



Hewlett-Packard Company

TPC Benchmark™ C
Full Disclosure Report
for
ProLiant ML530G2T
using
Microsoft SQL Server 2000 Standard Edition
and
Windows 2000 Server

**First Edition
July 2002**

First Edition – July 2002

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Preface

The TPC Benchmark C was developed by the Transaction Processing Performance Council (TPC). The TPC was founded to define transaction processing benchmarks and to disseminate objective, verifiable performance data to the industry. This full disclosure report is based on the TPC Benchmark C Standard Specifications Version 5.0, released March 7, 2001.

TPC Benchmark C Overview

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

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

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

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

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

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

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

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

Abstract

Overview

This report documents the methodology and results of the TPC Benchmark C test conducted on the HP ProLiant ML530G2T. The operating system used for the benchmark was Windows 2000 Server. The DBMS used was Microsoft SQL Server 2000 Standard Edition.

TPC Benchmark C Metrics

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

17,659.53 tpmC
\$3.84 per tpmC

The availability date is July 25, 2002.

Standard and Executive Summary Statements

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

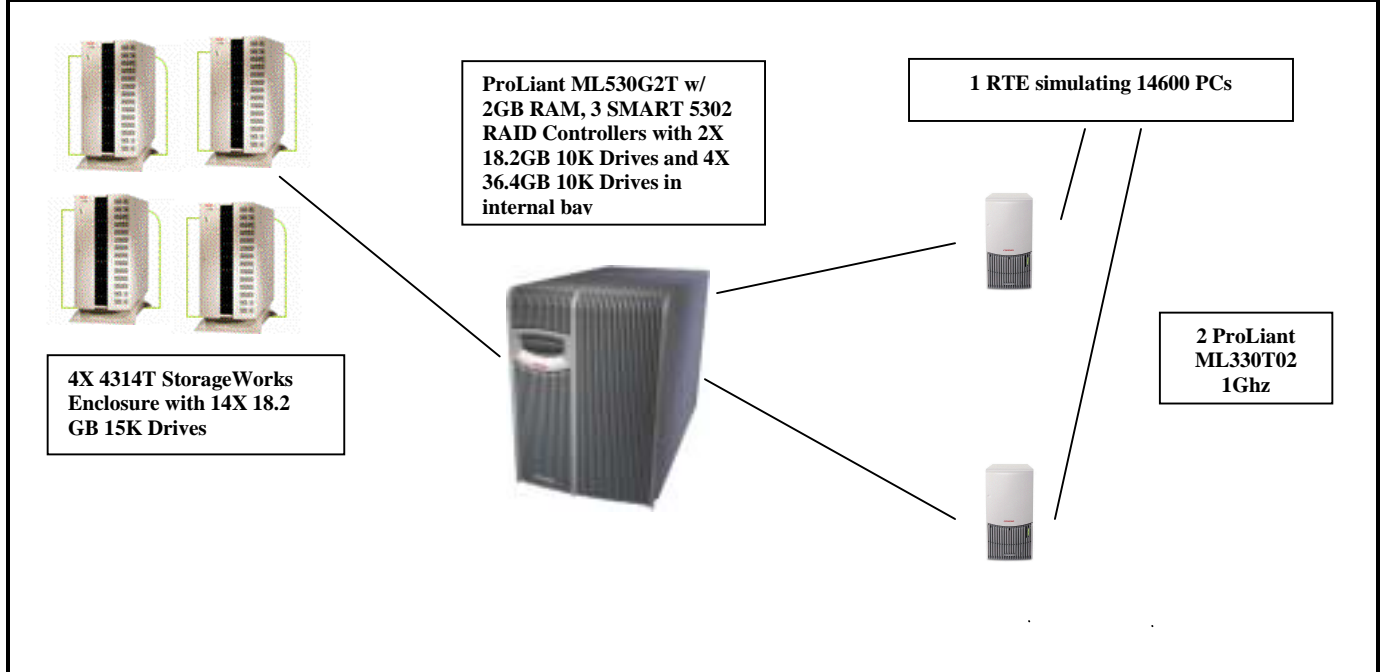
Auditor

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

Hewlett Packard Company	ProLiant ML530G2T 1P	TPC-C Rev. 5.0
	C/S with 2 ProLiant ML330T	Report Date: July 25, 2002

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
\$67,574	17,659.53	\$3.84	July 25, 2002

Processors	Database Manager	Operating System	Other Software	Number of Users
1 Intel Xeon 2.4 GHz – Server 2 Pentium III 1GHz – Clients	Microsoft SQL Server 2000 Standard Edition	Windows 2000 Server	Microsoft Visual C++ Microsoft COM+	14600



	Server		Each Client	
System Components	Quantity	Description	Quantity	Description
Processor	1	2.4 GHz Intel Xeon w/ 512K Cache	1	1GHz Pentium III w/ 256K cache
Memory	1	2 GB DDR (2x1GB)	4	128MB (Total of 512MB per client)
Disk Controllers	1	Integrated Ultra-3 SCSI Controller	1	Integrated Wide Ultra2 SCSI Adapter
	3	SMART 5302 Array Controller		
Disk Drives	2	18.2 GB SCSI Drive	1	9.1GB SCSI Drive
	4	36.4GB SCSI Drive		
	56	18.2 GB SCSI Drive		
Total Storage		1115.88 GB		8.473 GB
Tape Drives	1	12/24 GB DAT		

Hewlett-Packard		ProLiant ML530G2T-2400X 1P			TPC-C Rev. 5.0		
Company		Client/Server			Report Date:	25-Jul-02	
Description	Part Number	Third Party	Unit Price	Qty	Extended Price	3 yr. Maint. Price	
Server Hardware							
		Brand	Pricing				
ProLiant ML530G2T 1GB 2P 2.4GHz	180285-001	1	5,199	1	5,199		
1GB (2x512MB) DDR 200MHz Memory	187419-B21	1	839	1	839		
StorageWorks Enclosure Model 4314T- Tower	190210-001	1	3,182	4	12,728		
Smart Array 5302 Controller	124992-B21	1	1,399	3	4,197		
S5500 15 carbon / silver monitor	261602-001	1	139	1	139		
12/24-Gigabyte DAT Drive (Internal)	295513-B22	1	682	1	682		
UPS T700	204015-001	1	333	1	333		
18.2GB Pluggable Ultra3 SCSI 15K 1" Universal HDD	188122-B22	1	459	56	25,704		
18.2GB Pluggable Ultra3 SCSI 15K 1" Universal HDD (10% spares)	188122-B22	1	459	6			2,754
18.2GB Pluggable Ultra3 SCSI 10K 1" Universal HDD	142673-B22	1	319	2	638		
36.4-GB Pluggable 1" Universal WideUltra3 10K HDD	176496-B22	1	534	4	2,136		
NC3123 Fast Ethernet NIC PCI 10/100 Wake on LAN	174830-B21	1	98	1	98		
FM-MI724-36 3YR 24X7 4HR 500 SERIES SVR	401782-002	1	1,795	1			1,795
FM-4E724-36 3YR 24X7/4HR EMPTY DISK ENCL	171242-002	1	157	4			628
				Subtotal	52,693		5,177
Server Software							
Microsoft SQL Server 2000 Standard Edition(per processor)	228-01079	Microsoft	2	4,999	1	4,999	5,850
Microsoft Visual C++ 6.0	048-00317	Microsoft	2	549	1	549	Incl Above
Microsoft Windows 2000 Server	C11-00821	Microsoft	2	738	1	738	Incl Above
				Subtotal	6,286		5,850
Client Hardware							
ProLiant ML330T02 1000/133-256K 128MB 18GB SCSI	234665-002	1	1,099	2	2,198		
128 Reg 133MHz SDRAM DIMM	128277-B21	1	122	6	732		
NC3123 Fast Ethernet NIC PCI 10/100 Wake on LAN	174830-B21	1	98	4	392		
S5500 15 carbon / silver monitor	261602-001	1	139	2	278		
FM-EL724-36 3YR 24X7 4HR ENTRY 300 SVR	162675-002	1	750	2			1,500
				Subtotal	3,600		1,500
Client Software							
Microsoft Windows 2000 Server	C11-00821	Microsoft	2	738	2	1,476	Incl. Above
				Subtotal	1,476		0
User Connectivity							
10 ft. CAT5e Crossover Patch cable	45CROSS10RD	Startech	3	4	4	18	
				Subtotal	18		0
Large Purchase and Net 30 discount (See Note 1)	14.0%		1			(\$7,881)	(\$935)
				Total	\$56,192		\$11,592
Prices used in TPC benchmarks reflect the actual prices a customer would pay for a one-time purchase of the stated components. Individually negotiated discounts are not permitted. Special prices based on assumptions about past or future purchases are not permitted. All discounts reflect standard pricing policies for the listed components. For complete details, see the pricing sections of the TPC benchmark pricing specifications. If you find that the stated prices are not available according to these terms, please inform the TPC at pricing@tpc.org. Thank you.					Three-Year Cost of Ownership: \$67,784		
					tpmC Rating: 17659.53		
					\$ / tpmC: \$3.84		
Pricing: 1=HP 2=Microsoft 3=PC Connection							
Note 1 = Discount based on HP Direct guidance with large purchase and Net 30 discount.							
Note: The benchmark results and test methodology were audited by Lorna Livingtree of Performance Metrics, Inc.							

Numerical Quantities Summary

MQTH, Computed Maximum Qualified Throughput

17,659.53 tpmC

Response Times (in seconds)	Average	90%	Maximum
New-Order	0.67	1.23	20.03
Payment	0.42	0.85	19.48
Order-Status	0.48	0.90	17.90
Delivery (interactive portion)	0.11	0.11	10.95
Delivery (deferred portion)	0.74	1.07	11.39
Stock-Level	4.19	6.38	25.75
Menu	0.11	0.11	13.11

Transaction Mix, in percent of total transaction

New-Order	44.88%
Payment	43.04%
Order-Status	4.03%
Delivery	4.02%
Stock-Level	4.02%

Emulation Delay (in seconds)

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

Keying/Think Times (in seconds)

	Min.	Average	Max.
New-Order	18.00/0.00	18.02/12.52	18.03/125.31
Payment	3.00/0.00	3.02/12.52	3.03/125.31
Order-Status	2.00/0.00	2.02/10.45	2.02/104.50
Delivery (interactive)	2.00/0.00	2.02/5.27	2.02/52.50
Stock-Level	2.00/0.00	2.02/5.26	2.02/52.50

Test Duration

Ramp-up time	48 minutes
Measurement interval	120 minutes
Transactions (all types) completed during measurement interval	4,890,315
Ramp down time	78 minutes

Checkpointing

Number of checkpoints	4
Checkpoint interval	30 minutes

General Items

Test Sponsor

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

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

Application Code and Definition Statements

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

Appendix A contains all source code implemented in this benchmark.

Parameter Settings

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

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

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

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

Configuration Items

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

The configuration diagrams for both the tested and priced systems are included on the following pages.

Figure 1. Benchmarked Configuration

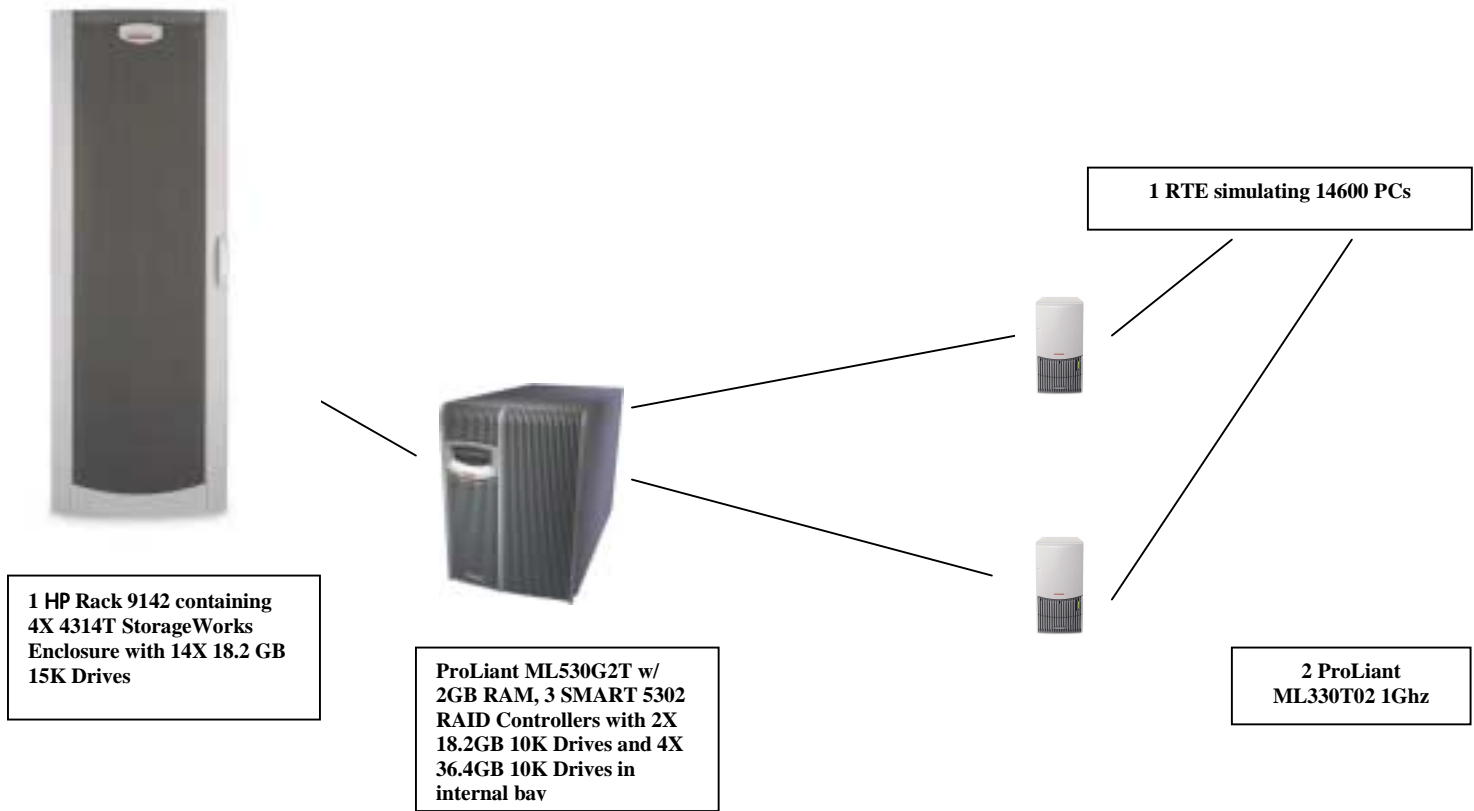
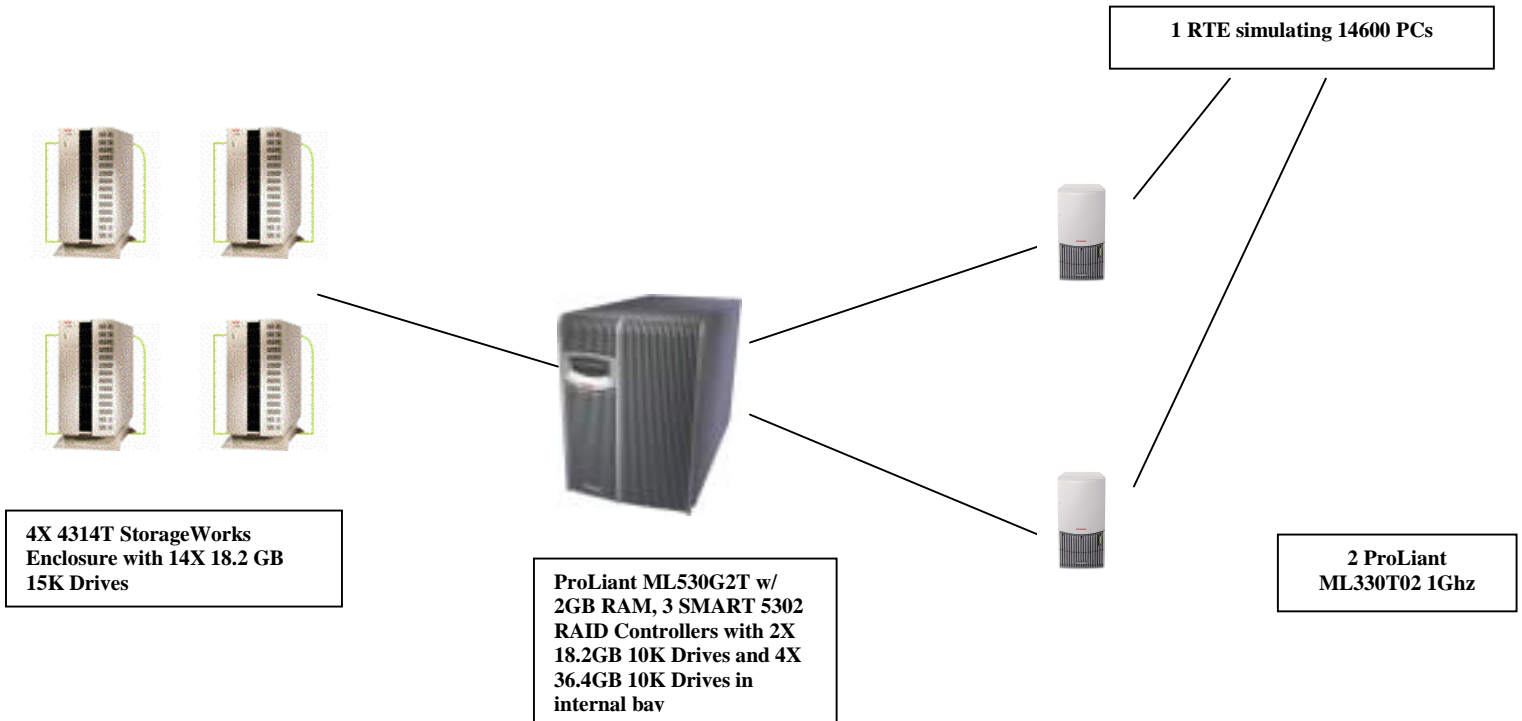


Figure 2. Priced Configuration



Clause 1 Related Items

Table Definitions

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

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

Physical Organization of Database

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

The tested configuration consisted of: 56 18.2GB 15K drives for the database data, 2 18.2GB 10K drives for the operating system, and 4 36.4GB 10K drives for the transaction log. Twenty-eight drives (18.2GB 15K) were connected to two of the controllers and the remaining drives were connected to the third controller.

Benchmarked Configuration:

SMART-5302 Controller, Slot 1, Array A

LOGICAL DRIVE C: Total Capacity = 16.95 GB RAID 0+1
Microsoft Windows 2000 Server, MSSQL_tpcc_root.mdf

SMART-5302 Controller, Slot 1, Array B

LOGICAL DRIVE E: Total Capacity = 67.83 GB RAID 0+1
MSSQL_tpcc_log

SMART-5302 Controller, Slot 3, Array A

LOGICAL DRIVE F: Total Capacity = 18.79 GB RAID 0
MSSQL_cust1

SMART-5302 Controller, Slot 3, Array B

LOGICAL DRIVE H: Total Capacity = 25.88 GB RAID 0
MSSQL_stk1

SMART-5302 Controller, Slot 3, Array C

LOGICAL DRIVE K: Total Capacity = 8.79 GB RAID 0
MSSQL_misc1

SMART-5302 Controller, Slot 3, Array D

LOGICAL DRIVE L: Total Capacity = 210.68 GB RAID 0+1
Tpccback1

SMART-5302 Controller, Slot 5, Array A

LOGICAL DRIVE G: Total Capacity = 18.79 GB RAID 0
MSSQL_cust2

SMART-5302 Controller, Slot 5, Array B

LOGICAL DRIVE I: Total Capacity = 25.88 GB RAID 0
MSSQL_stk2

SMART-5302 Controller, Slot 5, Array C

LOGICAL DRIVE J:

Total Capacity = 35.64 GB

RAID 0

MSSQL_ordIn1

SMART-5302 Controller, Slot 5, Array D

LOGICAL DRIVE M:

Total Capacity = 197.25 GB

RAID 0+1

Tpcback2

Priced Configuration vs. Measured Configuration:

The measured and priced configuration differ in that the measured configuration used disk drives for database backup and the priced configuration used a DAT drive for backup. Also, the measured configuration used the rack model version of the storage enclosures and the priced configuration used the tower model of the storage enclosures.

Insert and Delete Operations

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

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

Partitioning

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

No partitioning was used in this benchmark.

Replication, Duplication or Additions

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

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

Clause 2 Related Items

Random Number Generation

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

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

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

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

Input/Output Screen Layout

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

All screen layouts followed the specifications exactly.

Priced Terminal Feature Verification

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

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

Presentation Manager or Intelligent Terminal

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

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

Transaction Statistics

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

Table 2.1 Transaction Statistics

Statistic		Value
New Order	Home warehouse order lines	99.00%
	Remote warehouse order lines	1.00%
	Rolled back transactions	1.00%
	Average items per order	10.00
Payment	Home warehouse payments	84.99%
	Remote warehouse payments	15.01%

Statistic		Value
	Accessed by last name	60%
Order Status	Accessed by last name	60.07%
Transaction Mix	New Order	44.88%
	Payment	43.04%
	Order status	4.03%
	Delivery	4.02%
	Stock level	4.02%

Queuing Mechanism

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

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

The source code is listed in Appendix A.

Clause 3 Related Items

Transaction System Properties (ACID)

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

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

Atomicity

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

Completed Transactions

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

Aborted Transactions

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

Consistency

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

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

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

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

Isolation

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

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

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

For Isolation test seven, case A was followed.

Durability

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

Durable Media Failure

Loss of Data and Log

To demonstrate recovery from a permanent failure of durable medium containing DBMS logs and TPC-C tables, the following steps were executed:

- A new database containing 149 warehouses (10.2% of the warehouses of the full database) was created and was backed up to extra disks.
- The total number of New Orders was determined by the sum of D_NEXT_O_ID of all rows in the DISTRICT table giving the beginning count.
- The RTE was started with 1490 users.
- The test was allowed to run for a minimum of 10 minutes.
- One log disk was removed from the drive cabinet.
- Since the disk was mirrored, processing was not interrupted. This was verified by checking the users status on the RTE.
- One of the data disks was removed from the drive cabinet.
- When Microsoft SQL Server recorded errors about not being able to access the database, the RTE was shut down.
- A dump of the transaction log was taken and the Microsoft SQL Server was shutdown.
- A new log disk was inserted into the log drive cabinet. A new data disk was inserted into the data drive cabinet. After the RAID recovery process finished, the system was rebooted and Microsoft SQL Server was started.
- The database was restored from backup and the transaction log dump was applied.
- Consistency condition #3 was executed and verified.
- Step 2 was repeated and the difference between the first and second counts was noted.
- An RTE report was generated for the entire run time giving the number of NEW-ORDERS successfully returned to the RTE.
- The counts in step 13 and 14 were compared and the results verified that all committed transactions had been successfully recovered.
- Samples were taken from the RTE files and used to query the database to demonstrate successful transactions had corresponding rows in the ORDER table.

Instantaneous Interruption and Loss of Memory

Because loss of power erases the contents of memory, the instantaneous interruption and the loss of memory tests were combined into a single test. This test was executed on a fully scaled database of 1460 warehouses under a full load of 14600 users. The following steps were executed:

- The total number of New Orders was determined by the sum of D_NEXT_O_ID of all rows in the DISTRICT table giving the beginning count.
- The RTE was started with 14600 users.
- The test was allowed to run for a minimum of 10 minutes.
- A checkpoint was performed.
- The system crash and loss of memory were induced by switching the power off. The power cords were then physically removed from the SUT. No battery backup or Uninterruptible Power Supply (UPS) were used to preserve the contents of memory.
- The RTE was shutdown.
- Power was restored and the system restarted.
- Microsoft SQL Server was restarted and performed an automatic recovery.
- Consistency condition #3 was executed and verified.
- Step 1 was repeated and the difference between the first and second counts was noted.

- An RTE report was generated for the entire run time giving the number of NEW-ORDERS successfully returned to the RTE.
- The counts in step 10 and 11 were compared and the results verified that all committed transactions had been successfully recovered.
- Samples were taken from the RTE files and used to query the database to demonstrate successful transactions had corresponding rows in the ORDER table.

Clause 4 Related Items

Initial Cardinality of Tables

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

Table 4.1 Number of Rows for Server

Table	Cardinality as built
Warehouse	1,460
District	14,600
Customer	43,800,000
History	43,800,000
Orders	43,800,000
New Order	13,140,000
Order Line	437,998,573
Stock	146,000,000
Item	100,000
Deleted Warehouses	0

Database Layout

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

The benchmarked configuration used 3 SMART-5302 Array controllers with 2 SCSI channels. Each controller is capable of accessing up to 14 disk drives per channel, and supports RAID 0, RAID 0+1, and RAID 5 per each logical volume configured. The data tables were stored on 2 RAID arrays of (28) 18.2GB 15K drives each. Each array housed 3 RAID 0 logical drives for database data. Each of these controllers also housed a RAID 0+1 volume used for backup of the database. The other SMART-5302 Array controller had one array consisting of (2) 18.2GB 10K drives with a RAID 0+1 logical volume for the operating system, and housed a second array consisting of (4) 36.4GB 10K drives with a RAID 0+1 logical volume for the database log. The Array Accelerators on the data controllers were configured as 100% write cache and were enabled for all logical drives on those controllers. The controller for the operating system and transaction log had the cache disabled. All RAID volumes used hardware RAID.

Section 1.2 of this report details the distribution of database tables across all disks. The code that creates the filegroups and tables is included in Appendix B.

Type of Database

A statement must be provided that describes:

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

Microsoft SQL Server 2000 Standard Edition is a relational DBMS.

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

Database Mapping

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

The database was not replicated.

60 Day Space

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

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

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

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

The details of both the 8-hour transaction log space requirement and the 60-day space requirement is shown in Appendix D.

Clause 5 Related Items

Throughput

Measured tpmC must be reported

Measured tpmC 17,659.53 tpmC
Price per tpmC \$3.84 per tpmC

Response Times

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

Table 5.2: Response Times

Type	Average	90 th %	Maximum
New-Order	0.67	1.23	20.03
Payment	0.42	0.85	19.48
Order-Status	0.48	0.90	17.90
Interactive Delivery	0.11	0.11	10.95
Deferred Delivery	0.74	1.07	11.39
Stock-Level	4.19	6.38	25.75
Menu	0.11	0.11	13.11

Keying and Think Times

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

Table 5.3: Keying Times

Type	Minimum	Average	Maximum
New-Order	18.00	18.02	18.03
Payment	3.00	3.02	3.03
Order-Status	2.00	2.02	2.02
Interactive Delivery	2.00	2.02	2.02
Stock-Level	2.00	2.02	2.02

Table 5.4: Think Times

Type	Minimum	Average	Maximum
New-Order	0.00	12.52	125.31
Payment	0.00	12.52	125.31
Order-Status	0.00	10.45	104.50
Interactive Delivery	0.00	5.27	52.50
Stock-Level	0.00	5.26	52.50

Response Time Frequency Distribution Curves and Other Graphs

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

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

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

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

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

Figure 3. New Order Response Time Distribution

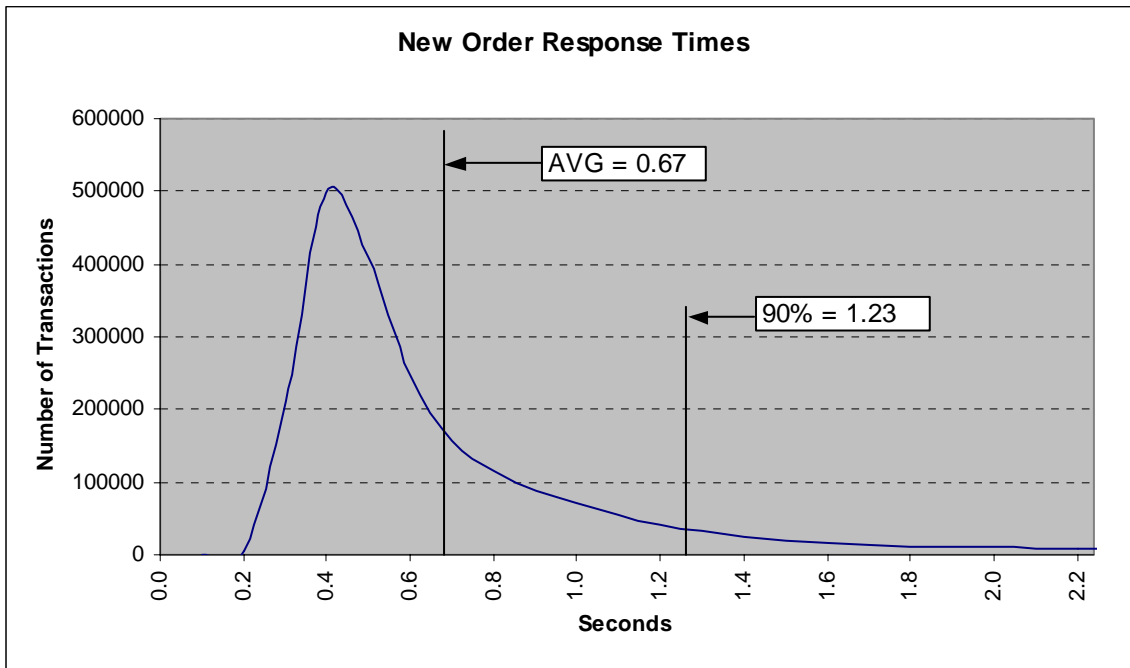


Figure 4. Payment Response Time Distribution

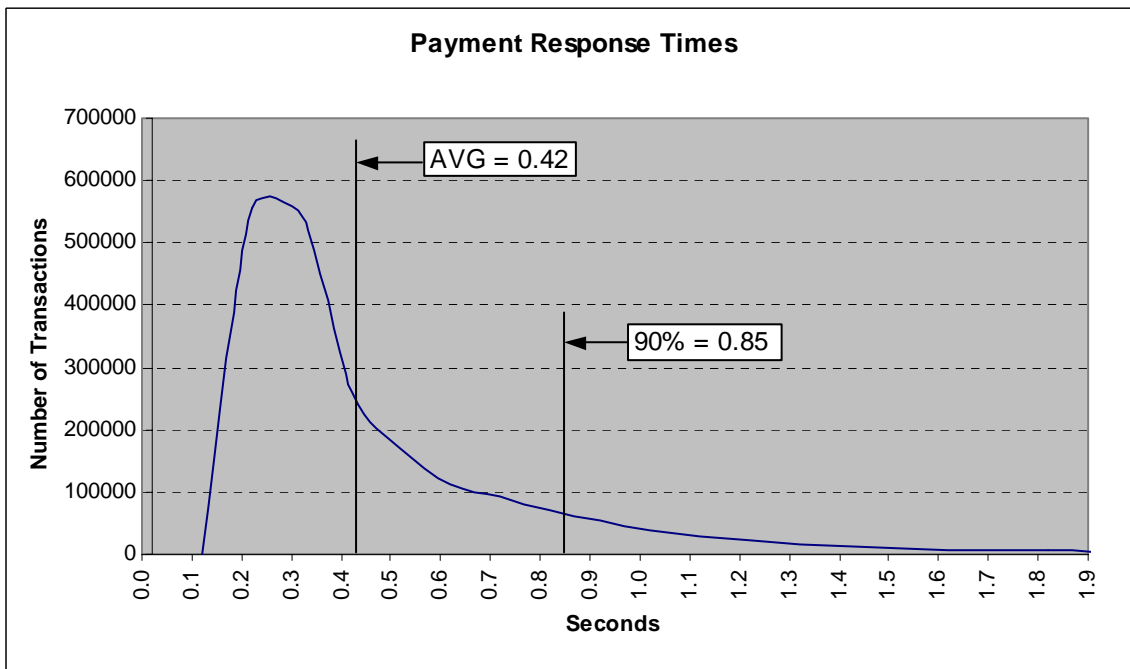


Figure 5. Order Status Response Time Distribution

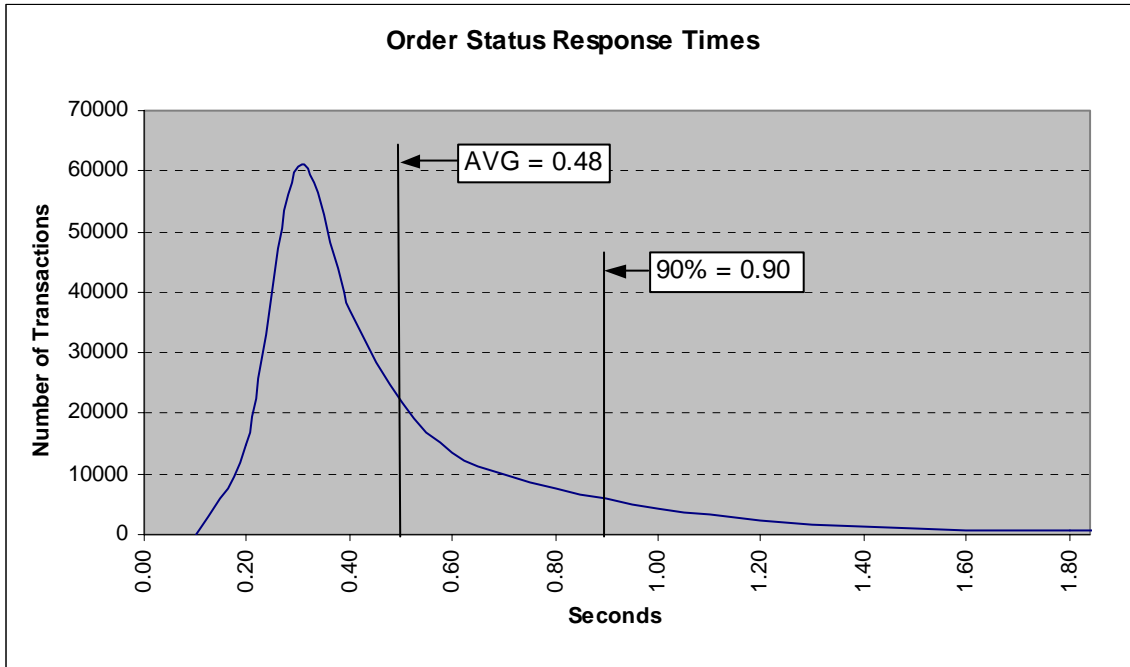


Figure 6. Delivery Response Time Distribution

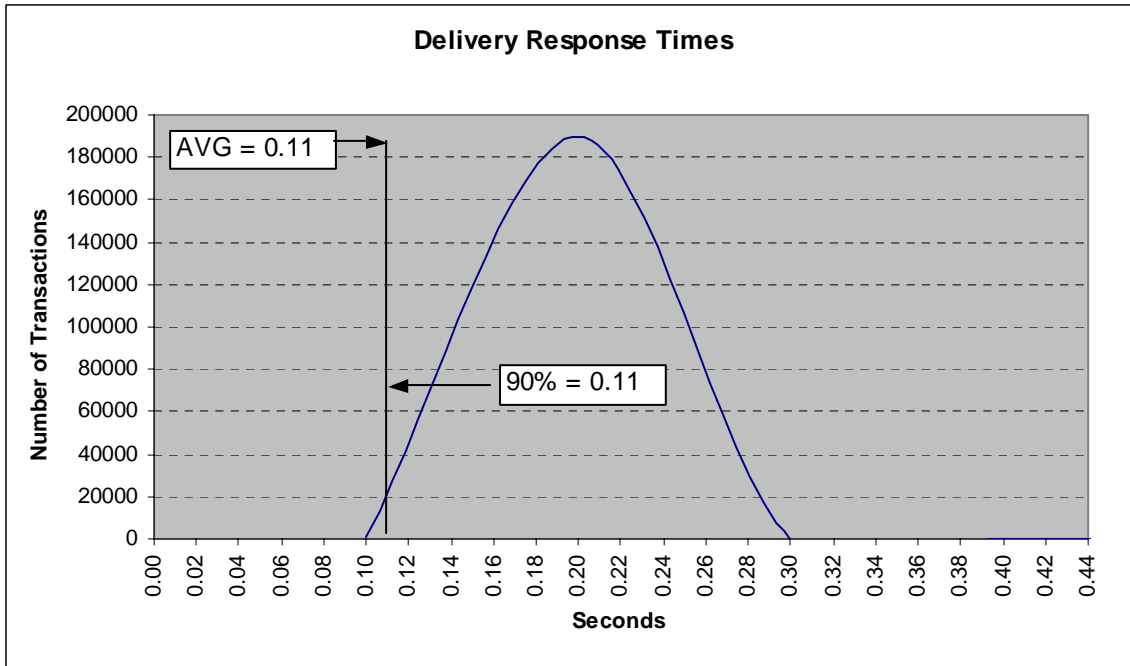


Figure 7. Stock Level Response Time Distribution

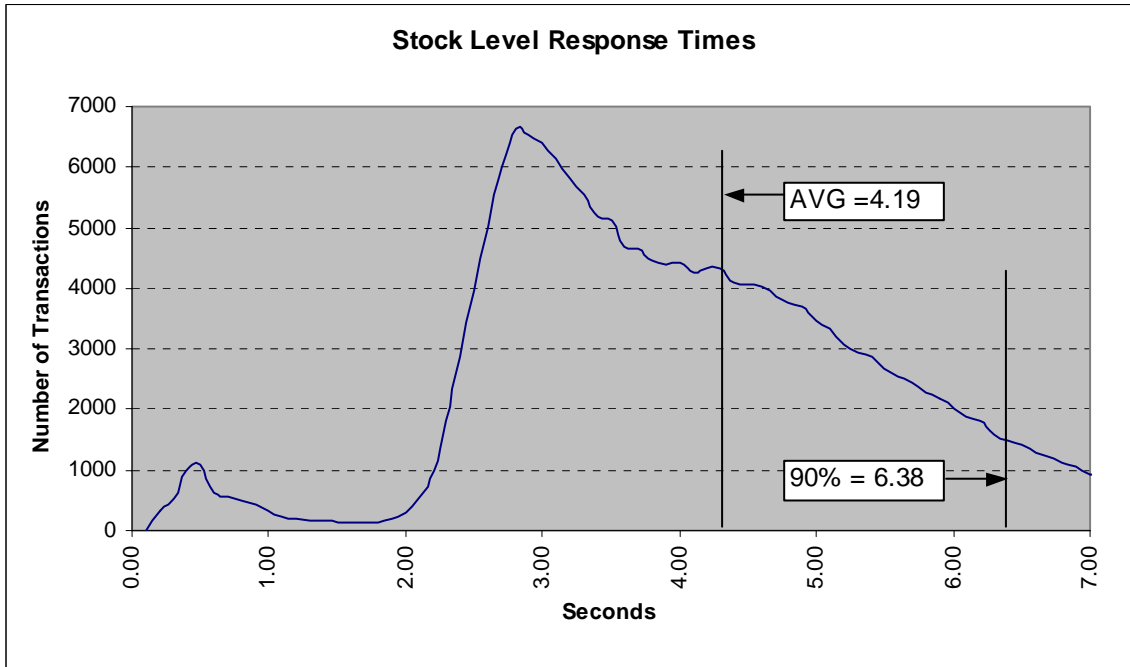


Figure 8. Response Time vs. Throughput

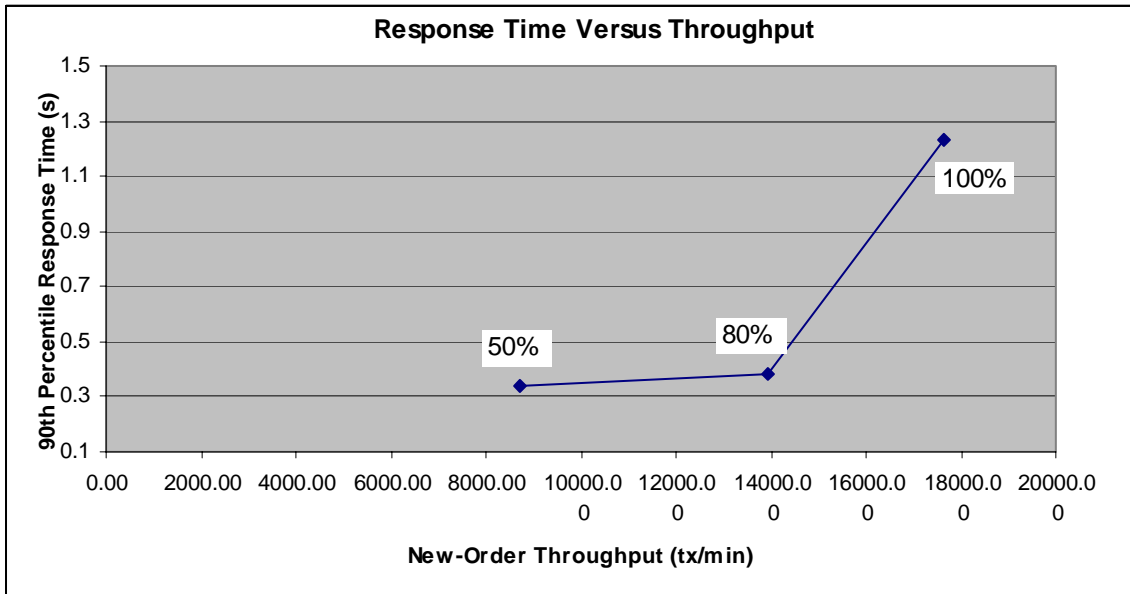


Figure 9. New Order Think Time Distribution

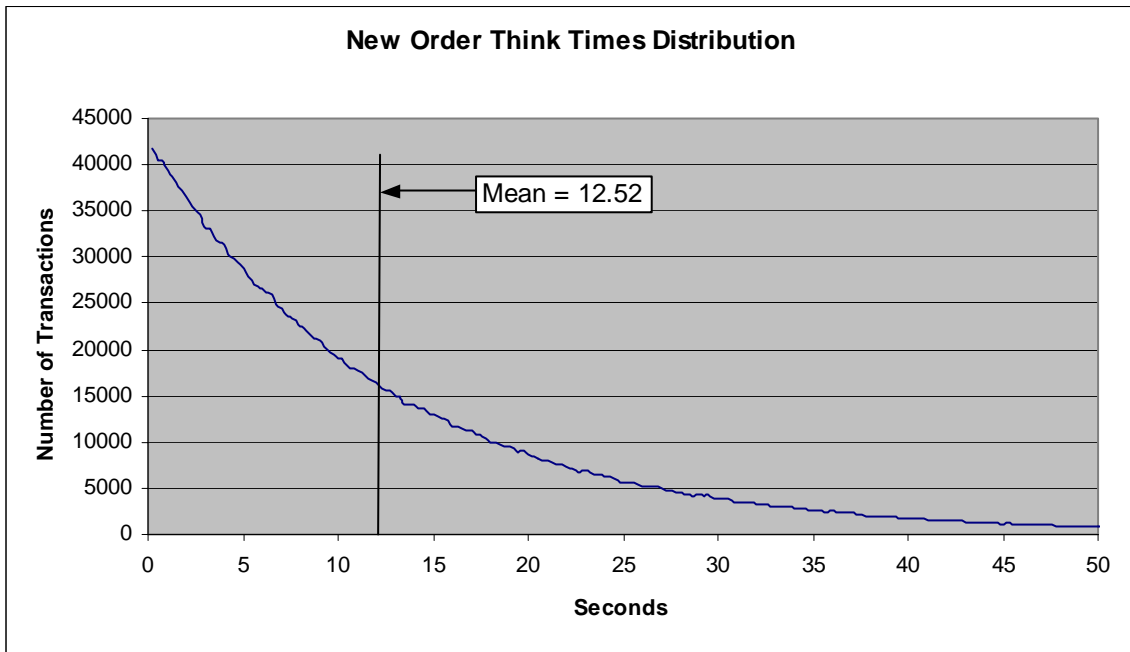
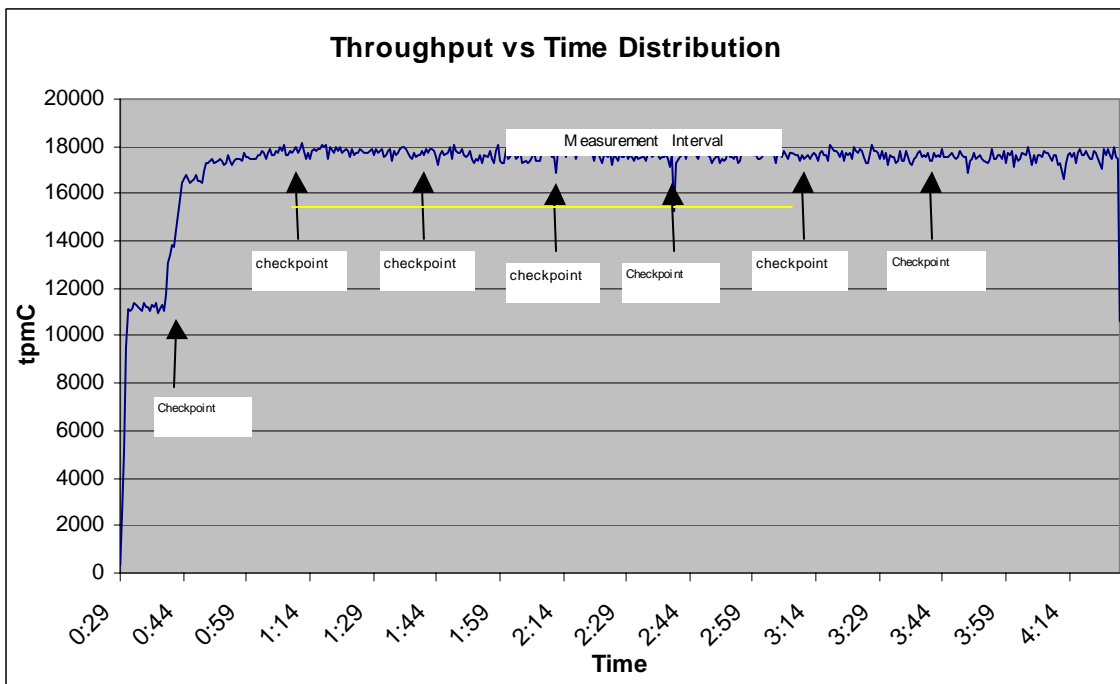


Figure 10. Throughput vs. Time Distribution



Steady State Determination

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

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

Work Performed During Steady State

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

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

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

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

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

To perform checkpoints at specific intervals, the SQL Server *recovery interval* was set to 80 and a script was written to schedule multiple checkpoints at specific intervals. The script included a wait time between each checkpoint equal to 30 minutes so that the checkpoint interval was an integral multiple of the measurement interval, which was 120 minutes. The checkpoint script was started manually after the RTE had all users logged in and the database had achieved steady state.

At each checkpoint, Microsoft SQL Server wrote to disk all memory pages that had been updated but not yet physically written to disk. The positioning of the measurement interval is depicted on the graph in Figure 10.

Measurement Period Duration

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

The reported measured interval was exactly 120 minutes long.

Regulation of Transaction Mix

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

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

Transaction Statistics

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

Table 5.5: Transaction Statistics

Statistic		Value
New Order	Home warehouse order lines	99.00%
	Remote warehouse order lines	1.00%
	Rolled back transactions	1.00%
	Average items per order	10.00
Payment	Home warehouse payments	84.99%
	Remote warehouse payments	15.01%
	Accessed by last name	60.00%
Delivery	Skipped transactions (interactive)	0
	Skipped transactions (deferred)	0
Order Status	Accessed by last name	60.07%
Transaction Mix	New Order	44.88%
	Payment	43.04%
	Order status	4.03%
	Delivery	4.02%
	Stock level	4.02%

Checkpoint Count and Location

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

The initial checkpoint was started 48 minutes after the start of the ramp-up. Subsequent checkpoints occurred every 30 minutes. The measurement interval contains four checkpoints.

Checkpoint Duration

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

Checkpoint Start Time	Duration
1:09:09a.m.	7 minutes, 57 seconds
1:39:05a.m.	12 minutes, 54 seconds
2:09:00a.m.	12 minutes, 59 seconds
2:38:56a.m.	15 minutes, 17 seconds

Clause 6 Related Items

RTE Descriptions

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

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

Emulated Components

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

The driver system consisted of 1 HP ProLiant server. This driver machine emulated the users web browsers.

Functional Diagrams

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

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

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

Networks

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

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

In the tested configuration, 1 driver (RTE) machine was connected through a 10/100 switch to the client machines at 100Mbps, thus providing the path from the RTE to the clients. The server (SUT) was connected to the clients through 2 Ethernet cross-over cables through separate Ethernet network cards in the server.

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

Operator Intervention

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

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

Clause 7 Related Items

System Pricing

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

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

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

Availability, Throughput, and Price Performance

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

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

- **Maximum Qualified Throughput** **17,659.53 tpmC**
- **Price per tpmC** **\$3.84 per tpmC**
- **Availability** **July 25,2002**

Country Specific Pricing

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

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

Usage Pricing

For any usage pricing, the sponsor must disclose:

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

The component pricing based on usage is shown below:

- 3 Microsoft Windows 2000 Server
- 1 Microsoft SQL Server 2000 Standard Edition (per processor)
- 1 Microsoft Visual C++
- HP Servers include 3 years of support.

Clause 9 Related Items

Auditor's Report

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

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

Performance Metrics, Inc.
137 Yankton St., Suite 101
Folsom, CA 95630
(phone) (916) 985-1131
(fax) (916) 985-1185
e-mail: lorna@perfmetrics.com

Availability of the Full Disclosure Report

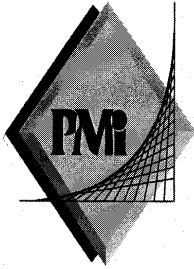
The Full Disclosure Report must be readily available to the public at a reasonable charge, similar to the charges for similar documents by the test sponsor. The report must be made available when results are made public. In order to use the phrase "TPC Benchmark™ C", the Full Disclosure Report must have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

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

Transaction Processing Performance Council
c/o Shanley Public Relations
777 North First Street, Suite 600
San Jose, CA 95112-6311

or

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



PERFORMANCE METRICS INC.
TPC Certified Auditors

July 25, 2002

Mr. John Ellyson
Systems Software Engineer
Compaq Computer Corporation
20555 SH 249
Houston, TX 77070

I have verified by remote the TPC Benchmark™ C client/server for the following configuration on each node:

Platform: ProLiant ML530G2T 1P
Database Manager: Microsoft SQL Server 2000 Standard Edition
Operating System: Microsoft Windows 2000 Server
Transaction Monitor: Microsoft COM+

Servers: ProLiant ML530G2T with:				
CPU's	Memory	Disks (total)	90% Response	TpmC
1 Pentium III Xeon @ 2.4 Mhz	Main: 2048 MB Cache: 512 KB	58 @ 18GB 4 @ 36 GB	1.23 sec	17,659.53
2 Clients: ML330T02 each with:				
1 Pentium III Xeon @ 1 Ghz	Main: 512 MB Cache: 256K	1 @ 9.1GB	Na	Na

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

- The transactions were correctly implemented.
- The database files were properly sized and populated.
- The database was properly scaled with 1,460 warehouses.
- The ACID properties were successfully demonstrated.
- Input data was generated according to the specified percentages.

2229 Benita Dr. Suite 101, Rancho Cordova, CA 95670
(916) 635-2822 fax: (916) 858-0109 email: Lorna@PerfMetrics.com

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PERFORMANCE METRICS INC.
TPC Certified Auditors

- Eight hours of mirrored log space was present on the tested system.
- Eight hours of growth space for the dynamic tables was present on the tested system.
- The data for the 60 day space calculation was verified.
- The controller cache was disabled on the log disk controllers.
- The steady state portion of the test was 120 minutes.
- One checkpoint was taken before the measured interval.
- Four checkpoints were taken during the measured interval.
- The system pricing was checked for major components and maintenance.
- Third party quotes were verified for compliance.

Auditor Notes: None.

Sincerely,



Lorna Livingtree
Auditor

Appendix A: Source Code

The client source code is listed below.

Methods.h

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

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

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

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

    ~CCOMPONENT_ERR()
    {
        if (m_szTextDetail != NULL)
```

```
        delete [] m_szTextDetail;
        if (m_szErrorText != NULL)
            delete [] m_szErrorText;
    };

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

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

static void WriteMessageToEventLog(LPTSTR lpzMsg);

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

    CTPCC_Common();
    ~CTPCC_Common();

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

    HRESULT __stdcall CallSetComplete();

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

// IObjectConstruct
    STDMETHODIMP Construct(IDispatch * pUnk);

private:
    BOOL                m_bCanBePooled;
    CTPCC_BASE          *m_pTxn;

    struct COM_DATA
```

```

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

};

////////////////////////////////////
// CTPCC
class CTPCC :
    public CTPCC_Common,
    public CComCoClass<CTPCC, &CLSID_TPCC>
{
public:
    DECLARE_REGISTRY_RESOURCEID(IDR_TPCC)

    BEGIN_COM_MAP(CTPCC)
        COM_INTERFACE_ENTRY2(IUnknown, CComObjectRootEx)
        COM_INTERFACE_ENTRY_CHAIN(CTPCC_Common)
    END_COM_MAP()
};

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

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

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

////////////////////////////////////
//
// COrderStatus
class COrderStatus :

```

```

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

    BEGIN_COM_MAP(COrderStatus)
        COM_INTERFACE_ENTRY2(IUnknown, CComObjectRootEx)
        COM_INTERFACE_ENTRY_CHAIN(CTPCC_Common)
    END_COM_MAP()

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

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

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

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

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

    BEGIN_COM_MAP(CStockLevel)
        COM_INTERFACE_ENTRY2(IUnknown, CComObjectRootEx)
        COM_INTERFACE_ENTRY_CHAIN(CTPCC_Common)

```

```

END_COM_MAP()

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

```

ReadRegistry.cpp

```

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

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

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

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

```

```

}

pReg->eTxnMon = None;
// determine txn monitor to use; may be either TUXEDO, or blank
size = sizeof(szTmp);
if ( RegQueryValueEx(hKey, "TxnMonitor", 0, &type, (BYTE *)&szTmp, &size)
== ERROR_SUCCESS )
{
    if ( !strcmp(szTmp, szTxnMonNames[TUXEDO]) )
        pReg->eTxnMon = TUXEDO;
    else if ( !strcmp(szTmp, szTxnMonNames[ENCINA]) )
        pReg->eTxnMon = ENCINA;
    else if ( !strcmp(szTmp, szTxnMonNames[COM]) )
        pReg->eTxnMon = COM;
}

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

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

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

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

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

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

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

size = sizeof( pReg->szDbUser );

```

```

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

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

    RegCloseKey(hKey);

    return FALSE;
}

```

ReadRegistry.h

```

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

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

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

//This structure defines the data necessary to keep distinct for each terminal or
client connection.
typedef struct _TPCCREGISTRYDATA
{
    enum DBPROTOCOL eDB_Protocol;
    enum TXNMON eTxnMon;
    BOOL bCOM_SinglePool;
    DWORD dwMaxConnections;
    DWORD dwMaxPendingDeliveries;
    DWORD dwNumberOfDeliveryThreads;
    char szPath[128];
    char szDbServer[32];
    char szDbName[32];
    char szDbUser[32];
    char szDbPassword[32];
} TPCCREGISTRYDATA, *PTPCCREGISTRYDATA;

BOOL ReadTPCCRegistrySettings( TPCCREGISTRYDATA *pReg );

```

WEBCLNT.DSP

```

# Microsoft Developer Studio Project File - Name="webclnt" - Package Owner=<4>
# Microsoft Developer Studio Generated Build File, Format Version 5.00
# ** DO NOT EDIT **

# TARGETTYPE "Win32 (x86) Application" 0x0101

```

```

CFG=webclnt - Win32 Release
!MESSAGE This is not a valid makefile. To build this project using NMAKE,
!MESSAGE use the Export Makefile command and run
!MESSAGE
!MESSAGE NMAKE /f "Webclnt.mak".
!MESSAGE
!MESSAGE You can specify a configuration when running NMAKE
!MESSAGE by defining the macro CFG on the command line. For example:
!MESSAGE
!MESSAGE NMAKE /f "Webclnt.mak" CFG="webclnt - Win32 Release"
!MESSAGE
!MESSAGE Possible choices for configuration are:
!MESSAGE
!MESSAGE "webclnt - Win32 Release" (based on "Win32 (x86) Application")
!MESSAGE "webclnt - Win32 Debug" (based on "Win32 (x86) Application")
!MESSAGE

```

```

# Begin Project
# PROP Scc_ProjName ""
# PROP Scc_LocalPath ""
CPP=cl.exe
MTL=midl.exe
RSC=rc.exe

```

```
!IF "$(CFG)" == "webclnt - Win32 Release"
```

```

# PROP BASE Use_MFC 0
# PROP BASE Use_Debug_Libraries 0
# PROP BASE Output_Dir ".\Release"
# PROP BASE Intermediate_Dir ".\Release"
# PROP BASE Target_Dir ""
# PROP Use_MFC 0
# PROP Use_Debug_Libraries 0
# PROP Output_Dir ".\Release"
# PROP Intermediate_Dir ".\Release"
# PROP Target_Dir ""
# ADD BASE CPP /nologo /W3 /GX /O2 /D "WIN32" /D "NDEBUG" /D "_WINDOWS" /YX /c
# ADD CPP /nologo /W3 /GX /O2 /D "WIN32" /D "NDEBUG" /D "_WINDOWS" /YX /FD /c
# ADD BASE MTL /nologo /D "NDEBUG" /win32
# ADD MTL /nologo /D "NDEBUG" /mktyplib203 /win32
# ADD BASE RSC /l 0x409 /d "NDEBUG"
# ADD RSC /l 0x409 /d "NDEBUG"
BSC32=bscmake.exe
# ADD BASE BSC32 /nologo
# ADD BSC32 /nologo
LINK32=link.exe
# ADD BASE LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbc32.lib odbccp32.lib
/nologo /subsystem:windows /machine:I386
# ADD LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbc32.lib odbccp32.lib
/nologo /subsystem:windows /machine:I386

```

```
!ELSEIF "$(CFG)" == "webclnt - Win32 Debug"
```

```

# PROP BASE Use_MFC 0
# PROP BASE Use_Debug_Libraries 1
# PROP BASE Output_Dir ".\Debug"
# PROP BASE Intermediate_Dir ".\Debug"
# PROP BASE Target_Dir ""
# PROP Use_MFC 0
# PROP Use_Debug_Libraries 1

```

```

# PROP Output_Dir ".\Debug"
# PROP Intermediate_Dir ".\Debug"
# PROP Target_Dir ""
# ADD BASE CPP /nologo /W3 /Gm /GX /Zi /Od /D "WIN32" /D "_DEBUG" /D "_WINDOWS" /YX
/c
# ADD CPP /nologo /W3 /Gm /GX /Zi /Od /D "WIN32" /D "_DEBUG" /D "_WINDOWS" /YX /FD
/c
# ADD BASE MTL /nologo /D "_DEBUG" /win32
# ADD MTL /nologo /D "_DEBUG" /mktyplib203 /win32
# ADD BASE RSC /l 0x409 /d "_DEBUG"
# ADD RSC /l 0x409 /d "_DEBUG"
BSC32=bscmake.exe
# ADD BASE BSC32 /nologo
# ADD BSC32 /nologo
LINK32=link.exe
# ADD BASE LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbc32.lib odbccp32.lib
/nologo /subsystem:windows /debug /machine:I386
# ADD LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbc32.lib odbccp32.lib
/nologo /subsystem:windows /debug /machine:I386

!ENDIF

# Begin Target

# Name "webclnt - Win32 Release"
# Name "webclnt - Win32 Debug"
# End Target
# End Project

```

Webclnt.dsw

Microsoft Developer Studio Workspace File, Format Version 6.00
WARNING: DO NOT EDIT OR DELETE THIS WORKSPACE FILE!

```

#####
Project: "db_dblib_dll"=.\db_dblib_dll\db_dblib_dll.dsp - Package Owner=<4>

Package=<5>
{{{
}}}

Package=<4>
{{{
}}}

#####
Project: "db_odbc_dll"=.\db_odbc_dll\db_odbc_dll.dsp - Package Owner=<4>

Package=<5>
{{{
}}}

Package=<4>
{{{
}}}

#####

```

Project: "install"=.\install\install.dsp - Package Owner=<4>

```

Package=<5>
{{{
}}}

Package=<4>
{{{
Begin Project Dependency
Project_Dep_Name isapi_dll
End Project Dependency
Begin Project Dependency
Project_Dep_Name tuxapp
End Project Dependency
Begin Project Dependency
Project_Dep_Name db_dblib_dll
End Project Dependency
Begin Project Dependency
Project_Dep_Name db_odbc_dll
End Project Dependency
Begin Project Dependency
Project_Dep_Name tm_com_dll
End Project Dependency
Begin Project Dependency
Project_Dep_Name tm_tuxedo_dll
End Project Dependency
Begin Project Dependency
Project_Dep_Name tpcc_com_all
End Project Dependency
Begin Project Dependency
Project_Dep_Name tpcc_com_ps
End Project Dependency
}}}

#####
Project: "isapi_dll"=.\isapi_dll\isapi_dll.dsp - Package Owner=<4>

Package=<5>
{{{
}}}

Package=<4>
{{{
Begin Project Dependency
Project_Dep_Name db_dblib_dll
End Project Dependency
Begin Project Dependency
Project_Dep_Name db_odbc_dll
End Project Dependency
Begin Project Dependency
Project_Dep_Name tm_tuxedo_dll
End Project Dependency
Begin Project Dependency
Project_Dep_Name tm_com_dll
End Project Dependency
Begin Project Dependency
Project_Dep_Name tm_encina_dll
End Project Dependency
}}}

#####

```



```

Project: "tm_com_dll"=.\tm_com_dll\tm_com_dll.dsp - Package Owner=<4>

Package=<5>
{{{
}}}

Package=<4>
{{{
  Begin Project Dependency
  Project_Dep_Name tpcc_com_ps
  End Project Dependency
  Begin Project Dependency
  Project_Dep_Name tpcc_com_all
  End Project Dependency
}}}

#####

Project: "tm_encina_dll"=.\tm_encina_dll\tm_encina_dll.dsp - Package Owner=<4>

Package=<5>
{{{
}}}

Package=<4>
{{{
}}}

#####

Project: "tm_tuxedo_dll"=.\tm_tuxedo_dll\tm_tuxedo_dll.dsp - Package Owner=<4>

Package=<5>
{{{
}}}

Package=<4>
{{{
}}}

#####

Project: "tpcc_com_all"=.\tpcc_com_all\tpcc_com_all.dsp - Package Owner=<4>

Package=<5>
{{{
}}}

Package=<4>
{{{
  Begin Project Dependency
  Project_Dep_Name tpcc_com_ps
  End Project Dependency
}}}

#####

Project: "tpcc_com_ps"=.\tpcc_com_ps\tpcc_com_ps.dsp - Package Owner=<4>

Package=<5>
{{{
}}}

```

```

Package=<4>
{{{
}}}

#####

Project: "tuxapp"=.\tuxapp\tuxapp.dsp - Package Owner=<4>

Package=<5>
{{{
}}}

Package=<4>
{{{
  Begin Project Dependency
  Project_Dep_Name db_dblib_dll
  End Project Dependency
  Begin Project Dependency
  Project_Dep_Name db_odbc_dll
  End Project Dependency
}}}

#####

Global:

Package=<5>
{{{
}}}

Package=<3>
{{{
}}}

#####

db_dblib_dll.dsp
# Microsoft Developer Studio Project File - Name="db_dblib_dll" - Package Owner=<4>
# Microsoft Developer Studio Generated Build File, Format Version 6.00
# ** DO NOT EDIT **

# TARGETTYPE "Win32 (x86) Dynamic-Link Library" 0x0102

CFG=db_dblib_dll - Win32 IceCAP
!MESSAGE This is not a valid makefile. To build this project using NMAKE,
!MESSAGE use the Export Makefile command and run
!MESSAGE
!MESSAGE NMAKE /f "db_dblib_dll.mak".
!MESSAGE
!MESSAGE You can specify a configuration when running NMAKE
!MESSAGE by defining the macro CFG on the command line. For example:
!MESSAGE
!MESSAGE NMAKE /f "db_dblib_dll.mak" CFG="db_dblib_dll - Win32 IceCAP"
!MESSAGE
!MESSAGE Possible choices for configuration are:
!MESSAGE
!MESSAGE "db_dblib_dll - Win32 Release" (based on "Win32 (x86) Dynamic-Link
Library")
!MESSAGE "db_dblib_dll - Win32 Debug" (based on "Win32 (x86) Dynamic-Link Library")
!MESSAGE "db_dblib_dll - Win32 IceCAP" (based on "Win32 (x86) Dynamic-Link Library")

```

```

!MESSAGE

# Begin Project
# PROP AllowPerConfigDependencies 0
# PROP Scc_ProjName ""
# PROP Scc_LocalPath ""
CPP=cl.exe
MTL=midl.exe
RSC=rc.exe

!IF "$(CFG)" == "db_dblib_dll - Win32 Release"

# PROP BASE Use_MFC 0
# PROP BASE Use_Debug_Libraries 0
# PROP BASE Output_Dir "Release"
# PROP BASE Intermediate_Dir "Release"
# PROP BASE Target_Dir ""
# PROP Use_MFC 0
# PROP Use_Debug_Libraries 0
# PROP Output_Dir ".\bin"
# PROP Intermediate_Dir ".\obj"
# PROP Ignore_Export_Lib 0
# PROP Target_Dir ""
# ADD BASE CPP /nologo /MT /W3 /GX /O2 /D "WIN32" /D "NDEBUG" /D "_WINDOWS" /YX /FD /c
# ADD CPP /nologo /MD /W3 /GX /O2 /D "WIN32" /D "NDEBUG" /D "_WINDOWS" /YX /FD /c
# ADD BASE MTL /nologo /D "NDEBUG" /mktyplib203 /o "NUL" /win32
# ADD MTL /nologo /D "NDEBUG" /mktyplib203 /o "NUL" /win32
# ADD BASE RSC /l 0x409 /d "NDEBUG"
# ADD RSC /l 0x409 /d "NDEBUG"
BSC32=bscmake.exe
# ADD BASE BSC32 /nologo
# ADD BSC32 /nologo
LINK32=link.exe
# ADD BASE LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbccp32.lib
/nologo /subsystem:windows /dll /machine:I386
# ADD LINK32 ntdbllib.lib kernel32.lib user32.lib gdi32.lib winspool.lib
comdlg32.lib advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib /nologo
/subsystem:windows /dll /machine:I386 /out:".bin\tpcc_dblib.dll"

!ELSEIF "$(CFG)" == "db_dblib_dll - Win32 Debug"

# PROP BASE Use_MFC 0
# PROP BASE Use_Debug_Libraries 1
# PROP BASE Output_Dir "Debug"
# PROP BASE Intermediate_Dir "Debug"
# PROP BASE Target_Dir ""
# PROP Use_MFC 0
# PROP Use_Debug_Libraries 1
# PROP Output_Dir ".\bin"
# PROP Intermediate_Dir ".\obj"
# PROP Ignore_Export_Lib 0
# PROP Target_Dir ""
# ADD BASE CPP /nologo /MTd /W3 /Gm /GX /ZI /Od /D "WIN32" /D "_DEBUG" /D "_WINDOWS"
/YX /FD /c
# ADD CPP /nologo /MDd /W3 /Gm /GX /ZI /Od /D "WIN32" /D "_DEBUG" /D "_WINDOWS" /YX
/FD /c
# ADD BASE MTL /nologo /D "_DEBUG" /mktyplib203 /o "NUL" /win32
# ADD MTL /nologo /D "_DEBUG" /mktyplib203 /o "NUL" /win32
# ADD BASE RSC /l 0x409 /d "_DEBUG"
# ADD RSC /l 0x409 /d "_DEBUG"
BSC32=bscmake.exe

```

```

# ADD BASE BSC32 /nologo
# ADD BSC32 /nologo
LINK32=link.exe
# ADD BASE LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbccp32.lib
/nologo /subsystem:windows /dll /debug /machine:I386 /pdftype:sept
# ADD LINK32 ntdbllib.lib kernel32.lib user32.lib gdi32.lib winspool.lib
comdlg32.lib advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib /nologo
/subsystem:windows /dll /debug /machine:I386 /out:".bin\tpcc_dblib.dll"
/pdftype:sept

!ELSEIF "$(CFG)" == "db_dblib_dll - Win32 IceCAP"

# PROP BASE Use_MFC 0
# PROP BASE Use_Debug_Libraries 1
# PROP BASE Output_Dir "db_dblib"
# PROP BASE Intermediate_Dir "db_dblib"
# PROP BASE Ignore_Export_Lib 0
# PROP BASE Target_Dir ""
# PROP Use_MFC 0
# PROP Use_Debug_Libraries 1
# PROP Output_Dir ".\bin"
# PROP Intermediate_Dir ".\obj"
# PROP Ignore_Export_Lib 0
# PROP Target_Dir ""
# ADD BASE CPP /nologo /MDd /W3 /Gm /GX /ZI /Od /D "WIN32" /D "_DEBUG" /D "_WINDOWS"
/YX /FD /Gh /c
# ADD CPP /nologo /MD /W3 /Gm /GX /ZI /O2 /D "WIN32" /D "NDEBUG" /D "_WINDOWS" /D
"ICECAP" /YX /FD /Gh /c
# ADD BASE MTL /nologo /D "_DEBUG" /mktyplib203 /o "NUL" /win32
# ADD MTL /nologo /D "_DEBUG" /mktyplib203 /o "NUL" /win32
# ADD BASE RSC /l 0x409 /d "_DEBUG"
# ADD RSC /l 0x409 /d "_DEBUG"
BSC32=bscmake.exe
# ADD BASE BSC32 /nologo
# ADD BSC32 /nologo
LINK32=link.exe
# ADD BASE LINK32 ntdbllib.lib kernel32.lib user32.lib gdi32.lib winspool.lib
comdlg32.lib advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib /nologo
/subsystem:windows /dll /debug /machine:I386 /out:".bin\tpcc_dblib.dll"
/pdftype:sept
# ADD LINK32 icap.lib ntdbllib.lib kernel32.lib user32.lib gdi32.lib winspool.lib
comdlg32.lib advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib /nologo
/subsystem:windows /dll /debug /machine:I386 /out:".bin\tpcc_dblib.dll"
/pdftype:sept

!ENDIF

# Begin Target

# Name "db_dblib_dll - Win32 Release"
# Name "db_dblib_dll - Win32 Debug"
# Name "db_dblib_dll - Win32 IceCAP"
# Begin Group "Source"

# PROP Default_Filter "*.cpp"
# Begin Source File

SOURCE=.src\tpcc_dblib.cpp
# End Source File
# End Group
# Begin Group "Header"

```

```

# PROP Default_Filter "*.h"
# Begin Source File

SOURCE=..\common\src\error.h
# End Source File
# Begin Source File

SOURCE=..\src\tpcc_dblib.h
# End Source File
# Begin Source File

SOURCE=..\common\src\trans.h
# End Source File
# Begin Source File

SOURCE=..\common\src\txn_base.h
# End Source File
# End Group
# End Target
# End Project

```

db_odbc_dll.dsp

```

# Microsoft Developer Studio Project File - Name="db_odbc_dll" - Package Owner=<4>
# Microsoft Developer Studio Generated Build File, Format Version 6.00
# ** DO NOT EDIT **

# TARGETTYPE "Win32 (x86) Dynamic-Link Library" 0x0102

CFG=db_odbc_dll - Win32 IceCAP
!MESSAGE This is not a valid makefile. To build this project using NMAKE,
!MESSAGE use the Export Makefile command and run
!MESSAGE
!MESSAGE NMAKE /f "db_odbc_dll.mak".
!MESSAGE
!MESSAGE You can specify a configuration when running NMAKE
!MESSAGE by defining the macro CFG on the command line. For example:
!MESSAGE
!MESSAGE NMAKE /f "db_odbc_dll.mak" CFG="db_odbc_dll - Win32 IceCAP"
!MESSAGE
!MESSAGE Possible choices for configuration are:
!MESSAGE
!MESSAGE "db_odbc_dll - Win32 Release" (based on "Win32 (x86) Dynamic-Link Library")
!MESSAGE "db_odbc_dll - Win32 Debug" (based on "Win32 (x86) Dynamic-Link Library")
!MESSAGE "db_odbc_dll - Win32 IceCAP" (based on "Win32 (x86) Dynamic-Link Library")
!MESSAGE

# Begin Project
# PROP AllowPerConfigDependencies 0
# PROP Scc_ProjName ""
# PROP Scc_LocalPath ""
CPP=cl.exe
MTL=midl.exe
RSC=rc.exe

!IF "$(CFG)" == "db_odbc_dll - Win32 Release"

# PROP BASE Use_MFC 0
# PROP BASE Use_Debug_Libraries 0
# PROP BASE Output_Dir "Release"
# PROP BASE Intermediate_Dir "Release"
# PROP BASE Target_Dir ""

```

```

# PROP Use_MFC 0
# PROP Use_Debug_Libraries 0
# PROP Output_Dir ".\bin"
# PROP Intermediate_Dir ".\obj"
# PROP Ignore_Export_Lib 0
# PROP Target_Dir ""
# ADD BASE CPP /nologo /MT /W3 /GX /O2 /D "WIN32" /D "NDEBUG" /D "_WINDOWS" /YX /FD
/c
# ADD CPP /nologo /MD /W3 /GX /O2 /D "WIN32" /D "NDEBUG" /D "_WINDOWS" /YX /FD /c
# ADD BASE MTL /nologo /D "NDEBUG" /mktyplib203 /o /win32 "NUL"
# ADD MTL /nologo /D "NDEBUG" /mktyplib203 /o /win32 "NUL"
# ADD BASE RSC /l 0x409 /d "NDEBUG"
# ADD RSC /l 0x409 /d "NDEBUG"
BSC32=bscmake.exe
# ADD BASE BSC32 /nologo
# ADD BSC32 /nologo
LINK32=link.exe
# ADD BASE LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbc32.lib odbccp32.lib
/nologo /subsystem:windows /dll /machine:I386
# ADD LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbc32.lib odbccp32.lib
/nologo /subsystem:windows /dll /machine:I386 /out:".bin\tpcc_odbc.dll"

!ELSEIF "$(CFG)" == "db_odbc_dll - Win32 Debug"

# PROP BASE Use_MFC 0
# PROP BASE Use_Debug_Libraries 1
# PROP BASE Output_Dir "Debug"
# PROP BASE Intermediate_Dir "Debug"
# PROP BASE Target_Dir ""
# PROP Use_MFC 0
# PROP Use_Debug_Libraries 1
# PROP Output_Dir ".\bin"
# PROP Intermediate_Dir ".\obj"
# PROP Ignore_Export_Lib 0
# PROP Target_Dir ""
# ADD BASE CPP /nologo /MTd /W3 /Gm /GX /ZI /Od /D "WIN32" /D "_DEBUG" /D "_WINDOWS"
/YX /FD /c
# ADD CPP /nologo /MDd /W3 /GX /ZI /Od /D "WIN32" /D "_DEBUG" /D "_WINDOWS" /YX /FD
/c
# ADD BASE MTL /nologo /D "_DEBUG" /mktyplib203 /o /win32 "NUL"
# ADD MTL /nologo /D "_DEBUG" /mktyplib203 /o /win32 "NUL"
# ADD BASE RSC /l 0x409 /d "_DEBUG"
# ADD RSC /l 0x409 /d "_DEBUG"
BSC32=bscmake.exe
# ADD BASE BSC32 /nologo
# ADD BSC32 /nologo
LINK32=link.exe
# ADD BASE LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbc32.lib odbccp32.lib
/nologo /subsystem:windows /dll /debug /machine:I386 /pdbtype:sept
# ADD LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbc32.lib odbccp32.lib
/nologo /subsystem:windows /dll /debug /machine:I386 /out:".bin\tpcc_odbc.dll"
/pdbtype:sept

!ELSEIF "$(CFG)" == "db_odbc_dll - Win32 IceCAP"

# PROP BASE Use_MFC 0
# PROP BASE Use_Debug_Libraries 1
# PROP BASE Output_Dir "db_odbc_"
# PROP BASE Intermediate_Dir "db_odbc_"

```

```

# PROP BASE Ignore_Export_Lib 0
# PROP BASE Target_Dir ""
# PROP Use_MFC 0
# PROP Use_Debug_Libraries 1
# PROP Output_Dir ".\bin"
# PROP Intermediate_Dir ".\obj"
# PROP Ignore_Export_Lib 0
# PROP Target_Dir ""
# ADD BASE CPP /nologo /MDd /W3 /Gm /GX /Zi /Od /D "WIN32" /D "_DEBUG" /D "_WINDOWS"
/YX /FD /Gh /c
# ADD CPP /nologo /MD /W3 /Gm /GX /Zi /O2 /D "WIN32" /D "NDEBUG" /D "_WINDOWS" /D
"ICECAP" /YX /FD /Gh /c
# ADD BASE MTL /nologo /D "_DEBUG" /mktyplib203 /o /win32 "NUL"
# ADD MTL /nologo /D "_DEBUG" /mktyplib203 /o /win32 "NUL"
# ADD BASE RSC /1 0x409 /d "_DEBUG"
# ADD RSC /1 0x409 /d "_DEBUG"
BSC32=bscmake.exe
# ADD BASE BSC32 /nologo
# ADD BSC32 /nologo
LINK32=link.exe
# ADD BASE LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbc32.lib odbccp32.lib
/nologo /subsystem:windows /dll /debug /machine:I386 /out:".bin\tpcc_odbc.dll"
/pdbtype:sept
# ADD LINK32 icap.lib kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbc32.lib odbccp32.lib
/nologo /subsystem:windows /dll /debug /machine:I386 /out:".bin\tpcc_odbc.dll"
/pdbtype:sept

!ENDIF

# Begin Target

# Name "db_odbc_dll - Win32 Release"
# Name "db_odbc_dll - Win32 Debug"
# Name "db_odbc_dll - Win32 IceCAP"
# Begin Group "Source"

# PROP Default_Filter "*.cpp"
# Begin Source File

SOURCE=.\src\tpcc_odbc.cpp
# End Source File
# End Group
# Begin Group "Header"

# PROP Default_Filter "*.h"
# Begin Source File

SOURCE=..\common\src\error.h
# End Source File
# Begin Source File

SOURCE=.\src\tpcc_odbc.h
# End Source File
# Begin Source File

SOURCE=..\common\src\trans.h
# End Source File
# Begin Source File

SOURCE=..\common\src\txn_base.h
# End Source File

```

```

# End Group
# End Target
# End Project

```

dlldata.c

```

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

DO NOT ALTER THIS FILE

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

To completely reconstruct this file, delete it and rerun MIDL
on all the IDL files in this DLL, specifying this file for the
/dlldata command line option

*****/

#include <rpcproxy.h>

#ifdef __cplusplus
extern "C" {
#endif

EXTERN_PROXY_FILE( tpcc_com_ps )

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

DLLDATA_ROUTINES( aProxyFileList, GET_DLL_CLSID )

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

/* end of generated dlldata file */

```

error.h

```

/* FILE: ERROR.H
* Microsoft TPC-C Kit Ver. 4.20.000
* Copyright Microsoft, 1999
* All Rights Reserved
* Version 4.10.000 audited by Richard Gimarc,
Performance Metrics, 3/17/99
* PURPOSE: Header file for error exception classes.
* Change history:
* 4.20.000 - updated rev number to match kit
* 4.21.000 - fixed bug: ~CBaseErr needed to be declared virtual
*/

```

```

#pragma once

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

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

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

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

#define ERR_TYPE_LOGIC -1 //logic error in program; internal error
#define ERR_SUCCESS 0 //success (a non-error error)
#define ERR_BAD_ITEM_ID 1 //expected abort record in txnRecord
#define ERR_TYPE_DELIVERY_POST 2 //expected delivery post failed
#define ERR_TYPE_WEBDLL 3 //tpcc web generated error
#define ERR_TYPE_SQL 4 //sql server generated error
#define ERR_TYPE_DBLIB 5 //dblib generated error
#define ERR_TYPE_ODBC 6 //odbc generated error
#define ERR_TYPE_SOCKET 7 //error on communication socket client rte only
#define ERR_TYPE_DEADLOCK 8 //dblib and odbc only deadlock condition
#define ERR_TYPE_COM 9 //error from COM call
#define ERR_TYPE_TUXEDO 10 //tuxedo error
#define ERR_TYPE_OS 11 //operating system error
#define ERR_TYPE_MEMORY 12 //memory allocation error
#define ERR_TYPE_TPCC_ODBC 13 //error from tpcc odbc txn module
#define ERR_TYPE_TPCC_DBLIB 14 //error from tpcc dblib txn module
#define ERR_TYPE_DELISRV 15 //delivery server error
#define ERR_TYPE_TXNLOG 16 //txn log error

```

```

#define ERR_TYPE_BCCONN 17 //Benchcraft connection class
#define ERR_TYPE_TPCC_CONN 18 //Benchcraft connection class
#define ERR_TYPE_ENCINA 19 //Encina error
#define ERR_TYPE_COMPONENT 20 //error from COM component
#define ERR_TYPE_RTE 21 //Benchcraft rte
#define ERR_TYPE_AUTOMATION 22 //Benchcraft automation errors
#define ERR_TYPE_DRIVER 23 //Driver engine errors
#define ERR_TYPE_RTE_BASE 24 //Framework errors
#define ERR_BUF_OVERFLOW 25 //Buffer overflow during receive

// TPC-W error types
#define ERR_TYPE_TPCW_CONN 50 //Benchcraft connection class
#define ERR_TYPE_TPCW_HTML 51 //error from TpcwHtml dll
#define ERR_TYPE_TPCW_USER 52 //error from TPC-W user class
#define ERR_TYPE_TPCW_ENG_BASE 53
#define ERR_TYPE_TPCW_ENG_OS 54
#define ERR_TYPE_HTML_RESP 55
#define ERR_TYPE_TPCC_ODBC 56
#define ERR_TYPE_SCHANNEL 57

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

class CBaseErr
{
public:
    CBaseErr(LPCTSTR szLoc = NULL)
    {
        m_idMsg = INV_ERROR_CODE;

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

        m_szApp = new char[m_szApp_size];
        GetModuleFileName(GetModuleHandle(NULL), m_szApp, m_szApp_size);
    }
}

```

```

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

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

    m_szApp          = new char[m_szApp_size];
    GetModuleFileName(GetModuleHandle(NULL), m_szApp, m_szApp_size);
}

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

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

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

    j += wsprintf(szTmp+j, "%s\n", ErrorText());

    ::MessageBox(hwnd, szTmp, m_szApp, MB_OK);
}

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

virtual int ErrorType() = 0; // a value which distinguishes the kind of
error that occurred
virtual char *ErrorText() = 0; // a string (i.e., human readable)
representation of the error

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

//short    m_errType;
};

```

```

class CSocketErr : public CBaseErr
{
public:
    enum Action
    {
        eNone = 0,
        eSend,
        eSocket,
        eBind,
        eConnect,
        eListen,
        eHost,
        eRecv,
        eGetHostByName,
        eWSACreateEvent,
        eWSASend,
        eWSASendImage,
        eWSAGetOverlappedResult,
        eWSARecv,
        eWSARecvImage,
        eWSAWaitForMultipleEvents,
        eWSAStartup,
        eWSAResetEvent,
        eNonRetryable,
    };

    CSocketErr(Action eAction, LPCTSTR szLocation = NULL);

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

    Action    m_eAction;
    char      *m_szErrorText;

    int ErrorType() { return ERR_TYPE_SOCKET;};
    char *ErrorText(void);
};

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

```

```

        eCreateNamedPipe,
        eConnectNamedPipe,
        eWaitForSingleObject,
        eRegOpenKeyEx,
        eRegQueryValueEx = 20,
        eBeginThread,
        eRegEnumValue,
        eRegSetValueEx,
        eRegCreateKeyEx,
        eWaitForMultipleObjects,
        eRegisterClassEx,
        eCreateWindow,
        eCreateSemaphore,
        eFSeek,
        eFRead,
        eFWrite,
        eTmpFile,
        eSetFilePointer,
        eNew,
    };

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

    Action m_eAction;

private:
    char m_szMsg[ERR_MSG_BUF_SIZE];
};

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

    int ErrorType() {return ERR_TYPE_MEMORY;}
    char *ErrorText() {return ERR_INS_MEMORY;}
};

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

    int ErrorType() {return ERR_BUF_OVERFLOW;}

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

```

install.c

```

/* FILE:          INSTALL.C
 *
 * Microsoft TPC-C Kit Ver. 4.20.000
 * Copyright Microsoft, 1999
 *
 * All Rights Reserved
 *
 * not audited

```

```

 *
 * PURPOSE: Automated installation application for TPC-C Web Kit
 * Contact: Charles Levine (clevine@microsoft.com)
 *
 * Change history:
 * 4.20.000 - added COM installation steps
 */

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

#include "resource.h"

#define WM_INITTEXT WM_USER+100

HICON hIcon;
HINSTANCE hInst;

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

// TPC-C registry settings
TPCCREGISTRYDATA Reg;

static int iPoolThreadLimit;
static int iThreadTimeout;
static int iListenBackLog;
static int iAcceptExOutstanding;

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

BOOL CALLBACK LicenseDlgProc(HWND hwnd, UINT uMsg, WPARAM wParam, LPARAM
lParam);
BOOL CALLBACK UpdatedDlgProc(HWND hwnd, UINT uMsg, WPARAM wParam, LPARAM
lParam);
BOOL CALLBACK MainDlgProc(HWND hwnd, UINT uMsg, WPARAM wParam, LPARAM lParam);
BOOL CALLBACK CopyDlgProc(HWND hwnd, UINT uMsg, WPARAM wParam, LPARAM lParam);
static void ProcessOK(HWND hwnd, char *szDllPath);
static void ReadRegistrySettings(void);
static void WriteRegistrySettings(char *szDllPath);
static BOOL RegisterDLL(char *szFileName);
static int CopyFiles(HWND hDlg, char *szDllPath);
static BOOL GetInstallPath(char *szDllPath);
static void GetVersionInfo(char *szDLLPath, char *szExePath);
static void CheckWWWebService(void);
static void StartWWWebService(void);
static void StopWWWebService(void);
static void UpdateDialog(HWND hDlg);

BOOL install_com(char *szDllPath);

```

```

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

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

    hInst = hInstance;

    InitCommonControls();

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

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

    DestroyIcon(hIcon);
    return 0;
}

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

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

```

```

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

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

BOOL CALLBACK MainDlgProc(HWND hwnd, UINT uMsg, WPARAM wParam, LPARAM lParam)
{
    PAINTSTRUCT      ps;
    MEMORYSTATUS     memoryStatus;
    OSVERSIONINFO    VI;
    char             szTmp[256];
    static char      szDllPath[256];
    static char      szExePath[256];

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

            if ( GetInstallPath(szDllPath) )
            {
                MessageBox(hwnd, "Error internet service
inetsrv is not installed.", NULL, MB_ICONSTOP | MB_OK);
                EndDialog(hwnd, FALSE);
                return TRUE;
            }
        }
    }
}

```



```

}

// set default values
ZeroMemory( &Reg, sizeof(Reg) );
Reg.dwNumberOfDeliveryThreads = 4;
Reg.dwMaxConnections = 100;
Reg.dwMaxPendingDeliveries = 100;
Reg.eDB_Protocol = DBLIB;
Reg.eTxnMon = None;
strcpy(Reg.szDbServer, "");
strcpy(Reg.szDbName, "tpcc");
strcpy(Reg.szDbUser, "sa");
strcpy(Reg.szDbPassword, "");

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

ReadTPCCRegistrySettings( &Reg );
ReadRegistrySettings();

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

GetVersionInfo(szDllPath, szExePath);

wsprintf(szTmp, "Version %d.%2.2d.%3.3d",
versionExeMS, versionExeMM, versionExeLS);
SetDlgItemText(hwnd, IDC_VERSION, szTmp);

SetDlgItemText(hwnd, IDC_PATH, szDllPath);

SetDlgItemText(hwnd, ED_DB_SERVER, Reg.szDbServer);
SetDlgItemText(hwnd, ED_DB_USER_ID, Reg.szDbUser);
SetDlgItemText(hwnd, ED_DB_PASSWORD,
Reg.szDbPassword);

SetDlgItemText(hwnd, ED_DB_NAME, Reg.szDbName);

SetDlgItemInt(hwnd, ED_THREADS,
Reg.dwNumberOfDeliveryThreads, FALSE);
SetDlgItemInt(hwnd, ED_MAXCONNECTION,
Reg.dwMaxConnections, FALSE);
SetDlgItemInt(hwnd, ED_MAXDELIVERIES,
Reg.dwMaxPendingDeliveries, FALSE);
SetDlgItemInt(hwnd, ED_IIS_MAX_THREAD_POOL_LIMIT,
iPoolThreadLimit, FALSE);
SetDlgItemInt(hwnd, ED_IIS_THREAD_TIMEOUT,
iThreadTimeout, FALSE);
SetDlgItemInt(hwnd, ED_IIS_LISTEN_BACKLOG,
iListenBackLog, FALSE);
SetDlgItemInt(hwnd, ED_WEB_SERVICE_BACKLOG_QUEUE_SIZE,
iAcceptExOutstanding, FALSE);

CheckDlgButton(hwnd, IDC_DBLIB, 0);
CheckDlgButton(hwnd, IDC_ODBC, 0);
if ( Reg.eDB_Protocol == DBLIB )
    CheckDlgButton(hwnd, IDC_DBLIB, 1);
else
    CheckDlgButton(hwnd, IDC_ODBC, 1);

// check OS version level for COM. Must be at least
Windows 2000
VI.dwOSVersionInfoSize = sizeof(VI);

```

```

option
GetVersionEx( &VI );
if (VI.dwMajorVersion < 5)
{
    HWND hDlg = GetDlgItem( hwnd, IDC_TM_MTS );
    EnableWindow( hDlg, 0 ); // disable COM

    if (Reg.eTxnMon == COM)
        Reg.eTxnMon = None;
}

CheckDlgButton(hwnd, IDC_TM_NONE, 0);
CheckDlgButton(hwnd, IDC_TM_TUXEDO, 0);
CheckDlgButton(hwnd, IDC_TM_MTS, 0);
CheckDlgButton(hwnd, IDC_TM_ENCINA, 0);
switch (Reg.eTxnMon)
{
case None:
    CheckDlgButton(hwnd, IDC_TM_NONE, 1);
    break;
case TUXEDO:
    CheckDlgButton(hwnd, IDC_TM_TUXEDO, 1);
    break;
case ENCINA:
    CheckDlgButton(hwnd, IDC_TM_ENCINA, 1);
    break;
case COM:
    CheckDlgButton(hwnd, IDC_TM_MTS, 1);
    break;
}

return TRUE;
case WM_PAINT:
    if ( IsIconic(hwnd) )
    {
        BeginPaint(hwnd, &ps);
        DrawIcon(ps.hdc, 0, 0, hIcon);
        EndPaint(hwnd, &ps);
        return TRUE;
    }
    break;
case WM_COMMAND:
    if ( HIWORD(wParam) == BN_CLICKED )
    {
        switch( LOWORD(wParam) )
        {
            case IDC_DBLIB:
                return TRUE;
            case IDC_ODBC:
                return TRUE;
            case IDOK:
                ProcessOK(hwnd,
                return TRUE;
            case IDCANCEL:
                EndDialog(hwnd, FALSE);
                return TRUE;
            default:
                return FALSE;
        }
    }
    break;
default:
    break;

```

```

    }
    return FALSE;
}

static void ProcessOK(HWND hwnd, char *szDllPath)
{
    int          d;
    HWND         hDlg;
    int          rc;

    char         szFullName[256];
    char         szErrTxt[128];

    // read settings from dialog
    Reg.dwNumberOfDeliveryThreads = GetDlgItemInt(hwnd, ED_THREADS, &d,
FALSE);
    Reg.dwMaxConnections = GetDlgItemInt(hwnd, ED_MAXCONNECTION, &d, FALSE);
    Reg.dwMaxPendingDeliveries = GetDlgItemInt(hwnd, ED_MAXDELIVERIES, &d,
FALSE);

    GetDlgItemText(hwnd, ED_DB_SERVER, Reg.szDbServer,
sizeof(Reg.szDbServer));
    GetDlgItemText(hwnd, ED_DB_USER_ID, Reg.szDbUser, sizeof(Reg.szDbUser));
    GetDlgItemText(hwnd, ED_DB_PASSWORD, Reg.szDbPassword,
sizeof(Reg.szDbPassword));
    GetDlgItemText(hwnd, ED_DB_NAME, Reg.szDbName, sizeof(Reg.szDbName));

    if ( IsDlgButtonChecked(hwnd, IDC_DBLIB) )
    {
        Reg.eDB_Protocol = DBLIB;
        rc = 1;
    }
    else if ( IsDlgButtonChecked(hwnd, IDC_ODBC) )
    {
        Reg.eDB_Protocol = ODBC;
        rc = 2;
    }

    if ( IsDlgButtonChecked(hwnd, IDC_TM_NONE) )
        Reg.eTxnMon = None;
    else if ( IsDlgButtonChecked(hwnd, IDC_TM_TUXEDO) )
        Reg.eTxnMon = TUXEDO;
    else if ( IsDlgButtonChecked(hwnd, IDC_TM_MTS) )
        Reg.eTxnMon = COM;
    else if ( IsDlgButtonChecked(hwnd, IDC_TM_ENCINA) )
        Reg.eTxnMon = ENCINA;

    iPoolThreadLimit = GetDlgItemInt(hwnd, ED_IIS_MAX_THREAD_POOL_LIMIT, &d,
FALSE);
    iThreadTimeout = GetDlgItemInt(hwnd, ED_IIS_THREAD_TIMEOUT, &d, FALSE);
    iListenBackLog = GetDlgItemInt(hwnd, ED_IIS_LISTEN_BACKLOG, &d, FALSE);
    iAcceptExOutstanding = GetDlgItemInt(hwnd,
ED_WEB_SERVICE_BACKLOG_QUEUE_SIZE, &d, FALSE);

    ShowWindow(hwnd, SW_HIDE);
    hDlg = CreateDialog(hInst, MAKEINTRESOURCE(IDD_DIALOG3), hwnd,
CopyDlgProc);
    ShowWindow(hDlg, SW_SHOWNA);
    UpdateDialog(hDlg);

    // write binaries to inetpub\wwwroot

```

```

rc = CopyFiles(hDlg, szDllPath);
if ( !rc )
{
    ShowWindow(hwnd, SW_SHOWNA);
    DestroyWindow(hDlg);
    strcpy( szErrTxt, "Error(s) occured when creating " );
    strcat( szErrTxt, szLastFileName );
    MessageBox(hwnd, szErrTxt, NULL, MB_ICONSTOP | MB_OK);
    EndDialog(hwnd, 0);
    return;
}

// update registry
SetDlgItemText(hDlg, IDC_STATUS, "Updating Registry.");
SendDlgItemMessage(hDlg, IDC_PROGRESS1, PBM_STEPIT, 0, 0);
UpdateDialog(hDlg);
WriteRegistrySettings(szDllPath);

// register com proxy stub
strcpy(szFullName, szDllPath);
strcat(szFullName, "tpcc_com_ps.dll");
if (!RegisterDLL(szFullName))
{
    ShowWindow(hwnd, SW_SHOWNA);
    DestroyWindow(hDlg);
    strcpy( szErrTxt, "Error occured when registering " );
    strcat( szErrTxt, szFullName );
    MessageBox(hwnd, szErrTxt, NULL, MB_ICONSTOP | MB_OK);
    EndDialog(hwnd, 0);
    return;
}

// if using COM
if (Reg.eTxnMon == COM)
{
    SetDlgItemText(hDlg, IDC_STATUS, "Configuring COM.");
    SendDlgItemMessage(hDlg, IDC_PROGRESS1, PBM_STEPIT, 0, 0);
    UpdateDialog(hDlg);

    if (install_com(szDllPath))
    {
        ShowWindow(hwnd, SW_SHOWNA);
        DestroyWindow(hDlg);
        strcpy( szErrTxt, "Error occured when configuring COM
settings." );

        MessageBox(hwnd, szErrTxt, NULL, MB_ICONSTOP | MB_OK);
        EndDialog(hwnd, 0);
        return;
    }
}

Sleep(100);

ShowWindow(hwnd, SW_SHOWNA);
DestroyWindow(hDlg);

EndDialog(hwnd, rc);
return;
}

static void ReadRegistrySettings(void)
{
    HKEY         hKey;

```

```

        DWORD    size;
        DWORD    type;

        if ( RegOpenKeyEx(HKEY_LOCAL_MACHINE,
"SYSTEM\\CurrentControlSet\\Services\\Inetinfo\\Parameters", 0, KEY_READ, &hKey) ==
ERROR_SUCCESS )
        {
            size = sizeof(iPoolThreadLimit);
            if ( RegQueryValueEx(hKey, "PoolThreadLimit", 0, &type, (char
*)&iPoolThreadLimit, &size) == ERROR_SUCCESS )
                if ( !iPoolThreadLimit )
                    iPoolThreadLimit = iMaxPhysicalMemory * 2;

            size = sizeof(iThreadTimeout);
            if ( RegQueryValueEx(hKey, "ThreadTimeout", 0, &type, (char
*)&iThreadTimeout, &size) == ERROR_SUCCESS )
                if ( !iThreadTimeout )
                    iThreadTimeout = 86400;

            size = sizeof(iListenBackLog);
            if ( RegQueryValueEx(hKey, "ListenBackLog", 0, &type, (char
*)&iListenBackLog, &size) == ERROR_SUCCESS )
                if ( !iListenBackLog )
                    iListenBackLog = 15;

            RegCloseKey(hKey);
        }

        if ( RegOpenKeyEx(HKEY_LOCAL_MACHINE,
"SYSTEM\\CurrentControlSet\\Services\\W3SVC\\Parameters", 0, KEY_READ, &hKey) ==
ERROR_SUCCESS )
        {
            size = sizeof(iAcceptExOutstanding);
            if ( RegQueryValueEx(hKey, "AcceptExOutstanding", 0, &type,
(char *)&iAcceptExOutstanding, &size) == ERROR_SUCCESS )
                if ( !iAcceptExOutstanding )
                    iAcceptExOutstanding = 40;

            RegCloseKey(hKey);
        }
    }

static void WriteRegistrySettings(char *szDllPath)
{
    HKEY    hKey;
    DWORD   dwDisposition;
    char    szTmp[256];
    char    *ptr;
    int     iRc;

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

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

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

```

```

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

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

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

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

        RegFlushKey(hKey);
        RegCloseKey(hKey);
    }

    if ( (iRc=RegCreateKeyEx(HKEY_LOCAL_MACHINE,
"SYSTEM\\CurrentControlSet\\Services\\Inetinfo\\Parameters", 0, NULL,
REG_OPTION_NON_VOLATILE, KEY_ALL_ACCESS, NULL, &hKey, &dwDisposition)) ==
ERROR_SUCCESS )
    {
        RegSetValueEx(hKey, "PoolThreadLimit", 0, REG_DWORD, (char
*)&iPoolThreadLimit, sizeof(iPoolThreadLimit));
        RegSetValueEx(hKey, "ThreadTimeout", 0, REG_DWORD, (char
*)&iThreadTimeout, sizeof(iThreadTimeout));
        RegSetValueEx(hKey, "ListenBackLog", 0, REG_DWORD, (char
*)&iListenBackLog, sizeof(iListenBackLog));

        RegFlushKey(hKey);
        RegCloseKey(hKey);
    }

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

        RegFlushKey(hKey);
        RegCloseKey(hKey);
    }

    return;
}

BOOL CALLBACK CopyDlgProc(HWND hwnd, UINT uMsg, WPARAM wParam, LPARAM lParam)
{
    if ( uMsg == WM_INITDIALOG )
    {

```

```

        SendDlgItemMessage(hwnd, IDC_PROGRESS1, PBM_SETRANGE, 0,
MAKELPARAM(0, 16));
        SendDlgItemMessage(hwnd, IDC_PROGRESS1, PBM_SETSTEP, (WPARAM)1,
0);
        return TRUE;
    }
    return FALSE;
}

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

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

BOOL FileFromResource( char *szResourceName, int iResourceId, char *szDllPath, char
*szFileName )
{
    HGLOBAL          hDLL;
    HRSRC            hResInfo;
    HANDLE           hFile;
    DWORD            dwSize;
    BYTE             *pSrc;
    DWORD            d;
    char              szFullName[256];

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

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

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

    if ( !(hFile = CreateFile(szFullName, GENERIC_WRITE, 0, NULL,
CREATE_ALWAYS, FILE_ATTRIBUTE_NORMAL, NULL)) )
        return FALSE;

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

    CloseHandle(hFile);

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

```

```

static int CopyFiles(HWND hDlg, char *szDllPath)
{
    BOOL          bSvcRunning;

    bSvcRunning = CheckWWWWebService();
    if ( bSvcRunning )
    {
        SetDlgItemText(hDlg, IDC_STATUS, "Stopping Web Service.");
        SendDlgItemMessage(hDlg, IDC_PROGRESS1, PBM_STEPIT, 0, 0);
        UpdateDialog(hDlg);

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

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

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

    // install tpcc_dblib.dll
    strcpy( szLastFileName, "tpcc_dblib.dll" );
    if (!FileFromResource( "DBLIB_DLL", IDR_DBLIB_DLL, szDllPath,
szLastFileName ))
        return 0;
    SendDlgItemMessage(hDlg, IDC_PROGRESS1, PBM_STEPIT, 0, 0);
    UpdateDialog(hDlg);

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

    // install tuxapp.exe
    strcpy( szLastFileName, "tuxapp.exe" );
    if (!FileFromResource( "TUXEDO_APP", IDR_TUXEDO_APP, szDllPath,
szLastFileName ))
        return 0;
    SendDlgItemMessage(hDlg, IDC_PROGRESS1, PBM_STEPIT, 0, 0);
    UpdateDialog(hDlg);

    // install tpcc_tuxedo.dll
    strcpy( szLastFileName, "tpcc_tuxedo.dll" );
    if (!FileFromResource( "TUXEDO_DLL", IDR_TUXEDO_DLL, szDllPath,
szLastFileName ))
        return 0;
    SendDlgItemMessage(hDlg, IDC_PROGRESS1, PBM_STEPIT, 0, 0);
    UpdateDialog(hDlg);

    // install tpcc_com.dll
    strcpy( szLastFileName, "tpcc_com.dll" );
}

```

```

    if (!FileFromResource( "COM_DLL", IDR_COM_DLL, szDllPath, szLastFileName
))
        return 0;
    SendDlgItemMessage(hDlg, IDC_PROGRESS1, PBM_STEPIT, 0, 0);
    UpdateDialog(hDlg);

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

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

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

    //if we stopped service restart it.
    if ( bSvcRunning )
    {
        SetDlgItemText(hDlg, IDC_STATUS, "Starting Web Service.");
        SendDlgItemMessage(hDlg, IDC_PROGRESS1, PBM_STEPIT, 0, 0);
        UpdateDialog(hDlg);
        StartWWWebService();
    }

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

    return 1;
}

static BOOL GetInstallPath(char *szDllPath)
{
    HKEY  hKey;
    BYTE   szData[256];
    DWORD  sv;
    BOOL   bRc;
    int    len;
    int    iRc;

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

    szDllPath[0] = 0;
    bRc = TRUE;
    if ( RegOpenKeyEx(HKEY_LOCAL_MACHINE, "SOFTWARE\\Microsoft\\InetStp", 0,
KEY_ALL_ACCESS, &hKey) == ERROR_SUCCESS )

```

```

    {
        sv = sizeof(szData);
        iRc = RegQueryValueEx( hKey, "PathWWWRoot", NULL, NULL, szData,
&sv ); // used by IIS 5.0 & 6.0
        if (iRc == ERROR_SUCCESS)
        {
            bRc = FALSE;
            strcpy(szDllPath, szData);
            len = strlen(szDllPath);
            if ( szDllPath[len-1] != '\\ ' )
            {
                szDllPath[len] = '\\';
                szDllPath[len+1] = 0;
            }
        }
        RegCloseKey(hKey);
    }

    return bRc;
}

static void GetVersionInfo(char *szDLLPath, char *szExePath)
{
    DWORD  d;
    DWORD  dwSize;
    DWORD  dwBytes;
    char   *ptr;
    VS_FIXEDFILEINFO  *vs;

    versionDllMS = 0;
    versionDllLS = 0;
    if ( _access(szDLLPath, 0) == 0 )
    {
        dwSize = GetFileVersionInfoSize(szDLLPath, &d);
        if ( dwSize )
        {
            ptr = (char *)malloc(dwSize);
            GetFileVersionInfo(szDLLPath, 0, dwSize, ptr);
            VerQueryValue(ptr, "\\",&vs, &dwBytes);
            versionDllMS = vs->dwProductVersionMS;
            versionDllLS = vs->dwProductVersionLS;
            free(ptr);
        }
    }

    versionExeMS = 0x7FFF;
    versionExeLS = 0x7FFF;
    dwSize = GetFileVersionInfoSize(szExePath, &d);
    if ( dwSize )
    {
        ptr = (char *)malloc(dwSize);
        GetFileVersionInfo(szExePath, 0, dwSize, ptr);
        VerQueryValue(ptr, "\\",&vs, &dwBytes);

        versionExeMS = vs->dwProductVersionMS;
        versionExeLS = LOWORD(vs->dwProductVersionLS);
        versionExeMM = HIWORD(vs->dwProductVersionLS);
        free(ptr);
    }
    return;
}

```

```

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

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

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

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

    CloseServiceHandle(schService);
    return TRUE;

ServiceNotRunning:

    CloseServiceHandle(schService);
    return FALSE;
}

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

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

    if (! StartService(schService, 0, NULL) )
        goto StartWWWebErr;
    //start Service pending, Check the status until the service is running.
    if (! QueryServiceStatus(schService, &ssStatus) )
        goto StartWWWebErr;
    while( ssStatus.dwCurrentState != SERVICE_RUNNING)
    {
        dwOldCheckPoint = ssStatus.dwCheckPoint;
        //Save the current checkpoint.
        Sleep(ssStatus.dwWaitHint);
        //Wait for the specified interval.
        if ( !QueryServiceStatus(schService, &ssStatus) ) //Check the
status again.
            break;
        if (dwOldCheckPoint >= ssStatus.dwCheckPoint)
            //Break if the checkpoint has not been incremented.
            break;
    }

    if (ssStatus.dwCurrentState == SERVICE_RUNNING)
        goto StartWWWebErr;
}

```

```

    CloseServiceHandle(schService);
    return TRUE;

StartWWWebErr:
    CloseServiceHandle(schService);
    return FALSE;
}

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

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

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

    if ( !ControlService(schService, SERVICE_CONTROL_STOP, &ssStatus) )
        goto StopWWWebErr;
    //start Service pending, Check the status until the service is running.
    if (! QueryServiceStatus(schService, &ssStatus) )
        goto StopWWWebErr;
    while( ssStatus.dwCurrentState == SERVICE_RUNNING)
    {
        dwOldCheckPoint = ssStatus.dwCheckPoint;
        //Save the current checkpoint.
        Sleep(ssStatus.dwWaitHint);
        //Wait for the specified interval.
        if ( !QueryServiceStatus(schService, &ssStatus) ) //Check the
status again.
            break;
        if (dwOldCheckPoint >= ssStatus.dwCheckPoint)
            //Break if the checkpoint has not been incremented.
            break;
    }

    if (ssStatus.dwCurrentState == SERVICE_RUNNING)
        goto StopWWWebErr;

    CloseServiceHandle(schService);
    return TRUE;

StopWWWebErr:
    CloseServiceHandle(schService);
    return FALSE;
}

static void UpdateDialog(HWND hDlg)
{
    MSG msg;

    UpdateWindow(hDlg);
    while( PeekMessage(&msg, hDlg, 0, 0, PM_REMOVE) )
    {
        TranslateMessage(&msg);
    }
}

```

```
        DispatchMessage(&msg);
    }
    Sleep(250);
    return;
}
```

install.h

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

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

#define BN_LOG               1001
#define ED_KEEP              1002
#define ED_THREADS          1003
#define ED_THREADS2         1004
#define IDC_PATH            1007
#define IDC_VERSION         1009
#define IDC_RESULTS         1010
#define IDC_PROGRESS1       1011
#define IDC_STATUS          1012
#define IDC_BUTTON1         1013
#define ED_MAXCONNECTION    1014
#define ED_IIS_MAX_THREAD_POOL_LIMIT 1015
#define ED_WEB_SERVICE_BACKLOG_QUEUE_SIZE 1017
#define ED_IIS_THREAD_TIMEOUT 1018
#define ED_IIS_LISTEN_BACKLOG 1019
#define IDC_DBLIB           1021
#define IDC_ODBC            1022
#define IDC_CONNECT_POOL    1023
#define ED_USER_CONNECT_DELAY_TIME 1024

// Next default values for new objects
//
```

install.rc

```
//Microsoft Developer Studio generated resource script.
//
#include "resource.h"

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

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

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

#if !defined(AFX_RESOURCE_DLL) || defined(AFX_TARG_ENU)
#ifdef _WIN32
LANGUAGE LANG_ENGLISH, SUBLANG_ENGLISH_US
#pragma code_page(1252)
#endif // _WIN32

////////////////////////////////////
//
// Dialog
//

IDD_DIALOG1 DIALOGEX 0, 0, 219, 351
STYLE DS_MODALFRAME | DS_CENTER | WS_MINIMIZEBOX | WS_POPUP | WS_CAPTION |
WS_SYSTEMMENU
CAPTION "TPC-C Web Client Installation Utility"
FONT 8, "MS Sans Serif"
BEGIN
    EDITTEXT        ED_THREADS,164,45,34,12,ES_RIGHT | ES_NUMBER,
WS_EX_RTLREADING
    EDITTEXT        ED_MAXDELIVERIES,164,59,34,12,ES_RIGHT | ES_NUMBER,
WS_EX_RTLREADING
    EDITTEXT        ED_MAXCONNECTION,164,73,34,12,ES_RIGHT | ES_NUMBER,
WS_EX_RTLREADING
    CONTROL         "None", IDC_TM_NONE, "Button", BS_AUTORADIOBUTTON |
WS_GROUP | WS_TABSTOP,43,100,33,10
    CONTROL         "COM", IDC_TM_MTS, "Button", BS_AUTORADIOBUTTON |
WS_TABSTOP,43,113,32,10
    CONTROL         "TUXEDO", IDC_TM_TUXEDO, "Button", BS_AUTORADIOBUTTON |
WS_TABSTOP,106,100,46,10
    CONTROL         "ENCINA", IDC_TM_ENCINA, "Button", BS_AUTORADIOBUTTON |
WS_DISABLED | WS_TABSTOP,106,113,43,10
    EDITTEXT        ED_DB_SERVER,131,152,67,12,ES_AUTOHSCROLL
    EDITTEXT        ED_DB_USER_ID,131,165,67,12,ES_AUTOHSCROLL
    EDITTEXT        ED_DB_PASSWORD,131,178,67,12,ES_AUTOHSCROLL
    EDITTEXT        ED_DB_NAME,131,191,67,12,ES_AUTOHSCROLL
    CONTROL         "DBLIB", IDC_DBLIB, "Button", BS_AUTORADIOBUTTON | WS_GROUP |
WS_TABSTOP,45,219,39,12
    CONTROL         "ODBC", IDC_ODBC, "Button", BS_AUTORADIOBUTTON | WS_TABSTOP,
91,219,39,12
    EDITTEXT        ED_IIS_MAX_THREAD_POOL_LIMIT,164,263,34,12,ES_RIGHT |
ES_NUMBER,WS_EX_RTLREADING
    EDITTEXT        ED_WEB_SERVICE_BACKLOG_QUEUE_SIZE,164,277,34,12,ES_RIGHT |
ES_NUMBER,WS_EX_RTLREADING
    EDITTEXT        ED_IIS_THREAD_TIMEOUT,164,291,34,12,ES_RIGHT | ES_NUMBER,
WS_EX_RTLREADING
    EDITTEXT        ED_IIS_LISTEN_BACKLOG,164,305,34,12,ES_RIGHT | ES_NUMBER,
WS_EX_RTLREADING
    DEFPUSHBUTTON   "OK", IDOK,53,331,50,14
    PUSHBUTTON      "Cancel", IDCANCEL,119,331,50,14
    EDITTEXT        IDC_PATH,106,26,91,13,ES_AUTOHSCROLL | ES_READONLY
    LTEXT           "Number of Delivery Threads:", IDC_STATIC,35,45,115,12
    LTEXT           "Max Number of Connections:", IDC_STATIC,35,73,115,12
    RTEXT           "Version 4.11", IDC_VERSION,120,4,89,9
    LTEXT           "IIS Max Thread Pool Limit:", IDC_STATIC,36,263,115,12
    LTEXT           "Web Service Backlog Queue Size:", IDC_STATIC,36,277,115,
12
    LTEXT           "IIS Thread Timeout (seconds):", IDC_STATIC,36,291,115,12
    LTEXT           "IIS Listen Backlog:", IDC_STATIC,36,307,115,10
    GROUPBOX        "Database Interface", IDC_STATIC,35,208,163,27,WS_GROUP
    LTEXT           "Installation directory:", IDC_STATIC,35,29,71,10
    GROUPBOX        "Transaction Monitor", IDC_STATIC,33,90,165,37
```

```

LTEXT      "Server Name:",IDC_STATIC,35,155,56,8
LTEXT      "User ID:",IDC_STATIC,35,168,60,8
LTEXT      "User Password:",IDC_STATIC,35,181,83,8
LTEXT      "Database Name:",IDC_STATIC,35,194,54,8
GROUPBOX   "SQL Server Connection Properties",IDC_STATIC,22,139,187,
102
GROUPBOX   "Web Client Properties",IDC_STATIC,22,15,187,118
GROUPBOX   "IIS Settings",IDC_STATIC,22,247,187,79
LTEXT      "Max Pending Deliveries:",IDC_STATIC,35,59,115,12
END

IDD_DIALOG2 DIALOGEX 0, 0, 117, 62
STYLE DS_SETFOREGROUND | DS_3DLOOK | DS_CENTER | WS_POPUP | WS_BORDER
EXSTYLE WS_EX_STATICEDGE
FONT 12, "MS Sans Serif", 0, 0, 0x1
BEGIN
  DEFPUSHBUTTON  "OK",IDOK,33,45,50,9
  CTEXT          "HTML TPC-C Installation Successful",IDC_RESULTS,7,22,
102,18,0,WS_EX_CLIENTEDGE
  ICON           IDI_ICON2,IDC_STATIC,50,7,18,20,SS_REALSIZEIMAGE,
WS_EX_TRANSPARENT
END

IDD_DIALOG3 DIALOG DISCARDABLE 0, 0, 91, 40
STYLE DS_SYSMODAL | DS_MODALFRAME | DS_3DLOOK | DS_CENTER | WS_CAPTION
CAPTION "Installing TPC-C Web Client"
FONT 12, "Arial Black"
BEGIN
  CONTROL        "Progress1",IDC_PROGRESS1,"msctls_progress32",WS_BORDER,
7,20,77,13
  CTEXT          "Static",IDC_STATUS,7,7,77,12,SS_SUNKEN
END

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

////////////////////////////////////
//
// DESIGNINFO
//

#ifdef APSTUDIO_INVOKED
GUIDELINES DESIGNINFO DISCARDABLE
BEGIN
  IDD_DIALOG1, DIALOG
  BEGIN
    LEFTMARGIN, 22
    RIGHTMARGIN, 209
    VERTGUIDE, 35
    VERTGUIDE, 198
    TOPMARGIN, 4
    BOTTOMMARGIN, 345
  END
END

```

```

IDD_DIALOG2, DIALOG
BEGIN
  LEFTMARGIN, 7
  RIGHTMARGIN, 109
  TOPMARGIN, 7
  BOTTOMMARGIN, 54
END

IDD_DIALOG3, DIALOG
BEGIN
  LEFTMARGIN, 7
  RIGHTMARGIN, 84
  TOPMARGIN, 7
  BOTTOMMARGIN, 33
END

IDD_DIALOG4, DIALOG
BEGIN
  LEFTMARGIN, 7
  RIGHTMARGIN, 278
  TOPMARGIN, 7
  BOTTOMMARGIN, 195
END

END
#endif // APSTUDIO_INVOKED

#ifdef APSTUDIO_INVOKED
////////////////////////////////////
//
// TEXTINCLUDE
//

1 TEXTINCLUDE DISCARDABLE
BEGIN
  "resource.h\0"
END

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

3 TEXTINCLUDE DISCARDABLE
BEGIN
  "\r\n"
  "\0"
END

#endif // APSTUDIO_INVOKED

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

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

```



```

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

#ifdef _MAC
////////////////////////////////////
//
// Version
//

VS_VERSION_INFO VERSIONINFO
FILEVERSION 0,4,20,0
PRODUCTVERSION 0,4,20,0
FILEFLAGSMASK 0x3fL
#ifdef _DEBUG
FILEFLAGS 0x1L
#else
FILEFLAGS 0x0L
#endif
FILEOS 0x40004L
FILETYPE 0x1L
FILESUBTYPE 0x0L
BEGIN
    BLOCK "StringFileInfo"
    BEGIN
        BLOCK "040904b0"
        BEGIN
            VALUE "Comments", "TPC-C Web Client Installer\0"
            VALUE "CompanyName", "Microsoft\0"
            VALUE "FileDescription", "install\0"
            VALUE "FileVersion", "0, 4, 20, 0\0"
            VALUE "InternalName", "install\0"
            VALUE "LegalCopyright", "Copyright © 1999\0"
            VALUE "OriginalFilename", "install.exe\0"
            VALUE "ProductName", "Microsoft install\0"
            VALUE "ProductVersion", "0, 4, 20, 0\0"
        END
    END
    BLOCK "VarFileInfo"
    BEGIN
        VALUE "Translation", 0x409, 1200
    END
END

#endif // !_MAC

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

////////////////////////////////////
//
// DBLIB_DLL
//

```

```

IDR_DBLIB_DLL        DBLIB_DLL DISCARDABLE
"..\..\db_dblib_dll\bin\tpcc_dblib.dll"

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

////////////////////////////////////
//
// TUXEDO_APP
//
IDR_TUXEDO_APP       TUXEDO_APP DISCARDABLE  "..\..\tuxapp\bin\tuxapp.exe"

////////////////////////////////////
//
// TUXEDO_DLL
//
IDR_TUXEDO_DLL       TUXEDO_DLL DISCARDABLE
"..\..\tm_tuxedo_dll\bin\tpcc_tuxedo.dll"

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

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

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

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

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

```

```

#ifndef APSTUDIO_INVOKED
//
// Generated from the TEXTINCLUDE 3 resource.
//
//
#endif // not APSTUDIO_INVOKED

```

install_com.cpp

```

/* FILE: INSTALL_COM.CPP
 * Microsoft TPC-C Kit Ver. 4.20.000
 * Copyright Microsoft, 1999
 *
 * All Rights Reserved
 *
 * not audited
 *
 * PURPOSE: installation code for COM application for TPC-C Web Kit
 * Contact: Charles Levine (clevine@microsoft.com)
 *
 * Change history:
 * 4.20.000 - first version
 */

#define _WIN32_WINNT 0x0500

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

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

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

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

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

    CoInitializeEx(NULL, COINIT_MULTITHREADED);

```

```

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

if (!SUCCEEDED(hr)) goto Error;

bstrTemp = "Applications";

// Attempt to connect to "Applications" in the Catalog
hr = pCOMAdminCat->GetCollection(bstrTemp,

(IDispatch**) &pCatalogCollectionApp);
if (!SUCCEEDED(hr)) goto Error;

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

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

// iterate through applications to delete existing "TPC-C" application (if
any)
while (lCount > 0)
{
    hr = pCatalogCollectionApp->get_Item(lCount - 1, (IDispatch**)
&pCatalogObjectApp);
    if (!SUCCEEDED(hr)) goto Error;

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

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

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

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

// set properties
bstrTemp = "Name";
vTmp = "TPC-C";
hr = pCatalogObjectApp->put_Value(bstrTemp, vTmp);

```

```

if (!SUCCEEDED(hr)) goto Error;

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

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

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

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

pCatalogObjectApp->Release();
pCatalogObjectApp = NULL;

bstrTemp = "TPC-C"; // app name
bstrTemp2 = bstrDllPath + "tpcc_com_all.dll"; //

DLL
bstrTemp3 = bstrDllPath + "tpcc_com_all.tlb"; //
type library (TLB)
bstrTemp4 = bstrDllPath + "tpcc_com_ps.dll"; //
proxy/stub dll

hr = pCOMAdminCat->InstallComponent(bstrTemp,

    bstrTemp2,

    bstrTemp3,

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

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

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

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

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

```

```

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

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

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

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

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

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

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

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

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

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

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

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

```

```

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

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

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

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

            bstrTemp = "AutoComplete";
            bTmp = TRUE;
            vTmp = bTmp;
            hr = pCatalogObjectMethod-

>put_Value(bstrTemp, vTmp);
            if (!SUCCEEDED(hr)) goto Error;

            pCatalogObjectMethod->Release();
            pCatalogObjectMethod = NULL;

            lCountMethod--;
        }

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

        pCatalogObjectItf->Release();
        pCatalogObjectItf = NULL;

        lCountItf--;
    }

    pCatalogObjectCo->Release();
    pCatalogObjectCo = NULL;

    lCountCo--;
}

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

pCatalogCollectionApp->Release();
pCatalogCollectionApp = NULL;

pCatalogCollectionCo->Release();
pCatalogCollectionCo = NULL;

pCatalogCollectionItf->Release();
pCatalogCollectionItf = NULL;

```

```

        pCatalogCollectionMethod->Release();
        pCatalogCollectionMethod = NULL;

Error:
    CoUninitialize();

    if (!SUCCEEDED(hr))
    {
        LPTSTR lpBuf;
        DWORD dwRes = FormatMessage(FORMAT_MESSAGE_ALLOCATE_BUFFER |
FORMAT_MESSAGE_FROM_SYSTEM,

        NULL,

        hr,

        MAKELANGID(LANG_NEUTRAL, SUBLANG_DEFAULT),

        (LPTSTR) &lpBuf,

        0,

        NULL);

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

```

isapi_dll.dsp

```

# Microsoft Developer Studio Project File - Name="isapi_dll" - Package Owner=<4>
# Microsoft Developer Studio Generated Build File, Format Version 6.00
# ** DO NOT EDIT **

# TARGETTYPE "Win32 (x86) Dynamic-Link Library" 0x0102

CFG=isapi_dll - Win32 IceCAP
!MESSAGE This is not a valid makefile. To build this project using NMAKE,
!MESSAGE use the Export Makefile command and run
!MESSAGE
!MESSAGE NMAKE /f "isapi_dll.mak".
!MESSAGE
!MESSAGE You can specify a configuration when running NMAKE
!MESSAGE by defining the macro CFG on the command line. For example:
!MESSAGE
!MESSAGE NMAKE /f "isapi_dll.mak" CFG="isapi_dll - Win32 IceCAP"
!MESSAGE
!MESSAGE Possible choices for configuration are:
!MESSAGE
!MESSAGE "isapi_dll - Win32 Release" (based on "Win32 (x86) Dynamic-Link Library")
!MESSAGE "isapi_dll - Win32 Debug" (based on "Win32 (x86) Dynamic-Link Library")
!MESSAGE "isapi_dll - Win32 IceCAP" (based on "Win32 (x86) Dynamic-Link Library")
!MESSAGE

# Begin Project
# PROP AllowPerConfigDependencies 0
# PROP Scc_ProjName ""

```

```

# PROP Scc_LocalPath ""
CPP=cl.exe
MTL=midl.exe
RSC=rc.exe

!IF "$(CFG)" == "isapi_dll - Win32 Release"

# PROP BASE Use_MFC 0
# PROP BASE Use_Debug_Libraries 0
# PROP BASE Output_Dir "Release"
# PROP BASE Intermediate_Dir "Release"
# PROP BASE Target_Dir ""
# PROP Use_MFC 0
# PROP Use_Debug_Libraries 0
# PROP Output_Dir ".\bin"
# PROP Intermediate_Dir ".\obj"
# PROP Ignore_Export_Lib 0
# PROP Target_Dir ""
# ADD BASE CPP /nologo /MT /W3 /GX /O2 /D "WIN32" /D "NDEBUG" /D "_WINDOWS" /YX /FD /c
# ADD CPP /nologo /MD /W3 /GX /O2 /D "NDEBUG" /D "WIN32" /D "_WINDOWS" /YX /FD /c
# ADD BASE MTL /nologo /D "NDEBUG" /mktyplib203 /o "NUL" /win32
# ADD MTL /nologo /D "NDEBUG" /mktyplib203 /o "NUL" /win32
# ADD BASE RSC /l 0x409 /d "NDEBUG"
# ADD RSC /l 0x409 /d "NDEBUG"
BSC32=bscmake.exe
# ADD BASE BSC32 /nologo
LINK32=link.exe
# ADD BASE LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbc32.lib odbccp32.lib
/nologo /subsystem:windows /dll /machine:I386
# ADD LINK32 ..\common\txnlog\lib\release\rtetime.lib
..\common\txnlog\lib\release\spinlock.lib ..\common\txnlog\lib\release\error.lib
..\common\txnlog\lib\release\txnlog.lib wsock32.lib kernel32.lib user32.lib
gdi32.lib winspool.lib comdlg32.lib advapi32.lib shell32.lib ole32.lib oleaut32.lib
uuid.lib odbc32.lib odbccp32.lib /nologo /subsystem:windows /dll /machine:I386
/nodfaultlib:"LIBCMT" /out:".bin\tpcc.dll"
# SUBTRACT LINK32 /nodfaultlib

!ELSEIF "$(CFG)" == "isapi_dll - Win32 Debug"

# PROP BASE Use_MFC 0
# PROP BASE Use_Debug_Libraries 1
# PROP BASE Output_Dir "Debug"
# PROP BASE Intermediate_Dir "Debug"
# PROP BASE Target_Dir ""
# PROP Use_MFC 0
# PROP Use_Debug_Libraries 1
# PROP Output_Dir ".\bin"
# PROP Intermediate_Dir ".\obj"
# PROP Ignore_Export_Lib 0
# PROP Target_Dir ""
# ADD BASE CPP /nologo /MTd /W3 /Gm /GX /ZI /Od /D "WIN32" /D "_DEBUG" /D "_WINDOWS"
/YX /FD /c
# ADD CPP /nologo /MDd /W3 /GX /ZI /Od /D "_DEBUG" /D "WIN32" /D "_WINDOWS" /FR /YX
/ FD /c
# ADD BASE MTL /nologo /D "_DEBUG" /mktyplib203 /o "NUL" /win32
# ADD MTL /nologo /D "_DEBUG" /mktyplib203 /o "NUL" /win32
# ADD BASE RSC /l 0x409 /d "_DEBUG"
# ADD RSC /l 0x409 /d "_DEBUG"
BSC32=bscmake.exe
# ADD BASE BSC32 /nologo

```

```

# ADD BSC32 /nologo
LINK32=link.exe
# ADD BASE LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbc32.lib odbccp32.lib
/nologo /subsystem:windows /dll /debug /machine:I386 /pdbtype:sept
# ADD LINK32 ..\common\txnlog\lib\debug\rtetime.lib
..\common\txnlog\lib\debug\spinlock.lib ..\common\txnlog\lib\debug\error.lib
..\common\txnlog\lib\debug\txnlog.lib wsock32.lib kernel32.lib user32.lib gdi32.lib
winspool.lib comdlg32.lib advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib
odbc32.lib odbccp32.lib /nologo /subsystem:windows /dll /debug /machine:I386
/nodfaultlib:"LIBCMT" /out:".bin\tpcc.dll" /pdbtype:sept
# SUBTRACT LINK32 /profile /pdb:none /nodfaultlib

!ELSEIF "$(CFG)" == "isapi_dll - Win32 IceCAP"

# PROP BASE Use_MFC 0
# PROP BASE Use_Debug_Libraries 1
# PROP BASE Output_Dir "isapi_dll"
# PROP BASE Intermediate_Dir "isapi_dll"
# PROP BASE Ignore_Export_Lib 0
# PROP BASE Target_Dir ""
# PROP Use_MFC 0
# PROP Use_Debug_Libraries 1
# PROP Output_Dir ".\bin"
# PROP Intermediate_Dir ".\obj"
# PROP Ignore_Export_Lib 0
# PROP Target_Dir ""
# ADD BASE CPP /nologo /MDd /W3 /GX /ZI /Od /D "_DEBUG" /D "WIN32" /D "_WINDOWS" /FR
/YX /FD /Gh /c
# ADD CPP /nologo /MD /W3 /GX /ZI /O2 /D "NDEBUG" /D "ICECAP" /D "WIN32" /D
"_WINDOWS" /FR /YX /FD /Gh /c
# ADD BASE MTL /nologo /D "_DEBUG" /mktyplib203 /o "NUL" /win32
# ADD MTL /nologo /D "_DEBUG" /mktyplib203 /o "NUL" /win32
# ADD BASE RSC /l 0x409 /d "_DEBUG"
# ADD RSC /l 0x409 /d "_DEBUG"
BSC32=bscmake.exe
# ADD BASE BSC32 /nologo
# ADD BSC32 /nologo
LINK32=link.exe
# ADD BASE LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbc32.lib odbccp32.lib
/nologo /subsystem:windows /dll /debug /machine:I386 /out:".bin\tpcc.dll"
/pdbtype:sept
# SUBTRACT BASE LINK32 /profile /pdb:none
# ADD LINK32 icap.lib ..\common\txnlog\lib\release\rtetime.lib
..\common\txnlog\lib\release\spinlock.lib ..\common\txnlog\lib\release\error.lib
..\common\txnlog\lib\release\txnlog.lib wsock32.lib kernel32.lib user32.lib
gdi32.lib winspool.lib comdlg32.lib advapi32.lib shell32.lib ole32.lib oleaut32.lib
uuid.lib odbc32.lib odbccp32.lib /nologo /subsystem:windows /dll /debug
/machine:I386 /out:".bin\tpcc.dll" /pdbtype:sept
# SUBTRACT LINK32 /profile /pdb:none /map

!ENDIF

# Begin Target

# Name "isapi_dll - Win32 Release"
# Name "isapi_dll - Win32 Debug"
# Name "isapi_dll - Win32 IceCAP"
# Begin Group "Source"

# PROP Default_Filter "*.cpp, *.def, *.rc"
# Begin Source File

```

```

SOURCE=.\src\tpcc.cpp
# End Source File
# Begin Source File

SOURCE=.\src\tpcc.def
# End Source File
# Begin Source File

SOURCE=.\src\tpcc.rc
# End Source File
# End Group
# Begin Group "Header Files"

# PROP Default_Filter "*.h, *.hpp"
# Begin Source File

SOURCE=..\common\src\error.h
# End Source File
# Begin Source File

SOURCE=..\common\src\ReadRegistry.h
# End Source File
# Begin Source File

SOURCE=.\src\tpcc.h
# End Source File
# Begin Source File

SOURCE=..\db_dblib_dll\src\tpcc_dblib.h
# End Source File
# Begin Source File

SOURCE=..\db_odbc_dll\src\tpcc_odbc.h
# End Source File
# Begin Source File

SOURCE=..\tm_tuxedo_dll\src\tpcc_tux.h
# End Source File
# Begin Source File

SOURCE=..\common\src\trans.h
# End Source File
# Begin Source File

SOURCE=..\common\src\txn_base.h
# End Source File
# End Group
# End Target
# End Project

```

rtetime.h

```

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

```

```

*
* Microsoft Corp.
*
*/

//FILE: RTETIME.H

#define MAX_JULIAN_TIME 0x7FFFFFFFFFFFFFFF
#define JULIAN_TIME __int64
#define TC_TIME DWORD

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

```

spinlock.h

```

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

#ifdef _INC_Spinlock

    const LONG LockClosed = 1;
    const LONG LockOpen = 0;

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

    class Spinlock
    {

```

```

// Private data.
HANDLE Semaphore;
volatile LONG m_Spinlock;
volatile LONG Waiting;

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

public:
// Public functions.

Spinlock( void );

inline BOOL ClaimLock( BOOL Wait = TRUE );
inline void ReleaseLock( void );
~Spinlock( void );
// Disabled operations.
Spinlock( const Spinlock & Copy );
void operator=( const Spinlock & Copy );

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

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

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

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

inline BOOL Spinlock::ClaimLock( BOOL Wait )
{
if ( ! ClaimSpinlock( (volatile LONG*) & m_Spinlock ) )
{
if ( Wait )

```

```

WaitForLock();
return Wait;
}
return TRUE;
}

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

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

#define _INC_Spinlock

#endif

```

tm_com_dll.dsp

```

# Microsoft Developer Studio Project File - Name="tm_com_dll" - Package Owner=<4>
# Microsoft Developer Studio Generated Build File, Format Version 6.00
# ** DO NOT EDIT **

# TARGETTYPE "Win32 (x86) Dynamic-Link Library" 0x0102

CFG=tm_com_dll - Win32 Debug
!MESSAGE This is not a valid makefile. To build this project using NMAKE,
!MESSAGE use the Export Makefile command and run
!MESSAGE
!MESSAGE NMAKE /f "tm_com_dll.mak".
!MESSAGE
!MESSAGE You can specify a configuration when running NMAKE
!MESSAGE by defining the macro CFG on the command line. For example:
!MESSAGE
!MESSAGE NMAKE /f "tm_com_dll.mak" CFG="tm_com_dll - Win32 Debug"
!MESSAGE
!MESSAGE Possible choices for configuration are:
!MESSAGE
!MESSAGE "tm_com_dll - Win32 Release" (based on "Win32 (x86) Dynamic-Link Library")
!MESSAGE "tm_com_dll - Win32 Debug" (based on "Win32 (x86) Dynamic-Link Library")
!MESSAGE

# Begin Project
# PROP AllowPerConfigDependencies 0
# PROP Scc_ProjName ""
# PROP Scc_LocalPath ""
CPP=cl.exe
MTL=midl.exe
RSC=rc.exe

!IF "$(CFG)" == "tm_com_dll - Win32 Release"

# PROP BASE Use_MFC 0
# PROP BASE Use_Debug_Libraries 0

```

```

# PROP BASE Output_Dir "Release"
# PROP BASE Intermediate_Dir "Release"
# PROP BASE Target_Dir ""
# PROP Use_MFC 0
# PROP Use_Debug_Libraries 0
# PROP Output_Dir ".\bin"
# PROP Intermediate_Dir ".\obj"
# PROP Ignore_Export_Lib 0
# PROP Target_Dir ""
# ADD BASE CPP /nologo /MT /W3 /GX /O2 /D "WIN32" /D "NDEBUG" /D "_WINDOWS" /YX /FD
/c
# ADD CPP /nologo /MD /W3 /GX /O2 /D "WIN32" /D "NDEBUG" /D "_WINDOWS" /YX /FD /c
# ADD BASE MTL /nologo /D "NDEBUG" /mktyplib203 /o "NUL" /win32
# ADD MTL /nologo /D "NDEBUG" /mktyplib203 /o "NUL" /win32
# ADD BASE RSC /l 0x409 /d "NDEBUG"
# ADD RSC /l 0x409 /d "NDEBUG"
BSC32=bscmake.exe
# ADD BASE BSC32 /nologo
# ADD BSC32 /nologo
LINK32=link.exe
# ADD BASE LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbccp32.lib
/nologo /subsystem:windows /dll /machine:I386
# ADD LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbccp32.lib
/nologo /subsystem:windows /dll /machine:I386 /out:".bin\tpcc_com.dll"

!ELSEIF "$(CFG)" == "tm_com_dll - Win32 Debug"

# PROP BASE Use_MFC 0
# PROP BASE Use_Debug_Libraries 1
# PROP BASE Output_Dir "Debug"
# PROP BASE Intermediate_Dir "Debug"
# PROP BASE Target_Dir ""
# PROP Use_MFC 0
# PROP Use_Debug_Libraries 1
# PROP Output_Dir ".\bin"
# PROP Intermediate_Dir ".\obj"
# PROP Ignore_Export_Lib 0
# PROP Target_Dir ""
# ADD BASE CPP /nologo /MTd /W3 /Gm /GX /ZI /Od /D "WIN32" /D "_DEBUG" /D "_WINDOWS"
/YX /FD /c
# ADD CPP /nologo /MDd /W3 /Gm /GX /ZI /Od /D "WIN32" /D "_DEBUG" /D "_WINDOWS" /YX
/OD /c
# ADD BASE MTL /nologo /D "_DEBUG" /mktyplib203 /o "NUL" /win32
# ADD MTL /nologo /D "_DEBUG" /mktyplib203 /o "NUL" /win32
# ADD BASE RSC /l 0x409 /d "_DEBUG"
# ADD RSC /l 0x409 /d "_DEBUG"
BSC32=bscmake.exe
# ADD BASE BSC32 /nologo
# ADD BSC32 /nologo
LINK32=link.exe
# ADD BASE LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbccp32.lib
/nologo /subsystem:windows /dll /debug /machine:I386 /pdftype:sept
# ADD LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbccp32.lib
/nologo /subsystem:windows /dll /debug /machine:I386 /out:".bin\tpcc_com.dll"
/pdftype:sept

!ENDIF

# Begin Target

```

```

# Name "tm_com_dll - Win32 Release"
# Name "tm_com_dll - Win32 Debug"
# Begin Source File

```

```

SOURCE=.src\tpcc_com.cpp
# End Source File
# Begin Source File

```

```

SOURCE=.src\tpcc_com.h
# End Source File
# End Target
# End Project

```

tpcc.cpp

```

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

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

#include <sqltypes.h>

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

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

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

// Database layer includes

```



```

#include "..\..\db_dblib_dll\src\tpcc_dblib.h" // DBLIB implementation
of TPC-C txns
#include "..\..\db_odbc_dll\src\tpcc_odbc.h" // ODBC implementation
of TPC-C txns

// Txn monitor layer includes
#include "..\..\tm_com_dll\src\tpcc_com.h" // COM
Services implementation on TPC-C txns
#include "..\..\tm_tuxedo_dll\src\tpcc_tux.h" // interface to Tuxedo
libraries
#include "..\..\tm_encina_dll\src\tpcc_enc.h" // interface to Encina
libraries

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

#define LEN_ERR_STRING 256

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

char szMyComputerName[MAX_COMPUTERNAME_LENGTH+1];

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

// The WEBCLIENT_VERSION string specifies the version level of this web client
interface.
// The RTE must be synchronized with the interface level on login, otherwise the
login
// will fail. This is a sanity check to catch problems resulting from mismatched
versions
// of the RTE and web client.
#define WEBCLIENT_VERSION "410"

static CRITICAL_SECTION TermCriticalSection;

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

TYPE_CTPCC_DBLIB *pCTPCC_DBLIB_new;
TYPE_CTPCC_ODBC *pCTPCC_ODBC_new;
TYPE_CTPCC_TUXEDO *pCTPCC_TUXEDO_new;
TYPE_CTPCC_ENCINA *pCTPCC_ENCINA_new;
TYPE_CTPCC_ENCINA *pCTPCC_ENCINA_post_init;
TYPE_CTPCC_COM *pCTPCC_COM_new;

// For deferred Delivery txns:
CTxnLog *txnDelilog = NULL;
//used to log delivery transaction information

HANDLE hWorkerSemaphore =
INVALID_HANDLE_VALUE;
HANDLE hDoneEvent
= INVALID_HANDLE_VALUE;
HANDLE *pDeliHandles =
NULL;

```

```

// configuration settings from registry
TPCCREGISTRYDATA Reg;

DWORD dwNumDeliveryThreads = 4;
CRITICAL_SECTION DelBuffCriticalSection; //critical
section for delivery transactions cache
DELIVERY_TRANSACTION *pDelBuff = NULL;
DWORD dwDelBuffSize =
100; // size of circular buffer for delivery txns
DWORD dwDelBuffFreeCount;
// number of buffers free
DWORD dwDelBuffBusyIndex = 0;
// index position of entry waiting to be delivered
DWORD dwDelBuffFreeIndex = 0;
// index position of unused entry

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

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

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

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

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

```

```

InitializeCriticalSection(&TermCriticalSection);

        if ( ReadTPCCRegistrySettings( &Reg ) )
            throw new CWBCLNT_ERR(
ERR_MISSING_REGISTRY_ENTRIES );

        dwDelBuffSize = min(
Reg.dwMaxPendingDeliveries, 10000 ); // min with 10000 as a sanity constraint
        dwNumDeliveryThreads = min(
Reg.dwNumberOfDeliveryThreads, 100 ); // min with 100 as a sanity constraint

        TermInit();

        // load DLL for txn monitor
        if (Reg.eTxnMon == TUXEDO)
        {
            strcpy( szDllName, Reg.szPath );
            strcat( szDllName,
"tpcc_tuxedo.dll");
            hLibInstanceTm = LoadLibrary(
szDllName );
            if (hLibInstanceTm == NULL)
                throw new CWBCLNT_ERR(
ERR_LOADDLL_FAILED, szDllName, GetLastError() );

            // get function pointer to wrapper
            for class constructor
                pCTPCC_TUXEDO_new =
                (TYPE_CTPCC_TUXEDO*) GetProcAddress(hLibInstanceTm, "CTPCC_TUXEDO_new");
            if (pCTPCC_TUXEDO_new == NULL)
                throw new CWBCLNT_ERR(
ERR_GETPROCADDR_FAILED, szDllName, GetLastError() );
        }
        else if (Reg.eTxnMon == ENCINA)
        {
            strcpy( szDllName, Reg.szPath );
            strcat( szDllName,
"tpcc_encina.dll");
            hLibInstanceTm = LoadLibrary(
szDllName );
            if (hLibInstanceTm == NULL)
                throw new CWBCLNT_ERR(
ERR_LOADDLL_FAILED, szDllName, GetLastError() );

            // get function pointer to wrapper
            for class constructor
                pCTPCC_ENCINA_new =
                (TYPE_CTPCC_ENCINA*) GetProcAddress(hLibInstanceTm, "CTPCC_ENCINA_new");
                pCTPCC_ENCINA_post_init =
                (TYPE_CTPCC_ENCINA*) GetProcAddress(hLibInstanceTm, "CTPCC_ENCINA_post_init");
            if (pCTPCC_ENCINA_new == NULL)
                throw new CWBCLNT_ERR(
ERR_GETPROCADDR_FAILED, szDllName, GetLastError() );
        }
        else if (Reg.eTxnMon == COM)
        {
            strcpy( szDllName, Reg.szPath );
            strcat( szDllName,
"tpcc_com.dll");
            hLibInstanceTm = LoadLibrary(
szDllName );
            if (hLibInstanceTm == NULL)

```

```

            throw new CWBCLNT_ERR(
ERR_LOADDLL_FAILED, szDllName, GetLastError() );

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

        // load DLL for database connection
        if ((Reg.eTxnMon == None) ||
(dwNumDeliveryThreads > 0))
        {
            if (Reg.eDB_Protocol == DBLIB)
            {
                strcpy( szDllName,
Reg.szPath );
                strcat( szDllName,
"tpcc_dblib.dll");
                hLibInstanceDb =
                LoadLibrary( szDllName );
                if (hLibInstanceDb ==
                NULL)
                    throw new
                CWBCLNT_ERR( ERR_LOADDLL_FAILED, szDllName, GetLastError() );

                // get function pointer
                to wrapper for class constructor
                pCTPCC_DBLIB_new =
                (TYPE_CTPCC_DBLIB*) GetProcAddress(hLibInstanceDb, "CTPCC_DBLIB_new");
                if (pCTPCC_DBLIB_new ==
                NULL)
                    throw new
                CWBCLNT_ERR( ERR_GETPROCADDR_FAILED, szDllName, GetLastError() );
            }
            else if (Reg.eDB_Protocol == ODBC)
            {
                strcpy( szDllName,
Reg.szPath );
                strcat( szDllName,
"tpcc_odbc.dll");
                hLibInstanceDb =
                LoadLibrary( szDllName );
                if (hLibInstanceDb ==
                NULL)
                    throw new
                CWBCLNT_ERR( ERR_LOADDLL_FAILED, szDllName, GetLastError() );

                // get function pointer
                to wrapper for class constructor
                pCTPCC_ODBC_new =
                (TYPE_CTPCC_ODBC*) GetProcAddress(hLibInstanceDb, "CTPCC_ODBC_new");
                if (pCTPCC_ODBC_new ==
                NULL)
                    throw new
                CWBCLNT_ERR( ERR_GETPROCADDR_FAILED, szDllName, GetLastError() );
            }
        }

        if (dwNumDeliveryThreads)

```

```

        {
            // for deferred delivery txns:
            hDoneEvent = CreateEvent( NULL,
TRUE /* manual reset */, FALSE /* initially not signalled */, NULL );

            InitializeCriticalSection(&DelBuffCriticalSection);
            hWorkerSemaphore =
CreateSemaphore( NULL, 0, dwDelBuffSize, NULL );
            dwDelBuffFreeCount =
dwDelBuffSize;

            InitJulianTime(NULL);

            // create unique log file name
            SYSTEMTIME Time;
            GetLocalTime( &Time );
            wsprintf( szLogFile, "%sdelivery-
%2.2d%2.2d%2.2d-%2.2d%2.2d.log",
                Reg.szPath,
Time.wYear % 100, Time.wMonth, Time.wDay, Time.wHour, Time.wMinute );
            txxDelilog = new
CTxnLog(szLogFile, TXN_LOG_WRITE);

            //write event into txn log for
START
            txxDelilog-
>WriteCtrlRecToLog(TXN_EVENT_START, szMyComputerName, sizeof(szMyComputerName));

            // allocate structures for
            pDeliHandles = new
HANDLE[dwNumDeliveryThreads];
            pDelBuff = new
DELIVERY_TRANSACTION[dwDelBuffSize];
            // launch DeliveryWorkerThread to
perform actual delivery txns
            for(i=0; i<dwNumDeliveryThreads;
i++)
            {
                pDeliHandles[i] =
(HANDLE) _beginthread( DeliveryWorkerThread, 0, NULL );
                if (pDeliHandles[i] ==
INVALID_HANDLE_VALUE)
                    throw new
CWEBCLNT_ERR( ERR_DELIVERY_THREAD_FAILED );
            }
            break;

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

                        // This will do a clean
shutdown of the delivery log file
                    }
                }
        }

```

```

        *txxDelilogLocal = txxDelilog;
        CTxnLog
        txxDelilog= NULL;
        delete txxDelilogLocal;
    }
    delete [] pDeliHandles;
    delete [] pDelBuff;

    CloseHandle( hWorkerSemaphore );
    CloseHandle( hDoneEvent );

    DeleteCriticalSection(&DelBuffCriticalSection);
}
DeleteCriticalSection(&TermCriticalSection);
if (hLibInstanceTm != NULL)
    FreeLibrary( hLibInstanceTm );
hLibInstanceTm = NULL;
if (hLibInstanceDb != NULL)
    FreeLibrary( hLibInstanceDb );
hLibInstanceDb = NULL;

Sleep(500);
break;

default:
    /* nothing */;
}
}
catch (CBaseErr *e)
{
    WriteMessageToEventLog( e->ErrorText() );
    delete e;
    TerminateExtension(0);
    return FALSE;
}
catch (...)
{
    WriteMessageToEventLog(TEXT("Unhandled exception. DLL could not
load."));
    TerminateExtension(0);
    return FALSE;
}

return TRUE;
}

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

```

```

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

    // TODO: why do we need this here instead of in the DLL attach?
    if (Reg.eTxnMon == ENCINA)
        pCTPCC_ENCINA_post_init();

    return TRUE;
}

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

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

    TermDeleteAll();
    return TRUE;
}

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

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

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

```

```

        DWORD          dwSize = 6;                // initial value is
        strlen(szHeader)
        char           szHeader1[4096];

#ifdef ICECAP
    StartCAP();
#endif

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

        if (TermId != 0)
        {
            if ( TermId < 0 || TermId >= Term.iNumEntries ||
Term.pClientData[TermId].iNextFree != -1 )
            {
                // debugging...
                char szTmp[128];
                wsprintf( szTmp, "Invalid term ID; TermId =
%d", TermId );
                WriteMessageToEventLog( szTmp );

                throw new CWEBCLNT_ERR( ERR_INVALID_TERMID
);
            }

            //must have a valid syncid here since termid is valid
            if (iSyncId != Term.pClientData[TermId].iSyncId)
                throw new CWEBCLNT_ERR(
ERR_INVALID_SYNC_CONNECTION );

            //set use time
            Term.pClientData[TermId].iTickCount = GetTickCount();
        }

        switch(iCmd)
        {
        case 0:
            WelcomeForm(pECB, szBuffer);
            break;

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

```

```

                ProcessOrderStatusForm(pECB,
TermId, szBuffer);
                break;
                case STOCK_LEVEL_FORM:
                ProcessStockLevelForm(pECB,
TermId, szBuffer);
                break;
            }
            break;
        case 2:
            // new-order selected from menu; display new-order
            input form
            MakeNewOrderForm(TermId, NULL, INPUT_FORM, szBuffer);
            break;
        case 3:
            // payment selected from menu; display payment input
            form
            MakePaymentForm(TermId, NULL, INPUT_FORM, szBuffer);
            break;
        case 4:
            // delivery selected from menu; display delivery input
            form
            MakeDeliveryForm(TermId, NULL, INPUT_FORM, szBuffer);
            break;
        case 5:
            // order-status selected from menu; display order-
            status input form
            MakeOrderStatusForm(TermId, NULL, INPUT_FORM,
szBuffer);
            break;
        case 6:
            // stock-level selected from menu; display stock-level
            input form
            MakeStockLevelForm(TermId, NULL, INPUT_FORM,
szBuffer);
            break;
        case 7:
            // ExitCmd
            TermDelete(TermId);
            WelcomeForm(pECB, szBuffer);
            break;
        case 8:
            SubmitCmd(pECB, szBuffer);
            break;
        case 9:
            // menu
            MakeMainMenuForm(TermId,
Term.pClientData[TermId].iSyncId, szBuffer);
            break;
        case 10:
            // CMD=Clear
            // resets all connections; should only be used when no
            other connections are active
            TermDeleteAll();
            TermInit();
            WelcomeForm(pECB, szBuffer);
            break;
        case 11:
            // CMD=Stats
            StatsCmd(pECB, szBuffer);
            break;
    }
}
catch (CBaseErr *e)

```

```

        {
            ErrorForm( pECB, e->ErrorType(), e->ErrorNum(), TermId, iSyncId,
e->ErrorText(), szBuffer );
            delete e;
        }
        catch (...)
        {
            ErrorForm( pECB, ERR_TYPE_WEBDLL, 0, TermId, iSyncId, "Error:
Unhandled exception in Web Client.", szBuffer );
        }
    }

#ifdef ICECAP
    StopCAP();
#endif

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

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

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

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

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

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

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

        (VOID) DeregisterEventSource(hEventSource);
    }
}

```

```

/* FUNCTION: DeliveryWorkerThread
 *
 * PURPOSE:      This function processes deferred delivery txns. There are
typically several threads running this routine. The number of threads
 *              read from the registry. The thread waits for work by
is determined by an entry waiting on semaphore.
 *              When a delivery txn is posted, the semaphore is
 *              released. After processing
 *              the delivery txn, information is logged to record the
txn status and execution time.
 */

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

    DELIVERY_TRANSACTION delivery;
    PDELIVERY_DATA      pDeliveryData;
    TXN_RECORD_TPCC_DELIV_DEF txnDeliRec;

    DWORD              index;
    HANDLE              handles[2];

    SYSTEMTIME          trans_end;          //delivery
transaction finished time
    SYSTEMTIME          trans_start;       //delivery transaction
start time

    assert(txnDeliLog != NULL);

    try
    {
        if (Reg.eDB_Protocol == ODBC)
            pTxn = pCTPCC_ODBC_new( Reg.szDbServer, Reg.szDbUser,
Reg.szDbPassword, szMyComputerName, Reg.szDbName );
        else if (Reg.eDB_Protocol == DBLIB)
            pTxn = pCTPCC_DBLIB_new( Reg.szDbServer, Reg.szDbUser,
Reg.szDbPassword, szMyComputerName, Reg.szDbName );
        pDeliveryData = pTxn->BuffAddr_Delivery();
    }
    catch (CBaseErr *e)
    {
        char szTmp[1024];
        wsprintf( szTmp, "Error in Delivery Txn thread. Could not
connect to database. "
Database=%s",
                "%s. Server=%s, User=%s, Password=%s,
                e->ErrorText(), Reg.szDbServer,
Reg.szDbUser, Reg.szDbPassword, Reg.szDbName );
        WriteMessageToEventLog( szTmp );
        delete e;
        goto ErrorExit;
    }
    catch (...)
    {
        WriteMessageToEventLog(TEXT("Unhandled exception caught in
DeliveryWorkerThread."));
        goto ErrorExit;
    }
}

```

```

while (TRUE)
{
    try
    {
        //while delivery thread running, i.e. user has not
        // need to wait for multiple objects:
        while (TRUE)
        {
            // need to wait for multiple objects:
            handles[0] = hDoneEvent;
            handles[1] = hWorkerSemaphore;
            index = WaitForMultipleObjects( 2,
&handles[0], FALSE, INFINITE );
            if (index == WAIT_OBJECT_0)
                goto ErrorExit;

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

            // make a local copy of current entry from
            // delivery buffer and increment buffer index
            EnterCriticalSection(&DelBuffCriticalSection);
            delivery = *(pDelBuff+dwDelBuffBusyIndex);
            dwDelBuffFreeCount++;
            dwDelBuffBusyIndex++;
            if (dwDelBuffBusyIndex == dwDelBuffSize)
                // wrap-around if at end of buffer
                dwDelBuffBusyIndex = 0;

            LeaveCriticalSection(&DelBuffCriticalSection);

            pDeliveryData->w_id = delivery.w_id;
            pDeliveryData->o_carrier_id =

            txnDeliRec.w_id = pDeliveryData->w_id;
            txnDeliRec.o_carrier_id = pDeliveryData-
            >o_carrier_id;
            txnDeliRec.TxnStartT0 =

            Get64BitTime(&delivery.queue);

            GetLocalTime( &trans_start );
            pTxn->Delivery();
            GetLocalTime( &trans_end );

            //log txn
            txnDeliRec.TxnStatus = ERR_SUCCESS;
            for (int i=0; i<10; i++)
                txnDeliRec.o_id[i] =

            txnDeliRec.DeltaT4 =
            (int)(Get64BitTime(&trans_end) - txnDeliRec.TxnStartT0);
            txnDeliRec.DeltaTxnExec =
            (int)(Get64BitTime(&trans_end) - Get64BitTime(&trans_start));

            if (txnDeliLog != NULL)
                txnDeliLog-
            >WriteToLog(&txnDeliRec);
        }
    }
}

```

```

    }
    catch (CBaseErr *e)
    {
        char szTmp[1024];
        wsprintf( szTmp, "Error in Delivery Txn thread. %s",
e->ErrorText() );
        WriteMessageToEventLog( szTmp );

        // log the error txn
        txnDeliRec.TxnStatus = e->ErrorType();
        if (txnDelilog != NULL)
            txnDelilog->WriteToLog(&txnDeliRec);

        delete e;
    }
    catch (...)
    {
        // unhandled exception; shouldn't happen; not much we
        WriteMessageToEventLog(TEXT("Unhandled exception
caught in DeliveryWorkerThread."));
    }
}

ErrorExit:
    delete pTxn;
    _endthread();
}

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

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

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

        dwDelBuffFreeCount--;
        dwDelBuffFreeIndex++;
        if (dwDelBuffFreeIndex == dwDelBuffSize)
            dwDelBuffFreeIndex = 0;           // wrap-around
    }
    if at end of buffer
    }
    else
        // No free buffers. Return an error, which indicates that the
delivery buffer is full.

