 01 02 00 00 00 00 00 05
....ÿ.....
000000b0 20 00 00 00 23 02 00 00 - 01 01 00 00 00 00 00 05
...#.....
000000c0 12 00 00 00 01 01 00 00 - 00 00 00 05 12 00 00 00
.....

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ifdisk\Enum
Class Name: <NO CLASS>
Last Write Time: 10/20/2005 - 8:53 PM

Value 0
Name: 0
Type: REG_SZ
Data: SCSI\Disk&Ven_DGC_____RAID_10_____0206\1&2d12bed1&0&B81121106001065000
0000000000000000

Value 1
Name: Count
Type: REG_DWORD
Data: 0x31

Value 2
Name: NextInstance
Type: REG_DWORD
Data: 0x31

Value 3		Data:	
Name:	1	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&094000861000001000	
Type:	REG_SZ	000000000004000	
Data:			
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&094000861000001000		Value 12	
00000000000C000		Name:	10
		Type:	REG_SZ
		Data:	
Value 4		SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&094000861000001000	
Name:	2	000000000003000	
Type:	REG_SZ		
Data:			
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&094000861000001000		Value 13	
00000000000B000		Name:	11
		Type:	REG_SZ
		Data:	
Value 5		SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&094000861000001000	
Name:	3	000000000002000	
Type:	REG_SZ		
Data:			
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&094000861000001000		Value 14	
00000000000A000		Name:	12
		Type:	REG_SZ
		Data:	
Value 6		SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&094000861000001000	
Name:	4	000000000001000	
Type:	REG_SZ		
Data:			
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&094000861000001000		Value 15	
000000000009000		Name:	13
		Type:	REG_SZ
		Data:	
Value 7		SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&9B3F00861000001000	
Name:	5	00000000000C000	
Type:	REG_SZ		
Data:			
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&094000861000001000		Value 16	
000000000008000		Name:	14
		Type:	REG_SZ
		Data:	
Value 8		SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&9B3F00861000001000	
Name:	6	00000000000E000	
Type:	REG_SZ		
Data:			
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&094000861000001000		Value 17	
000000000007000		Name:	15
		Type:	REG_SZ
		Data:	
Value 9		SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&9B3F00861000001000	
Name:	7	00000000000A000	
Type:	REG_SZ		
Data:			
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&094000861000001000		Value 18	
000000000006000		Name:	16
		Type:	REG_SZ
		Data:	
Value 10		SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&9B3F00861000001000	
Name:	8	000000000009000	
Type:	REG_SZ		
Data:			
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&094000861000001000		Value 19	
000000000005000		Name:	17
		Type:	REG_SZ
		Data:	
Value 11		SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&9B3F00861000001000	
Name:	9	000000000008000	
Type:	REG_SZ		

Value 20	Type: REG_SZ
Name: 18	Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&DB3F00861000001000
Type: REG_SZ	00000000000B000
Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&9B3F00861000001000	Value 29
000000000007000	Name: 27
Value 21	Type: REG_SZ
Name: 19	Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&DB3F00861000001000
Type: REG_SZ	00000000000A000
Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&9B3F00861000001000	Value 30
000000000006000	Name: 28
Value 22	Type: REG_SZ
Name: 20	Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&DB3F00861000001000
Type: REG_SZ	000000000009000
Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&9B3F00861000001000	Value 31
000000000005000	Name: 29
Value 23	Type: REG_SZ
Name: 21	Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&DB3F00861000001000
Type: REG_SZ	000000000008000
Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&9B3F00861000001000	Value 32
000000000004000	Name: 30
Value 24	Type: REG_SZ
Name: 22	Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&DB3F00861000001000
Type: REG_SZ	000000000007000
Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&9B3F00861000001000	Value 33
000000000003000	Name: 31
Value 25	Type: REG_SZ
Name: 23	Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&DB3F00861000001000
Type: REG_SZ	000000000006000
Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&9B3F00861000001000	Value 34
000000000002000	Name: 32
Value 26	Type: REG_SZ
Name: 24	Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&DB3F00861000001000
Type: REG_SZ	000000000005000
Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&9B3F00861000001000	Value 35
000000000001000	Name: 33
Value 27	Type: REG_SZ
Name: 25	Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&DB3F00861000001000
Type: REG_SZ	000000000004000
Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&DB3F00861000001000	Value 36
00000000000C000	Name: 34
Value 28	Type: REG_SZ
Name: 26	

Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&DB3F00861000001000
 000000000003000

Value 37
 Name: 35
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&DB3F00861000001000
 000000000002000

Value 38
 Name: 36
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&DB3F00861000001000
 000000000001000

Value 39
 Name: 37
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&C33F00861000001000
 00000000000C000

Value 40
 Name: 38
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&C33F00861000001000
 00000000000B000

Value 41
 Name: 39
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&C33F00861000001000
 00000000000A000

Value 42
 Name: 40
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&C33F00861000001000
 000000000009000

Value 43
 Name: 41
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&C33F00861000001000
 000000000008000

Value 44
 Name: 42
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&C33F00861000001000
 000000000007000

Value 45
 Name: 43
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&C33F00861000001000
 000000000006000

Value 46
 Name: 44
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&C33F00861000001000
 000000000005000

Value 47
 Name: 45
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&C33F00861000001000
 000000000004000

Value 48
 Name: 46
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&C33F00861000001000
 000000000003000

Value 49
 Name: 47
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&C33F00861000001000
 000000000002000

Value 50
 Name: 48
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&C33F00861000001000
 000000000001000

CurrentControlSet\Services\IfIp

Key Name:
 HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\IfIp
 Class Name: <NO CLASS>
 Last Write Time: 10/20/2005 - 8:52 PM
 Value 0
 Name: Type
 Type: REG_DWORD
 Data: 0x1

Value 1

```

Name:          Start
Type:         REG_DWORD
Data:         0

Value 2
Name:         ErrorControl
Type:         REG_DWORD
Data:         0x1

Value 3
Name:         Tag
Type:         REG_DWORD
Data:         0x7

Value 4
Name:         ImagePath
Type:         REG_EXPAND_SZ
Data:         system32\DRIVERS\IfIp.sys

Value 5
Name:         DisplayName
Type:         REG_SZ
Data:         Unisys Intelligent Fibre Channel Fabric Bus Enumerator

Value 6
Name:         Group
Type:         REG_SZ
Data:         Boot Bus Extender

```

```

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\IfIp\Security
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 8:39 AM
Value 0
Name: Security
Type: REG_BINARY
Data:
00000000  01 00 14 80 b8 00 00 00 - c4 00 00 00 14 00 00 00
.....Ä.....
00000010  30 00 00 00 02 00 1c 00 - 01 00 00 00 02 80 14 00
0.....
00000020  ff 01 0f 00 01 01 00 00 - 00 00 00 01 00 00 00 00
ÿ.....
00000030  02 00 88 00 06 00 00 00 - 00 00 14 00 fd 01 02 00
.....ÿ...
00000040  01 01 00 00 00 00 00 05 - 12 00 00 00 00 00 18 00
.....
00000050  ff 01 0f 00 01 02 00 00 - 00 00 00 05 20 00 00 00  ÿ.....
...
00000060  20 02 00 00 00 00 14 00 - 8d 01 02 00 01 01 00 00
.....
00000070  00 00 00 05 04 00 00 00 - 00 00 14 00 8d 01 02 00
.....
00000080  01 01 00 00 00 00 00 05 - 06 00 00 00 00 00 14 00
.....
00000090  00 01 00 00 01 01 00 00 - 00 00 00 05 0b 00 00 00
.....

```

```

000000a0  00 00 18 00 fd 01 02 00 - 01 02 00 00 00 00 00 05
....ÿ.....
000000b0  20 00 00 00 23 02 00 00 - 01 01 00 00 00 00 00 05
...#.....
000000c0  12 00 00 00 01 01 00 00 - 00 00 00 05 12 00 00 00
.....

```

```

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\IfIp\Enum
Class Name: <NO CLASS>
Last Write Time: 10/20/2005 - 8:52 PM
Value 0
Name: 0
Type: REG_SZ
Data: Root\SYSTEM\0003

Value 1
Name: Count
Type: REG_DWORD
Data: 0x1

Value 2
Name: NextInstance
Type: REG_DWORD
Data: 0x1

```

CurrentControlSet\Services\ifxp

```

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ifxp
Class Name: <NO CLASS>
Last Write Time: 10/20/2005 - 8:52 PM
Value 0
Name: Type
Type: REG_DWORD
Data: 0x1

Value 1
Name: Start
Type: REG_DWORD
Data: 0

Value 2
Name: ErrorControl
Type: REG_DWORD
Data: 0x1

Value 3
Name: Tag
Type: REG_DWORD
Data: 0x21

Value 4
Name: ImagePath

```

Type: REG_EXPAND_SZ
Data: system32\DRIVERS\ifxp.sys

Value 5
Name: DisplayName
Type: REG_SZ
Data: Unisys Intelligent Fibre Channel Fabric Bus Adapter

Value 6
Name: Group
Type: REG_SZ
Data: SCSI Miniport

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ifxp\Parameters
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 8:36 AM

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ifxp\Parameters\PnpIn
terface
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 8:36 AM

Value 0
Name: 5
Type: REG_DWORD
Data: 0x1

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ifxp\Security
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 8:36 AM

Value 0
Name: Security
Type: REG_BINARY
Data:
00000000 01 00 14 80 b8 00 00 00 - c4 00 00 00 14 00 00 00
.....Ä.....
00000010 30 00 00 00 02 00 1c 00 - 01 00 00 00 02 80 14 00
0.....
00000020 ff 01 0f 00 01 01 00 00 - 00 00 00 01 00 00 00 00
ÿ.....
00000030 02 00 88 00 06 00 00 00 - 00 00 14 00 fd 01 02 00
.....ÿ...
00000040 01 01 00 00 00 00 05 - 12 00 00 00 00 00 18 00
.....
00000050 ff 01 0f 00 01 02 00 00 - 00 00 00 05 20 00 00 00 ÿ.....
...
00000060 20 02 00 00 00 00 14 00 - 8d 01 02 00 01 01 00 00
.....
00000070 00 00 00 05 04 00 00 00 - 00 00 14 00 8d 01 02 00
.....
00000080 01 01 00 00 00 00 05 - 06 00 00 00 00 00 14 00
.....
00000090 00 01 00 00 01 01 00 00 - 00 00 05 0b 00 00 00
.....

000000a0 00 00 18 00 fd 01 02 00 - 01 02 00 00 00 00 00 05
....ÿ.....
000000b0 20 00 00 00 23 02 00 00 - 01 01 00 00 00 00 00 05
...#.....
000000c0 12 00 00 00 01 01 00 00 - 00 00 00 05 12 00 00 00
.....

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ifxp\Enum
Class Name: <NO CLASS>
Last Write Time: 10/20/2005 - 8:52 PM

Value 0
Name: 0
Type: REG_SZ
Data:
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\5&17f7f795&0&0008F8

Value 1
Name: Count
Type: REG_DWORD
Data: 0x5

Value 2
Name: NextInstance
Type: REG_DWORD
Data: 0x5

Value 3
Name: 1
Type: REG_SZ
Data:
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\5&63cb3c2&0&0008E8

Value 4
Name: 2
Type: REG_SZ
Data:
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\5&34fd2864&0&0008F8

Value 5
Name: 3
Type: REG_SZ
Data:
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\5&260ac241&0&0008F8

Value 6
Name: 4
Type: REG_SZ
Data:
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\5&286e042c&0&0008E8

CurrentControlSet\Services\lpkdrv

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\lpkdrv
Class Name: <NO CLASS>
Last Write Time: 10/20/2005 - 8:52 PM

Value 0
Name: Type
Type: REG_DWORD
Data: 0x1

Value 1
Name: Start
Type: REG_DWORD
Data: 0x3

Value 2
Name: ErrorControl
Type: REG_DWORD
Data: 0x1

Value 3
Name: ImagePath
Type: REG_EXPAND_SZ
Data: system32\DRIVERS\lpkdrv.sys

Value 4
Name: DisplayName
Type: REG_SZ
Data: lpkdrv

Value 5
Name: Description
Type: REG_SZ
Data: LPXKSLI2 driver.

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\lpkdrv\Affinity
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 10:51 AM

Value 0
Name: 0
Type: REG_DWORD
Data: 0xffffffff

Value 1
Name: 1
Type: REG_DWORD
Data: 0xffffffff

Value 2
Name: 2
Type: REG_DWORD
Data: 0xffffffff

Value 3

Name: 3
Type: REG_DWORD
Data: 0xffffffff

Value 4
Name: 4
Type: REG_DWORD
Data: 0xffffffff

Value 5
Name: 5
Type: REG_DWORD
Data: 0xffffffff

Value 6
Name: 6
Type: REG_DWORD
Data: 0xffffffff

Value 7
Name: 7
Type: REG_DWORD
Data: 0xffffffff

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\lpkdrv\Coalesce
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 1:20 PM

Value 0
Name: 0
Type: REG_DWORD
Data: 0xc5140000

Value 1
Name: 1
Type: REG_DWORD
Data: 0xc5140000

Value 2
Name: 2
Type: REG_DWORD
Data: 0xc5140000

Value 3
Name: 3
Type: REG_DWORD
Data: 0xc5140000

Value 4
Name: 4
Type: REG_DWORD
Data: 0xc5140000

Value 5
Name: 5
Type: REG_DWORD
Data: 0xc5140000

Value 6
Name: 6
Type: REG_DWORD
Data: 0xc5140000

Value 7
Name: 7
Type: REG_DWORD
Data: 0xc5140000

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\lpkdrv\Security
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 10:51 AM

Value 0
Name: Security
Type: REG_BINARY
Data:
00000000 01 00 14 80 b8 00 00 00 - c4 00 00 00 14 00 00 00
.....Ä.....
00000010 30 00 00 00 02 00 1c 00 - 01 00 00 00 02 80 14 00
0.....
00000020 ff 01 0f 00 01 01 00 00 - 00 00 00 01 00 00 00 00
ÿ.....
00000030 02 00 88 00 06 00 00 00 - 00 00 14 00 fd 01 02 00
.....ÿ...
00000040 01 01 00 00 00 00 00 05 - 12 00 00 00 00 00 18 00
.....
00000050 ff 01 0f 00 01 02 00 00 - 00 00 00 05 20 00 00 00 ÿ.....
...
00000060 20 02 00 00 00 00 14 00 - 8d 01 02 00 01 01 00 00
.....
00000070 00 00 00 05 04 00 00 00 - 00 00 14 00 8d 01 02 00
.....
00000080 01 01 00 00 00 00 00 05 - 06 00 00 00 00 00 14 00
.....
00000090 00 01 00 00 01 01 00 00 - 00 00 00 05 0b 00 00 00
.....
000000a0 00 00 18 00 fd 01 02 00 - 01 02 00 00 00 00 00 05
.....ÿ.....
000000b0 20 00 00 00 23 02 00 00 - 01 01 00 00 00 00 00 05
...#.....
000000c0 12 00 00 00 01 01 00 00 - 00 00 00 05 12 00 00 00
.....

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\lpkdrv\TgtIntCnt
Class Name: <NO CLASS>
Last Write Time: 10/13/2005 - 10:51 AM

Value 0
Name: 0
Type: REG_DWORD
Data: 0

Value 1
Name: 1

Type: REG_DWORD
Data: 0

Value 2
Name: 2
Type: REG_DWORD
Data: 0

Value 3
Name: 3
Type: REG_DWORD
Data: 0

Value 4
Name: 4
Type: REG_DWORD
Data: 0

Value 5
Name: 5
Type: REG_DWORD
Data: 0

Value 6
Name: 6
Type: REG_DWORD
Data: 0

Value 7
Name: 7
Type: REG_DWORD
Data: 0

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\lpkdrv\Enum
Class Name: <NO CLASS>
Last Write Time: 10/20/2005 - 8:52 PM

Value 0
Name: 0
Type: REG_SZ
Data:
PCI\VEN_10DF&DEV_FA00&SUBSYS_FA0010DF&REV_01\4&1ef5336&0&08E8

Value 1
Name: Count
Type: REG_DWORD
Data: 0x4

Value 2
Name: NextInstance
Type: REG_DWORD
Data: 0x4

Value 3
Name: 1
Type: REG_SZ
Data:

PCI\VEN_10DF&DEV_FA00&SUBSYS_FA0010DF&REV_01\4&1ef5336&0&09E8

Value 4
 Name: 2
 Type: REG_SZ
 Data: PCI\VEN_10DF&DEV_FA00&SUBSYS_FA0010DF&REV_01\4&1e703ca3&0&08E8

Value 5
 Name: 3
 Type: REG_SZ
 Data: PCI\VEN_10DF&DEV_FA00&SUBSYS_FA0010DF&REV_01\4&1e703ca3&0&09E8

CurrentControlSet\Services\MSSQLSERVER

Key Name:
 HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSSQLSERVER
 Class Name: <NO CLASS>
 Last Write Time: 10/20/2005 - 8:52 PM

Value 0
 Name: Type
 Type: REG_DWORD
 Data: 0x10

Value 1
 Name: Start
 Type: REG_DWORD
 Data: 0x3

Value 2
 Name: ErrorControl
 Type: REG_DWORD
 Data: 0x1

Value 3
 Name: ImagePath
 Type: REG_EXPAND_SZ
 Data: "C:\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL\Binn\sqlservr.exe" -sMSSQLSERVER

Value 4
 Name: DisplayName
 Type: REG_SZ
 Data: SQL Server (MSSQLSERVER)

Value 5
 Name: ObjectName
 Type: REG_SZ
 Data: LocalSystem

Value 6
 Name: Description
 Type: REG_SZ
 Data: Provides storage, processing and controlled access of data and rapid transaction processing.

Key Name:
 HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSSQLSERVER\Linkage
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:09 PM

Value 0
 Name: Export
 Type: REG_MULTI_SZ
 Data: MSSQLSERVER

Key Name:
 HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSSQLSERVER\Performance
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:14 PM

Value 0
 Name: Library
 Type: REG_SZ
 Data: sqlctr90.dll

Value 1
 Name: Open
 Type: REG_SZ
 Data: OpenSQLPerformanceData1

Value 2
 Name: Collect
 Type: REG_SZ
 Data: CollectSQLPerformanceData1

Value 3
 Name: Close
 Type: REG_SZ
 Data: CloseSQLPerformanceData1

Value 4
 Name: PerfIniFile
 Type: REG_SZ
 Data: perf-MSSQLSERVERsqlctr.ini

Value 5
 Name: Last Counter
 Type: REG_DWORD
 Data: 0x1048

Value 6
 Name: Last Help
 Type: REG_DWORD
 Data: 0x1049

Value 7
 Name: First Counter
 Type: REG_DWORD
 Data: 0xdd4

Value 8
 Name: First Help
 Type: REG_DWORD

Data: 0xdd5

Value 9
 Name: Library Validation Code
 Type: REG_BINARY
 Data:
 00000000 00 54 b1 3a bb b0 c5 01 - d8 34 01 00 00 00 00 00
 .T±:»°Ä.04.....

Value 10
 Name: WbemAdapFileSignature
 Type: REG_BINARY
 Data:
 00000000 b3 51 9f d0 11 74 3a 47 - e7 39 c3 29 00 f2 66 68
 °Q.D.t:Gç9Ä).òfh

Value 11
 Name: WbemAdapFileTime
 Type: REG_BINARY
 Data:
 00 54 b1 3a bb b0 c5 01 - .T±:»°Ä.

Value 12
 Name: WbemAdapFileSize
 Type: REG_DWORD
 Data: 0x134d8

Value 13
 Name: WbemAdapStatus
 Type: REG_DWORD
 Data: 0

Key Name:
 HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSSQLSERVER\Security
 Class Name: <NO CLASS>
 Last Write Time: 10/13/2005 - 1:09 PM

Value 0
 Name: Security
 Type: REG_BINARY
 Data:
 00000000 01 00 14 80 b8 00 00 00 - c4 00 00 00 14 00 00 00
Ä.....
 00000010 30 00 00 00 02 00 1c 00 - 01 00 00 00 02 80 14 00
 0.....
 00000020 ff 01 0f 00 01 01 00 00 - 00 00 00 01 00 00 00 00
 Ÿ.....
 00000030 02 00 88 00 06 00 00 00 - 00 00 14 00 fd 01 02 00
Ÿ...
 00000040 01 01 00 00 00 00 00 05 - 12 00 00 00 00 00 18 00

 00000050 ff 01 0f 00 01 02 00 00 - 00 00 00 05 20 00 00 00 Ÿ.....
 ...
 00000060 20 02 00 00 00 00 14 00 - 8d 01 02 00 01 01 00 00

 00000070 00 00 00 05 04 00 00 00 - 00 00 14 00 8d 01 02 00

00000080 01 01 00 00 00 00 00 05 - 06 00 00 00 00 00 14 00

 00000090 00 01 00 00 01 01 00 00 - 00 00 00 05 0b 00 00 00

 000000a0 00 00 18 00 fd 01 02 00 - 01 02 00 00 00 00 00 05
Ÿ.....
 000000b0 20 00 00 00 23 02 00 00 - 01 01 00 00 00 00 00 05
 ...#.....
 000000c0 12 00 00 00 01 01 00 00 - 00 00 00 05 12 00 00 00

Key Name:
 HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSSQLSERVER\Enum
 Class Name: <NO CLASS>
 Last Write Time: 10/20/2005 - 8:52 PM

Value 0
 Name: 0
 Type: REG_SZ
 Data: Root\LEGACY_MSSQLSERVER\0000

Value 1
 Name: Count
 Type: REG_DWORD
 Data: 0x1

Value 2
 Name: NextInstance
 Type: REG_DWORD
 Data: 0x1

CurrentControlSet\Services\PartMgr

Key Name:
 HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PartMgr
 Class Name: <NO CLASS>
 Last Write Time: 10/20/2005 - 8:52 PM

Value 0
 Name: DisplayName
 Type: REG_SZ
 Data: Partition Manager

Value 1
 Name: ErrorControl
 Type: REG_DWORD
 Data: 0x1

Value 2
 Name: Group
 Type: REG_SZ
 Data: System Bus Extender

Value 3
 Name: Start
 Type: REG_DWORD

Data: 0

Value 4
 Name: Tag
 Type: REG_DWORD
 Data: 0x5

Value 5
 Name: Type
 Type: REG_DWORD
 Data: 0x1

Key Name:
 HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PartMgr\Enum
 Class Name: <NO CLASS>
 Last Write Time: 10/20/2005 - 8:53 PM

Value 0
 Name: 0
 Type: REG_SZ
 Data: Root\LEGACY_PARTMGR\0000

Value 1
 Name: Count
 Type: REG_DWORD
 Data: 0x33

Value 2
 Name: NextInstance
 Type: REG_DWORD
 Data: 0x33

Value 3
 Name: 1
 Type: REG_SZ
 Data: SCSI\Disk&Ven_ADAPTEC&Prod_RAID_1&Rev_1.0\5&344567f4&0&700

Value 4
 Name: 2
 Type: REG_SZ
 Data: SCSI\Disk&Ven_DGC_____RAID_10_____0206\1&2d12bed1&0&B81121106001065000
 0000000000000000

Value 5
 Name: 3
 Type: REG_SZ
 Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&094000861000001000
 000000000000C000

Value 6
 Name: 4
 Type: REG_SZ
 Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&094000861000001000
 000000000000B000

Value 7
 Name: 5
 Type: REG_SZ
 Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&094000861000001000
 000000000000A000

Value 8
 Name: 6
 Type: REG_SZ
 Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&094000861000001000
 0000000000009000

Value 9
 Name: 7
 Type: REG_SZ
 Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&094000861000001000
 0000000000008000

Value 10
 Name: 8
 Type: REG_SZ
 Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&094000861000001000
 0000000000007000

Value 11
 Name: 9
 Type: REG_SZ
 Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&094000861000001000
 0000000000006000

Value 12
 Name: 10
 Type: REG_SZ
 Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&094000861000001000
 0000000000005000

Value 13
 Name: 11
 Type: REG_SZ
 Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&094000861000001000
 0000000000004000

Value 14
 Name: 12
 Type: REG_SZ
 Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&094000861000001000
 0000000000003000

Value 15
 Name: 13
 Type: REG_SZ

Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&094000861000001000 000000000002000	Value 24 Name: 22 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&9B3F00861000001000 000000000005000
Value 16 Name: 14 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&094000861000001000 000000000001000	Value 25 Name: 23 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&9B3F00861000001000 000000000004000
Value 17 Name: 15 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&9B3F00861000001000 00000000000C000	Value 26 Name: 24 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&9B3F00861000001000 000000000003000
Value 18 Name: 16 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&9B3F00861000001000 00000000000B000	Value 27 Name: 25 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&9B3F00861000001000 000000000002000
Value 19 Name: 17 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&9B3F00861000001000 00000000000A000	Value 28 Name: 26 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&9B3F00861000001000 000000000001000
Value 20 Name: 18 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&9B3F00861000001000 000000000009000	Value 29 Name: 27 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&DB3F00861000001000 00000000000C000
Value 21 Name: 19 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&9B3F00861000001000 000000000008000	Value 30 Name: 28 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&DB3F00861000001000 00000000000B000
Value 22 Name: 20 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&9B3F00861000001000 000000000007000	Value 31 Name: 29 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&DB3F00861000001000 00000000000A000
Value 23 Name: 21 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&9B3F00861000001000 000000000006000	Value 32 Name: 30

Type:	REG_SZ	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&DB3F0086100000100000000000009000
Data:			0000000000001000
Value 33		Value 41	
Name:	31	Name:	39
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&C33F008610000010000000000000C000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&DB3F0086100000100000000000008000			
Value 34		Value 42	
Name:	32	Name:	40
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&C33F008610000010000000000000B000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&DB3F0086100000100000000000007000			
Value 35		Value 43	
Name:	33	Name:	41
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&C33F008610000010000000000000A000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&DB3F0086100000100000000000006000			
Value 36		Value 44	
Name:	34	Name:	42
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&C33F0086100000100000000000009000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&DB3F0086100000100000000000005000			
Value 37		Value 45	
Name:	35	Name:	43
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&C33F0086100000100000000000008000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&DB3F0086100000100000000000004000			
Value 38		Value 46	
Name:	36	Name:	44
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&C33F0086100000100000000000007000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&DB3F0086100000100000000000003000			
Value 39		Value 47	
Name:	37	Name:	45
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&C33F0086100000100000000000006000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&DB3F0086100000100000000000002000			
Value 40		Value 48	
Name:	38	Name:	46
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&C33F0086100000100000000000005000

Value 49
 Name: 47
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&C33F00861000001000
 000000000004000

Value 50
 Name: 48
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&C33F00861000001000
 000000000003000

Value 51
 Name: 49
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&C33F00861000001000
 000000000002000

Value 52
 Name: 50
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&2d12bed1&0&C33F00861000001000
 000000000001000

Windows 2003 Server Client Configuration Information

(Common to 4 clients except for System Name, IP Address & MAC Address)

Hwconfig.ver

System Information report written at: 09/26/05 21:26:55
 System Name: CLIENT1
 [System Summary]

Item	Value
OS Name	Microsoft(R) Windows(R) Server 2003, Standard Edition
Version	5.2.3790 Service Pack 1 Build 3790
Other OS Description	Not Available
OS Manufacturer	Microsoft Corporation
System Name	CLIENT1
System Manufacturer	Unisys System
System Model	ES3120L
System Type	X86-based PC
Processor	x86 Family 15 Model 3 Stepping 4 GenuineIntel ~3391 Mhz
Processor	x86 Family 15 Model 3 Stepping 4 GenuineIntel ~3391 Mhz
Processor	x86 Family 15 Model 3 Stepping 4 GenuineIntel ~3391 Mhz

Processor x86 Family 15 Model 3 Stepping 4 GenuineIntel ~3391 Mhz

BIOS Version/Date Unisys System A01, 9/2/2004
 SMBIOS Version 2.3
 Windows Directory C:\WINDOWS
 System Directory C:\WINDOWS\system32
 Boot Device \Device\HarddiskVolume1
 Locale United States
 Hardware Abstraction Layer Version = "5.2.3790.1830
 (srv03_spl_rtm.050324-1447)"
 User Name CLIENT1\Administrator
 Time Zone Pacific Daylight Time
 Total Physical Memory 2,047.27 MB
 Available Physical Memory 1.75 GB
 Total Virtual Memory 3.85 GB
 Available Virtual Memory 3.75 GB
 Page File Space 2.00 GB
 Page File C:\pagefile.sys

[Hardware Resources]

[Conflicts/Sharing]

Resource	Device	
I/O Port 0x00000000-0x00000CF7		PCI bus
I/O Port 0x00000000-0x00000CF7		Direct memory access controller

Memory Address 0xD8000000-0xD8FFFFFF	Intel(R) E7525/E7520/E7320 PCI Express Root Port A0 - 3595
Memory Address 0xD8000000-0xD8FFFFFF	PCI standard PCI-to-PCI bridge

I/O Port 0x0000E000-0x0000EFFF	Intel(R) E7525/E7520/E7320 PCI Express Root Port A0 - 3595
I/O Port 0x0000E000-0x0000EFFF	PCI standard PCI-to-PCI bridge

I/O Port 0x0000B000-0x0000BFFF	Intel(R) E7520 PCI Express Root Port C0 - 3599
I/O Port 0x0000B000-0x0000BFFF	Intel(R) 6700PXH PCI Express-to-PCI Bridge B - 032A

IRQ 16	Intel(R) E7525/E7520/E7320 PCI Express Root Port A0 - 3595
IRQ 16	Intel(R) E7525/E7520 PCI Express Root Port B0 - 3597
IRQ 16	Intel(R) E7520 PCI Express Root Port B1 - 3598
IRQ 16	Intel(R) E7520 PCI Express Root Port C0 - 3599
IRQ 16	Standard Universal PCI to USB Host Controller

IRQ 18	Standard Universal PCI to USB Host Controller
IRQ 18	RADEON 7000 RADEON VE Family (Microsoft Corporation)

Memory Address 0xA0000-0xBFFFF	PCI bus
Memory Address 0xA0000-0xBFFFF	RADEON 7000 RADEON VE Family (Microsoft Corporation)

I/O Port 0x0000C000-0x0000DFFF Intel(R) E7520 PCI Express Root Port B1 - 3598
 I/O Port 0x0000C000-0x0000DFFF Intel(R) 6700PXH PCI Express-to-PCI Bridge B - 032A

[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
0x00000000-0x00000CF7	PCI bus	OK
0x00000000-0x00000CF7	Direct memory access controller	OK
0x00000D00-0x0000FFFF	PCI bus	OK
0x0000E000-0x0000EFFF	Intel(R) E7525/E7520/E7320 PCI Express Root Port A0 - 3595	OK
0x0000E000-0x0000EFFF	PCI standard PCI-to-PCI bridge	OK
0x0000EC00-0x0000ECCF	LSI Logic PCI-X Ultra320 SCSI Host Adapter	OK
0x0000E800-0x0000E8FF	LSI Logic PCI-X Ultra320 SCSI Host Adapter	OK
0x0000C000-0x0000DFFF	Intel(R) E7520 PCI Express Root Port B1 - 3598	OK
0x0000C000-0x0000DFFF	Intel(R) 6700PXH PCI Express-to-PCI Bridge B - 032A	OK
0x0000D000-0x0000DFFF	Intel(R) 6700PXH PCI Express-to-PCI Bridge A - 0329	OK
0x0000DCC0-0x0000DCFF	Intel(R) PRO/1000 MT Network Connection	OK
0x0000CCC0-0x0000CCFF	Intel(R) PRO/1000 MT Network Connection #2	OK
0x0000B000-0x0000BFFF	Intel(R) E7520 PCI Express Root Port C0 - 3599	OK
0x0000B000-0x0000BFFF	Intel(R) 6700PXH PCI Express-to-PCI Bridge B - 032A	OK
0x0000BC00-0x0000BCFF	Emulex LP 10000 - Unisys VI	OK
0x0000B800-0x0000B8FF	Emulex LP 10000 - Unisys VI	OK
0x00009CE0-0x00009CFF	Standard Universal PCI to USB Host Controller	OK
0x00009CC0-0x00009CDF	Standard Universal PCI to USB Host Controller	OK
0x00009CA0-0x00009CBF	Standard Universal PCI to USB Host Controller	OK
0x0000AC00-0x0000ACFF	RADEON 7000 RADEON VE Family (Microsoft Corporation)	OK
0x000003B0-0x000003BB	RADEON 7000 RADEON VE Family (Microsoft Corporation)	OK
0x000003C0-0x000003DF	RADEON 7000 RADEON VE Family (Microsoft Corporation)	OK
0x00000A79-0x00000A79	ISAPNP Read Data Port	OK
0x00000279-0x00000279	ISAPNP Read Data Port	OK

0x00000274-0x00000277	ISAPNP Read Data Port	OK
0x00000080-0x0000009F	Direct memory access controller	OK
0x000000C0-0x000000DF	Direct memory access controller	OK
0x000000F0-0x000000FF	Numeric data processor	OK
0x00000020-0x0000003F	Programmable interrupt controller	OK
0x000000A0-0x000000BF	Programmable interrupt controller	OK
0x00000040-0x0000004D	Programmable interrupt controller	OK
0x00000061-0x00000061	System speaker	OK
0x00000070-0x0000007F	System CMOS/real time clock	OK
0x00000040-0x0000005F	System timer	OK
0x000003F0-0x000003F5	Standard floppy disk controller	OK
0x000003F7-0x000003F7	Standard floppy disk controller	OK
0x00000060-0x00000060	Standard 101/102-Key or Microsoft Natural PS/2 Keyboard	OK
0x00000064-0x00000064	Standard 101/102-Key or Microsoft Natural PS/2 Keyboard	OK
0x000003F8-0x000003FF	Communications Port (COM1)	OK
0x00000800-0x0000087F	System board	OK
0x00000880-0x000008BF	System board	OK
0x000008C0-0x000008DF	System board	OK
0x00000C00-0x00000C0F	System board	OK
0x00000C10-0x00000C1F	System board	OK
0x00000CA0-0x00000CAF	System board	OK
0x00000C20-0x00000C3F	System board	OK
0x000000E0-0x000000E7	System board	OK
0x0000FC00-0x0000FC0F	Intel(R) 82801EB Ultra ATA Storage Controllers - 24DB	OK
0x000001F0-0x000001F7	Primary IDE Channel	OK
0x000003F6-0x000003F6	Primary IDE Channel	OK
0x00000170-0x00000177	Secondary IDE Channel	OK
0x00000376-0x00000376	Secondary IDE Channel	OK

