



**TPC Benchmark™ C
Full Disclosure
Report**

**Unisys e-@ction Enterprise Server
ES7000**

using

Microsoft SQL Server 2000 Enterprise Edition

on

Microsoft Windows Datacenter Server

Limited Edition

**First Edition
November 11th 2001**

Unisys Part Number 4500 5212-000

First Edition – November 2001

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Overview

This report documents the methodology and results of the TPC Benchmark C (TPC-C) conducted on the Unisys Corporation e-@ction Enterprise Server ES7000. The operating system on the server was Microsoft Windows Datacenter Server Limited Edition. The DBMS used was Microsoft SQL Server 2000 Enterprise Edition. The operating system on the clients was Microsoft Windows 2000 Server. The clients ran Microsoft's Internet Information Server 5.0 and COM+.

TPC Benchmark Metrics

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

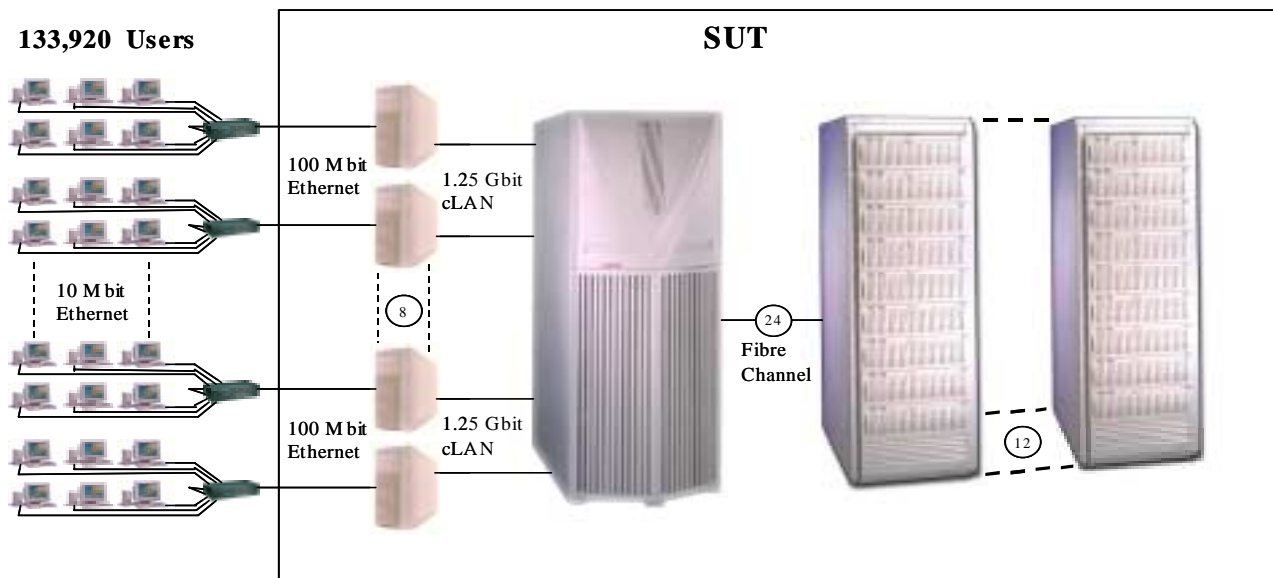
Executive Summary

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

Auditor

The benchmark configuration, environment, and methodology used to produce and validate the test results, along with the pricing model used to calculate the cost per tpmC, were audited by Lorna Livingtree of Performance Metrics, Inc. to verify compliance with the relevant TPC specification.

UNISYS		e-@ction Enterprise Server ES7000		TPC-C Rev. 5.0
				Report Date November 11, 2001
Total System Cost		TPC-C Throughput	Price Performance	Availability Date
\$3,524,109		165,218.71 tpmC	\$21.33 / tpmC	March 10, 2002
Processors	Database Manager	Operating System	Other Software	Number of Users
32 - Database 16 - Clients	Microsoft SQL Server 2000 Enterprise Edition	Microsoft Windows Datacenter Server Limited Edition	Windows 2000 Server w/ IIS 5.0 and COM+ Microsoft Visual C++	133,920



Clients (each of 8)
e-@ction ES2024
 2 x 1GHz Pentium® III
 w/ 256KB L2 cache,
 1 GB memory,
 1 x 18GB internal disk,
 1 Inbuilt 10/100Mb
 Ethernet controller,
 1 x PCI cLAN controller

Enterprise Server
e-@ction ES7000
 32 x Pentium® III Xeon
 900MHz 2MB L2 cache,
 64 GB memory,
 1 PCI SCSI controller,
 2 x 18GB internal SCSI disks,
 24 x PCI Fibre Channel controllers,
 8 x PCI cLAN controllers