```

```

        // Most likely, the number of delivery worker threads needs to
be increased to keep up
        // with the txn rate.
        bError = TRUE;
        LeaveCriticalSection(&DelBuffCriticalSection);

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

        return bError;
    }

/* FUNCTION: ProcessQueryString
 *
 * PURPOSE:      This function extracts the relevent information out of the http
command passed in from
 *
 *               the browser.
 *
 * COMMENTS:      If this is the initial connection i.e. client is at welcome
screen then
 *
 *               there will not be a terminal id or current
form id. If this is the case
 *
 *               then the pTermid and pFormid return values
are undefined.
 */

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

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

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

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

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

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

    // see which command it matches
    for(i=0; i++)
    {
        if (szCmds[i][0] == 0)
            // no more; no match; return error

```

```

        throw new CWEBCLNT_ERR( ERR_COMMAND_UNDEFINED );
    if ( !strcmp(szCmds[i], szBuffer) )
    {
        *pCmd = i+1;
        break;
    }
}

/* FUNCTION: void WelcomeForm
 *
 */

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

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

    "Web Client (ver 4.20)</BIG></B> <BR> <BR>"

    "New\ "><PRE>"

    "___TIME__" <BR>"

    ("___TIMESTAMP___") <BR>"

    ACTION="\tpcc.dll\" METHOD="\GET\">"

    NAME="\STATUSID\" VALUE="\0\">"

    NAME="\ERROR\" VALUE="\0\">"

    NAME="\FORMID\" VALUE="\1\">"

    NAME="\TERMINID\" VALUE="\0\">"

    NAME="\SYCID\" VALUE="\0\">"

    NAME="\VERSION\" VALUE="\\" WEBCLIENT_VERSION "\\">"

    );

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

    "Txn Monitor          =

    "Database protocol   =

    "Max Connections     =

    "# of Delivery Threads =

    "Max Pending Deliveries =

    , szTxnMonNames[Reg.eTxnMon],
    szDBNames[Reg.eDB_Protocol],
    Reg.dwMaxConnections, dwNumDeliveryThreads,
    dwDelBuffSize );
    strcat( szBuffer, szTmp);

```

```

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

    if (Reg.eTxnMon == None)
    // connection options may be specified when not using a txn
    monitor
    connection:<BR>"
    sprintf( szTmp, "Please enter your database options for this
New\" color=\"blue\"><PRE>"
    "<font face=\"Courier
NAME=\"db_server\" SIZE=20 VALUE=\"%s\"><BR>"
    "DB Server          = <INPUT
NAME=\"db_user\" SIZE=20 VALUE=\"%s\"><BR>"
    "DB User ID        = <INPUT
NAME=\"db_passwd\" SIZE=20 VALUE=\"%s\"><BR>"
    "DB Password       = <INPUT
NAME=\"db_name\" SIZE=20 VALUE=\"%s\"><BR>"
    "DB Name           = <INPUT
    , Reg.szDbServer, Reg.szDbUser,
    Reg.szDbPassword, Reg.szDbName );
    else
    // if using a txn monitor, connection options are determined
    from registry; can't
    // set per user. show options fyi
    sprintf( szTmp, "Database options which will be used by the
transaction monitor:<BR>"
    "DB Server
    "DB User ID
    "DB Password
    "DB Name
    , Reg.szDbServer, Reg.szDbUser,
    Reg.szDbPassword, Reg.szDbName );
    strcat( szBuffer, szTmp);

    sprintf( szTmp, "Please enter your Warehouse and District for this
session:<BR>"
    "<font face=\"Courier New\"
color=\"blue\"><PRE>" );
    strcat( szBuffer, szTmp);
    strcat( szBuffer, "Warehouse ID = <INPUT NAME=\"w_id\" SIZE=4><BR>"
    "District ID = <INPUT
NAME=\"d_id\" SIZE=2><BR>"
    "</PRE></font><HR>"
    "<INPUT TYPE=\"submit\"
    , Reg.szDbServer, Reg.szDbUser,
    Reg.szDbPassword, Reg.szDbName );
    strcat( szBuffer, szTmp);

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

/* FUNCTION: SubmitCmd

```



```

*
* PURPOSE:      This function allocated a new terminal id in the Term structure
array.
*
*/
void SubmitCmd(EXTENSION_CONTROL_BLOCK *pECB, char *szBuffer)
{
    int          iNewTerm;
    char         *ptr = pECB->lpszQueryString;

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

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

    if (Reg.eTxnMon == None)
    {
        // parse Server name
        GetKeyValue(&ptr, "db_server", szServer, sizeof(szServer),
ERR_NO_SERVER_SPECIFIED);
        // parse User name
        GetKeyValue(&ptr, "db_user", szUser, sizeof(szUser), NO_ERR);
        // parse Password
        GetKeyValue(&ptr, "db_passwd", szPassword, sizeof(szPassword),
NO_ERR);
        // parse Database name
        GetKeyValue(&ptr, "db_name", szDatabase, sizeof(szDatabase),
NO_ERR);
    }

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

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

    iNewTerm = TermAdd();

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

    try
    {
        if (Reg.eTxnMon == TUXEDO)
            Term.pClientData[iNewTerm].pTxn = pCTPCC_TUXEDO_new();
        else if (Reg.eTxnMon == ENCINA)
            Term.pClientData[iNewTerm].pTxn = pCTPCC_ENCINA_new();

```

```

        else if (Reg.eTxnMon == COM)
            Term.pClientData[iNewTerm].pTxn = pCTPCC_COM_new(
Reg.bCOM_SinglePool );
        else if (Reg.eDB_Protocol == ODBC)
            Term.pClientData[iNewTerm].pTxn = pCTPCC_ODBC_new(
szServer, szUser, szPassword, szMyComputerName, szDatabase );
        else if (Reg.eDB_Protocol == DBLIB)
            Term.pClientData[iNewTerm].pTxn = pCTPCC_DBLIB_new(
szServer, szUser, szPassword, szMyComputerName, szDatabase );
    }
    catch (...)
    {
        TermDelete(iNewTerm);
        throw; // pass exception upward
    }

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

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

    EnterCriticalSection(&TermCriticalSection);

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

    LeaveCriticalSection(&TermCriticalSection);

    wsprintf( szBuffer,
"<HTML><HEAD><TITLE>TPC-C Web Client
Stats</TITLE></HEAD>"
" <BODY><B><BIG> Total Active Connections: %d
</BIG></B><BR></BODY></HTML>"
, iTot );

}

char *CWEBCLNT_ERR::ErrorText()
{
    static SERRORMSG errorMsgs[] =
    {
        {
            ERR_COMMAND_UNDEFINED,
            "Command undefined."
        },
        {
            ERR_D_ID_INVALID,
            "Invalid District ID Must be 1 to 10."
        },
    },
}

```

```

    {
        ERR_DELIVERY_CARRIER_ID_RANGE,
        "Delivery Carrier ID out of range must be 1 - 10."
    },
    {
        ERR_DELIVERY_CARRIER_INVALID,
        "Delivery Carrier ID invalid must be numeric 1 - 10."
    },
    {
        ERR_DELIVERY_MISSING_OCD_KEY,
        "Delivery missing Carrier ID key \"OCD*\"."
    },
    {
        ERR_DELIVERY_THREAD_FAILED,
        "Could not start delivery worker thread."
    },
    {
        ERR_GETPROCADDR_FAILED,
        "Could not map proc in DLL. GetProcAddr error. DLL="
    },
    {
        ERR_HTML_ILL_FORMED,
        "Required key field is missing from HTML string."
    },
    {
        ERR_INVALID_SYNC_CONNECTION,
        "Invalid Terminal Sync ID."
    },
    {
        ERR_INVALID_TERMID,
        "Invalid Terminal ID."
    },
    {
        ERR_LOADDLL_FAILED,
        "Load of DLL failed. DLL="
    },
    {
        ERR_MAX_CONNECTIONS_EXCEEDED,
        "No connections available. Max Connections is probably too low."
    },
    {
        ERR_MISSING_REGISTRY_ENTRIES,
        "Required registry entries are missing. Rerun INSTALL to correct."
    },
    {
        ERR_NEWORDER_CUSTOMER_INVALID,
        "New Order customer id invalid data type, range = 1 to 3000."
    },
    {
        ERR_NEWORDER_CUSTOMER_KEY,
        "New Order missing Customer key \"CID*\"."
    },
    {
        ERR_NEWORDER_DISTRICT_INVALID,
        "New Order District ID Invalid range 1 - 10."
    },
    {
        ERR_NEWORDER_FORM_MISSING_DID,
        "New Order missing District key \"DID*\"."
    },
    {
        ERR_NEWORDER_ITEMID_INVALID,
        "New Order Item Id is wrong data type, must be numeric."
    },
    {
        ERR_NEWORDER_ITEMID_RANGE,
        "New Order Item Id is out of range. Range = 1 to 999999."
    },
    {
        ERR_NEWORDER_ITEMID_WITHOUT_SUPPW,
        "New Order Item Id field entered without a corresponding Supp_W."
    },
    {
        ERR_NEWORDER_MISSING_IID_KEY,
        "Order missing Item Id key \"IID*\"."
    },
    {
        ERR_NEWORDER_MISSING_QTY_KEY,
        "Order Missing Qty key \"Qty##*\"."
    },
    {
        ERR_NEWORDER_MISSING_SUPPW_KEY,
        "New Order missing Supp_W key \"SP##*\"."
    },
    {
        ERR_NEWORDER_NOITEMS_ENTERED,
        "Order No order lines entered."
    }
},

```

```

    {
        ERR_NEWORDER_QTY_INVALID,
        "New Order Qty invalid must be numeric range 1 - 99."
    },
    {
        ERR_NEWORDER_QTY_RANGE,
        "New Order Qty is out of range. Range = 1 to 99."
    },
    {
        ERR_NEWORDER_QTY_WITHOUT_SUPPW,
        "New Order Qty field entered without a corresponding Supp_W."
    },
    {
        ERR_NEWORDER_SUPPW_INVALID,
        "New Order Supp_W invalid data type must be numeric."
    },
    {
        ERR_NO_SERVER_SPECIFIED,
        "No Server name specified."
    },
    {
        ERR_ORDERSTATUS_CID_AND_CLT,
        "Order Status Only Customer ID or Last Name may be entered, not both."
    },
    {
        ERR_ORDERSTATUS_CID_INVALID,
        "Order Status Customer ID invalid, range must be numeric 1 - 3000."
    },
    {
        ERR_ORDERSTATUS_CLT_RANGE,
        "Order Status Customer last name longer than 16 characters."
    },
    {
        ERR_ORDERSTATUS_DID_INVALID,
        "Order Status District invalid, value must be numeric 1 - 10."
    },
    {
        ERR_ORDERSTATUS_MISSING_CID_CLT,
        "Order Status Either Customer ID or Last Name must be entered."
    },
    {
        ERR_ORDERSTATUS_MISSING_CID_KEY,
        "Order Status missing Customer key \"CID*\"."
    },
    {
        ERR_ORDERSTATUS_MISSING_CLT_KEY,
        "Order Status missing Customer Last Name key \"CLT*\"."
    },
    {
        ERR_ORDERSTATUS_MISSING_DID_KEY,
        "Order Status missing District key \"DID*\"."
    },
    {
        ERR_PAYMENT_CDI_INVALID,
        "Payment Customer district invalid must be numeric."
    },
    {
        ERR_PAYMENT_CID_AND_CLT,
        "Payment Only Customer ID or Last Name may be entered, not both."
    },
    {
        ERR_PAYMENT_CUSTOMER_INVALID,
        "Payment Customer data type invalid, must be numeric."
    },
    {
        ERR_PAYMENT_CWI_INVALID,
        "Payment Customer Warehouse invalid, must be numeric."
    },
    {
        ERR_PAYMENT_DISTRICT_INVALID,
        "Payment District ID is invalid, must be 1 - 10."
    },
    {
        ERR_PAYMENT_HAM_INVALID,
        "Payment Amount invalid data type must be numeric."
    },
    {
        ERR_PAYMENT_HAM_RANGE,
        "Payment Amount out of range, 0 - 9999.99."
    },
    {
        ERR_PAYMENT_LAST_NAME_TO_LONG,
        "Payment Customer last name longer than 16 characters."
    }
},

```

```

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

char szTmp[256];
int i = 0;
while (TRUE)
{
    if (errorMsgs[i].szMsg[0] == 0)
    {
        strcpy( szTmp, "Unknown error number." );
        break;
    }
    if (m_Error == errorMsgs[i].iError)
    {
        strcpy( szTmp, errorMsgs[i].szMsg );
        break;
    }
    i++;
}

if (m_szTextDetail)
    strcat( szTmp, m_szTextDetail );
if (m_SystemErr)
    sprintf( szTmp+strlen(szTmp), " Error=%d", m_SystemErr );

```

```

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

/* FUNCTION: GetKeyValue
 *
 * PURPOSE:      This function parses a http formatted string for specific key
 * values.
 *
 * ARGUMENTS:   char          *pQueryString      http string
 *              from client browser
 *              char          *pKey
 *              key value to look for
 *              char          *pValue
 *              character array into which to place key's value
 *              int          iMax
 *              maximum length of key value array.
 *              WEBERROR    err
 *
 * RETURNS:     nothing.
 *
 * ERROR:       if (the pKey value is not found) then
 *              if (err == 0)
 *                  return (empty string)
 *              else
 *                  throw CWEBCLNT_ERR(err)
 *
 * COMMENTS:    http keys are formatted either KEY=value& or KEY=value\0. This
 *              DLL formats
 *              TPC-C input fields in such a manner that the
 *              keys can be extracted in the
 *              above manner.
 */

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

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

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

    *pQueryString = ptr;
    return;

ErrorExit:
    if (err != NO_ERR)

```

```

        throw new CWEBCLNT_ERR( err );
    *pValue = 0; // return empty result string
}

/* FUNCTION: GetIntKeyValue
 *
 * PURPOSE:      This function parses a http formatted string for a specific key
value.
 *
 * ARGUMENTS:   char          *pQueryString    http string
from client browser
 *
 *              char          *pKey
key value to look for
 *
 *              WEBERROR      NoKeyErr
error value to throw if key not found
 *
 *              WEBERROR      NotIntErr
error value to throw if value not numeric
 *
 * RETURNS:     integer
 *
 * ERROR:       if (the pKey value is not found) then
 *              if (NoKeyErr != NO_ERR)
 *                  throw CWEBCLNT_ERR(err)
 *              else
 *                  return 0
 *              else if (non-numeric char found) then
 *                  if (NotIntErr != NO_ERR) then
 *                      throw CWEBCLNT_ERR(err)
 *                  else
 *                      return 0
 *
 * COMMENTS:    http keys are formatted either KEY=value& or KEY=value\0. This
DLL formats
 *
 *              TPC-C input fields in such a manner that the
keys can be extracted in the
 *
 *              above manner.
 */

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

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

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

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

```

```

    *pQueryString = ptr;
    return atoi(ptr0);
}

ErrorNoKey:
    if (NoKeyErr != NO_ERR)
        throw new CWEBCLNT_ERR( NoKeyErr );
    return 0;
}

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

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

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

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

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

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

    LeaveCriticalSection(&TermCriticalSection);
}

/* FUNCTION: TermDeleteAll
 *
 * PURPOSE:      This function frees allocated resources associated with the
terminal structure.
 *
 * ARGUMENTS:    none
 *
 * RETURNS:      None
 *
 * COMMENTS:     This function is called only when the inet service unloads the
TPCC.DLL
 *
 * */

```

```

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

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

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

    LeaveCriticalSection(&TermCriticalSection);
}

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

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

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

    EnterCriticalSection(&TermCriticalSection);
    if (Term.iFreeList != 0)
    {
        // position is available
        iNewTerm = Term.iFreeList;
        Term.iFreeList = Term.pClientData[iNewTerm].iNextFree;
        Term.pClientData[iNewTerm].iNextFree = -1; // indicates this
position is in use
    }
    else
    {
        // no open slots, so find the slot that hasn't been used in the
longest time and reuse it
        for(iNewTerm=1, i=1, iTickCount=0x7FFFFFFF;
i<Reg.dwMaxConnections; i++)
        {
            if (iTickCount > Term.pClientData[i].iTickCount)
            {
                iTickCount = Term.pClientData[i].iTickCount;
                iNewTerm = i;
            }
        }
        // if oldest term is less than one minute old, it probably means
that more connections
        // are being attempted than were specified as "Max Connections"
at install. In this case,
        // do not bump existing connection; instead, return error to
requestor.
        if ((GetTickCount() - iTickCount) < 60000)

```

```

        {
            LeaveCriticalSection(&TermCriticalSection);
            throw new CWEBCLNT_ERR( ERR_MAX_CONNECTIONS_EXCEEDED
);
        }
    }

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

    LeaveCriticalSection(&TermCriticalSection);
    return iNewTerm;
}

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

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

        // put onto free list
        EnterCriticalSection(&TermCriticalSection);
        Term.pClientData[id].iNextFree = Term.iFreeList;
        Term.iFreeList = id;

        LeaveCriticalSection(&TermCriticalSection);
    }
}

/* FUNCTION: MakeErrorForm
 */

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

```



```

" <INPUT TYPE=\ "hidden\ " NAME=\ "STATUSID\ " VALUE=\ "%d\ ">"
" <INPUT TYPE=\ "hidden\ " NAME=\ "ERROR\ " VALUE=\ "0\ ">"
" <INPUT TYPE=\ "hidden\ " NAME=\ "FORMID\ " VALUE=\ "%d\ ">"
" <INPUT TYPE=\ "hidden\ " NAME=\ "TERMINID\ " VALUE=\ "%d\ ">"
" <INPUT TYPE=\ "hidden\ " NAME=\ "SYNCID\ " VALUE=\ "%d\ ">"
" <PRE><font face=\ "Courier\ ">

New Order<BR>"
    , bValid ? 0 : ERR_BAD_ITEM_ID, NEW_ORDER_FORM, iTermId,
Term.pClientData[iTermId].iSyncId);

    if ( bInput )
    {
        c += sprintf(szForm+c, "Warehouse: %4.4d ",
Term.pClientData[iTermId].w_id );

        strcpy( szForm+c,
"District: <INPUT NAME=\ "DID*\ " SIZE=1>
Date:<BR>"
Credit: %Disc:<BR>"
W_tax: D_tax:<BR><BR>"
Stock B/G Price Amount<BR>"
NAME=\ "IID00*\ " SIZE=6>
SIZE=1><BR>"
NAME=\ "IID01*\ " SIZE=6>
SIZE=1><BR>"
NAME=\ "IID02*\ " SIZE=6>
SIZE=1><BR>"
NAME=\ "IID03*\ " SIZE=6>
SIZE=1><BR>"
NAME=\ "IID04*\ " SIZE=6>
SIZE=1><BR>"
NAME=\ "IID05*\ " SIZE=6>
SIZE=1><BR>"
NAME=\ "IID06*\ " SIZE=6>
SIZE=1><BR>"
NAME=\ "IID07*\ " SIZE=6>
SIZE=1><BR>"
NAME=\ "IID08*\ " SIZE=6>
SIZE=1><BR>"
NAME=\ "IID09*\ " SIZE=6>
SIZE=1><BR>"
NAME=\ "IID10*\ " SIZE=6>
SIZE=1><BR>"
NAME=\ "IID11*\ " SIZE=6>
SIZE=1><BR>"
NAME=\ "IID12*\ " SIZE=6>
SIZE=1><BR>"
"Customer: <INPUT NAME=\ "CID*\ " SIZE=4> Name:
"Order Number: Number of Lines:
" Supp_W Item_Id Item Name Qty
" <INPUT NAME=\ "SP00*\ " SIZE=4> <INPUT
<INPUT NAME=\ "Qty00*\ "
" <INPUT NAME=\ "SP01*\ " SIZE=4> <INPUT
<INPUT NAME=\ "Qty01*\ "
" <INPUT NAME=\ "SP02*\ " SIZE=4> <INPUT
<INPUT NAME=\ "Qty02*\ "
" <INPUT NAME=\ "SP03*\ " SIZE=4> <INPUT
<INPUT NAME=\ "Qty03*\ "
" <INPUT NAME=\ "SP04*\ " SIZE=4> <INPUT
<INPUT NAME=\ "Qty04*\ "
" <INPUT NAME=\ "SP05*\ " SIZE=4> <INPUT
<INPUT NAME=\ "Qty05*\ "
" <INPUT NAME=\ "SP06*\ " SIZE=4> <INPUT
<INPUT NAME=\ "Qty06*\ "
" <INPUT NAME=\ "SP07*\ " SIZE=4> <INPUT
<INPUT NAME=\ "Qty07*\ "
" <INPUT NAME=\ "SP08*\ " SIZE=4> <INPUT
<INPUT NAME=\ "Qty08*\ "
" <INPUT NAME=\ "SP09*\ " SIZE=4> <INPUT
<INPUT NAME=\ "Qty09*\ "
" <INPUT NAME=\ "SP10*\ " SIZE=4> <INPUT
<INPUT NAME=\ "Qty10*\ "
" <INPUT NAME=\ "SP11*\ " SIZE=4> <INPUT
<INPUT NAME=\ "Qty11*\ "
" <INPUT NAME=\ "SP12*\ " SIZE=4> <INPUT
<INPUT NAME=\ "Qty12*\ "

```

```

" <INPUT NAME=\ "SP13*\ " SIZE=4> <INPUT
NAME=\ "IID13*\ " SIZE=6>
SIZE=1><BR>"
" <INPUT NAME=\ "SP14*\ " SIZE=4> <INPUT
NAME=\ "IID14*\ " SIZE=6>
SIZE=1><BR>"
"Execution Status:
Total:<BR>"
" </font></PRE><HR>"
" <INPUT TYPE=\ "submit\ " NAME=\ "CMD\ "
VALUE=\ "Process\ ">"
" <INPUT TYPE=\ "submit\ " NAME=\ "CMD\ " VALUE=\ "Menu\ ">"
" </FORM></HTML>"
);
}
else
{
    c += sprintf(szForm+c, "Warehouse: %4.4d District: %2.2d
Date: ",
pNewOrderData->w_id,
pNewOrderData->d_id);

    if ( bValid )
    {
        c += sprintf(szForm+c, "%2.2d-%2.2d-%4.4d
%2.2d:%2.2d:%2.2d",
pNewOrderData->o_entry_d.day,
pNewOrderData->o_entry_d.month,
pNewOrderData->o_entry_d.year,
pNewOrderData->o_entry_d.hour,
pNewOrderData->o_entry_d.minute,
pNewOrderData->o_entry_d.second);
    }

    c += sprintf(szForm+c, "<BR>Customer: %4.4d Name: %-16s
pNewOrderData->c_credit);
pNewOrderData->c_id, pNewOrderData->c_last,

    if ( bValid )
    {
        c += sprintf(szForm+c,
"%Disc: %5.2f
<BR>"
"Order Number: %8.8d
Number of Lines: %2.2d W_tax: %5.2f D_tax: %5.2f <BR><BR>"
" Supp_W Item_Id Item
Name Qty Stock B/G Price Amount<BR>",
100.0*pNewOrderData->c_discount,
pNewOrderData->o_id,
pNewOrderData->o_ol_cnt,
100.0 * pNewOrderData->w_tax,
100.0 * pNewOrderData->d_tax);

        for(i=0; i<pNewOrderData->o_ol_cnt; i++)
        {
            c += sprintf(szForm+c, " %4.4d %6.6d %-
24s %2.2d %3.3d %1.1s %6.2f %7.2f <BR>",
pNewOrderData-
>OL[i].ol_supply_w_id,
pNewOrderData->OL[i].ol_i_id,
pNewOrderData->OL[i].ol_i_name,
pNewOrderData->OL[i].ol_quantity,

```

```

        pNewOrderData->OL[i].ol_stock,
        pNewOrderData-
    }
    pNewOrderData->OL[i].ol_i_price,
    pNewOrderData->OL[i].ol_amount );
}
else
{
    c += sprintf(szForm+c,
        "%Disc:<BR>"
        "Order Number: %8.8d Number of Lines:"
        " Supp_W Item_Id Item Name
W_tax:          D_tax:<BR> <BR>"
        " "
Qty Stock B/G Price Amount<BR>"
        , pNewOrderData->o_id);
    i = 0;
}
strcpy( szForm+c, szBR, (15-i)*5 );
c += (15-i)*5;
if ( bValid )
    c += sprintf(szForm+c, "Execution Status: Transaction
committed.          Total: $%8.2f ",
        pNewOrderData->total_amount);
else
    c += sprintf(szForm+c, "Execution Status: Item number
is not valid.      Total:");
strcpy(szForm+c,
    "<BR></font></PRE><HR>"
    "<INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"..NewOrder..\">"
    "<INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"..Payment..\">"
    "<INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"..Delivery..\">"
    "Status..\">"
    "<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"..Order-
Level..\">"
    "<INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"..Exit..\">"
    "</FORM></HTML>"
);
}
/* FUNCTION: MakePaymentForm
*
* COMMENTS:          The internal client buffer is created when the terminal id is
assigned and should not
*                    be freed except when the client terminal id
is no longer needed.
*/
void MakePaymentForm(int iTermId, PAYMENT_DATA *pPaymentData, BOOL bInput, char
*szForm)
{
    int c;

```

```

    c = sprintf(szForm,
        "<HTML><HEAD><TITLE>TPC-C Payment</TITLE></HEAD><BODY>"
        "<FORM ACTION=\"tpcc.dll\" METHOD=\"GET\">"
        "<INPUT TYPE=\"hidden\" NAME=\"STATUSID\" VALUE=\"0\">"
        "<INPUT TYPE=\"hidden\" NAME=\"ERROR\" VALUE=\"0\">"
        "<INPUT TYPE=\"hidden\" NAME=\"FORMID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\" NAME=\"TERMINID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\" NAME=\"SYCNID\" VALUE=\"%d\">"
        "<PRE><font face=\"Courier\">
Payment<BR>"
        "Date: "
        , PAYMENT_FORM, iTermId, Term.pClientData[iTermId].iSyncId);
    if ( !bInput )
    {
        c += sprintf(szForm+c, "%2.2d-%2.2d-%4.4d %2.2d:%2.2d:%2.2d",
            pPaymentData->h_date.day,
            pPaymentData->h_date.month,
            pPaymentData->h_date.year,
            pPaymentData->h_date.hour,
            pPaymentData->h_date.minute,
            pPaymentData->h_date.second);
    }
    if ( bInput )
    {
        c += sprintf(szForm+c,
            "<BR> <BR>Warehouse: %4.4d"
            " District: <INPUT
NAME=\"DID*\" SIZE=1><BR> <BR> <BR> <BR> <BR>"
            "Customer: <INPUT NAME=\"CID*\" SIZE=4>"
            "Cust-Warehouse: <INPUT NAME=\"CWI*\" SIZE=4> "
            "Cust-District: <INPUT NAME=\"CDI*\" SIZE=1><BR>"
            "Name: <INPUT NAME=\"CLT*\"
SIZE=16>
            Since:<BR>"
            "
            Credit:<BR>"
            "
            Disc:<BR>"
            "
            Phone:<BR> <BR>"
            "Amount Paid: $<INPUT NAME=\"HAM*\" SIZE=7>
New Cust-Balance:<BR>"
            "Credit Limit:<BR> <BR>Cust-Data: <BR> <BR> <BR> <BR>
<BR></font></PRE><HR>"
            "<INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"Process\"><INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"Menu\">"
            "</BODY></FORM></HTML>"
            , Term.pClientData[iTermId].w_id);
    }
    else
    {
        c += sprintf(szForm+c,
            "<BR> <BR>Warehouse: %4.4d
District: %2.2d<BR>"
            "%-20s %20s<BR>"
            "%-20s %20s<BR>"
            "%-20s %-2s %5.5s-%4.4s %20s %-2s %5.5s-
%4.4s<BR> <BR>"
            "Customer: %4.4d Cust-Warehouse: %4.4d Cust-
District: %2.2d<BR>"
            "Name: %-16s %-2s %-16s Since: %2.2d-%2.2d-
%4.4d<BR>"

```



```

"          %-20s          Credit:  %-2s<BR>"
, Term.pClientData[iTermId].w_id, pPaymentData->d_id
, pPaymentData->w_street_1, pPaymentData->d_street_1
, pPaymentData->w_street_2, pPaymentData->d_street_2
, pPaymentData->w_city, pPaymentData->w_state,
pPaymentData->w_zip, pPaymentData->w_zip+5
, pPaymentData->d_city, pPaymentData->d_state,
pPaymentData->d_zip, pPaymentData->d_zip+5
, pPaymentData->c_id, pPaymentData->c_w_id,
pPaymentData->c_d_id, pPaymentData->c_first, pPaymentData->c_middle,
pPaymentData->c_last, pPaymentData->c_since.day, pPaymentData-
>c_since.month, pPaymentData->c_since.year
, pPaymentData->c_street_1, pPaymentData->c_credit
);

c += sprintf(szForm+c,
"          %-20s          %%Disc:
%5.2f<BR>",
pPaymentData->c_street_2, 100.0*pPaymentData-
>c_discount);

c += sprintf(szForm+c,
"          %-20s %5.5s-%4.4s          Phone:  %6.6s-
%3.3s-%3.3s-%4.4s<BR> <BR>",
pPaymentData->c_city, pPaymentData->c_state,
pPaymentData->c_zip, pPaymentData->c_zip+5,
pPaymentData->c_phone, pPaymentData->c_phone+6,
pPaymentData->c_phone+9, pPaymentData->c_phone+12 );

c += sprintf(szForm+c,
"Amount Paid:          $%7.2f          New Cust-Balance:
%$14.2f<BR>"
"Credit Limit:  $%13.2f<BR> <BR>"
, pPaymentData->h_amount, pPaymentData->c_balance
, pPaymentData->c_credit_lim
);

if ( pPaymentData->c_credit[0] == 'B' && pPaymentData-
>c_credit[1] == 'C' )
c += sprintf(szForm+c,
"          Cust-Data:  %-50.50s<BR>
%-50.50s<BR>          %-50.50s<BR>",
pPaymentData->c_data+50, pPaymentData->c_data+100,
pPaymentData->c_data+150 );
else
strcpy(szForm+c, "Cust-Data: <BR> <BR> <BR> <BR>");

strcat(szForm, " <BR></font></PRE><HR>"
"<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..NewOrder..\">"
" <INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Payment..\">"
" <INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Delivery..\">"
" <INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Order-Status..\">"
" <INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Stock-Level..\">"
" <INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Exit..\">"
);

```

```

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

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

void MakeOrderStatusForm(int iTermId, ORDER_STATUS_DATA *pOrderStatusData, BOOL
bInput, char *szForm)
{
int i, c;
static char szBR[] = " <BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR>
<BR> <BR> <BR> <BR> <BR>";

c = sprintf(szForm,
"<HTML><HEAD><TITLE>TPC-C Order-Status</TITLE></HEAD><BODY>"
"<FORM ACTION=\"tpcc.dll\" METHOD=\"GET\">"
"<INPUT TYPE=\"hidden\" NAME=\"STATUSID\" VALUE=\"0\">"
"<INPUT TYPE=\"hidden\" NAME=\"ERROR\" VALUE=\"0\">"
"<INPUT TYPE=\"hidden\" NAME=\"FORMID\" VALUE=\"%d\">"
"<INPUT TYPE=\"hidden\" NAME=\"TERMINID\" VALUE=\"%d\">"
"<INPUT TYPE=\"hidden\" NAME=\"SYCID\" VALUE=\"%d\">"
"<PRE><font face=\"Courier\">"
Order-Status<BR>"
"Warehouse:  %4.4d          ",
ORDER_STATUS_FORM, iTermId, Term.pClientData[iTermId].iSyncId,
Term.pClientData[iTermId].w_id);

if ( bInput )
{
strcpy(szForm+c,
"District: <INPUT NAME=\"DID\" SIZE=1<BR>"
"Customer: <INPUT NAME=\"CID\" SIZE=4> Name:
<INPUT NAME=\"CLT\" SIZE=23><BR>"
"Cust-Balance:<BR> <BR>"
"Order-Number:          Entry-Date:
Carrier-Number:<BR>"
"Supply-W          Item-Id          Qty          Amount          Delivery-
Date<BR> <BR> <BR> <BR> <BR>"
" <BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR>
<BR></font></PRE>"
"<HR><INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"Process\"><INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"Menu\">"
"</BODY></FORM></HTML> " );
}
else
{
c += sprintf(szForm+c,
"District:  %2.2d<BR>"
"Customer:  %4.4d Name:  %16s %-2s %-16s<BR>",
pOrderStatusData->d_id, pOrderStatusData->c_id,
pOrderStatusData->c_first, pOrderStatusData->c_middle,
pOrderStatusData->c_last);

c += sprintf(szForm+c, "Cust-Balance:  $%9.2f<BR> <BR>",
pOrderStatusData->c_balance);
}
}

```

```

        c += sprintf(szForm+c,
            "Order-Number: %8.8d   Entry-Date: %2.2d-%2.2d-%4.4d
%2.2d:%2.2d:%2.2d   Carrier-Number: %2.2d<BR>"
            "Supply-W      Item-Id   Qty      Amount      Delivery-
Date<BR>",
            pOrderStatusData->o_id,
            pOrderStatusData->o_entry_d.day,
            pOrderStatusData->o_entry_d.month,
            pOrderStatusData->o_entry_d.year,
            pOrderStatusData->o_entry_d.hour,
            pOrderStatusData->o_entry_d.minute,
            pOrderStatusData->o_entry_d.second,
            pOrderStatusData->o_carrier_id);

        for(i=0; i< pOrderStatusData->o_ol_cnt; i++)
        {
            c += sprintf(szForm+c, " %4.4d      %6.6d      %2.2d
%8.2f      %2.2d-%2.2d-%4.4d<BR>",
                pOrderStatusData->OL[i].ol_supply_w_id,
                pOrderStatusData->OL[i].ol_i_id,
                pOrderStatusData->OL[i].ol_quantity,
                pOrderStatusData->OL[i].ol_amount,
                pOrderStatusData->OL[i].ol_delivery_d.day,
                pOrderStatusData->OL[i].ol_delivery_d.month,
                pOrderStatusData->OL[i].ol_delivery_d.year);
        }

        strncpy( szForm+c, szBR, (15-i)*5 );
        c += (15-i)*5;

        strcpy(szForm+c,
            "</font></PRE><HR><INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"..NewOrder..\">"
            "<INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"..Payment..\">"
            "<INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"..Delivery..\">"
            "<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"..Order-
Status..\">"
            "<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"..Stock-
Level..\">"
            "<INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"..Exit..\">"
            "</BODY></FORM></HTML>" );
    }

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

void MakeDeliveryForm(int iTermId, DELIVERY_DATA *pDeliveryData, BOOL bInput, char
*szForm)
{
    int    c;

    c = sprintf(szForm,
        "<HTML><HEAD><TITLE>TPC-C Delivery</TITLE></HEAD><BODY>"

```

```

        "<FORM ACTION=\"tpcc.dll\" METHOD=\"GET\">"
        "<INPUT TYPE=\"hidden\" NAME=\"STATUSID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\" NAME=\"ERROR\" VALUE=\"0\">"
        "<INPUT TYPE=\"hidden\" NAME=\"FORMID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\" NAME=\"TERMINID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\" NAME=\"SYCID\" VALUE=\"%d\">"
        "<PRE><font face=\"Courier\">"
Delivery<BR>"
        "Warehouse: %4.4d<BR> <BR>",
        (!bInput && (pDeliveryData->exec_status_code != eOK)) ?
ERR_TYPE_DELIVERY_POST : 0,
        DELIVERY_FORM, iTermId, Term.pClientData[iTermId].iSyncId,
Term.pClientData[iTermId].w_id);

        if ( bInput )
        {
            strcpy( szForm+c,
                "Carrier Number: <INPUT NAME=\"OCD*\" SIZE=1><BR>
<BR>"
                "Execution Status: <BR> <BR> <BR> <BR> <BR> <BR> <BR>
<BR>"
                " <BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR>
</font></PRE><HR>"
                "<INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"Process\">"
                "<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"Menu\">"
                "</BODY></FORM></HTML>" );
        }
        else
        {
            sprintf( szForm+c,
                "Carrier Number: %2.2d<BR> <BR>"
                "Execution Status: %s <BR> <BR> <BR> <BR> <BR> <BR>
<BR>"
                "</font></PRE>"
                "<HR><INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"..NewOrder..\">"
                "<INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"..Payment..\">"
                "<INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"..Delivery..\">"
                "<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"..Order-
Status..\">"
                "<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"..Stock-
Level..\">"
                "<INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"..Exit..\">"
                "</BODY></FORM></HTML>"
                , pDeliveryData->o_carrier_id,
                (pDeliveryData->exec_status_code == eOK) ? "Delivery
has been queued." : "Delivery Post Failed "
            );
        }
    }

/* FUNCTION: ProcessNewOrderForm
 *
 * PURPOSE:      This function gets and validates the input data from the new
order form
 *                filling in the required input variables. it then calls
the SQLNewOrder

```

```

*
* transaction, constructs the output form and writes it
back to client
*
* browser.
*/

void ProcessNewOrderForm(EXTENSION_CONTROL_BLOCK *pECB, int iTermId, char
*szBuffer)
{
    PNEW_ORDER_DATA          pNewOrder;

    pNewOrder = Term.pClientData[iTermId].pTxn->BuffAddr_NewOrder();

    ZeroMemory(pNewOrder, sizeof(NEW_ORDER_DATA));
    pNewOrder->w_id = Term.pClientData[iTermId].w_id;
    GetNewOrderData(pECB->lpszQueryString, pNewOrder);

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

    pNewOrder = Term.pClientData[iTermId].pTxn->BuffAddr_NewOrder();
    MakeNewOrderForm(iTermId, pNewOrder, OUTPUT_FORM, szBuffer );
}

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

void ProcessPaymentForm(EXTENSION_CONTROL_BLOCK *pECB, int iTermId, char *szBuffer)
{
    PPAYMENT_DATA          pPayment;

    pPayment = Term.pClientData[iTermId].pTxn->BuffAddr_Payment();
    ZeroMemory(pPayment, sizeof(PAYMENT_DATA));
    pPayment->w_id = Term.pClientData[iTermId].w_id;
    GetPaymentData(pECB->lpszQueryString, pPayment);

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

    pPayment = Term.pClientData[iTermId].pTxn->BuffAddr_Payment();
    MakePaymentForm(iTermId, pPayment, OUTPUT_FORM, szBuffer);
}

/* FUNCTION: ProcessOrderStatusForm
*
* PURPOSE:      This function gets and validates the input data from the Order
Status
*
* form filling in the required input variables. It then
calls the
*
* SQLOrderStatus transaction, constructs the output form
and writes it
*
* back to client browser.

```

```

*
* ARGUMENTS:   EXTENSION_CONTROL_BLOCK      *pECB      passed in structure
pointer from inetsrv.
*
* int
*
* iTermId      client browser terminal id
*/

void ProcessOrderStatusForm(EXTENSION_CONTROL_BLOCK *pECB, int iTermId, char
*szBuffer)
{
    PORDER_STATUS_DATA     pOrderStatus;

    pOrderStatus = Term.pClientData[iTermId].pTxn->BuffAddr_OrderStatus();
    ZeroMemory(pOrderStatus, sizeof(ORDER_STATUS_DATA));
    pOrderStatus->w_id = Term.pClientData[iTermId].w_id;
    GetOrderStatusData(pECB->lpszQueryString, pOrderStatus);

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

    pOrderStatus = Term.pClientData[iTermId].pTxn->BuffAddr_OrderStatus();
    MakeOrderStatusForm(iTermId, pOrderStatus, OUTPUT_FORM, szBuffer);
}

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

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

    PDELIVERY_DATA     pDelivery;

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

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

    if (dwNumDeliveryThreads)
    {
        //post delivery info
        if ( PostDeliveryInfo(pDelivery->w_id, pDelivery->o_carrier_id)
    )
        pDelivery->exec_status_code = eDeliveryFailed;
    else
        pDelivery->exec_status_code = eOK;
    }
}

```

```

    }
    else // delivery is done synchronously if no delivery threads configured
        Term.pClientData[iTermId].pTxn->Delivery();

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

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

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

    PSTOCK_LEVEL_DATA pStockLevel;

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

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

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

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

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

/* FUNCTION: GetNewOrderData
 *
 * PURPOSE:      This function extracts and validates the new order form data
 *               from an http command string.
 *
 * ARGUMENTS:   LPSTR lpszQueryString
 *               client browser http command string
 *               NEW_ORDER_DATA *pNewOrderData
 *               pointer to new order data structure
 */

void GetNewOrderData(LPSTR lpszQueryString, NEW_ORDER_DATA *pNewOrderData)
{

```

```

    char szTmp[26];
    int i;
    short items;
    int ol_i_id, ol_quantity;
    char *ptr = lpszQueryString;

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

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

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

            ol_i_id = pNewOrderData->OL[items].ol_i_id =
GetIntKeyValue(&ptr, szIID[i],
ERR_NEWORDER_MISSING_IID_KEY, ERR_NEWORDER_ITEMID_INVALID);
            if ( ol_i_id > 999999 || ol_i_id < 1 )
                throw new CWBCLNT_ERR(
ERR_NEWORDER_ITEMID_RANGE );

            ol_quantity = pNewOrderData->OL[items].ol_quantity =
GetIntKeyValue(&ptr, szQty[i],
ERR_NEWORDER_MISSING_QTY_KEY, ERR_NEWORDER_QTY_INVALID);
            if ( ol_quantity > 99 || ol_quantity < 1 )
                throw new CWBCLNT_ERR(
ERR_NEWORDER_QTY_RANGE );

            items++;
        }
        else
        {
            // nothing entered for supply warehouse, so item id
            // and qty must also be blank
            GetKeyValue(&ptr, szIID[i], szTmp, sizeof(szTmp),
ERR_NEWORDER_MISSING_IID_KEY);
            if ( szTmp[0] )
                throw new CWBCLNT_ERR(
ERR_NEWORDER_ITEMID_WITHOUT_SUPPW );

            GetKeyValue(&ptr, szQty[i], szTmp, sizeof(szTmp),
ERR_NEWORDER_MISSING_QTY_KEY);

```

```

                if ( szTmp[0] )
                    throw new CWBCLNT_ERR(
ERR_NEWORDER_QTY_WITHOUT_SUPPW );
            }
            if ( items == 0 )
                throw new CWBCLNT_ERR( ERR_NEWORDER_NOITEMS_ENTERED );
        }
        pNewOrderData->o_ol_cnt = items;
    }

/* FUNCTION: GetPaymentData
 *
 * PURPOSE:      This function extracts and validates the payment form data from
an http command string.
 *
 * ARGUMENTS:    LPSTR          lpszQueryString
                client browser http command string
                PAYMENT_DATA    *pPaymentData
                pointer to payment data structure
 */
void GetPaymentData(LPSTR lpszQueryString, PAYMENT_DATA *pPaymentData)
{
    char        szTmp[26];
    char        *ptr = lpszQueryString;
    BOOL        bCustIdBlank;

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

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

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

    if ( bCustIdBlank )
    {
        // customer id is blank, so last name must be entered
        GetKeyValue(&ptr, "CLT*", szTmp, sizeof(szTmp),
ERR_PAYMENT_MISSING_CLT_KEY);
        if ( szTmp[0] == 0 )
            throw new CWBCLNT_ERR( ERR_PAYMENT_MISSING_CID_CLT );

        _strupr( szTmp );
        if ( strlen(pPaymentData->c_last) > LAST_NAME_LEN )
            throw new CWBCLNT_ERR( ERR_PAYMENT_LAST_NAME_TO_LONG
);
    }
}

```

```

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

            GetKeyValue(&ptr, "HAM*", szTmp, sizeof(szTmp),
ERR_PAYMENT_MISSING_HAM_KEY);
            if ( !IsDecimal(szTmp) )
                throw new CWBCLNT_ERR( ERR_PAYMENT_HAM_INVALID );
            pPaymentData->h_amount = atof(szTmp);
            if ( pPaymentData->h_amount >= 10000.00 || pPaymentData->h_amount < 0 )
                throw new CWBCLNT_ERR( ERR_PAYMENT_HAM_RANGE );
        }
    }

/* FUNCTION: GetOrderStatusData
 *
 * PURPOSE:      This function extracts and validates the payment form data from
an http command string.
 *
 * ARGUMENTS:    LPSTR          lpszQueryString, ORDER_STATUS_DATA *pOrderStatusData)
                pointer to order status data structure
 */
void GetOrderStatusData(LPSTR lpszQueryString, ORDER_STATUS_DATA *pOrderStatusData)
{
    char        szTmp[26];
    char        *ptr = lpszQueryString;

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

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

        _strupr( szTmp );
        if ( strlen(pOrderStatusData->c_last) > LAST_NAME_LEN )
            throw new CWBCLNT_ERR( ERR_ORDERSTATUS_CLT_RANGE );
        strcpy(pOrderStatusData->c_last, szTmp);
    }
    else
    {
        // parse customer id and verify that last name was NOT entered
        if ( !IsNumeric(szTmp) )
            throw new CWBCLNT_ERR( ERR_ORDERSTATUS_CID_INVALID );
        pOrderStatusData->c_id = atoi(szTmp);
        GetKeyValue(&ptr, "CLT*", szTmp, sizeof(szTmp),
ERR_ORDERSTATUS_MISSING_CLT_KEY);
        if ( szTmp[0] != 0 )
            throw new CWBCLNT_ERR( ERR_ORDERSTATUS_CID_AND_CLT );
    }
}

/* FUNCTION: BOOL IsNumeric(char *ptr)

```

```

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

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

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

/* FUNCTION: BOOL IsDecimal(char *ptr)
*
* PURPOSE:      This function determines if a string is a non-negative decimal
value.
*               It fails if any characters other than a series of numbers followed by
a decimal point, another series of numbers, and a null
terminator are present.
*
* ARGUMENTS:   char          *ptr    pointer to string to
check.
*
* RETURNS:     BOOL          FALSE   if string is not a valid non-
negative decimal value
*               TRUE          if string is
OK
*/

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

    if ( *ptr == 0 )
        return FALSE;

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

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

```

```

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

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

```

tpcc.def

LIBRARY TPCC.DLL

EXPORTS

```

GetExtensionVersion @1
HttpExtensionProc @2
TerminateExtension @3

```

tpcc.h

```

/* FILE:          TPCC.H
*
*               Microsoft TPC-C Kit Ver. 4.20.000
*               Copyright Microsoft, 1999
*
*               All Rights Reserved
*
*               Version 4.10.000 audited by Richard Gimarc,
Performance Metrics, 3/17/99
*
* PURPOSE:   Header file for ISAPI TPCC.DLL, defines structures and functions
used in the isapi tpcc.dll.
*/

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

#define TP_MAX_RETRIES                    50

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

```

```

#define STOCK_LEVEL_FORM          7
    //stock level form id

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

//This structure defines the data necessary to keep distinct for each terminal or
client connection.
typedef struct _CLIENTDATA
{
    int                iNextFree;
    //index of next free element or -1 if this entry in use.
    int                w_id;
    //warehouse id assigned at welcome form
    int                d_id;
    //district id assigned at welcome form

    int                iSyncId;
    //synchronization id
    int                iTickCount;
    //time of last access;

    CTPCC_BASE        *pTxn;
} CLIENTDATA, *PCLIENTDATA;

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

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

enum WEBERROR
{
    NO_ERR,
    ERR_COMMAND_UNDEFINED,
    ERR_D_ID_INVALID,
    ERR_DELIVERY_CARRIER_ID_RANGE,
    ERR_DELIVERY_CARRIER_INVALID,
    ERR_DELIVERY_MISSING_OCD_KEY,
    ERR_DELIVERY_THREAD_FAILED,
    ERR_GETPROCADDR_FAILED,
    ERR_HTML_ILL_FORMED,
    ERR_INVALID_SYNC_CONNECTION,
    ERR_INVALID_TERMID,
    ERR_LOADDDL_FAILED,
    ERR_MAX_CONNECTIONS_EXCEEDED,
    ERR_MEM_ALLOC_FAILED,
    ERR_MISSING_REGISTRY_ENTRIES,
    ERR_NEWORDER_CUSTOMER_INVALID,

```

```

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

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

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

```

```

        strcpy( m_szTextDetail, szTextDetail );
        m_SystemErr = dwSystemErr;
        m_szErrorText = NULL;
    };

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

WEBERROR m_Error;
char      *m_szTextDetail;    //
char      *m_szErrorText;
DWORD     m_SystemErr;

int ErrorType() {return ERR_TYPE_WEBDLL;};
int ErrorNum() {return m_Error;};
char *ErrorText();
};

//These constants have already been defined in engstut.h, but since we do
//not want to include it in the delisrv executable
#define TXN_EVENT_START      2
#define TXN_EVENT_STOP      4
#define TXN_EVENT_WARNING   6 //used to record a warning into
the log

//function prototypes

BOOL APIENTRY DllMain(HANDLE hModule, DWORD ul_reason_for_call, LPVOID lpReserved);
void WriteMessageToEventLog(LPTSTR lpszMsg);
void ProcessQueryString(EXTENSION_CONTROL_BLOCK *pECB, int *pCmd, int *pFormId, int
*pTermId, int *pSyncId);
void WelcomeForm(EXTENSION_CONTROL_BLOCK *pECB, char *szBuffer);
void SubmitCmd(EXTENSION_CONTROL_BLOCK *pECB, char *szBuffer);
void BeginCmd(EXTENSION_CONTROL_BLOCK *pECB, int iFormId, int iTermId);
void ProcessCmd(EXTENSION_CONTROL_BLOCK *pECB, int iFormId, int iTermId);
void StatsCmd(EXTENSION_CONTROL_BLOCK *pECB, char *szBuffer);
void ErrorMessage(EXTENSION_CONTROL_BLOCK *pECB, int iError, int iErrorType, char
*szMsg, int iTermId);
void GetKeyValue(char **pQueryString, char *pKey, char *pValue, int iMax, WEBERROR
err);
int GetIntKeyValue(char **pQueryString, char *pKey, WEBERROR NoKeyErr, WEBERROR
NotIntErr);
void TermInit(void);
void TermDeleteAll(void);
int TermAdd(void);
void TermDelete(int id);
void ErrorForm(EXTENSION_CONTROL_BLOCK *pECB, int iType, int iErrorNum, int iTermId,
int iSyncId, char *szErrorText, char *szBuffer );
void MakeMainMenuForm(int iTermId, int iSyncId, char *szForm);
void MakeStockLevelForm(int iTermId, STOCK_LEVEL_DATA *pStockLevelData, BOOL bInput,
char *szForm);
void MakeNewOrderForm(int iTermId, NEW_ORDER_DATA *pNewOrderData, BOOL bInput, char
*szForm);
void MakePaymentForm(int iTermId, PAYMENT_DATA *pPaymentData, BOOL bInput, char
*szForm);
void MakeOrderStatusForm(int iTermId, ORDER_STATUS_DATA *pOrderStatusData, BOOL
bInput, char *szForm);

```

```

void MakeDeliveryForm(int iTermId, DELIVERY_DATA *pDeliveryData, BOOL bInput, char
*szForm);
void ProcessNewOrderForm(EXTENSION_CONTROL_BLOCK *pECB, int iTermId, char
*szBuffer);
void ProcessPaymentForm(EXTENSION_CONTROL_BLOCK *pECB, int iTermId, char *szBuffer);
void ProcessOrderStatusForm(EXTENSION_CONTROL_BLOCK *pECB, int iTermId, char
*szBuffer);
void ProcessDeliveryForm(EXTENSION_CONTROL_BLOCK *pECB, int iTermId, char
*szBuffer);
void ProcessStockLevelForm(EXTENSION_CONTROL_BLOCK *pECB, int iTermId, char
*szBuffer);
void GetNewOrderData(LPSTR lpszQueryString, NEW_ORDER_DATA *pNewOrderData);
void GetPaymentData(LPSTR lpszQueryString, PAYMENT_DATA *pPaymentData);
void GetOrderStatusData(LPSTR lpszQueryString, ORDER_STATUS_DATA *pOrderStatusData);
BOOL PostDeliveryInfo(short w_id, short o_carrier_id);
BOOL IsNumeric(char *ptr);
BOOL IsDecimal(char *ptr);
void DeliveryWorkerThread(void *ptr);

```

tpcc.rc

```

//Microsoft Developer Studio generated resource script.
//
#include "resource.h"

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

//
// English (U.S.) resources
//
#ifdef _WIN32
LANGUAGE LANG_ENGLISH, SUBLANG_ENGLISH_US
#pragma code_page(1252)
#endif // _WIN32

#ifdef _MAC
//
// Version
//
VS_VERSION_INFO VERSIONINFO
FILEVERSION 0,4,0,0
PRODUCTVERSION 0,4,0,0
FILEFLAGSMASK 0x3fL
#ifdef _DEBUG
FILEFLAGS 0x1L
#else
FILEFLAGS 0x0L
#endif
FILEOS 0x40004L
FILETYPE 0x2L
FILESUBTYPE 0x0L

```



```

BEGIN
  BLOCK "StringFileInfo"
  BEGIN
    BLOCK "040904b0"
    BEGIN
      VALUE "Comments", "TPC-C HTML DLL Server (DBLIB)\0"
      VALUE "CompanyName", "Microsoft\0"
      VALUE "FileDescription", "TPC-C HTML DLL Server (DBLIB)\0"
      VALUE "FileVersion", "0, 4, 0, 0\0"
      VALUE "InternalName", "tpcc\0"
      VALUE "LegalCopyright", "Copyright © 1997\0"
      VALUE "OriginalFilename", "tpcc.dll\0"
      VALUE "ProductName", "Microsoft tpcc\0"
      VALUE "ProductVersion", "0, 4, 0, 0\0"
    END
  END
  BLOCK "VarFileInfo"
  BEGIN
    VALUE "Translation", 0x409, 1200
  END
END
#endif // !_MAC

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

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

3 TEXTINCLUDE DISCARDABLE
BEGIN
  "\r\n"
  "\0"
END

#endif // APSTUDIO_INVOKED

////////////////////////////////////
//
// Dialog
//

IDD_DIALOG1 DIALOG DISCARDABLE 0, 0, 186, 95
STYLE DS_MODALFRAME | WS_POPUP | WS_CAPTION | WS_SYSMENU
CAPTION "Dialog"
FONT 8, "MS Sans Serif"
BEGIN
  DEFPUSHBUTTON "OK", IDOK, 129, 7, 50, 14
  PUSHBUTTON "Cancel", IDCANCEL, 129, 24, 50, 14

```

```

END

////////////////////////////////////
//
// DESIGNINFO
//

#ifdef APSTUDIO_INVOKED
GUIDELINES DESIGNINFO DISCARDABLE
BEGIN
  IDD_DIALOG1, DIALOG
  BEGIN
    LEFTMARGIN, 7
    RIGHTMARGIN, 179
    TOPMARGIN, 7
    BOTTOMMARGIN, 88
  END
END
#endif // APSTUDIO_INVOKED

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

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

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


```

tpcc_com.cpp

```

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

// needed for CoInitializeEx
#define _WIN32_WINNT 0x0400

#include <windows.h>

// need to declare functions for export
#define DllDecl __declspec( dllexport )

```

```

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

#include "..\..\tpcc_com_ps\src\tpcc_com_ps_i.c"
#include "..\..\tpcc_com_all\src\tpcc_com_all_i.c"

// wrapper routine for class constructor
__declspec(dllexport) CTPCC_COM* CTPCC_COM_new(BOOL bSinglePool)
{
    return new CTPCC_COM(bSinglePool);
}

CTPCC_COM::CTPCC_COM(BOOL bSinglePool)
{
    HRESULT hr = NULL;
    long lRet = 0;
    ULONG ulTmpSize = 0;

    m_pTxn = NULL;
    m_pNewOrder = NULL;
    m_pPayment = NULL;
    m_pStockLevel = NULL;
    m_pOrderStatus = NULL;

    m_bSinglePool = bSinglePool;

    ulTmpSize = (ULONG) sizeof(COM_DATA);
    VariantInit(&m_vTxn);
    m_vTxn.vt = VT_SAFEARRAY;

    m_vTxn.parray = SafeArrayCreateVector(VT_UI1, ulTmpSize, ulTmpSize);
    if (!m_vTxn.parray)
        throw new CCOMERR( E_FAIL );

    memset((void*)m_vTxn.parray->pvData,0,ulTmpSize);
    m_pTxn = (COM_DATA*)m_vTxn.parray->pvData;

    hr = CoInitializeEx(NULL, COINIT_MULTITHREADED);
    if (FAILED(hr))
    {
        throw new CCOMERR( hr );
    }

    // create components
    if (m_bSinglePool)
    {
        hr = CoCreateInstance(CLSID_TPCC, NULL, CLSCTX_SERVER,
IID_ITPCC, (void **)&m_pNewOrder);
        if (FAILED(hr))
            throw new CCOMERR(hr);

        // all txns will use same component
        m_pPayment = m_pNewOrder;
        m_pStockLevel = m_pNewOrder;
        m_pOrderStatus = m_pNewOrder;
    }
    else
    {
        // use different components for each txn

```

```

        hr = CoCreateInstance(CLSID_NewOrder, NULL, CLSCTX_SERVER,
IID_ITPCC, (void **)&m_pNewOrder);
        if (FAILED(hr))
            throw new CCOMERR(hr);

        hr = CoCreateInstance(CLSID_Payment, NULL, CLSCTX_SERVER,
IID_ITPCC, (void **)&m_pPayment);
        if (FAILED(hr))
            throw new CCOMERR(hr);

        hr = CoCreateInstance(CLSID_StockLevel, NULL, CLSCTX_SERVER,
IID_ITPCC, (void **)&m_pStockLevel);
        if (FAILED(hr))
            throw new CCOMERR(hr);

        hr = CoCreateInstance(CLSID_OrderStatus, NULL, CLSCTX_SERVER,
IID_ITPCC, (void **)&m_pOrderStatus);
        if (FAILED(hr))
            throw new CCOMERR(hr);
    }

    // call setcomplete to release each component back into pool
    hr = m_pNewOrder->CallSetComplete();
    if (FAILED(hr))
        throw new CCOMERR(hr);

    if (!m_bSinglePool)
    {
        hr = m_pPayment->CallSetComplete();
        if (FAILED(hr))
            throw new CCOMERR(hr);

        hr = m_pStockLevel->CallSetComplete();
        if (FAILED(hr))
            throw new CCOMERR(hr);

        hr = m_pOrderStatus->CallSetComplete();
        if (FAILED(hr))
            throw new CCOMERR(hr);
    }
}

CTPCC_COM::~CTPCC_COM()
{
    if (m_pTxn)
        SafeArrayDestroy(m_vTxn.parray);

    ReleaseInterface(m_pNewOrder);
    if (!m_bSinglePool)
    {
        ReleaseInterface(m_pPayment);
        ReleaseInterface(m_pStockLevel);
        ReleaseInterface(m_pOrderStatus);
    }
    CoUninitialize();
}

void CTPCC_COM::NewOrder()
{
    VARIANT vTxn_out;

    HRESULT hr = m_pNewOrder->NewOrder(m_vTxn, &vTxn_out);
    if (FAILED(hr))

```

```

        throw new CCOMERR( hr );
        memcpy(m_pTxn, (void *)vTxn_out.parray->pvData, vTxn_out.parray->rgsabound[0].cElements);
        SafeArrayDestroy(vTxn_out.parray);

        if ( m_pTxn->ErrorType != ERR_SUCCESS )
            throw new CCOMERR( m_pTxn->ErrorType, m_pTxn->error );
    }

void CTPCC_COM::Payment()
{
    VARIANT vTxn_out;

    HRESULT hr = m_pPayment->Payment(m_vTxn, &vTxn_out);
    if (FAILED(hr))
        throw new CCOMERR( hr );
    memcpy(m_pTxn, (void *)vTxn_out.parray->pvData, vTxn_out.parray->rgsabound[0].cElements);
    SafeArrayDestroy(vTxn_out.parray);

    if ( m_pTxn->ErrorType != ERR_SUCCESS )
        throw new CCOMERR( m_pTxn->ErrorType, m_pTxn->error );
}

void CTPCC_COM::StockLevel()
{
    VARIANT vTxn_out;

    HRESULT hr = m_pStockLevel->StockLevel(m_vTxn, &vTxn_out);
    if (FAILED(hr))
        throw new CCOMERR( hr );
    memcpy(m_pTxn, (void *)vTxn_out.parray->pvData, vTxn_out.parray->rgsabound[0].cElements);
    SafeArrayDestroy(vTxn_out.parray);

    if ( m_pTxn->ErrorType != ERR_SUCCESS )
        throw new CCOMERR( m_pTxn->ErrorType, m_pTxn->error );
}

void CTPCC_COM::OrderStatus()
{
    VARIANT vTxn_out;

    HRESULT hr = m_pOrderStatus->OrderStatus(m_vTxn, &vTxn_out);
    if (FAILED(hr))
        throw new CCOMERR( hr );
    memcpy(m_pTxn, (void *)vTxn_out.parray->pvData, vTxn_out.parray->rgsabound[0].cElements);
    SafeArrayDestroy(vTxn_out.parray);

    if ( m_pTxn->ErrorType != ERR_SUCCESS )
        throw new CCOMERR( m_pTxn->ErrorType, m_pTxn->error );
}

```

tpcc_com.h

```

/* FILE: TPCC_COM.H
 * Microsoft TPC-C Kit Ver. 4.20.000
 * Copyright Microsoft, 1999
 * All Rights Reserved
 * not yet audited
 */

```

```

*
* PURPOSE: Header file for TPC-C COM+ class implementation.
*
* Change history:
* 4.20.000 - first version
*/

#pragma once

#include <stdio.h>
#include "..\..\tpcc_com_ps\src\tpcc_com_ps.h"

// need to declare functions for import, unless define has already been created
// by the DLL's .cpp module for export.
#ifdef DllDecl
#define DllDecl __declspec( dllimport )
#endif

class CCOMERR : public CBaseErr
{
private:
    char m_szErrorText[64];

public:
    // use this interface for genuine COM errors
    CCOMERR( HRESULT hr )
    {
        m_hr = hr;
        m_iErrorType = 0;
        m_iError = 0;
    }

    // use this interface to impersonate a non-COM error type
    CCOMERR( int iErrorType, int iError )
    {
        m_iErrorType = iErrorType;
        m_iError = iError;
        m_hr = S_OK;
    }

    int m_hr;
    int m_iErrorType;
    int m_iError;

    // A CCOMERR class can impersonate another class, which happens
    // if the error // was not actually a COM Services error, but was simply
    // transmitted back via COM.
    int ErrorType()
    {
        if (m_iErrorType == 0)
            return ERR_TYPE_COM;
        else
            return m_iErrorType;
    }

    int ErrorNum() {return m_hr;}

    char *ErrorText()
    {
        if (m_hr == S_OK)
            sprintf( m_szErrorText, "Error: Class %d,
error # %d", m_iErrorType, m_iError );
    }
}

```

```

        else
            sprintf( m_szErrorText, "Error: COM HRESULT
%x", m_hr );
        return m_szErrorText;
    }
};

class DllDecl CTPCC_COM : public CTPCC_BASE
{
private:
    BOOL m_bSinglePool;

    // COM Interface pointers
    ITPCC* m_pNewOrder;
    ITPCC* m_pPayment;
    ITPCC* m_pStockLevel;
    ITPCC* m_pOrderStatus;

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

public:
    VARIANT m_vTxn;
    CTPCC_COM(BOOL bSinglePool);
    ~CTPCC_COM(void);

    inline PNEW_ORDER_DATA BuffAddr_NewOrder()
    { return &m_pTxn->u.NewOrder; };
    inline PPAYMENT_DATA BuffAddr_Payment()
    { return &m_pTxn->u.Payment; };
    inline PDELIVERY_DATA BuffAddr_Delivery()
    { return &m_pTxn->u.Delivery; };
    inline PSTOCK_LEVEL_DATA BuffAddr_StockLevel()
    { return &m_pTxn->u.StockLevel; };
    inline PORDER_STATUS_DATA BuffAddr_OrderStatus()
    { return &m_pTxn->u.OrderStatus; };

    void NewOrder ();
    void Payment ();
    void StockLevel ();
    void OrderStatus ();
    void Delivery () { throw new CCOMERR(E_NOTIMPL); }
}; // not supported

inline void ReleaseInterface(IUnknown *pUnk)
{
    if (pUnk)
    {
        pUnk->Release();
        pUnk = NULL;
    }
}

```

```

    }
}

// wrapper routine for class constructor
extern "C" __declspec(dllexport) CTPCC_COM* CTPCC_COM_new(BOOL);

typedef CTPCC_COM* (TYPE_CTPCC_COM)(BOOL);

```

tpcc_com_all.cpp

```

/* FILE: TPCC_COM_ALL.CPP
 * Microsoft TPC-C Kit Ver. 4.20.000
 * Copyright Microsoft, 1999
 * All Rights Reserved
 *
 * Version 4.10.000 audited by Richard Gimarc,
Performance Metrics, 3/17/99
 *
 * PURPOSE: Implementation for TPC-C Tuxedo class.
 * Contact: Charles Levine (clevine@microsoft.com)
 *
 * Change history:
 * 4.20.000 - updated rev number to match kit
 */

#define STRICT
#define _WIN32_WINNT 0x0400
#define _ATL_APARTMENT_THREADED

#include <stdio.h>
#include <atbase.h>
//You may derive a class from CComModule and use it if you want to override
//something, but do not change the name of _Module
extern CComModule _Module;

#include <atlcom.h>
#include <initguid.h>
#include <transact.h>
#include <atlimpl.cpp>
#include <comsvcs.h>

#include <sqltypes.h>
#include <sql.h>
#include <sqlxext.h>

#include "tpcc_com_ps.h"
#include "..\..\common\src\trans.h"
//tpckit transaction header contains definitions of structures specific to
TPC-C
#include "..\..\common\src\txn_base.h"
#include "..\..\common\src\error.h"
#include "..\..\common\src\ReadRegistry.h"
#include "..\..\db_dblib_dll\src\tpcc_dblib.h" // DBLIB implementation
of TPC-C txns
#include "..\..\db_odbc_dll\src\tpcc_odbc.h" // ODBC implementation
of TPC-C txns

#include "resource.h"
#include "tpcc_com_all.h"
#include "tpcc_com_all_i.c"
#include "Methods.h"

```

```

#include "..\..\tpcc_com_ps\src\tpcc_com_ps_i.c"
#include "..\..\common\src\ReadRegistry.cpp"

CComModule _Module;

BEGIN_OBJECT_MAP(ObjectMap)
    OBJECT_ENTRY(CLSID_TPCC, CTPCC)
    OBJECT_ENTRY(CLSID_NewOrder, CNewOrder)
    OBJECT_ENTRY(CLSID_OrderStatus, COrderStatus)
    OBJECT_ENTRY(CLSID_Payment, CPayment)
    OBJECT_ENTRY(CLSID_StockLevel, CStockLevel)
END_OBJECT_MAP()

// configuration settings from registry
TPCCREGISTRYDATA Reg;
char szMyComputerName[MAX_COMPUTERNAME_LENGTH+1];

static HINSTANCE hLibInstanceDb = NULL;

TYPE_CTPCC_DBLIB *pCTPCC_DBLIB_new;
TYPE_CTPCC_ODBC *pCTPCC_ODBC_new;

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

extern "C"
BOOL WINAPI DllMain(HINSTANCE hInstance, DWORD dwReason, LPVOID /*lpReserved*/)
{
    char szDllName[128];

    try
    {
        if (dwReason == DLL_PROCESS_ATTACH)
        {
            _Module.Init(ObjectMap, hInstance);
            DisableThreadLibraryCalls(hInstance);

            DWORD dwSize = MAX_COMPUTERNAME_LENGTH+1;
            GetComputerName(szMyComputerName, &dwSize);
            szMyComputerName[dwSize] = 0;

            if ( ReadTPCCRegistrySettings( &Reg ) )
                throw new CCOMPONENT_ERR(
ERR_MISSING_REGISTRY_ENTRIES );

            if (Reg.eDB_Protocol == DBLIB)
            {
                strcpy( szDllName, Reg.szPath );
                strcat( szDllName, "tpcc_dblib.dll");
                hLibInstanceDb = LoadLibrary( szDllName );
                if (hLibInstanceDb == NULL)
                    throw new CCOMPONENT_ERR(
ERR_LOADDLL_FAILED, szDllName, GetLastError() );

                // get function pointer to wrapper for class
                constructor
                pCTPCC_DBLIB_new = (TYPE_CTPCC_DBLIB*)
GetProcAddress(hLibInstanceDb, "CTPCC_DBLIB_new");
                if (pCTPCC_DBLIB_new == NULL)
            }
        }
    }
}

```

```

                throw new CCOMPONENT_ERR(
ERR_GETPROCADDR_FAILED, szDllName, GetLastError() );
            }
            else if (Reg.eDB_Protocol == ODBC)
            {
                strcpy( szDllName, Reg.szPath );
                strcat( szDllName, "tpcc_odbc.dll");
                hLibInstanceDb = LoadLibrary( szDllName );
                if (hLibInstanceDb == NULL)
                    throw new CCOMPONENT_ERR(
ERR_LOADDLL_FAILED, szDllName, GetLastError() );

                // get function pointer to wrapper for class
                constructor
                pCTPCC_ODBC_new = (TYPE_CTPCC_ODBC*)
GetProcAddress(hLibInstanceDb, "CTPCC_ODBC_new");
                if (pCTPCC_ODBC_new == NULL)
                    throw new CCOMPONENT_ERR(
ERR_GETPROCADDR_FAILED, szDllName, GetLastError() );
            }
            else
                throw new CCOMPONENT_ERR(
ERR_UNKNOWN_DB_PROTOCOL );
        }
        else if (dwReason == DLL_PROCESS_DETACH)
            _Module.Term();
    }
    catch (CBaseErr *e)
    {
        WriteMessageToEventLog(e->ErrorText());
        delete e;
        return FALSE;
    }
    catch (...)
    {
        WriteMessageToEventLog(TEXT("Unhandled exception in object
DllMain"));
        return FALSE;
    }
    return TRUE; // OK
}

////////////////////////////////////
// Used to determine whether the DLL can be unloaded by OLE

STDAPI DllCanUnloadNow(void)
{
    return (_Module.GetLockCount()==0) ? S_OK : S_FALSE;
}

////////////////////////////////////
// Returns a class factory to create an object of the requested type

STDAPI DllGetClassObject(REFCLSID rclsid, REFIID riid, LPVOID* ppv)
{
    return _Module.GetClassObject(rclsid, riid, ppv);
}

////////////////////////////////////
// DllRegisterServer - Adds entries to the system registry

```

```

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

////////////////////////////////////
// DllUnregisterServer - Removes entries from the system registry

STDAPI DllUnregisterServer(void)
{
    _Module.UnregisterServer();
    return S_OK;
}

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

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

    _stprintf(szMsg, TEXT("Error in COM+ TPC-C Component: "));
    lpszStrings[0] = szMsg;
    lpszStrings[1] = lpszMsg;

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

        (VOID) DeregisterEventSource(hEventSource);
    }
}

inline void ReleaseInterface(IUnknown *pUnk)
{
    if (pUnk)
    {
        pUnk->Release();
        pUnk = NULL;
    }
}

/* FUNCTION: CCOMPONENT_ERR::ErrorText
 *
 */

char* CCOMPONENT_ERR::ErrorText(void)
{
    static SERRORMSG errorMsgs[] =
    {

```

```

        { ERR_MISSING_REGISTRY_ENTRIES, "Required entries
missing from registry." },
        { ERR_LOADDLL_FAILED, "Load of DLL
failed. DLL=" },
        { ERR_GETPROCADDR_FAILED, "Could not map proc in
DLL. GetProcAddress error. DLL=" },
        { ERR_UNKNOWN_DB_PROTOCOL, "Unknown database
protocol specified in registry." },
        { 0, "" }
    };
};

char szTmp[256];
int i = 0;
while (TRUE)
{
    if (errorMsgs[i].szMsg[0] == 0)
    {
        strcpy( szTmp, "Unknown error number. " );
        break;
    }
    if (m_Error == errorMsgs[i].iError)
    {
        strcpy( szTmp, errorMsgs[i].szMsg );
        break;
    }
    i++;
}

if (m_szTextDetail)
    strcat( szTmp, m_szTextDetail );
if (m_SystemErr)
    wsprintf( szTmp+strlen(szTmp), " Error=%d", m_SystemErr );

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

CTPCC_Common::CTPCC_Common()
{
    m_pTxn = NULL;
    m_bCanBePooled = TRUE;
}

CTPCC_Common::~CTPCC_Common()
{
    if (m_pTxn)
        delete m_pTxn;
}

HRESULT CTPCC_Common::CallSetComplete()
{
    IObjectContext* pObjectContext = NULL;

    // get our object context
    HRESULT hr = CoGetObjectContext( IID_IObjectContext, (void
**)&pObjectContext );
    pObjectContext->SetComplete();
    ReleaseInterface(pObjectContext);
}

```

```

        return hr;
    }

    //
    // called by the ctor activator
    //
    STDMETHODIMP CTPCC_Common::Construct(IDispatch * pUnk)
    {
        // Code to access construction string, if needed later...
        // if (!pUnk)
        //     return E_UNEXPECTED;
        // IObjectConstructString * pString = NULL;
        // HRESULT hr = pUnk->QueryInterface(IID_IObjectConstructString,
        (void **)&pString);
        // pString->Release();

        try
        {
            if (Reg.eDB_Protocol == ODBC)
                m_pTxn = pCTPCC_ODBC_new( Reg.szDbServer,
                Reg.szDbUser, Reg.szDbPassword, szMyComputerName, Reg.szDbName );
            else if (Reg.eDB_Protocol == DBLIB)
                m_pTxn = pCTPCC_DBLIB_new( Reg.szDbServer,
                Reg.szDbUser, Reg.szDbPassword, szMyComputerName, Reg.szDbName );
        }
        catch (CBaseErr *e)
        {
            WriteMessageToEventLog(e->ErrorText());
            delete e;
            return E_FAIL;
        }
        catch (...)
        {
            WriteMessageToEventLog(TEXT("Unhandled exception in object
            ::Construct"));
            return E_FAIL;
        }

        return S_OK;
    }

    HRESULT CTPCC_Common::NewOrder(VARIANT txn_in, VARIANT* txn_out)
    {
        PNEW_ORDER_DATA    pNewOrder;
        COM_DATA            *pData;
        try
        {
            pData = (COM_DATA*)txn_in.parray->pvData;
            pNewOrder = m_pTxn->BuffAddr_NewOrder();

            memcpy(pNewOrder, &pData->u.NewOrder, sizeof(NEW_ORDER_DATA));

            m_pTxn->NewOrder();           // do the actual txn

            VariantInit(txn_out);
            txn_out->vt = VT_SAFEARRAY;
            txn_out->parray = SafeArrayCreateVector(VT_UI1,

            >rgsabound->cElements,           txn_in.parray-
            >rgsabound->cElements);           txn_in.parray-

            pData = (COM_DATA*) txn_out->parray->pvData;

            memcpy( &pData->u.Payment, pNewOrder, sizeof(NEW_ORDER_DATA));

            pData->retval = ERR_SUCCESS;
            pData->error = 0;
            return S_OK;
        }
        catch (CBaseErr *e)
        {
            // check for lost database connection; if yes, component is
            toast

```

```

            memcpy( &pData->u.NewOrder, pNewOrder, sizeof(NEW_ORDER_DATA));

            pData->retval = ERR_SUCCESS;
            pData->error = 0;
            return S_OK;
        }
        catch (CBaseErr *e)
        {
            // check for lost database connection; if yes, component is
            toast
            if ( ((e->ErrorType() == ERR_TYPE_DBLIB) && (e->ErrorNum() ==
            10005)) ||
            ((e->ErrorType() == ERR_TYPE_ODBC) && (e->ErrorNum()
            == 10054)) )
                m_bCanBePooled = FALSE;

            pData->retval = e->ErrorType();
            pData->error = e->ErrorNum();
            delete e;
            return E_FAIL;
        }
        catch (...)
        {
            WriteMessageToEventLog(TEXT("Unhandled exception. "));
            pData->retval = ERR_TYPE_LOGIC;
            pData->error = 0;
            m_bCanBePooled = FALSE;
            return E_FAIL;
        }
    }

    HRESULT CTPCC_Common::Payment(VARIANT txn_in, VARIANT* txn_out)
    {
        PPAYMENT_DATA      pPayment;
        COM_DATA            *pData;
        try
        {
            pData = (COM_DATA*)txn_in.parray->pvData;
            pPayment = m_pTxn->BuffAddr_Payment();

            memcpy(pPayment, &pData->u.Payment, sizeof(PAYMENT_DATA));

            m_pTxn->Payment();           // do the actual txn

            VariantInit(txn_out);
            txn_out->vt = VT_SAFEARRAY;
            txn_out->parray = SafeArrayCreateVector( VT_UI1,

            >rgsabound->cElements,           txn_in.parray-
            >rgsabound->cElements);           txn_in.parray-

            pData = (COM_DATA*) txn_out->parray->pvData;

            memcpy( &pData->u.Payment, pPayment, sizeof(PAYMENT_DATA));

            pData->retval = ERR_SUCCESS;
            pData->error = 0;
            return S_OK;
        }
        catch (CBaseErr *e)
        {
            // check for lost database connection; if yes, component is
            toast

```

```

        if ( ((e->ErrorType() == ERR_TYPE_DBLIB) && (e->ErrorNum() ==
10005)) ||
        == 10054) )
            ((e->ErrorType() == ERR_TYPE_ODBC) && (e->ErrorNum()
            m_bCanBePooled = FALSE;

        pData->retval = e->ErrorType();
        pData->error = e->ErrorNum();
        delete e;
        return E_FAIL;
    }
    catch (...)
    {
        WriteMessageToEventLog(TEXT("Unhandled exception."));
        pData->retval = ERR_TYPE_LOGIC;
        pData->error = 0;
        m_bCanBePooled = FALSE;
        return E_FAIL;
    }
}

HRESULT CTPCC_Common::StockLevel(VARIANT txn_in, VARIANT* txn_out)
{
    PSTOCK_LEVEL_DATA  pStockLevel;
    COM_DATA            *pData;

    try
    {
        pData = (COM_DATA*)txn_in.parray->pvData;
        pStockLevel = m_pTxn->BuffAddr_StockLevel();

        memcpy(pStockLevel, &pData->u.StockLevel,
sizeof(STOCK_LEVEL_DATA));

        m_pTxn->StockLevel();

        VariantInit(txn_out);
        txn_out->vt = VT_SAFEARRAY;
        txn_out->parray = SafeArrayCreateVector( VT_UI1,
txn_in.parray-
>rgsabound->cElements,
txn_in.parray-
>rgsabound->cElements);
        pData = (COM_DATA*)txn_out->parray->pvData;

        memcpy( &pData->u.StockLevel, pStockLevel,
sizeof(STOCK_LEVEL_DATA));

        pData->retval = ERR_SUCCESS;
        pData->error = 0;
        return S_OK;
    }
    catch (CBaseErr *e)
    {
        // check for lost database connection; if yes, component is
toast
        if ( ((e->ErrorType() == ERR_TYPE_DBLIB) && (e->ErrorNum() ==
10005)) ||
        == 10054) )
            ((e->ErrorType() == ERR_TYPE_ODBC) && (e->ErrorNum()
            m_bCanBePooled = FALSE;

        pData->retval = e->ErrorType();

```

```

        pData->error = e->ErrorNum();
        delete e;
        return E_FAIL;
    }
    catch (...)
    {
        WriteMessageToEventLog(TEXT("Unhandled exception."));
        pData->retval = ERR_TYPE_LOGIC;
        pData->error = 0;
        m_bCanBePooled = FALSE;
        return E_FAIL;
    }
}

HRESULT CTPCC_Common::OrderStatus(VARIANT txn_in, VARIANT* txn_out)
{
    PORDER_STATUS_DATA pOrderStatus;
    COM_DATA            *pData;
    try
    {
        pData = (COM_DATA*)txn_in.parray->pvData;
        pOrderStatus = m_pTxn->BuffAddr_OrderStatus();

        memcpy(pOrderStatus, &pData->u.OrderStatus,
sizeof(ORDER_STATUS_DATA));

        m_pTxn->OrderStatus();

        VariantInit(txn_out);
        txn_out->vt = VT_SAFEARRAY;
        txn_out->parray = SafeArrayCreateVector( VT_UI1,
txn_in.parray-
>rgsabound->cElements,
txn_in.parray-
>rgsabound->cElements);
        pData = (COM_DATA*)txn_out->parray->pvData;

        memcpy( &pData->u.OrderStatus, pOrderStatus,
sizeof(ORDER_STATUS_DATA));

        pData->retval = ERR_SUCCESS;
        pData->error = 0;
        return S_OK;
    }
    catch (CBaseErr *e)
    {
        // check for lost database connection; if yes, component is
toast
        if ( ((e->ErrorType() == ERR_TYPE_DBLIB) && (e->ErrorNum() ==
10005)) ||
        == 10054) )
            ((e->ErrorType() == ERR_TYPE_ODBC) && (e->ErrorNum()
            m_bCanBePooled = FALSE;

        pData->retval = e->ErrorType();
        pData->error = e->ErrorNum();
        delete e;
        return E_FAIL;
    }
    catch (...)
    {
        WriteMessageToEventLog(TEXT("Unhandled exception."));
        pData->retval = ERR_TYPE_LOGIC;

```



```

pData->error = 0;
m_bCanBePooled = FALSE;
return E_FAIL;
}
}

```

tpcc_com_all.def

```

; tpcc_com_all.def : Declares the module parameters.

```

```

LIBRARY "tpcc_com_all.dll"

```

```

EXPORTS

```

```

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

```

tpcc_com_all.dsp

```

# Microsoft Developer Studio Project File - Name="tpcc_com_all" - Package Owner=<4>
# Microsoft Developer Studio Generated Build File, Format Version 6.00
# ** DO NOT EDIT **

```

```

# TARGETTYPE "Win32 (x86) Dynamic-Link Library" 0x0102

```

```

CFG=tpcc_com_all - Win32 Debug

```

```

!MESSAGE This is not a valid makefile. To build this project using NMAKE,
!MESSAGE use the Export Makefile command and run

```

```

!MESSAGE

```

```

!MESSAGE NMAKE /f "tpcc_com_all.mak".

```

```

!MESSAGE

```

```

!MESSAGE You can specify a configuration when running NMAKE

```

```

!MESSAGE by defining the macro CFG on the command line. For example:

```

```

!MESSAGE

```

```

!MESSAGE NMAKE /f "tpcc_com_all.mak" CFG="tpcc_com_all - Win32 Debug"

```

```

!MESSAGE

```

```

!MESSAGE Possible choices for configuration are:

```

```

!MESSAGE

```

```

!MESSAGE "tpcc_com_all - Win32 Release" (based on "Win32 (x86) Dynamic-Link
Library")

```

```

!MESSAGE "tpcc_com_all - Win32 Debug" (based on "Win32 (x86) Dynamic-Link Library")

```

```

!MESSAGE

```

```

# Begin Project

```

```

# PROP AllowPerConfigDependencies 0

```

```

# PROP Scc_ProjName ""

```

```

# PROP Scc_LocalPath ""

```

```

CPP=cl.exe

```

```

MTL=midl.exe

```

```

RSC=rc.exe

```

```

!IF "$(CFG)" == "tpcc_com_all - Win32 Release"

```

```

# PROP BASE Use_MFC 0

```

```

# PROP BASE Use_Debug_Libraries 0

```

```

# PROP BASE Output_Dir "Release"

```

```

# PROP BASE Intermediate_Dir "Release"

```

```

# PROP BASE Target_Dir ""

```

```

# PROP Use_MFC 0

```

```

# PROP Use_Debug_Libraries 0

```

```

# PROP Output_Dir ".\bin"
# PROP Intermediate_Dir ".\obj"
# PROP Ignore_Export_Lib 0
# PROP Target_Dir ""
# ADD BASE CPP /nologo /MT /W3 /GX /O2 /D "WIN32" /D "NDEBUG" /D "_WINDOWS" /YX /FD /c

```

```

# ADD CPP /nologo /MT /W3 /GX /O2 /D "WIN32" /D "NDEBUG" /D "_WINDOWS" /YX /FD /c

```

```

# ADD BASE MTL /nologo /D "NDEBUG" /mktyplib203 /o "NUL" /win32

```

```

# ADD MTL /nologo /D "NDEBUG" /mktyplib203 /o "NUL" /win32

```

```

# ADD BASE RSC /l 0x409 /d "NDEBUG"

```

```

# ADD RSC /l 0x409 /d "NDEBUG"

```

```

BSC32=bscmake.exe

```

```

# ADD BASE BSC32 /nologo

```

```

# ADD BSC32 /nologo

```

```

LINK32=link.exe

```

```

# ADD BASE LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib

```

```

advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbc32.lib odbccp32.lib

```

```

/nologo /subsystem:windows /dll /machine:I386

```

```

# ADD LINK32 ..\db_dblib_dll\bin\tpcc_dblib.lib ..\db_odbc_dll\bin\tpcc_odbc.lib

```

```

kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib advapi32.lib shell32.lib

```

```

ole32.lib oleaut32.lib uuid.lib odbc32.lib odbccp32.lib /nologo /subsystem:windows

```

```

/dll /machine:I386

```

```

!ELSEIF "$(CFG)" == "tpcc_com_all - Win32 Debug"

```

```

# PROP BASE Use_MFC 0

```

```

# PROP BASE Use_Debug_Libraries 1

```

```

# PROP BASE Output_Dir "Debug"

```

```

# PROP BASE Intermediate_Dir "Debug"

```

```

# PROP BASE Target_Dir ""

```

```

# PROP Use_MFC 0

```

```

# PROP Use_Debug_Libraries 1

```

```

# PROP Output_Dir ".\bin"

```

```

# PROP Intermediate_Dir ".\obj"

```

```

# PROP Ignore_Export_Lib 0

```

```

# PROP Target_Dir ""

```

```

# ADD BASE CPP /nologo /MTd /W3 /Gm /GX /ZI /Od /D "WIN32" /D "_DEBUG" /D "_WINDOWS" /YX /FD /c

```

```

# ADD CPP /nologo /MTd /W3 /Gm /GX /ZI /Od /D "WIN32" /D "_DEBUG" /D "_WINDOWS" /YX /FD /c

```

```

# ADD BASE MTL /nologo /D "_DEBUG" /mktyplib203 /o "NUL" /win32

```

```

# ADD MTL /nologo /D "_DEBUG" /mktyplib203 /o "NUL" /win32

```

```

# ADD BASE RSC /l 0x409 /d "_DEBUG"

```

```

# ADD RSC /l 0x409 /d "_DEBUG"

```

```

BSC32=bscmake.exe

```

```

# ADD BASE BSC32 /nologo

```

```

# ADD BSC32 /nologo

```

```

LINK32=link.exe

```

```

# ADD BASE LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib

```

```

advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbc32.lib odbccp32.lib

```

```

/nologo /subsystem:windows /dll /debug /machine:I386 /pdbtype:sept

```

```

# ADD LINK32 ..\db_dblib_dll\bin\tpcc_dblib.lib ..\db_odbc_dll\bin\tpcc_odbc.lib

```

```

kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib advapi32.lib shell32.lib

```

```

ole32.lib oleaut32.lib uuid.lib odbc32.lib odbccp32.lib /nologo /subsystem:windows

```

```

/dll /debug /machine:I386 /pdbtype:sept

```

```

!ENDIF

```

```

# Begin Target

```

```

# Name "tpcc_com_all - Win32 Release"

```

```

# Name "tpcc_com_all - Win32 Debug"

```

```

# Begin Group "Source"

```

```

# PROP Default_Filter "*.cpp, *.c"
# Begin Source File

SOURCE=.\src\tpcc_com_all.cpp
# SUBTRACT CPP /YX
# End Source File
# Begin Source File

SOURCE=.\src\tpcc_com_all.def
# End Source File
# Begin Source File

SOURCE=.\src\tpcc_com_all.idl

!IF "$(CFG)" == "tpcc_com_all - Win32 Release"

# PROP Ignore_Default_Tool 1
# Begin Custom Build - Performing MIDL step
InputPath=.\src\tpcc_com_all.idl

BuildCmds= \
    midl /Oicf /h "tpcc_com_all.h" /iid "tpcc_com_all_i.c"
"..\src\tpcc_com_all.idl" /out "..\src"

"..\src\tpcc_com_all.tlb" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
$(BuildCmds)

"..\src\tpcc_com_all.h" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
$(BuildCmds)

"..\src\tpcc_com_all_i.c" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
$(BuildCmds)
# End Custom Build

!ELSEIF "$(CFG)" == "tpcc_com_all - Win32 Debug"

# PROP Ignore_Default_Tool 1
# Begin Custom Build - Performing MIDL step
InputPath=.\src\tpcc_com_all.idl

BuildCmds= \
    midl /Oicf /h "tpcc_com_all.h" /iid "tpcc_com_all_i.c"
"..\src\tpcc_com_all.idl" /out "..\src"

"..\src\tpcc_com_all.tlb" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
$(BuildCmds)

"..\src\tpcc_com_all.h" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
$(BuildCmds)

"..\src\tpcc_com_all_i.c" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
$(BuildCmds)
# End Custom Build

!ENDIF

# End Source File
# End Group
# Begin Group "Header"

# PROP Default_Filter "*.h"
# Begin Source File

```

```

SOURCE=.\src\Methods.h
# End Source File
# Begin Source File

SOURCE=.\src\resource.h
# End Source File
# End Group
# Begin Source File

SOURCE=.\src\tpcc_com_all.rc
# End Source File
# End Target
# End Project

```

tpcc_com_all.h

```

#pragma warning( disable: 4049 ) /* more than 64k source lines */

/* this ALWAYS GENERATED file contains the definitions for the interfaces */

/* File created by MIDL compiler version 5.03.0280 */
/* at Thu Dec 13 23:13:14 2001
*/
/* Compiler settings for .\src\tpcc_com_all.idl:
    Oicf (OptLev=i2), Wl, Zp8, env=Win32 (32b run), ms_ext, c_ext
    error checks: allocation ref bounds_check enum stub_data
    VC __declspec() decoration level:
        __declspec(uuid()), __declspec(selectany), __declspec(novtable)
        DECLSPEC_UUID(), MIDL_INTERFACE()
*/
//@@MIDL_FILE_HEADING( )

/* verify that the <rpcndr.h> version is high enough to compile this file*/
#ifndef __REQUIRED_RPCNDR_H_VERSION__
#define __REQUIRED_RPCNDR_H_VERSION__ 440
#endif

#include "rpc.h"
#include "rpcndr.h"

#ifndef __tpcc_com_all_h__
#define __tpcc_com_all_h__

/* Forward Declarations */

#ifndef __TPCC_FWD_DEFINED__
#define __TPCC_FWD_DEFINED__

#ifdef __cplusplus
typedef class TPCC TPCC;
#else
typedef struct TPCC TPCC;
#endif /* __cplusplus */

#endif /* __TPCC_FWD_DEFINED__ */

#ifndef __NewOrder_FWD_DEFINED__

```

```

#define __NewOrder_FWD_DEFINED__

#ifdef __cplusplus
typedef class NewOrder NewOrder;
#else
typedef struct NewOrder NewOrder;
#endif /* __cplusplus */

#ifdef /* __NewOrder_FWD_DEFINED__ */

#endif

#ifdef __OrderStatus_FWD_DEFINED__
#define __OrderStatus_FWD_DEFINED__

#ifdef __cplusplus
typedef class OrderStatus OrderStatus;
#else
typedef struct OrderStatus OrderStatus;
#endif /* __cplusplus */

#ifdef /* __OrderStatus_FWD_DEFINED__ */

#endif

#ifdef __Payment_FWD_DEFINED__
#define __Payment_FWD_DEFINED__

#ifdef __cplusplus
typedef class Payment Payment;
#else
typedef struct Payment Payment;
#endif /* __cplusplus */

#ifdef /* __Payment_FWD_DEFINED__ */

#endif

#ifdef __StockLevel_FWD_DEFINED__
#define __StockLevel_FWD_DEFINED__

#ifdef __cplusplus
typedef class StockLevel StockLevel;
#else
typedef struct StockLevel StockLevel;
#endif /* __cplusplus */

#ifdef /* __StockLevel_FWD_DEFINED__ */

#endif

/* header files for imported files */
#include "oidl.h"
#include "ocidl.h"
#include "tpcc_com_ps.h"

#ifdef __cplusplus
extern "C"{
#endif

void __RPC_FAR * __RPC_USER MIDL_user_allocate(size_t);
void __RPC_USER MIDL_user_free( void __RPC_FAR * );

/* interface __MIDL_itf_tpcc_com_all_0000 */
/* [local] */

```

```

extern RPC_IF_HANDLE __MIDL_itf_tpcc_com_all_0000_v0_0_c_ifspec;
extern RPC_IF_HANDLE __MIDL_itf_tpcc_com_all_0000_v0_0_s_ifspec;

```

```

#ifdef __TPCCLib_LIBRARY_DEFINED__
#define __TPCCLib_LIBRARY_DEFINED__

/* library TPCCLib */
/* [helpstring][version][uuid] */

EXTERN_C const IID LIBID_TPCCLib;

EXTERN_C const CLSID CLSID_TPCC;

#ifdef __cplusplus

class DECLSPEC_UUID("122A3128-2520-11D3-BA71-00C04FBFE08B")
TPCC;
#endif

EXTERN_C const CLSID CLSID_NewOrder;

#ifdef __cplusplus

class DECLSPEC_UUID("975BAABF-84A7-11D2-BA47-00C04FBFE08B")
NewOrder;
#endif

EXTERN_C const CLSID CLSID_OrderStatus;

#ifdef __cplusplus

class DECLSPEC_UUID("266836AD-A50D-11D2-BA4E-00C04FBFE08B")
OrderStatus;
#endif

EXTERN_C const CLSID CLSID_Payment;

#ifdef __cplusplus

class DECLSPEC_UUID("CD02F7EF-A4FA-11D2-BA4E-00C04FBFE08B")
Payment;
#endif

EXTERN_C const CLSID CLSID_StockLevel;

#ifdef __cplusplus

class DECLSPEC_UUID("2668369E-A50D-11D2-BA4E-00C04FBFE08B")
StockLevel;
#endif
#endif /* __TPCCLib_LIBRARY_DEFINED__ */

/* Additional Prototypes for ALL interfaces */

/* end of Additional Prototypes */

```

```

#ifndef __cplusplus
}
#endif
#endif

```

tpcc_com_all.idl

```

/* FILE: TPCC.IDL
 * Microsoft TPC-C Kit Ver. 4.20.000
 * Copyright Microsoft, 1999
 *
 * All Rights Reserved
 *
 * not yet audited
 *
 * PURPOSE: IDL source for TPCC.dll. This file is processed by the MIDL
tool to
 * produce the type library (TPCC.tlb) and
marshalling code.
 *
 * Change history:
 * 4.20.000 - first version
 */

interface TPCC;
interface NewOrder;
interface OrderStatus;
interface Payment;
interface StockLevel;

import "oidl.idl";
import "ocidl.idl";
import "..\tpcc_com_ps\src\tpcc_com_ps.idl";

[
    uuid(122A3117-2520-11D3-BA71-00C04FBFE08B),
    version(1.0),
    helpstring("TPC-C 1.0 Type Library")
]
library TPCCLib
{
    importlib("stdole32.tlb");
    importlib("stdole2.tlb");

    [
        uuid(122A3128-2520-11D3-BA71-00C04FBFE08B),
        helpstring("All Txns Class")
    ]
    coclass TPCC
    {
        [default] interface ITPCC;
    };

    [
        uuid(975BAABF-84A7-11D2-BA47-00C04FBFE08B),
        helpstring("NewOrder Class")
    ]

```

```

coclass NewOrder
{
    [default] interface ITPCC;
};

[
    uuid(266836AD-A50D-11D2-BA4E-00C04FBFE08B),
    helpstring("OrderStatus Class")
]
coclass OrderStatus
{
    [default] interface ITPCC;
};

[
    uuid(CD02F7EF-A4FA-11D2-BA4E-00C04FBFE08B),
    helpstring("Payment Class")
]
coclass Payment
{
    [default] interface ITPCC;
};

[
    uuid(2668369E-A50D-11D2-BA4E-00C04FBFE08B),
    helpstring("StockLevel Class")
]
coclass StockLevel
{
    [default] interface ITPCC;
};
};

```

tpcc_com_all.rc

```

//Microsoft Developer Studio generated resource script.
//
#include "resource.h"

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

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

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

#if !defined(AFX_RESOURCE_DLL) || defined(AFX_TARG_ENU)
#ifdef _WIN32
LANGUAGE LANG_ENGLISH, SUBLANG_ENGLISH_US
#pragma code_page(1252)
#endif // _WIN32

```

```

#ifdef APSTUDIO_INVOKED
////////////////////////////////////
//
// TEXTINCLUDE
//

1 TEXTINCLUDE DISCARDABLE
BEGIN
    "resource.h\0"
END

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

3 TEXTINCLUDE DISCARDABLE
BEGIN
    "1 TYPELIB "tpcc_com_all.tlb"\r\n"
    "\0"
END

#endif // APSTUDIO_INVOKED

#ifndef _MAC
////////////////////////////////////
//
// Version
//

VS_VERSION_INFO VERSIONINFO
FILEVERSION 1,0,0,1
PRODUCTVERSION 1,0,0,1
FILEFLAGSMASK 0x3fL
#ifdef _DEBUG
FILEFLAGS 0x1L
#else
FILEFLAGS 0x0L
#endif
FILEOS 0x4L
FILETYPE 0x2L
FILESUBTYPE 0x0L
BEGIN
    BLOCK "StringFileInfo"
    BEGIN
        BLOCK "040904B0"
        BEGIN
            VALUE "CompanyName", "\0"
            VALUE "FileDescription", "tpcc_com_all Module\0"
            VALUE "FileVersion", "1, 0, 0, 1\0"
            VALUE "InternalName", "TPCCNEWORDER\0"
            VALUE "LegalCopyright", "Copyright 1997\0"
            VALUE "OriginalFilename", "tpcc_com_all.DLL\0"
            VALUE "ProductName", "tpcc_com_all Module\0"
            VALUE "ProductVersion", "1, 0, 0, 1\0"
            VALUE "OLESelfRegister", "\0"
        END
    END
    BLOCK "VarFileInfo"
    BEGIN
        VALUE "Translation", 0x409, 1200
    END
END

```

```

END
#endif // !_MAC

////////////////////////////////////
//
// REGISTRY
//

IDR_TPCC                REGISTRY DISCARDABLE    "tpcc_com_all.rgs"
IDR_NEWORDER            REGISTRY DISCARDABLE    "tpcc_com_no.rgs"
IDR_ORDERSTATUS        REGISTRY DISCARDABLE    "tpcc_com_os.rgs"
IDR_PAYMENT             REGISTRY DISCARDABLE    "tpcc_com_pay.rgs"
IDR_STOCKLEVEL         REGISTRY DISCARDABLE    "tpcc_com_sl.rgs"

////////////////////////////////////
//
// String Table
//

STRINGTABLE DISCARDABLE
BEGIN
    IDS_PROJNAME        "tpcc_com_all"
END

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

#ifndef APSTUDIO_INVOKED
////////////////////////////////////
//
// Generated from the TEXTINCLUDE 3 resource.
//
1 TYPELIB "tpcc_com_all.tlb"

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

```

tpcc_com_all.rgs

```

HKCR
{
    TPCC.AllTxns.1 = s 'All Txns Class'
    {
        CLSID = s '{122A3128-2520-11D3-BA71-00C04FBFE08B}'
    }
    TPCC.AllTxns = s 'TPCC Class'
    {
        CurVer = s 'TPCC.AllTxns.1'
    }
    NoRemove CLSID
    {
        ForceRemove {122A3128-2520-11D3-BA71-00C04FBFE08B} = s 'TPCC
Class'
        {
            ProgID = s 'TPCC.AllTxns.1'
            VersionIndependentProgID = s 'TPCC.AllTxns'
        }
    }
}

```

```

        InprocServer32 = s '%MODULE%'
        {
            val ThreadingModel = s 'Both'
        }
    }
}

```

tpcc_com_all_i.c

```

#pragma warning( disable: 4049 ) /* more than 64k source lines */

/* this ALWAYS GENERATED file contains the IIDs and CLSIDs */

/* link this file in with the server and any clients */

/* File created by MIDL compiler version 5.03.0280 */
/* at Thu Dec 13 23:13:14 2001 */
/*
 * Compiler settings for .\src\tpcc_com_all.idl:
 *   Oicf (OptLev=i2), Wl, Zp8, env=Win32 (32b run), ms_ext, c_ext
 *   error checks: allocation ref bounds_check enum stub_data
 *   VC __declspec() decoration level:
 *   __declspec(uuid()), __declspec(selectany), __declspec(novtable)
 *   DECLSPEC_UUID(), MIDL_INTERFACE()
 */
//@@MIDL_FILE_HEADING(  )

#if !defined(_M_IA64) && !defined(_M_AXP64)

#ifdef __cplusplus
extern "C"{
#endif

#include <rpc.h>
#include <rpcndr.h>

#ifdef _MIDL_USE_GUIDDEF_

#ifndef INITGUID
#define INITGUID
#include <guiddef.h>
#undef INITGUID
#else
#include <guiddef.h>
#endif

#define MIDL_DEFINE_GUID(type,name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8) \
    DEFINE_GUID(name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8)

#else // !_MIDL_USE_GUIDDEF_

#ifndef __IID_DEFINED__
#define __IID_DEFINED__

typedef struct _IID
{
    unsigned long x;
    unsigned short s1;

```

```

    unsigned short s2;
    unsigned char c[8];
} IID;

#endif // __IID_DEFINED__

#ifndef CLSID_DEFINED
#define CLSID_DEFINED
typedef IID CLSID;
#endif // CLSID_DEFINED

#define MIDL_DEFINE_GUID(type,name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8) \
    const type name = {l,w1,w2,{b1,b2,b3,b4,b5,b6,b7,b8}}

#endif !_MIDL_USE_GUIDDEF_

MIDL_DEFINE_GUID(IID,
LIBID_TPCCLib,0x122A3117,0x2520,0x11D3,0xBA,0x71,0x00,0xC0,0x4F,0xBF,0xE0,0x8B);

MIDL_DEFINE_GUID(CLSID,
CLSID_TPCC,0x122A3128,0x2520,0x11D3,0xBA,0x71,0x00,0xC0,0x4F,0xBF,0xE0,0x8B);

MIDL_DEFINE_GUID(CLSID,
CLSID_NewOrder,0x975BAABF,0x84A7,0x11D2,0xBA,0x47,0x00,0xC0,0x4F,0xBF,0xE0,0x8B);

MIDL_DEFINE_GUID(CLSID,
CLSID_OrderStatus,0x266836AD,0xA50D,0x11D2,0xBA,0x4E,0x00,0xC0,0x4F,0xBF,0xE0,0x8B);

MIDL_DEFINE_GUID(CLSID,
CLSID_Payment,0xCD02F7EF,0xA4FA,0x11D2,0xBA,0x4E,0x00,0xC0,0x4F,0xBF,0xE0,0x8B);

MIDL_DEFINE_GUID(CLSID,
CLSID_StockLevel,0x2668369E,0xA50D,0x11D2,0xBA,0x4E,0x00,0xC0,0x4F,0xBF,0xE0,0x8B);

#undef MIDL_DEFINE_GUID

#ifdef __cplusplus
}
#endif

#endif /* !defined(_M_IA64) && !defined(_M_AXP64) */

#pragma warning( disable: 4049 ) /* more than 64k source lines */

/* this ALWAYS GENERATED file contains the IIDs and CLSIDs */

/* link this file in with the server and any clients */

/* File created by MIDL compiler version 5.03.0280 */
/* at Thu Dec 13 23:13:14 2001 */
/*
 * Compiler settings for .\src\tpcc_com_all.idl:
 *   Oicf (OptLev=i2), Wl, Zp8, env=Win64 (32b run,appending), ms_ext, c_ext, robust
 *   error checks: allocation ref bounds_check enum stub_data

```

```

VC __declspec() decoration level:
__declspec(uuid()), __declspec(selectany), __declspec(novtable)
DECLSPEC_UUID(), MIDL_INTERFACE()
*/
/**@MIDL_FILE_HEADERING( )

#if defined(_M_IA64) || defined(_M_AXP64)

#ifdef __cplusplus
extern "C"{
#endif

#include <rpc.h>
#include <rpcndr.h>

#ifdef _MIDL_USE_GUIDDEF_

#ifndef INITGUID
#define INITGUID
#include <guiddef.h>
#undef INITGUID
#else
#include <guiddef.h>
#endif

#define MIDL_DEFINE_GUID(type,name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8) \
    DEFINE_GUID(name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8)

#else // !_MIDL_USE_GUIDDEF_

#ifdef __IID_DEFINED__
#define __IID_DEFINED__
typedef struct _IID
{
    unsigned long x;
    unsigned short s1;
    unsigned short s2;
    unsigned char c[8];
} IID;

#endif // __IID_DEFINED__

#ifdef CLSID_DEFINED
#define CLSID_DEFINED
typedef IID CLSID;
#endif // CLSID_DEFINED

#define MIDL_DEFINE_GUID(type,name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8) \
    const type name = {l,w1,w2,{b1,b2,b3,b4,b5,b6,b7,b8}}

#endif !_MIDL_USE_GUIDDEF_

MIDL_DEFINE_GUID(IID,
LIBID_TPCLib,0x122A3117,0x2520,0x11D3,0xBA,0x71,0x00,0xC0,0x4F,0xBF,0xE0,0x8B);

MIDL_DEFINE_GUID(CLSID,
CLSID_TPCC,0x122A3128,0x2520,0x11D3,0xBA,0x71,0x00,0xC0,0x4F,0xBF,0xE0,0x8B);

```

```

MIDL_DEFINE_GUID(CLSID,
CLSID_NewOrder,0x975BAABF,0x84A7,0x11D2,0xBA,0x47,0x00,0xC0,0x4F,0xBF,0xE0,0x8B);

MIDL_DEFINE_GUID(CLSID,
CLSID_OrderStatus,0x266836AD,0xA50D,0x11D2,0xBA,0x4E,0x00,0xC0,0x4F,0xBF,0xE0,0x8B);

MIDL_DEFINE_GUID(CLSID,
CLSID_Payment,0xCD02F7EF,0xA4FA,0x11D2,0xBA,0x4E,0x00,0xC0,0x4F,0xBF,0xE0,0x8B);

MIDL_DEFINE_GUID(CLSID,
CLSID_StockLevel,0x2668369E,0xA50D,0x11D2,0xBA,0x4E,0x00,0xC0,0x4F,0xBF,0xE0,0x8B);

#undef MIDL_DEFINE_GUID

#ifdef __cplusplus
}
#endif

#endif /* defined(_M_IA64) || defined(_M_AXP64) */

```

tpcc_com_no.rgs

```

HKCR
{
    TPCC.NewOrder.1 = s 'NewOrder Class'
    {
        CLSID = s '{975BAABF-84A7-11D2-BA47-00C04FBFE08B}'
    }
    TPCC.NewOrder = s 'NewOrder Class'
    {
        CurVer = s 'TPCC.NewOrder.1'
    }
    NoRemove CLSID
    {
        ForceRemove {975BAABF-84A7-11D2-BA47-00C04FBFE08B} = s 'NewOrder
Class'
        {
            ProgID = s 'TPCC.NewOrder.1'
            VersionIndependentProgID = s 'TPCC.NewOrder'
            InprocServer32 = s '%MODULE%'
            {
                val ThreadingModel = s 'Both'
            }
        }
    }
}

```

tpcc_com_os.rgs

```

HKCR
{
    TPCC.OrderStatus.1 = s 'OrderStatus Class'
    {
        CLSID = s '{266836AD-A50D-11D2-BA4E-00C04FBFE08B}'
    }
}

```

```

TPCC.OrderStatus = s 'OrderStatus Class'
{
    CurVer = s 'TPCC.OrderStatus.1'
}
NoRemove CLSID
{
    ForceRemove {266836AD-A50D-11D2-BA4E-00C04FBFE08B} = s
'OrderStatus Class'
    {
        ProgID = s 'TPCC.OrderStatus.1'
        VersionIndependentProgID = s 'TPCC.OrderStatus'
        InprocServer32 = s '%MODULE%'
        {
            val ThreadingModel = s 'Both'
        }
    }
}
}

```

tpcc_com_pay.rgs

```

HKCR
{
    TPCC.Payment.1 = s 'Payment Class'
    {
        CLSID = s '{CD02F7EF-A4FA-11D2-BA4E-00C04FBFE08B}'
    }
    TPCC.Payment = s 'Payment Class'
    {
        CurVer = s 'TPCC.Payment.1'
    }
    NoRemove CLSID
    {
        ForceRemove {CD02F7EF-A4FA-11D2-BA4E-00C04FBFE08B} = s 'Payment
Class'
        {
            ProgID = s 'TPCC.Payment.1'
            VersionIndependentProgID = s 'TPCC.Payment'
            InprocServer32 = s '%MODULE%'
            {
                val ThreadingModel = s 'Both'
            }
        }
    }
}

```

tpcc_com_ps.def

```

LIBRARY      "tpcc_com_ps"
DESCRIPTION  'Proxy/Stub DLL'
EXPORTS
    DllGetClassObject      @1    PRIVATE
    DllCanUnloadNow        @2    PRIVATE
    GetProxyDllInfo        @3    PRIVATE
    DllRegisterServer      @4    PRIVATE
    DllUnregisterServer    @5    PRIVATE

```

tpcc_com_ps.dsp

```

# Microsoft Developer Studio Project File - Name="tpcc_com_ps" - Package Owner=<4>
# Microsoft Developer Studio Generated Build File, Format Version 6.00
# ** DO NOT EDIT **

```

```
# TARGETTYPE "Win32 (x86) Application" 0x0101
```

```

CFG=tpcc_com_ps - Win32 Debug
!MESSAGE This is not a valid makefile. To build this project using NMAKE,
!MESSAGE use the Export Makefile command and run
!MESSAGE
!MESSAGE NMAKE /f "tpcc_com_ps.mak".
!MESSAGE
!MESSAGE You can specify a configuration when running NMAKE
!MESSAGE by defining the macro CFG on the command line. For example:
!MESSAGE
!MESSAGE NMAKE /f "tpcc_com_ps.mak" CFG="tpcc_com_ps - Win32 Debug"
!MESSAGE
!MESSAGE Possible choices for configuration are:
!MESSAGE
!MESSAGE "tpcc_com_ps - Win32 Release" (based on "Win32 (x86) Application")
!MESSAGE "tpcc_com_ps - Win32 Debug" (based on "Win32 (x86) Application")
!MESSAGE

```

```

# Begin Project
# PROP AllowPerConfigDependencies 0
# PROP Scc_ProjName ""
# PROP Scc_LocalPath ""
CPP=cl.exe
MTL=midl.exe
RSC=rc.exe

```

```
!IF "$(CFG)" == "tpcc_com_ps - Win32 Release"
```

```

# PROP BASE Use_MFC 0
# PROP BASE Use_Debug_Libraries 0
# PROP BASE Output_Dir "Release"
# PROP BASE Intermediate_Dir "Release"
# PROP BASE Target_Dir ""
# PROP Use_MFC 0
# PROP Use_Debug_Libraries 0
# PROP Output_Dir ".\bin"
# PROP Intermediate_Dir ".\obj"
# PROP Ignore_Export_Lib 0
# PROP Target_Dir ""
# ADD BASE CPP /nologo /W3 /GX /O2 /D "WIN32" /D "NDEBUG" /D "_WINDOWS" /YX /FD /c
# ADD CPP /nologo /W3 /GX /O2 /D "WIN32" /D "NDEBUG" /D "_WIN32_WINNT=0x0400" /D
"REGISTER_PROXY_DLL" /FD /c
# SUBTRACT CPP /YX
# ADD BASE MTL /nologo /D "NDEBUG" /mktyplib203 /o "NUL" /win32
# ADD MTL /nologo /D "NDEBUG" /mktyplib203 /o "NUL" /win32
# ADD BASE RSC /1 0x409 /d "NDEBUG"
# ADD RSC /1 0x409 /d "NDEBUG"
BSC32=bscmake.exe
# ADD BASE BSC32 /nologo
# ADD BSC32 /nologo
LINK32=link.exe
# ADD BASE LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbc32.lib odbccp32.lib
/nologo /subsystem:windows /machine:I386

```



```

# ADD LINK32 kernel32.lib rpcndr.lib rpcns4.lib rpprt4.lib oleaut32.lib uuid.lib
/nologo /entry:"DllMain" /subsystem:windows /dll /pdb:none /machine:I386
/def:".src\tpcc_com_ps.def"
# Begin Custom Build - Copying tpcc_com_ps.h
InputPath=.bin\tpcc_com_ps.dll
SOURCE=$(InputPath)"

"..tpcc_com_all\src\tpcc_com_ps.h" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
    copy .\src\tpcc_com_ps.h ..tpcc_com_all\src\

# End Custom Build

!ELSEIF "$(CFG)" == "tpcc_com_ps - Win32 Debug"

# PROP BASE Use_MFC 0
# PROP BASE Use_Debug_Libraries 1
# PROP BASE Output_Dir "Debug"
# PROP BASE Intermediate_Dir "Debug"
# PROP BASE Target_Dir ""
# PROP Use_MFC 0
# PROP Use_Debug_Libraries 1
# PROP Output_Dir ".\bin"
# PROP Intermediate_Dir ".\obj"
# PROP Ignore_Export_Lib 0
# PROP Target_Dir ""
# ADD BASE CPP /nologo /W3 /Gm /GX /Zi /Od /D "WIN32" /D "_DEBUG" /D "_WINDOWS" /YX
/ FD /c
# ADD CPP /nologo /ZI /Od /D "WIN32" /D "_DEBUG" /D "_WIN32_WINNT=0x0400 /D
"REGISTER_PROXY_DLL" /FD /c
# ADD BASE MTL /nologo /D "_DEBUG" /mktyplib203 /o "NUL" /win32
# ADD MTL /nologo /D "_DEBUG" /mktyplib203 /o "NUL" /win32
# ADD BASE RSC /l 0x409 /d "_DEBUG"
# ADD RSC /l 0x409 /d "_DEBUG"
BSC32=bscmake.exe
# ADD BASE BSC32 /nologo
# ADD BSC32 /nologo
LINK32=link.exe
# ADD BASE LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbc32.lib odbccp32.lib
/nologo /subsystem:windows /debug /machine:I386 /pdbtype:sept
# ADD LINK32 kernel32.lib rpcndr.lib rpcns4.lib rpprt4.lib oleaut32.lib uuid.lib
/nologo /entry:"DllMain" /dll /debug /machine:IX86 /def:".src\tpcc_com_ps.def"
/pdbtype:sept
# SUBTRACT LINK32 /pdb:none
# Begin Custom Build - Copying tpcc_com_ps.h
InputPath=.bin\tpcc_com_ps.dll
SOURCE=$(InputPath)"

"..tpcc_com_all\src\tpcc_com_ps.h" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
    copy .\src\tpcc_com_ps.h ..tpcc_com_all\src\

# End Custom Build

!ENDIF

# Begin Target

# Name "tpcc_com_ps - Win32 Release"
# Name "tpcc_com_ps - Win32 Debug"
# Begin Group "Source"

# PROP Default_Filter ""
# Begin Source File

```

```

SOURCE=.src\dlldata.c
# End Source File
# Begin Source File

SOURCE=.src\tpcc_com_ps.def
# PROP Exclude_From_Build 1
# End Source File
# Begin Source File

SOURCE=.src\tpcc_com_ps.idl

!IF "$(CFG)" == "tpcc_com_ps - Win32 Release"

# PROP Ignore_Default_Tool 1
# Begin Custom Build
InputPath=.src\tpcc_com_ps.idl

BuildCmds= \
    midl /Oicf /h "tpcc_com_ps.h" /iid "tpcc_com_ps_i.c"
".src\tpcc_com_ps.idl" /out ".\src"

".src\tpcc_com_ps.h" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
    $(BuildCmds)

".src\tpcc_com_ps_i.c" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
    $(BuildCmds)

".src\dlldata.c" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
    $(BuildCmds)

".src\tpcc_com_ps_p.c" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
    $(BuildCmds)
# End Custom Build

!ELSEIF "$(CFG)" == "tpcc_com_ps - Win32 Debug"

# PROP Ignore_Default_Tool 1
# Begin Custom Build
InputPath=.src\tpcc_com_ps.idl

BuildCmds= \
    midl /Oicf /h "tpcc_com_ps.h" /iid "tpcc_com_ps_i.c"
".src\tpcc_com_ps.idl" /out ".\src"

".src\tpcc_com_ps.h" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
    $(BuildCmds)

".src\tpcc_com_ps_i.c" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
    $(BuildCmds)

".src\dlldata.c" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
    $(BuildCmds)

".src\tpcc_com_ps_p.c" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
    $(BuildCmds)
# End Custom Build

!ENDIF

# End Source File
# Begin Source File

```

```

SOURCE=.\src\tpcc_com_ps_i.c
# End Source File
# Begin Source File

SOURCE=.\src\tpcc_com_ps_p.c
# End Source File
# End Group
# End Target
# End Project

```

tpcc_com_ps.h

```

#pragma warning( disable: 4049 ) /* more than 64k source lines */

/* this ALWAYS GENERATED file contains the definitions for the interfaces */

/* File created by MIDL compiler version 5.03.0280 */
/* at Thu Dec 13 23:13:08 2001
*/
/* Compiler settings for .\src\tpcc_com_ps.idl:
   Oicf (OptLev=i2), Wl, Zp8, env=Win32 (32b run), ms_ext, c_ext
   error checks: allocation ref bounds_check enum stub_data
   VC __declspec() decoration level:
       __declspec(uuid()), __declspec(selectany), __declspec(novtable)
       DECLSPEC_UUID(), MIDL_INTERFACE()
*/
//@@MIDL_FILE_HEADING(  )

/* verify that the <rpcndr.h> version is high enough to compile this file*/
#ifndef __REQUIRED_RPCNDR_H_VERSION__
#define __REQUIRED_RPCNDR_H_VERSION__ 440
#endif

#include "rpc.h"
#include "rpcndr.h"

#ifndef __RPCNDR_H_VERSION__
#error this stub requires an updated version of <rpcndr.h>
#endif // __RPCNDR_H_VERSION__

#ifndef COM_NO_WINDOWS_H
#include "windows.h"
#include "ole2.h"
#endif /*COM_NO_WINDOWS_H*/

#ifndef __tpcc_com_ps_h__
#define __tpcc_com_ps_h__

/* Forward Declarations */

#ifndef __ITPCC_FWD_DEFINED__
#define __ITPCC_FWD_DEFINED__
typedef interface ITPCC ITPCC;
#endif /* __ITPCC_FWD_DEFINED__ */

/* header files for imported files */
#include "oaidl.h"
#include "ocidl.h"

```

```

#ifdef __cplusplus
extern "C"{
#endif

void __RPC_FAR * __RPC_USER MIDL_user_allocate(size_t);
void __RPC_USER MIDL_user_free( void __RPC_FAR * );

/* interface __MIDL_itf_tpcc_com_ps_0000 */
/* [local] */

extern RPC_IF_HANDLE __MIDL_itf_tpcc_com_ps_0000_v0_0_c_ifspec;
extern RPC_IF_HANDLE __MIDL_itf_tpcc_com_ps_0000_v0_0_s_ifspec;

#ifndef __ITPCC_INTERFACE_DEFINED__
#define __ITPCC_INTERFACE_DEFINED__

/* interface ITPCC */
/* [unique][helpstring][uuid][oleautomation][object] */

EXTERN_C const IID IID_ITPCC;

#if defined(__cplusplus) && !defined(CINTERFACE)

MIDL_INTERFACE("FEE6AA2-84B1-11d2-BA47-00C04FBFE08B")
ITPCC : public IUnknown
{
public:
    virtual HRESULT __stdcall NewOrder(
        /* [in] */ VARIANT txn_in,
        /* [out] */ VARIANT __RPC_FAR *txn_out) = 0;

    virtual HRESULT __stdcall Payment(
        /* [in] */ VARIANT txn_in,
        /* [out] */ VARIANT __RPC_FAR *txn_out) = 0;

    virtual HRESULT __stdcall Delivery(
        /* [in] */ VARIANT txn_in,
        /* [out] */ VARIANT __RPC_FAR *txn_out) = 0;

    virtual HRESULT __stdcall StockLevel(
        /* [in] */ VARIANT txn_in,
        /* [out] */ VARIANT __RPC_FAR *txn_out) = 0;

    virtual HRESULT __stdcall OrderStatus(
        /* [in] */ VARIANT txn_in,
        /* [out] */ VARIANT __RPC_FAR *txn_out) = 0;

    virtual HRESULT __stdcall CallSetComplete( void) = 0;

};

#else /* C style interface */

typedef struct ITPCCVtbl
{
    BEGIN_INTERFACE

    HRESULT ( STDMETHODCALLTYPE __RPC_FAR *QueryInterface )(

```

```

ITPCC __RPC_FAR * This,
/* [in] */ REFIID riid,
/* [iid_is][out] */ void __RPC_FAR * __RPC_FAR *ppvObject);

ULONG ( STDMETHODCALLTYPE __RPC_FAR *AddRef )(
ITPCC __RPC_FAR * This);

ULONG ( STDMETHODCALLTYPE __RPC_FAR *Release )(
ITPCC __RPC_FAR * This);

HRESULT ( STDMETHODCALLTYPE __RPC_FAR *NewOrder )(
ITPCC __RPC_FAR * This,
/* [in] */ VARIANT txn_in,
/* [out] */ VARIANT __RPC_FAR *txn_out);

HRESULT ( STDMETHODCALLTYPE __RPC_FAR *Payment )(
ITPCC __RPC_FAR * This,
/* [in] */ VARIANT txn_in,
/* [out] */ VARIANT __RPC_FAR *txn_out);

HRESULT ( STDMETHODCALLTYPE __RPC_FAR *Delivery )(
ITPCC __RPC_FAR * This,
/* [in] */ VARIANT txn_in,
/* [out] */ VARIANT __RPC_FAR *txn_out);

HRESULT ( STDMETHODCALLTYPE __RPC_FAR *StockLevel )(
ITPCC __RPC_FAR * This,
/* [in] */ VARIANT txn_in,
/* [out] */ VARIANT __RPC_FAR *txn_out);

HRESULT ( STDMETHODCALLTYPE __RPC_FAR *OrderStatus )(
ITPCC __RPC_FAR * This,
/* [in] */ VARIANT txn_in,
/* [out] */ VARIANT __RPC_FAR *txn_out);

HRESULT ( STDMETHODCALLTYPE __RPC_FAR *CallSetComplete )(
ITPCC __RPC_FAR * This);

END_INTERFACE
} ITPCCVtbl;

interface ITPCC
{
CONST_VTBL struct ITPCCVtbl __RPC_FAR *lpVtbl;
};

#ifdef COBJMACROS

#define ITPCC_QueryInterface(This,riid,ppvObject) \
(This)->lpVtbl -> QueryInterface(This,riid,ppvObject)

#define ITPCC_AddRef(This) \
(This)->lpVtbl -> AddRef(This)

#define ITPCC_Release(This) \
(This)->lpVtbl -> Release(This)

#define ITPCC_NewOrder(This,txn_in,txn_out) \
(This)->lpVtbl -> NewOrder(This,txn_in,txn_out)

```

```

#define ITPCC_Payment(This,txn_in,txn_out) \
(This)->lpVtbl -> Payment(This,txn_in,txn_out)

#define ITPCC_Delivery(This,txn_in,txn_out) \
(This)->lpVtbl -> Delivery(This,txn_in,txn_out)

#define ITPCC_StockLevel(This,txn_in,txn_out) \
(This)->lpVtbl -> StockLevel(This,txn_in,txn_out)

#define ITPCC_OrderStatus(This,txn_in,txn_out) \
(This)->lpVtbl -> OrderStatus(This,txn_in,txn_out)

#define ITPCC_CallSetComplete(This) \
(This)->lpVtbl -> CallSetComplete(This)

#endif /* COBJMACROS */

#endif /* C style interface */

HRESULT STDMETHODCALLTYPE ITPCC_NewOrder_Proxy(
ITPCC __RPC_FAR * This,
/* [in] */ VARIANT txn_in,
/* [out] */ VARIANT __RPC_FAR *txn_out);

void __RPC_STUB ITPCC_NewOrder_Stub(
IRpcStubBuffer *This,
IRpcChannelBuffer *pRpcChannelBuffer,
PRPC_MESSAGE _pRpcMessage,
DWORD *_pdwStubPhase);

HRESULT STDMETHODCALLTYPE ITPCC_Payment_Proxy(
ITPCC __RPC_FAR * This,
/* [in] */ VARIANT txn_in,
/* [out] */ VARIANT __RPC_FAR *txn_out);

void __RPC_STUB ITPCC_Payment_Stub(
IRpcStubBuffer *This,
IRpcChannelBuffer *pRpcChannelBuffer,
PRPC_MESSAGE _pRpcMessage,
DWORD *_pdwStubPhase);

HRESULT STDMETHODCALLTYPE ITPCC_Delivery_Proxy(
ITPCC __RPC_FAR * This,
/* [in] */ VARIANT txn_in,
/* [out] */ VARIANT __RPC_FAR *txn_out);

void __RPC_STUB ITPCC_Delivery_Stub(
IRpcStubBuffer *This,
IRpcChannelBuffer *pRpcChannelBuffer,
PRPC_MESSAGE _pRpcMessage,
DWORD *_pdwStubPhase);

HRESULT STDMETHODCALLTYPE ITPCC_StockLevel_Proxy(

```

```

ITPCC __RPC_FAR * This,
/* [in] */ VARIANT txn_in,
/* [out] */ VARIANT __RPC_FAR *txn_out);

void __RPC_STUB ITPCC_StockLevel_Stub(
IRpcStubBuffer *This,
IRpcChannelBuffer *_pRpcChannelBuffer,
PRPC_MESSAGE _pRpcMessage,
DWORD *_pdwStubPhase);

HRESULT __stdcall ITPCC_OrderStatus_Proxy(
ITPCC __RPC_FAR * This,
/* [in] */ VARIANT txn_in,
/* [out] */ VARIANT __RPC_FAR *txn_out);

void __RPC_STUB ITPCC_OrderStatus_Stub(
IRpcStubBuffer *This,
IRpcChannelBuffer *_pRpcChannelBuffer,
PRPC_MESSAGE _pRpcMessage,
DWORD *_pdwStubPhase);

HRESULT __stdcall ITPCC_CallSetComplete_Proxy(
ITPCC __RPC_FAR * This);

void __RPC_STUB ITPCC_CallSetComplete_Stub(
IRpcStubBuffer *This,
IRpcChannelBuffer *_pRpcChannelBuffer,
PRPC_MESSAGE _pRpcMessage,
DWORD *_pdwStubPhase);

#endif /* __ITPCC_INTERFACE_DEFINED__ */

/* Additional Prototypes for ALL interfaces */

unsigned long __RPC_USER VARIANT_UserSize( unsigned long __RPC_FAR
*, unsigned long __RPC_FAR *, VARIANT __RPC_FAR * );
unsigned char __RPC_FAR * __RPC_USER VARIANT_UserMarshal( unsigned long __RPC_FAR
*, unsigned char __RPC_FAR *, VARIANT __RPC_FAR * );
unsigned char __RPC_FAR * __RPC_USER VARIANT_UserUnmarshal(unsigned long __RPC_FAR
*, unsigned char __RPC_FAR *, VARIANT __RPC_FAR * );
void __RPC_USER VARIANT_UserFree( unsigned long __RPC_FAR
*, VARIANT __RPC_FAR * );

/* end of Additional Prototypes */

#ifdef __cplusplus
}
#endif
#endif

```

tpcc_com_ps.idl

```

/* FILE: ITPCC.IDL
*
* Microsoft TPC-C Kit Ver. 4.20.000
* Copyright Microsoft, 1999
*
* All Rights Reserved
*
* not yet audited
*
* PURPOSE: Defines the interface used by TPCC. This interface can be
implemented by C++ components.
*
* Change history:
* 4.20.000 - first version
*/

// Forward declare all types defined
interface ITPCC;
import "oidl.idl";
import "ocidl.idl";

[
    object,
    oleautomation,
    uuid(FEEE6AA2-84B1-11d2-BA47-00C04FBFE08B),
    helpstring("ITPCC Interface"),
    pointer_default(unique)
]
interface ITPCC : IUnknown
{
    HRESULT __stdcall NewOrder(
        [in] VARIANT txn_in,
        [out] VARIANT *txn_out
    );

    HRESULT __stdcall Payment(
        [in] VARIANT txn_in,
        [out] VARIANT *txn_out
    );

    HRESULT __stdcall Delivery(
        [in] VARIANT txn_in,
        [out] VARIANT *txn_out
    );

    HRESULT __stdcall StockLevel(
        [in] VARIANT txn_in,
        [out] VARIANT *txn_out
    );

    HRESULT __stdcall OrderStatus(
        [in] VARIANT txn_in,
        [out] VARIANT *txn_out
    );

    HRESULT __stdcall CallSetComplete

```

```

(
);

}; // interface ITPCC


```

tpcc_com_ps_i.c

```

#pragma warning( disable: 4049 ) /* more than 64k source lines */

/* this ALWAYS GENERATED file contains the IIDs and CLSIDs */

/* link this file in with the server and any clients */

/* File created by MIDL compiler version 5.03.0280 */
/* at Thu Dec 13 23:13:08 2001
*/
/* Compiler settings for .\src\tpcc_com_ps.idl:
Oicf (OptLev=i2), Wl, Zp8, env=Win32 (32b run), ms_ext, c_ext
error checks: allocation ref bounds_check enum stub_data
VC __declspec() decoration level:
__declspec(uuid()), __declspec(selectany), __declspec(novtable)
DECLSPEC_UUID(), MIDL_INTERFACE()
*/
//@@MIDL_FILE_HEADING( )

#if !defined(_M_IA64) && !defined(_M_AXP64)

#ifdef __cplusplus
extern "C"{
#endif

#include <rpc.h>
#include <rpcndr.h>

#ifdef _MIDL_USE_GUIDDEF_

#ifndef INITGUID
#define INITGUID
#include <guiddef.h>
#undef INITGUID
#else
#include <guiddef.h>
#endif

#define MIDL_DEFINE_GUID(type,name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8) \
DEFINE_GUID(name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8)

#else // !_MIDL_USE_GUIDDEF_

#ifndef __IID_DEFINED__
#define __IID_DEFINED__

typedef struct _IID
{
    unsigned long x;
    unsigned short s1;
    unsigned short s2;