[IRQs]

Resource	Device	Status
IRQ 9	Microsoft ACPI-Compliant System	OK
IRQ 16	Intel(R) E7525/E7520/E7320 PCI Express Root Port A0 - 3595	OK
IRQ 16	Intel(R) E7525/E7520 PCI Express Root Port B0 - 3597	OK
IRQ 16	Intel(R) E7520 PCI Express Root Port B1 - 3598	OK
IRQ 16	Intel(R) E7520 PCI Express Root Port C0 - 3599	OK
IRQ 16	Standard Universal PCI to USB Host Controller	OK
IRQ 34	LSI Logic PCI-X Ultra320 SCSI Host Adapter	OK
IRQ 33	LSI Logic PCI-X Ultra320 SCSI Host Adapter	OK
IRQ 64	Intel(R) PRO/1000 MT Network Connection	OK
IRQ 65	Intel(R) PRO/1000 MT Network Connection #2	OK
IRQ 101	Emulex LP 10000 - Unisys VI	OK
IRQ 102	Emulex LP 10000 - Unisys VI	OK
IRQ 19	Standard Universal PCI to USB Host Controller	OK
IRQ 18	Standard Universal PCI to USB Host Controller	OK
IRQ 18	RADEON 7000 RADEON VE Family (Microsoft Corporation)	OK
IRQ 23	Standard Enhanced PCI to USB Host Controller	OK
IRQ 13	Numeric data processor	OK
IRQ 8	System CMOS/real time clock	OK
IRQ 0	System timer	OK
IRQ 6	Standard floppy disk controller	OK
IRQ 1	Standard 101/102-Key or Microsoft Natural PS/2 Keyboard	OK
IRQ 12	PS/2 Compatible Mouse	OK

IRQ 4 Communications Port (COM1) OK
 IRQ 14 Primary IDE Channel OK
 IRQ 15 Secondary IDE Channel OK

[Memory]

Resource	Device	Status
0xA0000-0xBFFFF	PCI bus OK	
0xA0000-0xBFFFF	RADEON 7000 RADEON VE Family (Microsoft Corporation) OK	
0x80000000-0xFEBFFFFF	PCI bus OK	
0xDFC00000-0xDFEFFFFF	Intel(R) E7525/E7520/E7320 PCI Express Root Port A0 - 3595 OK	
0xD8000000-0xD8FFFFFF	Intel(R) E7525/E7520/E7320 PCI Express Root Port A0 - 3595 OK	
0xD8000000-0xD8FFFFFF	PCI standard PCI-to-PCI bridge OK	
0xDFD00000-0xDFEFFFFF	PCI standard PCI-to-PCI bridge OK	
0xDFDF0000-0xDFDFFFFF	LSI Logic PCI-X Ultra320 SCSI Host Adapter OK	
0xDFDE0000-0xDFDEFFFF	LSI Logic PCI-X Ultra320 SCSI Host Adapter OK	
0xDFDD0000-0xDFDDFFFF	LSI Logic PCI-X Ultra320 SCSI Host Adapter OK	
0xDFDC0000-0xDFDCFFFF	LSI Logic PCI-X Ultra320 SCSI Host Adapter OK	
0xDF700000-0xDFBFFFFF	Intel(R) E7520 PCI Express Root Port B1 - 3598 OK	
0xDFA00000-0xDFBFFFFF	Intel(R) 6700PXH PCI Express-to-PCI Bridge A - 0329 OK	
0xDFAE0000-0xDFAFFFFF	Intel(R) PRO/1000 MT Network Connection OK	
0xDF800000-0xDF9FFFFF	Intel(R) 6700PXH PCI Express-to-PCI Bridge B - 032A OK	
0xDF8E0000-0xDF8FFFFF	Intel(R) PRO/1000 MT Network Connection #2 OK	
0xDF400000-0xDF6FFFFF	Intel(R) E7520 PCI Express Root Port C0 - 3599 OK	
0xDF500000-0xDF6FFFFF	Intel(R) 6700PXH PCI Express-to-PCI Bridge B - 032A OK	
0xDF5FF000-0xDF5FFFFF	Emulex LP 10000 - Unisys VI OK	
0xDF5FEC00-0xDF5FECFF	Emulex LP 10000 - Unisys VI OK	
0xDF5FD000-0xDF5FDFFF	Emulex LP 10000 - Unisys VI OK	
0xDF5FE800-0xDF5FE8FF	Emulex LP 10000 - Unisys VI OK	
0xDFF00000-0xDFF003FF	Standard Enhanced PCI to USB Host Controller OK	
0xD0000000-0xD7FFFFFF	RADEON 7000 RADEON VE Family (Microsoft Corporation) OK	
0xDF2F0000-0xDF2FFFFF	RADEON 7000 RADEON VE Family (Microsoft Corporation) OK	
0xFEBFFC00-0xFEBFFFFF	Intel(R) 82801EB Ultra ATA Storage Controllers - 24DB OK	
0xE0000000-0xEFFFFFFF	Motherboard resources OK	
0xFED00000-0xFED003FF	High precision event timer OK	

[Components]

[Multimedia]

[Audio Codecs]

CODEC	Manufacturer	Description	Status	File	Version	Size
	Creation Date					
	c:\windows\system32\msaud32.acm	Microsoft Corporation	Windows Media			
	Audio Codec	OK				
	C:\WINDOWS\system32\MSAUD32.ACM	8.00.00.4487	288.00 KB	(294,912 bytes)	3/25/2003 11:00 AM	
	c:\windows\system32\msgsm32.acm	Microsoft Corporation				OK
	C:\WINDOWS\system32\MSGSM32.ACM	5.2.3790.0 (srv03_rtm.030324-2048)				
		20.50 KB (20,992 bytes)				
	3/25/2003 11:00 AM					
	c:\windows\system32\msg723.acm	Microsoft Corporation				OK
	C:\WINDOWS\system32\MSG723.ACM	5.2.3790.1830	120.00 KB	(122,880 bytes)	7/22/2005 1:04 PM	
	c:\windows\system32\l3codeca.acm	Fraunhofer Institut Integrierte				
	Schaltungen IIS	Fraunhofer				
	IIS MPEG Layer-3 Codec	OK				
	C:\WINDOWS\system32\L3CODECA.ACM	1, 9, 0,	0305 284.00 KB			
	(290,816 bytes)	3/25/2003 11:00 AM				
	c:\windows\system32\imaadp32.acm	Microsoft Corporation				OK
	C:\WINDOWS\system32\IMAADP32.ACM	5.2.3790.0 (srv03_rtm.030324-2048)				
		15.50 KB (15,872 bytes)				
	3/25/2003 11:00 AM					
	c:\windows\system32\sl_anet.acm	Sipro Lab Telecom Inc.	Sipro Lab			
	Telecom Audio Codec	OK				
	C:\WINDOWS\system32\SL_ANET.ACM	3.02	84.00 KB	(86,016 bytes)	3/25/2003 11:00 AM	
	c:\windows\system32\msg711.acm	Microsoft Corporation				OK
	C:\WINDOWS\system32\MSG711.ACM	5.2.3790.0 (srv03_rtm.030324-2048)				
		10.00 KB (10,240 bytes)				
	3/25/2003 11:00 AM					
	c:\windows\system32\tsssoft32.acm	DSP GROUP, INC.				OK
	C:\WINDOWS\system32\TSSOFT32.ACM	1.01	9.50 KB	(9,728 bytes)	3/25/2003 11:00 AM	
	3/25/2003 11:00 AM					
	c:\windows\system32\msadp32.acm	Microsoft Corporation				OK

C:\WINDOWS\system32\MSADP32.ACM 5.2.3790.0 (srv03_rtm.030324-2048)
 14.50 KB (14,848 bytes)

3/25/2003 11:00 AM

[Video Codecs]

CODEC	Manufacturer	Description	Status	File	Version	Size
		Creation Date				
c:\windows\system32\msvidc32.dll	Microsoft Corporation		OK			
C:\WINDOWS\system32\MSVIDC32.DLL	5.2.3790.0 (srv03_rtm.030324-2048)					
26.50 KB (27,136						
bytes)	3/25/2003 11:00 AM					
c:\windows\system32\tsbyuv.dll	Microsoft Corporation		OK			
C:\WINDOWS\system32\TSBYUV.DLL	5.2.3790.0 (srv03_rtm.030324-2048)					
8.00 KB (8,192 bytes)						
3/24/2003 5:50 PM						
c:\windows\system32\msrle32.dll	Microsoft Corporation		OK			
C:\WINDOWS\system32\MSRLE32.DLL	5.2.3790.0 (srv03_rtm.030324-2048)					
10.50 KB (10,752 bytes)						
3/25/2003 11:00 AM						
c:\windows\system32\msyuv.dll	Microsoft Corporation		OK			
C:\WINDOWS\system32\MSYUV.DLL	5.2.3790.0 (srv03_rtm.030324-2048)					
16.50 KB (16,896 bytes)						
3/24/2003 5:49 PM						
c:\windows\system32\iyuv_32.dll	Microsoft Corporation		OK			
C:\WINDOWS\system32\IYUV_32.DLL	5.2.3790.1830 (srv03_sp1_rtm.050324-					
1447) 46.50 KB (47,616						
bytes)	7/22/2005 1:04 PM					
c:\windows\system32\msh261.drv	Microsoft Corporation		OK			
C:\WINDOWS\system32\MSH261.DRV	5.2.3790.1830 184.00 KB (188,416					
bytes) 7/22/2005 1:04 PM						
c:\windows\system32\msh263.drv	Microsoft Corporation		OK			
C:\WINDOWS\system32\MSH263.DRV	5.2.3790.1830 288.00 KB (294,912					
bytes) 7/22/2005 1:04 PM						

[CD-ROM]

Item	Value
Drive D:	
Description	CD-ROM Drive

Media Loaded	No
Media Type	CD-ROM
Name	TEAC CD-224E
Manufacturer	(Standard CD-ROM drives)
Status	OK
Transfer Rate	Not Available
SCSI Target ID	0
PNP Device ID	IDE\CDROMTEAC_CD-224E
Driver	c:\windows\system32\drivers\cdrom.sys (5.2.3790.1830 (srv03_sp1_rtm.050324-1447), 51.00 KB (52,224 bytes), 3/25/2003 11:00 AM)
[Sound Device]	
Item	Value
[Display]	
Item	Value
Name	RADEON 7000 RADEON VE Family (Microsoft Corporation)
PNP Device ID	PCI\VEN_1002&DEV_5159&SUBSYS_016D1028&REV_00\4&1F7DBC9F&0&68F0
Adapter Type	Radeon 7000 (QY), ATI Technologies Inc. compatible
Adapter Description	RADEON 7000 RADEON VE Family (Microsoft Corporation)
Adapter RAM	16.00 MB (16,777,216 bytes)
Installed Drivers	ati2dvag.dll
Driver Version	5.1.2600.0
INF File	atiixpag.inf (ati2mtag_RV100 section)
Color Planes	1
Color Table Entries	4294967296
Resolution	800 x 600 x 60 hertz
Bits/Pixel	32
Memory Address	0xD0000000-0xD7FFFFFFF
I/O Port	0x0000AC00-0x0000ACFF
Memory Address	0xDF2F0000-0xDF2FFFFFFF
IRQ Channel	IRQ 18
I/O Port	0x000003B0-0x000003BB
I/O Port	0x000003C0-0x000003DF
Memory Address	0xA0000-0xBFFFFF
Driver	c:\windows\system32\drivers\ati2mtag.sys (6.13.10.6153, 439.63 KB (450,176 bytes), 10/19/2004 12:30 PM)
[Infrared]	
Item	Value
[Input]	
[Keyboard]	
Item	Value

Description Standard 101/102-Key or Microsoft Natural PS/2 Keyboard

Name Enhanced (101- or 102-key)
Layout 00000409
PNP Device ID ACPI\PNP0303\4&26DD0F47&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 (5.2.3790.1830 (srv03_spl_rtm.050324-1447), 54.50

KB (55,808 bytes), 3/25/2003 11:00 AM)

[Pointing Device]

Item Value
Hardware Type PS/2 Compatible Mouse
Number of Buttons 5
Status OK
PNP Device ID ACPI\PNP0F13\4&26DD0F47&0
Power Management Supported No
Double Click Threshold 6
Handedness Right Handed Operation
IRQ Channel IRQ 12
Driver c:\windows\system32\drivers\i8042prt.sys (5.2.3790.1830 (srv03_spl_rtm.050324-1447), 54.50

KB (55,808 bytes), 3/25/2003 11:00 AM)

[Modem]

Item Value

[Network]

[Adapter]

Item Value
Name [00000001] RAS Async Adapter
Adapter Type Not Available
Product Type RAS Async Adapter
Installed Yes
PNP Device ID Not Available
Last Reset 9/26/2005 6:11 PM
Index 1
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 Not Available

Name [00000002] WAN Miniport (L2TP)

Adapter Type Not Available
Product Type WAN Miniport (L2TP)
Installed Yes
PNP Device ID ROOT\MS_L2TPMINIPOINT\0000
Last Reset 9/26/2005 6:11 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 (5.2.3790.1830 (srv03_spl_rtm.050324-1447), 66.00 KB

(67,584 bytes), 3/25/2003 11:00 AM)

Name [00000003] WAN Miniport (PPTP)
Adapter Type Wide Area Network (WAN)
Product Type WAN Miniport (PPTP)
Installed Yes
PNP Device ID ROOT\MS_PPTPMINIPOINT\0000
Last Reset 9/26/2005 6:11 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 50:50:54:50:30:30
Driver c:\windows\system32\drivers\raspptp.sys (5.2.3790.1830 (srv03_spl_rtm.050324-1447), 61.00 KB

(62,464 bytes), 3/25/2003 11:00 AM)

Name [00000004] WAN Miniport (PPPOE)
Adapter Type Wide Area Network (WAN)
Product Type WAN Miniport (PPPOE)
Installed Yes
PNP Device ID ROOT\MS_PPPOEMINIPOINT\0000
Last Reset 9/26/2005 6:11 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 33:50:6F:45:30:30

Driver c:\windows\system32\drivers\raspppoe.sys (5.2.3790.1830 (srv03_sp1_rtm.050324-1447), 40.00

KB (40,960 bytes), 3/25/2003 11:00 AM)

Name [00000005] Direct Parallel
Adapter Type Not Available
Product Type Direct Parallel
Installed Yes
PNP Device ID ROOT\MS_PTMINIPORT\0000
Last Reset 9/26/2005 6:11 PM
Index 5

Service Name Raspti
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\raspti.sys (5.2.3790.1830 (srv03_sp1_rtm.050324-1447), 19.50 KB

(19,968 bytes), 3/25/2003 11:00 AM)

Name [00000006] WAN Miniport (IP)
Adapter Type Not Available
Product Type WAN Miniport (IP)
Installed Yes
PNP Device ID ROOT\MS_NDISWANIP\0000
Last Reset 9/26/2005 6:11 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 (5.2.3790.1830 (srv03_sp1_rtm.050324-1447), 91.00 KB

(93,184 bytes), 3/25/2003 11:00 AM)

Name [00000007] Intel(R) PRO/1000 MT Network Connection
Adapter Type Ethernet 802.3
Product Type Intel(R) PRO/1000 MT Network Connection
Installed Yes
PNP Device ID PCI\VEN_8086&DEV_1076&SUBSYS_016D1028&REV_05\5&803901B&0&380028

Last Reset 9/26/2005 6:11 PM

Index 7
Service Name E1000
IP Address 192.158.2.9, 192.168.91.1, 192.168.123.2
IP Subnet 255.255.255.0, 255.255.255.0, 255.255.255.0

Default IP Gateway Not Available

DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:11:43:35:4D:E1
Memory Address 0xDFAE0000-0xDFAFFFFF
I/O Port 0x0000DCC0-0x0000DCFF
IRQ Channel IRQ 64

Driver c:\windows\system32\drivers\e1000325.sys (7.2.19.1 built by: WinDDK, 123.00 KB (125,952

bytes), 10/20/2004 11:10 AM)

Name [00000008] Intel(R) PRO/1000 MT Network Connection

Adapter Type Ethernet 802.3
Product Type Intel(R) PRO/1000 MT Network Connection
Installed Yes
PNP Device ID

PCI\VEN_8086&DEV_1076&SUBSYS_016D1028&REV_05\5&C8E9BA0&0&400228

Last Reset 9/26/2005 6:11 PM

Index 8
Service Name E1000
IP Address 192.9.1.1, 192.1.10.1
IP Subnet 255.255.255.0, 255.255.255.0
Default IP Gateway Not Available

DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:11:43:35:4D:E2
Memory Address 0xDF8E0000-0xDF8FFFFF
I/O Port 0x0000CCC0-0x0000CCFF
IRQ Channel IRQ 65

Driver c:\windows\system32\drivers\e1000325.sys (7.2.19.1 built by: WinDDK, 123.00 KB (125,952

bytes), 10/20/2004 11:10 AM)

[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 63.93 KB (65,467 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 RSVP UDP Service Provider
Connectionless Service Yes
Guarantees Delivery No
Guarantees Sequencing No
Maximum Address Size 16 bytes
Maximum Message Size 63.93 KB (65,467 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

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 MSAFD NetBIOS [\\Device\NetBT_Tcpip_{8D10888B-172C-42DA-9119-F690C6569F08}] SEQPACKET 3
Connectionless Service No

Guarantees Delivery Yes
Guarantees Sequencing Yes
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting No
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 No

Name MSAFD NetBIOS [\\Device\NetBT_Tcpip_{8D10888B-172C-42DA-9119-F690C6569F08}] DATAGRAM 3
Connectionless Service Yes
Guarantees Delivery No
Guarantees Sequencing No
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 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 No

Name MSAFD NetBIOS [\\Device\NetBT_Tcpip_{35D335E3-7BFB-4A25-803D-7C9A89A68C20}] SEQPACKET 0
Connectionless Service No
Guarantees Delivery Yes
Guarantees Sequencing Yes
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting No
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 No

Name MSAFD NetBIOS [\\Device\NetBT_Tcpip_{35D335E3-7BFB-4A25-803D-7C9A89A68C20}] DATAGRAM 0
Connectionless Service Yes
Guarantees Delivery No
Guarantees Sequencing No

Maximum Address Size 20 bytes
 Maximum Message Size 62.50 KB (64,000 bytes)
 Message Oriented Yes
 Minimum Address Size 20 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 No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{2D13871F-65E0-4488-975A-87F4820F3CA7}] SEQPACKET 1
 Connectionless Service No
 Guarantees Delivery Yes
 Guarantees Sequencing Yes
 Maximum Address Size 20 bytes
 Maximum Message Size 62.50 KB (64,000 bytes)
 Message Oriented Yes
 Minimum Address Size 20 bytes
 Pseudo Stream Oriented No
 Supports Broadcasting No
 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 No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{2D13871F-65E0-4488-975A-87F4820F3CA7}] DATAGRAM 1
 Connectionless Service Yes
 Guarantees Delivery No
 Guarantees Sequencing No
 Maximum Address Size 20 bytes
 Maximum Message Size 62.50 KB (64,000 bytes)
 Message Oriented Yes
 Minimum Address Size 20 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 No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{C66855BE-E13A-4E93-B9E8-4AEAB2144A65}] SEQPACKET 2
 Connectionless Service No
 Guarantees Delivery Yes
 Guarantees Sequencing Yes
 Maximum Address Size 20 bytes
 Maximum Message Size 62.50 KB (64,000 bytes)

Message Oriented Yes
 Minimum Address Size 20 bytes
 Pseudo Stream Oriented No
 Supports Broadcasting No
 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 No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{C66855BE-E13A-4E93-B9E8-4AEAB2144A65}] DATAGRAM 2
 Connectionless Service Yes
 Guarantees Delivery No
 Guarantees Sequencing No
 Maximum Address Size 20 bytes
 Maximum Message Size 62.50 KB (64,000 bytes)
 Message Oriented Yes
 Minimum Address Size 20 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 No

[WinSock]

Item	Value
File	c:\windows\system32\winsock.dll
Size	2.80 KB (2,864 bytes)
Version	3.10
File	c:\windows\system32\wsock32.dll
Size	22.00 KB (22,528 bytes)
Version	5.2.3790.0 (srv03_rtm.030324-2048)

[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
I/O Port               0x000003F8-0x000003FF
IRQ Channel            IRQ 4
Driver c:\windows\system32\drivers\serial.sys (5.2.3790.1830
(srv03_sp1_rtm.050324-1447), 64.00 KB

```

(65,536 bytes), 3/25/2003 11:00 AM)

[Parallel]

Item Value

[Storage]

[Drives]

```

Item Value
Drive C:
Description Local Fixed Disk
Compressed No
File System NTFS
Size 33.91 GB (36,413,280,256 bytes)
Free Space 13.47 GB (14,468,472,832 bytes)
Volume Name
Volume Serial Number 949181F8

```

```

Drive D:
Description CD-ROM Disc

```

[Disks]

```

Item Value
Description Disk drive
Manufacturer (Standard disk drives)
Model SEAGATE ST336753LC 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 0
Sectors/Track 63
Size 33.91 GB (36,413,314,560 bytes)
Total Cylinders 4,427
Total Sectors 71,119,755
Total Tracks 1,128,885
Tracks/Cylinder 255
Partition Disk #0, Partition #0
Partition Size 33.91 GB (36,413,282,304 bytes)
Partition Starting Offset 32,256 bytes

```

[SCSI]

```

Item Value
Name LSI Logic PCI-X Ultra320 SCSI Host Adapter
Manufacturer LSI Logic Inc.
Status OK
PNP Device ID
PCI\VEN_1000&DEV_0030&SUBSYS_016D1028&REV_08\5&39562480&0&280010
I/O Port 0x0000EC00-0x0000ECFF
Memory Address 0xDFDF0000-0xDFDFFFFF
Memory Address 0xDFDE0000-0xDFDEFFFF
IRQ Channel IRQ 34
Driver c:\windows\system32\drivers\symmpi.sys (1.10.05.00 (NT.041118-
1101), 48.50 KB (49,664

```

bytes), 3/25/2003 11:00 AM)

```

Name LSI Logic PCI-X Ultra320 SCSI Host Adapter
Manufacturer LSI Logic Inc.
Status OK
PNP Device ID
PCI\VEN_1000&DEV_0030&SUBSYS_016D1028&REV_08\5&39562480&0&290010
I/O Port 0x0000E800-0x0000E8FF
Memory Address 0xDFDD0000-0xDFDDFFFF
Memory Address 0xDFDC0000-0xDFDCFFFF
IRQ Channel IRQ 33
Driver c:\windows\system32\drivers\symmpi.sys (1.10.05.00 (NT.041118-
1101), 48.50 KB (49,664

```

bytes), 3/25/2003 11:00 AM)

[IDE]

Item Value
 Name Intel(R) 82801EB Ultra ATA Storage Controllers - 24DB
 Manufacturer Intel
 Status OK
 PNP Device ID
 PCI\VEN_8086&DEV_24DB&SUBSYS_016D1028&REV_02\3&13C0B0C5&0&F9

I/O Port 0x0000FC00-0x0000FC0F
 Memory Address 0xFEBFFC00-0xFEBFFFFF
 Driver c:\windows\system32\drivers\intelide.sys (5.2.3790.1830
 (srv03_sp1_rtm.050324-1447), 7.50 KB

(7,680 bytes), 10/19/2004 12:30 PM)

Name Primary IDE Channel
 Manufacturer (Standard IDE ATA/ATAPI controllers)
 Status OK
 PNP Device ID PCIIDE\IDECHANNEL\4&1E0969C8&0&0
 I/O Port 0x000001F0-0x000001F7
 I/O Port 0x000003F6-0x000003F6
 IRQ Channel IRQ 14
 Driver c:\windows\system32\drivers\ataapi.sys (5.2.3790.1830
 (srv03_sp1_rtm.050324-1447), 93.50 KB

(95,744 bytes), 3/25/2003 11:00 AM)

Name Secondary IDE Channel
 Manufacturer (Standard IDE ATA/ATAPI controllers)
 Status OK
 PNP Device ID PCIIDE\IDECHANNEL\4&1E0969C8&0&1
 I/O Port 0x00000170-0x00000177
 I/O Port 0x00000376-0x00000376
 IRQ Channel IRQ 15
 Driver c:\windows\system32\drivers\ataapi.sys (5.2.3790.1830
 (srv03_sp1_rtm.050324-1447), 93.50 KB

(95,744 bytes), 3/25/2003 11:00 AM)

[Printing]

Name Driver Port Name Server Name

[Problem Devices]

Device PNP Device ID Error Code

[USB]

Device PNP Device ID
 Standard Universal PCI to USB Host Controller
 PCI\VEN_8086&DEV_24D2&SUBSYS_016D1028&REV_02\3&13C0B0C5&0&E8
 Standard Universal PCI to USB Host Controller
 PCI\VEN_8086&DEV_24D4&SUBSYS_016D1028&REV_02\3&13C0B0C5&0&E9
 Standard Universal PCI to USB Host Controller
 PCI\VEN_8086&DEV_24D7&SUBSYS_016D1028&REV_02\3&13C0B0C5&0&EA

Standard Enhanced PCI to USB Host Controller

PCI\VEN_8086&DEV_24DD&SUBSYS_016D1028&REV_02\3&13C0B0C5&0&EF

[Software Environment]

[System Drivers]

Name	Description	File	Type	Started	Start Mode	State	Status
	Error Control						

Accept Pause	Accept Stop						
abiosdsk	Abiosdsk		Not Available	Kernel Driver	No		
	Disabled		Stopped OK				

Ignore	No	No					
acpi	Microsoft ACPI Driver	c:\windows\system32\drivers\acpi.sys	Kernel Driver	Yes	Boot		

Running OK	Normal	No	Yes				
acpiec	ACPIEC	c:\windows\system32\drivers\acpiec.sys	Kernel Driver	No	Disabled		

Stopped OK	Normal	No	No				
adpu160m	adpu160m		Not Available	Kernel Driver	No		
	Disabled		Stopped OK				

Normal	No	No					
adpu320	adpu320	Not Available	Kernel Driver	No	Disabled		
	Stopped OK	Normal	No				

No							
afcnt	afcnt	Not Available	Kernel Driver	No	Disabled		
	Stopped OK	Normal	No				

No							
afd	AFD Networking Support Environment	c:\windows\system32\drivers\afd.sys	Kernel Driver	Yes	Running	Normal	No
				Not Available	Kernel Driver	No	Disabled
				Stopped OK	Normal	No	

Driver	Yes	System	Running	OK	Normal	No	Yes
aha154x	Aha154x	Not Available	Kernel Driver	No	Disabled		
				Stopped OK	Normal	No	

No							
aic78u2	aic78u2	Not Available	Kernel Driver	No	Disabled		
	Stopped OK	Normal	No				

No							
aic78xx	aic78xx	Not Available	Kernel Driver	No	Disabled		
	Stopped OK	Normal	No				

No							
aliide	AliIde	Not Available	Kernel Driver	No	Disabled		
	Stopped OK	Normal	No				

No

```

asyncmac      RAS Asynchronous Media Driver
              c:\windows\system32\drivers\asyncmac.sys

Kernel Driver No      Manual Stopped OK      Normal No      No
atapi Standard IDE/ESDI Hard Disk Controller
              c:\windows\system32\drivers\atapi.sys Kernel

Driver Yes      Boot      Running OK      Normal No      Yes
atdisk Atdisk Not Available Kernel Driver No      Disabled
Stopped OK      Ignore No

No
ati2mtag      ati2mtag      c:\windows\system32\drivers\ati2mtag.sys
              Kernel Driver Yes

Manual Running OK      Ignore No      Yes
atmarpc ATM ARP Client Protocol
              c:\windows\system32\drivers\atmarpc.sys      Kernel Driver No

Manual Stopped OK      Normal No      No
audstub Audio Stub Driver      c:\windows\system32\drivers\audstub.sys
              Kernel Driver Yes

Manual Running OK      Normal No      Yes
beep Beep      c:\windows\system32\drivers\beep.sys      Kernel Driver Yes
              System Running OK

Normal No      Yes
cbidf2k cbidf2k c:\windows\system32\drivers\cbidf2k.sys      Kernel Driver
              No      Disabled

Stopped OK      Normal No      No
cd20xrnt cd20xrnt      Not Available Kernel Driver No
              Disabled      Stopped OK

Normal No      No
cdfs Cdfs      c:\windows\system32\drivers\cdfs.sys      File System Driver
              Yes      Disabled

Running OK      Normal No      Yes
cdrom CD-ROM Driver      c:\windows\system32\drivers\cdrom.sys      Kernel Driver
              Yes      System

Running OK      Normal No      Yes
changer Changer Not Available Kernel Driver No      System Stopped OK
              Ignore No      No

clusdisk Cluster Disk Driver
              c:\windows\system32\drivers\clusdisk.sys      Kernel

Driver No      Disabled      Stopped OK      Normal No      No
cmdide CmdIde Not Available Kernel Driver No      Disabled
              Stopped OK      Normal No

No
cpqarray Cpqarray      Not Available Kernel Driver No
              Disabled      Stopped OK

Normal No      No

```

```

cpqarray2      cpqarray2      Not Available Kernel Driver No
              Disabled      Stopped OK

Normal No      No
cpqcissm      cpqcissm      Not Available Kernel Driver No
              Disabled      Stopped OK

Normal No      No
cpqfcalm      cpqfcalm      Not Available Kernel Driver No
              Disabled      Stopped OK

Normal No      No
crcdisk CRC Disk Filter Driver c:\windows\system32\drivers\crcdisk.sys
              Kernel Driver Yes      Boot

Running OK      Normal No      Yes
dac960nt      dac960nt      Not Available Kernel Driver No
              Disabled      Stopped OK

Normal No      No
dellcerc      dellcerc      Not Available Kernel Driver No
              Disabled      Stopped OK

Normal No      No
dfsdriver DfsDriver      c:\windows\system32\drivers\dfs.sys      File
              System Driver Yes

Boot Running OK      Normal No      Yes
disk Disk Driver      c:\windows\system32\drivers\disk.sys      Kernel Driver
              Yes      Boot

Running OK      Normal No      Yes
dmboot dmboot      c:\windows\system32\drivers\dmboot.sys      Kernel Driver
              No      Disabled

Stopped OK      Normal No      No
dmio Logical Disk Manager Driver      c:\windows\system32\drivers\dmio.sys
              Kernel Driver Yes

Boot Running OK      Normal No      Yes
dmload dmload      c:\windows\system32\drivers\dmload.sys      Kernel Driver
              Yes      Boot      Running OK

Normal No      Yes
dpti2o dpti2o      Not Available Kernel Driver No      Disabled
              Stopped OK      Normal No

No
e1000 Intel(R) PRO/1000 Adapter Driver
              c:\windows\system32\drivers\e1000325.sys

Kernel Driver Yes      Manual Running OK      Normal No      Yes
fastfat Fastfat c:\windows\system32\drivers\fastfat.sys      File System
              Driver No      Disabled