Storage
ESM7900
 942 x 18GB + 26 x 36GB
 Hot-Pluggable
 External Fibre Channel disks
 24 x FC RAID controllers

System Components	Enterprise Server		Clients (each of 8)	
	Quantity	Type	Quantity	Type
Processors	32	900MHz Pentium® III Xeon with 2MB Level 2 Cache	2	1GHz Pentium® III with 256KB Level 2 Cache
Memory	1	64 GB	1	1 GB
Disk Controllers	24	PCI Fibre Channel	1	Inbuilt SCSI
Disk Drives	1	PCI SCSI	1	18GB SCSI (16.9 GB useable)
	942	18GB FC (16.4 GB useable)		
	26	36GB FC (32.7 GB useable)		
	2	18GB SCSI (17.0 GB useable)		
Total Storage		15.5 TB		16.9 GB
Tape / CD-ROM	1	SCSI CD-ROM	1	IDE CD-ROM
Terminals	1	Console Monitor	1	Console Monitor



e-@ction Enterprise Server ES7000

TPC-C Rev. 5.0

Report Date
November 11, 2001

Description	Part No.	Third Party		Unit Price	Qty.	Extended Price	3 yr. Maint. Price
		Brand	Price				
Server Hardware:							
SYS: ES7000, 2 Domain, 32P, 8 GB, 2 MSUs, 2 DIBs	ES73251-GDN		3	\$521,333	1	\$521,333	\$56,340
MEM: 16GB, 1 GB DIMMs	RAM7-16G		1	\$81,600	3	\$244,800	
MEM: 8GB, 1 GB DIMMs	RAM7-8GB		1	\$43,520	1	\$43,520	
BRD: Memory Carrier Board, 0 Mem.	MSU2000-MBD		1	\$10,880	2	\$21,760	
IO: Module, PCI Enclosure w/ BID Motherboard	PCI2053-12		1	\$2,992	6	\$17,952	
IO: Module, PCI Enclosure 3.3V, 4 Card	PCI3-MOD		1	\$363	20	\$7,260	
CTRL: Fibre Channel HBA, 2-Port, 64-bit PCI	PCI6220-SW		1	\$2,063	24	\$49,512	
CTRL: cLAN, PCI Host Adapter & Cable	PCI10001-CXG		1	\$586	8	\$4,688	
CTRL: 2Ch SCSI, U160, PCI	PCI7602-P64		1	\$442	1	\$442	
DISK: 18GB, 10K SCSI LVD, SCA	HDM18110-CX1		1	\$568	2	\$1,136	
I/F: Monitor, 15-inch Color, Kybrd, Mse & Cable	ES70001-UIF		1	\$340	1	\$340	
Server Software:							
SYS MGT: ES7000 Value Add Software	ESS700030-N		3	\$4,533	1	\$4,533	\$3,564
O/S: Microsoft Windows Datacenter Server Lmted Edtn	LED320032-EN		2	\$90,667	1	\$90,667	\$71,388
O/S: Windows Datacenter Annual Update, 1-32P	WM320032-EN		2	\$26,293	2	\$52,586	\$52,586
APP: SQL Server 2000 Entrprs Edtn, per Proc. Lensng	810-00846		2	\$16,541	32	\$529,312	\$6,285
Server Subtotal						\$1,537,255	\$190,163
Storage Hardware:							
DISK: 18GB Drive, 15K FC, SCA	ESM18304-F94		1	\$853	942	\$803,526	Spared
DISK: 18GB Drive, 15K FC, SCA 10% spares*	ESM18304-F94		1	\$853	95	\$81,035	\$81,035
DISK: 36GB Drive, 10K FC, SCA	ESM36202-F94		1	\$928	26	\$24,128	Spared
DISK: 36GB Drive, 10K FC, SCA 10% spares*	ESM36202-F94		1	\$928	3	\$2,784	\$2,784
DAE: Expansion Enclsr, w/ 0 Disk	ESM7200-DAE		3	\$4,087	94	\$384,178	\$81,216
DPE: 2 RAID Cntrl, 1GB Cache ea., 0 Disk	ESM7900-DPE		3	\$44,200	12	\$530,400	\$111,456
SYS MGT: Storage Agent, Monitor, Call Home & ATF	ESM7700-W2K		3	\$1,661	1	\$1,661	\$864
CBL: FC, 50um Dupx, SC->SC Conn's, 10m	CBL144-10		1	\$206	24	\$4,944	
PWR: Distribution Strip, 220V	SFR9-PWR		1	\$295	24	\$7,080	
CBL: Power, U.S. (Domestic), L6-20P	USE1936-LC6		1	\$56	24	\$1,344	
CAB: 36U x 19" x 34" Cabinet, e-@ction	RM361934-OFE		1	\$810	12	\$9,720	
DOOR: 36U x 19", Rear	RM3619-RDR		1	\$277	12	\$3,324	
PNL: 36U x 34" Side Skins, L&R	RM3634-SDS		1	\$221	12	\$2,652	
Storage Subtotal						\$1,772,957	\$277,355
Client Hardware:							
SYS: ES2024 Tower, w/ 0 Proc., 0MB Mem	ES202141-GZN		1	\$1,547	8	\$12,376	
PROC: 1x1GHz Pentium III/256KB Cache	CPU31000-256		1	\$884	16	\$14,144	
ACC: Voltage Regulator	VRM3-83		1	\$29	8	\$232	
MEM: 512 MB SDRAM PC133ECC Memory	DIM13368-512		1	\$681	16	\$10,896	
DISK: 18GB SCSI 3.5 Internal	ES2024-18G		1	\$553	8	\$4,424	
CTRL: cLAN, PCI Host Adapter & Cable	PCI10001-CXG		1	\$586	8	\$4,688	
MAINT: 3 Yr. Cmprhnsv-Gold Svc Warranty Upgrade	WI2003-CGS		1	\$1,326	8		\$10,608
MONITOR: 15-inch Color	EVG2100-P		1	\$221	8	\$1,768	
Client Software:							
O/S: Microsoft Windows 2000 Server	C11-00821		2	\$738	8	\$5,904	Inc. above
ACC: Microsoft Visual C++ Professional 6.0	048-00317		2	\$549	1	\$549	Inc. above
Client Subtotal						\$54,981	\$10,608
Total						\$3,365,193	\$478,126
						(\$300,273)	(\$18,937)