```

```

    unsigned char c[8];
} IID;

#endif // __IID_DEFINED__

#ifndef CLSID_DEFINED
#define CLSID_DEFINED
typedef IID CLSID;
#endif // CLSID_DEFINED

#define MIDL_DEFINE_GUID(type,name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8) \
const type name = {l,w1,w2,{b1,b2,b3,b4,b5,b6,b7,b8}}

#endif // !_MIDL_USE_GUIDDEF_

MIDL_DEFINE_GUID(IID,
IID_ITPCC,0xFEEE6AA2,0x84B1,0x11d2,0xBA,0x47,0x00,0xC0,0x4F,0xBF,0xE0,0x8B);

#undef MIDL_DEFINE_GUID

#ifdef __cplusplus
}
#endif

#endif /* !defined(_M_IA64) && !defined(_M_AXP64)*/

#pragma warning( disable: 4049 ) /* more than 64k source lines */

/* this ALWAYS GENERATED file contains the IIDs and CLSIDs */

/* link this file in with the server and any clients */

/* File created by MIDL compiler version 5.03.0280 */
/* at Thu Dec 13 23:13:08 2001
*/
/* Compiler settings for .\src\tpcc_com_ps.idl:
Oicf (OptLev=i2), Wl, Zp8, env=Win64 (32b run,appending), ms_ext, c_ext, robust
error checks: allocation ref bounds_check enum stub_data
VC __declspec() decoration level:
__declspec(uuid()), __declspec(selectany), __declspec(novtable)
DECLSPEC_UUID(), MIDL_INTERFACE()
*/
//@@MIDL_FILE_HEADING( )

#if defined(_M_IA64) || defined(_M_AXP64)

#ifdef __cplusplus
extern "C"{
#endif

#include <rpc.h>
#include <rpcndr.h>

#ifdef _MIDL_USE_GUIDDEF_

#ifndef INITGUID
#define INITGUID
#include <guiddef.h>

```

```

#undef INITGUID
#else
#include <guiddef.h>
#endif

#define MIDL_DEFINE_GUID(type,name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8) \
    DEFINE_GUID(name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8)

#else // !_MIDL_USE_GUIDDEF_

#ifndef __IID_DEFINED__
#define __IID_DEFINED__

typedef struct _IID
{
    unsigned long x;
    unsigned short s1;
    unsigned short s2;
    unsigned char c[8];
} IID;

#endif // __IID_DEFINED__

#ifndef CLSID_DEFINED
#define CLSID_DEFINED
typedef IID CLSID;
#endif // CLSID_DEFINED

#define MIDL_DEFINE_GUID(type,name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8) \
    const type name = {l,w1,w2,{b1,b2,b3,b4,b5,b6,b7,b8}}

#endif !_MIDL_USE_GUIDDEF_

MIDL_DEFINE_GUID(IID,
IID_ITPCC,0xFEE6AA2,0x84B1,0x11d2,0xBA,0x47,0x00,0xC0,0x4F,0xBF,0xE0,0x8B);

#undef MIDL_DEFINE_GUID

#ifdef __cplusplus
}
#endif

#endif /* defined(_M_IA64) || defined(_M_AXP64) */

```

tpcc_com_ps_p.c

```

#pragma warning( disable: 4049 ) /* more than 64k source lines */

/* this ALWAYS GENERATED file contains the proxy stub code */

/* File created by MIDL compiler version 5.03.0280 */
/* at Thu Dec 13 23:13:08 2001
*/
/* Compiler settings for .\src\tpcc_com_ps.idl:
    Oicf (OptLev=i2), Wl, Zp8, env=Win32 (32b run), ms_ext, c_ext
    error checks: allocation ref bounds_check enum stub_data
    VC __declspec() decoration level:

```

```

    __declspec(uuid()), __declspec(selectany), __declspec(novtable)
    DECLSPEC_UUID(), MIDL_INTERFACE()
*/
//@@MIDL_FILE_HEADING( )

#if !defined(_M_IA64) && !defined(_M_AXP64)
#define USE_STUBLESS_PROXY

/* verify that the <rpcproxy.h> version is high enough to compile this file*/
#ifndef __REDQ_RPCPROXY_H_VERSION__
#define __REQUIRED_RPCPROXY_H_VERSION__ 440
#endif

#include "rpcproxy.h"
#ifndef __RPCPROXY_H_VERSION__
#error this stub requires an updated version of <rpcproxy.h>
#endif // __RPCPROXY_H_VERSION__

#include "tpcc_com_ps.h"

#define TYPE_FORMAT_STRING_SIZE 997
#define PROC_FORMAT_STRING_SIZE 193
#define TRANSMIT_AS_TABLE_SIZE 0
#define WIRE_MARSHAL_TABLE_SIZE 1

typedef struct _MIDL_TYPE_FORMAT_STRING
{
    short Pad;
    unsigned char Format[ TYPE_FORMAT_STRING_SIZE ];
} MIDL_TYPE_FORMAT_STRING;

typedef struct _MIDL_PROC_FORMAT_STRING
{
    short Pad;
    unsigned char Format[ PROC_FORMAT_STRING_SIZE ];
} MIDL_PROC_FORMAT_STRING;

extern const MIDL_TYPE_FORMAT_STRING __MIDL_TypeFormatString;
extern const MIDL_PROC_FORMAT_STRING __MIDL_ProcFormatString;

/* Standard interface: __MIDL_itf_tpcc_com_ps_0000, ver. 0.0,
GUID={0x00000000,0x0000,0x0000,{0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00}} */

/* Object interface: IUnknown, ver. 0.0,
GUID={0x00000000,0x0000,0x0000,{0xC0,0x00,0x00,0x00,0x00,0x00,0x00,0x46}} */

/* Object interface: ITPCC, ver. 0.0,
GUID={0xFEE6AA2,0x84B1,0x11d2,{0xBA,0x47,0x00,0xC0,0x4F,0xBF,0xE0,0x8B}} */

extern const MIDL_STUB_DESC Object_StubDesc;

extern const MIDL_SERVER_INFO ITPCC_ServerInfo;

#pragma code_seg(".orpc")

```

```

static const unsigned short ITPCC_FormatStringOffsetTable[] =
{
    0,
    34,
    68,
    102,
    136,
    170
};

static const MIDL_SERVER_INFO ITPCC_ServerInfo =
{
    &Object_StubDesc,
    0,
    __MIDL_ProcFormatString.Format,
    &ITPCC_FormatStringOffsetTable[-3],
    0,
    0,
    0,
    0,
    0
};

static const MIDL_STUBLESS_PROXY_INFO ITPCC_ProxyInfo =
{
    &Object_StubDesc,
    __MIDL_ProcFormatString.Format,
    &ITPCC_FormatStringOffsetTable[-3],
    0,
    0,
    0
};

CINTERFACE_PROXY_VTABLE(9) _ITPCCProxyVtbl =
{
    &ITPCC_ProxyInfo,
    &IID_ITPCC,
    IUnknown_QueryInterface_Proxy,
    IUnknown_AddRef_Proxy,
    IUnknown_Release_Proxy ,
    (void *)-1 /* ITPCC::NewOrder */ ,
    (void *)-1 /* ITPCC::Payment */ ,
    (void *)-1 /* ITPCC::Delivery */ ,
    (void *)-1 /* ITPCC::StockLevel */ ,
    (void *)-1 /* ITPCC::OrderStatus */ ,
    (void *)-1 /* ITPCC::CallSetComplete */
};

const CInterfaceStubVtbl _ITPCCStubVtbl =
{
    &IID_ITPCC,
    &ITPCC_ServerInfo,
    9,
    0, /* pure interpreted */
    CStdStubBuffer_METHODS
};

extern const USER_MARSHAL_ROUTINE_QUADRUPLE UserMarshalRoutines[
WIRE_MARSHAL_TABLE_SIZE ];

static const MIDL_STUB_DESC Object_StubDesc =
{
    0,
    NdrOleAllocate,

```

```

NdrOleFree,
0,
0,
0,
0,
0,
0,
__MIDL_TypeFormatString.Format,
1, /* -error bounds_check flag */
0x20000, /* Ndr library version */
0,
0x5030118, /* MIDL Version 5.3.280 */
0,
UserMarshalRoutines,
0, /* notify & notify_flag routine table */
0x1, /* MIDL flag */
0, /* Reserved3 */
0, /* Reserved4 */
0 /* Reserved5 */
};

#pragma data_seg(".rdata")

static const USER_MARSHAL_ROUTINE_QUADRUPLE UserMarshalRoutines[
WIRE_MARSHAL_TABLE_SIZE ] =
{
    {
        VARIANT_UserSize
        ,VARIANT_UserMarshal
        ,VARIANT_UserUnmarshal
        ,VARIANT_UserFree
    }
};

#if !defined(__RPC_WIN32__)
#error Invalid build platform for this stub.
#endif

#if !(TARGET_IS_NT40_OR_LATER)
#error You need a Windows NT 4.0 or later to run this stub because it uses these
features:
#error -Oif or -Oicf, [wire_marshall] or [user_marshall] attribute.
#error However, your C/C++ compilation flags indicate you intend to run this app on
earlier systems.
#error This app will die there with the RPC_X_WRONG_STUB_VERSION error.
#endif

static const MIDL_PROC_FORMAT_STRING __MIDL_ProcFormatString =
{
    0,
    {
        /* Procedure NewOrder */
        0x33, /* FC_AUTO_HANDLE */
        0x6c, /* Old Flags: object, Oi2 */
        /* 2 */ NdrFcLong( 0x0 ), /* 0 */
        /* 6 */ NdrFcShort( 0x3 ), /* 3 */
#ifdef _ALPHA_
#ifdef _PPC_

```

```

#if !defined(_MIPS_)
/* 8 */ NdrFcShort( 0x1c ), /* x86 Stack size/offset = 28 */
#else
NdrFcShort( 0x20 ), /* MIPS Stack size/offset = 32 */
#endif
#endif
#else
NdrFcShort( 0x20 ), /* PPC Stack size/offset = 32 */
#endif
#else
NdrFcShort( 0x28 ), /* Alpha Stack size/offset = 40 */
#endif
/* 10 */ NdrFcShort( 0x0 ), /* 0 */
/* 12 */ NdrFcShort( 0x8 ), /* 8 */
/* 14 */ 0x7, /* Oi2 Flags: srv must size, clt must size, has
return, */
0x3, /* 3 */

/* Parameter txn_in */

/* 16 */ NdrFcShort( 0x8b ), /* Flags: must size, must free, in, by val, */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 18 */ NdrFcShort( 0x4 ), /* x86 Stack size/offset = 4 */
#else
NdrFcShort( 0x8 ), /* MIPS Stack size/offset = 8 */
#endif
#else
NdrFcShort( 0x8 ), /* PPC Stack size/offset = 8 */
#endif
#else
NdrFcShort( 0x8 ), /* Alpha Stack size/offset = 8 */
#endif
/* 20 */ NdrFcShort( 0x3c8 ), /* Type Offset=968 */

/* Parameter txn_out */

/* 22 */ NdrFcShort( 0x4113 ), /* Flags: must size, must free, out, simple
ref, srv alloc size=16 */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 24 */ NdrFcShort( 0x14 ), /* x86 Stack size/offset = 20 */
#else
NdrFcShort( 0x18 ), /* MIPS Stack size/offset = 24 */
#endif
#else
NdrFcShort( 0x18 ), /* PPC Stack size/offset = 24 */
#endif
#else
NdrFcShort( 0x18 ), /* Alpha Stack size/offset = 24 */
#endif
/* 26 */ NdrFcShort( 0x3da ), /* Type Offset=986 */

/* Return value */

/* 28 */ NdrFcShort( 0x70 ), /* Flags: out, return, base type, */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 30 */ NdrFcShort( 0x18 ), /* x86 Stack size/offset = 24 */
#else
NdrFcShort( 0x1c ), /* MIPS Stack size/offset = 28 */

```

```

#endif
#else
NdrFcShort( 0x1c ), /* PPC Stack size/offset = 28 */
#endif
#endif
#else
NdrFcShort( 0x20 ), /* Alpha Stack size/offset = 32 */
#endif
/* 32 */ 0x8, /* FC_LONG */
0x0, /* 0 */

/* Procedure Payment */

/* 34 */ 0x33, /* FC_AUTO_HANDLE */
0x6c, /* Old Flags: object, Oi2 */
/* 36 */ NdrFcLong( 0x0 ), /* 0 */
/* 40 */ NdrFcShort( 0x4 ), /* 4 */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 42 */ NdrFcShort( 0x1c ), /* x86 Stack size/offset = 28 */
#else
NdrFcShort( 0x20 ), /* MIPS Stack size/offset = 32 */
#endif
#else
NdrFcShort( 0x20 ), /* PPC Stack size/offset = 32 */
#endif
#else
NdrFcShort( 0x28 ), /* Alpha Stack size/offset = 40 */
#endif
/* 44 */ NdrFcShort( 0x0 ), /* 0 */
/* 46 */ NdrFcShort( 0x8 ), /* 8 */
/* 48 */ 0x7, /* Oi2 Flags: srv must size, clt must size, has
return, */
0x3, /* 3 */

/* Parameter txn_in */

/* 50 */ NdrFcShort( 0x8b ), /* Flags: must size, must free, in, by val, */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 52 */ NdrFcShort( 0x4 ), /* x86 Stack size/offset = 4 */
#else
NdrFcShort( 0x8 ), /* MIPS Stack size/offset = 8 */
#endif
#else
NdrFcShort( 0x8 ), /* PPC Stack size/offset = 8 */
#endif
#else
NdrFcShort( 0x8 ), /* Alpha Stack size/offset = 8 */
#endif
/* 54 */ NdrFcShort( 0x3c8 ), /* Type Offset=968 */

/* Parameter txn_out */

/* 56 */ NdrFcShort( 0x4113 ), /* Flags: must size, must free, out, simple
ref, srv alloc size=16 */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 58 */ NdrFcShort( 0x14 ), /* x86 Stack size/offset = 20 */
#else
NdrFcShort( 0x18 ), /* MIPS Stack size/offset = 24 */

```



```

#endif
#else
                NdrFcShort( 0x18 ), /* PPC Stack size/offset = 24 */
#endif
#else
                NdrFcShort( 0x18 ), /* Alpha Stack size/offset = 24 */
#endif
/* 60 */ NdrFcShort( 0x3da ), /* Type Offset=986 */

/* Return value */

/* 62 */ NdrFcShort( 0x70 ), /* Flags: out, return, base type, */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 64 */ NdrFcShort( 0x18 ), /* x86 Stack size/offset = 24 */
#else
                NdrFcShort( 0x1c ), /* MIPS Stack size/offset = 28 */
#endif
#else
                NdrFcShort( 0x1c ), /* PPC Stack size/offset = 28 */
#endif
#else
                NdrFcShort( 0x20 ), /* Alpha Stack size/offset = 32 */
#endif
/* 66 */ 0x8, /* FC_LONG */
0x0, /* 0 */

/* Procedure Delivery */

/* 68 */ 0x33, /* FC_AUTO_HANDLE */
0x6c, /* Old Flags: object, Oi2 */

/* 70 */ NdrFcLong( 0x0 ), /* 0 */
/* 74 */ NdrFcShort( 0x5 ), /* 5 */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 76 */ NdrFcShort( 0x1c ), /* x86 Stack size/offset = 28 */
#else
                NdrFcShort( 0x20 ), /* MIPS Stack size/offset = 32 */
#endif
#else
                NdrFcShort( 0x20 ), /* PPC Stack size/offset = 32 */
#endif
#else
                NdrFcShort( 0x28 ), /* Alpha Stack size/offset = 40 */
#endif
/* 78 */ NdrFcShort( 0x0 ), /* 0 */
/* 80 */ NdrFcShort( 0x8 ), /* 8 */
/* 82 */ 0x7, /* Oi2 Flags: srv must size, clt must size, has
return, */
0x3, /* 3 */

/* Parameter txn_in */

/* 84 */ NdrFcShort( 0x8b ), /* Flags: must size, must free, in, by val, */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 86 */ NdrFcShort( 0x4 ), /* x86 Stack size/offset = 4 */
#else
                NdrFcShort( 0x8 ), /* MIPS Stack size/offset = 8 */
#endif
#endif
#endif
#endif

```

```

#else
                NdrFcShort( 0x8 ), /* PPC Stack size/offset = 8 */
#endif
#else
                NdrFcShort( 0x8 ), /* Alpha Stack size/offset = 8 */
#endif
/* 88 */ NdrFcShort( 0x3c8 ), /* Type Offset=968 */

/* Parameter txn_out */

/* 90 */ NdrFcShort( 0x4113 ), /* Flags: must size, must free, out, simple
ref, srv alloc size=16 */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 92 */ NdrFcShort( 0x14 ), /* x86 Stack size/offset = 20 */
#else
                NdrFcShort( 0x18 ), /* MIPS Stack size/offset = 24 */
#endif
#else
                NdrFcShort( 0x18 ), /* PPC Stack size/offset = 24 */
#endif
#else
                NdrFcShort( 0x18 ), /* Alpha Stack size/offset = 24 */
#endif
/* 94 */ NdrFcShort( 0x3da ), /* Type Offset=986 */

/* Return value */

/* 96 */ NdrFcShort( 0x70 ), /* Flags: out, return, base type, */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 98 */ NdrFcShort( 0x18 ), /* x86 Stack size/offset = 24 */
#else
                NdrFcShort( 0x1c ), /* MIPS Stack size/offset = 28 */
#endif
#else
                NdrFcShort( 0x1c ), /* PPC Stack size/offset = 28 */
#endif
#else
                NdrFcShort( 0x20 ), /* Alpha Stack size/offset = 32 */
#endif
/* 100 */ 0x8, /* FC_LONG */
0x0, /* 0 */

/* Procedure StockLevel */

/* 102 */ 0x33, /* FC_AUTO_HANDLE */
0x6c, /* Old Flags: object, Oi2 */

/* 104 */ NdrFcLong( 0x0 ), /* 0 */
/* 108 */ NdrFcShort( 0x6 ), /* 6 */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 110 */ NdrFcShort( 0x1c ), /* x86 Stack size/offset = 28 */
#else
                NdrFcShort( 0x20 ), /* MIPS Stack size/offset = 32 */
#endif
#else
                NdrFcShort( 0x20 ), /* PPC Stack size/offset = 32 */
#endif
#else
                NdrFcShort( 0x20 ), /* Alpha Stack size/offset = 32 */
#endif
#endif
#endif

```

```

NdrFcShort( 0x28 ), /* Alpha Stack size/offset = 40 */
#endif
/* 112 */ NdrFcShort( 0x0 ), /* 0 */
/* 114 */ NdrFcShort( 0x8 ), /* 8 */
/* 116 */ 0x7, /* Oi2 Flags: srv must size, clt must size, has
return, */
0x3, /* 3 */

/* Parameter txn_in */

/* 118 */ NdrFcShort( 0x8b ), /* Flags: must size, must free, in, by val, */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 120 */ NdrFcShort( 0x4 ), /* x86 Stack size/offset = 4 */
#else
NdrFcShort( 0x8 ), /* MIPS Stack size/offset = 8 */
#endif
#else
NdrFcShort( 0x8 ), /* PPC Stack size/offset = 8 */
#endif
#else
NdrFcShort( 0x8 ), /* Alpha Stack size/offset = 8 */
#endif
/* 122 */ NdrFcShort( 0x3c8 ), /* Type Offset=968 */

/* Parameter txn_out */

/* 124 */ NdrFcShort( 0x4113 ), /* Flags: must size, must free, out, simple
ref, srv alloc size=16 */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 126 */ NdrFcShort( 0x14 ), /* x86 Stack size/offset = 20 */
#else
NdrFcShort( 0x18 ), /* MIPS Stack size/offset = 24 */
#endif
#else
NdrFcShort( 0x18 ), /* PPC Stack size/offset = 24 */
#endif
#else
NdrFcShort( 0x18 ), /* Alpha Stack size/offset = 24 */
#endif
/* 128 */ NdrFcShort( 0x3da ), /* Type Offset=986 */

/* Return value */

/* 130 */ NdrFcShort( 0x70 ), /* Flags: out, return, base type, */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 132 */ NdrFcShort( 0x18 ), /* x86 Stack size/offset = 24 */
#else
NdrFcShort( 0x1c ), /* MIPS Stack size/offset = 28 */
#endif
#else
NdrFcShort( 0x1c ), /* PPC Stack size/offset = 28 */
#endif
#else
NdrFcShort( 0x20 ), /* Alpha Stack size/offset = 32 */
#endif
/* 134 */ 0x8, /* FC_LONG */
0x0, /* 0 */

```

```

/* Procedure OrderStatus */

/* 136 */ 0x33, /* FC_AUTO_HANDLE */
0x6c, /* Old Flags: object, Oi2 */
/* 138 */ NdrFcLong( 0x0 ), /* 0 */
/* 142 */ NdrFcShort( 0x7 ), /* 7 */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 144 */ NdrFcShort( 0x1c ), /* x86 Stack size/offset = 28 */
#else
NdrFcShort( 0x20 ), /* MIPS Stack size/offset = 32 */
#endif
#else
NdrFcShort( 0x20 ), /* PPC Stack size/offset = 32 */
#endif
#else
NdrFcShort( 0x28 ), /* Alpha Stack size/offset = 40 */
#endif
/* 146 */ NdrFcShort( 0x0 ), /* 0 */
/* 148 */ NdrFcShort( 0x8 ), /* 8 */
/* 150 */ 0x7, /* Oi2 Flags: srv must size, clt must size, has
return, */
0x3, /* 3 */

/* Parameter txn_in */

/* 152 */ NdrFcShort( 0x8b ), /* Flags: must size, must free, in, by val, */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 154 */ NdrFcShort( 0x4 ), /* x86 Stack size/offset = 4 */
#else
NdrFcShort( 0x8 ), /* MIPS Stack size/offset = 8 */
#endif
#else
NdrFcShort( 0x8 ), /* PPC Stack size/offset = 8 */
#endif
#else
NdrFcShort( 0x8 ), /* Alpha Stack size/offset = 8 */
#endif
/* 156 */ NdrFcShort( 0x3c8 ), /* Type Offset=968 */

/* Parameter txn_out */

/* 158 */ NdrFcShort( 0x4113 ), /* Flags: must size, must free, out, simple
ref, srv alloc size=16 */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 160 */ NdrFcShort( 0x14 ), /* x86 Stack size/offset = 20 */
#else
NdrFcShort( 0x18 ), /* MIPS Stack size/offset = 24 */
#endif
#else
NdrFcShort( 0x18 ), /* PPC Stack size/offset = 24 */
#endif
#else
NdrFcShort( 0x18 ), /* Alpha Stack size/offset = 24 */
#endif
/* 162 */ NdrFcShort( 0x3da ), /* Type Offset=986 */

```

```

        /* Return value */

/* 164 */ NdrFcShort( 0x70 ), /* Flags: out, return, base type, */
#ifdef _ALPHA_
#ifndef _PPC_
#ifndef _MIPS_
/* 166 */ NdrFcShort( 0x18 ), /* x86 Stack size/offset = 24 */
#else
                                NdrFcShort( 0x1c ), /* MIPS Stack size/offset = 28 */
#endif
#else
                                NdrFcShort( 0x1c ), /* PPC Stack size/offset = 28 */
#endif
#else
                                NdrFcShort( 0x20 ), /* Alpha Stack size/offset = 32 */
#endif
/* 168 */ 0x8, /* FC_LONG */
                                0x0, /* 0 */

        /* Procedure CallSetComplete */

/* 170 */ 0x33, /* FC_AUTO_HANDLE */
                                0x6c, /* Old Flags: object, Oi2 */
/* 172 */ NdrFcLong( 0x0 ), /* 0 */
/* 176 */ NdrFcShort( 0x8 ), /* 8 */
#ifdef _ALPHA_
/* 178 */ NdrFcShort( 0x8 ), /* x86, MIPS, PPC Stack size/offset = 8 */
#else
                                NdrFcShort( 0x10 ), /* Alpha Stack size/offset = 16 */
#endif
/* 180 */ NdrFcShort( 0x0 ), /* 0 */
/* 182 */ NdrFcShort( 0x8 ), /* 8 */
/* 184 */ 0x4, /* Oi2 Flags: has return, */
                                0x1, /* 1 */

        /* Return value */

/* 186 */ NdrFcShort( 0x70 ), /* Flags: out, return, base type, */
#ifdef _ALPHA_
/* 188 */ NdrFcShort( 0x4 ), /* x86, MIPS, PPC Stack size/offset = 4 */
#else
                                NdrFcShort( 0x8 ), /* Alpha Stack size/offset = 8 */
#endif
/* 190 */ 0x8, /* FC_LONG */
                                0x0, /* 0 */

                                0x0
    }
};

static const MIDL_TYPE_FORMAT_STRING __MIDL_TypeFormatString =
{
    0,
    {
        /* 2 */
                                NdrFcShort( 0x0 ), /* 0 */

                                0x12, 0x0, /* FC_UP */
/* 4 */ NdrFcShort( 0x3b0 ), /* Offset= 944 (948) */
/* 6 */
                                0x2b, /* FC_NON_ENCAPSULATED_UNION */
                                0x9, /* FC_ULONG */

/* 8 */ 0x7, /* Corr desc: FC_USHORT */
                                0x0, /* */
    }
};

```

```

/* 10 */ NdrFcShort( 0xffff ), /* -8 */
/* 12 */ NdrFcShort( 0x2 ), /* Offset= 2 (14) */
/* 14 */ NdrFcShort( 0x10 ), /* 16 */
/* 16 */ NdrFcShort( 0x2b ), /* 43 */
/* 18 */ NdrFcLong( 0x3 ), /* 3 */
/* 22 */ NdrFcShort( 0x8008 ), /* Simple arm type: FC_LONG */
/* 24 */ NdrFcLong( 0x11 ), /* 17 */
/* 28 */ NdrFcShort( 0x8001 ), /* Simple arm type: FC_BYTE */
/* 30 */ NdrFcLong( 0x2 ), /* 2 */
/* 34 */ NdrFcShort( 0x8006 ), /* Simple arm type: FC_SHORT */
/* 36 */ NdrFcLong( 0x4 ), /* 4 */
/* 40 */ NdrFcShort( 0x800a ), /* Simple arm type: FC_FLOAT */
/* 42 */ NdrFcLong( 0x5 ), /* 5 */
/* 46 */ NdrFcShort( 0x800c ), /* Simple arm type: FC_DOUBLE */
/* 48 */ NdrFcLong( 0xb ), /* 11 */
/* 52 */ NdrFcShort( 0x8006 ), /* Simple arm type: FC_SHORT */
/* 54 */ NdrFcLong( 0xa ), /* 10 */
/* 58 */ NdrFcShort( 0x8008 ), /* Simple arm type: FC_LONG */
/* 60 */ NdrFcLong( 0x6 ), /* 6 */
/* 64 */ NdrFcShort( 0xd6 ), /* Offset= 214 (278) */
/* 66 */ NdrFcLong( 0x7 ), /* 7 */
/* 70 */ NdrFcShort( 0x800c ), /* Simple arm type: FC_DOUBLE */
/* 72 */ NdrFcLong( 0x8 ), /* 8 */
/* 76 */ NdrFcShort( 0xd0 ), /* Offset= 208 (284) */
/* 78 */ NdrFcLong( 0xd ), /* 13 */
/* 82 */ NdrFcShort( 0xe2 ), /* Offset= 226 (308) */
/* 84 */ NdrFcLong( 0x9 ), /* 9 */
/* 88 */ NdrFcShort( 0xee ), /* Offset= 238 (326) */
/* 90 */ NdrFcLong( 0x2000 ), /* 8192 */
/* 94 */ NdrFcShort( 0xfa ), /* Offset= 250 (344) */
/* 96 */ NdrFcLong( 0x24 ), /* 36 */
/* 100 */ NdrFcShort( 0x308 ), /* Offset= 776 (876) */
/* 102 */ NdrFcLong( 0x4024 ), /* 16420 */
/* 106 */ NdrFcShort( 0x302 ), /* Offset= 770 (876) */
/* 108 */ NdrFcLong( 0x4011 ), /* 16401 */
/* 112 */ NdrFcShort( 0x300 ), /* Offset= 768 (880) */
/* 114 */ NdrFcLong( 0x4002 ), /* 16386 */
/* 118 */ NdrFcShort( 0x2fe ), /* Offset= 766 (884) */
/* 120 */ NdrFcLong( 0x4003 ), /* 16387 */
/* 124 */ NdrFcShort( 0x2fc ), /* Offset= 764 (888) */
/* 126 */ NdrFcLong( 0x4004 ), /* 16388 */
/* 130 */ NdrFcShort( 0x2fa ), /* Offset= 762 (892) */
/* 132 */ NdrFcLong( 0x4005 ), /* 16389 */
/* 136 */ NdrFcShort( 0x2f8 ), /* Offset= 760 (896) */
/* 138 */ NdrFcLong( 0x400b ), /* 16395 */
/* 142 */ NdrFcShort( 0x2e6 ), /* Offset= 742 (884) */
/* 144 */ NdrFcLong( 0x400a ), /* 16394 */
/* 148 */ NdrFcShort( 0x2e4 ), /* Offset= 740 (888) */
/* 150 */ NdrFcLong( 0x4006 ), /* 16390 */
/* 154 */ NdrFcShort( 0x2ea ), /* Offset= 746 (900) */
/* 156 */ NdrFcLong( 0x4007 ), /* 16391 */
/* 160 */ NdrFcShort( 0x2e0 ), /* Offset= 736 (896) */
/* 162 */ NdrFcLong( 0x4008 ), /* 16392 */
/* 166 */ NdrFcShort( 0x2e2 ), /* Offset= 738 (904) */
/* 168 */ NdrFcLong( 0x400d ), /* 16397 */
/* 172 */ NdrFcShort( 0x2e0 ), /* Offset= 736 (908) */
/* 174 */ NdrFcLong( 0x4009 ), /* 16393 */
/* 178 */ NdrFcShort( 0x2de ), /* Offset= 734 (912) */
/* 180 */ NdrFcLong( 0x6000 ), /* 24576 */
/* 184 */ NdrFcShort( 0x2dc ), /* Offset= 732 (916) */
/* 186 */ NdrFcLong( 0x400c ), /* 16396 */
/* 190 */ NdrFcShort( 0x2da ), /* Offset= 730 (920) */
/* 192 */ NdrFcLong( 0x10 ), /* 16 */

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```

/* 196 */ NdrFcShort( 0x8002 ), /* Simple arm type: FC_CHAR */
/* 198 */ NdrFcLong( 0x12 ), /* 18 */
/* 202 */ NdrFcShort( 0x8006 ), /* Simple arm type: FC_SHORT */
/* 204 */ NdrFcLong( 0x13 ), /* 19 */
/* 208 */ NdrFcShort( 0x8008 ), /* Simple arm type: FC_LONG */
/* 210 */ NdrFcLong( 0x16 ), /* 22 */
/* 214 */ NdrFcShort( 0x8008 ), /* Simple arm type: FC_LONG */
/* 216 */ NdrFcLong( 0x17 ), /* 23 */
/* 220 */ NdrFcShort( 0x8008 ), /* Simple arm type: FC_LONG */
/* 222 */ NdrFcLong( 0xe ), /* 14 */
/* 226 */ NdrFcShort( 0x2be ), /* Offset= 702 (928) */
/* 228 */ NdrFcLong( 0x400e ), /* 16398 */
/* 232 */ NdrFcShort( 0x2c4 ), /* Offset= 708 (940) */
/* 234 */ NdrFcLong( 0x4010 ), /* 16400 */
/* 238 */ NdrFcShort( 0x2c2 ), /* Offset= 706 (944) */
/* 240 */ NdrFcLong( 0x4012 ), /* 16402 */
/* 244 */ NdrFcShort( 0x280 ), /* Offset= 640 (884) */
/* 246 */ NdrFcLong( 0x4013 ), /* 16403 */
/* 250 */ NdrFcShort( 0x27e ), /* Offset= 638 (888) */
/* 252 */ NdrFcLong( 0x4016 ), /* 16406 */
/* 256 */ NdrFcShort( 0x278 ), /* Offset= 632 (888) */
/* 258 */ NdrFcLong( 0x4017 ), /* 16407 */
/* 262 */ NdrFcShort( 0x272 ), /* Offset= 626 (888) */
/* 264 */ NdrFcLong( 0x0 ), /* 0 */
/* 268 */ NdrFcShort( 0x0 ), /* Offset= 0 (268) */
/* 270 */ NdrFcLong( 0x1 ), /* 1 */
/* 274 */ NdrFcShort( 0x0 ), /* Offset= 0 (274) */
/* 276 */ NdrFcShort( 0xffffffff ), /* Offset= -1 (275) */
/* 278 */
0x15, /* FC_STRUCT */
0x7, /* 7 */
/* 280 */ NdrFcShort( 0x8 ), /* 8 */
/* 282 */ 0xb, /* FC_HYPER */
0x5b, /* FC_END */
/* 284 */
0x12, 0x0, /* FC_UP */
/* 286 */ NdrFcShort( 0xc ), /* Offset= 12 (298) */
/* 288 */
0x1b, /* FC_CARRAY */
0x1, /* 1 */
/* 290 */ NdrFcShort( 0x2 ), /* 2 */
/* 292 */ 0x9, /* Corr desc: FC_ULONG */
0x0, /* */
/* 294 */ NdrFcShort( 0xffffc ), /* -4 */
/* 296 */ 0x6, /* FC_SHORT */
0x5b, /* FC_END */
/* 298 */
0x17, /* FC_CSTRUCT */
0x3, /* 3 */
/* 300 */ NdrFcShort( 0x8 ), /* 8 */
/* 302 */ NdrFcShort( 0xffffffff2 ), /* Offset= -14 (288) */
/* 304 */ 0x8, /* FC_LONG */
0x8, /* FC_LONG */
/* 306 */ 0x5c, /* FC_PAD */
0x5b, /* FC_END */
/* 308 */
0x2f, /* FC_IP */
0x5a, /* FC_CONSTANT_IID */
/* 310 */ NdrFcLong( 0x0 ), /* 0 */
/* 314 */ NdrFcShort( 0x0 ), /* 0 */
/* 316 */ NdrFcShort( 0x0 ), /* 0 */
/* 318 */ 0xc0, /* 192 */
0x0, /* 0 */

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/* 320 */ 0x0, /* 0 */
0x0, /* 0 */
/* 322 */ 0x0, /* 0 */
0x0, /* 0 */
/* 324 */ 0x0, /* 0 */
0x46, /* 70 */
/* 326 */
0x2E, /* FC_IP */
0x5a, /* FC_CONSTANT_IID */
/* 328 */ NdrFcLong( 0x20400 ), /* 132096 */
/* 332 */ NdrFcShort( 0x0 ), /* 0 */
/* 334 */ NdrFcShort( 0x0 ), /* 0 */
/* 336 */ 0xc0, /* 192 */
0x0, /* 0 */
/* 338 */ 0x0, /* 0 */
0x0, /* 0 */
/* 340 */ 0x0, /* 0 */
0x0, /* 0 */
/* 342 */ 0x0, /* 0 */
0x46, /* 70 */
/* 344 */
0x12, 0x10, /* FC_UP [pointer_deref] */
/* 346 */ NdrFcShort( 0x2 ), /* Offset= 2 (348) */
/* 348 */
0x12, 0x0, /* FC_UP */
/* 350 */ NdrFcShort( 0x1fc ), /* Offset= 508 (858) */
/* 352 */
0x2a, /* FC_ENCAPSULATED_UNION */
0x49, /* 73 */
/* 354 */ NdrFcShort( 0x18 ), /* 24 */
/* 356 */ NdrFcShort( 0xa ), /* 10 */
/* 358 */ NdrFcLong( 0x8 ), /* 8 */
/* 362 */ NdrFcShort( 0x58 ), /* Offset= 88 (450) */
/* 364 */ NdrFcLong( 0xd ), /* 13 */
/* 368 */ NdrFcShort( 0x78 ), /* Offset= 120 (488) */
/* 370 */ NdrFcLong( 0x9 ), /* 9 */
/* 374 */ NdrFcShort( 0x94 ), /* Offset= 148 (522) */
/* 376 */ NdrFcLong( 0xc ), /* 12 */
/* 380 */ NdrFcShort( 0xbc ), /* Offset= 188 (568) */
/* 382 */ NdrFcLong( 0x24 ), /* 36 */
/* 386 */ NdrFcShort( 0x114 ), /* Offset= 276 (662) */
/* 388 */ NdrFcLong( 0x800d ), /* 32781 */
/* 392 */ NdrFcShort( 0x130 ), /* Offset= 304 (696) */
/* 394 */ NdrFcLong( 0x10 ), /* 16 */
/* 398 */ NdrFcShort( 0x148 ), /* Offset= 328 (726) */
/* 400 */ NdrFcLong( 0x2 ), /* 2 */
/* 404 */ NdrFcShort( 0x160 ), /* Offset= 352 (756) */
/* 406 */ NdrFcLong( 0x3 ), /* 3 */
/* 410 */ NdrFcShort( 0x178 ), /* Offset= 376 (786) */
/* 412 */ NdrFcLong( 0x14 ), /* 20 */
/* 416 */ NdrFcShort( 0x190 ), /* Offset= 400 (816) */
/* 418 */ NdrFcShort( 0xffffffff ), /* Offset= -1 (417) */
/* 420 */
0x1b, /* FC_CARRAY */
0x3, /* 3 */
/* 422 */ NdrFcShort( 0x4 ), /* 4 */
/* 424 */ 0x19, /* Corr desc: field pointer, FC_ULONG */
0x0, /* */
/* 426 */ NdrFcShort( 0x0 ), /* 0 */
/* 428 */
0x4b, /* FC_PP */
0x5c, /* FC_PAD */
/* 430 */

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                                0x48,          /* FC_VARIABLE_REPEAT */
                                0x49,          /* FC_FIXED_OFFSET */
/* 432 */ NdrFcShort( 0x4 ), /* 4 */
/* 434 */ NdrFcShort( 0x0 ), /* 0 */
/* 436 */ NdrFcShort( 0x1 ), /* 1 */
/* 438 */ NdrFcShort( 0x0 ), /* 0 */
/* 440 */ NdrFcShort( 0x0 ), /* 0 */
/* 442 */ 0x12, 0x0,          /* FC_UP */
/* 444 */ NdrFcShort( 0xfffff6e ), /* Offset= -146 (298) */
/* 446 */

                                0x5b,          /* FC_END */

                                0x8,           /* FC_LONG */
/* 448 */ 0x5c,              /* FC_PAD */
                                0x5b,          /* FC_END */
/* 450 */

                                0x16,          /* FC_PSTRUCT */
                                0x3,           /* 3 */
/* 452 */ NdrFcShort( 0x8 ), /* 8 */
/* 454 */

                                0x4b,          /* FC_PP */
                                0x5c,          /* FC_PAD */
/* 456 */

                                0x46,          /* FC_NO_REPEAT */
                                0x5c,          /* FC_PAD */
/* 458 */ NdrFcShort( 0x4 ), /* 4 */
/* 460 */ NdrFcShort( 0x4 ), /* 4 */
/* 462 */ 0x11, 0x0,          /* FC_RP */
/* 464 */ NdrFcShort( 0xfffffd4 ), /* Offset= -44 (420) */
/* 466 */

                                0x5b,          /* FC_END */

                                0x8,           /* FC_LONG */
/* 468 */ 0x8,              /* FC_LONG */
                                0x5b,          /* FC_END */
/* 470 */

                                0x21,          /* FC_BOGUS_ARRAY */
                                0x3,           /* 3 */
/* 472 */ NdrFcShort( 0x0 ), /* 0 */
/* 474 */ 0x19,              /* Corr desc: field pointer, FC_ULONG */
                                0x0,           /* */
/* 476 */ NdrFcShort( 0x0 ), /* 0 */
/* 478 */ NdrFcLong( 0xffffffff ), /* -1 */
/* 482 */ 0x4c,              /* FC_EMBEDDED_COMPLEX */
                                0x0,           /* 0 */
/* 484 */ NdrFcShort( 0xfffff50 ), /* Offset= -176 (308) */
/* 486 */ 0x5c,              /* FC_PAD */
                                0x5b,          /* FC_END */
/* 488 */

                                0x1a,          /* FC_BOGUS_STRUCT */
                                0x3,           /* 3 */
/* 490 */ NdrFcShort( 0x8 ), /* 8 */
/* 492 */ NdrFcShort( 0x0 ), /* 0 */
/* 494 */ NdrFcShort( 0x6 ), /* Offset= 6 (500) */
/* 496 */ 0x8,              /* FC_LONG */
                                0x36,          /* FC_POINTER */
/* 498 */ 0x5c,              /* FC_PAD */
                                0x5b,          /* FC_END */
/* 500 */

                                0x11, 0x0,      /* FC_RP */
/* 502 */ NdrFcShort( 0xfffffe0 ), /* Offset= -32 (470) */
/* 504 */

                                0x21,          /* FC_BOGUS_ARRAY */

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```

                                0x3,           /* 3 */
/* 506 */ NdrFcShort( 0x0 ), /* 0 */
/* 508 */ 0x19,              /* Corr desc: field pointer, FC_ULONG */
                                0x0,           /* */
/* 510 */ NdrFcShort( 0x0 ), /* 0 */
/* 512 */ NdrFcLong( 0xffffffff ), /* -1 */
/* 516 */ 0x4c,              /* FC_EMBEDDED_COMPLEX */
                                0x0,           /* 0 */
/* 518 */ NdrFcShort( 0xfffff40 ), /* Offset= -192 (326) */
/* 520 */ 0x5c,              /* FC_PAD */
                                0x5b,          /* FC_END */
/* 522 */

                                0x1a,          /* FC_BOGUS_STRUCT */
                                0x3,           /* 3 */
/* 524 */ NdrFcShort( 0x8 ), /* 8 */
/* 526 */ NdrFcShort( 0x0 ), /* 0 */
/* 528 */ NdrFcShort( 0x6 ), /* Offset= 6 (534) */
/* 530 */ 0x8,              /* FC_LONG */
                                0x36,          /* FC_POINTER */
/* 532 */ 0x5c,              /* FC_PAD */
                                0x5b,          /* FC_END */
/* 534 */

                                0x11, 0x0,      /* FC_RP */
/* 536 */ NdrFcShort( 0xfffffe0 ), /* Offset= -32 (504) */
/* 538 */

                                0x1b,          /* FC_CARRAY */
                                0x3,           /* 3 */
/* 540 */ NdrFcShort( 0x4 ), /* 4 */
/* 542 */ 0x19,              /* Corr desc: field pointer, FC_ULONG */
                                0x0,           /* */
/* 544 */ NdrFcShort( 0x0 ), /* 0 */
/* 546 */

                                0x4b,          /* FC_PP */
                                0x5c,          /* FC_PAD */
/* 548 */

                                0x48,          /* FC_VARIABLE_REPEAT */
                                0x49,          /* FC_FIXED_OFFSET */
/* 550 */ NdrFcShort( 0x4 ), /* 4 */
/* 552 */ NdrFcShort( 0x0 ), /* 0 */
/* 554 */ NdrFcShort( 0x1 ), /* 1 */
/* 556 */ NdrFcShort( 0x0 ), /* 0 */
/* 558 */ NdrFcShort( 0x0 ), /* 0 */
/* 560 */ 0x12, 0x0,          /* FC_UP */
/* 562 */ NdrFcShort( 0x182 ), /* Offset= 386 (948) */
/* 564 */

                                0x5b,          /* FC_END */

                                0x8,           /* FC_LONG */
/* 566 */ 0x5c,              /* FC_PAD */
                                0x5b,          /* FC_END */
/* 568 */

                                0x1a,          /* FC_BOGUS_STRUCT */
                                0x3,           /* 3 */
/* 570 */ NdrFcShort( 0x8 ), /* 8 */
/* 572 */ NdrFcShort( 0x0 ), /* 0 */
/* 574 */ NdrFcShort( 0x6 ), /* Offset= 6 (580) */
/* 576 */ 0x8,              /* FC_LONG */
                                0x36,          /* FC_POINTER */
/* 578 */ 0x5c,              /* FC_PAD */
                                0x5b,          /* FC_END */
/* 580 */

                                0x11, 0x0,      /* FC_RP */
/* 582 */ NdrFcShort( 0xfffffd4 ), /* Offset= -44 (538) */

```

```

/* 584 */
                                0x2f,          /* FC_IP */
                                0x5a,          /* FC_CONSTANT_IID */
/* 586 */ NdrFcLong( 0x2f ), /* 47 */
/* 590 */ NdrFcShort( 0x0 ), /* 0 */
/* 592 */ NdrFcShort( 0x0 ), /* 0 */
/* 594 */ 0xc0, /* 192 */
                                0x0,          /* 0 */
/* 596 */ 0x0, /* 0 */
                                0x0,          /* 0 */
/* 598 */ 0x0, /* 0 */
                                0x0,          /* 0 */
/* 600 */ 0x0, /* 0 */
                                0x46,        /* 70 */
/* 602 */
                                0x1b,        /* FC_CARRAY */
                                0x0,          /* 0 */
/* 604 */ NdrFcShort( 0x1 ), /* 1 */
/* 606 */ 0x19, /* Corr desc: field pointer, FC_ULONG */
                                0x0,          /* */
/* 608 */ NdrFcShort( 0x4 ), /* 4 */
/* 610 */ 0x1, /* FC_BYTE */
                                0x5b,        /* FC_END */
/* 612 */
                                0x1a,        /* FC_BOGUS_STRUCT */
                                0x3,         /* 3 */
/* 614 */ NdrFcShort( 0x10 ), /* 16 */
/* 616 */ NdrFcShort( 0x0 ), /* 0 */
/* 618 */ NdrFcShort( 0xa ), /* Offset= 10 (628) */
/* 620 */ 0x8, /* FC_LONG */
                                0x8,         /* FC_LONG */
/* 622 */ 0x4c, /* FC_EMBEDDED_COMPLEX */
                                0x0,          /* 0 */
/* 624 */ NdrFcShort( 0xfffffd9 ), /* Offset= -40 (584) */
/* 626 */ 0x36, /* FC_POINTER */
                                0x5b,        /* FC_END */
/* 628 */
                                0x12, 0x0,    /* FC_UP */
/* 630 */ NdrFcShort( 0xfffffe4 ), /* Offset= -28 (602) */
/* 632 */
                                0x1b,        /* FC_CARRAY */
                                0x3,         /* 3 */
/* 634 */ NdrFcShort( 0x4 ), /* 4 */
/* 636 */ 0x19, /* Corr desc: field pointer, FC_ULONG */
                                0x0,          /* */
/* 638 */ NdrFcShort( 0x0 ), /* 0 */
/* 640 */
                                0x4b,        /* FC_PP */
                                0x5c,        /* FC_PAD */
/* 642 */
                                0x48,        /* FC_VARIABLE_REPEAT */
                                0x49,        /* FC_FIXED_OFFSET */
/* 644 */ NdrFcShort( 0x4 ), /* 4 */
/* 646 */ NdrFcShort( 0x0 ), /* 0 */
/* 648 */ NdrFcShort( 0x1 ), /* 1 */
/* 650 */ NdrFcShort( 0x0 ), /* 0 */
/* 652 */ NdrFcShort( 0x0 ), /* 0 */
/* 654 */ 0x12, 0x0, /* FC_UP */
/* 656 */ NdrFcShort( 0xfffffd4 ), /* Offset= -44 (612) */
/* 658 */
                                0x5b,        /* FC_END */
                                0x8,         /* FC_LONG */

```

```

/* 660 */ 0x5c, /* FC_PAD */
                                0x5b,        /* FC_END */
/* 662 */
                                0x1a,        /* FC_BOGUS_STRUCT */
                                0x3,         /* 3 */
/* 664 */ NdrFcShort( 0x8 ), /* 8 */
/* 666 */ NdrFcShort( 0x0 ), /* 0 */
/* 668 */ NdrFcShort( 0x6 ), /* Offset= 6 (674) */
/* 670 */ 0x8, /* FC_LONG */
                                0x36,        /* FC_POINTER */
/* 672 */ 0x5c, /* FC_PAD */
                                0x5b,        /* FC_END */
/* 674 */
                                0x11, 0x0,    /* FC_RP */
/* 676 */ NdrFcShort( 0xfffffd4 ), /* Offset= -44 (632) */
/* 678 */
                                0x1d,        /* FC_SMFARRAY */
                                0x0,          /* 0 */
/* 680 */ NdrFcShort( 0x8 ), /* 8 */
/* 682 */ 0x1, /* FC_BYTE */
                                0x5b,        /* FC_END */
/* 684 */
                                0x15,        /* FC_STRUCT */
                                0x3,         /* 3 */
/* 686 */ NdrFcShort( 0x10 ), /* 16 */
/* 688 */ 0x8, /* FC_LONG */
                                0x6,         /* FC_SHORT */
/* 690 */ 0x6, /* FC_SHORT */
                                0x4c,        /* FC_EMBEDDED_COMPLEX */
/* 692 */ 0x0, /* 0 */
                                NdrFcShort( 0xffffff1 ), /* Offset= -15 (678) */
/* 696 */ 0x5b, /* FC_END */
                                0x1a,        /* FC_BOGUS_STRUCT */
                                0x3,         /* 3 */
/* 698 */ NdrFcShort( 0x18 ), /* 24 */
/* 700 */ NdrFcShort( 0x0 ), /* 0 */
/* 702 */ NdrFcShort( 0xa ), /* Offset= 10 (712) */
/* 704 */ 0x8, /* FC_LONG */
                                0x36,        /* FC_POINTER */
/* 706 */ 0x4c, /* FC_EMBEDDED_COMPLEX */
                                0x0,          /* 0 */
/* 708 */ NdrFcShort( 0xfffffe8 ), /* Offset= -24 (684) */
/* 710 */ 0x5c, /* FC_PAD */
                                0x5b,        /* FC_END */
/* 712 */
                                0x11, 0x0,    /* FC_RP */
/* 714 */ NdrFcShort( 0xfffff0c ), /* Offset= -244 (470) */
/* 716 */
                                0x1b,        /* FC_CARRAY */
                                0x0,          /* 0 */
/* 718 */ NdrFcShort( 0x1 ), /* 1 */
/* 720 */ 0x19, /* Corr desc: field pointer, FC_ULONG */
                                0x0,          /* */
/* 722 */ NdrFcShort( 0x0 ), /* 0 */
/* 724 */ 0x1, /* FC_BYTE */
                                0x5b,        /* FC_END */
/* 726 */
                                0x16,        /* FC_PSTRUCT */
                                0x3,         /* 3 */
/* 728 */ NdrFcShort( 0x8 ), /* 8 */
/* 730 */
                                0x4b,        /* FC_PP */

```

```

/* 732 */          0x5c,          /* FC_PAD */
/* 734 */ NdrFcShort( 0x4 ), /* 4 */
/* 736 */ NdrFcShort( 0x4 ), /* 4 */
/* 738 */ 0x12, 0x0, /* FC_UP */
/* 740 */ NdrFcShort( 0xffffffe8 ), /* Offset= -24 (716) */
/* 742 */
          0x5b,          /* FC_END */
          0x8,          /* FC_LONG */
/* 744 */ 0x8,          /* FC_LONG */
          0x5b,          /* FC_END */
/* 746 */
          0x1b,          /* FC_CARRAY */
          0x1,          /* 1 */
/* 748 */ NdrFcShort( 0x2 ), /* 2 */
/* 750 */ 0x19, /* Corr desc: field pointer, FC_ULONG */
          0x0,          /* */
/* 752 */ NdrFcShort( 0x0 ), /* 0 */
/* 754 */ 0x6, /* FC_SHORT */
          0x5b,          /* FC_END */
/* 756 */
          0x16,          /* FC_PSTRUCT */
          0x3,          /* 3 */
/* 758 */ NdrFcShort( 0x8 ), /* 8 */
/* 760 */
          0x4b,          /* FC_PP */
          0x5c,          /* FC_PAD */
/* 762 */
          0x46,          /* FC_NO_REPEAT */
          0x5c,          /* FC_PAD */
/* 764 */ NdrFcShort( 0x4 ), /* 4 */
/* 766 */ NdrFcShort( 0x4 ), /* 4 */
/* 768 */ 0x12, 0x0, /* FC_UP */
/* 770 */ NdrFcShort( 0xffffffe8 ), /* Offset= -24 (746) */
/* 772 */
          0x5b,          /* FC_END */
          0x8,          /* FC_LONG */
/* 774 */ 0x8,          /* FC_LONG */
          0x5b,          /* FC_END */
/* 776 */
          0x1b,          /* FC_CARRAY */
          0x3,          /* 3 */
/* 778 */ NdrFcShort( 0x4 ), /* 4 */
/* 780 */ 0x19, /* Corr desc: field pointer, FC_ULONG */
          0x0,          /* */
/* 782 */ NdrFcShort( 0x0 ), /* 0 */
/* 784 */ 0x8, /* FC_LONG */
          0x5b,          /* FC_END */
/* 786 */
          0x16,          /* FC_PSTRUCT */
          0x3,          /* 3 */
/* 788 */ NdrFcShort( 0x8 ), /* 8 */
/* 790 */
          0x4b,          /* FC_PP */
          0x5c,          /* FC_PAD */
/* 792 */
          0x46,          /* FC_NO_REPEAT */
          0x5c,          /* FC_PAD */
/* 794 */ NdrFcShort( 0x4 ), /* 4 */

```

```

/* 796 */ NdrFcShort( 0x4 ), /* 4 */
/* 798 */ 0x12, 0x0, /* FC_UP */
/* 800 */ NdrFcShort( 0xffffffe8 ), /* Offset= -24 (776) */
/* 802 */
          0x5b,          /* FC_END */
          0x8,          /* FC_LONG */
/* 804 */ 0x8,          /* FC_LONG */
          0x5b,          /* FC_END */
/* 806 */
          0x1b,          /* FC_CARRAY */
          0x7,          /* 7 */
/* 808 */ NdrFcShort( 0x8 ), /* 8 */
/* 810 */ 0x19, /* Corr desc: field pointer, FC_ULONG */
          0x0,          /* */
/* 812 */ NdrFcShort( 0x0 ), /* 0 */
/* 814 */ 0xb, /* FC_HYPER */
          0x5b,          /* FC_END */
/* 816 */
          0x16,          /* FC_PSTRUCT */
          0x3,          /* 3 */
/* 818 */ NdrFcShort( 0x8 ), /* 8 */
/* 820 */
          0x4b,          /* FC_PP */
          0x5c,          /* FC_PAD */
/* 822 */
          0x46,          /* FC_NO_REPEAT */
          0x5c,          /* FC_PAD */
/* 824 */ NdrFcShort( 0x4 ), /* 4 */
/* 826 */ NdrFcShort( 0x4 ), /* 4 */
/* 828 */ 0x12, 0x0, /* FC_UP */
/* 830 */ NdrFcShort( 0xffffffe8 ), /* Offset= -24 (806) */
/* 832 */
          0x5b,          /* FC_END */
          0x8,          /* FC_LONG */
/* 834 */ 0x8,          /* FC_LONG */
          0x5b,          /* FC_END */
/* 836 */
          0x15,          /* FC_STRUCT */
          0x3,          /* 3 */
/* 838 */ NdrFcShort( 0x8 ), /* 8 */
/* 840 */ 0x8, /* FC_LONG */
          0x8,          /* FC_LONG */
          0x5b,          /* FC_PAD */
          0x5b,          /* FC_END */
/* 844 */
          0x1b,          /* FC_CARRAY */
          0x3,          /* 3 */
/* 846 */ NdrFcShort( 0x8 ), /* 8 */
/* 848 */ 0x7, /* Corr desc: FC_USHORT */
          0x0,          /* */
/* 850 */ NdrFcShort( 0xfffd8 ), /* -40 */
/* 852 */ 0x4c, /* FC_EMBEDDED_COMPLEX */
          0x0,          /* 0 */
/* 854 */ NdrFcShort( 0xfffffee ), /* Offset= -18 (836) */
/* 856 */ 0x5c, /* FC_PAD */
          0x5b,          /* FC_END */
/* 858 */
          0x1a,          /* FC_BOGUS_STRUCT */
          0x3,          /* 3 */
/* 860 */ NdrFcShort( 0x28 ), /* 40 */
/* 862 */ NdrFcShort( 0xfffffee ), /* Offset= -18 (844) */

```

```

/* 864 */ NdrFcShort( 0x0 ), /* Offset= 0 (864) */
/* 866 */ 0x6, /* FC_SHORT */
/* 868 */ 0x38, /* FC_ALIGNM4 */
/* 870 */ 0x8, /* FC_LONG */
/* 872 */ 0x0, /* FC_EMBEDDED_COMPLEX */
/* 876 */ NdrFcShort( 0xffffdf7 ), /* Offset= -521 (352) */
/* 878 */ 0x5b, /* FC_END */
/* 880 */ 0x12, 0x0, /* FC_UP */
/* 882 */ NdrFcShort( 0xffffef6 ), /* Offset= -266 (612) */
/* 884 */ 0x12, 0x8, /* FC_UP [simple_pointer] */
/* 886 */ 0x1, /* FC_BYTE */
/* 888 */ 0x5c, /* FC_PAD */
/* 890 */ 0x12, 0x8, /* FC_UP [simple_pointer] */
/* 892 */ 0x1, /* FC_BYTE */
/* 894 */ 0x5c, /* FC_PAD */
/* 896 */ 0x12, 0x8, /* FC_UP [simple_pointer] */
/* 898 */ 0xa, /* FC_FLOAT */
/* 900 */ 0x5c, /* FC_PAD */
/* 902 */ 0x12, 0x0, /* FC_UP */
/* 904 */ NdrFcShort( 0xfffffd90 ), /* Offset= -624 (278) */
/* 906 */ 0x12, 0x10, /* FC_UP [pointer_deref] */
/* 908 */ NdrFcShort( 0xfffffd92 ), /* Offset= -622 (284) */
/* 910 */ 0x12, 0x10, /* FC_UP [pointer_deref] */
/* 912 */ NdrFcShort( 0xffffda6 ), /* Offset= -602 (308) */
/* 914 */ 0x12, 0x10, /* FC_UP [pointer_deref] */
/* 916 */ NdrFcShort( 0xffffdb4 ), /* Offset= -588 (326) */
/* 918 */ 0x12, 0x10, /* FC_UP [pointer_deref] */
/* 920 */ NdrFcShort( 0xffffdc2 ), /* Offset= -574 (344) */
/* 922 */ 0x12, 0x10, /* FC_UP [pointer_deref] */
/* 924 */ NdrFcShort( 0x2 ), /* Offset= 2 (924) */
/* 926 */ 0x12, 0x0, /* FC_UP */
/* 928 */ NdrFcShort( 0x16 ), /* Offset= 22 (948) */
/* 930 */ 0x15, /* FC_STRUCT */
/* 932 */ 0x7, /* FC_UP */
/* 934 */ 0x1, /* FC_BYTE */
/* 936 */ 0x8, /* FC_ALIGNM4 */

```

```

/* 938 */ 0xb, /* FC_ALIGNM8 */
/* 940 */ 0x5b, /* FC_HYPER */
/* 942 */ 0x12, 0x0, /* FC_UP */
/* 944 */ NdrFcShort( 0xffffff2 ), /* Offset= -14 (928) */
/* 946 */ 0x12, 0x8, /* FC_UP [simple_pointer] */
/* 948 */ 0x5c, /* FC_CHAR */
/* 950 */ 0x1a, /* FC_BOGUS_STRUCT */
/* 952 */ 0x7, /* FC_UP */
/* 954 */ NdrFcShort( 0x20 ), /* FC_UP */
/* 956 */ NdrFcShort( 0x0 ), /* FC_UP */
/* 958 */ 0x5c, /* FC_PAD */
/* 960 */ 0x6, /* FC_SHORT */
/* 962 */ 0x4c, /* FC_SHORT */
/* 964 */ NdrFcShort( 0xfffffc42 ), /* Offset= -958 (6) */
/* 966 */ 0x5c, /* FC_PAD */
/* 968 */ 0xb4, /* FC_USER_MARSHAL */
/* 970 */ 0x83, /* FC_END */
/* 972 */ NdrFcShort( 0x0 ), /* FC_UP */
/* 974 */ NdrFcShort( 0x10 ), /* FC_UP */
/* 976 */ NdrFcShort( 0x0 ), /* FC_UP */
/* 978 */ NdrFcShort( 0xfffffc32 ), /* Offset= -974 (2) */
/* 980 */ 0x11, 0x4, /* FC_UP */
/* 982 */ NdrFcShort( 0x6 ), /* Offset= 6 (986) */
/* 984 */ 0x13, 0x0, /* FC_OP */
/* 986 */ NdrFcShort( 0xfffffdc ), /* Offset= -36 (948) */
/* 988 */ 0xb4, /* FC_USER_MARSHAL */
/* 990 */ 0x83, /* FC_END */
/* 992 */ NdrFcShort( 0x0 ), /* FC_UP */
/* 994 */ NdrFcShort( 0xffffff4 ), /* Offset= -12 (982) */
/* 996 */ 0x0
};
const CInterfaceProxyVtbl * _tpcc_com_ps_ProxyVtblList[] =
{
( CInterfaceProxyVtbl *) &ITPCCProxyVtbl,
0
};
const CInterfaceStubVtbl * _tpcc_com_ps_StubVtblList[] =
{
( CInterfaceStubVtbl *) &ITPCCStubVtbl,
0
};
PCInterfaceName const _tpcc_com_ps_InterfaceNamesList[] =

```



```

{
    "ITPCC",
    0
};

#define _tpcc_com_ps_CHECK_IID(n) IID_GENERIC_CHECK_IID( _tpcc_com_ps, pIID,
n)

int __stdcall _tpcc_com_ps_IID_Lookup( const IID * pIID, int * pIndex )
{
    if(!_tpcc_com_ps_CHECK_IID(0))
    {
        *pIndex = 0;
        return 1;
    }

    return 0;
}

const ExtendedProxyFileInfo tpcc_com_ps_ProxyFileInfo =
{
    (PCInterfaceProxyVtblList *) & _tpcc_com_ps_ProxyVtblList,
    (PCInterfaceStubVtblList *) & _tpcc_com_ps_StubVtblList,
    (const PCInterfaceName * ) & _tpcc_com_ps_InterfaceNamesList,
    0, // no delegation
    & _tpcc_com_ps_IID_Lookup,
    1,
    2,
    0, /* table of [async_uuid] interfaces */
    0, /* Filler1 */
    0, /* Filler2 */
    0 /* Filler3 */
};

#endif /* !defined(_M_IA64) && !defined(_M_AXP64)*/

#pragma warning( disable: 4049 ) /* more than 64k source lines */

/* this ALWAYS GENERATED file contains the proxy stub code */

/* File created by MIDL compiler version 5.03.0280 */
/* at Thu Dec 13 23:13:08 2001
*/
/* Compiler settings for .\src\tpcc_com_ps.idl:
Oicf (OptLev=i2), Wl, Zp8, env=Win64 (32b run,appending), ms_ext, c_ext, robust
error checks: allocation ref bounds_check enum stub_data
VC __declspec() decoration level:
__declspec(uuid()), __declspec(selectany), __declspec(novtable)
DECLSPEC_UUID(), MIDL_INTERFACE()
*/
//@@MIDL_FILE_HEADING( )

#if defined(_M_IA64) || defined(_M_AXP64)
#define USE_STUBLESS_PROXY

/* verify that the <rpcproxy.h> version is high enough to compile this file*/
#endif

```

```

#define __REQUIRED_RPCPROXY_H_VERSION__ 475
#endif

#include "rpcproxy.h"
#ifdef __RPCPROXY_H_VERSION__
#error this stub requires an updated version of <rpcproxy.h>
#endif // __RPCPROXY_H_VERSION__

#include "tpcc_com_ps.h"

#define TYPE_FORMAT_STRING_SIZE 979
#define PROC_FORMAT_STRING_SIZE 253
#define TRANSMIT_AS_TABLE_SIZE 0
#define WIRE_MARSHAL_TABLE_SIZE 1

typedef struct _MIDL_TYPE_FORMAT_STRING
{
    short Pad;
    unsigned char Format[ TYPE_FORMAT_STRING_SIZE ];
} MIDL_TYPE_FORMAT_STRING;

typedef struct _MIDL_PROC_FORMAT_STRING
{
    short Pad;
    unsigned char Format[ PROC_FORMAT_STRING_SIZE ];
} MIDL_PROC_FORMAT_STRING;

extern const MIDL_TYPE_FORMAT_STRING __MIDL_TypeFormatString;
extern const MIDL_PROC_FORMAT_STRING __MIDL_ProcFormatString;

/* Standard interface: __MIDL_itf_tpcc_com_ps_0000, ver. 0.0,
GUID={0x00000000,0x0000,0x0000,{0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00}} */

/* Object interface: IUnknown, ver. 0.0,
GUID={0x00000000,0x0000,0x0000,{0xc0,0x00,0x00,0x00,0x00,0x00,0x00,0x46}} */

/* Object interface: ITPCC, ver. 0.0,
GUID={0xFEE6AA2,0x84B1,0x11d2,{0xBA,0x47,0x00,0xC0,0x4F,0xBF,0xE0,0x8B}} */

extern const MIDL_STUB_DESC Object_StubDesc;

extern const MIDL_SERVER_INFO ITPCC_ServerInfo;

#pragma code_seg(".orpc")
static const unsigned short ITPCC_FormatStringOffsetTable[] =
{
    0,
    44,
    88,
    132,
    176,
    220
};

static const MIDL_SERVER_INFO ITPCC_ServerInfo =

```

```

    {
    &Object_StubDesc,
    0,
    __MIDL_ProcFormatString.Format,
    &ITPCC_FormatStringOffsetTable[-3],
    0,
    0,
    0,
    0,
    0
    };

static const MIDL_STUBLESS_PROXY_INFO ITPCC_ProxyInfo =
{
    &Object_StubDesc,
    __MIDL_ProcFormatString.Format,
    &ITPCC_FormatStringOffsetTable[-3],
    0,
    0,
    0,
    0
};

CINTERFACE_PROXY_VTABLE(9) _ITPCCProxyVtbl =
{
    &ITPCC_ProxyInfo,
    &IID_ITPCC,
    IUnknown_QueryInterface_Proxy,
    IUnknown_AddRef_Proxy,
    IUnknown_Release_Proxy,
    (void *)-1 /* ITPCC::NewOrder */ ,
    (void *)-1 /* ITPCC::Payment */ ,
    (void *)-1 /* ITPCC::Delivery */ ,
    (void *)-1 /* ITPCC::StockLevel */ ,
    (void *)-1 /* ITPCC::OrderStatus */ ,
    (void *)-1 /* ITPCC::CallSetComplete */
};

const CInterfaceStubVtbl _ITPCCStubVtbl =
{
    &IID_ITPCC,
    &ITPCC_ServerInfo,
    9,
    0, /* pure interpreted */
    CStdStubBuffer_METHODS
};

extern const USER_MARSHAL_ROUTINE_QUADRUPLE UserMarshalRoutines[
WIRE_MARSHAL_TABLE_SIZE ];

static const MIDL_STUB_DESC Object_StubDesc =
{
    0,
    NdrOleAllocate,
    NdrOleFree,
    0,
    0,
    0,
    0,
    0,
    0,
    __MIDL_TypeFormatString.Format,
    1, /* -error bounds_check flag */
    0x50002, /* Ndr library version */
    0,
    0x5030118, /* MIDL Version 5.3.280 */
};

```

```

0,
UserMarshalRoutines,
0, /* notify & notify_flag routine table */
0x1, /* MIDL flag */
0, /* Reserved3 */
0, /* Reserved4 */
0 /* Reserved5 */
};

#pragma data_seg(".rdata")

static const USER_MARSHAL_ROUTINE_QUADRUPLE UserMarshalRoutines[
WIRE_MARSHAL_TABLE_SIZE ] =
{
    {
        VARIANT_UserSize
        ,VARIANT_UserMarshal
        ,VARIANT_UserUnmarshal
        ,VARIANT_UserFree
    }
};

#if !defined(__RPC_WIN64__)
#error Invalid build platform for this stub.
#endif

static const MIDL_PROC_FORMAT_STRING __MIDL_ProcFormatString =
{
    0,
    {
        /* Procedure NewOrder */

        0x33, /* FC_AUTO_HANDLE */
        0x6c, /* Old Flags: object, Oi2 */

        /* 2 */ NdrFcLong( 0x0 ), /* 0 */
        /* 6 */ NdrFcShort( 0x3 ), /* 3 */
#ifdef _ALPHA_
        /* 8 */ NdrFcShort( 0x38 ), /* ia64 Stack size/offset = 56 */
#else
        NdrFcShort( 0x30 ), /* xpp64 Stack size/offset = 48 */
#endif
        /* 10 */ NdrFcShort( 0x0 ), /* 0 */
        /* 12 */ NdrFcShort( 0x8 ), /* 8 */
        /* 14 */ 0x47, /* Oi2 Flags: srv must size, clt must size, has
return, has ext, */

        0x3, /* 3 */
        /* 16 */ 0xa, /* 10 */
        0x7, /* Ext Flags: new corr desc, clt
corr check, srv corr check, */
        /* 18 */ NdrFcShort( 0x20 ), /* 32 */
        /* 20 */ NdrFcShort( 0x20 ), /* 32 */
        /* 22 */ NdrFcShort( 0x0 ), /* 0 */
        /* 24 */ NdrFcShort( 0x0 ), /* 0 */

        /* Parameter txn_in */

        /* 26 */ NdrFcShort( 0x8b ), /* Flags: must size, must free, in, by val, */
#ifdef _ALPHA_
        /* 28 */ NdrFcShort( 0x10 ), /* ia64 Stack size/offset = 16 */

```

```

#else
                                NdrFcShort( 0x8 ), /* axp64 Stack size/offset = 8 */
#endif
/* 30 */ NdrFcShort( 0x3b6 ), /* Type Offset=950 */
/* Parameter txn_out */
/* 32 */ NdrFcShort( 0x6113 ), /* Flags: must size, must free, out, simple
ref, srv alloc size=24 */
#ifndef _ALPHA_
/* 34 */ NdrFcShort( 0x28 ), /* ia64 Stack size/offset = 40 */
#else
                                NdrFcShort( 0x20 ), /* axp64 Stack size/offset = 32 */
#endif
/* 36 */ NdrFcShort( 0x3c8 ), /* Type Offset=968 */
/* Return value */
/* 38 */ NdrFcShort( 0x70 ), /* Flags: out, return, base type, */
#ifndef _ALPHA_
/* 40 */ NdrFcShort( 0x30 ), /* ia64 Stack size/offset = 48 */
#else
                                NdrFcShort( 0x28 ), /* axp64 Stack size/offset = 40 */
#endif
/* 42 */ 0x8, /* FC_LONG */
0x0, /* 0 */
/* Procedure Payment */
/* 44 */ 0x33, /* FC_AUTO_HANDLE */
0x6c, /* Old Flags: object, Oi2 */
/* 46 */ NdrFcLong( 0x0 ), /* 0 */
/* 50 */ NdrFcShort( 0x4 ), /* 4 */
#ifndef _ALPHA_
/* 52 */ NdrFcShort( 0x38 ), /* ia64 Stack size/offset = 56 */
#else
                                NdrFcShort( 0x30 ), /* axp64 Stack size/offset = 48 */
#endif
/* 54 */ NdrFcShort( 0x0 ), /* 0 */
/* 56 */ NdrFcShort( 0x8 ), /* 8 */
/* 58 */ 0x47, /* Oi2 Flags: srv must size, clt must size, has
return, has ext, */
0x3, /* 3 */
/* 60 */ 0xa, /* 10 */
0x7, /* Ext Flags: new corr desc, clt
corr check, srv corr check, */
/* 62 */ NdrFcShort( 0x20 ), /* 32 */
/* 64 */ NdrFcShort( 0x20 ), /* 32 */
/* 66 */ NdrFcShort( 0x0 ), /* 0 */
/* 68 */ NdrFcShort( 0x0 ), /* 0 */
/* Parameter txn_in */
/* 70 */ NdrFcShort( 0x8b ), /* Flags: must size, must free, in, by val, */
#ifndef _ALPHA_
/* 72 */ NdrFcShort( 0x10 ), /* ia64 Stack size/offset = 16 */
#else
                                NdrFcShort( 0x8 ), /* axp64 Stack size/offset = 8 */
#endif
/* 74 */ NdrFcShort( 0x3b6 ), /* Type Offset=950 */
/* Parameter txn_out */

```

```

/* 76 */ NdrFcShort( 0x6113 ), /* Flags: must size, must free, out, simple
ref, srv alloc size=24 */
#ifndef _ALPHA_
/* 78 */ NdrFcShort( 0x28 ), /* ia64 Stack size/offset = 40 */
#else
                                NdrFcShort( 0x20 ), /* axp64 Stack size/offset = 32 */
#endif
/* 80 */ NdrFcShort( 0x3c8 ), /* Type Offset=968 */
/* Return value */
/* 82 */ NdrFcShort( 0x70 ), /* Flags: out, return, base type, */
#ifndef _ALPHA_
/* 84 */ NdrFcShort( 0x30 ), /* ia64 Stack size/offset = 48 */
#else
                                NdrFcShort( 0x28 ), /* axp64 Stack size/offset = 40 */
#endif
/* 86 */ 0x8, /* FC_LONG */
0x0, /* 0 */
/* Procedure Delivery */
/* 88 */ 0x33, /* FC_AUTO_HANDLE */
0x6c, /* Old Flags: object, Oi2 */
/* 90 */ NdrFcLong( 0x0 ), /* 0 */
/* 94 */ NdrFcShort( 0x5 ), /* 5 */
#ifndef _ALPHA_
/* 96 */ NdrFcShort( 0x38 ), /* ia64 Stack size/offset = 56 */
#else
                                NdrFcShort( 0x30 ), /* axp64 Stack size/offset = 48 */
#endif
/* 98 */ NdrFcShort( 0x0 ), /* 0 */
/* 100 */ NdrFcShort( 0x8 ), /* 8 */
/* 102 */ 0x47, /* Oi2 Flags: srv must size, clt must size, has
return, has ext, */
0x3, /* 3 */
/* 104 */ 0xa, /* 10 */
0x7, /* Ext Flags: new corr desc, clt
corr check, srv corr check, */
/* 106 */ NdrFcShort( 0x20 ), /* 32 */
/* 108 */ NdrFcShort( 0x20 ), /* 32 */
/* 110 */ NdrFcShort( 0x0 ), /* 0 */
/* 112 */ NdrFcShort( 0x0 ), /* 0 */
/* Parameter txn_in */
/* 114 */ NdrFcShort( 0x8b ), /* Flags: must size, must free, in, by val, */
#ifndef _ALPHA_
/* 116 */ NdrFcShort( 0x10 ), /* ia64 Stack size/offset = 16 */
#else
                                NdrFcShort( 0x8 ), /* axp64 Stack size/offset = 8 */
#endif
/* 118 */ NdrFcShort( 0x3b6 ), /* Type Offset=950 */
/* Parameter txn_out */
/* 120 */ NdrFcShort( 0x6113 ), /* Flags: must size, must free, out, simple
ref, srv alloc size=24 */
#ifndef _ALPHA_
/* 122 */ NdrFcShort( 0x28 ), /* ia64 Stack size/offset = 40 */
#else
                                NdrFcShort( 0x20 ), /* axp64 Stack size/offset = 32 */
#endif

```

```

/* 124 */ NdrFcShort( 0x3c8 ),          /* Type Offset=968 */

        /* Return value */

/* 126 */ NdrFcShort( 0x70 ), /* Flags: out, return, base type, */
#ifdef _ALPHA_
/* 128 */ NdrFcShort( 0x30 ), /* ia64 Stack size/offset = 48 */
#else
        NdrFcShort( 0x28 ), /* axp64 Stack size/offset = 40 */
#endif
/* 130 */ 0x8,          /* FC_LONG */
                0x0,          /* 0 */

        /* Procedure StockLevel */

/* 132 */ 0x33,          /* FC_AUTO_HANDLE */
                0x6c,          /* Old Flags: object, Oi2 */
/* 134 */ NdrFcLong( 0x0 ), /* 0 */
/* 138 */ NdrFcShort( 0x6 ), /* 6 */
#ifdef _ALPHA_
/* 140 */ NdrFcShort( 0x38 ), /* ia64 Stack size/offset = 56 */
#else
        NdrFcShort( 0x30 ), /* axp64 Stack size/offset = 48 */
#endif
/* 142 */ NdrFcShort( 0x0 ), /* 0 */
/* 144 */ NdrFcShort( 0x8 ), /* 8 */
/* 146 */ 0x47,          /* Oi2 Flags: srv must size, clt must size, has
return, has ext, */
                0x3,          /* 3 */
/* 148 */ 0xa,          /* 10 */
                0x7,          /* Ext Flags: new corr desc, clt
corr check, srv corr check, */
/* 150 */ NdrFcShort( 0x20 ), /* 32 */
/* 152 */ NdrFcShort( 0x20 ), /* 32 */
/* 154 */ NdrFcShort( 0x0 ), /* 0 */
/* 156 */ NdrFcShort( 0x0 ), /* 0 */

        /* Parameter txn_in */

/* 158 */ NdrFcShort( 0x8b ), /* Flags: must size, must free, in, by val, */
#ifdef _ALPHA_
/* 160 */ NdrFcShort( 0x10 ), /* ia64 Stack size/offset = 16 */
#else
        NdrFcShort( 0x8 ), /* axp64 Stack size/offset = 8 */
#endif
/* 162 */ NdrFcShort( 0x3b6 ),          /* Type Offset=950 */

        /* Parameter txn_out */

/* 164 */ NdrFcShort( 0x6113 ),          /* Flags: must size, must free, out, simple
ref, srv alloc size=24 */
#ifdef _ALPHA_
/* 166 */ NdrFcShort( 0x28 ), /* ia64 Stack size/offset = 40 */
#else
        NdrFcShort( 0x20 ), /* axp64 Stack size/offset = 32 */
#endif
/* 168 */ NdrFcShort( 0x3c8 ),          /* Type Offset=968 */

        /* Return value */

/* 170 */ NdrFcShort( 0x70 ), /* Flags: out, return, base type, */
#ifdef _ALPHA_
/* 172 */ NdrFcShort( 0x30 ), /* ia64 Stack size/offset = 48 */

```

```

#else
        NdrFcShort( 0x28 ), /* axp64 Stack size/offset = 40 */
#endif
/* 174 */ 0x8,          /* FC_LONG */
                0x0,          /* 0 */

        /* Procedure OrderStatus */

/* 176 */ 0x33,          /* FC_AUTO_HANDLE */
                0x6c,          /* Old Flags: object, Oi2 */
/* 178 */ NdrFcLong( 0x0 ), /* 0 */
/* 182 */ NdrFcShort( 0x7 ), /* 7 */
#ifdef _ALPHA_
/* 184 */ NdrFcShort( 0x38 ), /* ia64 Stack size/offset = 56 */
#else
        NdrFcShort( 0x30 ), /* axp64 Stack size/offset = 48 */
#endif
/* 186 */ NdrFcShort( 0x0 ), /* 0 */
/* 188 */ NdrFcShort( 0x8 ), /* 8 */
/* 190 */ 0x47,          /* Oi2 Flags: srv must size, clt must size, has
return, has ext, */
                0x3,          /* 3 */
/* 192 */ 0xa,          /* 10 */
                0x7,          /* Ext Flags: new corr desc, clt
corr check, srv corr check, */
/* 194 */ NdrFcShort( 0x20 ), /* 32 */
/* 196 */ NdrFcShort( 0x20 ), /* 32 */
/* 198 */ NdrFcShort( 0x0 ), /* 0 */
/* 200 */ NdrFcShort( 0x0 ), /* 0 */

        /* Parameter txn_in */

/* 202 */ NdrFcShort( 0x8b ), /* Flags: must size, must free, in, by val, */
#ifdef _ALPHA_
/* 204 */ NdrFcShort( 0x10 ), /* ia64 Stack size/offset = 16 */
#else
        NdrFcShort( 0x8 ), /* axp64 Stack size/offset = 8 */
#endif
/* 206 */ NdrFcShort( 0x3b6 ),          /* Type Offset=950 */

        /* Parameter txn_out */

/* 208 */ NdrFcShort( 0x6113 ),          /* Flags: must size, must free, out, simple
ref, srv alloc size=24 */
#ifdef _ALPHA_
/* 210 */ NdrFcShort( 0x28 ), /* ia64 Stack size/offset = 40 */
#else
        NdrFcShort( 0x20 ), /* axp64 Stack size/offset = 32 */
#endif
/* 212 */ NdrFcShort( 0x3c8 ),          /* Type Offset=968 */

        /* Return value */

/* 214 */ NdrFcShort( 0x70 ), /* Flags: out, return, base type, */
#ifdef _ALPHA_
/* 216 */ NdrFcShort( 0x30 ), /* ia64 Stack size/offset = 48 */
#else
        NdrFcShort( 0x28 ), /* axp64 Stack size/offset = 40 */
#endif
/* 218 */ 0x8,          /* FC_LONG */
                0x0,          /* 0 */

        /* Procedure CallSetComplete */

```

```

/* 220 */ 0x33,          /* FC_AUTO_HANDLE */
0x6c,          /* Old Flags: object, Oi2 */
/* 222 */ NdrFcLong( 0x0 ), /* 0 */
/* 226 */ NdrFcShort( 0x8 ), /* 8 */
/* 228 */ NdrFcShort( 0x10 ), /* ia64, axp64 Stack size/offset = 16 */
/* 230 */ NdrFcShort( 0x0 ), /* 0 */
/* 232 */ NdrFcShort( 0x8 ), /* 8 */
/* 234 */ 0x44,        /* Oi2 Flags: has return, has ext, */
0x1,          /* 1 */
/* 236 */ 0xa,        /* 10 */
0x1,          /* Ext Flags: new corr desc, */
/* 238 */ NdrFcShort( 0x0 ), /* 0 */
/* 240 */ NdrFcShort( 0x0 ), /* 0 */
/* 242 */ NdrFcShort( 0x0 ), /* 0 */
/* 244 */ NdrFcShort( 0x0 ), /* 0 */

    /* Return value */

/* 246 */ NdrFcShort( 0x70 ), /* Flags: out, return, base type, */
/* 248 */ NdrFcShort( 0x8 ), /* ia64, axp64 Stack size/offset = 8 */
/* 250 */ 0x8,          /* FC_LONG */
0x0,          /* 0 */
0x0

    }
};

static const MIDL_TYPE_FORMAT_STRING __MIDL_TypeFormatString =
{
    0,
    {
        NdrFcShort( 0x0 ), /* 0 */
/* 2 */
0x12, 0x0, /* FC_UP */
/* 4 */ NdrFcShort( 0x39e ), /* Offset= 926 (930) */
/* 6 */
0x2b, /* FC_NON_ENCAPSULATED_UNION */
0x9, /* FC_ULONG */
/* 8 */ 0x7, /* Corr desc: FC_USHORT */
0x0, /* */
/* 10 */ NdrFcShort( 0xffff8 ), /* -8 */
/* 12 */ NdrFcShort( 0x1 ), /* Corr flags: early, */
/* 14 */ NdrFcShort( 0x2 ), /* Offset= 2 (16) */
/* 16 */ NdrFcShort( 0x10 ), /* 16 */
/* 18 */ NdrFcShort( 0x2b ), /* 43 */
/* 20 */ NdrFcLong( 0x3 ), /* 3 */
/* 24 */ NdrFcShort( 0x8008 ), /* Simple arm type: FC_LONG */
/* 26 */ NdrFcLong( 0x11 ), /* 17 */
/* 30 */ NdrFcShort( 0x8001 ), /* Simple arm type: FC_BYTE */
/* 32 */ NdrFcLong( 0x2 ), /* 2 */
/* 36 */ NdrFcShort( 0x8006 ), /* Simple arm type: FC_SHORT */
/* 38 */ NdrFcLong( 0x4 ), /* 4 */
/* 42 */ NdrFcShort( 0x800a ), /* Simple arm type: FC_FLOAT */
/* 44 */ NdrFcLong( 0x5 ), /* 5 */
/* 48 */ NdrFcShort( 0x800c ), /* Simple arm type: FC_DOUBLE */
/* 50 */ NdrFcLong( 0xb ), /* 11 */
/* 54 */ NdrFcShort( 0x8006 ), /* Simple arm type: FC_SHORT */
/* 56 */ NdrFcLong( 0xa ), /* 10 */
/* 60 */ NdrFcShort( 0x8008 ), /* Simple arm type: FC_LONG */
/* 62 */ NdrFcLong( 0x6 ), /* 6 */
/* 66 */ NdrFcShort( 0xd6 ), /* Offset= 214 (280) */
/* 68 */ NdrFcLong( 0x7 ), /* 7 */

```

```

/* 72 */ NdrFcShort( 0x800c ), /* Simple arm type: FC_DOUBLE */
/* 74 */ NdrFcLong( 0x8 ), /* 8 */
/* 78 */ NdrFcShort( 0xd0 ), /* Offset= 208 (286) */
/* 80 */ NdrFcLong( 0xd ), /* 13 */
/* 84 */ NdrFcShort( 0xe4 ), /* Offset= 228 (312) */
/* 86 */ NdrFcLong( 0x9 ), /* 9 */
/* 90 */ NdrFcShort( 0xf0 ), /* Offset= 240 (330) */
/* 92 */ NdrFcLong( 0x2000 ), /* 8192 */
/* 96 */ NdrFcShort( 0xfc ), /* Offset= 252 (348) */
/* 98 */ NdrFcLong( 0x24 ), /* 36 */
/* 102 */ NdrFcShort( 0x2f4 ), /* Offset= 756 (858) */
/* 104 */ NdrFcLong( 0x4024 ), /* 16420 */
/* 108 */ NdrFcShort( 0x2ee ), /* Offset= 750 (858) */
/* 110 */ NdrFcLong( 0x4011 ), /* 16401 */
/* 114 */ NdrFcShort( 0x2ec ), /* Offset= 748 (862) */
/* 116 */ NdrFcLong( 0x4002 ), /* 16386 */
/* 120 */ NdrFcShort( 0x2ea ), /* Offset= 746 (866) */
/* 122 */ NdrFcLong( 0x4003 ), /* 16387 */
/* 126 */ NdrFcShort( 0x2e8 ), /* Offset= 744 (870) */
/* 128 */ NdrFcLong( 0x4004 ), /* 16388 */
/* 132 */ NdrFcShort( 0x2e6 ), /* Offset= 742 (874) */
/* 134 */ NdrFcLong( 0x4005 ), /* 16389 */
/* 138 */ NdrFcShort( 0x2e4 ), /* Offset= 740 (878) */
/* 140 */ NdrFcLong( 0x400b ), /* 16395 */
/* 144 */ NdrFcShort( 0x2d2 ), /* Offset= 722 (866) */
/* 146 */ NdrFcLong( 0x400a ), /* 16394 */
/* 150 */ NdrFcShort( 0x2d0 ), /* Offset= 720 (870) */
/* 152 */ NdrFcLong( 0x4006 ), /* 16390 */
/* 156 */ NdrFcShort( 0x2d6 ), /* Offset= 726 (882) */
/* 158 */ NdrFcLong( 0x4007 ), /* 16391 */
/* 162 */ NdrFcShort( 0x2cc ), /* Offset= 716 (878) */
/* 164 */ NdrFcLong( 0x4008 ), /* 16392 */
/* 168 */ NdrFcShort( 0x2ce ), /* Offset= 718 (886) */
/* 170 */ NdrFcLong( 0x400d ), /* 16397 */
/* 174 */ NdrFcShort( 0x2cc ), /* Offset= 716 (890) */
/* 176 */ NdrFcLong( 0x4009 ), /* 16393 */
/* 180 */ NdrFcShort( 0x2ca ), /* Offset= 714 (894) */
/* 182 */ NdrFcLong( 0x6000 ), /* 24576 */
/* 186 */ NdrFcShort( 0x2c8 ), /* Offset= 712 (898) */
/* 188 */ NdrFcLong( 0x400c ), /* 16396 */
/* 192 */ NdrFcShort( 0x2c6 ), /* Offset= 710 (902) */
/* 194 */ NdrFcLong( 0x10 ), /* 16 */
/* 198 */ NdrFcShort( 0x8002 ), /* Simple arm type: FC_CHAR */
/* 200 */ NdrFcLong( 0x12 ), /* 18 */
/* 204 */ NdrFcShort( 0x8006 ), /* Simple arm type: FC_SHORT */
/* 206 */ NdrFcLong( 0x13 ), /* 19 */
/* 210 */ NdrFcShort( 0x8008 ), /* Simple arm type: FC_LONG */
/* 212 */ NdrFcLong( 0x16 ), /* 22 */
/* 216 */ NdrFcShort( 0x8008 ), /* Simple arm type: FC_LONG */
/* 218 */ NdrFcLong( 0x17 ), /* 23 */
/* 222 */ NdrFcShort( 0x8008 ), /* Simple arm type: FC_LONG */
/* 224 */ NdrFcLong( 0xe ), /* 14 */
/* 228 */ NdrFcShort( 0x2aa ), /* Offset= 682 (910) */
/* 230 */ NdrFcLong( 0x400e ), /* 16398 */
/* 234 */ NdrFcShort( 0x2b0 ), /* Offset= 688 (922) */
/* 236 */ NdrFcLong( 0x4010 ), /* 16400 */
/* 240 */ NdrFcShort( 0x2ae ), /* Offset= 686 (926) */
/* 242 */ NdrFcLong( 0x4012 ), /* 16402 */
/* 246 */ NdrFcShort( 0x26c ), /* Offset= 620 (866) */
/* 248 */ NdrFcLong( 0x4013 ), /* 16403 */
/* 252 */ NdrFcShort( 0x26a ), /* Offset= 618 (870) */
/* 254 */ NdrFcLong( 0x4016 ), /* 16406 */
/* 258 */ NdrFcShort( 0x264 ), /* Offset= 612 (870) */

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/* 260 */ NdrFcLong( 0x4017 ), /* 16407 */
/* 264 */ NdrFcShort( 0x25e ), /* Offset= 606 (870) */
/* 266 */ NdrFcLong( 0x0 ), /* 0 */
/* 270 */ NdrFcShort( 0x0 ), /* Offset= 0 (270) */
/* 272 */ NdrFcLong( 0x1 ), /* 1 */
/* 276 */ NdrFcShort( 0x0 ), /* Offset= 0 (276) */
/* 278 */ NdrFcShort( 0xffffffff ), /* Offset= -1 (277) */
/* 280 */
                                0x15, /* FC_STRUCT */
                                0x7, /* 7 */
/* 282 */ NdrFcShort( 0x8 ), /* 8 */
/* 284 */ 0xb, /* FC_HYPER */
                                0x5b, /* FC_END */
/* 286 */
                                0x12, 0x0, /* FC_UP */
/* 288 */ NdrFcShort( 0xe ), /* Offset= 14 (302) */
/* 290 */
                                0x1b, /* FC_CARRAY */
                                0x1, /* 1 */
/* 292 */ NdrFcShort( 0x2 ), /* 2 */
/* 294 */ 0x9, /* Corr desc: FC_ULONG */
                                0x0, /* */
/* 296 */ NdrFcShort( 0xffffc ), /* -4 */
/* 298 */ NdrFcShort( 0x1 ), /* Corr flags: early, */
/* 300 */ 0x6, /* FC_SHORT */
                                0x5b, /* FC_END */
/* 302 */
                                0x17, /* FC_CSTRUCT */
                                0x3, /* 3 */
/* 304 */ NdrFcShort( 0x8 ), /* 8 */
/* 306 */ NdrFcShort( 0xffffffff0 ), /* Offset= -16 (290) */
/* 308 */ 0x8, /* FC_LONG */
                                0x8, /* FC_LONG */
/* 310 */ 0x5c, /* FC_PAD */
                                0x5b, /* FC_END */
/* 312 */
                                0x2f, /* FC_IP */
                                0x5a, /* FC_CONSTANT_IID */
/* 314 */ NdrFcLong( 0x0 ), /* 0 */
/* 318 */ NdrFcShort( 0x0 ), /* 0 */
/* 320 */ NdrFcShort( 0x0 ), /* 0 */
/* 322 */ 0xc0, /* 192 */
                                0x0, /* 0 */
/* 324 */ 0x0, /* 0 */
                                0x0, /* 0 */
/* 326 */ 0x0, /* 0 */
                                0x0, /* 0 */
/* 328 */ 0x0, /* 0 */
                                0x46, /* 70 */
/* 330 */
                                0x2f, /* FC_IP */
                                0x5a, /* FC_CONSTANT_IID */
/* 332 */ NdrFcLong( 0x20400 ), /* 132096 */
/* 336 */ NdrFcShort( 0x0 ), /* 0 */
/* 338 */ NdrFcShort( 0x0 ), /* 0 */
/* 340 */ 0xc0, /* 192 */
                                0x0, /* 0 */
/* 342 */ 0x0, /* 0 */
                                0x0, /* 0 */
/* 344 */ 0x0, /* 0 */
                                0x0, /* 0 */
/* 346 */ 0x0, /* 0 */
                                0x46, /* 70 */

```

```

/* 348 */
                                0x12, 0x10, /* FC_UP [pointer_deref] */
/* 350 */ NdrFcShort( 0x2 ), /* Offset= 2 (352) */
/* 352 */
                                0x12, 0x0, /* FC_UP */
/* 354 */ NdrFcShort( 0x1e6 ), /* Offset= 486 (840) */
/* 356 */
                                0x2a, /* FC_ENCAPSULATED_UNION */
                                0x89, /* 137 */
/* 358 */ NdrFcShort( 0x20 ), /* 32 */
/* 360 */ NdrFcShort( 0xa ), /* 10 */
/* 362 */ NdrFcLong( 0x8 ), /* 8 */
/* 366 */ NdrFcShort( 0x50 ), /* Offset= 80 (446) */
/* 368 */ NdrFcLong( 0xd ), /* 13 */
/* 372 */ NdrFcShort( 0x70 ), /* Offset= 112 (484) */
/* 374 */ NdrFcLong( 0x9 ), /* 9 */
/* 378 */ NdrFcShort( 0x90 ), /* Offset= 144 (522) */
/* 380 */ NdrFcLong( 0xc ), /* 12 */
/* 384 */ NdrFcShort( 0xb0 ), /* Offset= 176 (560) */
/* 386 */ NdrFcLong( 0x24 ), /* 36 */
/* 390 */ NdrFcShort( 0x104 ), /* Offset= 260 (650) */
/* 392 */ NdrFcLong( 0x800d ), /* 32781 */
/* 396 */ NdrFcShort( 0x120 ), /* Offset= 288 (684) */
/* 398 */ NdrFcLong( 0x10 ), /* 16 */
/* 402 */ NdrFcShort( 0x13a ), /* Offset= 314 (716) */
/* 404 */ NdrFcLong( 0x2 ), /* 2 */
/* 408 */ NdrFcShort( 0x150 ), /* Offset= 336 (744) */
/* 410 */ NdrFcLong( 0x3 ), /* 3 */
/* 414 */ NdrFcShort( 0x166 ), /* Offset= 358 (772) */
/* 416 */ NdrFcLong( 0x14 ), /* 20 */
/* 420 */ NdrFcShort( 0x17c ), /* Offset= 380 (800) */
/* 422 */ NdrFcShort( 0xffffffff ), /* Offset= -1 (421) */
/* 424 */
                                0x21, /* FC_BOGUS_ARRAY */
                                0x3, /* 3 */
/* 426 */ NdrFcShort( 0x0 ), /* 0 */
/* 428 */ 0x19, /* Corr desc: field pointer, FC_ULONG */
                                0x0, /* */
/* 430 */ NdrFcShort( 0x0 ), /* 0 */
/* 432 */ NdrFcShort( 0x1 ), /* Corr flags: early, */
/* 434 */ NdrFcLong( 0xffffffff ), /* -1 */
/* 438 */ NdrFcShort( 0x0 ), /* Corr flags: */
/* 440 */
                                0x12, 0x0, /* FC_UP */
/* 442 */ NdrFcShort( 0xffffffff74 ), /* Offset= -140 (302) */
/* 444 */ 0x5c, /* FC_PAD */
                                0x5b, /* FC_END */
/* 446 */
                                0x1a, /* FC_BOGUS_STRUCT */
                                0x3, /* 3 */
/* 448 */ NdrFcShort( 0x10 ), /* 16 */
/* 450 */ NdrFcShort( 0x0 ), /* 0 */
/* 452 */ NdrFcShort( 0x6 ), /* Offset= 6 (458) */
/* 454 */ 0x8, /* FC_LONG */
                                0x39, /* FC_ALIGNM8 */
/* 456 */ 0x36, /* FC_POINTER */
                                0x5b, /* FC_END */
/* 458 */
                                0x11, 0x0, /* FC_RP */
/* 460 */ NdrFcShort( 0xffffffffdc ), /* Offset= -36 (424) */
/* 462 */
                                0x21, /* FC_BOGUS_ARRAY */
                                0x3, /* 3 */

```

```

/* 464 */ NdrFcShort( 0x0 ), /* 0 */
/* 466 */ 0x19, /* Corr desc: field pointer, FC_ULONG */
/* 468 */ NdrFcShort( 0x0 ), /* 0 */
/* 470 */ NdrFcShort( 0x1 ), /* Corr flags: early, */
/* 472 */ NdrFcLong( 0xffffffff ), /* -1 */
/* 476 */ NdrFcShort( 0x0 ), /* Corr flags: */
/* 478 */ 0x4c, /* FC_EMBEDDED_COMPLEX */
/* 480 */ NdrFcShort( 0xffffffff58 ), /* Offset= -168 (312) */
/* 482 */ 0x5c, /* FC_PAD */
/* 484 */
/* 486 */ NdrFcShort( 0x10 ), /* 16 */
/* 488 */ NdrFcShort( 0x0 ), /* 0 */
/* 490 */ NdrFcShort( 0x6 ), /* Offset= 6 (496) */
/* 492 */ 0x8, /* FC_LONG */
/* 494 */ 0x36, /* FC_POINTER */
/* 496 */
/* 498 */ NdrFcShort( 0xffffffffdc ), /* Offset= -36 (462) */
/* 500 */
/* 502 */ NdrFcShort( 0x0 ), /* 0 */
/* 504 */ 0x19, /* Corr desc: field pointer, FC_ULONG */
/* 506 */ NdrFcShort( 0x0 ), /* 0 */
/* 508 */ NdrFcShort( 0x1 ), /* Corr flags: early, */
/* 510 */ NdrFcLong( 0xffffffff ), /* -1 */
/* 514 */ NdrFcShort( 0x0 ), /* Corr flags: */
/* 516 */ 0x4c, /* FC_EMBEDDED_COMPLEX */
/* 518 */ NdrFcShort( 0xffffffff44 ), /* Offset= -188 (330) */
/* 520 */ 0x5c, /* FC_PAD */
/* 522 */
/* 524 */ NdrFcShort( 0x10 ), /* 16 */
/* 526 */ NdrFcShort( 0x0 ), /* 0 */
/* 528 */ NdrFcShort( 0x6 ), /* Offset= 6 (534) */
/* 530 */ 0x8, /* FC_LONG */
/* 532 */ 0x36, /* FC_POINTER */
/* 534 */
/* 536 */ NdrFcShort( 0xffffffffdc ), /* Offset= -36 (500) */
/* 538 */
/* 540 */ NdrFcShort( 0x0 ), /* 0 */
/* 542 */ 0x19, /* Corr desc: field pointer, FC_ULONG */
/* 544 */ NdrFcShort( 0x0 ), /* 0 */
/* 546 */ NdrFcShort( 0x1 ), /* Corr flags: early, */
/* 548 */ NdrFcLong( 0xffffffff ), /* -1 */
/* 552 */ NdrFcShort( 0x0 ), /* Corr flags: */

```

```

/* 554 */
/* 556 */ NdrFcShort( 0x176 ), /* Offset= 374 (930) */
/* 558 */ 0x5c, /* FC_PAD */
/* 560 */
/* 562 */ NdrFcShort( 0x10 ), /* 16 */
/* 564 */ NdrFcShort( 0x0 ), /* 0 */
/* 566 */ NdrFcShort( 0x6 ), /* Offset= 6 (572) */
/* 568 */ 0x8, /* FC_LONG */
/* 570 */ 0x36, /* FC_POINTER */
/* 572 */
/* 574 */ NdrFcShort( 0xffffffffdc ), /* Offset= -36 (538) */
/* 576 */
/* 578 */ NdrFcLong( 0x2f ), /* 47 */
/* 582 */ NdrFcShort( 0x0 ), /* 0 */
/* 584 */ NdrFcShort( 0x0 ), /* 0 */
/* 586 */ 0xc0, /* 192 */
/* 588 */ 0x0, /* 0 */
/* 590 */ 0x0, /* 0 */
/* 592 */ 0x0, /* 0 */
/* 594 */
/* 596 */ NdrFcShort( 0x1 ), /* 1 */
/* 598 */ 0x19, /* Corr desc: field pointer, FC_ULONG */
/* 600 */ NdrFcShort( 0x4 ), /* 4 */
/* 602 */ NdrFcShort( 0x1 ), /* Corr flags: early, */
/* 604 */ 0x1, /* FC_BYTE */
/* 606 */
/* 608 */ NdrFcShort( 0x18 ), /* 24 */
/* 610 */ NdrFcShort( 0x0 ), /* 0 */
/* 612 */ NdrFcShort( 0xc ), /* Offset= 12 (624) */
/* 614 */ 0x8, /* FC_LONG */
/* 616 */ 0x4c, /* FC_EMBEDDED_COMPLEX */
/* 618 */ NdrFcShort( 0xffffffffd6 ), /* Offset= -42 (576) */
/* 620 */ 0x39, /* FC_ALIGNM8 */
/* 622 */ 0x5c, /* FC_PAD */
/* 624 */
/* 626 */ NdrFcShort( 0xffffffffe0 ), /* Offset= -32 (594) */
/* 628 */
/* 630 */ 0x21, /* FC_BOGUS_ARRAY */
/* 632 */ 0x3, /* 3 */

```

```

/* 630 */ NdrFcShort( 0x0 ), /* 0 */
/* 632 */ 0x19, /* Corr desc: field pointer, FC_ULONG */
/* 634 */ NdrFcShort( 0x0 ), /* 0 */
/* 636 */ NdrFcShort( 0x1 ), /* Corr flags: early, */
/* 638 */ NdrFcLong( 0xffffffff ), /* -1 */
/* 642 */ NdrFcShort( 0x0 ), /* Corr flags: */
/* 644 */
/* 646 */ NdrFcShort( 0xffffffff8 ), /* Offset= -40 (606) */
/* 648 */ 0x5c, /* FC_PAD */
/* 650 */
/* 652 */ NdrFcShort( 0x10 ), /* 16 */
/* 654 */ NdrFcShort( 0x0 ), /* 0 */
/* 656 */ NdrFcShort( 0x6 ), /* Offset= 6 (662) */
/* 658 */ 0x8, /* FC_LONG */
/* 660 */ 0x36, /* FC_ALIGNM8 */
/* 662 */
/* 664 */ NdrFcShort( 0xffffffffc ), /* Offset= -36 (628) */
/* 666 */
/* 668 */ NdrFcShort( 0x8 ), /* 8 */
/* 670 */ 0x1, /* FC_BYTE */
/* 672 */
/* 674 */ NdrFcShort( 0x10 ), /* 16 */
/* 676 */ 0x8, /* FC_LONG */
/* 678 */ 0x6, /* FC_SHORT */
/* 680 */ 0x0, /* FC_EMBEDDED_COMPLEX */
/* 684 */ NdrFcShort( 0xffffffff1 ), /* Offset= -15 (666) */
/* 686 */ 0x1a, /* FC_BOGUS_STRUCT */
/* 688 */ NdrFcShort( 0x20 ), /* 32 */
/* 690 */ NdrFcShort( 0x0 ), /* 0 */
/* 692 */ NdrFcShort( 0xa ), /* Offset= 10 (700) */
/* 694 */ 0x8, /* FC_LONG */
/* 696 */ 0x36, /* FC_ALIGNM8 */
/* 700 */ 0x0, /* FC_EMBEDDED_COMPLEX */
/* 702 */ NdrFcShort( 0xffffffff7 ), /* Offset= -25 (672) */
/* 704 */
/* 706 */ NdrFcShort( 0x11, 0x0, /* FC_RP */
/* 708 */ 0x19, /* Corr desc: field pointer, FC_ULONG */

```

```

Ox0, /* */
/* 710 */ NdrFcShort( 0x0 ), /* 0 */
/* 712 */ NdrFcShort( 0x1 ), /* Corr flags: early, */
/* 714 */ 0x1, /* FC_BYTE */
/* 716 */ 0x5b, /* FC_END */
/* 718 */ NdrFcShort( 0x10 ), /* 16 */
/* 720 */ NdrFcShort( 0x0 ), /* 0 */
/* 722 */ NdrFcShort( 0x6 ), /* Offset= 6 (728) */
/* 724 */ 0x8, /* FC_LONG */
/* 726 */ 0x36, /* FC_ALIGNM8 */
/* 728 */ 0x3, /* FC_POINTER */
/* 730 */ NdrFcShort( 0xffffffffe6 ), /* Offset= -26 (704) */
/* 732 */
/* 734 */ NdrFcShort( 0x2 ), /* 2 */
/* 736 */ 0x19, /* Corr desc: field pointer, FC_ULONG */
/* 738 */ NdrFcShort( 0x0 ), /* 0 */
/* 740 */ NdrFcShort( 0x1 ), /* Corr flags: early, */
/* 742 */ 0x6, /* FC_SHORT */
/* 744 */ 0x5b, /* FC_END */
/* 746 */ NdrFcShort( 0x10 ), /* 16 */
/* 748 */ NdrFcShort( 0x0 ), /* 0 */
/* 750 */ NdrFcShort( 0x6 ), /* Offset= 6 (756) */
/* 752 */ 0x8, /* FC_LONG */
/* 754 */ 0x36, /* FC_ALIGNM8 */
/* 756 */ 0x3, /* FC_POINTER */
/* 758 */ NdrFcShort( 0xffffffffe6 ), /* Offset= -26 (732) */
/* 760 */
/* 762 */ NdrFcShort( 0x4 ), /* 4 */
/* 764 */ 0x19, /* Corr desc: field pointer, FC_ULONG */
/* 766 */ NdrFcShort( 0x0 ), /* 0 */
/* 768 */ NdrFcShort( 0x1 ), /* Corr flags: early, */
/* 770 */ 0x8, /* FC_LONG */
/* 772 */ 0x5b, /* FC_END */
/* 774 */ NdrFcShort( 0x10 ), /* 16 */
/* 776 */ NdrFcShort( 0x0 ), /* 0 */
/* 778 */ NdrFcShort( 0x6 ), /* Offset= 6 (784) */
/* 780 */ 0x8, /* FC_LONG */
/* 782 */ 0x36, /* FC_ALIGNM8 */
/* 784 */ 0x3, /* FC_POINTER */
/* 784 */ 0x5b, /* FC_END */
/* 784 */ 0x12, 0x0, /* FC_UP */

```



```

/* 786 */ NdrFcShort( 0xffffffe6 ), /* Offset= -26 (760) */
/* 788 */
                                0x1b, /* FC_CARRAY */
                                0x7, /* 7 */
/* 790 */ NdrFcShort( 0x8 ), /* 8 */
/* 792 */ 0x19, /* Corr desc: field pointer, FC_ULONG */
/* 794 */ NdrFcShort( 0x0 ), /* 0 */
/* 796 */ NdrFcShort( 0x1 ), /* Corr flags: early, */
/* 798 */ 0xb, /* FC_HYPER */
/* 800 */
                                0x5b, /* FC_END */
/* 802 */
                                0x1a, /* FC_BOGUS_STRUCT */
                                0x3, /* 3 */
/* 804 */ NdrFcShort( 0x10 ), /* 16 */
/* 806 */ NdrFcShort( 0x0 ), /* 0 */
/* 808 */ 0x8, /* Offset= 6 (812) */
/* 810 */ 0x36, /* FC_LONG */
/* 812 */
                                0x39, /* FC_ALIGNM8 */
/* 814 */ NdrFcShort( 0xffffffe6 ), /* FC_POINTER */
/* 816 */
                                0x5b, /* FC_END */
/* 818 */
                                0x12, 0x0, /* FC_UP */
/* 820 */ 0x8, /* Offset= -26 (788) */
/* 822 */ 0x5c, /* FC_STRUCT */
/* 824 */
                                0x3, /* 3 */
/* 826 */ NdrFcShort( 0x8 ), /* 8 */
/* 828 */ 0x7, /* FC_LONG */
/* 830 */ NdrFcShort( 0xffc8 ), /* FC_LONG */
/* 832 */ NdrFcShort( 0x1 ), /* FC_PAD */
/* 834 */ 0x4c, /* FC_END */
/* 836 */ NdrFcShort( 0xfffffec ), /* FC_CARRAY */
/* 838 */ 0x5c, /* 3 */
/* 840 */
                                0x1b, /* FC_CARRAY */
                                0x3, /* 3 */
/* 842 */ NdrFcShort( 0x38 ), /* 8 */
/* 844 */ NdrFcShort( 0xfffffec ), /* Corr desc: FC_USHORT */
/* 846 */ NdrFcShort( 0x0 ), /* 0 */
/* 848 */ 0x6, /* Corr flags: early, */
/* 850 */ 0x38, /* FC_EMBEDDED_COMPLEX */
/* 852 */ 0x8, /* 0 */
/* 854 */ 0x4, /* Offset= -20 (816) */
/* 858 */
                                0x5b, /* FC_PAD */
/* 860 */ NdrFcShort( 0xfffff02 ), /* FC_END */
                                0x1a, /* FC_BOGUS_STRUCT */
                                0x3, /* 3 */
/* 862 */ NdrFcShort( 0x38 ), /* 56 */
/* 864 */ NdrFcShort( 0xfffffec ), /* Offset= -20 (824) */
/* 866 */ NdrFcShort( 0x0 ), /* Offset= 0 (846) */
/* 868 */ 0x6, /* FC_SHORT */
/* 870 */ 0x38, /* FC_SHORT */
/* 872 */ 0x8, /* FC_ALIGNM4 */
/* 874 */ 0x4c, /* FC_LONG */
/* 876 */ NdrFcShort( 0xfffffe0d ), /* FC_EMBEDDED_COMPLEX */
/* 878 */ 0x5b, /* 4 */
/* 880 */
                                NdrFcShort( 0xfffffe0d ), /* Offset= -499 (356) */
/* 882 */
                                0x5b, /* FC_END */
/* 884 */
                                0x12, 0x0, /* FC_UP */
/* 886 */ NdrFcShort( 0xfffff02 ), /* Offset= -254 (606) */

```

```

/* 862 */
                                0x12, 0x8, /* FC_UP [simple_pointer] */
/* 864 */ 0x1, /* FC_BYTE */
/* 866 */
                                0x5c, /* FC_PAD */
/* 868 */ 0x6,
                                0x12, 0x8, /* FC_UP [simple_pointer] */
/* 870 */
                                /* FC_SHORT */
                                0x5c, /* FC_PAD */
/* 872 */
                                0x12, 0x8, /* FC_UP [simple_pointer] */
/* 874 */
                                /* FC_LONG */
                                0x5c, /* FC_PAD */
/* 876 */ 0xa,
                                0x12, 0x8, /* FC_UP [simple_pointer] */
/* 878 */
                                /* FC_FLOAT */
                                0x5c, /* FC_PAD */
/* 880 */ 0xc,
                                0x12, 0x8, /* FC_UP [simple_pointer] */
/* 882 */
                                /* FC_DOUBLE */
                                0x5c, /* FC_PAD */
/* 884 */ NdrFcShort( 0xfffffda4 ), /* FC_UP */
/* 886 */
                                0x12, 0x0, /* Offset= -604 (280) */
/* 888 */ NdrFcShort( 0xfffffda6 ), /* FC_UP [pointer_deref] */
/* 890 */
                                0x12, 0x10, /* Offset= -602 (286) */
/* 892 */ NdrFcShort( 0xfffffdbc ), /* FC_UP [pointer_deref] */
/* 894 */
                                0x12, 0x10, /* Offset= -580 (312) */
/* 896 */ NdrFcShort( 0xfffffda ), /* FC_UP [pointer_deref] */
/* 898 */
                                0x12, 0x10, /* Offset= -566 (330) */
/* 900 */ NdrFcShort( 0xfffffdd8 ), /* FC_UP [pointer_deref] */
/* 902 */
                                0x12, 0x10, /* Offset= -552 (348) */
/* 904 */ NdrFcShort( 0x2 ), /* FC_UP [pointer_deref] */
/* 906 */
                                0x12, 0x10, /* Offset= 2 (906) */
/* 908 */ NdrFcShort( 0x16 ), /* FC_UP */
/* 910 */
                                0x12, 0x0, /* Offset= 22 (930) */
/* 912 */ NdrFcShort( 0x10 ), /* FC_UP */
/* 914 */ 0x6, /* FC_STRUCT */
/* 916 */ 0x1, /* 7 */
/* 918 */ 0x8, /* FC_BYTE */
/* 920 */ 0xb, /* FC_BYTE */
/* 922 */
                                0x38, /* FC_ALIGNM4 */
                                0x39, /* FC_LONG */
                                0x5b, /* FC_ALIGNM8 */
/* 924 */ NdrFcShort( 0xffffff2 ), /* FC_HYPER */
/* 926 */
                                0x5b, /* FC_END */
/* 928 */ 0x2,
                                0x12, 0x0, /* FC_UP */
/* 930 */
                                0x12, 0x8, /* FC_UP [simple_pointer] */
                                /* FC_CHAR */
                                0x5c, /* FC_PAD */
/* 932 */
                                0x1a, /* FC_BOGUS_STRUCT */
                                0x7, /* 7 */

```

```

/* 932 */ NdrFcShort( 0x20 ), /* 32 */
/* 934 */ NdrFcShort( 0x0 ), /* 0 */
/* 936 */ NdrFcShort( 0x0 ), /* Offset= 0 (936) */
/* 938 */ 0x8, /* FC_LONG */
/* 940 */ 0x6, /* FC_SHORT */
/* 942 */ 0x6, /* FC_SHORT */
/* 944 */ 0x4c, /* FC_EMBEDDED_COMPLEX */
/* 946 */ NdrFcShort( 0xfffffc54 ), /* Offset= -940 (6) */
/* 948 */ 0x5c, /* FC_PAD */
/* 950 */ 0xb4, /* FC_USER_MARSHAL */
/* 952 */ NdrFcShort( 0x0 ), /* 0 */
/* 954 */ NdrFcShort( 0x18 ), /* 24 */
/* 956 */ NdrFcShort( 0x0 ), /* 0 */
/* 958 */ NdrFcShort( 0xfffffc44 ), /* Offset= -956 (2) */
/* 960 */
/* 962 */ NdrFcShort( 0x6 ), /* Offset= 6 (968) */
/* 964 */
/* 966 */ NdrFcShort( 0xfffffcdc ), /* Offset= -36 (930) */
/* 968 */ 0xb4, /* FC_USER_MARSHAL */
/* 970 */ NdrFcShort( 0x0 ), /* 0 */
/* 972 */ NdrFcShort( 0x18 ), /* 24 */
/* 974 */ NdrFcShort( 0x0 ), /* 0 */
/* 976 */ NdrFcShort( 0xfffffff4 ), /* Offset= -12 (964) */

0x0
}
};

const CInterfaceProxyVtbl * _tpcc_com_ps_ProxyVtblList[] =
{
( CInterfaceProxyVtbl * ) &ITPCCProxyVtbl,
0
};

const CInterfaceStubVtbl * _tpcc_com_ps_StubVtblList[] =
{
( CInterfaceStubVtbl * ) &ITPCCStubVtbl,
0
};

PCInterfaceName const _tpcc_com_ps_InterfaceNamesList[] =
{
"ITPCC",
0
};

#define _tpcc_com_ps_CHECK_IID(n) IID_GENERIC_CHECK_IID( _tpcc_com_ps, pIID,
n)

int __stdcall _tpcc_com_ps_IID_Lookup( const IID * pIID, int * pIndex )
{
if(!_tpcc_com_ps_CHECK_IID(0))

```

```

{
*pIndex = 0;
return 1;
}

return 0;
}

const ExtendedProxyFileInfo tpcc_com_ps_ProxyFileInfo =
{
(PCInterfaceProxyVtblList *) &_tpcc_com_ps_ProxyVtblList,
(PCInterfaceStubVtblList *) &_tpcc_com_ps_StubVtblList,
(const PCInterfaceName *) &_tpcc_com_ps_InterfaceNamesList,
0, // no delegation
&_tpcc_com_ps_IID_Lookup,
1,
2,
0, /* table of [async_uuid] interfaces */
0, /* Filler1 */
0, /* Filler2 */
0 /* Filler3 */
};

#endif /* defined(_M_IA64) || defined(_M_AXP64)*/



---


tpcc_com_sl.rgs


---


HKCR
{
TPCC.StockLevel.1 = s 'StockLevel Class'
{
CLSID = s '{2668369E-A50D-11D2-BA4E-00C04FBFE08B}'
}
TPCC.StockLevel = s 'StockLevel Class'
{
CurVer = s 'TPCC.StockLevel.1'
}
NoRemove CLSID
{
ForceRemove {2668369E-A50D-11D2-BA4E-00C04FBFE08B} = s
'StockLevel Class'
{
ProgID = s 'TPCC.StockLevel.1'
VersionIndependentProgID = s 'TPCC.StockLevel'
InprocServer32 = s '%MODULE%'
{
val ThreadingModel = s 'Both'
}
}
}
}
}



---


tpcc_dblib.cpp


---


/* FILE: TPCC_DBLIB.CPP
* Microsoft TPC-C Kit Ver. 4.20.000
* Copyright Microsoft, 1999
* All Rights Reserved
*

```

```

*
*                               Version 4.10.000 audited by Richard Gimarc,
Performance Metrics, 3/17/99
*
*   PURPOSE:  Implements dblib calls for TPC-C txns.
*   Contact:  Charles Levine (clevine@microsoft.com)
*
*   Change history:
*           4.20.000 - updated rev number to match kit
*           4.10.001 - not deleting error class in catch handler on deadlock
retry;
*
*                               not a functional bug, but a memory leak
*                               - had to tweak some declarations to compile
with latest SDK; no functional change
*/

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

#define DBNTWIN32
#include <sqlfront.h>
#include <sqlldb.h>

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

// need to declare functions for export
#define DllDecl __declspec( dllexport )

#include "..\..\common\src\error.h"
#include "..\..\common\src\trans.h"
#include "..\..\common\src\txn_base.h"
#include "tpcc_dblib.h"

#define DEFCLPACKSIZE          4096

// version string; must match return value from tpcc_version stored proc
const char      sVersion[] = "4.10.000";

const          iMaxRetries = 10;          // how many retries on
deadlock
static long     iConnectionCount = 0;    // number of current dblib connections

const int iErrOleDbProvider = 7312;
const char sErrTimeoutExpired[] = "Timeout expired";

BOOL WINAPI DllMain(HMODULE hModule, DWORD ul_reason_for_call, LPVOID lpReserved)
{
    switch( ul_reason_for_call )
    {
        case DLL_PROCESS_ATTACH:
            DisableThreadLibraryCalls(hModule);
            dbinit();          // initialize dblib
            break;

        case DLL_PROCESS_DETACH:
            dbexit();          // close all dblib
            structures/connections
            break;

        default:
            /* nothing */;
    }
}

```

```

    }
    return TRUE;
}

int err_handler(DBPROCESS *dbproc, int severity, int dberr, int oserr, LPCSTR
dberrstr, LPCSTR oserrstr)
{
    CTPCC_DBLIB          *pConn;

    assert(dbproc != NULL);
    pConn = (CTPCC_DBLIB*)dbgetuserdata(dbproc);

    if (pConn != NULL)
    {
        pConn->SetDbLibError( severity, dberr, oserr, dberrstr, oserrstr
);
    }
    return INT_CANCEL;
}

/* FUNCTION: int msg_handler(DBPROCESS *dbproc, DBINT msgno, int msgstate, int
severity, char *msgtext)
*
* PURPOSE:      This function handles DB-Library SQL Server error messages
*
* ARGUMENTS:    DBPROCESS          *dbproc          DBPROCESS id
pointer
*              DBINT              msgno
*              message number
*              int                msgstate          int
*              message state
*              int                severity          int
*              message severity
*              char               *msgtext
*              printable message description
*
* RETURNS:      int                INT_CONTINUE
*              continue if error is SQLETIME else INT_CANCEL action
*
*              INT_CANCEL          cancel operation
*
* COMMENTS:     This function also sets the dead lock dbproc variable if
necessary.
*
*/

// typedef INT (SQLAPI *DBMSGHANDLE_PROC)(PDBPROCESS, DBINT, INT, INT, LPCSTR,
LPCSTR, LPCSTR, DBUSMALLINT);

int msg_handler(DBPROCESS *dbproc, DBINT msgno, int msgstate, int severity,
LPCSTR msgtext, LPCSTR srvname, LPCSTR
procname, DBUSMALLINT line)
{
    CTPCC_DBLIB          *pConn;

    assert(dbproc != NULL);
    pConn = (CTPCC_DBLIB*)dbgetuserdata(dbproc);

    if (pConn != NULL)
    {
        pConn->SetSqlError( msgno, msgstate, severity, msgtext );
    }
}

```

```

        return 0;
    }

/* FUNCTION: void UtilStrCpy(char * pDest, char * pSrc, int n)
 *
 * PURPOSE:      This function copies n characters from string pSrc to pDst and
 *               places a
 *               null character at the end of the destination string.
 *
 * ARGUMENTS:   char          *pDest  destination string
 *               pointer
 *               char          *pSrc
 *               source string pointer
 *               int           n
 *               number of characters to copy
 *
 * RETURNS:     None
 *
 * COMMENTS:    Unlike strncpy this function ensures that the result string is
 *               always null terminated.
 */

inline static void UtilStrCpy(char * pDest, const BYTE * pSrc, int n)
{
    strncpy(pDest, (char *)pSrc, n);
    pDest[n] = '\\0';

    return;
}

/* FUNCTION: CTPCC_DBLIB_ERR::ErrorText
 *
 */

char* CTPCC_DBLIB_ERR::ErrorText(void)
{
    int i;

    static SERRORMSG errorMsgs[] =
    {
        { ERR_WRONG_SP_VERSION,          "Wrong version of stored
procs on database server" },
        { ERR_INVALID_CUST,              "Invalid Customer
id,name." },
        { ERR_NO_SUCH_ORDER,             "No orders found for
customer." },
        { ERR_RETRIED_TRANS,             "Retries before
transaction succeeded." },
        { 0,                             "" }
    };

    static char szNotFound[] = "Unknown error number.";

    for(i=0; errorMsgs[i].szMsg[0]; i++)
    {
        if ( m_errno == errorMsgs[i].iError )
            break;
    }
    if ( !errorMsgs[i].szMsg[0] )

```

```

        return szNotFound;
    else
        return errorMsgs[i].szMsg;
}

// wrapper routine for class constructor
__declspec(dllexport) CTPCC_DBLIB* CTPCC_DBLIB_new(
    LPCSTR szServer,          // name of SQL server
    LPCSTR szUser,           // user name for login
    LPCSTR szPassword,       // password for login
    LPCSTR szHost,          // workstation name; shows up in
sp_who; max 30 chars, only first 10 kept by SQL Server
    LPCSTR szDatabase )     // name of database to use
{
    return new CTPCC_DBLIB( szServer, szUser, szPassword, szHost, szDatabase
);
}

CTPCC_DBLIB::CTPCC_DBLIB (
    LPCSTR szServer,          // name of SQL server
    LPCSTR szUser,           // user name for login
    LPCSTR szPassword,       // password for login
    LPCSTR szHost,          // workstation name; shows up in
sp_who; max 30 chars, only first 10 kept by SQL Server
    LPCSTR szDatabase )     // name of database to use
{
    LOGINREC *login;
    const BYTE *pData;

    // initialization
    m_dbproc = NULL;
    m_DbLibErr = (CDBLIBERR*)NULL;
    m_SqlErr = (CSQLERR*)NULL;

    m_MaxRetries = 10;          // how many retries on deadlock

    // increase max number of connections if getting close
    if ( dbgetmaxprocs() < (iConnectionCount+5) )
    {
        if ( dbsetmaxprocs(iConnectionCount+10) == FAIL )
            ThrowError(CDBLIBERR::eDbSetMaxProcs);
    }

    // allocate a login structure
    login = dblogin();
    if (login == NULL)
        ThrowError(CDBLIBERR::eLogin);
    InterlockedIncrement( &iConnectionCount );

    // register error and message handler functions
    if (dbprocerrhandle(login, err_handler) == NULL)
        ThrowError(CDBLIBERR::eDbProcHandler);

    if (dbprocmsghandle(login, msg_handler) == NULL)
        ThrowError(CDBLIBERR::eDbProcHandler);

    DBSETLUSER(login, szUser);
    DBSETLPWD(login, szPassword);
    DBSETLHOST(login, szHost);
    DBSETLPACKET(login, (unsigned short)DEFCLPACKSIZE);
}

```

```

        DBSETLVERSION(login, DBVER60); // use dblink ver 6.0
client behavior

    // set time to wait for login
    if (dbsetlogintime(60) == FAIL)
        ThrowError(CDBLIBERR::eDbSet);

    // set time to wait for statement execution
    if (dbsettime(180) == FAIL)
        ThrowError(CDBLIBERR::eDbSet);

    m_dbproc = dbopen(login, szServer);

    // deallocate login structure before checking for success
    dbfreelogin( login );

    if (m_dbproc == NULL)
        ThrowError(CDBLIBERR::eDbOpen);

    // save address of class instance so that the message and error handler
    // can get to data.
    dbsetuserdata(m_dbproc, (LPVOID)this);

    // Use the the right database
    if (dbuse(m_dbproc, szDatabase) == FAIL)
        ThrowError(CDBLIBERR::eDbUse);

    dbcmd(m_dbproc, "set nocount on "); // do not
return row counts
    dbcmd(m_dbproc, "set XACT_ABORT ON"); // rollback transaction
on abort

    if (dbsqlexec(m_dbproc) == FAIL)
        ThrowError(CDBLIBERR::eDbSqlExec);

    DiscardNextResults(2);

    // verify that version of stored procs on server is correct
    dbrpcinit(m_dbproc, "tpcc_version", 0);

    if (dbrpcexec(m_dbproc) == FAIL)
        ThrowError(CDBLIBERR::eDbRpcExec);

    if (dbresults(m_dbproc) != SUCCEED)
        ThrowError(CDBLIBERR::eDbResults);

    if (dbnextrow(m_dbproc) != REG_ROW)
        ThrowError(CDBLIBERR::eDbNextRow);

    char szSrvVersion[16];
    pData=dbdata(m_dbproc, 1);
    if (pData)
        UtilStrCpy(szSrvVersion, pData, dbdatlen(m_dbproc, 1));
    else
        szSrvVersion[0]=0;
    if (strcmp(szSrvVersion,sVersion))
        throw new CTPCC_DBLIB_ERR( CTPCC_DBLIB_ERR::ERR_WRONG_SP_VERSION
);

    DiscardNextRows(0);
    DiscardNextResults(0);
}

```

```

CTPCC_DBLIB::~CTPCC_DBLIB( void )
{
    // close db connection and deallocate resources
    dbclose(m_dbproc);
    InterlockedDecrement( &iConnectionCount );
    if (m_DbLibErr != NULL)
        delete m_DbLibErr;
    if (m_SqlErr != NULL)
        delete m_SqlErr;
}

void CTPCC_DBLIB::SetDbLibError(int severity, int dberr, int oserr, LPCSTR dberrstr,
LPCSTR oserrstr)
{
    delete m_DbLibErr;
    m_DbLibErr = new CDBLIBERR(CDBLIBERR::eUnknown, severity, dberr, oserr);

    if (dberrstr != NULL)
    {
        m_DbLibErr->m_dberrstr = new char[ strlen(dberrstr)+1 ];
        strcpy( m_DbLibErr->m_dberrstr, dberrstr );
    }

    if (oserrstr != NULL)
    {
        m_DbLibErr->m_oserrstr = new char[ strlen(oserrstr)+1 ];
        strcpy( m_DbLibErr->m_oserrstr, oserrstr );
    }
}

void CTPCC_DBLIB::SetSqlError( int /*DBINT*/ msgno, int msgstate, int severity,
LPCSTR msgtext )
{
    if (m_SqlErr == NULL)
        m_SqlErr = new CSQLERR();

    m_SqlErr->m_msgno = msgno;
    m_SqlErr->m_msgstate = msgstate;
    m_SqlErr->m_severity = severity;

    delete [] m_SqlErr->m_msgtext;
    if (msgtext != NULL)
    {
        m_SqlErr->m_msgtext = new char[ strlen(msgtext)+1 ];
        strcpy( m_SqlErr->m_msgtext, msgtext );
    }
}

void CTPCC_DBLIB::ThrowError( CDBLIBERR::ACTION eAction )
{
    // discard anything still in return buffer
    DiscardNextRows(-1);
    DiscardNextResults(-1);

    // check for SQL Server error first; if yes, throw it and ignore any
    DBLib error.
    if (m_SqlErr != NULL)
    {
        CSQLERR *pSqlErr;
        pSqlErr = m_SqlErr;
    }
}

```

```

        m_SqlErr = NULL;    // clear our pointer to instance; catch
handler will delete      throw pSqlErr;
    }
    CDBLIBERR *pDbLibErr;
    if (m_DbLibErr == NULL)
error was returned      // this case isn't expected to happen, since it means that an
                        // but the error handlers were not called.
                        pDbLibErr = new CDBLIBERR(eAction);
    else
    {
        pDbLibErr = m_DbLibErr;
        pDbLibErr->m_eAction = eAction;
        m_DbLibErr = NULL;    // clear our pointer to instance;
catch handler will delete
    }
    throw pDbLibErr;
}

// Read and discard rows until no more.  Throw an exception if number of rows read
doesn't
// match number of rows expected.  The row count will be ignored if the expected
count value
// passed in is negative.  A typical use of this routine is to verify that there are
no more
// rows to be read.
void CTPCC_DBLIB::DiscardNextRows(int iExpectedCount)
{
    int          iRowsRead = 0;
    RETCODE      rc;

    while (TRUE)
    {
        rc = dbnextrow(m_dbproc);
        if (rc == NO_MORE_ROWS)
            break;
        if (rc == FAIL)
        {
            if (iExpectedCount >= 0)
                ThrowError(CDBLIBERR::eDbNextRow);
            else
                break;
        }
        iRowsRead++;
    }

    if ((iExpectedCount >= 0) &&
        (iExpectedCount != iRowsRead))
        ThrowError(CDBLIBERR::eWrongRowCount);
}

// Read and discard results until no more.  Throw an exception if number of result
sets read doesn't
// match number expected.  The result set count will be ignored if the expected
count value
// passed in is negative.  A typical use of this routine is to verify that there are
no more
// result sets to be read.
void CTPCC_DBLIB::DiscardNextResults(int iExpectedCount)
{

```

```

        int          iResultsRead = 0;
        RETCODE      rc;

        while (TRUE)
        {
            rc = dbresults(m_dbproc);
            if (rc == NO_MORE_RESULTS)
                break;
            if (rc == FAIL)
            {
                if (iExpectedCount >= 0)
                    ThrowError(CDBLIBERR::eDbResults);
                else
                    break;
            }

            DiscardNextRows(-1);
            iResultsRead++;
        }

        if ((iExpectedCount >= 0) &&
            (iExpectedCount != iResultsRead))
            ThrowError(CDBLIBERR::eWrongRowCount);
    }

void CTPCC_DBLIB::StockLevel()
{
    int          iTryCount = 0;
    const BYTE   *pData;

    ResetError();

    while (TRUE)
    {
        try
        {
            dbrpcinit(m_dbproc, "tpcc_stocklevel", 0);

            dbrpcparam(m_dbproc, NULL, 0, SQLINT2, -1, -1, (BYTE
*) &m_txn.StockLevel.w_id);    // @w_id smallint
            dbrpcparam(m_dbproc, NULL, 0, SQLINT1, -1, -1, (BYTE
*) &m_txn.StockLevel.d_id);    // @d_id tinyint
            dbrpcparam(m_dbproc, NULL, 0, SQLINT2, -1, -1, (BYTE
*) &m_txn.StockLevel.threshold);    // @threshold smallint

            if (dbrpcexec(m_dbproc) == FAIL)
                ThrowError(CDBLIBERR::eDbRpcExec);

            if (dbresults(m_dbproc) != SUCCEED)
                ThrowError(CDBLIBERR::eDbResults);

            if (dbnextrow(m_dbproc) != REG_ROW)
                ThrowError(CDBLIBERR::eDbNextRow);

            if (pData=dbdata(m_dbproc, 1))
                m_txn.StockLevel.low_stock = *((long *)

pData);

            DiscardNextRows(0);
            DiscardNextResults(0);

            m_txn.StockLevel.exec_status_code = eOK;
            return;
        }
    }
}

```

```

    }
    catch (CSQLERR *e)
    {
        if ((e->m_msgno == 1205 ||
            (e->m_msgno == iErrOleDbProvider &&
             strstr(e->m_msgtext, sErrTimeoutExpired) !=
             NULL)) &&
            longer period
        {
            delete e;
            Sleep(10 * iTryCount);
        }
        else
            throw;
    }
    // while (TRUE)
}

//if (iTryCount)
//    throw new CTPCC_DBLIB_ERR(CTPCC_DBLIB_ERR::ERR_RETRIED_TRANS,
iTryCount);
}

void CTPCC_DBLIB::NewOrder()
{
    int          i;
    DBINT        commit_flag;
    DBDATETIME  datetime;
    DBDATEPREC  daterec;

    int          iTryCount = 0;
    const BYTE  *pData;

    ResetError();

    while (TRUE)
    {
        try
        {
            dbrpcinit(m_dbproc, "tpcc_neworder", 0);

            dbrpcparam(m_dbproc, NULL, 0, SQLINT2, -1, -1, (BYTE
*) &m_txn.NewOrder.w_id);
            dbrpcparam(m_dbproc, NULL, 0, SQLINT1, -1, -1, (BYTE
*) &m_txn.NewOrder.d_id);
            dbrpcparam(m_dbproc, NULL, 0, SQLINT4, -1, -1, (BYTE
*) &m_txn.NewOrder.c_id);
            dbrpcparam(m_dbproc, NULL, 0, SQLINT1, -1, -1, (BYTE
*) &m_txn.NewOrder.o_ol_cnt);

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

```

```

    }
    dbrpcparam(m_dbproc, NULL, 0, SQLINT1, -1, -1, (BYTE
*) &m_txn.NewOrder.o_all_local);

    for (i = 0; i < m_txn.NewOrder.o_ol_cnt; i++)
    {
        dbrpcparam(m_dbproc, NULL, 0, SQLINT4, -1, -
1, (BYTE *) &m_txn.NewOrder.OL[i].ol_i_id);
        dbrpcparam(m_dbproc, NULL, 0, SQLINT2, -1, -
1, (BYTE *) &m_txn.NewOrder.OL[i].ol_supply_w_id);
        dbrpcparam(m_dbproc, NULL, 0, SQLINT2, -1, -
1, (BYTE *) &m_txn.NewOrder.OL[i].ol_quantity);
    }

    if (dbrpcexec(m_dbproc) == FAIL)
        ThrowError(CDBLIBERR::eDbRpcExec);

    // Get order line results
    m_txn.NewOrder.total_amount = 0;
    for (i = 0; i < m_txn.NewOrder.o_ol_cnt; i++)
    {
        if (dbresults(m_dbproc) != SUCCEEDED)
            ThrowError(CDBLIBERR::eDbResults);

        if (dbnumcols(m_dbproc) != 5)
            ThrowError(CDBLIBERR::eWrongNumCols);

        if (dbnextrow(m_dbproc) != REG_ROW)
            ThrowError(CDBLIBERR::eDbNextRow);

        if (pData=dbdata(m_dbproc, 1))
            UtilStrCpy(m_txn.NewOrder.OL[i].ol_i_name, pData, dbdatlen(m_dbproc, 1));
        if (pData=dbdata(m_dbproc, 2))
            m_txn.NewOrder.OL[i].ol_stock =
            (*(DBSMALLINT *) pData);
        if (pData=dbdata(m_dbproc, 3))
            UtilStrCpy(m_txn.NewOrder.OL[i].ol_brand_generic, pData,
            dbdatlen(m_dbproc, 3));
        if (pData=dbdata(m_dbproc, 4))
            dbconvert(m_dbproc, SQLNUMERIC,
            (LPCBYTE)pData, dbdatlen(m_dbproc,4),
            SQLFLT8, (BYTE
*)&m_txn.NewOrder.OL[i].ol_i_price, 8);
        if (pData=dbdata(m_dbproc, 5))
            dbconvert(m_dbproc, SQLNUMERIC,
            (LPCBYTE)pData, dbdatlen(m_dbproc,5),
            SQLFLT8, (BYTE
*)&m_txn.NewOrder.OL[i].ol_amount, 8);

        m_txn.NewOrder.total_amount =
        m_txn.NewOrder.total_amount + m_txn.NewOrder.OL[i].ol_amount;

        DiscardNextRows(0);
    }
}

```

```

// get remaining values for w_tax, d_tax, o_id,
c_last, c_discount, c_credit, o_entry_d, commit_flag
if (dbresults(m_dbproc) != SUCCEEDED)
    ThrowError(CDBLIBERR::eDbResults);

if (dbnextrow(m_dbproc) != REG_ROW)
    ThrowError(CDBLIBERR::eDbNextRow);

if (dbnumcols(m_dbproc) != 8)
    ThrowError(CDBLIBERR::eWrongNumCols);

if (pData=dbdata(m_dbproc, 1))

    dbconvert(m_dbproc, SQLNUMERIC,
(LPBYTE)pData, dbdatlen(m_dbproc,1), SQLFLT8, (BYTE *)&m_txn.NewOrder.w_tax, 8);
if (pData=dbdata(m_dbproc, 2))

    dbconvert(m_dbproc, SQLNUMERIC,
(LPBYTE)pData, dbdatlen(m_dbproc,2), SQLFLT8, (BYTE *)&m_txn.NewOrder.d_tax, 8);
if (pData=dbdata(m_dbproc, 3))
    m_txn.NewOrder.o_id = (*(DBINT *) pData);
if (pData=dbdata(m_dbproc, 4))
    UtilStrCpy(m_txn.NewOrder.c_last, pData,
dbdatlen(m_dbproc, 4));
if (pData=dbdata(m_dbproc, 5))
    dbconvert(m_dbproc, SQLNUMERIC,
(LPBYTE)pData, dbdatlen(m_dbproc,5), SQLFLT8, (BYTE *)&m_txn.NewOrder.c_discount,
8);
if (pData=dbdata(m_dbproc, 6))
    UtilStrCpy(m_txn.NewOrder.c_credit, pData,
dbdatlen(m_dbproc, 6));
if (pData=dbdata(m_dbproc, 7))
{
    datetime = (*(DBDATETIME *) pData);
dbdatecrack(m_dbproc, &daterec, &datetime);
m_txn.NewOrder.o_entry_d.year =
    m_txn.NewOrder.o_entry_d.month =
    m_txn.NewOrder.o_entry_d.day =
    m_txn.NewOrder.o_entry_d.hour =
    m_txn.NewOrder.o_entry_d.minute =
    m_txn.NewOrder.o_entry_d.second =
}
if (pData=dbdata(m_dbproc, 8))
    commit_flag = (*(DBTINYINT *) pData);

DiscardNextRows(0);
DiscardNextResults(0);

if (commit_flag == 1)
{
    m_txn.NewOrder.total_amount *= ((1 +
m_txn.NewOrder.w_tax + m_txn.NewOrder.d_tax) * (1 - m_txn.NewOrder.c_discount));
    m_txn.NewOrder.exec_status_code = eOK;
}
else

```

```

m_txn.NewOrder.exec_status_code =
eInvalidItem;

return;
}
catch (CSQLERR *e)
{
    if ((e->m_msgno == 1205 ||
(e->m_msgno == iErrOleDbProvider &&
strstr(e->m_msgtext, sErrTimeoutExpired) !=
NULL)) &&
(++iTryCount <= iMaxRetries))
    {
        // hit deadlock; backoff for increasingly
        longer period
        delete e;
        Sleep(10 * iTryCount);
    }
    else
        throw;
} // while (TRUE)

// if (iTryCount)
// throw new CTPCC_DBLIB_ERR(CTPCC_DBLIB_ERR::ERR_RETRIED_TRANS,
iTryCount);
}

void CTPCC_DBLIB::Payment()
{
    DBDATETIME datetime;
    DBDATETIME daterec;

    int iTryCount = 0;
    const BYTE *pData;

    ResetError();

    while (TRUE)
    {
        try
        {
            dbrpcinit(m_dbproc, "tpcc_payment", 0);

            dbrpcparam(m_dbproc, NULL, 0, SQLINT2, -1, -1, (BYTE
*) &m_txn.Payment.w_id);
            dbrpcparam(m_dbproc, NULL, 0, SQLINT2, -1, -1, (BYTE
*) &m_txn.Payment.c_w_id);
            dbrpcparam(m_dbproc, NULL, 0, SQLFLT8, -1, -1, (BYTE
*) &m_txn.Payment.h_amount);
            dbrpcparam(m_dbproc, NULL, 0, SQLINT1, -1, -1, (BYTE
*) &m_txn.Payment.d_id);
            dbrpcparam(m_dbproc, NULL, 0, SQLINT1, -1, -1, (BYTE
*) &m_txn.Payment.c_d_id);
            dbrpcparam(m_dbproc, NULL, 0, SQLINT4, -1, -1, (BYTE
*) &m_txn.Payment.c_id);

            // if customer id is zero, then payment is by name
            if (m_txn.Payment.c_id == 0)
                dbrpcparam(m_dbproc, NULL, 0, SQLCHAR, -1,
strlen(m_txn.Payment.c_last), (unsigned char *)m_txn.Payment.c_last);