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			
fips	Fips	c:\windows\system32\drivers\fips.sys	Kernel Driver	Yes				
	System	Running	OK					
Normal	No	Yes						
flpydisk	Flpydisk	c:\windows\system32\drivers\flpydisk.sys	Kernel Driver	No				
System	Stopped	OK	Ignore	No	No			
fltmgr	FltMgr	c:\windows\system32\drivers\fltmgr.sys	File System	Driver	Yes	Boot		
Running	OK	Normal	No	Yes				
ftdisk	Volume Manager	Driver	c:\windows\system32\drivers\ftdisk.sys	Kernel Driver	Yes	Boot		
Running	OK	Normal	No	Yes				
gpc	Generic Packet Classifier	c:\windows\system32\drivers\msgpc.sys	Kernel Driver	Yes				
Manual	Running	OK	Normal	No	Yes			
hpn	hpn	Not Available	Kernel Driver	No	Disabled			
	Stopped	OK	Normal	No				
No								
hpt3xx	hpt3xx	Not Available	Kernel Driver	No	Disabled			
	Stopped	OK	Normal	No				
No								
http	HTTP	c:\windows\system32\drivers\http.sys	Kernel Driver	No				
	Manual	Stopped	OK					
Normal	No	No						
i2omgmt	i2omgmt	Not Available	Kernel Driver	No	System Stopped	OK		
	Normal	No	No					
i2omp	i2omp	Not Available	Kernel Driver	No	Disabled			
	Stopped	OK	Normal	No				
No								
i8042prt	i8042 Keyboard and PS/2 Mouse Port Driver							
c:\windows\system32\drivers\i8042prt.sys	Kernel Driver	Yes	System					
	Running	OK						
Normal	No	Yes						
iirsp	iirsp	Not Available	Kernel Driver	No	Disabled			
	Stopped	OK	Normal	No				
No								
imapi	CD-Burning Filter Driver							
c:\windows\system32\drivers\imapi.sys	Kernel Driver	No						
System	Stopped	OK	Normal	No	No			
intelide	IntelIde	c:\windows\system32\drivers\intelide.sys	Kernel Driver	Yes				
Boot	Running	OK	Normal	No	Yes			

intelppm	Intel Processor Driver							
c:\windows\system32\drivers\intelppm.sys	Kernel							
Driver	Yes	Manual	Running	OK	Normal	No	Yes	
ip6fw	IPv6 Windows Firewall Driver							
c:\windows\system32\drivers\ip6fw.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
ipinip	IP in IP Tunnel Driver							
c:\windows\system32\drivers\ipinip.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			
ipsec	IPSEC driver							
c:\windows\system32\drivers\ipsec.sys	Kernel Driver	Yes	System					
Running	OK	Normal	No	Yes				
ipsraidn	ipsraidn	Not Available	Kernel Driver	No				
Disabled	Stopped	OK						
Normal	No	No						
irenum	IR Enumerator Service							
c:\windows\system32\drivers\irenum.sys	Kernel Driver	No						
Manual	Stopped	OK	Normal	No	No			
isapnp	PnP ISA/EISA Bus Driver							
c:\windows\system32\drivers\isapnp.sys	Kernel Driver	Yes						
Boot								
Running	OK	Critical	No	Yes				
kbdclass	Keyboard Class Driver							
c:\windows\system32\drivers\kbdclass.sys	Kernel							
Driver	Yes	System	Running	OK	Normal	No	Yes	
ksecdd	KSecDD							
c:\windows\system32\drivers\ksecdd.sys	Kernel Driver	Yes	Boot	Running	OK			
Normal	No	Yes						
lp6nds35	lp6nds35							
c:\windows\system32\drivers\lp6nds35.sys	Kernel Driver	Yes						
Boot	Running	OK	Normal	No	Yes			
lpkxdrv	lpkxdrv							
c:\windows\system32\drivers\lpkxdrv.sys	Kernel Driver	Yes						
Manual	Running	OK	Normal	No	Yes			
mmdd	mmdd							
c:\windows\system32\drivers\mmdd.sys	Kernel Driver	Yes	System	Running	OK			
Ignore	No	Yes						

modem	Modem Manual	c:\windows\system32\drivers\modem.sys	Kernel Driver	No	Stopped OK
Ignore	No	No			
mouclass	Mouse Class Driver	c:\windows\system32\drivers\mouclass.sys	Kernel		
Driver	Yes	System Running OK	Normal	No	Yes
mountmgr	Mount Point Manager	c:\windows\system32\drivers\mountmgr.sys	Kernel		
Driver	Yes	Boot Running OK	Normal	No	Yes
mraid35x	mraid35x	Not Available	Kernel Driver	No	Disabled
Normal	No	No			
mrxdav	WebDav Client Redirector	c:\windows\system32\drivers\mrxdav.sys	File System Driver		
No	Manual	Stopped OK	Normal	No	No
mrx smb	MRXSMB	c:\windows\system32\drivers\mrx smb.sys	File System Driver	Yes	System
Running	OK	Normal	No	Yes	
msfs	Msfs	c:\windows\system32\drivers\msfs.sys	File System Driver	Yes	System
Running	OK	Normal	No	Yes	
mssmbios	Microsoft System Management BIOS Driver	c:\windows\system32\drivers\mssmbios.sys			
Kernel Driver	Yes	Manual Running OK	Normal	No	Yes
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	Normal	No	Yes	
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	NetBios over Tcpip	c:\windows\system32\drivers\netbt.sys	Kernel Driver	Yes
System	Running OK	Normal	No	Yes
nfrd960	nfrd960	Not Available	Kernel Driver	No
	Stopped OK	Normal	No	Disabled
No				
npfs	Npfs	c:\windows\system32\drivers\npfs.sys	File System Driver	Yes
Running	OK	Normal	No	Yes
ntfs	Ntfs	c:\windows\system32\drivers\ntfs.sys	File System Driver	Yes
				Disabled
Running	OK	Normal	No	Yes
null	Null	c:\windows\system32\drivers\null.sys	Kernel Driver	Yes
	System	Running OK		
Normal	No	Yes		
parport	Parport	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
		Kernel Driver	Yes	Boot
Running	OK	Normal	No	Yes
pci	PCI Bus Driver	c:\windows\system32\drivers\pci.sys	Kernel Driver	Yes
		Yes	Boot	
Running	OK	Critical	No	Yes
pciide	PCIIde	c:\windows\system32\drivers\pciide.sys	Kernel Driver	Yes
		Yes	Boot	Running OK
Normal	No	Yes		
pcmcia	Pcmcia	c:\windows\system32\drivers\pcmcia.sys	Kernel Driver	No
		No	Disabled	
Stopped	OK	Normal	No	No
pdcomp	PDCOMP	Not Available	Kernel Driver	No
	Ignore	No	No	Manual
pdframe	PDFRAME	Not Available	Kernel Driver	No
	Ignore	No	No	Manual
pdreli	PDRELI	Not Available	Kernel Driver	No
	Ignore	No	No	Manual
pdrframe	PDRFRAME	Not Available	Kernel Driver	No
	Stopped OK			Manual
Ignore	No	No		
perc2	perc2	Not Available	Kernel Driver	No
	Stopped OK	Normal	No	Disabled
No				

perc2hib	perc2hib	Not Available	Kernel Driver	No		
Disabled	Stopped OK					
Normal	No	No				
pptpminiport	WAN Miniport (PPTP)		Kernel Driver	Yes		
	c:\windows\system32\drivers\rasptp.sys					
Manual	Running OK	Normal	No	Yes		
processor	Processor Driver		Kernel			
	c:\windows\system32\drivers\processr.sys					
Driver	No	Manual	Stopped OK	Normal	No	No
ptilink	Direct Parallel Link Driver		Kernel Driver	Yes		
	c:\windows\system32\drivers\ptilink.sys					
Manual	Running OK	Normal	No	Yes		
ql1080	ql1080	Not Available	Kernel Driver	No		Disabled
	Stopped OK	Normal	No			
No						
ql10wnt	ql10wnt	Not Available	Kernel Driver	No		Disabled
	Stopped OK	Normal	No			
No						
ql12160	ql12160	Not Available	Kernel Driver	No		Disabled
	Stopped OK	Normal	No			
No						
ql1240	ql1240	Not Available	Kernel Driver	No		Disabled
	Stopped OK	Normal	No			
No						
ql1280	ql1280	Not Available	Kernel Driver	No		Disabled
	Stopped OK	Normal	No			
No						
ql2100	ql2100	Not Available	Kernel Driver	No		Disabled
	Stopped OK	Normal	No			
No						
ql2200	ql2200	Not Available	Kernel Driver	No		Disabled
	Stopped OK	Normal	No			
No						
ql2300	ql2300	c:\windows\system32\drivers\ql2300.sys	Kernel Driver			
	No	Disabled				
Stopped OK	Normal	No	No			
rasacd	Remote Access Auto Connection Driver		Kernel			
	c:\windows\system32\drivers\rasacd.sys					
Driver	Yes	System	Running OK	Normal	No	Yes
rasl2tp	WAN Miniport (L2TP)		Kernel Driver	Yes		
	c:\windows\system32\drivers\rasl2tp.sys					
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
raspti	Direct Parallel		c:\windows\system32\drivers\raspti.sys			
	Kernel Driver	Yes	Manual			
Running OK	Normal	No	Yes			
rdbss	Rdbss	c:\windows\system32\drivers\rdbss.sys	File System Driver			
	Yes	System				
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
rdpwd	RDPWD	c:\windows\system32\drivers\rdpwd.sys	Kernel Driver	Yes		
	Manual	Running OK				
Ignore	No	Yes				
redbook	Digital CD Audio Playback Filter Driver					Kernel
	c:\windows\system32\drivers\redbook.sys					
Driver	Yes	System	Running OK	Normal	No	Yes
secdrv	Secdrv	c:\windows\system32\drivers\secdrv.sys	Kernel Driver			
	No	Manual	Stopped OK			
Normal	No	No				
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		
sfloppy	Sfloppy	c:\windows\system32\drivers\sfloppy.sys	Kernel Driver			
	No	System	Stopped OK			
Ignore	No	No				
simbad	Simbad	Not Available	Kernel Driver	No		Disabled
	Stopped OK	Normal	No			
No						
sparrow	Sparrow	Not Available	Kernel Driver	No		Disabled
	Stopped OK	Normal	No			
No						
srv	Srv	c:\windows\system32\drivers\srv.sys	File System Driver			
	Yes	Manual				
Running OK	Normal	No	Yes			
swenum	Software Bus Driver		c:\windows\system32\drivers\swenum.sys			
	Kernel Driver	Yes				

Manual	Running	OK	Normal	No	Yes		
symc810	symc810	Not Available	Kernel	Driver	No	Disabled	
	Stopped	OK	Normal	No			
No							
symc8xx	symc8xx	Not Available	Kernel	Driver	No	Disabled	
	Stopped	OK	Normal	No			
No							
symmpi	symmpi	c:\windows\system32\drivers\symmpi.sys	Kernel	Driver			
	Yes	Boot	Running	OK			
Normal	No	Yes					
sym_hi	sym_hi	Not Available	Kernel	Driver	No	Disabled	
	Stopped	OK	Normal	No			
No							
sym_u3	sym_u3	Not Available	Kernel	Driver	No	Disabled	
	Stopped	OK	Normal	No			
No							
tbdriver	TbDriver	c:\windows\system32\drivers\tbdriver.sys	Kernel	Driver	Yes		
Boot	Running	OK	Normal	No	Yes		
tcpip	TCP/IP	Protocol Driver	c:\windows\system32\drivers\tcpip.sys	Kernel			
Driver	Yes						
System	Running	OK	Normal	No	Yes		
tdpipe	TDPIPE	c:\windows\system32\drivers\tdpipe.sys	Kernel	Driver			
	No	Manual	Stopped	OK			
Ignore	No	No					
tdtcp	TDTCP	c:\windows\system32\drivers\tdtcp.sys	Kernel	Driver	Yes		
	Manual	Running	OK				
Ignore	No	Yes					
termdd	Terminal Device Driver	c:\windows\system32\drivers\termdd.sys	Kernel	Driver	Yes		
	Kernel	Driver	Yes				
System	Running	OK	Normal	No	Yes		
toside	TosIde	Not Available	Kernel	Driver	No	Disabled	
	Stopped	OK	Normal	No			
No							
udfs	Udfs	c:\windows\system32\drivers\udfs.sys	File System	Driver			
	No	Disabled					
Stopped	OK	Normal	No	No			
ultra	ultra	Not Available	Kernel	Driver	No	Disabled	
	Stopped	OK	Normal	No			
No							
update	Microcode Update Driver	c:\windows\system32\drivers\update.sys	Kernel	Driver	Yes		
Manual	Running	OK	Normal	No	Yes		

usbhci	Microsoft	USB 2.0 Enhanced Host Controller Miniport Driver					
	c:\windows\system32\drivers\usbhci.sys	Kernel Driver	Yes	Manual			
	Running	OK	Normal	No			
Yes							
usbhub	USB2 Enabled Hub	c:\windows\system32\drivers\usbhub.sys	Kernel	Driver	Yes		
	Kernel	Driver	Yes				
Manual	Running	OK	Normal	No	Yes		
usbstor	USB Mass Storage Driver	c:\windows\system32\drivers\usbstor.sys	Kernel	Driver	No		
	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							
vgasave	VGA Display Controller.	c:\windows\system32\drivers\vga.sys	Kernel	Driver	Yes		
	Kernel	Driver	Yes				
System	Running	OK	Ignore	No	Yes		
viaide	ViaIde	Not Available	Kernel	Driver	No	Disabled	
	Stopped	OK	Normal	No			
No							
volsnap	Storage volumes	c:\windows\system32\drivers\volsnap.sys	Kernel	Driver	Yes	Boot	
	Kernel	Driver	Yes				
Running	OK	Normal	No	Yes			
wanarp	Remote Access IP ARP Driver	c:\windows\system32\drivers\wanarp.sys	Kernel	Driver	Yes		
	c:\windows\system32\drivers\wanarp.sys	Kernel Driver	Yes				
Manual	Running	OK	Normal	No	Yes		
wdica	WDICA	Not Available	Kernel	Driver	No	Manual	Stopped
	Ignore	No	No				
wlbs	Network Load Balancing	c:\windows\system32\drivers\wlbs.sys	Kernel	Driver	No		
	Driver	No					
Manual	Stopped	OK	Normal	No	No		
[Signed Drivers]							
Device Name	Signed	Device Class	Driver	Version	Driver	Date	
	Manufacturer	INF Name					
Driver Name	Device ID						
Microsoft	System Management BIOS Driver	No	SYSTEM	5.2.3790.1830			
	10/1/2002	(Standard					
system devices)	machine.inf	Not Available	ROOT\SYSTEM\0002				
Microcode Update Device	No	SYSTEM	5.2.3790.0	10/1/2002			
	(Standard system devices)						

```

machine.inf Not Available ROOT\SYSTEM\0001
Plug and Play Software Device Enumerator No SYSTEM 5.2.3790.0
10/1/2002

(Standard system devices) machine.inf Not Available
ROOT\SYSTEM\0000
Terminal Server Mouse Driver No SYSTEM 5.2.3790.0 10/1/2002
(Standard system
devices) machine.inf Not Available ROOT\RDP_MOU\0000
Terminal Server Keyboard Driver No SYSTEM 5.2.3790.0
10/1/2002 (Standard system
devices) machine.inf Not Available ROOT\RDP_KBD\0000
Terminal Server Device Redirector No SYSTEM 5.2.3790.0
10/1/2002 (Standard
system devices) machine.inf Not Available ROOT\RDPDR\0000
Direct Parallel No NET 5.2.3790.0 10/1/2002
Microsoft netrasa.inf Not
Available ROOT\MS_PTMINIPORT\0000
WAN Miniport (PPTP) No NET 5.2.3790.0 10/1/2002
Microsoft netrasa.inf
Not Available ROOT\MS_PPTPMINIPORT\0000
WAN Miniport (PPPOE) No NET 5.2.3790.0 10/1/2002
Microsoft netrasa.inf
Not Available ROOT\MS_PPPOEMINIPORT\0000
WAN Miniport (IP) No NET 5.2.3790.0 10/1/2002
Microsoft netrasa.inf
Not Available ROOT\MS_NDISWANIP\0000
WAN Miniport (L2TP) No NET 5.2.3790.0 10/1/2002
Microsoft netrasa.inf
Not Available ROOT\MS_L2TPMINIPORT\0000
Video Codecs No MEDIA 5.2.3790.0 10/1/2002 (Standard
system devices)
wave.inf Not Available ROOT\MEDIA\MS_MMVID
Legacy Video Capture Devices No MEDIA 5.2.3790.0 10/1/2002
(Standard system
devices) wave.inf Not Available ROOT\MEDIA\MS_MMVCD
Media Control Devices No MEDIA 5.2.3790.0 10/1/2002
(Standard system devices)
wave.inf Not Available ROOT\MEDIA\MS_MMMCI
Legacy Audio Drivers No MEDIA 5.2.3790.0 10/1/2002
(Standard system devices)
wave.inf Not Available ROOT\MEDIA\MS_MMDRV
Audio Codecs No MEDIA 5.2.3790.0 10/1/2002 (Standard
system devices)
wave.inf Not Available ROOT\MEDIA\MS_MMACM

```

```

Remote Access IP ARP Driver Not Available LEGACYDRIVER Not Available
Not Available Not
Available Not Available Not Available ROOT\LEGACY_WANARP\0000
volsnap Not Available LEGACYDRIVER Not Available Not Available Not
Available Not
Available Not Available ROOT\LEGACY_VOLSNAP\0000
VGA Display Controller. Not Available LEGACYDRIVER Not Available
Not Available Not
Available Not Available Not Available ROOT\LEGACY_VGASAVE\0000
TDTCP Not Available LEGACYDRIVER Not Available Not Available Not
Available Not
Available Not Available ROOT\LEGACY_TDTCP\0000
TCP/IP Protocol Driver Not Available LEGACYDRIVER Not Available Not
Available Not
Available Not Available Not Available ROOT\LEGACY_TCPIP\0000
TbDriver Not Available LEGACYDRIVER Not Available Not Available
Not Available Not
Available Not Available ROOT\LEGACY_TBDRIVER\0000
RDPWD Not Available LEGACYDRIVER Not Available Not Available Not
Available Not
Available Not Available ROOT\LEGACY_RDPWD\0000
RDPCDD Not Available LEGACYDRIVER Not Available Not Available Not
Available Not
Available Not Available ROOT\LEGACY_RDPCDD\0000
Remote Access Auto Connection Driver Not Available LEGACYDRIVER Not
Available Not
Available Not Available Not Available Not Available
ROOT\LEGACY_RASACD\0000
PCIIde Not Available LEGACYDRIVER Not Available Not Available Not
Available Not
Available Not Available ROOT\LEGACY_PCIIDE\0000
Partition Manager Not Available LEGACYDRIVER Not Available Not
Available Not
Available Not Available Not Available ROOT\LEGACY_PARTMGR\0000
Null Not Available LEGACYDRIVER Not Available Not Available Not
Available Not
Available Not Available ROOT\LEGACY_NULL\0000
NetBios over Tcpip Not Available LEGACYDRIVER Not Available Not
Available Not
Available Not Available Not Available ROOT\LEGACY_NETBT\0000
NDProxy Not Available LEGACYDRIVER Not Available Not Available Not
Available Not

```

Available	Not Available	ROOT\LEGACY_NDPROXY\0000			
NDIS Usermode I/O Protocol	Not Available	LEGACYDRIVER	Not Available	Not Available	
Available	Not Available	Not Available	ROOT\LEGACY_NDISUIO\0000		
Remote Access NDIS TAPI Driver	Not Available	LEGACYDRIVER	Not Available	Not Available	
Available	Not Available	Not Available	ROOT\LEGACY_NDISTAPI\0000		
NDIS System Driver	Not Available	LEGACYDRIVER	Not Available	Not Available	
Available	Not Available	Not Available	ROOT\LEGACY_NDIS\0000		
mountmgr	Not Available	LEGACYDRIVER	Not Available	Not Available	
Available	Not Available	ROOT\LEGACY_MOUNTMGR\0000			
mmdd	Not Available	LEGACYDRIVER	Not Available	Not Available	
Available	Not Available	ROOT\LEGACY_MMDD\0000			
lp6nds35	Not Available	LEGACYDRIVER	Not Available	Not Available	
Available	Not Available	ROOT\LEGACY_LP6NDS35\0000			
ksecdd	Not Available	LEGACYDRIVER	Not Available	Not Available	
Available	Not Available	ROOT\LEGACY_KSECDD\0000			
IPSEC driver	Not Available	LEGACYDRIVER	Not Available	Not Available	
Available	Not Available	ROOT\LEGACY_IPSEC\0000			
HTTP	Not Available	LEGACYDRIVER	Not Available	Not Available	
Available	Not Available	ROOT\LEGACY_HTTP\0000			
Generic Packet Classifier	Not Available	LEGACYDRIVER	Not Available	Not Available	
Available	Not Available	Not Available	ROOT\LEGACY_GPC\0000		
Fips	Not Available	LEGACYDRIVER	Not Available	Not Available	
Available	Not Available	ROOT\LEGACY_FIPS\0000			
dmload	Not Available	LEGACYDRIVER	Not Available	Not Available	
Available	Not Available	ROOT\LEGACY_DMLOAD\0000			
dmboot	Not Available	LEGACYDRIVER	Not Available	Not Available	
Available	Not Available	ROOT\LEGACY_DMBOOT\0000			
CRC Disk Filter Driver	Not Available	LEGACYDRIVER	Not Available	Not Available	
Available	Not Available	Not Available			

Available	Not Available	Not Available	ROOT\LEGACY_CRCDISK\0000		
Beep	Not Available	LEGACYDRIVER	Not Available	Not Available	
Available	Not Available	Not Available	ROOT\LEGACY_BEEP\0000		
AFD Networking Support Environment	Not Available	LEGACYDRIVER	Not Available	Not Available	
Available	Not Available	Not Available	ROOT\LEGACY_AFD\0000		
Generic volume No	VOLUME	5.2.3790.0	10/1/2002	Microsoft	
volume.inf	Not Available				
Available	Not Available	Not Available	STORAGE\VOLUME\1&30A96598&0&SIGNATURE137C137BOFFSET7E00LENGTH87A669800		
Volume Manager No	SYSTEM	5.2.3790.0	10/1/2002	(Standard system devices)	
machine.inf	Not Available	ROOT\FTDISK\0000			
Logical Disk Manager	No	SYSTEM	5.2.3790.0	10/1/2002	
	(Standard system devices)				
machine.inf	Not Available	ROOT\DMIO\0000			
ACPI Fixed Feature Button	No	SYSTEM	5.2.3790.0	10/1/2002	
	(Standard system devices)				
	machine.inf	Not Available	ACPI\FIXEDBUTTON\2&DABA3FF&0		
High precision event timer	No	SYSTEM	5.2.3790.1830	10/1/2002	
	(Standard system devices)				
	machine.inf	Not Available	ACPI\PNP0103\0		
Motherboard resources	No	SYSTEM	5.2.3790.0	10/1/2002	
	(Standard system devices)				
machine.inf	Not Available	ACPI\PNP0C02\0			
Secondary IDE Channel	No	HDC	5.2.3790.0	10/1/2002	
	(Standard IDE ATA/ATAPI controllers)	mshdc.inf	Not Available		
	PCIIDE\IDECHANNEL\4&1E0969C8&0&1				
CD-ROM Drive	No	CDROM	5.2.3790.0	10/1/2002	(Standard CD-ROM drives)
cdrom.inf	Not Available				
IDE\CDROMTEAC_CD-224E		K.9A	\5&122E1C04&0&0.0.0		
Primary IDE Channel	No	HDC	5.2.3790.0	10/1/2002	
	(Standard IDE ATA/ATAPI controllers)	mshdc.inf	Not Available		
	PCIIDE\IDECHANNEL\4&1E0969C8&0&0				
Intel(R) 82801EB Ultra ATA Storage Controllers - 24DB	No	HDC	5.2.3790.1830	10/1/2002	

```

Intel  mshdc.inf      Not Available
      PCI\VEN_8086&DEV_24DB&SUBSYS_016D1028&REV_02\3&13C0B0C5&0&F9

System board  No      SYSTEM  5.2.3790.0    10/1/2002    (Standard
system devices)

machine.inf   Not Available  ACPI\PNP0C01\4&26DD0F47&0
Communications Port  No      PORTS  5.2.3790.0    10/1/2002
(Standard port types)

msports.inf  Not Available  ACPI\PNP0501\1
PS/2 Compatible Mouse  No      MOUSE  5.2.3790.0    10/1/2002
Microsoft      msmouse.inf

Not Available  ACPI\PNP0F13\4&26DD0F47&0
Standard 101/102-Key or Microsoft Natural PS/2 Keyboard  No
KEYBOARD      5.2.3790.0

10/1/2002    (Standard keyboards)  keyboard.inf  Not Available
ACPI\PNP0303\4&26DD0F47&0
Standard floppy disk controller  No      FDC  5.2.3790.0
10/1/2002    (Standard floppy

disk controllers)  fdc.inf Not Available  ACPI\PNP0700\4&26DD0F47&0

System timer  No      SYSTEM  5.2.3790.0    10/1/2002    (Standard
system devices)

machine.inf   Not Available  ACPI\PNP0100\4&26DD0F47&0
System CMOS/real time clock  No      SYSTEM  5.2.3790.0    10/1/2002
(Standard system

devices)  machine.inf  Not Available  ACPI\PNP0B00\4&26DD0F47&0

System speaker No      SYSTEM  5.2.3790.0    10/1/2002    (Standard
system devices)

machine.inf   Not Available  ACPI\PNP0800\4&26DD0F47&0
Programmable interrupt controller  No      SYSTEM  5.2.3790.0
10/1/2002    (Standard

system devices)  machine.inf  Not Available
ACPI\PNP0000\4&26DD0F47&0
Numeric data processor No      SYSTEM  5.2.3790.0    10/1/2002
(Standard system devices)

machine.inf   Not Available  ACPI\PNP0C04\4&26DD0F47&0
Direct memory access controller  No      SYSTEM  5.2.3790.0
10/1/2002    (Standard system

devices)  machine.inf  Not Available  ACPI\PNP0200\4&26DD0F47&0

ISAPNP Read Data Port  No      SYSTEM  5.2.3790.0    10/1/2002
(Standard system devices)

machine.inf   Not Available  ISAPNP\READDATAPORT\0
Intel(R) 82801EB LPC Interface Controller - 24D0  No      SYSTEM
5.2.3790.1830  10/1/2002

```

```

Intel  machine.inf    Not Available
      PCI\VEN_8086&DEV_24D0&SUBSYS_00000000&REV_02\3&13C0B0C5&0&F8

Plug and Play Monitor No      MONITOR 5.1.2001.0    6/6/2001
(Standard monitor types)

monitor.inf   Not Available  DISPLAY\DEL3580\5&1427D6AE&0&10000080&0B&0D

RADEON 7000 RADEON VE Family (Microsoft Corporation) No      DISPLAY
6.13.10.6153  8/8/2002

ATI Technologies Inc.  atiixpag.inf  Not Available

PCI\VEN_1002&DEV_5159&SUBSYS_016D1028&REV_00\4&1F7DBC9F&0&68F0
Intel(R) 82801 PCI Bridge - 244E  No      SYSTEM  5.2.3790.1830
10/1/2002    Intel

machine.inf   Not Available
PCI\VEN_8086&DEV_244E&SUBSYS_00000000&REV_C2\3&13C0B0C5&0&F0

Generic USB Hub  No      USB  5.2.3790.0    10/1/2002
(Generic USB Hub)  usb.inf Not

Available      USB\VID_413C&PID_A001\5&384A50E3&0&3
USB Root Hub  No      USB  5.2.3790.0    10/1/2002    (Standard USB
Host Controller)

usbport.inf   Not Available  USB\ROOT_HUB20\4&2F4BE1E7&0
Standard Enhanced PCI to USB Host Controller No      USB  5.2.3790.0
10/1/2002

(Standard USB Host Controller)  usbport.inf  Not Available

PCI\VEN_8086&DEV_24DD&SUBSYS_016D1028&REV_02\3&13C0B0C5&0&EF
USB Root Hub  No      USB  5.2.3790.0    10/1/2002    (Standard USB
Host Controller)

usbport.inf   Not Available  USB\ROOT_HUB\4&4C5D87F&0
Standard Universal PCI to USB Host Controller  No      USB
5.2.3790.0    10/1/2002

(Standard USB Host Controller)  usbport.inf  Not Available

PCI\VEN_8086&DEV_24D7&SUBSYS_016D1028&REV_02\3&13C0B0C5&0&EA
USB Root Hub  No      USB  5.2.3790.0    10/1/2002    (Standard USB
Host Controller)

usbport.inf   Not Available  USB\ROOT_HUB\4&198257A8&0
Standard Universal PCI to USB Host Controller  No      USB
5.2.3790.0    10/1/2002

(Standard USB Host Controller)  usbport.inf  Not Available

PCI\VEN_8086&DEV_24D4&SUBSYS_016D1028&REV_02\3&13C0B0C5&0&E9
USB Root Hub  No      USB  5.2.3790.0    10/1/2002    (Standard USB
Host Controller)

usbport.inf   Not Available  USB\ROOT_HUB\4&31AFD2BF&0

```

Standard Universal PCI to USB Host Controller No USB
5.2.3790.0 10/1/2002

(Standard USB Host Controller) usbport.inf Not Available

PCI\VEN_8086&DEV_24D2&SUBSYS_016D1028&REV_02\3&13C0B0C5&0&E8
Emulex LP 10000 - Unisys VI No UNISYS_VI Not Available Not Available
Emulex

oem1.inf Not Available
PCI\VEN_10DF&DEV_FA00&SUBSYS_FA0010DF&REV_01\5&1B4F3478&0&190230

Emulex LP 10000 - Unisys VI No UNISYS_VI Not Available Not Available
Emulex

oem1.inf Not Available
PCI\VEN_10DF&DEV_FA00&SUBSYS_FA0010DF&REV_01\5&1B4F3478&0&180230

Intel(R) 6700PXH PCI Express-to-PCI Bridge B - 032A No SYSTEM
5.2.3790.1830 10/1/2002

Intel machine.inf Not Available

PCI\VEN_8086&DEV_032A&SUBSYS_00000000&REV_09\4&AA5CD76&0&0230
Intel(R) 6700PXH PCI Express-to-PCI Bridge A - 0329 No SYSTEM
5.2.3790.1830 10/1/2002

Intel machine.inf Not Available

PCI\VEN_8086&DEV_0329&SUBSYS_00000000&REV_09\4&AA5CD76&0&0030
Intel(R) E7520 PCI Express Root Port C0 - 3599 No SYSTEM
5.2.3790.1830 10/1/2002

Intel machine.inf Not Available
PCI\VEN_8086&DEV_3599&SUBSYS_00000000&REV_09\3&13C0B0C5&0&30

Intel(R) PRO/1000 MT Network Connection No NET 7.2.19.1
3/15/2004 Intel

oem0.inf Not Available
PCI\VEN_8086&DEV_1076&SUBSYS_016D1028&REV_05\5&C8E9BA0&0&400228

Intel(R) 6700PXH PCI Express-to-PCI Bridge B - 032A No SYSTEM
5.2.3790.1830 10/1/2002

Intel machine.inf Not Available

PCI\VEN_8086&DEV_032A&SUBSYS_00000000&REV_09\4&13C5C3DD&0&0228
Intel(R) PRO/1000 MT Network Connection No NET 7.2.19.1
3/15/2004 Intel

oem0.inf Not Available
PCI\VEN_8086&DEV_1076&SUBSYS_016D1028&REV_05\5&803901B&0&380028

Intel(R) 6700PXH PCI Express-to-PCI Bridge A - 0329 No SYSTEM
5.2.3790.1830 10/1/2002

Intel machine.inf Not Available

PCI\VEN_8086&DEV_0329&SUBSYS_00000000&REV_09\4&13C5C3DD&0&0028
Intel(R) E7520 PCI Express Root Port B1 - 3598 No SYSTEM
5.2.3790.1830 10/1/2002

Intel machine.inf Not Available
PCI\VEN_8086&DEV_3598&SUBSYS_00000000&REV_09\3&13C0B0C5&0&28

Intel(R) E7525/E7520 PCI Express Root Port B0 - 3597 No SYSTEM
5.2.3790.1830 10/1/2002

Intel machine.inf Not Available
PCI\VEN_8086&DEV_3597&SUBSYS_00000000&REV_09\3&13C0B0C5&0&20

PCI standard PCI-to-PCI bridge No SYSTEM 5.2.3790.0
10/1/2002 (Standard system

devices) machine.inf Not Available

PCI\VEN_8086&DEV_0332&SUBSYS_00000000&REV_06\4&3007CA40&0&0210
LSI Logic PCI-X Ultra320 SCSI Host Adapter No SCSIADAPTER
5.2.3790.0 10/1/2002

LSI Logic Inc. pnpscsi.inf Not Available

PCI\VEN_1000&DEV_0030&SUBSYS_016D1028&REV_08\5&39562480&0&290010
PE 1x6 Backplane No SYSTEM 5.2.3790.0 10/1/2002 Dell
scsidev.inf Not

Available
SCSI\PROCESSOR&VEN_PE/PV&PROD_1X6_SCSI_BP&REV_1.0\6&35B122AC&0&060

Disk drive No DISKDRIVE 5.2.3790.0 10/1/2002
(Standard disk drives)

disk.inf Not Available
SCSI\DISK&VEN_SEAGATE&PROD_ST336753LC&REV_DX10\6&35B122AC&0&000

LSI Logic PCI-X Ultra320 SCSI Host Adapter No SCSIADAPTER
5.2.3790.0 10/1/2002

LSI Logic Inc. pnpscsi.inf Not Available

PCI\VEN_1000&DEV_0030&SUBSYS_016D1028&REV_08\5&39562480&0&280010
PCI standard PCI-to-PCI bridge No SYSTEM 5.2.3790.0
10/1/2002 (Standard system

devices) machine.inf Not Available

PCI\VEN_8086&DEV_0330&SUBSYS_00000000&REV_06\4&3007CA40&0&0010
Intel(R) E7525/E7520/E7320 PCI Express Root Port A0 - 3595 No SYSTEM
5.2.3790.1830