Comark and Unisys Pre-Pay Discounts

Notes:

1. 3rd Party Brand and Pricing: 1 = Comark, 2 = Microsoft, 3 = Comark Product Price, Unisys Maintenance Price
2. HW & SW maintenance figured at 24 x 7 w/ 4 hr. max. response time for spares.
3. * = 10% spare disks added in place of onsite service.

Three Year Cost of Ownership: \$3,524,109
tpmC Rating: 165,218.71
\$/ tpmC: \$21.33

Benchmark results and test methodology audited by Lorna Livingtree of Performance Metrics, Inc.

Prices used in TPC benchmarks reflect the actual prices a customer would pay for a one-time purchase of the stated components. Individually negotiated discounts are not permitted. Special prices based on assumption about past or future purchases are not permitted. All discounts reflect standard pricing policies for the listed components. For complete details, see the pricing sections of the TPC benchmarks specifications. If you find that the stated prices are not available according to these terms, please inform the TPC at pricing@tpc.org. Thank You.

Numerical Quantities Summary

MQTh, Computed Maximum Qualified Throughput: 165,218.71 tpmC

Response Times, in seconds

Transaction	90th %ile	Average	Maximum
New-Order	0.96	0.55	19.09
Payment	0.90	0.49	13.81
Order-Status	0.91	0.51	10.40
Delivery (interactive portion)	0.62	0.30	4.16
Delivery (deferred portion)	0.41	0.27	15.22
Stock-Level	1.20	0.74	14.40
Menu	0.63	0.31	4.17

Response time delay added for emulated components, in seconds

RT Response time	0.1
Menu Response time	0.1

Transaction Mix, in percent of total transactions

New Order	44.88%
Payment	43.04%
Order-Status	4.01%
Delivery (interactive portion)	4.02%
Stock-Level	4.02%

Keying / Think Time Times, in seconds

Transaction	Minimum	Average	Maximum
New Order	18.00 / 0.00	18.00 / 12.03	18.07 / 120.31
Payment	3.00 / 0.00	3.00 / 12.03	3.05 / 120.30
Order-Status	2.00 / 0.00	2.00 / 10.08	2.03 / 100.71
Delivery (interactive portion)	2.00 / 0.00	2.00 / 5.06	2.05 / 50.60
Stock-Level	2.00 / 0.00	2.00 / 5.06	2.01 / 50.60

Test Duration

Ramp up time	44 minutes
Measurement interval (M)	120 minutes
Transactions (all types) completed during measurement interval	44,168,984
Ramp-down time	95 minutes

Checkpointing:

Number of checkpoints	4
Checkpoint interval	30 minutes

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Document Structure

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

This report is submitted to satisfy the specification's requirement for full disclosure. It documents the compliance of the benchmark implementation and execution reported for the Unisys e-@ction Enterprise Server ES7000 using Microsoft SQL Server 2000 Enterprise Edition on Microsoft Windows Datacenter Server Limited Edition.