```



```

if (dbrpcexec(m_dbproc) == FAIL)
    ThrowError(CDBLIBERR::eDbRpcExec);

if (dbresults(m_dbproc) != SUCCEEDED)
    ThrowError(CDBLIBERR::eDbResults);

if (dbnextrow(m_dbproc) != REG_ROW)
    ThrowError(CDBLIBERR::eDbNextRow);

if (dbnumcols(m_dbproc) != 27)
    ThrowError(CDBLIBERR::eWrongNumCols);

if (pData=dbdata(m_dbproc, 1))
    m_txn.Payment.c_id = *((DBINT *) pData);
if (pData=dbdata(m_dbproc, 2))
    UtilStrCpy(m_txn.Payment.c_last, pData,
dbdatlen(m_dbproc, 2));

if (pData=dbdata(m_dbproc, 3))
{
    datetime = *((DBDATETIME *) pData);
    dbdatecrack(m_dbproc, &daterec, &datetime);
    m_txn.Payment.h_date.year = daterec.year;
    m_txn.Payment.h_date.month = daterec.month;
    m_txn.Payment.h_date.day = daterec.day;
    m_txn.Payment.h_date.hour = daterec.hour;
    m_txn.Payment.h_date.minute =
daterec.minute;
    m_txn.Payment.h_date.second =
daterec.second;
}
if (pData=dbdata(m_dbproc, 4))
    UtilStrCpy(m_txn.Payment.w_street_1, pData,
dbdatlen(m_dbproc, 4));
if (pData=dbdata(m_dbproc, 5))
    UtilStrCpy(m_txn.Payment.w_street_2, pData,
dbdatlen(m_dbproc, 5));
if (pData=dbdata(m_dbproc, 6))
    UtilStrCpy(m_txn.Payment.w_city, pData,
dbdatlen(m_dbproc, 6));
if (pData=dbdata(m_dbproc, 7))
    UtilStrCpy(m_txn.Payment.w_state, pData,
dbdatlen(m_dbproc, 7));
if (pData=dbdata(m_dbproc, 8))
    UtilStrCpy(m_txn.Payment.w_zip, pData,
dbdatlen(m_dbproc, 8));
if (pData=dbdata(m_dbproc, 9))
    UtilStrCpy(m_txn.Payment.d_street_1, pData,
dbdatlen(m_dbproc, 9));
if (pData=dbdata(m_dbproc, 10))
    UtilStrCpy(m_txn.Payment.d_street_2, pData,
dbdatlen(m_dbproc, 10));
if (pData=dbdata(m_dbproc, 11))
    UtilStrCpy(m_txn.Payment.d_city, pData,
dbdatlen(m_dbproc, 11));
if (pData=dbdata(m_dbproc, 12))
    UtilStrCpy(m_txn.Payment.d_state, pData,
dbdatlen(m_dbproc, 12));
if (pData=dbdata(m_dbproc, 13))
    UtilStrCpy(m_txn.Payment.d_zip, pData,
dbdatlen(m_dbproc, 13));
if (pData=dbdata(m_dbproc, 14))
    UtilStrCpy(m_txn.Payment.c_first, pData,
dbdatlen(m_dbproc, 14));

```

```

if (pData=dbdata(m_dbproc, 15))
    UtilStrCpy(m_txn.Payment.c_middle, pData,
dbdatlen(m_dbproc, 15));
if (pData=dbdata(m_dbproc, 16))
    UtilStrCpy(m_txn.Payment.c_street_1, pData,
dbdatlen(m_dbproc, 16));
if (pData=dbdata(m_dbproc, 17))
    UtilStrCpy(m_txn.Payment.c_street_2, pData,
dbdatlen(m_dbproc, 17));
if (pData=dbdata(m_dbproc, 18))
    UtilStrCpy(m_txn.Payment.c_city, pData,
dbdatlen(m_dbproc, 18));
if (pData=dbdata(m_dbproc, 19))
    UtilStrCpy(m_txn.Payment.c_state, pData,
dbdatlen(m_dbproc, 19));
if (pData=dbdata(m_dbproc, 20))
    UtilStrCpy(m_txn.Payment.c_zip, pData,
dbdatlen(m_dbproc, 20));
if (pData=dbdata(m_dbproc, 21))
    UtilStrCpy(m_txn.Payment.c_phone, pData,
dbdatlen(m_dbproc, 21));
if (pData=dbdata(m_dbproc, 22))
{
    datetime = *((DBDATETIME *) pData);
    dbdatecrack(m_dbproc, &daterec, &datetime);
    m_txn.Payment.c_since.year = daterec.year;
    m_txn.Payment.c_since.month =
daterec.month;
    m_txn.Payment.c_since.day = daterec.day;
    m_txn.Payment.c_since.hour = daterec.hour;
    m_txn.Payment.c_since.minute =
daterec.minute;
    m_txn.Payment.c_since.second =
daterec.second;
}
if (pData=dbdata(m_dbproc, 23))
    UtilStrCpy(m_txn.Payment.c_credit, pData,
dbdatlen(m_dbproc, 23));
if (pData=dbdata(m_dbproc, 24))
    dbconvert(m_dbproc, SQLNUMERIC,
(LPBYTE)pData, dbdatlen(m_dbproc, 24), SQLFLT8, (BYTE *)&m_txn.Payment.c_credit_lim,
8);
if (pData=dbdata(m_dbproc, 25))
    dbconvert(m_dbproc, SQLNUMERIC,
(LPBYTE)pData, dbdatlen(m_dbproc, 25), SQLFLT8, (BYTE *)&m_txn.Payment.c_discount,
8);
if (pData=dbdata(m_dbproc, 26))
    dbconvert(m_dbproc, SQLNUMERIC,
(LPBYTE)pData, dbdatlen(m_dbproc, 26), SQLFLT8, (BYTE *)&m_txn.Payment.c_balance,
8);
if (pData=dbdata(m_dbproc, 27))
    UtilStrCpy(m_txn.Payment.c_data, pData,
dbdatlen(m_dbproc, 27));

DiscardNextRows(0);
DiscardNextResults(0);

if (m_txn.Payment.c_id == 0)
    throw new CTPCC_DBLIB_ERR(
CTPCC_DBLIB_ERR::ERR_INVALID_CUST );
else
    m_txn.Payment.exec_status_code = eOK;

```

```

        return;
    }
    catch (CSQLERR *e)
    {
        if ((e->m_msgno == 1205 ||
            (e->m_msgno == iErrOleDbProvider &&
             strstr(e->m_msgtext, sErrTimeoutExpired) !=
             NULL)) &&
            (++iTryCount <= iMaxRetries))
        {
            // hit deadlock; backoff for increasingly
            // longer period
            delete e;
            Sleep(10 * iTryCount);
        }
        else
            throw;
    }
    // while (TRUE)
}

// if (iTryCount)
// throw new CTPCC_DBLIB_ERR(CTPCC_DBLIB_ERR::ERR_RETRIED_TRANS,
// iTryCount);
}

void CTPCC_DBLIB::OrderStatus()
{
    int i;
    DBDATETIME datetime;
    DBDATEREC daterec;

    int iTryCount = 0;
    RETCODE rc;
    const BYTE *pData;

    ResetError();

    while (TRUE)
    {
        try
        {
            dbrpcinit(m_dbproc, "tpcc_orderstatus", 0);

            dbrpcparam(m_dbproc, NULL, 0, SQLINT2, -1, -1, (BYTE
*) &m_txn.OrderStatus.w_id);
            dbrpcparam(m_dbproc, NULL, 0, SQLINT1, -1, -1, (BYTE
*) &m_txn.OrderStatus.d_id);
            dbrpcparam(m_dbproc, NULL, 0, SQLINT4, -1, -1, (BYTE
*) &m_txn.OrderStatus.c_id);

            // if customer id is zero, then order status is by
            name
            if (m_txn.OrderStatus.c_id == 0)
                dbrpcparam(m_dbproc, NULL, 0, SQLCHAR, -1,
strlen(m_txn.OrderStatus.c_last), (unsigned char *)m_txn.OrderStatus.c_last);

            if (dbrpcexec(m_dbproc) == FAIL)
                ThrowError(CDBLIBERR::eDbRpcExec);
        }
    }
}

```

```

// Get order lines
if (dbresults(m_dbproc) != SUCCEED)
{
    if ((m_DbLibErr == NULL) && (m_SqlErr ==
NULL))
        throw new CTPCC_DBLIB_ERR(
CTPCC_DBLIB_ERR::ERR_NO_SUCH_ORDER );
    else
        ThrowError(CDBLIBERR::eDbResults);
}

if (dbnumcols(m_dbproc) != 5)
    ThrowError(CDBLIBERR::eWrongNumCols);

i = 0;
while (TRUE)
{
    rc = dbnextrow(m_dbproc);
    if (rc == NO_MORE_ROWS)
        break;
    if (rc != REG_ROW)
        ThrowError(CDBLIBERR::eDbNextRow);

    if (pData=dbdata(m_dbproc, 1))

        m_txn.OrderStatus.OL[i].ol_supply_w_id = (*(DBSMALLINT *) pData);
        if (pData=dbdata(m_dbproc, 2))
            m_txn.OrderStatus.OL[i].ol_i_id =
            (*(DBINT *) pData);
            if (pData=dbdata(m_dbproc, 3))

                m_txn.OrderStatus.OL[i].ol_quantity = (*(DBSMALLINT *) pData);
                if (pData=dbdata(m_dbproc, 4))
                    dbconvert(m_dbproc, SQLNUMERIC,
(LPCBYTE)pData, dbdatlen(m_dbproc,4),
SQLFLT8,
(BYTE *)&m_txn.OrderStatus.OL[i].ol_amount, 8);
                    if (pData=dbdata(m_dbproc, 5))
                        {
                            datetime = (*(DBDATETIME *)
pData);
                            dbdatecrack(m_dbproc, &daterec,
&datetime);

                            m_txn.OrderStatus.OL[i].ol_delivery_d.year = daterec.year;
                            m_txn.OrderStatus.OL[i].ol_delivery_d.month = daterec.month;
                            m_txn.OrderStatus.OL[i].ol_delivery_d.day = daterec.day;
                            m_txn.OrderStatus.OL[i].ol_delivery_d.hour = daterec.hour;
                            m_txn.OrderStatus.OL[i].ol_delivery_d.minute = daterec.minute;
                            m_txn.OrderStatus.OL[i].ol_delivery_d.second = daterec.second;
                        }
                        i++;
                    m_txn.OrderStatus.o_ol_cnt = i;

    if (dbresults(m_dbproc) != SUCCEED)
        ThrowError(CDBLIBERR::eDbResults);
}
}

```

```

        if (dbnextrow(m_dbproc) != REG_ROW)
            ThrowError(CDBLIBERR::eDbNextRow);

        if (dbnumcols(m_dbproc) != 8)
            ThrowError(CDBLIBERR::eWrongNumCols);

        if(pData=dbdata(m_dbproc, 1))
            m_txn.OrderStatus.c_id = (*(DBINT *) pData);
        if(pData=dbdata(m_dbproc, 2))
            UtilStrCpy(m_txn.OrderStatus.c_last, pData,
dbdatlen(m_dbproc,2));
        if(pData=dbdata(m_dbproc, 3))
            UtilStrCpy(m_txn.OrderStatus.c_first, pData,
dbdatlen(m_dbproc,3));
        if(pData=dbdata(m_dbproc, 4))
            UtilStrCpy(m_txn.OrderStatus.c_middle,
pData, dbdatlen(m_dbproc, 4));
        if(pData=dbdata(m_dbproc, 5))
        {
            datetime = *((DBDATETIME *) pData);
            dbdatecrack(m_dbproc, &daterec, &datetime);
            m_txn.OrderStatus.o_entry_d.year =
                m_txn.OrderStatus.o_entry_d.month =
                m_txn.OrderStatus.o_entry_d.day =
                m_txn.OrderStatus.o_entry_d.hour =
                m_txn.OrderStatus.o_entry_d.minute =
                m_txn.OrderStatus.o_entry_d.second =
        }
        if(pData=dbdata(m_dbproc, 6))
            m_txn.OrderStatus.o_carrier_id =
        (* (DBSMALLINT *) pData);
        if(pData=dbdata(m_dbproc, 7))
            dbconvert(m_dbproc, SQLNUMERIC,
(LPBYTE)pData, dbdatlen(m_dbproc,7),
SQLFLT8, (BYTE
*)&m_txn.OrderStatus.c_balance, 8);
        if(pData=dbdata(m_dbproc, 8))
            m_txn.OrderStatus.o_id = (*(DBINT *) pData);

        DiscardNextRows(0);
        DiscardNextResults(0);

        if (m_txn.OrderStatus.o_ol_cnt == 0)
            throw new CTPCC_DBLIB_ERR(
CTPCC_DBLIB_ERR::ERR_NO_SUCH_ORDER );
        else if (m_txn.OrderStatus.c_id == 0 &&
m_txn.OrderStatus.c_last[0] == 0)
            throw new CTPCC_DBLIB_ERR(
CTPCC_DBLIB_ERR::ERR_INVALID_CUST );
        else
            m_txn.OrderStatus.exec_status_code = eOK;

        return;
    }
    catch (CSQLERR *e)

```

```

    {
        if ((e->m_msgno == 1205 ||
(e->m_msgno == iErrOleDbProvider &&
strstr(e->m_msgtext, sErrTimeoutExpired) !=
NULL)) &&
        {
            if (++iTryCount <= iMaxRetries)
            {
                // hit deadlock; backoff for increasingly
                longer period
                delete e;
                Sleep(10 * iTryCount);
            }
            else
                throw;
        }
        // while (TRUE)
        // if (iTryCount)
        // throw new CTPCC_DBLIB_ERR(CTPCC_DBLIB_ERR::ERR_RETRIED_TRANS,
iTryCount);
    }

    void CTPCC_DBLIB::Delivery()
    {
        int i;
        int iTryCount = 0;
        const BYTE *pData;

        ResetError();

        while (TRUE)
        {
            try
            {
                dbrpcinit(m_dbproc, "tpcc_delivery", 0);
                dbrpcparam(m_dbproc, NULL, 0, SQLINT2, -1, -1, (BYTE
*) &m_txn.Delivery.w_id);
                dbrpcparam(m_dbproc, NULL, 0, SQLINT1, -1, -1, (BYTE
*) &m_txn.Delivery.o_carrier_id);

                if (dbrpcexec(m_dbproc) == FAIL)
                    ThrowError(CDBLIBERR::eDbRpcExec);

                if (dbresults(m_dbproc) != SUCCEEDED)
                    ThrowError(CDBLIBERR::eDbResults);

                if (dbnextrow(m_dbproc) != REG_ROW)
                    ThrowError(CDBLIBERR::eDbNextRow);

                if (dbnumcols(m_dbproc) != 10)
                    ThrowError(CDBLIBERR::eWrongNumCols);

                for (i=0; i<10; i++)
                {
                    if (pData = dbdata(m_dbproc, i+1))
                        m_txn.Delivery.o_id[i] = (*(DBINT
*)pData);
                }

                DiscardNextRows(0);
                DiscardNextResults(0);
            }
            catch (CSQLERR *e)
            {
                if ((e->m_msgno == 1205 ||
(e->m_msgno == iErrOleDbProvider &&
strstr(e->m_msgtext, sErrTimeoutExpired) !=
NULL)) &&
                {
                    if (++iTryCount <= iMaxRetries)
                    {
                        // hit deadlock; backoff for increasingly
                        longer period
                        delete e;
                        Sleep(10 * iTryCount);
                    }
                    else
                        throw;
                }
                // while (TRUE)
                // if (iTryCount)
                // throw new CTPCC_DBLIB_ERR(CTPCC_DBLIB_ERR::ERR_RETRIED_TRANS,
iTryCount);
            }
        }
    }

```

```

        m_txn.Delivery.exec_status_code = eOK;
        return;
    }
    catch (CSQLERR *e)
    {
        if ((e->m_msgno == 1205 ||
            (e->m_msgno == iErrOleDbProvider &&
             strstr(e->m_msgtext, sErrTimeoutExpired) !=
             NULL)) &&
            (++iTryCount <= iMaxRetries))
        {
            // hit deadlock; backoff for increasingly
            // longer period
            delete e;
            Sleep(10 * iTryCount);
        }
        else
            throw;
    }
    // while (TRUE)
}

// if (iTryCount)
// throw new CTPCC_DBLIB_ERR(CTPCC_DBLIB_ERR::ERR_RETRIED_TRANS,
// iTryCount);
}

void CTPCC_DBLIB::ResetError()
{
    if (m_DbLibErr != NULL)
    {
        delete m_DbLibErr;
        m_DbLibErr = (CDBLIBERR*)NULL;
    }

    if (m_SqlErr != NULL)
    {
        delete m_SqlErr;
        m_SqlErr = (CSQLERR*)NULL;
    }
    return;
}

```

tpcc_dblib.h

```

/* FILE: TPCC_DBLIB.H
 * Microsoft TPC-C Kit Ver. 4.20.000
 * Copyright Microsoft, 1999
 * All Rights Reserved
 * Version 4.10.000 audited by Richard Gimarc,
 * Performance Metrics, 3/17/99
 * PURPOSE: Header file for TPC-C txn class implementation.
 * Change history:
 * 4.20.000 - updated rev number to match kit
 */
#pragma once

#ifndef PDBPROCESS
#define DBPROCESS void // dbprocess structure type

```

```

typedef DBPROCESS * PDBPROCESS;
#endif

// need to declare functions for import, unless define has already been created
// by the DLL's .cpp module for export.
#ifndef DllDecl
#define DllDecl __declspec( dllimport )
#endif

class CSQLERR : public CBaseErr
{
public:
    CSQLERR(void)
    {
        m_msgno = 0;
        m_msgstate = 0;
        m_severity = 0;
        m_msgtext = NULL;
    };

    ~CSQLERR()
    {
        delete [] m_msgtext;
    };

    int m_msgno;
    int m_msgstate;
    int m_severity;
    char *m_msgtext;

    int ErrorType() {return ERR_TYPE_SQL;};
    int ErrorNum() {return m_msgno;};
    char *ErrorText() {return m_msgtext;};
};

class CDBLIBERR : public CBaseErr
{
public:
    enum ACTION
    {
        eNone,
        eUnknown,
        eLogin, // error from
        dblogin
        eDbOpen, // error from dbopen
        eDbUse, // error from
        dbuse
        eDbSqlExec, // error from
        dbsqlexec
        eDbSet, // error from
        one of the dbset* routines
        eDbNextRow, // error from
        dbnextrow
        eWrongRowCount, // more or less rows
        returned than expected
        eWrongNumCols, // more or less columns
        returned than expected
        eDbResults, // error from
        dbresults
        eDbRpcExec, // error from
        dbrpcexec
    };
};

```

```

        eDbSetMaxProcs,          // error from
dbsetmaxprocs                eDbProcHandler          // error from either
dbprocerrhandle or dbprocmsghandle
    };

    CDBLIBERR(ACTION eAction, int severity = 0, int dberror = 0, int
oserr = 0)
    {
        m_eAction = eAction;
        m_severity = severity;
        m_dberror = dberror;
        m_oserr = oserr;

        m_dberrstr = NULL;
        m_oserrstr = NULL;
    };

    ~CDBLIBERR()
    {
        delete [] m_dberrstr;
        delete [] m_oserrstr;
    };

    ACTION    m_eAction;
    int       m_severity;
    int       m_dberror;
    int       m_oserr;
    char      *m_dberrstr;
    char      *m_oserrstr;

    int ErrorType() {return ERR_TYPE_DBLIB;};
    int ErrorNum() {return m_dberror;};
    char *ErrorText() {return m_dberrstr;};
};

class CTPCC_DBLIB_ERR : public CBaseErr
{
    public:
        enum CTPCC_DBLIB_ERRS
        {
            ERR_WRONG_SP_VERSION = 1,    // "Wrong version of
stored procs on database server"
            ERR_INVALID_CUST,           // "Invalid
Customer id,name."
            ERR_NO_SUCH_ORDER,         // "No orders
found for customer."
            ERR_RETRIED_TRANS,         // "Retries
before transaction succeeded."
        };

        CTPCC_DBLIB_ERR( int iErr ) { m_errno = iErr; m_iTryCount = 0;
};

        CTPCC_DBLIB_ERR( int iErr, int iTryCount ) { m_errno = iErr;
m_iTryCount = iTryCount; };

        int         m_errno;
        int         m_iTryCount;

        int ErrorType() {return ERR_TYPE_TPCC_DBLIB;};
        int ErrorNum() {return m_errno;};
};

```

```

};
        char *ErrorText();

class DllDecl CTPCC_DBLIB : public CTPCC_BASE
{
    private:
        // declare variables and private functions here...
        PDBPROCESS          m_dbproc;
        CDBLIBERR *m_DbLibErr;          // not allocated until
needed (maybe never)
        CSQLErr             *m_SqlErr;          //
not allocated until needed (maybe never)
        int                 m_MaxRetries;          //
retry count on deadlock

        void DiscardNextRows(int iExpectedCount);
        void DiscardNextResults(int iExpectedCount);
        void ThrowError( CDBLIBERR::ACTION eAction );
        void ResetError();

        union
        {
            NEW_ORDER_DATA          NewOrder;
            PAYMENT_DATA             Payment;
            DELIVERY_DATA            Delivery;
            STOCK_LEVEL_DATA         StockLevel;
            ORDER_STATUS_DATA        OrderStatus;
            m_txn;
        }

    public:
        CTPCC_DBLIB(LPCSTR szServer, LPCSTR szUser, LPCSTR szPassword,
LPCSTR szHost, LPCSTR szDatabase );
        ~CTPCC_DBLIB(void);

        inline PNEW_ORDER_DATA          BuffAddr_NewOrder()
        { return &m_txn.NewOrder; };
        inline PPAYMENT_DATA           BuffAddr_Payment()
        { return &m_txn.Payment; };
        inline PDELIVERY_DATA          BuffAddr_Delivery()
        { return &m_txn.Delivery; };
        inline PSTOCK_LEVEL_DATA       BuffAddr_StockLevel() {
return &m_txn.StockLevel; };
        inline PORDER_STATUS_DATA     BuffAddr_OrderStatus() {
return &m_txn.OrderStatus; };

        void NewOrder          ();
        void Payment           ();
        void Delivery          ();
        void StockLevel        ();
        void OrderStatus       ();

        // these are public because they must be called from the dblib
err_handler and msg_handler
        // outside of the class
        void SetDbLibError(int severity, int dberr, int oserr, LPCSTR
dberrstr, LPCSTR oserrstr);
        void SetSqlError( int msgno, int msgstate, int severity, LPCSTR
msgtext );
};

```

```
extern "C" DllDecl CTPCC_DBLIB* CTPCC_DBLIB_new
( LPCSTR szServer, LPCSTR szUser, LPCSTR szPassword, LPCSTR szHost, LPCSTR
szDatabase );
```

```
typedef CTPCC_DBLIB* (TYPE_CTPCC_DBLIB)(LPCSTR, LPCSTR, LPCSTR, LPCSTR, LPCSTR);
```

tpcc_odbc.cpp

```
/* FILE: TPC_C_ODBC.CPP
 * Microsoft TPC-C Kit Ver. 4.20.000
 * Copyright Microsoft, 1999
 *
 * All Rights Reserved
 *
 * Version 4.10.000 audited by Richard Gimarc,
 * Performance Metrics, 3/17/99
 *
 * PURPOSE: Implements ODBC calls for TPC-C txns.
 * Contact: Charles Levine (clevine@microsoft.com)
 *
 * Change history:
 * 4.20.000 - updated rev number to match kit
 * 4.10.001 - not deleting error class in catch handler on deadlock
retry;
 * not a functional bug, but a memory leak
 */

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

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

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

// need to declare functions for export
#define DllDecl __declspec( dllexport )

#include "..\..\common\src\error.h"
#include "..\..\common\src\trans.h"
#include "..\..\common\src\txn_base.h"
#include "tpcc_odbc.h"

// version string; must match return value from tpcc_version stored proc
const char sVersion[] = "4.10.000";

const iMaxRetries = 10; // how many retries on deadlock

const int iErrOleDbProvider = 7312;
const char sErrTimeoutExpired[] = "Timeout expired";

static SQLHENV henv = SQL_NULL_HENV; // ODBC
environment handle

BOOL APIENTRY DllMain(HMODULE hModule, DWORD ul_reason_for_call, LPVOID lpReserved)
{
    switch( ul_reason_for_call )
```

```
{
    case DLL_PROCESS_ATTACH:
        DisableThreadLibraryCalls(hModule);
        if ( SQLAllocHandleStd(SQL_HANDLE_ENV,
SQL_NULL_HANDLE, &henv) != SQL_SUCCEEDED )
            return FALSE;
        break;

    case DLL_PROCESS_DETACH:
        if (henv != NULL)
            SQLFreeEnv(henv);
        break;

    default:
        /* nothing */;
}
return TRUE;
}

/* FUNCTION: CTPCC_ODBC_ERR::ErrorText
 * */
char* CTPCC_ODBC_ERR::ErrorText(void)
{
    int i;

    static SERRORMSG errorMsgs[] =
    {
        { ERR_WRONG_SP_VERSION, "Wrong version of stored
procs on database server" },
        { ERR_INVALID_CUST, "Invalid Customer
id,name." },
        { ERR_NO_SUCH_ORDER, "No orders found for
customer." },
        { ERR_RETRIED_TRANS, "Retries before
transaction succeeded." },
        { 0, "" }
    };

    static char szNotFound[] = "Unknown error number.";

    for(i=0; errorMsgs[i].szMsg[0]; i++)
    {
        if ( m_errno == errorMsgs[i].iError )
            break;
    }
    if ( !errorMsgs[i].szMsg[0] )
        return szNotFound;
    else
        return errorMsgs[i].szMsg;
}

// wrapper routine for class constructor
__declspec(dllexport) CTPCC_ODBC* CTPCC_ODBC_new(
LPCSTR szServer, // name of SQL server
LPCSTR szUser, // user name for login
LPCSTR szPassword, // password for login
LPCSTR szHost, // not used
LPCSTR szDatabase ) // name of database to use
{
```

```

        return new CTPCC_ODBC( szServer, szUser, szPassword, szHost, szDatabase );
    }

CTPCC_ODBC::CTPCC_ODBC (
    LPCSTR szServer,          // name of SQL server
    LPCSTR szUser,           // user name
    LPCSTR szPassword,      // password for login
    LPCSTR szHost,          // not used
    LPCSTR szDatabase       // name of database to
    use
)
{
    RETCODE          rc;

    // initialization
    m_hdbc = SQL_NULL_HDBC;
    m_hstmt = SQL_NULL_HSTMT;

    m_hstmtNewOrder = SQL_NULL_HSTMT;
    m_hstmtPayment = SQL_NULL_HSTMT;
    m_hstmtDelivery = SQL_NULL_HSTMT;
    m_hstmtOrderStatus = SQL_NULL_HSTMT;
    m_hstmtStockLevel = SQL_NULL_HSTMT;

    m_descNewOrderCols1 = SQL_NULL_HDESC;
    m_descNewOrderCols2 = SQL_NULL_HDESC;
    m_descOrderStatusCols1 = SQL_NULL_HDESC;
    m_descOrderStatusCols2 = SQL_NULL_HDESC;

    if ( SQLAllocHandle(SQL_HANDLE_DBC, henv, &m_hdbc) != SQL_SUCCESS )
        ThrowError(CODBCERR::eAllocHandle);

    if ( SQLSetConnectOption(m_hdbc, SQL_PACKET_SIZE, 4096) != SQL_SUCCESS )
        ThrowError(CODBCERR::eConnOption);

    {
        char          szConnectStr[256];
        char          szOutStr[1024];
        SQLSMALLINT  iOutStrLen;

        sprintf( szConnectStr, "DRIVER=SQL
Server:SERVER=%s;UID=%s;PWD=%s;DATABASE=%s",
                szServer, szUser, szPassword, szDatabase );

        rc = SQLDriverConnect(m_hdbc, NULL, (SQLCHAR*)szConnectStr,
sizeof(szConnectStr),
                (SQLCHAR*)szOutStr, sizeof(szOutStr), &iOutStrLen,
SQL_DRIVER_NOPROMPT );

        if (rc != SQL_SUCCESS && rc != SQL_SUCCESS_WITH_INFO)
            ThrowError(CODBCERR::eConnect);
    }

    if (SQLAllocHandle(SQL_HANDLE_STMT, m_hdbc, &m_hstmt) != SQL_SUCCESS)
        ThrowError(CODBCERR::eAllocHandle);

    {
        char          buffer[128];

        // set some options affecting connection behavior

```

```

        strcpy(buffer, "set nocount on set XACT_ABORT ON");
        rc = SQLExecDirect(m_hstmt, (unsigned char *)buffer, SQL_NTS);
        if (rc != SQL_SUCCESS && rc != SQL_SUCCESS_WITH_INFO)
            ThrowError(CODBCERR::eExecDirect);

        // verify that version of stored procs on server is correct
        char db_sp_version[10];
        strcpy(buffer, "{call tpcc_version}");
        rc = SQLExecDirect(m_hstmt, (unsigned char *)buffer, SQL_NTS);
        if (rc != SQL_SUCCESS && rc != SQL_SUCCESS_WITH_INFO)
            ThrowError(CODBCERR::eExecDirect);
        if ( SQLBindCol(m_hstmt, 1, SQL_C_CHAR, &db_sp_version,
sizeof(db_sp_version), NULL) != SQL_SUCCESS )
            ThrowError(CODBCERR::eBindCol);
        if ( SQLFetch(m_hstmt) == SQL_ERROR )
            ThrowError(CODBCERR::eFetch);
        if (strcmp(db_sp_version, sVersion))
            throw new CTPCC_ODBC_ERR(
CTPCC_ODBC_ERR::ERR_WRONG_SP_VERSION );

        SQLFreeHandle(SQL_HANDLE_STMT, m_hstmt);
    }

    // Bind parameters for each of the transactions
    InitNewOrderParams();
    InitPaymentParams();
    InitOrderStatusParams();
    InitDeliveryParams();
    InitStockLevelParams();
}

CTPCC_ODBC::~~CTPCC_ODBC( void )
{
    // note: descriptors are automatically released when the connection is
    dropped
    SQLFreeHandle(SQL_HANDLE_STMT, m_hstmtNewOrder);
    SQLFreeHandle(SQL_HANDLE_STMT, m_hstmtPayment);
    SQLFreeHandle(SQL_HANDLE_STMT, m_hstmtDelivery);
    SQLFreeHandle(SQL_HANDLE_STMT, m_hstmtOrderStatus);
    SQLFreeHandle(SQL_HANDLE_STMT, m_hstmtStockLevel);

    SQLDisconnect(m_hdbc);
    SQLFreeHandle(SQL_HANDLE_DBC, m_hdbc);
}

void CTPCC_ODBC::ThrowError( CODBCERR::ACTION eAction )
{
    RETCODE          rc;
    SDWORD          lNativeError;
    char            szState[6];
    char            szMsg[SQL_MAX_MESSAGE_LENGTH];
    char            szTmp[6*SQL_MAX_MESSAGE_LENGTH];
    CODBCERR        *pODBCErr;          // not allocated until
needed (maybe never)

    pODBCErr = new CODBCERR();

    pODBCErr->m_NativeError = 0;
    pODBCErr->m_eAction = eAction;
    pODBCErr->m_bDeadLock = FALSE;

    szTmp[0] = 0;
    while (TRUE)

```

```

        {
            rc = SQLError(henv, m_hdbc, m_hstmt, (BYTE *)&szState,
&lNativeError,
                (BYTE *)&szMsg, sizeof(szMsg),
NULL);
            if (rc == SQL_NO_DATA)
                break;

            // check for deadlock
            if (lNativeError == 1205 || (lNativeError == iErrOleDbProvider
&&
                strstr(szMsg, sErrTimeoutExpired) != NULL))
                pODBCErr->m_bDeadLock = TRUE;

            // capture the (first) database error
            if (pODBCErr->m_NativeError == 0 && lNativeError != 0)
                pODBCErr->m_NativeError = lNativeError;

            // quit if there isn't enough room to concatenate error text
            if ( (strlen(szMsg) + 2) > (sizeof(szTmp) - strlen(szTmp)) )
                break;

            // include line break after first error msg
            if (szTmp[0] != 0)
                strcat( szTmp, "\n");
            strcat( szTmp, szMsg );
        }

        if (pODBCErr->m_odbcerrstr != NULL)
        {
            delete [] pODBCErr->m_odbcerrstr;
            pODBCErr->m_odbcerrstr = NULL;
        }

        if (strlen(szTmp) > 0)
        {
            pODBCErr->m_odbcerrstr = new char[ strlen(szTmp)+1 ];
            strcpy( pODBCErr->m_odbcerrstr, szTmp );
        }

        SQLFreeStmt(m_hstmt, SQL_CLOSE);
        throw pODBCErr;
    }

void CTPCC_ODBC::InitStockLevelParams()
{
    if ( SQLAllocHandle(SQL_HANDLE_STMT, m_hdbc, &m_hstmtStockLevel) !=
SQL_SUCCESS )
        ThrowError(CODBCERR::eAllocHandle);

    m_hstmt = m_hstmtStockLevel;

    int i = 0;
    if ( SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SSHORT,
SQL_SMALLINT, 0, 0, &m_txn.StockLevel.w_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT,
SQL_C_UTINYINT, SQL_TINYINT, 0, 0, &m_txn.StockLevel.d_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SSHORT,
SQL_SMALLINT, 0, 0, &m_txn.StockLevel.threshold, 0, NULL) != SQL_SUCCESS
    )
        ThrowError(CODBCERR::eBindParam);
}

```

```

        if ( SQLBindCol(m_hstmt, 1, SQL_C_SLONG, &m_txn.StockLevel.low_stock, 0,
NULL) != SQL_SUCCESS )
            ThrowError(CODBCERR::eBindCol);
    }

void CTPCC_ODBC::StockLevel()
{
    RETCODE rc;
    int iTryCount = 0;

    m_hstmt = m_hstmtStockLevel;

    while (TRUE)
    {
        try
        {
            rc = SQLExecDirectW(m_hstmt, (SQLWCHAR*)L"{call
tpcc_stocklevel(?,?,?)}", SQL_NTS);
            if (rc != SQL_SUCCESS && rc != SQL_SUCCESS_WITH_INFO)
                ThrowError(CODBCERR::eExecDirect);

            if ( SQLFetch(m_hstmt) == SQL_ERROR )
                ThrowError(CODBCERR::eFetch);

            SQLFreeStmt(m_hstmt, SQL_CLOSE);

            m_txn.StockLevel.exec_status_code = eOK;
            break;
        }
        catch (CODBCERR *e)
        {
            if ((!e->m_bDeadLock) || (++iTryCount > iMaxRetries))
                throw;

            // hit deadlock; backoff for increasingly longer
            delete e;
            Sleep(10 * iTryCount);
        }
    }

    // if (iTryCount)
    // throw new CTPCC_ODBC_ERR(CTPCC_ODBC_ERR::ERR_RETRIED_TRANS,
iTryCount);
}

void CTPCC_ODBC::InitNewOrderParams()
{
    if ( SQLAllocHandle(SQL_HANDLE_STMT, m_hdbc, &m_hstmtNewOrder) !=
SQL_SUCCESS
        || SQLAllocHandle(SQL_HANDLE_DESC, m_hdbc, &m_descNewOrderCols1)
!= SQL_SUCCESS
        || SQLAllocHandle(SQL_HANDLE_DESC, m_hdbc, &m_descNewOrderCols2)
!= SQL_SUCCESS
    )
        ThrowError(CODBCERR::eAllocHandle);

    m_hstmt = m_hstmtNewOrder;

    if ( SQLSetStmtAttrW( m_hstmt, SQL_ATTR_APP_ROW_DESC, m_descNewOrderCols1,
SQL_IS_POINTER ) != SQL_SUCCESS )
        ThrowError(CODBCERR::eSetStmtAttr);
}

```



```

        int i = 0;
        if ( SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SSHORT,
SQL_SMALLINT, 0, 0, &m_txn.NewOrder.w_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT,
SQL_C_UTINYINT, SQL_TINYINT, 0, 0, &m_txn.NewOrder.d_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SLONG,
SQL_INTEGER, 0, 0, &m_txn.NewOrder.c_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT,
SQL_C_UTINYINT, SQL_TINYINT, 0, 0, &m_txn.NewOrder.o_ol_cnt, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT,
SQL_C_UTINYINT, SQL_TINYINT, 0, 0, &m_txn.NewOrder.o_all_local, 0, NULL) !=
SQL_SUCCESS
        )
            ThrowError(CODBCERR::eBindParam);

        for (int j=0; j<MAX_OL_NEW_ORDER_ITEMS; j++)
        {
            if ( SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT,
SQL_C_SLONG, SQL_INTEGER, 0, 0, &m_txn.NewOrder.OL[j].ol_i_id, 0, NULL) !=
SQL_SUCCESS
            || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT,
SQL_C_SSHORT, SQL_SMALLINT, 0, 0, &m_txn.NewOrder.OL[j].ol_supply_w_id, 0, NULL) !=
SQL_SUCCESS
            || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT,
SQL_C_SSHORT, SQL_SMALLINT, 0, 0, &m_txn.NewOrder.OL[j].ol_quantity, 0, NULL) !=
SQL_SUCCESS
            )
                ThrowError(CODBCERR::eBindParam);
        }

        // set the bind offset pointer
        if ( SQLSetStmtAttrW( m_hstmt, SQL_ATTR_ROW_BIND_OFFSET_PTR,
&m_BindOffset, SQL_IS_POINTER ) != SQL_SUCCESS )
            ThrowError(CODBCERR::eSetStmtAttr);

        i = 0;
        if ( SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.NewOrder.OL[0].ol_i_name, sizeof(m_txn.NewOrder.OL[0].ol_i_name), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_SSHORT,
&m_txn.NewOrder.OL[0].ol_stock, 0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.NewOrder.OL[0].ol_brand_generic,
sizeof(m_txn.NewOrder.OL[0].ol_brand_generic), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE,
&m_txn.NewOrder.OL[0].ol_i_price, 0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE,
&m_txn.NewOrder.OL[0].ol_amount, 0, NULL) != SQL_SUCCESS
        )
            ThrowError(CODBCERR::eBindCol);

        // associate the column bindings for the second result set
        if ( SQLSetStmtAttrW( m_hstmt, SQL_ATTR_APP_ROW_DESC, m_descNewOrderCols2,
SQL_IS_POINTER ) != SQL_SUCCESS )
            ThrowError(CODBCERR::eSetStmtAttr);

        i = 0;
        if ( SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE, &m_txn.NewOrder.w_tax, 0,
NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE,
&m_txn.NewOrder.d_tax, 0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_SLONG,
&m_txn.NewOrder.o_id, 0, NULL) != SQL_SUCCESS

```

```

        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.NewOrder.c_last, sizeof(m_txn.NewOrder.c_last), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE,
&m_txn.NewOrder.c_discount, 0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.NewOrder.c_credit, sizeof(m_txn.NewOrder.c_credit), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_TYPE_TIMESTAMP,
&m_txn.NewOrder.o_entry_d, 0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_SLONG, &m_no_commit_flag,
0, NULL) != SQL_SUCCESS
        )
            ThrowError(CODBCERR::eBindCol);
    }

void CTPCC_ODBC::NewOrder()
{
    int i;
    RETCODE rc;
    int iTryCount = 0;

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

    m_hstmt = m_hstmtNewOrder;

    // associate the parameter and column bindings for this transaction
    if ( SQLSetStmtAttrW( m_hstmt, SQL_ATTR_APP_ROW_DESC, m_descNewOrderCols1,
SQL_IS_POINTER ) != SQL_SUCCESS )
        ThrowError(CODBCERR::eSetStmtAttr);

    // clip statement buffer based on number of parameters
    // fixed part is 29 chars and variable part is 6 chars per line item
    i = 29 + m_txn.NewOrder.o_ol_cnt*6;
    wcsncpy( &szSqlTemplate[i], L"}}" );

    // check whether any order lines are for a remote warehouse
    m_txn.NewOrder.o_all_local = 1;
    for (i = 0; i < m_txn.NewOrder.o_ol_cnt; i++)
    {
        if (m_txn.NewOrder.OL[i].ol_supply_w_id != m_txn.NewOrder.w_id)
        {
            m_txn.NewOrder.o_all_local = 0; // at least one
            break;
        }
    }

    while (TRUE)
    {
        try
        {
            m_BindOffset = 0;
            rc = SQLExecDirectW(m_hstmt, (SQLWCHAR*)szSqlTemplate,
SQL_NTS);

```

```

if (rc != SQL_SUCCESS && rc != SQL_SUCCESS_WITH_INFO)
    ThrowError(CODBCERR::eExecDirect);

// Get order line results
m_txn.NewOrder.total_amount = 0;
for (i = 0; i < m_txn.NewOrder.o_ol_cnt; i++)
{
    // set the bind offset value...
    m_BindOffset = i *
sizeof(m_txn.NewOrder.OL[0]);

    if ( SQLFetch(m_hstmt) == SQL_ERROR)
        ThrowError(CODBCERR::eFetch);

    // move to the next resultset
    if ( SQLMoreResults(m_hstmt) == SQL_ERROR )
        ThrowError(CODBCERR::eMoreResults);

    m_txn.NewOrder.total_amount +=
m_txn.NewOrder.OL[i].ol_amount;
}

// associate the column bindings for the second result
set
    if ( SQLSetStmtAttrW( m_hstmt, SQL_ATTR_APP_ROW_DESC,
m_descNewOrderCols2, SQL_IS_POINTER ) != SQL_SUCCESS )
        ThrowError(CODBCERR::eSetStmtAttr);

    if ( SQLFetch(m_hstmt) == SQL_ERROR)
        ThrowError(CODBCERR::eFetch);

    SQLFreeStmt(m_hstmt, SQL_CLOSE);

    if (m_no_commit_flag == 1)
    {
        m_txn.NewOrder.total_amount *= ((1 +
m_txn.NewOrder.w_tax + m_txn.NewOrder.d_tax) * (1 - m_txn.NewOrder.c_discount));
        m_txn.NewOrder.exec_status_code = eOK;
    }
    else
        m_txn.NewOrder.exec_status_code =
eInvalidItem;

    break;
}
catch (CODBCERR *e)
{
    if (!(e->m_bDeadLock) || (++iTryCount > iMaxRetries))
        throw;

    // hit deadlock; backoff for increasingly longer
period
    delete e;
    Sleep(10 * iTryCount);
}

// if (iTryCount)
// throw new CTPCC_ODBC_ERR(CTPCC_ODBC_ERR::ERR_RETRIED_TRANS,
iTryCount);
}

```

```

void CTPCC_ODBC::InitPaymentParams()
{
    if ( SQLAllocHandle(SQL_HANDLE_STMT, m_hdbc, &m_hstmtPayment) !=
SQL_SUCCESS )
        ThrowError(CODBCERR::eAllocHandle);

    m_hstmt = m_hstmtPayment;

    int i = 0;
    if ( SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SSHORT,
SQL_SMALLINT, 0, 0, &m_txn.Payment.w_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SSHORT,
SQL_SMALLINT, 0, 0, &m_txn.Payment.c_w_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_DOUBLE,
SQL_NUMERIC, 6, 2, &m_txn.Payment.h_amount, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT,
SQL_C_UTINYINT, SQL_TINYINT, 0, 0, &m_txn.Payment.d_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT,
SQL_C_UTINYINT, SQL_TINYINT, 0, 0, &m_txn.Payment.c_d_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SLONG,
SQL_INTEGER, 0, 0, &m_txn.Payment.c_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_CHAR,
SQL_CHAR, sizeof(m_txn.Payment.c_last), 0, &m_txn.Payment.c_last,
sizeof(m_txn.Payment.c_last), NULL) != SQL_SUCCESS
        )
        ThrowError(CODBCERR::eBindParam);

    i = 0;
    if ( SQLBindCol(m_hstmt, ++i, SQL_C_SLONG, &m_txn.Payment.c_id,
0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.c_last,
sizeof(m_txn.Payment.c_last), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_TYPE_TIMESTAMP,
&m_txn.Payment.h_date,
0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.w_street_1,
sizeof(m_txn.Payment.w_street_1), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.w_street_2,
sizeof(m_txn.Payment.w_street_2), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.w_city,
sizeof(m_txn.Payment.w_city), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.w_state,
sizeof(m_txn.Payment.w_state), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.w_zip,
sizeof(m_txn.Payment.w_zip), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.d_street_1,
sizeof(m_txn.Payment.d_street_1), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.d_street_2,
sizeof(m_txn.Payment.d_street_2), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.d_city,
sizeof(m_txn.Payment.d_city), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.d_state,
sizeof(m_txn.Payment.d_state), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.d_zip,
sizeof(m_txn.Payment.d_zip), NULL) !=
SQL_SUCCESS
    )

```

```

        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.c_first,
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.c_middle,
        sizeof(m_txn.Payment.c_middle), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.c_street_1,
        sizeof(m_txn.Payment.c_street_1), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.c_street_2,
        sizeof(m_txn.Payment.c_street_2), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.c_city,
        sizeof(m_txn.Payment.c_city), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.c_state,
        sizeof(m_txn.Payment.c_state), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.c_zip,
        sizeof(m_txn.Payment.c_zip), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.c_phone,
        sizeof(m_txn.Payment.c_phone), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_TYPE_TIMESTAMP,
&m_txn.Payment.c_since,
        0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.c_credit,
        sizeof(m_txn.Payment.c_credit), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE,
&m_txn.Payment.c_credit_lim,0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE,
&m_txn.Payment.c_discount,
        0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE,
&m_txn.Payment.c_balance,
        0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.c_data,
        sizeof(m_txn.Payment.c_data), NULL) !=
SQL_SUCCESS
    )
    ThrowError(CODBCERR::eBindCol);
}

void CTPCC_ODBC::Payment()
{
    RETCODE rc;
    int iTryCount = 0;

    m_hstmt = m_hstmtPayment;

    if (m_txn.Payment.c_id != 0)
        m_txn.Payment.c_last[0] = 0;

    while (TRUE)
    {
        try
        {
            rc = SQLExecDirectW(m_hstmt, (SQLWCHAR*)L"{call
tpcc_payment(?,?,?,?,?,?)}", SQL_NTS);
            if (rc != SQL_SUCCESS && rc != SQL_SUCCESS_WITH_INFO)
                ThrowError(CODBCERR::eExecDirect);

            if ( SQLFetch(m_hstmt) == SQL_ERROR)
                ThrowError(CODBCERR::eFetch);

            SQLFreeStmt(m_hstmt, SQL_CLOSE);

            if (m_txn.Payment.c_id == 0)

```

```

        throw new CTPCC_ODBC_ERR(
CTPCC_ODBC_ERR::ERR_INVALID_CUST );
        else
            m_txn.Payment.exec_status_code = eOK;

        break;
    }
    catch (CODBCERR *e)
    {
        if (!(e->m_bDeadLock) || (++iTryCount > iMaxRetries))
            throw;

        // hit deadlock; backoff for increasingly longer
        delete e;
        Sleep(10 * iTryCount);
    }
}

// if (iTryCount)
// throw new CTPCC_ODBC_ERR(CTPCC_ODBC_ERR::ERR_RETRIED_TRANS,
// iTryCount);
}

void CTPCC_ODBC::InitOrderStatusParams()
{
    if ( SQLAllocHandle(SQL_HANDLE_STMT, m_hdbc, &m_hstmtOrderStatus) !=
SQL_SUCCESS
        || SQLAllocHandle(SQL_HANDLE_DESC, m_hdbc,
&m_descOrderStatusCols1) != SQL_SUCCESS
        || SQLAllocHandle(SQL_HANDLE_DESC, m_hdbc,
&m_descOrderStatusCols2) != SQL_SUCCESS
    )
        ThrowError(CODBCERR::eAllocHandle);

    m_hstmt = m_hstmtOrderStatus;

    if ( SQLSetStmtAttrW( m_hstmt, SQL_ATTR_APP_ROW_DESC,
m_descOrderStatusCols1, SQL_IS_POINTER ) != SQL_SUCCESS )
        ThrowError(CODBCERR::eSetStmtAttr);

    int i = 0;
    if ( SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SSHORT,
SQL_SMALLINT, 0, 0, &m_txn.OrderStatus.w_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT,
SQL_C_UTINYINT, SQL_TINYINT, 0, 0, &m_txn.OrderStatus.d_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SLONG,
SQL_INTEGER, 0, 0, &m_txn.OrderStatus.c_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_CHAR,
SQL_CHAR, sizeof(m_txn.OrderStatus.c_last), 0, &m_txn.OrderStatus.c_last,
sizeof(m_txn.OrderStatus.c_last), NULL) != SQL_SUCCESS
    )
        ThrowError(CODBCERR::eBindParam);

    // configure block cursor
    if ( SQLSetStmtAttrW(m_hstmt, SQL_ATTR_ROW_BIND_TYPE,
(SQLPOINTER)sizeof(m_txn.OrderStatus.OL[0]), 0) != SQL_SUCCESS
        || SQLSetStmtAttrW(m_hstmt, SQL_ATTR_ROWS_FETCHED_PTR,
&m_RowsFetched, 0) != SQL_SUCCESS
    )
        ThrowError(CODBCERR::eSetStmtAttr);

    i = 0;

```

```

        if ( SQLBindCol(m_hstmt, ++i, SQL_C_SSHORT,
&m_txn.OrderStatus.OL[0].ol_supply_w_id, 0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_SLONG,
&m_txn.OrderStatus.OL[0].ol_i_id, 0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_SSHORT,
&m_txn.OrderStatus.OL[0].ol_quantity, 0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE,
&m_txn.OrderStatus.OL[0].ol_amount, 0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_TYPE_TIMESTAMP,
&m_txn.OrderStatus.OL[0].ol_delivery_d, 0, NULL) != SQL_SUCCESS
        )
            ThrowError(CODBCERR::eBindCol);

        if ( SQLSetStmtAttrW( m_hstmt, SQL_ATTR_APP_ROW_DESC,
m_descOrderStatusCols2, SQL_IS_POINTER ) != SQL_SUCCESS )
            ThrowError(CODBCERR::eSetStmtAttr);

        i = 0;
        if ( SQLBindCol(m_hstmt, ++i, SQL_C_SLONG, &m_txn.OrderStatus.c_id, 0,
NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.OrderStatus.c_last, sizeof(m_txn.OrderStatus.c_last), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.OrderStatus.c_first, sizeof(m_txn.OrderStatus.c_first), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.OrderStatus.c_middle, sizeof(m_txn.OrderStatus.c_middle), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_TYPE_TIMESTAMP,
&m_txn.OrderStatus.o_entry_d, 0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_SSHORT,
&m_txn.OrderStatus.o_carrier_id, 0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE,
&m_txn.OrderStatus.c_balance, 0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_SLONG,
&m_txn.OrderStatus.o_id, 0, NULL) != SQL_SUCCESS
        )
            ThrowError(CODBCERR::eBindCol);
    }

void CTPCC_ODBC::OrderStatus()
{
    int                                     rc;                 iTryCount = 0;
    RETCODE

    m_hstmt = m_hstmtOrderStatus;

    if ( SQLSetStmtAttrW( m_hstmt, SQL_ATTR_APP_ROW_DESC,
m_descOrderStatusCols1, SQL_IS_POINTER ) != SQL_SUCCESS )
        ThrowError(CODBCERR::eSetStmtAttr);

    if (m_txn.OrderStatus.c_id != 0)
        m_txn.OrderStatus.c_last[0] = 0;

    while (TRUE)
    {
        try
        {
            // configure block cursor
            if ( SQLSetStmtAttrW(m_hstmt, SQL_ATTR_ROW_ARRAY_SIZE,
(SQLPOINTER)1, 0) != SQL_SUCCESS )
                ThrowError(CODBCERR::eSetStmtAttr);

```

```

        rc = SQLExecDirectW(m_hstmt, (SQLWCHAR*)L" {call
tpcc_orderstatus(?,?,?,?)", SQL_NTS);
        if ( ((rc == SQL_SUCCESS_WITH_INFO) && (m_RowsFetched
!= 0)) || (rc == SQL_ERROR) )
            ThrowError(CODBCERR::eExecDirect);

        // configure block cursor
        if ( SQLSetStmtAttrW(m_hstmt, SQL_ATTR_ROW_ARRAY_SIZE,
(SQLPOINTER)MAX_OL_ORDER_STATUS_ITEMS, 0) != SQL_SUCCESS )
            ThrowError(CODBCERR::eSetStmtAttr);

        rc = SQLFetchScroll( m_hstmt, SQL_FETCH_NEXT, 0 );
        if ( ((rc == SQL_SUCCESS_WITH_INFO) && (m_RowsFetched
!= 0)) || (rc == SQL_ERROR) )
            ThrowError(CODBCERR::eFetchScroll);

        m_txn.OrderStatus.o_ol_cnt = (short)m_RowsFetched;

        if (m_txn.OrderStatus.o_ol_cnt != 0)
        {
            if ( SQLSetStmtAttrW( m_hstmt,
SQL_ATTR_APP_ROW_DESC, m_descOrderStatusCols2, SQL_IS_POINTER ) != SQL_SUCCESS )
                ThrowError(CODBCERR::eSetStmtAttr);

            if ( SQLMoreResults(m_hstmt) == SQL_ERROR )
                ThrowError(CODBCERR::eMoreResults);

            if ( (rc = SQLFetch(m_hstmt)) == SQL_ERROR )
                ThrowError(CODBCERR::eFetch);
        }

        SQLFreeStmt(m_hstmt, SQL_CLOSE);

        if (m_txn.OrderStatus.o_ol_cnt == 0)
            throw new CTPCC_ODBC_ERR(
CTPCC_ODBC_ERR::ERR_NO_SUCH_ORDER );
        else if (m_txn.OrderStatus.c_id == 0 &&
m_txn.OrderStatus.c_last[0] == 0)
            throw new CTPCC_ODBC_ERR(
CTPCC_ODBC_ERR::ERR_INVALID_CUST );
        else
            m_txn.OrderStatus.exec_status_code = eOK;

        break;
    }
    catch (CODBCERR *e)
    {
        if ( (!e->m_bDeadLock) || (++iTryCount > iMaxRetries) )
            throw;

        // hit deadlock; backoff for increasingly longer
        delete e;
        Sleep(10 * iTryCount);
    }
}

// if (iTryCount)
// throw new CTPCC_ODBC_ERR(CTPCC_ODBC_ERR::ERR_RETRIED_TRANS,
iTryCount);
}

```

```

void CTPCC_ODBC::InitDeliveryParams()
{
    if ( SQLAllocHandle(SQL_HANDLE_STMT, m_hdbc, &m_hstmtDelivery) !=
SQL_SUCCESS )
        ThrowError(CODBCERR::eAllocHandle);

    m_hstmt = m_hstmtDelivery;

    int i = 0;
    if ( SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SSHORT,
SQL_SMALLINT, 0, 0, &m_txn.Delivery.w_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SSHORT,
SQL_SMALLINT, 0, 0, &m_txn.Delivery.o_carrier_id, 0, NULL) != SQL_SUCCESS
        )
        ThrowError(CODBCERR::eBindParam);

    for (i=0;i<10;i++)
    {
        if ( SQLBindCol(m_hstmt, (UWORD)(i+1), SQL_C_SLONG,
&m_txn.Delivery.o_id[i], 0, NULL) != SQL_SUCCESS )
            ThrowError(CODBCERR::eBindCol);
    }
}

void CTPCC_ODBC::Delivery()
{
    RETCODE          rc;
    int              iTryCount = 0;

    m_hstmt = m_hstmtDelivery;

    while (TRUE)
    {
        try
        {
            rc = SQLExecDirectW(m_hstmt, (SQLWCHAR*)"L{call
tpcc_delivery(?,?)", SQL_NTS);
            if (rc != SQL_SUCCESS && rc != SQL_SUCCESS_WITH_INFO)
                ThrowError(CODBCERR::eExecDirect);

            if ( SQLFetch(m_hstmt) == SQL_ERROR )
                ThrowError(CODBCERR::eFetch);

            SQLFreeStmt(m_hstmt, SQL_CLOSE);
            m_txn.Delivery.exec_status_code = eOK;
            break;
        }
        catch (CODBCERR *e)
        {
            if (!(e->m_bDeadLock) || (++iTryCount > iMaxRetries))
                throw;

            // hit deadlock; backoff for increasingly longer
            delete e;
            Sleep(10 * iTryCount);
        }
    }

    // if (iTryCount)
    // throw new CTPCC_ODBC_ERR(CTPCC_ODBC_ERR::ERR_RETRIED_TRANS,
iTryCount);
}

```

```

}

tpcc_odbc.h


---


/* FILE: TPCC_ODBC.H
 * Microsoft TPC-C Kit Ver. 4.20.000
 * Copyright Microsoft, 1999
 * All Rights Reserved
 * Version 4.10.000 audited by Richard Gimarc,
 * Performance Metrics, 3/17/99
 * PURPOSE: Header file for TPC-C txn class implementation.
 * Change history:
 * 4.20.000 - updated rev number to match kit
 */
#pragma once

// need to declare functions for import, unless define has already been created
// by the DLL's .cpp module for export.
#ifdef DllDecl
#define DllDecl __declspec( dllimport )
#endif

class CODBCERR : public CBaseErr
{
public:
    enum ACTION
    {
        eNone,
        eUnknown,
        eAllocConn, // error from
        SQLAllocConnect
        eAllocHandle, // error from
        SQLAllocHandle
        eConnOption, // error from
        SQLSetConnectOption
        eConnect, // error from SQLConnect
        eAllocStmt, // error from
        SQLAllocStmt
        eExecDirect, // error from
        SQLExecDirect
        eBindParam, // error from
        SQLBindParameter
        eBindCol, // error from SQLBindCol
        eFetch, // error from
        SQLFetch
        eFetchScroll, // error from
        SQLFetchScroll
        eMoreResults, // error from
        SQLMoreResults
        ePrepare, // error from SQLPrepare
        eExecute, // error from SQLExecute
        eSetEnvAttr, // error from
        SQLSetEnvAttr
        eSetStmtAttr // error from
        SQLSetStmtAttr
    };

    CODBCERR(void)
    {

```

```

        m_eAction = eNone;
        m_NativeError = 0;
        m_bDeadLock = FALSE;
        m_odbcerrstr = NULL;
    };

~COBDCERR()
{
    if (m_odbcerrstr != NULL)
        delete [] m_odbcerrstr;
};

ACTION    m_eAction;
int       m_NativeError;
BOOL     m_bDeadLock;
char     *m_odbcerrstr;

int ErrorType() {return ERR_TYPE_ODBC;};
int ErrorNum() {return m_NativeError;};
char *ErrorText() {return m_odbcerrstr;};

};

class CTPCC_ODBC_ERR : public CBaseErr
{
public:
    enum TPCC_ODBC_ERRS
    {
        ERR_WRONG_SP_VERSION = 1,    // "Wrong version of
stored procs on database server"
        ERR_INVALID_CUST,            // "Invalid
Customer id,name."
        ERR_NO_SUCH_ORDER,           // "No orders
found for customer."
        ERR_RETRIED_TRANS,           // "Retries
before transaction succeeded."
    };

    CTPCC_ODBC_ERR( int iErr ) { m_errno = iErr; m_iTryCount = 0; };

    CTPCC_ODBC_ERR( int iErr, int iTryCount ) { m_errno = iErr;
m_iTryCount = iTryCount; };

    int         m_errno;
    int         m_iTryCount;

    int ErrorType() {return ERR_TYPE_TPCC_ODBC;};
    int ErrorNum() {return m_errno;};

    char *ErrorText();

};

class DllDecl CTPCC_ODBC : public CTPCC_BASE
{
private:
    // declare variables and private functions here...
    BOOL     m_bDeadlock;           // transaction
was selected as deadlock victim
    int     m_MaxRetries;           //
retry count on deadlock

    SQLHENV m_henv;                //
ODBC environment handle

```

```

SQLHDBC     m_hdbc;
SQLHSTMT    m_hstmt;              // the current hstmt

SQLHSTMT    m_hstmtNewOrder;
SQLHSTMT    m_hstmtPayment;
SQLHSTMT    m_hstmtDelivery;
SQLHSTMT    m_hstmtOrderStatus;
SQLHSTMT    m_hstmtStockLevel;

SQLHDESC    m_descNewOrderCols1;
SQLHDESC    m_descNewOrderCols2;
SQLHDESC    m_descOrderStatusCols1;
SQLHDESC    m_descOrderStatusCols2;

// new-order specific fields
SQLINTEGER  m_BindOffset;
SQLINTEGER  m_RowsFetched;
int         m_no_commit_flag;

void ThrowError( COBDCERR::ACTION eAction );

void InitNewOrderParams();
void InitPaymentParams();
void InitDeliveryParams();
void InitStockLevelParams();
void InitOrderStatusParams();

union
{
    NEW_ORDER_DATA      NewOrder;
    PAYMENT_DATA        Payment;
    DELIVERY_DATA       Delivery;
    STOCK_LEVEL_DATA    StockLevel;
    ORDER_STATUS_DATA   OrderStatus;
    m_txn;
};

public:
    CTPCC_ODBC(LPCSTR szServer, LPCSTR szUser, LPCSTR szPassword,
LPCSTR szHost, LPCSTR szDatabase);
~CTPCC_ODBC(void);

    inline PNEW_ORDER_DATA      BuffAddr_NewOrder()
    { return &m_txn.NewOrder; };
    inline PPAYMENT_DATA        BuffAddr_Payment()
    { return &m_txn.Payment; };
    inline PDELIVERY_DATA       BuffAddr_Delivery()
    { return &m_txn.Delivery; };
    inline PSTOCK_LEVEL_DATA    BuffAddr_StockLevel()
return &m_txn.StockLevel; };
    inline PORDER_STATUS_DATA   BuffAddr_OrderStatus()
return &m_txn.OrderStatus; };

    void NewOrder      ();
    void Payment       ();
    void Delivery      ();
    void StockLevel    ();
    void OrderStatus   ();

};

// wrapper routine for class constructor
extern "C" DllDecl CTPCC_ODBC* CTPCC_ODBC_new

```

```
( LPCSTR szServer, LPCSTR szUser, LPCSTR szPassword, LPCSTR szHost, LPCSTR
szDatabase );
```

```
typedef CTCPCC_ODBC* (TYPE_TPCODBC)(LPCSTR, LPCSTR, LPCSTR, LPCSTR, LPCSTR);
```

trans.h

```
/* FILE: TRANS.H
 * Microsoft TPC-C Kit Ver. 4.20.000
 * Copyright Microsoft, 1999
 * All Rights Reserved
 * Version 4.10.000 audited by Richard Gimarc,
 * Performance Metrics, 3/17/99
 * PURPOSE: Header file for TPC-C structure templates.
 * Change history:
 * 4.20.000 - updated rev number to match kit
 */
#pragma once

// String length constants
#define SERVER_NAME_LEN 20
#define DATABASE_NAME_LEN 20
#define USER_NAME_LEN 20
#define PASSWORD_LEN 20
#define TABLE_NAME_LEN 20
#define I_DATA_LEN 50
#define I_NAME_LEN 24
#define BRAND_LEN 1
#define LAST_NAME_LEN 16
#define W_NAME_LEN 10
#define ADDRESS_LEN 20
#define STATE_LEN 2
#define ZIP_LEN 9
#define S_DIST_LEN 24
#define S_DATA_LEN 50
#define D_NAME_LEN 10
#define FIRST_NAME_LEN 16
#define MIDDLE_NAME_LEN 2
#define PHONE_LEN 16
#define DATETIME_LEN 30
#define CREDIT_LEN 2
#define C_DATA_LEN 250
#define H_DATA_LEN 24
#define DIST_INFO_LEN 24
#define MAX_OL_NEW_ORDER_ITEMS 15
#define MAX_OL_ORDER_STATUS_ITEMS 15
#define STATUS_LEN 25
#define OL_DIST_INFO_LEN 24

// TIMESTAMP_STRUCT is provided by the ODBC header file sqltypes.h, but is not
// available
// when compiling with dblib, so redefined here. Note: we are using the symbol
// "__SQLTYPES"
// (declared in sqltypes.h) as a way to determine if TIMESTAMP_STRUCT has been
// declared.
#ifndef __SQLTYPES
typedef struct
{
```

```
short /* SQLSMALLINT */
year;
unsigned short /* SQLUSMALLINT */ month;
unsigned short /* SQLUSMALLINT */ day;
unsigned short /* SQLUSMALLINT */ hour;
unsigned short /* SQLUSMALLINT */ minute;
unsigned short /* SQLUSMALLINT */ second;
unsigned long /* SQLINTEGER */ fraction;
} TIMESTAMP_STRUCT;
#endif

// possible values for exec_status_code after transaction completes
enum EXEC_STATUS
{
eOK, // 0 "Transaction committed."
eInvalidItem, // 1 "Item number is not valid."
eDeliveryFailed // 2 "Delivery Post Failed."
};

// transaction structures
typedef struct
{
// input params
short ol_supply_w_id;
long ol_i_id;
short ol_quantity;

// output params
char ol_i_name[I_NAME_LEN+1];
char ol_brand_generic[BRAND_LEN+1];
double ol_i_price;
double ol_amount;
short ol_stock;
} OL_NEW_ORDER_DATA;

typedef struct
{
// input params
short w_id;
short d_id;
long c_id;
short o_ol_cnt;

// output params
EXEC_STATUS exec_status_code;
char c_last[LAST_NAME_LEN+1];
char c_credit[CREDIT_LEN+1];
double c_discount;
double w_tax;
double d_tax;
long o_id;
short o_commit_flag;
TIMESTAMP_STRUCT o_entry_d;
short o_all_local;
double total_amount;
OL_NEW_ORDER_DATA OL[MAX_OL_NEW_ORDER_ITEMS];
} NEW_ORDER_DATA, *PNEW_ORDER_DATA;

typedef struct
{
// input params
short w_id;
short d_id;
long c_id;
```

```

short          c_d_id;
short          c_w_id;
double        h_amount;
char          c_last[LAST_NAME_LEN+1];

// output params
EXEC_STATUS   exec_status_code;
TIMESTAMP_STRUCT  h_date;
char          w_street_1[ADDRESS_LEN+1];
char          w_street_2[ADDRESS_LEN+1];
char          w_city[ADDRESS_LEN+1];
char          w_state[STATE_LEN+1];
char          w_zip[ZIP_LEN+1];
char          d_street_1[ADDRESS_LEN+1];
char          d_street_2[ADDRESS_LEN+1];
char          d_city[ADDRESS_LEN+1];
char          d_state[STATE_LEN+1];
char          d_zip[ZIP_LEN+1];
char          c_first[FIRST_NAME_LEN+1];
char          c_middle[MIDDLE_NAME_LEN + 1];
char          c_street_1[ADDRESS_LEN+1];
char          c_street_2[ADDRESS_LEN+1];
char          c_city[ADDRESS_LEN+1];
char          c_state[STATE_LEN+1];
char          c_zip[ZIP_LEN+1];
char          c_phone[PHONE_LEN+1];
TIMESTAMP_STRUCT  c_since;
char          c_credit[CREDIT_LEN+1];
double        c_credit_lim;
double        c_discount;
double        c_balance;
char          c_data[200+1];
} PAYMENT_DATA, *PPAYMENT_DATA;

typedef struct
{
    long          ol_i_id;
    short         ol_supply_w_id;
    short         ol_quantity;
    double        ol_amount;
    TIMESTAMP_STRUCT  ol_delivery_d;
} OL_ORDER_STATUS_DATA;

typedef struct
{
    // input params
    short         w_id;
    short         d_id;
    long          c_id;
    char          c_last[LAST_NAME_LEN+1];

    // output params
    EXEC_STATUS   exec_status_code;
    char          c_first[FIRST_NAME_LEN+1];
    char          c_middle[MIDDLE_NAME_LEN+1];
    double        c_balance;
    long          o_id;
    TIMESTAMP_STRUCT  o_entry_d;
    short         o_carrier_id;
    OL_ORDER_STATUS_DATA  OL[MAX_OL_ORDER_STATUS_ITEMS];
    short         o_ol_cnt;
} ORDER_STATUS_DATA, *PORDER_STATUS_DATA;

```

```

typedef struct
{
    // input params
    short         w_id;
    short         o_carrier_id;

    // output params
    EXEC_STATUS   exec_status_code;
    SYSTEMTIME    queue_time;
    long          o_id[10];          // id's of
} DELIVERED_ORDERS, *PDELIVERED_ORDERS;

//This structure is used for posting delivery transactions and for writing them to
the delivery server.
typedef struct _DELIVERY_TRANSACTION
{
    SYSTEMTIME    queue;           //time delivery
    transaction queued;
    short         w_id;           //delivery warehouse
    short         o_carrier_id;   //carrier id
} DELIVERY_TRANSACTION;

typedef struct
{
    // input params
    short         w_id;
    short         d_id;
    short         threshold;

    // output params
    EXEC_STATUS   exec_status_code;
    long          low_stock;
} STOCK_LEVEL_DATA, *PSTOCK_LEVEL_DATA;

```

txnlog.h

```

/* FILE: TXNLOG.H Microsoft TPC-C Kit Ver. 4.10.000
 * not yet audited
 *
 * PURPOSE: Header file for txn log class
 * Copyright Microsoft, 1999
 * All Rights Reserved
 */

#pragma once

typedef struct _TXN_NEWORDER
{
    BYTE         OL_Count;           //range 0 to 31
    BYTE         OL_Remote_Count;    //range 0 to 31
    WORD         c_id;
    int          o_id;
} TXN_NEWORDER;

typedef struct _TXN_PAYMENT
{
    BYTE         CustByName;
} TXN_PAYMENT;

```



```

BYTE      IsRemote;
} TXN_PAYMENT;

typedef struct _TXN_ORDERSTATUS
{
    BYTE      CustByName;
} TXN_ORDERSTATUS;

typedef union _TXN_DETAILS
{
    TXN_NEWORDER      NewOrder;
    TXN_PAYMENT       Payment;
    TXN_ORDERSTATUS   OrderStatus;
} TXN_DETAILS;

// Common header for all records in txn log. The TxnType field is
// a switch which identifies the particular variant.
#define TXN_REC_TYPE_CONTROL      1 //
#define TXN_REC_TYPE_TPCC        2 // replaces
TRANSACTION_TYPE_TPCC
#define TXN_REC_TYPE_TPCC_DELIV_DEF  3

typedef struct _TXN_RECORD_HEADER
{
    JULIAN_TIME      TxnStartT0; // start of
    BYTE      TxnType; // one of TXN_REC_TYPE_*
    BYTE      TxnSubType; // depends on
TxnType
} TXN_RECORD_HEADER, *PTXN_RECORD_HEADER;

typedef struct _TXN_RECORD_CONTROL
{
    // common header; must exactly match TXN_RECORD_HEADER
    JULIAN_TIME      TxnStartT0; // start of
    BYTE      TxnType; // =
TXN_REC_TYPE_CONTROL
    BYTE      TxnSubType; // depends on
TxnType
    // end of common header
    DWORD      Len; // number of
bytes after this field
} TXN_RECORD_CONTROL, *PTXN_RECORD_CONTROL;

// TPC-C Txn Record Layout:
//
//'TxnStartT0' is a Julian timestamp corresponding to the moment the
//txn is sent to the SUT, i.e., beginning of response time. Deltas
//are in milliseconds. Note that if RTDelay > 0, then the txn was
//delayed by this amount. The delay occurs at the beginning of the
//response time. So if RTDelay > 0, then the txn was actually sent
//at TxnStartT0 + RTDelay.
//
//Graphically:
//
// time -->
//
// |--- Menu ---|-- Keying --|-- Response --|--- Think --|

```

```

//      <- DeltaT1 -> <- DeltaT2 -> <- DeltaT4 -> <- DeltaT3 ->
//
//      ^
//      ^ TxnStartT0
//
//RTDelay is the amount of response time delay included in DeltaT4.
//RTDelay is recorded per txn because this value can be changed on
//the fly, and so may vary from txn to txn.
//
//TxnStatus is the txn completion code. It is used to indicate errors.
//For example, in the New Order txn, 1% of txns abort. TxnStatus will
//reflect this.

typedef struct _TXN_RECORD_TPCC
{
    // common header; must exactly match TXN_RECORD_HEADER
    JULIAN_TIME      TxnStartT0; // start of
txn
    BYTE      TxnType; // = TXN_REC_TYPE_TPCC
    BYTE      TxnSubType; // depends on
TxnType
    // end of common header
    int      DeltaT1; // menu time (ms)
    int      DeltaT2; // keying time (ms)
    int      DeltaT3; // think time (ms)
    int      DeltaT4; // response time (ms)
    int      RTDelay; // response time delay (ms)
    int      TxnError; // error code providing
more detail for TxnStatus
    int      w_id; // warehouse
ID
    BYTE      d_id; // assigned district ID
for this thread
    BYTE      d_id_ThisTxn; // district ID chosen for this
particular
    BYTE      TxnStatus; // completion status for
txn to indicate errors
    BYTE      reserved; // for word alignment
    TXN_DETAILS      TxnDetails; //
} TXN_RECORD_TPCC, *PTXN_RECORD_TPCC;

// TPC-C Deferred Delivery Txn Record Layout:
//
//Incorporating delivery transaction information into the above
//structure would increase the size of TXN_DETAILS from 8 to 42 bytes.
//Hence, we store delivery transaction details in a separate structure.
//
typedef struct _TXN_RECORD_TPCC_DELIV_DEF
{
    // common header; must exactly match TXN_RECORD_HEADER
    JULIAN_TIME      TxnStartT0; // start of
txn
    BYTE      TxnType; // =
TXN_REC_TYPE_TPCC_DELIV_DEF
    BYTE      TxnSubType; // = 0
    // end of common header
    int      DeltaT4; // response time (ms)
    int      DeltaTxnExec; // execution time (ms)
    int      w_id; // warehouse
ID
    BYTE      TxnStatus; // completion status for
txn to indicate errors

```

```

        BYTE    reserved;           // for word alignment
        short   o_carrier_id;       // carrier id
        long    o_id[10];          // returned delivery transaction
ids      } TXN_RECORD_TPCC_DELIV_DEF, *PTXN_RECORD_TPCC_DELIV_DEF;

#define TXN_LOG_VERSION 2
#define TXN_DATA_START 4096 // offset in log file
where log records start
#define TXN_LOG_EYE_CATCHER "BC" // signature bytes at the start of
log file

////////////////////////////////////
//
// The transaction log has a header as the first 4K block.
//
typedef struct _TXN_LOG_HEADER
{
    char EyeCatcher[2]; // signature
    int LogVersion;
    // set to TXN_LOG_VERSION
    JULIAN_TIME BeginTxnTS; //
    timestamp of first (lowest) txn start
    JULIAN_TIME EndTxnTS; // timestamp
    of last (highest) txn completion time
    int iRecCount;
    // number of records in log file
    BOOL bLogSorted;
    int iFileSize;
    // file size in bytes

    // the record map provides a fast way to get close to a
    particular timestamp in a sorted log file.
    // struct
    // {
    //     JULIAN_TIME TS;
    //     // timestamp of record
    //     int iPos;
    //     // byte position in file
    // }
    // RecMap[RecMapSize];
// #define RecMapSize 200

} TXN_LOG_HEADER, *PTXN_LOG_HEADER;

/* Header of the sorted pointers blocks in Temp file (in merging). */
typedef struct BLOCK_HEADER {
    long BlockPos;
    __int64 CurPos;
    DWORD BytesRead;
    int nRecords;
    BYTE *offset; /* offset of pointers to records in the log
file */
} BLOCK_HEADER, *PBLOCK_HEADER;

#define READ_BUFFER_SIZE 64*1024
#define WRITE_BUFFER_SIZE 8*1024

```

```

#define NUM_READ_BUFFERS 1
#define NUM_WRITE_BUFFERS 2
#define MAX_NUM_BUFFERS 2

// flags passed in to the constructor
#define TXN_LOG_WRITE 0x01
#define TXN_LOG_READ 0x02
#define TXN_LOG_SORTED 0x04
#define TXN_LOG_CRASHOPEN 0x08 // if set, invalid headers will be
tolerated; used for recovery

#define TXN_LOG_OS_ERROR 1
#define TXN_LOG_NOT_SORTED 2

#define SKIP_CTRL_RECS 1

class CTxnLog
{
private:
    DWORD iBufferSize;
    //buffer allocated size
    DWORD iBytesFreeInBuffer; //total bytes
available for use in buffer
    int iNumBuffers;
    //buffers in use
    int iActiveBuffer;
    //indicates which buffer is active: 0 or 1
    int iIoBuffer;
    //buffer for any pending IO operation
    int iFilePointer;
    //
    //position in file.
    LARGE_INTEGER lFilePointer; //position in
file.
    int iNextRec;
    //when reading, ordinal value of next record

    // A "save point" is remembered each time GetNextRecord is
called with a start time specified.
    // The next time it is called, if start time is after the save
point, we start scanning from the
    // save point. This is particularly useful in FindBestInterval,
where the log is scanned repeatedly.
    JULIAN_TIME SavePtTime;
    int iSavePtFilePointer;
    //
    LARGE_INTEGER lSavePtFilePointer;
    int iSavePtNextRec;

    JULIAN_TIME lastTS;
    //when writing sorted output, used to verify records are sorted
    BOOL bWrite;
    //writing log file
    BOOL bCrashOpen;
    // tolerate bad headers and consistency checks

    BOOL bLogSorted;
    // is log file sorted? applies to both input and output
    JULIAN_TIME BeginTxnTS;
    // timestamp of first (lowest) txn start
    JULIAN_TIME EndTxnTS; //
    timestamp of last (highest) txn completion time
    int iRecCount;
    // number of records in log file

```

```

        BYTE                *pCurrent;
//ptr to current buffer
        BYTE                *pBuffer[MAX_NUM_BUFFERS];

        PTXN_RECORD_HEADER *TxnArray;           //transaction
record pointer array for sort

        DWORD              dwError;
        HANDLE              hTxnFile;
//handle to log file
        HANDLE              hMapFile;
//map file used when sorting the log
        HANDLE              hIoComplete;
//event to signify that there are no pending IOs
        HANDLE              hLogFileIo;
//event to signal the IO thread to write the inactive buffer

        Spinlock Spin;
//spin lock to protect the txn log file buffers

        FILE                *tmpFile;
//temp file for merging sorted pieces
        PBLOCK_HEADER       tmpHeaders;
//sorted pointers block header
        BYTE                **recPointers;
//record pointer buffers for each sorted block
        PTXN_RECORD_HEADER *recBuffers;       //record buffers for
each sorted block
        int                 *PointersRead;
//# of pointers processed in each block
        BOOL                *BlockAvailable; //whether to
check a particular block for jmin

        int                 nBlocks;
        int                 jmin;
//index (block-wise) of the lowest timestamp record
        int                 iAvgRecordLen;
//average record length

        int                 iSortedReturnedCount;
//keeps track of the # of sorted records returned through
GetSortedRecord()

        int Write(BYTE *ptr, DWORD Size);
        static void LogFileIO(CTxnLog *);

        void LoadBuffers(int j);           //used in
sort/merge to load record buffers

    public:

        CTxnLog::CTxnLog(LPCTSTR szFileName, DWORD dwOpts);
        ~CTxnLog(void);

        int WriteToLog(PTXN_RECORD_TPCC pTxnRcprd);
        int WriteToLog(PTXN_RECORD_TPCC_DELIV_DEF pTxnRcprd);
        int WriteToLog(PTXN_RECORD_CONTROL pCtrlRec);
        int WriteToLog(PTXN_RECORD_HEADER pCtrlRec);

        int WriteCtrlRecToLog(BYTE SubType, LPCTSTR lpStr, DWORD dwLen);

        void CloseTransactionLogFile(void);

```

```

        PTXN_RECORD_HEADER GetNextRecord(BOOL bSkipCtrlRecs = FALSE);
        PTXN_RECORD_HEADER GetNextRecord(JULIAN_TIME SeekTimeT0, BOOL
bSkipCtrlRecs = FALSE);

        int Sort(void);
        PTXN_RECORD_HEADER GetSortedRecord();

        inline BOOL IsSorted(void) { return bLogSorted; };
        inline JULIAN_TIME BeginTS(void) { return BeginTxnTS; };
        inline JULIAN_TIME EndTS(void) { return EndTxnTS; };
        inline int RecordCount(void) { return iRecCount; };
};

class CTXNLOG_ERR : public CBaseErr
{
    public:
        enum CTXNLOG_ERRS
        {
            ERR_BAD_FILE_FORMAT,           // "File
format is invalid."
            ERR_UNKNOWN_LOG_VERSION,      // "Log file version is
unknown."
            ERR_BROKEN_LOG_FILE,         // "Log file
is broken."
            ERR_LOG_NOT_SORTED,          // "Log file
is not sorted"
            ERR_INVALID_TIME_SEQ,        // "Internal
Error: Record Time Sequence invalid."
        };

        CTXNLOG_ERR(int iErr) : CBaseErr(iErr) {};

        int ErrorType() {return ERR_TYPE_TXNLOG;};

        char *ErrorText()
        {
            static char *szMsgs[] = {
                "File format is invalid.",
                "Log file version is unknown.",
                "Log file is broken.",
                "Log file is not sorted",
                "Internal Error: Record Time Sequence
invalid.",
                ""
            };

            for(int i = 0; szMsgs[i][0]; i++)
            {
                if ( m_idMsg == i )
                    break;
            }

            return(szMsgs[i][0] ? szMsgs[i] : ERR_UNKNOWN);
        };
};

```

Appendix B: Database Design

The TPC-C database was created with the following Transact-SQL scripts:

VerifyTpccLoad.sql

```
-- File:      VERIFYTPCCLOAD.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.22
--           Copyright Microsoft, 2001
-- Purpose:   Performs series of TPC database checks to verify
--           that database load completed correctly

print      " "
select    convert(char(30), getdate(),9)
print    " "

use tpcc
go

--
-- *****
--
-- Check rows per table from SYSINDEXES
--
-- *****

print      'WAREHOUSE TABLE'

select    rows
from      sysindexes
where     id      = object_id("warehouse")
go

print      'DISTRICT TABLE = (10 * No of warehouses)'

select    rows
from      sysindexes
where     id      =object_id("district")
go

print      'ITEM TABLE = 100,000'

select    rows
from      sysindexes
where     id      =object_id("item")
go

print      'CUSTOMER TABLE = (30,000 * No of warehouses)'
```

```
select    rows
from      sysindexes
where     id      =object_id("customer")
go

print      'ORDERS TABLE = (30,000 * No of warehouses) '

select    rows
from      sysindexes
where     id      =object_id("orders")
go

print      'HISTORY TABLE = (30,000 * No of warehouses) '

select    rows
from      sysindexes
where     id      =object_id("history")
go

print      'STOCK TABLE = (100,000 * No of warehouses) '

select    rows
from      sysindexes
where     id      =object_id("stock")
go

print      'ORDER_LINE TABLE = (300,000 * No of warehouses + some change) '

select    rows
from      sysindexes
where     id      =object_id("order_line")
go

print      'NEW_ORDER TABLE = (9000 * No of warehouses) '

select    rows
from      sysindexes
where     id      =object_id("new_order")
go

--
-- *****
--
-- Check indices
--
-- *****

print      '*****Index Check*****'

use tpcc
go

sp_helpindex      customer
go

sp_helpindex      stock
go

sp_helpindex      district
go

sp_helpindex      item
go
```

```

sp_helpindex      new_order
go

sp_helpindex      orders
go

sp_helpindex      order_line
go

sp_helpindex      warehouse
go

```

backup.sql

```

-- File:      BACKUP.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.22
--           Copyright Microsoft, 2001
-- Purpose:   Creates backup of tpcc database

declare @startdate datetime
declare @enddate datetime
select @startdate = getdate()
select "Start date:", convert(varchar(30),@startdate,9)

dump database tpcc to tpccback1, tpccback2 with init, stats = 1

select @enddate = getdate()
select "End date: ", convert(varchar(30),@enddate,9)
select "Elapsed time (in seconds): ", datediff(second, @startdate, @enddate)

go

```

backupdev.sql

```

-- File:      BACKUPDEVB.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.22
--           Copyright Microsoft, 2001
-- Purpose:   Creates tpcc database Backup Devices

use master
go

-- create backup devices

exec sp_addumpdevice 'disk','tpccback1','L:\tpccback1.dmp'
go
exec sp_addumpdevice 'disk','tpccback2','M:\tpccback2.dmp'
go

```

createdb.sql

```

-- File:      CREATEDB.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.22
--           Copyright Microsoft, 2001
-- Purpose:   Creates tpcc database and backup files for 1490 warehouses

```

```

use master
go

-- Create temporary table for timing

if exists ( select name from sysobjects where name = 'tpcc_timer' )
drop table tpcc_timer
go

create table tpcc_timer
(
    start_date          char(30),
    end_date            char(30)
)

insert into tpcc_timer values (0,0)
go

-- Store starting time

update tpcc_timer
set start_date = (select convert(char(30), getdate(),9))
go

-- create main database files

CREATE DATABASE tpcc
ON PRIMARY
(
    NAME = MSSQL_tpcc_root,
    FILENAME = "C:\MSSQL_tpcc_root.mdf",
    SIZE = 8MB,
    FILEGROWTH = 0),
FILEGROUP MSSQL_cust_fg
(
    NAME = MSSQL_cust1,
    FILENAME = "F:",
    SIZE = 19200MB,
    FILEGROWTH = 0),
(
    NAME = MSSQL_cust2,
    FILENAME = "G:",
    SIZE = 19200MB,
    FILEGROWTH = 0),
FILEGROUP MSSQL_stk_fg
(
    NAME = MSSQL_stk1,
    FILENAME = "H:",
    SIZE = 26450MB,
    FILEGROWTH = 0),
(
    NAME = MSSQL_stk2,
    FILENAME = "I:",
    SIZE = 26450MB,
    FILEGROWTH = 0),
FILEGROUP MSSQL_ordln_fg
(
    NAME = MSSQL_ordln1,
    FILENAME = "J:",
    SIZE = 36450MB,
    FILEGROWTH = 0),
FILEGROUP MSSQL_misc_fg
(
    NAME = MSSQL_misc1,

```

```

        FILENAME = "K:",
        SIZE       = 8950MB,
        FILEGROWTH = 0)

LOG ON
(
    NAME           =MSSQL_tpcc_log,
    FILENAME       ="E:",
    SIZE           =69400MB,
    FILEGROWTH     =0)
COLLATE Latin1_General_Bin
go

-- Store ending time
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))

-- remove temporary table

if exists ( select name from sysobjects where name = 'tpcc_timer' )
drop table tpcc_timer
go

```

config.sql

```

-- File:      CONFIG.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.00
--           Copyright Microsoft, 1996
-- Purpose:   Collects SQL Server configuration parameters

```

```

print " "
select convert(char(30), getdate(),9)
print " "
go

```

```

sp_configure "show advanced",1
go
reconfigure with override
go
exec sp_configure "affinity mask", 3
exec sp_configure "cost threshold for parallelism", 5
exec sp_configure "index create memory", 704
exec sp_configure "lightweight pooling", 1
exec sp_configure "awe enabled", 0
exec sp_configure "locks", 9000
exec sp_configure "max degree of parallelism", 1
exec sp_configure "max server memory", 2147483647
exec sp_configure "max worker threads", 410
exec sp_configure "min memory per query", 512
exec sp_configure "min server memory", 0
exec sp_configure "nested triggers", 1
exec sp_configure "network packet size", 2048
exec sp_configure "open objects", 0
exec sp_configure "priority boost", 1
exec sp_configure "recovery interval", 80
exec sp_configure "set working set size", 0
exec sp_configure "user connections", 0

```

```

go

reconfigure with override
go
sp_configure
go

```

dbopt1.sql

```

-- File:      DBOPT1.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.22
--           Copyright Microsoft, 2001
-- Purpose:   Sets database options for data load

```

```

use master
go

exec sp_dboption tpcc,'select into/bulkcopy',true
exec sp_dboption tpcc,'trunc. log on chkpt.',true
go

use tpcc
go

checkpoint
go

```

dbopt2.sql

```

-- File:      DBOPT2.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.22
--           Copyright Microsoft, 2001
-- Purpose:   Resets database options after data load

```

```

sp_dboption tpcc,'select into/bulkcopy',FALSE
GO

sp_dboption tpcc,'trunc. log on chkpt.',FALSE
GO

USE tpcc
GO

CHECKPOINT
GO

sp_configure 'allow updates',1
GO

RECONFIGURE WITH OVERRIDE
GO

DECLARE @msg          varchar(50)

```

```

--
--      OPTIONS FOR SQL SERVER 8.0
-- 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',      TRUE
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

EXEC sp_tableoption 'district',      'pintable',true
EXEC sp_tableoption 'warehouse',     'pintable',true
EXEC sp_tableoption 'new_order',     'pintable',true
EXEC sp_tableoption 'item',          'pintable',true
GO

```

delivery.sql

```

-- File:      DELIVERY.SQL
--            Microsoft TPC-C Benchmark Kit Ver. 4.22
--            Copyright Microsoft, 2001
-- Purpose:   Creates delivery transaction stored procedure
--
--            Interface Level: 4.10.000

use tpcc
go

if exists (select name from sysobjects where name = "tpcc_delivery" )
drop procedure tpcc_delivery
go

create proc tpcc_delivery      @w_id      smallint,
                              @o_carrier_id  smallint

as

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

select @d_id = 0

begin tran d

        while (@@rowcount < 10)
        begin

                select      @d_id = @d_id + 1,
                            @total = 0,
                            @o_id = 0

                select      top 1
                            @o_id = no_o_id
                        from  new_order (serializable uplock)
                        where  no_w_id = @w_id and
                            no_d_id = @d_id
                        order  by no_o_id asc

                if (@@rowcount <> 0)
                begin

                        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 tran d
-- return delivery data to client
                                select @oid1,
                                       @oid2,
                                       @oid3,
                                       @oid4,
                                       @oid5,
                                       @oid6,
                                       @oid7,
                                       @oid8,
                                       @oid9,
                                       @oid10
                                go

```

getargs.c

```

// File: GETARGS.C
// Microsoft TPC-C Kit Ver. 4.22
// Copyright Microsoft, 1996, 1997, 1998, 1999,
2000, 2001
// Purpose: Source file for command line processing

// Includes
#include "tpcc.h"

//=====
//
// Function name: GetArgsLoader
//
//=====

void GetArgsLoader(int argc, char **argv, TPCC_LDR_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->pack_size = DEPLDPACKSIZE;
    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 'h':      /* Fall through */
case 'H':
                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 '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) DEFLDPACKSIZE);
        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);
}

```

idxcuscl.sql

```

-- File:      IDXCUSCL.SQL
--            Microsoft TPC-C Benchmark Kit Ver. 4.22
--            Copyright Microsoft, 2001
-- Purpose:   Creates clustered index on customer table

use tpcc
go

declare @startdate datetime
declare @enddate datetime
select @startdate = getdate()
select "Start date:", convert(varchar(30),@startdate,9)

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_cust_fg

select @enddate = getdate()
select "End date: ", convert(varchar(30),@enddate,9)
select "Elapsed time (in seconds): ", datediff(second, @startdate, @enddate)

```

```
go
```

idxcusnc.sql

```

-- File:      IDXCUSNC.SQL
--            Microsoft TPC-C Benchmark Kit Ver. 4.22
--            Copyright Microsoft, 2001
-- Purpose:   Creates non-clustered index on customer table

use tpcc
go

declare @startdate datetime
declare @enddate datetime
select @startdate = getdate()
select "Start date:", convert(varchar(30),@startdate,9)

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_cust_fg

select @enddate = getdate()
select "End date: ", convert(varchar(30),@enddate,9)
select "Elapsed time (in seconds): ", datediff(second, @startdate, @enddate)

go

```

idxdiscl.sql

```

-- File:      IDXDISCL.SQL
--            Microsoft TPC-C Benchmark Kit Ver. 4.22
--            Copyright Microsoft, 2001
-- Purpose:   Creates clustered index on district table

use tpcc
go

declare @startdate datetime
declare @enddate datetime
select @startdate = getdate()
select "Start date:", convert(varchar(30),@startdate,9)

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,9)
select "Elapsed time (in seconds): ", datediff(second, @startdate, @enddate)

go

```

idxitmcl.sql

```
-- File:      IDXITMCL.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.22
--           Copyright Microsoft, 2001
-- Purpose:   Creates clustered index on item table

use tpcc
go

declare @startdate datetime
declare @enddate datetime
select @startdate = getdate()
select "Start date:", convert(varchar(30),@startdate,9)

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,9)
select "Elapsed time (in seconds): ", datediff(second, @startdate, @enddate)

go
```

idxnodcl.sql

```
-- File:      IDXNODCL.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.22
--           Copyright Microsoft, 2001
-- Purpose:   Creates clustered index on new_order table

use tpcc
go

declare @startdate datetime
declare @enddate datetime
select @startdate = getdate()
select "Start date:", convert(varchar(30),@startdate,9)

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_misc_fg

select @enddate = getdate()
select "End date: ", convert(varchar(30),@enddate,9)
select "Elapsed time (in seconds): ", datediff(second, @startdate, @enddate)

go
```

idxodlcl.sql

```
-- File:      IDXODLCL.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.22
--           Copyright Microsoft, 2001
-- Purpose:   Creates clustered index on order_line table

use tpcc
go

declare @startdate datetime
declare @enddate datetime
select @startdate = getdate()
select "Start date:", convert(varchar(30),@startdate,9)

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_ordln_fg

select @enddate = getdate()
select "End date: ", convert(varchar(30),@enddate,9)
select "Elapsed time (in seconds): ", datediff(second, @startdate, @enddate)

go
```

idxordcl.sql

```
-- File:      IDXORDCL.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.22
--           Copyright Microsoft, 2001
-- Purpose:   Creates clustered index on orders table

use tpcc
go

declare @startdate datetime
declare @enddate datetime
select @startdate = getdate()
select "Start date:", convert(varchar(30),@startdate,9)

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_misc_fg

select @enddate = getdate()
select "End date: ", convert(varchar(30),@enddate,9)
select "Elapsed time (in seconds): ", datediff(second, @startdate, @enddate)

go
```

idxordnc.sql

```
-- File:      IDXORDNC.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.22
--           Copyright Microsoft, 2001
-- Purpose:   Creates non-clustered index on orders table

use tpcc
go

declare @startdate datetime
declare @enddate datetime
select @startdate = getdate()
select "Start date:", convert(varchar(30),@startdate,9)

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_misc_fg

select @enddate = getdate()
select "End date: ", convert(varchar(30),@enddate,9)
select "Elapsed time (in seconds): ", datediff(second, @startdate, @enddate)

go
```

idxstkcl.sql

```
-- File:      IDXSTKCL.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.22
--           Copyright Microsoft, 2001
-- Purpose:   Creates clustered index on stock table

use tpcc
go

declare @startdate datetime
declare @enddate datetime
select @startdate = getdate()
select "Start date:", convert(varchar(30),@startdate,9)

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_stk_fg

select @enddate = getdate()
select "End date: ", convert(varchar(30),@enddate,9)
select "Elapsed time (in seconds): ", datediff(second, @startdate, @enddate)

go
```

idxwarcl.sql

```
-- File:      IDXWARCL.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.22
--           Copyright Microsoft, 2001
-- Purpose:   Creates clustered index on warehouse table

use tpcc
go

declare @startdate datetime
declare @enddate datetime
select @startdate = getdate()
select "Start date:", convert(varchar(30),@startdate,9)

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,9)
select "Elapsed time (in seconds): ", datediff(second, @startdate, @enddate)

go
```

neword.sql

```
-- File:      NEWORD.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.22
--           Copyright Microsoft, 2001
-- Purpose:   Creates new order transaction stored procedure
--
--           Interface Level: 4.10.000

use tpcc
go

if exists ( select name from sysobjects where name = "tpcc_neworder" )
    drop procedure tpcc_neworder

go

create proc tpcc_neworder

    @w_id          smallint,
    @d_id          tinyint,
    @c_id          int,
    @o_ol_cnt      tinyint,
    @o_all_local  tinyint,
    @i_id1 int = 0, @s_w_id1

    smallint = 0, @ol_qty1 smallint = 0,
    @i_id2 int = 0, @s_w_id2

    smallint = 0, @ol_qty2 smallint = 0,
    @i_id3 int = 0, @s_w_id3

    smallint = 0, @ol_qty3 smallint = 0,
    @i_id4 int = 0, @s_w_id4

    smallint = 0, @ol_qty4 smallint = 0,
```

```

smallint = 0, @ol_qty5 smallint = 0,
smallint = 0, @ol_qty6 smallint = 0,
smallint = 0, @ol_qty7 smallint = 0,
smallint = 0, @ol_qty8 smallint = 0,
smallint = 0, @ol_qty9 smallint = 0,
smallint = 0, @ol_qty10 smallint = 0,
smallint = 0, @ol_qty11 smallint = 0,
smallint = 0, @ol_qty12 smallint = 0,
smallint = 0, @ol_qty13 smallint = 0,
smallint = 0, @ol_qty14 smallint = 0,
smallint = 0, @ol_qty15 smallint = 0

@i_id5 int = 0, @s_w_id5
@i_id6 int = 0, @s_w_id6
@i_id7 int = 0, @s_w_id7
@i_id8 int = 0, @s_w_id8
@i_id9 int = 0, @s_w_id9
@i_id10 int = 0, @s_w_id10
@i_id11 int = 0, @s_w_id11
@i_id12 int = 0, @s_w_id12
@i_id13 int = 0, @s_w_id13
@i_id14 int = 0, @s_w_id14
@i_id15 int = 0, @s_w_id15

as
declare @w_tax numeric(4,4),
        @d_tax numeric(4,4),
        @c_last char(16),
        @c_credit char(2),
        @c_discount numeric(4,4),
        @i_price numeric(5,2),
        @i_name char(24),
        @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 smallint,
        @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 (tablock 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,
@li_qty,
                @d_id,
                @w_id,
                @li_no,
                @li_id,
                @li_s_w_id,
                "dec 31, 1899",
                @li_qty,
                @i_price *
                @s_dist)

-- send line-item data to client
                select      @i_name,
                           @s_quantity,
                           b_g = case when (
(patindex("%ORIGINAL%",@i_data) > 0) and

```

```

(patindex("%ORIGINAL%",@s_data) > 0) )
                then "B" else "G" end,
                @i_price,
                @i_price * @li_qty
        end
        else
        begin

-- no item (or stock) found - triggers rollback condition
                select "",0,"",0,0
                select @commit_flag = 0
        end
        end

-- get customer last name, discount, and credit rating
        select      @c_last      = c_last,
                   @c_discount = c_discount,
                   @c_credit    = c_credit,
                   @c_id_local  = c_id
        from        customer (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,
@li_qty,
        @d_id,
        @w_id,
        @c_id_local,
        @o_entry_d,
        0,
        @o_ol_cnt,
        @o_all_local)

-- insert corresponding row into new-order table
        insert into new_order values ( @o_id,
@li_qty,
        @d_id,
        @w_id)

-- select warehouse tax
        select      @w_tax      = w_tax
        from        warehouse (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

```

ordstat.sql

```

-- File:      ORDSTAT.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.22
--           Copyright Microsoft, 2001
-- Purpose:   Creates order status transaction stored procedure
--
--           Interface Level: 4.10.000

use tpcc
go

if exists ( select name from sysobjects where name = "tpcc_orderstatus" )
    drop procedure    tpcc_orderstatus
go

create proc tpcc_orderstatus @w_id      smallint,
                             @d_id      tinyint,
                             @c_id      int,
                             @c_last    char(16) = ""
as

declare @c_balance      numeric(12,2),
        @c_first        char(16),
        @c_middle       char(2),
        @o_id           int,
        @o_entry_d      datetime,
        @o_carrier_id   smallint,
        @cnt            smallint

begin tran o

if (@c_id = 0)
    begin

-- get customer id and info using last name

        select  @cnt      = (count(*)+1)/2
        from    customer (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 (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 (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 (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 (repeatableread)
        where   ol_o_id = @o_id and
                ol_d_id = @d_id and
                ol_w_id = @w_id

custnotfound:

```

```

commit tran 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. 4.22
--           Copyright Microsoft, 2001
-- Purpose:   Creates payment transaction stored procedure
--
--           Interface Level: 4.10.000

use tpcc
go

if exists (select name from sysobjects where name = "tpcc_payment" )
    drop procedure tpcc_payment
go

create proc tpcc_payment    @w_id          smallint,
                           @c_w_id       smallint,
                           @h_amount     numeric(6,2),
                           @d_id         tinyint,
                           @c_d_id       tinyint,
                           @c_id         int,
                           @c_last       char(16) = ""

as

declare @w_street_1 char(20),
        @w_street_2 char(20),
        @w_city     char(20),
        @w_state    char(2),
        @w_zip      char(9),
        @w_name     char(10),
        @d_street_1 char(20),
        @d_street_2 char(20),
        @d_city     char(20),
        @d_state    char(2),
        @d_zip      char(9),
        @d_name     char(10),
        @c_first    char(16),
        @c_middle   char(2),
        @c_street_1 char(20),
        @c_street_2 char(20),
        @c_city     char(20),
        @c_state    char(2),
        @c_zip      char(9),
        @c_phone    char(16),
        @c_since    datetime,

```

```

@c_credit      char(2),
@c_credit_lim  numeric(12,2),
@c_balance     numeric(12,2),
@c_discount    numeric(4,4),
@data         char(500),
@c_data       char(500),
@datetime     datetime,
@w_ytd        numeric(12,2),
@d_ytd        numeric(12,2),
@cnt          smallint,
@val          smallint,
@screen_data  char(200),
@d_id_local   tinyint,
@w_id_local   smallint,
@c_id_local   int

```

```

select @screen_data = ""

begin tran 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 (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 (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_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_balance - @h_amount,
                    = c_payment_cnt + 1,
                    = c_ytd_payment + @h_amount,
                    = c_first,
                    = c_middle,
                    = c_last,
                    = c_street_1,
                    = c_street_2,
                    = c_city,
                    = c_state,
                    = c_zip,

```



```

        @c_phone = c_phone,
        @c_credit = c_credit,
        @c_credit_lim = c_credit_lim,
        @c_discount = c_discount,
        @c_since = c_since,
        @data = c_data,
        @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) +
            substring(@data, 1, 458)

-- update customer info
        update customer
        set c_data = @c_data
        where c_id = @c_id and
            c_w_id = @c_w_id and
            c_d_id = @c_d_id

        select @screen_data = substring (@c_data,1,200)
    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 tran 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

```

random.c

```

// File: RANDOM.C
// Microsoft TPC-C Kit Ver. 4.22
// Copyright Microsoft, 1996, 1997, 1998, 1999,
// 2000, 2001
// 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;
}

```

removedb.sql

```

-- File:      REMOVEDB.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.22
--           Copyright Microsoft, 2001
-- Purpose:   Removes tpcc database and backup files

```

```

use master
go

-- remove any existing database and backup files

exec sp_dbremove tpcc, dropdev
go

exec sp_dropdevice 'tpccback1'
exec sp_dropdevice 'tpccback2'
exec sp_dropdevice 'tpccback3'
exec sp_dropdevice 'tpccback4'
go

```

restore.sql

```

-- File:      RESTORE.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.22
--           Copyright Microsoft, 2001
-- Purpose:   Loads database backup from backup files

```

```

declare @startdate datetime
declare @enddate datetime
select @startdate = getdate()
select "Start date:", convert(varchar(30),@startdate,9)

load database tpcc from tpccback1, tpccback2 with stats = 1, replace

select @enddate = getdate()
select "End date: ", convert(varchar(30),@enddate,9)
select "Elapsed time (in seconds): ", datediff(second, @startdate, @enddate)

go

sp_dboption tpcc,'torn page detection','false'
go

```

sqlshutdown.sql

```

use tpcc
go
checkpoint
go
shutdown

```

```
go
```

stocklev.sql

```
-- File:      STOCKLEV.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.22
--           Copyright Microsoft, 2001
-- Purpose:   Creates stock level transaction stored procedure
--
--           Interface Level: 4.10.000

use tpcc
go

if exists (select name from sysobjects where name = "tpcc_stocklevel" )
    drop procedure tpcc_stocklevel
go

create proc tpcc_stocklevel    @w_id          smallint,
                              @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

go
```

strings.c

```
// File:      STRINGS.C
//           Microsoft TPC-C Kit Ver. 4.22
//           Copyright Microsoft, 1996, 1997, 1998, 1999,
//           2000, 2001
// 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
    {
(0,999)\n", num);        printf("\nError in LastName()... num <= %ld out of range
                        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++)
    {
        cc = chArray[RandomNumber(0, chArrayMax)];
        str[i] = cc;
    }

    if ( len < z )
        memset(str+len, ' ', z - len);
    str[len] = 0;
}

```

```

    return len;
}

//=====
//
// 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 + y) <= 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 strlen(str);
}

//=====
//

```

```

// Function name: MakeNumberString
//
//=====
int MakeNumberString(int x, int y, int z, char *str)
{
    char tmp[16];

    //MakeNumberString is always called MakeZipNumberString(16, 16, 16,
string)

    memset(str, '0', 16);
    itoa(RandomNumber(0, 99999999), tmp, 10);
    memcpy(str, tmp, strlen(tmp));

    itoa(RandomNumber(0, 99999999), tmp, 10);
    memcpy(str+8, tmp, strlen(tmp));

    str[16] = 0;

    return 16;
}

//=====
//
// Function name: MakeZipNumberString
//
//=====
int MakeZipNumberString(int x, int y, int z, char *str)
{
    char tmp[16];

    //MakeZipNumberString is always called MakeZipNumberString(9, 9, 9,
string)

    strcpy(str, "000011111");

    itoa(RandomNumber(0, 9999), tmp, 10);
    memcpy(str, tmp, strlen(tmp));

    return 9;
}

//=====
//
// Function name: InitString
//
//=====
void InitString(char *str, int len)
{
#ifdef DEBUG
    printf("[%ld]DBG: Entering InitString()\n", (int) GetCurrentThreadId());
#endif

    memset(str, ' ', len);
    str[len] = 0;
}

//=====
// Function name: InitAddress
//

```

```

// Description:
//
//=====
void InitAddress(char *street_1, char *street_2, char *city, char *state, char *zip)
{
    memset(street_1, ' ', ADDRESS_LEN+1);
    memset(street_2, ' ', ADDRESS_LEN+1);
    memset(city, ' ', ADDRESS_LEN+1);

    street_1[ADDRESS_LEN+1] = 0;
    street_2[ADDRESS_LEN+1] = 0;
    city[ADDRESS_LEN+1] = 0;

    memset(state, ' ', STATE_LEN+1);
    state[STATE_LEN+1] = 0;

    memset(zip, ' ', ZIP_LEN+1);
    zip[ZIP_LEN+1] = 0;
}

//=====
//
// Function name: PaddString
//
//=====
void PaddString(int max, char *name)
{
    int len;

    len = strlen(name);
    if ( len < max )
        memset(name+len, ' ', max - len);
    name[max] = 0;

    return;
}

```

tables.sql

```

-- File: TABLES.SQL
-- Microsoft TPC-C Benchmark Kit Ver. 4.22
-- Copyright Microsoft, 2001
-- Purpose: Creates TPC-C tables

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                smallint,
    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),
    w_tax              numeric(4,4),
    w_ytd              numeric(12,2)
) on MSSQL_misc_fg
go

create table district
(
    d_id                tinyint,
    d_w_id              smallint,
    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),
    d_tax              numeric(4,4),
    d_ytd              numeric(12,2),
    d_next_o_id        int
) on MSSQL_misc_fg
go

create table customer
(
    c_id                int,
    c_d_id              tinyint,
    c_w_id              smallint,
    c_first             char(16),
    c_middle            char(2),
    c_last              char(16),

```

```

    c_street_1         char(20),
    c_street_2         char(20),
    c_city              char(20),
    c_state            char(2),
    c_zip              char(9),
    c_phone            char(16),
    c_since            datetime,
    c_credit           char(2),
    c_credit_lim       numeric(12,2),
    c_discount         numeric(4,4),
    c_balance          numeric(12,2),
    c_ytd_payment      numeric(12,2),
    c_payment_cnt      smallint,
    c_delivery_cnt     smallint,
    c_data             char(500)
) on MSSQL_cust_fg
go

create table history
(
    h_c_id              int,
    h_c_d_id            tinyint,
    h_c_w_id            smallint,
    h_d_id              tinyint,
    h_w_id              smallint,
    h_date              datetime,
    h_amount            numeric(6,2),
    h_data             char(24)
) on MSSQL_misc_fg
go

create table new_order
(
    no_o_id             int,
    no_d_id             tinyint,
    no_w_id             smallint
) on MSSQL_misc_fg
go

create table orders
(
    o_id                int,
    o_d_id              tinyint,
    o_w_id              smallint,
    o_c_id              int,
    o_entry_d           datetime,
    o_carrier_id        tinyint,
    o_ol_cnt            tinyint,
    o_all_local         tinyint
) on MSSQL_misc_fg
go

create table order_line
(
    ol_o_id             int,
    ol_d_id             tinyint,
    ol_w_id             smallint,
    ol_number           tinyint,
    ol_i_id             int,
    ol_supply_w_id      smallint,
    ol_delivery_d        datetime,
    ol_quantity         smallint,
    ol_amount           numeric(6,2),

```

```

        ol_dist_info          char(24)
) on MSSQL_ordln_fg
go

create table item
(
    i_id          int,
    i_im_id       int,
    i_name        char(24),
    i_price       numeric(5,2),
    i_data        char(50)
) on MSSQL_misc_fg
go

create table stock
(
    s_i_id        int,
    s_w_id        smallint,
    s_quantity    smallint,
    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),
    s_ytd         int,
    s_order_cnt   smallint,
    s_remote_cnt  smallint,
    s_data        char(50)
) on MSSQL_stk_fg
go

```

time.c

```

// File: TIME.C
// Microsoft TPC-C Kit Ver. 4.22
// Copyright Microsoft, 1996, 1997, 1998, 1999,
// 2000, 2001
// 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. 4.22
// Copyright Microsoft, 1996, 1997, 1998, 1999,
// 2000, 2001
// Purpose: Header file for TPC-C database loader

// Build number of TPC Benchmark Kit
#define TPCKIT_VER "4.22"

// 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>

// 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 "logs\\load.out"

```



```

#define LOADER_NURAND_C          123
#define DEF_STARTING_WAREHOUSE  1
#define BUILD_INDEX              1          // build both
data and indexes
#define INDEX_ORDER              1          // build
indexes before load
#define SCALE_DOWN              0          // build a normal
scale database
#define INDEX_SCRIPT_PATH       "scripts"

typedef struct
{
    char          *server;
    char          *database;
    char          *user;
    char          *password;
    BOOL          tables_all;
    // set if loading all tables
    BOOL          table_item;
    // set if loading ITEM table specifically
    BOOL          table_warehouse; // set if
loading WAREHOUSE, DISTRICT, and STOCK
    BOOL          table_customer; //
set if loading CUSTOMER and HISTORY
    BOOL          table_orders; //
set if loading NEW-ORDER, ORDERS, ORDER-LINE
    long          num_warehouses;
    long          batch;
    long          verbose;
    long          pack_size;
    char          *loader_res_file;
    char          *synch_servername;
    long          case_sensitivity;
    long          starting_warehouse;
    long          build_index;
    long          index_order;
    long          scale_down;
    char          *index_script_path;
} 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 MakeOriginalAlphaString();
int MakeNumberString();
int MakeZipNumberString();
void InitString();
void InitAddress();
void PaddString();

```

tpccldr.c

```

// File: TPCCLDR.C
// Microsoft TPC-C Kit Ver. 4.22
// Copyright Microsoft, 2000, 2001
// 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

// Functions declarations

```

```

void HandleErrorDBC (SQLHDBC hdbc1);

void CheckSQL();
void CheckDataBase();

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 OpenConnections();
void BuildIndex();
void FormatDate ();

// Shared memory structures

typedef struct
{
    long          ol;
    long          ol_i_id;
    short        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;
    short        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;
    short        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;
    // fix to avoid ODBC float to numeric conversion problem.
    // double    c_balance;
    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;

ORDERS_STRUCT  orders_buf[ORDERS_PER_DISTRICT];
CUSTOMER_STRUCT customer_buf[CUSTOMERS_PER_DISTRICT];

```

```

long      orders_rows_loaded;
long      new_order_rows_loaded;
long      order_line_rows_loaded;
long      history_rows_loaded;
long      customer_rows_loaded;
long      stock_rows_loaded;
long      district_rows_loaded;
long      item_rows_loaded;
long      warehouse_rows_loaded;
long      main_time_start;
long      main_time_end;
long      max_items;
long      customers_per_district;
long      orders_per_district;
long      first_new_order;
long      last_new_order;

TPCCCLDR_ARGS  *aptr, args;

//=====
//
// Function name: main
//
//=====

int main(int  argc, char **argv)
{
    DWORD      dwThreadID[MAX_MAIN_THREADS];
    HANDLE     hThread[MAX_MAIN_THREADS];
    FILE       *fLoader;
    char       buffer[255];
    int        i;

    for (i=0; i<MAX_MAIN_THREADS; i++)
        hThread[i] = NULL;

    printf("\n*****");
    printf("\n*                               *");
    printf("\n* Microsoft SQL Server           *");
    printf("\n*                               *");
    printf("\n* TPC-C BENCHMARK KIT: Database loader *");
    printf("\n* Version %s                      *", TPCKIT_VER);
    printf("\n*                               *");
    printf("\n*****\n");

    // process command line arguments

    aptr = &args;
    GetArgsLoader(argc, argv, aptr);

    // verify database and tables exist before attempting to load

    CheckSQL();
    CheckDataBase();

    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);

    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,
(LPTHREAD_START_ROUTINE) LoadWarehouse,
NULL,
&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,
(LPTHREAD_START_ROUTINE) LoadCustomer,
NULL,
&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,
(LPTHREAD_START_ROUTINE) LoadOrders,

```

```

NULL,
&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()
{
    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          bcp[128];

    // Seed with unique number

```

```

seed(1);

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");

rc = bcp_init(i_hdbc1, name, NULL, "logs\\item.err", 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);
}

rc = bcp_bind(i_hdbc1, (BYTE *) &i_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT4, 1);
if (rc != SUCCEED)
    HandleErrorDBC(i_hdbc1);

rc = bcp_bind(i_hdbc1, (BYTE *) &i_im_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT4, 2);
if (rc != SUCCEED)
    HandleErrorDBC(i_hdbc1);

rc = bcp_bind(i_hdbc1, (BYTE *) i_name, 0, I_NAME_LEN, NULL, 0, 0, 3);
if (rc != SUCCEED)
    HandleErrorDBC(i_hdbc1);

rc = bcp_bind(i_hdbc1, (BYTE *) &i_price, 0, SQL_VARLEN_DATA, NULL, 0,
SQLFLT8, 4);
if (rc != SUCCEED)
    HandleErrorDBC(i_hdbc1);

rc = bcp_bind(i_hdbc1, (BYTE *) i_data, 0, I_DATA_LEN, NULL, 0, 0, 5);
if (rc != SUCCEED)
    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);

    MakeAlphaString(14, 24, I_NAME_LEN, i_name);

    i_price = ((float) RandomNumber(100L, 10000L))/100.0;

    MakeOriginalAlphaString(26, 50, I_DATA_LEN, i_data, 10);

```

```

rc = bcp_sendrow(i_hdbc1);
if (rc != SUCCEED)
    HandleErrorDBC(i_hdbc1);

item_rows_loaded++;
CheckForCommit(i_hdbc1, i_hstmt1, item_rows_loaded, "item",
&time_start);
}

rcint = bcp_done(i_hdbc1);
if (rcint < 0)
    HandleErrorDBC(i_hdbc1);

printf("Finished loading item table.\n");

SQLFreeStmt(i_hstmt1, SQL_DROP);
SQLDisconnect(i_hdbc1);
SQLFreeConnect(i_hdbc1);

// if build index after load
if ((aptr->build_index == 1) && (aptr->index_order == 0))
    BuildIndex("idxitmcl");
}

//=====
//
// Function : LoadWarehouse
//
// Loads WAREHOUSE table and loads Stock and District as Warehouses are created
//
//=====

void LoadWarehouse()
{
    short 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];

    // Seed with unique number
    seed(2);

    printf("Loading warehouse table...\n");

    // if build index before load...
    if ((aptr->build_index == 1) && (aptr->index_order == 1))
        BuildIndex("idxwarc1");

    InitString(w_name, W_NAME_LEN+1);
    InitAddress(w_street_1, w_street_2, w_city, w_state, w_zip);

```

```

sprintf(name, "%s..%s", aptr->database, "warehouse");

rc = bcp_init(w_hdbc1, name, NULL, "logs\\whouse.err", DB_IN);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

if ((aptr->build_index == 1) && (aptr->index_order == 1))
{
    sprintf(bcphint, "tablock, order (w_id), ROWS_PER_BATCH = %d",
aptr->num_warehouses);
    rc = bcp_control(w_hdbc1, BCPHINTS, (void*) bcphint);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);
}

rc = bcp_bind(w_hdbc1, (BYTE *) &w_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT2, 1);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

rc = bcp_bind(w_hdbc1, (BYTE *) w_name, 0, W_NAME_LEN, NULL, 0, 0, 2);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

rc = bcp_bind(w_hdbc1, (BYTE *) w_street_1, 0, ADDRESS_LEN, NULL, 0, 0,
3);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

rc = bcp_bind(w_hdbc1, (BYTE *) w_street_2, 0, ADDRESS_LEN, NULL, 0, 0,
4);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

rc = bcp_bind(w_hdbc1, (BYTE *) w_city, 0, ADDRESS_LEN, NULL, 0, 0, 5);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

rc = bcp_bind(w_hdbc1, (BYTE *) w_state, 0, STATE_LEN, NULL, 0, 0, 6);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

rc = bcp_bind(w_hdbc1, (BYTE *) w_zip, 0, ZIP_LEN, NULL, 0, 0, 7);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

rc = bcp_bind(w_hdbc1, (BYTE *) &w_tax, 0, SQL_VARLEN_DATA, NULL, 0,
SQLFLT8, 8);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

rc = bcp_bind(w_hdbc1, (BYTE *) &w_ytd, 0, SQL_VARLEN_DATA, NULL, 0,
SQLFLT8, 9);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

time_start = (TimeNow() / MILLI);
warehouse_rows_loaded = 0;

for (w_id = (short)aptr->starting_warehouse; w_id <= aptr->num_warehouses;
w_id++)

```

```

{
    MakeAlphaString(6,10, W_NAME_LEN, w_name);
    MakeAddress(w_street_1, w_street_2, w_city, w_state, w_zip);
    w_tax = ((float) RandomNumber(0L,2000L))/10000.00;
    w_ytd = 300000.00;

    rc = bcp_sendrow(w_hdbc1);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    warehouse_rows_loaded++;
    CheckForCommit(w_hdbc1, i_hstmt1, warehouse_rows_loaded,
"warehouse", &time_start);
}

rcint = bcp_done(w_hdbc1);
if (rcint < 0)
    HandleErrorDBC(w_hdbc1);

printf("Finished loading warehouse table.\n");

// if build index after load...
if ((aptr->build_index == 1) && (aptr->index_order == 0))
    BuildIndex("idxwarc1");

stock_rows_loaded = 0;
district_rows_loaded = 0;

District();
Stock();
}

//=====
//
// Function : District
//
//=====

void District()
{
    short d_id;
    short 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;
    int w_id;
    RETCODE rc;
    DBINT rcint;
    char bcphint[128];

```

```

// 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");

rc = bcp_init(w_hdbc1, name, NULL, "logs\\district.err", DB_IN);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

if ((aptr->build_index == 1) && (aptr->index_order == 1))
{
    sprintf(bcphint, "tablock, order (d_w_id, d_id), ROWS_PER_BATCH
= %u", (aptr->num_warehouses * 10));
    rc = bcp_control(w_hdbc1, BCPHINTS, (void*) bcphint);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);
}

rc = bcp_bind(w_hdbc1, (BYTE *) &d_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT2, 1);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

rc = bcp_bind(w_hdbc1, (BYTE *) &d_w_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT2, 2);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

rc = bcp_bind(w_hdbc1, (BYTE *) d_name, 0, D_NAME_LEN, NULL, 0, 0, 3);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

4); rc = bcp_bind(w_hdbc1, (BYTE *) d_street_1, 0, ADDRESS_LEN, NULL, 0, 0,
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

5); rc = bcp_bind(w_hdbc1, (BYTE *) d_street_2, 0, ADDRESS_LEN, NULL, 0, 0,
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

rc = bcp_bind(w_hdbc1, (BYTE *) d_city, 0, ADDRESS_LEN, NULL, 0, 0, 6);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

rc = bcp_bind(w_hdbc1, (BYTE *) d_state, 0, STATE_LEN, NULL, 0, 0, 7);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

rc = bcp_bind(w_hdbc1, (BYTE *) d_zip, 0, ZIP_LEN, NULL, 0, 0, 8);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

```

```

rc = bcp_bind(w_hdbc1, (BYTE *) &d_tax, 0, SQL_VARLEN_DATA, NULL, 0,
SQLFLT8, 9);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

rc = bcp_bind(w_hdbc1, (BYTE *) &d_ytd, 0, SQL_VARLEN_DATA, NULL, 0,
SQLFLT8, 10);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

rc = bcp_bind(w_hdbc1, (BYTE *) &d_next_o_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT4, 11);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

d_ytd = 30000.0;
d_next_o_id = orders_per_district+1;
time_start = (TimeNow() / MILLI);

for (w_id = aptr->starting_warehouse; w_id <= aptr->num_warehouses;
w_id++)
{
    d_w_id = w_id;

    for (d_id = 1; d_id <= DISTRICT_PER_WAREHOUSE; d_id++)
    {
        MakeAlphaString(6,10,D_NAME_LEN, d_name);

        MakeAddress(d_street_1, d_street_2, d_city, d_state,
d_zip);

        d_tax = ((float) RandomNumber(0L,2000L))/10000.00;

        rc = bcp_sendrow(w_hdbc1);
        if (rc != SUCCEED)
            HandleErrorDBC(w_hdbc1);

        district_rows_loaded++;
        CheckForCommit(w_hdbc1, 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()
{
    long s_i_id;
    short 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 bcp hint[128];

    // 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");

    rc = bcp_init(w_hdbc1, name, NULL, "logs\\stock.err", DB_IN);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    if ((aptr->build_index == 1) && (aptr->index_order == 1))
    {
        sprintf(bcp hint, "tablock, order (s_i_id, s_w_id),
ROWS_PER_BATCH = %u", (aptr->num_warehouses * 100000));
        rc = bcp_control(w_hdbc1, BCPHINTS, (void*) bcp hint);
        if (rc != SUCCEED)
            HandleErrorDBC(w_hdbc1);
    }

    rc = bcp_bind(w_hdbc1, (BYTE *) &s_i_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT4, 1);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    bcp_bind(w_hdbc1, (BYTE *) &s_w_id, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT2,
2);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    rc = bcp_bind(w_hdbc1, (BYTE *) &s_quantity, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT2, 3);
    if (rc != SUCCEED)

```

```

        HandleErrorDBC(w_hdbc1);

    rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_01, 0, S_DIST_LEN, NULL, 0, 0, 4);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_02, 0, S_DIST_LEN, NULL, 0, 0, 5);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_03, 0, S_DIST_LEN, NULL, 0, 0, 6);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_04, 0, S_DIST_LEN, NULL, 0, 0, 7);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_05, 0, S_DIST_LEN, NULL, 0, 0, 8);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_06, 0, S_DIST_LEN, NULL, 0, 0, 9);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_07, 0, S_DIST_LEN, NULL, 0, 0, 10);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_08, 0, S_DIST_LEN, NULL, 0, 0, 11);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_09, 0, S_DIST_LEN, NULL, 0, 0, 12);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_10, 0, S_DIST_LEN, NULL, 0, 0, 13);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    rc = bcp_bind(w_hdbc1, (BYTE *) &s_ytd, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT4, 14);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    rc = bcp_bind(w_hdbc1, (BYTE *) &s_order_cnt, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT2, 15);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    rc = bcp_bind(w_hdbc1, (BYTE *) &s_remote_cnt, 0, SQL_VARLEN_DATA, NULL,
0, SQLINT2, 16);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    rc = bcp_bind(w_hdbc1, (BYTE *) s_data, 0, S_DATA_LEN, NULL, 0, 0, 17);
    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 = (short)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 != SUCCEEDED)
            HandleErrorDBC(w_hdbc1);

        stock_rows_loaded++;
        CheckForCommit(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;
        short                  w_id;
short                          d_id;
        dwThreadId[MAX_CUSTOMER_THREADS];
        hThread[MAX_CUSTOMER_THREADS];
        char                   name[20];
        RETCODE                rc;
        DBINT                  rcint;
        char                   bcphint[128];
        char                   cmd[256];
        char                   rc_l;
        // SQLRETURN            recnum, MsgLen;
        // SQLSMALLINT          SqlState[6],
        // SQLCHAR
        Msg[SQL_MAX_MESSAGE_LENGTH];
        // SQLINTEGER
        // 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");

        // Initialize bulk copy
        sprintf(name, "%s.%s", aptr->database, "customer");

        rc = bcp_init(c_hdbc1, name, NULL, "logs\\customer.err", DB_IN);
        if (rc != SUCCEEDED)
            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 != SUCCEEDED)
                HandleErrorDBC(c_hdbc1);
        }

        sprintf(name, "%s.%s", aptr->database, "history");

        rc = bcp_init(c_hdbc2, name, NULL, "logs\\history.err", DB_IN);
        if (rc != SUCCEEDED)
            HandleErrorDBC(c_hdbc2);

        sprintf(bcphint, "tablock");
        rc = bcp_control(c_hdbc2, BCPHINTS, (void*) bcphint);
        if (rc != SUCCEEDED)
            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 = (short)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");

    // 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, "isql -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\" >
logs\\nurand_load.log",

        aptr->server,
        aptr->user,
        aptr->password,
        aptr->database,
        LOADER_NURAND_C);

    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()
{
    int    i;

    for (i=0;i<customers_per_district;i++)
    {
        customer_buf[i].c_id = 0;
        customer_buf[i].c_d_id = 0;
        customer_buf[i].c_w_id = 0;

        strcpy(customer_buf[i].c_first,"");
        strcpy(customer_buf[i].c_middle,"");
        strcpy(customer_buf[i].c_last,"");
        strcpy(customer_buf[i].c_street_1,"");
        strcpy(customer_buf[i].c_street_2,"");
        strcpy(customer_buf[i].c_city,"");
        strcpy(customer_buf[i].c_state,"");
        strcpy(customer_buf[i].c_zip,"");
        strcpy(customer_buf[i].c_phone,"");
        strcpy(customer_buf[i].c_credit,"");

        customer_buf[i].c_credit_lim = 0;
        customer_buf[i].c_discount = (float) 0;

        // fix to avoid ODBC float to numeric conversion problem.
        // customer_buf[i].c_balance = 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, int 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);

    MakeAlphaString(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;

    // Generate CUSTOMER and HISTORY data
    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] = '0';
    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;

    // fix to avoid ODBC float to numeric conversion problem.

    // customer_buf[i].c_balance = -10.0;
    strcpy(customer_buf[i].c_balance,"-10.0");

    MakeAlphaString(300, 500, C_DATA_LEN, customer_buf[i].c_data);

    // Generate HISTORY data
    MakeAlphaString(12, 24, H_DATA_LEN, customer_buf[i].h_data);
}

```

```

    }
}

//=====
//
// Function   : LoadCustomerTable
//
//=====

void LoadCustomerTable(LOADER_TIME_STRUCT *customer_time_start)
{
    int         i;
    long        c_id;
    short       c_d_id;
    short       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;

    // fix to avoid ODBC float to numeric conversion problem.
    // double      c_balance;
    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;

    rc = bcp_bind(c_hdbc1, (BYTE *) &c_id, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT4, 1);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) &c_d_id, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT2,
2);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) &c_w_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT2, 3);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) c_first, 0, FIRST_NAME_LEN, NULL, 0, 0, 4);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) c_middle, 0, MIDDLE_NAME_LEN, NULL, 0, 0, 5);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) c_last, 0, LAST_NAME_LEN, NULL, 0, 0, 6);

```

```

    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) c_street_1, 0, ADDRESS_LEN, NULL, 0, 0, 7);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) c_street_2, 0, ADDRESS_LEN, NULL, 0, 0, 8);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) c_city, 0, ADDRESS_LEN, NULL, 0, 0, 9);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) c_state, 0, STATE_LEN, NULL, 0, 0, 10);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) c_zip, 0, ZIP_LEN, NULL, 0, 0, 11);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) c_phone, 0, PHONE_LEN, NULL, 0, 0, 12);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) &c_since, 0, C_SINCE_LEN, NULL, 0,
SQLCHARACTER, 13);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) c_credit, 0, CREDIT_LEN, NULL, 0, 0, 14);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) &c_credit_lim, 0, SQL_VARLEN_DATA, NULL, 0,
SQLFLT8, 15);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) &c_discount, 0, SQL_VARLEN_DATA, NULL, 0,
SQLFLT8, 16);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

    // fix to avoid ODBC float to numeric conversion problem.

    // rc = bcp_bind(c_hdbc1, (BYTE *) &c_balance, 0, SQL_VARLEN_DATA, NULL, 0,
SQLFLT8, 17);
    // if (rc != SUCCEED)
    //     HandleErrorDBC(c_hdbc1);
    rc = bcp_bind(c_hdbc1, (BYTE *) c_balance, 0, 5, NULL, 0, SQLCHARACTER, 17);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) &c_ytd_payment, 0, SQL_VARLEN_DATA, NULL, 0,
SQLFLT8, 18);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

```

```

rc = bcp_bind(c_hdbc1, (BYTE *) &c_payment_cnt, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT2, 19);
if (rc != SUCCEEDED)
    HandleErrorDBC(c_hdbc1);

rc = bcp_bind(c_hdbc1, (BYTE *) &c_delivery_cnt, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT2, 20);
if (rc != SUCCEEDED)
    HandleErrorDBC(c_hdbc1);

rc = bcp_bind(c_hdbc1, (BYTE *) c_data, 0, 500, NULL, 0, 0, 21);
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;

    // fix to avoid ODBC float to numeric conversion problem.

    // c_balance = customer_buf[i].c_balance;
    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)
{
    int i;
    long c_id;
    short c_d_id;
    short c_w_id;
    double h_amount;
    char h_data[H_DATA_LEN+1];
    char h_date[H_DATE_LEN+1];
    RETCODE rc;

rc = bcp_bind(c_hdbc2, (BYTE *) &c_id, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT4, 1);
if (rc != SUCCEEDED)
    HandleErrorDBC(c_hdbc2);

rc = bcp_bind(c_hdbc2, (BYTE *) &c_d_id, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT2,
2);
if (rc != SUCCEEDED)
    HandleErrorDBC(c_hdbc2);

rc = bcp_bind(c_hdbc2, (BYTE *) &c_w_id, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT2,
3);
if (rc != SUCCEEDED)
    HandleErrorDBC(c_hdbc2);

rc = bcp_bind(c_hdbc2, (BYTE *) &c_d_id, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT2,
4);
if (rc != SUCCEEDED)
    HandleErrorDBC(c_hdbc2);

rc = bcp_bind(c_hdbc2, (BYTE *) &c_w_id, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT2,
5);
if (rc != SUCCEEDED)
    HandleErrorDBC(c_hdbc2);

rc = bcp_bind(c_hdbc2, (BYTE *) &h_date, 0, H_DATE_LEN, NULL, 0,
SQLCHARACTER, 6);
if (rc != SUCCEEDED)
    HandleErrorDBC(c_hdbc2);

rc = bcp_bind(c_hdbc2, (BYTE *) &h_amount, 0, SQL_VARLEN_DATA, NULL, 0, SQLFLT8,
7);
if (rc != SUCCEEDED)
    HandleErrorDBC(c_hdbc2);

rc = bcp_bind(c_hdbc2, (BYTE *) h_data, 0, H_DATA_LEN, NULL, 0, 0, 8);
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 != SUCCEED)
            HandleErrorDBC(c_hdbc2);

        history_rows_loaded++;
        CheckForCommit(c_hdbc2, c_hstmt2, history_rows_loaded,
"history", &history_time_start->time_start);
    }
}

//=====
//
// Function   : LoadOrders
//
//=====

void LoadOrders()
{
    LOADER_TIME_STRUCT    orders_time_start;
    LOADER_TIME_STRUCT    new_order_time_start;
    LOADER_TIME_STRUCT    order_line_time_start;
    short                 w_id;
    short                 d_id;
    DWORD                 dwThreadID[MAX_ORDER_THREADS];
    HANDLE                 hThread[MAX_ORDER_THREADS];
    char                  name[20];
    RETCODE                rc;
    char                  bcphint[128];

    // 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);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc1);

    if ((aptr->build_index == 1) && (aptr->index_order == 1))
    {
        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);
        if (rc != SUCCEED)
            HandleErrorDBC(o_hdbc2);

        if ((aptr->build_index == 1) && (aptr->index_order == 1))
        {
            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);
        if (rc != SUCCEED)
            HandleErrorDBC(o_hdbc3);

        if ((aptr->build_index == 1) && (aptr->index_order == 1))
        {
            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 = (short)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(int d_id, int w_id)
{
    int    cust[ORDERS_PER_DISTRICT+1];
    long   o_id;
    short  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;
                // Added to insure ol_delivery_d set
properly during load

                // 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;
    short  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
    rc = bcp_bind(o_hdbc1, (BYTE *) &o_id, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT4, 1);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc1);

    rc = bcp_bind(o_hdbc1, (BYTE *) &o_d_id, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT2,
2);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc1);

    rc = bcp_bind(o_hdbc1, (BYTE *) &o_w_id, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT2,
3);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc1);

    rc = bcp_bind(o_hdbc1, (BYTE *) &o_c_id, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT4,
4);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc1);

    rc = bcp_bind(o_hdbc1, (BYTE *) &o_entry_d, 0, O_ENTRY_D_LEN, NULL, 0,
SQLCHARACTER, 5);

```



```

        if (rc != SUCCEED)
            HandleErrorDBC(o_hdbc1);

        rc = bcp_bind(o_hdbc1, (BYTE *) &o_carrier_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT2, 6);
        if (rc != SUCCEED)
            HandleErrorDBC(o_hdbc1);

        rc = bcp_bind(o_hdbc1, (BYTE *) &o_ol_cnt, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT2,
7);
        if (rc != SUCCEED)
            HandleErrorDBC(o_hdbc1);

        rc = bcp_bind(o_hdbc1, (BYTE *) &o_all_local, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT2, 8);
        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);
        }

        // rcint = bcp_batch(o_hdbc1);
        // if (rcint < 0)
        //     HandleErrorDBC(o_hdbc1);

        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)
{
    int          i;
    long         o_id;
    short        o_d_id;
    short        o_w_id;

    RETCODE      rc;
    DBINT        rcint;

    // Bind NEW-ORDER data

    rc = bcp_bind(o_hdbc2, (BYTE *) &o_id, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT4, 1);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc2);

    rc = bcp_bind(o_hdbc2, (BYTE *) &o_d_id, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT2,
2);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc2);

    rc = bcp_bind(o_hdbc2, (BYTE *) &o_w_id, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT2,
3);
    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(o_hdbc2, o_hstmt2, new_order_rows_loaded,
"new_order", &new_order_time_start->time_start);
    }

    // rcint = bcp_batch(o_hdbc2);
    // if (rcint < 0)
    //     HandleErrorDBC(o_hdbc2);

    if ((o_w_id == aptr->num_warehouses) && (o_d_id == 10))
    {
        rcint = bcp_done(o_hdbc2);
        if (rcint < 0)
            HandleErrorDBC(o_hdbc2);

        SQLFreeStmt(o_hstmt2, SQL_DROP);
        SQLDisconnect(o_hdbc2);
        SQLFreeConnect(o_hdbc2);
    }
}

```

```

        // if build index after load...
        if ((aptr->build_index == 1) && (aptr->index_order == 0))
            BuildIndex("idxmodc1");
    }
}

//=====
//
// Function   : LoadOrderLineTable
//
//=====

void LoadOrderLineTable(LOADER_TIME_STRUCT *order_line_time_start)
{
    int     i,j;
    long    o_id;
    short   o_d_id;
    short   o_w_id;

    long    ol;
    long    ol_i_id;
    short   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
    rc = bcp_bind(o_hdbc3, (BYTE *) &o_id, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT4, 1);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc3);

    rc = bcp_bind(o_hdbc3, (BYTE *) &o_d_id, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT2,
2);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc3);

    rc = bcp_bind(o_hdbc3, (BYTE *) &o_w_id, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT2,
3);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc3);

    rc = bcp_bind(o_hdbc3, (BYTE *) &ol, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT4, 4);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc3);

    rc = bcp_bind(o_hdbc3, (BYTE *) &ol_i_id, 0, SQL_VARLEN_DATA, NULL, 0, SQLINT4,
5);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc3);

    rc = bcp_bind(o_hdbc3, (BYTE *) &ol_supply_w_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT2, 6);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc3);

    rc = bcp_bind(o_hdbc3, (BYTE *) &ol_delivery_d, 0, OL_DELIVERY_D_LEN,
NULL, 0, SQLCHARACTER, 7);
    if (rc != SUCCEED)

```

```

        HandleErrorDBC(o_hdbc3);

    rc = bcp_bind(o_hdbc3, (BYTE *) &ol_quantity, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT2, 8);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc3);

    rc = bcp_bind(o_hdbc3, (BYTE *) &ol_amount, 0, SQL_VARLEN_DATA, NULL, 0,
SQLFLT8, 9);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc3);

    rc = bcp_bind(o_hdbc3, (BYTE *) ol_dist_info, 0, DIST_INFO_LEN, NULL, 0, 0, 10);
    if (rc != SUCCEED)
        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 != SUCCEED)
                HandleErrorDBC(o_hdbc3);

            order_line_rows_loaded++;
            CheckForCommit(o_hdbc3, o_hstmt3,
order_line_rows_loaded, "order_line", &order_line_time_start->time_start);
        }
    }

    // rcint = bcp_batch(o_hdbc3);
    // if (rcint < 0)
    //     HandleErrorDBC(o_hdbc3);

    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,
                   int rows_loaded,
                   char *table_name,
                   long *time_start)
{
    long time_end, time_diff;
    // DBINT rcint;

    if ( !(rows_loaded % aptr->batch) )
    {
        // rcint = bcp_batch(hdbc);
        // if (rcint < 0)
        //     HandleErrorDBC(hdbc);

        time_end = (TimeNow() / MILLI);
        time_diff = time_end - *time_start;

        printf("--> Loaded %ld rows into %s in %ld sec - Total = %d (%.2f
rps)\n",
                aptr->batch,
                table_name,
                time_diff,
                rows_loaded,

```

```

(float) aptr->batch / (time_diff ? time_diff
: 1L));

        *time_start = time_end;
    }
    return;
}

//=====
//
// Function   : 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)
    HandleErrorDBC(i_hdbc1);

// 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)
    HandleErrorDBC(w_hdbc1);

// 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)
    HandleErrorDBC(c_hdbc1);

// 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)
    HandleErrorDBC(c_hdbc2);

// 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)
    HandleErrorDBC(o_hdbc1);

// 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)
    HandleErrorDBC(o_hdbc2);

// 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)
    HandleErrorDBC(o_hdbc3);
}

//=====
//
// Function name: BuildIndex
//
//=====

void BuildIndex(char *index_script)
{
    char cmd[256];

    printf("Starting index creation: %s\n",index_script);

    sprintf(cmd, "isql -S%s -U%s -P%s -e -i%s\\%s.sql > logs\\%s.log",
aptr->server,
aptr->user,
aptr->password,
aptr->index_script_path,
index_script,
index_script);

    system(cmd);

    printf("Finished index creation: %s\n",index_script);
}

void HandleErrorDBC (SQLHDBC hdbc1)
{
    SQLCHAR SqlState[6], Msg[SQL_MAX_MESSAGE_LENGTH];
    SQLINTEGER NativeError;
    SQLSMALLINT i, MsgLen;
    SQLRETURN rc2;
    char timebuf[128];
    char datebuf[128];
    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" , datebuf, timebuf, szLastError);

        fp1 = fopen("logs\\tpccldr.err","w");
        if (fp1 == NULL)
            printf("ERROR: Unable to open errorlog file.\n");
        else
            {

```

```

        fprintf(fp1, "[%s : %s] %s\n" , datebuf, timebuf,
szLastError);
    }
    fclose(fp1);
    i++;
}
}
void HandleErrorSTMT (HSTMT hstmt1)
{
    SQLCHAR          SqlState[6], Msg[SQL_MAX_MESSAGE_LENGTH];
    SQLINTEGER       NativeError;
    SQLSMALLINT      i, MsgLen;
    SQLRETURN        rc2;
    char              timebuf[128];
    char              datebuf[128];
    FILE              *fp1;

    i = 1;
    while (( rc2 = SQLGetDiagRec(SQL_HANDLE_STMT , hstmt1, i, SqlState ,
&NativeError,
                                Msg, sizeof(Msg) , &MsgLen )) !=
SQL_NO_DATA )
    {
        sprintf( szLastError , "%s" , Msg );
        _strtime(timebuf);
        _strdate(datebuf);
        printf( "[%s : %s] %s\n" , datebuf, timebuf, szLastError);
        fp1 = fopen("logs\\tpccldr.err","w");
        if (fp1 == NULL)
            printf("ERROR: Unable to open errorlog file.\n");
        else
        {
            fprintf(fp1, "[%s : %s] %s\n" , datebuf, timebuf,
szLastError);
            fclose(fp1);
        }
        i++;
    }
}
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;
    }
}
//=====
//
// Function   : CheckSQL
//
//=====
void CheckSQL()
{
    RETCODE          rc;

    char              szDriverString[300];
    char              szDriverStringOut[1024];
    int               SQLBuildFlag;
    char              resp;

    SQLSMALLINT       cbDriverStringOut;
    SQLCHAR           SQLVersion[19];
    SQLINTEGER        SQLVersionInd;

    SQLAllocHandle(SQL_HANDLE_ENV, SQL_NULL_HANDLE, &henv );

    SQLSetEnvAttr(henv, SQL_ATTR_ODBC_VERSION, (void*)SQL_OV_ODBC3, 0 );

    SQLAllocHandle(SQL_HANDLE_DBC, henv , &v_hdbc);

    SQLSetConnectAttr(v_hdbc, SQL_COPT_SS_BCP, (void *)SQL_BCP_ON,
SQL_IS_INTEGER );

    // Open connection to SQL Server
    sprintf( szDriverString , "DRIVER={SQL Server};SERVER=%s;UID=%s;PWD=%s" ,
            aptr->server,
            aptr->user,
            aptr->password );

    if ( SQLSetConnectAttr( v_hdbc, SQL_ATTR_PACKET_SIZE, (SQLPOINTER)aptr-
>pack_size, SQL_IS_INTEGER ) != SQL_SUCCESS )
        HandleErrorDBC(v_hdbc);

    rc = SQLDriverConnect ( v_hdbc,
                            NULL,
                            (SQLCHAR*)&szDriverString[0] ,
                            SQL_NTS,
                            (SQLCHAR*)&szDriverStringOut[0],
                            sizeof(szDriverStringOut),
                            &cbDriverStringOut,
                            SQL_DRIVER_NOPROMPT );

    if ((rc != SQL_SUCCESS) && (rc != SQL_SUCCESS_WITH_INFO))
        HandleErrorDBC(v_hdbc);

```

```

        if ( SQLAllocHandle(SQL_HANDLE_STMT, v_hdbc , &v_hstmt) != SQL_SUCCESS )
            HandleErrorSTMT(v_hstmt);

        rc = SQLBindCol(v_hstmt, 4, SQL_C_CHAR, &SQLVersion, sizeof(SQLVersion),
        &SQLVersionInd);

        // issue SQL Server extended stored procedure (xp_msver) to determine
        installed version
        rc = SQLExecDirect(v_hstmt, "EXECUTE xp_msver ProductVersion", SQL_NTS);

        if ((rc != SQL_SUCCESS) && (rc != SQL_SUCCESS_WITH_INFO))
            HandleErrorSTMT(v_hstmt);

        rc = SQLFetch(v_hstmt);

        if (rc != SQL_SUCCESS)
            HandleErrorDBC(v_hdbc);

        // Check build number to ensure 8.00.194 or higher
        SQLBuildFlag = 1;

        // first check the Major version
        if ( SQLVersion[0] == '8' )
        {
            if (( SQLVersion[2] == '0') & ( SQLVersion[3] == '0' )
            {
                if ( SQLVersion[5] == '1' )
                {
                    if ( (SQLVersion[6] == '9') &
                    (SQLVersion[7] == '4') )
                    {
                        SQLBuildFlag = 0;
                        printf("You are using SQL Server
                        version = %9s\n\n", SQLVersion);
                    }
                    else
                    {
                        SQLBuildFlag = 1;
                    }
                }
                else
                {
                    if ( SQLVersion[5] == '3' )
                    {
                        if ( (SQLVersion[6] >= 53) &
                        {
                            SQLBuildFlag = 0;
                            printf("You are using
                            SQL Server version = %9s\n\n", SQLVersion);
                        }
                    }
                    else
                    {
                        SQLBuildFlag = 1;
                    }
                }
            }
        }
        else
        {

```

```

        SQLBuildFlag = 1;
    }
    if ( SQLBuildFlag == 1 )
    {
        printf("NOTE: The SQL Server version you are using is not
        supported\n");
        printf("for TPC-C benchmarking. You currently have SQL Server
        version %9s\n",SQLVersion);
        printf("installed. Please upgrade to Microsoft SQL Server 2000
        (8.00.0194) or better.\n");
        printf("and re-run the SETUP program.\n\n");
        printf("Do you wish to continue with setup? (Y/N): ");
        resp = getchar();
        if ( ( resp == 'N' ) || (resp == 'n') )
        {
            printf("\nSetup Aborted!\n");
            exit(1);
        }
    }

    SQLFreeHandle(SQL_HANDLE_STMT, v_hstmt);
    SQLDisconnect(v_hdbc);
    SQLFreeHandle(SQL_HANDLE_DBC, v_hdbc);

    return;
}

//=====
//
// Function : CheckDataBase
//
//=====

void CheckDataBase()
{
    RETCODE rc;

    char szDriverString[300];
    char szDriverStringOut[1024];
    char TablesBitMap[9] = {"000000000"};
    int i, ExitFlag;

    SQLSMALLINT cbDriverStringOut;
    SQLCHAR TabName[10];
    SQLINTEGER TabNameInd, TabCount, TabCountInd;

    ExitFlag = 0;

    SQLAllocHandle(SQL_HANDLE_ENV, SQL_NULL_HANDLE, &henv );

    SQLSetEnvAttr(henv, SQL_ATTR_ODBC_VERSION, (void*)SQL_OV_ODBC3, 0 );

    SQLAllocHandle(SQL_HANDLE_DBC, henv , &v_hdbc);

    SQLSetConnectAttr(v_hdbc, SQL_COPT_SS_BCP, (void *)SQL_BCP_ON,
    SQL_IS_INTEGER );

    // Open connection to SQL Server

```

```

        sprintf( szDriverString , "DRIVER={SQL
Server};SERVER=%s;UID=%s;PWD=%s;DATABASE=%s" ,
                                aptr->server,
                                aptr->user,
                                aptr->password,
                                aptr->database );

        rc = SQLSetConnectAttr( v_hdbc, SQL_ATTR_PACKET_SIZE, (SQLPOINTER)aptr-
>pack_size, SQL_IS_UIINTEGER );
        if (rc != SQL_SUCCESS)
            HandleErrorDBC(v_hdbc);

        rc = SQLDriverConnect ( v_hdbc,
                                NULL,
                                (SQLCHAR*)&szDriverString[0] ,
                                SQL_NTS,
                                (SQLCHAR*)&szDriverStringOut[0],
                                sizeof(szDriverStringOut),
                                &cbDriverStringOut,
                                SQL_DRIVER_NOPROMPT );

        // if the rc is SQL_ERROR, the the TPCC database probably does not exist
        if (rc == SQL_ERROR)
        {
            printf("The database TPCC does not appear to exist!\n");
            printf("\nCheck LOGS\ directory for database creation
errors.\n");

            // Cleanup database connections and handles
            SQLFreeHandle(SQL_HANDLE_STMT, v_hstmt);
            SQLDisconnect(v_hdbc);
            SQLFreeHandle(SQL_HANDLE_DBC, v_hdbc);

            // since there is not a database, exit back to SETUP.CMD
            exit(1);
        }

        if ( SQLAllocHandle(SQL_HANDLE_STMT, v_hdbc , &v_hstmt) != SQL_SUCCESS )
            HandleErrorDBC(v_hdbc);

        if ( SQLBindCol(v_hstmt, 1, SQL_C_ULONG, &TabCount, 0, &TabCountInd) !=
SQL_SUCCESS )
            HandleErrorSTMT(v_hstmt);

        // count the number of user tables from sysobjects
        rc = SQLExecDirect(v_hstmt, "select count(*) from sysobjects where xtype =
'\U'", SQL_NTS);
        if ((rc != SQL_SUCCESS) && (rc != SQL_SUCCESS_WITH_INFO))
            HandleErrorSTMT(v_hstmt);

        if ( SQLFetch(v_hstmt) != SQL_SUCCESS )
            HandleErrorSTMT(v_hstmt);

        // if the number of tables is less than 9, select all the user tables in
TPCC
        if (TabCount != 9)
        {
            SQLFreeHandle(SQL_HANDLE_STMT, v_hstmt);

```

```

        SQLAllocHandle(SQL_HANDLE_STMT, v_hdbc , &v_hstmt);

        if ( SQLBindCol(v_hstmt, 1, SQL_C_CHAR, &TabName,
sizeof(TabName), &TabNameInd) != SQL_SUCCESS )
            HandleErrorSTMT(v_hstmt);

        // select the list of user tables into a result set
        rc = SQLExecDirect(v_hstmt, "select * from sysobjects where
xtype = '\U'", SQL_NTS);
        if ((rc != SQL_SUCCESS) && (rc != SQL_SUCCESS_WITH_INFO))
            HandleErrorSTMT(v_hstmt);

        // go through the result set and set the bitmap for each found
table
        // set the bitmap to '1' if the table name is found

        while ((rc = SQLFetch(v_hstmt)) != SQL_NO_DATA)
        {
            switch( TabName[0] )
            {
                case 'w':
                    TablesBitMap[0] = '1';
                    break;
                case 'd':
                    TablesBitMap[1] = '1';
                    break;
                case 'c':
                    TablesBitMap[2] = '1';
                    break;
                case 'h':
                    TablesBitMap[3] = '1';
                    break;
                case 'n':
                    TablesBitMap[4] = '1';
                    break;
                case 'o':
                    if (TabName[5] = 's')
                        TablesBitMap[5] = '1';
                    if (TabName[5] = '_')
                        TablesBitMap[6] = '1';
                    break;
                case 'i':
                    TablesBitMap[7] = '1';
                    break;
                case 's':
                    TablesBitMap[8] = '1';
                    break;
            }
        }

        // a '0' ExitFlag means do NOT exit the loader early, a '1'
means exit the loader early
        ExitFlag = 0;

        // interate through the bitmap to display which table(s) is
actually missing
        for (i = 0; i <= 8; i++)
        {
            switch(i)
            {
                case 0:
                    if (TablesBitMap[i] == '0')
                    {

```



```

missing or damaged.\n");
        printf("The Warehouse table is
        ExitFlag = 1;
    }
    break;
case 1:
    if (TablesBitMap[i] == '0')
    {
        printf("The District table is
        ExitFlag = 1;
    }
    break;
missing or damaged.\n");
case 2:
    if (TablesBitMap[i] == '0')
    {
        printf("The Customer table is
        ExitFlag = 1;
    }
    break;
missing or damaged.\n");
case 3:
    if (TablesBitMap[i] == '0')
    {
        printf("The History table is
        ExitFlag = 1;
    }
    break;
missing or damaged.\n");
case 4:
    if (TablesBitMap[i] == '0')
    {
        printf("The New_Order table is
        ExitFlag = 1;
    }
    break;
missing or damaged.\n");
case 5:
    if (TablesBitMap[i] == '0')
    {
        printf("The Orders table is
        ExitFlag = 1;
    }
    break;
missing or damaged.\n");
case 6:
    if (TablesBitMap[i] == '0')
    {
        printf("The Order_Line table is
        ExitFlag = 1;
    }
    break;
missing or damaged.\n");
case 7:
    if (TablesBitMap[i] == '0')
    {
        printf("The Item table is missing
        ExitFlag = 1;
    }
    break;
or damaged.\n");
case 8:
    if (TablesBitMap[i] == '0')

```

```

    {
        printf("The Stock table is missing
        ExitFlag = 1;
    }
    break;
}
}
// if one or more tables are missing, display message and exit
the loader
if (ExitFlag = 1)
{
    printf("\nExiting TPC-C Loader!\n");
    printf("\nCheck LOGS\ directory for database\n");
    printf("or table creation errors.\n");
    // cleanup database connections and handles
    SQLFreeHandle(SQL_HANDLE_STMT, v_hstmt);
    SQLDisconnect(v_hdbc);
    SQLFreeHandle(SQL_HANDLE_DBC, v_hdbc);
    exit(1);
}
}
// cleanup database connections and handles
SQLFreeHandle(SQL_HANDLE_STMT, v_hstmt);
SQLDisconnect(v_hdbc);
SQLFreeHandle(SQL_HANDLE_DBC, v_hdbc);
return;
}

```

version.sql

```

-- File:      VERSION.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.22
--           Copyright Microsoft, 2001
-- Purpose:   Returns version level of TPC-C stored procs
-- Note:      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.

use tpcc
go

if exists ( select name from sysobjects where name = "tpcc_version" )
drop procedure tpcc_version
go

create proc tpcc_version
as
declare @version char(8)

begin
select @version = "4.10.000"
select @version as "Version"

```

```
end
```

```
go
```

null-txns.sql

```
-- TPC-C Null Txn Stored Procs
-- Microsoft TPC-C Kit
-- 8/17/99
--
-- This script will create stored procs which accept the same parameters and return
-- correctly formed
-- results sets to match the standard TPC-C stored procs.  Of course, the advantage
-- is that these
-- stored procs place almost no load on SQL Server and do not require a database.
--
-- The purpose of these stored procs is to size and test the web client without the
-- need of a fully
-- scaled database.
--
drop proc tpcc_delivery
drop proc tpcc_neworder
drop proc tpcc_orderstatus
drop proc tpcc_payment
drop proc tpcc_stocklevel
drop proc tpcc_version
drop table order_line_null
go

create proc tpcc_delivery      @w_id          smallint,
                               @o_carrier_id  smallint
as

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

declare @delaytime varchar(30)

-- uniform random delay of 0 - 1 second; avg = 0.50
select @delaytime = '00:00:0' + cast(cast((rand()*1.00) as decimal(4,3)) as char(5))
waitfor delay @delaytime

select 3001, 3001, 3001, 3001, 3001, 3001, 3001, 3001, 3001, 3001

GO

create proc tpcc_neworder      @w_id          smallint,
```

```

        @d_id          tinyint,
        @c_id          int,
        @o_ol_cnt      tinyint,
        @o_all_local   tinyint,
        @i_id1         int = 0, @s_w_id1     smallint
        @i_id2         int = 0, @s_w_id2     smallint
        @i_id3         int = 0, @s_w_id3     smallint
        @i_id4         int = 0, @s_w_id4     smallint
        @i_id5         int = 0, @s_w_id5     smallint
        @i_id6         int = 0, @s_w_id6     smallint
        @i_id7         int = 0, @s_w_id7     smallint
        @i_id8         int = 0, @s_w_id8     smallint
        @i_id9         int = 0, @s_w_id9     smallint
        @i_id10        int = 0, @s_w_id10    smallint
        @i_id11        int = 0, @s_w_id11    smallint
        @i_id12        int = 0, @s_w_id12    smallint
        @i_id13        int = 0, @s_w_id13    smallint
        @i_id14        int = 0, @s_w_id14    smallint
        @i_id15        int = 0, @s_w_id15    smallint

= 0, @ol_qty1 smallint = 0,
= 0, @ol_qty2 smallint = 0,
= 0, @ol_qty3 smallint = 0,
= 0, @ol_qty4 smallint = 0,
= 0, @ol_qty5 smallint = 0,
= 0, @ol_qty6 smallint = 0,
= 0, @ol_qty7 smallint = 0,
= 0, @ol_qty8 smallint = 0,
= 0, @ol_qty9 smallint = 0,
smallint = 0, @ol_qty10 smallint = 0,
smallint = 0, @ol_qty11 smallint = 0,
smallint = 0, @ol_qty12 smallint = 0,
smallint = 0, @ol_qty13 smallint = 0,
smallint = 0, @ol_qty14 smallint = 0,
smallint = 0, @ol_qty15 smallint = 0

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

declare @delaytime varchar(30)

begin
-- uniform random delay of 0 - 0.6 second; avg = 0.3
select @delaytime = '00:00:0' + cast(cast((rand()*0.60) as decimal(4,3)) as char(5))
waitfor delay @delaytime

-- process orderlines

select @commit_flag = 1, @li_no = 0
```

```

while (@li_no < @o_ol_cnt)
begin
    select @li_id = case @li_no
        when 1 then @i_id1
        when 2 then @i_id2
        when 3 then @i_id3
        when 4 then @i_id4
        when 5 then @i_id5
        when 6 then @i_id6
        when 7 then @i_id7
        when 8 then @i_id8
        when 9 then @i_id9
        when 10 then @i_id10
        when 11 then @i_id11
        when 12 then @i_id12
        when 13 then @i_id13
        when 14 then @i_id14
        when 15 then @i_id15
    end

    select @li_no = @li_no + 1
        select @i_price = 23.45, @li_qty = @li_no

    if (@li_id = 999999)
    begin
        select '',0,',',0,0
        select @commit_flag = 0
    end
    else
    begin
        select 'Item Name blah',17,'G', @i_price, @i_price * @li_qty
    end

    end

-- return order data to client

select    @w_tax = 0.1234,
        @d_tax = 0.0987,
        @o_id = 3001,
        @c_last = 'BAROUGHTABLE',
        @c_discount = 0.2198,
        @c_credit = 'GC',
        @o_entry_d = getdate()

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

end

GO

create proc tpcc_orderstatus @w_id          smallint,
                                @d_id
                                tinyint,

```

```

                                @c_id
                                @c_last

int,
char(16) = ''

as

declare @c_balance          numeric(12,2),
        @c_first           char(16),
        @c_middle          char(2),
        @o_id              int,
        @o_entry_d         datetime,
        @o_carrier_id      smallint,
        @ol_cnt            smallint

declare @delaytime varchar(30)

-- uniform random delay of 0 - 0.2 second; avg = 0.1
select @delaytime = '00:00:0' + cast(cast((rand()*0.20) as decimal(4,3)) as
char(5))
waitfor delay @delaytime

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

select @ol_cnt = (rand() * 11) + 5
SET ROWCOUNT @ol_cnt

select
    ol_supply_w_id,
    ol_i_id,
    ol_quantity,
    ol_amount,
    ol_delivery_d
from order_line_null

select @c_id,
        @c_last,
        @c_first,
        @c_middle,
        @o_entry_d,
        @o_carrier_id,
        @c_balance,
        @o_id

GO

create proc tpcc_payment @w_id          smallint,
                                @c_w_id
                                smallint,
                                @h_amount
                                numeric(6,2),
                                @d_id
                                tinyint,

```

```

tinyint,
char(16) = ''

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

declare @delaytime varchar(30)

-- uniform random delay of 0 - 0.3 second; avg = 0.15
select @delaytime = '00:00:0' + cast(cast((rand()*0.30) as decimal(4,3)) as
char(5))
waitfor delay @delaytime

select @screen_data = ''

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

```

```

@c_d_id
@c_id    int,
@c_last

```

```
-- get warehouse data and update year-to-date
```

```

select
    @w_street_1 = 'rqSHHakqyV',
    @w_street_2 = 'zZ98nW3BR2s',
    @w_city      = 'ArNr4GNFV9',
    @w_state     = 'aV',
    @w_zip       = '453511111'

select
    @c_id        = 123,
    @c_balance   = -10000.00,
    @c_first     = 'Kmr03Xureb',
    @c_middle    = 'OE',
    @c_last      = 'BAROUGHTBAR',
    @c_street_1  = 'QpGdOHjv8mR9vNI8V',
    @c_street_2  = 'dzKcCObBqbC3yu',
    @c_city      = 'zAKZXdc037FQxq',
    @c_state     = 'QA',
    @c_zip       = '700311111',
    @c_phone     = '2967264064528555',
    @c_credit    = 'GC',
    @c_credit_lim = 50000.00,
    @c_discount  = 0.3069,
    @c_since     = getdate(),
    @datetime    = getdate()

```

```
-- return data to client
```

```

select @c_id,
        @c_last,
        @datetime,
        @w_street_1,
        @w_street_2,
        @w_city,
        @w_state,
        @w_zip,
        @d_street_1,
        @d_street_2,
        @d_city,
        @d_state,
        @d_zip,
        @c_first,
        @c_middle,
        @c_street_1,
        @c_street_2,
        @c_city,
        @c_state,
        @c_zip,
        @c_phone,
        @c_since,
        @c_credit,
        @c_credit_lim,
        @c_discount,
        @c_balance,
        @screen_data

```

```
GO
```

```
create proc tpcc_stocklevel @w_id smallint,
```

```

tinyint,
smallint
as
declare @delaytime varchar(30)
-- uniform random delay of 0 - 3.6 second; avg = 1.8
select @delaytime = '00:00:0' + cast(cast((rand()*3.60) as decimal(4,3)) as
char(5))
waitfor delay @delaytime
select 49
GO
create proc tpcc_version
as
declare @version char(8)
begin
select @version = '4.10.000'
select @version as 'Version'
end
GO
CREATE TABLE order_line_null (
[ol_i_id] [int] NOT NULL ,
[ol_supply_w_id] [smallint] NOT NULL ,
[ol_delivery_d] [datetime] NOT NULL ,
[ol_quantity] [smallint] NOT NULL ,
[ol_amount] [numeric](6, 2) NOT NULL
) ON [PRIMARY]
GO
insert into order_line_null values ( 101, 1, getdate(), 1, 123.45 )
insert into order_line_null values ( 102, 1, getdate(), 2, 123.45 )
insert into order_line_null values ( 103, 1, getdate(), 3, 123.45 )
insert into order_line_null values ( 104, 1, getdate(), 4, 123.45 )
insert into order_line_null values ( 105, 1, getdate(), 5, 123.45 )
insert into order_line_null values ( 106, 1, getdate(), 1, 123.45 )
insert into order_line_null values ( 107, 1, getdate(), 2, 123.45 )
insert into order_line_null values ( 108, 1, getdate(), 3, 123.45 )
insert into order_line_null values ( 109, 1, getdate(), 4, 123.45 )
insert into order_line_null values ( 110, 1, getdate(), 5, 123.45 )
insert into order_line_null values ( 111, 1, getdate(), 1, 123.45 )
insert into order_line_null values ( 112, 1, getdate(), 2, 123.45 )
insert into order_line_null values ( 113, 1, getdate(), 3, 123.45 )
insert into order_line_null values ( 114, 1, getdate(), 4, 123.45 )
insert into order_line_null values ( 115, 1, getdate(), 5, 123.45 )
GO

```

Appendix C: Tunable Parameters

Microsoft SQL Server 2000 Startup Parameters

```
C:\Program Files\Microsoft SQL
Server\MSSQL\BINN\sqlservr.exe
-eC:\Program Files\Microsoft SQL
Server\MSSQL\LOG\ERRORLOG -x -c -t3502
-g100
```

Where:

-c Start SQL Server independently of the Windows NT Service Control Manager

-x Disables the keeping of CPU time and cache-hit ratio statistics

-t3502 Prints a message to the SQL Server log at the start and end of each checkpoint

-g64 Specify the amount of virtual address space in MB, SQL Server will leave available for memory allocations, excluding the buffer pool and threads stack, such as dynamically-loaded DLLs, extended procedure calls, etc. Incorrect use of this option can lead to conditions under which SQL Server may not start or may encounter runtime errors.