10/1/2002 Intel machine.inf Not Available

PCI\VEN_8086&DEV_3595&SUBSYS_00000000&REV_09\3&13C0B0C5&0&10
Intel(R) E7520 Memory Controller Hub - 3590 No SYSTEM 5.2.3790.1830
10/1/2002

```

Intel machine.inf Not Available
PCI\VEN_8086&DEV_3590&SUBSYS_00000000&REV_09\3&13C0B0C5&0&00

PCI bus No SYSTEM 5.2.3790.0 10/1/2002 (Standard system
devices) machine.inf

Not Available ACPI\PNP0A03\1
Intel Processor No PROCESSOR 5.2.3790.1830 10/1/2002
Intel cpu.inf Not

Available ACPI\GENUINEINTEL_-X86_FAMILY_15_MODEL_3\3
Intel Processor No PROCESSOR 5.2.3790.1830 10/1/2002
Intel cpu.inf Not

Available ACPI\GENUINEINTEL_-X86_FAMILY_15_MODEL_3\2
Intel Processor No PROCESSOR 5.2.3790.1830 10/1/2002
Intel cpu.inf Not

Available ACPI\GENUINEINTEL_-X86_FAMILY_15_MODEL_3\1
Intel Processor No PROCESSOR 5.2.3790.1830 10/1/2002
Intel cpu.inf Not

Available ACPI\GENUINEINTEL_-X86_FAMILY_15_MODEL_3\0
Microsoft ACPI-Compliant System No SYSTEM 5.2.3790.0
10/1/2002 Microsoft

acpi.inf Not Available ACPI_HAL\PNP0C08\0
ACPI Multiprocessor PC No COMPUTER 5.2.3790.0 10/1/2002
(Standard computers)

hal.inf Not Available ROOT\ACPI_HAL\0000
Not Available Not Available Not Available Not Available Not Available
Not Available Not

Available Not Available HTREE\ROOT\0

[Environment Variables]

Variable Value User Name
ClusterLog C:\WINDOWS\Cluster\cluster.log <SYSTEM>
ComSpec %SystemRoot%\system32\cmd.exe <SYSTEM>
NUMBER_OF_PROCESSORS 4 <SYSTEM>
OS Windows_NT <SYSTEM>
Path C:\Program Files\Microsoft SQL Server\90\Tools\binn\;C:\Program
Files\Microsoft SQL

Server\90\DTS\Binn\;C:\Program Files\Microsoft SQL

Server\90\Tools\Binn\VSShell\Common7\IDE%\SystemRoot%\system32;%SystemRoot
%;%SystemRoot%\System32\Wb

em; <SYSTEM>
PATHEXT .COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH <SYSTEM>

PROCESSOR_ARCHITECTURE x86 <SYSTEM>
PROCESSOR_IDENTIFIER x86 Family 15 Model 3 Stepping 4, GenuineIntel
<SYSTEM>
PROCESSOR_LEVEL 15 <SYSTEM>
PROCESSOR_REVISION 0304 <SYSTEM>

```

```

TEMP %SystemRoot%\TEMP <SYSTEM>
TMP %SystemRoot%\TEMP <SYSTEM>
windir %SystemRoot% <SYSTEM>
FP_NO_HOST_CHECK NO <SYSTEM>
TEMP %USERPROFILE%\Local Settings\Temp NT AUTHORITY\SYSTEM
TMP %USERPROFILE%\Local Settings\Temp NT AUTHORITY\SYSTEM
TEMP %USERPROFILE%\Local Settings\Temp NT AUTHORITY\LOCAL SERVICE

TMP %USERPROFILE%\Local Settings\Temp NT AUTHORITY\LOCAL SERVICE

TEMP %USERPROFILE%\Local Settings\Temp NT AUTHORITY\NETWORK SERVICE

TMP %USERPROFILE%\Local Settings\Temp NT AUTHORITY\NETWORK SERVICE

LOCAL

(DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=192.158.1.199)(PORT=7525))(CONNE
CT_DATA=(SID=TPCC)))

CLIENT1\Administrator
TEMP %USERPROFILE%\Local Settings\Temp CLIENT1\Administrator
TMP %USERPROFILE%\Local Settings\Temp CLIENT1\Administrator

[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 0 Not Available Not
Available Not

Available Not Available Not Available Not Available
system Not Available 4 8 0 1413120 Not Available Not
Available Not

Available Not Available
smss.exe Not Available 556 11 204800 1413120 9/26/2005 6:11
PM Not

Available Not Available Not Available
csrss.exe Not Available 676 13 Not Available Not Available
9/26/2005 6:11 PM

Not Available Not Available Not Available

```



```

winlogon.exe c:\windows\system32\winlogon.exe 772 13 204800
1413120 9/26/2005
6:11 PM 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 497.00 KB (508,928
bytes) 7/22/2005
1:04 PM
services.exe c:\windows\system32\services.exe 840 9 204800
1413120 9/26/2005
6:11 PM 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 107.50 KB (110,080
bytes) 3/25/2003
11:00 AM
lsass.exe c:\windows\system32\lsass.exe 876 9 204800
1413120 9/26/2005 6:11 PM
5.2.3790.0 (srv03_rtm.030324-2048) 13.00 KB (13,312 bytes)
3/25/2003 11:00 AM
svchost.exe c:\windows\system32\svchost.exe 1088 8 204800
1413120 9/26/2005 6:11 PM
5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 14.00 KB (14,336 bytes)
7/22/2005 1:04 PM
svchost.exe Not Available 1224 8 Not Available Not Available
9/26/2005 6:11 PM
Not Available Not Available Not Available
svchost.exe c:\windows\system32\svchost.exe 1280 8 204800
1413120 9/26/2005 6:11 PM
5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 14.00 KB (14,336 bytes)
7/22/2005 1:04 PM
msdtc.exe Not Available 1640 8 Not Available Not Available
9/26/2005 6:11 PM
Not Available Not Available Not Available
mmmsrv.exe c:\windows\system32\mmmsrv.exe 1868 8 204800
1413120 9/26/2005 6:11 PM
5.2.3790.1830 32.00 KB (32,768 bytes) 7/22/2005 1:04 PM
svchost.exe Not Available 1932 8 Not Available Not Available
9/26/2005 6:11 PM
Not Available Not Available Not Available
rundll32.exe c:\windows\system32\rundll32.exe 1944 8 204800
1413120 9/26/2005
6:11 PM 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 34.00 KB (34,816
bytes) 7/22/2005 1:04 PM
explorer.exe c:\windows\explorer.exe 584 8 204800
1413120 9/26/2005 6:11 PM
6.00.3790.1830 (srv03_sp1_rtm.050324-1447) 1.00 MB (1,050,624 bytes)
7/22/2005 1:04 PM
svchost.exe c:\windows\system32\svchost.exe 708 8 204800
1413120 9/26/2005 6:12 PM

```

```

5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 14.00 KB (14,336 bytes)
7/22/2005 1:04 PM
rhostsrvr.exe c:\rhost\rhostsrvr.exe 132 8 204800 1413120
9/26/2005 6:12 PM Not
Available 54.50 KB (55,808 bytes) 10/20/2004 12:35 PM
svchost.exe c:\windows\system32\svchost.exe 464 8 204800
1413120 9/26/2005 6:12 PM
5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 14.00 KB (14,336 bytes)
7/22/2005 1:04 PM
wmiprvse.exe Not Available 1204 8 Not Available Not Available
9/26/2005 6:13 PM
Not Available Not Available Not Available
csrss.exe Not Available 1904 13 Not Available Not Available
9/26/2005 9:10 PM
Not Available Not Available Not Available
winlogon.exe c:\windows\system32\winlogon.exe 824 13 204800
1413120 9/26/2005
9:10 PM 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 497.00 KB (508,928
bytes) 7/22/2005
1:04 PM
rdpclip.exe c:\windows\system32\rdpclip.exe 1400 8 204800
1413120 9/26/2005 9:10 PM
5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 68.00 KB (69,632 bytes)
7/22/2005 1:04 PM
explorer.exe c:\windows\explorer.exe 1928 8 204800
1413120 9/26/2005 9:10 PM
6.00.3790.1830 (srv03_sp1_rtm.050324-1447) 1.00 MB (1,050,624 bytes)
7/22/2005 1:04 PM
cmd.exe c:\windows\system32\cmd.exe 1740 8 204800 1413120
9/26/2005 9:26 PM
5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 379.00 KB (388,096 bytes)
3/25/2003 11:00 AM
msinfo32.exe c:\program files\common files\microsoft
shared\msinfo\msinfo32.exe 236 8
204800 1413120 9/26/2005 9:26 PM 5.2.3790.1830 (srv03_sp1_rtm.050324-
1447) 42.00 KB
(43,008 bytes) 7/22/2005 1:05 PM
wmiprvse.exe Not Available 1364 8 Not Available Not Available
9/26/2005 9:26 PM
Not Available Not Available Not Available
[Loaded Modules]
Name Version Size File Date Manufacturer Path
winlogon 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 497.00 KB
(508,928 bytes)

```

7/22/2005 1:04 PM Microsoft Corporation
 c:\windows\system32\winlogon.exe
 ntdll 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 748.50 KB (766,464 bytes) 3/25/2003

11:00 AM Microsoft Corporation c:\windows\system32\ntdll.dll
 kernel32 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 1,014.00 KB (1,038,336 bytes)

7/22/2005 1:04 PM Microsoft Corporation
 c:\windows\system32\kernel32.dll
 advapi32 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 605.50 KB (620,032 bytes)

3/25/2003 11:00 AM Microsoft Corporation
 c:\windows\system32\advapi32.dll
 rpcrt4 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 627.00 KB (642,048 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\rpcrt4.dll
 crypt32 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 582.00 KB (595,968 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\crypt32.dll
 msasn1 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 56.50 KB (57,856 bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\msasn1.dll
 msvcrt 7.0.3790.1830 (srv03_sp1_rtm.050324-1447) 340.50 KB (348,672 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\msvcrt.dll
 user32 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 574.50 KB (588,288 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\user32.dll
 gdi32 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 273.00 KB (279,552 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\gdi32.dll
 nddeapi 5.2.3790.0 (srv03_rtm.030324-2048) 16.00 KB (16,384 bytes) 3/25/2003 11:00 AM

Microsoft Corporation c:\windows\system32\nddeapi.dll
 profmap 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 22.50 KB (23,040 bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\profmap.dll
 netapi32 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 341.50 KB (349,696 bytes)

7/22/2005 1:04 PM Microsoft Corporation
 c:\windows\system32\netapi32.dll
 userenv 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 771.00 KB (789,504 bytes) 3/25/2003

11:00 AM Microsoft Corporation c:\windows\system32\userenv.dll

psapi 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 20.00 KB (20,480 bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\psapi.dll
 regapi 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 55.00 KB (56,320 bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\regapi.dll
 secur32 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 64.00 KB (65,536 bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\secur32.dll
 setupapi 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 1.03 MB (1,079,808 bytes)

3/25/2003 11:00 AM Microsoft Corporation
 c:\windows\system32\setupapi.dll
 version 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 18.00 KB (18,432 bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\version.dll
 winsta 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 54.50 KB (55,808 bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\winsta.dll
 ws2_32 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 82.00 KB (83,968 bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\ws2_32.dll
 ws2help 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 19.50 KB (19,968 bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\ws2help.dll
 msgina 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 1.16 MB (1,211,904 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\msgina.dll
 shsvcs 6.00.3790.1830 (srv03_sp1_rtm.050324-1447) 131.50 KB (134,656 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\shsvcs.dll
 shlwapi 6.00.3790.1830 (srv03_sp1_rtm.050324-1447) 313.50 KB (321,024 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\shlwapi.dll
 sfc 5.2.3790.0 (srv03_rtm.030324-2048) 4.50 KB (4,608 bytes) 3/25/2003 11:00 AM

Microsoft Corporation c:\windows\system32\sfc.dll
 sfc_os 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 138.00 KB (141,312 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\sfc_os.dll
 wintrust 5.131.3790.1830 (srv03_sp1_rtm.050324-1447) 162.00 KB (165,888 bytes)

7/22/2005 1:04 PM Microsoft Corporation
 c:\windows\system32\wintrust.dll

imagehlp 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 145.50 KB (148,992 bytes)

3/25/2003 11:00 AM Microsoft Corporation
c:\windows\system32\imagehlp.dll

ole32 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 1.19 MB (1,245,184 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\ole32.dll
comctl32 6.0 (srv03_sp1_rtm.050324-1447) 1.00 MB (1,051,136 bytes) 3/24/2005 8:41 PM

Microsoft Corporation
c:\windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_6.0.3790.1830_x-ww_7ae38ccf

\comctl32.dll
wincard 5.2.3790.0 (srv03_rtm.030324-2048) 98.50 KB (100,864 bytes) 3/25/2003

11:00 AM Microsoft Corporation c:\windows\system32\wincard.dll

wtsapi32 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 19.00 KB (19,456 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\wtsapi32.dll
winmm 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 172.50 KB (176,640 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\winmm.dll
sxs 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 743.50 KB (761,344 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\sxs.dll
shell32 6.00.3790.1830 (srv03_sp1_rtm.050324-1447) 7.99 MB (8,379,392 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\shell32.dll
wldap32 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 174.50 KB (178,688 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\wldap32.dll
cscdll 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 100.00 KB (102,400 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\cscdll.dll
dimsntfy 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 19.00 KB (19,456 bytes) 7/22/2005

1:07 PM Microsoft Corporation c:\windows\system32\dimsntfy.dll
rsaenh 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 183.98 KB (188,392 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\rsaenh.dll
wlnotify 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 94.50 KB (96,768 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\wlnotify.dll

mpr 5.2.3790.0 (srv03_rtm.030324-2048) 56.00 KB (57,344 bytes) 3/25/2003 11:00 AM

Microsoft Corporation c:\windows\system32\mpr.dll

oleaut32 5.2.3790.1830 543.00 KB (556,032 bytes) 3/25/2003 11:00 AM Microsoft Corporation

c:\windows\system32\oleaut32.dll

winspool 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 147.00 KB (150,528 bytes)

3/25/2003 11:00 AM Microsoft Corporation
c:\windows\system32\winspool.drv

comctl32 5.82 (srv03_sp1_rtm.050324-1447) 585.00 KB (599,040 bytes) 3/24/2005

8:41 PM Microsoft Corporation

c:\windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_5.82.3790.1830_x-ww_1b6f474

a\comctl32.dll
uxtheme 6.00.3790.1830 (srv03_sp1_rtm.050324-1447) 202.00 KB (206,848 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\uxtheme.dll
samlib 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 46.50 KB (47,616 bytes) 3/25/2003 11:00 AM

Microsoft Corporation c:\windows\system32\samlib.dll
cscui 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 319.50 KB (327,168 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\cscui.dll
clbcatq 2001.12.4720.1830 (srv03_sp1_rtm.050324-1447) 502.50 KB (514,560 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\clbcatq.dll
comres 2001.12.4720.0 (srv03_rtm.030324-2048) 778.00 KB (796,672 bytes) 3/25/2003 11:00 AM

Microsoft Corporation c:\windows\system32\comres.dll
ntmarta 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 120.50 KB (123,392 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\ntmarta.dll
xpsp2res 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 2.76 MB (2,897,920 bytes)

7/22/2005 1:07 PM Microsoft Corporation
c:\windows\system32\xpsp2res.dll

wbemprox 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 20.50 KB (20,992 bytes) 7/22/2005

1:05 PM Microsoft Corporation c:\windows\system32\wbem\wbemprox.dll
wbemcomn 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 221.00 KB (226,304 bytes)

7/22/2005 1:05 PM Microsoft Corporation
 c:\windows\system32\wbem\wbemcomn.dll
 wbemsvc 5.2.3790.0 (srv03_rtm.030324-2048) 42.50 KB (43,520 bytes)
 10/19/2004 7:46 PM

Microsoft Corporation c:\windows\system32\wbem\wbemsvc.dll
 fastprox 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 471.00 KB
 (482,304 bytes)

7/22/2005 1:05 PM Microsoft Corporation
 c:\windows\system32\wbem\fastprox.dll
 msvcp60 6.05.2144.0 388.00 KB (397,312 bytes) 3/25/2003 11:00 AM
 Microsoft

Corporation c:\windows\system32\msvcp60.dll
 ntdsapi 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 71.00 KB (72,704
 bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\ntdsapi.dll
 dnsapi 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 153.50 KB (157,184
 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\dnsapi.dll
 services 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 107.50 KB
 (110,080 bytes)

3/25/2003 11:00 AM Microsoft Corporation
 c:\windows\system32\services.exe
 ncobjapi 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 36.00 KB
 (36,864 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\ncobjapi.dll
 scesrv 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 327.00 KB (334,848
 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\scesrv.dll
 authz 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 66.50 KB (68,096
 bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\authz.dll
 umpnpgmr 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 126.50 KB
 (129,536 bytes)

7/22/2005 1:04 PM Microsoft Corporation
 c:\windows\system32\umpnpgmr.dll
 eventlog 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 67.50 KB
 (69,120 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\eventlog.dll
 lsass 5.2.3790.0 (srv03_rtm.030324-2048) 13.00 KB (13,312 bytes)
 3/25/2003 11:00 AM

Microsoft Corporation c:\windows\system32\lsass.exe
 lsasrv 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 803.00 KB (822,272
 bytes) 3/25/2003

11:00 AM Microsoft Corporation c:\windows\system32\lsasrv.dll

samsrv 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 450.50 KB (461,312
 bytes) 3/25/2003

11:00 AM Microsoft Corporation c:\windows\system32\samsrv.dll

cryptdll 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 32.00 KB
 (32,768 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\cryptdll.dll
 msprivs 5.2.3790.0 (srv03_rtm.030324-2048) 46.50 KB (47,616 bytes)
 3/25/2003 11:00 AM

Microsoft Corporation c:\windows\system32\msprivs.dll
 kerberos 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 340.50 KB
 (348,672 bytes)

7/22/2005 1:04 PM Microsoft Corporation
 c:\windows\system32\kerberos.dll
 msv1_0 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 141.00 KB (144,384
 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\msv1_0.dll
 iphlpapi 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 92.50 KB
 (94,720 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\iphlpapi.dll
 netlogon 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 409.50 KB
 (419,328 bytes)

7/22/2005 1:04 PM Microsoft Corporation
 c:\windows\system32\netlogon.dll
 w32time 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 222.00 KB (227,328
 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\w32time.dll
 schannel 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 141.00 KB
 (144,384 bytes)

7/22/2005 1:04 PM Microsoft Corporation
 c:\windows\system32\schannel.dll
 wdigest 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 74.00 KB (75,776
 bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\wdigest.dll
 rassfm 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 23.00 KB (23,552
 bytes) 7/22/2005 1:05 PM

Microsoft Corporation c:\windows\system32\rassfm.dll
 kdcsvc 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 213.50 KB (218,624
 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\kdcsvc.dll
 ntdsa 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 1.45 MB (1,516,032
 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\ntdsa.dll
 esent 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 1,022.50 KB
 (1,047,040 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\esent.dll
ntdsatq 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 29.50 KB (30,208 bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\ntdsatq.dll
mwsoc 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 250.50 KB (256,512 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\mwsoc.dll
scecli 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 186.50 KB (190,976 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\scecli.dll
ws03res 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 793.50 KB (812,544 bytes) 7/22/2005

1:07 PM Microsoft Corporation c:\windows\system32\ws03res.dll
pstorsvc 5.2.3790.0 (srv03_rtm.030324-2048) 24.00 KB (24,576 bytes) 3/25/2003 11:00 AM

Microsoft Corporation c:\windows\system32\pstorsvc.dll
psbase 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 84.00 KB (86,016 bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\psbase.dll
dssenh 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 139.98 KB (143,336 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\dssenh.dll
cryptnet 5.131.3790.1830 (srv03_sp1_rtm.050324-1447) 61.00 KB (62,464 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\cryptnet.dll
sensapi 5.2.3790.0 (srv03_rtm.030324-2048) 6.00 KB (6,144 bytes) 3/25/2003 11:00 AM

Microsoft Corporation c:\windows\system32\sensapi.dll
hnetcfg 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 343.50 KB (351,744 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\hnetcfg.dll
wshtcpip 5.2.3790.0 (srv03_rtm.030324-2048) 18.00 KB (18,432 bytes) 3/25/2003 11:00 AM

Microsoft Corporation c:\windows\system32\wshtcpip.dll
svchost 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 14.00 KB (14,336 bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\svchost.exe
rpcss 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 406.00 KB (415,744 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\rpcss.dll
wkssvc 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 130.00 KB (133,120 bytes) 3/25/2003

11:00 AM Microsoft Corporation c:\windows\system32\wkssvc.dll

wiarp 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 32.50 KB (33,280 bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\wiarp.dll
aelupsvc 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 26.00 KB (26,624 bytes) 7/22/2005

1:07 PM Microsoft Corporation c:\windows\system32\aelupsvc.dll
apphelp 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 146.50 KB (150,016 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\apphelp.dll
dmserver 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 25.50 KB (26,112 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\dmserver.dll
es 2001.12.4720.1830 (srv03_sp1_rtm.050324-1447) 233.00 KB (238,592 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\es.dll
pchsvc 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 39.00 KB (39,936 bytes) 7/22/2005 1:05 PM

Microsoft Corporation c:\windows\pchealth\helpctr\binaries\pchsvc.dll
srsv 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 93.50 KB (95,744 bytes) 3/25/2003 11:00 AM

Microsoft Corporation c:\windows\system32\srsv.dll
seclogon 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 18.50 KB (18,944 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\seclogon.dll
sens 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 36.50 KB (37,376 bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\sens.dll
wmisvc 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 140.00 KB (143,360 bytes) 7/22/2005

1:05 PM Microsoft Corporation c:\windows\system32\wbem\wmisvc.dll
vssapi 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 548.00 KB (561,152 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\vssapi.dll
atl 3.05.2283 83.00 KB (84,992 bytes) 3/25/2003 11:00 AM
Microsoft Corporation

c:\windows\system32\atl.dll
comsvcs 2001.12.4720.1830 (srv03_sp1_rtm.050324-1447) 1.19 MB (1,248,256 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\comsvcs.dll
netman 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 258.50 KB (264,704 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\netman.dll

mprapi 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 89.00 KB (91,136 bytes) 7/22/2005 1:04 PM
 Microsoft Corporation c:\windows\system32\mprapi.dll
 activeds 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 194.00 KB (198,656 bytes)
 7/22/2005 1:04 PM Microsoft Corporation
 c:\windows\system32\activeds.dll
 adslrpc 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 146.00 KB (149,504 bytes) 7/22/2005
 1:04 PM Microsoft Corporation c:\windows\system32\adslrpc.dll
 credui 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 162.00 KB (165,888 bytes) 7/22/2005
 1:04 PM Microsoft Corporation c:\windows\system32\credui.dll
 rtutils 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 34.50 KB (35,328 bytes) 7/22/2005 1:04 PM
 Microsoft Corporation c:\windows\system32\rtutils.dll
 netshell 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 1.73 MB (1,812,992 bytes)
 7/22/2005 1:04 PM Microsoft Corporation
 c:\windows\system32\netshell.dll
 clusapi 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 60.00 KB (61,440 bytes) 7/22/2005 1:04 PM
 Microsoft Corporation c:\windows\system32\clusapi.dll
 rasapi32 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 239.50 KB (245,248 bytes)
 3/25/2003 11:00 AM Microsoft Corporation
 c:\windows\system32\rasapi32.dll
 rasman 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 61.50 KB (62,976 bytes) 3/25/2003 11:00 AM
 Microsoft Corporation c:\windows\system32\rasman.dll
 tapi32 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 179.50 KB (183,808 bytes) 7/22/2005
 1:04 PM Microsoft Corporation c:\windows\system32\tapi32.dll
 wininet 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 646.00 KB (661,504 bytes) 7/22/2005
 1:04 PM Microsoft Corporation c:\windows\system32\wininet.dll
 wzcsapi 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 41.00 KB (41,984 bytes) 7/22/2005 1:04 PM
 Microsoft Corporation c:\windows\system32\wzcsapi.dll
 wzcsvc 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 364.50 KB (373,248 bytes) 7/22/2005
 1:04 PM Microsoft Corporation c:\windows\system32\wzcsvc.dll
 wmi 5.2.3790.0 (srv03_rtm.030324-2048) 6.50 KB (6,656 bytes) 3/25/2003 11:00 AM
 Microsoft Corporation c:\windows\system32\wmi.dll

dhcpcsvc 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 113.50 KB (116,224 bytes)
 3/25/2003 11:00 AM Microsoft Corporation
 c:\windows\system32\dhcpcsvc.dll
 netcfgx 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 763.00 KB (781,312 bytes) 7/22/2005
 1:04 PM Microsoft Corporation c:\windows\system32\netcfgx.dll
 winipsec 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 35.50 KB (36,352 bytes) 7/22/2005
 1:04 PM Microsoft Corporation c:\windows\system32\winipsec.dll
 wbemcore 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 497.50 KB (509,440 bytes)
 7/22/2005 1:05 PM Microsoft Corporation
 c:\windows\system32\wbem\wbemcore.dll
 esscli 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 250.00 KB (256,000 bytes) 7/22/2005
 1:05 PM Microsoft Corporation c:\windows\system32\wbem\esscli.dll
 wmiutils 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 93.50 KB (95,744 bytes) 7/22/2005
 1:05 PM Microsoft Corporation c:\windows\system32\wbem\wmiutils.dll
 repdrvfs 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 172.50 KB (176,640 bytes)
 7/22/2005 1:05 PM Microsoft Corporation
 c:\windows\system32\wbem\repdrvfs.dll
 wmiiprsvd 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 404.00 KB (413,696 bytes)
 7/22/2005 1:05 PM Microsoft Corporation
 c:\windows\system32\wbem\wmiiprsvd.dll
 wbemess 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 271.50 KB (278,016 bytes) 7/22/2005
 1:05 PM Microsoft Corporation c:\windows\system32\wbem\wbemess.dll
 rasmans 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 176.00 KB (180,224 bytes) 7/22/2005
 1:04 PM Microsoft Corporation c:\windows\system32\rasmans.dll
 rastapi 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 62.00 KB (63,488 bytes) 3/25/2003 11:00 AM
 Microsoft Corporation c:\windows\system32\rastapi.dll
 rasppp 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 205.00 KB (209,920 bytes) 7/22/2005
 1:04 PM Microsoft Corporation c:\windows\system32\rasppp.dll
 ntlsap 5.2.3790.0 (srv03_rtm.030324-2048) 8.00 KB (8,192 bytes) 3/25/2003 11:00 AM
 Microsoft Corporation c:\windows\system32\ntlsapi.dll
 raschap 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 119.50 KB (122,368 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\raschap.dll
rastls 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 180.00 KB (184,320 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\rastls.dll
cryptui 5.131.3790.1830 (srv03_sp1_rtm.050324-1447) 496.50 KB (508,416 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\cryptui.dll
ipbootp 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 36.00 KB (36,864 bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\ipbootp.dll
rasdlg 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 663.00 KB (678,912 bytes) 3/25/2003

11:00 AM Microsoft Corporation c:\windows\system32\rasdlg.dll
rasadhlp 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 7.50 KB (7,680 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\rasadhlp.dll
ncprov 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 46.50 KB (47,616 bytes) 7/22/2005 1:05 PM

Microsoft Corporation c:\windows\system32\wbem\ncprov.dll
actxprxy 6.00.3790.1830 (srv03_sp1_rtm.050324-1447) 96.50 KB (98,816 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\actxprxy.dll
mnmsrvc 5.2.3790.1830 32.00 KB (32,768 bytes) 7/22/2005 1:04 PM
Microsoft Corporation

c:\windows\system32\mnmsrvc.exe
nmcom 5.2.3790.1830 76.00 KB (77,824 bytes) 7/22/2005 1:05 PM
Microsoft Corporation

c:\program files\netmeeting\nmcom.dll
wssock32 5.2.3790.0 (srv03_rtm.030324-2048) 22.00 KB (22,528 bytes) 3/25/2003 11:00 AM

Microsoft Corporation c:\windows\system32\wssock32.dll
mst120 5.2.3790.1830 268.00 KB (274,432 bytes) 7/22/2005 1:05 PM
Microsoft

Corporation c:\program files\netmeeting\mst120.dll
nmas 5.2.3790.1830 224.00 KB (229,376 bytes) 7/22/2005 1:05 PM
Microsoft

Corporation c:\program files\netmeeting\nmas.dll
nmasnt 5.2.3790.1830 28.00 KB (28,672 bytes) 7/22/2005 1:05 PM
Microsoft Corporation

c:\program files\netmeeting\nmasnt.dll
h323cc 5.2.3790.1830 56.00 KB (57,344 bytes) 7/22/2005 1:05 PM
Microsoft Corporation

c:\program files\netmeeting\h323cc.dll

callcont 5.2.3790.1830 376.00 KB (385,024 bytes) 7/22/2005 1:05 PM
Microsoft

Corporation c:\program files\netmeeting\callcont.dll
nac 5.2.3790.1830 216.00 KB (221,184 bytes) 7/22/2005 1:05 PM
Microsoft

Corporation c:\program files\netmeeting\nac.dll
msacm32 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 69.50 KB (71,168 bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\msacm32.dll
msvfw32 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 117.00 KB (119,808 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\msvfw32.dll
dcap32 5.2.3790.1830 40.00 KB (40,960 bytes) 7/22/2005 1:05 PM
Microsoft Corporation

c:\program files\netmeeting\dcap32.dll
winrnr 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 17.00 KB (17,408 bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\winrnr.dll
rundll32 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 34.00 KB (34,816 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\rundll32.exe
msconf 5.2.3790.1830 72.00 KB (73,728 bytes) 7/22/2005 1:04 PM
Microsoft Corporation

c:\windows\system32\msconf.dll
explorer 6.00.3790.1830 (srv03_sp1_rtm.050324-1447) 1.00 MB (1,050,624 bytes)

7/22/2005 1:04 PM Microsoft Corporation c:\windows\explorer.exe

browseui 6.00.3790.1830 (srv03_sp1_rtm.050324-1447) 1,009.00 KB (1,033,216 bytes) 7/22/2005 1:04 PM
Microsoft Corporation

c:\windows\system32\browseui.dll
shdocvw 6.00.3790.1830 (srv03_sp1_rtm.050324-1447) 1.43 MB (1,502,720 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\shdocvw.dll
themeui 6.00.3790.1830 (srv03_sp1_rtm.050324-1447) 377.50 KB (386,560 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\themeui.dll
msimg32 5.2.3790.0 (srv03_rtm.030324-2048) 4.50 KB (4,608 bytes) 3/25/2003 11:00 AM

Microsoft Corporation c:\windows\system32\msimg32.dll
urlmon 6.00.3790.1830 (srv03_sp1_rtm.050324-1447) 673.00 KB (689,152 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\urlmon.dll

```

linkinfo      5.2.3790.1830 (srv03_sp1_rtm.050324-1447)    19.00 KB
(19,456 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\linkinfo.dll
ntshrui 6.00.3790.1830 (srv03_sp1_rtm.050324-1447)    140.00 KB (143,360
bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\ntshrui.dll
webcheck     6.00.3790.1830 (srv03_sp1_rtm.050324-1447)    272.50 KB
(279,040 bytes)

7/22/2005 1:04 PM      Microsoft Corporation
c:\windows\system32\webcheck.dll
stobject     5.2.3790.1830 (srv03_sp1_rtm.050324-1447)    120.50 KB
(123,392 bytes)

7/22/2005 1:04 PM      Microsoft Corporation
c:\windows\system32\stobject.dll
batmeter     6.00.3790.1830 (srv03_sp1_rtm.050324-1447)    31.50 KB
(32,256 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\batmeter.dll
powrprof     6.00.3790.1830 (srv03_sp1_rtm.050324-1447)    16.50 KB
(16,896 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\powrprof.dll
drprov 5.2.3790.1830 (srv03_sp1_rtm.050324-1447)    14.00 KB (14,336
bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\drprov.dll
ntlanman     5.2.3790.1830 (srv03_sp1_rtm.050324-1447)    43.50 KB
(44,544 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\ntlanman.dll
netui0 5.2.3790.0 (srv03_rtm.030324-2048)    75.50 KB (77,312 bytes)
3/25/2003 11:00 AM

Microsoft Corporation c:\windows\system32\netui0.dll
netui1 5.2.3790.0 (srv03_rtm.030324-2048)    184.00 KB (188,416 bytes)
3/25/2003 11:00 AM

Microsoft Corporation c:\windows\system32\netui1.dll
davclnt 5.2.3790.0 (srv03_rtm.030324-2048)    23.50 KB (24,064 bytes)
3/25/2003 11:00 AM

Microsoft Corporation c:\windows\system32\davclnt.dll
termsrv 5.2.3790.1830 (srv03_sp1_rtm.050324-1447)    239.00 KB (244,736
bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\termsrv.dll
icaapi 5.2.3790.1830 (srv03_sp1_rtm.050324-1447)    12.50 KB (12,800
bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\icaapi.dll
mstlsapi     5.2.3790.1830 (srv03_sp1_rtm.050324-1447)    116.00 KB
(118,784 bytes)

7/22/2005 1:04 PM      Microsoft Corporation
c:\windows\system32\mstlsapi.dll

```

```

rdpwsx 5.2.3790.1830 (srv03_sp1_rtm.050324-1447)    101.63 KB (104,072
bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\rdpwsx.dll
rhostsrv     Not Available 54.50 KB (55,808 bytes)    10/20/2004
12:35 PM     Not Available

c:\rhost\rhostsrv.exe
tapisrv 5.2.3790.1830 (srv03_sp1_rtm.050324-1447)    248.50 KB (254,464
bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\tapisrv.dll
unimdm 5.2.3790.1830 (srv03_sp1_rtm.050324-1447)    203.00 KB (207,872
bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\unimdm.tsp
uniplat 5.2.3790.1830 (srv03_sp1_rtm.050324-1447)    13.00 KB (13,312
bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\uniplat.dll
kmddsp 5.2.3790.1830 (srv03_sp1_rtm.050324-1447)    34.50 KB (35,328
bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\kmddsp.tsp
ndptsp 5.2.3790.1830 (srv03_sp1_rtm.050324-1447)    47.00 KB (48,128
bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\ndptsp.tsp
ipconf 5.2.3790.0 (srv03_rtm.030324-2048)    16.50 KB (16,896 bytes)
3/25/2003 11:00 AM

Microsoft Corporation c:\windows\system32\ipconf.tsp
h323 5.2.3790.1830 (srv03_sp1_rtm.050324-1447)    259.50 KB (265,728
bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\h323.tsp
hidphone     5.2.3790.1830 (srv03_sp1_rtm.050324-1447)    29.50 KB
(30,208 bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\hidphone.tsp
hid 5.2.3790.1830 (srv03_sp1_rtm.050324-1447)    18.50 KB (18,944
bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\hid.dll
rdpsnd 5.2.3790.0 (srv03_rtm.030324-2048)    18.00 KB (18,432 bytes)
3/25/2003 11:00 AM

Microsoft Corporation c:\windows\system32\rdpsnd.dll
scredir 5.2.3790.1830 (srv03_sp1_rtm.050324-1447)    28.00 KB (28,672
bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\scredir.dll
msacm32 5.2.3790.1830 (srv03_sp1_rtm.050324-1447)    22.00 KB (22,528
bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\msacm32.drv
imaadp32     5.2.3790.0 (srv03_rtm.030324-2048)    15.50 KB (15,872
bytes) 3/25/2003 11:00 AM