TPC Benchmark C Overview

The TPC Benchmark™ C Standard Specification Revision 5.0 was developed by the Transaction Processing Performance Council (TPC). It is the intent of the TPC to develop a suite of benchmarks to measure the performance of computer systems executing a wide range of applications. Unisys and Microsoft Corporations are active participants in the TPC to define and develop such a suite of benchmarks.

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

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

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

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

0.1. Order and Titles

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

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

0.2. Executive Summary Statement

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

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

0.3. Numerical Quantities Summary

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

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

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

0.4. Application Code Disclosure

The applicable program (as defined in Clause 2.1.7) must be disclosed. This includes, but is not limited to, the code implementing the five transactions and the terminal input and output functions. (8.1.1.4)

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

0.5. Benchmark Sponsor

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

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

0.6. Parameter Settings

Settings must be provided for all customer-tunable parameters and options which have been changed from the defaults found in actual products, including but not limited to: (8.1.1.6)

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

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

0.7. Configuration Diagrams

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

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

The Remote Terminal Emulator (RTE) software used for these TPC-C tests is proprietary to Unisys. The benchmarked configuration of the RTE and Unisys e-@ction Enterprise Server ES7000 is illustrated in Figure 0.1. Tables 4.3, 4.4 and 4.5 contain a detailed explanation of the disk configuration.

The priced configuration for the Unisys e-@ction Enterprise Server ES7000 is shown in Figure 0.2.

Figure 0.1: Benchmarked Configuration

Unisys e-@ction Enterprise Server ES7000 - Benchmarked Configuration

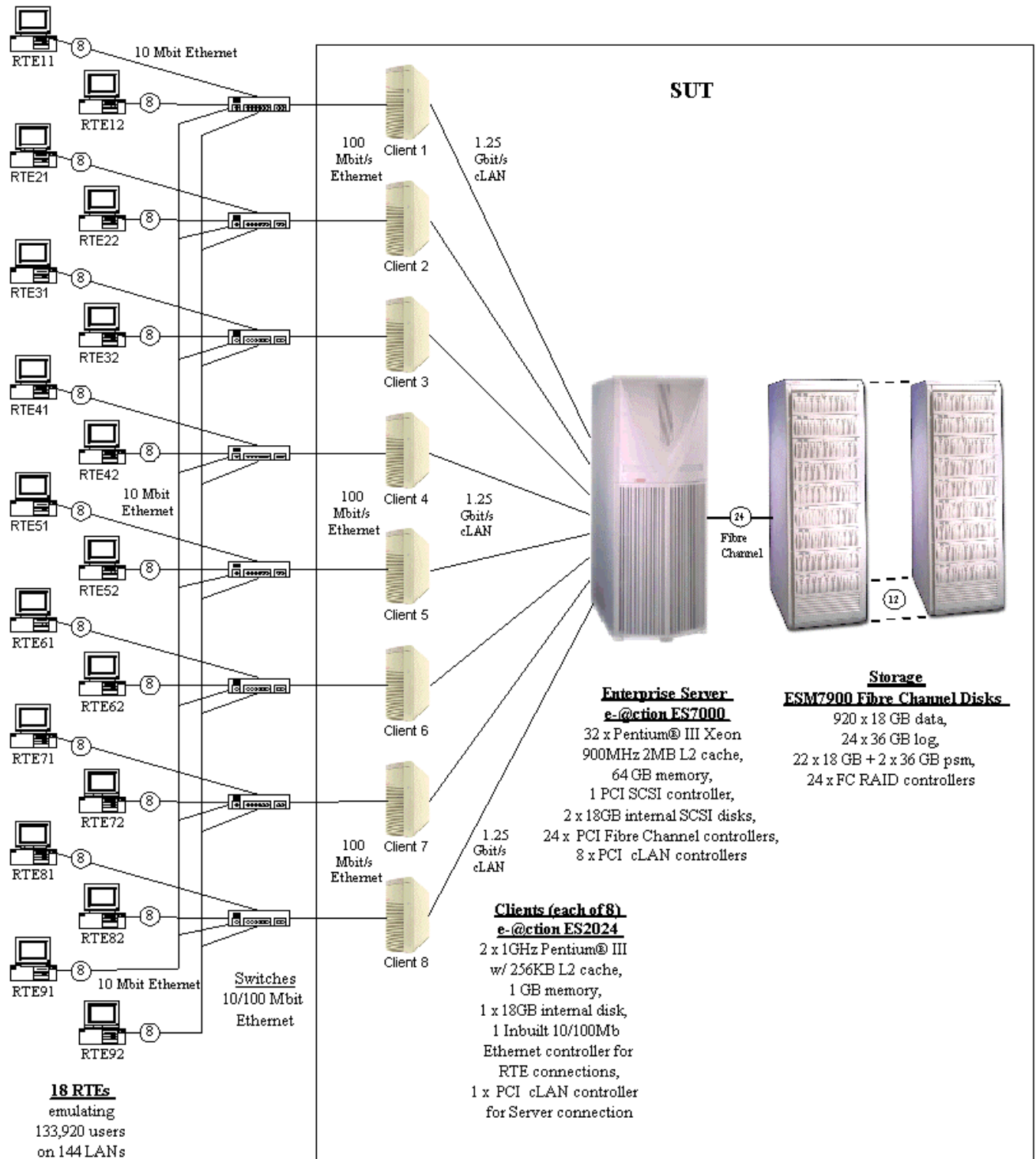
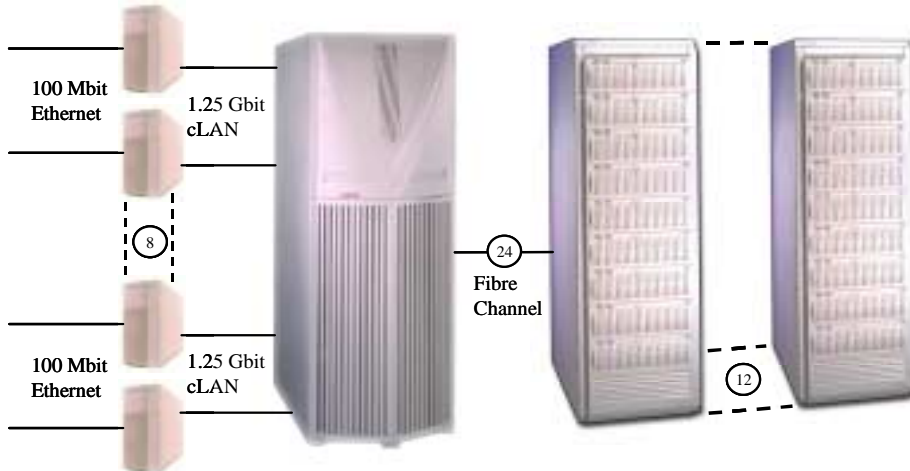