Boot.ini Parameters

```
[boot loader]
timeout=30
```

```
default=multi(0)disk(0)rdisk(0)partition(2)\WINNT
[operating systems]
multi(0)disk(0)rdisk(0)partition(2)\WINNT="Microsoft
Windows 2000 Server" /pae /fastdetect
```

Microsoft SQL Server 2000 Configuration Parameters

```
1> 2> name
      minimum      maximum      config_value
run_value
-----
-----
-----
-----
-----
affinity mask
      -2147483648  2147483647      3
3
allow updates
      0            1            0
0
awe enabled
      0            1            0
0
c2 audit mode
      0            1            0
0
cost threshold for parallelism
      0            32767        5
5
cursor threshold
      -1           2147483647   -1
-1
default full-text language
      0            2147483647   1033
1033
default language
      0            9999         0
0
fill factor (%)
      0            100          0
0
index create memory (KB)
      704           2147483647   704
704
lightweight pooling
      0            1            1
1
locks
      5000          2147483647   9000
9000
```

```
max degree of parallelism
      0            32            1
1
max server memory (MB)
      4            2147483647   2147483647
2147483647
max text repl size (B)
      0            2147483647   65536
65536
max worker threads
      32           32767        410
410
media retention
      0            365          0
0
min memory per query (KB)
      512           2147483647   512
512
min server memory (MB)
      0            2147483647   0
0
nested triggers
      0            1            1
1
network packet size (B)
      512           65536        2048
2048
open objects
      0            2147483647   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        80
80
remote access
      0            1            1
1
remote login timeout (s)
      0            2147483647   20
20
remote proc trans
      0            1            0
0
remote query timeout (s)
      0            2147483647   600
600
scan for startup procs
      0            1            0
0
set working set size
      0            1            0
0
show advanced options
      0            1            1
1
```

```

two digit year cutoff
      1753      9999      2049
2049
user connections      0      32767      0
0
user options      0      32767      0
0
1> 2> 3>

```

Benchcraft Profile

```

Profile: Stretch_1460war_2c1
File Path:
C:\BenchCraft\Stretch_1460war_2c1.pro
Version: 3

```

Number of Engines: 2

```

Name: c165
Description:
Directory: c:\blog\c165.log
Machine: N17
Parameter Set: 1.04
Index: 50000000
Seed: 18546
Configured Users: 7300
Pipe Name: DRIVER286005718
Connect Rate: 10000
Start Rate: 10000
Max. Concurrency: 7290
Concurrency Rate: 10000
CLIENT_NURAND: 233
CPU: 1

```

```

Name: c166
Description:
Directory: c:\blog\c166.log
Machine: N17
Parameter Set: 1.04
Index: 100000000
Seed: 18546
Configured Users: 7300
Pipe Name: DRIVER2149515765
Connect Rate: 10000
Start Rate: 10000
Max. Concurrency: 7290
Concurrency Rate: 10000
CLIENT_NURAND: 233
CPU: 0

```

Number of User groups: 2

```

Driver Engine: c165
IIS Server: c165c
SQL Server: stretch
Database: tpcc

```

```

User: sa
Protocol: HTML
w_id Range: 1 - 730
w_id Min Warehouse: 1
w_id Max Warehouse: 1460
Scale: Normal
User Count: 7300
District id: 1
Scale Down: No

```

```

Driver Engine: c166
IIS Server: c166c
SQL Server: stretch
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 731 - 1460
w_id Min Warehouse: 1
w_id Max Warehouse: 1460
Scale: Normal
User Count: 7300
District id: 1
Scale Down: No

```

Number of Parameter Sets: 42

~Default
Default Parameter Set

Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
			New Order	10.00	
12.05	18.01	0.10	5.00	10.00	0.10
12.05	3.01	0.10	5.00	10.00	0.10
5.05	2.01	0.10	5.00	1.00	0.10
5.05	2.01	0.10	20.00	1.00	0.10
10.05	2.01	0.10	5.00	1.00	0.10

Tuned Distribution

Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
			New Order	44.75	
12.05	18.01	0.10	5.00	43.10	0.10
12.05	3.01	0.10	5.00	4.05	0.10
5.05	2.01	0.10	5.00	4.05	0.10
5.05	2.01	0.10	20.00	4.05	0.10
10.05	2.01	0.10	5.00	4.05	0.10

No Think

Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
0.00		0.00	New Order	10.00	
			0.00	5.00	0.00
0.00		0.00	Payment	10.00	
			0.00	5.00	0.00
0.00		0.00	Delivery	1.00	
			0.00	5.00	0.00
0.00		0.00	Stock Level	1.00	
			0.00	20.00	0.00
0.00		0.00	Order Status	1.00	
			0.00	5.00	0.00

95%

Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
			New Order	44.75	
13.00	18.01	0.10	5.00	0.10	
			Payment	43.10	
13.00	3.01	0.10	5.00	0.10	
			Delivery	4.05	
6.00	2.01	0.10	5.00	0.10	
			Stock Level	4.05	
6.00	2.01	0.10	20.00	0.10	
			Order Status	4.05	
11.00	2.01	0.10	5.00	0.10	

90%

Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
			New Order	44.75	
16.00	18.01	0.10	5.00	0.10	
			Payment	43.10	
16.00	3.01	0.10	5.00	0.10	
			Delivery	4.05	
9.00	2.01	0.10	5.00	0.10	
			Stock Level	4.05	
9.00	2.01	0.10	20.00	0.10	
			Order Status	4.05	
14.00	2.01	0.10	5.00	0.10	

1.6

1.6 tt

Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
			New Order	44.75	
19.28	18.01	0.10	5.00	0.10	
			Payment	43.10	
19.28	3.01	0.10	5.00	0.10	
			Delivery	4.05	
8.08	2.01	0.10	5.00	0.10	
			Stock Level	4.05	
8.08	2.01	0.10	20.00	0.10	

16.08	2.01	0.10	5.00	4.05	0.10
		2.0			
		2.0 tt			
Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
24.10	24.10	0.10	5.00	44.88	0.10
24.10	24.10	0.10	5.00	43.03	0.10
10.10	10.10	0.10	5.00	4.03	0.10
10.10	10.10	0.10	20.00	4.03	0.10
20.10	20.10	0.10	5.00	4.03	0.10
		2.6			
		2.6 tt			
Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
31.33	18.01	0.10	5.00	44.75	0.10
31.33	3.01	0.10	5.00	43.10	0.10
13.13	2.01	0.10	5.00	4.05	0.10
13.13	2.01	0.10	20.00	4.05	0.10
26.13	2.01	0.10	5.00	4.05	0.10
		3.0			
		3.0 tt			
Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
36.15	18.01	0.10	5.00	44.75	0.10
36.15	3.01	0.10	5.00	43.10	0.10
15.15	2.01	0.10	5.00	4.05	0.10
15.15	2.01	0.10	20.00	4.05	0.10
30.15	2.01	0.10	5.00	4.05	0.10
		4.0			
		4.0 tt			
Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
48.20	18.01	0.10	5.00	44.75	0.10

48.20	3.01	0.10	5.00	43.10	0.10
20.20	2.01	0.10	5.00	4.05	0.10
20.20	2.01	0.10	20.00	4.05	0.10
40.20	2.01	0.10	5.00	4.05	0.10
		3.8			
		3.8 tt			
Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
45.80	18.01	0.10	5.00	44.75	0.10
45.80	3.01	0.10	5.00	43.10	0.10
19.20	2.01	0.10	5.00	4.05	0.10
19.20	2.01	0.10	20.00	4.05	0.10
38.20	2.01	0.10	5.00	4.05	0.10
		3.6			
		3.6 tt			
Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
43.38	18.01	0.10	5.00	44.75	0.10
43.38	3.01	0.10	5.00	43.10	0.10
18.18	2.01	0.10	5.00	4.05	0.10
18.18	2.01	0.10	20.00	4.05	0.10
36.18	2.01	0.10	5.00	4.05	0.10
		3.4			
		3.4 tt			
Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
40.97	18.01	0.10	5.00	44.75	0.10
40.97	3.01	0.10	5.00	43.10	0.10
17.17	2.01	0.10	5.00	4.05	0.10
17.17	2.01	0.10	20.00	4.05	0.10
34.17	2.01	0.10	5.00	4.05	0.10
		3.2			
		3.2 tt			

Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
38.56	18.01	0.10	5.00	44.75	0.10
38.56	3.01	0.10	5.00	43.10	0.10
16.16	2.01	0.10	5.00	4.05	0.10
16.16	2.01	0.10	20.00	4.05	0.10
32.16	2.01	0.10	5.00	4.05	0.10
		2.8			
		2.8 tt			
Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
33.74	18.01	0.10	5.00	44.75	0.10
33.74	3.01	0.10	5.00	43.10	0.10
14.14	2.01	0.10	5.00	4.05	0.10
14.14	2.01	0.10	20.00	4.05	0.10
28.14	2.01	0.10	5.00	4.05	0.10
		2.4			
		2.4 tt			
Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
28.92	18.01	0.10	5.00	44.88	0.10
28.92	3.01	0.10	5.00	43.03	0.10
12.12	2.01	0.10	5.00	4.03	0.10
12.12	2.01	0.10	20.00	4.03	0.10
24.12	2.01	0.10	5.00	4.03	0.10
		2.2			
		2.2 tt			
Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
26.51	18.01	0.10	5.00	44.86	0.10
26.51	3.01	0.10	5.00	43.05	0.10
11.11	2.01	0.10	5.00	4.03	0.10
11.11	2.01	0.10	20.00	4.03	0.10

Key	RT	RT	Menu	Txn	Think
22.11	2.01		Order Status	4.03	
			0.10	5.00	0.10
			1.1		
			1.1 tt		
Time	Delay	Fence	Delay	Weight	Time
13.25	18.01		New Order	44.86	
			0.10	5.00	0.10
13.25	3.01		Payment	43.05	
			0.10	5.00	0.10
5.55	2.01		Delivery	4.03	
			0.10	5.00	0.10
5.55	2.01		Stock Level	4.03	
			0.10	20.00	0.10
11.05	2.01		Order Status	4.03	
			0.10	5.00	0.10
			1.2		
			1.2 tt		
Key	RT	RT	Menu	Txn	Think
				Weight	Time
Time	Delay	Fence	Delay	Weight	Time
14.46	18.01		New Order	44.86	
			0.10	5.00	0.10
14.46	3.01		Payment	43.05	
			0.10	5.00	0.10
6.06	2.01		Delivery	4.03	
			0.10	5.00	0.10
6.06	2.01		Stock Level	4.03	
			0.10	20.00	0.10
12.06	2.01		Order Status	4.03	
			0.10	5.00	0.10
			1.05		
			1.05tt		
Key	RT	RT	Menu	Txn	Think
				Weight	Time
Time	Delay	Fence	Delay	Weight	Time
12.65	18.01		New Order	44.86	
			0.10	5.00	0.10
12.65	3.01		Payment	43.05	
			0.10	5.00	0.10
5.30	2.01		Delivery	4.03	
			0.10	5.00	0.10
5.30	2.01		Stock Level	4.03	
			0.10	20.00	0.10
10.55	2.01		Order Status	4.03	
			0.10	5.00	0.10
			1.01		
			1.01tt		
Key	RT	RT	Menu	Txn	Think
				Weight	Time
Time	Delay	Fence	Delay	Weight	Time
12.17	18.01		New Order	44.86	
			0.10	5.00	0.10

Key	RT	RT	Menu	Txn	Think
12.17	3.01		Payment	43.05	
			0.10	5.00	0.10
5.10	2.01		Delivery	4.03	
			0.10	5.00	0.10
5.10	2.01		Stock Level	4.03	
			0.10	20.00	0.10
10.15	2.01		Order Status	4.03	
			0.10	5.00	0.10
			1.02		
			1.02tt		
Key	RT	RT	Menu	Txn	Think
				Weight	Time
Time	Delay	Fence	Delay	Weight	Time
12.29	18.01		New Order	44.86	
			0.10	5.00	0.10
12.29	3.01		Payment	43.05	
			0.10	5.00	0.10
5.15	2.01		Delivery	4.03	
			0.10	5.00	0.10
5.15	2.01		Stock Level	4.03	
			0.10	20.00	0.10
10.25	2.01		Order Status	4.03	
			0.10	5.00	0.10
			1.08		
			1.08 tt		
Key	RT	RT	Menu	Txn	Think
				Weight	Time
Time	Delay	Fence	Delay	Weight	Time
13.01	18.01		New Order	44.86	
			0.10	5.00	0.10
13.01	3.01		Payment	43.05	
			0.10	5.00	0.10
5.45	2.01		Delivery	4.03	
			0.10	5.00	0.10
5.45	2.01		Stock Level	4.03	
			0.10	20.00	0.10
10.85	2.01		Order Status	4.03	
			0.10	5.00	0.10
			1.06		
			1.06tt		
Key	RT	RT	Menu	Txn	Think
				Weight	Time
Time	Delay	Fence	Delay	Weight	Time
12.77	18.01		New Order	44.86	
			0.10	5.00	0.10
12.77	3.01		Payment	43.05	
			0.10	5.00	0.10
5.35	2.01		Delivery	4.03	
			0.10	5.00	0.10
5.35	2.01		Stock Level	4.03	
			0.10	20.00	0.10
10.65	2.01		Order Status	4.03	
			0.10	5.00	0.10
			1.07		
			1.07tt		

Key	RT	RT	Menu	Txn	Think
				Weight	Time
Time	Delay	Fence	Delay	Weight	Time
12.89	18.01		New Order	44.86	
			0.10	5.00	0.10
12.89	3.01		Payment	43.05	
			0.10	5.00	0.10
5.40	2.01		Delivery	4.03	
			0.10	5.00	0.10
5.40	2.01		Stock Level	4.03	
			0.10	20.00	0.10
10.75	2.01		Order Status	4.03	
			0.10	5.00	0.10
			1.03		
			1.03tt		
Key	RT	RT	Menu	Txn	Think
				Weight	Time
Time	Delay	Fence	Delay	Weight	Time
12.41	18.01		New Order	44.86	
			0.10	5.00	0.10
12.41	3.01		Payment	43.05	
			0.10	5.00	0.10
5.20	2.01		Delivery	4.03	
			0.10	5.00	0.10
5.20	2.01		Stock Level	4.03	
			0.10	20.00	0.10
10.35	2.01		Order Status	4.03	
			0.10	5.00	0.10
			1.04		
			1.04tt		
Key	RT	RT	Menu	Txn	Think
				Weight	Time
Time	Delay	Fence	Delay	Weight	Time
12.53	18.01		New Order	44.86	
			0.10	5.00	0.10
12.53	3.01		Payment	43.05	
			0.10	5.00	0.10
5.25	2.01		Delivery	4.03	
			0.10	5.00	0.10
5.25	2.01		Stock Level	4.03	
			0.10	20.00	0.10
10.45	2.01		Order Status	4.03	
			0.10	5.00	0.10
			1.005		
			1.005		
Key	RT	RT	Menu	Txn	Think
				Weight	Time
Time	Delay	Fence	Delay	Weight	Time
12.11	18.01		New Order	44.86	
			0.10	5.00	0.10
12.11	3.01		Payment	43.05	
			0.10	5.00	0.10
5.08	2.01		Delivery	4.03	
			0.10	5.00	0.10
5.08	2.01		Stock Level	4.03	
			0.10	20.00	0.10

10.10	2.01	0.10	5.00	4.03	0.10
		1.8tt			
Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
21.69	18.01	New Order	0.10	5.00	44.86
21.69	3.01	Payment	0.10	5.00	43.05
9.09	2.01	Delivery	0.10	5.00	4.03
9.09	2.01	Stock Level	0.10	20.00	4.03
18.09	2.01	Order Status	0.10	5.00	4.03
		1.9			
Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
22.90	18.01	New Order	0.10	5.00	44.86
22.90	3.01	Payment	0.10	5.00	43.05
9.60	2.01	Delivery	0.10	5.00	4.03
9.60	2.01	Stock Level	0.10	20.00	4.03
19.10	2.01	Order Status	0.10	5.00	4.03
		1.4			
		1.4 tt			
Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
16.87	18.01	New Order	0.10	5.00	44.86
16.87	3.01	Payment	0.10	5.00	43.05
7.07	2.01	Delivery	0.10	5.00	4.03
7.07	2.01	Stock Level	0.10	20.00	4.03
14.07	2.01	Order Status	0.10	5.00	4.03
		1.5			
		1.5 tt			
Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
18.07	18.01	New Order	0.10	5.00	44.86

18.07	3.01	0.10	5.00	43.05	0.10
7.58	2.01	Delivery	0.10	5.00	4.03
7.58	2.01	Stock Level	0.10	20.00	4.03
15.07	2.01	Order Status	0.10	5.00	4.03
		1.3			
		1.3 tt			
Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
15.66	18.01	New Order	0.10	5.00	44.86
15.66	3.01	Payment	0.10	5.00	43.05
6.57	2.01	Delivery	0.10	5.00	4.03
6.57	2.01	Stock Level	0.10	20.00	4.03
13.07	2.01	Order Status	0.10	5.00	4.03
		1.49			
		1.49 tt			
Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
17.95	18.01	New Order	0.10	5.00	44.86
17.95	3.01	Payment	0.10	5.00	43.05
7.52	2.01	Delivery	0.10	5.00	4.03
7.52	2.01	Stock Level	0.10	20.00	4.03
14.97	2.01	Order Status	0.10	5.00	4.03
		1.48			
		1.48 tt			
Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
17.83	18.01	New Order	0.10	5.00	44.86
17.83	3.01	Payment	0.10	5.00	43.05
7.47	2.01	Delivery	0.10	5.00	4.03
7.47	2.01	Stock Level	0.10	20.00	4.03
14.87	2.01	Order Status	0.10	5.00	4.03
		1.47			
		1.47 tt			

Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
17.71	18.01	New Order	0.10	5.00	44.86
17.71	3.01	Payment	0.10	5.00	43.05
7.42	2.01	Delivery	0.10	5.00	4.03
7.42	2.01	Stock Level	0.10	20.00	4.03
14.77	2.01	Order Status	0.10	5.00	4.03
		1.46			
		1.46 tt			
Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
17.59	18.01	New Order	0.10	5.00	44.86
17.59	3.01	Payment	0.10	5.00	43.05
7.37	2.01	Delivery	0.10	5.00	4.03
7.37	2.01	Stock Level	0.10	20.00	4.03
14.67	2.01	Order Status	0.10	5.00	4.03
		1.45			
		1.45 tt			
Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
17.47	18.01	New Order	0.10	5.00	44.86
17.47	3.01	Payment	0.10	5.00	43.05
7.32	2.01	Delivery	0.10	5.00	4.03
7.32	2.01	Stock Level	0.10	20.00	4.03
14.57	2.01	Order Status	0.10	5.00	4.03
		1.44			
		1.44 tt			
Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
17.35	18.01	New Order	0.10	5.00	44.86
17.35	3.01	Payment	0.10	5.00	43.05
7.27	2.01	Delivery	0.10	5.00	4.03
7.27	2.01	Stock Level	0.10	20.00	4.03

```

Order Status      4.03
14.47      2.01    0.10    5.00    0.10
1.43
1.43 tt

```

Key	RT	RT	Menu	Txn	Think
				Weight	Time
Time	Delay	Fence	Delay		
			New Order	44.86	
17.23	18.01		0.10	5.00	0.10
			Payment	43.05	
17.23	3.01		0.10	5.00	0.10
			Delivery	4.03	
7.22	2.01		0.10	5.00	0.10
			Stock Level	4.03	
7.22	2.01		0.10	20.00	0.10
			Order Status	4.03	
14.37	2.01		0.10	5.00	0.10
			1.42		
			1.42 tt		

Key	RT	RT	Menu	Txn	Think
				Weight	Time
Time	Delay	Fence	Delay		
			New Order	44.86	
17.11	18.01		0.10	5.00	0.10
			Payment	43.05	
17.11	3.01		0.10	5.00	0.10
			Delivery	4.03	
7.17	2.01		0.10	5.00	0.10
			Stock Level	4.03	
7.17	2.01		0.10	20.00	0.10
			Order Status	4.03	
14.27	2.01		0.10	5.00	0.10
			1.41		
			1.41 tt		

Key	RT	RT	Menu	Txn	Think
				Weight	Time
Time	Delay	Fence	Delay		
			New Order	44.86	
16.99	18.01		0.10	5.00	0.10
			Payment	43.05	
16.99	3.01		0.10	5.00	0.10
			Delivery	4.03	
7.12	2.01		0.10	5.00	0.10
			Stock Level	4.03	
7.12	2.01		0.10	20.00	0.10
			Order Status	4.03	
14.17	2.01		0.10	5.00	0.10

Internet Information Server Registry Parameters

REGEDIT4

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\InetInfo]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\InetInfo\Parameters]
"ListenBackLog"=dword:00000019
"DispatchEntries"=hex(7):4c,44,41,50,53,56,43,00,00
"PoolThreadLimit"=dword:000003fe
"ThreadTimeout"=dword:00015180
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\InetInfo\Performance]
"Library"="infectrs.dll"
"Open"="OpenINFOPerformanceData"
"Close"="CloseINFOPerformanceData"
"Collect"="CollectINFOPerformanceData"
"Last Counter"=dword:00000842
"Last Help"=dword:00000843
"First Counter"=dword:00000802
"First Help"=dword:00000803
"Library Validation Code"=hex:fe,11,4d,90,c8,2b,c2,01,10,25,00,00,00,00,0,00
"WbemAdapFileTime"=hex:00,73,79,5b,bc,d4,c0,01
"WbemAdapFileSize"=dword:00002510
"WbemAdapStatus"=dword:00000000
```

World Wide Web Service Registry Parameters

REGEDIT4

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC]
"Type"=dword:00000020
"Start"=dword:00000002
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):43,3a,5c,57,49,4e,4e,54,5c,53,79,73,74,65,6d,33,32,5c,69,6e,\
```

```
65,74,73,72,76,5c,69,6e,65,74,69,6e,66,6f,2e,65,78,65,00
"DisplayName"="World Wide Web Publishing Service"
"DependOnService"=hex(7):49,49,53,41,44,4d,49,4e,00,00
"DependOnGroup"=hex(7):00
"ObjectName"="LocalSystem"
"Description"="Provides Web connectivity and administration through the Internet Information Services snap-in."
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\ASP]
"NOTE"="This is for backward compatibility only."
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\ASP\Parameters]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Parameters]
"MajorVersion"=dword:00000005
"MinorVersion"=dword:00000000
"InstallPath"="C:\\WINNT\\System32\\inetsrv"
"CertMapList"="C:\\WINNT\\System32\\inetsrv\\iisrmap.dll"
"AccessDeniedMessage"="Error: Access is Denied."
"Filter DLLs"=""
"LogFileDirectory"="C:\\WINNT\\System32\\LogFiles"
"AcceptExOutstanding"=dword:00000028
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Parameters\ADCLaunch]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Parameters\ADCLaunch\AdvancedDataFactory]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Parameters\ADCLaunch\RDSServer.DataFactory]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Parameters\Script Map]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Parameters\Virtual Roots]
"/"="c:\\inetpub\\wwwroot,,207"
"/Scripts"="c:\\inetpub\\scripts,,1"
"/IISHelp"="c:\\winnt\\help\\iishelp,,1"
"/IISAdmin"="C:\\WINNT\\System32\\inetsrv\\iisadmin,,1"
"/IISSamples"="c:\\inetpub\\iissamples,,1"
"/MSADC"="c:\\program files\\common files\\system\\msadc,,1"
"/_vti_bin"="C:\\Program Files\\Common Files\\Microsoft Shared\\Web Server Extensions\\40\\isapi,,1"
"/Printers"="C:\\WINNT\\web\\printers,,201"
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Performance]
"Library"="w3ctrs.dll"
"Open"="OpenW3PerformanceData"
"Close"="CloseW3PerformanceData"
```

```

"Collect"="CollectW3PerformanceData"
"Last Counter"=dword:000008e6
"Last Help"=dword:000008e7
"First Counter"=dword:00000844
"First Help"=dword:00000845
"Library Validation
Code"=hex:22,69,ed,92,c8,2b,c2,01,10,3d,00,00,00,00,0,00
"WbemAdapFileTime"=hex:00,73,79,5b,bc,d4,c0,01
"WbemAdapFileSize"=dword:00001d10
"WbemAdapStatus"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14,00,00,00,30,00,00,00,02,\

00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\

00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00,01,01,00,00,00,00,\

05,12,00,00,00,74,00,6f,00,00,00,1c,00,ff,01,0f,00,01,02,00,00,00,00,00,05,\

20,00,00,00,20,02,00,00,72,00,73,00,00,00,18,00,8d,01,02,00,01,01,00,00,00,\

00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02,00,01,02,00,00,00,00,\

00,05,20,00,00,00,23,02,00,00,72,00,73,00,01,01,00,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Enum]
"0"="Root\LEGACY_W3SVC\00000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

```

Server Registry Parameters

REGEDIT4

```

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Abiosdsk]
"ErrorControl"=dword:00000000
"Group"="Primary disk"
"Start"=dword:00000004
"Tag"=dword:00000003
"Type"=dword:00000001

```

```

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\abp480n5]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Tag"=dword:00000038
"Type"=dword:00000001

```

```

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\abp480n5\Parameters]

```

```

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\abp480n5\Parameters\PnpInterface]
"5"=dword:00000001

```

```

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ACPI]
"ErrorControl"=dword:00000001
"Group"="Boot Bus Extender"
"Start"=dword:00000000
"Tag"=dword:00000001
"Type"=dword:00000001
"DisplayName"="Microsoft ACPI Driver"
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,49,56,45,52,53,5c,41,43,50,\
49,2e,73,79,73,00

```

```

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ACPI\Enum]
"0"="ACPI_HAL\PNP0C08\0"
"Count"=dword:00000001
"NextInstance"=dword:00000001

```

```

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ACPIEC]
"ErrorControl"=dword:00000001
"Group"="Boot Bus Extender"
"Start"=dword:00000004
"Tag"=dword:00000005
"Type"=dword:00000001

```

```

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\adpul60m]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Tag"=dword:0000003c
"Type"=dword:00000001

```

```

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\adpul60m\Parameters]

```

```

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\adpul60m\Parameters\PnpInterface]
"5"=dword:00000001

```

```

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\AFD]
"Type"=dword:00000001
"Start"=dword:00000002
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):5c,53,79,73,74,65,6d,52,6f,6f,74,5c,53,79,73,74,65,6d,33,32,\

```

```

5c,64,72,69,76,65,72,73,5c,61,66,64,2e,73,79,73,00
"DisplayName"="AFD Networking Support Environment"
"Group"="TDI"

```

```

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\AFD\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14,00,00,00,30,00,00,00,02,\

```

```

00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\

```

```

00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00,01,01,00,00,00,00,\

```

```

05,12,00,00,00,20,02,00,00,00,00,1c,00,ff,01,0f,00,01,02,00,00,00,00,00,05,\

```

```

20,00,00,00,20,02,00,00,00,00,00,00,18,00,8d,01,02,00,01,01,00,00,00,\

```

```

00,00,05,0b,00,00,00,20,02,00,00,00,1c,00,fd,01,02,00,01,02,00,00,00,00,\

```

```

00,05,20,00,00,00,23,02,00,00,00,00,00,00,01,01,00,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,00,05,12,00,00,00

```

```

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\AFD\Enum]
"0"="Root\LEGACY_AFD\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

```

```

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Aha154x]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Tag"=dword:00000006
"Type"=dword:00000001

```

```

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Aha154x\Parameters]
"LegacyAdapterDetection"=dword:00000000

```

```

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Aha154x\Parameters\PnpInterface]
"1"=dword:00000001
"3"=dword:00000001

```

```

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\aic116x]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Tag"=dword:00000033
"Type"=dword:00000001

```

```

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\aic116x\Parameters]

```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\aic116x\Parameters\PnpInterface]
"5"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\aic78u2]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Tag"=dword:00000034
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\aic78u2\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\aic78u2\Parameters\PnpInterface]
"5"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\aic78xx]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Tag"=dword:0000001e
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\aic78xx\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\aic78xx\Parameters\PnpInterface]
"5"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Alerter]
"Type"=dword:00000020
"Start"=dword:00000004
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2
5,5c,53,79,73,74,65,6d,33,\
32,5c,73,65,72,76,69,63,65,73,2e,65,78,65,00
"DisplayName"="Alerter"
"DependOnService"=hex(7):4c,61,6e,6d,61,6e,57,6f,72,6
b,73,74,61,74,69,6f,6e,00,\
00
"DependOnGroup"=hex(7):00
"ObjectName"="LocalSystem"
"Description"="Notifies selected users and computers
of administrative alerts."

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Alerter\Parameters]
"AlertNames"=hex(7):00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Alerter\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,01,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,01,00,00,\
00,00,02,00,78,00,05,00,00,00,03,14,00,8d,00,02,00
,01,01,00,00,00,00,\
01,00,00,00,00,03,18,00,ff,01,0f,00,01,02,00,00,00
,00,00,05,20,00,00,\
20,02,00,00,03,18,00,8d,00,02,00,01,02,00,00,00,00
,00,05,20,00,00,00,23,\
02,00,00,00,03,14,00,9d,00,00,00,01,01,00,00,00,00,00
,05,04,00,00,00,00,03,\
18,00,9d,00,00,00,01,02,00,00,00,00,05,20,00,00,00
,21,02,00,00,01,01,00,\
00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,05,12
,00,00,00
```

```
00,00,02,00,78,00,05,00,00,00,00,00,14,00,8d,01,02,00
,01,01,00,00,00,00,00,\
05,0b,00,00,00,00,00,18,00,9d,01,02,00,01,02,00,00,00
,00,00,05,20,00,00,00,\
23,02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00
,00,05,20,00,00,00,20,\
02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00
,05,20,00,00,00,25,02,\
00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,00,05
,12,00,00,00,01,01,00,\
00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,00,05,12
,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Alerter\Enum]
"0"="Root\LEGACY_ALERTER\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\ami0nt]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Tag"=dword:0000000d
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\amsint]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Tag"=dword:00000024
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\amsint\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\amsint\Parameters\PnpInterface]
"5"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\AppMgmt]
"Description"="Provides software installation
services such as Assign, Publish, and Remove."
"DisplayName"="Application Management"
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2
5,5c,73,79,73,74,65,6d,33,\
32,5c,73,65,72,76,69,63,65,73,2e,65,78,65,00
"ObjectName"="LocalSystem"
"Start"=dword:00000003
"Type"=dword:00000020

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\AppMgmt\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,01,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,01,00,00,\
```

```
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,01,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\
00,00,02,00,78,00,05,00,00,00,00,03,14,00,8d,00,02,00
,01,01,00,00,00,00,\
01,00,00,00,00,03,18,00,ff,01,0f,00,01,02,00,00,00
,00,00,05,20,00,00,\
20,02,00,00,03,18,00,8d,00,02,00,01,02,00,00,00,00
,00,05,20,00,00,00,23,\
02,00,00,00,03,14,00,9d,00,00,00,01,01,00,00,00,00,00
,05,04,00,00,00,00,03,\
18,00,9d,00,00,00,01,02,00,00,00,00,05,20,00,00,00
,21,02,00,00,01,01,00,\
00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,05,12
,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\AppMgmt\Enum]
"0"="Root\LEGACY_APPMGMT\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\asc]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Tag"=dword:00000029
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\asc\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\asc\Parameters\PnpInterface]
"5"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\asc3350p]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Tag"=dword:00000039
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\asc3350p\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\asc3350p\Parameters\PnpInterface]
"1"=dword:00000011

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\asc3550]
"ErrorControl"=dword:00000001
```

<pre>"Group"="SCSI miniport" "Start"=dword:00000004 "Tag"=dword:0000002a "Type"=dword:00000001 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \asc3550\Parameters] [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \asc3550\Parameters\PnpInterface] "5"=dword:00000001 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \AsyncMac] "Type"=dword:00000001 "Start"=dword:00000003 "ErrorControl"=dword:00000001 "ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4 9,56,45,52,53,5c,61,73,79,\ 6e,63,6d,61,63,2e,73,79,73,00 "DisplayName"="RAS Asynchronous Media Driver" "Description"="RAS Asynchronous Media Driver" [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \AsyncMac\Security] "Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14 ,00,00,00,30,00,00,00,02,\ 00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00 ,00,00,00,00,01,00,00,\ 00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00 ,01,01,00,00,00,00,00,\ 05,12,00,00,00,74,00,6c,00,00,00,1c,00,ff,01,0f,00,01 ,02,00,00,00,00,00,05,\ 20,00,00,00,20,02,00,00,00,00,00,00,00,00,18,00,8d,01 ,02,00,01,01,00,00,00,\ 00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02 ,00,01,02,00,00,00,00,\ 00,05,20,00,00,00,23,02,00,00,00,00,00,01,01,00,00 ,00,00,00,05,12,00,00,\ 00,01,01,00,00,00,00,05,12,00,00,00 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \atapi] "ErrorControl"=dword:00000001 "Group"="SCSI miniport" "Start"=dword:00000000 "Tag"=dword:00000019 "Type"=dword:00000001 "DisplayName"="Standard IDE/ESDI Hard Disk Controller" "ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4 9,56,45,52,53,5c,61,74,61,\ 70,69,2e,73,79,73,00 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \atapi\Parameters] "LegacyDetection"=dword:00000001</pre>	<pre>"GhostSlave"=hex(7):53,75,6e,44,69,73,6b,20,00,00 "UseCheckPowerForFlush"=hex(7):53,41,4d,53,55,4e,47,2 0,57,4e,52,2d,33,31,36,30,\ 31,41,20,28,31,36,30,30,4d,42,29,20,20,20,20,20,20,20 ,20,20,20,20,20,20,00,\ 53,41,4d,53,55,4e,47,20,57,4e,52,2d,33,31,36,30,31,41 ,20,28,31,2e,36,47,42,\ 29,20,20,20,20,20,20,20,20,20,20,20,20,20,00,49,42 ,4d,2d,44,54,43,41,2d,\ 32,34,30,39,30,20,20,20,20,20,20,20,20,20,20,20,20 ,20,20,20,20,20,20,00,\ 20,20,20,20,20,20,54,43,36,4f,41,41,32,41,00,49,42,4d ,2d,44,54,43,41,2d,32,\ 34,30,39,30,20,20,20,20,20,20,20,20,20,20,20,20,20 ,20,20,20,20,20,20,\ 20,20,20,20,20,54,43,36,49,41,41,32,41,00,49,42,4d,2d ,44,50,4c,41,2d,32,35,\ 31,32,30,20,20,20,20,20,20,20,20,20,20,20,20,20,20 ,20,20,20,20,20,20,\ 20,20,20,20,50,4c,38,4f,41,41,32,41,00,49,42,4d,2d,44 ,50,4c,41,2d,32,35,31,\ 32,30,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20 ,20,20,20,20,20,20,\ 20,20,20,50,4c,38,49,41,41,32,41,00,49,42,4d,2d,44,50 ,4c,41,2d,32,35,31,32,\ 30,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20 ,20,20,20,20,20,20,\ 20,20,50,4c,38,49,41,41,34,41,00,49,42,4d,2d,44,54,43 ,41,2d,32,33,32,34,30,\ 20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20 ,20,20,20,20,20,20,\ 20,54,43,35,4f,41,41,32,41,00,49,42,4d,2d,44,54,43,41 ,2d,32,33,32,34,30,20,\ 20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20 ,20,20,20,20,20,20,\ 54,43,35,49,41,41,32,41,00,49,42,4d,2d,44,50,4c,41,2d ,32,34,34,38,30,20,20,\ 20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20 ,20,20,20,20,20,20,\ 4c,37,4f,41,41,32,41,00,49,42,4d,2d,44,50,4c,41,2d,32 ,34,34,38,30,20,20,20,\ 20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20 ,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20 ,20,20,20,20,20,50,4c,\</pre>	<pre>37,49,41,41,32,41,00,00 "NoFlushDevice"=hex(7):51,55,41,4e,54,55,4d,5f,4c,50, 53,35,32,35,41,20,20,20,\ 20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20 ,20,20,20,20,00,53,43,\ 52,2d,37,33,30,20,20,20,20,20,20,20,20,20,20,20,20 ,20,20,20,20,20,20,\ 20,20,20,20,20,20,20,20,20,20,20,20,00 "PioOnlyDevice"=hex(7):20,20,20,20,43,6f,6e,6e,65,72, 20,50,65,72,69,70,68,65,\ 72,61,6c,73,20,34,32,35,4d,42,20,2d,20,43,46,53,34,32 ,35,41,20,20,00,4d,41,\ 54,53,48,49,54,41,20,43,52,2d,35,38,31,20,20,20,20,20 ,20,20,20,20,20,20,\ 20,20,20,20,20,20,20,20,20,20,20,00,46,58,36,30 ,30,53,20,20,20,20,20,\ 20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20 ,20,20,20,20,20,20,\ 20,20,20,20,00,43,44,2d,34,34,45,20,20,20,20,20,20 ,20,20,20,20,20,20,\ 20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20 ,20,20,00,51,55,41,4e,\ 54,55,4d,20,54,52,42,38,35,30,41,20,20,20,20,20,20 ,20,20,20,20,20,20,\ 20,20,20,20,20,20,20,20,20,20,20,00,51,55,41,4e,54,55 ,4d,20,4d,41,52,56,45,\ 52,49,43,4b,20,35,34,30,41,20,20,20,20,20,20,20,20 ,20,20,20,20,20,20,\ 20,20,00,20,4d,41,58,54,4f,52,20,4d,58,54,2d,35,34,30 ,20,20,41,54,20,20,20,\ 20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20 ,00,4d,61,78,74,6f,72,\ 20,37,31,32,36,30,20,41,54,20,20,20,20,20,20,20,20 ,20,20,20,20,20,20,\ 20,20,20,20,20,20,20,20,20,00,4d,61,78,74,6f,72,20,37 ,38,35,30,20,41,56,20,\ 20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20 ,20,20,20,20,20,20,\ 00,4d,61,78,74,6f,72,20,37,35,34,30,20,41,56,20,20,20 ,20,20,20,20,20,20,\ 20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,00,4d ,61,78,74,6f,72,20,37,\ 32,31,33,20,41,54,20,20,20,20,20,20,20,20,20,20,20 ,20,20,20,20,20,20,\</pre>
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20,20,20,20,20,20,20,20,00,4d,61,78,74,6f,72,20,37,33,34,
35,20,20,20,20,20,20,\

20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,
20,20,20,20,20,20,00,4d,\

61,78,74,6f,72,20,37,32,34,35,20,41,54,20,20,20,20,
20,20,20,20,20,20,20,\

20,20,20,20,20,20,20,20,20,20,20,20,20,00,4d,61,78,
74,6f,72,20,37,32,34,\

35,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,
20,20,20,20,20,20,20,\

20,20,20,20,20,00,4d,61,78,74,6f,72,20,37,32,31,31,41,
55,20,20,20,20,20,20,\

20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,
20,20,20,00,4d,61,78,\

74,6f,72,20,37,31,37,31,20,41,54,20,20,20,20,20,20,
20,20,20,20,20,20,20,\

20,20,20,20,20,20,20,20,20,20,20,20,00,43,44,2d,33,31,
36,45,20,20,20,20,20,\

20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,
20,20,20,20,20,20,20,\

20,20,20,00,53,41,4d,53,55,4e,47,5f,53,43,52,2d,32,34,
33,30,00,43,52,2d,32,\
38,30,31,54,45,00,00
"NonRemovableMedia"=hex(7):4b,69,6e,67,73,74,6f,6e,20,
54,65,63,68,6e,6f,6c,6f,\

67,79,20,44,61,74,61,50,61,6b,20,33,34,30,20,20,20,
20,20,20,20,20,00,53,\

75,6e,44,69,73,6b,20,53,44,50,35,41,2d,31,30,20,20,
20,20,20,20,20,20,\

20,20,20,20,20,20,20,20,20,20,20,20,20,00,53,75,6e,
44,69,73,6b,20,53,44,\

43,46,42,2d,31,30,20,20,20,20,20,20,20,20,20,20,
20,20,20,20,20,20,20,\

20,20,20,20,20,00,53,75,6e,44,69,73,6b,20,53,44,50,33,
42,2d,32,30,20,20,20,\

20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,
20,20,20,00,53,75,6e,\

44,69,73,6b,20,53,44,50,33,42,2d,31,37,35,20,20,20,
20,20,20,20,20,20,20,\

20,20,20,20,20,20,20,20,20,20,20,00,53,75,6e,44,69,
73,6b,20,53,44,50,35,\

2d,32,2e,35,20,20,20,20,20,20,20,20,20,20,20,20,
20,20,20,20,20,20,20,\

20,20,20,00,43,61,6c,6c,75,6e,61,20,54,65,63,68,6e,6f,
.6c,6f,67,79,20,43,54,\

32,36,30,4d,43,20,20,20,20,20,20,20,20,20,20,20,
20,00,42,4e,2d,53,30,\

30,34,41,43,2d,53,20,31,2e,30,30,00,43,61,6c,6c,75,6e,
61,20,54,65,63,68,6e,\

6f,6c,6f,67,79,20,43,54,35,32,30,52,4d,00,48,69,74,61,
63,68,69,20,43,56,20,\

35,2e,31,2e,31,00,20,20,20,20,20,20,41,54,41,5f,46,4c,
41,53,48,20,00,4d,69,\

74,73,75,62,69,73,68,69,20,41,54,41,20,43,61,72,64,20,
00,4c,45,58,41,52,20,\

41,54,41,5f,46,4c,41,53,48,00,4d,69,63,72,6f,6e,20,4d,
54,43,46,30,30,34,41,\

00,4d,69,63,72,6f,6e,20,4d,54,43,46,30,30,38,41,00,53,
75,6e,44,69,73,6b,20,\

53,44,50,33,42,2d,31,31,30,00,53,75,6e,44,69,73,6b,20,
53,44,43,46,42,2d,34,\

00,42,4e,2d,43,41,42,2d,54,00,4d,45,4d,4f,52,59,53,54,
49,43,4b,20,20,20,38,\
4d,20,20,38,4b,00,00
"NoPowerDownDevice"=hex(7):52,44,2d,44,52,43,30,30,31,
2d,4d,20,20,20,20,20,\

20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,
20,20,20,20,20,00,43,\

53,2d,52,33,37,20,30,20,20,20,20,20,20,20,20,20,20,
20,20,20,20,20,20,\
20,20,20,20,20,20,20,20,20,20,20,00,00
"AutoEjectZipDevice"=hex(7):49,4f,4d,45,47,41,20,20,5,
a,49,50,20,31,30,30,20,20,\

20,20,20,20,20,41,54,41,50,49,20,20,20,20,20,20,20,
20,20,20,20,20,32,33,\

2e,44,20,20,20,20,00,49,4f,4d,45,47,41,20,20,5a,49,50,
20,31,30,30,20,20,20,\

20,20,20,20,41,54,41,50,49,20,20,20,20,20,20,20,20,
20,20,20,20,32,31,2e,\

44,20,20,20,20,00,49,4f,4d,45,47,41,20,20,5a,49,50,20,
31,30,30,20,20,20,20,\

20,20,20,41,54,41,50,49,20,20,20,20,20,20,20,20,20,
20,20,20,32,30,2e,44,\

20,20,20,20,00,49,4f,4d,45,47,41,20,20,5a,49,50,20,31,
30,30,20,20,20,20,20,\

20,20,41,54,41,50,49,20,20,20,20,20,20,20,20,20,20,
20,20,39,31,2e,44,20,\

20,20,20,00,49,4f,4d,45,47,41,20,20,5a,49,50,20,31,30,
30,20,20,20,20,20,20,\

20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,
20,42,2e,32,39,20,20,\

20,20,00,49,4f,4d,45,47,41,20,20,5a,49,50,20,31,30,30,
20,20,20,20,20,20,\

20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,
42,2e,32,32,20,20,20,\
20,00,00
"NeedIdentDevice"=hex(7):51,55,41,4e,54,55,4d,20,46,4,
9,52,45,42,41,4c,4c,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\atapi\Enum
"0"="PCIIDE\IDEChannel\4&1024d5c6&0&0"
"Count"=dword:00000002
"NextInstance"=dword:00000002
"1"="PCIIDE\IDEChannel\4&1024d5c6&0&1"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Atdisk]
"ErrorControl"=dword:00000000
"Group"="Primary disk"
"Start"=dword:00000004
"Tag"=dword:00000001
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\atirage3]
"Type"=dword:00000001
"Start"=dword:00000003
"ErrorControl"=dword:00000000
"Tag"=dword:00000001
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4,
9,56,45,52,53,5c,61,74,69,\
6d,70,61,62,2e,73,79,73,00
"Group"="Video"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\atirage3\Device0]
"InstalledDisplayDrivers"=hex(7):61,74,69,64,72,61,62,
00,00
"VgaCompatible"=dword:00000000
"Device Description"="ATI Technologies Inc. RAGE XL
PCI"
"HardwareInformation.ChipType"=hex:41,00,54,00,49,00,
20,00,52,00,41,00,47,00,\

45,00,20,00,58,00,4c,00,20,00,50,00,43,00,49,00,00,00
"HardwareInformation.DacType"=hex:41,00,54,00,49,00,2
0,00,49,00,6e,00,74,00,65,\

00,72,00,6e,00,61,00,6c,00,20,00,44,00,41,00,43,00,00,
00
"HardwareInformation.MemorySize"=hex:00,00,80,00
"HardwareInformation.AdapterString"=hex:31,00,30,00,3
0,00,32,00,2d,00,34,00,37,\

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00,35,00,32,00,2d,00,37,00,2d,00,30,00,45,00,31
,00,31,00,2d,00,30,00,\
  30,00,31,00,45,00,00,00
"HardwareInformation.BiosString"=hex:47,00,52,00,2d,0
0,78,00,6c,00,63,00,70,00,\
71,00,73,00,33,00,79,00,2e,00,30,00,31,00,30,00,2d,00
,34,00,2e,00,33,00,32,\
  00,38,00,00,00
"WDMConfiguration.VideoFeature.TunerType"=hex:3f,3f,3
f,3f
"WDMConfiguration.VideoFeature.DecoderType"=hex:3f,3f
,3f,3f
"WDMConfiguration.VideoFeature.DecoderAndCrystalsType
"=hex:3f,3f,3f,3f
"WDMConfiguration.VideoFeature.AudioChipType"=hex:3f,
3f,3f,3f
"WDMConfiguration.VideoFeature.OEMId"=hex:3f,3f,3f,3f
"WDMConfiguration.VideoFeature.ATIProductId"=hex:3f,3
f,3f,3f
"WDMConfiguration.VideoFeature.ProductRevisionId"=hex
:3f,3f,3f,3f
"WDMConfiguration.VideoFeature.ConnectorsAndPassThrou
gh"=hex:3f,3f,3f,3f
"WDMConfiguration.VideoFeature.VoltageAndTeletext"=he
x:3f,3f,3f,3f
"WDMConfiguration.VideoFeature.Reserved"=hex:3f,3f,3f
,3f
"WDMConfiguration.HardwareInfo.I2CMethod"=hex:0f,00,0
0,00
"WDMConfiguration.HardwareInfo.TVOutSupport"=hex:00,0
0,00,00
"WDMConfiguration.HardwareInfo.VideoPortType"=hex:00,
00,00,00
"WDMConfiguration.TVOutConfiguration.TVOutInformation
"=hex:ff,ff,00,00
"WDMConfiguration.FrequencyTable.ReferenceClock"=hex:
80,81,da,00
"CustomCRTTimings"=hex:00
"MultiMediaHardware.I2CExpander"=hex:18
"MultiMediaHardware.TunerId"=hex:00,00,00,00
"MultiMediaHardware.DecoderId"=hex:00,00,00,00
"MultiMediaHardware.AudioId"=hex:ff,ff,ff,ff
"HardwareInformation.Crc32"=hex:01,05,b7,a4

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\atirage3\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,00,\
05,12,00,00,00,6f,00,72,00,00,00,1c,00,ff,01,0f,00,01
,02,00,00,00,00,00,05,\
20,00,00,00,20,02,00,00,74,00,00,00,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\

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00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\
00,05,20,00,00,00,23,02,00,00,74,00,00,00,01,01,00,00
,00,00,00,05,12,00,00,\
  00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\atirage3\Enum]
"0"="PCI\VEN_1002&DEV_4752&SUBSYS_001E0E11&REV_27\3
&267a616a&0&18"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Atmarpc]
"Type"=dword:00000001
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"Tag"=dword:0000000b
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4
9,56,45,52,53,5c,61,74,6d,\
  61,72,70,63,2e,73,79,73,00
"DisplayName"="ATM ARP Client Protocol"
"Group"="NDIS"
"DependOnService"=hex(7):54,63,70,69,70,00,00
"DependOnGroup"=hex(7):00
"Description"="ATM ARP Client Protocol"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Atmarpc\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,00,\
05,12,00,00,00,20,02,00,00,00,00,1c,00,ff,01,0f,00,01
,02,00,00,00,00,00,05,\
20,00,00,00,20,02,00,00,00,00,00,00,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\
00,05,20,00,00,00,23,02,00,00,00,00,00,00,01,01,00,00
,00,00,00,05,12,00,00,\
  00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\audstub]
"Type"=dword:00000001
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4
9,56,45,52,53,5c,61,75,64,\
  73,74,75,62,2e,73,79,73,00
"DisplayName"="Audio Stub Driver"

```

```

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\audstub\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,00,\
05,12,00,00,00,61,00,73,00,00,00,1c,00,ff,01,0f,00,01
,02,00,00,00,00,00,05,\
20,00,00,00,20,02,00,00,65,00,00,00,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\
00,05,20,00,00,00,23,02,00,00,65,00,00,00,01,01,00,00
,00,00,00,05,12,00,00,\
  00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\audstub\Enum]
"0"="Root\Media\MS_MMACM"
"Count"=dword:00000005
"NextInstance"=dword:00000005
"1"="Root\Media\MS_MMDRV"
"2"="Root\Media\MS_MMMCI"
"3"="Root\Media\MS_MMVCD"
"4"="Root\Media\MS_MMVID"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Autocat]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Autocat\Performance]
"Last Counter"=dword:000019e2
"Last Help"=dword:000019e3
"First Counter"=dword:000019c8
"First Help"=dword:000019c9

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Beep]
"ErrorControl"=dword:00000001
"Group"="Base"
"Start"=dword:00000001
"Tag"=dword:00000002
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Beep\Enum]
"0"="Root\LEGACY_BEEP\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Browser]
"Type"=dword:00000020
"Start"=dword:00000002

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"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2
5,5c,53,79,73,74,65,6d,33,\
32,5c,73,65,72,76,69,63,65,73,2e,65,78,65,00
"DisplayName"="Computer Browser"
"DependOnService"=hex(7):4c,61,6e,6d,61,6e,57,6f,72,6
b,73,74,61,74,69,6f,6e,00,\
4c,61,6e,6d,61,6e,53,65,72,76,65,72,00,00
"DependOnGroup"=hex(7):00
"ObjectName"="LocalSystem"
"Description"="Maintains an up-to-date list of
computers on your network and supplies the list to
programs that request it."

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Browser\Parameters]
"IsDomainMaster"="FALSE"
"MaintainServerList"="Yes"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Browser\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,01,00,00,\
00,00,02,00,78,00,05,00,00,00,00,14,00,8d,01,02,00
,01,01,00,00,00,00,\
05,0b,00,00,00,00,18,00,9d,01,02,00,01,02,00,00,00
,00,00,05,20,00,00,00,\
23,02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00
,00,05,20,00,00,00,20,\
02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00
,05,20,00,00,00,25,02,\
00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,05
,12,00,00,00,01,01,00,\
00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,05,12
,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Browser\Enum]
"0"="Root\LEGACY_BROWSER\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\BusLogic]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Tag"=dword:0000001b
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\BusLogic\Parameters]

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[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\BusLogic\Parameters\PnpInterface]
"1"=dword:00000001
"2"=dword:00000001
"5"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\cd20xrnt]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Tag"=dword:0000003a
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\cd20xrnt\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\cd20xrnt\Parameters\PnpInterface]
"1"=dword:00000011

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Cdaudio]
"ErrorControl"=dword:00000000
"Group"="Filter"
"Start"=dword:00000001
"Tag"=dword:00000006
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Cdaudio\Enum]
"Count"=dword:00000000
"NextInstance"=dword:00000000
"INITSTARTFAILED"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Cdfs]
"DependOnGroup"=hex(7):53,43,53,49,20,43,44,52,4f,4d,
20,43,6c,61,73,73,00,00
"ErrorControl"=dword:00000001
"Group"="File system"
"Start"=dword:00000004
"Type"=dword:00000002

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Cdfs\Enum]
"0"="Root\LEGACY_CDFS\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Cdrom]
"Autorun"=dword:00000001
"AutoRunAlwaysDisable"=hex(7):4e,45,43,20,20,20,20,
4d,42,52,2d,37,20,20,20,\
00,4e,45,43,20,20,20,20,4d,42,52,2d,37,2e,34,20,00
,50,49,4f,4e,45,45,52,\
20,43,48,41,4e,47,52,20,44,52,4d,2d,31,38,30,34,58,00
,50,49,4f,4e,45,45,52,\

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20,43,44,2d,52,4f,4d,20,44,52,4d,2d,36,33,32,34,58,00
,50,49,4f,4e,45,45,52,\
20,43,44,2d,52,4f,4d,20,44,52,4d,2d,36,32,34,58,20,00
,54,4f,52,69,53,41,4e,\
20,43,44,2d,52,4f,4d,20,43,44,52,5f,43,33,36,00,00
"DependOnGroup"=hex(7):53,43,53,49,20,6d,69,6e,69,70,
6f,72,74,00,00
"ErrorControl"=dword:00000001
"Group"="SCSI CDROM Class"
"Start"=dword:00000001
"Tag"=dword:00000002
"Type"=dword:00000001
"DisplayName"="CD-ROM Driver"
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4
9,56,45,52,53,5c,63,64,72,\
6f,6d,2e,73,79,73,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Cdrom\Enum]
"0"="IDE\CdRomCOMPAQ_CRD-
8402B_____1.03____\30323030302f2f
3530312020202020202020202020"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Changer]
"ErrorControl"=dword:00000000
"Group"="Filter"
"Start"=dword:00000001
"Tag"=dword:00000005
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\cisvc]
"Type"=dword:00000120
"Start"=dword:00000004
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):43,3a,5c,57,49,4e,4e,54,5c,53,79,7
3,74,65,6d,33,32,5c,63,69,\
73,76,63,2e,65,78,65,00
"DisplayName"="Indexing Service"
"DependOnService"=hex(7):52,50,43,53,53,00,00
"DependOnGroup"=hex(7):00
"ObjectName"="LocalSystem"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\cisvc\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,00,\
05,12,00,00,00,20,02,00,00,00,00,1c,00,ff,01,0f,00,01
,02,00,00,00,00,00,05,\

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20,00,00,00,20,02,00,00,00,00,00,00,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\

00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\

00,05,20,00,00,00,23,02,00,00,00,00,00,01,01,00,00
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\cisvc\Enum]
"0"="Root\LEGACY_CISVC\00000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\ClipSrv]
"DependOnService"=hex(7):4e,65,74,44,44,45,00,00
"Description"="Supports ClipBook Viewer, which allows
pages to be seen by remote ClipBooks."
"DisplayName"="ClipBook"
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2
5,5c,73,79,73,74,65,6d,33,\
32,5c,63,6c,69,70,73,72,76,2e,65,78,65,00
"ObjectName"="LocalSystem"
"Start"=dword:00000003
"Type"=dword:00000010

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\ClipSrv\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14
,00,00,00,30,00,00,00,02,\

00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,01,00,00,\

00,00,02,00,78,00,05,00,00,00,03,14,00,8d,00,02,00
,01,01,00,00,00,00,00,\

01,00,00,00,00,03,18,00,ff,01,0f,00,01,02,00,00,00
,00,00,05,20,00,00,00,\

20,02,00,00,00,03,18,00,8d,00,02,00,01,02,00,00,00,00
,00,05,20,00,00,00,23,\

02,00,00,00,03,14,00,9d,00,00,00,01,01,00,00,00,00,00
,05,04,00,00,00,00,00,\

18,00,ff,01,0f,00,01,02,00,00,00,00,05,20,00,00,00
,25,02,00,00,01,01,00,\

00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,05,12
,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\ContentFilter]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\ContentFilter\Linkage]
"Bind"="\\Dummy"

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"Export"="\\Dummy"
"Route"="\\Dummy"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\ContentFilter\Performance]
"Close"="DoneFILTERPerformanceData"
"Collect"="CollectFILTERPerformanceData"
"Open"="InitializeFILTERPerformanceData"
"Library"="query.dll"
"Last Counter"=dword:00000840
"Last Help"=dword:00000841
"First Counter"=dword:0000083a
"First Help"=dword:0000083b
"Object List"="2106"
"WbemAdapFileTime"=hex:00,73,79,5b,bc,d4,c0,01
"WbemAdapFileSize"=dword:00159d10
"WbemAdapStatus"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\ContentIndex]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\ContentIndex\Linkage]
"Bind"="\\Dummy"
"Export"="\\Dummy"
"Route"="\\Dummy"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\ContentIndex\Performance]
"Close"="DoneCIPerformanceData"
"Collect"="CollectCIPerformanceData"
"Open"="InitializeCIPerformanceData"
"Library"="query.dll"
"Last Counter"=dword:00000838
"Last Help"=dword:00000839
"First Counter"=dword:00000822
"First Help"=dword:00000823
"Object List"="2082"
"WbemAdapFileTime"=hex:00,73,79,5b,bc,d4,c0,01
"WbemAdapFileSize"=dword:00159d10
"WbemAdapStatus"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Cpqarray]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Tag"=dword:00000100
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Cpqarray\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Cpqarray\Parameters\PnpInterface]
"2"=dword:00000001
"5"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\cpqarry2]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004

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"Tag"=dword:0000003e
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\cpqarry2\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\cpqarry2\Parameters\PnpInterface]
"5"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\cpqcissb]
"Type"=dword:00000001
"Start"=dword:00000000
"ErrorControl"=dword:00000001
"Tag"=dword:00000102
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4
9,56,45,52,53,5c,63,70,71,\
63,69,73,73,62,2e,73,79,73,00
"DisplayName"="Compaq CISS Controllers Device Driver"
"Group"="port"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\cpqcissb\Parameters]
"CompletionMode"=dword:00000002
"CosTimerRate"=dword:00000002

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\cpqcissb\Parameters\Controller0]
"CompletionMode"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\cpqcissb\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,00,02,\

00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,01,00,00,\

00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,00,\

05,12,00,00,00,74,00,69,00,00,00,1c,00,ff,01,0f,00,01
,02,00,00,00,00,00,05,\

20,00,00,00,20,02,00,00,76,00,65,00,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\

00,00,05,0b,00,00,00,20,02,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\

00,05,20,00,00,00,23,02,00,00,76,00,65,00,01,01,00,00
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\cpqcissb\Enum]
"0"="PCI\VEN_0e11&DEV_B060&SUBSYS_40700e11&REV_02\3
&13c0b0c5&0&08"
"Count"=dword:00000003
"NextInstance"=dword:00000003
"1"="PCI\VEN_0e11&DEV_B060&SUBSYS_40700e11&REV_02\3
&1070020&0&08"

```

"2"="PCI\\VEN_0E11&DEV_B060&SUBSYS_40700E11&REV_02\\3
&29e81982&0&08"

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\cpqciissd]
"Type"=dword:00000001
"Start"=dword:00000000
"ErrorControl"=dword:00000001
"Tag"=dword:00000102
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,49,56,45,52,53,5c,63,70,71,\\
63,69,73,73,64,2e,73,79,73,00
"DisplayName"="Compaq CISS Controllers Disk Driver"
"Group"="Primary Disk"
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\cpqciissd\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14,00,00,00,30,00,00,00,02,\\
```

00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\\

00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00,01,01,00,00,00,00,00,\\

05,12,00,00,00,74,00,69,00,00,00,1c,00,ff,01,0f,00,01,02,00,00,00,00,00,05,\\

20,00,00,00,20,02,00,00,76,00,65,00,00,00,18,00,8d,01,02,00,01,01,00,00,00,\\

00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02,00,01,02,00,00,00,00,\\

00,05,20,00,00,00,23,02,00,00,76,00,65,00,01,01,00,00,00,00,05,12,00,00,\\

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\cpqciissd\Enum]
"0"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\\4&2d73aec0&0&0000004000000000"
```

"Count"=dword:0000000a
"NextInstance"=dword:0000000a

"1"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\\4&2d73aec0&0&0100004000000000"

"2"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\\4&3332ab6&0&0000004000000000"

"3"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\\4&3332ab6&0&0100004000000000"

"4"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\\4&3332ab6&0&0200004000000000"

"5"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\\4&3332ab6&0&0300004000000000"

"6"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\\4&38eb4840&0&0000004000000000"

"7"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\\4&38eb4840&0&0100004000000000"

"8"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\\4&38eb4840&0&0200004000000000"

"9"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\\4&38eb4840&0&0300004000000000"

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\cpqciissm]
"Type"=dword:00000001
"Start"=dword:00000000
"Group"="SCSI miniport"
"ErrorControl"=dword:00000001
"ImagePath"="system32\drivers\cpqciissm.sys"
"tag"=dword:00000103
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\cpqciissm\Parameters]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\cpqciissm\Parameters\Device]
"NumberOfRequests"=dword:000000ff
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\cpqciissm\Parameters\PnpInterface]
"5"=dword:00000001
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\cpqciissm\Enum]
"0"="Root\LEGACY_CPQCISSM\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\cpqfcalm]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Tag"=dword:0000002c
"Type"=dword:00000001
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\cpqfcalm\Parameters]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\cpqfcalm\Parameters\PnpInterface]
"2"=dword:00000001
"5"=dword:00000001
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\cpqfws2e]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Tag"=dword:00000026
"Type"=dword:00000001
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\cpqfws2e\Parameters]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\cpqfws2e\Parameters\PnpInterface]
"2"=dword:00000001
"5"=dword:00000001
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\dac960nt]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
```

```
"Start"=dword:00000004
"Tag"=dword:00000020
"Type"=dword:00000001
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\dac960nt\Parameters]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\dac960nt\Parameters\PnpInterface]
"2"=dword:00000001
"5"=dword:00000001
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\deckzpsx]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Tag"=dword:0000002e
"Type"=dword:00000001
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\deckzpsx\Parameters]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\deckzpsx\Parameters\PnpInterface]
"5"=dword:00000001
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Dfs]
"Type"=dword:00000010
"Start"=dword:00000004
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,73,79,73,74,65,6d,33,\\
32,5c,44,66,73,73,76,63,2e,65,78,65,00
"DisplayName"="Distributed File System"
"Group"="Dfs"
"DependOnService"=hex(7):4c,61,6e,6d,61,6e,57,6f,72,6b,73,74,61,74,69,6f,6e,00,\\
```

4c,61,6e,6d,61,6e,53,65,72,76,65,72,00,44,66,73,44,72,69,76,65,72,00,4d,75,\\

70,00,00
"DependOnGroup"=hex(7):00

"ObjectName"="LocalSystem"
"Description"="Manages logical volumes distributed across a local or wide area network."
"DfsVersion"=dword:00000565

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Dfs\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14,00,00,00,30,00,00,00,02,\\
```

00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\\

00,00,02,00,78,00,05,00,00,00,00,14,00,8d,01,02,00,01,01,00,00,00,00,00,\\

05,0b,00,00,00,00,00,18,00,9d,01,02,00,01,02,00,00,00,00,00,05,20,00,00,00,\\

<pre> 23,02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00, ,00,05,20,00,00,00,20,\ 02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00, ,05,20,00,00,00,25,02,\ 00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,00,05, ,12,00,00,00,01,01,00,\ 00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,00,05,12, ,00,00,00 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Dfs\Enum] "0"="Root\LEGACY_DFS\0000" "Count"=dword:00000001 "NextInstance"=dword:00000001 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \DfsDriver] "Type"=dword:00000002 "Start"=dword:00000000 "ErrorControl"=dword:00000001 "ImagePath"=hex(2):73,79,73,74,65,6d,33,32,5c,64,72,6 9,76,65,72,73,5c,44,66,73,\ 2e,73,79,73,00 "DisplayName"="DfsDriver" "Group"="filter" "Description"="Manages logical volumes distributed across a local or wide area network." [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \DfsDriver\LocalVolumes] [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \DfsDriver\Security] "Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14 ,00,00,00,30,00,00,00,02,\ 00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00, ,00,00,00,00,01,00,00,\ 00,00,02,00,70,00,04,00,00,00,00,18,00,fd,01,02,00, ,01,01,00,00,00,00,\ 05,12,00,00,00,74,00,42,00,00,00,1c,00,ff,01,0f,00,01, ,02,00,00,00,00,05,\ 20,00,00,00,20,02,00,00,49,00,4f,00,00,00,18,00,8d,01, ,02,00,01,01,00,00,00,\ 00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02, ,00,01,02,00,00,00,\ 00,05,20,00,00,00,23,02,00,00,49,00,4f,00,01,01,00,00, ,00,00,00,05,12,00,00,\ 00,01,01,00,00,00,00,00,05,12,00,00,00 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \DfsDriver\Enum] "0"="Root\LEGACY_DFS\DRIVER\0000" "Count"=dword:00000001 </pre>	<pre> "NextInstance"=dword:00000001 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Dhcp] "Type"=dword:00000020 "Start"=dword:00000004 "ErrorControl"=dword:00000001 "ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2 5,5c,53,79,73,74,65,6d,33,\ 32,5c,73,65,72,76,69,63,65,73,2e,65,78,65,00 "DisplayName"="DHCP Client" "Group"="TDI" "DependOnService"=hex(7):54,63,70,69,70,00,41,66,64,0 0,4e,65,74,42,54,00,00 "DependOnGroup"=hex(7):00 "ObjectName"="LocalSystem" "Description"="Manages network configuration by registering and updating IP addresses and DNS names." [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Dhcp\Linkage] [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Dhcp\Linkage\Disabled] [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Dhcp\Parameters] [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Dhcp\Parameters\Options] [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Dhcp\Parameters\Options\1] "KeyType"=dword:00000007 "RegLocation"=hex(7):53,59,53,54,45,4d,5c,43,75,72,72 ,65,6e,74,43,6f,6e,74,72,\ 6f,6c,53,65,74,5c,53,65,72,76,69,63,65,73,5c,54,63,70 ,69,70,5c,50,61,72,61,\ 6d,65,74,65,72,73,5c,49,6e,74,65,72,66,61,63,65,73,5c ,3f,5c,44,68,63,70,53,\ 75,62,6e,65,74,4d,61,73,6b,4f,70,74,00,53,59,53,54,45 ,4d,5c,43,75,72,72,65,\ 6e,74,43,6f,6e,74,72,6f,6c,53,65,74,5c,53,65,72,76,69 ,63,65,73,5c,3f,5c,50,\ 61,72,61,6d,65,74,65,72,73,5c,54,63,70,69,70,5c,44,68 ,63,70,53,75,62,6e,65,\ 74,4d,61,73,6b,4f,70,74,00,00 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Dhcp\Parameters\Options\15] "KeyType"=dword:00000001 "RegLocation"=hex(7):53,59,53,54,45,4d,5c,43,75,72,72 ,65,6e,74,43,6f,6e,74,72,\ 6f,6c,53,65,74,5c,53,65,72,76,69,63,65,73,5c,54,63,70 ,69,70,5c,50,61,72,61,\ 6d,65,74,65,72,73,5c,49,6e,74,65,72,66,61,63,65,73,5c ,3f,5c,44,68,63,70,44,\ 6f,6c,53,65,74,5c,53,65,72,76,69,63,65,73,5c,54,63,70 ,49,70,5c,50,61,72,61,\ 6d,65,74,65,72,73,5c,44,68,63,70,44,6f,6d,61,69,6e,00 ,00 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Dhcp\Parameters\Options\3] "KeyType"=dword:00000007 "RegLocation"=hex(7):53,59,53,54,45,4d,5c,43,75,72,72 ,65,6e,74,43,6f,6e,74,72,\ 6f,6c,53,65,74,5c,53,65,72,76,69,63,65,73,5c,54,63,70 ,69,70,5c,50,61,72,61,\ 6d,65,74,65,72,73,5c,49,6e,74,65,72,66,61,63,65,73,5c ,3f,5c,44,68,63,70,44,\ 65,66,61,75,6c,74,47,61,74,65,77,61,79,00,53,59,53,54 ,45,4d,5c,43,75,72,72,\ 65,6e,74,43,6f,6e,74,72,6f,6c,53,65,74,5c,53,65,72,76 ,69,63,65,73,5c,3f,5c,\ 50,61,72,61,6d,65,74,65,72,73,5c,54,63,70,69,70,5c,44 ,68,63,70,44,65,66,61,\ 75,6c,74,47,61,74,65,77,61,79,00,00 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Dhcp\Parameters\Options\4] "KeyType"=dword:00000001 "RegLocation"=hex(7):53,59,53,54,45,4d,5c,43,75,72,72 ,65,6e,74,43,6f,6e,74,72,\ 6f,6c,53,65,74,5c,53,65,72,76,69,63,65,73,5c,4e,65,74 ,42,54,5c,50,61,72,61,\ 6d,65,74,65,72,73,5c,49,6e,74,65,72,66,61,63,65,73,5c ,54,63,70,69,70,5f,3f,\ 5c,44,68,63,70,4e,61,6d,65,53,65,72,76,65,72,4c,69,73 ,74,00,53,59,53,54,45,\ 4d,5c,43,75,72,72,65,6e,74,43,6f,6e,74,72,6f,6c,53,65 ,74,5c,53,65,72,76,69,\ 63,65,73,5c,4e,65,74,42,54,5c,41,64,61,70,74,65,72,73 ,5c,3f,5c,44,68,63,70,\ 4e,61,6d,65,53,65,72,76,65,72,00,00 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Dhcp\Parameters\Options\46] "KeyType"=dword:00000004 "RegLocation"="SYSTEM\CurrentControlSet\Services\NetBT\Parameters\DhcpNodeType" </pre>	<pre> 6d,65,74,65,72,73,5c,49,6e,74,65,72,66,61,63,65,73,5c ,3f,5c,44,68,63,70,44,\ 6f,6d,61,69,6e,00,53,59,53,54,45,4d,5c,43,75,72,72,65 ,6e,74,43,6f,6e,74,72,\ 6f,6c,53,65,74,5c,53,65,72,76,69,63,65,73,5c,54,63,70 ,49,70,5c,50,61,72,61,\ 6d,65,74,65,72,73,5c,44,68,63,70,44,6f,6d,61,69,6e,00 ,00 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Dhcp\Parameters\Options\3] "KeyType"=dword:00000007 "RegLocation"=hex(7):53,59,53,54,45,4d,5c,43,75,72,72 ,65,6e,74,43,6f,6e,74,72,\ 6f,6c,53,65,74,5c,53,65,72,76,69,63,65,73,5c,54,63,70 ,69,70,5c,50,61,72,61,\ 6d,65,74,65,72,73,5c,49,6e,74,65,72,66,61,63,65,73,5c ,3f,5c,44,68,63,70,44,\ 65,66,61,75,6c,74,47,61,74,65,77,61,79,00,53,59,53,54 ,45,4d,5c,43,75,72,72,\ 65,6e,74,43,6f,6e,74,72,6f,6c,53,65,74,5c,53,65,72,76 ,69,63,65,73,5c,3f,5c,\ 50,61,72,61,6d,65,74,65,72,73,5c,54,63,70,69,70,5c,44 ,68,63,70,44,65,66,61,\ 75,6c,74,47,61,74,65,77,61,79,00,00 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Dhcp\Parameters\Options\4] "KeyType"=dword:00000001 "RegLocation"=hex(7):53,59,53,54,45,4d,5c,43,75,72,72 ,65,6e,74,43,6f,6e,74,72,\ 6f,6c,53,65,74,5c,53,65,72,76,69,63,65,73,5c,4e,65,74 ,42,54,5c,50,61,72,61,\ 6d,65,74,65,72,73,5c,49,6e,74,65,72,66,61,63,65,73,5c ,54,63,70,69,70,5f,3f,\ 5c,44,68,63,70,4e,61,6d,65,53,65,72,76,65,72,4c,69,73 ,74,00,53,59,53,54,45,\ 4d,5c,43,75,72,72,65,6e,74,43,6f,6e,74,72,6f,6c,53,65 ,74,5c,53,65,72,76,69,\ 63,65,73,5c,4e,65,74,42,54,5c,41,64,61,70,74,65,72,73 ,5c,3f,5c,44,68,63,70,\ 4e,61,6d,65,53,65,72,76,65,72,00,00 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Dhcp\Parameters\Options\46] "KeyType"=dword:00000004 "RegLocation"="SYSTEM\CurrentControlSet\Services\NetBT\Parameters\DhcpNodeType" </pre>
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```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Dhcp\Parameters\Options\47]
"KeyType"=dword:00000001
"RegLocation"="SYSTEM\CurrentControlSet\Services\NetBT\Parameters\DhcpScopeID"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Dhcp\Parameters\Options\6]
"KeyType"=dword:00000001
"RegLocation"=hex(7):53,59,53,54,45,4d,5c,43,75,72,72,65,6e,74,43,6f,6e,74,72,\
6f,6c,53,65,74,5c,53,65,72,76,69,63,65,73,5c,54,63,70,69,70,5c,50,61,72,61,\
6d,65,74,65,72,73,5c,49,6e,74,65,72,66,61,63,65,73,5c,3f,5c,44,68,63,70,4e,\
61,6d,65,53,65,72,76,65,72,00,53,59,53,54,45,4d,5c,43,75,72,72,65,6e,74,43,\
6f,6e,74,72,6f,6c,53,65,74,5c,53,65,72,76,69,63,65,73,5c,54,63,70,69,70,5c,\
50,61,72,61,6d,65,74,65,72,73,5c,44,68,63,70,4e,61,6d,65,53,65,72,76,65,72,\
00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Dhcp\Parameters\Options\DhcpNetbiosOptions]
"KeyType"=dword:00000004
"OptionId"=dword:00000001
"VendorType"=dword:00000001
"RegLocation"=hex(7):53,59,53,54,45,4d,5c,43,75,72,72,65,6e,74,43,6f,6e,74,72,\
6f,6c,53,65,74,5c,53,65,72,76,69,63,65,73,5c,4e,65,74,42,54,5c,50,61,72,61,\
6d,65,74,65,72,73,5c,49,6e,74,65,72,66,61,63,65,73,5c,54,63,70,69,70,5f,3f,\
5c,44,68,63,70,4e,65,74,62,69,6f,73,4f,70,74,69,6f,6e,73,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Dhcp\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\
00,00,02,00,78,00,05,00,00,00,00,14,00,8d,01,02,00,01,01,00,00,00,00,\
05,0b,00,00,00,00,18,00,9d,01,02,00,01,02,00,00,00,00,00,05,20,00,00,00,\
23,02,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00,20,\
```

```
02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00,25,02,\
00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,00,05,12,00,00,00,01,01,00,\
00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Dhcp\Enum]
"0"="Root\LEGACY_DHCP\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Disk]
"DependOnGroup"=hex(7):53,43,53,49,20,6d,69,6e,69,70,6f,72,74,00,00
"ErrorControl"=dword:00000001
"Group"="SCSI Class"
"Start"=dword:00000000
"Tag"=dword:00000002
"Type"=dword:00000001
"DisplayName"="Disk Driver"
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,49,56,45,52,53,5c,64,69,73,\
6b,2e,73,79,73,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Disk\Enum]
"0"="Root\LEGACY_DISK\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Diskperf]
"ErrorControl"=dword:00000001
"Group"="System Bus Extender"
"Start"=dword:00000004
"Tag"=dword:0000000a
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Diskperf\Enum]
"0"="Root\LEGACY_DISKPERF\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\dmadmin]
"Type"=dword:00000020
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,\
32,5c,64,6d,61,64,6d,69,6e,2e,65,78,65,20,2f,63,6f,6d,00
"DisplayName"="Logical Disk Manager Administrative Service"
"ObjectName"="LocalSystem"
```

```
"Description"="Administrative service for disk management requests"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\dmadmin\Enum]
"0"="Root\LEGACY_DMADMIN\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\dmboot]
"Type"=dword:00000001
"Start"=dword:00000004
"ErrorControl"=dword:00000001
"Group"="Filter"
"Tag"=dword:0000000b
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,64,72,69,76,65,72,73,5c,64,6d,62,\
6f,6f,74,2e,73,79,73,00
"VolumeRecoveryNeeded"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\dmboot\Enum]
"0"="Root\LEGACY_DMBOOT\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\dmio]
"Type"=dword:00000001
"Start"=dword:00000000
"ErrorControl"=dword:00000001
"Group"="System Bus Extender"
"Tag"=dword:0000000d
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,64,72,69,76,65,72,73,5c,64,6d,69,\
6f,2e,73,79,73,00
"DisplayName"="Logical Disk Manager Driver"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\dmio\Boot Info]
"Boot ID"="0e4426c1-7c9f-11d6-9f90-806d6172696f"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\dmio\Enum]
"0"="Root\dmio\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\dmload]
"Type"=dword:00000001
"Start"=dword:00000000
"ErrorControl"=dword:00000001
"Group"="System Bus Extender"
"Tag"=dword:0000000c
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,64,72,69,76,65,72,73,5c,64,6d,6c,\
6f,61,64,2e,73,79,73,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\dmload\Enum]
"0"="Root\LEGACY_DMLOAD\0000"
```

```

"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\dmserver]
"Type"=dword:00000020
"Start"=dword:00000002
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,\
32,5c,73,65,72,76,69,63,65,73,2e,65,78,65,00
"DisplayName"="Logical Disk Manager"
"ObjectName"="LocalSystem"
"Description"="Logical Disk Manager Watchdog Service"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\dmserver\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\
00,00,02,00,78,00,05,00,00,00,00,14,00,8d,01,02,00,01,01,00,00,00,00,\
05,0b,00,00,00,00,18,00,9d,01,02,00,01,02,00,00,00,00,00,05,20,00,00,00,\
23,02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00,20,\
02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00,25,02,\
00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,00,05,12,00,00,00,01,01,00,\
00,00,00,05,12,00,00,00,01,01,00,00,00,00,00,05,12,00,00,00,01,01,00,\
00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\dmserver\Enum]
"0"="Root\LEGACY_DMSERVER\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Dnscache]
"Type"=dword:00000020
"Start"=dword:00000004
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,\
32,5c,73,65,72,76,69,63,65,73,2e,65,78,65,00
"DisplayName"="DNS Client"
"Group"="TDI"
"DependOnService"=hex(7):54,63,70,69,70,00,00
"DependOnGroup"=hex(7):00
"ObjectName"="LocalSystem"
"Description"="Resolves and caches Domain Name System (DNS) names."

```

```

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Dnscache\Parameters]
"NegativeCacheTime"=dword:0000012c
"NegativeSOACacheTime"=dword:00000078
"NetFailureCacheTime"=dword:00000000
"AdapterTimeoutCacheTime"=dword:00000000
"CacheHashTableSize"=dword:000000d3
"CacheHashTableBucketSize"=dword:0000000a
"NetFailureErrorPopupLimit"=dword:00000000
"MaxCacheEntryTtlLimit"=dword:00015180
"MaxSOACacheEntryTtlLimit"=dword:0000012c

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Dnscache\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\
00,00,02,00,78,00,05,00,00,00,00,14,00,8d,01,02,00,01,01,00,00,00,00,\
05,0b,00,00,00,00,18,00,9d,01,02,00,01,02,00,00,00,00,00,05,20,00,00,00,\
23,02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00,20,\
02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00,25,02,\
00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,00,05,12,00,00,00,01,01,00,\
00,00,00,05,12,00,00,00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Dnscache\Enum]
"0"="Root\LEGACY_DNSCACHE\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\EFS]
"ErrorControl"=dword:00000001
"Group"="File system"
"Start"=dword:00000004
"Type"=dword:00000002

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\EFS\Enum]
"0"="Root\LEGACY_EFS\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog]
"Description"="Logs event messages issued by programs and Windows. Event Log reports contain information that can be useful in diagnosing problems. Reports are viewed in Event Viewer."

```

```

"DisplayName"="Event Log"
"ErrorControl"=dword:00000001
"Group"="Event log"
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,\
32,5c,73,65,72,76,69,63,65,73,2e,65,78,65,00
"ObjectName"="LocalSystem"
"PlugPlayServiceType"=dword:00000003
"Start"=dword:00000002
"Type"=dword:00000020

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\Application]
"DisplayNameFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,65,\
6d,33,32,5c,65,6c,73,2e,64,6c,6c,00
"DisplayNameID"=dword:00000100
"File"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,73,79,73,74,65,6d,33,32,\
5c,63,6f,6e,66,69,67,5c,41,70,70,45,76,65,6e,74,2e,45,76,74,00
"MaxSize"=dword:00100000
"PrimaryModule"="Application"
"Retention"=dword:00000000
@"=mnmsrvc"
"Sources"=hex(7):57,53,48,00,57,69,6e,4d,67,6d,74,00,57,69,6e,6c,6f,67,6f,6e,\
00,57,69,6e,64,6f,77,73,20,33,2e,31,20,4d,69,67,72,61,74,69,6f,6e,00,56,42,\
52,75,6e,74,69,6d,65,00,55,73,65,72,69,6e,69,74,00,55,73,65,72,65,6e,76,00,\
54,6c,6e,74,73,76,72,00,53,79,73,6d,6f,6e,4c,6f,67,00,53,51,4c,53,45,52,56,\
45,52,41,47,45,4e,54,00,53,51,4c,46,54,48,4e,44,4c,52,00,53,51,4c,43,54,52,\
00,53,70,6f,6f,6c,65,72,43,74,72,73,00,53,6f,66,74,77,61,72,65,20,49,6e,73,\
74,61,6c,6c,61,74,69,6f,6e,00,53,63,6c,67,4e,74,66,79,00,53,63,65,53,72,76,\
00,53,63,65,43,6c,69,00,50,6c,75,67,50,6c,61,79,4d,61,6e,61,67,65,72,00,50,\
65,72,66,50,72,6f,63,00,50,65,72,66,4f,53,00,50,65,72,66,4e,65,74,00,50,65,\
72,66,6d,6f,6e,00,50,65,72,66,6c,69,62,00,50,65,72,66,44,69,73,6b,00,50,65,\
72,66,63,74,72,73,00,4f,66,66,6c,69,6e,65,20,46,69,6c,65,73,00,4f,61,6b,6c,\
65,79,00,6e,74,62,61,63,6b,75,70,00,4d,53,53,51,4c,53,65,72,76,65,72,41,44,\

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48,65,6c,70,65,72,00,4d,53,53,51,4c,53,45,52,56,45,52,00,4d,73,73,43,69,00,\
4d,73,69,49,6e,73,74,61,6c,6c,65,72,00,4d,53,44,54,43,20,43,6c,69,65,6e,74,\
00,4d,53,44,54,43,00,6d,6e,6d,73,72,76,63,00,4d,69,63,72,6f,73,6f,66,74,20,\
53,65,61,72,63,68,00,4c,6f,61,64,50,65,72,66,00,4c,69,63,65,6e,73,65,53,65,\
72,76,69,63,65,00,4a,61,76,61,20,56,4d,00,49,50,53,45,43,50,6f,6c,69,63,79,\
53,74,6f,72,61,67,65,00,68,70,6d,6f,6e,00,46,6f,6c,64,65,72,20,52,65,64,69,\
72,65,63,74,69,6f,6e,00,46,69,6c,65,20,44,65,70,6c,6f,79,6d,65,6e,74,00,45,\
76,65,6e,74,53,79,73,74,65,6d,00,45,53,45,4e,54,00,44,72,57,61,74,73,6f,6e,\
00,44,69,73,6b,51,75,6f,74,61,00,44,61,74,61,54,72,61,6e,73,66,6f,72,6d,61,\
74,69,6f,6e,53,65,72,76,69,63,65,73,00,43,4f,4d,2b,00,43,69,00,43,68,6b,64,\
73,6b,00,41,75,74,6f,63,68,6b,00,41,70,70,6c,69,63,61,74,69,6f,6e,20,4d,61,\
6e,61,67,65,6d,65,6e,74,00,41,70,70,6c,69,63,61,74,69,6f,6e,00,00
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\Application]
"CategoryCount"=dword:00000007
"CategoryMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,73,79,73,\
74,65,6d,33,32,5c,65,76,65,6e,74,6c,6f,67,2e,64,6c,6c,00
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\Application\Management]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,\
65,6d,33,32,5c,61,70,70,6d,67,6d,74,73,2e,64,6c,6c,00
"ParameterMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,\
74,65,6d,33,32,5c,6b,65,72,6e,65,6c,33,32,2e,64,6c,6c,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\Application\Autochk]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,\
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65,6d,33,32,5c,77,69,6e,6c,6f,67,6f,6e,2e,65,78,65,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\Application\Chkdsk]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,75,6c,69,62,2e,64,6c,6c,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\Application\Ci]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,71,75,65,72,79,2e,64,6c,6c,00
"CategoryMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,\
74,65,6d,33,32,5c,71,75,65,72,79,2e,64,6c,6c,00
"TypesSupported"=dword:00000007
"CategoryCount"=dword:00000001
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\Application\COM+]
"EventMessageFile"=hex(2):43,3a,5c,57,49,4e,4e,54,5c,53,79,73,74,65,6d,33,32,\
5c,43,4f,4d,53,56,43,53,2e,44,4c,4c,00
"CategoryMessageFile"=hex(2):43,3a,5c,57,49,4e,4e,54,5c,53,79,73,74,65,6d,33,\
32,5c,43,4f,4d,53,56,43,53,2e,44,4c,4c,00
"TypeSupported"=dword:00000007
"CategoryCount"=dword:00000014
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\Application\DataTransformationServices]
"EventMessageFile"="C:\\Program Files\\Microsoft SQL Server\\80\\Tools\\Binn\\Resources\\1033\\dtspkg.RLL"
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\Application\DiskQuota]
"EventMessageFile"="%SystemRoot%\System32\diskquota.dll"
"TypesSupported"="0x00000007"
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\Application\DrWatson]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,64,72,77,74,73,6e,33,32,2e,65,78,65,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\Application\ESent]
"EventMessageFile"=hex(2):43,3a,5c,57,49,4e,4e,54,5c,73,79,73,74,65,6d,33,32,\
5c,45,53,45,4e,54,2e,64,6c,6c,00
"CategoryMessageFile"=hex(2):43,3a,5c,57,49,4e,4e,54,5c,73,79,73,74,65,6d,33,\
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32,5c,45,53,45,4e,54,2e,64,6c,6c,00
"CategoryCount"=dword:0000000f
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\Application\EventSystem]
"CategoryCount"=dword:00000006
"TypesSupported"=dword:00000007
"CategoryMessageFile"=hex(2):43,3a,5c,57,49,4e,4e,54,5c,53,79,73,74,65,6d,33,\
32,5c,65,73,2e,64,6c,6c,00
"EventMessageFile"=hex(2):43,3a,5c,57,49,4e,4e,54,5c,53,79,73,74,65,6d,33,32,\
5c,65,73,2e,64,6c,6c,00
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\Application\FileDeployment]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,66,64,65,70,6c,6f,79,2e,64,6c,6c,00
"ParameterMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,\
74,65,6d,33,32,5c,6b,65,72,6e,65,6c,33,32,2e,64,6c,6c,00,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\Application\FolderRedirection]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,66,64,65,70,6c,6f,79,2e,64,6c,6c,00
"ParameterMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,\
74,65,6d,33,32,5c,6b,65,72,6e,65,6c,33,32,2e,64,6c,6c,00,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\Application\hpmon]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,68,70,6d,6f,6e,2e,64,6c,6c,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\Application\IPSECPolicyStorage]
"EventMessageFile"="%SystemRoot%\System32\polstore.dll"
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\Application\Java VM]
"EventMessageFile"=hex(2):25,73,79,73,74,65,6d,72,6f,6f,74,25,5c,73,79,73,74,\
65,6d,33,32,5c,76,6d,68,65,6c,70,65,72,2e,64,6c,6c,00
"TypesSupported"=hex:07,00,00,00
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\Application\LicenseService]
"TypesSupported"=dword:00000007
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"EventMessageFile"="%SystemRoot%\System32\llsrpc.dll"
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\
Eventlog\Application\LoadPerf]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,6c,6f,61,64,70,65,72,66,2e,64,6c,6c,3b
,25,53,79,73,74,65,6d,\
52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,73,70,32
,72,65,73,2e,64,6c,6c,\
00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\
Eventlog\Application\Microsoft Search]
"EventMessageFile"="C:\Program Files\Common
Files\System\MSSearch\bin\mssmsg.dll"
"CategoryMessageFile"="C:\Program Files\Common
Files\System\MSSearch\bin\mssmsg.dll"
"CategoryCount"=dword:00000004
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\
Eventlog\Application\mmmsrvc]
"EventMessageFile"="%SystemRoot%\System32\nmvtmsg.
dll"
"TypesSupported"=hex:07,00,00,00
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\
Eventlog\Application\MSDTC]
"EventMessageFile"=hex(2):43,3a,5c,57,49,4e,4e,54,5c,
53,79,73,74,65,6d,33,32,\
5c,4d,53,44,54,43,50,52,58,2e,44,4c,4c,00
"TypesSupported"=dword:00000007
"CategoryMessageFile"=hex(2):43,3a,5c,57,49,4e,4e,54,
5c,53,79,73,74,65,6d,33,\
32,5c,4d,53,44,54,43,50,52,58,2e,44,4c,4c,00
"CategoryCount"=dword:00000012
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\
Eventlog\Application\MSDTC Client]
"EventMessageFile"=hex(2):43,3a,5c,57,49,4e,4e,54,5c,
53,79,73,74,65,6d,33,32,\
5c,4d,53,44,54,43,50,52,58,2e,44,4c,4c,00
"TypesSupported"=dword:00000007
"CategoryMessageFile"=hex(2):43,3a,5c,57,49,4e,4e,54,
5c,53,79,73,74,65,6d,33,\
32,5c,4d,53,44,54,43,50,52,58,2e,44,4c,4c,00
"CategoryCount"=dword:00000012
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\
Eventlog\Application\MsiInstaller]
"EventMessageFile"="C:\WINNT\system32\Msi.dll"
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\
Eventlog\Application\MssC]
"EventMessageFile"="C:\Program Files\Common
Files\System\MSSearch\bin\tquery.dll"

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"CategoryMessageFile"="C:\Program Files\Common
Files\System\MSSearch\bin\tquery.dll"
"CategoryCount"=dword:00000001
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\
Eventlog\Application\MSSQLSERVER]
"CategoryCount"=dword:00000008
"TypesSupported"=dword:000000ff
"EventMessageFile"="C:\PROGRA~1\MICROS~2\MSSQL\BI
NN\RESOUR~1\1033\SQLLEV70.RLL"
"CategoryMessageFile"="C:\PROGRA~1\MICROS~2\MSSQL\
\BINN\RESOUR~1\1033\SQLLEV70.RLL"
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\
Eventlog\Application\MSSQLServerADHelper]
"EventMessageFile"=hex(2):43,3a,5c,50,72,6f,67,72,61,
6d,20,46,69,6c,65,73,5c,\
4d,69,63,72,6f,73,6f,66,74,20,53,51,4c,20,53,65,72,76
,65,72,5c,38,30,5c,54,\
6f,6f,6c,73,5c,42,69,6e,6e,5c,52,65,73,6f,75,72,63,65
,73,5c,31,30,33,33,5c,\
73,71,6c,61,64,65,76,6e,2e,72,6c,6c,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\
Eventlog\Application\ntbackup]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,6e,74,62,61,63,6b,75,70,2e,65,78,65,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\
Eventlog\Application\Oakley]
"EventMessageFile"="%SystemRoot%\System32\oakley.dl
l"
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\
Eventlog\Application\Offline Files]
"EventMessageFile"="%SystemRoot%\System32\csui.dll"
"TypesSupported"="0x00000007"
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\
Eventlog\Application\Perfctrs]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,70,65,72,66,63,74,72,73,2e,64,6c,6c,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\
Eventlog\Application\PerfDisk]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,70,65,72,66,64,69,73,6b,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

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[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\
Eventlog\Application\PerfLib]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,70,72,66,6c,62,6d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\
Eventlog\Application\Perfmon]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,70,65,72,66,6d,6f,6e,2e,65,78,65,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\
Eventlog\Application\PerfNet]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,70,65,72,66,6e,65,74,2e,64,6c,6c,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\
Eventlog\Application\PerfOS]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,70,65,72,66,4f,53,2e,64,6c,6c,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\
Eventlog\Application\PerfProc]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,70,65,72,66,70,72,6f,63,2e,64,6c,6c,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\
Eventlog\Application\PlugPlayManager]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,75,6d,70,6e,70,6d,67,72,2e,64,6c,6c,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\
Eventlog\Application\SceCli]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,73,63,65,63,6c,69,2e,64,6c,6c,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\
Eventlog\Application\SceSrv]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,73,63,65,73,72,76,2e,64,6c,6c,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\
Eventlog\Application\SclgNtFy]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

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<pre>65,6d,33,32,5c,73,63,6c,67,6e,74,66,79,2e,64,6c,6c,00 "TypesSupported"=dword:00000007</pre>	<pre>"TypesSupported"=dword:00000007</pre>	<pre>00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00, ,00,00,00,00,01,00,00,\</pre>
<pre>[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Application\Software Installation] "EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f, 6f,74,25,5c,53,79,73,74,\ 65,6d,33,32,5c,61,70,70,6d,67,72,2e,64,6c,6c,00 "TypesSupported"=dword:00000007</pre>	<pre>[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Application\Userinit] "EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f, 6f,74,25,5c,53,79,73,74,\</pre>	<pre>00,00,02,00,78,00,05,00,00,00,00,00,14,00,8d,01,02,00, ,01,01,00,00,00,00,00,\</pre>
<pre>[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Application\SpoolerCtrls] "EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f, 6f,74,25,5c,53,79,73,74,\</pre>	<pre>65,6d,33,32,5c,75,73,65,72,69,6e,69,74,2e,65,78,65,00 "TypesSupported"=dword:00000007</pre>	<pre>05,0b,00,00,00,00,00,18,00,9d,01,02,00,01,02,00,00,00, ,00,00,05,20,00,00,00,\</pre>
<pre>[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Application\SQLCTR] "TypesSupported"=dword:00000007 "EventMessageFile"="C:\PROGRAM-1\MICROS-2\MSSQL\BINN\RESOUR-1\1033\SQLLEV70.RLL"</pre>	<pre>[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Application\VBRuntime] "EventMessageFile"="C:\WINNT\System32\msvbvm60.dll" "TypesSupported"=dword:00000004</pre>	<pre>23,02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00, ,00,05,20,00,00,00,20,\</pre>
<pre>[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Application\Winlogon] "EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f, 6f,74,25,5c,53,79,73,74,\</pre>	<pre>[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Application\Windows 3.1 Migration] "EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f, 6f,74,25,5c,53,79,73,74,\</pre>	<pre>00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,00,05, ,12,00,00,00,01,01,00,\</pre>
<pre>[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Application\SQLFTHNDLR] "EventMessageFile"="C:\Program Files\Microsoft SQL Server\80\COM\sqlfth75.dll" "CategoryMessageFile"="C:\Program Files\Microsoft SQL Server\80\COM\sqlfth75.dll" "CategoryCount"=dword:00000000 "TypesSupported"=dword:00000007</pre>	<pre>65,6d,33,32,5c,61,64,76,61,70,69,33,32,2e,64,6c,6c,00 "TypesSupported"=dword:00000007</pre>	<pre>00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,00,05,12, ,00,00,00 "Sources"=hex(7):53,70,6f,6f,6c,65,72,00,53,65,63,75, ,72,69,74,79,20,41,63,63,\</pre>
<pre>[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Application\WinMgmt] "EventMessageFile"="C:\WINNT\System32\WBEM\WinMgmtR.dll" "TypesSupported"=hex:07</pre>	<pre>[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Application\Winlogon] "EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f, 6f,74,25,5c,53,79,73,74,\</pre>	<pre>6f,75,6e,74,20,4d,61,6e,61,67,65,72,00,53,43,20,4d,61, ,6e,61,67,65,72,00,4e,\</pre>
<pre>[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Application\SQLAGENT.DLL] "CategoryMessageFile"="C:\PROGRAM-1\MICROS-2\MSSQL\BINN\SQLAGENT.DLL"</pre>	<pre>65,6d,33,32,5c,77,69,6e,6c,6e,6f,6e,2e,65,78,65,00 "TypesSupported"=dword:00000007</pre>	<pre>65,74,44,44,45,20,4f,62,6a,65,63,74,00,4c,53,41,00,44, ,53,00,53,65,63,75,72,\ 69,74,79,00,00</pre>
<pre>[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Application\SQLSERVERAGENT] "CategoryCount"=dword:00000004 "TypesSupported"=dword:00000007 "EventMessageFile"="C:\PROGRAM-1\MICROS-2\MSSQL\BINN\SQLAGENT.DLL"</pre>	<pre>[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Application\WinMgmt] "EventMessageFile"="C:\WINNT\System32\WBEM\WinMgmtR.dll" "TypesSupported"=hex:07</pre>	<pre>[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Security\DS] "ParameterMessageFile"=hex(2):25,53,79,73,74,65,6d,52, ,6f,6f,74,25,5c,53,79,73,\ 74,65,6d,33,32,5c,4d,73,4f,62,6a,73,2e,64,6c,6c,00</pre>
<pre>[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Application\TIntsvr] "EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f, 6f,74,25,5c,53,79,73,74,\ 65,6d,33,32,5c,74,6c,6e,74,73,76,72,2e,65,78,65,00 "TypesSupported"=dword:00000007</pre>	<pre>[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Application\WSH] "EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f, 6f,74,25,5c,53,79,73,74,\ 65,6d,33,32,5c,77,73,68,65,78,74,2e,64,6c,6c,00 "TypesSupported"=dword:0000001f</pre>	<pre>[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Security\DS\ObjectNames] "Directory Service Object"=dword:00001e00</pre>
<pre>[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Application\Userenv] "EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f, 6f,74,25,5c,53,79,73,74,\ 65,6d,33,32,5c,75,73,65,72,65,6e,76,2e,64,6c,6c,00</pre>	<pre>[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Security] "DisplayNameFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f, ,74,25,5c,73,79,73,74,65,\ 6d,33,32,5c,65,6c,73,2e,64,6c,6c,00 "DisplayNameID"=dword:00000101 "File"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c, ,53,79,73,74,65,6d,33,32,\</pre>	<pre>[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Security\LSA] "ParameterMessageFile"=hex(2):25,53,79,73,74,65,6d,52, ,6f,6f,74,25,5c,53,79,73,\ 74,65,6d,33,32,5c,4d,73,4f,62,6a,73,2e,64,6c,6c,00</pre>
<pre>[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Application\NetDDE Object] "ParameterMessageFile"=hex(2):25,53,79,73,74,65,6d,52, ,6f,6f,74,25,5c,53,79,73,\ 74,65,6d,33,32,5c,4d,73,4f,62,6a,73,2e,64,6c,6c,00</pre>	<pre>5c,63,6f,6e,66,69,67,5c,53,65,63,45,76,65,6e,74,2e,45, ,76,74,00 "MaxSize"=dword:00080000 "PrimaryModule"="Security" "Retention"=dword:00093a80 "Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14, ,00,00,00,30,00,00,00,02,\</pre>	<pre>[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Security\LSA\ObjectNames] "PolicyObject"=dword:00001600 "SecretObject"=dword:00001610 "TrustedDomainObject"=dword:00001620 "UserAccountObject"=dword:00001630</pre>

<pre>[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Security\SC Manager] "ParameterMessageFile"=hex(2):25,53,79,73,74,65,6d,52 ,6f,6f,74,25,5c,53,79,73,\ 74,65,6d,33,32,5c,4d,73,4f,62,6a,73,2e,64,6c,6c,00 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Security\SC Manager\ObjectNames] "SC_MANAGER Object"=dword:00001c00 "SERVICE Object"=dword:00001c10 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Security\Security] "CategoryCount"=dword:00000009 "CategoryMessageFile"=hex(2):25,53,79,73,74,65,6d,52, 6f,6f,74,25,5c,53,79,73,\ 74,65,6d,33,32,5c,4d,73,41,75,64,69,74,45,2e,64,6c,6c ,00 "GuidMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6 f,74,25,5c,53,79,73,74,65,\ 6d,33,32,5c,4e,74,4d,61,72,74,61,2e,64,6c,6c,00 "EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f, 6f,74,25,5c,53,79,73,74,\ 65,6d,33,32,5c,4d,73,41,75,64,69,74,45,2e,64,6c,6c,3b ,25,53,79,73,74,65,6d,\ 52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,73,70,32 ,72,65,73,2e,64,6c,6c,\ 00 "ParameterMessageFile"=hex(2):25,53,79,73,74,65,6d,52 ,6f,6f,74,25,5c,53,79,73,\ 74,65,6d,33,32,5c,4d,73,4f,62,6a,73,2e,64,6c,6c,00 "TypesSupported"=dword:0000001c [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Security\Security\ObjectNames] "Channel"=dword:00001400 "Desktop"=dword:00001a10 "Device"=dword:00001100 "Directory"=dword:00001110 "Event"=dword:00001120 "EventPair"=dword:00001130 "File"=dword:00001140 "IoCompletion"=dword:00001300 "Job"=dword:00001410 "Key"=dword:00001150 "MailSlot"=dword:00001140 "Mutant"=dword:00001160 "NamedPipe"=dword:00001140 "Port"=dword:00001170 "Process"=dword:00001180 "Profile"=dword:00001190 "Section"=dword:000011a0 "Semaphore"=dword:000011b0 "SymbolicLink"=dword:000011c0 "Thread"=dword:000011d0 "Timer"=dword:000011e0 "Token"=dword:000011f0 "Type"=dword:00001200 "WaitablePort"=dword:00001170</pre>	<pre>"WindowStation"=dword:00001a00 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Security\Security Account Manager] "ParameterMessageFile"=hex(2):25,53,79,73,74,65,6d,52 ,6f,6f,74,25,5c,53,79,73,\ 74,65,6d,33,32,5c,4d,73,4f,62,6a,73,2e,64,6c,6c,00 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Security\Security Account Manager\ObjectNames] "SAM_ALIAS"=dword:00001530 "SAM_DOMAIN"=dword:00001510 "SAM_GROUP"=dword:00001520 "SAM_SERVER"=dword:00001500 "SAM_USER"=dword:00001540 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Security\Spooler] "ParameterMessageFile"=hex(2):25,53,79,73,74,65,6d,52 ,6f,6f,74,25,5c,53,79,73,\ 74,65,6d,33,32,5c,4d,73,4f,62,6a,73,2e,64,6c,6c,00 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\Security\Spooler\ObjectNames] "Document"=dword:00001b20 "Printer"=dword:00001b10 "Server"=dword:00001b00 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Eventlog\System] "DisplayNameFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6 f,74,25,5c,73,79,73,74,65,\ 6d,33,32,5c,65,6c,73,2e,64,6c,6c,00 "DisplayNameID"=dword:00000102 "File"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c, 73,79,73,74,65,6d,33,32,\ 5c,63,6f,6e,66,69,67,5c,53,79,73,45,76,65,6e,74,2e,45 ,76,74,00 "MaxSize"=dword:00100000 "PrimaryModule"="System" "Retention"=dword:00000000 "Sources"=hex(7):57,6f,72,6b,73,74,61,74,69,6f,6e,00, 57,6d,69,00,57,69,6e,64,\ 6f,77,73,20,46,69,6c,65,20,50,72,6f,74,65,63,74,69,6f ,6e,00,57,69,6e,33,32,\ 6b,00,57,33,32,54,69,6d,65,00,56,67,61,53,61,76,65,00 ,55,50,53,00,75,6c,74,\ 72,61,36,36,00,75,64,66,73,00,54,65,72,6d,53,65,72,76 ,69,63,65,00,54,65,72,\ 6d,53,65,72,76,44,65,76,69,63,65,73,00,54,65,72,6d,44 ,44,00,74,64,69,00,54,\ 43,50,4d,6f,6e,00,54,63,70,69,70,00,73,79,6d,5f,68,69 ,00,73,79,6d,63,38,78,\ 78,00,73,79,6d,63,38,31,30,00,53,74,69,6c,6c,49,6d,61 ,67,65,00,53,72,76,00,\</pre>	<pre>73,70,61,72,72,6f,77,00,73,6e,64,62,6c,73,74,00,53,69 ,6d,62,61,64,00,73,67,\ 6c,66,62,00,73,66,6c,6f,70,70,79,00,53,65,72,76,69,63 ,65,20,43,6f,6e,74,72,\ 6f,6c,20,4d,61,6e,61,67,65,72,00,53,65,72,76,65,72,00 ,73,65,72,69,61,6c,00,\ 73,63,73,69,70,6f,72,74,00,53,63,68,65,64,75,6c,65,00 ,53,63,68,61,6e,6e,65,\ 6c,00,53,43,61,72,64,53,76,72,00,53,61,76,65,20,44,75 ,6d,70,00,53,41,4d,00,\ 52,53,56,50,00,52,65,6d,6f,76,61,62,6c,65,20,53,74,6f ,72,61,67,65,20,53,65,\ 72,76,69,63,65,00,52,65,6d,6f,74,65,41,63,63,65,73,73 ,00,72,65,64,62,6f,6f,\ 6b,00,52,64,62,73,73,00,52,61,73,4d,61,6e,00,52,61,73 ,41,75,74,6f,00,71,6c,\ 32,31,30,30,00,71,6c,31,32,34,30,00,71,6c,31,30,77,6e ,74,00,71,6c,31,30,38,\ 30,00,50,72,69,6e,74,00,50,70,74,70,4d,69,6e,69,70,6f ,72,74,00,50,6f,6c,69,\ 63,79,41,67,65,6e,74,00,70,63,6d,63,69,61,00,70,63,69 ,69,64,65,00,70,63,69,\ 00,70,61,72,76,64,6d,00,70,61,72,70,6f,72,74,00,70,61 ,72,61,6c,6c,65,6c,00,\ 4f,53,50,46,4d,69,62,00,4f,53,50,46,00,6e,75,6c,6c,00 ,4e,74,53,65,72,76,69,\ 63,65,50,61,63,6b,00,4e,54,4d,53,00,6e,74,66,73,00,6e ,70,66,73,00,4e,65,74,\ 6c,6f,6f,6f,6e,00,4e,65,74,44,44,45,00,4e,65,74,42,54 ,00,4e,65,74,42,49,4f,\ 53,00,4e,64,69,73,57,61,6e,00,6e,64,69,73,00,6e,63,72 ,63,37,31,30,00,4e,31,\ 30,30,00,4d,75,70,00,6d,73,66,73,00,6d,73,61,64,6c,69 ,62,00,4d,72,78,53,6d,\ 62,00,6d,72,61,69,64,33,35,78,00,6d,6f,75,63,6c,61,73 ,73,00,4d,6f,64,65,6d,\ 00,4c,73,61,53,72,76,00,6c,70,36,6e,64,73,33,35,00,4c ,6d,48,6f,73,74,73,00,\ 4c,44,4d,53,00,4c,44,4d,00,6c,62,72,74,66,64,63,00,4b ,65,72,62,65,72,6f,73,\ 00,4b,44,43,00,6b,62,64,63,6c,61,73,73,00,69,73,61,70 ,6e,70,00,49,50,58,53,\</pre>
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41,50,00,49,50,58,52,6f,75,74,65,72,4d,61,6e,61,67,65,72,00,49,50,58,52,49,\
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65,63,00,66,6c,70,79,64,69,73,6b,00,66,6c,61,73,68,70,6e,74,00,66,69,72,65,\
70,6f,72,74,00,46,69,70,73,00,66,64,63,00,66,64,31,36,5f,37,30,30,00,66,61,\
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68,65,00,44,6e,73,61,70,69,00,64,6d,69,6f,00,64,6d,62,6f,6f,74,00,44,69,73,\
74,72,69,62,75,74,65,64,20,4c,69,6e,6b,20,54,72,61,63,6b,69,6e,67,20,53,65,\
72,76,65,72,00,44,69,73,74,72,69,62,75,74,65,64,20,4c,69,6e,6b,20,54,72,61,\
63,6b,69,6e,67,20,43,6c,69,65,6e,74,00,64,69,73,6b,70,65,72,66,00,64,69,73,\
6b,00,44,68,63,70,00,44,66,73,53,76,63,00,44,66,73,44,72,69,76,65,72,00,64,\
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66,77,73,32,65,00,63,70,71,66,63,61,6c,6d,00,63,70,71,63,69,73,73,6d,00,63,\
70,71,63,69,73,73,64,00,63,70,71,63,69,73,73,62,00,63,70,71,61,72,72,79,32,\
00,63,70,71,61,72,72,61,79,00,63,68,61,6e,67,65,72,00,63,64,72,6f,6d,00,43,\
64,6d,00,63,64,66,73,00,63,64,61,75,64,69,6f,00,63,64,32,30,78,72,6e,74,00,\
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69,00,41,73,79,6e,63,4d,61,63,00,61,73,63,33,35,35,30,00,61,73,63,33,33,35,\

30,70,00,61,73,63,00,41,70,70,6c,69,63,61,74,69,6f,6e,20,50,6f,70,75,70,00,\
61,6d,73,69,6e,74,00,61,6d,69,30,6e,74,00,41,6c,65,72,74,65,72,00,61,69,63,\
37,38,78,78,00,61,69,63,37,38,75,32,00,61,69,63,31,31,36,78,00,61,68,61,31,\
35,34,78,00,61,64,70,75,31,36,30,6d,00,61,63,70,69,65,63,00,61,63,70,69,00,\
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00
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\System\abiosdsk]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\System\abp480n5]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\System\acpi]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,\
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52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,44,72,69,76,65,72,73,5c,61,63,\
70,69,2e,73,79,73,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\System\acpiec]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,3b,25,53,79,73,74,65,6d,\
52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,44,72,69,76,65,72,73,5c,61,63,\
70,69,65,63,2e,73,79,73,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\System\adpul60m]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\System\ahal54x]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\System\aic116x]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\System\aic78u2]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\System\aic78xx]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\System\alerter]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,6e,65,74,6d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\System\ami0nt]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\System\amsint]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\System\Application Popul]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,\

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65,6d,33,32,5c,6e,74,64,6c,6c,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\asc]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\asc3350p]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\asc3550]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\AsyncMac]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,6d,70,72,6d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:0000001f

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\atapi]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\atdisk]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\atirag3]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,3b,
25,53,79,73,74,65,6d,\

52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,64,72,69,
76,65,72,73,5c,61,74,\
69,6d,70,61,62,2e,73,79,73,00
"TypesSupported"=dword:00000007

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[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Atmarpc]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,6e,65,74,65,76,65,6e,74,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\beep]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Browser]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,6e,65,74,65,76,65,6e,74,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\buslogic]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\cd20xrnt]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\cdaudio]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\cdfs]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Cdm]
@"="

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\cdrom]

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"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\changer]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\cpqarray]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\cpqarray2]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\cpqciissb]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,44,72,69,76,65,72,73,5c,43,50,51,43,49,
53,53,42,2e,53,59,53,\
00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\cpqciissd]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,44,72,69,76,65,72,73,5c,43,50,51,43,49,
53,53,44,2e,53,59,53,\
00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\cpqciissm]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\cpqfcaim]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

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65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\cpqfw2e]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\dac960nt]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\DCOM]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,6e,65,74,65,76,65,6e,74,2e,64,6c,6c,00
"ParameterMessageFile"=hex(2):25,53,79,73,74,65,6d,52,
6f,6f,74,25,5c,53,79,73,\

74,65,6d,33,32,5c,6b,65,72,6e,65,6c,33,32,2e,64,6c,6c,
00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\deckzpsx]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\DfsDriver]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,6e,65,74,65,76,65,6e,74,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\DfsSvc]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,6e,65,74,65,76,65,6e,74,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Dhcp]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,64,68,63,70,63,73,76,63,2e,64,6c,6c,00

"ParameterMessageFile"=hex(2):25,53,79,73,74,65,6d,52,
6f,6f,74,25,5c,53,79,73,\

74,65,6d,33,32,5c,6b,65,72,6e,65,6c,33,32,2e,64,6c,6c,
00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\disk]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\diskperf]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Distributed Link Tracking Client]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,6e,65,74,65,76,65,6e,74,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Distributed Link Tracking Server]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,6e,65,74,65,76,65,6e,74,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\dmboot]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,44,72,69,76,65,72,73,5c,64,6d,62,6f,6f,
74,2e,73,79,73,3b,25,\

53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,65,6d,
33,32,5c,73,70,32,72,\
65,73,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\dmio]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,3b,
25,53,79,73,74,65,6d,\

52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,44,72,69,
76,65,72,73,5c,64,6d,\
69,6f,2e,73,79,73,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Dnsapi]
"ParameterMessageFile"=hex(2):25,53,79,73,74,65,6d,52,
6f,6f,74,25,5c,53,79,73,\

74,65,6d,33,32,5c,6b,65,72,6e,65,6c,33,32,2e,64,6c,6c,
00
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,6e,65,74,65,76,65,6e,74,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Dnscache]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,6e,65,74,65,76,65,6e,74,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\efs]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,6c,73,61,73,72,76,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\eventlog]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,6e,65,74,65,76,65,6e,74,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\fastfat]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\fdl6_700]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\fdc]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,3b,
25,53,79,73,74,65,6d,\

52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,44,72,69,
76,65,72,73,5c,66,64,\

```
63,2e,73,79,73,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Fips]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,3b
,25,53,79,73,74,65,6d,\

52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,44,72,69
,76,65,72,73,5c,66,69,\
70,73,2e,73,79,73,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Fireport]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Flashpnt]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Flypydisk]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,3b
,25,53,79,73,74,65,6d,\

52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,44,72,69
,76,65,72,73,5c,66,6c,\
70,79,64,69,73,6b,2e,73,79,73,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Fs_rec]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Ftdisk]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,3b
,25,53,79,73,74,65,6d,\

52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,44,72,69
,76,65,72,73,5c,46,74,\
```

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44,69,73,6b,2e,73,79,73,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\i8042prt]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,3b
,25,53,79,73,74,65,6d,\

52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,64,72,69
,76,65,72,73,5c,69,38,\
30,34,32,70,72,74,2e,73,79,73,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\ini910u]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\intelide]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,3b
,25,53,79,73,74,65,6d,\

52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,44,72,69
,76,65,72,73,5c,49,6e,\
74,65,6c,49,64,65,2e,73,79,73,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\IPBOOTP]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,69,70,62,6f,6f,74,70,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\IPNATHLP]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,69,70,6e,61,74,68,6c,70,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\IPRIIP2]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,69,70,72,69,70,32,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\IPRouterManager]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
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65,6d,33,32,5c,6d,70,72,6d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\IPSEC]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,6e,65,74,65,76,65,6e,74,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\ipsraidn]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\IPXCP]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,6d,70,72,6d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\IPXCRIP]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,6d,70,72,6d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\IPXRIP]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,6d,70,72,6d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\IPXRouterManager]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,6d,70,72,6d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\IPXSAP]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,6d,70,72,6d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\isapnp]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,3b
,25,53,79,73,74,65,6d,\

52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,64,72,69
,76,65,72,73,5c,69,73,\
61,70,6e,70,2e,73,79,73,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\kbdclass]
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"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,3b
,25,53,79,73,74,65,6d,\

52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,64,72,69
,76,65,72,73,5c,6b,62,\
64,63,6c,61,73,73,2e,73,79,73,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\KDC]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,6b,64,63,73,76,63,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Kerberos]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,6b,65,72,62,65,72,6f,73,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\lbrtfdc]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,3b
,25,53,79,73,74,65,6d,\

52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,44,72,69
,76,65,72,73,5c,6c,62,\
72,74,66,64,63,2e,73,79,73,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\LDM]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,64,6d,61,64,6d,69,6e,2e,65,78,65,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\LDMS]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,64,6d,73,65,72,76,65,72,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\LmHosts]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,6e,65,74,65,76,65,6e,74,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

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[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\lp6nds35]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\LsaSrv]
"TypesSupported"=dword:00000007
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,6c,73,61,73,72,76,2e,64,6c,6c,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Modem]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,3b
,25,53,79,73,74,65,6d,\

52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,44,72,69
,76,65,72,73,5c,4d,6f,\
64,65,6d,2e,73,79,73,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\mouclass]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,3b
,25,53,79,73,74,65,6d,\

52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,64,72,69
,76,65,72,73,5c,6d,6f,\
75,63,6c,61,73,73,2e,73,79,73,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\mraid35x]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\MrxSmb]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,6e,65,74,65,76,65,6e,74,2e,64,6c,6c,3b
,25,53,79,73,74,65,6d,\

52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,69,6f,6c
,6f,67,6d,73,67,2e,64,\
6c,6c,00
"TypesSupported"=dword:00000007
"ParameterMessageFile"=hex(2):25,53,79,73,74,65,6d,52
,6f,6f,74,25,5c,53,79,73,\

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74,65,6d,33,32,5c,6b,65,72,6e,65,6c,33,32,2e,64,6c,6c
,00,5c

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\msadlib]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\msfs]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Mup]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,6e,65,74,65,76,65,6e,74,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\N100]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,6e,65,74,65,76,65,6e,74,2e,64,6c,6c,3b
,25,53,79,73,74,65,6d,\

52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,64,72,69
,76,65,72,73,5c,6e,31,\
30,30,6e,74,35,2e,73,79,73,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\ncrc710]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\ndis]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,6e,65,74,65,76,65,6e,74,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\NdisWan]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,6d,70,72,6d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:0000001f

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```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\NetBIOS]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,69,6f,6c,6f,67,6d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\NetBT]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,6e,65,74,65,76,65,6e,74,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\NetDDE]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,6e,65,74,64,64,65,2e,65,78,65,00
"TypesSupported"=dword:0000001f

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Netlogon]
"ParameterMessageFile"=hex(2):25,53,79,73,74,65,6d,52,
6f,6f,74,25,5c,53,79,73,74,\
74,65,6d,33,32,5c,6b,65,72,6e,65,6c,33,32,2e,64,6c,6c,
00
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,6e,65,74,6d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\npfs]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\ntfs]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\NTMS]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,73,79,73,74,\
65,6d,33,32,5c,4e,74,6d,73,45,76,74,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\NtServicePack]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
```

```
65,6d,33,32,5c,73,70,6d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\null]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\OSPF]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,6f,73,70,66,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\OSPFMib]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,6f,73,70,66,6d,69,62,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\parallel]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,3b,
,25,53,79,73,74,65,6d,\
52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,64,72,69,
,76,65,72,73,5c,70,61,\
72,61,6c,6c,65,6c,2e,73,79,73,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\parport]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,3b,
,25,53,79,73,74,65,6d,\
52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,64,72,69,
,76,65,72,73,5c,70,61,\
72,70,6f,72,74,2e,73,79,73,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\parvdm]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,3b,
,25,53,79,73,74,65,6d,\
52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,44,72,69,
,76,65,72,73,5c,50,61,\
72,56,64,6d,2e,73,79,73,00
"TypesSupported"=dword:00000007
```

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[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\pci]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,3b,
,25,53,79,73,74,65,6d,\
52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,44,72,69,
,76,65,72,73,5c,50,63,\
69,2e,73,79,73,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\pciide]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,3b,
,25,53,79,73,74,65,6d,\
52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,44,72,69,
,76,65,72,73,5c,50,63,\
69,49,64,65,2e,73,79,73,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\pcmcia]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,3b,
,25,53,79,73,74,65,6d,\
52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,44,72,69,
,76,65,72,73,5c,50,63,\
6d,63,69,61,2e,73,79,73,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\PolicyAgent]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,70,6f,6c,61,67,65,6e,74,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\PptpMiniport]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,6e,65,74,65,76,65,6e,74,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Print]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,4c,6f,63,61,6c,53,70,6c,2e,64,6c,6c,00
"TypesSupported"=dword:00000007
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[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\ql1080]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\ql10wmt]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\ql1240]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\ql2100]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\RasAuto]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,6d,70,72,6d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:0000001f

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\RasMan]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,6d,70,72,6d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:0000001f

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Rdbss]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,6e,65,74,65,76,65,6e,74,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\redbook]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,3b
,25,53,79,73,74,65,6d,\
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```
52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,64,72,69
,76,65,72,73,5c,72,65,\
64,62,6f,6f,6b,2e,73,79,73,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\RemoteAccess]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,6d,70,72,6d,73,67,2e,64,6c,6c,00
"ParameterMessageFile"=hex(2):25,53,79,73,74,65,6d,52
,6f,6f,74,25,5c,53,79,73,\

74,65,6d,33,32,5c,69,61,73,73,76,63,73,2e,64,6c,6c,00
"TypesSupported"=dword:0000001f

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Removable Storage Service]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,4e,54,4d,53,45,56,54,2e,44,4c,4c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\RSVP]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,72,73,76,70,6d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\SAM]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,73,61,6d,73,72,76,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Save Dump]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,53,61,76,65,44,75,6d,70,2e,65,78,65,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\SCardSvr]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,53,43,61,72,64,53,76,72,2e,65,78,65,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Schannel]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,73,79,73,74,\
65,6d,33,32,5c,6c,73,61,73,72,76,2e,64,6c,6c,00
"CategoryMessageFile"=hex(2):25,53,79,73,74,65,6d,52,
6f,6f,74,25,5c,73,79,73,\
74,65,6d,33,32,5c,6c,73,61,73,72,76,2e,64,6c,6c,00
"TypesSupported"=dword:00000007
```

```
"CategoryCount"=dword:00000002

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Schedule]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,6e,65,74,65,76,65,6e,74,2e,64,6c,6c,00
"ParameterMessageFile"=hex(2):25,53,79,73,74,65,6d,52
,6f,6f,74,25,5c,53,79,73,\

74,65,6d,33,32,5c,6b,65,72,6e,65,6c,33,32,2e,64,6c,6c
,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\scsiport]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\serial]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,3b
,25,53,79,73,74,65,6d,\

52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,64,72,69
,76,65,72,73,5c,73,65,\
72,69,61,6c,2e,73,79,73,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Server]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,6e,65,74,65,76,65,6e,74,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Service Control Manager]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,6e,65,74,65,76,65,6e,74,2e,64,6c,6c,00
"ParameterMessageFile"=hex(2):25,53,79,73,74,65,6d,52
,6f,6f,74,25,5c,53,79,73,\

74,65,6d,33,32,5c,6b,65,72,6e,65,6c,33,32,2e,64,6c,6c
,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\sfloppy]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
```

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"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\sglfb]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,3b
,25,53,79,73,74,65,6d,\

52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,44,72,69
,76,65,72,73,5c,73,67,\
6c,66,62,2e,73,79,73,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Simbad]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\sndblst]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\sparrow]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Srv]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,6e,65,74,65,76,65,6e,74,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\StillImage]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,73,74,69,73,76,63,2e,65,78,65,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\symc810]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

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[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\symc8xx]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\sym_hi]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\System]
"CategoryCount"=dword:00000007
"CategoryMessageFile"=hex(2):25,53,79,73,74,65,6d,52,
6f,6f,74,25,5c,73,79,73,\

74,65,6d,33,32,5c,65,76,65,6e,74,6c,6f,67,2e,64,6c,6c,
00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Tcpip]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,6e,65,74,65,76,65,6e,74,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\TCPMon]
"TypesSupported"=dword:00000007
"EventMessageFile"="%SystemRoot%\System32\tcpmon.dl
l"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\tdi]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\TermDD]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,6e,74,64,6c,6c,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\TermServDevices]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,77,6c,6e,6f,74,69,66,79,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

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[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\TermService]
"TypesSupported"=dword:00000007
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,74,65,72,6d,73,72,76,2e,65,78,65,3b,25
,53,79,73,74,65,6d,52,\

6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,6e,74,64,6c
,6c,2e,64,6c,6c,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\udfs]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\ultra66]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\UPS]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,6e,65,74,6d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\VgaSave]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\

65,6d,33,32,5c,49,6f,4c,6f,67,4d,73,67,2e,64,6c,6c,3b
,25,53,79,73,74,65,6d,\

52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,32,5c,44,72,69
,76,65,72,73,5c,76,67,\
61,2e,73,79,73,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\W32Time]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,77,33,32,74,69,6d,65,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Eventlog\System\Win32k]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,77,69,6e,33,32,6b,2e,73,79,73,00
"TypesSupported"=dword:00000007

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[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\EventLog\System\Windows File Protection]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,73,66,63,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\EventLog\System\Wmi]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,6e,65,74,65,76,65,6e,74,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\EventLog\System\Workstation]
"EventMessageFile"=hex(2):25,53,79,73,74,65,6d,52,6f,
6f,74,25,5c,53,79,73,74,\
65,6d,33,32,5c,6e,65,74,6d,73,67,2e,64,6c,6c,00
"TypesSupported"=dword:00000007

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\EventSystem]
"Type"=dword:00000020
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):43,3a,5c,57,49,4e,4e,54,5c,53,79,7
3,74,65,6d,33,32,5c,73,76,\
63,68,6f,73,74,2e,65,78,65,20,2d,6b,20,6e,65,74,73,76
,63,73,00
"DisplayName"="COM+ Event System"
"Group"="Network"
"DependOnService"=hex(7):52,50,43,53,53,00,00
"DependOnGroup"=hex(7):00
"ObjectName"="LocalSystem"
"Description"="Provides automatic distribution of
events to subscribing COM components."