```



```

Microsoft Corporation c:\windows\system32\imaadp32.acm
msadp32 5.2.3790.0 (srv03_rtm.030324-2048) 14.50 KB (14,848 bytes)
3/25/2003 11:00 AM

Microsoft Corporation c:\windows\system32\msadp32.acm
msg711 5.2.3790.0 (srv03_rtm.030324-2048) 10.00 KB (10,240 bytes)
3/25/2003 11:00 AM

Microsoft Corporation c:\windows\system32\msg711.acm
msgsm32 5.2.3790.0 (srv03_rtm.030324-2048) 20.50 KB (20,992 bytes)
3/25/2003 11:00 AM

Microsoft Corporation c:\windows\system32\msgsm32.acm
tssoft32 1.01 9.50 KB (9,728 bytes) 3/25/2003 11:00 AM DSP
GROUP, INC.

c:\windows\system32\tssoft32.acm
tsd32 1.03 16.50 KB (16,896 bytes) 3/25/2003 11:00 AM DSP
GROUP, INC.

c:\windows\system32\tsd32.dll
msg723 5.2.3790.1830 120.00 KB (122,880 bytes) 7/22/2005 1:04 PM
Microsoft

Corporation c:\windows\system32\msg723.acm
msaud32 8.00.00.4487 288.00 KB (294,912 bytes) 3/25/2003 11:00 AM
Microsoft

Corporation c:\windows\system32\msaud32.acm
sl_anet 3.02 84.00 KB (86,016 bytes) 3/25/2003 11:00 AM Sipro
Lab Telecom Inc.

c:\windows\system32\sl_anet.acm
l3codeca 1, 9, 0, 0305 284.00 KB (290,816 bytes) 3/25/2003
11:00 AM Fraunhofer

Institut Integrierte Schaltungen IIS c:\windows\system32\l3codeca.acm

rdpclip 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 68.00 KB (69,632
bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\rdpclip.exe
cmd 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 379.00 KB (388,096
bytes) 3/25/2003

11:00 AM Microsoft Corporation c:\windows\system32\cmd.exe
msinfo32 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 42.00 KB
(43,008 bytes) 7/22/2005

1:05 PM Microsoft Corporation c:\program files\common files\microsoft
shared\msinfo\msinfo32.exe
mfc42u 6.06.8063.0 1.11 MB (1,163,776 bytes) 7/22/2005 1:04 PM
Microsoft

Corporation c:\windows\system32\mfc42u.dll
odbc32 3.526.1830.0 (srv03_sp1_rtm.050324-1447) 240.00 KB (245,760
bytes) 7/22/2005

1:04 PM Microsoft Corporation c:\windows\system32\odbc32.dll

```

```

comdlg32 6.00.3790.1830 (srv03_sp1_rtm.050324-1447) 274.50 KB
(281,088 bytes)

3/25/2003 11:00 AM Microsoft Corporation
c:\windows\system32\comdlg32.dll
odbcint 3.526.1830.0 (srv03_sp1_rtm.050324-1447) 92.00 KB (94,208
bytes) 7/22/2005 1:04 PM

Microsoft Corporation c:\windows\system32\odbcint.dll
msinfo 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 376.00 KB (385,024
bytes) 7/22/2005

1:05 PM Microsoft Corporation
c:\windows\pchealth\helpctr\binaries\msinfo.dll
riched32 5.2.3790.0 (srv03_rtm.030324-2048) 3.50 KB (3,584 bytes)
3/25/2003 11:00 AM

Microsoft Corporation c:\windows\system32\riched32.dll
riched20 5.31.23.1224 439.00 KB (449,536 bytes) 7/22/2005 1:04
PM Microsoft

Corporation c:\windows\system32\riched20.dll

[Services]

Display Name Name State Start Mode Service Type Path Error
Control Start Name

Tag ID
Application Experience Lookup Service AeLookupSvc Running Auto Share
Process

c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

Alerter Alerter Stopped Disabled Share Process
c:\windows\system32\svchost.exe -k

localservice Normal NT AUTHORITY\LocalService 0
Application Layer Gateway Service ALG Stopped Manual Own Process

c:\windows\system32\alg.exe Normal NT AUTHORITY\LocalService 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\framework\v2.0.50727\aspnet_state.exe Normal
NT AUTHORITY\NetworkService

0
Windows Audio AudioSrv Stopped Disabled Share Process

c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

```

```

Background Intelligent Transfer Service BITS Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

Computer Browser Browser Stopped Manual Share Process
c:\windows\system32\svchost.exe -k

netsvcs Normal LocalSystem 0
Indexing Service CiSvc Stopped Disabled Share Process

c:\windows\system32\cisvc.exe Normal LocalSystem 0
ClipBook ClipSrv Stopped Disabled Own Process
c:\windows\system32\clipsrv.exe

Normal LocalSystem 0
.NET Runtime Optimization Service v2.0.50727_X86
clr_optimization_v2.0.50727_32 Stopped

Manual Own Process
c:\windows\microsoft.net\framework\v2.0.50727\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
Cryptographic Services CryptSvc Stopped Manual Share Process

c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

DCOM Server Process Launcher DcomLaunch Running Auto Share Process

c:\windows\system32\svchost.exe -k dcomlaunch Normal LocalSystem 0

Distributed File System Dfs Stopped Disabled Own Process

c:\windows\system32\dfssvc.exe Normal LocalSystem 0
DHCP Client Dhcp Stopped Disabled Share Process
c:\windows\system32\svchost.exe -k

networkservice Normal NT AUTHORITY\NetworkService 0
Logical Disk Manager Administrative Service dmadm Stopped Manual Share Process

c:\windows\system32\dmadmin.exe /com Normal LocalSystem 0
Logical Disk Manager dmserver Running Auto Share Process

c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

DNS Client Dnscache Stopped Disabled Share Process

```

```

c:\windows\system32\svchost.exe -k networkservice Normal NT AUTHORITY\NetworkService 0
Error Reporting Service ERSvc Stopped Manual Share Process
c:\windows\system32\svchost.exe -k

winerr Ignore LocalSystem 0
Event Log Eventlog Running Auto Share Process
c:\windows\system32\services.exe

Normal LocalSystem 0
COM+ Event System EventSystem Running Auto Share Process

c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

Help and Support helpsvc Running Auto Share Process
c:\windows\system32\svchost.exe -k

netsvcs Normal LocalSystem 0
Human Interface Device Access HidServ Stopped Disabled Share Process

c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

HTTP SSL HTTPFilter Stopped Manual Share Process
c:\windows\system32\lsass.exe

Normal LocalSystem 0
IIS Admin Service IISADMIN Stopped Manual Share Process

c:\windows\system32\inetsrv\inetinfo.exe Normal LocalSystem 0

IMAPI CD-Burning COM Service ImapiService Stopped Disabled Own Process

c:\windows\system32\imapi.exe Normal LocalSystem 0
Intersite Messaging IsmServ Stopped Disabled Own Process

c:\windows\system32\ismserv.exe Normal LocalSystem 0
Kerberos Key Distribution Center kdc Stopped Disabled Share Process

c:\windows\system32\lsass.exe Normal LocalSystem 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 netsvcs Normal LocalSystem 0

License Logging LicenseService Stopped Disabled Own Process

c:\windows\system32\llssrv.exe Normal NT AUTHORITY\NetworkService 0
TCP/IP NetBIOS Helper LmHosts Stopped Manual Share Process
c:\windows\system32\svchost.exe -k

localservice Normal NT AUTHORITY\LocalService 0

```

```

Messenger      Messenger      Stopped Disabled      Share Process
c:\windows\system32\svchost.exe -k netsvcs      Normal LocalSystem      0
NetMeeting Remote Desktop Sharing      mnmsrvc Running Auto      Own Process

c:\windows\system32\mnmsrvc.exe      Normal LocalSystem      0
Distributed Transaction Coordinator      MSDTC Running Auto      Own Process

c:\windows\system32\msdtc.exe Normal NT AUTHORITY\NetworkService      0
Windows Installer      MSIServer      Stopped Manual      Share Process

c:\windows\system32\msiexec.exe /v      Normal LocalSystem      0
Network DDE      NetDDE Stopped Disabled      Share Process
c:\windows\system32\netdde.exe

Normal LocalSystem      0
Network DDE DSDM      NetDDEdsdm      Stopped Disabled      Share Process

c:\windows\system32\netdde.exe      Normal LocalSystem      0
Net Logon      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

netsvcs Normal LocalSystem      0
Network Location Awareness (NLA)      Nla      Running Manual      Share Process

c:\windows\system32\svchost.exe -k netsvcs      Normal LocalSystem      0
File Replication      NtFrs      Stopped Manual      Own Process
c:\windows\system32\ntfrs.exe

Ignore LocalSystem      0
NT LM Security Support Provider      NtLmSsp Stopped Manual      Share Process

c:\windows\system32\lsass.exe Normal LocalSystem      0
Removable Storage      NtmsSvc Stopped Manual      Share Process
c:\windows\system32\svchost.exe -k

netsvcs Normal LocalSystem      0
Plug and Play      PlugPlay      Running Auto      Share Process
c:\windows\system32\services.exe

Normal LocalSystem      0
IPSEC Services PolicyAgent      Stopped Manual      Share Process
c:\windows\system32\lsass.exe

Normal LocalSystem      0

```

```

Protected Storage      ProtectedStorage      Running Auto      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 Running Manual      Share Process

c:\windows\system32\svchost.exe -k netsvcs      Normal LocalSystem      0
Remote Desktop Help Session Manager      RDSessMgr      Stopped Manual      Own Process

c:\windows\system32\sessmgr.exe      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
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\scardsvr.exe

Ignore NT AUTHORITY\LocalService      0
Task Scheduler Schedule      Stopped Manual      Share Process
c:\windows\system32\svchost.exe -k

netsvcs Normal LocalSystem      0
Secondary Logon      seclogon      Running Auto      Share Process
c:\windows\system32\svchost.exe -k

```

```

netsvcs Ignore LocalSystem 0
System Event Notification SENS Running Auto Share Process

c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

Windows Firewall/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

Print Spooler Spooler Stopped Manual Own Process
c:\windows\system32\spoolsv.exe Normal

LocalSystem 0
Windows Image Acquisition (WIA) stisvc Stopped Disabled Share
Process

c:\windows\system32\svchost.exe -k imgsvc 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

Performance Logs and Alerts SysmonLog Stopped Manual Own Process

c:\windows\system32\smlogsvc.exe Normal NT Authority\NetworkService
0
Telephony Tapisrv Running Manual Share Process
c:\windows\system32\svchost.exe -k tapisrv

Normal LocalSystem 0
Terminal Services TermService Running Manual Share Process

c:\windows\system32\svchost.exe -k termsvcs Normal LocalSystem 0

Themes Themes Stopped Disabled Share Process
c:\windows\system32\svchost.exe -k netsvcs

Normal LocalSystem 0
Telnet TlntSvr Stopped Disabled Own Process
c:\windows\system32\tlntsvr.exe Normal NT

AUTHORITY\LocalService 0
Distributed Link Tracking Server TrkSvr Stopped Disabled Share
Process

c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

Distributed Link Tracking Client TrkWks Stopped Disabled Share
Process

```

```

c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0
Terminal Services Session Directory Tssdis Stopped Disabled Own
Process

c:\windows\system32\tssdis.exe Normal LocalSystem 0
Windows User Mode Driver Framework UMWdf Stopped Manual Own Process

c:\windows\system32\wdfmgr.exe Normal NT AUTHORITY\LocalService
0
Upload Manager uploadmgr Stopped Manual Share Process
c:\windows\system32\svchost.exe -k

netsvcs Normal LocalSystem 0
Uninterruptible Power Supply UPS Stopped Manual Own Process
c:\windows\system32\ups.exe

Normal LocalSystem 0
Virtual Disk Service 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
World Wide Web Publishing Service W3SVC Stopped Manual Share Process

c:\windows\system32\svchost.exe -k iissvcs Normal LocalSystem 0

WebClient WebClient Stopped Disabled Share Process

c:\windows\system32\svchost.exe -k localservice Normal NT
AUTHORITY\LocalService 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

Portable Media Serial Number Service WmdmPmSN Stopped Manual Share
Process

c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

Windows Management Instrumentation Driver Extensions Wmi Stopped Manual
Share Process

```

```

c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0
WMI Performance Adapter WmiApSrv Stopped Manual Own Process

c:\windows\system32\wbem\wmiapsrv.exe Normal LocalSystem 0
Automatic Updates wuauserv Stopped Disabled Share Process

```

```

c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0
Wireless Configuration WZCSVC Stopped Disabled Share Process

c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0
Network Provisioning Service xmlprov Stopped Manual Share Process

c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

```

[Program Groups]

Group Name	Name	User Name
Accessories	Default User:Accessories	Default User
Accessories\Accessibility	Default User:Accessories\Accessibility	Default User
Accessories\Entertainment	Default User:Accessories\Entertainment	Default User
Startup	Default User:Startup	Default User
Accessories	All Users:Accessories	All Users
Accessories\Accessibility	All Users:Accessories\Accessibility	All Users
Accessories\Communications	All Users:Accessories\Communications	All Users
Accessories\Entertainment	All Users:Accessories\Entertainment	All Users
Accessories\System Tools	All Users:Accessories\System Tools	All Users
Administrative Tools	All Users:Administrative Tools	All Users
Microsoft SQL Server 2005 CTP	All Users:Microsoft SQL Server 2005 CTP	All Users
Microsoft SQL Server 2005 CTP\Analysis Services	All Users:Microsoft SQL Server 2005 CTP\Analysis	
Services	All Users	
Microsoft SQL Server 2005 CTP\Configuration Tools	All Users:Microsoft SQL Server 2005	
CTP\Configuration Tools	All Users	
Microsoft SQL Server 2005 CTP\Performance Tools	All Users:Microsoft SQL Server 2005 CTP\Performance	
Tools	All Users	
Installation Products	All Users	
Startup	All Users:Startup	All Users
Accessories	NT AUTHORITY\SYSTEM:Accessories	NT AUTHORITY\SYSTEM

```

Accessories\Accessibility NT
AUTHORITY\SYSTEM:Accessories\Accessibility NT AUTHORITY\SYSTEM
Accessories\Entertainment NT
AUTHORITY\SYSTEM:Accessories\Entertainment NT AUTHORITY\SYSTEM
Startup NT AUTHORITY\SYSTEM:Startup NT AUTHORITY\SYSTEM
Accessories CLIENT1\Administrator:Accessories CLIENT1\Administrator

Accessories\Accessibility
CLIENT1\Administrator:Accessories\Accessibility

CLIENT1\Administrator
Accessories\Entertainment
CLIENT1\Administrator:Accessories\Entertainment

CLIENT1\Administrator
Administrative Tools CLIENT1\Administrator:Administrative Tools
CLIENT1\Administrator
Startup CLIENT1\Administrator:Startup CLIENT1\Administrator

```

[Startup Programs]

Program	Command	User Name	Location	Startup
desktop	desktop.ini	NT AUTHORITY\SYSTEM		Startup
desktop	desktop.ini	CLIENT1\Administrator		Startup
rhost	rhost.lnk	CLIENT1\Administrator		Startup
desktop	desktop.ini	.DEFAULT		Startup
desktop	desktop.ini	All Users		Common Startup

[OLE Registration]

Object	Local Server
Sound (OLE2)	sndrec32.exe
Media Clip	mplay32.exe
Video Clip	mplay32.exe /avi
MIDI Sequence	mplay32.exe /mid
Sound	Not Available
Media Clip	Not Available
WordPad Document	"%programfiles%\windows nt\accessories\wordpad.exe"
Windows Media Services DRM Storage object	Not Available
Bitmap Image	mspaint.exe

[Windows Error Reporting]

Time	Type	Details

[Internet Settings]

[Internet Explorer]

[Following are sub-categories of this main category]
[Summary]

Item	Value
Version	6.0.3790.1830
Build	63790.1830
Application Path	C:\Program Files\Internet Explorer

Language English (United States)
Active Printer Not Available

Cipher Strength 128-bit
Content Advisor Disabled
IEAK Install No

[File Versions]

File	Version	Size	Date	Path	Company
actxprxy.dll	6.0.3790.1830	97 KB	3/24/2005 5:55:26 PM	C:\WINDOWS\system32	Microsoft Corporation
advpack.dll	6.0.3790.1830	98 KB	3/24/2005 5:55:28 PM	C:\WINDOWS\system32	Microsoft Corporation
asctrls.ocx	6.0.3790.0	90 KB	3/25/2003 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
browseui.dll	6.0.3790.0	62 KB	3/25/2003 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
browseui.dll	6.0.3790.1830	1,009 KB	3/24/2005 5:56:10 PM	C:\WINDOWS\system32	Microsoft Corporation
cdfview.dll	6.0.3790.1830	149 KB	3/24/2005 5:56:32 PM	C:\WINDOWS\system32	Microsoft Corporation
comctl32.dll	5.82.3790.1830	585 KB	3/24/2005 5:57:56 PM	C:\WINDOWS\system32	Microsoft Corporation
dxttrans.dll	6.3.3790.1830	205 KB	3/24/2005 6:00:58 PM	C:\WINDOWS\system32	Microsoft Corporation
dxtmsft.dll	6.3.3790.1830	355 KB	3/24/2005 6:00:58 PM	C:\WINDOWS\system32	Microsoft Corporation
iecont.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
iecontl.cdll	<File Missing>	Not Available	Not Available	Not Available	Not Available
iedkcs32.dll	16.0.3790.1830	324 KB	3/24/2005 6:04:58 PM	C:\WINDOWS\system32	Microsoft Corporation
iepeers.dll	6.0.3790.1830	248 KB	3/24/2005 6:04:58 PM	C:\WINDOWS\system32	Microsoft Corporation

iesetup.dll	6.0.3790.1830	61 KB	3/24/2005 6:04:58 PM	C:\WINDOWS\system32	Microsoft Corporation
ieuiinit.inf	Not Available	24 KB	3/24/2005 6:04:58 PM	C:\WINDOWS\system32	Not Available
ieexplore.exe	6.0.3790.1830	92 KB	3/24/2005 6:04:58 PM	C:\Program Files\Internet Explorer	Microsoft Corporation
imgutil.dll	6.0.3790.1830	38 KB	3/24/2005 6:05:04 PM	C:\WINDOWS\system32	Microsoft Corporation
inetctl.cpl	6.0.3790.1830	358 KB	3/24/2005 6:05:06 PM	C:\WINDOWS\system32	Microsoft Corporation
inetctl.c.dll	6.0.3790.0	109 KB	3/25/2003 12:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
inseng.dll	6.0.3790.1830	94 KB	3/24/2005 6:05:06 PM	C:\WINDOWS\system32	Microsoft Corporation
mlang.dll	6.0.3790.1830	578 KB	3/24/2005 6:07:20 PM	C:\WINDOWS\system32	Microsoft Corporation
mshta.exe	6.0.3790.1830	30 KB	3/24/2005 6:07:26 PM	C:\WINDOWS\system32	Microsoft Corporation
mshtml.dll	6.0.3790.1830	3,036 KB	3/24/2005 6:07:26 PM	C:\WINDOWS\system32	Microsoft Corporation
mshtml.tlb	6.0.3790.1830	1,320 KB	3/24/2005 6:07:26 PM	C:\WINDOWS\system32	Microsoft Corporation
mshtmlled.dll	6.0.3790.1830	455 KB	3/24/2005 6:07:26 PM	C:\WINDOWS\system32	Microsoft Corporation
mshtmlr.dll	6.0.3790.1830	56 KB	3/24/2005 6:07:26 PM	C:\WINDOWS\system32	Microsoft Corporation
msident.dll	6.0.3790.1830	48 KB	3/24/2005 6:07:28 PM	C:\WINDOWS\system32	Microsoft Corporation

```

msidntld.dll 6.0.3790.0 15 KB 3/25/2003 12:00:00 PM
C:\WINDOWS\system32 Microsoft

Corporation
msieftp.dll 6.0.3790.1830 244 KB 3/24/2005 6:07:28 PM
C:\WINDOWS\system32 Microsoft

Corporation
msrating.dll 6.0.3790.1830 144 KB 3/24/2005 6:07:36 PM
C:\WINDOWS\system32 Microsoft

Corporation
mstime.dll 6.0.3790.1830 523 KB 3/24/2005 6:07:38 PM
C:\WINDOWS\system32 Microsoft

Corporation
occache.dll 6.0.3790.1830 94 KB 3/24/2005 6:08:34 PM
C:\WINDOWS\system32 Microsoft

Corporation
proctexe.ocx 6.3.3790.1830 83 KB 3/24/2005 6:12:26 PM
C:\WINDOWS\system32 Intel

Corporation
sendmail.dll 6.0.3790.1830 56 KB 3/24/2005 6:13:36 PM
C:\WINDOWS\system32 Microsoft

Corporation
shdoclc.dll 6.0.3790.0 589 KB 3/25/2003 12:00:00 PM
C:\WINDOWS\system32 Microsoft

Corporation
shdocvw.dll 6.0.3790.1830 1,468 KB 3/24/2005 6:13:36 PM
C:\WINDOWS\system32

Microsoft Corporation
shfolder.dll 6.0.3790.1830 25 KB 3/24/2005 6:13:36 PM
C:\WINDOWS\system32 Microsoft

Corporation
shlwapi.dll 6.0.3790.1830 314 KB 3/24/2005 6:13:40 PM
C:\WINDOWS\system32 Microsoft

Corporation
tdc.ocx 1.3.0.3130 58 KB 3/25/2003 12:00:00 PM C:\WINDOWS\system32
Microsoft

Corporation
url.dll 6.0.3790.1830 37 KB 3/24/2005 6:26:12 PM C:\WINDOWS\system32
Microsoft

Corporation
urlmon.dll 6.0.3790.1830 673 KB 3/24/2005 6:26:12 PM
C:\WINDOWS\system32 Microsoft

Corporation
webcheck.dll 6.0.3790.1830 273 KB 3/24/2005 6:26:16 PM
C:\WINDOWS\system32 Microsoft

```

```

Corporation
wininet.dll 6.0.3790.1830 646 KB 3/24/2005 6:26:18 PM
C:\WINDOWS\system32 Microsoft

```

Corporation

[Connectivity]

```

Item Value
Connection Preference Never dial

```

LAN Settings

```

AutoConfigProxy wininet.dll
AutoProxyDetectMode Disabled
AutoConfigURL
Proxy Disabled
ProxyServer
ProxyOverride

```

[Cache]

[Following are sub-categories of this main category]
[Summary]

```

Item Value
Page Refresh Type Automatic
Temporary Internet Files Folder C:\Documents and
Settings\Administrator\Local Settings\Temporary

```

```

Internet Files
Total Disk Space Not Available
Available Disk Space Not Available
Maximum Cache Size Not Available
Available Cache Size Not Available

```

[List of Objects]

```

Program File Status CodeBase
No cached object information available

```

[Content]

[Following are sub-categories of this main category]
[Summary]

```

Item Value
Content Advisor Disabled

```

[Personal Certificates]

```

Issued To Issued By Validity Signature Algorithm
No personal certificate information available

```

[Other People Certificates]

```

Issued To Issued By Validity Signature Algorithm

```

No other people certificate information available

[Publishers]

Name
No publisher information available

[Security]

Zone	Security Level
My Computer	Custom
Local intranet	Custom
Trusted sites	Custom
Internet	Custom
Restricted sites	Custom

Client Hyperthreading Information (Common to 4 clients)

Hyper-Threading Technology is available.
Logical Processors Per Package: 2
OS Affinity ID: 0x00000001, APIC ID: 0 PHY ID: 0, LOG ID: 0
OS Affinity ID: 0x00000002, APIC ID: 6 PHY ID: 3, LOG ID: 0
OS Affinity ID: 0x00000004, APIC ID: 1 PHY ID: 0, LOG ID: 1
OS Affinity ID: 0x00000008, APIC ID: 7 PHY ID: 3, LOG ID: 1
Processors with Hyper-Threading Technology enabled was detected.

Windows 2003 IP Configuration Information

(Common to 4 clients except for Host Name, Physical Address, and IP Address)

Swcfg.ver

Windows IP Configuration

Host Name : Client1
Primary Dns Suffix :

Node Type : Unknown
IP Routing Enabled. : No
WINS Proxy Enabled. : No

Ethernet adapter RTE:

Connection-specific DNS Suffix :
Description : Intel(R) PRO/1000 MT Network Connection #2
Physical Address. : 00-11-43-35-4D-E2
DHCP Enabled. : No
IP Address. : 192.1.10.1
Subnet Mask : 255.255.255.0
IP Address. : 192.9.1.1
Subnet Mask : 255.255.255.0
Default Gateway :

Ethernet adapter Admin:

Connection-specific DNS Suffix :
Description : Intel(R) PRO/1000 MT Network Connection
Physical Address. : 00-11-43-35-4D-E1
DHCP Enabled. : No
IP Address. : 192.168.123.2
Subnet Mask : 255.255.255.0
IP Address. : 192.168.91.1
Subnet Mask : 255.255.255.0
IP Address. : 192.158.2.9
Subnet Mask : 255.255.255.0

Default Gateway :
NetBIOS over Tcpip. : Disabled

Volume in drive C has no label.
Volume Serial Number is 9491-81F8

Directory of C:\inetpub\wwwroot

09/23/2005 10:56 AM 90,112 tpcc.dll
1 File(s) 90,112 bytes
0 Dir(s) 14,468,186,112 bytes free

Volume in drive C has no label.
Volume Serial Number is 9491-81F8

Directory of C:\inetpub\wwwroot

09/23/2005 10:55 AM 94,208 tpcc_com_all.dll
1 File(s) 94,208 bytes
0 Dir(s) 14,468,186,112 bytes free

Volume in drive C has no label.
Volume Serial Number is 9491-81F8

Directory of C:\inetpub\wwwroot

09/23/2005 10:55 AM 24,576 tpcc_com_ps.dll
1 File(s) 24,576 bytes
0 Dir(s) 14,468,186,112 bytes free

System_Currentcontrolset_Services_HTTP.txt

```
\registry\machine\system\currentcontrolset\services\HTTP\Parameters  
DisableServerHeader = REG_DWORD 0x00000001  
MaxConnections = REG_DWORD 0x0000ffff  
SslBindingInfo  
UrlAclInfo
```

Component Services Configuration

Complus.txt

Component Services Configuration

COM+ Component TPCC.AllTxns Settings:
Transactions not supported
Enable object pooling
Minimum pool size 79
Maximum pool size 79
Creation timeout 120,000
Enable object construction

Enable just in time activation
Concurrency required

Internet Information Server Registry Parameters

System_Currentcontrolset_Services_Inetinfo.txt

```
\registry\machine\system\currentcontrolset\services\inetinfo  
Parameters  
ListenBackLog = REG_DWORD 0x00000050  
BandwidthLevel = REG_DWORD 0xffffffff  
ThreadTimeout = REG_DWORD 0x00015180  
DisableMemoryCache = REG_DWORD 0x00000001  
MemoryCacheSize = REG_DWORD 0x00000000  
PoolThreadLimit = REG_DWORD 0x00000096  
ObjectCacheTTL = REG_DWORD 0xffffffff  
MaxConnections = REG_DWORD 0x0000ffff  
Performance  
Library = infoctrs.dll  
Open = OpenINFOPerformanceData  
Close = CloseINFOPerformanceData  
Collect = CollectINFOPerformanceData  
PerfIniFile = infoctrs.ini  
Last Counter = REG_DWORD 0x000009a6  
Last Help = REG_DWORD 0x000009a7  
First Counter = REG_DWORD 0x00000966  
First Help = REG_DWORD 0x00000967  
Object List = 2406  
Library Validation Code = REG_BINARY 0x00000010 0x05d12400  
0x01c4b6d8 0x00002000 0x00000000  
WbemAdapFileSignature = REG_BINARY 0x00000010 0xe7d3c34c  
0xe056ca44 0x14a0e8f3 0x0ffb2652  
WbemAdapFileTime = REG_BINARY 0x00000008 0x05388d80 0x01c4b6d8  
WbemAdapFileSize = REG_DWORD 0x00002000  
WbemAdapStatus = REG_DWORD 0x00000000
```

Tcpip Parameters

System_Currentcontrolset_Services_Tcpip.txt

(Common to 4 clients except for Host Name, Physical Address, and IP Address)

```
\registry\machine\system\currentcontrolset\services\Tcpip\Parameters
NV Hostname = Client1
DataBasePath = REG_EXPAND_SZ %SystemRoot%\System32\drivers\etc
NameServer =
ForwardBroadcasts = REG_DWORD 0x00000000
IPEnableRouter = REG_DWORD 0x00000000
Domain =
Hostname = Client1
SearchList =
UseDomainNameDevolution = REG_DWORD 0x00000000
EnableICMPRedirect = REG_DWORD 0x00000001
DeadGWDetectDefault = REG_DWORD 0x00000001
DontAddDefaultGatewayDefault = REG_DWORD 0x00000000
EnableSecurityFilters = REG_DWORD 0x00000000
ReservedPorts = REG_MULTI_SZ "3343-3343"
KeepAliveInterval = REG_DWORD 0x00002710
MaxUserPort = REG_DWORD 0x0000ffff
Adapters
  NdisWanIp
    LLInterface = WANARP
    IpConfig = REG_MULTI_SZ
"Tcpip\Parameters\Interfaces\{2D13871F-65E0-4488-975A-87F4820F3CA7}" \
"Tcpip\Parameters\Interfaces\{C66855BE-E13A-4E93-B9E8-4AEAB2144A65}"
  NumInterfaces = REG_DWORD 0x00000002
  IpInterfaces = REG_BINARY 0x00000020 0x2d13871f 0x448865e0
0xf4875a97 0xa73c0f82 0xc66855be 0x4e93e13a 0xea4ae8b9 0x654a14b2
  {35D335E3-7BFB-4A25-803D-7C9A89A68C20}
  LLInterface =
  IpConfig = REG_MULTI_SZ
"Tcpip\Parameters\Interfaces\{35D335E3-7BFB-4A25-803D-7C9A89A68C20}"
  {8D10888B-172C-42DA-9119-F690C6569F08}
  LLInterface =
  IpConfig = REG_MULTI_SZ
"Tcpip\Parameters\Interfaces\{8D10888B-172C-42DA-9119-F690C6569F08}"
  DNSRegisteredAdapters
  Interfaces
  {2D13871F-65E0-4488-975A-87F4820F3CA7}
  UseZeroBroadcast = REG_DWORD 0x00000000
  EnableDHCP = REG_DWORD 0x00000000
  IPAddress = REG_MULTI_SZ "0.0.0.0"
  SubnetMask = REG_MULTI_SZ "0.0.0.0"
  DefaultGateway = REG_MULTI_SZ
  EnableDeadGWDetect = REG_DWORD 0x00000001
  DontAddDefaultGateway = REG_DWORD 0x00000000
  {35D335E3-7BFB-4A25-803D-7C9A89A68C20}
  UseZeroBroadcast = REG_DWORD 0x00000000
  EnableDeadGWDetect = REG_DWORD 0x00000001
  EnableDHCP = REG_DWORD 0x00000000
  IPAddress = REG_MULTI_SZ "192.158.2.9" \
```

```
"192.168.91.1" \
"192.168.123.2" \
SubnetMask = REG_MULTI_SZ "255.255.255.0" \
"255.255.255.0" \
"255.255.255.0"
DefaultGateway = REG_MULTI_SZ
DefaultGatewayMetric = REG_MULTI_SZ
NameServer =
Domain =
RegistrationEnabled = REG_DWORD 0x00000000
RegisterAdapterName = REG_DWORD 0x00000000
TCPAllowedPorts = REG_MULTI_SZ "0"
UDPAllowedPorts = REG_MULTI_SZ "0"
RawIPAllowedProtocols = REG_MULTI_SZ "0"
NTEContextList = REG_MULTI_SZ "0x00000004" \
"0x00000005" \
"0x00000006"
DhcpClassIdBin = REG_BINARY 0x00000000
DhcpServer = 255.255.255.255
Lease = REG_DWORD 0x00000e10
LeaseObtainedTime = REG_DWORD 0x4176cfaa
T1 = REG_DWORD 0x4176db2
T2 = REG_DWORD 0x4176dbf8
LeaseTerminatesTime = REG_DWORD 0x4176ddba
IPAutoconfigurationAddress = 0.0.0.0
IPAutoconfigurationMask = 255.255.0.0
IPAutoconfigurationSeed = REG_DWORD 0x00000000
AddressType = REG_DWORD 0x00000000
{8D10888B-172C-42DA-9119-F690C6569F08}
UseZeroBroadcast = REG_DWORD 0x00000000
EnableDeadGWDetect = REG_DWORD 0x00000001
EnableDHCP = REG_DWORD 0x00000000
IPAddress = REG_MULTI_SZ "192.9.1.1" \
"192.1.10.1"
SubnetMask = REG_MULTI_SZ "255.255.255.0" \
"255.255.255.0"
DefaultGateway = REG_MULTI_SZ
DefaultGatewayMetric = REG_MULTI_SZ
NameServer =
Domain =
RegistrationEnabled = REG_DWORD 0x00000000
RegisterAdapterName = REG_DWORD 0x00000000
TCPAllowedPorts = REG_MULTI_SZ "0"
UDPAllowedPorts = REG_MULTI_SZ "0"
RawIPAllowedProtocols = REG_MULTI_SZ "0"
NTEContextList = REG_MULTI_SZ "0x00000002" \
"0x00000003"
DhcpClassIdBin = REG_BINARY 0x00000000
DhcpServer = 255.255.255.255
Lease = REG_DWORD 0x00000e10
LeaseObtainedTime = REG_DWORD 0x4176aa20
T1 = REG_DWORD 0x4176b128
T2 = REG_DWORD 0x4176b66e
LeaseTerminatesTime = REG_DWORD 0x4176b830
IPAutoconfigurationAddress = 0.0.0.0
IPAutoconfigurationMask = 255.255.0.0
IPAutoconfigurationSeed = REG_DWORD 0x00000000
AddressType = REG_DWORD 0x00000000
{C66855BE-E13A-4E93-B9E8-4AEAB2144A65}
```

```

UseZeroBroadcast = REG_DWORD 0x00000000
EnableDHCP = REG_DWORD 0x00000000
IPAddress = REG_MULTI_SZ "0.0.0.0"
SubnetMask = REG_MULTI_SZ "0.0.0.0"
DefaultGateway = REG_MULTI_SZ
EnableDeadGWDetect = REG_DWORD 0x00000001
DontAddDefaultGateway = REG_DWORD 0x00000000
PersistentRoutes
Winsock
UseDelayedAcceptance = REG_DWORD 0x00000000
HelperDllName = REG_EXPAND_SZ %SystemRoot%\System32\wshtcpip.dll
MaxSockAddrLength = REG_DWORD 0x00000010
MinSockAddrLength = REG_DWORD 0x00000010
Mapping = REG_BINARY 0x00000008c 0x00000000b 0x000000003 0x000000002
0x000000001 0x000000006 0x000000002 0x000000001 0x000000000 0x000000002
0x000000000 0x000000006 0x000000000 0x000000000 0x000000006 0x000000000
0x000000001 0x000000006 0x000000002 \
0x000000002 0x000000011 0x000000002 0x000000002 0x000000000
0x000000002 0x000000000 0x000000011 0x000000000 0x000000000 0x000000011
0x000000000 0x000000002 0x000000011 0x000000002 0x000000003 0x000000000