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\EventSystem\Parameters]
"ServiceDll"=hex(2):43,3a,5c,57,49,4e,4e,54,5c,53,79,
73,74,65,6d,33,32,5c,65,\
73,2e,64,6c,6c,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\EventSystem\Security]
"Security"=hex:01,00,14,80,b4,00,00,00,c0,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,01,00,00,\
00,00,02,00,84,00,05,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,\
05,12,00,00,00,20,02,00,00,00,1c,00,ff,01,0f,00,01
,02,00,00,00,00,05,\
20,00,00,00,20,02,00,00,00,73,00,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\
```

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00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\
00,05,20,00,00,00,23,02,00,00,00,73,00,00,00,14,00
,9d,01,02,00,01,01,00,\
00,00,00,00,01,00,00,00,01,01,00,00,00,00,05,12
,00,00,00,01,01,00,00,\
00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\EventSystem\Enum]
"0"="Root\LEGACY_EVENTSYSTEM\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Fastfat]
"ErrorControl"=dword:00000001
"Group"="Boot file system"
"Start"=dword:00000004
"Type"=dword:00000002

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Fastfat\Enum]
"0"="Root\LEGACY_FASTFAT\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Fax]
"Type"=dword:00000110
"Start"=dword:00000004
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,73,79,73,74,65,6d,72,6f,6f,74,2
5,5c,73,79,73,74,65,6d,33,\
32,5c,66,61,78,73,76,63,2e,65,78,65,00
"DisplayName"="Fax Service"
"DependOnService"=hex(7):54,61,70,69,53,72,76,00,52,7
0,63,53,73,00,50,6c,75,67,\
50,6c,61,79,00,53,70,6f,6f,6c,65,72,00,00
"DependOnGroup"=hex(7):00
"ObjectName"="LocalSystem"
"Description"="Helps you send and receive faxes"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Fax\Performance]
"Open"=hex(2):4f,70,65,6e,46,61,78,50,65,72,66,6f,72,
6d,61,6e,63,65,44,61,74,\
61,00
"Close"=hex(2):43,6c,6f,73,65,46,61,78,50,65,72,66,6f
,72,6d,61,6e,63,65,44,61,\
74,61,00
"Collect"=hex(2):43,6f,6c,6c,65,63,74,46,61,78,50,65,
72,66,6f,72,6d,61,6e,63,\
65,44,61,74,61,00
"Library"=hex(2):25,73,79,73,74,65,6d,72,6f,6f,74,25,
5c,73,79,73,74,65,6d,33,\
32,5c,66,61,78,70,65,72,66,2e,64,6c,6c,00
"Last Counter"=dword:00000820
"Last Help"=dword:00000821
"First Counter"=dword:00000802
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"First Help"=dword:00000803
"WbemAdapFileTime"=hex:00,c8,12,f8,b2,40,bf,01
"WbemAdapFileSize"=dword:00001910
"WbemAdapStatus"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Fax\Security]
"Security"=hex:01,00,14,80,a0,01,00,00,ac,01,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,01,00,00,\
00,00,02,00,70,01,05,00,00,00,00,14,00,fd,01,02,00
,01,01,00,00,00,00,\
05,12,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00
,00,00,05,20,00,00,\
20,02,00,00,00,14,00,8d,01,02,00,01,01,00,00,00,00
,00,05,0b,00,00,00,\
00,18,00,fd,01,02,00,01,02,00,00,00,00,05,20,00,00
,00,23,02,00,00,00,\
14,00,14,00,00,00,01,01,00,00,00,00,01,00,00,00,00
,00,00,00,00,00,00,\
00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
,00,00,00,00,\
00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
,00,00,00,00,\
00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
,00,00,00,00,\
00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
,00,00,00,00,\
00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
,00,00,00,00,\
00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
,00,00,00,00,\
00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
,00,00,00,00,\
00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
,00,00,00,00,\
00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
,00,00,00,00,\
00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
,00,00,00,00,\
00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
,00,00,00,00,\
00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
,00,00,00,00,\
00,00,05,12,00,00,00,01,01,00,00,00,00,05,12,00,00
,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Fax\Enum]
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"0"="Root\\LEGACY_FAX\\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Fd16_700]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Tag"=dword:00000010
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Fdc]
"ErrorControl"=dword:00000001
"Group"="System Bus Extender"
"Start"=dword:00000003
"Tag"=dword:00000002
"Type"=dword:00000001
"SetupDone"=dword:00000001
"DisplayName"="Floppy Disk Controller Driver"
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,49,56,45,52,53,5c,66,64,63,\2e,73,79,73,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Fdc\Enum]
"0"="ACPI\PNP0700\5&1327358&0"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Fips]
"ErrorControl"=dword:00000001
"Start"=dword:00000002
"Type"=dword:00000001
"DisplayName"="Fips"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Fips\Enum]
"0"="Root\\LEGACY_FIPS\\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\fireport]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Tag"=dword:0000002d
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\fireport\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\fireport\Parameters\PnpInterface]
"5"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\flashpnt]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"

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"Start"=dword:00000004
"Tag"=dword:00000025
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\flashpnt\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\flashpnt\Parameters\PnpInterface]
"5"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Flydisk]
"ErrorControl"=dword:00000001
"Group"="Primary disk"
"Start"=dword:00000003
"Tag"=dword:00000002
"Type"=dword:00000001
"DisplayName"="Floppy Disk Driver"
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,49,56,45,52,53,5c,66,6c,70,\79,64,69,73,6b,2e,73,79,73,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Flydisk\Enum]
"0"="FDC\GENERIC_FLOPPY_DRIVE\6&1c650e5d&0&0"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Fs_Rec]
"ErrorControl"=dword:00000000
"Group"="Boot file system"
"Start"=dword:00000001
"Type"=dword:00000008

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Fs_Rec\Enum]
"0"="Root\\LEGACY_FS_REC\\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Ftdisk]
"ErrorControl"=dword:00000001
"Group"="System Bus Extender"
"Start"=dword:00000000
"Tag"=dword:00000009
"Type"=dword:00000001
"DisplayName"="Volume Manager Driver"
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,49,56,45,52,53,5c,66,74,64,\69,73,6b,2e,73,79,73,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Ftdisk\Enum]
"0"="Root\\ftdisk\\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Gpc]
"Type"=dword:00000001

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"Start"=dword:00000003
"ErrorControl"=dword:00000001
"Tag"=dword:00000003
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,49,56,45,52,53,5c,6d,73,67,\70,63,2e,73,79,73,00
"DisplayName"="Generic Packet Classifier"
"Group"="PNP_TDI"
"Description"="Generic Packet Classifier"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Gpc\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14,00,00,00,30,00,00,00,02,\00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00,01,01,00,00,00,00,\05,12,00,00,00,00,00,00,00,00,1c,00,ff,01,0f,00,01,02,00,00,00,00,00,05,\20,00,00,00,20,02,00,00,00,00,00,00,00,00,18,00,8d,01,02,00,01,01,00,00,00,\00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02,00,01,02,00,00,00,00,\00,05,20,00,00,00,23,02,00,00,00,00,00,00,01,01,00,00,00,00,05,12,00,00,\00,01,01,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Gpc\Enum]
"0"="Root\\LEGACY_GPC\\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\i8042prt]
"Type"=dword:00000001
"Start"=dword:00000001
"Group"="Keyboard Port"
"ErrorControl"=dword:00000001
"DisplayName"="i8042 Keyboard and PS/2 Mouse Port Driver"
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,49,56,45,52,53,5c,69,38,30,\34,32,70,72,74,2e,73,79,73,00
"Tag"=dword:00000004

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\i8042prt\Parameters]
"LayerDriver_JPN"="kbd101.dll"
"LayerDriver_KOR"="kbd101a.dll"
"PollingIterations"=dword:00002ee0
"PollingIterationsMaximum"=dword:00002ee0
"ResendIterations"=dword:00000003

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\i8042prt\Enum]

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"0"="ACPI\PNP0303\4&35118dff&0"
"Count"=dword:00000002
"NextInstance"=dword:00000002
"1"="ACPI\PNP0F13\4&35118dff&0"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\IAS]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\IAS\Performance]
"Library"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,\
32,5c,69,61,73,70,65,72,66,2e,64,6c,6c,00
"Open"="OpenPerformanceData"
"Close"="ClosePerformanceData"
"Collect"="CollectPerformanceData"
"Last Counter"=dword:00000924
"Last Help"=dword:00000925
"First Counter"=dword:000008da
"First Help"=dword:000008db
"Object List"="2266 2268 2270 2272"
"WbemAdapFileTime"=hex:00,c8,12,f8,b2,40,bf,01
"WbemAdapFileSize"=dword:00005110
"WbemAdapStatus"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\inetaccs]
@=""

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\inetaccs\Parameters]
@=""

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ini910u]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Tag"=dword:00000030
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ini910u\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ini910u\Parameters\PnpInterface]
"5"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Inport]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Inport\Parameters]
"HZMode"=dword:00000002

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\IntelIde]
"ErrorControl"=dword:00000001
"Group"="System Bus Extender"
"Start"=dword:00000004
"Tag"=dword:00000004
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\IpFilterDriver]
"Type"=dword:00000001
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,49,56,45,52,53,5c,69,70,66,\
6c,74,64,72,76,2e,73,79,73,00
"DisplayName"="IP Traffic Filter Driver"
"DependOnService"=hex(7):54,63,70,69,70,00,00
"DependOnGroup"=hex(7):00
"Description"="IP Traffic Filter Driver"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\IpFilterDriver\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00,01,01,00,00,00,00,\
05,12,00,00,00,20,02,00,00,00,00,1c,00,ff,01,0f,00,01,02,00,00,00,00,00,05,\
20,00,00,00,20,02,00,00,71,e8,96,d0,00,00,18,00,8d,01,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02,00,01,02,00,00,00,00,\
00,05,20,00,00,23,02,00,00,71,e8,96,d0,01,01,00,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\IpInIp]
"Type"=dword:00000001
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,49,56,45,52,53,5c,69,70,69,\
6e,69,70,2e,73,79,73,00
"DisplayName"="IP in IP Tunnel Driver"
"DependOnService"=hex(7):54,63,70,69,70,00,00
"DependOnGroup"=hex(7):00
"Description"="IP in IP Tunnel Driver"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\IpInIp\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00,01,01,00,00,00,00,\
05,12,00,00,00,20,02,00,00,00,00,1c,00,ff,01,0f,00,01,02,00,00,00,00,00,05,\
20,00,00,00,20,02,00,00,00,00,00,00,00,00,18,00,8d,01,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02,00,01,02,00,00,00,00,\
00,05,20,00,00,23,02,00,00,00,00,00,00,00,01,01,00,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\IPSEC]
"Type"=dword:00000001
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"Tag"=dword:00000003
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,49,56,45,52,53,5c,69,70,73,\
65,63,2e,73,79,73,00
"DisplayName"="IPSEC driver"
"Group"="Extended base"
"Description"="IPSEC driver"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\IPSEC\Security]

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```
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00,01,01,00,00,00,00,\
05,12,00,00,00,70,00,63,00,00,00,1c,00,ff,01,0f,00,01,02,00,00,00,00,05,\
20,00,00,00,20,02,00,00,00,00,00,00,00,00,18,00,8d,01,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02,00,01,02,00,00,00,00,\
00,05,20,00,00,00,23,02,00,00,00,00,01,01,00,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\IPSEC\Enum]
"0"="Root\LEGACY_IPSEC\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ipsraidn]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Tag"=dword:00000035
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ipsraidn\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ipsraidn\Parameters\PnpInterface]
"5"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ISAPISearch]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ISAPISearch\Linkage]
"Bind"="\\Dummy"
"Export"="\\Dummy"
"Route"="\\Dummy"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ISAPISearch\Performance]
"Close"="DoneCIISAPIPerformanceData"
"Collect"="CollectCIISAPIPerformanceData"
"Open"="InitializeCIISAPIPerformanceData"
"Library"="query.dll"
"Last Counter"=dword:00000856
"Last Help"=dword:00000857
"First Counter"=dword:00000842
"First Help"=dword:00000843
"Object List"="2114"
```

```
"WbemAdapFileTime"=hex:00,73,79,5b,bc,d4,c0,01
"WbemAdapFileSize"=dword:00159d10
"WbemAdapStatus"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\isapnp]
"ErrorControl"=dword:00000003
"Group"="Boot Bus Extender"
"Start"=dword:00000000
"Tag"=dword:00000003
"Type"=dword:00000001
"HasBootConfig"=dword:00000000
"DisplayName"="PnP ISA/EISA Bus Driver"
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,49,56,45,52,53,5c,69,73,61,\
70,6e,70,2e,73,79,73,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\isapnp\Parameters]
"ADP1502"=dword:00000001
"ADP1505"=dword:00000001
"ADP1510"=dword:00000001
"ADP1512"=dword:00000001
"ADP1515"=dword:00000001
"ADP1520"=dword:00000001
"ADP1522"=dword:00000001
"USR0014"=dword:00000001
"USR1001"=dword:00000001
"USR1002"=dword:00000001
"USR1003"=dword:00000001
"USR1004"=dword:00000001
"USR6001"=dword:00000001
"USR6002"=dword:00000001
"USR6003"=dword:00000001
"USR6004"=dword:00000001
"USR6005"=dword:00000001
"USR6006"=dword:00000001
"USR6007"=dword:00000001
"USR6008"=dword:00000001
"USR6009"=dword:00000001
"USR600A"=dword:00000001
"USR600B"=dword:00000001
"USR600C"=dword:00000001
"USR600D"=dword:00000001
"USR600E"=dword:00000001
"USR600F"=dword:00000001
"USR6010"=dword:00000001
"USR6011"=dword:00000001
"USR6012"=dword:00000001
"USR6101"=dword:00000001
"USR6020"=dword:00000001
"USR0041"=dword:00000001
"USR002C"=dword:00000001
"AZT4029"=dword:00000001
"AZT4023"=dword:00000001
"USR0040"=dword:00000001
"HAY8601"=dword:00000001
"EQX2400"=dword:00000002
"EQX0900"=dword:00000002
"EQX1B00"=dword:00000002
"EQX1700"=dword:00000002
"EQX0700"=dword:00000002
"EQX0F00"=dword:00000002
```

```
"EQX0800"=dword:00000002
"EQX1000"=dword:00000002
"EQX3F00"=dword:00000002
"EQX1200"=dword:00000002
"IBM0001"=dword:00000010

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\isapnp\Enum]
"0"="PCI\VEN_1166&DEV_0201&SUBSYS_00000000&REV_93\3&267a616a&0&78"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\IsmServ]
"DependOnService"=hex(7):53,61,6d,53,53,00,00
"Description"="Allows sending and receiving messages between Windows Advanced Server sites."
"DisplayName"="Intersite Messaging"
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,\
32,5c,69,73,6d,73,65,72,76,2e,65,78,65,00
"ObjectName"="LocalSystem"
"Start"=dword:00000004
"Type"=dword:00000010

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Kbdclass]
"ErrorControl"=dword:00000001
"Group"="Keyboard Class"
"Start"=dword:00000001
"Tag"=dword:00000001
"Type"=dword:00000001
"DisplayName"="Keyboard Class Driver"
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,49,56,45,52,53,5c,6b,62,64,\
63,6c,61,73,73,2e,73,79,73,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Kbdclass\Parameters]
"ConnectMultiplePorts"=dword:00000000
"KeyboardDataQueueSize"=dword:00000064
"KeyboardDeviceBaseName"="KeyboardClass"
"MaximumPortsServiced"=dword:00000003
"SendOutputToAllPorts"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Kbdclass\Enum]
"0"="ACPI\PNP0303\4&35118dff&0"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\kdc]
"DependOnService"=hex(7):52,70,63,53,73,00,41,66,64,00,00
"Description"="Generates session keys and grants service tickets for mutual client/server authentication."
"DisplayName"="Kerberos Key Distribution Center"
"ErrorControl"=dword:00000001
"Group"="RemoteValidation"
```

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"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2
5,5c,53,79,73,74,65,6d,33,\
 32,5c,6c,73,61,73,73,2e,65,78,65,00
"ObjectName"="LocalSystem"
"Start"=dword:00000004
"Type"=dword:00000020

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\kdc\Security]
"Security"=hex:01,00,14,80,9c,00,00,00,a8,00,00,00,14
,00,00,00,34,00,00,00,02,\
00,20,00,01,00,00,02,80,18,00,ff,01,0f,00,01,01,00
,00,00,00,01,00,00,\
00,00,20,02,00,00,02,00,68,00,04,00,00,00,03,18,00
,8d,00,02,00,01,01,00,\
00,00,00,00,01,00,00,00,00,00,00,00,00,03,18,00,ff
,01,0f,00,01,02,00,00,\
00,00,00,05,20,00,00,00,20,02,00,00,03,18,00,8f,00
,02,00,01,02,00,00,00,\
00,00,05,20,00,00,00,23,02,00,00,03,18,00,9d,00,00
,00,01,01,00,00,00,00,\
00,05,04,00,00,00,23,02,00,00,01,01,00,00,00,00,05
,12,00,00,00,01,01,00,\
 00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\KSecDD]
"ErrorControl"=dword:00000001
"Group"="Base"
"Start"=dword:00000000
"Tag"=dword:00000001
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\KSecDD\Enum]
"0"="Root\LEGACY_KSECDD\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\lanmanserver]
"Type"=dword:00000020
"Start"=dword:00000002
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2
5,5c,53,79,73,74,65,6d,33,\
 32,5c,73,65,72,76,69,63,65,73,2e,65,78,65,00
"DisplayName"="Server"
"ObjectName"="LocalSystem"
"Description"="Provides RPC support and file, print,
and named pipe sharing."

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\lanmanserver\AutotunedParameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\lanmanserver\DefaultSecurity]

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"SrvsvcConfigInfo"=hex:01,00,04,80,a0,00,00,00,ac,00,
00,00,00,00,00,00,14,00,\
00,00,02,00,8c,00,05,00,00,00,00,00,1c,00,17,00,0f,00
,01,02,00,00,00,00,00,\
05,20,00,00,00,20,02,00,00,00,00,00,00,00,00,1c,00,17
,00,0f,00,01,02,00,00,\
00,00,00,05,20,00,00,00,25,02,00,00,00,00,00,00,00,00
,18,00,17,00,0f,00,01,\
01,00,00,00,00,00,05,12,00,00,00,25,02,00,00,00,00,1c
,00,03,00,00,00,01,02,\
00,00,00,00,00,05,20,00,00,00,23,02,00,00,00,00,00,00
,00,00,18,00,01,00,00,\
00,01,01,00,00,00,00,00,05,0b,00,00,00,23,02,00,00,01
,01,00,00,00,00,00,05,\
 12,00,00,00,01,01,00,00,00,00,00,05,12,00,00,00
"SrvsvcConnection"=hex:01,00,04,80,8c,00,00,00,98,00,
00,00,00,00,00,00,14,00,\
00,00,02,00,78,00,04,00,00,00,00,00,1c,00,01,00,0f,00
,01,02,00,00,00,00,00,\
05,20,00,00,00,20,02,00,00,00,00,00,00,00,00,1c,00,01
,00,0f,00,01,02,00,00,\
00,00,00,05,20,00,00,00,25,02,00,00,00,00,00,00,00,00
,1c,00,01,00,00,00,01,\
02,00,00,00,00,00,05,20,00,00,00,26,02,00,00,00,00,00
,00,00,00,1c,00,01,00,\
00,00,01,02,00,00,00,00,00,05,20,00,00,00,23,02,00,00
,00,00,00,00,01,01,00,\
00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,00,05,12
,00,00,00
"SrvsvcServerDiskEnum"=hex:01,00,04,80,54,00,00,00,60
,00,00,00,00,00,00,00,14,\
00,00,00,02,00,40,00,02,00,00,00,00,00,1c,00,01,00,0f
,00,01,02,00,00,00,00,\
00,05,20,00,00,00,20,02,00,00,00,00,00,00,00,00,1c,00
,01,00,0f,00,01,02,00,\
00,00,00,00,05,20,00,00,00,25,02,00,00,00,00,00,00,01
,01,00,00,00,00,00,05,\
 12,00,00,00,01,01,00,00,00,00,00,05,12,00,00,00
"SrvsvcFile"=hex:01,00,04,80,70,00,00,00,7c,00,00,00,
00,00,00,00,14,00,00,00,\
02,00,5c,00,03,00,00,00,00,00,1c,00,11,00,0f,00,01,02
,00,00,00,00,00,05,20,\
00,00,00,20,02,00,00,00,00,00,00,00,00,1c,00,11,00,0f
,00,01,02,00,00,00,00,\

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00,05,20,00,00,00,25,02,00,00,00,00,00,00,00,00,1c,00
,11,00,0f,00,01,02,00,\
00,00,00,00,05,20,00,00,00,23,02,00,00,00,00,00,00,01
,01,00,00,00,00,00,05,\
 12,00,00,00,01,01,00,00,00,00,00,05,12,00,00,00
"SrvsvcSessionInfo"=hex:01,00,04,80,88,00,00,00,94,00
,00,00,00,00,00,00,14,00,\
00,00,02,00,74,00,04,00,00,00,00,00,1c,00,13,00,0f,00
,01,02,00,00,00,00,00,\
05,20,00,00,00,20,02,00,00,00,00,00,00,00,00,1c,00,13
,00,0f,00,01,02,00,00,\
00,00,00,05,20,00,00,00,25,02,00,00,00,00,00,00,00,00
,1c,00,13,00,0f,00,01,\
02,00,00,00,00,00,05,20,00,00,00,23,02,00,00,00,00,00
,00,00,00,18,00,01,00,\
00,00,01,01,00,00,00,00,00,05,0b,00,00,00,23,02,00,00
,01,01,00,00,00,00,00,\
 05,12,00,00,00,01,01,00,00,00,00,00,05,12,00,00,00
"SrvsvcShareFileInfo"=hex:01,00,04,80,88,00,00,00,94,
00,00,00,00,00,00,14,\
00,00,00,02,00,74,00,04,00,00,00,00,00,1c,00,13,00,0f
,00,01,02,00,00,00,00,\
00,05,20,00,00,00,20,02,00,00,00,00,00,00,00,00,1c,00
,13,00,0f,00,01,02,00,\
00,00,00,00,05,20,00,00,00,25,02,00,00,00,00,00,00,00
,00,1c,00,13,00,0f,00,\
01,02,00,00,00,00,00,05,20,00,00,00,23,02,00,00,00,00
,00,00,00,00,18,00,01,\
00,00,00,01,01,00,00,00,00,00,05,0b,00,00,00,23,02,00
,00,01,01,00,00,00,00,\
00,05,12,00,00,00,01,01,00,00,00,00,00,05,12,00,00,00
"SrvsvcSharePrintInfo"=hex:01,00,04,80,a4,00,00,00,b0
,00,00,00,00,00,00,14,\
00,00,00,02,00,90,00,05,00,00,00,00,00,1c,00,13,00,0f
,00,01,02,00,00,00,00,\
00,05,20,00,00,00,20,02,00,00,00,00,00,00,00,00,1c,00
,13,00,0f,00,01,02,00,\
00,00,00,00,05,20,00,00,00,25,02,00,00,00,00,00,00,00
,00,1c,00,13,00,0f,00,\
01,02,00,00,00,00,00,05,20,00,00,00,26,02,00,00,00,00
,00,00,00,00,1c,00,13,\
00,0f,00,01,02,00,00,00,00,00,05,20,00,00,00,23,02,00
,00,00,00,00,00,00,00,\

```

18,00,01,00,00,00,01,01,00,00,00,00,00,05,0b,00,00,00,
23,02,00,00,01,01,00,\
00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,05,12,
00,00,00
"SrvsvcShareAdminInfo"=hex:01,00,04,80,88,00,00,00,94,
00,00,00,00,00,00,00,14,\
00,00,00,02,00,74,00,04,00,00,00,00,00,1c,00,13,00,0f,
00,01,02,00,00,00,00,\
00,05,20,00,00,00,20,02,00,00,00,00,00,00,00,1c,00,
02,00,00,00,01,02,00,\
00,00,00,00,05,20,00,00,00,25,02,00,00,00,00,00,00,
00,1c,00,02,00,00,00,\
01,02,00,00,00,00,05,20,00,00,00,23,02,00,00,00,00,
00,00,00,00,18,00,01,\
00,00,00,01,01,00,00,00,00,05,0b,00,00,00,23,02,00,
00,01,01,00,00,00,00,\
00,05,12,00,00,00,01,01,00,00,00,00,00,05,12,00,00,00
"SrvsvcShareConnect"=hex:01,00,04,80,88,00,00,00,94,0
0,00,00,00,00,00,14,00,\
00,00,02,00,74,00,04,00,00,00,00,00,1c,00,03,00,0f,00,
01,02,00,00,00,00,00,\
05,20,00,00,00,20,02,00,00,00,00,00,00,00,1c,00,03,
00,0f,00,01,02,00,00,\
00,00,00,05,20,00,00,00,25,02,00,00,00,00,00,00,00,
1c,00,03,00,0f,00,01,\
02,00,00,00,00,05,20,00,00,00,27,02,00,00,00,00,00,
00,00,00,18,00,01,00,\
00,00,01,01,00,00,00,00,01,00,00,00,00,27,02,00,00,
01,01,00,00,00,00,00,\
05,12,00,00,00,01,01,00,00,00,00,00,05,12,00,00,00
"SrvsvcShareAdminConnect"=hex:01,00,04,80,70,00,00,00,
7c,00,00,00,00,00,00,00,\
14,00,00,00,02,00,5c,00,03,00,00,00,00,1c,00,03,00,
0f,00,01,02,00,00,00,\
00,00,05,20,00,00,00,20,02,00,00,00,00,00,00,00,1c,
00,03,00,0f,00,01,02,\
00,00,00,00,05,20,00,00,00,25,02,00,00,00,00,00,00,
00,00,1c,00,03,00,0f,\
00,01,02,00,00,00,00,05,20,00,00,00,27,02,00,00,00,
00,00,00,01,01,00,00,\
00,00,00,05,12,00,00,00,01,01,00,00,00,00,05,12,00,
00,00
"SrvsvcStatisticsInfo"=hex:01,00,04,80,6c,00,00,00,78,
00,00,00,00,00,00,00,14,\

00,00,00,02,00,58,00,03,00,00,00,00,00,1c,00,01,00,0f,
00,01,02,00,00,00,00,\
00,05,20,00,00,00,20,02,00,00,00,00,00,00,1c,00,
01,00,0f,00,01,02,00,\
00,00,00,00,05,20,00,00,00,25,02,00,00,00,00,00,00,
00,18,00,01,00,00,00,\
01,01,00,00,00,00,02,00,00,00,25,02,00,00,01,01,
00,00,00,00,05,12,\
00,00,00,01,01,00,00,00,00,00,05,12,00,00,00
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\lanmanserver\Linkage]
"Bind"=hex(7):5c,44,65,76,69,63,65,5c,4e,65,74,62,69,
6f,73,53,6d,62,00,5c,44,\
65,76,69,63,65,5c,4e,65,74,42,54,5f,54,63,70,69,70,5f,
7b,36,31,37,35,43,34,\
46,41,2d,34,31,31,45,2d,34,43,35,42,2d,38,46,45,33,2d,
37,44,33,39,41,35,38,\
38,39,31,32,41,7d,00,5c,44,65,76,69,63,65,5c,4e,65,74,
42,54,5f,54,63,70,69,\
70,5f,7b,37,44,39,32,36,44,43,43,2d,33,37,46,34,2d,34,
42,41,38,2d,41,33,39,\
38,2d,41,33,43,44,35,39,37,36,42,34,34,44,7d,00,5c,44,
65,76,69,63,65,5c,4e,\
65,74,42,54,5f,54,63,70,69,70,5f,7b,44,41,34,31,32,38,
42,43,2d,39,39,36,46,\
2d,34,41,32,43,2d,42,38,41,45,2d,37,39,41,36,36,42,46,
39,38,44,36,43,7d,00,\
5c,44,65,76,69,63,65,5c,4e,65,74,42,54,5f,54,63,70,69,
70,5f,7b,38,36,45,41,\
39,39,33,41,2d,38,30,36,42,2d,34,43,35,35,2d,38,42,45,
46,2d,36,45,37,45,44,\
32,36,39,33,46,45,32,7d,00,00
"Route"=hex(7):22,4e,65,74,62,69,6f,73,53,6d,62,22,00,
22,4e,65,74,42,54,22,20,\
22,54,63,70,69,70,22,20,22,7b,36,31,37,35,43,34,46,41,
2d,34,31,31,45,2d,34,\
43,35,42,2d,38,46,45,33,2d,37,44,33,39,41,35,38,38,39,
31,32,41,7d,22,00,22,\
4e,65,74,42,54,22,20,22,54,63,70,69,70,22,20,22,7b,37,
44,39,32,36,44,43,43,\
2d,33,37,46,34,2d,34,42,41,38,2d,41,33,39,38,2d,41,33,
43,44,35,39,37,36,42,\
34,34,44,7d,22,00,22,4e,65,74,42,54,22,20,22,54,63,70,
69,70,22,20,22,4e,64,\

69,73,57,61,6e,49,70,22,00,00
"Export"=hex(7):5c,44,65,76,69,63,65,5c,4c,61,6e,6d,6
1,6e,53,65,72,76,65,72,5f,\
4e,65,74,62,69,6f,73,53,6d,62,00,5c,44,65,76,69,63,65,
5c,4c,61,6e,6d,61,6e,\
53,65,72,76,65,72,5f,4e,65,74,42,54,5f,54,63,70,69,70,
5f,7b,36,31,37,35,43,\
34,46,41,2d,34,31,31,45,2d,34,43,35,42,2d,38,46,45,33,
2d,37,44,33,39,41,35,\
38,38,39,31,32,41,7d,00,5c,44,65,76,69,63,65,5c,4c,61,
6e,6d,61,6e,53,65,72,\
76,65,72,5f,4e,65,74,42,54,5f,54,63,70,69,70,5f,7b,37,
44,39,32,36,44,43,43,\
2d,33,37,46,34,2d,34,42,41,38,2d,41,33,39,38,2d,41,33,
43,44,35,39,37,36,42,\
34,34,44,7d,00,5c,44,65,76,69,63,65,5c,4c,61,6e,6d,61,
6e,53,65,72,76,65,72,\
5f,4e,65,74,42,54,5f,54,63,70,69,70,5f,7b,44,41,34,31,
32,38,42,43,2d,39,39,\
36,46,2d,34,41,32,43,2d,42,38,41,45,2d,37,39,41,36,36,
42,46,39,38,44,36,43,\
7d,00,5c,44,65,76,69,63,65,5c,4c,61,6e,6d,61,6e,53,65,
72,76,65,72,5f,4e,65,\
74,42,54,5f,54,63,70,69,70,5f,7b,38,36,45,41,39,39,33,
41,2d,38,30,36,42,2d,\
34,43,35,35,2d,38,42,45,46,2d,36,45,37,45,44,32,36,39,
33,46,45,32,7d,00,00
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\lanmanserver\parameters]
"autodisconnect"=dword:0000000f
"enableforcedlogoff"=dword:00000001
"enablesecuritysignature"=dword:00000000
"requiresecuritysignature"=dword:00000000
"NullSessionPipes"=hex(7):43,4f,4d,4e,41,50,00,43,4f,
4d,4e,4f,44,45,00,53,51,\
4c,5c,51,55,45,52,59,00,53,50,4f,4f,4c,53,53,00,4c,4c,
53,52,50,43,00,45,50,\
4d,41,50,50,45,52,00,4c,4f,43,41,54,4f,52,00,54,72,6b,
57,6b,73,00,54,72,6b,\
53,76,72,00,00
"NullSessionShares"=hex(7):43,4f,4d,43,46,47,00,44,46,
53,24,00,00
"Lmannounce"=dword:00000000
"Size"=dword:00000003
"Guid"=hex:a8,54,e5,1b,7c,d2,d8,43,8b,8e,46,bc,b1,b2,
65,42


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[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\lanmanserver\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\
00,00,02,00,78,00,05,00,00,00,00,00,14,00,8d,01,02,00
,01,01,00,00,00,00,00,\
05,0b,00,00,00,00,00,18,00,9d,01,02,00,01,02,00,00,00
,00,00,05,20,00,00,00,\
23,02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00
,00,05,20,00,00,00,20,\
02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00
,05,20,00,00,00,25,02,\
00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,00,05
,12,00,00,00,01,01,00,\
00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,00,05,12
,00,00,00
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\lanmanserver\Shares]
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\lanmanserver\Shares\Security]
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\lanmanserver\Enum]
"0"="Root\LEGACY_LANMANSERVER\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\lanmanworkstation]
"Type"=dword:00000020
"Start"=dword:00000002
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2
5,5c,53,79,73,74,65,6d,33,\
32,5c,73,65,72,76,69,63,65,73,2e,65,78,65,00
"DisplayName"="Workstation"
"Group"="NetworkProvider"
"ObjectName"="LocalSystem"
"Description"="Provides network connections and
communications."
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\lanmanworkstation\Linkage]
"Bind"=hex(7):5c,44,65,76,69,63,65,5c,4e,65,74,62,69,
6f,73,53,6d,62,00,5c,44,\
65,76,69,63,65,5c,4e,65,74,42,54,5f,54,63,70,69,70,5f
,7b,36,31,37,35,43,34,\
46,41,2d,34,31,31,45,2d,34,43,35,42,2d,38,46,45,33,2d
,37,44,33,39,41,35,38,\
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38,39,31,32,41,7d,00,5c,44,65,76,69,63,65,5c,4e,65,74
,42,54,5f,54,63,70,69,\
70,5f,7b,37,44,39,32,36,44,43,43,2d,33,37,46,34,2d,34
,42,41,38,2d,41,33,39,\
38,2d,41,33,43,44,35,39,37,36,42,34,34,44,7d,00,5c,44
,65,76,69,63,65,5c,4e,\
65,74,42,54,5f,54,63,70,69,70,5f,7b,44,41,34,31,32,38
,42,43,2d,39,39,36,46,\
2d,34,41,32,43,2d,42,38,41,45,2d,37,39,41,36,36,42,46
,39,38,44,36,43,7d,00,\
5c,44,65,76,69,63,65,5c,4e,65,74,42,54,5f,54,63,70,69
,70,5f,7b,38,36,45,41,\
39,39,33,41,2d,38,30,36,42,2d,34,43,35,35,2d,38,42,45
,46,2d,36,45,37,45,44,\
32,36,39,33,46,45,32,7d,00,00
"Route"=hex(7):22,4e,65,74,62,69,6f,73,53,6d,62,22,00
,22,4e,65,74,42,54,22,20,\
22,54,63,70,69,70,22,20,22,7b,36,31,37,35,43,34,46,41
,2d,34,31,31,45,2d,34,\
43,35,42,2d,38,46,45,33,2d,37,44,33,39,41,35,38,38,39
,31,32,41,7d,22,00,22,\
4e,65,74,42,54,22,20,22,54,63,70,69,70,22,20,22,7b,37
,44,39,32,36,44,43,43,\
2d,33,37,46,34,2d,34,42,41,38,2d,41,33,39,38,2d,41,33
,43,44,35,39,37,36,42,\
34,34,44,7d,22,00,22,4e,65,74,42,54,22,20,22,54,63,70
,69,70,22,20,22,4e,64,\
69,73,57,61,6e,49,70,22,00,00
"Export"=hex(7):5c,44,65,76,69,63,65,5c,4c,61,6e,6d,6
1,6e,57,6f,72,6b,73,74,61,\
74,69,6f,6e,5f,4e,65,74,62,69,6f,73,53,6d,62,00,5c,44
,65,76,69,63,65,5c,4c,\
61,6e,6d,61,6e,57,6f,72,6b,73,74,61,74,69,6f,6e,5f,4e
,65,74,42,54,5f,54,63,\
70,69,70,5f,7b,36,31,37,35,43,34,46,41,2d,34,31,31,45
,2d,34,43,35,42,2d,38,\
46,45,33,2d,37,44,33,39,41,35,38,38,39,31,32,41,7d,00
,5c,44,65,76,69,63,65,\
5c,4c,61,6e,6d,61,6e,57,6f,72,6b,73,74,61,74,69,6f,6e
,5f,4e,65,74,42,54,5f,\
54,63,70,69,70,5f,7b,37,44,39,32,36,44,43,43,2d,33,37
,46,34,2d,34,42,41,38,\
2d,41,33,39,38,2d,41,33,43,44,35,39,37,36,42,34,34,44
,7d,00,5c,44,65,76,69,\
```

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63,65,5c,4c,61,6e,6d,61,6e,57,6f,72,6b,73,74,61,74,69
,6f,6e,5f,4e,65,74,42,\
54,5f,54,63,70,69,70,5f,7b,44,41,34,31,32,38,42,43,2d
,39,39,36,46,2d,34,41,\
32,43,2d,42,38,41,45,2d,37,39,41,36,36,42,46,39,38,44
,36,43,7d,00,5c,44,65,\
76,69,63,65,5c,4c,61,6e,6d,61,6e,57,6f,72,6b,73,74,61
,74,69,6f,6e,5f,4e,65,\
74,42,54,5f,54,63,70,69,70,5f,7b,38,36,45,41,39,39,33
,41,2d,38,30,36,42,2d,\
34,43,35,35,2d,38,42,45,46,2d,36,45,37,45,44,32,36,39
,33,46,45,32,7d,00,00
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\lanmanworkstation\NetworkProvider]
"Name"="Microsoft Windows Network"
"ProviderPath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,7
4,25,5c,53,79,73,74,65,6d,\
33,32,5c,6e,74,6c,61,6e,6d,61,6e,2e,64,6c,6c,00
"DeviceName"="\\Device\LanmanRedirector"
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\lanmanworkstation\parameters]
"enableplaintextpassword"=dword:00000000
"enablesecuritysignature"=dword:00000001
"requiresecuritysignature"=dword:00000000
"OtherDomains"=hex(7):00
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\lanmanworkstation\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\
00,00,02,00,78,00,05,00,00,00,00,00,14,00,8d,01,02,00
,01,01,00,00,00,00,00,\
05,0b,00,00,00,00,00,18,00,9d,01,02,00,01,02,00,00,00
,00,00,05,20,00,00,00,\
23,02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00
,00,05,20,00,00,00,20,\
02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00
,05,20,00,00,00,25,02,\
00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,00,05
,12,00,00,00,01,01,00,\
00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,00,05,12
,00,00,00
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\lanmanworkstation\Enum]
"0"="Root\LEGACY_LANMANWORKSTATION\0000"
"Count"=dword:00000001
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"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\lbrtfdc]
"ErrorControl"=dword:00000000
"Group"="System Bus Extender"
"Start"=dword:00000001
"Tag"=dword:0000000e
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\LicenseInfo]
"ErrorControl"=dword:00000001
"Start"=dword:00000003
"Type"=dword:00000004

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\LicenseInfo\FilePrint]
"Mode"=dword:00000001
"ConcurrentLimit"=dword:0000270f
"FlipAllow"=dword:00000001
"FamilyDisplayName"="Windows Server"
"DisplayName"="Windows Server"
"LocalKey"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\LicenseService]
"Type"=dword:00000010
"Start"=dword:00000004
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2
5,5c,53,79,73,74,65,6d,33,\
32,5c,6c,6c,73,73,72,76,2e,65,78,65,00
"DisplayName"="License Logging Service"
"ObjectName"="LocalSystem"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\LicenseService\FilePrint]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\LicenseService\FilePrint\KSecDD]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\LicenseService\FilePrint\MSAfpSrv]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\LicenseService\FilePrint\SMBServer]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\LicenseService\FilePrint\TCP/IP Print Server]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\LicenseService\FilePrint\TermService]
@=""

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\LicenseService\Parameters]
"UseEnterprise"=dword:00000000
"ReplicationType"=dword:00000000
"ReplicationTime"=dword:00015180
"EnterpriseServer"=""

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[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\LicenseService\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\
00,00,02,00,78,00,05,00,00,00,00,00,14,00,8d,01,02,00
,01,01,00,00,00,00,00,\
05,0b,00,00,00,00,00,18,00,9d,01,02,00,01,02,00,00,00
,00,00,05,20,00,00,00,\
23,02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00
,00,05,20,00,00,00,20,\
02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00
,05,20,00,00,00,25,02,\
00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,00,05
,12,00,00,00,01,00,\
00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,05,12
,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\LicenseService\Enum]
"0"="Root\LEGACY_LICENSESERVICE\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\LmHosts]
"Type"=dword:00000020
"Start"=dword:00000002
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2
5,5c,53,79,73,74,65,6d,33,\
32,5c,73,65,72,76,69,63,65,73,2e,65,78,65,00
"DisplayName"="TCP/IP NetBIOS Helper Service"
"Group"="TDI"
"DependOnService"=hex(7):4e,65,74,42,54,00,41,66,64,0
0,00
"DependOnGroup"=hex(7):00
"ObjectName"="LocalSystem"
"Description"="Enables support for NetBIOS over
TCP/IP (NetBT) service and NetBIOS name resolution."

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\LmHosts\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\
00,00,02,00,78,00,05,00,00,00,00,00,14,00,8d,01,02,00
,01,01,00,00,00,00,\
05,0b,00,00,00,00,00,18,00,9d,01,02,00,01,02,00,00,00
,00,00,05,20,00,00,00,\

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23,02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00
,00,05,20,00,00,00,20,\
02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00
,05,20,00,00,00,25,02,\
00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,00,05
,12,00,00,00,01,01,00,\
00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,00,05,12
,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\LmHosts\Enum]
"0"="Root\LEGACY_LMHOSTS\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\lp6nds35]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Tag"=dword:00000027
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\lp6nds35\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\lp6nds35\Parameters\PnpInterface]
"5"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Messenger]
"Type"=dword:00000020
"Start"=dword:00000002
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2
5,5c,53,79,73,74,65,6d,33,\
32,5c,73,65,72,76,69,63,65,73,2e,65,78,65,00
"DisplayName"="Messenger"
"DependOnService"=hex(7):4c,61,6e,6d,61,6e,57,6f,72,6
b,73,74,61,74,69,6f,6e,00,\
4e,65,74,42,49,4f,53,00,52,70,63,53,53,00,00
"DependOnGroup"=hex(7):00
"ObjectName"="LocalSystem"
"Description"="Sends and receives messages
transmitted by administrators or by the Alerter
service."

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Messenger\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\
00,00,02,00,78,00,05,00,00,00,00,00,14,00,8d,01,02,00
,01,01,00,00,00,00,\

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05,0b,00,00,00,00,00,18,00,9d,01,02,00,01,02,00,00,00,
,00,00,05,20,00,00,00,\

23,02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,
,00,05,20,00,00,00,20,\

02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00,
,05,20,00,00,00,25,02,\

00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,00,05,
,12,00,00,00,01,01,00,\

00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,00,05,12,
,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Messenger\Enum]
"0"="Root\LEGACY_MESSENGER\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\mmdd]
"ErrorControl"=dword:00000000
"Group"="Video Save"
"Start"=dword:00000001
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\mmdd\Device0]
"InstalledDisplayDrivers"=hex(7):6d,6e,6d,64,64,00,00
"Device Description"="NetMeeting driver"
"VgaCompatible"=dword:00000000
"MirrorDriver"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\mmdd\Enum]
"0"="Root\LEGACY_MMDD\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\mmssrvc]
"Type"=dword:00000110
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):43,3a,5c,57,49,4e,4e,54,5c,53,79,7
3,74,65,6d,33,32,5c,6d,6e,\
6d,73,72,76,63,2e,65,78,65,00
"DisplayName"="NetMeeting Remote Desktop Sharing"
"ObjectName"="LocalSystem"
"Description"="Allows authorized people to remotely
access your Windows desktop using NetMeeting."

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\mmssrvc\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,00,02,\

00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,
,00,00,00,00,01,00,00,\

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00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00,
,01,01,00,00,00,00,00,\

05,12,00,00,00,00,00,00,00,00,00,00,1c,00,ff,01,0f,00,01,
,02,00,00,00,00,00,05,\

20,00,00,00,20,02,00,00,44,08,00,00,00,00,18,00,8d,01,
,02,00,01,01,00,00,00,\

00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02,
,00,01,02,00,00,00,00,\

00,05,20,00,00,00,23,02,00,00,44,08,00,00,01,01,00,00,
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Modem]
"ErrorControl"=dword:00000000
"Group"="Extended base"
"Start"=dword:00000003
"Tag"=dword:00000004
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Modem\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Mouclass]
"ErrorControl"=dword:00000001
"Group"="Pointer Class"
"Start"=dword:00000001
"Tag"=dword:00000001
"Type"=dword:00000001
"DisplayName"="Mouse Class Driver"
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4
9,56,45,52,53,5c,6d,6f,75,\
63,6c,61,73,73,2e,73,79,73,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Mouclass\Parameters]
"ConnectMultiplePorts"=dword:00000000
"MaximumPortsServiced"=dword:00000003
"MouseDataQueueSize"=dword:00000064
"PointerDeviceBaseName"="PointerClass"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Mouclass\Enum]
"0"="ACPI\PNP0F13\4&35118dff&0"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\MountMgr]
"ErrorControl"=dword:00000001
"Group"="System Bus Extender"
"Start"=dword:00000000
"Tag"=dword:00000008
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\MountMgr\Enum]

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"0"="Root\LEGACY_MOUNTMGR\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\mraid35x]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Tag"=dword:0000002b
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\mraid35x\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\mraid35x\Parameters\FnpInterface]
"5"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\MRxSmb]
"Type"=dword:00000002
"Start"=dword:00000001
"ErrorControl"=dword:00000001
"Tag"=dword:00000005
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4
9,56,45,52,53,5c,6d,72,78,\
73,6d,62,2e,73,79,73,00
"DisplayName"="MRXSMB"
"Group"="Network"
"Description"="MRXSMB"
"LastLoadStatus"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\MRxSmb\Parameters]
"CscEnabled"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\MRxSmb\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,00,02,\

00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,
,00,00,00,00,01,00,00,\

00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00,
,01,01,00,00,00,00,00,\

05,12,00,00,00,02,00,00,00,00,00,1c,00,ff,01,0f,00,01,
,02,00,00,00,00,00,05,\

20,00,00,00,20,02,00,00,03,00,00,00,00,00,18,00,8d,01,
,02,00,01,01,00,00,00,\

00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02,
,00,01,02,00,00,00,00,\

00,05,20,00,00,00,23,02,00,00,03,00,00,00,01,01,00,00,
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\MRxSmb\Enum]

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"0"="Root\\LEGACY_MRXSMB\\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSDTC]
"Type"=dword:00000110
"Start"=dword:00000004
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):43,3a,5c,57,49,4e,4e,54,5c,53,79,73,74,65,6d,33,32,5c,6d,73,\
64,74,63,2e,65,78,65,00
"DisplayName"="Distributed Transaction Coordinator"
"Group"="MS Transactions"
"DependOnService"=hex(7):52,50,43,53,53,00,53,61,6d,53,53,00,00
"DependOnGroup"=hex(7):00
"ObjectName"="LocalSystem"
"Description"="Coordinates transactions that are distributed across two or more databases, message queues, file systems, or other transaction protected resource managers."

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSDTC\Performance]
"Library"="msdtcui.DLL"
"Open"="DtcPerfOpen"
"Collect"="DtcPerfCollect"
"Close"="DtcPerfClose"
"Last Counter"=dword:00000800
"Last Help"=dword:00000801
"First Counter"=dword:000007e6
"First Help"=dword:000007e7
"Object List"="2022"
"WbemAdapFileTime"=hex:00,73,79,5b,bc,d4,c0,01
"WbemAdapFileSize"=dword:00023910
"WbemAdapStatus"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSDTC\Security]
"Security"=hex:01,00,14,80,bc,00,00,00,c8,00,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\
00,00,02,00,8c,00,06,00,00,00,00,00,14,00,8d,01,02,00,01,01,00,00,00,00,\
05,0b,00,00,00,00,18,00,9d,01,02,00,01,02,00,00,00,00,00,05,20,00,00,00,\
23,02,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00,20,\
02,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00,25,02,\
00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,00,05,12,00,00,00,00,00,14,\
00,10,00,00,00,01,01,00,00,00,00,00,01,00,00,00,00,01,01,00,00,00,00,05,\
01,00,00,00,00,00,05,\

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12,00,00,00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSDTC\Enum]
"0"="Root\\LEGACY_MSRTC\\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Msfs]
"ErrorControl"=dword:00000001
"Group"="File system"
"Start"=dword:00000001
"Type"=dword:00000002

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Msfs\Enum]
"0"="Root\\LEGACY_MSFS\\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSIServer]
"Description"="Installs, repairs and removes software according to instructions contained in .MSI files."
"Type"=dword:00000120
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):43,3a,5c,57,49,4e,4e,54,5c,73,79,73,74,65,6d,33,32,5c,6d,73,\
69,65,78,65,63,2e,65,78,65,20,2f,56,00
"DisplayName"="Windows Installer"
"ObjectName"="LocalSystem"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSIServer\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00,01,01,00,00,00,00,\
05,12,00,00,00,00,00,00,05,00,00,1c,00,ff,01,0f,00,01,02,00,00,00,00,05,\
20,00,00,00,20,02,00,00,12,00,00,00,00,00,18,00,8d,01,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02,00,01,02,00,00,00,00,\
00,05,20,00,00,00,23,02,00,00,12,00,00,00,01,01,00,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSIServer\Enum]
"0"="Root\\LEGACY_MSISERVER\\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

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[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSKSSRV]
"Type"=dword:00000001
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"Tag"=dword:00000003
"ImagePath"=hex(2):73,79,73,74,65,6d,33,32,5c,64,72,69,76,65,72,73,5c,4d,53,4b,\
53,53,52,56,2e,73,79,73,00
"DisplayName"="Microsoft Streaming Service Proxy"
"Group"="ExtendedBase"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSKSSRV\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00,01,01,00,00,00,00,\
05,12,00,00,00,74,00,6c,00,00,00,1c,00,ff,01,0f,00,01,02,00,00,00,00,05,\
20,00,00,00,20,02,00,00,00,00,00,00,00,00,18,00,8d,01,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02,00,01,02,00,00,00,00,\
00,05,20,00,00,00,23,02,00,00,00,00,00,00,01,01,00,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSPCLOCK]
"Type"=dword:00000001
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"Tag"=dword:00000001
"ImagePath"=hex(2):73,79,73,74,65,6d,33,32,5c,64,72,69,76,65,72,73,5c,4d,53,50,\
43,4c,4f,43,4b,2e,73,79,73,00
"DisplayName"="Microsoft Streaming Clock Proxy"
"Group"="ExtendedBase"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSPCLOCK\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00,01,01,00,00,00,00,\
05,12,00,00,00,74,00,6c,00,00,00,1c,00,ff,01,0f,00,01,02,00,00,00,00,05,\

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20,00,00,00,20,02,00,00,00,00,00,00,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\

00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\

00,05,20,00,00,00,23,02,00,00,00,00,00,01,01,00,00
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\MSPQM]
"Type"=dword:00000001
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"Tag"=dword:00000002
"ImagePath"=hex(2):73,79,73,74,65,6d,33,32,5c,64,72,6
9,76,65,72,73,5c,4d,53,50,\
51,4d,2e,73,79,73,00
"DisplayName"="Microsoft Streaming Quality Manager
Proxy"
"Group"="ExtendedBase"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\MSPQM\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,00,02,\

00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\

00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,00,\

05,12,00,00,00,74,00,6c,00,00,00,1c,00,ff,01,0f,00,01
,02,00,00,00,00,00,05,\

20,00,00,00,20,02,00,00,00,00,00,00,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\

00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\

00,05,20,00,00,00,23,02,00,00,00,00,00,01,01,00,00
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\MSSCNTRS]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\MSSCNTRS\Performance]
"Library"="C:\PROGRA-1\COMMON-1\System\MSSearch\
Bin\msscncntrs.dll"
"Open"="Open"
"Close"="Close"
"Collect"="Collect"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\MSSEARCH]
"Type"=dword:00000020
"Start"=dword:00000002

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"ErrorControl"=dword:00000001
"ImagePath"=hex(2):22,43,3a,5c,50,72,6f,67,72,61,6d,2
0,46,69,6c,65,73,5c,43,6f,\

6d,6d,6f,6e,20,46,69,6c,65,73,5c,53,79,73,74,65,6d,5c
,4d,53,53,65,61,72,63,\

68,5c,42,69,6e,5c,6d,73,73,65,61,72,63,68,2e,65,78,65
,22,00
"DisplayName"="Microsoft Search"
"DependOnService"=hex(7):52,50,43,53,53,00,4e,54,4c,4
d,53,53,50,00,00
"DependOnGroup"=hex(7):00
"ObjectName"="LocalSystem"
"Description"="Creates full-text indexes on content
and properties of structured and semi-structured data
to allow fast linguistic searches on this data"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\MSSEARCH\Performance]
"Last Counter"=dword:00001ae4
"Last Help"=dword:00001ae5
"First Counter"=dword:00001ab4
"First Help"=dword:00001ab5

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\MSSEARCH\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,00,02,\

00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\

00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,00,\

05,12,00,00,00,60,3b,07,00,00,00,1c,00,ff,01,0f,00,01
,02,00,00,00,00,00,05,\

20,00,00,00,20,02,00,00,00,00,00,00,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\

00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\

00,05,20,00,00,00,23,02,00,00,00,00,00,01,01,00,00
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\MSSEARCH\Enum]
"0"="Root\LEGACY_MSSEARCH\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\MSSGATHERER]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\MSSGATHERER\Performance]
"Last Counter"=dword:00001a66
"Last Help"=dword:00001a67
"First Counter"=dword:000019fe

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"First Help"=dword:000019ff

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\MSSGTHRSVC]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\MSSGTHRSVC\Performance]
"Last Counter"=dword:00001ab2
"Last Help"=dword:00001ab3
"First Counter"=dword:00001a68
"First Help"=dword:00001a69

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\mssindex]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\mssindex\Performance]
"Last Counter"=dword:000019fc
"Last Help"=dword:000019fd
"First Counter"=dword:000019e4
"First Help"=dword:000019e5

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\MSSQLSERVER]
"Type"=dword:00000010
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):43,3a,5c,50,52,4f,47,52,41,7e,31,5
c,4d,49,43,52,4f,53,7e,32,\

5c,4d,53,53,51,4c,5c,62,69,6e,6e,5c,73,71,6c,73,65,72
,76,72,2e,65,78,65,00
"DisplayName"="MSSQLSERVER"
"ObjectName"="LocalSystem"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\MSSQLSERVER\Linkage]
"Export"=hex(7):4d,53,53,51,4c,53,45,52,56,45,52,00,0
0

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\MSSQLSERVER\Performance]
"Library"="C:\PROGRA-1\MICROS-2\MSSQL\BINN\SQLC
T R80.DLL"
"Collect"="CollectSQLPerformanceData"
"Open"="OpenSQLPerformanceData"
"Close"="CloseSQLPerformanceData"
"Last Counter"=dword:000018a8
"Last Help"=dword:000018a9
"First Counter"=dword:00001794
"First Help"=dword:00001795
"WbemAdapFileTime"=hex:00,41,3b,06,30,71,c1,01
"WbemAdapFileSize"=dword:00008238
"WbemAdapStatus"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\MSSQLSERVER\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,00,02,\

00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\

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00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00,01,01,00,00,00,00,00,\
05,12,00,00,00,00,00,00,00,00,00,00,1c,00,ff,01,0f,00,01,02,00,00,00,00,05,\
20,00,00,00,20,02,00,00,30,07,00,00,00,00,18,00,8d,01,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02,00,01,02,00,00,00,00,\
00,05,20,00,00,00,23,02,00,00,30,07,00,00,01,01,00,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSSQLSERVER\Enum]
"0"="Root\LEGACY_MSSQLSERVER\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSSQLServerADHelper]
"Type"=dword:00000010
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):43,3a,5c,50,72,6f,67,72,61,6d,20,46,69,6c,65,73,5c,4d,69,63,\
72,6f,73,6f,66,74,20,53,51,4c,20,53,65,72,76,65,72,5c,38,30,5c,54,6f,6f,6c,\
73,5c,42,69,6e,6e,5c,73,71,6c,61,64,68,6c,70,2e,65,78,65,00
"DisplayName"="MSSQLServerADHelper"
"ObjectName"="LocalSystem"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSSQLServerADHelper\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00,01,01,00,00,00,00,\
05,12,00,00,00,47,00,45,00,00,00,1c,00,ff,01,0f,00,01,02,00,00,00,00,05,\
20,00,00,00,20,02,00,00,4e,00,54,00,00,00,18,00,8d,01,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02,00,01,02,00,00,00,00,\
00,05,20,00,00,00,23,02,00,00,4e,00,54,00,01,01,00,00,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,00,05,12,00,00,00

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[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSSQLServerADHelper\Enum]
"0"="Root\LEGACY_MSSQLSERVERADHELPER\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Mup]
"DisplayName"="Mup"
"ErrorControl"=dword:00000001
"Group"="Network"
"Start"=dword:00000000
"Tag"=dword:00000002
"Type"=dword:00000002

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Mup\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Mup\Enum]
"0"="Root\LEGACY_MUP\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\N100]
"Type"=dword:00000001
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"Tag"=dword:0000000a
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,49,56,45,52,53,5c,6e,31,30,\
30,6e,74,35,2e,73,79,73,00
"DisplayName"="Compaq Ethernet or Fast Ethernet NIC NT Driver"
"Group"="NDIS"
"TextModeFlags"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\N100\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00,01,01,00,00,00,00,\
05,12,00,00,00,20,02,00,00,00,00,1c,00,ff,01,0f,00,01,02,00,00,00,00,05,\
20,00,00,00,20,02,00,00,74,00,00,00,00,00,18,00,8d,01,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02,00,01,02,00,00,00,00,\
00,05,20,00,00,00,23,02,00,00,74,00,00,00,01,01,00,00,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,00,05,12,00,00,00

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[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\N100\Enum]
"0"="PCI\VEN_8086&DEV_1229&SUBSYS_B1340E11&REV_08\3&267a616a&0&20"
"Count"=dword:00000002
"NextInstance"=dword:00000002
"1"="PCI\VEN_8086&DEV_1229&SUBSYS_B1440E11&REV_08\3&13c0b0c5&0&10"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Ncr710]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Tag"=dword:00000005
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS]
"DisplayName"="NDIS System Driver"
"ErrorControl"=dword:00000001
"Group"="NDIS Wrapper"
"Start"=dword:00000000
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\MediaTypes]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\EISA]
"BusType"=dword:00000002

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\EISA\3C592]
"Id"=dword:20596d50
"Mask"=dword:f0ffffff
"Token"="EISA*TCM5920"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\EISA\3C597]
"Id"=dword:70596d50
"Mask"=dword:f0ffffff
"Token"="EISA*TCM5970"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\EISA\579TP]
"Id"=dword:93506d50
"Mask"=dword:ffffff
"Token"="*TCM5093"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\EISA\BONSAI]
"Id"=dword:0062110e
"Mask"=dword:00ffffff
"Token"="EISA_CPQ6200_TOPNET"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\EISA\BONSAI\PORT2]
"Id"=dword:0062110e
"Mask"=dword:00ffffff

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"Token"="EISA_CPQ6200_BOTTOMNET"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\EISA\DEC300]
"Id"=dword:0230a310
"Mask"=dword:0ffffff
"Token"="EISA&DEFEA"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\EISA\DEC422]
"Id"=dword:2042a310
"Mask"=dword:f0ffffff
"Token"="EISA&DEC422"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\EISA\DURANGO]
"Id"=dword:0260110e
"Mask"=dword:0ffffff
"Token"="CPQ6002"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\EISA\EE100E]
"Id"=dword:6010d425
"Mask"=dword:f0ffffff
"Token"="EISA&INT1060"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\EISA\HP2577A]
"Id"=dword:4019f022
"Mask"=dword:f0ffffff
"Token"="HWP1940"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\EISA\INTEL32E]
"Id"=dword:0112d425
"Mask"=dword:0ffffff
"Token"="INT1201"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\EISA\MAPLE]
"Id"=dword:0160110e
"Mask"=dword:0ffffff
"Token"="CPQ6001"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\EISA\MDGEB]
"Id"=dword:03008734
"Mask"=dword:ffffff
"Token"="MDG0003"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\EISA\MDGER1]
"Id"=dword:01008734
"Mask"=dword:ffffff
"Token"="MDG0001"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\EISA\MDGER2]
"Id"=dword:02008734
"Mask"=dword:ffffff
"Token"="MDG0002"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\EISA\MDGER3]
"Id"=dword:04008734
"Mask"=dword:ffffff
"Token"="MDG0004"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\EISA\NE3200]
"Id"=dword:0007cc3a
"Mask"=dword:00ffffff
"Token"="NVL0701"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\EISA\NETFLEX3]
"Id"=dword:20f1110e
"Mask"=dword:f0ffffff
"Token"="CPQ120"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\EISA\NETFLEX3.1]
"Id"=dword:40f1110e
"Mask"=dword:f0ffffff
"Token"="CPQ140"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\EISA\NETFLX]
"Id"=dword:0061110e
"Mask"=dword:0ffffff
"Token"="CPQ6100"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\EISA\NPEISA]
"Id"=dword:0000093a
"Mask"=dword:0000ffff
"Token"="NPEISA"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\EISA\OC3133]
"Id"=dword:0209833d
"Mask"=dword:0ffffff
"Token"="EISA&OLC0902"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\EISA\OCTK32]
"Id"=dword:0112833d
"Mask"=dword:0ffffff
"Token"="OLC1201"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\EISA\P1990]
"Id"=dword:00604f42
"Mask"=dword:00ffffff
"Token"="EISA&PRO6000"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\EISA\RODAN]
"Id"=dword:0063110e
"Mask"=dword:00ffffff
"Token"="EISA_CPQ6300_TOPNET"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\EISA\RODANPORT2]
"Id"=dword:0063110e

"Mask"=dword:00ffffff
"Token"="EISA_CPQ6300_BOTTOMNET"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\NetDetect\ISA]
"BusType"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\Parameters]
"ProcessorAffinityMask"=dword:ffffff

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NDIS\Enum]
"0"="Root\LEGACY_NDIS\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NdisTapi]
"Type"=dword:00000001
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,49,56,45,52,53,5c,6e,64,69,73,74,61,70,69,2e,73,79,73,00
"DisplayName"="Remote Access NDIS TAPI Driver"
"Description"="Remote Access NDIS TAPI Driver"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NdisTapi\Parameters]
"AsyncEventQueueSize"=dword:00000300

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NdisTapi\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14,00,00,00,30,00,00,00,02,\

00,1c,00,01,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,01,00,00,\

00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00,01,01,00,00,00,00,\

05,12,00,00,00,65,00,72,00,00,00,1c,00,ff,01,0f,00,01,02,00,00,00,00,00,05,\

20,00,00,00,20,02,00,00,00,00,00,00,00,00,18,00,8d,01,02,00,01,01,00,00,00,\

00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02,00,01,02,00,00,00,00,\

00,05,20,00,00,00,23,02,00,00,00,00,00,00,01,01,00,00,00,00,05,12,00,00,\

00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NdisTapi\Enum]
"0"="Root\MS_NDISWANIP\0000"
"Count"=dword:00000002
"NextInstance"=dword:00000002
"1"="Root\MS_PPTPMINIPORT\0000"

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[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\NdisWan]
"Type"=dword:00000001
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4
9,56,45,52,53,5c,6e,64,69,\
73,77,61,6e,2e,73,79,73,00
"DisplayName"="Remote Access NDIS WAN Driver"
"Description"="Remote Access NDIS WAN Driver"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\NdisWan\Linkage]
"Bind"=hex(7):5c,44,65,76,69,63,65,5c,7b,36,44,32,34,
33,43,39,45,2d,44,41,46,\
46,2d,34,35,33,42,2d,41,44,34,42,2d,38,35,45,32,34,33
,45,30,33,30,41,32,7d,\
00,5c,44,65,76,69,63,65,5c,7b,41,41,45,39,32,34,46,38
,2d,30,32,43,36,2d,34,\
41,31,44,2d,42,33,35,39,2d,35,31,36,31,39,44,42,38,35
,43,41,35,7d,00,5c,44,\
65,76,69,63,65,5c,7b,43,34,37,46,32,33,35,31,2d,30,44
,41,43,2d,34,42,39,38,\
2d,42,43,39,42,2d,42,43,34,44,32,30,38,45,43,46,43,36
,7d,00,5c,44,65,76,69,\
63,65,5c,7b,36,41,46,45,35,32,39,36,2d,41,44,45,31,2d
,34,39,33,46,2d,38,37,\
30,30,2d,46,41,32,41,33,30,35,45,32,32,33,32,7d,00,00
"Route"=hex(7):22,7b,36,44,32,34,33,43,39,45,2d,44,41
,46,46,2d,34,35,33,42,2d,\
41,44,34,42,2d,38,35,45,32,34,33,45,30,33,30,41,32,7d
,22,00,22,7b,41,41,45,\
39,32,34,46,38,2d,30,32,43,36,2d,34,41,31,44,2d,42,33
,35,39,2d,35,31,36,31,\
39,44,42,38,35,43,41,35,7d,22,00,22,7b,43,34,37,46,32
,33,35,31,2d,30,44,41,\
43,2d,34,42,39,38,2d,42,43,39,42,2d,42,43,34,44,32,30
,38,45,43,46,43,36,7d,\
22,00,22,7b,36,41,46,45,35,32,39,36,2d,41,44,45,31,2d
,34,39,33,46,2d,38,37,\
30,30,2d,46,41,32,41,33,30,35,45,32,32,33,32,7d,22,00
,00
"Export"=hex(7):5c,44,65,76,69,63,65,5c,4e,64,69,73,5
7,61,6e,5f,7b,36,44,32,34,\
33,43,39,45,2d,44,41,46,46,2d,34,35,33,42,2d,41,44,34
,42,2d,38,35,45,32,34,\
33,45,30,33,30,41,32,7d,00,5c,44,65,76,69,63,65,5c,4e
,64,69,73,57,61,6e,5f,\
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7b,41,41,45,39,32,34,46,38,2d,30,32,43,36,2d,34,41,31
,44,2d,42,33,35,39,2d,\
35,31,36,31,39,44,42,38,35,43,41,35,7d,00,5c,44,65,76
,69,63,65,5c,4e,64,69,\
73,57,61,6e,5f,7b,43,34,37,46,32,33,35,31,2d,30,44,41
,43,2d,34,42,39,38,2d,\
42,43,39,42,2d,42,43,34,44,32,30,38,45,43,46,43,36,7d
,00,5c,44,65,76,69,63,\
65,5c,4e,64,69,73,57,61,6e,5f,7b,36,41,46,45,35,32,39
,36,2d,41,44,45,31,2d,\
34,39,33,46,2d,38,37,30,30,2d,46,41,32,41,33,30,35,45
,32,32,33,32,7d,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\NdisWan\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\NdisWan\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,00,\
05,12,00,00,00,20,02,00,00,00,00,1c,00,ff,01,0f,00,01
,02,00,00,00,00,00,05,\
20,00,00,00,20,02,00,00,00,00,00,00,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\
00,05,20,00,00,00,23,02,00,00,00,00,00,00,01,01,00,00
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\NdisWan\Enum]
"0"="Root\MS_NDISWANIP\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\NDProxy]
"DisplayName"=hex(7):4e,44,49,53,20,50,72,6f,78,79,00
,00
"ErrorControl"=dword:00000001
"Group"="PNP_TDI"
"Start"=dword:00000003
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\NDProxy\Enum]
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"0"="Root\LEGACY_NDPROXY\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\NetBIOS]
"Type"=dword:00000002
"Start"=dword:00000001
"ErrorControl"=dword:00000001
"Tag"=dword:00000001
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4
9,56,45,52,53,5c,6e,65,74,\
62,69,6f,73,2e,73,79,73,00
"DisplayName"="NetBIOS Interface"
"Group"="NetBIOSGroup"
"Description"="NetBIOS Interface"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\NetBIOS\Linkage]
"LanaMap"=hex:01,03,01,00,00,01,00,02
"Bind"=hex(7):5c,44,65,76,69,63,65,5c,4e,65,74,42,54,
5f,54,63,70,69,70,5f,7b,\
36,31,37,35,43,34,46,41,2d,34,31,31,45,2d,34,43,35,42
,2d,38,46,45,33,2d,37,\
44,33,39,41,35,38,38,39,31,32,41,7d,00,5c,44,65,76,69
,63,65,5c,4e,65,74,42,\
54,5f,54,63,70,69,70,5f,7b,37,44,39,32,36,44,43,43,2d
,33,37,46,34,2d,34,42,\
41,38,2d,41,33,39,38,2d,41,33,43,44,35,39,37,36,42,34
,34,44,7d,00,5c,44,65,\
76,69,63,65,5c,4e,65,74,42,54,5f,54,63,70,69,70,5f,7b
,44,41,34,31,32,38,42,\
43,2d,39,39,36,46,2d,34,41,32,43,2d,42,38,41,45,2d,37
,39,41,36,36,42,46,39,\
38,44,36,43,7d,00,5c,44,65,76,69,63,65,5c,4e,65,74,42
,54,5f,54,63,70,69,70,\
5f,7b,38,36,45,41,39,39,33,41,2d,38,30,36,42,2d,34,43
,35,35,2d,38,42,45,46,\
2d,36,45,37,45,44,32,36,39,33,46,45,32,7d,00,00
"Route"=hex(7):22,4e,65,74,42,54,22,20,22,54,63,70,69
,70,22,20,22,7b,36,31,37,\
35,43,34,46,41,2d,34,31,31,45,2d,34,43,35,42,2d,38,46
,45,33,2d,37,44,33,39,\
41,35,38,38,39,31,32,41,7d,22,00,22,4e,65,74,42,54,22
,20,22,54,63,70,69,70,\
22,20,22,7b,37,44,39,32,36,44,43,43,2d,33,37,46,34,2d
,34,42,41,38,2d,41,33,\
39,38,2d,41,33,43,44,35,39,37,36,42,34,44,7d,22,00
,22,4e,65,74,42,54,22,\
```



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20,22,54,63,70,69,70,22,20,22,4e,64,69,73,57,61,6e,49,70,22,00,00
"Export"=hex(7):5c,44,65,76,69,63,65,5c,4e,65,74,42,4,9,4f,53,5f,4e,65,74,42,54,\
5f,54,63,70,69,70,5f,7b,36,31,37,35,43,34,46,41,2d,34,31,31,45,2d,34,43,35,\
42,2d,38,46,45,33,2d,37,44,33,39,41,35,38,38,39,31,32,41,7d,00,5c,44,65,76,\
69,63,65,5c,4e,65,74,42,49,4f,53,5f,4e,65,74,42,54,5f,54,63,70,69,70,5f,7b,\
37,44,39,32,36,44,43,43,2d,33,37,46,34,2d,34,42,41,38,2d,41,33,39,38,2d,41,\
33,43,44,35,39,37,36,42,34,34,44,7d,00,5c,44,65,76,69,63,65,5c,4e,65,74,42,\
49,4f,53,5f,4e,65,74,42,54,5f,54,63,70,69,70,5f,7b,44,41,34,31,32,38,42,43,\
2d,39,39,36,46,2d,34,41,32,43,2d,42,38,41,45,2d,37,39,41,36,36,42,46,39,38,\
44,36,43,7d,00,5c,44,65,76,69,63,65,5c,4e,65,74,42,49,4f,53,5f,4e,65,74,42,\
54,5f,54,63,70,69,70,5f,7b,38,36,45,41,39,39,33,41,2d,38,30,36,42,2d,34,43,\
35,35,2d,38,42,45,46,2d,36,45,37,45,44,32,36,39,33,46,45,32,7d,00,00
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NetBIOS\Parameters]
"MaxLana"=dword:00000003
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NetBIOS\Parameters\Winsock]
"HelperDllName"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,65,\
6d,33,32,5c,77,73,68,6e,65,74,62,73,2e,64,6c,6c,00
"MaxSockAddrLength"=dword:00000014
"MinSockAddrLength"=dword:00000014
"Mapping"=hex:02,00,00,00,03,00,00,00,11,00,00,00,05,00,00,00,00,00,00,00,00,00
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NetBIOS\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00,01,01,00,00,00,00,00,\
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05,12,00,00,00,20,02,00,00,00,00,1c,00,ff,01,0f,00,01,02,00,00,00,00,00,05,\
20,00,00,00,20,02,00,00,03,00,00,00,00,00,18,00,8d,01,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02,00,01,02,00,00,00,00,\
00,05,20,00,00,00,23,02,00,00,03,00,00,00,01,01,00,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,00,05,12,00,00,00
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NetBIOS\Enum]
"0"="Root\LEGACY_NETBIOS\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NetBT]
"Type"=dword:00000001
"Start"=dword:00000001
"ErrorControl"=dword:00000001
"Tag"=dword:00000005
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4,9,56,45,52,53,5c,6e,65,74,\
62,74,2e,73,79,73,00
"DisplayName"="NetBios over Tcpip"
"Group"="PNP_TDI"
"DependOnService"=hex(7):54,63,70,69,70,00,00
"DependOnGroup"=hex(7):00
"Description"="NetBios over Tcpip"
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NetBT\Linkage]
"OtherDependencies"=hex(7):54,63,70,69,70,00,00
"Bind"=hex(7):5c,44,65,76,69,63,65,5c,54,63,70,69,70,5f,7b,36,31,37,35,43,34,\
46,41,2d,34,31,31,45,2d,34,43,35,42,2d,38,46,45,33,2d,37,44,33,39,41,35,38,\
38,39,31,32,41,7d,00,5c,44,65,76,69,63,65,5c,54,63,70,69,70,5f,7b,37,44,39,\
32,36,44,43,43,2d,33,37,46,34,2d,34,42,41,38,2d,41,33,39,38,2d,41,33,43,44,\
35,39,37,36,42,34,34,44,7d,00,5c,44,65,76,69,63,65,5c,54,63,70,69,70,5f,7b,\
44,41,34,31,32,38,42,43,2d,39,39,36,46,2d,34,41,32,43,2d,42,38,41,45,2d,37,\
39,41,36,36,42,46,39,38,44,36,43,7d,00,5c,44,65,76,69,63,65,5c,54,63,70,69,\
70,5f,7b,38,36,45,41,39,39,33,41,2d,38,30,36,42,2d,34,43,35,35,2d,38,42,45,\
46,2d,36,45,37,45,44,32,36,39,33,46,45,32,7d,00,00
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"Route"=hex(7):22,54,63,70,69,70,22,20,22,7b,36,31,37,35,43,34,46,41,2d,34,31,\
31,45,2d,34,43,35,42,2d,38,46,45,33,2d,37,44,33,39,41,35,38,38,39,31,32,41,\
7d,22,00,22,54,63,70,69,70,22,20,22,7b,37,44,39,32,36,44,43,43,2d,33,37,46,\
34,2d,34,42,41,38,2d,41,33,39,38,2d,41,33,43,44,35,39,37,36,42,34,34,44,7d,\
22,00,22,54,63,70,69,70,22,20,22,4e,64,69,73,57,61,6e,49,70,22,00,00
"Export"=hex(7):5c,44,65,76,69,63,65,5c,4e,65,74,42,54,5f,54,63,70,69,70,5f,7b,\
36,31,37,35,43,34,46,41,2d,34,31,31,45,2d,34,43,35,42,2d,38,46,45,33,2d,37,\
44,33,39,41,35,38,38,39,31,32,41,7d,00,5c,44,65,76,69,63,65,5c,4e,65,74,42,\
54,5f,54,63,70,69,70,5f,7b,37,44,39,32,36,44,43,43,2d,33,37,46,34,2d,34,42,\
41,38,2d,41,33,39,38,2d,41,33,43,44,35,39,37,36,42,34,34,44,7d,00,5c,44,65,\
76,69,63,65,5c,4e,65,74,42,54,5f,54,63,70,69,70,5f,7b,44,41,34,31,32,38,42,\
43,2d,39,39,36,46,2d,34,41,32,43,2d,42,38,41,45,2d,37,39,41,36,36,42,46,39,\
38,44,36,43,7d,00,5c,44,65,76,69,63,65,5c,4e,65,74,42,54,5f,54,63,70,69,70,\
5f,7b,38,36,45,41,39,39,33,41,2d,38,30,36,42,2d,34,43,35,35,2d,38,42,45,46,\
2d,36,45,37,45,44,32,36,39,33,46,45,32,7d,00,00
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NetBT\Parameters]
"NbProvider"="_tcp"
"NameServerPort"=dword:00000089
"CacheTimeout"=dword:000927c0
"BroadcastNameQueryCount"=dword:00000003
"BroadcastQueryTimeout"=dword:000002ee
"NameSrvQueryCount"=dword:00000003
"NameSrvQueryTimeout"=dword:000005dc
"Size/Small/Medium/Large"=dword:00000001
"SessionKeepAlive"=dword:0036ee80
"TransportBindName"="\\Device\\"
"EnableLMHOSTS"=dword:00000001
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NetBT\Parameters\Interfaces]
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NetBT\Parameters\Interfaces\Tcpip_{6175C4FA-411E-4C5B-8FE3-7D39A588912A}]
"NameServerList"=hex(7):00
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"NetbiosOptions"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NetBT\Parameters\Interfaces\Tcpip_{7D926DCC-37F4-4BA8-A398-A3CD5976B44D}]
"NameServerList"=hex(7):00
"NetbiosOptions"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NetBT\Parameters\Interfaces\Tcpip_{86EA993A-806B-4C55-8BEF-6E7ED2693FE2}]
"NameServerList"=hex(7):00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NetBT\Parameters\Interfaces\Tcpip_{DA4128BC-996F-4A2C-B8AE-79A66BF98D6C}]
"NameServerList"=hex(7):00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NetBT\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00,01,01,00,00,00,00,\
05,12,00,00,00,02,00,00,00,00,00,00,1c,00,ff,01,0f,00,01,02,00,00,00,00,05,\
20,00,00,00,20,02,00,00,03,00,00,00,00,00,18,00,8d,01,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02,00,01,02,00,00,00,00,\
00,05,20,00,00,00,23,02,00,00,03,00,00,00,01,01,00,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NetBT\Enum]
"0"="Root\LEGACY_NETBT\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NetDDE]
"DependOnService"=hex(7):4e,65,74,44,44,45,44,53,44,4d,00,00
"Description"="Provides network transport and security for dynamic data exchange (DDE)."  

"DisplayName"="Network DDE"  

"ErrorControl"=dword:00000001
"Group"="NetDDEGroup"  

"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,73,79,73,74,65,6d,33,\
32,5c,6e,65,74,64,64,65,2e,65,78,65,00
"ObjectName"="LocalSystem"  

"Start"=dword:00000003
"Type"=dword:00000020

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[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NetDDE\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,01,00,00,\
00,00,02,00,78,00,05,00,00,00,00,03,14,00,8d,00,02,00,01,01,00,00,00,00,\
01,00,00,00,00,03,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00,\
20,02,00,00,03,18,00,8d,00,02,00,01,02,00,00,00,00,00,05,20,00,00,00,23,\
02,00,00,00,03,14,00,9d,00,00,00,01,01,00,00,00,00,00,05,04,00,00,00,00,\
18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00,25,02,00,00,01,01,00,\
00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NetDDEsdm]
"DependOnService"=hex(7):00
"Description"="Manages shared dynamic data exchange and is used by Network DDE"  

"DisplayName"="Network DDE DSDM"  

"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,73,79,73,74,65,6d,33,\
32,5c,6e,65,74,64,64,65,2e,65,78,65,00
"ObjectName"="LocalSystem"  

"Start"=dword:00000003
"Type"=dword:00000020

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NetDDEsdm\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\
00,00,02,00,78,00,05,00,00,00,00,03,14,00,8d,00,02,00,01,01,00,00,00,00,\
01,00,00,00,00,03,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00,\
00,00,05,20,00,00,00,\
20,02,00,00,03,18,00,8d,00,02,00,01,02,00,00,00,00,00,05,20,00,00,00,23,\
02,00,00,00,03,14,00,9d,00,00,00,01,01,00,00,00,00,00,05,04,00,00,00,00,\
18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00,25,02,00,00,01,01,00,\

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00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NetDetect]
"DisplayName"="NetDetect"  

"ErrorControl"=dword:00000001
"ImagePath"=hex(2):5c,53,79,73,74,65,6d,52,6f,6f,74,5c,73,79,73,74,65,6d,33,32,\
5c,64,72,69,76,65,72,73,5c,6e,65,74,64,74,65,63,74,2e,73,79,73,00
"Start"=dword:00000003
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NetDetect\Enum]
"0"="Root\LEGACY_NETDETECT\0000"  

"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Netlogon]
"Type"=dword:00000020
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,\
32,5c,6c,73,61,73,73,2e,65,78,65,00
"DisplayName"="Net Logon"  

"Group"="RemoteValidation"  

"DependOnService"=hex(7):4c,61,6e,6d,61,6e,57,6f,72,6b,73,74,61,74,69,6f,6e,00,\
00
"DependOnGroup"=hex(7):00
"ObjectName"="LocalSystem"  

"Description"="Supports pass-through authentication of account logon events for computers in a domain."

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Netlogon\Parameters]
"DisablePasswordChange"=dword:00000000
"requiresignorseal"=dword:00000000
"requirestrongkey"=dword:00000000
"sealsecurechannel"=dword:00000001
"signsecurechannel"=dword:00000001
"DBFlag"="0"
"Update"="no"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Netlogon\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\
00,00,02,00,78,00,05,00,00,00,00,00,14,00,8d,01,02,00,01,01,00,00,00,00,\
05,0b,00,00,00,00,18,00,9d,01,02,00,01,02,00,00,00,00,00,05,20,00,00,00,\

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<pre> 23,02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00, 00,05,20,00,00,00,20,\ 02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00, 05,20,00,00,00,\ 00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,00,05, 12,00,00,00,01,01,00,\ 00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,00,05,12, 00,00,00 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ Netman] "DependOnService"=hex(7):52,70,63,53,73,00,00 "Description"="Manages objects in the Network and Dial-Up Connections folder, in which you can view both local area network and remote connections." "DisplayName"="Network Connections" "ErrorControl"=dword:00000001 "ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2 5,5c,53,79,73,74,65,6d,33,\ 32,5c,73,76,63,68,6f,73,74,2e,65,78,65,20,2d,6b,20,6e, 65,74,73,76,63,73,00 "ObjectName"="LocalSystem" "Start"=dword:00000003 "Type"=dword:00000120 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ Netman\Parameters] "ServiceDll"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74, 25,5c,53,79,73,74,65,6d,\ 33,32,5c,6e,65,74,6d,61,6e,2e,64,6c,6c,00 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ Netman\Enum] "0"="Root\LEGACY_NETMAN\0000" "Count"=dword:00000001 "NextInstance"=dword:00000001 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ Npfs] "ErrorControl"=dword:00000001 "Group"="File system" "Start"=dword:00000001 "Type"=dword:00000002 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ Npfs\Aliases] "lsass"=hex(7):6e,65,74,6c,6f,6f,6f,6e,00,6c,73,61,72, 70,63,00,73,61,6d,72,00,\ 00 "ntsvcs"=hex(7):73,72,76,73,76,63,00,77,6b,73,73,76,6 3,00,65,76,65,6e,74,6c,6f,\ 67,00,62,72,6f,77,73,65,72,00,6d,73,67,73,76,63,00,73, 76,63,63,74,6c,00,77,\ 33,32,74,69,6d,65,00,00 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ Npfs\Enum] </pre>	<pre> "0"="Root\LEGACY_NPFS\0000" "Count"=dword:00000001 "NextInstance"=dword:00000001 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ NtFrs] "DependOnService"=hex(7):45,76,65,6e,74,4c,6f,67,00,5 2,70,63,53,73,00,00 "Description"="Maintains file synchronization of file directory contents among multiple servers." "DisplayName"="File Replication" "ErrorControl"=dword:00000000 "ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2 5,5c,73,79,73,74,65,6d,33,\ 32,5c,6e,74,66,72,73,2e,65,78,65,00 "ObjectName"="LocalSystem" "Start"=dword:00000003 "Type"=dword:00000010 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ NtFrs\Parameters] "Working Directory"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25 ,5c,6e,74,66,72,\ 73,00 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ NtFrs\Parameters\SysVol] [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ Ntfs] "ErrorControl"=dword:00000001 "Group"="File system" "Start"=dword:00000004 "Type"=dword:00000002 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ Ntfs\Enum] "0"="Root\LEGACY_NTFS\0000" "Count"=dword:00000001 "NextInstance"=dword:00000001 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ NtLmSsp] "Type"=dword:00000020 "Start"=dword:00000003 "ErrorControl"=dword:00000001 "ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2 5,5c,53,79,73,74,65,6d,33,\ 32,5c,6c,73,61,73,73,2e,65,78,65,00 "DisplayName"="NT LM Security Support Provider" "ObjectName"="LocalSystem" "Description"="Provides security to remote procedure call (RPC) programs that use transports other than named pipes." [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ NtLmSsp\Security] "Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14 ,00,00,00,30,00,00,00,02,\ 00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00, 00,00,00,00,01,00,00,\ 00,00,02,00,78,00,05,00,00,00,00,00,14,00,8d,01,02,00, 01,01,00,00,00,00,\ </pre>	<pre> 00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00, 01,01,00,00,00,00,00,\ 05,12,00,00,00,20,02,00,00,00,00,00,1c,00,ff,01,0f,00,01, 02,00,00,00,00,00,05,\ 20,00,00,00,20,02,00,00,03,00,00,00,00,00,18,00,8d,01, 02,00,01,01,00,00,00,\ 00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02, 00,01,02,00,00,00,00,\ 00,05,20,00,00,00,23,02,00,00,03,00,00,00,01,01,00,00, 00,00,00,05,12,00,00,\ 00,01,01,00,00,00,00,00,05,12,00,00,00 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ NtLmSsp\Enum] "0"="Root\LEGACY_NTLMSSP\0000" "Count"=dword:00000001 "NextInstance"=dword:00000001 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ NtmsSvc] "DependOnService"=hex(7):52,70,63,53,73,00,00 "Description"="Manages removable media, drives, and libraries." "DisplayName"="Removable Storage" "ErrorControl"=dword:00000001 "ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2 5,5c,53,79,73,74,65,6d,33,\ 32,5c,73,76,63,68,6f,73,74,2e,65,78,65,20,2d,6b,20,6e, 65,74,73,76,63,73,00 "ObjectName"="LocalSystem" "Start"=dword:00000004 "Type"=dword:00000120 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ NtmsSvc\Config] [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ NtmsSvc\Config\Standalone] [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ NtmsSvc\Parameters] "ServiceDll"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74, 25,5c,53,79,73,74,65,6d,\ 33,32,5c,4e,74,6d,73,53,76,63,2e,64,6c,6c,00 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ NtmsSvc\Security] "Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14 ,00,00,00,30,00,00,00,02,\ 00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00, 00,00,00,00,01,00,00,\ 00,00,02,00,78,00,05,00,00,00,00,00,14,00,8d,01,02,00, 01,01,00,00,00,00,\ </pre>
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05,0b,00,00,00,00,00,18,00,9d,01,02,00,01,02,00,00,00,
00,00,05,20,00,00,00,\

23,02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,
00,05,20,00,00,00,\

02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,
05,20,00,00,00,25,02,\

00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,05,
12,00,00,00,01,01,00,\

00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,05,12,
00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\NtmsSvc\Enum]
"0"="Root\LEGACY_NTMSSVC\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Null]
"ErrorControl"=dword:00000001
"Group"="Base"
"Start"=dword:00000001
"Tag"=dword:00000001
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Null\Enum]
"0"="Root\LEGACY_NULL\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\NwlnkFlt]
"Type"=dword:00000001
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4
9,56,45,52,53,5c,6e,77,6c,\
6e,6b,66,6c,74,2e,73,79,73,00
"DisplayName"="IPX Traffic Filter Driver"
"DependOnService"=hex(7):4e,77,6c,6e,6b,46,77,64,00,0
0
"DependOnGroup"=hex(7):00
"Description"="IPX Traffic Filter Driver"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\NwlnkFlt\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,00,02,\

00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\

00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,00,\

05,12,00,00,00,20,02,00,00,00,00,1c,00,ff,01,0f,00,01
,02,00,00,00,00,00,05,\

20,00,00,00,20,02,00,00,00,00,00,00,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\

00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\

00,05,20,00,00,00,23,02,00,00,00,00,00,00,01,01,00,00
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\NwlnkFwd]
"Type"=dword:00000001
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4
9,56,45,52,53,5c,6e,77,6c,\
6e,6b,66,77,64,2e,73,79,73,00
"DisplayName"="IPX Traffic Forwarder Driver"
"Description"="IPX Traffic Forwarder Driver"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\NwlnkFwd\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,00,02,\

00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\

00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,00,\

05,12,00,00,00,20,02,00,00,00,00,1c,00,ff,01,0f,00,01
,02,00,00,00,00,00,05,\

20,00,00,00,20,02,00,00,00,00,00,00,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\

00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\

00,05,20,00,00,00,23,02,00,00,00,00,00,00,01,01,00,00
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Parallel]
"DependOnGroup"=hex(7):50,61,72,61,6c,6c,65,6c,20,61,
72,62,69,74,72,61,74,6f,\
72,00,00
"DependOnService"=hex(7):50,61,72,70,6f,72,74,00,00
"ErrorControl"=dword:00000001
"Group"="Extended base"
"Start"=dword:00000003
"Tag"=dword:00000002
"Type"=dword:00000001
"DisplayName"="Parallel class driver"
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4
9,56,45,52,53,5c,70,61,72,\
61,6c,6c,65,6c,2e,73,79,73,00

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[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Parallel\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Parallel\Enum]
"0"="Root\PARALLELCLASS\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Parport]
"ErrorControl"=dword:00000000
"Group"="Parallel arbitrator"
"Start"=dword:00000001
"Tag"=dword:00000001
"Type"=dword:00000001
"DisplayName"="Parallel port driver"
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4
9,56,45,52,53,5c,70,61,72,\
70,6f,72,74,2e,73,79,73,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Parport\Enum]
"0"="ACPI\PNP0400\5&13237358&0"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\PartMgr]
"ErrorControl"=dword:00000001
"Group"="System Bus Extender"
"Start"=dword:00000000
"Tag"=dword:00000005
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\PartMgr\Enum]
"0"="Root\LEGACY_PARTMGR\0000"
"Count"=dword:0000000b
"NextInstance"=dword:0000000b
"1"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\4&
2d73aec0&0&0000004000000000"
"2"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\4&
2d73aec0&0&0100004000000000"
"3"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\4&
33332ab6&0&0000004000000000"
"4"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\4&
33332ab6&0&0100004000000000"
"5"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\4&
33332ab6&0&0200004000000000"
"6"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\4&
33332ab6&0&0300004000000000"
"7"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\4&
38eb4840&0&0000004000000000"
"8"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\4&
38eb4840&0&0100004000000000"
"9"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\4&
38eb4840&0&0200004000000000"
"10"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\4&
&38eb4840&0&0300004000000000"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\ParVdm]

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"DependOnGroup"=hex(7):50,61,72,72,61,6c,6c,65,6c,20,61,72,62,69,74,72,61,74,6f,\
72,00,00
"DependOnService"=hex(7):50,61,72,70,6f,72,74,00,00
"ErrorControl"=dword:00000000
"Group"="Extended base"
"Start"=dword:00000002
"Tag"=dword:00000002
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ParVdm\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ParVdm\Enum]
"0"="Root\LEGACY_PARVDM\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PCI]
"ErrorControl"=dword:00000003
"Group"="Boot Bus Extender"
"Start"=dword:00000000
"Tag"=dword:00000002
"Type"=dword:00000001
"DisplayName"="PCI Bus Driver"
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,49,56,45,52,53,5c,70,63,69,\
2e,73,79,73,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PCI\Parameters]
"Options"=dword:00000002
"C6211045"=dword:00000004
"06401095"=dword:00000004
"12308086"=dword:00000004
"70308086"=dword:00000004
"0140104B"=dword:00000008
"06031179"=dword:00000008
"71138086"=dword:00000008
"84C54978"=dword:00000008
"30401106"=dword:00000008
"10000E11"=dword:00000010
"20000E11"=dword:00000010
"04061039"=dword:00000010
"04828086"=dword:00004000
"00088086"=dword:00000010
"00021014"=dword:00000010
"06001080"=dword:00000020
"11001013"=dword:00000040
"521910B9"=dword:00000080
"00011C1C"=dword:00000100
"00381097"=dword:00000100
"D001100B"=dword:00000400
"04A38086"=dword:00000800
"000010AA"=dword:00000800
"88D15333"=dword:00000800
"06051179"=dword:00001000
"11101013"=dword:00002000
"04781180"=dword:00002000
"04751180"=dword:00002000
"04761180"=dword:00002000

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"01011004"=dword:00004000
"10001042"=dword:00004000
"AC12104C"=dword:00010000
"04661180"=dword:00010000
"00951014"=dword:00040000
"24188086"=dword:00040000
"24288086"=dword:00040000
"244E8086"=dword:00040000
"24488086"=dword:00040000
"122E8086"=dword:00080000
"70008086"=dword:00080000
"71108086"=dword:00080000
"76008086"=dword:00080000
"47471002"=dword:00400000
"47541002"=dword:00400000
"89015333"=dword:00400000
"00B61013"=dword:00400000
"AC15104C"=dword:00400000
"0004110B"=dword:00400000
"000F1000"=dword:00400000
"AC17104C"=dword:00400000
"93971023"=dword:00400000
"47421002"=dword:00400000
"47441002"=dword:00400000
"47491002"=dword:00400000
"47501002"=dword:00400000
"47511002"=dword:00400000
"47551002"=dword:00400000
"47571002"=dword:20400000
"47591002"=dword:20400000
"4C421002"=dword:00400000
"4C441002"=dword:00400000
"4C471002"=dword:00400000
"4C491002"=dword:00400000
"4C501002"=dword:00400000
"4C511002"=dword:00400000
"56541002"=dword:00400000
"56551002"=dword:00400000
"56561002"=dword:00400000
"0003121A"=dword:00400000
"12318086"=dword:01000000
"00021273"=dword:01000000
"007D1014"=dword:01000000
"01001285"=dword:01000000
"68361217"=dword:08000000
"68321217"=dword:08000000
"07A01091"=dword:20000000
"78008086"=dword:20000000
"800510c8"=dword:20000000
"800610c8"=dword:20000000
"000510c8"=dword:20000000
"000610c8"=dword:20000000
"1001102B"=dword:80000000
"06461095"=dword:20000000
"06701095"=dword:20000000
"00261011"=dword:20000000
"B1548086"=dword:20000000
"89045333"=dword:20000000
"06091179"=dword:40000000
"00471014"=dword:40000000
"051B102B"=dword:80000000
"0520102B"=dword:80000000
"1025102B"=dword:80000000

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"0525102B"=dword:80000000
"71218086"=dword:80000000
"71238086"=dword:80000000
"71258086"=dword:80000000
"11328086"=dword:80000000
"00509005"=dword:80000000
"005F9005"=dword:80000000
"4C4D1002"=dword:80000000
"4C521002"=dword:80000000
"4C4E1002"=dword:80000000
"4C531002"=dword:80000000
"47521002"=dword:80000000
"474F1002"=dword:80000000
"474D1002"=dword:80000000
"47531002"=dword:80000000
"474C1002"=dword:80000000
"474E1002"=dword:80000000
"98801023"=dword:80000000
"00A010DE"=dword:80000000
"00A110DE"=dword:80000000
"00A310DE"=dword:80000000
"00B010DE"=dword:80000000
"00B110DE"=dword:80000000
"00B310DE"=dword:80000000
"010010DE"=dword:80000000
"010110DE"=dword:80000000
"010210DE"=dword:80000000
"010310DE"=dword:80000000
"012010DE"=dword:80000000
"012110DE"=dword:80000000
"012210DE"=dword:80000000
"012310DE"=dword:80000000
"015010DE"=dword:80000000
"015110DE"=dword:80000000
"015210DE"=dword:80000000
"015310DE"=dword:80000000
"020010DE"=dword:80000000
"020110DE"=dword:80000000
"020210DE"=dword:80000000
"020310DE"=dword:80000000
"001812D2"=dword:80000000
"001912D2"=dword:80000000
"0521102B"=dword:a0000000
"3202100C"=dword:00008a00
"80021066"=dword:00300000
"00021066"=dword:00300000
"01021004"=dword:02004000
"C8141045"=dword:20400000
"47561002"=dword:20400000
"475A1002"=dword:20400000
"000B1000"=dword:a0000000
"002010DE"=dword:a0000000
"002810DE"=dword:a0000000
"002910DE"=dword:a0000000
"002A10DE"=dword:a0000000
"002B10DE"=dword:a0000000
"002C10DE"=dword:a0000000
"002D10DE"=dword:a0000000
"002E10DE"=dword:a0000000
"002F10DE"=dword:a0000000
"010010DD"=dword:20000000

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[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PCI\Enum]
"0"="ACPI\PNP0A03\1"
"Count"=dword:00000005
"NextInstance"=dword:00000005
"1"="ACPI\PNP0A03\1"
"2"="ACPI\PNP0A03\2"
"3"="ACPI\PNP0A03\3"
"4"="ACPI\PNP0A03\4"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PCIDump]
"ErrorControl"=dword:00000000
"Group"="PCI Configuration"
"Start"=dword:00000001
"Tag"=dword:00000001
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PCIId]
"ErrorControl"=dword:00000001
"Group"="System Bus Extender"
"Start"=dword:00000000
"Tag"=dword:00000003
"Type"=dword:00000001
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,49,56,45,52,53,5c,70,63,69,\69,64,65,2e,73,79,73,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PCIId\Enum]
"0"="PCI\VEN_1166&DEV_0212&SUBSYS_02121166&REV_93\3&267a616a&0&79"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Pcmcia]
"ErrorControl"=dword:00000001
"Group"="System Bus Extender"
"Start"=dword:00000004
"Tag"=dword:00000001
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Pcmcia\Parameters]
"ControllerInterruptMask"=dword:0000ffff
"Interrupt"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PDCOMP]
"ErrorControl"=dword:00000000
"Start"=dword:00000003
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PDFRAME]
"ErrorControl"=dword:00000000
"Start"=dword:00000003
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PDRELI]

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"ErrorControl"=dword:00000000
"Start"=dword:00000003
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PDRFRAME]
"ErrorControl"=dword:00000000
"Start"=dword:00000003
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PerfDisk]
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PerfDisk\Performance]
"Close"="CloseDiskObject"
"Collect"="CollectDiskObjectData"
"Collect Timeout"=dword:000007d0
"Library"="perfdisk.dll"
"Object List"="234 236"
"Open"="OpenDiskObject"
"Open Timeout"=dword:00001388
"WbemAdapFileTime"=hex:00,73,79,5b,bc,d4,c0,01
"WbemAdapFileSize"=dword:00005b10
"WbemAdapStatus"=dword:ffffff
"SystemStartTimeOfLastErrorMsg"=hex:e6,5b,a5,98,6e,11,c2,01

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PerfNet]
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PerfNet\Performance]
"Close"="CloseNetSvcObject"
"Collect"="CollectNetSvcObjectData"
"Collect Timeout"=dword:00001388
"Library"="perfnat.dll"
"Object List"="52 262 330 1300"
"Open"="OpenNetSvcObject"
"Open Timeout"=dword:00001f40
"WbemAdapFileTime"=hex:00,c8,12,f8,b2,40,bf,01
"WbemAdapFileSize"=dword:00004510
"WbemAdapStatus"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PerfOS]
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PerfOS\Performance]
"Close"="CloseOSObject"
"Collect"="CollectOSObjectData"
"Collect Timeout"=dword:000007d0
"Library"="perfos.dll"
"Object List"="2 4 86 238 260 700"
"Open"="OpenOSObject"
"Open Timeout"=dword:00001388
"WbemAdapFileTime"=hex:00,c8,12,f8,b2,40,bf,01
"WbemAdapFileSize"=dword:00005510
"WbemAdapStatus"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PerfProc]

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[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PerfProc\Performance]
"Close"="CloseSysProcessObject"
"Collect"="CollectSysProcessObjectData"
"Collect Timeout"=dword:00001f40
"Library"="perfproc.dll"
"Object List"="230 232 786 740 816 1408 1500 1548"
"Open"="OpenSysProcessObject"
"Open Timeout"=dword:00002710
"WbemAdapFileTime"=hex:00,c8,12,f8,b2,40,bf,01
"WbemAdapFileSize"=dword:00006d10
"WbemAdapStatus"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PlugPlay]
"Description"="Manages device installation and configuration and notifies programs of device changes."
"DisplayName"="Plug and Play"
"ErrorControl"=dword:00000001
"Group"="PlugPlay"
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,73,79,73,74,65,6d,33,\32,5c,73,65,72,76,69,63,65,73,2e,65,78,65,00
"ObjectName"="LocalSystem"
"PlugPlayServiceType"=dword:00000003
"Start"=dword:00000002
"Type"=dword:00000020

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PlugPlay\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14,00,00,00,30,00,00,00,02,\00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\00,00,02,00,78,00,05,00,00,00,00,14,00,8d,01,02,00,01,01,00,00,00,00,\05,0b,00,00,00,00,00,18,00,9d,01,02,00,01,02,00,00,00,00,00,05,20,00,00,00,\23,02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00,20,\02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00,25,02,\00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,00,05,12,00,00,00,01,01,00,\00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PolicyAgent]
"Type"=dword:00000020
"Start"=dword:00000004
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,\32,5c,6c,73,61,73,73,2e,65,78,65,00

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"DisplayName"="IPSEC Policy Agent"
"DependOnService"=hex(7):52,50,43,53,53,00,00
"DependOnGroup"=hex(7):00
"ObjectName"="LocalSystem"
"Description"="Manages IP security policy and starts the ISAKMP/Oakley (IKE) and the IP security driver."

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PolicyAgent\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,01,00,00,\
00,00,02,00,78,00,05,00,00,00,00,00,14,00,8d,00,02,00,01,01,00,00,00,00,\
05,0b,00,00,00,00,00,18,00,9d,01,02,00,01,02,00,00,00,00,00,05,20,00,00,00,\
23,02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00,20,\
02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00,25,02,\
00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,00,05,12,00,00,00,01,01,00,\
00,00,00,05,12,00,00,00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PolicyAgent\Enum]
"0"="Root\LEGACY_POLICYAGENT\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PptpMiniport]
"Type"=dword:00000001
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,49,56,45,52,53,5c,72,61,73,\
70,70,74,70,2e,73,79,73,00
"DisplayName"="WAN Miniport (PPTP)"
"Description"="WAN Miniport (PPTP)"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PptpMiniport\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00,01,01,00,00,00,00,\
05,12,00,00,00,20,02,00,00,00,00,1c,00,ff,01,0f,00,01,02,00,00,00,00,05,\

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20,00,00,00,20,02,00,00,98,3a,00,00,00,00,18,00,8d,01,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02,00,01,02,00,00,00,\
00,05,20,00,00,00,23,02,00,00,98,3a,00,00,01,01,00,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PptpMiniport\Enum]
"0"="Root\MS_PPTPMiniport\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ProtectedStorage]
"DependOnService"=hex(7):52,70,63,53,73,00,00
"Description"="Provides protected storage for sensitive data, such as private keys, to prevent access by unauthorized services, processes, or users."
"DisplayName"="Protected Storage"
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,73,79,73,74,65,6d,33,\
32,5c,73,65,72,76,69,63,65,73,2e,65,78,65,00
"ObjectName"="LocalSystem"
"Start"=dword:00000002
"Type"=dword:00000120

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ProtectedStorage\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\
00,00,02,00,78,00,05,00,00,00,00,00,14,00,8d,01,02,00,01,01,00,00,00,00,\
05,0b,00,00,00,00,00,18,00,9d,01,02,00,01,02,00,00,00,00,00,05,20,00,00,00,\
23,02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00,20,\
02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00,25,02,\
00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,00,05,12,00,00,00,01,01,00,\
00,00,00,05,12,00,00,00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ProtectedStorage\Enum]
"0"="Root\LEGACY_PROTECTEDSTORAGE\0000"
"Count"=dword:00000001

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"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Ptilink]
"Type"=dword:00000001
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,49,56,45,52,53,5c,70,74,69,\
6c,69,6e,6b,2e,73,79,73,00
"DisplayName"="Direct Parallel Link Driver"
"Description"="Direct Parallel Link Driver"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Ptilink\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00,01,01,00,00,00,00,\
05,12,00,00,00,20,02,00,00,00,00,1c,00,ff,01,0f,00,01,02,00,00,00,00,05,\
20,00,00,00,20,02,00,00,71,e8,96,d0,00,00,18,00,8d,01,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02,00,01,02,00,00,00,\
00,05,20,00,00,00,23,02,00,00,71,e8,96,d0,01,01,00,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Ptilink\Enum]
"0"="Root\MS_PTMiniport\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ql1080]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Tag"=dword:0000003d
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ql1080\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ql1080\Parameters\PnpInterface]
"5"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Ql10wnt]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004

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<pre> "Tag"=dword:00000023 "Type"=dword:00000001 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Ql10wnt\Parameters] [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \Ql10wnt\Parameters\PnpInterface] "5"=dword:00000001 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \ql1240] "ErrorControl"=dword:00000001 "Group"="SCSI miniport" "Start"=dword:00000004 "Tag"=dword:00000031 "Type"=dword:00000001 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \ql1240\Parameters] [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \ql1240\Parameters\PnpInterface] "5"=dword:00000001 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \ql2100] "ErrorControl"=dword:00000001 "Group"="SCSI miniport" "Start"=dword:00000004 "Tag"=dword:00000028 "Type"=dword:00000001 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \ql2100\Parameters] [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \ql2100\Parameters\PnpInterface] "5"=dword:00000001 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \RasAcid] "Type"=dword:00000001 "Start"=dword:00000001 "ErrorControl"=dword:00000001 "Tag"=dword:00000001 "ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4 9,56,45,52,53,5c,72,61,73,\ 61,63,64,2e,73,79,73,00 "DisplayName"="Remote Access Auto Connection Driver" "Group"="Streams Drivers" "Description"="Remote Access Auto Connection Driver" [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \RasAcid\Security] "Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14 ,00,00,00,30,00,00,00,02,\ 00,1c,00,01,00,00,02,80,14,00,ff,01,0f,00,01,01,00 ,00,00,00,01,00,00,\ 00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00 ,01,01,00,00,00,00,00,\ 00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00 ,01,01,00,00,00,00,00,\ </pre>	<pre> 05,12,00,00,00,20,02,00,00,00,00,00,0c,00,ff,01,0f,00,01 ,02,00,00,00,00,00,05,\ 20,00,00,00,20,02,00,00,00,00,00,00,00,00,18,00,8d,01 ,02,00,01,01,00,00,00,\ 00,00,05,0b,00,00,00,20,02,00,00,00,00,0c,00,fd,01,02 ,00,01,02,00,00,00,00,\ 00,05,20,00,00,00,23,02,00,00,00,00,00,00,01,01,00,00 ,00,00,00,05,12,00,00,\ 00,01,01,00,00,00,00,00,05,12,00,00,00 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \RasAcid\Enum] "0"="Root\LEGACY_RASACD\0000" "Count"=dword:00000001 "NextInstance"=dword:00000001 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \RasAuto] "Type"=dword:00000120 "Start"=dword:00000003 "ErrorControl"=dword:00000001 "ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2 5,5c,53,79,73,74,65,6d,33,\ 32,5c,73,76,63,68,6f,73,74,2e,65,78,65,20,2d,6b,20,6e ,65,74,73,76,63,73,00 "DisplayName"="Remote Access Auto Connection Manager" "DependOnService"=hex(7):52,61,73,4d,61,6e,00,54,61,7 0,69,73,72,76,00,00 "DependOnGroup"=hex(7):00 "ObjectName"="LocalSystem" "Description"="Creates a connection to a remote network whenever a program references a remote DNS or NetBIOS name or address." [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \RasAuto\Parameters] "ServiceDll"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74, 25,5c,53,79,73,74,65,6d,\ 33,32,5c,72,61,73,61,75,74,6f,2e,64,6c,6c,00 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \RasAuto\Security] "Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14 ,00,00,00,30,00,00,00,02,\ 00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00 ,00,00,00,00,01,00,00,\ 00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00 ,01,01,00,00,00,00,00,\ 05,12,00,00,00,20,02,00,00,00,00,00,0c,00,ff,01,0f,00,01 ,02,00,00,00,00,00,05,\ 20,00,00,00,20,02,00,00,00,00,00,00,00,00,18,00,8d,01 ,02,00,01,01,00,00,00,\ </pre>	<pre> 00,00,05,0b,00,00,00,20,02,00,00,00,00,0c,00,fd,01,02 ,00,01,02,00,00,00,00,\ 00,05,20,00,00,00,23,02,00,00,00,00,00,00,01,01,00,00 ,00,00,00,05,12,00,00,\ 00,01,01,00,00,00,00,00,05,12,00,00,00 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \RasAuto\Enum] "0"="Root\LEGACY_RASAUTO\0000" "Count"=dword:00000001 "NextInstance"=dword:00000001 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \RasL2tp] "Type"=dword:00000001 "Start"=dword:00000003 "ErrorControl"=dword:00000001 "ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4 9,56,45,52,53,5c,72,61,73,\ 6c,32,74,70,2e,73,79,73,00 "DisplayName"="WAN Miniport (L2TP)" "Description"="WAN Miniport (L2TP)" [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \RasL2tp\Security] "Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14 ,00,00,00,30,00,00,00,02,\ 00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00 ,00,00,00,00,01,00,00,\ 00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00 ,01,01,00,00,00,00,00,\ 05,12,00,00,00,00,00,00,00,00,00,0c,00,ff,01,0f,00,01 ,02,00,00,00,00,00,05,\ 20,00,00,00,20,02,00,00,98,3a,00,00,00,00,18,00,8d,01 ,02,00,01,01,00,00,00,\ 00,00,05,0b,00,00,00,20,02,00,00,00,00,0c,00,fd,01,02 ,00,01,02,00,00,00,00,\ 00,05,20,00,00,00,23,02,00,00,98,3a,00,00,01,01,00,00 ,00,00,00,05,12,00,00,\ 00,01,01,00,00,00,00,00,05,12,00,00,00 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \RasL2tp\Enum] "0"="Root\MS_L2TPMINIPORT\0000" "Count"=dword:00000001 "NextInstance"=dword:00000001 [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services \RasMan] "Type"=dword:00000120 "Start"=dword:00000003 "ErrorControl"=dword:00000001 "ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2 5,5c,53,79,73,74,65,6d,33,\ </pre>
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32,5c,73,76,63,68,6f,73,74,2e,65,78,65,20,2d,6b,20,6e
,65,74,73,76,63,73,00
"DisplayName"="Remote Access Connection Manager"
"DependOnService"=hex(7):54,61,70,69,73,72,76,00,00
"DependOnGroup"=hex(7):00
"ObjectName"="LocalSystem"
"Description"="Creates a network connection."

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RasMan\Parameters]
"Medias"=hex(7):72,61,73,74,61,70,69,00,00
"ServiceDll"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,
25,5c,53,79,73,74,65,6d,\
33,32,5c,72,61,73,6d,61,6e,73,2e,64,6c,6c,00
"IpOutLowWatermark"=dword:00000001
"IpOutHighWatermark"=dword:00000005

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RasMan\PPP]
"MaxConfigure"=dword:00000000a
"MaxFailure"=dword:00000000a
"MaxReject"=dword:000000005
"MaxTerminate"=dword:000000002
"Multilink"=dword:000000000
"NegotiateTime"=dword:000000096
"RestartTimer"=dword:000000003

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RasMan\PPP\ControlProtocols]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RasMan\PPP\ControlProtocols\BuiltIn]
"Path"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,
53,79,73,74,65,6d,33,32,\
5c,72,61,73,70,70,70,2e,64,6c,6c,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RasMan\PPP\ControlProtocols\Chap]
"Path"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,
53,79,73,74,65,6d,33,32,\
5c,72,61,73,63,68,61,70,2e,64,6c,6c,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RasMan\PPP\EAP]
"Path"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,
53,79,73,74,65,6d,33,32,\
5c,72,61,73,70,70,70,2e,64,6c,6c,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RasMan\PPP\EAP\13]
"FriendlyName"="Smart Card or other Certificate"
"Path"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,
53,79,73,74,65,6d,33,32,\
5c,72,61,73,74,6c,73,2e,64,6c,6c,00
"ConfigUIPath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,7
4,25,5c,53,79,73,74,65,6d,\
33,32,5c,72,61,73,74,6c,73,2e,64,6c,6c,00
"IdentityPath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,7
4,25,5c,53,79,73,74,65,6d,\
33,32,5c,72,61,73,74,6c,73,2e,64,6c,6c,00
"InteractiveUIPath"=hex(2):25,53,79,73,74,65,6d,52,6f
,6f,74,25,5c,53,79,73,74,\

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```

65,6d,33,32,5c,72,61,73,74,6c,73,2e,64,6c,6c,00
"InvokeUsernameDialog"=dword:00000000
"InvokePasswordDialog"=dword:00000000
"MPPEEncryptionSupported"=dword:00000001
"ConfigCLSID"="{58AB2366-D597-11d1-B90E-
00C04FC9B263}"
"StandaloneSupported"=dword:00000000
"NoRootRevocationCheck"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RasMan\PPP\EAP\4]
"FriendlyName"="MD5-Challenge"
"Path"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,
53,79,73,74,65,6d,33,32,\
5c,72,61,73,63,68,61,70,2e,64,6c,6c,00
"InvokeUsernameDialog"=dword:00000001
"InvokePasswordDialog"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RasMan\Security]
"Security"=hex:01,00,14,80,7c,00,00,00,88,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,01,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\
00,00,02,00,4c,00,03,00,00,00,00,00,14,00,9d,01,02,00
,01,01,00,00,00,00,00,\
05,0b,00,00,00,00,00,18,00,fd,01,02,00,01,02,00,00,00
,00,00,05,20,00,00,00,\
23,02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00
,00,05,20,00,00,00,20,\
02,00,00,01,01,00,00,00,00,00,05,12,00,00,01,01,00
,00,00,00,05,12,00,\
00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RasMan\Enum]
"0"="Root\LEGACY_RASMAN\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Raspti]
"Type"=dword:00000001
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4
9,56,45,52,53,5c,72,61,73,\
70,74,69,2e,73,79,73,00
"DisplayName"="Direct Parallel"
"Description"="Direct Parallel"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Raspti\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,01,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,00,\
05,12,00,00,00,02,00,00,00,00,00,1c,00,ff,01,0f,00,01
,02,00,00,00,00,00,05,\
20,00,00,00,20,02,00,00,03,00,00,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\
00,05,20,00,00,00,23,02,00,00,03,00,00,00,01,01,00,00
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Rdbss]
"Type"=dword:00000002

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00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,00,\
05,12,00,00,00,9f,90,f1,fe,00,00,1c,00,ff,01,0f,00,01
,02,00,00,00,00,00,05,\
20,00,00,00,20,02,00,00,71,e8,96,d0,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\
00,05,20,00,00,00,23,02,00,00,71,e8,96,d0,01,01,00,00
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Raspti\Enum]
"0"="Root\MS_PTMINIIMPORT\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RCA]
"Type"=dword:00000001
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"Tag"=dword:00000004
"ImagePath"=hex(2):73,79,73,74,65,6d,33,32,5c,64,72,6
9,76,65,72,73,5c,52,43,41,\
2e,73,79,73,00
"DisplayName"="Microsoft Streaming Network Raw
Channel Access"
"Group"="ExtendedBase"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RCA\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,00,\
05,12,00,00,00,02,00,00,00,00,00,1c,00,ff,01,0f,00,01
,02,00,00,00,00,00,05,\
20,00,00,00,20,02,00,00,03,00,00,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\
00,05,20,00,00,00,23,02,00,00,03,00,00,00,01,01,00,00
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Rdbss]
"Type"=dword:00000002

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"Start"=dword:00000001
"ErrorControl"=dword:00000001
"Tag"=dword:00000004
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4
9,56,45,52,53,5c,72,64,62,\
73,73,2e,73,79,73,00
"DisplayName"="Rdbss"
"Group"="Network"
"Description"="Rdbss"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Rdbss\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,00,\
05,12,00,00,00,20,02,00,00,00,00,1c,00,ff,01,0f,00,01
,02,00,00,00,00,00,05,\
20,00,00,00,20,02,00,00,03,00,00,00,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\
00,05,20,00,00,23,02,00,00,03,00,00,00,01,01,00,00
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Rdbss\Enum]
"0"="Root\LEGACY_RDBSS\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RDPPD]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RDPPD\Device0]
"InstalledDisplayDrivers"=hex(7):52,44,50,44,44,00,00
"VgaCompatible"=dword:00000000
"DefaultSettings.XResolution"=dword:00000320
"DefaultSettings.YResolution"=dword:00000258
"Attach.RelativeX"=dword:00000000
"Attach.RelativeY"=dword:00000000
"Attach.ToDesktop"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\rdpdr]
"Type"=dword:00000001
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4
9,56,45,52,53,5c,72,64,70,\
64,72,2e,73,79,73,00
"DisplayName"="Terminal Server Device Redirector
Driver"

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```

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\rdpdr\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,00,\
05,12,00,00,00,20,02,00,00,00,00,1c,00,ff,01,0f,00,01
,02,00,00,00,00,00,05,\
20,00,00,00,20,02,00,00,00,00,00,00,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\
00,05,20,00,00,23,02,00,00,00,00,00,01,01,00,00
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\rdpdr\Enum]
"0"="Root\RDPPDR\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RDPWD]
"ErrorControl"=dword:00000000
"Start"=dword:00000003
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RDPWD\Enum]
"0"="Root\LEGACY_RDPWD\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\redbook]
"Type"=dword:00000001
"Start"=dword:00000001
"ErrorControl"=dword:00000001
"Tag"=dword:00000002
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4
9,56,45,52,53,5c,72,65,64,\
62,6f,6f,6b,2e,73,79,73,00
"DisplayName"="Digital CD Audio Playback Filter
Driver"
"Group"="Pnp Filter"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\redbook\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,01,00,00,\

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00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,00,\
05,12,00,00,00,69,00,76,00,00,00,1c,00,ff,01,0f,00,01
,02,00,00,00,00,00,05,\
20,00,00,00,20,02,00,00,65,00,72,00,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\
00,05,20,00,00,23,02,00,00,65,00,72,00,01,01,00,00
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\redbook\Enum]
"Count"=dword:00000000
"NextInstance"=dword:00000000
"INITSTARTFAILED"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess]
"Type"=dword:00000120
"Start"=dword:00000004
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2
5,5c,53,79,73,74,65,6d,33,\
32,5c,73,76,63,68,6f,73,74,2e,65,78,65,20,2d,6b,20,6e
,65,74,73,76,63,73,00
"DisplayName"="Routing and Remote Access"
"DependOnService"=hex(7):52,70,63,53,53,00,00
"DependOnGroup"=hex(7):4e,65,74,42,49,4f,53,47,72,6f,
75,70,00,00
"ObjectName"="LocalSystem"
"Description"="Offers routing services to businesses
in local area and wide area network environments."

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Accounting]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Accounting\Providers]
"ActiveProvider"="{1AA7F846-C7F5-11D0-A376-
00C04FC9DA04}"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Accounting\Providers\{1AA7F840-C7F5-
11D0-A376-00C04FC9DA04}]
"ConfigClsid"="{1AA7F840-C7F5-11D0-A376-
00C04FC9DA04}"
"DisplayName"="RADIUS Accounting"
"Path"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,
53,79,73,74,65,6d,33,32,\
5c,72,61,73,72,61,64,2e,64,6c,6c,00
"ProviderTypeGUID"="{76560D80-2BFD-11d2-9539-
3078302C2030}"
"VendorName"="Microsoft"

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[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Accounting\Providers\{1AA7F846-C7F5-
11D0-A376-00C04FC9DA04}]
"ConfigClsid"=""
"DisplayName"="Windows Accounting"
"Path"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,
53,79,73,74,65,6d,33,32,\
5c,72,61,73,61,75,74,68,2e,64,6c,6c,00
"ProviderTypeGUID"="{76560D81-2BFD-11d2-9539-
3078302C2030}"
"VendorName"="Microsoft"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Authentication]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Authentication\Providers]
"ActiveProvider"="{1AA7F841-C7F5-11D0-A376-
00C04FC9DA04}"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Authentication\Providers\{1AA7F83F-
C7F5-11D0-A376-00C04FC9DA04}]
"ConfigClsid"="{1AA7F83F-C7F5-11D0-A376-
00C04FC9DA04}"
"DisplayName"="RADIUS Authentication"
"Path"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,
53,79,73,74,65,6d,33,32,\
5c,72,61,73,72,61,64,2e,64,6c,6c,00
"VendorName"="Microsoft"
"ProviderTypeGUID"="{76560D00-2BFD-11d2-9539-
3078302C2030}"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Authentication\Providers\{1AA7F841-
C7F5-11D0-A376-00C04FC9DA04}]
"ConfigClsid"=""
"DisplayName"="Windows Authentication"
"Path"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,
53,79,73,74,65,6d,33,32,\
5c,72,61,73,61,75,74,68,2e,64,6c,6c,00
"VendorName"="Microsoft"
"ProviderTypeGUID"="{76560D01-2BFD-11d2-9539-
3078302C2030}"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\DemandDialManager]
"DllPath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,
5c,53,79,73,74,65,6d,33,\
32,5c,6d,70,72,64,64,6d,2e,64,6c,6c,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Interfaces]
"Stamp"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Interfaces\0]
"InterfaceName"="Loopback"
"Type"=dword:00000005
"Enabled"=dword:00000001
"Stamp"=dword:00000000
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Interfaces\0\Ip]
"ProtocolId"=dword:00000021
"InterfaceInfo"=hex:01,00,00,00,68,00,00,00,03,00,00,
00,05,00,ff,ff,38,00,00,\
00,00,00,00,00,40,00,00,00,04,00,ff,ff,04,00,00,00,01,
00,00,00,40,00,00,00,\
07,00,ff,ff,10,00,00,00,01,00,00,00,48,00,00,00,00,00,
00,00,01,00,00,00,00,\
00,00,00,58,02,c2,01,08,07,00,00,00,00,00,00,00,00,00,
00,00,00,00,00,00,00,\
00,00,00,00,00,00,00,00,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Interfaces\1]
"InterfaceName"="Internal"
"Type"=dword:00000004
"Enabled"=dword:00000001
"Stamp"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Interfaces\1\Ip]
"ProtocolId"=dword:00000021
"InterfaceInfo"=hex:01,00,00,00,68,00,00,00,03,00,00,
00,05,00,ff,ff,38,00,00,\
00,00,00,00,00,40,00,00,00,04,00,ff,ff,04,00,00,00,01,
00,00,00,40,00,00,00,\
07,00,ff,ff,10,00,00,00,01,00,00,00,48,00,00,00,00,00,
00,00,01,00,00,00,00,\
00,00,00,58,02,c2,01,08,07,00,00,00,00,00,00,00,00,00,
00,00,00,00,00,00,00,\
00,00,00,00,00,00,00,00,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Interfaces\2]
"InterfaceName"="{7D926DCC-37F4-4BA8-A398-
A3CD5976B44D}"
"Type"=dword:00000003
"Enabled"=dword:00000001
"Stamp"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Interfaces\2\Ip]
"ProtocolId"=dword:00000021
"InterfaceInfo"=hex:01,00,00,00,68,00,00,00,03,00,00,
00,05,00,ff,ff,38,00,00,\
00,00,00,00,00,40,00,00,00,04,00,ff,ff,04,00,00,00,01,
00,00,00,40,00,00,00,\
07,00,ff,ff,10,00,00,00,01,00,00,00,48,00,00,00,00,00,
00,00,01,00,00,00,00,\
00,00,00,58,02,c2,01,08,07,00,00,00,00,00,00,00,00,00,
00,00,00,00,00,00,00,\
00,00,00,00,00,00,00,00,00,00,00
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[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Interfaces\3]
"InterfaceName"="{6175C4FA-411E-4C5B-8FE3-
7D39A588912A}"
"Type"=dword:00000003
"Enabled"=dword:00000001
"Stamp"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Interfaces\3\Ip]
"ProtocolId"=dword:00000021
"InterfaceInfo"=hex:01,00,00,00,68,00,00,00,03,00,00,
00,05,00,ff,ff,38,00,00,\
00,00,00,00,00,40,00,00,00,04,00,ff,ff,04,00,00,00,01,
00,00,00,40,00,00,00,\
07,00,ff,ff,10,00,00,00,01,00,00,00,48,00,00,00,00,00,
00,00,01,00,00,00,00,\
00,00,00,58,02,c2,01,08,07,00,00,00,00,00,00,00,00,00,
00,00,00,00,00,00,00,\
00,00,00,00,00,00,00,00,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Parameters]
"RouterType"=dword:00000001
"ServerFlags"=dword:00402702
"ServiceDll"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,
25,5c,53,79,73,74,65,6d,\
33,32,5c,6d,70,72,64,69,6d,2e,64,6c,6c,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Parameters\AppleTalk]
"EnableIn"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Parameters\Ip]
"AllowClientIpAddresses"=dword:00000000
"AllowNetworkAccess"=dword:00000001
"EnableIn"=dword:00000001
"IpAddress"="0.0.0.0"
"IpMask"="0.0.0.0"
"UseDhcpAddressing"=dword:00000001
"EnableRoute"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Parameters\Ipx]
"EnableIn"=dword:00000001
"AcceptRemoteNodeNumber"=dword:00000001
"AllowNetworkAccess"=dword:00000001
"AutoWanNetAllocation"=dword:00000001
"FirstWanNet"=dword:00000000
"GlobalWanNet"=dword:00000001
"LastWanNet"=dword:00000000
"EnableRoute"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Parameters\Nbf]
"EnableIn"=dword:00000001
"AllowNetworkAccess"=dword:00000001
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Performance]
"Open"="OpenRasPerformanceData"
"Close"="CloseRasPerformanceData"
"Collect"="CollectRasPerformanceData"
"Library"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,
5c,53,79,73,74,65,6d,33,\
32,5c,72,61,73,63,74,72,73,2e,64,6c,6c,00
"Last Counter"=dword:000007e4
"Last Help"=dword:000007e5
"First Counter"=dword:000007be
"First Help"=dword:000007bf
"WbemAdapFileTime"=hex:00,c8,12,f8,b2,40,bf,01
"WbemAdapFileSize"=dword:00003110
"WbemAdapStatus"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy]
"ProductDir"="C:\WINNT\System32\IAS"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\01]
"Description"="Begin Session Pipeline"
"Events"=""
"Id"=dword:00000001
"Merit"=dword:00000001
"Name"="Begin Session"
"ParentId"=dword:00000000
"ProgId"="IAS.Pipeline"
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\01\Stages]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\01\Stages\01]
"Description"="Roaming (Realms) Stage"
"Events"=""
"Id"=dword:00000001
"Merit"=dword:00000001
"Name"="Roaming"
"ParentId"=dword:00000001
"ProgId"="IAS.Stage"
"Type"=dword:00000002

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\01\Stages\01\RequestHa
ndlers]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\01\Stages\01\RequestHa
ndlers\12]
"Description"="Microsoft Names Provider"
"Events"="1"
"Id"=dword:0000000c
"Merit"=dword:00000001
"Name"="MS Names"
"ParentId"=dword:00000003
"ProgId"="IAS.NTSamNames"
"Type"=dword:00000003
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\01\Stages\02]
"Description"="User Credential Retrieval"
"Events"=""
"Id"=dword:00000002
"Merit"=dword:00000002
"Name"="Credential Retrieval"
"ParentId"=dword:00000001
"ProgId"="IAS.Stage"
"Type"=dword:00000002

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\01\Stages\02\RequestHa
ndlers]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\01\Stages\02\RequestHa
ndlers\01]
"Description"="Microsoft Credential Retrieval - NT
SAM"
"Events"="1"
"Id"=dword:00000001
"Merit"=dword:00000002
"Name"="Authentication"
"ParentId"=dword:00000004
"ProgId"="IAS.NTSamAuthentication"
"Type"=dword:00000003

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\01\Stages\02\RequestHa
ndlers\03]
"Description"="Microsoft BaseCamp Extension Host"
"Events"="1 4"
"Id"=dword:00000003
"Merit"=dword:00000001
"Name"="BaseCamp Host"
"ParentId"=dword:00000004
"ProgId"="IAS.BaseCampHost"
"Type"=dword:00000003

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\01\Stages\03]
"Description"="Network Access Policy Evaluation"
"Events"=""
"Id"=dword:00000003
"Merit"=dword:00000003
"Name"="NAP Evaluation"
"ParentId"=dword:00000001
"ProgId"="IAS.Stage"
"Type"=dword:00000002

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\01\Stages\03\RequestHa
ndlers]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\01\Stages\03\RequestHa
ndlers\07]
"Description"="Microsoft Network Access Policy
Evaluator"
"Events"="1 2"
"Id"=dword:00000007
```

```
"Merit"=dword:00000001
"Name"="MS NAP"
"ParentId"=dword:00000005
"ProgId"="IAS.PolicyEnforcer"
"Type"=dword:00000003

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\01\Stages\04]
"Description"="User Authorization"
"Events"=""
"Id"=dword:00000004
"Merit"=dword:00000004
"Name"="User Authorization"
"ParentId"=dword:00000001
"ProgId"="IAS.Stage"
"Type"=dword:00000002

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\01\Stages\04\RequestHa
ndlers]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\01\Stages\04\RequestHa
ndlers\06]
"Description"="Microsoft NT SAM User Authorizations"
"Events"="1 2"
"Id"=dword:00000006
"Merit"=dword:00000001
"Name"="MS User Authorizations"
"ParentId"=dword:00000006
"ProgId"="IAS.NTSamPerUser"
"Type"=dword:00000003

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\02]
"Description"="In Session Pipeline"
"Events"=""
"Id"=dword:00000002
"Merit"=dword:00000002
"Name"="In Session"
"ParentId"=dword:00000000
"ProgId"="IAS.Pipeline"
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\02\Stages]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\02\Stages\05]
"Description"="User Authentication Stage"
"Events"=""
"Id"=dword:00000005
"Merit"=dword:00000001
"Name"="User Authentication"
"ParentId"=dword:00000002
"ProgId"="IAS.Stage"
"Type"=dword:00000002

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\02\Stages\05\RequestHa
ndlers]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\02\Stages\05\RequestHa
ndlers\10]
"Description"="Microsoft EAP Authentication DLL
Wrapper"
"Events"="1"
"Id"=dword:0000000a
"Merit"=dword:00000001
"Name"="MS EAP DLL Wrapper"
"ParentId"=dword:00000007
"ProgId"="IAS.EAP"
"Type"=dword:00000003

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\03]
"Description"="End Session Pipeline"
"Events"=""
"Id"=dword:00000003
"Merit"=dword:00000003
"Name"="End Session"
"ParentId"=dword:00000000
"ProgId"="IAS.Pipeline"
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\03\Stages]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\03\Stages\06]
"Description"="User Restrictions Stage"
"Events"=""
"Id"=dword:00000006
"Merit"=dword:00000001
"Name"="User Restrictions"
"ParentId"=dword:00000003
"ProgId"="IAS.Stage"
"Type"=dword:00000002

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\03\Stages\06\RequestHa
ndlers]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\03\Stages\06\RequestHa
ndlers\04]
"Description"="Microsoft Authorization Extension
Host"
"Events"="1 4"
"Id"=dword:00000004
"Merit"=dword:00000002
"Name"="Authorization Host"
"ParentId"=dword:00000009
"ProgId"="IAS.AuthorizationHost"
"Type"=dword:00000003

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\03\Stages\06\RequestHa
ndlers\11]
"Description"="Microsoft User Restrictions Handler
DLL"
"Events"="1"
"Id"=dword:0000000b
"Merit"=dword:00000001
```

```
"Name"="IAS User Restrictions Handler"
"ParentId"=dword:00000009
"ProgId"="IAS.URHandler"
"Type"=dword:00000003

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\03\Stages\07]
"Description"="Logging Stage"
"Events"=""
"Id"=dword:00000007
"Merit"=dword:00000002
"Name"="Logging"
"ParentId"=dword:00000003
"ProgId"="IAS.Stage"
"Type"=dword:00000002

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\03\Stages\07\RequestHa
ndlers]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\03\Stages\07\RequestHa
ndlers\02]
"Description"="Microsoft MS-CHAP Error Reporter"
"Events"="1"
"Id"=dword:00000002
"Merit"=dword:00000001
"Name"="MS-CHAP Error Reporter"
"ParentId"=dword:00000008
"ProgId"="IAS.MSChapErrorReporter"
"Type"=dword:00000003

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Policy\Pipelines\03\Stages\07\RequestHa
ndlers\09]
"Description"="Microsoft Logging Provider"
"Events"="1 4"
"Id"=dword:00000009
"Merit"=dword:00000002
"Name"="MS Logging"
"ParentId"=dword:00000008
"ProgId"="IAS.Accounting"
"Type"=dword:00000003

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\RouterManagers]
"Stamp"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\RouterManagers\Ip]
"ProtocolId"=dword:00000021
"GlobalInfo"=hex:01,00,00,00,00,02,00,00,00,
03,00,ff,ff,08,00,00,00,\
01,00,00,00,30,00,00,00,06,00,ff,ff,3c,00,00,00,01,00,
00,00,38,00,00,00,00,\
00,00,00,00,00,00,00,01,00,00,00,07,00,00,00,02,00,00,
00,01,00,00,00,03,00,\
00,00,0a,00,00,00,16,27,00,00,03,00,00,00,17,27,00,00,
05,00,00,00,12,27,00,\
```

```
00,07,00,00,00,0d,00,00,00,6e,00,00,00,08,00,00,00,78
00,00,00,00,00,00,00,\
00,00,00,00,00,00,00,00
"DLLPath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,
5c,53,79,73,74,65,6d,33,\
32,5c,69,70,72,74,72,6d,67,72,2e,64,6c,6c,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteAccess\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,00,\
05,12,00,00,00,9f,90,f1,fe,00,00,1c,00,ff,01,0f,00,01
,02,00,00,00,00,00,05,\
20,00,00,00,20,02,00,00,71,e8,96,d0,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\
00,05,20,00,00,00,23,02,00,00,71,e8,96,d0,01,01,00,00
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteRegistry]
"Description"="Allows remote registry manipulation."
"DisplayName"="Remote Registry Service"
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2
5,5c,73,79,73,74,65,6d,33,\
32,5c,72,65,67,73,76,63,2e,65,78,65,00
"ObjectName"="LocalSystem"
"Start"=dword:00000004
"Type"=dword:00000010
"FailureActions"=hex:00,00,00,00,00,00,00,00,00,00,00
,00,01,00,00,00,e0,ad,08,\
00,01,00,00,00,e8,03,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\RemoteRegistry\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\
00,00,02,00,78,00,05,00,00,00,00,00,14,00,8d,01,02,00
,01,01,00,00,00,00,00,\
05,0b,00,00,00,00,18,00,9d,01,02,00,01,02,00,00,00
,00,00,05,20,00,00,00,\
23,02,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00
,00,05,20,00,00,00,20,\
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02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00,00,05,20,00,00,00,25,02,\
00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,05,12,00,00,00
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\RemoteRegistry\Enum]
"0"="Root\LEGACY_REMOTE_REGISTRY\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\RpcLocator]
"Type"=dword:00000010
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,\
32,5c,6c,6f,63,61,74,6f,72,2e,65,78,65,00
"DisplayName"="Remote Procedure Call (RPC) Locator"
"DependOnService"=hex(7):4c,61,74,6e,6d,61,6e,57,6f,72,6b,73,74,61,74,69,6f,6e,00,\
00
"DependOnGroup"=hex(7):00
"ObjectName"="LocalSystem"
"Description"="Manages the RPC name service database."

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\RpcLocator\Parameters]
"ExpirationAge"=dword:00000e10

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\RpcLocator\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00,01,01,00,00,00,00,\
05,12,00,00,00,20,02,00,00,00,00,00,00,1c,00,ff,01,0f,00,01,02,00,00,00,00,00,05,\
20,00,00,00,20,02,00,00,03,00,00,00,00,00,18,00,8d,01,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02,00,01,02,00,00,00,00,\
00,05,20,00,00,00,23,02,00,00,03,00,00,00,01,01,00,00,00,00,05,12,00,00,00,00,05,12,00,00,00
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\RpcLocator\Enum]

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```

"0"="Root\LEGACY_RPCLOCATOR\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\RpcSs]
"Description"="Provides the endpoint mapper and other miscellaneous RPC services."
"DisplayName"="Remote Procedure Call (RPC)"
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,73,79,73,74,65,6d,33,\
32,5c,73,76,63,68,6f,73,74,20,2d,6b,20,72,70,63,73,73,00
"ObjectName"="LocalSystem"
"Start"=dword:00000002
"Type"=dword:00000020

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\RpcSs\Parameters]
"ServiceDll"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,73,79,73,74,65,6d,\
33,32,5c,72,70,63,73,73,2e,64,6c,6c,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\RpcSs\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\
00,00,02,00,78,00,05,00,00,00,00,03,14,00,8d,00,02,00,01,01,00,00,00,00,\
01,00,00,00,00,03,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00,\
20,02,00,00,00,03,18,00,8d,00,02,00,01,02,00,00,00,00,00,05,20,00,00,00,23,\
02,00,00,00,03,14,00,9d,00,00,00,01,01,00,00,00,00,00,05,04,00,00,00,00,03,\
18,00,9d,00,00,00,01,02,00,00,00,00,00,00,05,20,00,00,00,21,02,00,00,01,01,00,\
00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\RpcSs\Enum]
"0"="Root\LEGACY_RPCSS\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\RSVP]
"Type"=dword:00000110
"Start"=dword:00000003
"ErrorControl"=dword:00000001

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"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,\
32,5c,72,73,76,70,2e,65,78,65,20,2d,73,00
"DisplayName"="QoS RSVP"
"DependOnService"=hex(7):54,63,70,49,70,00,41,66,64,00,00
"DependOnGroup"=hex(7):00
"ObjectName"="LocalSystem"
"Description"="Provides network signaling and local traffic control setup functionality for QoS-aware programs and control applets."

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\RSVP\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\RSVP\Performance]
"Open"="OpenRsvpPerformanceData"
"Close"="CloseRsvpPerformanceData"
"Collect"="CollectRsvpPerformanceData"
"Library"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,\
32,5c,72,73,76,70,70,65,72,66,2e,64,6c,6c,00
"Last Counter"=dword:000007bc
"Last Help"=dword:000007bd
"First Counter"=dword:00000738
"First Help"=dword:00000739
"WbemAdapFileType"=hex:00,c8,12,f8,b2,40,bf,01
"WbemAdapFileSize"=dword:00002b10
"WbemAdapStatus"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\RSVP\Security]
"Security"=hex:01,00,14,80,7c,00,00,00,88,00,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\
00,00,02,00,4c,00,03,00,00,00,00,00,14,00,9d,01,02,00,01,01,00,00,00,00,00,\
05,0b,00,00,00,00,18,00,fd,01,02,00,01,02,00,00,00,00,00,05,20,00,00,00,\
23,02,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00,20,\
02,00,00,01,01,00,00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,05,12,00,00,00,05,12,00,00,00,00,00
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\RSVP\Enum]
"0"="Root\LEGACY_RSVP\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\SamSs]
"Description"="Stores security information for local user accounts."
"DisplayName"="Security Accounts Manager"

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>ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2
5,5c,73,79,73,74,65,6d,33,\
32,5c,6c,73,61,73,73,2e,65,78,65,00
"ObjectName"="LocalSystem"
"Start"=dword:00000002
"Type"=dword:00000020

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\SamSs\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\
00,00,02,00,78,00,05,00,00,00,00,03,14,00,8d,00,02,00
,01,01,00,00,00,00,00,\
01,00,00,00,00,00,03,18,00,ff,01,0f,00,01,02,00,00,00
,00,00,05,20,00,00,00,\
20,02,00,00,00,03,18,00,8d,00,02,00,01,02,00,00,00,00
,00,05,20,00,00,00,23,\
02,00,00,00,03,14,00,9d,00,00,00,01,01,00,00,00,00,00
,05,04,00,00,00,00,03,\
18,00,9d,00,00,00,01,02,00,00,00,00,00,05,20,00,00,00
,21,02,00,00,01,01,00,\
00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,05,12
,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\SamSs\Enum]
"0"="Root\LEGACY_SAMSS\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\SCardDrv]
"Type"=dword:00000020
"Start"=dword:00000003
"ErrorControl"=dword:00000000
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2
5,5c,53,79,73,74,65,6d,33,\
32,5c,53,43,61,72,64,53,76,72,2e,65,78,65,00
"Description"="Provides support for legacy smart card
readers attached to the computer."
"DisplayName"="Smart Card Helper"
"DependOnGroup"=hex(7):53,6d,61,72,74,20,43,61,72,64,
20,52,65,61,64,65,72,00,\
00
"ObjectName"="LocalSystem"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\SCardDrv\Enum]
"0"="Root\LEGACY_SCARDDRV\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

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[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\SCardSvr]
"Type"=dword:00000020
"Start"=dword:00000003
"ErrorControl"=dword:00000000
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2
5,5c,53,79,73,74,65,6d,33,\
32,5c,53,43,61,72,64,53,76,72,2e,65,78,65,00
"Description"="Manages and controls access to a smart
card inserted into a smart card reader attached to
the computer."
"DisplayName"="Smart Card"
"DependOnService"=hex(7):50,6c,75,67,50,6c,61,79,00,0
0
"ObjectName"="LocalSystem"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\SCardSvr\Security]
"Security"=hex:01,00,14,80,80,00,00,00,8c,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\
00,00,02,00,50,00,03,00,00,00,00,14,00,ff,01,0f,00
,01,01,00,00,00,00,00,\
03,00,00,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00
,00,00,05,20,00,00,00,\
20,02,00,00,00,14,00,9d,00,02,00,01,01,00,00,00,00,00
,00,01,00,00,00,00,73,\
00,44,49,52,45,43,54,01,01,00,00,00,00,00,05,12,00,00
,00,01,01,00,00,00,00,\
00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\SCardSvr\Enum]
"0"="Root\LEGACY_SCARDSVR\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Schedule]
"Description"="Enables a program to run at a
designated time."
"Type"=dword:00000120
"Start"=dword:00000004
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2
5,5c,73,79,73,74,65,6d,33,\
32,5c,4d,53,54,61,73,6b,2e,65,78,65,00
"DisplayName"="Task Scheduler"
"DependOnService"=hex(7):52,70,63,53,73,00,00
"DependOnGroup"=hex(7):00
"ObjectName"="LocalSystem"
"NextAtJobId"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Schedule\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14
,00,00,00,30,00,00,00,02,\

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00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\
00,00,02,00,78,00,05,00,00,00,00,00,14,00,8d,01,02,00
,01,01,00,00,00,00,00,\
05,0b,00,00,00,00,00,18,00,9d,01,02,00,01,02,00,00,00
,00,00,05,20,00,00,00,\
23,02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00
,00,05,20,00,00,00,20,\
02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00
,05,20,00,00,00,25,02,\
00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,00,05
,12,00,00,00,01,01,00,\
00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,00,05,12
,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Schedule\Enum]
"0"="Root\LEGACY_SCHEDULE\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\SchedulingAgent]
"Start"=dword:00000002

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\seclogon]
"Type"=dword:00000120
"Start"=dword:00000002
"ErrorControl"=dword:00000000
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2
5,5c,73,79,73,74,65,6d,33,\
32,5c,73,65,72,76,69,63,65,73,2e,65,78,65,00
"DisplayName"="RunAs Service"
"ObjectName"="LocalSystem"
"Description"="Enables starting processes under
alternate credentials"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\seclogon\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\
00,00,02,00,78,00,05,00,00,00,00,00,14,00,8d,01,02,00
,01,01,00,00,00,00,00,\
05,0b,00,00,00,00,00,18,00,9d,01,02,00,01,02,00,00,00
,00,00,05,20,00,00,00,\
23,02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00
,00,05,20,00,00,00,20,\

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02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00,25,02,\
00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,00,05,12,00,00,00,01,01,00,\
00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,00,05,12,00,00,00,\
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\seclogon\Enum]
"0"="Root\LEGACY_SECLOGON\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\SENS]
"DependOnService"=hex(7):45,76,65,6e,74,53,79,73,74,65,6d,00,00
"Description"="Tracks system events such as Windows logon, network, and power events. Notifies COM+ Event System subscribers of these events."
"DisplayName"="System Event Notification"
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,73,79,73,74,65,6d,33,\
32,5c,73,76,63,68,6f,73,74,2e,65,78,65,20,2d,6b,20,6e,65,74,73,76,63,73,00
"ObjectName"="LocalSystem"
"Group"="Network"
"Start"=dword:00000002
"Type"=dword:00000020

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\SENS\Parameters]
"ServiceDll"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,73,79,73,74,65,6d,\
33,32,5c,73,65,6e,73,2e,64,6c,6c,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\SENS\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\
00,00,02,00,78,00,05,00,00,00,00,00,14,00,8d,01,02,00,01,01,00,00,00,00,\
05,0b,00,00,00,00,00,18,00,9d,01,02,00,01,02,00,00,00,00,00,05,20,00,00,00,\
23,02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00,20,\
02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00,25,02,\
00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,00,05,12,00,00,00,01,01,00,\

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00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,00,05,12,00,00,00,\
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\SENS\Enum]
"0"="Root\LEGACY_SENS\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\serenum]
"Type"=dword:00000001
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"DisplayName"="Serenum Filter Driver"
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,49,56,45,52,53,5c,73,65,72,\
65,6e,75,6d,2e,73,79,73,00
"Group"="PNP Filter"
"Tag"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\serenum\Enum]
"0"="ACPI\PNP0501\0"
"Count"=dword:00000002
"NextInstance"=dword:00000002
"1"="ACPI\PNP0501\1"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Serial]
"ErrorControl"=dword:00000000
"Group"="Extended base"
"Start"=dword:00000001
"Tag"=dword:00000001
"Type"=dword:00000001
"ForceFifoEnable"=dword:00000001
"RxFIFO"=dword:00000008
"TxFIFO"=dword:0000000e
"PermitShare"=dword:00000000
"LogFifo"=dword:00000000
"DisplayName"="Serial port driver"
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,49,56,45,52,53,5c,73,65,72,\
69,61,6c,2e,73,79,73,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Serial\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Serial\Enum]
"0"="ACPI\PNP0501\0"
"Count"=dword:00000002
"NextInstance"=dword:00000002
"1"="ACPI\PNP0501\1"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Sfloppy]
"DependOnGroup"=hex(7):53,43,53,49,20,6d,69,6e,69,70,6f,72,74,00,00
"ErrorControl"=dword:00000000
"Group"="Primary disk"
"Start"=dword:00000001

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"Tag"=dword:00000004
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Sfloppy\Enum]
"Count"=dword:00000000
"NextInstance"=dword:00000000
"INITSTARTFAILED"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\sglfb]
"ErrorControl"=dword:00000001
"Group"="Video"
"Start"=dword:00000001
"Type"=dword:00000001
"BootDriver"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\sglfb\Device0]
"InstalledDisplayDrivers"=hex(7):73,67,6c,66,62,00,00
"VgaCompatible"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\SharedAccess]
"Type"=dword:00000120
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,\
32,5c,73,76,63,68,6f,73,74,2e,65,78,65,20,2d,6b,20,6e,65,74,73,76,63,73,00
"DisplayName"="Internet Connection Sharing"
"DependOnService"=hex(7):52,61,73,4d,61,6e,00,00
"DependOnGroup"=hex(7):00
"ObjectName"="LocalSystem"
"Description"="Provides network address translation, addressing, and name resolution services for all computers on your home network through a dial-up connection."

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\SharedAccess\Parameters]
"ServiceDll"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,65,6d,\
33,32,5c,69,70,6e,61,74,68,6c,70,2e,64,6c,6c,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\SharedAccess\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00,01,01,00,00,00,00,\
05,12,00,00,00,20,02,00,00,00,00,1c,00,ff,01,0f,00,01,02,00,00,00,00,00,05,\
20,00,00,00,20,02,00,00,00,00,00,00,00,00,18,00,8d,01,02,00,01,01,00,00,00,\

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00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\

00,05,20,00,00,00,23,02,00,00,00,00,00,01,01,00,00
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Simbad]
"ErrorControl"=dword:00000001
"Group"="Filter"
"Start"=dword:00000004
"Tag"=dword:00000001
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Sparrow]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Tag"=dword:00000007
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Sparrow\Parameters]
"LegacyAdapterDetection"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Sparrow\Parameters\PnpInterface]
"1"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Spooler]
"DependOnService"=hex(7):52,50,43,53,53,00,00
"Description"="Loads files to memory for later
printing."
"DisplayName"="Print Spooler"
"ErrorControl"=dword:00000001
"Group"="SpoolerGroup"
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2
5,5c,73,79,73,74,65,6d,33,\
32,5c,73,70,6f,6f,6c,73,76,2e,65,78,65,00
"ObjectName"="LocalSystem"
"Start"=dword:00000004
"Type"=dword:00000110

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Spooler\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Spooler\Performance]
"Close"="PerfClose"
"Collect"="PerfCollect"
"Collect Timeout"=dword:000007d0
"Library"="winspool.drv"
"Object List"="1450"
"Open"="PerfOpen"
"Open Timeout"=dword:00000fa0
"WbemAdapFileTime"=hex:00,73,79,5b,bc,d4,c0,01
"WbemAdapFileSize"=dword:0001b710
"WbemAdapStatus"=dword:ffffff

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[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Spooler\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,00,14
,00,00,00,30,00,00,00,02,\

00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\

00,00,02,00,78,00,05,00,00,00,00,14,00,8d,01,02,00
,01,01,00,00,00,00,00,\

05,0b,00,00,00,00,00,18,00,9d,01,02,00,01,02,00,00,00
,00,00,05,20,00,00,00,\

23,02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00
,00,05,20,00,00,00,20,\

02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00
,05,20,00,00,00,25,02,\

00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,00,05
,12,00,00,00,01,01,00,\

00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,05,12
,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Spooler\Enum]
"0"="Root\LEGACY_SPOOLER\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\SQLSERVERAGENT]
"Type"=dword:00000010
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):43,3a,5c,50,52,4f,47,52,41,7e,31,5
c,4d,49,43,52,4f,53,7e,32,\

5c,4d,53,53,51,4c,5c,62,69,6e,6e,5c,73,71,6c,61,67,65
,6e,74,2e,65,78,65,00
"DisplayName"="SQLSERVERAGENT"
"DependOnService"=hex(7):4d,53,53,51,4c,53,45,52,56,4
5,52,00,00
"DependOnGroup"=hex(7):00
"ObjectName"="LocalSystem"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\SQLSERVERAGENT\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,00,02,\

00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\

00,00,02,00,70,00,04,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,00,\

05,12,00,00,00,20,02,00,00,00,00,1c,00,ff,01,0f,00,01
,02,00,00,00,00,00,05,\

20,00,00,00,20,02,00,00,00,00,00,00,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\

00,00,05,0b,00,00,00,20,02,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\

00,05,20,00,00,00,23,02,00,00,00,00,00,01,01,00,00
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\SQLSERVERAGENT\Enum]
"0"="Root\LEGACY_SRV\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\swenum]
"ErrorControl"=dword:00000001
"Start"=dword:00000003
"Type"=dword:00000001
"DisplayName"="Software Bus Driver"
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4
9,56,45,52,53,5c,73,77,65,\
6e,75,6d,2e,73,79,73,00

```

```

20,00,00,00,20,02,00,00,e0,0f,0d,00,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\

00,00,05,0b,00,00,00,20,02,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\

00,05,20,00,00,00,23,02,00,00,e0,0f,0d,00,01,01,00,00
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Srv]
"Type"=dword:00000002
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"Tag"=dword:00000006
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4
9,56,45,52,53,5c,73,72,76,\
2e,73,79,73,00
"DisplayName"="Srv"
"Group"="Network"
"Description"="Srv"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Srv\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,00,02,\

00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\

00,00,02,00,70,00,04,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,00,\

05,12,00,00,00,20,02,00,00,00,00,1c,00,ff,01,0f,00,01
,02,00,00,00,00,00,05,\

20,00,00,00,20,02,00,00,00,00,00,00,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\

00,00,05,0b,00,00,00,20,02,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\

00,05,20,00,00,00,23,02,00,00,00,00,00,01,01,00,00
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Srv\Enum]
"0"="Root\LEGACY_SRV\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\swenum]
"ErrorControl"=dword:00000001
"Start"=dword:00000003
"Type"=dword:00000001
"DisplayName"="Software Bus Driver"
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4
9,56,45,52,53,5c,73,77,65,\
6e,75,6d,2e,73,79,73,00

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[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\swenum\Devices]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\swenum\Devices\{96e080c7-143c-11d1-b40f-
00a0c9223196}]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\swenum\Devices\{96e080c7-143c-11d1-b40f-
00a0c9223196}\{3C0D501A-140B-11D1-B40F-
00A0C9223196}\{3C0D501A-140B-11D1-B40F-
00A0C9223196}\{3c0d501a-140b-11d1-b40f-00a0c9223196}]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\swenum\Devices\{97ebaacc-95bd-11d0-a3ea-
00a0c9223196}]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\swenum\Devices\{97ebaacc-95bd-11d0-a3ea-
00a0c9223196}\{53172480-4791-11D0-A5D6-
28DB04C10000}\{53172480-4791-11D0-A5D6-
28DB04C10000}\{53172480-4791-11D0-a5d6-28db04c10000}]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\swenum\Devices\{c68127b1-9bea-11d0-8fa5-
00c04fc324c1}]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\swenum\Devices\{c68127b1-9bea-11d0-8fa5-
00c04fc324c1}\{085AFF00-62CE-11CF-A5D6-28DB04C10000}]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\swenum\Devices\{c68127b1-9bea-11d0-8fa5-
00c04fc324c1}\{085AFF00-62CE-11CF-A5D6-
28DB04C10000}\{085aff00-62ce-11cf-a5d6-28db04c10000}]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\swenum\Devices\{c68127b1-9bea-11d0-8fa5-
00c04fc324c1}\{65E8773D-8F56-11D0-A3B9-00A0C9223196}]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\swenum\Devices\{c68127b1-9bea-11d0-8fa5-
00c04fc324c1}\{65E8773D-8F56-11D0-A3B9-
00A0C9223196}\{65E8773d-8f56-11d0-a3b9-00a0c9223196}]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\swenum\Devices\{c68127b1-9bea-11d0-8fa5-
00c04fc324c1}\{65E8773E-8F56-11D0-A3B9-00A0C9223196}]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\swenum\Devices\{c68127b1-9bea-11d0-8fa5-
00c04fc324c1}\{65E8773E-8F56-11D0-A3B9-
00A0C9223196}\{65e8773e-8f56-11d0-a3b9-00a0c9223196}]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\swenum\Devices\{ddf4358e-bb2c-11d0-a42f-
00a0c9223196}]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\swenum\Devices\{ddf4358e-bb2c-11d0-a42f-
00a0c9223196}\{97EBAACB-95BD-11D0-A3EA-00A0C9223196}]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\swenum\Devices\{ddf4358e-bb2c-11d0-a42f-
00a0c9223196}\{97EBAACB-95BD-11D0-A3EA-
00A0C9223196}\{97ebaacb-95bd-11d0-a3ea-00a0c9223196}]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\swenum\Devices\{eeab7790-c514-11d1-b42b-
00805fc1270e}]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\swenum\Devices\{eeab7790-c514-11d1-b42b-
00805fc1270e}\asynccmac}

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\swenum\Devices\{eeab7790-c514-11d1-b42b-
00805fc1270e}\asynccmac}

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\swenum\Enum]
"0"="Root\SYSTEM\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\sync810]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Tag"=dword:0000001a
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\sync810\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\sync810\Parameters\PnpInterface]
"5"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\sync8xx]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Type"=dword:00000001
"Tag"=dword:00000036

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\sync8xx\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\sync8xx\Parameters\PnpInterface]
"5"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\sym_hi]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Type"=dword:00000001
"Tag"=dword:00000037

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\sym_hi\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\sym_hi\Parameters\PnpInterface]
"5"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\SysmonLog]
"Description"="Configures performance logs and
alerts."
"DisplayName"="Performance Logs and Alerts"
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2
5,5c,73,79,73,74,65,6d,33,\
32,5c,73,6d,6c,6f,67,73,76,63,2e,65,78,65,00
"ObjectName"="LocalSystem"
"Start"=dword:00000003
"Type"=dword:00000010
"DefaultLogFileFolder"=hex(2):25,53,79,73,74,65,6d,44
72,69,76,65,25,5c,50,65,\
72,66,4c,6f,67,73,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\SysmonLog\Log Queries]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\SysmonLog\Log Queries\stretch1]
"Current State"=dword:00000000
"Log Type"=dword:00000000
"Counter
List"=hex(7):5c,53,53,54,52,45,54,43,48,5c,43,61,63,6
8,65,5c,2a,00,5c,\
5c,53,54,52,45,54,43,48,5c,49,50,5c,2a,00,5c,5c,53,54
,52,45,54,43,48,5c,4c,\
6f,67,69,63,61,6c,44,69,73,6b,28,2a,29,5c,2a,00,5c,5c
,53,54,52,45,54,43,48,\
5c,4d,65,6d,6f,72,79,5c,2a,00,5c,5c,53,54,52,45,54,43
,48,5c,4e,65,74,77,6f,\
72,6b,20,49,6e,74,65,72,66,61,63,65,28,2a,29,5c,2a,00
,5c,5c,53,54,52,45,54,\
43,48,5c,50,61,67,69,6e,67,20,46,69,6c,65,28,2a,29,5c
,2a,00,5c,5c,53,54,52,\
45,54,43,48,5c,50,68,79,73,69,63,61,6c,44,69,73,6b,28
,2a,29,5c,2a,00,5c,5c,\
53,54,52,45,54,43,48,5c,50,72,6f,63,65,73,73,6f,72,28
,2a,29,5c,2a,00,5c,5c,\

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53,54,52,45,54,43,48,5c,53,65,72,76,65,72,5c,2a,00,5c
,5c,53,54,52,45,54,43,\
48,5c,54,43,50,5c,2a,00,00
"Sample
Interval"=hex:02,00,04,00,03,00,00,00,0f,00,00,00,01,
00,00,00
"Comment"=""
"Log File Max Size"=dword:ffffffff
"Log File Base Name"="stretch1"
"Log File Serial Number"=dword:00000009
"Log File Folder"="C:\PerfLogs"
"Log File Auto Format"=dword:00000001
"Log File Type"=dword:00000002
"EOF Command File"=""
"Start"=hex:01,00,01,00,00,00,00,00,ff,ff,ff,ff,ff,ff,ff,ff
,ff,7f
"Stop"=hex:01,00,02,00,00,00,00,00,00,00,00,00,00,00,00,00,00
,00,00
"Restart"=hex:00,00,00,00
"Last
Modified"=hex:01,00,05,00,00,00,00,00,b0,08,1a,36,3e,
18,c2,01

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\SymonLog\Log Queries\System Overview]
"Current State"=dword:00000000
"Log Type"=dword:00000000
"Counter
List"=hex(7):5c,50,72,6f,63,65,73,73,6f,72,28,5f,54,6
f,74,61,6c,29,5c,\
25,20,50,72,6f,63,65,73,73,6f,72,20,54,69,6d,65,00,5c
,4d,65,6d,6f,72,79,5c,\
50,61,67,65,73,2f,73,65,63,00,5c,50,68,79,73,69,63,61
,6c,44,69,73,6b,28,5f,\
54,6f,74,61,6c,29,5c,41,76,67,2e,20,44,69,73,6b,20,51
,75,65,75,65,20,4c,65,\
6e,67,74,68,00,00
"Sample
Interval"=hex:02,00,04,00,03,00,00,00,0f,00,00,00,01,
00,00,00
"Comment"="This sample log provides an overview of
system performance."
"Log File Max Size"=dword:ffffffff
"Log File Base Name"="System_Overview"
"Log File Serial Number"=dword:00000001
"Log File Folder"="C:\PerfLogs"
"Log File Auto Format"=dword:00000001
"Log File Type"=dword:00000002
"EOF Command File"=""
"Start"=hex:01,00,01,00,00,00,00,00,ff,ff,ff,ff,ff,ff,ff,ff
,ff,7f
"Stop"=hex:01,00,02,00,00,00,00,00,00,00,00,00,00,00,00,00,00
,00,00
"Restart"=hex:00,00,00,00
"Last
Modified"=hex:01,00,05,00,00,00,00,00,4b,9d,4f,66,
11,c2,01
"ExecuteOnly"=dword:00000001

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[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\SymonLog\Enum]
"0"="Root\LEGACY_SYSMONLOG\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\TapiSrv]
"DependOnService"=hex(7):50,6c,75,67,50,6c,61,79,00,5
2,70,63,53,73,00,00
"Description"="Provides Telephony API (TAPI) support
for programs that control telephony devices and IP
based voice connections on the local computer and,
through the LAN, on servers that are also running the
service."
"DisplayName"="Telephony"
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2
5,5c,53,79,73,74,65,6d,33,\
32,5c,73,76,63,68,6f,73,74,2e,65,78,65,20,2d,6b,20,74
,61,70,69,73,72,76,00
"ObjectName"="LocalSystem"
"Start"=dword:00000004
"Type"=dword:00000120

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\TapiSrv\Parameters]
"ServiceDll"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,
25,5c,53,79,73,74,65,6d,\
33,32,5c,74,61,70,69,73,72,76,2e,64,6c,6c,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\TapiSrv\Performance]
"Close"="CloseTapiPerformanceData"
"Collect"="CollectTapiPerformanceData"
"Library"="tapiperf.dll"
"ObjectList"="1150"
"Open"="OpenTapiPerformanceData"
"WbemAdapFileTime"=hex:00,c8,12,f8,b2,40,bf,01
"WbemAdapFileSize"=dword:00001910
"WbemAdapStatus"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\TapiSrv\Security]
"Security"=hex:01,00,14,80,ac,00,00,00,b8,00,00,00,14
,00,00,00,34,00,00,00,02,\
00,20,00,01,00,00,00,02,80,18,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\
00,00,20,02,00,00,02,00,78,00,05,00,00,00,03,14,00
,8d,00,02,00,01,01,00,\
00,00,00,00,01,00,00,00,00,00,03,18,00,ff,01,0f,00,01
,02,00,00,00,00,00,05,\
20,00,00,00,20,02,00,00,03,18,00,8d,00,02,00,01,02
,00,00,00,00,00,05,20,\
00,00,00,23,02,00,00,00,03,14,00,9d,00,00,01,01,00
,00,00,00,00,05,04,00,\

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00,00,00,03,18,00,9d,00,00,00,01,02,00,00,00,00,00,05
,20,00,00,00,21,02,00,\
00,01,01,00,00,00,00,00,05,12,00,00,00,01,01,00,00,00
,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\TapiSrv\Enum]
"0"="Root\LEGACY_TAPISRV\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Tcpip]
"Type"=dword:00000001
"Start"=dword:00000001
"ErrorControl"=dword:00000001
"Tag"=dword:00000004
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4
9,56,45,52,53,5c,74,63,70,\
69,70,2e,73,79,73,00
"DisplayName"="TCP/IP Protocol Driver"
"Group"="PNP_TDI"
"Description"="TCP/IP Protocol Driver"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Tcpip\Linkage]
"Bind"=hex(7):5c,44,65,76,69,63,65,5c,7b,36,31,37,35,
43,34,46,41,2d,34,31,31,\
45,2d,34,43,35,42,2d,38,46,45,33,2d,37,44,33,39,41,35
,38,38,39,31,32,41,7d,\
00,5c,44,65,76,69,63,65,5c,7b,37,44,39,32,36,44,43,43
,2d,33,37,46,34,2d,34,\
42,41,38,2d,41,33,39,38,2d,41,33,43,44,35,39,37,36,42
,34,34,44,7d,00,5c,44,\
65,76,69,63,65,5c,4e,64,69,73,57,61,6e,49,70,00,00
"Route"=hex(7):22,7b,36,31,37,35,43,34,46,41,2d,34,31
,31,45,2d,34,43,35,42,2d,\
38,46,45,33,2d,37,44,33,39,41,35,38,38,39,31,32,41,7d
,22,00,22,7b,37,44,39,\
32,36,44,43,43,2d,33,37,46,34,2d,34,42,41,38,2d,41,33
,39,38,2d,41,33,43,44,\
35,39,37,36,42,34,44,7d,22,00,22,4e,64,69,73,57,61
,6e,49,70,22,00,00
"Export"=hex(7):5c,44,65,76,69,63,65,5c,54,63,70,69,7
0,5f,7b,36,31,37,35,43,34,\
46,41,2d,34,31,31,45,2d,34,43,35,42,2d,38,46,45,33,2d
,37,44,33,39,41,35,38,\
38,39,31,32,41,7d,00,5c,44,65,76,69,63,65,5c,54,63,70
,69,70,5f,7b,37,44,39,\
32,36,44,43,43,2d,33,37,46,34,2d,34,42,41,38,2d,41,33
,39,38,2d,41,33,43,44,\

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35,39,37,36,42,34,34,44,7d,00,5c,44,65,76,69,63,65,5c
,54,63,70,69,70,5f,7b,\
44,41,34,31,32,38,42,43,2d,39,39,36,46,2d,34,41,32,43
,2d,42,38,41,45,2d,37,\
39,41,36,36,42,46,39,38,44,36,43,7d,00,5c,44,65,76,69
,63,65,5c,54,63,70,69,\
70,5f,7b,38,36,45,41,39,39,33,41,2d,38,30,36,42,2d,34
,43,35,35,2d,38,42,45,\
46,2d,36,45,37,45,44,32,36,39,33,46,45,32,7d,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Tcpip\Parameters]
"NV Hostname"="stretch"
"DataBasePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,7
4,25,5c,53,79,73,74,65,6d,\
33,32,5c,64,72,69,76,65,72,73,5c,65,74,63,00
"NameServer"=""
"ForwardBroadcasts"=dword:00000000
"IPEnableRouter"=dword:00000000
"Domain"=""
"Hostname"="stretch"
"SearchList"=""
"UseDomainNameDevolution"=dword:00000001
"EnableICMPRedirect"=dword:00000001
"DeadGWDetectDefault"=dword:00000001
"DontAddDefaultGatewayDefault"=dword:00000000
"EnableSecurityFilters"=dword:00000000
"AllowUnqualifiedQuery"=dword:00000000
"PrioritizeRecordData"=dword:00000001
"ReservedPorts"=hex(7):31,34,33,33,2d,31,34,33,34,00,
00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Tcpip\Parameters\Adapters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Tcpip\Parameters\Adapters\NdisWanIp]
"LLInterface"="WANARP"
"IpConfig"=hex(7):54,63,70,69,70,5c,50,61,72,61,6d,65
,74,65,72,73,5c,49,6e,74,\
65,72,66,61,63,65,73,5c,7b,44,41,34,31,32,38,42,43,2d
,39,39,36,46,2d,34,41,\
32,43,2d,42,38,41,45,2d,37,39,41,36,36,42,46,39,38,44
,36,43,7d,00,54,63,70,\
69,70,5c,50,61,72,61,6d,65,74,65,72,73,5c,49,6e,74,65
,72,66,61,63,65,73,5c,\
7b,38,36,45,41,39,39,33,41,2d,38,30,36,42,2d,34,43,35
,35,2d,38,42,45,46,2d,\
36,45,37,45,44,32,36,39,33,46,45,32,7d,00,00
"NumInterfaces"=dword:00000002
"IpInterfaces"=hex:bc,28,41,da,6f,99,2c,4a,b8,ae,79,a
6,6b,f9,8d,6c,3a,99,ea,86,\
6b,80,55,4c,8b,ef,6e,7e,d2,69,3f,e2

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[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Tcpip\Parameters\Adapters\{6175C4FA-411E-4C5B-8FE3-
7D39A588912A}]
"LLInterface"=""
"IpConfig"=hex(7):54,63,70,69,70,5c,50,61,72,61,6d,65
,74,65,72,73,5c,49,6e,74,\
65,72,66,61,63,65,73,5c,7b,36,31,37,35,43,34,46,41,2d
,34,31,31,45,2d,34,43,\
35,42,2d,38,46,45,33,2d,37,44,33,39,41,35,38,38,39,31
,32,41,7d,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Tcpip\Parameters\Adapters\{7D926DCC-37F4-4BA8-A398-
A3CD5976B44D}]
"LLInterface"=""
"IpConfig"=hex(7):54,63,70,69,70,5c,50,61,72,61,6d,65
,74,65,72,73,5c,49,6e,74,\
65,72,66,61,63,65,73,5c,7b,37,44,39,32,36,44,43,43,2d
,33,37,46,34,2d,34,42,\
41,38,2d,41,33,39,38,2d,41,33,43,44,35,39,37,36,42,34
,34,44,7d,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Tcpip\Parameters\DNSRegisteredAdapters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Tcpip\Parameters\Interfaces]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Tcpip\Parameters\Interfaces\{6175C4FA-411E-4C5B-
8FE3-7D39A588912A}]
"UseZeroBroadcast"=dword:00000000
"EnableDeadGWDetect"=dword:00000001
"EnableDHCP"=dword:00000000
"IPAddress"=hex(7):31,33,30,2e,31,37,36,2e,32,31,32,2
e,37,31,00,00
"SubnetMask"=hex(7):32,35,35,2e,32,35,35,2e,30,2e,30,
00,00
"DefaultGateway"=hex(7):00
"DefaultGatewayMetric"=hex(7):00
"NameServer"="130.168.1.228"
"Domain"=""
"DisableDynamicUpdate"=dword:00000000
"EnableAdapterDomainNameRegistration"=dword:00000000
"InterfaceMetric"=dword:00000001
"TCPAllowedPorts"=hex(7):30,00,00
"UDPAllowedPorts"=hex(7):30,00,00
"RawIPAllowedProtocols"=hex(7):30,00,00
"NTEContextList"=hex(7):30,78,30,30,30,30,30,30,32
,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Tcpip\Parameters\Interfaces\{7D926DCC-37F4-4BA8-
A398-A3CD5976B44D}]
"UseZeroBroadcast"=dword:00000000
"EnableDeadGWDetect"=dword:00000001
"EnableDHCP"=dword:00000000
"IPAddress"=hex(7):31,33,30,2e,31,36,38,2e,32,31,32,2
e,37,30,00,00

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"SubnetMask"=hex(7):32,35,35,2e,32,35,35,2e,30,2e,30,
00,00
"DefaultGateway"=hex(7):00
"DefaultGatewayMetric"=hex(7):00
"NameServer"=""
"Domain"=""
"DisableDynamicUpdate"=dword:00000000
"EnableAdapterDomainNameRegistration"=dword:00000000
"InterfaceMetric"=dword:00000001
"TCPAllowedPorts"=hex(7):30,00,00
"UDPAllowedPorts"=hex(7):30,00,00
"RawIPAllowedProtocols"=hex(7):30,00,00
"NTEContextList"=hex(7):30,78,30,30,30,30,30,30,33
,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Tcpip\Parameters\Interfaces\{86EA993A-806B-4C55-
8BEF-6E7ED2693FE2}]
"UseZeroBroadcast"=dword:00000000
"EnableDHCP"=dword:00000000
"IPAddress"=hex(7):30,2e,30,2e,30,2e,30,00,00
"SubnetMask"=hex(7):30,2e,30,2e,30,2e,30,00,00
"DefaultGateway"=hex(7):00
"EnableDeadGWDetect"=dword:00000001
"DontAddDefaultGateway"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Tcpip\Parameters\Interfaces\{DA4128BC-996F-4A2C-
B8AE-79A66BF98D6C}]
"UseZeroBroadcast"=dword:00000000
"EnableDHCP"=dword:00000000
"IPAddress"=hex(7):30,2e,30,2e,30,2e,30,00,00
"SubnetMask"=hex(7):30,2e,30,2e,30,2e,30,00,00
"DefaultGateway"=hex(7):00
"EnableDeadGWDetect"=dword:00000001
"DontAddDefaultGateway"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Tcpip\Parameters\PersistentRoutes]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Tcpip\Parameters\Winsock]
"UseDelayedAcceptance"=dword:00000000
"HelperDllName"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,
74,25,5c,53,79,73,74,65,\
6d,33,32,5c,77,73,68,74,63,70,69,70,2e,64,6c,6c,00
"MaxSockAddrLength"=dword:00000010
"MinSockAddrLength"=dword:00000010
"Mapping"=hex:0b,00,00,00,03,00,00,00,02,00,00,00,01,
00,00,00,06,00,00,00,02,\
00,00,00,01,00,00,00,00,00,00,02,00,00,00,00,00,00,
00,06,00,00,00,00,00,\
00,00,00,00,00,00,06,00,00,00,00,00,00,00,01,00,00,00
,06,00,00,00,02,00,00,\
00,02,00,00,00,11,00,00,00,02,00,00,00,02,00,00,00,
00,00,00,02,00,00,00,\
00,00,00,00,11,00,00,00,00,00,00,00,00,00,00,11,00
,00,00,00,00,00,02,\

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00,00,00,11,00,00,00,02,00,00,00,03,00,00,00,00,00,00,00,00
,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Tcpip\Performance]
"Close"="CloseTcpIpPerformanceData"
"Collect"="CollectTcpIpPerformanceData"
"Library"="Perfctrs.dll"
"Open"="OpenTcpIpPerformanceData"
"WbemAdapFileTime"=hex:00,73,79,5b,bc,d4,c0,01
"WbemAdapFileSize"=dword:0000a310
"WbemAdapStatus"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Tcpip\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,00,02,\

00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,01,00,00,\

00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,\

05,12,00,00,00,02,00,00,00,00,00,1c,00,ff,01,0f,00,01
,02,00,00,00,00,00,05,\

20,00,00,00,20,02,00,00,03,00,00,00,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\

00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\

00,05,20,00,00,00,23,02,00,00,03,00,00,00,01,01,00,00
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Tcpip\ServiceProvider]
"Class"=dword:00000008
"DnsPriority"=dword:000007d0
"HostsPriority"=dword:000001f4
"LocalPriority"=dword:000001f3
"ProviderPath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,7
4,25,5c,53,79,73,74,65,6d,\
33,32,5c,77,73,6f,63,6b,33,32,2e,64,6c,6c,00
"NetbtPriority"=dword:000007d1
"Name"="TCP/IP"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Tcpip\Enum]
"0"="Root\LEGACY_TCPIP\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\TDASYNC]
"ErrorControl"=dword:00000000
"Start"=dword:00000003
"Type"=dword:00000001

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[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\TDIPX]
"ErrorControl"=dword:00000000
"Start"=dword:00000003
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\TDNETB]
"ErrorControl"=dword:00000000
"Start"=dword:00000003
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\TDPIPE]
"ErrorControl"=dword:00000000
"Start"=dword:00000003
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\TDSPX]
"ErrorControl"=dword:00000000
"Start"=dword:00000003
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\TDTCP]
"ErrorControl"=dword:00000000
"Start"=dword:00000003
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\TDTCP\Enum]
"0"="Root\LEGACY_TDTCPIP\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\TermDD]
"Start"=dword:00000002
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):5c,53,79,73,74,65,6d,52,6f,6f,74,5
c,53,79,73,74,65,6d,33,32,\
5c,64,72,69,76,65,72,73,5c,74,65,72,6d,64,64,2e,73,79
,73,00
"Type"=dword:00000001
"DisplayName"="Terminal Device Driver"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\TermDD\Enum]
"0"="Root\LEGACY_TERMDD\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\TermService]
"Start"=dword:00000002
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2
5,5c,53,79,73,74,65,6d,33,\
32,5c,74,65,72,6d,73,72,76,2e,65,78,65,00
"ObjectName"="LocalSystem"
"Type"=dword:00000010

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```

"Description"="Provides a multisession environment
that allows client devices to access a virtual
Windows 2000 Professional desktop session and
Windows-based programs running on the server."
"DisplayName"="Terminal Services"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\TermService\Parameters]
"UseLicenseServer"=dword:00000000
"fiInternetConnector"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\TermService\Performance]
"Close"="CloseTSObject"
"Collect Timeout"=dword:000003e8
"Collect"="CollectTSObjectData"
"Open Timeout"=dword:000003e8
"Open"="OpenTSObject"
"Library"="perfts.dll"
"Last Counter"=dword:000008d8
"Last Help"=dword:000008d9
"First Counter"=dword:00000858
"First Help"=dword:00000859
"Object List"="2136 2258"
"WbemAdapFileTime"=hex:00,c8,12,f8,b2,40,bf,01
"WbemAdapFileSize"=dword:00003110
"WbemAdapStatus"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\TermService\Enum]
"0"="Root\LEGACY_TERMSERVICE\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\tga]
"BootDriver"=dword:00000001
"ErrorControl"=dword:00000000
"Group"="Video"
"Start"=dword:00000001
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\tga\Device0]
"InstalledDisplayDrivers"=hex(7):74,67,61,00,00
"VgaCompatible"=dword:00000000

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\TlntSvr]
"DependOnService"=hex(7):52,70,63,53,73,00,54,63,70,4
9,70,00,00
"Description"="Allows a remote user to log on to the
system and run console programs using the command
line."
"DisplayName"="Telnet"
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2
5,5c,73,79,73,74,65,6d,33,\
32,5c,74,6c,6e,74,73,76,72,2e,65,78,65,00
"ObjectName"="LocalSystem"
"Start"=dword:00000003
"Type"=dword:00000010

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```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\TrkSvr]
"Description"="Stores information so that files moved between volumes can be tracked for each volume in the domain."
"DisplayName"="Distributed Link Tracking Server"
"DependOnService"=hex(7):52,70,63,53,73,00,00
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,73,79,73,74,65,6d,33,\
32,5c,73,65,72,76,69,63,65,73,2e,65,78,65,00
"ObjectName"="LocalSystem"
"Start"=dword:00000003
"Type"=dword:00000020

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\TrkSvr\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\TrkWks]
"Description"="Sends notifications of files moving between NTFS volumes in a network domain."
"DisplayName"="Distributed Link Tracking Client"
"DependOnService"=hex(7):52,70,63,53,73,00,00
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,73,79,73,74,65,6d,33,\
32,5c,73,65,72,76,69,63,65,73,2e,65,78,65,00
"ObjectName"="LocalSystem"
"Start"=dword:00000002
"Type"=dword:00000020

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\TrkWks\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\TrkWks\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\
00,00,02,00,78,00,05,00,00,00,00,14,00,8d,01,02,00,01,01,00,00,00,00,\
05,0b,00,00,00,00,18,00,9d,01,02,00,01,02,00,00,00,00,00,05,20,00,00,00,\
23,02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00,20,\
02,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00,25,02,\
00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,00,05,12,00,00,00,01,01,00,\
00,00,00,05,12,00,00,00,01,01,00,00,00,00,00,05,12,00,00,00,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\TrkWks\Enum]

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"0"="Root\LEGACY_TRKWKS\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Udfs]
"ErrorControl"=dword:00000001
"Group"="File system"
"Start"=dword:00000004
"Type"=dword:00000002

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ultra66]
"ErrorControl"=dword:00000001
"Group"="SCSI miniport"
"Start"=dword:00000004
"Tag"=dword:0000003b
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ultra66\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ultra66\Parameters\PnpInterface]
"5"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Update]
"ErrorControl"=dword:00000001
"Start"=dword:00000003
"Type"=dword:00000001
"DisplayName"="Microcode Update Driver"
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,49,56,45,52,53,5c,75,70,64,\
61,74,65,2e,73,79,73,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Update\Devices]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Update\Enum]
"0"="Root\SYSTEM\0001"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\UPS]
"Description"="Manages an uninterruptible power supply (UPS) connected to the computer."
"DisplayName"="Uninterruptible Power Supply"
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,\
32,5c,75,70,73,2e,65,78,65,00
"ObjectName"="LocalSystem"
"Start"=dword:00000003
"Type"=dword:00000010

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\UtilMan]
"Description"="Starts and configures accessibility tools from one window"
"DisplayName"="Utility Manager"

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"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,25,5c,53,79,73,74,65,6d,33,\
32,5c,55,74,69,6c,4d,61,6e,2e,65,78,65,00
"Start"=dword:00000003
"ObjectName"="LocalSystem"
"Type"=dword:00000110

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\UtilMan\Security]
"Security"=hex:01,00,14,80,bc,00,00,00,c8,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\
00,00,02,00,8c,00,05,00,00,00,00,00,18,00,8d,01,02,00,01,01,00,00,00,00,00,\
05,0b,00,00,00,00,00,00,00,00,1c,00,fd,01,02,00,01,02,00,00,00,00,00,05,\
20,00,00,00,23,02,00,00,9d,37,5c,92,00,00,1c,00,ff,01,0f,00,01,02,00,00,\
00,00,05,20,00,00,20,02,00,00,9d,37,5c,92,00,00,1c,00,ff,01,0f,00,01,02,\
00,00,00,00,00,05,20,00,00,00,25,02,00,00,9d,37,5c,92,00,00,18,00,fd,01,02,\
00,01,01,00,00,00,00,00,05,12,00,00,00,25,02,00,00,01,01,00,00,00,00,05,\
12,00,00,00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\VgaSave]
"ErrorControl"=dword:00000000
"Group"="Video Save"
"ImagePath"=hex(2):5c,53,79,73,74,65,6d,52,6f,6f,74,5c,53,79,73,74,65,6d,33,32,\
5c,64,72,69,76,65,72,73,5c,76,67,61,2e,73,79,73,00
"Start"=dword:00000001
"Tag"=dword:00000001
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\VgaSave\Device0]
"InstalledDisplayDrivers"=hex(7):76,67,61,00,00
"VgaCompatible"=dword:00000001
"HardwareInformation.Crc32"=hex:01,05,b7,a4

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\VgaSave\Enum]
"0"="Root\LEGACY_VGASAVE\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W32Time]
"Description"="Sets the computer clock."
"DisplayName"="Windows Time"
"ErrorControl"=dword:00000001

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"Group"=""
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2
5,5c,53,79,73,74,65,6d,33,\
32,5c,73,65,72,76,69,63,65,73,2e,65,78,65,00
"ObjectName"="LocalSystem"
"Start"=dword:00000003
"Type"=dword:00000020

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\W32Time\Parameters]
"LocalNTP"=dword:00000000
"Period"="SpecialSkew"
"type"="Nt5DS"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\W32Time\Security]
"Security"=hex:01,00,14,80,a8,00,00,00,b4,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,01,00,00,\
00,00,02,00,78,00,05,00,00,00,03,14,00,8d,00,02,00
,01,01,00,00,00,00,\
01,00,00,00,00,03,18,00,ff,01,0f,00,01,02,00,00,00
,00,05,20,00,00,00,\
20,02,00,00,03,18,00,8d,00,02,00,01,02,00,00,00,00
,00,05,20,00,00,00,23,\
02,00,00,00,03,14,00,9d,00,00,00,01,01,00,00,00,00,00
,05,04,00,00,00,00,03,\
18,00,9d,00,00,00,01,02,00,00,00,00,05,20,00,00,00
,21,02,00,00,01,01,00,\
00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,05,12
,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\W3SVC]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\W3SVC\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\W3SVC\Parameters\ADCLaunch]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\W3SVC\Parameters\ADCLaunch\AdvancedDataFactory]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\W3SVC\Parameters\ADCLaunch\RDSSTServer.DataFactory]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\W3SVC\Parameters\Virtual Roots]
"MSADC"=hex(2):5c,73,79,73,74,65,6d,5c,6d,73,61,64,6
3,2c,2c,35,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Wanarp]
"Type"=dword:00000001

```

```

"Start"=dword:00000003
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4
9,56,45,52,53,5c,77,61,6e,\
61,72,70,2e,73,79,73,00
"DisplayName"="Remote Access IP ARP Driver"
"Description"="Remote Access IP ARP Driver"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Wanarp\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,00,\
05,12,00,00,00,61,00,6c,00,00,00,1c,00,ff,01,0f,00,01
,02,00,00,00,00,00,05,\
20,00,00,00,20,02,00,00,6c,00,65,00,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\
00,05,20,00,00,00,23,02,00,00,6c,00,65,00,01,01,00,00
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Wanarp\Enum]
"0"="Root\LEGACY_WANARP\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\WDICA]
"ErrorControl"=dword:00000000
"Start"=dword:00000003
"Type"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\WinMgmt]
"Type"=dword:00000010
"Start"=dword:00000002
"ErrorControl"=dword:00000000
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2
5,5c,53,79,73,74,65,6d,33,\
32,5c,57,42,45,4d,5c,57,69,6e,4d,67,6d,74,2e,65,78,65
,00
"DisplayName"="Windows Management Instrumentation"
"DependOnService"=hex(7):52,50,43,53,53,00,00
"DependOnGroup"=hex(7):00
"ObjectName"="LocalSystem"
"Description"="Provides system management
information."
"FailureActions"=hex:80,51,01,00,00,00,00,00,00,00,00
,00,02,00,00,00,88,3f,09,\
00,01,00,00,00,60,ea,00,00,01,00,00,00,60,ea,00,00

```

```

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\WinMgmt\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,00,\
05,12,00,00,00,20,02,00,00,00,00,1c,00,ff,01,0f,00,01
,02,00,00,00,00,00,05,\
20,00,00,00,20,02,00,00,79,00,00,00,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\
00,05,20,00,00,00,23,02,00,00,79,00,00,00,01,01,00,00
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\WinMgmt\Enum]
"0"="Root\LEGACY_WINMGMT\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Winsock]
"ErrorControl"=dword:00000001
"Start"=dword:00000003
"Type"=dword:00000004

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Winsock\Parameters]
"Transports"=hex(7):54,63,70,69,70,00,4e,65,74,42,49,
4f,53,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Winsock\Setup Migration]
"Setup Version"=dword:00001009
"Provider
List"=hex(7):54,63,70,69,70,00,4e,65,74,42,49,4f,53,0
0,00
"Known Static
Providers"=hex(7):54,63,70,69,70,00,4e,77,6c,6e,6b,49
,70,78,00,\
4e,77,6c,6e,6b,53,70,78,00,41,70,70,6c,65,54,61,6c,6b
,00,49,73,6f,54,70,00,\
00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Winsock\Setup Migration\Providers]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Winsock\Setup Migration\Providers\NetBIOS]

```

```
"WinSock 1.1 Provider
Data"=hex:0e,10,00,00,11,00,00,00,14,00,00,00,14,00,0,
0,
\
00,05,00,00,00,fd,ff,ff,ff,00,fa,00,00,3a,04,00,00,09,
12,00,00,11,00,00,00,\
14,00,00,00,14,00,00,00,02,00,00,00,fd,ff,ff,ff,00,fa,
00,00,c4,03,00,00,0e,\
10,00,00,11,00,00,00,14,00,00,00,14,00,00,00,05,00,00,
00,00,00,00,80,00,fa,\
00,00,4e,03,00,00,09,12,00,00,11,00,00,00,14,00,00,00,
14,00,00,00,02,00,00,\
00,00,00,00,80,00,fa,00,00,d8,02,00,00,0e,10,00,00,11,
00,00,00,14,00,00,00,\
14,00,00,00,05,00,00,00,ff,ff,ff,ff,00,fa,00,00,62,02,
00,00,09,12,00,00,11,\
00,00,00,14,00,00,00,14,00,00,00,02,00,00,00,ff,ff,ff,
ff,00,fa,00,00,ec,01,\
00,00,0e,10,00,00,11,00,00,00,14,00,00,00,14,00,00,00,
05,00,00,00,fe,ff,ff,\
ff,00,fa,00,00,76,01,00,00,09,12,00,00,11,00,00,00,14,
00,00,00,14,00,00,00,\
02,00,00,00,fe,ff,ff,ff,00,fa,00,00,00,01,00,00,5c,00,
44,00,65,00,76,00,69,\
00,63,00,65,00,5c,00,4e,00,65,00,74,00,42,00,54,00,5f,
00,54,00,63,00,70,00,\
69,00,70,00,5f,00,7b,00,38,00,36,00,45,00,41,00,39,00,
39,00,33,00,41,00,2d,\
00,38,00,30,00,36,00,42,00,2d,00,34,00,43,00,35,00,35,
00,2d,00,38,00,42,00,\
45,00,46,00,2d,00,36,00,45,00,37,00,45,00,44,00,32,00,
36,00,39,00,33,00,46,\
00,45,00,32,00,7d,00,00,00,5c,00,44,00,65,00,76,00,69,
00,63,00,65,00,5c,00,\
4e,00,65,00,74,00,42,00,54,00,5f,00,54,00,63,00,70,00,
69,00,70,00,5f,00,7b,\
00,38,00,36,00,45,00,41,00,39,00,39,00,33,00,41,00,2d,
00,38,00,30,00,36,00,\
42,00,2d,00,34,00,43,00,35,00,35,00,2d,00,38,00,42,00,
45,00,46,00,2d,00,36,\
00,45,00,37,00,45,00,44,00,32,00,36,00,39,00,33,00,46,
00,45,00,32,00,7d,00,\
00,00,5c,00,44,00,65,00,76,00,69,00,63,00,65,00,5c,00,
4e,00,65,00,74,00,42,\
```

```
00,54,00,5f,00,54,00,63,00,70,00,69,00,70,00,5f,00,7b,
00,44,00,41,00,34,00,\
31,00,32,00,38,00,42,00,43,00,2d,00,39,00,39,00,36,00,
46,00,2d,00,34,00,41,\
00,32,00,43,00,2d,00,42,00,38,00,41,00,45,00,2d,00,37,
00,39,00,41,00,36,00,\
36,00,42,00,46,00,39,00,38,00,44,00,36,00,43,00,7d,00,
00,00,5c,00,44,00,65,\
00,76,00,69,00,63,00,65,00,5c,00,4e,00,65,00,74,00,42,
00,54,00,5f,00,54,00,\
63,00,70,00,69,00,70,00,5f,00,7b,00,44,00,41,00,34,00,
31,00,32,00,38,00,42,\
00,43,00,2d,00,39,00,39,00,36,00,46,00,2d,00,34,00,41,
00,32,00,43,00,2d,00,\
42,00,38,00,41,00,45,00,2d,00,37,00,39,00,41,00,36,00,
36,00,42,00,46,00,39,\
00,38,00,44,00,36,00,43,00,7d,00,00,00,5c,00,44,00,65,
00,76,00,69,00,63,00,\
65,00,5c,00,4e,00,65,00,74,00,42,00,54,00,5f,00,54,00,
63,00,70,00,69,00,70,\
00,5f,00,7b,00,37,00,44,00,39,00,32,00,36,00,44,00,43,
00,43,00,2d,00,33,00,\
37,00,46,00,34,00,2d,00,34,00,42,00,41,00,38,00,2d,00,
41,00,33,00,39,00,38,\
00,2d,00,41,00,33,00,43,00,44,00,35,00,39,00,37,00,36,
00,42,00,34,00,34,00,\
44,00,7d,00,00,00,5c,00,44,00,65,00,76,00,69,00,63,00,
65,00,5c,00,4e,00,65,\
00,74,00,42,00,54,00,5f,00,54,00,63,00,70,00,69,00,70,
00,5f,00,7b,00,37,00,\
44,00,39,00,32,00,36,00,44,00,43,00,43,00,2d,00,33,00,
37,00,46,00,34,00,2d,\
00,34,00,42,00,41,00,38,00,2d,00,41,00,33,00,39,00,38,
00,2d,00,41,00,33,00,\
43,00,44,00,35,00,39,00,37,00,36,00,42,00,34,00,34,00,
44,00,7d,00,00,00,5c,\
00,44,00,65,00,76,00,69,00,63,00,65,00,5c,00,4e,00,65,
00,74,00,42,00,54,00,\
5f,00,54,00,63,00,70,00,69,00,70,00,5f,00,7b,00,36,00,
31,00,37,00,35,00,43,\
00,34,00,46,00,41,00,2d,00,34,00,31,00,31,00,45,00,2d,
00,34,00,43,00,35,00,\
```

```
42,00,2d,00,38,00,46,00,45,00,33,00,2d,00,37,00,44,00,
33,00,39,00,41,00,35,\
00,38,00,38,00,39,00,31,00,32,00,41,00,7d,00,00,00,5c,
00,44,00,65,00,76,00,\
69,00,63,00,65,00,5c,00,4e,00,65,00,74,00,42,00,54,00,
5f,00,54,00,63,00,70,\
00,69,00,70,00,5f,00,7b,00,36,00,31,00,37,00,35,00,43,
00,34,00,46,00,41,00,\
2d,00,34,00,31,00,31,00,45,00,2d,00,34,00,43,00,35,00,
42,00,2d,00,38,00,46,\
00,45,00,33,00,2d,00,37,00,44,00,33,00,39,00,41,00,35,
00,38,00,38,00,39,00,\
31,00,32,00,41,00,7d,00,00,00
"WinSock 2.0 Provider
ID"=hex:30,18,5f,8d,73,c2,cf,11,95,c8,00,80,5f,48,a1,
92
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Winsock\Setup Migration\Providers\Tcpip]
"WinSock 2.0 Provider
ID"=hex:a0,1a,0f,e7,8b,ab,cf,11,8c,a3,00,80,5f,48,a1,
92
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Winsock\Setup Migration\Well Known Guides]
"IsoTp"=hex:b0,cb,e4,89,c1,b9,cf,11,95,c8,00,80,5f,48,
a1,92
"McsXns"=hex:bl,cb,e4,89,c1,b9,cf,11,95,c8,00,80,5f,4
8,a1,92
"AppleTalk"=hex:a0,17,3b,2c,df,c6,cf,11,95,c8,00,80,5
f,48,a1,92
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\WinSock2]
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\WinSock2\Parameters]
"WinSock_Registry_Version"="2.0"
"Current_NameSpace_Catalog"="NameSpace_Catalog5"
"Current_Protocol_Catalog"="Protocol_Catalog9"
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\WinSock2\Parameters\NameSpace_Catalog5]
"Num_Catalog_Entries"=dword:00000002
"Serial_Access_Num"=dword:00000003
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\WinSock2\Parameters\NameSpace_Catalog5\Catalog_Entri
es]
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\WinSock2\Parameters\NameSpace_Catalog5\Catalog_Entri
es\000000000001]
"LibraryPath"="%SystemRoot%\System32\rnr20.dll"
"DisplayString"="Tcpip"
"ProviderId"=hex:40,9d,05,22,9e,7e,cf,11,ae,5a,00,aa,
00,a7,11,2b
```



```
"DisplayName"="Windows Management Instrumentation
Driver Extensions"
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):25,53,79,73,74,65,6d,52,6f,6f,74,2
5,5c,73,79,73,74,65,6d,33,\
32,5c,53,65,72,76,69,63,65,73,2e,65,78,65,00
"ObjectName"="LocalSystem"
"Start"=dword:00000003
"Type"=dword:00000020
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Wmi\Security]
"Security"=hex:01,00,14,80,b4,00,00,00,c0,00,00,00,14
,00,00,00,34,00,00,00,02,\
```

```
00,20,00,01,00,00,00,02,80,18,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\
```

```
00,00,20,02,00,00,02,00,80,00,05,00,00,00,00,03,18,00
,8d,00,02,00,01,01,00,\
```

```
00,00,00,00,01,00,00,00,00,00,00,00,00,00,03,18,00,ff
,01,0f,00,01,02,00,00,\
```

```
00,00,00,05,20,00,00,00,20,02,00,00,00,03,18,00,8f,00
,02,00,01,02,00,00,00,\
```

```
00,00,05,20,00,00,00,23,02,00,00,03,18,00,9d,00,00
,00,01,01,00,00,00,00,\
```

```
00,05,04,00,00,00,23,02,00,00,00,03,18,00,9d,00,00,00
,01,02,00,00,00,00,00,\
```

```
05,20,00,00,00,21,02,00,00,01,01,00,00,00,00,00,05,12
,00,00,00,01,01,00,00,\
00,00,00,05,12,00,00,00
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\Wmi\Enum]
"0"="Root\LEGACY_WMI\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\{6175C4FA-411E-4C5B-8FE3-7D39A588912A}]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\{6175C4FA-411E-4C5B-8FE3-7D39A588912A}\Parameters]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\{6175C4FA-411E-4C5B-8FE3-7D39A588912A}\Parameters\Tcpip]
"EnableDHCP"=dword:00000000
"IPAddress"=hex(7):31,33,30,2e,31,37,36,2e,32,31,32,2
e,37,31,00,00
"SubnetMask"=hex(7):32,35,35,2e,32,35,35,2e,30,2e,30,
00,00
"DefaultGateway"=hex(7):00
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\{7D926DCC-37F4-4BA8-A398-A3CD5976B44D}]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\{7D926DCC-37F4-4BA8-A398-A3CD5976B44D}\Parameters]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\{7D926DCC-37F4-4BA8-A398-
A3CD5976B44D}\Parameters\Tcpip]
"EnableDHCP"=dword:00000000
"IPAddress"=hex(7):31,33,30,2e,31,36,38,2e,32,31,32,2
e,37,30,00,00
"SubnetMask"=hex(7):32,35,35,2e,32,35,35,2e,30,2e,30,
00,00
"DefaultGateway"=hex(7):00
```

TPCC Application Registry Parameters

REGEDIT4

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\TPCC]
"Path"="C:\\Inetpub\\wwwroot\\"
"NumberOfDeliveryThreads"=dword:0000001e
"MaxConnections"=dword:00003a98
"MaxPendingDeliveries"=dword:000003e8
"DB_Protocol"="DBLIB"
"TxnMonitor"="COM"
"DbServer"="stretch"
"DbName"="tpcc"
"DbUser"="sa"
"DbPassword"=""
"COM_SinglePool"="YES"
```

Server Bus Performance Driver Registry Parameters

REGEDIT4

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\cpqcissb]
"Type"=dword:00000001
"Start"=dword:00000000
"ErrorControl"=dword:00000001
"Tag"=dword:00000102
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,4
9,56,45,52,53,5c,63,70,71,\
```

```
63,69,73,73,62,2e,73,79,73,00
"DisplayName"="Compaq CISS Controllers Device Driver"
"Group"="port"
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\cpqcissb\Parameters]
"CompletionMode"=dword:00000002
"CosTimerRate"=dword:00000002
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\cpqcissb\Parameters\Controller0]
"CompletionMode"=dword:00000001
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\cpqcissb\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,00,02,\
```

```
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,00,01,00,00,\
```

```
00,00,02,00,70,00,04,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,00,\
```

```
05,12,00,00,00,74,00,69,00,00,00,1c,00,ff,01,0f,00,01
,02,00,00,00,00,00,05,\
```

```
20,00,00,00,20,02,00,00,76,00,65,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\
```

```
00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\
```

```
00,05,20,00,00,00,23,02,00,00,76,00,65,00,01,01,00,00
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,00,05,12,00,00,00
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\cpqcissb\Enum]
"0"="PCI\VEN_0E11&DEV_B060&SUBSYS_40700E11&REV_02\3
&13c0b0c5&0&08"
"Count"=dword:00000003
"NextInstance"=dword:00000003
"1"="PCI\VEN_0E11&DEV_B060&SUBSYS_40700E11&REV_02\3
&1070020&0&08"
"2"="PCI\VEN_0E11&DEV_B060&SUBSYS_40700E11&REV_02\3
&29e81982&0&08"
```

Server Disk Device Performance Driver Registry Parameters

REGEDIT4

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\cpqccissd]
"Type"=dword:00000001
"Start"=dword:00000000
"ErrorControl"=dword:00000001
"Tag"=dword:00000102
"ImagePath"=hex(2):53,79,73,74,65,6d,33,32,5c,44,52,49,56,45,52,53,5c,63,70,71,\
63,69,73,73,64,2e,73,79,73,00
"DisplayName"="Compaq CISS Controllers Disk Driver"
"Group"="Primary Disk"
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\cpqccissd\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14,00,00,00,30,00,00,00,02,\
```

```
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,01,00,00,\
```

```
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00,01,01,00,00,00,00,\
```

```
05,12,00,00,00,74,00,69,00,00,00,1c,00,ff,01,0f,00,01,02,00,00,00,00,05,\
```

```
20,00,00,00,20,02,00,00,76,00,65,00,00,00,18,00,8d,01,02,00,01,01,00,00,00,\
```

```
00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02,00,01,02,00,00,00,00,\
```

```
00,05,20,00,00,00,23,02,00,00,76,00,65,00,01,01,00,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,05,12,00,00,00
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\cpqccissd\Enum]
"0"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\4&2d73aec0&0&0000004000000000"
"Count"=dword:0000000a
"NextInstance"=dword:0000000a
"1"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\4&2d73aec0&0&0100004000000000"
"2"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\4&33332ab6&0&0000004000000000"
```

```
"3"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\4&33332ab6&0&0100004000000000"
"4"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\4&33332ab6&0&0200004000000000"
"5"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\4&33332ab6&0&0300004000000000"
"6"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\4&38eb4840&0&0000004000000000"
"7"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\4&38eb4840&0&0100004000000000"
"8"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\4&38eb4840&0&0200004000000000"
"9"="CPQCISS\Disk&VEN_COMPAQ&PROD_LOGICAL_VOLUME\4&38eb4840&0&0300004000000000"
```

System Summary

System Information report written at: 07/22/2002
04:21:12 PM
[System Information]

[Following are sub-categories of this main category]

[System Summary]

Item	Value
OS Name	Microsoft Windows 2000 Server
Version	5.0.2195 Service Pack 2 Build 2195
OS Manufacturer	Microsoft Corporation
System Name	STRETCH
System Manufacturer	Compaq
System Model	ProLiant ML530 G2
System Type	X86-based PC
Processor	x86 Family 15 Model 2 Stepping 4
GenuineIntel	~37422 Mhz
Processor	x86 Family 15 Model 2 Stepping 4
GenuineIntel	~37422 Mhz
BIOS Version	12/25/33
Windows Directory	C:\WINNT
System Directory	C:\WINNT\System32
Boot Device	\Device\Harddisk0\Partition1
Locale	United States
User Name	STRETCH\Administrator
Time Zone	Central Daylight Time
Total Physical Memory	2,096,660 KB
Available Physical Memory	1,895,152 KB
Total Virtual Memory	8,227,856 KB
Available Virtual Memory	7,969,172 KB
Page File Space	6,131,196 KB
Page File	C:\pagefile.sys

[Hardware Resources]

[Following are sub-categories of this main category]

[Conflicts/Sharing]

Resource	Device
IRQ 3	Compaq Advanced System Management Controller
IRQ 3	Communications Port (COM1)
IRQ 15	Compaq PCI Hotplug Controller
IRQ 15	Compaq PCI Hotplug Controller

[DMA]

Channel	Device	Status
7	Direct memory access controller	OK
2	Standard floppy disk controller	OK

[Forced Hardware]

Device	PNP Device ID
No Forced Hardware	

[I/O]

Address Range	Device	Status
0x0000-0x0CFF	PCI bus	OK
0x0000-0x0CFF	PCI bus	OK
0x0000-0x0CFF	Direct memory access controller	OK
0x03B0-0x03BB	PCI bus	OK
0x03B0-0x03BB	ATI Technologies Inc. RAGE XL PCI	OK
0x03C0-0x03DF	PCI bus	OK
0x03C0-0x03DF	ATI Technologies Inc. RAGE XL PCI	OK
0x1800-0x18FF	Compaq Advanced System Management Controller	OK
0x2400-0x24FF	ATI Technologies Inc. RAGE XL PCI	OK
0x2800-0x283F	Compaq NC3163 Fast Ethernet NIC	OK
0x0A79-0x0A79	ISAPNP Read Data Port	OK
0x0279-0x0279	ISAPNP Read Data Port	OK
0x02F4-0x02F7	ISAPNP Read Data Port	OK
0x0F50-0x0F58	Motherboard resources	OK
0x0020-0x0021	Programmable interrupt controller	OK
0x00A0-0x00A1	Programmable interrupt controller	OK
0x0C00-0x0C01	Programmable interrupt controller	OK
0x0040-0x0043	System timer	OK
0x0080-0x008F	Direct memory access controller	OK
0x00C0-0x00DF	Direct memory access controller	OK
0x040B-0x040B	Direct memory access controller	OK
0x04D6-0x04D6	Direct memory access controller	OK
0x0061-0x0061	System speaker	OK
0x0060-0x0060	Standard 101/102-Key or Microsoft	OK
Natural PS/2 Keyboard		OK
0x0064-0x0064	Standard 101/102-Key or Microsoft	OK
Natural PS/2 Keyboard		OK
0x002E-0x002F	Extended IO Bus	OK

```

0x0220-0x0223 Extended IO Bus OK
0x0230-0x0233 Extended IO Bus OK
0x0240-0x025F Extended IO Bus OK
0x0260-0x0267 Extended IO Bus OK
0x0378-0x037F Printer Port (LPT1) OK
0x02F8-0x02FF Communications Port (COM1) OK
0x03F8-0x03FF Communications Port (COM2) OK
0x03F2-0x03F5 Standard floppy disk controller
OK
0x03F7-0x03F7 Standard floppy disk controller
OK
0x2000-0x200F Standard Dual Channel PCI IDE
Controller OK
0x01F0-0x01F7 Primary IDE Channel OK
0x03F6-0x03F6 Primary IDE Channel OK
0x0170-0x0177 Secondary IDE Channel OK
0x0376-0x0376 Secondary IDE Channel OK
0x3000-0x343F PCI bus OK
0x3000-0x343F Compaq Smart Array 5300
Controller (Non-Miniport) OK
0x3400-0x343F Compaq NC3123 Fast Ethernet NIC
OK
0x4000-0x40FF PCI bus OK
0x4000-0x40FF Compaq Smart Array 5300
Controller (Non-Miniport) OK
0x5000-0x50FF PCI bus OK
0x5000-0x50FF Compaq Smart Array 5300
Controller (Non-Miniport) OK

```

[IRQs]

```

IRQ Number Device
9 Microsoft ACPI-Compliant System
3 Compaq Advanced System Management
Controller
3 Communications Port (COM1)
29 Compaq NC3163 Fast Ethernet NIC
1 Standard 101/102-Key or Microsoft Natural
PS/2 Keyboard
12 PS/2 Compatible Mouse
4 Communications Port (COM2)
6 Standard floppy disk controller
14 Primary IDE Channel
16 Compaq Smart Array 5300 Controller (Non-
Miniport)
18 Compaq NC3123 Fast Ethernet NIC
15 Compaq PCI Hotplug Controller
15 Compaq PCI Hotplug Controller
20 Compaq Smart Array 5300 Controller (Non-
Miniport)
24 Compaq Smart Array 5300 Controller (Non-
Miniport)

```

[Memory]

```

Range Device Status
0xA0000-0xBFFFF PCI bus OK
0xA0000-0xBFFFF ATI Technologies Inc. RAGE XL PCI
OK
0xF5E00000-0xF75FFFFF PCI bus OK
0xF5E00000-0xF75FFFFF Compaq NC3163 Fast
Ethernet NIC OK

```

```

0xF75F0000-0xF75F00FF Compaq Advanced System
Management Controller OK
0xF6000000-0xF6FFFFF ATI Technologies Inc.
RAGE XL PCI OK
0xF5FF0000-0xF5FF0FFF ATI Technologies Inc.
RAGE XL PCI OK
0xF5FE0000-0xF5FE0FFF Compaq NC3163 Fast
Ethernet NIC OK
0xF7600000-0xF7AFFFFF PCI bus OK
0xF7AC0000-0xF7AFFFFF Compaq Smart Array 5300
Controller (Non-Miniport) OK
0xF7900000-0xF79FFFFF Compaq Smart Array 5300
Controller (Non-Miniport) OK
0xF78F0000-0xF78FFFFF Compaq NC3123 Fast
Ethernet NIC OK
0xF7700000-0xF77FFFFF Compaq NC3123 Fast
Ethernet NIC OK
0xF76F0000-0xF76FFFFF Compaq PCI Hotplug
Controller OK
0xF7B00000-0xF7DFFFFF PCI bus OK
0xF7DC0000-0xF7DFFFFF Compaq Smart Array 5300
Controller (Non-Miniport) OK
0xF7C00000-0xF7CFFFFF Compaq Smart Array 5300
Controller (Non-Miniport) OK
0xF7BF0000-0xF7BFFFFF Compaq PCI Hotplug
Controller OK
0xF7E00000-0xF7FFFFF PCI bus OK
0xF7E00000-0xF7FFFFF Compaq Smart Array 5300
Controller (Non-Miniport) OK
0xF7FC0000-0xF7FFFFF Compaq Smart Array 5300
Controller (Non-Miniport) OK

```

[Components]

[Following are sub-categories of this main category]

[Multimedia]

[Following are sub-categories of this main category]

[Audio Codecs]

Codec	Manufacturer	Description	Status	File	Version	Size
c:\winnt\system32\iac25_32.ax	Intel Corporation	Indeo® audio software	OK	C:\WINNT\System32\IAC25_32.AX	2.05.53	195.00 KB (199,680 bytes)
7:00:00 AM						
c:\winnt\system32\msg723.acm	Microsoft Corporation		OK	C:\WINNT\System32\MSG723.ACM	4.4.3385	106.77 KB (109,328 bytes)
6:54:56 PM						
c:\winnt\system32\lhacm.acm	Microsoft Corporation		OK	C:\WINNT\System32\LHACM.ACM	4.4.3385	33.27 KB (34,064 bytes)
6:54:57 PM						

```

c:\winnt\system32\msadp32.acm Microsoft Corporation
OK
C:\WINNT\System32\MSADP32.ACM 5.00.2134.1
14.77 KB (15,120 bytes) 12/7/1999
7:00:00 AM
c:\winnt\system32\msgsm32.acm Microsoft Corporation
OK
C:\WINNT\System32\MSGSM32.ACM 5.00.2134.1
22.27 KB (22,800 bytes) 12/7/1999
7:00:00 AM
c:\winnt\system32\imaadp32.acm Microsoft
Corporation OK
C:\WINNT\System32\IMAADP32.ACM
5.00.2134.1 16.27 KB (16,656 bytes)
12/7/1999 7:00:00 AM
c:\winnt\system32\tssoft32.acm DSP GROUP,
INC. OK
C:\WINNT\System32\TSSOFT32.ACM
1.01 9.27 KB (9,488 bytes)
12/7/1999 7:00:00 AM
c:\winnt\system32\msg711.acm Microsoft Corporation
OK
C:\WINNT\System32\MSG711.ACM 5.00.2134.1
10.27 KB (10,512 bytes) 12/7/1999
7:00:00 AM

```

[Video Codecs]

Codec	Manufacturer	Description	Status	File	Version	Size
c:\winnt\system32\ir50_32.dll	Intel Corporation	Indeo® video 5.10	OK	C:\WINNT\System32\IR50_32.DLL	R.5.10.15.2.55	737.50 KB (755,200 bytes)
12/7/1999 7:00:00 AM						
c:\winnt\system32\msh261.drv	Microsoft Corporation		OK	C:\WINNT\System32\MSH261.DRV	4.4.3385	163.77 KB (167,696 bytes)
6/10/2002						
6:54:57 PM						
c:\winnt\system32\ir32_32.dll	Intel(R) Corporation		OK	C:\WINNT\System32\IR32_32.DLL	Not Available	194.50 KB (199,168 bytes)
12/7/1999						
7:00:00 AM						
c:\winnt\system32\msh263.drv	Microsoft Corporation		OK	C:\WINNT\System32\MSH263.DRV	4.4.3385	252.27 KB (258,320 bytes)
6/10/2002						
6:54:35 PM						
c:\winnt\system32\iccvid.dll	Radius Inc.		OK	C:\WINNT\System32\ICCVID.DLL	1.10.0.6	108.00 KB (110,592 bytes)
12/7/1999 7:00:00 AM						
c:\winnt\system32\msrle32.dll	Microsoft Corporation		OK	C:\WINNT\System32\MSRLE32.DLL	5.00.2134.1	10.77 KB (11,024 bytes)
12/7/1999						
7:00:00 AM						
c:\winnt\system32\msvidc32.dll	Microsoft Corporation		OK	C:\WINNT\System32\MSVIDC32.DLL		

5.00.2134.1 27.27 KB (27,920 bytes)
12/7/1999 7:00:00 AM

[CD-ROM]

Item	Value
Drive D:	
Description	CD-ROM Drive
Media Loaded	False
Media Type	CD-ROM
Name	COMPAQ CRD-8402B
Manufacturer	(Standard CD-ROM drives)
Status	OK
Transfer Rate	Not Available
SCSI Target ID	0
PNP Device ID	IDE\CDROMCOMPAQ_CRD-8402B
	1.03____\30323030302F2F3
	5303120202020202020202020

[Sound Device]

Item	Value
No sound devices	

[Display]

Item	Value
Name	ATI Technologies Inc. RAGE XL PCI
PNP Device ID	PCI\VEN_1002&DEV_4752&SUBSYS_001E0E11&REV_27\3&267A616A&0&18
Adapter Type	ATI RAGE XL PCI, ATI Technologies Inc. compatible
Adapter Description	ATI Technologies Inc. RAGE XL PCI
Adapter RAM	8.00 MB (8,388,608 bytes)
Installed Drivers	atidrab.dll
Driver Version	5.00.2179.1
INF File	display.inf (atirage3 section)
Color Planes	1
Color Table Entries	256
Resolution	640 x 480 x 60 hertz
Bits/Pixel	8

[Infrared]

Item	Value
No infrared devices	

[Input]

[Following are sub-categories of this main category]

[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&35118DFF&0

NumberOfFunctionKeys 12

[Pointing Device]

Item	Value
Hardware Type	PS/2 Compatible Mouse
Number of Buttons	3
Status	OK
PNP Device ID	ACPI\PNP0F13\4&35118DFF&0
Power Management Supported	False
Double Click Threshold	6
Handedness	Right Handed Operation

[Modem]

Item	Value
No modems	

[Network]

[Following are sub-categories of this main category]

[Adapter]

Item	Value
Name	[00000000] Compaq NC3163 Fast Ethernet NIC
Adapter Type	Ethernet 802.3
Product Name	Compaq NC3163 Fast Ethernet NIC
Installed True	
PNP Device ID	PCI\VEN_8086&DEV_1229&SUBSYS_B1340E11&REV_08\3&267A616A&0&20
Last Reset	7/22/2002 7:03:21 AM
Index	0
Service Name	N100
IP Address	130.168.212.70
IP Subnet	255.255.0.0
Default IP Gateway	Not Available
DHCP Enabled	False
DHCP Server	Not Available
DHCP Lease Expires	Not Available
DHCP Lease Obtained	Not Available
MAC Address	00:02:A5:AE:41:7E
Service Name	N100
IRQ Number	29
I/O Port	0x2800-0x283F
Driver	c:\winnt\system32\drivers\n100nt5.sys (87824, 5.29.04.0067)

Name	Value
[00000001] RAS Async Adapter	
Adapter Type	Not Available
Product Name	RAS Async Adapter
Installed True	
PNP Device ID	Not Available
Last Reset	7/22/2002 7:03:21 AM
Index	1
Service Name	AsyncMac
IP Address	Not Available
IP Subnet	Not Available
Default IP Gateway	Not Available

DHCP Enabled	False
DHCP Server	Not Available
DHCP Lease Expires	Not Available
DHCP Lease Obtained	Not Available
MAC Address	Not Available
Service Name	Not Available

Name	[00000002] WAN Miniport (L2TP)
Adapter Type	Not Available
Product Name	WAN Miniport (L2TP)
Installed True	
PNP Device ID	ROOT\MS_L2TPMINIPOINT\0000
Last Reset	7/22/2002 7:03:21 AM
Index	2
Service Name	Rasl2tp
IP Address	Not Available
IP Subnet	Not Available
Default IP Gateway	Not Available
DHCP Enabled	False
DHCP Server	Not Available
DHCP Lease Expires	Not Available
DHCP Lease Obtained	Not Available
MAC Address	Not Available
Service Name	Rasl2tp
Driver	c:\winnt\system32\drivers\rasl2tp.sys (50800, 5.00.2179.1)

Name	[00000003] WAN Miniport (PPTP)
Adapter Type	Wide Area Network (WAN)
Product Name	WAN Miniport (PPTP)
Installed True	
PNP Device ID	ROOT\MS_PPTPMINIPOINT\0000
Last Reset	7/22/2002 7:03:21 AM
Index	3
Service Name	PptpMiniport
IP Address	Not Available
IP Subnet	Not Available
Default IP Gateway	Not Available
DHCP Enabled	False
DHCP Server	Not Available
DHCP Lease Expires	Not Available
DHCP Lease Obtained	Not Available
MAC Address	50:50:54:50:30:30
Service Name	PptpMiniport
Driver	c:\winnt\system32\drivers\raspptp.sys (47856, 5.00.2160.1)

Name	[00000004] Direct Parallel
Adapter Type	Not Available
Product Name	Direct Parallel
Installed True	
PNP Device ID	ROOT\MS_PTIMINIPOINT\0000
Last Reset	7/22/2002 7:03:21 AM
Index	4
Service Name	Raspti
IP Address	Not Available
IP Subnet	Not Available
Default IP Gateway	Not Available
DHCP Enabled	False
DHCP Server	Not Available
DHCP Lease Expires	Not Available
DHCP Lease Obtained	Not Available
MAC Address	Not Available

Service Name Raspti
Driver c:\winnt\system32\drivers\raspti.sys
(16880, 5.00.2146.1)

Name [00000005] WAN Miniport (IP)
Adapter Type Not Available
Product Name WAN Miniport (IP)
Installed True
PNP Device ID ROOT\MS_NDISWANIP\0000
Last Reset 7/22/2002 7:03:21 AM
Index 5
Service Name NdisWan
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled False
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available
Service Name NdisWan
Driver c:\winnt\system32\drivers\ndiswan.sys
(90096, 5.00.2195.2779)

Name [00000006] Compaq NC3123 Fast Ethernet NIC
Adapter Type Ethernet 802.3
Product Name Compaq NC3123 Fast Ethernet NIC
Installed True
PNP Device ID
PCI\VEN_8086&DEV_1229&SUBSYS_B1440E11&REV_0
8\3&13C0B0C5&0&10
Last Reset 7/22/2002 7:03:21 AM
Index 6
Service Name N100
IP Address 130.176.212.71
IP Subnet 255.255.0.0
Default IP Gateway Not Available
DHCP Enabled False
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:50:8B:67:61:91
Service Name N100
IRQ Number 18
I/O Port 0x3400-0x343F
Driver c:\winnt\system32\drivers\n100nt5.sys
(87824, 5.29.04.0067)

[Protocol]

Item	Value
Name	MSAFD Tcpip [TCP/IP]
ConnectionlessService	False
GuaranteesDelivery	True
GuaranteesSequencing	True
MaximumAddressSize	16 bytes
MaximumMessageSize	0 bytes
MessageOriented	False
MinimumAddressSize	16 bytes
PseudoStreamOriented	False
SupportsBroadcasting	False
SupportsConnectData	False

SupportsDisconnectData	False
SupportsEncryption	False
SupportsExpeditedData	True
SupportsGracefulClosing	True
SupportsGuaranteedBandwidth	False
SupportsMulticasting	False

Name	MSAFD Tcpip [UDP/IP]
ConnectionlessService	True
GuaranteesDelivery	False
GuaranteesSequencing	False
MaximumAddressSize	16 bytes
MaximumMessageSize	65467 bytes
MessageOriented	True
MinimumAddressSize	16 bytes
PseudoStreamOriented	False
SupportsBroadcasting	True
SupportsConnectData	False
SupportsDisconnectData	False
SupportsEncryption	False
SupportsExpeditedData	False
SupportsGracefulClosing	False
SupportsGuaranteedBandwidth	False
SupportsMulticasting	True

Name	RSVP UDP Service Provider
ConnectionlessService	True
GuaranteesDelivery	False
GuaranteesSequencing	False
MaximumAddressSize	16 bytes
MaximumMessageSize	65467 bytes
MessageOriented	True
MinimumAddressSize	16 bytes
PseudoStreamOriented	False
SupportsBroadcasting	True
SupportsConnectData	False
SupportsDisconnectData	False
SupportsEncryption	True
SupportsExpeditedData	False
SupportsGracefulClosing	False
SupportsGuaranteedBandwidth	False
SupportsMulticasting	True

Name	RSVP TCP Service Provider
ConnectionlessService	False
GuaranteesDelivery	True
GuaranteesSequencing	True
MaximumAddressSize	16 bytes
MaximumMessageSize	0 bytes
MessageOriented	False
MinimumAddressSize	16 bytes
PseudoStreamOriented	False
SupportsBroadcasting	False
SupportsConnectData	False
SupportsDisconnectData	False
SupportsEncryption	True
SupportsExpeditedData	True
SupportsGracefulClosing	True
SupportsGuaranteedBandwidth	False
SupportsMulticasting	False

Name	MSAFD NetBIOS
[\Device\NetBT_Tcpip_{6175C4FA-411E-4C5B-8FE3-7D39A588912A}] SEQPACKET 3	
ConnectionlessService	False
GuaranteesDelivery	True
GuaranteesSequencing	True
MaximumAddressSize	20 bytes
MaximumMessageSize	64000 bytes
MessageOriented	True
MinimumAddressSize	20 bytes
PseudoStreamOriented	False
SupportsBroadcasting	False
SupportsConnectData	False
SupportsDisconnectData	False
SupportsEncryption	False
SupportsExpeditedData	False
SupportsGracefulClosing	False
SupportsGuaranteedBandwidth	False
SupportsMulticasting	False

Name	MSAFD NetBIOS
[\Device\NetBT_Tcpip_{6175C4FA-411E-4C5B-8FE3-7D39A588912A}] DATAGRAM 3	
ConnectionlessService	True
GuaranteesDelivery	False
GuaranteesSequencing	False
MaximumAddressSize	20 bytes
MaximumMessageSize	64000 bytes
MessageOriented	True
MinimumAddressSize	20 bytes
PseudoStreamOriented	False
SupportsBroadcasting	True
SupportsConnectData	False
SupportsDisconnectData	False
SupportsEncryption	False
SupportsExpeditedData	False
SupportsGracefulClosing	False
SupportsGuaranteedBandwidth	False
SupportsMulticasting	False

Name	MSAFD NetBIOS
[\Device\NetBT_Tcpip_{7D926DCC-37F4-4BA8-A398-A3CD5976B44D}] SEQPACKET 0	
ConnectionlessService	False
GuaranteesDelivery	True
GuaranteesSequencing	True
MaximumAddressSize	20 bytes
MaximumMessageSize	64000 bytes
MessageOriented	True
MinimumAddressSize	20 bytes
PseudoStreamOriented	False
SupportsBroadcasting	False
SupportsConnectData	False
SupportsDisconnectData	False
SupportsEncryption	False
SupportsExpeditedData	False
SupportsGracefulClosing	False
SupportsGuaranteedBandwidth	False
SupportsMulticasting	False

Name	MSAFD NetBIOS
[\Device\NetBT_Tcpip_{7D926DCC-37F4-4BA8-A398-A3CD5976B44D}] DATAGRAM 0	

```

ConnectionlessService      True
GuaranteesDelivery        False
GuaranteesSequencing      False
MaximumAddressSize        20 bytes
MaximumMessageSize        64000 bytes
MessageOriented           True
MinimumAddressSize        20 bytes
PseudoStreamOriented     False
SupportsBroadcasting      True
SupportsConnectData       False
SupportsDisconnectData    False
SupportsEncryption        False
SupportsExpeditedData     False
SupportsGracefulClosing   False
SupportsGuaranteedBandwidth False
SupportsMulticasting      False

Name      MSAFD NetBIOS
[Device\NetBT_Tcpip_{DA4128BC-996F-4A2C-B8AE-79A66BF98D6C}] SEQPACKET 1
ConnectionlessService      False
GuaranteesDelivery        True
GuaranteesSequencing      True
MaximumAddressSize        20 bytes
MaximumMessageSize        64000 bytes
MessageOriented           True
MinimumAddressSize        20 bytes
PseudoStreamOriented     False
SupportsBroadcasting      False
SupportsConnectData       False
SupportsDisconnectData    False
SupportsEncryption        False
SupportsExpeditedData     False
SupportsGracefulClosing   False
SupportsGuaranteedBandwidth False
SupportsMulticasting      False

Name      MSAFD NetBIOS
[Device\NetBT_Tcpip_{DA4128BC-996F-4A2C-B8AE-79A66BF98D6C}] DATAGRAM 1
ConnectionlessService      True
GuaranteesDelivery        False
GuaranteesSequencing      False
MaximumAddressSize        20 bytes
MaximumMessageSize        64000 bytes
MessageOriented           True
MinimumAddressSize        20 bytes
PseudoStreamOriented     False
SupportsBroadcasting      True
SupportsConnectData       False
SupportsDisconnectData    False
SupportsEncryption        False
SupportsExpeditedData     False
SupportsGracefulClosing   False
SupportsGuaranteedBandwidth False
SupportsMulticasting      False

Name      MSAFD NetBIOS
[Device\NetBT_Tcpip_{86EA993A-806B-4C55-8BEF-6E7ED2693FE2}] SEQPACKET 2
ConnectionlessService      False
GuaranteesDelivery        True
GuaranteesSequencing      True

```

```

MaximumAddressSize 20 bytes
MaximumMessageSize 64000 bytes
MessageOriented    True
MinimumAddressSize 20 bytes
PseudoStreamOriented False
SupportsBroadcasting False
SupportsConnectData False
SupportsDisconnectData False
SupportsEncryption False
SupportsExpeditedData False
SupportsGracefulClosing False
SupportsGuaranteedBandwidth False
SupportsMulticasting False

Name      MSAFD NetBIOS
[Device\NetBT_Tcpip_{86EA993A-806B-4C55-8BEF-6E7ED2693FE2}] DATAGRAM 2
ConnectionlessService      True
GuaranteesDelivery        False
GuaranteesSequencing      False
MaximumAddressSize        20 bytes
MaximumMessageSize        64000 bytes
MessageOriented           True
MinimumAddressSize        20 bytes
PseudoStreamOriented     False
SupportsBroadcasting      True
SupportsConnectData       False
SupportsDisconnectData    False
SupportsEncryption        False
SupportsExpeditedData     False
SupportsGracefulClosing   False
SupportsGuaranteedBandwidth False
SupportsMulticasting      False

[WinSock]

Item      Value
File      c:\winnt\system32\winsock.dll
Version   3.10
Size      2.80 KB (2,864 bytes)

File      c:\winnt\system32\wsock32.dll
Version   5.00.2195.2871
Size      21.27 KB (21,776 bytes)

[Ports]

[ Following are sub-categories of this main category ]

[Serial]

Item      Value
Name      COM1
Status    OK
PNP Device ID      ACPI\PNP0501\0
Maximum Input Buffer Size 0
Maximum Output Buffer Size False
Settable Baud Rate  True
Settable Data Bits  True
Settable Flow Control True

```

```

Settable Parity      True
Settable Parity Check True
Settable Stop Bits  True
Settable RLSD        True
Supports RLSD        True
Supports 16 Bit Mode False
Supports Special Characters False
Baud Rate 9600
Bits/Byte 8
Stop Bits 1
Parity     None
Busy      0
Abort Read/Write on Error 0
Binary Mode Enabled -1
Continue Xmit on XOff 0
CTS Outflow Control 0
Discard NULL Bytes 0
DSR Outflow Control 0
DSR Sensitivity 0
DTR Flow Control Type Enable
EOF Character 0
Error Replace Character 0
Error Replacement Enabled 0
Event Character 0
Parity Check Enabled 0
RTS Flow Control Type Enable
XOff Character 19
XOffXmit Threshold 512
XOn Character 17
XOnXmit Threshold 2048
XOnXOff InFlow Control 0
XOnXOff OutFlow Control 0
IRQ Number 3
I/O Port 0x02F8-0x02FF
Driver c:\winnt\system32\drivers\serial.sys
(62416, 5.00.2195.2780)

Name      COM2
Status    OK
PNP Device ID      ACPI\PNP0501\1
Maximum Input Buffer Size 0
Maximum Output Buffer Size False
Settable Baud Rate  True
Settable Data Bits  True
Settable Flow Control True
Settable Parity      True
Settable Parity Check True
Settable Stop Bits  True
Settable RLSD        True
Supports RLSD        True
Supports 16 Bit Mode False
Supports Special Characters False
Baud Rate 9600
Bits/Byte 8
Stop Bits 1
Parity     None
Busy      0
Abort Read/Write on Error 0
Binary Mode Enabled -1
Continue Xmit on XOff 0
CTS Outflow Control 0
Discard NULL Bytes 0
DSR Outflow Control 0

```

```

DSR Sensitivity      0
DTR Flow Control Type      Enable
EOF Character        0
Error Replace Character    0
Error Replacement Enabled  0
Event Character       0
Parity Check Enabled     0
RTS Flow Control Type    Enable
XOff Character        19
XOffXmit Threshold 512
XOn Character         17
XOnXmit Threshold 2048
XOnXOff InFlow Control   0
XOnXOff OutFlow Control  0
IRQ Number           4
I/O Port 0x03F8-0x03FF
Driver c:\winnt\system32\drivers\serial.sys
(62416, 5.00.2195.2780)

```

[Parallel]

```

Item      Value
Name      LPT1
PNP Device ID      ACPI\PNP0400\5&13237358&0

```

[Storage]

[Following are sub-categories of this main category]

[Drives]

```

Item      Value
Drive     A:
Description      3 1/2 Inch Floppy Drive

Drive     C:
Description      Local Fixed Disk
Compressed      False
File System      NTFS
Size            16.95 GB (18,203,176,960 bytes)
Free Space      11.36 GB (12,197,785,600 bytes)
Volume Name
Volume Serial Number      A437048D
Partition Disk #0, Partition #0
Partition Size      16.95 GB (18,203,181,056 bytes)
Starting Offset      16384 bytes
Drive Description    \\.\PHYSICALDRIVE0
Drive Manufacturer   Not Available
Drive Model          Not Available
Drive BytesPerSector 512
Drive MediaLoaded    True
Drive MediaType      Fixed hard disk media
Drive Partitions     1
Drive SCSIbus       Not Available
Drive SCSILogicalUnit      Not Available
Drive SCSIPort      Not Available
Drive SCISITargetId Not Available
Drive SectorsPerTrack      63
Drive Size          18202544640 bytes
Drive TotalCylinders      2213

```

```

Drive TotalSectors 35551845
Drive TotalTracks 564315
Drive TracksPerCylinder      255

Drive     E:
Description      Local Fixed Disk
Compressed      Not Available
File System      Not Available
Size            Not Available
Free Space      Not Available
Volume Name      Not Available
Volume Serial Number      Not Available
Partition Disk #1, Partition #0
Partition Size      67.83 GB (72,833,662,976 bytes)
Starting Offset      16384 bytes
Drive Description    \\.\PHYSICALDRIVE1
Drive Manufacturer   Not Available
Drive Model          Not Available
Drive BytesPerSector 512
Drive MediaLoaded    True
Drive MediaType      Fixed hard disk media
Drive Partitions     1
Drive SCSIbus       Not Available
Drive SCSILogicalUnit      Not Available
Drive SCSIPort      Not Available
Drive SCISITargetId Not Available
Drive SectorsPerTrack      63
Drive Size          72834854400 bytes
Drive TotalCylinders      8855
Drive TotalSectors 142255575
Drive TotalTracks 2258025
Drive TracksPerCylinder      255

```

```

Drive     F:
Description      Local Fixed Disk
Compressed      Not Available
File System      Not Available
Size            Not Available
Free Space      Not Available
Volume Name      Not Available
Volume Serial Number      Not Available
Partition Disk #2, Partition #0
Partition Size      18.79 GB (20,176,579,584 bytes)
Starting Offset      32256 bytes
Drive Description    \\.\PHYSICALDRIVE2
Drive Manufacturer   Not Available
Drive Model          Not Available
Drive BytesPerSector 512
Drive MediaLoaded    True
Drive MediaType      Fixed hard disk media
Drive Partitions     1
Drive SCSIbus       Not Available
Drive SCSILogicalUnit      Not Available
Drive SCSIPort      Not Available
Drive SCISITargetId Not Available
Drive SectorsPerTrack      63
Drive Size          20176611840 bytes
Drive TotalCylinders      2453
Drive TotalSectors 39407445
Drive TotalTracks 625515
Drive TracksPerCylinder      255

```

Drive G:

```

Description      Local Fixed Disk
Compressed      Not Available
File System      Not Available
Size            Not Available
Free Space      Not Available
Volume Name      Not Available
Volume Serial Number      Not Available
Partition Disk #6, Partition #0
Partition Size      18.79 GB (20,176,579,584 bytes)
Starting Offset      32256 bytes
Drive Description    \\.\PHYSICALDRIVE6
Drive Manufacturer   Not Available
Drive Model          Not Available
Drive BytesPerSector 512
Drive MediaLoaded    True
Drive MediaType      Fixed hard disk media
Drive Partitions     1
Drive SCSIbus       Not Available
Drive SCSILogicalUnit      Not Available
Drive SCSIPort      Not Available
Drive SCISITargetId Not Available
Drive SectorsPerTrack      63
Drive Size          20176611840 bytes
Drive TotalCylinders      2453
Drive TotalSectors 39407445
Drive TotalTracks 625515
Drive TracksPerCylinder      255

```

```

Drive     H:
Description      Local Fixed Disk
Compressed      Not Available
File System      Not Available
Size            Not Available
Free Space      Not Available
Volume Name      Not Available
Volume Serial Number      Not Available
Partition Disk #3, Partition #0
Partition Size      25.88 GB (27,784,963,584 bytes)
Starting Offset      32256 bytes
Drive Description    \\.\PHYSICALDRIVE3
Drive Manufacturer   Not Available
Drive Model          Not Available
Drive BytesPerSector 512
Drive MediaLoaded    True
Drive MediaType      Fixed hard disk media
Drive Partitions     1
Drive SCSIbus       Not Available
Drive SCSILogicalUnit      Not Available
Drive SCSIPort      Not Available
Drive SCISITargetId Not Available
Drive SectorsPerTrack      63
Drive Size          27784995840 bytes
Drive TotalCylinders      3378
Drive TotalSectors 54267570
Drive TotalTracks 861390
Drive TracksPerCylinder      255

```

```

Drive     I:
Description      Local Fixed Disk
Compressed      Not Available
File System      Not Available
Size            Not Available
Free Space      Not Available

```

Volume Name Not Available
 Volume Serial Number Not Available
 Partition Disk #7, Partition #0
 Partition Size 25.88 GB (27,784,963,584 bytes)
 Starting Offset 32256 bytes
 Drive Description \\.\PHYSICALDRIVE7
 Drive Manufacturer Not Available
 Drive Model Not Available
 Drive BytesPerSector 512
 Drive MediaLoaded True
 Drive MediaType Fixed hard disk media
 Drive Partitions 1
 Drive SCSIbus Not Available
 Drive SCSILogicalUnit Not Available
 Drive SCSIPort Not Available
 Drive SCSTargetId Not Available
 Drive SectorsPerTrack 63
 Drive Size 27784995840 bytes
 Drive TotalCylinders 3378
 Drive TotalSectors 54267570
 Drive TotalTracks 861390
 Drive TracksPerCylinder 255

Drive J:
 Description Local Fixed Disk
 Compressed Not Available
 File System Not Available
 Size Not Available
 Free Space Not Available
 Volume Name Not Available
 Volume Serial Number Not Available
 Partition Disk #8, Partition #0
 Partition Size 35.64 GB (38,272,195,584 bytes)
 Starting Offset 32256 bytes
 Drive Description \\.\PHYSICALDRIVE8
 Drive Manufacturer Not Available
 Drive Model Not Available
 Drive BytesPerSector 512
 Drive MediaLoaded True
 Drive MediaType Fixed hard disk media
 Drive Partitions 1
 Drive SCSIbus Not Available
 Drive SCSILogicalUnit Not Available
 Drive SCSIPort Not Available
 Drive SCSTargetId Not Available
 Drive SectorsPerTrack 63
 Drive Size 38272227840 bytes
 Drive TotalCylinders 4653
 Drive TotalSectors 74750445
 Drive TotalTracks 1186515
 Drive TracksPerCylinder 255

Drive K:
 Description Local Fixed Disk
 Compressed Not Available
 File System Not Available
 Size Not Available
 Free Space Not Available
 Volume Name Not Available
 Volume Serial Number Not Available
 Partition Disk #4, Partition #0
 Partition Size 8.79 GB (9,434,363,904 bytes)
 Starting Offset 32256 bytes

Drive Description \\.\PHYSICALDRIVE4
 Drive Manufacturer Not Available
 Drive Model Not Available
 Drive BytesPerSector 512
 Drive MediaLoaded True
 Drive MediaType Fixed hard disk media
 Drive Partitions 1
 Drive SCSIbus Not Available
 Drive SCSILogicalUnit Not Available
 Drive SCSIPort Not Available
 Drive SCSTargetId Not Available
 Drive SectorsPerTrack 63
 Drive Size 9434396160 bytes
 Drive TotalCylinders 1147
 Drive TotalSectors 18426555
 Drive TotalTracks 292485
 Drive TracksPerCylinder 255

Drive L:
 Description Local Fixed Disk
 Compressed False
 File System NTFS
 Size 210.68 GB (226,211,614,720 bytes)
 Free Space 151.01 GB (162,149,896,192 bytes)
 Volume Name Backup1
 Volume Serial Number 4454PAD0
 Partition Disk #5, Partition #0
 Partition Size 210.68 GB (226,211,618,304 bytes)
 Starting Offset 32256 bytes
 Drive Description \\.\PHYSICALDRIVE5
 Drive Manufacturer Not Available
 Drive Model Not Available
 Drive BytesPerSector 512
 Drive MediaLoaded True
 Drive MediaType Fixed hard disk media
 Drive Partitions 1
 Drive SCSIbus Not Available
 Drive SCSILogicalUnit Not Available
 Drive SCSIPort Not Available
 Drive SCSTargetId Not Available
 Drive SectorsPerTrack 63
 Drive Size 226211650560 bytes
 Drive TotalCylinders 27502
 Drive TotalSectors 441819630
 Drive TotalTracks 7013010
 Drive TracksPerCylinder 255

Drive M:
 Description Local Fixed Disk
 Compressed False
 File System NTFS
 Size 197.25 GB (211,792,699,392 bytes)
 Free Space 137.87 GB (148,033,445,888 bytes)
 Volume Name Backup2
 Volume Serial Number A48844A7
 Partition Disk #9, Partition #0
 Partition Size 197.25 GB (211,792,702,464 bytes)
 Starting Offset 32256 bytes
 Drive Description \\.\PHYSICALDRIVE9
 Drive Manufacturer Not Available
 Drive Model Not Available
 Drive BytesPerSector 512
 Drive MediaLoaded True

Drive MediaType Fixed hard disk media
 Drive Partitions 1
 Drive SCSIbus Not Available
 Drive SCSILogicalUnit Not Available
 Drive SCSIPort Not Available
 Drive SCSTargetId Not Available
 Drive SectorsPerTrack 63
 Drive Size 211792734720 bytes
 Drive TotalCylinders 25749
 Drive TotalSectors 413657685
 Drive TotalTracks 6565995
 Drive TracksPerCylinder 255

[SCSI]

Item Value
 Name Compaq Smart Array 5300 Controller (Non-Miniport)
 Caption Compaq Smart Array 5300 Controller (Non-Miniport)
 Driver cpqcissb
 Status OK
 PNP Device ID
 PCI\VEN_0E11&DEV_B060&SUBSYS_40700E11&REV_02\3&13C0B0C5&0&08
 Device ID

PCI\VEN_0E11&DEV_B060&SUBSYS_40700E11&REV_02\3&13C0B0C5&0&08
 Device Map Not Available
 Index Not Available
 Max Number Controlled Not Available
 IRQ Number 16
 I/O Port 0x3000-0x343F
 Driver c:\winnt\system32\drivers\cpqcissb.sys (40544, 5.01.11.03)

Name Compaq Smart Array 5300 Controller (Non-Miniport)
 Caption Compaq Smart Array 5300 Controller (Non-Miniport)
 Driver cpqcissb
 Status OK
 PNP Device ID
 PCI\VEN_0E11&DEV_B060&SUBSYS_40700E11&REV_02\3&1070020&0&08
 Device ID

PCI\VEN_0E11&DEV_B060&SUBSYS_40700E11&REV_02\3&1070020&0&08
 Device Map Not Available
 Index Not Available
 Max Number Controlled Not Available
 IRQ Number 20
 I/O Port 0x4000-0x40FF
 Driver c:\winnt\system32\drivers\cpqcissb.sys (40544, 5.01.11.03)

Name Compaq Smart Array 5300 Controller (Non-Miniport)
 Caption Compaq Smart Array 5300 Controller (Non-Miniport)
 Driver cpqcissb
 Status OK


```
PNP Device ID
PCI\VEN_0E11&DEV_B060&SUBSYS_40700E11&REV_0
2\3&29E81982&0&08
Device ID
PCI\VEN_0E11&DEV_B060&SUBSYS_40700E11&REV_0
2\3&29E81982&0&08
Device Map Not Available
Index Not Available
Max Number Controlled Not Available
IRQ Number 24
I/O Port 0x5000-0x50FF
Driver c:\winnt\system32\drivers\cpqcissb.sys
(40544, 5.01.11.03)
```

[Printing]

```
Name Port Name Server Name
No printing information
```

[Problem Devices]

```
Device PNP Device ID Error Code
No Problem Devices
```

[USB]

```
Device PNP Device ID
No USB Devices
```

[Software Environment]

```
[ Following are sub-categories of this main category
]
```

[Drivers]

Name	Description	File	Type
	Started	Start Mode	State
	Status	Error Control	Accept Pause
		Accept Stop	
abiosdsk	Abiosdsk	Not Available	Kernel Driver
	False	Disabled Stopped	OK
	Ignore	False False	
abp480n5	abp480n5	Not Available	Kernel Driver
	False	Disabled Stopped	OK
	Normal	False False	
acpi	Microsoft ACPI Driver		
	c:\winnt\system32\drivers\acpi.sys		
	Kernel Driver	True	Boot
	Running	OK	Normal False
	True		
acpiec	ACPIEC		
	c:\winnt\system32\drivers\acpiec.sys		
	Kernel Driver	False	Disabled
	Stopped	OK	Normal False
	False		
adpul60m	adpul60m	Not Available	Kernel Driver
	False	Disabled Stopped	OK
	Normal	False False	
afd	AFD Networking Support Environment		
	c:\winnt\system32\drivers\afd.sys		
	Kernel Driver	True	Auto

	Running	OK	Normal	False
	True			
ahal54x	Ahal54x	Not Available	Kernel Driver	
	False	Disabled Stopped	OK	
	Normal	False False		
aic116x	aic116x	Not Available	Kernel Driver	
	False	Disabled Stopped	OK	
	Normal	False False		
aic78u2	aic78u2	Not Available	Kernel Driver	
	False	Disabled Stopped	OK	
	Normal	False False		
aic78xx	aic78xx	Not Available	Kernel Driver	
	False	Disabled Stopped	OK	
	Normal	False False		
ami0nt	ami0nt	Not Available	Kernel Driver	
	False	Disabled Stopped	OK	
	Normal	False False		
amsint	amsint	Not Available	Kernel Driver	
	False	Disabled Stopped	OK	
	Normal	False False		
asc	asc	Not Available	Kernel Driver	
	False	Disabled Stopped	OK	
	Normal	False False		
asc3350p	asc3350p	Not Available	Kernel Driver	
	False	Disabled Stopped	OK	
	Normal	False False		
asc3550	asc3550	Not Available	Kernel Driver	
	False	Disabled Stopped	OK	
	Normal	False False		
asynctac	RAS Asynchronous Media Driver			
	c:\winnt\system32\drivers\asynctac.sys			
	Kernel Driver	False	Manual	
	Stopped	OK	Normal False	
	False			
ataapi	Standard IDE/ESDI Hard Disk Controller			
	c:\winnt\system32\drivers\ataapi.sys			
	Kernel Driver	True	Boot	
	Running	OK	Normal False	
	True			
atdisk	Atdisk	Not Available	Kernel Driver	
	False	Disabled Stopped	OK	
	Ignore	False False		
atirage3	atirage3			
	c:\winnt\system32\drivers\atimpab.sys			
	Kernel Driver	True	Manual	
	Running	OK	Ignore False	
	True			
atmarpc	ATM ARP Client Protocol			
	c:\winnt\system32\drivers\atmarpc.sys			
	Kernel Driver	False	Manual	
	Stopped	OK	Normal False	
	False			
audstub	Audio Stub Driver			
	c:\winnt\system32\drivers\audstub.sys			
	Kernel Driver	True	Manual	
	Running	OK	Normal False	
	True			
beep	Beep			
	c:\winnt\system32\drivers\beep.sys			
	Kernel Driver	True	System	
	Running	OK	Normal False	
	True			

buslogic	BusLogic	Not Available	Kernel Driver
	False	Disabled Stopped	OK
	Normal	False False	
cd20xrnt	cd20xrnt	Not Available	Kernel Driver
	False	Disabled Stopped	OK
	Normal	False False	
cdaudio	Cdaudio		
	c:\winnt\system32\drivers\cdaudio.sys		
	Kernel Driver	False	System
	Stopped	OK	Ignore False
	False		
cdfs	Cdfs		
	c:\winnt\system32\drivers\cdfs.sys		
	File System Driver	True	Disabled
	Running	OK	Normal False
	True		
cdrom	CD-ROM Driver		
	c:\winnt\system32\drivers\cdrom.sys		
	Kernel Driver	True	System
	Running	OK	Normal False
	True		
changer	Changer	Not Available	Kernel Driver
	False	System Stopped	OK
	Ignore	False False	
cpqarray	Cpqarray	Not Available	Kernel Driver
	False	Disabled Stopped	OK
	Normal	False False	
cpqarray2	cpqarray2	Not Available	Kernel Driver
	False	Disabled Stopped	OK
	Normal	False False	
cpqcissb	Compaq CISS Controllers Device Driver		
	c:\winnt\system32\drivers\cpqcissb.sys		
	Kernel Driver	True	Boot
	Running	OK	Normal False
	True		
cpqcissd	Compaq CISS Controllers Disk Driver		
	c:\winnt\system32\drivers\cpqcissd.sys		
	Kernel Driver	True	Boot
	Running	OK	Normal False
	True		
cpqcissm	cpqcissm		
	c:\winnt\system32\drivers\cpqcissm.sys		
	Kernel Driver	True	Boot
	Running	OK	Normal False
	True		
cpqfcalm	cpqfcalm	Not Available	Kernel Driver
	False	Disabled Stopped	OK
	Normal	False False	
cpqfws2e	cpqfws2e	Not Available	Kernel Driver
	False	Disabled Stopped	OK
	Normal	False False	
dac960nt	dac960nt	Not Available	Kernel Driver
	False	Disabled Stopped	OK
	Normal	False False	
deckzpsx	deckzpsx	Not Available	Kernel Driver
	False	Disabled Stopped	OK
	Normal	False False	
dfsdriver	DfsDriver		
	c:\winnt\system32\drivers\dfs.sys		
	File System Driver	True	Boot
	Running	OK	Normal False
	True		
disk	Disk Driver		
	c:\winnt\system32\drivers\disk.sys		

	Kernel Driver	True	Boot
	Running	OK	Normal
	True	False	False
diskperf	Diskperf		
	c:\winnt\system32\drivers\diskperf.sys		
	Kernel Driver	False	Disabled
	Stopped	OK	Normal
	False	False	False
dmboot	dmboot		
	c:\winnt\system32\drivers\dmboot.sys		
	Kernel Driver	False	Disabled
	Stopped	OK	Normal
	False	False	False
dmio	Logical Disk Manager Driver		
	c:\winnt\system32\drivers\dmio.sys		
	Kernel Driver	True	Boot
	Running	OK	Normal
	True	False	False
dmload	dmload		
	c:\winnt\system32\drivers\dmload.sys		
	Kernel Driver	True	Boot
	Running	OK	Normal
	True	False	False
efs	EFS	c:\winnt\system32\drivers\efs.sys	
	File System Driver	True	Disabled
	Running	OK	Normal
	True	False	False
fastfat	Fastfat		
	c:\winnt\system32\drivers\fastfat.sys		
	File System Driver	True	Disabled
	Running	OK	Normal
	True	False	False
fd16_700	Fd16_700	Not Available	Kernel Driver
	False	Disabled	Stopped
	Normal	False	OK
fdc	Floppy Disk Controller Driver		
	c:\winnt\system32\drivers\fdc.sys		
	Kernel Driver	True	Manual
	Running	OK	Normal
	True	False	False
fips	Fips		
	c:\winnt\system32\drivers\fips.sys		
	Kernel Driver	True	Auto
	Running	OK	Normal
	True	False	False
fireport	fireport	Not Available	Kernel Driver
	False	Disabled	Stopped
	Normal	False	OK
flashpnt	flashpnt	Not Available	Kernel Driver
	False	Disabled	Stopped
	Normal	False	OK
flpydisk	Floppy Disk Driver		
	c:\winnt\system32\drivers\flpydisk.sys		
	Kernel Driver	True	Manual
	Running	OK	Normal
	True	False	False
ftdisk	Volume Manager Driver		
	c:\winnt\system32\drivers\ftdisk.sys		
	Kernel Driver	True	Boot
	Running	OK	Normal
	True	False	False
gpc	Generic Packet Classifier		
	c:\winnt\system32\drivers\msgpc.sys		

	Kernel Driver	True	Manual
	Running	OK	Normal
	True	False	False
i8042prt	i8042 Keyboard and PS/2 Mouse Port Driver		
	c:\winnt\system32\drivers\i8042prt.sys		
	Kernel Driver	True	System
	Running	OK	Normal
	True	False	False
ini910u	ini910u	Not Available	Kernel Driver
	False	Disabled	Stopped
	Normal	False	OK
intellide	IntelIde	Not Available	Kernel Driver
	False	Disabled	Stopped
	Normal	False	OK
ipfilterdriver	IP Traffic Filter Driver		
	c:\winnt\system32\drivers\ipfltdrv.sys		
	Kernel Driver	False	Manual
	Stopped	OK	Normal
	False	False	False
ipinip	IP in IP Tunnel Driver		
	c:\winnt\system32\drivers\ipinip.sys		
	Kernel Driver	False	Manual
	Stopped	OK	Normal
	True	False	False
ipnat	IP Network Address Translator		
	c:\winnt\system32\drivers\ipnat.sys		
	Kernel Driver	False	Manual
	Stopped	OK	Normal
	False	False	False
ipsec	IPSEC driver		
	c:\winnt\system32\drivers\ipsec.sys		
	Kernel Driver	False	Manual
	Stopped	OK	Normal
	False	False	False
ipsraidn	ipsraidn	Not Available	Kernel Driver
	False	Disabled	Stopped
	Normal	False	OK
isapnp	PnP ISA/EISA Bus Driver		
	c:\winnt\system32\drivers\isapnp.sys		
	Kernel Driver	True	Boot
	Running	OK	Critical
	True	False	False
kbdclass	Keyboard Class Driver		
	c:\winnt\system32\drivers\kbdclass.sys		
	Kernel Driver	True	System
	Running	OK	Normal
	True	False	False
ksecdd	KSecDD		
	c:\winnt\system32\drivers\ksecdd.sys		
	Kernel Driver	True	Boot
	Running	OK	Normal
	True	False	False
lbrtfdc	lbrtfdc	Not Available	Kernel Driver
	False	System	Stopped
	Ignore	False	OK
lp6nds35	lp6nds35	Not Available	Kernel Driver
	False	Disabled	Stopped
	Normal	False	OK
mmdd	mmdd		
	c:\winnt\system32\drivers\mmdd.sys		
	Kernel Driver	True	System
	Running	OK	Ignore
	True	False	False

modem	Modem		
	c:\winnt\system32\drivers\modem.sys		
	Kernel Driver	False	Manual
	Stopped	OK	Ignore
	False	False	False
mouclass	Mouse Class Driver		
	c:\winnt\system32\drivers\mouclass.sys		
	Kernel Driver	True	System
	Running	OK	Normal
	True	False	False
mountmgr	MountMgr		
	c:\winnt\system32\drivers\mountmgr.sys		
	Kernel Driver	True	Boot
	Running	OK	Normal
	True	False	False
mraid35x	mraid35x	Not Available	Kernel Driver
	False	Disabled	Stopped
	Normal	False	OK
mrxsmmb	MRXSMB		
	c:\winnt\system32\drivers\mrxsmmb.sys		
	File System Driver	True	System
	Running	OK	Normal
	True	False	False
msfs	Msfs		
	c:\winnt\system32\drivers\msfs.sys		
	File System Driver	True	System
	Running	OK	Normal
	True	False	False
mskssrv	Microsoft Streaming Service Proxy		
	c:\winnt\system32\drivers\mskssrv.sys		
	Kernel Driver	False	Manual
	Stopped	OK	Normal
	False	False	False
mspclock	Microsoft Streaming Clock Proxy		
	c:\winnt\system32\drivers\mspclock.sys		
	Kernel Driver	False	Manual
	Stopped	OK	Normal
	False	False	False
mspqm	Microsoft Streaming Quality Manager Proxy		
	c:\winnt\system32\drivers\mspqm.sys		
	Kernel Driver	False	Manual
	Stopped	OK	Normal
	False	False	False
mup	Mup	c:\winnt\system32\drivers\mup.sys	
	File System Driver	True	Boot
	Running	OK	Normal
	True	False	False
n100	Compaq Ethernet or Fast Ethernet NIC NT Driver		
	c:\winnt\system32\drivers\n100nt5.sys		
	Kernel Driver	True	Manual
	Running	OK	Normal
	True	False	False
ncrc710	Nc710	Not Available	Kernel Driver
	False	Disabled	Stopped
	Normal	False	OK
ndis	NDIS System Driver		
	c:\winnt\system32\drivers\ndis.sys		
	Kernel Driver	True	Boot
	Running	OK	Normal
	True	False	False
ndistapi	Remote Access NDIS TAPI Driver		
	c:\winnt\system32\drivers\ndistapi.sys		
	Kernel Driver	True	Manual

```

Running OK Normal False
True
ndiswan Remote Access NDIS WAN Driver
c:\winnt\system32\drivers\ndiswan.sys
Kernel Driver True Manual
Running OK Normal False
True
ndproxy NDIS Proxy
c:\winnt\system32\drivers\ndproxy.sys
Kernel Driver True Manual
Running OK Normal False
True
netbios NetBIOS Interface
c:\winnt\system32\drivers\netbios.sys
File System Driver True System
Running OK Normal False
True
netbt NetBios over Tcpip
c:\winnt\system32\drivers\netbt.sys
Kernel Driver True System
Running OK Normal False
True
netdetect NetDetect
c:\winnt\system32\drivers\netdtect.sys
Kernel Driver False Manual
Stopped OK Normal False
False
npfs Npfs
c:\winnt\system32\drivers\npfs.sys
File System Driver True System
Running OK Normal False
True
ntfs Ntfs
c:\winnt\system32\drivers\ntfs.sys
File System Driver True Disabled
Running OK Normal False
True
null Null
c:\winnt\system32\drivers\null.sys
Kernel Driver True System
Running OK Normal False
True
nwlnkflt IPX Traffic Filter Driver
c:\winnt\system32\drivers\nwlnkflt.sys
Kernel Driver False Manual
Stopped OK Normal False
False
nwlnkfwd IPX Traffic Forwarder Driver
c:\winnt\system32\drivers\nwlnkfwd.sys
Kernel Driver False Manual
Stopped OK Normal False
False
parallel Parallel class driver
c:\winnt\system32\drivers\parallel.sys
Kernel Driver True Manual
Running OK Normal False
True
parport Parallel port driver
c:\winnt\system32\drivers\parport.sys
Kernel Driver True System
Running OK Ignore False
True

```

```

partmgr PartMgr
c:\winnt\system32\drivers\partmgr.sys
Kernel Driver True Boot
Running OK Normal False
True
parvdm ParVdm
c:\winnt\system32\drivers\parvdm.sys
Kernel Driver True Auto
Running OK Ignore False
True
pci PCI Bus Driver
c:\winnt\system32\drivers\pci.sys
Kernel Driver True Boot
Running OK Critical False
True
pcidump PCIDump Not Available Kernel Driver
Access False System Stopped OK
Ignore False False
pciide PCIIde
c:\winnt\system32\drivers\pciide.sys
Kernel Driver True Boot
Running OK Normal False
True
pcmcia Pcmcia
c:\winnt\system32\drivers\pcmcia.sys
Kernel Driver False Disabled
Stopped OK Normal False
False
pdcomp PDCOMP Not Available Kernel Driver
False Manual Stopped OK
Ignore False False
pdframe PDFRAME Not Available Kernel Driver
False Manual Stopped OK
Ignore False False
pdreli PDRELI Not Available Kernel Driver
False Manual Stopped OK
Ignore False False
pdrframe PDRFRAME Not Available Kernel Driver
False Manual Stopped OK
Ignore False False
pptpminiport WAN Miniport (PPTP)
c:\winnt\system32\drivers\rasptp.sys
Kernel Driver True Manual
Running OK Normal False
True
ptilink Direct Parallel Link Driver
c:\winnt\system32\drivers\ptilink.sys
Kernel Driver True Manual
Running OK Normal False
True
ql1080 ql1080 Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
ql10wnt Ql10wnt Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
ql1240 ql1240 Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
ql2100 ql2100 Not Available Kernel Driver
False Disabled Stopped OK
Normal False False

```

```

rasacd Remote Access Auto Connection Driver
c:\winnt\system32\drivers\rasacd.sys
Kernel Driver True System
Running OK Normal False
True
rasl2tp WAN Miniport (L2TP)
c:\winnt\system32\drivers\rasl2tp.sys
Kernel Driver True Manual
Running OK Normal False
True
raspti Direct Parallel
c:\winnt\system32\drivers\raspti.sys
Kernel Driver True Manual
Running OK Normal False
True
rca Microsoft Streaming Network Raw Channel
Access c:\winnt\system32\drivers\rca.sys
Kernel Driver False Manual
Stopped OK Normal False
False
rdbss Rdbss
c:\winnt\system32\drivers\rdbss.sys
File System Driver True System
Running OK Normal False
True
rdpdr Terminal Server Device Redirector Driver
c:\winnt\system32\drivers\rdpdr.sys
Kernel Driver True Manual
Running OK Normal False
True
rdpwd RDPWD
c:\winnt\system32\drivers\rdpwd.sys
Kernel Driver True Manual
Running OK Ignore False
True
redbook Digital CD Audio Playback Filter Driver
c:\winnt\system32\drivers\redbook.sys
Kernel Driver False System
Stopped OK Normal False
False
serenum Serenum Filter Driver
c:\winnt\system32\drivers\serenum.sys
Kernel Driver True Manual
Running OK Normal False
True
serial Serial port driver
c:\winnt\system32\drivers\serial.sys
Kernel Driver True System
Running OK Ignore False
True
sfloppy Sfloppy
c:\winnt\system32\drivers\sfloppy.sys
Kernel Driver False System
Stopped OK Ignore False
False
sglfb sglfb Not Available Kernel Driver
False System Stopped OK
Normal False False
simbad Simbad Not Available Kernel Driver
False Disabled Stopped OK
Normal False False

```

```

sparrow Sparrow Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
srv Srv c:\winnt\system32\drivers\srv.sys
File System Driver True Manual
Running OK Normal False
True
swenum Software Bus Driver
c:\winnt\system32\drivers\swenum.sys
Kernel Driver True Manual
Running OK Normal False
True
symc810 symc810 Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
symc8xx symc8xx Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
sym_hi sym_hi Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
tcPIP TCP/IP Protocol Driver
c:\winnt\system32\drivers\tcpip.sys
Kernel Driver True System
Running OK Normal False
True
tdasync TDASync
c:\winnt\system32\drivers\tdasync.sys
Kernel Driver False Manual
Stopped OK Ignore False
False
tdipx TDIPX
c:\winnt\system32\drivers\tdipx.sys
Kernel Driver False Manual
Stopped OK Ignore False
False
tdnetb TDNETB
c:\winnt\system32\drivers\tdnetb.sys
Kernel Driver False Manual
Stopped OK Ignore False
False
tdpipe TDPIPE
c:\winnt\system32\drivers\tdpipe.sys
Kernel Driver False Manual
Stopped OK Ignore False
False
tdspX TDSFX
c:\winnt\system32\drivers\tdspX.sys
Kernel Driver False Manual
Stopped OK Ignore False
False
tdtcp TDTCP
c:\winnt\system32\drivers\tdtcp.sys
Kernel Driver True Manual
Running OK Ignore False
True
termdd Terminal Device Driver
c:\winnt\system32\drivers\termdd.sys
Kernel Driver True Auto
Running OK Normal False
True

```

```

tga tga Not Available Kernel Driver
False System Stopped OK
Ignore False False
udfs Udfs
c:\winnt\system32\drivers\udfs.sys
File System Driver False Disabled
Stopped OK Normal False
False
ultra66 ultra66 Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
update Microcode Update Driver
c:\winnt\system32\drivers\update.sys
Kernel Driver True Manual
Running OK Normal False
True
vgasave VgaSave c:\winnt\system32\drivers\vga.sys
Kernel Driver True System
Running OK Ignore False
True
wanarp Remote Access IP ARP Driver
c:\winnt\system32\drivers\wanarp.sys
Kernel Driver True Manual
Running OK Normal False
True
wdica WDICA Not Available Kernel Driver
False Manual Stopped OK
Ignore False False

```

[Environment Variables]

```

Variable Value User Name
ComSpec %SystemRoot%\system32\cmd.exe <SYSTEM>
Os2LibPath %SystemRoot%\system32\os2\dll;
<SYSTEM>
Path %SystemRoot%\system32;%SystemRoot%
oot%\System32\Wbem;C:\Program Files\Microsoft SQL
Server\80\Tools\BINN <SYSTEM>
windir %SystemRoot% <SYSTEM>
OS Windows_NT <SYSTEM>
PROCESSOR_ARCHITECTURE x86 <SYSTEM>
PROCESSOR_LEVEL 15 <SYSTEM>
PROCESSOR_IDENTIFIER x86 Family 15 Model 2
Stepping 4, GenuineIntel <SYSTEM>
PROCESSOR_REVISION 0204 <SYSTEM>
NUMBER_OF_PROCESSORS 2 <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
STRETCH\Administrator
TMP %USERPROFILE%\Local Settings\Temp
STRETCH\Administrator

```

[Jobs]

[Following are sub-categories of this main category]

[Print]

Document	Size	Owner	Notify	Status
	Time Submitted		Start Time	
	Until Time		Elapsed Time	
	Pages Printed		Job ID	Priority
	Parameters		Driver Name	
	Print Processor		Host Print Queue	
	Data Type Name			
Unknown	Unknown	Unknown	Unknown	Unknown
Unknown	Unknown	Unknown	Unknown	Unknown
Unknown	Unknown	Unknown	Unknown	Unknown
Unknown	Unknown	Unknown	Unknown	Unknown
Unknown	Unknown	Unknown	Unknown	Unknown

[Network Connections]

Local Name	Remote Name	Type
Status	User Name	
No network connections information		

[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	0
Available	Not Available	Unknown	Not Available	Not
system	Not Available	8	8	0
	1413120	Not Available	Unknown	Unknown
	Unknown	Unknown	Unknown	Unknown
smss.exe	c:\winnt\system32\smss.exe	176	11	
	204800	1413120	7/22/2002 12:04:37 PM	
	5.00.2195.2901	44.27 KB (45,328 bytes)		
	12/7/1999 7:00:00 AM			
csrss.exe	Not Available	204	13	Not
Available	Not Available	7/22/2002 12:04:42 PM		
	Unknown	Unknown	Unknown	Unknown
winlogon.exe	c:\winnt\system32\winlogon.exe			
	228	13	204800	1413120
	7/22/2002 12:04:44 PM			
	5.00.2195.2953	173.77 KB (177,936		
bytes)	12/7/1999 7:00:00 AM			
services.exe	c:\winnt\system32\services.exe			
	256	9	204800	1413120
	7/22/2002 12:04:45 PM			
	5.00.2195.2780	86.77 KB (88,848 bytes)		
	12/7/1999 7:00:00 AM			
lsass.exe	c:\winnt\system32\lsass.exe	268	9	
	204800	1413120	7/22/2002 12:04:45 PM	
	5.00.2195.2964	32.77 KB (33,552 bytes)		
	12/7/1999 7:00:00 AM			
termsrv.exe	c:\winnt\system32\termsrv.exe	372		
	10	204800	1413120	7/22/2002
12:04:46 PM		5.00.2195.2342	137.27 KB	
(140,560 bytes)		6/10/2002 7:10:31 PM		
svchost.exe	c:\winnt\system32\svchost.exe	476		
	8	204800	1413120	7/22/2002
12:04:47 PM		5.00.2134.1	7.77 KB	
(7,952 bytes)		12/7/1999 7:00:00 AM		
svchost.exe	c:\winnt\system32\svchost.exe	544		
	8	204800	1413120	7/22/2002

```

12:04:48 PM      5.00.2134.1      7.77 KB
(7,952 bytes)   12/7/1999 7:00:00 AM
mssearch.exe   c:\program files\common
files\system\mssearch\bin\mssearch.exe 560      8
204800 1413120 7/22/2002 12:04:48 PM
9.107.6815.3 68.00 KB (69,632 bytes)
10/3/2001 4:48:48 PM

```

```

winmgmt.exe
c:\winnt\system32\wbem\winmgmt.exe 624
8 204800 1413120 7/22/2002
12:04:54 PM 1.50.1085.0029 192.08 KB
(196,685 bytes) 6/10/2002 7:10:40 PM
explorer.exe c:\winnt\explorer.exe 648
8 204800 1413120 7/22/2002
1:32:39 PM 5.00.3315.2846 237.27 KB
(242,960 bytes) 6/10/2002 7:10:34 PM
sqlmangr.exe c:\program files\microsoft sql
server\80\tools\bin\sqlmangr.exe 756 8
204800 1413120 7/22/2002 1:32:40 PM
2000.080.0382.00 72.57 KB (74,308 bytes)
7/16/2002 1:59:47 PM

```

```

mmc.exe c:\winnt\system32\mmc.exe 828 8
204800 1413120 7/22/2002 4:20:13 PM
5.00.2195.2301 589.27 KB (603,408
bytes) 6/10/2002 7:10:12 PM
rsvp.exe c:\winnt\system32\rsvp.exe 940 8
204800 1413120 7/22/2002 4:20:47 PM
5.00.2167.1 172.77 KB (176,912
bytes) 12/7/1999 7:00:00 AM

```

[Loaded Modules]

Name	Version	Size	File Date	Manufacturer	Path
traffic.dll	5.00.2139.1	30.77 KB	12/7/1999 7:00:00 AM	Microsoft Corporation	c:\winnt\system32\traffic.dll
rsvp.exe	5.00.2167.1	172.77 KB (176,912 bytes)	12/7/1999 7:00:00 AM	Microsoft Corporation	c:\winnt\system32\rsvp.exe
wbemprox.dll	1.50.1085.0045	40.08 KB (41,040 bytes)	6/10/2002 7:10:40 PM	Microsoft Corporation	c:\winnt\system32\wbem\wbemprox.dll
mlang.dll	5.00.3103.1000	510.77 KB (523,024 bytes)	6/10/2002 7:10:12 PM	Microsoft Corporation	c:\winnt\system32\mlang.dll
rassapi.dll	5.00.2188.1	14.27 KB (14,608 bytes)	12/7/1999 7:00:00 AM	Microsoft Corporation	c:\winnt\system32\rassapi.dll
adsnt.dll	5.00.2195.2778	195.27 KB (199,952 bytes)	6/10/2002 7:09:59 PM	Microsoft Corporation	c:\winnt\system32\adsnt.dll
dbghelp.dll	5.00.2195.2104	159.27 KB (163,088 bytes)	5/4/2001 12:05:02 PM	Microsoft Corporation	c:\winnt\system32\dbghelp.dll
localsec.dll	5.00.2195.2130	230.27 KB (235,792 bytes)	6/10/2002 7:10:12 PM	Microsoft Corporation	c:\winnt\system32\localsec.dll

```

devmgr.dll 5.00.2166.1 215.77 KB
(220,944 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\devmgr.dll
filemgmt.dll 5.00.2195.2165 287.27 KB
(294,160 bytes) 6/10/2002 7:10:07 PM
Microsoft Corporation
c:\winnt\system32\filemgmt.dll

```

```

pdh.dll 5.00.2195.2739 147.77 KB (151,312
bytes) 6/10/2002 7:10:25 PM
Microsoft Corporation
c:\winnt\system32\pdh.dll
smlogcfg.dll 5.00.2195.2485 273.27 KB
(279,824 bytes) 6/10/2002 7:10:29 PM
Microsoft Corporation
c:\winnt\system32\smlogcfg.dll

```

```

cabinet.dll 5.00.2147.1 54.77 KB
(56,080 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\cabinet.dll
msinfo32.dll 5.00.2177.1 312.27 KB
(319,760 bytes) 6/10/2002 6:54:54 PM
Microsoft Corporation c:\program
files\common files\microsoft
shared\msinfo\msinfo32.dll

```

```

riched20.dll 5.30.23.1205 421.27 KB
(431,376 bytes) 6/10/2002 7:10:26 PM
Microsoft Corporation
c:\winnt\system32\riched20.dll
riched32.dll 5.00.2134.1 3.77 KB
(3,856 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\riched32.dll

```

```

els.dll 5.00.2175.1 151.27 KB (154,896
bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\els.dll
ntmsmgr.dll 1.0.0.1 427.77 KB (438,032
bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation and HighGround Systems, Inc.
c:\winnt\system32\ntmsmgr.dll

```

```

mmfutil.dll 1.50.1085.0000 32.06 KB
(32,829 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\mmfutil.dll
logdrive.dll 1.50.1085.0000 200.06 KB
(204,863 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\logdrive.dll

```

```

dfrgres.dll 5.00.2150.1 27.50 KB
(28,160 bytes) 12/7/1999 7:00:00 AM
Executive Software International, Inc.
c:\winnt\system32\dfrgres.dll
dfrgsnap.dll 5.00.2195.2104 41.77 KB
(42,768 bytes) 6/10/2002 7:10:04 PM
Executive Software International, Inc.
c:\winnt\system32\dfrgsnap.dll

```

```

dmskres.dll 2195.2104.297.3 119.50 KB
(122,368 bytes) 6/10/2002 7:10:04 PM
Microsoft Corp., VERITAS Software
c:\winnt\system32\dmskres.dll
dmutil.dll 2195.2104.297.3 42.27 KB
(43,280 bytes) 6/10/2002 7:10:05 PM
VERITAS Software Corp.
c:\winnt\system32\dmutil.dll

```

```

ntmsapi.dll 5.00.1948.1 51.77 KB
(53,008 bytes) 6/10/2002 7:10:22 PM
Microsoft Corporation
c:\winnt\system32\ntmsapi.dll
dmskmgm.dll 2215.2215.297.3 160.27 KB
(164,112 bytes) 6/10/2002 7:10:04 PM
Microsoft Corp., VERITAS Software
c:\winnt\system32\dmskmgm.dll

```

```

mycomput.dll 5.00.2134.1 107.77 KB
(110,352 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\mycomput.dll
mmcndmgr.dll 5.00.2178.1 815.27 KB
(834,832 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\mmcndmgr.dll

```

```

msvc50.dll 5.00.7051 552.50 KB (565,760
bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\msvc50.dll
mfc42u.dll 6.00.8665.0 972.05 KB
(995,384 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\mfc42u.dll

```

```

mmc.exe 5.00.2195.2301 589.27 KB (603,408
bytes) 6/10/2002 7:10:12 PM
Microsoft Corporation
c:\winnt\system32\mmc.exe
sqlmangr.rll 2000.080.0194.00 96.00 KB
(98,304 bytes) 7/15/2002 11:28:35 PM
Microsoft Corporation c:\program
files\microsoft sql
server\80\tools\bin\resources\1033\sqlmangr.rll

```

```

sqlsvc.rll 2000.080.0194.00 24.00 KB
(24,576 bytes) 7/15/2002 11:28:32 PM
Microsoft Corporation c:\program
files\microsoft sql
server\80\tools\bin\resources\1033\sqlsvc.rll

```

```

resutils.dll 5.00.2195.2787 39.77 KB
(40,720 bytes) 6/10/2002 7:10:26 PM
Microsoft Corporation
c:\winnt\system32\resutils.dll
clusapi.dll 5.00.2195.2104 54.27 KB
(55,568 bytes) 6/10/2002 7:10:02 PM
Microsoft Corporation
c:\winnt\system32\clusapi.dll

```

```

odbcint.dll 3.520.7926.0 88.00 KB
(90,112 bytes) 6/11/2002 10:28:16 AM
Microsoft Corporation
c:\winnt\system32\odbcint.dll
sqlresld.dll 2000.080.0382.00 28.56 KB
(29,248 bytes) 7/16/2002 1:59:45 PM
Microsoft Corporation c:\program
files\microsoft sql
server\80\tools\bin\sqlresld.dll

```

```

odbc32.dll 2000.080.0528.00 28.57 KB
(29,252 bytes) 6/11/2002 10:28:25 AM
Microsoft Corporation
c:\winnt\system32\odbc32.dll
sqlsvc.dll 2000.080.0382.00 92.56 KB
(94,784 bytes) 7/16/2002 1:59:45 PM
Microsoft Corporation c:\program
files\microsoft sql
server\80\tools\bin\sqlsvc.dll

```