```

System_Currentcontrolset_Services_lpxkdrv.txt

```

\registry\machine\system\currentcontrolset\services\lpxkdrv
Type = REG_DWORD 0x00000001
Start = REG_DWORD 0x00000003
ErrorControl = REG_DWORD 0x00000001
ImagePath = REG_EXPAND_SZ system32\DRIVERS\lpxkdrv.sys
DisplayName = lpxkdrv
Description = LPXKSLI2 driver.
Affinity
0 = REG_DWORD 0xffffffff
1 = REG_DWORD 0xffffffff
2 = REG_DWORD 0xffffffff
3 = REG_DWORD 0xffffffff
4 = REG_DWORD 0xffffffff
5 = REG_DWORD 0xffffffff
6 = REG_DWORD 0xffffffff
7 = REG_DWORD 0xffffffff
Coalesce
0 = REG_DWORD 0x00000000
1 = REG_DWORD 0x00000000
2 = REG_DWORD 0x00000000
3 = REG_DWORD 0x00000000
4 = REG_DWORD 0x00000000
5 = REG_DWORD 0x00000000
6 = REG_DWORD 0x00000000
7 = REG_DWORD 0x00000000
Security [17 1]
Security = REG_BINARY 0x000000d0 0x80140001 0x0000000b8 0x0000000c4
0x00000014 0x00000030 0x001c0002 0x00000001 0x00148002 0x000f01ff
0x00000101 0x01000000 0x00000000 0x00880002 0x00000006 0x00140000
0x000201fd 0x00000101 0x05000000 \
0x00000012 0x00180000 0x000f01ff 0x00000201 0x05000000
0x00000020 0x00000220 0x00140000 0x0002018d 0x00000101 0x05000000

```

```

0x00000004 0x00140000 0x0002018d 0x00000101 0x05000000 0x00000006
0x00140000 0x00000100 0x00000101 \
0x05000000 0x0000000b 0x00180000 0x000201fd 0x00000201
0x05000000 0x00000020 0x00000223 0x00000101 0x05000000 0x00000012
0x00000101 0x05000000 0x00000012
TgtIntCnt
0 = REG_DWORD 0x00000000
1 = REG_DWORD 0x00000000
2 = REG_DWORD 0x00000000
3 = REG_DWORD 0x00000000
4 = REG_DWORD 0x00000000
5 = REG_DWORD 0x00000000
6 = REG_DWORD 0x00000000
7 = REG_DWORD 0x00000000
Enum
0 =
PCI\VEN_10DF&DEV_FA00&SUBSYS_FA0010DF&REV_01\5&1b4f3478&0&180230
Count = REG_DWORD 0x00000002
NextInstance = REG_DWORD 0x00000002
1 =
PCI\VEN_10DF&DEV_FA00&SUBSYS_FA0010DF&REV_01\5&1b4f3478&0&190230

```

MSSQL Server Registry Parameters

Software_Microsoft_Mssqlserver_Client_sni90_via.txt

```

\registry\machine\software\microsoft\mssqlserver\client\SNI9.0\VIA
DLLName = SQLNCLI
NumberOfFlags = REG_DWORD 0x00000000
NumberOfProperties = REG_DWORD 0x00000002
ProtocolName = VIA
Property1
Name = Default Server Port
Value = 0:1401
Property2
Name = Default Client NIC
Value = 0
Property3
Value = Uvipl.dll
Name = VendorDLL

```

Software_Microsoft_Mssqlserver_Client_Connectto_Sqlconnect.txt

(Common to all 4 clients except for DBServer port #)

```

\registry\machine\software\microsoft\mssqlserver\client\connectto
DBSERVERtcp = DBMSSOCN,192.168.91.207,1401
DBSERVER = DBNETLIB, via:tpcc-zorro,1401,0

```

TPCC = DBSSOCN,192.168.91.207,1433

Start World Wide Web Server Registry Parameters

System_Currentcontrolset_Services_W3svc.txt

```
\registry\machine\system\currentcontrolset\services\w3svc
Type = REG_DWORD 0x00000020
Start = REG_DWORD 0x00000003
ErrorControl = REG_DWORD 0x00000001
ImagePath = REG_EXPAND_SZ %SystemRoot%\System32\svchost.exe -k iissvcs
DisplayName = World Wide Web Publishing Service
DependOnService = REG_MULTI_SZ "IISADMIN"
DependOnGroup = REG_MULTI_SZ
ObjectName = LocalSystem
Description = Provides Web connectivity and administration through the
Internet Information Services snap-in.
FailureActions = REG_BINARY 0x0000002c 0x00015180 0x00000001
0x00000000 0x00000003 0x00650053 0x00000001 0x00000001 0x00000001
0x00000001 0x00000001 0x00000001
ASP
NOTE = This is for backward compatibility only.
Parameters
Parameters
MajorVersion = REG_DWORD 0x00000005
MinorVersion = REG_DWORD 0x00000000
InstallPath = c:\WINDOWS\System32\inetsrv
AccessDeniedMessage = Error: Access is Denied.
ServiceDll = REG_EXPAND_SZ
C:\WINDOWS\system32\inetsrv\iisw3adm.dll
AcceptExOutStanding = REG_DWORD 0x00000050
LogFileDirectory = c:\WINDOWS\System32\LogFiles
CertMapList = c:\WINDOWS\System32\inetsrv\iisrmap.dll
Filter DLLs =
ADCLaunch
AdvancedDataFactory
RDSServer.DataFactory
Script Map
Virtual Roots
/ = c:\inetpub\wwwroot,,207
/Scripts = c:\inetpub\scripts,,204
/IISHelp = c:\WINDOWS\help\iishelp,,201
/IISAdmin = c:\WINDOWS\System32\inetsrv\iisadmin,,201
/IISSamples = c:\inetpub\iissamples,,201
/MSADC = c:\program files\common files\system\msadc,,205
/Printers = c:\WINDOWS\web\printers,,201
Performance
Library = w3ctrs.dll
```

```
Open = OpenW3PerformanceData
Close = CloseW3PerformanceData
Collect = CollectW3PerformanceData
PerfIniFile = w3ctrs.ini
Last Counter = REG_DWORD 0x000008e6
Last Help = REG_DWORD 0x000008e7
First Counter = REG_DWORD 0x00000844
First Help = REG_DWORD 0x00000845
Object List = 2472 2646
Library Validation Code = REG_BINARY 0x00000010 0xc18a727c
0x01c026d2 0x00003d10 0x00000000
WbemAdapFileTime = REG_BINARY 0x00000008 0x964e6000 0x01bf40aa
WbemAdapFileSize = REG_DWORD 0x00003d10
WbemAdapStatus = REG_DWORD 0x00000000
Security [17 1]
Security = REG_BINARY 0x000000b8 0x80140001 0x000000a0 0x000000ac
0x00000014 0x00000030 0x001c0002 0x00000001 0x00148002 0x000f01ff
0x00000101 0x01000000 0x00000000 0x00700002 0x00000004 0x00180000
0x000201fd 0x00000101 0x05000000 \
0x00000012 0x006f0074 0x001c0000 0x000f01ff 0x00000201
0x05000000 0x00000020 0x00000220 0x00730072 0x00180000 0x0002018d
0x00000101 0x05000000 0x0000000b 0x00000220 0x001c0000 0x000201fd
0x00000201 0x05000000 0x00000020 \
0x00000223 0x00730072 0x00000101 0x05000000 0x00000012
0x00000101 0x05000000 0x00000012
Enum
0 = Root\LEGACY_W3SVC\0000
Count = REG_DWORD 0x00000001
NextInstance = REG_DWORD 0x00000001
```

TPCC Application Settings

Software\Unisys.txt

```
\registry\machine\software\unisys
TPCC
MAXTERMS = 60000
DELIVERYTHREADS = 30
SERVERNAME = DBSERVER
DATABASE = tpcc
```

Appendix D - RTE Code

Admin Environment

Webnnnn.cmd

```
if '%1'==' ' goto usage
if '%2'==' ' goto usage
if '%3'==' ' goto usage

:paramok

set WEBCHECKWIDS=1
set WEBDIAGLEVEL=4
set WEBEVENTLOG=0
set WEBEVENTHOST=
set WEBCHECKLEVEL=2

c:\webdriver\webadmin.exe -cweb%1.cfg -m%2 -d%3 -s160
if %ERRORLEVEL% NEQ 0 pause

goto end

:usage
@ECHO You must supply the following parameters:
@ECHO "webnnn.cmd <cfg file suffix> <min driver #> <max driver #>"
pause

:end
```

Profiles used for Performance Run

WebAdmin.cfg

```
//
// Common Driver Configuration
//
INITBASEPORT 4300
INITSYNCMAX 4
INITPAUSE 1
INITRSCALE 400
INITTSCALE 1000
INITRWID 1,20050
INITFIXEDWID 1
INITCCLAST 208
INITCCID 208
INITCITEMID 208
```

```
//
//Configuration Driver 1
//
1 INITIPADDR 192.168.93.1
1 INITIISADDR 192.1.10.1
1 INITIISPORT 80
1 INITBROWSERS 790
1 INITMYWID 1,79
//
//Configuration Driver 2
//
2 INITIPADDR 192.168.93.1
2 INITIISADDR 192.1.10.1
2 INITIISPORT 80
2 INITBROWSERS 790
2 INITMYWID 80,158
//
//Configuration Driver 3
//
3 INITIPADDR 192.168.93.1
3 INITIISADDR 192.1.10.1
3 INITIISPORT 80
3 INITBROWSERS 790
3 INITMYWID 159,237
//
//Configuration Driver 4
//
4 INITIPADDR 192.168.93.1
4 INITIISADDR 192.1.10.1
4 INITIISPORT 80
4 INITBROWSERS 790
4 INITMYWID 238,316
//
//Configuration Driver 5
//
5 INITIPADDR 192.168.93.1
5 INITIISADDR 192.1.10.1
5 INITIISPORT 80
5 INITBROWSERS 790
5 INITMYWID 317,395
//
//Configuration Driver 6
//
6 INITIPADDR 192.168.93.1
6 INITIISADDR 192.1.10.1
6 INITIISPORT 80
6 INITBROWSERS 790
6 INITMYWID 396,474
//
//Configuration Driver 7
//
7 INITIPADDR 192.168.93.1
7 INITIISADDR 192.1.10.1
7 INITIISPORT 80
```

```

7 INITBROWSERS 790
7 INITMYWID 475,553
//
//Configuration Driver 8
//
8 INITIPADDR 192.168.93.1
8 INITIISADDR 192.1.10.1
8 INITIISPORT 80
8 INITBROWSERS 790
8 INITMYWID 554,632
//
//Configuration Driver 9
//
9 INITIPADDR 192.168.93.1
9 INITIISADDR 192.1.10.1
9 INITIISPORT 80
9 INITBROWSERS 790
9 INITMYWID 633,711
//
//Configuration Driver 10
//
10 INITIPADDR 192.168.93.1
10 INITIISADDR 192.1.10.1
10 INITIISPORT 80
10 INITBROWSERS 790
10 INITMYWID 712,790
//
//Configuration Driver 11
//
11 INITIPADDR 192.168.93.1
11 INITIISADDR 192.1.10.1
11 INITIISPORT 80
11 INITBROWSERS 790
11 INITMYWID 791,869
//
//Configuration Driver 12
//
12 INITIPADDR 192.168.93.1
12 INITIISADDR 192.1.10.1
12 INITIISPORT 80
12 INITBROWSERS 790
12 INITMYWID 870,948
//
//Configuration Driver 13
//
13 INITIPADDR 192.168.93.1
13 INITIISADDR 192.1.10.1
13 INITIISPORT 80
13 INITBROWSERS 790
13 INITMYWID 949,1027
//
//Configuration Driver 14
//
14 INITIPADDR 192.168.93.1
14 INITIISADDR 192.1.10.1
14 INITIISPORT 80
14 INITBROWSERS 790
14 INITMYWID 1028,1106
//

```

```

//Configuration Driver 15
//
15 INITIPADDR 192.168.93.1
15 INITIISADDR 192.1.10.1
15 INITIISPORT 80
15 INITBROWSERS 790
15 INITMYWID 1107,1185
//
//Configuration Driver 16
//
16 INITIPADDR 192.168.93.1
16 INITIISADDR 192.1.10.1
16 INITIISPORT 80
16 INITBROWSERS 790
16 INITMYWID 1186,1264
//
//Configuration Driver 17
//
17 INITIPADDR 192.168.93.1
17 INITIISADDR 192.1.10.1
17 INITIISPORT 80
17 INITBROWSERS 790
17 INITMYWID 1265,1343
//
//Configuration Driver 18
//
18 INITIPADDR 192.168.93.1
18 INITIISADDR 192.1.10.1
18 INITIISPORT 80
18 INITBROWSERS 790
18 INITMYWID 1344,1422
//
//Configuration Driver 19
//
19 INITIPADDR 192.168.93.1
19 INITIISADDR 192.1.10.1
19 INITIISPORT 80
19 INITBROWSERS 790
19 INITMYWID 1423,1501
//
//Configuration Driver 20
//
20 INITIPADDR 192.168.93.1
20 INITIISADDR 192.1.10.1
20 INITIISPORT 80
20 INITBROWSERS 790
20 INITMYWID 1502,1580
//
//Configuration Driver 21
//
21 INITIPADDR 192.168.93.1
21 INITIISADDR 192.1.10.1
21 INITIISPORT 80
21 INITBROWSERS 790
21 INITMYWID 1581,1659
//
//Configuration Driver 22
//
22 INITIPADDR 192.168.93.1

```

```

22 INITIISADDR 192.1.10.1
22 INITIISPORT 80
22 INITBROWSERS 790
22 INITMYWID 1660,1738
//
//Configuration Driver 23
//
23 INITIPADDR 192.168.93.1
23 INITIISADDR 192.1.10.1
23 INITIISPORT 80
23 INITBROWSERS 790
23 INITMYWID 1739,1817
//
//Configuration Driver 24
//
24 INITIPADDR 192.168.93.1
24 INITIISADDR 192.1.10.1
24 INITIISPORT 80
24 INITBROWSERS 790
24 INITMYWID 1818,1896
//
//Configuration Driver 25
//
25 INITIPADDR 192.168.93.1
25 INITIISADDR 192.1.10.1
25 INITIISPORT 80
25 INITBROWSERS 790
25 INITMYWID 1897,1975
//
//Configuration Driver 26
//
26 INITIPADDR 192.168.93.1
26 INITIISADDR 192.1.10.1
26 INITIISPORT 80
26 INITBROWSERS 790
26 INITMYWID 1976,2054
//
//Configuration Driver 27
//
27 INITIPADDR 192.168.93.1
27 INITIISADDR 192.1.10.1
27 INITIISPORT 80
27 INITBROWSERS 790
27 INITMYWID 2055,2133
//
//Configuration Driver 28
//
28 INITIPADDR 192.168.93.1
28 INITIISADDR 192.1.10.1
28 INITIISPORT 80
28 INITBROWSERS 790
28 INITMYWID 2134,2212
//
//Configuration Driver 29
//
29 INITIPADDR 192.168.93.1
29 INITIISADDR 192.1.10.1
29 INITIISPORT 80
29 INITBROWSERS 790

```

```

29 INITMYWID 2213,2291
//
//Configuration Driver 30
//
30 INITIPADDR 192.168.93.1
30 INITIISADDR 192.1.10.1
30 INITIISPORT 80
30 INITBROWSERS 790
30 INITMYWID 2292,2370
//
//Configuration Driver 31
//
31 INITIPADDR 192.168.93.2
31 INITIISADDR 192.1.10.1
31 INITIISPORT 80
31 INITBROWSERS 790
31 INITMYWID 2371,2449
//
//Configuration Driver 32
//
32 INITIPADDR 192.168.93.2
32 INITIISADDR 192.1.10.1
32 INITIISPORT 80
32 INITBROWSERS 790
32 INITMYWID 2450,2528
//
//Configuration Driver 33
//
33 INITIPADDR 192.168.93.2
33 INITIISADDR 192.1.10.1
33 INITIISPORT 80
33 INITBROWSERS 790
33 INITMYWID 2529,2607
//
//Configuration Driver 34
//
34 INITIPADDR 192.168.93.2
34 INITIISADDR 192.1.10.1
34 INITIISPORT 80
34 INITBROWSERS 790
34 INITMYWID 2608,2686
//
//Configuration Driver 35
//
35 INITIPADDR 192.168.93.2
35 INITIISADDR 192.1.10.1
35 INITIISPORT 80
35 INITBROWSERS 790
35 INITMYWID 2687,2765
//
//Configuration Driver 36
//
36 INITIPADDR 192.168.93.2
36 INITIISADDR 192.1.10.1
36 INITIISPORT 80
36 INITBROWSERS 790
36 INITMYWID 2766,2844
//
//Configuration Driver 37

```

```
//
37 INITIPADDR 192.168.93.2
37 INITIISADDR 192.1.10.1
37 INITIISPORT 80
37 INITBROWSERS 790
37 INITMYWID 2845,2923
//
//Configuration Driver 38
//
38 INITIPADDR 192.168.93.2
38 INITIISADDR 192.1.10.1
38 INITIISPORT 80
38 INITBROWSERS 790
38 INITMYWID 2924,3002
//
//Configuration Driver 39
//
39 INITIPADDR 192.168.93.2
39 INITIISADDR 192.1.10.1
39 INITIISPORT 80
39 INITBROWSERS 790
39 INITMYWID 3003,3081
//
//Configuration Driver 40
//
40 INITIPADDR 192.168.93.2
40 INITIISADDR 192.1.10.1
40 INITIISPORT 80
40 INITBROWSERS 790
40 INITMYWID 3082,3160
//
//Configuration Driver 41
//
41 INITIPADDR 192.168.93.2
41 INITIISADDR 192.1.10.1
41 INITIISPORT 80
41 INITBROWSERS 790
41 INITMYWID 3161,3239
//
//Configuration Driver 42
//
42 INITIPADDR 192.168.93.2
42 INITIISADDR 192.1.10.1
42 INITIISPORT 80
42 INITBROWSERS 790
42 INITMYWID 3240,3318
//
//Configuration Driver 43
//
43 INITIPADDR 192.168.93.2
43 INITIISADDR 192.1.10.1
43 INITIISPORT 80
43 INITBROWSERS 790
43 INITMYWID 3319,3397
//
//Configuration Driver 44
//
44 INITIPADDR 192.168.93.2
44 INITIISADDR 192.1.10.1
```

```
44 INITIISPORT 80
44 INITBROWSERS 790
44 INITMYWID 3398,3476
//
//Configuration Driver 45
//
45 INITIPADDR 192.168.93.2
45 INITIISADDR 192.1.10.1
45 INITIISPORT 80
45 INITBROWSERS 790
45 INITMYWID 3477,3555
//
//Configuration Driver 46
//
46 INITIPADDR 192.168.93.2
46 INITIISADDR 192.1.10.1
46 INITIISPORT 80
46 INITBROWSERS 790
46 INITMYWID 3556,3634
//
//Configuration Driver 47
//
47 INITIPADDR 192.168.93.2
47 INITIISADDR 192.1.10.1
47 INITIISPORT 80
47 INITBROWSERS 790
47 INITMYWID 3635,3713
//
//Configuration Driver 48
//
48 INITIPADDR 192.168.93.2
48 INITIISADDR 192.1.10.1
48 INITIISPORT 80
48 INITBROWSERS 790
48 INITMYWID 3714,3792
//
//Configuration Driver 49
//
49 INITIPADDR 192.168.93.2
49 INITIISADDR 192.1.10.1
49 INITIISPORT 80
49 INITBROWSERS 790
49 INITMYWID 3793,3871
//
//Configuration Driver 50
//
50 INITIPADDR 192.168.93.2
50 INITIISADDR 192.1.10.1
50 INITIISPORT 80
50 INITBROWSERS 790
50 INITMYWID 3872,3950
//
//Configuration Driver 51
//
51 INITIPADDR 192.168.93.2
51 INITIISADDR 192.1.10.1
51 INITIISPORT 80
51 INITBROWSERS 790
51 INITMYWID 3951,4029
```



```

//
//Configuration Driver 52
//
52 INITIPADDR 192.168.93.2
52 INITIISADDR 192.1.10.1
52 INITIISPORT 80
52 INITBROWSERS 790
52 INITMYWID 4030,4108
//
//Configuration Driver 53
//
53 INITIPADDR 192.168.93.2
53 INITIISADDR 192.1.10.1
53 INITIISPORT 80
53 INITBROWSERS 790
53 INITMYWID 4109,4187
//
//Configuration Driver 54
//
54 INITIPADDR 192.168.93.2
54 INITIISADDR 192.1.10.1
54 INITIISPORT 80
54 INITBROWSERS 790
54 INITMYWID 4188,4266
//
//Configuration Driver 55
//
55 INITIPADDR 192.168.93.2
55 INITIISADDR 192.1.10.1
55 INITIISPORT 80
55 INITBROWSERS 790
55 INITMYWID 4267,4345
//
//Configuration Driver 56
//
56 INITIPADDR 192.168.93.2
56 INITIISADDR 192.1.10.1
56 INITIISPORT 80
56 INITBROWSERS 790
56 INITMYWID 4346,4424
//
//Configuration Driver 57
//
57 INITIPADDR 192.168.93.2
57 INITIISADDR 192.1.10.1
57 INITIISPORT 80
57 INITBROWSERS 790
57 INITMYWID 4425,4503
//
//Configuration Driver 58
//
58 INITIPADDR 192.168.93.2
58 INITIISADDR 192.1.10.1
58 INITIISPORT 80
58 INITBROWSERS 790
58 INITMYWID 4504,4582
//
//Configuration Driver 59
//

```

```

59 INITIPADDR 192.168.93.2
59 INITIISADDR 192.1.10.1
59 INITIISPORT 80
59 INITBROWSERS 790
59 INITMYWID 4583,4661
//
//Configuration Driver 60
//
60 INITIPADDR 192.168.93.2
60 INITIISADDR 192.1.10.1
60 INITIISPORT 80
60 INITBROWSERS 790
60 INITMYWID 4662,4740
//
//Configuration Driver 61
//
61 INITIPADDR 192.168.93.3
61 INITIISADDR 192.2.10.1
61 INITIISPORT 80
61 INITBROWSERS 840
61 INITMYWID 4741,4824
//
//Configuration Driver 62
//
62 INITIPADDR 192.168.93.3
62 INITIISADDR 192.2.10.1
62 INITIISPORT 80
62 INITBROWSERS 840
62 INITMYWID 4825,4908
//
//Configuration Driver 63
//
63 INITIPADDR 192.168.93.3
63 INITIISADDR 192.2.10.1
63 INITIISPORT 80
63 INITBROWSERS 840
63 INITMYWID 4909,4992
//
//Configuration Driver 64
//
64 INITIPADDR 192.168.93.3
64 INITIISADDR 192.2.10.1
64 INITIISPORT 80
64 INITBROWSERS 840
64 INITMYWID 4993,5076
//
//Configuration Driver 65
//
65 INITIPADDR 192.168.93.3
65 INITIISADDR 192.2.10.1
65 INITIISPORT 80
65 INITBROWSERS 840
65 INITMYWID 5077,5160
//
//Configuration Driver 66
//
66 INITIPADDR 192.168.93.3
66 INITIISADDR 192.2.10.1
66 INITIISPORT 80

```

```

66 INITBROWSERS 840
66 INITMYWID 5161,5244
//
//Configuration Driver 67
//
67 INITIPADDR 192.168.93.3
67 INITIISADDR 192.2.10.1
67 INITIISPORT 80
67 INITBROWSERS 840
67 INITMYWID 5245,5328
//
//Configuration Driver 68
//
68 INITIPADDR 192.168.93.3
68 INITIISADDR 192.2.10.1
68 INITIISPORT 80
68 INITBROWSERS 840
68 INITMYWID 5329,5412
//
//Configuration Driver 69
//
69 INITIPADDR 192.168.93.3
69 INITIISADDR 192.2.10.1
69 INITIISPORT 80
69 INITBROWSERS 840
69 INITMYWID 5413,5496
//
//Configuration Driver 70
//
70 INITIPADDR 192.168.93.3
70 INITIISADDR 192.2.10.1
70 INITIISPORT 80
70 INITBROWSERS 840
70 INITMYWID 5497,5580
//
//Configuration Driver 71
//
71 INITIPADDR 192.168.93.3
71 INITIISADDR 192.2.10.1
71 INITIISPORT 80
71 INITBROWSERS 840
71 INITMYWID 5581,5664
//
//Configuration Driver 72
//
72 INITIPADDR 192.168.93.3
72 INITIISADDR 192.2.10.1
72 INITIISPORT 80
72 INITBROWSERS 840
72 INITMYWID 5665,5748
//
//Configuration Driver 73
//
73 INITIPADDR 192.168.93.3
73 INITIISADDR 192.2.10.1
73 INITIISPORT 80
73 INITBROWSERS 840
73 INITMYWID 5749,5832
//

```

```

//Configuration Driver 74
//
74 INITIPADDR 192.168.93.3
74 INITIISADDR 192.2.10.1
74 INITIISPORT 80
74 INITBROWSERS 840
74 INITMYWID 5833,5916
//
//Configuration Driver 75
//
75 INITIPADDR 192.168.93.3
75 INITIISADDR 192.2.10.1
75 INITIISPORT 80
75 INITBROWSERS 840
75 INITMYWID 5917,6000
//
//Configuration Driver 76
//
76 INITIPADDR 192.168.93.3
76 INITIISADDR 192.2.10.1
76 INITIISPORT 80
76 INITBROWSERS 840
76 INITMYWID 6001,6084
//
//Configuration Driver 77
//
77 INITIPADDR 192.168.93.3
77 INITIISADDR 192.2.10.1
77 INITIISPORT 80
77 INITBROWSERS 840
77 INITMYWID 6085,6168
//
//Configuration Driver 78
//
78 INITIPADDR 192.168.93.3
78 INITIISADDR 192.2.10.1
78 INITIISPORT 80
78 INITBROWSERS 840
78 INITMYWID 6169,6252
//
//Configuration Driver 79
//
79 INITIPADDR 192.168.93.3
79 INITIISADDR 192.2.10.1
79 INITIISPORT 80
79 INITBROWSERS 840
79 INITMYWID 6253,6336
//
//Configuration Driver 80
//
80 INITIPADDR 192.168.93.3
80 INITIISADDR 192.2.10.1
80 INITIISPORT 80
80 INITBROWSERS 840
80 INITMYWID 6337,6420
//
//Configuration Driver 81
//
81 INITIPADDR 192.168.93.3

```

```

81 INITIISADDR 192.2.10.1
81 INITIISPORT 80
81 INITBROWSERS 840
81 INITMYWID 6421,6504
//
//Configuration Driver 82
//
82 INITIPADDR 192.168.93.3
82 INITIISADDR 192.2.10.1
82 INITIISPORT 80
82 INITBROWSERS 840
82 INITMYWID 6505,6588
//
//Configuration Driver 83
//
83 INITIPADDR 192.168.93.3
83 INITIISADDR 192.2.10.1
83 INITIISPORT 80
83 INITBROWSERS 840
83 INITMYWID 6589,6672
//
//Configuration Driver 84
//
84 INITIPADDR 192.168.93.3
84 INITIISADDR 192.2.10.1
84 INITIISPORT 80
84 INITBROWSERS 840
84 INITMYWID 6673,6756
//
//Configuration Driver 85
//
85 INITIPADDR 192.168.93.3
85 INITIISADDR 192.2.10.1
85 INITIISPORT 80
85 INITBROWSERS 840
85 INITMYWID 6757,6840
//
//Configuration Driver 86
//
86 INITIPADDR 192.168.93.3
86 INITIISADDR 192.2.10.1
86 INITIISPORT 80
86 INITBROWSERS 840
86 INITMYWID 6841,6924
//
//Configuration Driver 87
//
87 INITIPADDR 192.168.93.3
87 INITIISADDR 192.2.10.1
87 INITIISPORT 80
87 INITBROWSERS 840
87 INITMYWID 6925,7008
//
//Configuration Driver 88
//
88 INITIPADDR 192.168.93.3
88 INITIISADDR 192.2.10.1
88 INITIISPORT 80
88 INITBROWSERS 840

```

```

88 INITMYWID 7009,7092
//
//Configuration Driver 89
//
89 INITIPADDR 192.168.93.3
89 INITIISADDR 192.2.10.1
89 INITIISPORT 80
89 INITBROWSERS 840
89 INITMYWID 7093,7176
//
//Configuration Driver 90
//
90 INITIPADDR 192.168.93.3
90 INITIISADDR 192.2.10.1
90 INITIISPORT 80
90 INITBROWSERS 840
90 INITMYWID 7177,7260
//
//Configuration Driver 91
//
91 INITIPADDR 192.168.93.4
91 INITIISADDR 192.2.10.1
91 INITIISPORT 80
91 INITBROWSERS 840
91 INITMYWID 7261,7344
//
//Configuration Driver 92
//
92 INITIPADDR 192.168.93.4
92 INITIISADDR 192.2.10.1
92 INITIISPORT 80
92 INITBROWSERS 840
92 INITMYWID 7345,7428
//
//Configuration Driver 93
//
93 INITIPADDR 192.168.93.4
93 INITIISADDR 192.2.10.1
93 INITIISPORT 80
93 INITBROWSERS 840
93 INITMYWID 7429,7512
//
//Configuration Driver 94
//
94 INITIPADDR 192.168.93.4
94 INITIISADDR 192.2.10.1
94 INITIISPORT 80
94 INITBROWSERS 840
94 INITMYWID 7513,7596
//
//Configuration Driver 95
//
95 INITIPADDR 192.168.93.4
95 INITIISADDR 192.2.10.1
95 INITIISPORT 80
95 INITBROWSERS 840
95 INITMYWID 7597,7680
//
//Configuration Driver 96

```

```

//
96 INITIPADDR 192.168.93.4
96 INITIISADDR 192.2.10.1
96 INITIISPORT 80
96 INITBROWSERS 840
96 INITMYWID 7681,7764
//
//Configuration Driver 97
//
97 INITIPADDR 192.168.93.4
97 INITIISADDR 192.2.10.1
97 INITIISPORT 80
97 INITBROWSERS 840
97 INITMYWID 7765,7848
//
//Configuration Driver 98
//
98 INITIPADDR 192.168.93.4
98 INITIISADDR 192.2.10.1
98 INITIISPORT 80
98 INITBROWSERS 840
98 INITMYWID 7849,7932
//
//Configuration Driver 99
//
99 INITIPADDR 192.168.93.4
99 INITIISADDR 192.2.10.1
99 INITIISPORT 80
99 INITBROWSERS 840
99 INITMYWID 7933,8016
//
//Configuration Driver 100
//
100 INITIPADDR 192.168.93.4
100 INITIISADDR 192.2.10.1
100 INITIISPORT 80
100 INITBROWSERS 840
100 INITMYWID 8017,8100
//
//Configuration Driver 101
//
101 INITIPADDR 192.168.93.4
101 INITIISADDR 192.2.10.1
101 INITIISPORT 80
101 INITBROWSERS 840
101 INITMYWID 8101,8184
//
//Configuration Driver 102
//
102 INITIPADDR 192.168.93.4
102 INITIISADDR 192.2.10.1
102 INITIISPORT 80
102 INITBROWSERS 840
102 INITMYWID 8185,8268
//
//Configuration Driver 103
//
103 INITIPADDR 192.168.93.4
103 INITIISADDR 192.2.10.1

```

```

103 INITIISPORT 80
103 INITBROWSERS 840
103 INITMYWID 8269,8352
//
//Configuration Driver 104
//
104 INITIPADDR 192.168.93.4
104 INITIISADDR 192.2.10.1
104 INITIISPORT 80
104 INITBROWSERS 840
104 INITMYWID 8353,8436
//
//Configuration Driver 105
//
105 INITIPADDR 192.168.93.4
105 INITIISADDR 192.2.10.1
105 INITIISPORT 80
105 INITBROWSERS 840
105 INITMYWID 8437,8520
//
//Configuration Driver 106
//
106 INITIPADDR 192.168.93.4
106 INITIISADDR 192.2.10.1
106 INITIISPORT 80
106 INITBROWSERS 840
106 INITMYWID 8521,8604
//
//Configuration Driver 107
//
107 INITIPADDR 192.168.93.4
107 INITIISADDR 192.2.10.1
107 INITIISPORT 80
107 INITBROWSERS 840
107 INITMYWID 8605,8688
//
//Configuration Driver 108
//
108 INITIPADDR 192.168.93.4
108 INITIISADDR 192.2.10.1
108 INITIISPORT 80
108 INITBROWSERS 840
108 INITMYWID 8689,8772
//
//Configuration Driver 109
//
109 INITIPADDR 192.168.93.4
109 INITIISADDR 192.2.10.1
109 INITIISPORT 80
109 INITBROWSERS 840
109 INITMYWID 8773,8856
//
//Configuration Driver 110
//
110 INITIPADDR 192.168.93.4
110 INITIISADDR 192.2.10.1
110 INITIISPORT 80
110 INITBROWSERS 840
110 INITMYWID 8857,8940

```

```

//
//Configuration Driver 111
//
111 INITIPADDR 192.168.93.4
111 INITIISADDR 192.2.10.1
111 INITIISPORT 80
111 INITBROWSERS 840
111 INITMYWID 8941,9024
//
//Configuration Driver 112
//
112 INITIPADDR 192.168.93.4
112 INITIISADDR 192.2.10.1
112 INITIISPORT 80
112 INITBROWSERS 840
112 INITMYWID 9025,9108
//
//Configuration Driver 113
//
113 INITIPADDR 192.168.93.4
113 INITIISADDR 192.2.10.1
113 INITIISPORT 80
113 INITBROWSERS 840
113 INITMYWID 9109,9192
//
//Configuration Driver 114
//
114 INITIPADDR 192.168.93.4
114 INITIISADDR 192.2.10.1
114 INITIISPORT 80
114 INITBROWSERS 840
114 INITMYWID 9193,9276
//
//Configuration Driver 115
//
115 INITIPADDR 192.168.93.4
115 INITIISADDR 192.2.10.1
115 INITIISPORT 80
115 INITBROWSERS 840
115 INITMYWID 9277,9360
//
//Configuration Driver 116
//
116 INITIPADDR 192.168.93.4
116 INITIISADDR 192.2.10.1
116 INITIISPORT 80
116 INITBROWSERS 840
116 INITMYWID 9361,9444
//
//Configuration Driver 117
//
117 INITIPADDR 192.168.93.4
117 INITIISADDR 192.2.10.1
117 INITIISPORT 80
117 INITBROWSERS 840
117 INITMYWID 9445,9528
//
//Configuration Driver 118
//

```

```

118 INITIPADDR 192.168.93.4
118 INITIISADDR 192.2.10.1
118 INITIISPORT 80
118 INITBROWSERS 840
118 INITMYWID 9529,9612
//
//Configuration Driver 119
//
119 INITIPADDR 192.168.93.4
119 INITIISADDR 192.2.10.1
119 INITIISPORT 80
119 INITBROWSERS 840
119 INITMYWID 9613,9696
//
//Configuration Driver 120
//
120 INITIPADDR 192.168.93.4
120 INITIISADDR 192.2.10.1
120 INITIISPORT 80
120 INITBROWSERS 840
120 INITMYWID 9697,9780
//
//Configuration Driver 121
//
121 INITIPADDR 192.168.93.5
121 INITIISADDR 192.3.10.1
121 INITIISPORT 80
121 INITBROWSERS 860
121 INITMYWID 9781,9866
//
//Configuration Driver 122
//
122 INITIPADDR 192.168.93.5
122 INITIISADDR 192.3.10.1
122 INITIISPORT 80
122 INITBROWSERS 860
122 INITMYWID 9867,9952
//
//Configuration Driver 123
//
123 INITIPADDR 192.168.93.5
123 INITIISADDR 192.3.10.1
123 INITIISPORT 80
123 INITBROWSERS 860
123 INITMYWID 9953,10038
//
//Configuration Driver 124
//
124 INITIPADDR 192.168.93.5
124 INITIISADDR 192.3.10.1
124 INITIISPORT 80
124 INITBROWSERS 860
124 INITMYWID 10039,10124
//
//Configuration Driver 125
//
125 INITIPADDR 192.168.93.5
125 INITIISADDR 192.3.10.1
125 INITIISPORT 80

```

```

125 INITBROWSERS 860
125 INITMYWID 10125,10210
//
//Configuration Driver 126
//
126 INITIPADDR 192.168.93.5
126 INITIISADDR 192.3.10.1
126 INITIISPORT 80
126 INITBROWSERS 860
126 INITMYWID 10211,10296
//
//Configuration Driver 127
//
127 INITIPADDR 192.168.93.5
127 INITIISADDR 192.3.10.1
127 INITIISPORT 80
127 INITBROWSERS 860
127 INITMYWID 10297,10382
//
//Configuration Driver 128
//
128 INITIPADDR 192.168.93.5
128 INITIISADDR 192.3.10.1
128 INITIISPORT 80
128 INITBROWSERS 860
128 INITMYWID 10383,10468
//
//Configuration Driver 129
//
129 INITIPADDR 192.168.93.5
129 INITIISADDR 192.3.10.1
129 INITIISPORT 80
129 INITBROWSERS 860
129 INITMYWID 10469,10554
//
//Configuration Driver 130
//
130 INITIPADDR 192.168.93.5
130 INITIISADDR 192.3.10.1
130 INITIISPORT 80
130 INITBROWSERS 860
130 INITMYWID 10555,10640
//
//Configuration Driver 131
//
131 INITIPADDR 192.168.93.5
131 INITIISADDR 192.3.10.1
131 INITIISPORT 80
131 INITBROWSERS 860
131 INITMYWID 10641,10726
//
//Configuration Driver 132
//
132 INITIPADDR 192.168.93.5
132 INITIISADDR 192.3.10.1
132 INITIISPORT 80
132 INITBROWSERS 860
132 INITMYWID 10727,10812
//

```

```

//Configuration Driver 133
//
133 INITIPADDR 192.168.93.5
133 INITIISADDR 192.3.10.1
133 INITIISPORT 80
133 INITBROWSERS 860
133 INITMYWID 10813,10898
//
//Configuration Driver 134
//
134 INITIPADDR 192.168.93.5
134 INITIISADDR 192.3.10.1
134 INITIISPORT 80
134 INITBROWSERS 860
134 INITMYWID 10899,10984
//
//Configuration Driver 135
//
135 INITIPADDR 192.168.93.5
135 INITIISADDR 192.3.10.1
135 INITIISPORT 80
135 INITBROWSERS 860
135 INITMYWID 10985,11070
//
//Configuration Driver 136
//
136 INITIPADDR 192.168.93.5
136 INITIISADDR 192.3.10.1
136 INITIISPORT 80
136 INITBROWSERS 860
136 INITMYWID 11071,11156
//
//Configuration Driver 137
//
137 INITIPADDR 192.168.93.5
137 INITIISADDR 192.3.10.1
137 INITIISPORT 80
137 INITBROWSERS 860
137 INITMYWID 11157,11242
//
//Configuration Driver 138
//
138 INITIPADDR 192.168.93.5
138 INITIISADDR 192.3.10.1
138 INITIISPORT 80
138 INITBROWSERS 860
138 INITMYWID 11243,11328
//
//Configuration Driver 139
//
139 INITIPADDR 192.168.93.5
139 INITIISADDR 192.3.10.1
139 INITIISPORT 80
139 INITBROWSERS 860
139 INITMYWID 11329,11414
//
//Configuration Driver 140
//
140 INITIPADDR 192.168.93.5

```

```
140 INITIISADDR 192.3.10.1
140 INITIISPORT 80
140 INITBROWSERS 860
140 INITMYWID 11415,11500
//
//Configuration Driver 141
//
141 INITIPADDR 192.168.93.5
141 INITIISADDR 192.3.10.1
141 INITIISPORT 80
141 INITBROWSERS 860
141 INITMYWID 11501,11586
//
//Configuration Driver 142
//
142 INITIPADDR 192.168.93.5
142 INITIISADDR 192.3.10.1
142 INITIISPORT 80
142 INITBROWSERS 860
142 INITMYWID 11587,11672
//
//Configuration Driver 143
//
143 INITIPADDR 192.168.93.5
143 INITIISADDR 192.3.10.1
143 INITIISPORT 80
143 INITBROWSERS 860
143 INITMYWID 11673,11758
//
//Configuration Driver 144
//
144 INITIPADDR 192.168.93.5
144 INITIISADDR 192.3.10.1
144 INITIISPORT 80
144 INITBROWSERS 860
144 INITMYWID 11759,11844
//
//Configuration Driver 145
//
145 INITIPADDR 192.168.93.5
145 INITIISADDR 192.3.10.1
145 INITIISPORT 80
145 INITBROWSERS 860
145 INITMYWID 11845,11930
//
//Configuration Driver 146
//
146 INITIPADDR 192.168.93.5
146 INITIISADDR 192.3.10.1
146 INITIISPORT 80
146 INITBROWSERS 860
146 INITMYWID 11931,12016
//
//Configuration Driver 147
//
147 INITIPADDR 192.168.93.5
147 INITIISADDR 192.3.10.1
147 INITIISPORT 80
147 INITBROWSERS 860
```

```
147 INITMYWID 12017,12102
//
//Configuration Driver 148
//
148 INITIPADDR 192.168.93.5
148 INITIISADDR 192.3.10.1
148 INITIISPORT 80
148 INITBROWSERS 860
148 INITMYWID 12103,12188
//
//Configuration Driver 149
//
149 INITIPADDR 192.168.93.5
149 INITIISADDR 192.3.10.1
149 INITIISPORT 80
149 INITBROWSERS 860
149 INITMYWID 12189,12274
//
//Configuration Driver 150
//
150 INITIPADDR 192.168.93.5
150 INITIISADDR 192.3.10.1
150 INITIISPORT 80
150 INITBROWSERS 860
150 INITMYWID 12275,12360
//
//Configuration Driver 151
//
151 INITIPADDR 192.168.93.6
151 INITIISADDR 192.3.10.1
151 INITIISPORT 80
151 INITBROWSERS 860
151 INITMYWID 12361,12446
//
//Configuration Driver 152
//
152 INITIPADDR 192.168.93.6
152 INITIISADDR 192.3.10.1
152 INITIISPORT 80
152 INITBROWSERS 860
152 INITMYWID 12447,12532
//
//Configuration Driver 153
//
153 INITIPADDR 192.168.93.6
153 INITIISADDR 192.3.10.1
153 INITIISPORT 80
153 INITBROWSERS 860
153 INITMYWID 12533,12618
//
//Configuration Driver 154
//
154 INITIPADDR 192.168.93.6
154 INITIISADDR 192.3.10.1
154 INITIISPORT 80
154 INITBROWSERS 860
154 INITMYWID 12619,12704
//
//Configuration Driver 155
```

```

//
155 INITIPADDR 192.168.93.6
155 INITIISADDR 192.3.10.1
155 INITIISPORT 80
155 INITBROWSERS 860
155 INITMYWID 12705,12790
//
//Configuration Driver 156
//
156 INITIPADDR 192.168.93.6
156 INITIISADDR 192.3.10.1
156 INITIISPORT 80
156 INITBROWSERS 860
156 INITMYWID 12791,12876
//
//Configuration Driver 157
//
157 INITIPADDR 192.168.93.6
157 INITIISADDR 192.3.10.1
157 INITIISPORT 80
157 INITBROWSERS 860
157 INITMYWID 12877,12962
//
//Configuration Driver 158
//
158 INITIPADDR 192.168.93.6
158 INITIISADDR 192.3.10.1
158 INITIISPORT 80
158 INITBROWSERS 860
158 INITMYWID 12963,13048
//
//Configuration Driver 159
//
159 INITIPADDR 192.168.93.6
159 INITIISADDR 192.3.10.1
159 INITIISPORT 80
159 INITBROWSERS 860
159 INITMYWID 13049,13134
//
//Configuration Driver 160
//
160 INITIPADDR 192.168.93.6
160 INITIISADDR 192.3.10.1
160 INITIISPORT 80
160 INITBROWSERS 860
160 INITMYWID 13135,13220
//
//Configuration Driver 161
//
161 INITIPADDR 192.168.93.6
161 INITIISADDR 192.3.10.1
161 INITIISPORT 80
161 INITBROWSERS 860
161 INITMYWID 13221,13306
//
//Configuration Driver 162
//
162 INITIPADDR 192.168.93.6
162 INITIISADDR 192.3.10.1

```

```

162 INITIISPORT 80
162 INITBROWSERS 860
162 INITMYWID 13307,13392
//
//Configuration Driver 163
//
163 INITIPADDR 192.168.93.6
163 INITIISADDR 192.3.10.1
163 INITIISPORT 80
163 INITBROWSERS 860
163 INITMYWID 13393,13478
//
//Configuration Driver 164
//
164 INITIPADDR 192.168.93.6
164 INITIISADDR 192.3.10.1
164 INITIISPORT 80
164 INITBROWSERS 860
164 INITMYWID 13479,13564
//
//Configuration Driver 165
//
165 INITIPADDR 192.168.93.6
165 INITIISADDR 192.3.10.1
165 INITIISPORT 80
165 INITBROWSERS 860
165 INITMYWID 13565,13650
//
//Configuration Driver 166
//
166 INITIPADDR 192.168.93.6
166 INITIISADDR 192.3.10.1
166 INITIISPORT 80
166 INITBROWSERS 860
166 INITMYWID 13651,13736
//
//Configuration Driver 167
//
167 INITIPADDR 192.168.93.6
167 INITIISADDR 192.3.10.1
167 INITIISPORT 80
167 INITBROWSERS 860
167 INITMYWID 13737,13822
//
//Configuration Driver 168
//
168 INITIPADDR 192.168.93.6
168 INITIISADDR 192.3.10.1
168 INITIISPORT 80
168 INITBROWSERS 860
168 INITMYWID 13823,13908
//
//Configuration Driver 169
//
169 INITIPADDR 192.168.93.6
169 INITIISADDR 192.3.10.1
169 INITIISPORT 80
169 INITBROWSERS 860
169 INITMYWID 13909,13994

```



```

//
//Configuration Driver 170
//
170 INITIPADDR 192.168.93.6
170 INITIISADDR 192.3.10.1
170 INITIISPORT 80
170 INITBROWSERS 860
170 INITMYWID 13995,14080
//
//Configuration Driver 171
//
171 INITIPADDR 192.168.93.6
171 INITIISADDR 192.3.10.1
171 INITIISPORT 80
171 INITBROWSERS 860
171 INITMYWID 14081,14166
//
//Configuration Driver 172
//
172 INITIPADDR 192.168.93.6
172 INITIISADDR 192.3.10.1
172 INITIISPORT 80
172 INITBROWSERS 860
172 INITMYWID 14167,14252
//
//Configuration Driver 173
//
173 INITIPADDR 192.168.93.6
173 INITIISADDR 192.3.10.1
173 INITIISPORT 80
173 INITBROWSERS 860
173 INITMYWID 14253,14338
//
//Configuration Driver 174
//
174 INITIPADDR 192.168.93.6
174 INITIISADDR 192.3.10.1
174 INITIISPORT 80
174 INITBROWSERS 860
174 INITMYWID 14339,14424
//
//Configuration Driver 175
//
175 INITIPADDR 192.168.93.6
175 INITIISADDR 192.3.10.1
175 INITIISPORT 80
175 INITBROWSERS 860
175 INITMYWID 14425,14510
//
//Configuration Driver 176
//
176 INITIPADDR 192.168.93.6
176 INITIISADDR 192.3.10.1
176 INITIISPORT 80
176 INITBROWSERS 860
176 INITMYWID 14511,14596
//
//Configuration Driver 177
//

```

```

177 INITIPADDR 192.168.93.6
177 INITIISADDR 192.3.10.1
177 INITIISPORT 80
177 INITBROWSERS 860
177 INITMYWID 14597,14682
//
//Configuration Driver 178
//
178 INITIPADDR 192.168.93.6
178 INITIISADDR 192.3.10.1
178 INITIISPORT 80
178 INITBROWSERS 860
178 INITMYWID 14683,14768
//
//Configuration Driver 179
//
179 INITIPADDR 192.168.93.6
179 INITIISADDR 192.3.10.1
179 INITIISPORT 80
179 INITBROWSERS 860
179 INITMYWID 14769,14854
//
//Configuration Driver 180
//
180 INITIPADDR 192.168.93.6
180 INITIISADDR 192.3.10.1
180 INITIISPORT 80
180 INITBROWSERS 860
180 INITMYWID 14855,14940
//
//Configuration Driver 181
//
181 INITIPADDR 192.168.93.7
181 INITIISADDR 192.4.10.1
181 INITIISPORT 80
181 INITBROWSERS 850
181 INITMYWID 14941,15025
//
//Configuration Driver 182
//
182 INITIPADDR 192.168.93.7
182 INITIISADDR 192.4.10.1
182 INITIISPORT 80
182 INITBROWSERS 850
182 INITMYWID 15026,15110
//
//Configuration Driver 183
//
183 INITIPADDR 192.168.93.7
183 INITIISADDR 192.4.10.1
183 INITIISPORT 80
183 INITBROWSERS 850
183 INITMYWID 15111,15195
//
//Configuration Driver 184
//
184 INITIPADDR 192.168.93.7
184 INITIISADDR 192.4.10.1
184 INITIISPORT 80

```

```

184 INITBROWSERS 850
184 INITMYWID 15196,15280
//
//Configuration Driver 185
//
185 INITIPADDR 192.168.93.7
185 INITIISADDR 192.4.10.1
185 INITIISPORT 80
185 INITBROWSERS 850
185 INITMYWID 15281,15365
//
//Configuration Driver 186
//
186 INITIPADDR 192.168.93.7
186 INITIISADDR 192.4.10.1
186 INITIISPORT 80
186 INITBROWSERS 860
186 INITMYWID 15366,15451
//
//Configuration Driver 187
//
187 INITIPADDR 192.168.93.7
187 INITIISADDR 192.4.10.1
187 INITIISPORT 80
187 INITBROWSERS 850
187 INITMYWID 15452,15536
//
//Configuration Driver 188
//
188 INITIPADDR 192.168.93.7
188 INITIISADDR 192.4.10.1
188 INITIISPORT 80
188 INITBROWSERS 850
188 INITMYWID 15537,15621
//
//Configuration Driver 189
//
189 INITIPADDR 192.168.93.7
189 INITIISADDR 192.4.10.1
189 INITIISPORT 80
189 INITBROWSERS 850
189 INITMYWID 15622,15706
//
//Configuration Driver 190
//
190 INITIPADDR 192.168.93.7
190 INITIISADDR 192.4.10.1
190 INITIISPORT 80
190 INITBROWSERS 850
190 INITMYWID 15707,15791
//
//Configuration Driver 191
//
191 INITIPADDR 192.168.93.7
191 INITIISADDR 192.4.10.1
191 INITIISPORT 80
191 INITBROWSERS 850
191 INITMYWID 15792,15876
//

```

```

//Configuration Driver 192
//
192 INITIPADDR 192.168.93.7
192 INITIISADDR 192.4.10.1
192 INITIISPORT 80
192 INITBROWSERS 860
192 INITMYWID 15877,15962
//
//Configuration Driver 193
//
193 INITIPADDR 192.168.93.7
193 INITIISADDR 192.4.10.1
193 INITIISPORT 80
193 INITBROWSERS 850
193 INITMYWID 15963,16047
//
//Configuration Driver 194
//
194 INITIPADDR 192.168.93.7
194 INITIISADDR 192.4.10.1
194 INITIISPORT 80
194 INITBROWSERS 850
194 INITMYWID 16048,16132
//
//Configuration Driver 195
//
195 INITIPADDR 192.168.93.7
195 INITIISADDR 192.4.10.1
195 INITIISPORT 80
195 INITBROWSERS 850
195 INITMYWID 16133,16217
//
//Configuration Driver 196
//
196 INITIPADDR 192.168.93.7
196 INITIISADDR 192.4.10.1
196 INITIISPORT 80
196 INITBROWSERS 850
196 INITMYWID 16218,16302
//
//Configuration Driver 197
//
197 INITIPADDR 192.168.93.7
197 INITIISADDR 192.4.10.1
197 INITIISPORT 80
197 INITBROWSERS 850
197 INITMYWID 16303,16387
//
//Configuration Driver 198
//
198 INITIPADDR 192.168.93.7
198 INITIISADDR 192.4.10.1
198 INITIISPORT 80
198 INITBROWSERS 860
198 INITMYWID 16388,16473
//
//Configuration Driver 199
//
199 INITIPADDR 192.168.93.7

```

```
199 INITIISADDR 192.4.10.1
199 INITIISPORT 80
199 INITBROWSERS 850
199 INITMYWID 16474,16558
//
//Configuration Driver 200
//
200 INITIPADDR 192.168.93.7
200 INITIISADDR 192.4.10.1
200 INITIISPORT 80
200 INITBROWSERS 850
200 INITMYWID 16559,16643
//
//Configuration Driver 201
//
201 INITIPADDR 192.168.93.7
201 INITIISADDR 192.4.10.1
201 INITIISPORT 80
201 INITBROWSERS 850
201 INITMYWID 16644,16728
//
//Configuration Driver 202
//
202 INITIPADDR 192.168.93.7
202 INITIISADDR 192.4.10.1
202 INITIISPORT 80
202 INITBROWSERS 850
202 INITMYWID 16729,16813
//
//Configuration Driver 203
//
203 INITIPADDR 192.168.93.7
203 INITIISADDR 192.4.10.1
203 INITIISPORT 80
203 INITBROWSERS 850
203 INITMYWID 16814,16898
//
//Configuration Driver 204
//
204 INITIPADDR 192.168.93.7
204 INITIISADDR 192.4.10.1
204 INITIISPORT 80
204 INITBROWSERS 860
204 INITMYWID 16899,16984
//
//Configuration Driver 205
//
205 INITIPADDR 192.168.93.7
205 INITIISADDR 192.4.10.1
205 INITIISPORT 80
205 INITBROWSERS 850
205 INITMYWID 16985,17069
//
//Configuration Driver 206
//
206 INITIPADDR 192.168.93.7
206 INITIISADDR 192.4.10.1
206 INITIISPORT 80
206 INITBROWSERS 850
```

```
206 INITMYWID 17070,17154
//
//Configuration Driver 207
//
207 INITIPADDR 192.168.93.7
207 INITIISADDR 192.4.10.1
207 INITIISPORT 80
207 INITBROWSERS 850
207 INITMYWID 17155,17239
//
//Configuration Driver 208
//
208 INITIPADDR 192.168.93.7
208 INITIISADDR 192.4.10.1
208 INITIISPORT 80
208 INITBROWSERS 850
208 INITMYWID 17240,17324
//
//Configuration Driver 209
//
209 INITIPADDR 192.168.93.7
209 INITIISADDR 192.4.10.1
209 INITIISPORT 80
209 INITBROWSERS 850
209 INITMYWID 17325,17409
//
//Configuration Driver 210
//
210 INITIPADDR 192.168.93.7
210 INITIISADDR 192.4.10.1
210 INITIISPORT 80
210 INITBROWSERS 860
210 INITMYWID 17410,17495
//
//Configuration Driver 211
//
211 INITIPADDR 192.168.93.8
211 INITIISADDR 192.4.10.1
211 INITIISPORT 80
211 INITBROWSERS 850
211 INITMYWID 17496,17580
//
//Configuration Driver 212
//
212 INITIPADDR 192.168.93.8
212 INITIISADDR 192.4.10.1
212 INITIISPORT 80
212 INITBROWSERS 850
212 INITMYWID 17581,17665
//
//Configuration Driver 213
//
213 INITIPADDR 192.168.93.8
213 INITIISADDR 192.4.10.1
213 INITIISPORT 80
213 INITBROWSERS 850
213 INITMYWID 17666,17750
//
//Configuration Driver 214
```

```

//
214 INITIPADDR 192.168.93.8
214 INITIISADDR 192.4.10.1
214 INITIISPORT 80
214 INITBROWSERS 850
214 INITMYWID 17751,17835
//
//Configuration Driver 215
//
215 INITIPADDR 192.168.93.8
215 INITIISADDR 192.4.10.1
215 INITIISPORT 80
215 INITBROWSERS 850
215 INITMYWID 17836,17920
//
//Configuration Driver 216
//
216 INITIPADDR 192.168.93.8
216 INITIISADDR 192.4.10.1
216 INITIISPORT 80
216 INITBROWSERS 860
216 INITMYWID 17921,18006
//
//Configuration Driver 217
//
217 INITIPADDR 192.168.93.8
217 INITIISADDR 192.4.10.1
217 INITIISPORT 80
217 INITBROWSERS 850
217 INITMYWID 18007,18091
//
//Configuration Driver 218
//
218 INITIPADDR 192.168.93.8
218 INITIISADDR 192.4.10.1
218 INITIISPORT 80
218 INITBROWSERS 850
218 INITMYWID 18092,18176
//
//Configuration Driver 219
//
219 INITIPADDR 192.168.93.8
219 INITIISADDR 192.4.10.1
219 INITIISPORT 80
219 INITBROWSERS 850
219 INITMYWID 18177,18261
//
//Configuration Driver 220
//
220 INITIPADDR 192.168.93.8
220 INITIISADDR 192.4.10.1
220 INITIISPORT 80
220 INITBROWSERS 850
220 INITMYWID 18262,18346
//
//Configuration Driver 221
//
221 INITIPADDR 192.168.93.8
221 INITIISADDR 192.4.10.1

```

```

221 INITIISPORT 80
221 INITBROWSERS 850
221 INITMYWID 18347,18431
//
//Configuration Driver 222
//
222 INITIPADDR 192.168.93.8
222 INITIISADDR 192.4.10.1
222 INITIISPORT 80
222 INITBROWSERS 860
222 INITMYWID 18432,18517
//
//Configuration Driver 223
//
223 INITIPADDR 192.168.93.8
223 INITIISADDR 192.4.10.1
223 INITIISPORT 80
223 INITBROWSERS 850
223 INITMYWID 18518,18602
//
//Configuration Driver 224
//
224 INITIPADDR 192.168.93.8
224 INITIISADDR 192.4.10.1
224 INITIISPORT 80
224 INITBROWSERS 850
224 INITMYWID 18603,18687
//
//Configuration Driver 225
//
225 INITIPADDR 192.168.93.8
225 INITIISADDR 192.4.10.1
225 INITIISPORT 80
225 INITBROWSERS 850
225 INITMYWID 18688,18772
//
//Configuration Driver 226
//
226 INITIPADDR 192.168.93.8
226 INITIISADDR 192.4.10.1
226 INITIISPORT 80
226 INITBROWSERS 850
226 INITMYWID 18773,18857
//
//Configuration Driver 227
//
227 INITIPADDR 192.168.93.8
227 INITIISADDR 192.4.10.1
227 INITIISPORT 80
227 INITBROWSERS 850
227 INITMYWID 18858,18942
//
//Configuration Driver 228
//
228 INITIPADDR 192.168.93.8
228 INITIISADDR 192.4.10.1
228 INITIISPORT 80
228 INITBROWSERS 860
228 INITMYWID 18943,19028

```

```

//
//Configuration Driver 229
//
229 INITIPADDR 192.168.93.8
229 INITIISADDR 192.4.10.1
229 INITIISPORT 80
229 INITBROWSERS 850
229 INITMYWID 19029,19113
//
//Configuration Driver 230
//
230 INITIPADDR 192.168.93.8
230 INITIISADDR 192.4.10.1
230 INITIISPORT 80
230 INITBROWSERS 850
230 INITMYWID 19114,19198
//
//Configuration Driver 231
//
231 INITIPADDR 192.168.93.8
231 INITIISADDR 192.4.10.1
231 INITIISPORT 80
231 INITBROWSERS 850
231 INITMYWID 19199,19283
//
//Configuration Driver 232
//
232 INITIPADDR 192.168.93.8
232 INITIISADDR 192.4.10.1
232 INITIISPORT 80
232 INITBROWSERS 850
232 INITMYWID 19284,19368
//
//Configuration Driver 233
//
233 INITIPADDR 192.168.93.8
233 INITIISADDR 192.4.10.1
233 INITIISPORT 80
233 INITBROWSERS 850
233 INITMYWID 19369,19453
//
//Configuration Driver 234
//
234 INITIPADDR 192.168.93.8
234 INITIISADDR 192.4.10.1
234 INITIISPORT 80
234 INITBROWSERS 860
234 INITMYWID 19454,19539
//
//Configuration Driver 235
//
235 INITIPADDR 192.168.93.8
235 INITIISADDR 192.4.10.1
235 INITIISPORT 80
235 INITBROWSERS 850
235 INITMYWID 19540,19624
//
//Configuration Driver 236
//

```

```

236 INITIPADDR 192.168.93.8
236 INITIISADDR 192.4.10.1
236 INITIISPORT 80
236 INITBROWSERS 850
236 INITMYWID 19625,19709
//
//Configuration Driver 237
//
237 INITIPADDR 192.168.93.8
237 INITIISADDR 192.4.10.1
237 INITIISPORT 80
237 INITBROWSERS 850
237 INITMYWID 19710,19794
//
//Configuration Driver 238
//
238 INITIPADDR 192.168.93.8
238 INITIISADDR 192.4.10.1
238 INITIISPORT 80
238 INITBROWSERS 850
238 INITMYWID 19795,19879
//
//Configuration Driver 239
//
239 INITIPADDR 192.168.93.8
239 INITIISADDR 192.4.10.1
239 INITIISPORT 80
239 INITBROWSERS 850
239 INITMYWID 19880,19964
//
//Configuration Driver 240
//
240 INITIPADDR 192.168.93.8
240 INITIISADDR 192.4.10.1
240 INITIISPORT 80
240 INITBROWSERS 860
240 INITMYWID 19965,20050

```

Driver Environment

Webdriver.cmd

```

if '%1'==' ' goto usage

:paramok

set WEBDRIVerno=%1
set WEBADMBASEPORT=4300
set WEBDIAGLEVEL=2
set WEBEVENTLOG=1
set WEBEVENTHOST=
set WEBLOGLEVEL=1
set WEBSINGLETRAN=0
set WEBTPCCAUDIT=0

```

```
set WEBRTFUDGETM=110
set WEBNEWORDERPROB=4494
set WEBPAYMENTPROB=4303
set WEBORDERSTATUSPROB=401
set WEBDELIVERYPROB=401
set WEBSTOCKLEVELPROB=401
set WEBTTNEWORDER=12030
set WEBTTPAYMENT=12030
set WEBTTDELIVERY=5060
set WEBTTORDERSTATUS=10070
set WEBTTSTOCKLEVEL=5060
```

webdriver.exe

goto end

```
:usage
@ECHO You must supply the following parameters:
@ECHO "webdriver.cmd <driver number>"
pause
```

```
:end
Exit
```

RTE IP Configuration Information

Rtedif.ver

```
C:\rhost>if 'ipconfig' == '' goto usage
```

```
C:\rhost>c:
```

```
C:\rhost>cd \webdriver
```

```
C:\webdriver>call ipconfig /all
```

Windows IP Configuration

```
Host Name . . . . . : SQLRTE1
Primary Dns Suffix . . . . . :
Node Type . . . . . : Unknown
IP Routing Enabled. . . . . : No
```

```
WINS Proxy Enabled. . . . . : No
```

Ethernet adapter Admin:

```
Connection-specific DNS Suffix . . :
Description . . . . . : Broadcom NetXtreme Gigabit Ethernet
Physical Address. . . . . : 00-06-5B-8C-9B-80
DHCP Enabled. . . . . : No
IP Address. . . . . : 192.168.93.1
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.158.3.9
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :
NetBIOS over Tcpip. . . . . : Disabled
```

Ethernet adapter Client:

```
Connection-specific DNS Suffix . . :
Description . . . . . : Broadcom NetXtreme Gigabit Ethernet
#2
Physical Address. . . . . : 00-06-5B-8C-9B-81
DHCP Enabled. . . . . : No
IP Address. . . . . : 192.1.10.11
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.9.1.11
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :
NetBIOS over Tcpip. . . . . : Disabled
```

```
C:\webdriver>goto end
```

```
C:\rhost>if 'ipconfig' == '' goto usage
```

```
C:\rhost>c:
C:\rhost>cd \webdriver
C:\webdriver>call ipconfig /all
```

Windows IP Configuration

```
Host Name . . . . . : SQLRTE2
Primary Dns Suffix . . . . . :
Node Type . . . . . : Unknown
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No
```

Ethernet adapter Admin:

```
Connection-specific DNS Suffix . . :
Description . . . . . : Broadcom NetXtreme Gigabit Ethernet
Physical Address. . . . . : 00-06-5B-8C-9B-7E
DHCP Enabled. . . . . : No
IP Address. . . . . : 192.168.93.2
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.158.3.10
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :
NetBIOS over Tcpip. . . . . : Disabled
```