```

odbc32.dll 3.520.7926.0 216.27 KB
(221,456 bytes) 6/11/2002 10:28:16 AM

```

Microsoft Corporation
c:\winnt\system32\odbc32.dll
w95scm.dll 2000.080.0194.00 48.56 KB
(49,728 bytes) 7/16/2002 1:59:45 PM
Microsoft Corporation c:\program
files\microsoft sql server\80\tools\bin\nw95scm.dll
comdlg32.dll 5.00.3103.1000 236.77 KB
(242,448 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\comdlg32.dll
sqlunirl.dll 2000.080.0380.00 176.56 KB
(180,800 bytes) 4/9/2001 9:46:18 AM Microsoft
Corporation c:\winnt\system32\sqlunirl.dll
sqlmangr.exe 2000.080.0382.00 72.57 KB
(74,308 bytes) 7/16/2002 1:59:47 PM
Microsoft Corporation c:\program
files\microsoft sql server\80\tools\bin\nsqlmangr.exe
shdoclc.dll 5.00.3315.2879 324.50 KB
(332,288 bytes) 6/10/2002 7:10:27 PM
Microsoft Corporation
c:\winnt\system32\shdoclc.dll
urlmon.dll 5.00.3315.1000 441.27 KB
(451,856 bytes) 6/10/2002 7:10:31 PM
Microsoft Corporation
c:\winnt\system32\urlmon.dll
browsecl.dll 5.00.3315.2846 34.50 KB
(35,328 bytes) 6/10/2002 7:10:00 PM
Microsoft Corporation
c:\winnt\system32\browsecl.dll
faxshell.dll 5.00.2134.1 8.27 KB
(8,464 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\faxshell.dll
msacm32.dll 5.00.2134.1 65.27 KB
(66,832 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\msacm32.dll
avifil32.dll 5.00.2134.1 76.27 KB
(78,096 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\avifil32.dll
msvfw32.dll 5.00.2134.1 113.77 KB
(116,496 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\msvfw32.dll
docprop2.dll 5.00.2178.1 297.77 KB
(304,912 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\docprop2.dll
linkinfo.dll 5.00.2134.1 15.77 KB
(16,144 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\linkinfo.dll
msi.dll 1.11.2405.0 1.69 MB (1,767,184
bytes) 6/10/2002 7:10:15 PM Microsoft
Corporation c:\winnt\system32\msi.dll
powrprof.dll 5.00.3103.1000 13.27 KB
(13,584 bytes) 6/10/2002 7:10:25 PM
Microsoft Corporation
c:\winnt\system32\powrprof.dll
batmeter.dll 5.00.3103.1000 20.27 KB
(20,752 bytes) 6/10/2002 7:10:00 PM

Microsoft Corporation
c:\winnt\system32\batmeter.dll
stobject.dll 5.00.2195.2780 79.27 KB
(81,168 bytes) 6/10/2002 7:10:30 PM
Microsoft Corporation
c:\winnt\system32\stobject.dll
webcheck.dll 5.00.3315.1000 251.77 KB
(257,808 bytes) 6/10/2002 7:10:32 PM
Microsoft Corporation
c:\winnt\system32\webcheck.dll
ntshruil.dll 5.00.2134.1 46.77 KB
(47,888 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\ntshruil.dll
mydocs.dll 5.00.2920.0000 55.77 KB
(57,104 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\mydocs.dll
browseui.dll 5.00.3315.2846 788.77 KB
(807,696 bytes) 6/10/2002 7:10:00 PM
Microsoft Corporation
c:\winnt\system32\browseui.dll
shdocvw.dll 5.00.3315.2879 1.05 MB
(1,104,144 bytes) 6/10/2002 7:10:27 PM
Microsoft Corporation
c:\winnt\system32\shdocvw.dll
explorer.exe 5.00.3315.2846 237.27 KB
(242,960 bytes) 6/10/2002 7:10:34 PM
Microsoft Corporation
c:\winnt\explorer.exe
netui1.dll 5.00.2134.1 210.27 KB
(215,312 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\netui1.dll
netui0.dll 5.00.2134.1 70.27 KB
(71,952 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\netui0.dll
ntlanman.dll 5.00.2157.1 35.27 KB
(36,112 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\ntlanman.dll
ntmarta.dll 5.00.2195.2862 98.77 KB
(101,136 bytes) 6/10/2002 7:10:22 PM
Microsoft Corporation
c:\winnt\system32\ntmarta.dll
provthrd.dll 1.50.1085.0000 68.07 KB
(69,708 bytes) 6/10/2002 6:54:46 PM
Microsoft Corporation
c:\winnt\system32\wbem\provthrd.dll
ntevt.dll 1.50.1085.0000 192.06 KB (196,669
bytes) 12/7/1999 7:00:00 AM Microsoft
Corporation c:\winnt\system32\wbem\ntevt.dll
perfos.dll 5.00.2155.1 21.27 KB
(21,776 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\perfos.dll
psapi.dll 5.00.2134.1 28.27 KB (28,944 bytes)
12/7/1999 7:00:00 AM Microsoft
Corporation c:\winnt\system32\psapi.dll
framedyn.dll 1.50.1085.0000 164.05 KB
(167,992 bytes) 12/7/1999 7:00:00 AM

Microsoft Corporation
c:\winnt\system32\wbem\framedyn.dll
cimwin32.dll 1.50.1085.0038 1.02 MB
(1,073,232 bytes) 6/10/2002 7:10:38 PM
Microsoft Corporation
c:\winnt\system32\wbem\cimwin32.dll
wbemsvc.dll 1.50.1085.0007 40.07 KB
(41,036 bytes) 6/10/2002 7:10:40 PM
Microsoft Corporation
c:\winnt\system32\wbem\wbemsvc.dll
wbemess.dll 1.50.1085.0039 364.07 KB
(372,804 bytes) 6/10/2002 7:10:39 PM
Microsoft Corporation
c:\winnt\system32\wbem\wbemess.dll
fastprox.dll 1.50.1085.0037 144.08 KB
(147,536 bytes) 6/10/2002 7:10:39 PM
Microsoft Corporation
c:\winnt\system32\wbem\fastprox.dll
wbemcore.dll 1.50.1085.0036 628.07 KB
(643,140 bytes) 6/10/2002 7:10:39 PM
Microsoft Corporation
c:\winnt\system32\wbem\wbemcore.dll
wbemcomn.dll 1.50.1085.0021 692.07 KB
(708,675 bytes) 6/10/2002 7:10:39 PM
Microsoft Corporation
c:\winnt\system32\wbem\wbemcomn.dll
winmgmt.exe 1.50.1085.0029 192.08 KB
(196,685 bytes) 6/10/2002 7:10:40 PM
Microsoft Corporation
c:\winnt\system32\wbem\winmgmt.exe
iprop.dll 5.00.2195.2815 4.27 KB (4,368 bytes)
6/10/2002 7:10:11 PM Microsoft
Corporation c:\winnt\system32\iprop.dll
srchidx.dll 9.107.6815.3 376.00 KB
(385,024 bytes) 10/3/2001 4:48:58 PM
Microsoft Corporation
c:\progra-1\common-1\system\mssearch\bin\sr
chidx.dll
propdefs.dll 9.107.6815.3 136.00 KB
(139,264 bytes) 10/3/2001 4:48:58 PM
Microsoft Corporation
c:\progra-1\common-1\system\mssearch\bin\pr
opdefs.dll
lcdetect.dll 9.107.6815.3 28.00 KB
(28,672 bytes) 10/3/2001 4:48:46 PM
Microsoft Corporation c:\program
files\common files\system\mssearch\bin\lcdetect.dll
tquery.dll 9.107.6815.3 1.45 MB
(1,519,616 bytes) 10/3/2001 4:49:00 PM
Microsoft Corporation c:\program
files\common files\system\mssearch\bin\tquery.dll
security.dll 5.00.2154.1 5.77 KB
(5,904 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\security.dll
mssrch.dll 9.107.6815.3 1.24 MB
(1,298,432 bytes) 10/3/2001 4:48:52 PM
Microsoft Corporation
c:\progra-1\common-1\system\mssearch\bin\ms
srch.dll
mssws.dll 9.107.6815.3 36.00 KB (36,864 bytes)
10/3/2001 4:48:54 PM Microsoft

Corporation c:\program files\common files\system\mssearch\bin\mssws.dll
mssearch.exe 9.107.6815.3 68.00 KB (69,632 bytes) 10/3/2001 4:48:48 PM
Microsoft Corporation c:\program files\common files\system\mssearch\bin\mssearch.exe
wmi.dll 5.00.2191.1 6.27 KB (6,416 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation c:\winnt\system32\wmi.dll
netshell.dll 5.00.2195.2779 457.27 KB (468,240 bytes) 6/10/2002 7:10:21 PM
Microsoft Corporation c:\winnt\system32\netshell.dll
netman.dll 5.00.2195.2779 89.27 KB (91,408 bytes) 6/10/2002 7:10:20 PM
Microsoft Corporation c:\winnt\system32\netman.dll
sens.dll 5.00.2163.1 36.77 KB (37,648 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation c:\winnt\system32\sens.dll
txfaux.dll 2000.2.3471.1 374.27 KB (383,248 bytes) 6/10/2002 7:10:31 PM
Microsoft Corporation c:\winnt\system32\txfaux.dll
es.dll 2000.2.3471.1 222.27 KB (227,600 bytes) 6/10/2002 7:10:06 PM
Microsoft Corporation c:\winnt\system32\es.dll
rpcss.dll 5.00.2195.2815 231.27 KB (236,816 bytes) 6/10/2002 7:10:26 PM
Microsoft Corporation c:\winnt\system32\rpcss.dll
svchost.exe 5.00.2134.1 7.77 KB (7,952 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation c:\winnt\system32\svchost.exe
rdpwsx.dll 5.00.2180.1 94.40 KB (96,664 bytes) 6/10/2002 1:53:02 PM
Microsoft Corporation c:\winnt\system32\rdpwsx.dll
ntlsapi.dll 5.00.2134.1 6.77 KB (6,928 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation c:\winnt\system32\ntlsapi.dll
mstlsapi.dll 5.00.2181.1 24.77 KB (25,360 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation c:\winnt\system32\mstlsapi.dll
icaapi.dll 5.00.2134.1 118.77 KB (121,616 bytes) 6/10/2002 1:53:01 PM
Microsoft Corporation c:\winnt\system32\icaapi.dll
regapi.dll 5.00.2155.1 35.27 KB (36,112 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation c:\winnt\system32\regapi.dll
termsrv.exe 5.00.2195.2342 137.27 KB (140,560 bytes) 6/10/2002 7:10:31 PM
Microsoft Corporation c:\winnt\system32\termsrv.exe
scecli.dll 5.00.2195.2780 105.27 KB (107,792 bytes) 6/10/2002 7:10:27 PM
Microsoft Corporation c:\winnt\system32\scecli.dll

atl.dll 3.00.8449 57.56 KB (58,938 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation c:\winnt\system32\atl.dll
certcli.dll 5.00.2195.2778 130.77 KB (133,904 bytes) 6/10/2002 7:10:01 PM
Microsoft Corporation c:\winnt\system32\certcli.dll
esent.dll 6.0.3940.13 1.08 MB (1,135,376 bytes) 6/10/2002 7:10:06 PM
Microsoft Corporation c:\winnt\system32\esent.dll
ntdsatq.dll 5.00.2195.2878 31.27 KB (32,016 bytes) 6/10/2002 7:10:21 PM
Microsoft Corporation c:\winnt\system32\ntdsatq.dll
ntdsa.dll 5.00.2195.2899 990.77 KB (1,014,544 bytes) 6/10/2002 7:10:21 PM
Microsoft Corporation c:\winnt\system32\ntdsa.dll
kdcsvc.dll 5.00.2195.2878 137.77 KB (141,072 bytes) 6/10/2002 7:10:11 PM
Microsoft Corporation c:\winnt\system32\kdcsvc.dll
sfmapi.dll 5.00.2134.1 38.77 KB (39,696 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation c:\winnt\system32\sfmapi.dll
rassfm.dll 5.00.2195.2671 21.27 KB (21,776 bytes) 6/10/2002 7:10:26 PM
Microsoft Corporation c:\winnt\system32\rassfm.dll
mpr.dll 5.00.2195.2779 53.27 KB (54,544 bytes) 6/10/2002 7:10:13 PM
Microsoft Corporation c:\winnt\system32\mpr.dll
rsabase.dll 5.00.2195.2228 128.27 KB (131,344 bytes) 5/4/2001 12:05:02 PM
Microsoft Corporation c:\winnt\system32\rsabase.dll
schannel.dll 5.00.2195.2922 138.27 KB (141,584 bytes) 5/4/2001 12:05:02 PM
Microsoft Corporation c:\winnt\system32\schannel.dll
netlogon.dll 5.00.2195.2865 357.77 KB (366,352 bytes) 6/10/2002 7:10:20 PM
Microsoft Corporation c:\winnt\system32\netlogon.dll
kerberos.dll 5.00.2195.2913 198.77 KB (203,536 bytes) 6/10/2002 7:10:11 PM
Microsoft Corporation c:\winnt\system32\kerberos.dll
msprivs.dll 5.00.2154.1 41.50 KB (42,496 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation c:\winnt\system32\msprivs.dll
samsvr.dll 5.00.2195.2918 369.77 KB (378,640 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation c:\winnt\system32\samsvr.dll
lsasrv.dll 5.00.2195.2964 492.77 KB (504,592 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation c:\winnt\system32\lsasrv.dll
lsass.exe 5.00.2195.2964 32.77 KB (33,552 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation c:\winnt\system32\lsass.exe

xactsrv.dll 5.00.2134.1 90.27 KB (92,432 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation c:\winnt\system32\xactsrv.dll
wmicore.dll 5.00.2195.2842 72.27 KB (74,000 bytes) 6/10/2002 7:10:34 PM
Microsoft Corporation c:\winnt\system32\wmicore.dll
msgsvc.dll 5.00.2195.2939 34.27 KB (35,088 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation c:\winnt\system32\msgsvc.dll
browser.dll 5.00.2195.2778 48.27 KB (49,424 bytes) 6/10/2002 7:10:00 PM
Microsoft Corporation c:\winnt\system32\browser.dll
psbase.dll 5.00.2195.2779 111.77 KB (114,448 bytes) 6/10/2002 7:10:25 PM
Microsoft Corporation c:\winnt\system32\psbase.dll
trkwks.dll 5.00.2166.1 88.77 KB (90,896 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation c:\winnt\system32\trkwks.dll
cryptsvc.dll 5.00.2181.1 61.77 KB (63,248 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation c:\winnt\system32\cryptsvc.dll
seclogon.dll 5.00.2135.1 15.77 KB (16,144 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation c:\winnt\system32\seclogon.dll
cryptdll.dll 5.00.2135.1 41.27 KB (42,256 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation c:\winnt\system32\cryptdll.dll
wkssvc.dll 5.00.2195.2780 95.27 KB (97,552 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation c:\winnt\system32\wkssvc.dll
srvsvc.dll 5.00.2195.2904 79.27 KB (81,168 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation c:\winnt\system32\srvsvc.dll
cfgmgr32.dll 5.00.2134.1 16.77 KB (17,168 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation c:\winnt\system32\cfgmgr32.dll
dmserver.dll 2195.2778.297.3 11.77 KB (12,048 bytes) 6/10/2002 7:10:05 PM
VERITAS Software Corp. c:\winnt\system32\dmserver.dll
lmhsvc.dll 5.00.2195.2778 9.77 KB (10,000 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation c:\winnt\system32\lmhsvc.dll
eventlog.dll 5.00.2178.1 43.77 KB (44,816 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation c:\winnt\system32\eventlog.dll
scesrv.dll 5.00.2195.2780 226.27 KB (231,696 bytes) 6/10/2002 7:10:27 PM

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Microsoft Corporation
c:\winnt\system32\scserv.dll
umpnpgmgr.dll 5.00.2182.1 86.27 KB
(88,336 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\umpnpgmgr.dll
services.exe 5.00.2195.2780 86.77 KB
(88,848 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\services.exe
cscui.dll 5.00.2195.2959 228.27 KB (233,744
bytes) 6/10/2002 7:10:03 PM
Microsoft Corporation
c:\winnt\system32\cscui.dll
wshnetbs.dll 5.00.2134.1 7.77 KB
(7,952 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\wshnetbs.dll
mswsock.dll 5.00.2195.2871 62.77 KB
(64,272 bytes) 6/10/2002 7:10:19 PM
Microsoft Corporation
c:\winnt\system32\mswsock.dll
wininet.dll 5.00.3315.1000 456.77 KB
(467,728 bytes) 6/10/2002 7:10:33 PM
Microsoft Corporation
c:\winnt\system32\wininet.dll
cryptnet.dll 5.131.2157.1 41.77 KB
(42,768 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\cryptnet.dll
msv1_0.dll 5.00.2195.2900 111.77 KB
(114,448 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\msv1_0.dll
ntdsapi.dll 5.00.2195.2661 55.77 KB
(57,104 bytes) 6/10/2002 7:10:21 PM
Microsoft Corporation
c:\winnt\system32\ntdsapi.dll
rasadhlp.dll 5.00.2168.1 7.27 KB
(7,440 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\rasadhlp.dll
winrnr.dll 5.00.2160.1 18.77 KB
(19,216 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\winrnr.dll
rnr20.dll 5.00.2195.2871 35.77 KB (36,624 bytes)
6/10/2002 7:10:26 PM
Microsoft Corporation
c:\winnt\system32\rnr20.dll
clbcatq.dll 2000.2.3471.1 496.77 KB
(508,688 bytes) 6/10/2002 7:10:02 PM
Microsoft Corporation
c:\winnt\system32\clbcatq.dll
dhcpcsvc.dll 5.00.2195.2778 88.77 KB
(90,896 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\dhcpcsvc.dll
tapi32.dll 5.00.2182.1 123.27 KB
(126,224 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\tapi32.dll
rasman.dll 5.00.2195.2780 54.77 KB
(56,080 bytes) 12/7/1999 7:00:00 AM

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Microsoft Corporation
c:\winnt\system32\rasman.dll
rasapi32.dll 5.00.2195.2671 189.77 KB
(194,320 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\rasapi32.dll
rtutils.dll 5.00.2168.1 43.77 KB
(44,816 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\rtutils.dll
adslrpc.dll 5.00.2195.2842 127.27 KB
(130,320 bytes) 6/10/2002 7:09:58 PM
Microsoft Corporation
c:\winnt\system32\adslrpc.dll
activeds.dll 5.00.2195.2778 174.77 KB
(178,960 bytes) 6/10/2002 7:09:53 PM
Microsoft Corporation
c:\winnt\system32\activeds.dll
oleaut32.dll 2.40.4517 612.27 KB (626,960
bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\oleaut32.dll
mprapi.dll 5.00.2181.1 79.27 KB
(81,168 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\mprapi.dll
icmp.dll 5.00.2134.1 7.27 KB (7,440 bytes)
12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\icmp.dll
iphlpapi.dll 5.00.2173.2 67.77 KB
(69,392 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\iphlpapi.dll
wshtcpip.dll 5.00.2195.2104 17.27 KB
(17,680 bytes) 6/10/2002 7:10:34 PM
Microsoft Corporation
c:\winnt\system32\wshtcpip.dll
msafd.dll 5.00.2195.2779 106.77 KB (109,328
bytes) 6/10/2002 7:10:13 PM
Microsoft Corporation
c:\winnt\system32\msafd.dll
winspool.drv 5.00.2195.2780 109.77 KB
(112,400 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\winspool.drv
wincard.dll 5.00.2134.1 77.27 KB
(79,120 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\wincard.dll
wlnotify.dll 5.00.2195.2780 53.77 KB
(55,056 bytes) 6/10/2002 7:10:34 PM
Microsoft Corporation
c:\winnt\system32\wlnotify.dll
csddl.dll 5.00.2195.2401 98.27 KB
(100,624 bytes) 6/10/2002 7:10:03 PM
Microsoft Corporation
c:\winnt\system32\csddl.dll
lz32.dll 5.00.2134.1 9.77 KB (10,000 bytes)
12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\lz32.dll
version.dll 5.00.2134.1 15.77 KB
(16,144 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\version.dll

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```

rsaenh.dll 5.00.2195.2228 130.77 KB
(133,904 bytes) 6/10/2002 7:11:32 PM
Microsoft Corporation
c:\winnt\system32\rsaenh.dll
mscat32.dll 5.131.2134.1 7.77 KB
(7,952 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\mscat32.dll
ole32.dll 5.00.2195.2887 969.77 KB (993,040
bytes) 6/10/2002 7:10:24 PM
Microsoft Corporation
c:\winnt\system32\ole32.dll
imagehlp.dll 5.00.2195.2778 125.77 KB
(128,784 bytes) 5/4/2001 12:05:02 PM
Microsoft Corporation
c:\winnt\system32\imagehlp.dll
msasn1.dll 5.00.2134.1 51.27 KB
(52,496 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\msasn1.dll
crypt32.dll 5.131.2195.2833 451.27 KB
(462,096 bytes) 6/10/2002 7:10:03 PM
Microsoft Corporation
c:\winnt\system32\crypt32.dll
wintrust.dll 5.131.2195.2779 162.27 KB
(166,160 bytes) 6/10/2002 7:10:33 PM
Microsoft Corporation
c:\winnt\system32\wintrust.dll
shlwapi.dll 5.00.3315.1000 282.77 KB
(289,552 bytes) 6/10/2002 7:10:29 PM
Microsoft Corporation
c:\winnt\system32\shlwapi.dll
shell32.dll 5.00.3315.2902 2.25 MB
(2,359,056 bytes) 6/10/2002 7:10:28 PM
Microsoft Corporation
c:\winnt\system32\shell32.dll
msgina.dll 5.00.2195.2779 324.27 KB
(332,048 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\msgina.dll
comctl32.dll 5.81 537.77 KB (550,672
bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\comctl32.dll
setupapi.dll 5.00.2195.2663 555.77 KB
(569,104 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\setupapi.dll
winmm.dll 5.00.2161.1 184.77 KB (189,200
bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\winmm.dll
winsta.dll 5.00.2195.2386 36.77 KB
(37,648 bytes) 6/10/2002 7:10:33 PM
Microsoft Corporation
c:\winnt\system32\winsta.dll
wsock32.dll 5.00.2195.2871 21.27 KB
(21,776 bytes) 6/10/2002 7:10:34 PM
Microsoft Corporation
c:\winnt\system32\wsock32.dll
dnsapi.dll 5.00.2195.2785 130.77 KB
(133,904 bytes) 6/10/2002 7:10:05 PM
Microsoft Corporation
c:\winnt\system32\dnsapi.dll
wildap32.dll 5.00.2195.2797 125.27 KB
(128,272 bytes) 6/10/2002 7:10:33 PM

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Microsoft Corporation
c:\winnt\system32\ldap32.dll
ws2help.dll 5.00.2134.1 17.77 KB
(18,192 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\ws2help.dll
ws2_32.dll 5.00.2195.2780 67.77 KB
(69,392 bytes) 6/10/2002 7:10:34 PM
Microsoft Corporation
c:\winnt\system32\ws2_32.dll
samlib.dll 5.00.2195.2780 49.77 KB
(50,960 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\samlib.dll
netrap.dll 5.00.2134.1 11.27 KB
(11,536 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\netrap.dll
netapi32.dll 5.00.2195.2808 303.77 KB
(311,056 bytes) 6/10/2002 7:10:20 PM
Microsoft Corporation
c:\winnt\system32\netapi32.dll
profmap.dll 5.00.2181.1 29.27 KB
(29,968 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\profmap.dll
secur32.dll 5.00.2195.2862 46.77 KB
(47,888 bytes) 6/10/2002 7:10:27 PM
Microsoft Corporation
c:\winnt\system32\secur32.dll
sfc.dll 5.00.2195.2896 92.11 KB (94,320 bytes)
6/10/2002 7:10:27 PM Microsoft
Corporation c:\winnt\system32\sfc.dll
nddeapi.dll 5.00.2137.1 15.27 KB
(15,632 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\nddeapi.dll
userenv.dll 5.00.2195.2780 361.77 KB
(370,448 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\userenv.dll
user32.dll 5.00.2195.2821 392.77 KB
(402,192 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\user32.dll
gdi32.dll 5.00.2195.2778 228.77 KB (234,256
bytes) 12/7/1999 7:00:00 AM Microsoft
Corporation c:\winnt\system32\gdi32.dll
rpcrt4.dll 5.00.2195.2832 437.27 KB
(447,760 bytes) 6/10/2002 7:10:26 PM
Microsoft Corporation
c:\winnt\system32\rpcrt4.dll
advapi32.dll 5.00.2195.2867 351.77 KB
(360,208 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\advapi32.dll
kernel32.dll 5.00.2195.2778 714.77 KB
(731,920 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\kernel32.dll
msvcrt.dll 6.10.8924.0 284.05 KB
(290,869 bytes) 5/4/2001 12:05:02 PM

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Microsoft Corporation
c:\winnt\system32\msvcrt.dll
winlogon.exe 5.00.2195.2953 173.77 KB
(177,936 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\winlogon.exe
sfcfiles.dll 5.00.2195.2967 948.27 KB
(971,024 bytes) 6/10/2002 7:10:27 PM
Microsoft Corporation
c:\winnt\system32\sfcfiles.dll
ntdll.dll 5.00.2195.2779 478.77 KB (490,256
bytes) 5/4/2001 12:05:02 PM Microsoft
Corporation c:\winnt\system32\ntdll.dll
smss.exe 5.00.2195.2901 44.27 KB (45,328 bytes)
12/7/1999 7:00:00 AM Microsoft
Corporation c:\winnt\system32\smss.exe

[Services]

Display Name Name State Start Mode
Service Type Path Error Control
Start Name Tag ID
Alerter Alerter Stopped Disabled Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
Application Management AppMgmt Stopped
Manual Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
Computer Browser Browser Running Auto
Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
Indexing Service cisvc Stopped Disabled
Share Process
c:\winnt\system32\cisvc.exe
Normal
LocalSystem 0
ClipBook ClipSrv Stopped Manual Own Process
c:\winnt\system32\clipsrv.exe
Normal
LocalSystem 0
Distributed File System Dfs Stopped
Disabled Own Process
c:\winnt\system32\dfssvc.exe
Normal
LocalSystem 0
DHCP Client Dhcp Stopped Disabled
Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
Logical Disk Manager Administrative Service
dmdadmin Stopped Manual Share Process
c:\winnt\system32\dmdadmin.exe /com
Normal LocalSystem 0
Logical Disk Manager dmserver Running
Auto Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
DNS Client Dnscache Stopped Disabled
Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
Event Log Eventlog Running Auto Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0

```

```

COM+ Event System EventSystem Running
Manual Share Process
c:\winnt\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Fax Service Fax Stopped Disabled Own
Process c:\winnt\system32\faxsvc.exe Normal
LocalSystem 0
Intersite Messaging IsmServ Stopped Disabled Own
Process c:\winnt\system32\ismserv.exe Normal
LocalSystem 0
Kerberos Key Distribution Center kdc
Stopped Disabled Share Process
c:\winnt\system32\lsass.exe Normal
LocalSystem 0
Server lanmanserver Running Auto
Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
Workstation lanmanworkstation Running
Auto Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
License Logging Service LicenseService
Stopped Disabled Own Process
c:\winnt\system32\llsdrv.exe Normal
LocalSystem 0
TCP/IP NetBIOS Helper Service LmHosts Running
Auto Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
Messenger Messenger Running Auto Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
NetMeeting Remote Desktop Sharing mnmsrvc
Stopped Manual Own Process
c:\winnt\system32\mnmsrvc.exe Normal
LocalSystem 0
Distributed Transaction Coordinator MSDTC
Stopped Disabled Own Process
c:\winnt\system32\msdtc.exe Normal
LocalSystem 0
Windows Installer MSIInstaller Stopped Manual
Share Process
c:\winnt\system32\msiexec.exe /v
Normal LocalSystem 0
Microsoft Search MSSEARCH Running Auto
Share Process "c:\program
files\common files\system\mssearch\bin\mssearch.exe"
Normal LocalSystem 0
MSSQLSERVER MSSQLSERVER Stopped
Manual Own Process
c:\progra-1\micros-2\mssql\bin\sqlservr.ex
e Normal LocalSystem 0
MSSQLServerADHelper MSSQLServerADHelper Stopped
Manual Own Process c:\program
files\microsoft sql server\80\tools\bin\sqladhlp.exe
Normal LocalSystem 0
Network DDE NetDDE Stopped Manual
Share Process
c:\winnt\system32\netdde.exe Normal
LocalSystem 0
Network DDE DSDM NetDDEdsdm Stopped
Manual Share Process

```

```

c:\winnt\system32\netdde.exe Normal
LocalSystem 0
Net Logon NetLogon Stopped Manual Share Process
c:\winnt\system32\lsass.exe Normal
LocalSystem 0
Network Connections Netman Running Manual
Share Process
c:\winnt\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
File Replication NtFrs Stopped Manual Own
Process c:\winnt\system32\ntfrs.exe Ignore
LocalSystem 0
NT LM Security Support Provider NtLmSsp
Running Manual Share Process
c:\winnt\system32\lsass.exe Normal
LocalSystem 0
Removable Storage NtmsSvc Stopped Disabled
Share Process
c:\winnt\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Plug and Play PlugPlay Running Auto
Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
IPSEC Policy Agent PolicyAgent Stopped
Disabled Share Process
c:\winnt\system32\lsass.exe Normal
LocalSystem 0
Protected Storage ProtectedStorage Running
Auto Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
Remote Access Auto Connection Manager RasAuto
Stopped Manual Share Process
c:\winnt\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Remote Access Connection Manager RasMan
Stopped Manual Share Process
c:\winnt\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Routing and Remote Access RemoteAccess
Stopped Disabled Share Process
c:\winnt\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Remote Registry Service RemoteRegistry
Stopped Disabled Own Process
c:\winnt\system32\regsvc.exe Normal
LocalSystem 0
Remote Procedure Call (RPC) Locator RpcLocator
Stopped Manual Own Process
c:\winnt\system32\locator.exe Normal
LocalSystem 0
Remote Procedure Call (RPC) RpcSs Running
Auto Share Process
c:\winnt\system32\svchost -k rpcss
Normal LocalSystem 0
QoS RSVP RSVP Running Manual Own Process
c:\winnt\system32\rsvp.exe -s Normal
LocalSystem 0
Security Accounts Manager SamSs Running
Auto Share Process
c:\winnt\system32\lsass.exe Normal
LocalSystem 0

```

```

Smart Card Helper SCardDrv Stopped Manual
Share Process
c:\winnt\system32\scardsvr.exe
Ignore LocalSystem 0
Smart Card SCardSvr Stopped Manual
Share Process
c:\winnt\system32\scardsvr.exe
Ignore LocalSystem 0
Task Scheduler Schedule Stopped Disabled
Share Process
c:\winnt\system32\mstask.exe Normal
LocalSystem 0
RunAs Service seclogon Running Auto
Share Process
c:\winnt\system32\services.exe
Ignore LocalSystem 0
System Event Notification SENS Running
Auto Share Process
c:\winnt\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Internet Connection Sharing SharedAccess
Stopped Manual Share Process
c:\winnt\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Print Spooler Spooler Stopped Disabled Own
Process c:\winnt\system32\spoolsv.exe Normal
LocalSystem 0
SQLSERVERAGENT SQLSERVERAGENT Stopped
Manual Own Process
c:\progra-1\micros-2\mssql\bin\sqlagent.ex
Normal LocalSystem 0
Performance Logs and Alerts SysmonLog Stopped
Manual Own Process
c:\winnt\system32\smlogsvc.exe
Normal LocalSystem 0
Telephony Tapisrv Stopped Disabled Share Process
c:\winnt\system32\svchost.exe -k tapisrv
Normal LocalSystem 0
Terminal Services TermService Running
Auto Own Process
c:\winnt\system32\termsrv.exe Normal
LocalSystem 0
Telnet TlntSvr Stopped Manual Own Process
c:\winnt\system32\tlntsvr.exe Normal
LocalSystem 0
Distributed Link Tracking Server TrkSvr
Stopped Manual Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
Distributed Link Tracking Client TrkWks
Running Auto Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
Uninterruptible Power Supply UPS Stopped
Manual Own Process
c:\winnt\system32\ups.exe Normal
LocalSystem 0
Utility Manager UtilMan Stopped Manual Own
Process c:\winnt\system32\utilman.exe Normal
LocalSystem 0
Windows Time W32Time Stopped Manual
Share Process

```

```

c:\winnt\system32\services.exe
Normal LocalSystem 0
Windows Management Instrumentation WinMgmt
Running Auto Own Process
c:\winnt\system32\wbem\winmgmt.exe
Ignore LocalSystem 0
Windows Management Instrumentation Driver Extensions
Wmi Running Manual Share Process
c:\winnt\system32\services.exe
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
Accessories\System Tools Default
User:Accessories\System Tools Default User
Startup Default User:Startup Default User
Accessories All Users:Accessories 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 All Users:Microsoft SQL
Server All Users
Microsoft SQL Server - Switch All Users:Microsoft SQL
Server - Switch All Users
Startup All Users:Startup All Users
Tardis All Users:Tardis All Users
Accessories STRETCH\Administrator:Accessories
STRETCH\Administrator
Accessories\Accessibility
STRETCH\Administrator:Accessories\Accessibi
lity STRETCH\Administrator
Accessories\Entertainment
STRETCH\Administrator:Accessories\Entertain
ment STRETCH\Administrator
Accessories\System Tools
STRETCH\Administrator:Accessories\System
Tools STRETCH\Administrator
Administrative Tools
STRETCH\Administrator:Administrative Tools
STRETCH\Administrator
Startup STRETCH\Administrator:Startup
STRETCH\Administrator

[Startup Programs]

Program Command User Name Location
Service Manager
c:\progra-1\micros-2\80\tools\bin\sqlmangr
.exe /n 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	
Image Document	"C:\Program Files\Windows NT\Accessories\ImageVue\KodakImg.exe"	
WordPad Document	"%ProgramFiles%\Windows NT\Accessories\WORDPAD.EXE"	
Windows Media Services DRM Storage object		Not Available
Bitmap Image	mspaint.exe	

[Internet Explorer 5]

[Following are sub-categories of this main category]

[Summary]

Item	Value
Version	5.00.3315.1000
Build	53315.1000
Product ID	51876-270-7334301-05445
Application Path	C:\Program Files\Internet Explorer
Language	English (United States)
Active Printer	Not Available

Cipher Strength	168-bit
Content Advisor	Disabled
IEAK Install	No

[File Versions]

File	Version	Size	Date	Path
advapi32.dll	5.0.2195.2867	352 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
advpack.dll	5.0.3103.1000	87 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
browselc.dll	5.0.3315.2846	35 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
browseui.dll	5.0.3315.2846	789 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
ckcnv.exe	5.0.2189.1	9 KB	12/7/1999 8:00:00 AM	C:\WINNT\system32
comctl32.dll	5.81.3103.1000	538 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
crypt32.dll	5.131.2195.2833	451 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32

ehnsig.dll	<File Missing>	Not Available	Not Available	Not Available
iemigrat.dll	<File Missing>	Not Available	Not Available	Not Available
iesetup.dll	5.0.3103.1000	57 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
iexplore.exe	5.0.2920.0	59 KB	12/7/1999 8:00:00 AM	C:\Program Files\Internet Explorer
imagehlp.dll	5.0.2195.2778	126 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
imghelp.dll	<File Missing>	Not Available	Not Available	Not Available
inseng.dll	5.0.3103.1000	72 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
jobexec.dll	5.0.0.1	47 KB	12/7/1999 8:00:00 AM	C:\WINNT\system32
jscripct.dll	5.1.0.5907	476 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
jsproxy.dll	5.0.2920.0	13 KB	12/7/1999 8:00:00 AM	C:\WINNT\system32
msaahtml.dll	<File Missing>	Not Available	Not Available	Not Available
mshtml.dll	5.0.3315.2870	2290 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
msjava.dll	5.0.3802.0	923 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
msoss.dll	<File Missing>	Not Available	Not Available	Not Available
msxml.dll	8.0.5718.1	493 KB	12:05:02 PM	C:\WINNT\system32
occache.dll	5.0.3103.1000	86 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
ole32.dll	5.0.2195.2887	970 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
oleaut32.dll	2.40.4517.0	612 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
olepro32.dll	5.0.4517.0	160 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
rsabase.dll	5.0.2195.2228	128 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
rsaenh.dll	5.0.2195.2228	131 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32

rsapi32.dll	<File Missing>	Not Available	Not Available	Not Available
rsasig.dll	<File Missing>	Not Available	Not Available	Not Available
schannel.dll	5.1.2195.0	138 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
shdoc401.dll	<File Missing>	Not Available	Not Available	Not Available
shdocvw.dll	5.0.3315.2879	1078 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
shell32.dll	5.0.3315.2902	2304 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
shlwapi.dll	5.0.3315.1000	283 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
url.dll	5.0.2920.0	82 KB	12/7/1999 8:00:00 AM	C:\WINNT\system32
urlmon.dll	5.0.3315.1000	441 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
vbscript.dll	5.1.0.5907	428 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
webcheck.dll	5.0.3315.1000	252 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
win.com	5.0.2134.1	24 KB	12/7/1999 8:00:00 AM	C:\WINNT\system32
wininet.dll	5.0.3315.1000	457 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
winsock.dll	3.10.0.103	3 KB	12/7/1999 8:00:00 AM	C:\WINNT\system32
wintrust.dll	5.131.2195.2779	162 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
wsock.vxd	<File Missing>	Not Available	Not Available	Not Available
wsock32.dll	5.0.2195.2871	21 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
wsock32n.dll	<File Missing>	Not Available	Not Available	Not Available

[Connectivity]

Item	Value	Preference	Never dial
EnableHttp1.1	1		
ProxyHttp1.1	0		

LAN Settings

```

AutoConfigProxy    wininet.dll
AutoProxyDetectMode Enabled
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	17359 MB
Available Disk Space	11632 MB
Maximum Cache Size	542 MB
Available Cache Size	542 MB

[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
Administrator	Administrator	6/10/2002 to 5/17/2102	sha1RSA	

[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
Local intranet	Medium-low
Trusted sites	Low
Internet	Medium
Restricted sites	High

Client Summary

System Information report written at: 07/22/2002 04:20:05 PM
[System Information]

[Following are sub-categories of this main category]

[System Summary]

Item	Value
OS Name	Microsoft Windows 2000 Server
Version	5.0.2195 Service Pack 2 Build 2195
OS Manufacturer	Microsoft Corporation
System Name	CL65
System Manufacturer	Compaq
System Model	ProLiant ML330
System Type	X86-based PC
Processor	x86 Family 6 Model 8 Stepping 10
GenuineIntel	-993 Mhz
BIOS Version	05/21/01
Windows Directory	C:\WINNT
System Directory	C:\WINNT\System32
Boot Device	\Device\Harddisk0\Partition1
Locale	United States
User Name	CL65\Administrator
Time Zone	Central Daylight Time
Total Physical Memory	523,824 KB
Available Physical Memory	388,624 KB
Total Virtual Memory	1,802,224 KB
Available Virtual Memory	1,557,112 KB
Page File Space	1,278,400 KB
Page File	C:\pagefile.sys

[Hardware Resources]

[Following are sub-categories of this main category]

[Conflicts/Sharing]

Resource	Device
No conflicted/shared resources	

[DMA]

Channel	Device	Status
4	Direct memory access controller	OK
2	Standard floppy disk controller	OK

[Forced Hardware]

Device	PNP Device ID
No Forced Hardware	

[I/O]

Address Range	Device	Status
0x0000-0x0CF7	PCI bus	OK
0x0000-0x0CF7	Direct memory access controller	OK
0x0F50-0x0F58	PCI bus	OK
0x0F60-0x0FFF	PCI bus	OK
0x1000-0x1FFF	DEC 21152 PCI to PCI bridge	OK
0x1000-0x1FFF	Compaq Integrated Wide Ultra2 SCSI Adapter	OK
0x03B0-0x03BB	DEC 21152 PCI to PCI bridge	OK
0x03B0-0x03BB	ATI Technologies Inc. RAGE XL PCI	OK
0x03C0-0x03DF	DEC 21152 PCI to PCI bridge	OK
0x03C0-0x03DF	ATI Technologies Inc. RAGE XL PCI	OK
0x1C00-0x1C3F	Compaq NC3163 Fast Ethernet NIC	OK
0x1400-0x14FF	ATI Technologies Inc. RAGE XL PCI	OK
0x1800-0x18FF	Compaq Advanced System Management Controller	OK
0x2000-0x203F	Compaq NC3123 Fast Ethernet NIC	OK
0x0A79-0x0A79	ISAPNP Read Data Port	OK
0x0279-0x0279	ISAPNP Read Data Port	OK
0x0274-0x0277	ISAPNP Read Data Port	OK
0x00F0-0x00FF	Numeric data processor	OK
0x0040-0x0043	System timer	OK
0x0080-0x008F	Direct memory access controller	OK
0x00C0-0x00DF	Direct memory access controller	OK
0x0070-0x0071	System CMOS/real time clock	OK
0x0061-0x0061	System speaker	OK
0x0060-0x0060	Standard 101/102-Key or Microsoft Natural PS/2 Keyboard	OK
0x0064-0x0064	Standard 101/102-Key or Microsoft Natural PS/2 Keyboard	OK
0x0378-0x037F	ECP Printer Port (LPT1)	OK
0x0778-0x077D	ECP Printer Port (LPT1)	OK
0x03F8-0x03FF	Communications Port (COM1)	OK
0x02F8-0x02FF	Communications Port (COM2)	OK
0x03F0-0x03F5	Standard floppy disk controller	OK
0x03F7-0x03F7	Standard floppy disk controller	OK
0x2040-0x204F	Standard Dual Channel PCI IDE Controller	OK
0x01F0-0x01F7	Primary IDE Channel	OK
0x03F6-0x03F6	Primary IDE Channel	OK
0x0170-0x0177	Secondary IDE Channel	OK
0x0376-0x0376	Secondary IDE Channel	OK
0xB000-0xF7FF	PCI bus	OK
0xB000-0xF7FF	Compaq NC3123 Fast Ethernet NIC	OK
#2	OK	
0xF830-0xFFFF	PCI bus	OK

[IRQs]

IRQ Number	Device
9	Microsoft ACPI-Compliant System
22	Compaq Integrated Wide Ultra2 SCSI Adapter

```

23 Compaq NC3163 Fast Ethernet NIC
24 ATI Technologies Inc. RAGE XL PCI
5 Compaq Advanced System Management
Controller
26 Compaq NC3123 Fast Ethernet NIC #3
13 Numeric data processor
8 System CMOS/real time clock
12 PS/2 Compatible Mouse
1 Standard 101/102-Key or Microsoft Natural
PS/2 Keyboard
4 Communications Port (COM1)
3 Communications Port (COM2)
6 Standard floppy disk controller
14 Primary IDE Channel
16 Compaq NC3123 Fast Ethernet NIC #2

```

[Memory]

Range	Device	Status
0xA0000-0xBFFFF	PCI bus	OK
0xA0000-0xBFFFF	DEC 21152 PCI to PCI bridge	OK
0xA0000-0xBFFFF	ATI Technologies Inc. RAGE XL PCI	OK
0x20000000-0xCFFFFFFF	PCI bus	OK
0xB0000000-0xB15FFFFF	DEC 21152 PCI to PCI bridge	OK
0xB0000000-0xB15FFFFF	ATI Technologies Inc. RAGE XL PCI	OK
0xB1400000-0xB14003FF	Compaq Integrated Wide Ultra2 SCSI Adapter	OK
0xB1100000-0xB1101FFF	Compaq Integrated Wide Ultra2 SCSI Adapter	OK
0xB1200000-0xB1200FFF	Compaq NC3163 Fast Ethernet NIC	OK
0xB1000000-0xB10FFFFF	Compaq NC3163 Fast Ethernet NIC	OK
0xB1300000-0xB1300FFF	ATI Technologies Inc. RAGE XL PCI	OK
0xB1500000-0xB1500FFF	Compaq Advanced System Management Controller	OK
0xB1700000-0xB1700FFF	Compaq NC3123 Fast Ethernet NIC #3	OK
0xB1600000-0xB16FFFFF	Compaq NC3123 Fast Ethernet NIC #3	OK
0xD0000000-0xEFFFFFFF	PCI bus	OK
0xD0000000-0xEFFFFFFF	Compaq NC3123 Fast Ethernet NIC #2	OK
0xD0100000-0xD0100FFF	Compaq NC3123 Fast Ethernet NIC #2	OK
0xFEC00000-0xFEFFFFFF	Advanced programmable interrupt controller	OK
0xFEE00000-0xFEEFFFFFF	Advanced programmable interrupt controller	OK
0x0000-0x9FFFF	System board	OK
0xE0000-0xFFFFF	System board	OK
0x100000-0xFFFFFFF	System board	OK
0xFFFC0000-0xFFFFFFFF	System board	OK

[Components]

[Following are sub-categories of this main category]

[Multimedia]

[Following are sub-categories of this main category]

[Audio Codecs]

Codec	Manufacturer	Description	Status	File	Version	Size
				Creation Date		
	Intel Corporation	Indeo® audio software	OK			
	C:\WINNT\System32\IAC25_32.AX	195.00 KB (199,680 bytes)			2.05.53	12/7/1999
7:00:00 AM						
	Microsoft Corporation		OK			
	C:\WINNT\System32\MSG723.ACM	106.77 KB (109,328 bytes)			4.4.3385	7/15/2002
6:30:29 AM						
	Microsoft Corporation		OK			
	C:\WINNT\System32\LHACM.ACM	33.27 KB (34,064 bytes)			4.4.3385	7/15/2002
6:30:30 AM						
	DSP GROUP, INC.		OK			
	C:\WINNT\System32\TSSOFT32.ACM	1.01 9.27 KB (9,488 bytes)				12/7/1999 7:00:00 AM
	Microsoft Corporation		OK			
	C:\WINNT\System32\MSGSM32.ACM	22.27 KB (22,800 bytes)			5.00.2134.1	12/7/1999
7:00:00 AM						
	Microsoft Corporation		OK			
	C:\WINNT\System32\MSG711.ACM	10.27 KB (10,512 bytes)			5.00.2134.1	12/7/1999
7:00:00 AM						
	Microsoft Corporation		OK			
	C:\WINNT\System32\MSADP32.ACM	14.77 KB (15,120 bytes)			5.00.2134.1	12/7/1999
7:00:00 AM						
	Microsoft Corporation		OK			
	C:\WINNT\System32\IMAADP32.ACM	16.27 KB (16,656 bytes)			5.00.2134.1	12/7/1999 7:00:00 AM

[Video Codecs]

Codec	Manufacturer	Description	Status	File	Version	Size
				Creation Date		
	Intel Corporation	Indeo® video 5.10	OK			
	C:\WINNT\System32\IR50_32.DLL	R.5.10.15.2.55				737.50 KB (755,200 bytes)
	Microsoft Corporation		OK			
	C:\WINNT\System32\MSH261.DRV					

	C:\WINNT\System32\MSH261.DRV	4.4.3385				163.77 KB (167,696 bytes)	7/15/2002
6:30:30 AM							
	Microsoft Corporation		OK				
	C:\WINNT\System32\MSH263.DRV	4.4.3385				252.27 KB (258,320 bytes)	7/15/2002
6:30:06 AM							
	Microsoft Corporation		OK				
	C:\WINNT\System32\MSVIDC32.DLL	5.00.2134.1				27.27 KB (27,920 bytes)	
							12/7/1999 7:00:00 AM
	Microsoft Corporation		OK				
	C:\WINNT\System32\MSRLE32.DLL	5.00.2134.1				10.77 KB (11,024 bytes)	12/7/1999
7:00:00 AM							
	Intel(R) Corporation		OK				
	C:\WINNT\System32\IR32_32.DLL	Not Available				194.50 KB (199,168 bytes)	12/7/1999
7:00:00 AM							
	Radius Inc.		OK				
	C:\WINNT\System32\ICCVID.DLL	1.10.0.6				108.00 KB (110,592 bytes)	12/7/1999 7:00:00 AM

[CD-ROM]

Item	Value
Drive D:	
Description	CD-ROM Drive
Media Loaded	False
Media Type	CD-ROM
Name	COMPAQ CRD-8402B
Manufacturer	(Standard CD-ROM drives)
Status	OK
Transfer Rate	Not Available
SCSI Target ID	0
PNP Device ID	IDE\CDROMCOMPAQ_CRD-8402B
	1.03\30323030302F2F35303120202020202020202020

[Sound Device]

Item	Value
No sound devices	

[Display]

Item	Value
Name	ATI Technologies Inc. RAGE XL PCI
PNP Device ID	PCI\VEN_1002&DEV_4752&SUBSYS_001E0E11&REV_27\4&92859D3&0&3008
Adapter Type	ATI RAGE XL PCI, ATI Technologies Inc. compatible
Adapter Description	ATI Technologies Inc. RAGE XL PCI
Adapter RAM	4.00 MB (4,194,304 bytes)
Installed Drivers	atidrab.dll
Driver Version	5.00.2179.1

INF File display.inf (atirage3 section)
Color Planes 1
Color Table Entries 256
Resolution 640 x 480 x 60 hertz
Bits/Pixel 8

[Infrared]

Item Value
No infrared devices

[Input]

[Following are sub-categories of this main category]

[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&3B8C0623&0
NumberOfFunctionKeys 12

[Pointing Device]

Item Value
Hardware Type PS/2 Compatible Mouse
Number of Buttons 2
Status OK
PNP Device ID ACPI\PNP0F13\4&3B8C0623&0
Power Management Supported False
Double Click Threshold 6
Handedness Right Handed Operation

[Modem]

Item Value
No modems

[Network]

[Following are sub-categories of this main category]

[Adapter]

Item Value
Name [00000000] Compaq NC3163 Fast Ethernet NIC
Adapter Type Ethernet 802.3
Product Name Compaq NC3163 Fast Ethernet NIC
Installed True
PNP Device ID
PCI\VEN_8086&DEV_1229&SUBSYS_B1340E11&REV_0
8\4&92859D3&0&2808
Last Reset 7/22/2002 9:25:57 AM
Index 0
Service Name N100

IP Address
IP Subnet
Default IP Gateway Not Available
DHCP Enabled True
DHCP Server 130.168.253.2
DHCP Lease Expires 7/23/2002 8:57:39 AM
DHCP Lease Obtained 7/15/2002 8:57:39 AM
MAC Address 00:50:8B:EA:B0:BB
Service Name N100
IRQ Number 23
I/O Port 0x1C00-0x1C3F
Driver c:\winnt\system32\drivers\n100nt5.sys
(87824, 5.29.04.0067)

Name [00000001] Compaq NC3123 Fast Ethernet NIC
Adapter Type Not Available
Product Name Compaq NC3123 Fast Ethernet NIC
Installed True
PNP Device ID Not Available
Last Reset 7/22/2002 9:25:57 AM
Index 1
Service Name N100
IP Address 130.176.11.165
IP Subnet 255.255.0.0
Default IP Gateway Not Available
DHCP Enabled True
DHCP Server 130.168.253.2
DHCP Lease Expires 7/23/2002 7:16:24 AM
DHCP Lease Obtained 7/15/2002 7:16:24 AM
MAC Address 00:50:8B:BD:80:F2
Service Name Not Available

Name [00000002] RAS Async Adapter
Adapter Type Not Available
Product Name RAS Async Adapter
Installed True
PNP Device ID Not Available
Last Reset 7/22/2002 9:25:57 AM
Index 2
Service Name AsyncMac
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled False
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available
Service Name Not Available

Name [00000003] WAN Miniport (L2TP)
Adapter Type Not Available
Product Name WAN Miniport (L2TP)
Installed True
PNP Device ID ROOT\MS_L2TPMINIPOINT\0000
Last Reset 7/22/2002 9:25:57 AM
Index 3
Service Name Rasl2tp
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled False
DHCP Server Not Available

DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available
Service Name Rasl2tp
Driver c:\winnt\system32\drivers\rasl2tp.sys
(50800, 5.00.2179.1)

Name [00000004] WAN Miniport (PPTP)
Adapter Type Wide Area Network (WAN)
Product Name WAN Miniport (PPTP)
Installed True
PNP Device ID ROOT\MS_PPTPMINIPOINT\0000
Last Reset 7/22/2002 9:25:57 AM
Index 4
Service Name PptpMiniport
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled False
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 50:50:54:50:30:30
Service Name PptpMiniport
Driver c:\winnt\system32\drivers\raspptp.sys
(47856, 5.00.2160.1)

Name [00000005] Direct Parallel
Adapter Type Not Available
Product Name Direct Parallel
Installed True
PNP Device ID ROOT\MS_PTIMINIPOINT\0000
Last Reset 7/22/2002 9:25:57 AM
Index 5
Service Name Raspti
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled False
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available
Service Name Raspti
Driver c:\winnt\system32\drivers\raspti.sys
(16880, 5.00.2146.1)

Name [00000006] WAN Miniport (IP)
Adapter Type Not Available
Product Name WAN Miniport (IP)
Installed True
PNP Device ID ROOT\MS_NDISWANIP\0000
Last Reset 7/22/2002 9:25:57 AM
Index 6
Service Name NdisWan
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled False
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Service Name Ndiswan
 Driver c:\winnt\system32\drivers\ndiswan.sys
 (90096, 5.00.2195.2779)

Name [00000007] Compaq NC3123 Fast Ethernet NIC
 Adapter Type Ethernet 802.3
 Product Name Compaq NC3123 Fast Ethernet NIC
 Installed True
 PNP Device ID
 PCI\VEN_8086&DEV_1229&SUBSYS_B1440E11&REV_0
 8\3&1070020&0&08
 Last Reset 7/22/2002 9:25:57 AM
 Index 7
 Service Name N100
 IP Address 130.176.11.165
 IP Subnet 255.255.0.0
 Default IP Gateway Not Available
 DHCP Enabled False
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address 00:50:8B:BD:80:F2
 Service Name N100
 IRQ Number 16
 I/O Port 0x0000-0xF7FF
 Driver c:\winnt\system32\drivers\n100nt5.sys
 (87824, 5.29.04.0067)

Name [00000008] Compaq NC3123 Fast Ethernet NIC
 Adapter Type Ethernet 802.3
 Product Name Compaq NC3123 Fast Ethernet NIC
 Installed True
 PNP Device ID
 PCI\VEN_8086&DEV_1229&SUBSYS_B1440E11&REV_0
 8\3&13C0B0C5&0&10
 Last Reset 7/22/2002 9:25:57 AM
 Index 8
 Service Name N100
 IP Address 130.172.11.215
 IP Subnet 255.255.0.0
 Default IP Gateway Not Available
 DHCP Enabled False
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address 00:50:8B:BD:7D:3F
 Service Name N100
 IRQ Number 26
 I/O Port 0x2000-0x203F
 Driver c:\winnt\system32\drivers\n100nt5.sys
 (87824, 5.29.04.0067)

[Protocol]

Item Value
 Name MSAFD Tcpip [TCP/IP]
 ConnectionlessService False
 GuaranteesDelivery True
 GuaranteesSequencing True
 MaximumAddressSize 16 bytes
 MaximumMessageSize 0 bytes
 MessageOriented False

MinimumAddressSize 16 bytes
 PseudoStreamOriented False
 SupportsBroadcasting False
 SupportsConnectData False
 SupportsDisconnectData False
 SupportsEncryption False
 SupportsExpeditedData True
 SupportsGracefulClosing True
 SupportsGuaranteedBandwidth False
 SupportsMulticasting False

Name MSAFD Tcpip [UDP/IP]
 ConnectionlessService True
 GuaranteesDelivery False
 GuaranteesSequencing False
 MaximumAddressSize 16 bytes
 MaximumMessageSize 65467 bytes
 MessageOriented True
 MinimumAddressSize 16 bytes
 PseudoStreamOriented False
 SupportsBroadcasting True
 SupportsConnectData False
 SupportsDisconnectData False
 SupportsEncryption False
 SupportsExpeditedData False
 SupportsGracefulClosing False
 SupportsGuaranteedBandwidth False
 SupportsMulticasting True

Name RSVP UDP Service Provider
 ConnectionlessService True
 GuaranteesDelivery False
 GuaranteesSequencing False
 MaximumAddressSize 16 bytes
 MaximumMessageSize 65467 bytes
 MessageOriented True
 MinimumAddressSize 16 bytes
 PseudoStreamOriented False
 SupportsBroadcasting True
 SupportsConnectData False
 SupportsDisconnectData False
 SupportsEncryption True
 SupportsExpeditedData False
 SupportsGracefulClosing False
 SupportsGuaranteedBandwidth False
 SupportsMulticasting True

Name RSVP TCP Service Provider
 ConnectionlessService False
 GuaranteesDelivery True
 GuaranteesSequencing True
 MaximumAddressSize 16 bytes
 MaximumMessageSize 0 bytes
 MessageOriented False
 MinimumAddressSize 16 bytes
 PseudoStreamOriented False
 SupportsBroadcasting False
 SupportsConnectData False
 SupportsDisconnectData False
 SupportsEncryption True
 SupportsExpeditedData True
 SupportsGracefulClosing True
 SupportsGuaranteedBandwidth False

SupportsMulticasting False

Name MSAFD NetBIOS
 [\Device\NetBT_Tcpip_{958AEE4A-32EF-4632-BC8C-0E67BB230703}] SEQPACKET 5
 ConnectionlessService False
 GuaranteesDelivery True
 GuaranteesSequencing True
 MaximumAddressSize 20 bytes
 MaximumMessageSize 64000 bytes
 MessageOriented True
 MinimumAddressSize 20 bytes
 PseudoStreamOriented False
 SupportsBroadcasting False
 SupportsConnectData False
 SupportsDisconnectData False
 SupportsEncryption False
 SupportsExpeditedData False
 SupportsGracefulClosing False
 SupportsGuaranteedBandwidth False
 SupportsMulticasting False

Name MSAFD NetBIOS
 [\Device\NetBT_Tcpip_{958AEE4A-32EF-4632-BC8C-0E67BB230703}] DATAGRAM 5
 ConnectionlessService True
 GuaranteesDelivery False
 GuaranteesSequencing False
 MaximumAddressSize 20 bytes
 MaximumMessageSize 64000 bytes
 MessageOriented True
 MinimumAddressSize 20 bytes
 PseudoStreamOriented False
 SupportsBroadcasting True
 SupportsConnectData False
 SupportsDisconnectData False
 SupportsEncryption False
 SupportsExpeditedData False
 SupportsGracefulClosing False
 SupportsGuaranteedBandwidth False
 SupportsMulticasting False

Name MSAFD NetBIOS
 [\Device\NetBT_Tcpip_{E17C3B1F-3CA5-419F-9E26-9C4E906FC115}] SEQPACKET 4
 ConnectionlessService False
 GuaranteesDelivery True
 GuaranteesSequencing True
 MaximumAddressSize 20 bytes
 MaximumMessageSize 64000 bytes
 MessageOriented True
 MinimumAddressSize 20 bytes
 PseudoStreamOriented False
 SupportsBroadcasting False
 SupportsConnectData False
 SupportsDisconnectData False
 SupportsEncryption False
 SupportsExpeditedData False
 SupportsGracefulClosing False
 SupportsGuaranteedBandwidth False
 SupportsMulticasting False

```
Name MSAFD NetBIOS
[\Device\NetBT_Tcpip_{E17C3B1F-3CA5-419F-9E26-9C4E906FC115}] DATAGRAM 4
ConnectionlessService True
GuaranteesDelivery False
GuaranteesSequencing False
MaximumAddressSize 20 bytes
MaximumMessageSize 64000 bytes
MessageOriented True
MinimumAddressSize 20 bytes
PseudoStreamOriented False
SupportsBroadcasting True
SupportsConnectData False
SupportsDisconnectData False
SupportsEncryption False
SupportsExpeditedData False
SupportsGracefulClosing False
SupportsGuaranteedBandwidth False
SupportsMulticasting False
```

```
Name MSAFD NetBIOS
[\Device\NetBT_Tcpip_{2DFBCF1B-7188-4193-8524-77E9EF3B175B}] SEQPACKE 0
ConnectionlessService False
GuaranteesDelivery True
GuaranteesSequencing True
MaximumAddressSize 20 bytes
MaximumMessageSize 64000 bytes
MessageOriented True
MinimumAddressSize 20 bytes
PseudoStreamOriented False
SupportsBroadcasting False
SupportsConnectData False
SupportsDisconnectData False
SupportsEncryption False
SupportsExpeditedData False
SupportsGracefulClosing False
SupportsGuaranteedBandwidth False
SupportsMulticasting False
```

```
Name MSAFD NetBIOS
[\Device\NetBT_Tcpip_{2DFBCF1B-7188-4193-8524-77E9EF3B175B}] DATAGRAM 0
ConnectionlessService True
GuaranteesDelivery False
GuaranteesSequencing False
MaximumAddressSize 20 bytes
MaximumMessageSize 64000 bytes
MessageOriented True
MinimumAddressSize 20 bytes
PseudoStreamOriented False
SupportsBroadcasting True
SupportsConnectData False
SupportsDisconnectData False
SupportsEncryption False
SupportsExpeditedData False
SupportsGracefulClosing False
SupportsGuaranteedBandwidth False
SupportsMulticasting False
```

```
Name MSAFD NetBIOS
[\Device\NetBT_Tcpip_{88CDDC05-4F71-48A3-B9A0-65FAA47D896F}] SEQPACKE 1
```

```
ConnectionlessService False
GuaranteesDelivery True
GuaranteesSequencing True
MaximumAddressSize 20 bytes
MaximumMessageSize 64000 bytes
MessageOriented True
MinimumAddressSize 20 bytes
PseudoStreamOriented False
SupportsBroadcasting False
SupportsConnectData False
SupportsDisconnectData False
SupportsEncryption False
SupportsExpeditedData False
SupportsGracefulClosing False
SupportsGuaranteedBandwidth False
SupportsMulticasting False
```

```
Name MSAFD NetBIOS
[\Device\NetBT_Tcpip_{88CDDC05-4F71-48A3-B9A0-65FAA47D896F}] DATAGRAM 1
ConnectionlessService True
GuaranteesDelivery False
GuaranteesSequencing False
MaximumAddressSize 20 bytes
MaximumMessageSize 64000 bytes
MessageOriented True
MinimumAddressSize 20 bytes
PseudoStreamOriented False
SupportsBroadcasting True
SupportsConnectData False
SupportsDisconnectData False
SupportsEncryption False
SupportsExpeditedData False
SupportsGracefulClosing False
SupportsGuaranteedBandwidth False
SupportsMulticasting False
```

```
Name MSAFD NetBIOS
[\Device\NetBT_Tcpip_{072E09C0-1380-4DAB-8534-D7BEAB9FB855}] SEQPACKE 2
ConnectionlessService False
GuaranteesDelivery True
GuaranteesSequencing True
MaximumAddressSize 20 bytes
MaximumMessageSize 64000 bytes
MessageOriented True
MinimumAddressSize 20 bytes
PseudoStreamOriented False
SupportsBroadcasting False
SupportsConnectData False
SupportsDisconnectData False
SupportsEncryption False
SupportsExpeditedData False
SupportsGracefulClosing False
SupportsGuaranteedBandwidth False
SupportsMulticasting False
```

```
Name MSAFD NetBIOS
[\Device\NetBT_Tcpip_{072E09C0-1380-4DAB-8534-D7BEAB9FB855}] DATAGRAM 2
ConnectionlessService True
GuaranteesDelivery False
GuaranteesSequencing False
```

```
MaximumAddressSize 20 bytes
MaximumMessageSize 64000 bytes
MessageOriented True
MinimumAddressSize 20 bytes
PseudoStreamOriented False
SupportsBroadcasting True
SupportsConnectData False
SupportsDisconnectData False
SupportsEncryption False
SupportsExpeditedData False
SupportsGracefulClosing False
SupportsGuaranteedBandwidth False
SupportsMulticasting False
```

```
Name MSAFD NetBIOS
[\Device\NetBT_Tcpip_{3336AE75-2C65-4474-8103-284B7624DF86}] SEQPACKE 3
ConnectionlessService False
GuaranteesDelivery True
GuaranteesSequencing True
MaximumAddressSize 20 bytes
MaximumMessageSize 64000 bytes
MessageOriented True
MinimumAddressSize 20 bytes
PseudoStreamOriented False
SupportsBroadcasting False
SupportsConnectData False
SupportsDisconnectData False
SupportsEncryption False
SupportsExpeditedData False
SupportsGracefulClosing False
SupportsGuaranteedBandwidth False
SupportsMulticasting False
```

```
Name MSAFD NetBIOS
[\Device\NetBT_Tcpip_{3336AE75-2C65-4474-8103-284B7624DF86}] DATAGRAM 3
ConnectionlessService True
GuaranteesDelivery False
GuaranteesSequencing False
MaximumAddressSize 20 bytes
MaximumMessageSize 64000 bytes
MessageOriented True
MinimumAddressSize 20 bytes
PseudoStreamOriented False
SupportsBroadcasting True
SupportsConnectData False
SupportsDisconnectData False
SupportsEncryption False
SupportsExpeditedData False
SupportsGracefulClosing False
SupportsGuaranteedBandwidth False
SupportsMulticasting False
```

[WinSock]

```
Item Value
File c:\winnt\system32\winsock.dll
Version 3.10
Size 2.80 KB (2,864 bytes)
File c:\winnt\system32\wsock32.dll
```


Version 5.00.2195.2871
Size 21.27 KB (21,776 bytes)

[Ports]

[Following are sub-categories of this main category]

[Serial]

Item	Value
Name	COM1
Status	OK
PNP Device ID	ACPI\PNP0501\1
Maximum Input Buffer Size	0
Maximum Output Buffer Size	False
Settable Baud Rate	True
Settable Data Bits	True
Settable Flow Control	True
Settable Parity	True
Settable Parity Check	True
Settable Stop Bits	True
Settable RLSD	True
Supports RLSD	True
Supports 16 Bit Mode	False
Supports Special Characters	False
Baud Rate	9600
Bits/Byte	8
Stop Bits	1
Parity	None
Busy	0
Abort Read/Write on Error	0
Binary Mode Enabled	-1
Continue XMit on XOff	0
CTS Outflow Control	0
Discard NULL Bytes	0
DSR Outflow Control	0
DSR Sensitivity	0
DTR Flow Control Type	Enable
EOF Character	0
Error Replace Character	0
Error Replacement Enabled	0
Event Character	0
Parity Check Enabled	0
RTS Flow Control Type	Enable
XOff Character	19
XOffXMit Threshold	512
XOn Character	17
XOnXMit Threshold	2048
XOnXOff InFlow Control	0
XOnXOff OutFlow Control	0
IRQ Number	4
I/O Port	0x03F8-0x03FF
Driver	c:\winnt\system32\drivers\serial.sys (62416, 5.00.2195.2780)

Name	COM2
Status	OK
PNP Device ID	ACPI\PNP0501\2
Maximum Input Buffer Size	0
Maximum Output Buffer Size	False
Settable Baud Rate	True

Settable Data Bits	True
Settable Flow Control	True
Settable Parity	True
Settable Parity Check	True
Settable Stop Bits	True
Settable RLSD	True
Supports RLSD	True
Supports 16 Bit Mode	False
Supports Special Characters	False
Baud Rate	9600
Bits/Byte	8
Stop Bits	1
Parity	None
Busy	0
Abort Read/Write on Error	0
Binary Mode Enabled	-1
Continue XMit on XOff	0
CTS Outflow Control	0
Discard NULL Bytes	0
DSR Outflow Control	0
DSR Sensitivity	0
DTR Flow Control Type	Enable
EOF Character	0
Error Replace Character	0
Error Replacement Enabled	0
Event Character	0
Parity Check Enabled	0
RTS Flow Control Type	Enable
XOff Character	19
XOffXMit Threshold	512
XOn Character	17
XOnXMit Threshold	2048
XOnXOff InFlow Control	0
XOnXOff OutFlow Control	0
IRQ Number	3
I/O Port	0x02F8-0x02FF
Driver	c:\winnt\system32\drivers\serial.sys (62416, 5.00.2195.2780)

[Parallel]

Item	Value
Name	LPT1
PNP Device ID	ACPI\PNP0401\4&3B8C0623&0

[Storage]

[Following are sub-categories of this main category]

[Drives]

Item	Value
Drive	A:
Description	3 1/2 Inch Floppy Drive

Drive	C:
Description	Local Fixed Disk
Compressed	False
File System	NTFS
Size	8.46 GB (9,088,933,888 bytes)

Free Space	6.40 GB (6,870,429,696 bytes)
Volume Name	
Volume Serial Number	B4BE745C
Partition Disk #0, Partition #0	
Partition Size	8.46 GB (9,088,934,400 bytes)
Starting Offset	8225280 bytes
Drive Description	Disk drive
Drive Manufacturer	(Standard disk drives)
Drive Model	COMPAQ BD009734A3 SCSI Disk Device
Drive BytesPerSector	512
Drive MediaLoaded	True
Drive MediaType	Fixed hard disk media
Drive Partitions	2
Drive SCSIbus	0
Drive SCSILogicalUnit	0
Drive SCSIPort	2
Drive SCISITargetId	0
Drive SectorsPerTrack	63
Drive Size	9097159680 bytes
Drive TotalCylinders	1106
Drive TotalSectors	17767890
Drive TotalTracks	282030
Drive TracksPerCylinder	255

[SCSI]

Item	Value
Name	Compaq Integrated Wide Ultra2 SCSI Adapter
Caption	Compaq Integrated Wide Ultra2 SCSI Adapter
Driver	Cpq32fs2
Status	OK
PNP Device ID	PCI\VEN_1000&DEV_0012&SUBSYS_001B0E11&REV_01\4&92859D3&0&2008
Device ID	PCI\VEN_1000&DEV_0012&SUBSYS_001B0E11&REV_01\4&92859D3&0&2008
Device Map	Not Available
Index	Not Available
Max Number Controlled	Not Available
IRQ Number	22
I/O Port	0x1000-0x1FFF
Driver	c:\winnt\system32\drivers\cpq32fs2.sys (68848, 5.01.24.0)

[Printing]

Name	Port Name Server Name	
No printing information		

[Problem Devices]

Device	PNP Device ID	Error Code
No Problem Devices		

[USB]

Device	PNP Device ID
No USB Devices	

[Software Environment]

[Following are sub-categories of this main category]

[Drivers]

Name	Description	File	Type	Started	Start Mode	State	Status	Error Control	Accept Pause
abiosdsk	Abiosdsk	Not Available	Kernel Driver	False	Disabled	Stopped	OK	Ignore	False
abp480n5	abp480n5	Not Available	Kernel Driver	False	Disabled	Stopped	OK	Normal	False
acpi	Microsoft ACPI Driver	c:\winnt\system32\drivers\acpi.sys	Kernel Driver	True	Boot	Running	OK	Normal	False
acpiec	ACPIEC	c:\winnt\system32\drivers\acpiec.sys	Kernel Driver	False	Disabled	Stopped	OK	Normal	False
adpu160m	adpu160m	Not Available	Kernel Driver	False	Disabled	Stopped	OK	Normal	False
afd	AFD Networking Support Environment	c:\winnt\system32\drivers\afd.sys	Kernel Driver	True	Auto	Running	OK	Normal	False
ahal54x	Ahal54x	Not Available	Kernel Driver	False	Disabled	Stopped	OK	Normal	False
aic116x	aic116x	Not Available	Kernel Driver	False	Disabled	Stopped	OK	Normal	False
aic78u2	aic78u2	Not Available	Kernel Driver	False	Disabled	Stopped	OK	Normal	False
aic78xx	aic78xx	Not Available	Kernel Driver	False	Disabled	Stopped	OK	Normal	False
ami0nt	ami0nt	Not Available	Kernel Driver	False	Disabled	Stopped	OK	Normal	False
amsint	amsint	Not Available	Kernel Driver	False	Disabled	Stopped	OK	Normal	False
asc	asc	Not Available	Kernel Driver	False	Disabled	Stopped	OK	Normal	False
asc3350p	asc3350p	Not Available	Kernel Driver	False	Disabled	Stopped	OK	Normal	False
asc3550	asc3550	Not Available	Kernel Driver	False	Disabled	Stopped	OK	Normal	False

asynmac	RAS Asynchronous Media Driver	c:\winnt\system32\drivers\asynmac.sys	Kernel Driver	False	Manual	Stopped	OK	Normal	False
atapi	Standard IDE/ESDI Hard Disk Controller	c:\winnt\system32\drivers\atapi.sys	Kernel Driver	True	Boot	Running	OK	Normal	False
atdisk	Atdisk	Not Available	Kernel Driver	False	Disabled	Stopped	OK	Ignore	False
atirage3	atirage3	c:\winnt\system32\drivers\atimpab.sys	Kernel Driver	True	Manual	Running	OK	Ignore	False
atmarpc	ATM ARP Client Protocol	c:\winnt\system32\drivers\atmarpc.sys	Kernel Driver	False	Manual	Stopped	OK	Normal	False
audstub	Audio Stub Driver	c:\winnt\system32\drivers\audstub.sys	Kernel Driver	True	Manual	Running	OK	Normal	False
beep	Beep	c:\winnt\system32\drivers\beep.sys	Kernel Driver	True	System	Running	OK	Normal	False
buslogic	BusLogic	Not Available	Kernel Driver	False	Disabled	Stopped	OK	Normal	False
cd20xrnt	cd20xrnt	Not Available	Kernel Driver	False	Disabled	Stopped	OK	Normal	False
cdaudio	Cdaudio	c:\winnt\system32\drivers\cdaudio.sys	Kernel Driver	False	System	Stopped	OK	Ignore	False
cdfs	Cdfs	c:\winnt\system32\drivers\cdfs.sys	File System Driver	True	Disabled	Running	OK	Normal	False
cdrom	CD-ROM Driver	c:\winnt\system32\drivers\cdrom.sys	Kernel Driver	True	System	Running	OK	Normal	False
changer	Changer	Not Available	Kernel Driver	False	System	Stopped	OK	Ignore	False
cpq32fs2	cpq32fs2	c:\winnt\system32\drivers\cpq32fs2.sys	Kernel Driver	True	Boot	Running	OK	Normal	False

cpqarray	Cpqarray	Not Available	Kernel Driver	False	Disabled	Stopped	OK	Normal	False
cpqarray2	cpqarray2	Not Available	Kernel Driver	False	Disabled	Stopped	OK	Normal	False
cpqfcalm	cpqfcalm	Not Available	Kernel Driver	False	Disabled	Stopped	OK	Normal	False
cpqfws2e	cpqfws2e	Not Available	Kernel Driver	False	Disabled	Stopped	OK	Normal	False
dac960nt	dac960nt	Not Available	Kernel Driver	False	Disabled	Stopped	OK	Normal	False
deckzpsx	deckzpsx	Not Available	Kernel Driver	False	Disabled	Stopped	OK	Normal	False
dfsdriver	DfsDriver	c:\winnt\system32\drivers\dfs.sys	File System Driver	True	Boot	Running	OK	Normal	False
disk	Disk Driver	c:\winnt\system32\drivers\disk.sys	Kernel Driver	True	Boot	Running	OK	Normal	False
diskperf	Diskperf	c:\winnt\system32\drivers\diskperf.sys	Kernel Driver	True	Boot	Running	OK	Normal	False
dmboot	dmboot	c:\winnt\system32\drivers\dmboot.sys	Kernel Driver	False	Disabled	Stopped	OK	Normal	False
dmio	Logical Disk Manager Driver	c:\winnt\system32\drivers\dmio.sys	Kernel Driver	True	Boot	Running	OK	Normal	False
dmload	dmload	c:\winnt\system32\drivers\dmload.sys	Kernel Driver	True	Boot	Running	OK	Normal	False
efs	EFS	c:\winnt\system32\drivers\efs.sys	File System Driver	True	Disabled	Running	OK	Normal	False
fastfat	Fastfat	c:\winnt\system32\drivers\fastfat.sys	File System Driver	True	Disabled	Running	OK	Normal	False
fd16_700	Fd16_700	Not Available	Kernel Driver	False	Disabled	Stopped	OK	Normal	False
fdc	Floppy Disk Controller Driver	c:\winnt\system32\drivers\fdc.sys	Kernel Driver	True	Manual	Running	OK	Normal	False

	Running	OK	Normal	False
fips	True			
	Fips			
	c:\winnt\system32\drivers\fips.sys			
	Kernel Driver	True	Auto	
	Running	OK	Normal	False
fireport	True			
	fireport	Not Available	Kernel Driver	
	False	Disabled	Stopped	OK
	Normal	False	False	
flashpnt	flashpnt	Not Available	Kernel Driver	
	False	Disabled	Stopped	OK
	Normal	False	False	
flpydisk	Floppy Disk Driver			
	c:\winnt\system32\drivers\flpydisk.sys			
	Kernel Driver	True	Manual	
	Running	OK	Normal	False
ftdisk	True			
	Volume Manager Driver			
	c:\winnt\system32\drivers\ftdisk.sys			
	Kernel Driver	True	Boot	
	Running	OK	Normal	False
gpc	True			
	Generic Packet Classifier			
	c:\winnt\system32\drivers\msgpc.sys			
	Kernel Driver	True	Manual	
	Running	OK	Normal	False
i8042prt	True			
	i8042 Keyboard and PS/2 Mouse Port Driver			
	c:\winnt\system32\drivers\i8042prt.sys			
	Kernel Driver	True	System	
	Running	OK	Normal	False
ini910u	True			
	ini910u	Not Available	Kernel Driver	
	False	Disabled	Stopped	OK
	Normal	False	False	
intelide	IntelIde	Not Available	Kernel Driver	
	False	Disabled	Stopped	OK
	Normal	False	False	
ipfilterdriver	IP Traffic Filter Driver			
	c:\winnt\system32\drivers\ipfltdrv.sys			
	Kernel Driver	False	Manual	
	Stopped	OK	Normal	False
ipinip	False			
	IP in IP Tunnel Driver			
	c:\winnt\system32\drivers\ipinip.sys			
	Kernel Driver	False	Manual	
	Stopped	OK	Normal	False
ipnat	False			
	IP Network Address Translator			
	c:\winnt\system32\drivers\ipnat.sys			
	Kernel Driver	False	Manual	
	Stopped	OK	Normal	False
ipsec	False			
	IPSEC driver			
	c:\winnt\system32\drivers\ipsec.sys			
	Kernel Driver	True	Manual	
	Running	OK	Normal	False
ipsraidn	True			
	ipsraidn	Not Available	Kernel Driver	
	False	Disabled	Stopped	OK
	Normal	False	False	

isapnp	PnP ISA/EISA Bus Driver			
	c:\winnt\system32\drivers\isapnp.sys			
	Kernel Driver	True	Boot	
	Running	OK	Critical	False
kbdclass	True			
	Keyboard Class Driver			
	c:\winnt\system32\drivers\kbdclass.sys			
	Kernel Driver	True	System	
	Running	OK	Normal	False
ksecdd	True			
	KSecDD			
	c:\winnt\system32\drivers\ksecdd.sys			
	Kernel Driver	True	Boot	
	Running	OK	Normal	False
lbrtfdc	True			
	lbrtfdc	Not Available	Kernel Driver	
	False	System	Stopped	OK
	Ignore	False	False	
lp6nds35	lp6nds35	Not Available	Kernel Driver	
	False	Disabled	Stopped	OK
	Normal	False	False	
mnmdd	Normal			
	mnmdd			
	c:\winnt\system32\drivers\mnmdd.sys			
	Kernel Driver	True	System	
	Running	OK	Ignore	False
modem	True			
	Modem			
	c:\winnt\system32\drivers\modem.sys			
	Kernel Driver	False	Manual	
	Stopped	OK	Ignore	False
mouclass	False			
	Mouse Class Driver			
	c:\winnt\system32\drivers\mouclass.sys			
	Kernel Driver	True	System	
	Running	OK	Normal	False
mountmgr	True			
	MountMgr			
	c:\winnt\system32\drivers\mountmgr.sys			
	Kernel Driver	True	Boot	
	Running	OK	Normal	False
mraid35x	True			
	mraid35x	Not Available	Kernel Driver	
	False	Disabled	Stopped	OK
	Normal	False	False	
mrx smb	Normal			
	MRXSMB			
	c:\winnt\system32\drivers\mrx smb.sys			
	File System Driver	True	System	
	Running	OK	Normal	False
msfs	True			
	Msfs			
	c:\winnt\system32\drivers\msfs.sys			
	File System Driver	True	System	
	Running	OK	Normal	False
mskssrv	True			
	Microsoft Streaming Service Proxy			
	c:\winnt\system32\drivers\mskssrv.sys			
	Kernel Driver	False	Manual	
	Stopped	OK	Normal	False
mspclock	False			
	Microsoft Streaming Clock Proxy			
	c:\winnt\system32\drivers\mspclock.sys			
	Kernel Driver	False	Manual	

mspqm	Stopped	OK	Normal	False
	False			
	Microsoft Streaming Quality Manager Proxy			
	c:\winnt\system32\drivers\mspqm.sys			
	Kernel Driver	False	Manual	
	Stopped	OK	Normal	False
mup	False			
	Mup			
	c:\winnt\system32\drivers\mup.sys			
	File System Driver	True	Boot	
	Running	OK	Normal	False
n100	True			
	Driver			
	Compaq Ethernet or Fast Ethernet NIC NT			
	c:\winnt\system32\drivers\n100nt5.sys			
	Kernel Driver	True	Manual	
	Running	OK	Normal	False
ncrc710	True			
	Nrc710	Not Available	Kernel Driver	
	False	Disabled	Stopped	OK
	Normal	False	False	
ndis	Normal			
	NDIS System Driver			
	c:\winnt\system32\drivers\ndis.sys			
	Kernel Driver	True	Boot	
	Running	OK	Normal	False
ndistapi	True			
	Remote Access NDIS TAPI Driver			
	c:\winnt\system32\drivers\ndistapi.sys			
	Kernel Driver	True	Manual	
	Running	OK	Normal	False
ndiswan	True			
	Remote Access NDIS WAN Driver			
	c:\winnt\system32\drivers\ndiswan.sys			
	Kernel Driver	True	Manual	
	Running	OK	Normal	False
ndproxy	True			
	NDIS Proxy			
	c:\winnt\system32\drivers\ndproxy.sys			
	Kernel Driver	True	Manual	
	Running	OK	Normal	False
netbios	True			
	NetBIOS Interface			
	c:\winnt\system32\drivers\netbios.sys			
	File System Driver	True	System	
	Running	OK	Normal	False
netbt	True			
	NetBios over Tcpip			
	c:\winnt\system32\drivers\netbt.sys			
	Kernel Driver	True	System	
	Running	OK	Normal	False
netdetect	True			
	NetDetect			
	c:\winnt\system32\drivers\netdetect.sys			
	Kernel Driver	False	Manual	
	Stopped	OK	Normal	False
npfs	False			
	Npfs			
	c:\winnt\system32\drivers\npfs.sys			
	File System Driver	True	System	
	Running	OK	Normal	False
ntfs	True			
	Ntfs			
	c:\winnt\system32\drivers\ntfs.sys			
	File System Driver	True	Disabled	

	Running	OK	Normal	False
	True			
null	Null			
	c:\winnt\system32\drivers\null.sys			
	Kernel Driver	True	System	
	Running	OK	Normal	False
	True			
nwlkflt	IPX Traffic Filter Driver			
	c:\winnt\system32\drivers\nwlkflt.sys			
	Kernel Driver	False	Manual	
	Stopped	OK	Normal	False
	False			
nwlkfwd	IPX Traffic Forwarder Driver			
	c:\winnt\system32\drivers\nwlkfwd.sys			
	Kernel Driver	False	Manual	
	Stopped	OK	Normal	False
	False			
parallel	Parallel class driver			
	c:\winnt\system32\drivers\parallel.sys			
	Kernel Driver	True	Manual	
	Running	OK	Normal	False
	True			
parport	Parallel port driver			
	c:\winnt\system32\drivers\parport.sys			
	Kernel Driver	True	System	
	Running	OK	Ignore	False
	True			
partmgr	PartMgr			
	c:\winnt\system32\drivers\partmgr.sys			
	Kernel Driver	True	Boot	
	Running	OK	Normal	False
	True			
parvdm	ParVdm			
	c:\winnt\system32\drivers\parvdm.sys			
	Kernel Driver	True	Auto	
	Running	OK	Ignore	False
	True			
pci	PCI Bus Driver			
	c:\winnt\system32\drivers\pci.sys			
	Kernel Driver	True	Boot	
	Running	OK	Critical	False
	True			
pcidump	PCIDump			
	Not Available			Kernel Driver
	False	System	Stopped	OK
	Ignore	False	False	
pciide	PCIIde			
	c:\winnt\system32\drivers\pciide.sys			
	Kernel Driver	True	Boot	
	Running	OK	Normal	False
	True			
pcmcia	Pcmcia			
	c:\winnt\system32\drivers\pcmcia.sys			
	Kernel Driver	False	Disabled	
	Stopped	OK	Normal	False
	False			
pdcomp	PDCOMP			
	Not Available			Kernel Driver
	False	Manual	Stopped	OK
	Ignore	False	False	
pdframe	PDFRAME			
	Not Available			Kernel Driver
	False	Manual	Stopped	OK
	Ignore	False	False	

pdreli	PDRELI	Not Available	Kernel Driver
	False	Manual	Stopped
	Ignore	False	False
pdrframe	PDFRAME	Not Available	Kernel Driver
	False	Manual	Stopped
	Ignore	False	False
pptpminiport	WAN Miniport (PPTP)		
	c:\winnt\system32\drivers\rasppptp.sys		
	Kernel Driver	True	Manual
	Running	OK	Normal
	True		False
ptilink	Direct Parallel Link Driver		
	c:\winnt\system32\drivers\ptilink.sys		
	Kernel Driver	True	Manual
	Running	OK	Normal
	True		False
ql1080	ql1080	Not Available	Kernel Driver
	False	Disabled	Stopped
	Normal	False	False
ql10wnt	Ql10wnt	Not Available	Kernel Driver
	False	Disabled	Stopped
	Normal	False	False
ql1240	ql1240	Not Available	Kernel Driver
	False	Disabled	Stopped
	Normal	False	False
ql2100	ql2100	Not Available	Kernel Driver
	False	Disabled	Stopped
	Normal	False	False
rasacd	Remote Access Auto Connection Driver		
	c:\winnt\system32\drivers\rasacd.sys		
	Kernel Driver	True	System
	Running	OK	Normal
	True		False
rasl2tp	WAN Miniport (L2TP)		
	c:\winnt\system32\drivers\rasl2tp.sys		
	Kernel Driver	True	Manual
	Running	OK	Normal
	True		False
raspti	Direct Parallel		
	c:\winnt\system32\drivers\raspti.sys		
	Kernel Driver	True	Manual
	Running	OK	Normal
	True		False
rca	Microsoft Streaming Network Raw Channel		
	Access		
	c:\winnt\system32\drivers\rca.sys		
	Kernel Driver	False	Manual
	Stopped	OK	Normal
	False		False
rdbss	Rdbss		
	c:\winnt\system32\drivers\rdbss.sys		
	File System Driver	True	System
	Running	OK	Normal
	True		False
rdpdr	Terminal Server Device Redirector Driver		
	c:\winnt\system32\drivers\rdpdr.sys		
	Kernel Driver	True	Manual
	Running	OK	Normal
	True		False
rdpwd	RDPWD		
	c:\winnt\system32\drivers\rdpwd.sys		
	Kernel Driver	True	Manual
	Running	OK	Ignore
	True		False

redbook	Digital CD Audio Playback Filter Driver		
	c:\winnt\system32\drivers\redbook.sys		
	Kernel Driver	False	System
	Stopped	OK	Normal
	False		False
serenum	Serenum Filter Driver		
	c:\winnt\system32\drivers\serenum.sys		
	Kernel Driver	True	Manual
	Running	OK	Normal
	True		False
serial	Serial port driver		
	c:\winnt\system32\drivers\serial.sys		
	Kernel Driver	True	System
	Running	OK	Ignore
	True		False
sfloppy	Sfloppy		
	c:\winnt\system32\drivers\sfloppy.sys		
	Kernel Driver	False	System
	Stopped	OK	Ignore
	False		False
sglfb	sglfb	Not Available	Kernel Driver
	False	System	Stopped
	Normal	False	False
simbad	Simbad	Not Available	Kernel Driver
	False	Disabled	Stopped
	Normal	False	False
sparrow	Sparrow	Not Available	Kernel Driver
	False	Disabled	Stopped
	Normal	False	False
spud	Special Purpose Utility Driver		
	c:\winnt\system32\drivers\spud.sys		
	Kernel Driver	True	Manual
	Running	OK	Normal
	True		False
srv	Srv	c:\winnt\system32\drivers\srv.sys	
	File System Driver	True	Manual
	Running	OK	Normal
	True		False
swenum	Software Bus Driver		
	c:\winnt\system32\drivers\swenum.sys		
	Kernel Driver	True	Manual
	Running	OK	Normal
	True		False
symc810	symc810	Not Available	Kernel Driver
	False	Disabled	Stopped
	Normal	False	False
symc8xx	symc8xx	Not Available	Kernel Driver
	False	Disabled	Stopped
	Normal	False	False
sym_hi	sym_hi	Not Available	Kernel Driver
	False	Disabled	Stopped
	Normal	False	False
tcpip	TCP/IP Protocol Driver		
	c:\winnt\system32\drivers\tcpip.sys		
	Kernel Driver	True	System
	Running	OK	Normal
	True		False
tdasync	TDASYNC		
	c:\winnt\system32\drivers\tdasync.sys		
	Kernel Driver	False	Manual
	Stopped	OK	Ignore
	False		False

```

tdipx      TDIPX
           c:\winnt\system32\drivers\tdipx.sys
           Kernel Driver      False      Manual
           Stopped      OK      Ignore      False
           False
tdnetb     TDNETB
           c:\winnt\system32\drivers\tdnetb.sys
           Kernel Driver      False      Manual
           Stopped      OK      Ignore      False
           False
tdpipe     TDPIPE
           c:\winnt\system32\drivers\tdpipe.sys
           Kernel Driver      False      Manual
           Stopped      OK      Ignore      False
           False
tdspix     TDSPX
           c:\winnt\system32\drivers\tdspix.sys
           Kernel Driver      False      Manual
           Stopped      OK      Ignore      False
           False
tdtcp      TDTCP
           c:\winnt\system32\drivers\tdtcp.sys
           Kernel Driver      True       Manual
           Running      OK      Ignore      False
           True
termdd     Terminal Device Driver
           c:\winnt\system32\drivers\termdd.sys
           Kernel Driver      True       Auto
           Running      OK      Normal     False
           True
tga        tga      Not Available      Kernel Driver
           False      System      Stopped      OK
           Ignore     False      False
udfs       Udfs
           c:\winnt\system32\drivers\udfs.sys
           File System Driver False      Disabled
           Stopped      OK      Normal     False
           False
ultra66    ultra66  Not Available      Kernel Driver
           False      Disabled      Stopped      OK
           Normal     False      False
update     Microcode Update Driver
           c:\winnt\system32\drivers\update.sys
           Kernel Driver      True       Manual
           Running      OK      Normal     False
           True
vgasave    VgaSave  c:\winnt\system32\drivers\vga.sys
           Kernel Driver      True       System
           Running      OK      Ignore      False
           True
wanarp     Remote Access IP ARP Driver
           c:\winnt\system32\drivers\wanarp.sys
           Kernel Driver      True       Manual
           Running      OK      Normal     False
           True
wdica      WDICA    Not Available      Kernel Driver
           False      Manual      Stopped      OK
           Ignore     False      False

[Environment Variables]
Variable  Value      User Name
ComSpec   %SystemRoot%\system32\cmd.exe <SYSTEM>

```

```

Os2LibPath %SystemRoot%\system32\os2\dll;
           <SYSTEM>
Path        %SystemRoot%\system32;%SystemRoot%;%SystemR
           oot%\System32\Wbem;C:\Program Files\Microsoft SQL
           Server\80\Tools\BINN <SYSTEM>
windir      %SystemRoot% <SYSTEM>
OS          Windows_NT <SYSTEM>
PROCESSOR_ARCHITECTURE x86 <SYSTEM>
PROCESSOR_LEVEL         6 <SYSTEM>
PROCESSOR_IDENTIFIER    x86 Family 6 Model 8
Stepping 10, GenuineIntel <SYSTEM>
PROCESSOR_REVISION      080a <SYSTEM>
NUMBER_OF_PROCESSORS    1 <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
           CL65\Administrator
TMP         %USERPROFILE%\Local Settings\Temp
           CL65\Administrator

[Jobs]

[ Following are sub-categories of this main category ]

[Print]
Document   Size      Owner      Notify      Status
           Time Submitted      Start Time
           Until Time      Elapsed Time
           Pages Printed      Job ID      Priority
           Parameters      Driver Name
           Print Processor      Host Print Queue
           Data Type Name
Unknown    Unknown    Unknown    Unknown    Unknown
Unknown    Unknown    Unknown    Unknown    Unknown
Unknown    Unknown    Unknown    Unknown    Unknown
Unknown    Unknown    Unknown    Unknown    Unknown

[Network Connections]
Local Name      Remote Name      Type
           Status      User Name
No network connections information

[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      Unknown      Unknown
system      Not Available      8      8      0
           1413120      Not Available      Unknown
           Unknown      Unknown

```

```

smss.exe    c:\winnt\system32\smss.exe      176      11
           204800      1413120      7/22/2002 2:26:18 PM
           5.00.2195.2901      44.27 KB (45,328 bytes)
           12/7/1999 7:00:00 AM
csrss.exe   Not Available      200      13      Not
           Available      Not Available      7/22/2002 2:26:21 PM
           Unknown      Unknown      Unknown
winlogon.exe c:\winnt\system32\winlogon.exe
           224      13      204800      1413120
           7/22/2002 2:26:22 PM
           5.00.2195.2953      173.77 KB (177,936
           bytes)
           12/7/1999 7:00:00 AM
services.exe c:\winnt\system32\services.exe
           252      9      204800      1413120
           7/22/2002 2:26:23 PM
           5.00.2195.2780      86.77 KB (88,848 bytes)
           12/7/1999 7:00:00 AM
lsass.exe   c:\winnt\system32\lsass.exe      264      9
           204800      1413120      7/22/2002 2:26:23 PM
           5.00.2195.2964      32.77 KB (33,552 bytes)
           12/7/1999 7:00:00 AM
termsrv.exe c:\winnt\system32\termsrv.exe      368
           10      204800      1413120      7/22/2002
           2:26:24 PM      5.00.2195.2342      137.27 KB
           (140,560 bytes)      7/15/2002 6:45:56 AM
svchost.exe c:\winnt\system32\svchost.exe      476
           8      204800      1413120      7/22/2002
           2:26:26 PM      5.00.2134.1      7.77 KB
           (7,952 bytes)      12/7/1999 7:00:00 AM
msdtc.exe   c:\winnt\system32\msdtc.exe      508      8
           204800      1413120      7/22/2002 2:26:27 PM
           1999.9.3421.3      6.77 KB (6,928 bytes)
           7/15/2002 1:26:07 AM
svchost.exe c:\winnt\system32\svchost.exe      612
           8      204800      1413120      7/22/2002
           2:26:28 PM      5.00.2134.1      7.77 KB
           (7,952 bytes)      12/7/1999 7:00:00 AM
rsys.exe    Not Available      692      8      Not
           Available      Not Available      7/22/2002 2:26:30 PM
           Unknown      Unknown      Unknown
winmgmt.exe c:\winnt\system32\wbem\winmgmt.exe      740
           8      204800      1413120      7/22/2002
           2:26:36 PM      1.50.1085.0029      192.08 KB
           (196,685 bytes)      7/15/2002 6:46:06 AM
inetinfo.exe c:\winnt\system32\inetrv\inetinfo.exe      764
           8      204800      1413120      7/22/2002
           2:26:36 PM      5.00.0984 14.27 KB (14,608 bytes)
           7/15/2002 6:47:11 AM
explorer.exe c:\winnt\explorer.exe
           1012      8      204800      1413120
           7/22/2002 2:33:45 PM
           5.00.3315.2846      237.27 KB (242,960
           bytes)      7/15/2002 6:45:59 AM
dllhost.exe Not Available      784      8
           Not Available      Not Available
           7/22/2002 2:43:44 PM      Unknown
           Unknown      Unknown
mmc.exe     c:\winnt\system32\mmc.exe      1984      8
           204800      1413120      7/22/2002 4:19:12 PM
           5.00.2195.2301      589.27 KB (603,408
           bytes)      7/15/2002 6:45:34 AM

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```

rsvp.exe c:\winnt\system32\rsvp.exe 1292 8
204800 1413120 7/22/2002 4:19:46 PM
5.00.2167.1 172.77 KB (176,912
bytes) 12/7/1999 7:00:00 AM

[Loaded Modules]

Name Version Size File Date Manufacturer
Path
traffic.dll 5.00.2139.1 30.77 KB
(31,504 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\traffic.dll
rsvp.exe 5.00.2167.1 172.77 KB (176,912
bytes) 12/7/1999 7:00:00 AM Microsoft
Corporation c:\winnt\system32\rsvp.exe
wbemprox.dll 1.50.1085.0045 40.08 KB
(41,040 bytes) 7/15/2002 6:46:06 AM
Microsoft Corporation
c:\winnt\system32\wbem\wbemprox.dll
mlang.dll 5.00.3103.1000 510.77 KB (523,024
bytes) 7/15/2002 6:45:33 AM Microsoft
Corporation c:\winnt\system32\mlang.dll
rassapi.dll 5.00.2188.1 14.27 KB
(14,608 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\rassapi.dll
adsnt.dll 5.00.2195.2778 195.27 KB (199,952
bytes) 7/15/2002 6:45:18 AM Microsoft
Corporation c:\winnt\system32\adsnt.dll
dbghelp.dll 5.00.2195.2104 159.27 KB
(163,088 bytes) 5/4/2001 12:05:02 PM
Microsoft Corporation
c:\winnt\system32\dbghelp.dll
localsec.dll 5.00.2195.2130 230.27 KB
(235,792 bytes) 7/15/2002 6:45:33 AM
Microsoft Corporation
c:\winnt\system32\localsec.dll
devmgr.dll 5.00.2166.1 215.77 KB
(220,944 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\devmgr.dll
filemgmt.dll 5.00.2195.2165 287.27 KB
(294,160 bytes) 7/15/2002 6:45:28 AM
Microsoft Corporation
c:\winnt\system32\filemgmt.dll
pdh.dll 5.00.2195.2739 147.77 KB (151,312
bytes) 7/15/2002 6:45:49 AM Microsoft
Corporation c:\winnt\system32\pdh.dll
smlogcfg.dll 5.00.2195.2485 273.27 KB
(279,824 bytes) 7/15/2002 6:45:54 AM
Microsoft Corporation
c:\winnt\system32\smlogcfg.dll
cabinet.dll 5.00.2147.1 54.77 KB
(56,080 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\cabinet.dll
msinfo32.dll 5.00.2177.1 312.27 KB
(319,760 bytes) 7/15/2002 6:30:26 AM
Microsoft Corporation c:\program
files\common files\microsoft
shared\msinfo\msinfo32.dll

```

```

riched20.dll 5.30.23.1205 421.27 KB
(431,376 bytes) 7/15/2002 6:45:51 AM
Microsoft Corporation
c:\winnt\system32\riched20.dll
riched32.dll 5.00.2134.1 3.77 KB
(3,856 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\riched32.dll
els.dll 5.00.2175.1 151.27 KB (154,896
bytes) 12/7/1999 7:00:00 AM Microsoft
Corporation c:\winnt\system32\els.dll
ntmsmgr.dll 1,0,0,1 427.77 KB (438,032
bytes) 12/7/1999 7:00:00 AM Microsoft
Corporation and HighGround Systems, Inc.
c:\winnt\system32\ntmsmgr.dll
mmfutil.dll 1.50.1085.0000 32.06 KB
(32,829 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\mmfutil.dll
logdrive.dll 1.50.1085.0000 200.06 KB
(204,863 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\logdrive.dll
dfrgres.dll 5.00.2150.1 27.50 KB
(28,160 bytes) 12/7/1999 7:00:00 AM
Executive Software International, Inc.
c:\winnt\system32\dfrgres.dll
dfrgsnap.dll 5.00.2195.2104 41.77 KB
(42,768 bytes) 7/15/2002 6:45:24 AM
Executive Software International, Inc.
c:\winnt\system32\dfrgsnap.dll
dmdskres.dll 2195.2104.297.3 119.50 KB
(122,368 bytes) 7/15/2002 6:45:25 AM
Microsoft Corp., VERITAS Software
c:\winnt\system32\dmdskres.dll
dmutil.dll 2195.2104.297.3 42.27 KB
(43,280 bytes) 7/15/2002 6:45:25 AM
VERITAS Software Corp.
c:\winnt\system32\dmutil.dll
ntmsapi.dll 5.00.1948.1 51.77 KB
(53,008 bytes) 7/15/2002 6:45:45 AM
Microsoft Corporation
c:\winnt\system32\ntmsapi.dll
dmdskmgr.dll 2215.2215.297.3 160.27 KB
(164,112 bytes) 7/15/2002 6:45:25 AM
Microsoft Corp., VERITAS Software
c:\winnt\system32\dmdskmgr.dll
mycomput.dll 5.00.2134.1 107.77 KB
(110,352 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\mycomput.dll
mmcmdmgr.dll 5.00.2178.1 815.27 KB
(834,832 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\mmcmdmgr.dll
mmc.exe 5.00.2195.2301 589.27 KB (603,408
bytes) 7/15/2002 6:45:34 AM Microsoft
Corporation c:\winnt\system32\mmc.exe
wininet.dll 5.00.3315.1000 456.77 KB
(467,728 bytes) 7/15/2002 6:45:58 AM
Microsoft Corporation
c:\winnt\system32\wininet.dll

```

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actxprxy.dll 5.00.3103.1000 70.27 KB
(71,952 bytes) 7/15/2002 6:45:11 AM
Microsoft Corporation
c:\winnt\system32\actxprxy.dll
shdoclc.dll 5.00.3315.2879 324.50 KB
(332,288 bytes) 7/15/2002 6:45:53 AM
Microsoft Corporation
c:\winnt\system32\shdoclc.dll
urlmon.dll 5.00.3315.1000 441.27 KB
(451,856 bytes) 7/15/2002 6:45:56 AM
Microsoft Corporation
c:\winnt\system32\urlmon.dll
browseic.dll 5.00.3315.2846 34.50 KB
(35,328 bytes) 7/15/2002 6:45:19 AM
Microsoft Corporation
c:\winnt\system32\browseic.dll
rasdlg.dll 5.00.2195.2671 514.27 KB
(526,608 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\rasdlg.dll
netplwiz.dll 5.00.2195.2370 169.77 KB
(173,840 bytes) 7/15/2002 6:45:43 AM
Microsoft Corporation
c:\winnt\system32\netplwiz.dll
netmsg.dll 5.00.2137.1 152.50 KB
(156,160 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\netmsg.dll
netui2.dll 5.00.2134.1 280.27 KB
(286,992 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\netui2.dll
mprui.dll 5.00.2195.2104 54.77 KB (56,080 bytes)
7/15/2002 6:45:34 AM Microsoft
Corporation c:\winnt\system32\mprui.dll
msi.dll 1.11.2405.0 1.69 MB (1,767,184
bytes) 7/15/2002 6:45:37 AM Microsoft
Corporation c:\winnt\system32\msi.dll
linkinfo.dll 5.00.2134.1 15.77 KB
(16,144 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\linkinfo.dll
powrprof.dll 5.00.3103.1000 13.27 KB
(13,584 bytes) 7/15/2002 6:45:49 AM
Microsoft Corporation
c:\winnt\system32\powrprof.dll
batmeter.dll 5.00.3103.1000 20.27 KB
(20,752 bytes) 7/15/2002 6:45:19 AM
Microsoft Corporation
c:\winnt\system32\batmeter.dll
stobject.dll 5.00.2195.2780 79.27 KB
(81,168 bytes) 7/15/2002 6:45:55 AM
Microsoft Corporation
c:\winnt\system32\stobject.dll
webcheck.dll 5.00.3315.1000 251.77 KB
(257,808 bytes) 7/15/2002 6:45:58 AM
Microsoft Corporation
c:\winnt\system32\webcheck.dll
ntshrui.dll 5.00.2134.1 46.77 KB
(47,888 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\ntshrui.dll

```

mydocs.dll 5.00.2920.0000 55.77 KB
 (57,104 bytes) 12/7/1999 7:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\mydocs.dll
 browseui.dll 5.00.3315.2846 788.77 KB
 (807,696 bytes) 7/15/2002 6:45:19 AM
 Microsoft Corporation
 c:\winnt\system32\browseui.dll
 shdocvw.dll 5.00.3315.2879 1.05 MB
 (1,104,144 bytes) 7/15/2002 6:45:53 AM
 Microsoft Corporation
 c:\winnt\system32\shdocvw.dll
 explorer.exe 5.00.3315.2846 237.27 KB
 (242,960 bytes) 7/15/2002 6:45:59 AM
 Microsoft Corporation
 c:\winnt\explorer.exe
 tpcc_com_all.dll 1, 0, 0, 1 80.00 KB
 (81,920 bytes) 7/15/2002 6:59:33 AM
 c:\inetpub\wwwroot\tpcc_c-2.dll
 dbnetlib.dll 2000.080.0528.00 84.08 KB
 (86,097 bytes) 7/15/2002 6:57:17 AM
 Microsoft Corporation
 c:\winnt\system32\dbnetlib.dll
 ntwdblib.dll 2000.080.0194.00 268.06 KB
 (274,489 bytes) 7/15/2002 6:54:10 AM
 Microsoft Corporation
 c:\winnt\system32\ntwdblib.dll
 tpcc_dblib.dll Not Available 28.00 KB
 (28,672 bytes) 7/15/2002 6:59:31 AM Not
 Available c:\inetpub\wwwroot\tpcc_dblib.dll
 mfc42.dll 6.00.8665.0 972.05 KB (995,383
 bytes) 12/7/1999 7:00:00 AM Microsoft
 Corporation c:\winnt\system32\mfc42.dll
 wam.dll 5.00.0984 70.77 KB (72,464 bytes)
 7/15/2002 6:47:12 AM Microsoft
 Corporation c:\winnt\system32\inetrv\wam.dll
 odbccint.dll 3.520.7926.0 88.00 KB
 (90,112 bytes) 7/15/2002 6:57:10 AM
 Microsoft Corporation
 c:\winnt\system32\odbccint.dll
 comdlg32.dll 5.00.3103.1000 236.77 KB
 (242,448 bytes) 12/7/1999 7:00:00 AM
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 c:\winnt\system32\comdlg32.dll
 odbcc32.dll 3.520.7926.0 216.27 KB
 (221,456 bytes) 7/15/2002 6:57:10 AM
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 comsvcs.dll 2000.2.3471.1 1.35 MB
 (1,417,488 bytes) 7/15/2002 6:45:22 AM
 Microsoft Corporation
 c:\winnt\system32\comsvcs.dll
 iislog.dll 5.00.0984 75.27 KB (77,072 bytes)
 7/15/2002 6:47:10 AM Microsoft
 Corporation c:\winnt\system32\inetrv\iislog.dll
 inetloc.dll 5.00.0984 20.27 KB (20,752 bytes)
 7/15/2002 6:45:30 AM Microsoft
 Corporation c:\winnt\system32\inetloc.dll
 isatq.dll 5.00.0984 60.27 KB (61,712 bytes)
 7/15/2002 6:47:11 AM Microsoft
 Corporation c:\winnt\system32\inetrv\isatq.dll

security.dll 5.00.2154.1 5.77 KB
 (5,904 bytes) 12/7/1999 7:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\security.dll
 svceext.dll 5.00.0984 39.77 KB (40,720 bytes)
 7/15/2002 6:47:12 AM Microsoft
 Corporation c:\winnt\system32\inetrv\svceext.dll
 admxss.dll 5.00.0984 27.77 KB (28,432 bytes)
 7/15/2002 6:47:08 AM Microsoft
 Corporation c:\winnt\system32\inetrv\admxs.dll
 wamreg.dll 5.00.0984 45.77 KB (46,864 bytes)
 7/15/2002 6:47:12 AM Microsoft
 Corporation c:\winnt\system32\inetrv\wamreg.dll
 metadata.dll 5.00.0984 68.77 KB (70,416 bytes)
 7/15/2002 6:47:11 AM Microsoft
 Corporation c:\winnt\system32\inetrv\metadata.dll
 iismap.dll 5.00.0984 55.77 KB (57,104 bytes)
 7/15/2002 6:45:29 AM Microsoft
 Corporation c:\winnt\system32\iismap.dll
 nsepm.dll 5.00.0984 43.27 KB (44,304 bytes)
 7/15/2002 6:47:12 AM Microsoft
 Corporation c:\winnt\system32\inetrv\nsepm.dll
 admwprox.dll 5.00.0984 31.77 KB (32,528 bytes)
 7/15/2002 1:26:35 AM Microsoft
 Corporation c:\winnt\system32\admwprox.dll
 coadmin.dll 5.00.0984 39.27 KB (40,208 bytes)
 7/15/2002 6:47:09 AM Microsoft
 Corporation c:\winnt\system32\inetrv\coadmin.dll
 iisadmin.dll 5.00.0984 15.27 KB (15,632 bytes)
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 Corporation c:\winnt\system32\inetrv\iisadmin.dll
 rpcref.dll 5.00.0984 4.27 KB (4,368 bytes)
 7/15/2002 6:47:12 AM Microsoft
 Corporation c:\winnt\system32\inetrv\rpcref.dll
 iisrtl.dll 5.00.0984 119.77 KB (122,640
 bytes) 7/15/2002 6:45:29 AM Microsoft
 Corporation c:\winnt\system32\iisrtl.dll
 inetinfo.exe 5.00.0984 14.27 KB (14,608 bytes)
 7/15/2002 6:47:11 AM Microsoft
 Corporation c:\winnt\system32\inetrv\inetinfo.exe
 netui1.dll 5.00.2134.1 210.27 KB
 (215,312 bytes) 12/7/1999 7:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\netui1.dll
 netui0.dll 5.00.2134.1 70.27 KB
 (71,952 bytes) 12/7/1999 7:00:00 AM
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 c:\winnt\system32\netui0.dll
 ntlanman.dll 5.00.2157.1 35.27 KB
 (36,112 bytes) 12/7/1999 7:00:00 AM
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 c:\winnt\system32\ntlanman.dll
 ntmarta.dll 5.00.2195.2862 98.77 KB
 (101,136 bytes) 7/15/2002 6:45:45 AM

Microsoft Corporation
 c:\winnt\system32\ntmarta.dll
 provthrd.dll 1.50.1085.0000 68.07 KB
 (69,708 bytes) 7/15/2002 6:30:19 AM
 Microsoft Corporation
 c:\winnt\system32\wbem\provthrd.dll
 ntevt.dll 1.50.1085.0000 192.06 KB (196,669
 bytes) 12/7/1999 7:00:00 AM Microsoft
 Corporation c:\winnt\system32\wbem\ntevt.dll
 perfos.dll 5.00.2155.1 21.27 KB
 (21,776 bytes) 12/7/1999 7:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\perfos.dll
 psapi.dll 5.00.2134.1 28.27 KB (28,944 bytes)
 12/7/1999 7:00:00 AM Microsoft
 Corporation c:\winnt\system32\psapi.dll
 framedyn.dll 1.50.1085.0000 164.05 KB
 (167,992 bytes) 12/7/1999 7:00:00 AM
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 c:\winnt\system32\wbem\framedyn.dll
 cimwin32.dll 1.50.1085.0038 1.02 MB
 (1,073,232 bytes) 7/15/2002 6:46:04 AM
 Microsoft Corporation
 c:\winnt\system32\wbem\cimwin32.dll
 wbmvc.dll 1.50.1085.0007 40.07 KB
 (41,036 bytes) 7/15/2002 6:46:06 AM
 Microsoft Corporation
 c:\winnt\system32\wbem\wbmvc.dll
 wbemess.dll 1.50.1085.0039 364.07 KB
 (372,804 bytes) 7/15/2002 6:46:06 AM
 Microsoft Corporation
 c:\winnt\system32\wbem\wbemess.dll
 fastprox.dll 1.50.1085.0037 144.08 KB
 (147,536 bytes) 7/15/2002 6:46:04 AM
 Microsoft Corporation
 c:\winnt\system32\wbem\fastprox.dll
 wbemcore.dll 1.50.1085.0036 628.07 KB
 (643,140 bytes) 7/15/2002 6:46:05 AM
 Microsoft Corporation
 c:\winnt\system32\wbem\wbemcore.dll
 wbemcomm.dll 1.50.1085.0021 692.07 KB
 (708,675 bytes) 7/15/2002 6:46:05 AM
 Microsoft Corporation
 c:\winnt\system32\wbem\wbemcomm.dll
 winmgmt.exe 1.50.1085.0029 192.08 KB
 (196,685 bytes) 7/15/2002 6:46:06 AM
 Microsoft Corporation
 c:\winnt\system32\wbem\winmgmt.exe
 wmi.dll 5.00.2191.1 6.27 KB (6,416 bytes)
 12/7/1999 7:00:00 AM Microsoft
 Corporation c:\winnt\system32\wmi.dll
 netshell.dll 5.00.2195.2779 457.27 KB
 (468,240 bytes) 7/15/2002 6:45:44 AM
 Microsoft Corporation
 c:\winnt\system32\netshell.dll
 netman.dll 5.00.2195.2779 89.27 KB
 (91,408 bytes) 7/15/2002 6:45:43 AM
 Microsoft Corporation
 c:\winnt\system32\netman.dll
 sens.dll 5.00.2163.1 36.77 KB (37,648 bytes)
 12/7/1999 7:00:00 AM Microsoft
 Corporation c:\winnt\system32\sens.dll

es.dll 2000.2.3471.1 222.27 KB (227,600 bytes) 7/15/2002 6:45:27 AM Microsoft Corporation c:\winnt\system32\es.dll
 mtxoci.dll 2000.2.3471.1 101.77 KB (104,208 bytes) 7/15/2002 6:45:42 AM Microsoft Corporation c:\winnt\system32\mtxoci.dll
 resutils.dll 5.00.2195.2787 39.77 KB (40,720 bytes) 7/15/2002 6:45:51 AM Microsoft Corporation c:\winnt\system32\resutils.dll
 clusapi.dll 5.00.2195.2104 54.27 KB (55,568 bytes) 7/15/2002 6:45:21 AM Microsoft Corporation c:\winnt\system32\clusapi.dll
 msvcp50.dll 5.00.7051 552.50 KB (565,760 bytes) 12/7/1999 7:00:00 AM Microsoft Corporation c:\winnt\system32\msvcp50.dll
 xolehlp.dll 1999.9.3421.3 17.27 KB (17,680 bytes) 7/15/2002 1:26:07 AM Microsoft Corporation c:\winnt\system32\xolehlp.dll
 msdtclog.dll 1999.9.3421.3 89.77 KB (91,920 bytes) 7/15/2002 1:26:07 AM Microsoft Corporation c:\winnt\system32\msdtclog.dll
 mtxclu.dll 2000.2.3471.1 51.27 KB (52,496 bytes) 7/15/2002 6:45:42 AM Microsoft Corporation c:\winnt\system32\mtxclu.dll
 msdtcprx.dll 2000.2.3471.1 665.77 KB (681,744 bytes) 7/15/2002 6:45:35 AM Microsoft Corporation c:\winnt\system32\msdtcprx.dll
 txfaux.dll 2000.2.3471.1 374.27 KB (383,248 bytes) 7/15/2002 6:45:56 AM Microsoft Corporation c:\winnt\system32\txfaux.dll
 msdtctm.dll 2000.2.3471.1 1.07 MB (1,120,528 bytes) 7/15/2002 6:45:35 AM Microsoft Corporation c:\winnt\system32\msdtctm.dll
 msdtc.exe 1999.9.3421.3 6.77 KB (6,928 bytes) 7/15/2002 1:26:07 AM Microsoft Corporation c:\winnt\system32\msdtc.exe
 rpcss.dll 5.00.2195.2815 231.27 KB (236,816 bytes) 7/15/2002 6:45:51 AM Microsoft Corporation c:\winnt\system32\rpcss.dll
 svchost.exe 5.00.2134.1 7.77 KB (7,952 bytes) 12/7/1999 7:00:00 AM Microsoft Corporation c:\winnt\system32\svchost.exe
 rdpwsx.dll 5.00.2180.1 94.40 KB (96,664 bytes) 7/15/2002 1:26:09 AM Microsoft Corporation c:\winnt\system32\rdpwsx.dll
 ntlslapi.dll 5.00.2134.1 6.77 KB (6,928 bytes) 12/7/1999 7:00:00 AM Microsoft Corporation c:\winnt\system32\ntslapi.dll
 mstlsapi.dll 5.00.2181.1 24.77 KB (25,360 bytes) 12/7/1999 7:00:00 AM

Microsoft Corporation c:\winnt\system32\mstlsapi.dll
 icaapi.dll 5.00.2134.1 118.77 KB (121,616 bytes) 7/15/2002 1:26:09 AM Microsoft Corporation c:\winnt\system32\icaapi.dll
 regapi.dll 5.00.2155.1 35.27 KB (36,112 bytes) 12/7/1999 7:00:00 AM Microsoft Corporation c:\winnt\system32\regapi.dll
 termsrv.exe 5.00.2195.2342 137.27 KB (140,560 bytes) 7/15/2002 6:45:56 AM Microsoft Corporation c:\winnt\system32\termsrv.exe
 iissuba.dll 5.00.0984 9.77 KB (10,000 bytes) 12/7/1999 7:00:00 AM Microsoft Corporation c:\winnt\system32\iissuba.dll
 dsenh.dll 5.00.2195.2228 142.77 KB (146,192 bytes) 7/15/2002 6:47:03 AM Microsoft Corporation c:\winnt\system32\dsenh.dll
 oakley.dll 5.00.2195.2785 378.77 KB (387,856 bytes) 7/15/2002 6:45:46 AM Microsoft Corporation c:\winnt\system32\oakley.dll
 mfc42u.dll 6.00.8665.0 972.05 KB (995,384 bytes) 12/7/1999 7:00:00 AM Microsoft Corporation c:\winnt\system32\mfc42u.dll
 polagent.dll 5.00.2183.1 108.27 KB (110,864 bytes) 12/7/1999 7:00:00 AM Microsoft Corporation c:\winnt\system32\polagent.dll
 scecli.dll 5.00.2195.2780 105.27 KB (107,792 bytes) 7/15/2002 6:45:52 AM Microsoft Corporation c:\winnt\system32\scecli.dll
 atl.dll 3.00.8449 57.56 KB (58,938 bytes) 12/7/1999 7:00:00 AM Microsoft Corporation c:\winnt\system32\atl.dll
 certcli.dll 5.00.2195.2778 130.77 KB (133,904 bytes) 7/15/2002 6:45:21 AM Microsoft Corporation c:\winnt\system32\certcli.dll
 esent.dll 6.0.3940.13 1.08 MB (1,135,376 bytes) 7/15/2002 6:45:27 AM Microsoft Corporation c:\winnt\system32\esent.dll
 ntdsatq.dll 5.00.2195.2878 31.27 KB (32,016 bytes) 7/15/2002 6:45:45 AM Microsoft Corporation c:\winnt\system32\ntdsatq.dll
 ntdsa.dll 5.00.2195.2899 990.77 KB (1,014,544 bytes) 7/15/2002 6:45:44 AM Microsoft Corporation c:\winnt\system32\ntdsa.dll
 kdcsvc.dll 5.00.2195.2878 137.77 KB (141,072 bytes) 7/15/2002 6:45:33 AM Microsoft Corporation c:\winnt\system32\kdcsvc.dll
 sfmapi.dll 5.00.2134.1 38.77 KB (39,696 bytes) 12/7/1999 7:00:00 AM Microsoft Corporation c:\winnt\system32\sfmapi.dll

rassfm.dll 5.00.2195.2671 21.27 KB (21,776 bytes) 7/15/2002 6:45:50 AM Microsoft Corporation c:\winnt\system32\rassfm.dll
 mpr.dll 5.00.2195.2779 53.27 KB (54,544 bytes) 7/15/2002 6:45:34 AM Microsoft Corporation c:\winnt\system32\mpr.dll
 rsabase.dll 5.00.2195.2228 128.27 KB (131,344 bytes) 5/4/2001 12:05:02 PM Microsoft Corporation c:\winnt\system32\rsabase.dll
 schannel.dll 5.00.2195.2922 138.27 KB (141,584 bytes) 5/4/2001 12:05:02 PM Microsoft Corporation c:\winnt\system32\schannel.dll
 netlogon.dll 5.00.2195.2865 357.77 KB (366,352 bytes) 7/15/2002 6:45:43 AM Microsoft Corporation c:\winnt\system32\netlogon.dll
 msvl_0.dll 5.00.2195.2900 111.77 KB (114,448 bytes) 12/7/1999 7:00:00 AM Microsoft Corporation c:\winnt\system32\msvl_0.dll
 kerberos.dll 5.00.2195.2913 198.77 KB (203,536 bytes) 7/15/2002 6:45:33 AM Microsoft Corporation c:\winnt\system32\kerberos.dll
 msprvs.dll 5.00.2154.1 41.50 KB (42,496 bytes) 12/7/1999 7:00:00 AM Microsoft Corporation c:\winnt\system32\msprvs.dll
 samsrv.dll 5.00.2195.2918 369.77 KB (378,640 bytes) 12/7/1999 7:00:00 AM Microsoft Corporation c:\winnt\system32\samsrv.dll
 lsasrv.dll 5.00.2195.2964 492.77 KB (504,592 bytes) 12/7/1999 7:00:00 AM Microsoft Corporation c:\winnt\system32\lsasrv.dll
 lsass.exe 5.00.2195.2964 32.77 KB (33,552 bytes) 12/7/1999 7:00:00 AM Microsoft Corporation c:\winnt\system32\lsass.exe
 wmicore.dll 5.00.2195.2842 72.27 KB (74,000 bytes) 7/15/2002 6:45:59 AM Microsoft Corporation c:\winnt\system32\wmicore.dll
 rasadhlp.dll 5.00.2168.1 7.27 KB (7,440 bytes) 12/7/1999 7:00:00 AM Microsoft Corporation c:\winnt\system32\rasadhlp.dll
 msgsvc.dll 5.00.2195.2939 34.27 KB (35,088 bytes) 12/7/1999 7:00:00 AM Microsoft Corporation c:\winnt\system32\msgsvc.dll
 browser.dll 5.00.2195.2778 48.27 KB (49,424 bytes) 7/15/2002 6:45:19 AM Microsoft Corporation c:\winnt\system32\browser.dll
 alrsvc.dll 5.00.2134.1 17.77 KB (18,192 bytes) 12/7/1999 7:00:00 AM Microsoft Corporation c:\winnt\system32\alrsvc.dll

trkwx.dll 5.00.2166.1 88.77 KB
 (90,896 bytes) 12/7/1999 7:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\trkwx.dll
 seclogon.dll 5.00.2135.1 15.77 KB
 (16,144 bytes) 12/7/1999 7:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\seclogon.dll
 psbase.dll 5.00.2195.2779 111.77 KB
 (114,448 bytes) 7/15/2002 6:45:49 AM
 Microsoft Corporation
 c:\winnt\system32\psbase.dll
 cryptsvc.dll 5.00.2181.1 61.77 KB
 (63,248 bytes) 12/7/1999 7:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\cryptsvc.dll
 cryptdll.dll 5.00.2135.1 41.27 KB
 (42,256 bytes) 12/7/1999 7:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\cryptdll.dll
 wkssvc.dll 5.00.2195.2780 95.27 KB
 (97,552 bytes) 12/7/1999 7:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\wkssvc.dll
 srsvcs.dll 5.00.2195.2904 79.27 KB
 (81,168 bytes) 12/7/1999 7:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\srsvcs.dll
 cfgmgr32.dll 5.00.2134.1 16.77 KB
 (17,168 bytes) 12/7/1999 7:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\cfgmgr32.dll
 dmserver.dll 2195.2778.297.3 11.77 KB
 (12,048 bytes) 7/15/2002 6:45:25 AM
 VERITAS Software Corp.
 c:\winnt\system32\dmserver.dll
 lmhsvc.dll 5.00.2195.2778 9.77 KB
 (10,000 bytes) 12/7/1999 7:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\lmhsvc.dll
 dnssrslvr.dll 5.00.2195.2778 88.77 KB
 (90,896 bytes) 7/15/2002 6:45:25 AM
 Microsoft Corporation
 c:\winnt\system32\dnssrslvr.dll
 eventlog.dll 5.00.2178.1 43.77 KB
 (44,816 bytes) 12/7/1999 7:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\eventlog.dll
 ntdsapi.dll 5.00.2195.2661 55.77 KB
 (57,104 bytes) 7/15/2002 6:45:45 AM
 Microsoft Corporation
 c:\winnt\system32\ntdsapi.dll
 scesrv.dll 5.00.2195.2780 226.27 KB
 (231,696 bytes) 7/15/2002 6:45:52 AM
 Microsoft Corporation
 c:\winnt\system32\scesrv.dll
 umpnpgmgr.dll 5.00.2182.1 86.27 KB
 (88,336 bytes) 12/7/1999 7:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\umpnpgmgr.dll
 services.exe 5.00.2195.2780 86.77 KB
 (88,848 bytes) 12/7/1999 7:00:00 AM

Microsoft Corporation
 c:\winnt\system32\services.exe
 cscui.dll 5.00.2195.2959 228.27 KB (233,744 bytes)
 7/15/2002 6:45:23 AM Microsoft Corporation
 c:\winnt\system32\cscui.dll
 wshnetbs.dll 5.00.2134.1 7.77 KB
 (7,952 bytes) 12/7/1999 7:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\wshnetbs.dll
 winnr.dll 5.00.2160.1 18.77 KB
 (19,216 bytes) 12/7/1999 7:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\winnr.dll
 clbcatq.dll 2000.2.3471.1 496.77 KB
 (508,688 bytes) 7/15/2002 6:45:21 AM
 Microsoft Corporation
 c:\winnt\system32\clbcatq.dll
 dhcpcsvc.dll 5.00.2195.2778 88.77 KB
 (90,896 bytes) 12/7/1999 7:00:00 AM
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 c:\winnt\system32\dhcpcsvc.dll
 tapi32.dll 5.00.2182.1 123.27 KB
 (126,224 bytes) 12/7/1999 7:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\tapi32.dll
 rasman.dll 5.00.2195.2780 54.77 KB
 (56,080 bytes) 12/7/1999 7:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\rasman.dll
 rasapi32.dll 5.00.2195.2671 189.77 KB
 (194,320 bytes) 12/7/1999 7:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\rasapi32.dll
 rtutils.dll 5.00.2168.1 43.77 KB
 (44,816 bytes) 12/7/1999 7:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\rtutils.dll
 adslrpc.dll 5.00.2195.2842 127.27 KB
 (130,320 bytes) 7/15/2002 6:45:17 AM
 Microsoft Corporation
 c:\winnt\system32\adslrpc.dll
 activeds.dll 5.00.2195.2778 174.77 KB
 (178,960 bytes) 7/15/2002 6:45:10 AM
 Microsoft Corporation
 c:\winnt\system32\activeds.dll
 oleaut32.dll 2.40.4517.612.27 KB (626,960 bytes)
 12/7/1999 7:00:00 AM Microsoft Corporation
 c:\winnt\system32\oleaut32.dll
 mprapi.dll 5.00.2181.1 79.27 KB
 (81,168 bytes) 12/7/1999 7:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\mprapi.dll
 icmp.dll 5.00.2134.1 7.27 KB (7,440 bytes)
 12/7/1999 7:00:00 AM Microsoft Corporation
 c:\winnt\system32\icmp.dll
 iphlapi.dll 5.00.2173.2 67.77 KB
 (69,392 bytes) 12/7/1999 7:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\iphlpapi.dll
 rnr20.dll 5.00.2195.2871 35.77 KB (36,624 bytes)
 7/15/2002 6:45:51 AM Microsoft Corporation
 c:\winnt\system32\rnr20.dll

wshtcpip.dll 5.00.2195.2104 17.27 KB
 (17,680 bytes) 7/15/2002 6:45:59 AM
 Microsoft Corporation
 c:\winnt\system32\wshtcpip.dll
 msafd.dll 5.00.2195.2779 106.77 KB (109,328 bytes)
 7/15/2002 6:45:34 AM Microsoft Corporation
 c:\winnt\system32\msafd.dll
 mswsock.dll 5.00.2195.2871 62.77 KB
 (64,272 bytes) 7/15/2002 6:45:42 AM
 Microsoft Corporation
 c:\winnt\system32\mswsock.dll
 winspool.drv 5.00.2195.2780 109.77 KB
 (112,400 bytes) 12/7/1999 7:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\winspool.drv
 winscard.dll 5.00.2134.1 77.27 KB
 (79,120 bytes) 12/7/1999 7:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\winscard.dll
 wlnotify.dll 5.00.2195.2780 53.77 KB
 (55,056 bytes) 7/15/2002 6:45:59 AM
 Microsoft Corporation
 c:\winnt\system32\wlnotify.dll
 cscdll.dll 5.00.2195.2401 98.27 KB
 (100,624 bytes) 7/15/2002 6:45:22 AM
 Microsoft Corporation
 c:\winnt\system32\cscdll.dll
 lz32.dll 5.00.2134.1 9.77 KB (10,000 bytes)
 12/7/1999 7:00:00 AM Microsoft Corporation
 c:\winnt\system32\lz32.dll
 version.dll 5.00.2134.1 15.77 KB
 (16,144 bytes) 12/7/1999 7:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\version.dll
 rsaenh.dll 5.00.2195.2228 130.77 KB
 (133,904 bytes) 7/15/2002 6:47:03 AM
 Microsoft Corporation
 c:\winnt\system32\rsaenh.dll
 mscat32.dll 5.131.2134.1 7.77 KB
 (7,952 bytes) 12/7/1999 7:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\mscat32.dll
 ole32.dll 5.00.2195.2887 969.77 KB (993,040 bytes)
 7/15/2002 6:45:48 AM Microsoft Corporation
 c:\winnt\system32\ole32.dll
 imagehlp.dll 5.00.2195.2778 125.77 KB
 (128,784 bytes) 5/4/2001 12:05:02 PM
 Microsoft Corporation
 c:\winnt\system32\imagehlp.dll
 msasn1.dll 5.00.2134.1 51.27 KB
 (52,496 bytes) 12/7/1999 7:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\msasn1.dll
 crypt32.dll 5.131.2195.2833 451.27 KB
 (462,096 bytes) 7/15/2002 6:45:22 AM
 Microsoft Corporation
 c:\winnt\system32\crypt32.dll
 wintrust.dll 5.131.2195.2779 162.27 KB
 (166,160 bytes) 7/15/2002 6:45:59 AM
 Microsoft Corporation
 c:\winnt\system32\wintrust.dll
 shlwapi.dll 5.00.3315.1000 282.77 KB
 (289,552 bytes) 7/15/2002 6:45:54 AM

```

Microsoft Corporation
c:\winnt\system32\shlwapi.dll
shell32.dll 5.00.3315.2902 2.25 MB
(2,359,056 bytes) 7/15/2002 6:45:53 AM
Microsoft Corporation
c:\winnt\system32\shell32.dll
msgina.dll 5.00.2195.2779 324.27 KB
(332,048 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\msgina.dll
comctl32.dll 5.81 537.77 KB (550,672
bytes) 12/7/1999 7:00:00 AM
Microsoft
Corporation c:\winnt\system32\comctl32.dll
setupapi.dll 5.00.2195.2663 555.77 KB
(569,104 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\setupapi.dll
winmm.dll 5.00.2161.1 184.77 KB (189,200
bytes) 12/7/1999 7:00:00 AM
Microsoft
Corporation c:\winnt\system32\winmm.dll
winsta.dll 5.00.2195.2386 36.77 KB
(37,648 bytes) 7/15/2002 6:45:59 AM
Microsoft Corporation
c:\winnt\system32\winsta.dll
wsock32.dll 5.00.2195.2871 21.27 KB
(21,776 bytes) 7/15/2002 6:45:59 AM
Microsoft Corporation
c:\winnt\system32\wsock32.dll
dnsapi.dll 5.00.2195.2785 130.77 KB
(133,904 bytes) 7/15/2002 6:45:25 AM
Microsoft Corporation
c:\winnt\system32\dnsapi.dll
wldap32.dll 5.00.2195.2797 125.27 KB
(128,272 bytes) 7/15/2002 6:45:59 AM
Microsoft Corporation
c:\winnt\system32\wldap32.dll
ws2help.dll 5.00.2134.1 17.77 KB
(18,192 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\ws2help.dll
ws2_32.dll 5.00.2195.2780 67.77 KB
(69,392 bytes) 7/15/2002 6:45:59 AM
Microsoft Corporation
c:\winnt\system32\ws2_32.dll
samlib.dll 5.00.2195.2780 49.77 KB
(50,960 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\samlib.dll
netrap.dll 5.00.2134.1 11.27 KB
(11,536 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\netrap.dll
netapi32.dll 5.00.2195.2808 303.77 KB
(311,056 bytes) 7/15/2002 6:45:43 AM
Microsoft Corporation
c:\winnt\system32\netapi32.dll
profmap.dll 5.00.2181.1 29.27 KB
(29,968 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\profmap.dll
secur32.dll 5.00.2195.2862 46.77 KB
(47,888 bytes) 7/15/2002 6:45:52 AM

```

```

Microsoft Corporation
c:\winnt\system32\secur32.dll
sfc.dll 5.00.2195.2896 92.11 KB (94,320 bytes)
7/15/2002 6:45:52 AM
Microsoft
Corporation c:\winnt\system32\sfc.dll
nddeapi.dll 5.00.2137.1 15.27 KB
(15,632 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\nddeapi.dll
userenv.dll 5.00.2195.2780 361.77 KB
(370,448 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\userenv.dll
user32.dll 5.00.2195.2821 392.77 KB
(402,192 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\user32.dll
gdi32.dll 5.00.2195.2778 228.77 KB (234,256
bytes) 12/7/1999 7:00:00 AM
Microsoft
Corporation c:\winnt\system32\gdi32.dll
rpcrt4.dll 5.00.2195.2832 437.27 KB
(447,760 bytes) 7/15/2002 6:45:51 AM
Microsoft Corporation
c:\winnt\system32\rpcrt4.dll
advapi32.dll 5.00.2195.2867 351.77 KB
(360,208 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\advapi32.dll
kernel32.dll 5.00.2195.2778 714.77 KB
(731,920 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\kernel32.dll
msvcrt.dll 6.10.8924.0 284.05 KB
(290,869 bytes) 5/4/2001 12:05:02 PM
Microsoft Corporation
c:\winnt\system32\msvcrt.dll
winlogon.exe 5.00.2195.2953 173.77 KB
(177,936 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\winlogon.exe
sfcfiles.dll 5.00.2195.2967 948.27 KB
(971,024 bytes) 7/15/2002 6:45:52 AM
Microsoft Corporation
c:\winnt\system32\sfcfiles.dll
ntdll.dll 5.00.2195.2779 478.77 KB (490,256
bytes) 5/4/2001 12:05:02 PM
Microsoft
Corporation c:\winnt\system32\ntdll.dll
smss.exe 5.00.2195.2901 44.27 KB (45,328 bytes)
12/7/1999 7:00:00 AM
Microsoft
Corporation c:\winnt\system32\smss.exe

[Services]

Display Name Name State Start Mode
Service Type Path Error Control
Start Name Tag ID
Alerter Alerter Running Auto Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
Application Management AppMgmt Stopped
Manual Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0

```

```

Computer Browser Browser Running Auto
Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
Indexing Service cisvc Stopped Disabled
Share Process
c:\winnt\system32\cisvc.exe Normal
LocalSystem 0
ClipBook ClipSrv Stopped Manual Own Process
c:\winnt\system32\clipsrv.exe Normal
LocalSystem 0
Distributed File System Dfs Stopped
Disabled Own Process
c:\winnt\system32\dfssvc.exe Normal
LocalSystem 0
DHCP Client Dhcp Stopped Disabled
Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
Logical Disk Manager Administrative Service
dmadmin Stopped Manual Share Process
c:\winnt\system32\dmadmin.exe /com
Normal LocalSystem 0
Logical Disk Manager dmserver Running
Auto Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
DNS Client Dnscache Running Auto
Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
Event Log Eventlog Running Auto Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
COM+ Event System EventSystem Running
Manual Share Process
c:\winnt\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Fax Service Fax Stopped Disabled Own
Process c:\winnt\system32\faxsvc.exe Normal
LocalSystem 0
IIS Admin Service IISADMIN Running Auto
Share Process
c:\winnt\system32\inetrv\inetinfo.exe
Normal LocalSystem 0
Intersite Messaging IsmServ Stopped Disabled Own
Process c:\winnt\system32\ismsserv.exe Normal
LocalSystem 0
Kerberos Key Distribution Center kdc
Stopped Disabled Share Process
c:\winnt\system32\lsass.exe Normal
LocalSystem 0
Server lanmanserver Running Auto
Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
Workstation lanmanworkstation Running
Auto Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
License Logging Service LicenseService
Stopped Disabled Own Process

```

```

c:\winnt\system32\llssrv.exe Normal
LocalSystem 0
TCP/IP NetBIOS Helper Service LmHosts Running
Auto Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
Messenger Messenger Running Auto Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
NetMeeting Remote Desktop Sharing mnmsrvc
Stopped Manual Own Process
c:\winnt\system32\mnmsrvc.exe Normal
LocalSystem 0
Distributed Transaction Coordinator MSDTC
Running Auto Own Process
c:\winnt\system32\msdtc.exe Normal
LocalSystem 0
Windows Installer MSIServer Stopped Manual
Share Process
c:\winnt\system32\msiexec.exe /v
Normal LocalSystem 0
Network DDE NetDDE Stopped Manual
Share Process
c:\winnt\system32\netdde.exe Normal
LocalSystem 0
Network DDE DSDM NetDDEdsdm Stopped
Manual Share Process
c:\winnt\system32\netdde.exe Normal
LocalSystem 0
Net Logon Netlogon Stopped Manual Share Process
c:\winnt\system32\lsass.exe Normal
LocalSystem 0
Network Connections Netman Running Manual
Share Process
c:\winnt\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
File Replication NtFrs Stopped Manual Own
Process c:\winnt\system32\ntfrs.exe Ignore
LocalSystem 0
NT LM Security Support Provider NtLmSsp
Stopped Manual Share Process
c:\winnt\system32\lsass.exe Normal
LocalSystem 0
Removable Storage NtmsSvc Stopped Disabled
Share Process
c:\winnt\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Plug and Play PlugPlay Running Auto
Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
IPSEC Policy Agent PolicyAgent Running
Auto Share Process
c:\winnt\system32\lsass.exe Normal
LocalSystem 0
Protected Storage ProtectedStorage Running
Auto Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
Remote Access Auto Connection Manager RasAuto
Stopped Manual Share Process
c:\winnt\system32\svchost.exe -k netsvcs
Normal LocalSystem 0

```

```

Remote Access Connection Manager RasMan
Stopped Manual Share Process
c:\winnt\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Routing and Remote Access RemoteAccess
Stopped Disabled Share Process
c:\winnt\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Remote Registry Service RemoteRegistry
Stopped Disabled Own Process
c:\winnt\system32\regsvc.exe Normal
LocalSystem 0
Remote Command Service RMSYS Running
Auto Own Process c:\program
files\benchmark\rsys.exe Normal
.\Administrator 0
Remote Procedure Call (RPC) Locator RpcLocator
Stopped Manual Own Process
c:\winnt\system32\locator.exe Normal
LocalSystem 0
Remote Procedure Call (RPC) RpcSs Running
Auto Share Process
c:\winnt\system32\svchost -k rpcss
Normal LocalSystem 0
QoS RSVP RSVP Running Manual Own Process
c:\winnt\system32\rsvp.exe -s Normal
LocalSystem 0
Security Accounts Manager SamSs Running
Auto Share Process
c:\winnt\system32\lsass.exe Normal
LocalSystem 0
Smart Card Helper SCardDrv Stopped Manual
Share Process
c:\winnt\system32\scardsvr.exe
Ignore LocalSystem 0
Smart Card SCardSvr Stopped Manual
Share Process
c:\winnt\system32\scardsvr.exe
Ignore LocalSystem 0
Task Scheduler Schedule Stopped Disabled
Share Process
c:\winnt\system32\mstask.exe Normal
LocalSystem 0
RunAs Service seclogon Running Auto
Share Process
c:\winnt\system32\services.exe
Ignore LocalSystem 0
System Event Notification SENS Running
Auto Share Process
c:\winnt\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Internet Connection Sharing SharedAccess
Stopped Manual Share Process
c:\winnt\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Print Spooler Spooler Stopped Disabled Own
Process c:\winnt\system32\spoolsv.exe Normal
LocalSystem 0
Performance Logs and Alerts SysmonLog Stopped
Manual Own Process
c:\winnt\system32\smlogsvc.exe
Normal LocalSystem 0

```

```

Telephony Tapisrv Stopped Disabled Share Process
c:\winnt\system32\svchost.exe -k tapisrv
Normal LocalSystem 0
Terminal Services TermService Running
Auto Own Process
c:\winnt\system32\termsrv.exe Normal
LocalSystem 0
Telnet TlntSvr Stopped Manual Own Process
c:\winnt\system32\tlntsvr.exe Normal
LocalSystem 0
Distributed Link Tracking Server TrkSvr
Stopped Manual Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
Distributed Link Tracking Client TrkWks
Running Auto Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
Uninterruptible Power Supply UPS Stopped
Manual Own Process
c:\winnt\system32\ups.exe Normal
LocalSystem 0
Utility Manager UtilMan Stopped Manual Own
Process c:\winnt\system32\utilman.exe Normal
LocalSystem 0
Windows Time W32Time Stopped Manual
Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
World Wide Web Publishing Service W3SVC
Stopped Auto Share Process
c:\winnt\system32\inetinfo.exe
Normal LocalSystem 0
Windows Management Instrumentation WinMgmt
Running Auto Own Process
c:\winnt\system32\wbem\winmgmt.exe
Ignore LocalSystem 0
Windows Management Instrumentation Driver Extensions
Wmi Running Manual Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0

```

[Program Groups]

Group Name	Name	User Name
Accessories	Default	User:Accessories
	Default User	
Accessories\Accessibility	Default	Default User
User:Accessories\Accessibility		Default User
Accessories\Entertainment	Default	Default User
User:Accessories\Entertainment		Default User
Accessories\System Tools	Default	Default User
User:Accessories\System Tools		Default User
Startup	Default User:Startup	Default User
Accessories	All Users:Accessories	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 All Users:Microsoft SQL Server All Users
Startup All Users:Startup All Users
Tardis All Users:Tardis All Users
Accessories CL65\Administrator:Accessories
CL65\Administrator
Accessories\Accessibility
CL65\Administrator:Accessories\Accessibilit
y
CL65\Administrator
Accessories\Entertainment
CL65\Administrator:Accessories\Entertainmen
t
CL65\Administrator
Accessories\System Tools
CL65\Administrator:Accessories\System Tools
CL65\Administrator
Administrative Tools
CL65\Administrator:Administrative Tools
CL65\Administrator
Benchcraft CL65\Administrator:Benchcraft
CL65\Administrator
Startup CL65\Administrator:Startup
CL65\Administrator

[Startup Programs]
Program Command User Name Location
No startup program information

[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
Image Document "C:\Program Files\Windows
NT\Accessories\ImageVue\KodakImg.exe"
WordPad Document "%ProgramFiles%\Windows
NT\Accessories\WORDPAD.EXE"
Windows Media Services DRM Storage object Not
Available
Bitmap Image mspaint.exe

[Internet Explorer 5]
[Following are sub-categories of this main category]

[Summary]
Item Value
Version 5.00.3315.1000
Build 53315.1000
Product ID 51876-270-7139096-05243
Application Path C:\Program Files\Internet
Explorer
Language English (United States)
Active Printer Not Available

Cipher Strength 168-bit
Content Advisor Disabled
IEAK Install No

[File Versions]

File	Version	Size	Date	Path
advapi32.dll	5.0.2195.2867	352 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
advpack.dll	5.0.3103.1000	87 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
browselc.dll	5.0.3315.2846	35 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
browseui.dll	5.0.3315.2846	789 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
ckcnv.exe	5.0.2189.1	9 KB	12/7/1999 8:00:00 AM	C:\WINNT\system32
comctl32.dll	5.81.3103.1000	538 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
crypt32.dll	5.131.2195.2833	451 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
ehnsig.dll	<File Missing>	Not Available	Not Available	Not Available
iemigrat.dll	<File Missing>	Not Available	Not Available	Not Available
iesetup.dll	5.0.3103.1000	57 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
iexplore.exe	5.0.2920.0	59 KB	12/7/1999 8:00:00 AM	C:\Program Files\Internet Explorer
imagehlp.dll	5.0.2195.2778	126 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
imghelp.dll	<File Missing>	Not Available	Not Available	Not Available
inseng.dll	5.0.3103.1000	72 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
jobexec.dll	5.0.0.1	47 KB	12/7/1999 8:00:00 AM	C:\WINNT\system32
jscript.dll	5.1.0.5907	476 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
jsproxy.dll	5.0.2920.0	13 KB	12/7/1999 8:00:00 AM	C:\WINNT\system32
mshahtml.dll	<File Missing>	Not Available	Not Available	Not Available

mshtml.dll	5.0.3315.2870	2290 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
msjava.dll	5.0.3802.0	923 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
msoss.dll	<File Missing>	Not Available	Not Available	Not Available
msxml.dll	8.0.5718.1	493 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
occache.dll	5.0.3103.1000	86 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
ole32.dll	5.0.2195.2887	970 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
oleaut32.dll	2.40.4517.0	612 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
olepro32.dll	5.0.4517.0	160 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
rsabase.dll	5.0.2195.2228	128 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
rsaenh.dll	5.0.2195.2228	131 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
rsapi32.dll	<File Missing>	Not Available	Not Available	Not Available
rsasig.dll	<File Missing>	Not Available	Not Available	Not Available
schannel.dll	5.1.2195.0	138 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
shdoc401.dll	<File Missing>	Not Available	Not Available	Not Available
shdocvw.dll	5.0.3315.2879	1078 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
shell32.dll	5.0.3315.2902	2304 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
shlwapi.dll	5.0.3315.1000	283 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
url.dll	5.0.2920.0	82 KB	12/7/1999 8:00:00 AM	C:\WINNT\system32
urlmon.dll	5.0.3315.1000	441 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
vbscript.dll	5.1.0.5907	428 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32
webcheck.dll	5.0.3315.1000	252 KB	5/4/2001 12:05:02 PM	C:\WINNT\system32

```

win.com 5.0.2134.1 24 KB 12/7/1999
8:00:00 AM C:\WINNT\system32 Microsoft
Corporation
wininet.dll 5.0.3315.1000 457 KB
5/4/2001 12:05:02 PM
C:\WINNT\system32 Microsoft Corporation
winsock.dll 3.10.0.103 3 KB
12/7/1999 8:00:00 AM
C:\WINNT\system32 Microsoft Corporation
wintrust.dll 5.131.2195.2779 162 KB
5/4/2001 12:05:02 PM
C:\WINNT\system32 Microsoft Corporation
wsock.vxd <File Missing> Not Available Not
Available Not Available Not Available
wsock32.dll 5.0.2195.2871 21 KB
5/4/2001 12:05:02 PM
C:\WINNT\system32 Microsoft Corporation
wsock32n.dll <File Missing> Not Available
Available Not Available Not Available Not
Available

[Connectivity]

Item Value
Connection Preference Never dial
EnableHttp1.1 1
ProxyHttp1.1 0

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 8667 MB
Available Disk Space 6552 MB
Maximum Cache Size 270 MB
Available Cache Size 271 MB

[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
Administrator Administrator 7/15/2002 to
6/21/2102 sha1RSA

[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
Local intranet Medium-low
Trusted sites Low
Internet Medium
Restricted sites High

```

Microsoft SQL Server 2000 Installation Procedures

```

Microsoft SQL Server 2000 Installation Procedures
Type of installation: custom
During the custom installation, use the default
settings for all except the following two areas:
Services accounts:
SQL Server - local system account
SQL Server Agent - local system account
Set the sort order/collation as binary sort
order/Latin_1_General

```

Microsoft COM Component Configuration Parameters

The component services tool in Windows 2000 was used to change the queue settings for the TPCC COM+ single queue component. The single queue component was set to enable object pooling, object construction, just in time activation, and component supports events and statistics. The min and max pool size for the single queue component on the client was 170. Delivery threads were set under the TPCC key in the registry. The construction string was Dummy String

Appendix D: 60-Day Space

TPC-C 60 Day Space Requirements

Warehouses	1460	TpmC				17,659.53
Table	Rows	Data KB	Index KB	Extra 5% KB	8hr Space	Total Space KB
Warehouse	1,460	160	16	9		185
District	14,600	1,624	16	82		1722
Customer	43,800,000	31,854,552	1,889,448	1,887,700	476,859	35441700
History	43,800,000	2,433,344	8			2433352
NewOrder	13,140,000	207,752	432	10,409	1,620,709	218593
Orders	43,800,000	1,342,536	610,440	57,952	5,737,604	1952976
OrderLine	437,996,573	27,374,912				27432864
Item	100,000	9,528	32	478		10038
Stock	146,000,000	46,720,000	87,280	2,340,364		49147644
Total		109,944,408	2,655,624	4,039,042	7,835,173	116,639,074

MB	
Dynamic Space	30,421 Sum of Data for Order, Orderline and History
Static Space	83,485 Sum of Data+Index+5%-Dynamic Space
Free Space	na Total Allocated Space - (Dynamic + Static Space)
Daily Growth	5,887 (Dynamic Space/(V*62.5))*tpmc
Daily Spread	(Free Space - 1.5*Daily Growth) Zero Assumed

60 Day Space MB	436,722					
60 Day Space GB	428.49	GB				
Log Size	69,399.99	MB				
KB Per New Order	4.84	KB				
8 hr log MB	40,056	MB				
8 hr log GB	39.1169	GB				
Space Usage	GB Needed	Disks Measured	GB Priced	Disk Size	Formatted Size	
180 Day Space DB	428.49	56	946.40	18GB	16,900	
		0	0.00	9GB	8,473	
			0.00	4GB	3,999	
Total DB		56.00	946.40	9GB		
8-hr log + mirror	78,2339	4	135.68	36GB		33,920
OS_Swap	3	2	33,800	18GB		
Total Storage	507.72	GB	1,115.88	GB		

The file groups are reported in 8K pages from the sysfile table.

Misc_fg	Customer_fg	Stock_fg	Orderline_fg
185			
1722			
0	35441700		
2910211			
218593			
357685			
0			33170468
10038		49147644	
0			
6,714,434	35,441,700	49,147,644	33,170,468

files=
size=
Total=
8K blocks

1 1
2 2
2,457,600 3,385,600
4,915,200 6,771,200
39,321,600 54,169,600
9,164,800 37,324,800
OK OK OK OK

Appendix E: *Third Party Letters*

Microsoft Corporation
One Microsoft Way
Redmond, WA 98052-6399

Tel 425 882 8080
Fax 425 936 7329
<http://www.microsoft.com/>

Microsoft

July 22, 2002

Hewlett Packard
Company
John Ellyson
MS 150402
20555 SH 249
Houston, TX 77070-
2698

Mr. Ellyson:

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
228-01079	SQL Server 2000 Standard Edition <i>Per processor licensing</i>	\$4,999	1	\$4,999
C11-00821	Windows 2000 Server <i>Server license only - No CALs</i> <i>Discount schedule: Open Program - No Level</i>	\$738	3	\$2,214
048-00317	Visual C++ Professional 6.0 Win32	\$ 549	1	\$ 549
PRO-PRORS-16U-01	1-year maintenance for above software	\$1,950	3	\$5,850

All products are currently orderable through Microsoft's normal distribution channels.

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: PCjoel0222074445

Please include this Reference ID in any correspondence regarding this price quote.

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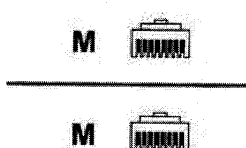
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Product Detail

	Plat.	Item #	Manufacturer/Product	Availability	Price
ADD TO CART	Both	310713	Startech Computer Products Cat5e UTP Crossover Network Patch Cable, Red, 10ft, snagless	Click for Availability	\$4.48



Bridge the gap in your workspace with StarTech.com's new cross-wired patch cables. Constructed with only top quality components, the colored hoods help keep things in your department organized. Strain relief minimizes the damage to the ends of the plugs by preventing the cable from being bent at sharp angles.


Product Features

Wires per Cable	8 wire(s)
Features	Crossed, snagless
Compliant Standards	EIA/TIA-568 Category 5e
Connector Required (Provided)	1 x RJ-45 - male
Connector Provided (Required)	1 x RJ-45 - male
Length	10 ft
Technology	Unshielded twisted pair (UTP)
Cable	Crossover cable
Warranty	Lifetime warranty

Product Details

Labor Warranty	Lifetime
Product Warranty	Lifetime
Shipping Weight	0.2 lbs
Mfr. Part No.	45CROSS10RD

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