Ethernet adapter Client:

```
Connection-specific DNS Suffix . . :
Description . . . . . : Broadcom NetXtreme Gigabit Ethernet
#2
```

```
Physical Address. . . . . : 00-06-5B-8C-9B-7F
DHCP Enabled. . . . . : No
IP Address. . . . . : 192.2.10.11
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.1.10.21
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.10.1.11
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :
NetBIOS over Tcpip. . . . . : Disabled
```

```
C:\webdriver>goto end
```

```
C:\rhost>if 'ipconfig' == '' goto usage
```

```
C:\rhost>c:
```

```
C:\rhost>cd \webdriver
```

```
C:\webdriver>call ipconfig /all
```

Windows IP Configuration

```
Host Name . . . . . : SQLRTE3
Primary Dns Suffix . . . . . :
Node Type . . . . . : Unknown
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No
```

Ethernet adapter Admin:

```
Connection-specific DNS Suffix . . :
Description . . . . . : Broadcom NetXtreme Gigabit Ethernet
Physical Address. . . . . : 00-06-5B-8C-9B-62
```

```
DHCP Enabled. . . . . : No
IP Address. . . . . : 192.168.93.3
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.158.3.11
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :
NetBIOS over Tcpip. . . . . : Disabled
```

Ethernet adapter Client:

```
Connection-specific DNS Suffix . :
Description . . . . . : Broadcom NetXtreme Gigabit Ethernet
#2
Physical Address. . . . . : 00-06-5B-8C-9B-63
DHCP Enabled. . . . . : No
IP Address. . . . . : 192.3.10.11
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.2.10.21
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.11.1.11
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :
NetBIOS over Tcpip. . . . . : Disabled
```

```
C:\webdriver>goto end
C:\rhost>if 'ipconfig' == '' goto usage
C:\rhost>c:
C:\rhost>cd \webdriver
C:\webdriver>call ipconfig /all
```

Windows IP Configuration

```
Host Name . . . . . : SQLRTE4
Primary Dns Suffix . . . . . :
Node Type . . . . . : Unknown
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No
```

Ethernet adapter Admin:

```
Connection-specific DNS Suffix . :
Description . . . . . : Broadcom NetXtreme Gigabit Ethernet
Physical Address. . . . . : 00-06-5B-8C-9B-C0
DHCP Enabled. . . . . : No
IP Address. . . . . : 192.168.93.4
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.158.3.12
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :
NetBIOS over Tcpip. . . . . : Disabled
```

Ethernet adapter Client:

```
Connection-specific DNS Suffix . :
Description . . . . . : Broadcom NetXtreme Gigabit Ethernet
#2
Physical Address. . . . . : 00-06-5B-8C-9B-C1
DHCP Enabled. . . . . : No
IP Address. . . . . : 192.4.10.11
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.2.10.22
```



```
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.12.1.11
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :
NetBIOS over Tcpi. . . . . : Disabled
```

```
C:\webdriver>goto end
```

```
C:\rhost>if 'ipconfig' == '' goto usage
```

```
C:\rhost>c:
```

```
C:\rhost>cd \webdriver
```

```
C:\webdriver>call ipconfig /all
```

Windows IP Configuration

```
Host Name . . . . . : SQLRTE5
Primary Dns Suffix . . . . . :
Node Type . . . . . : Unknown
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No
```

Ethernet adapter Admin:

```
Connection-specific DNS Suffix . :
Description . . . . . : Broadcom NetXtreme Gigabit Ethernet
Physical Address. . . . . : 00-06-5B-8C-9B-D2
DHCP Enabled. . . . . : No
IP Address. . . . . : 192.168.93.5
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.158.3.13
Subnet Mask . . . . . : 255.255.255.0
```

```
Default Gateway . . . . . :
NetBIOS over Tcpi. . . . . : Disabled
```

Ethernet adapter Client:

```
Connection-specific DNS Suffix . :
Description . . . . . : Broadcom NetXtreme Gigabit Ethernet
#2
Physical Address. . . . . : 00-06-5B-8C-9B-D3
DHCP Enabled. . . . . : No
IP Address. . . . . : 192.5.10.11
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.3.10.21
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.13.1.11
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :
NetBIOS over Tcpi. . . . . : Disabled
```

```
C:\webdriver>goto end
```

```
C:\rhost>if 'ipconfig' == '' goto usage
```

```
C:\rhost>c:
```

```
C:\rhost>cd \webdriver
```

```
C:\webdriver>call ipconfig /all
```

Windows IP Configuration

```
Host Name . . . . . : SQLRTE6
Primary Dns Suffix . . . . . :
Node Type . . . . . : Unknown
IP Routing Enabled. . . . . : No
```

```
WINS Proxy Enabled. . . . . : No

Ethernet adapter Admin:

Connection-specific DNS Suffix . . :
Description . . . . . : Broadcom NetXtreme Gigabit Ethernet
Physical Address. . . . . : 00-06-5B-8C-9B-6A
DHCP Enabled. . . . . : No
IP Address. . . . . : 192.168.93.6
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.158.3.14
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :
NetBIOS over Tcpip. . . . . : Disabled
```

```
Ethernet adapter Client:

Connection-specific DNS Suffix . . :
Description . . . . . : Broadcom NetXtreme Gigabit Ethernet
#2
Physical Address. . . . . : 00-06-5B-8C-9B-6B
DHCP Enabled. . . . . : No
IP Address. . . . . : 192.6.10.11
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.3.10.22
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.14.1.11
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :
NetBIOS over Tcpip. . . . . : Disabled
```

```
C:\webdriver>goto end
C:\rhost>if 'ipconfig' == '' goto usage
C:\rhost>c:
C:\rhost>cd \webdriver
C:\webdriver>call ipconfig /all
```

Windows IP Configuration

```
Host Name . . . . . : SQLRTE7
Primary Dns Suffix . . . . . :
Node Type . . . . . : Unknown
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No
```

```
Ethernet adapter Admin:

Connection-specific DNS Suffix . . :
Description . . . . . : Broadcom NetXtreme Gigabit Ethernet
Physical Address. . . . . : 00-06-5B-8C-9B-84
DHCP Enabled. . . . . : No
IP Address. . . . . : 192.168.93.7
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.158.3.15
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :
NetBIOS over Tcpip. . . . . : Disabled
```

Ethernet adapter Client:

```

Connection-specific DNS Suffix . :
Description . . . . . : Broadcom NetXtreme Gigabit Ethernet
#2
Physical Address. . . . . : 00-06-5B-8C-9B-85
DHCP Enabled. . . . . : No
IP Address. . . . . : 192.7.10.11
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.4.10.21
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.15.1.11
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :
NetBIOS over Tcpip. . . . . : Disabled

```

```

C:\webdriver>goto end
C:\rhost>if 'ipconfig' == '' goto usage
C:\rhost>c:
C:\rhost>cd \webdriver
C:\webdriver>call ipconfig /all

```

Windows IP Configuration

```

Host Name . . . . . : SQLRTE8
Primary Dns Suffix . . . . . :
Node Type . . . . . : Unknown
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No

```

Ethernet adapter Admin:

```

Connection-specific DNS Suffix . :

```

```

Description . . . . . : Broadcom NetXtreme Gigabit Ethernet
Physical Address. . . . . : 00-06-5B-8C-9B-6E
DHCP Enabled. . . . . : No
IP Address. . . . . : 192.168.93.8
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.158.3.16
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :
NetBIOS over Tcpip. . . . . : Disabled

```

Ethernet adapter Client:

```

Connection-specific DNS Suffix . :
Description . . . . . : Broadcom NetXtreme Gigabit Ethernet
#2
Physical Address. . . . . : 00-06-5B-8C-9B-6F
DHCP Enabled. . . . . : No
IP Address. . . . . : 192.8.10.11
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.4.10.22
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.16.1.11
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :
NetBIOS over Tcpip. . . . . : Disabled

```

```

C:\webdriver>goto end
Volume in drive \\sqlrte1\c$ has no label.
Volume Serial Number is 7433-AD41

Directory of \\sqlrte1\c$\webdriver

06/06/2005  02:33p                94,208 webdriver.exe
               1 File(s)                94,208 bytes
               0 Dir(s) 13,964,890,112 bytes free

```

Volume in drive \\sqlrte2\c\$ has no label.
Volume Serial Number is 7433-AD41

Directory of \\sqlrte2\c\$\webdriver

06/06/2005 02:33p 94,208 webdriver.exe
1 File(s) 94,208 bytes
0 Dir(s) 14,021,414,912 bytes free

Volume in drive \\sqlrte3\c\$ has no label.
Volume Serial Number is 7433-AD41

Directory of \\sqlrte3\c\$\webdriver

06/06/2005 02:33p 94,208 webdriver.exe
1 File(s) 94,208 bytes
0 Dir(s) 13,979,516,928 bytes free

Volume in drive \\sqlrte4\c\$ has no label.
Volume Serial Number is 7433-AD41

Directory of \\sqlrte4\c\$\webdriver

06/06/2005 02:33p 94,208 webdriver.exe
1 File(s) 94,208 bytes
0 Dir(s) 13,975,224,320 bytes free

Volume in drive \\sqlrte5\c\$ has no label.
Volume Serial Number is 7433-AD41

Directory of \\sqlrte5\c\$\webdriver

06/06/2005 02:33p 94,208 webdriver.exe
1 File(s) 94,208 bytes
0 Dir(s) 13,892,968,448 bytes free

Volume in drive \\sqlrte6\c\$ has no label.
Volume Serial Number is 7433-AD41

Directory of \\sqlrte6\c\$\webdriver

06/06/2005 02:33p 94,208 webdriver.exe
1 File(s) 94,208 bytes
0 Dir(s) 13,901,807,616 bytes free

Volume in drive \\sqlrte7\c\$ has no label.
Volume Serial Number is 7433-AD41

Directory of \\sqlrte7\c\$\webdriver

06/06/2005 02:33p 94,208 webdriver.exe
1 File(s) 94,208 bytes
0 Dir(s) 13,903,626,240 bytes free

Volume in drive \\sqlrte8\c\$ has no label.
Volume Serial Number is 7433-AD41

Directory of \\sqlrte8\c\$\webdriver

06/06/2005 02:33p 94,208 webdriver.exe
1 File(s) 94,208 bytes
0 Dir(s) 13,895,135,232 bytes free

Volume in drive \\sqlrte1\e\$ is Eric the big disk
Volume Serial Number is A096-F0D3

Directory of \\sqlrte1\e\$\Zorro_16x_3.3GHz_382k

10/29/2004 02:05p 61,440 rapic.exe
1 File(s) 61,440 bytes
0 Dir(s) 145,577,418,752 bytes free

Start RTE Cmd

Startrte.txt

```
start " D1 RTE1 " /MIN webdriver.cmd 1
start " D1 RTE2 " /MIN webdriver.cmd 2
start " D1 RTE3 " /MIN webdriver.cmd 3
start " D1 RTE4 " /MIN webdriver.cmd 4
start " D1 RTE5 " /MIN webdriver.cmd 5
start " D1 RTE6 " /MIN webdriver.cmd 6
start " D1 RTE7 " /MIN webdriver.cmd 7
start " D1 RTE8 " /MIN webdriver.cmd 8
start " D1 RTE9 " /MIN webdriver.cmd 9
start " D1 RTE10 " /MIN webdriver.cmd 10
start " D1 RTE11 " /MIN webdriver.cmd 11
start " D1 RTE12 " /MIN webdriver.cmd 12
start " D1 RTE13 " /MIN webdriver.cmd 13
start " D1 RTE14 " /MIN webdriver.cmd 14
start " D1 RTE15 " /MIN webdriver.cmd 15
start " D1 RTE16 " /MIN webdriver.cmd 16
start " D1 RTE17 " /MIN webdriver.cmd 17
start " D1 RTE18 " /MIN webdriver.cmd 18
start " D1 RTE19 " /MIN webdriver.cmd 19
start " D1 RTE20 " /MIN webdriver.cmd 20
start " D1 RTE21 " /MIN webdriver.cmd 21
start " D1 RTE22 " /MIN webdriver.cmd 22
start " D1 RTE23 " /MIN webdriver.cmd 23
start " D1 RTE24 " /MIN webdriver.cmd 24
start " D1 RTE25 " /MIN webdriver.cmd 25
start " D1 RTE26 " /MIN webdriver.cmd 26
start " D1 RTE27 " /MIN webdriver.cmd 27
start " D1 RTE28 " /MIN webdriver.cmd 28
start " D1 RTE29 " /MIN webdriver.cmd 29
start " D1 RTE30 " /MIN webdriver.cmd 30
start " D2 RTE31 " /MIN webdriver.cmd 31
start " D2 RTE32 " /MIN webdriver.cmd 32
start " D2 RTE33 " /MIN webdriver.cmd 33
start " D2 RTE34 " /MIN webdriver.cmd 34
start " D2 RTE35 " /MIN webdriver.cmd 35
start " D2 RTE36 " /MIN webdriver.cmd 36
start " D2 RTE37 " /MIN webdriver.cmd 37
start " D2 RTE38 " /MIN webdriver.cmd 38
start " D2 RTE39 " /MIN webdriver.cmd 39
start " D2 RTE40 " /MIN webdriver.cmd 40
start " D2 RTE41 " /MIN webdriver.cmd 41
start " D2 RTE42 " /MIN webdriver.cmd 42
start " D2 RTE43 " /MIN webdriver.cmd 43
start " D2 RTE44 " /MIN webdriver.cmd 44
start " D2 RTE45 " /MIN webdriver.cmd 45
```


start " D6 RTE164 " /MIN webdriver.cmd 164
start " D6 RTE165 " /MIN webdriver.cmd 165
start " D6 RTE166 " /MIN webdriver.cmd 166
start " D6 RTE167 " /MIN webdriver.cmd 167
start " D6 RTE168 " /MIN webdriver.cmd 168
start " D6 RTE169 " /MIN webdriver.cmd 169
start " D6 RTE170 " /MIN webdriver.cmd 170
start " D6 RTE171 " /MIN webdriver.cmd 171
start " D6 RTE172 " /MIN webdriver.cmd 172
start " D6 RTE173 " /MIN webdriver.cmd 173
start " D6 RTE174 " /MIN webdriver.cmd 174
start " D6 RTE175 " /MIN webdriver.cmd 175
start " D6 RTE176 " /MIN webdriver.cmd 176
start " D6 RTE177 " /MIN webdriver.cmd 177
start " D6 RTE178 " /MIN webdriver.cmd 178
start " D6 RTE179 " /MIN webdriver.cmd 179
start " D6 RTE180 " /MIN webdriver.cmd 180
start " D7 RTE181 " /MIN webdriver.cmd 181
start " D7 RTE182 " /MIN webdriver.cmd 182
start " D7 RTE183 " /MIN webdriver.cmd 183
start " D7 RTE184 " /MIN webdriver.cmd 184
start " D7 RTE185 " /MIN webdriver.cmd 185
start " D7 RTE186 " /MIN webdriver.cmd 186
start " D7 RTE187 " /MIN webdriver.cmd 187
start " D7 RTE188 " /MIN webdriver.cmd 188
start " D7 RTE189 " /MIN webdriver.cmd 189
start " D7 RTE190 " /MIN webdriver.cmd 190
start " D7 RTE191 " /MIN webdriver.cmd 191
start " D7 RTE192 " /MIN webdriver.cmd 192
start " D7 RTE193 " /MIN webdriver.cmd 193
start " D7 RTE194 " /MIN webdriver.cmd 194
start " D7 RTE195 " /MIN webdriver.cmd 195
start " D7 RTE196 " /MIN webdriver.cmd 196
start " D7 RTE197 " /MIN webdriver.cmd 197
start " D7 RTE198 " /MIN webdriver.cmd 198
start " D7 RTE199 " /MIN webdriver.cmd 199
start " D7 RTE200 " /MIN webdriver.cmd 200
start " D7 RTE201 " /MIN webdriver.cmd 201
start " D7 RTE202 " /MIN webdriver.cmd 202
start " D7 RTE203 " /MIN webdriver.cmd 203
start " D7 RTE204 " /MIN webdriver.cmd 204
start " D7 RTE205 " /MIN webdriver.cmd 205
start " D7 RTE206 " /MIN webdriver.cmd 206
start " D7 RTE207 " /MIN webdriver.cmd 207
start " D7 RTE208 " /MIN webdriver.cmd 208
start " D7 RTE209 " /MIN webdriver.cmd 209
start " D7 RTE210 " /MIN webdriver.cmd 210
start " D8 RTE211 " /MIN webdriver.cmd 211
start " D8 RTE212 " /MIN webdriver.cmd 212
start " D8 RTE213 " /MIN webdriver.cmd 213
start " D8 RTE214 " /MIN webdriver.cmd 214
start " D8 RTE215 " /MIN webdriver.cmd 215
start " D8 RTE216 " /MIN webdriver.cmd 216
start " D8 RTE217 " /MIN webdriver.cmd 217
start " D8 RTE218 " /MIN webdriver.cmd 218
start " D8 RTE219 " /MIN webdriver.cmd 219
start " D8 RTE220 " /MIN webdriver.cmd 220
start " D8 RTE221 " /MIN webdriver.cmd 221
start " D8 RTE222 " /MIN webdriver.cmd 222

start " D8 RTE223 " /MIN webdriver.cmd 223
start " D8 RTE224 " /MIN webdriver.cmd 224
start " D8 RTE225 " /MIN webdriver.cmd 225
start " D8 RTE226 " /MIN webdriver.cmd 226
start " D8 RTE227 " /MIN webdriver.cmd 227
start " D8 RTE228 " /MIN webdriver.cmd 228
start " D8 RTE229 " /MIN webdriver.cmd 229
start " D8 RTE230 " /MIN webdriver.cmd 230
start " D8 RTE231 " /MIN webdriver.cmd 231
start " D8 RTE232 " /MIN webdriver.cmd 232
start " D8 RTE233 " /MIN webdriver.cmd 233
start " D8 RTE234 " /MIN webdriver.cmd 234
start " D8 RTE235 " /MIN webdriver.cmd 235
start " D8 RTE236 " /MIN webdriver.cmd 236
start " D8 RTE237 " /MIN webdriver.cmd 237
start " D8 RTE238 " /MIN webdriver.cmd 238
start " D8 RTE239 " /MIN webdriver.cmd 239
start " D8 RTE240 " /MIN webdriver.cmd 240

Appendix E - Disk Storage

TPC-C 60-Day Disk Space Requirements					
Init Warehouses	20,200	tpmC	251,691	tpmC/W	12.46
Table	Initial Rows	Data KB	Index KB	Extra 5% KB	Total With 5% KB
Warehouse	20,200	2,160	288	122	2,570
District	202,000	22,448	432	1,144	24,024
Customer	606,000,000	124,307,696	26,792,016	7,554,986	158,654,698
Customer.Text	606,000,000	380,236,072		19,011,804	399,247,876
History (D)	606,000,000	35,386,864	132,824		35,519,688
Order (D)	606,000,000	19,787,760	45,336		19,833,096
New-Order	181,800,000	3,239,200	8,400	162,380	3,409,980
Order-Line (D)	6,059,984,194	397,376,016	936,160		398,312,176
Item	100,000	9,416	408	491	10,315
Stock	2,020,000,000	646,400,000	1,362,768	32,388,138	680,150,906
Totals KB		1,606,767,632	29,278,632	59,119,065	1,695,165,329
Db/Filegroup	Count	Size MB	MB Allocated	MB Loaded +5%	MB for 8 Hours
master, model & msdb		22	22	22	22
tempdb		10	10	10	10
mssql70_tpcc_root	1	10	10	10	10
mssql70_misc_fg	48	9,500	456,000	424,614	432,165
mssql70_cs_fg	48	18,000	864,000	819,146	819,146
mssql70_ord_fg	48	12,500	600,000	411,675	571,320
Total Allocated MB			1,920,042	1,655,477	1,822,673
MB					
Dynamic Space MB	441,944	Sum of data for orders, order_line & history			
Static Space	1,213,491	Sum of data+index+5% - Dynamic Space			
Free Space	264,607	Total allocated space - (Dynamic & Static Spaces)			
Daily Growth	88,106	(Dynamic Space / (W * 62.5)) * tpmC			
Daily Spread	132,449	Free space - 1.5 * Daily growth (zero if negative)			
		0 SQL Server can be configured to eliminate Daily Spread			
60 Day Space MB	6,499,827	Static Space + 60 * (Daily Growth + Daily Spread)			
60 Day Space GB	6,347.49				
8 hr log GB	760.30	(need double for mirroring)			
Disk Capacity MB	16744	16.352 GB	Capacity of 18GB disks (15,000 RPM)		
	35000	34.180 GB	Capacity of 36GB disks (15,000 RPM)		
	136854	133.646 GB	Capacity of 146GB disks (10,000 RPM)		
Space Usage					
60-day space DB	GB Needed	Disks Priced	GB Priced		
Total DB	6347.49 GB	287	4692.90 GB	18GB drives	
		49	1674.80 GB	36GB drives	
		336	6367.70 GB		
8-hr log+mirror	1520.60 GB	12	1529.20 GB	146GB drives	
OS, SQL Server	20.00 GB	2	67.78 GB	36GB drive	
Total space	7888.09 GB	350	7964.67 GB	7.8 TB	

TPC-C Dynamic Table Growth Rates for 8 Hours

251,691 tpmC

Tables	Initial (KB)	Final (KB)	Change(KB)	KB / New-Order	8-Hr MB
History	35,519,688	39,040,016	3,520,328	0.0640	42,238.77
Orders	19,833,096	24,654,296	4,821,200	0.1086	32,176.17
Order_line	398,312,176	465,087,432	66,775,256	1.2141	532,218.65
Dynamic	453,664,960	528,781,744	75,116,784	1.3867	606,633.59
New_order	3,247,600	4,997,288	1,749,688	0.0318	6,924.80
Static					
Log	18,165,952	372,832,706	354,666,755	6.4486	778,548.14
SUM(d_next_o_id)	606,202,000	661,200,951	54,998,951		

Appendix F - Third-Party Price Quotations

Microsoft Corporation
One Microsoft Way
Redmond, WA 98052-6399

Tel 425 882 8080
Fax 425 936 7329
<http://www.microsoft.com/>

Microsoft

October 20, 2005

Unisys Corporation
Glenn Weeks
2470 Highcrest Rd
Roseville, MN 55113

Mr. Weeks:

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 x64 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	8	\$187,456
P73-00295	Windows Server 2003 Standard Edition <i>Server License Only - No CALs</i> <i>Discount Schedule: Open Program - No Level</i> <i>Unit Price reflects a 28% discount from the retail unit price of \$999.</i>	\$719	4	\$2,876
P72-00274	Windows Server 2003 Enterprise x64 Edition <i>Server License Only - No CALs</i> <i>Discount Schedule: Open Program - No Level</i> <i>Unit Price reflects a 42% discount from the retail unit price of \$3,999.</i>	\$2,334	1	\$2,334
254-00170	Visual C++ Standard Edition <i>Discount Schedule: No Discounts Applied</i>	\$109	1	\$109
N/A	Microsoft Problem Resolution Services <i>Professional Support</i> <i>(1 Incident)</i>	\$245	1	\$245

Some products may not be currently orderable but will be available through Microsoft's normal distribution channels by November 7, 2005.

Defect support is included in the purchase price. Additional support is available from Microsoft PSS on an incident by incident basis at \$245 per call.

This quote is valid for the next 90 days.

If we can be of any further assistance, please contact Jamie Reding at (425) 703-0510 or jamiere@microsoft.com.

Reference ID: PCgwee0520104819.

Please include this Reference ID in any correspondence regarding this price quote.

COMPUTER RESOLUTIONS®

Taking IT Personally™

Phone: 800-848-7185
 Fax: 203-384-0473
 35 Benham Avenue
 Bridgeport, CT 06605
 www.cri1.com

SALES QUOTE

SQ-20671

Oct 24, 2005

Customer		Contact		Ship To			
UNISYS CORPORATION 25725 JERONIMO RD MISSION VIEJO CA 92691 UNITED STATES				UNISYS CORPORATION 25725 JERONIMO RD MISSION VIEJO CA 92691 UNITED STATES			
Account	Terms	Due Date	Account Rep	Schedule Date			
UNIMISSI	NET 30	Nov 23, 2005	Dave Loewenbaum				
Quotation	PO #	Reference	Ship VIA	Page	Printed		
SQ-20671			UPS GROUND	1	10/24/05 15:30		
L Item	Description	Qty	Ship	Price	M	Discount	Amount
1	ES7000 600 Series Server						
2	ES7600083-256 SYS: ES7000-600, 8X 3.3GHZ/8MB, 256GB	1		417050.00	EA		417050.00
3	FC76222-P64 CTRL: 2 GB FC, INTELLIFIBRE	5		2850.00	EA		14250.00
4	FCH752323-PCX CTRL: FIBRE CHANNEL HBA, 2-PORT, 6 BIT	2		2138.00	EA		4276.00
5	FAC7600361-IDK ACC: ES7/600 1X36GB SAS KIT	1		618.00	EA		618.00
6	HDF4036100-X25 DSK:SAS 36GB 10K	1		428.00	EA		428.00
7	ES70006-UIF I/F: MONITOR, 17" LCD, KYBRD, MSE & CABL	1		546.00	EA		546.00
8							
9	USS200/JBD2000 STORAGE						
10	JBD201815-P84 6 RACKS - 84 X 18GB 15K RPM	3		28220.00	EA		84660.00
11	JBD201815-P70 DISK: 1.3TB PKG, 70X 18GB, 15KRPM	1		24281.00	EA		24281.00
12	JBD203615-P56 DISK: 2.0TB PKG, 42X 36GB, 15KRPM	1		27132.00	EA		27132.00
13	CXR14610-2GF DISK:146GB,10KRPM,2GB FC, +10%SPARES	12		1435.00	EA		17220.00
14	JBD2002-SA DISK:NON-HA ENCLOSURE WITH 14 DRIVE SLOT	16		3197.00	EA		51152.00
15	JBD2011-SA DISK:NON-HA ENCLOSURE WITH 14 DRIVE SLOT	8		3413.00	EA		27304.00
16	RMM20103-ELS SAN:SYMM DISK VIRT SRVR II-ELS	4		4559.00	EA		18236.00
17	RMM20701-TAR SAN:HBA,ATTO PCI3300	12		1805.00	EA		21660.00
18	USS10300-SW SAN:USS2100 SW & PROD INF	1		5472.00	EA		5472.00
19	USS20310-LIC SAN:USS2200 10 TBYTE LIC	1		25200.00	EA		25200.00
20	JBD20003-CCL DISK:.3 METER 2GB FIBRE CHANNEL COPPER C	16		53.00	EA		848.00
21	JBD2001-RMK DISK:ENCLOSURE RACK MOUNT KIT FOR 36U RA	24		190.00	EA		4560.00
22	CX300-DPE DPE:2RAID CNTRL, 1GB CACHE EA	1		13300.00	EA		13300.00
23	CXN300-WRK SYS MGT: STORAGE, NAVISPHERE MANAGER	1		2138.00	EA		2138.00
24	KVM9163101-SWC SWITCH:KVM 16-PORT PS/2-CAT 5	1		1805.00	EA		1805.00
25	ES70004-UIF I/F: MONITOR, 17-INCH LDC, KYBRD, MSE	1		665.00	EA		665.00
26	KVM9001301-CNV ADPT: CAT5 TO PS/2	8		114.00	EA		912.00
27	SFR9-PWR ACC: 9-PLUG POWER STRIP	9		162.00	EA		1458.00
28	USE1936-LC6 PWR CORD:C20/NEMA L6-20P	9		86.00	EA		774.00
				Page 1			
				SubTotal		765945.00	

COMPUTER RESOLUTIONS®

Taking IT Personally™

Phone: 800-848-7185
 Fax: 203-384-0473
 35 Benham Avenue
 Bridgeport, CT 06605
 www.cri1.com

SALES QUOTE

SQ-20671

Oct 24, 2005

Customer		Contact			Ship To			
UNISYS CORPORATION 25725 JERONIMO RD MISSION VIEJO CA 92691 UNITED STATES					UNISYS CORPORATION 25725 JERONIMO RD MISSION VIEJO CA 92691 UNITED STATES			
Account	Terms	Due Date	Account Rep	Schedule Date				
UNIMISSI	NET 30	Nov 23, 2005	Dave Loewenbaum					
Quotation	PO #	Reference	Ship VIA	Page	Printed			
SQ-20671			UPS GROUND	2	10/24/05 15:30			
L Item	Description	Qty	Ship	Price	M	Discount	Amount	
29	HRT361941-OFT	3		1425.00	EA		4275.00	
30								
31	ES3120L Server							
32	ESL312002-340	4		2006.00	EA		8024.00	
33	CPL3120342-2MB	4		1196.00	EA		4784.00	
34	DIM3120021-2GB	4		864.00	EA		3456.00	
35	HDP36115-DC4	4		385.00	EA		1540.00	
36	HBP3120101-MOD	4		264.00	EA		1056.00	
37	ESL3120-VRL	4		331.00	EA		1324.00	
38	FCH752323-PCX	4		2138.00	EA		8552.00	
39	CDR12243-AIS	4		41.00	EA		164.00	
40								
41	Discount							
42	DISCOUNT	1		-111877.00	EA		-111877.00	
43								
44								
45								
46								
47								
48								
49								
50								
51								
						Taxable	0.00	
						Tax	0.00	
						Exempt	687243.00	
						Total	687243.00	
						Paid	0.00	
						Tr Disc	0.00	
						Balance	687243.00	
						Amount shown in		
						Rate :0.00 of		

Ethernet Cables, Cat5e Cables, Cat6 Cables, Category 5e Cables, Category 6 Cables, Patch Cables - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Mail Print Print Print Print

Address http://www.gocables.com/CAT5_Patch_Cables/index.htm#Standard Go Links >>

GO Cables.com Home | Product Search | Site Map | Login | Shopping Cart | About Us | Information | FAQ | Contact Us | Resources

You are here: Home → Cat5e and Cat6 Patch Cables

GO Cables OEM
OEM Customers

GoCables Discount
25% off
\$20 minimum purchase
All sale pricing is for Web Orders ONLY

The quantity discount for each product is located on the product page. Discounts will be combined for each product code and displayed at the bottom of the shopping cart and on your invoice.

CAT 5e / CAT6 FAQ

Network Cables

For standard peer-to-peer network connections a

Standard CAT 5e Patch Cables
GCP08889
CAT 5e Patch Cable designed for high performance in a CAT 5e link. CAT 5e Patch Cables come with standard T568B Wiring. Available in 5 colors Black, Blue, Gray, White, and Yellow. Speeds up to 350 MHz.

NEW! Extended lengths are now available!

Product Details>>

Part No.	Length	Each	10 or More 25% Off
GCP0888901	1 ft	0.55	0.42
GCP0888903	3 ft	0.73	0.55
GCP0888905	5 ft	0.88	0.66
GCP0888907	7 ft	1.03	0.77
GCP0888910	10 ft	1.26	0.94
GCP0888914	14 ft	1.55	1.16
GCP0888920	20 ft	2.00	1.50
GCP0888925	25 ft	2.37	1.78
GCP0888950	50 ft	4.91	3.68
GCP0888975	75 ft	7.13	5.34
GCP088891C	100 ft	9.38	7.03

Add to Cart

Copyright (c) 2002-04 GoCables.com

Cisco Compatible Computer Cables

Fiber Cables, Fiber Data Cables, Fiber Optics, Fiber Optic Cables, Fiber O...r Jumpers, Multimode Fiber Optics, Singlemode Fiber Optics at GoCables.com

GO Cables.com Home | Product Search | Site Map | Login | Shopping Cart | About Us | Information | FAQ | Contact Us | Resources

You are here: Home Multimode Fiber Optic Cables

GO Cables OEM
OEM Customers

GoCables Discount
15-25% Off
All sale pricing is for Web Orders ONLY

The quantity discount for each product is located on the product page. Discounts will be combined for each product code and displayed at the bottom of the shopping cart and on your invoice.

The GoCables production facility is well equipped with Videconn(TM) video inspection scope and monitor for easy detection of scratches, cracks, dirt and any other undesirable conditions during production. Optical fiber inspection scopes are used for final inspection. Polishing of the

Fiber Optic

Multimode Duplex Fiber Optic Patch Cables

GoCables stocks an exceptional selection and inventory of Fiber Optic Patch Cables. We also offer customization on our fiber optic cables to any length you specify. Fiber Optic Patch Cables in Multimode are available in 50µm and 62.5µm. SC, ST, LC, FC, MT-RJ, E2000 and MU connectors have polished ceramic ferrules for precision and durability. The SC and LC Duplex Patch Cables come equipped with a clip to maintain polarity.

GCFAZLL

LC to LC - Multimode Duplex Fiber Optic Patch Cable. LC cables are available in 50µ and 62.5µ (62.5 is Standard) and in any cable length.

The LC fiber optic connector interface is based on a 1.25mm ceramic ferrule and the familiar latching mechanism of the RJ-45 modular plug and jack. The LC connector is a small-form-factor connector that offers a port density equal to the modular jack

More Information>>

Available Lengths			
Part #	Cable Length	Unit Price	10 or more
GCFAZLL01	1 m	26.42	19.82
GCFAZLL02	2 m	27.68	20.76
GCFAZLL03	3 m	28.94	21.71
GCFAZLL05	5 m	31.46	23.60
GCFAZLL10	10 m	37.76	28.32
GCFAZLL15	15 m	44.06	33.05
GCFAZLL20	20 m	50.36	37.77
GCFAZLL25	25 m	56.66	42.50

Custom Length Cable Pricing [Click Here](#)

Copyright (c) 2002-04 GoCables.com
Notification of SPECIALS

[Join Now](#)