Figure 0.2: Priced Configuration

Unisys e-@ction Enterprise Server ES7000 - Priced Configuration



Clients (each of 8)
e-@ction ES2024
2 x 1GHz Pentium® III
w/ 256KB L2 cache,
1 GB memory,
1 x 18GB internal disk,
1 Inbuilt 10/100Mb
Ethernet controller,
1 x PCI cLAN controller

Enterprise Server
e-@ction ES7000
32 x Pentium® III Xeon
900MHz 2MB L2 cache,
64 GB memory,
1 PCI SCSI controller,
2 x 18GB internal SCSI disks,
24 x PCI Fibre Channel controllers,
8 x PCI cLAN controllers

Storage
ESM7900 Fibre Channel Disks
920 x 18 GB data,
24 x 36 GB log,
22 x 18GB + 2 x 36GB psm,
24 x FC RAID controllers

1.

Clause 1: Logical Database Design

1.1. Table Definitions

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

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

1.2. Physical Organization of the Database

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

The disk space was allocated to SQL Server according to the data in Tables 4.3, 4.4 and 4.5. The SQL definitions are contained in Appendix B.

1.3. Insert and/or Delete Operations

It must be ascertained that insert and/or delete operations to any of the tables can occur concurrently with the TPC-C transaction mix. Furthermore, any restriction in the SUT database implementation that precludes inserts beyond the limits defined in Clause 1.4.11 must be disclosed. This includes the maximum number of rows that can be inserted and the maximum key value for these new rows. (8.1.2.3)

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

1.4. Partitioning

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

Partitioning was not used for any table in this implementation.

1.5. Replication, Duplication or Additions

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

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

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

2.

Clause 2: Transaction & Terminal Profiles

2.1. Random Number Generation

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

The drivers used the Unisys RTE program, which was independently audited. The initial population of the database was performed by the loader program from V4.21 of the Microsoft TPC-C toolkit, which was also independently audited. Furthermore, the auditor sampled various initial and runtime distributions produced by this implementation to verify correctness.

2.2. Input/Output Screen Layout

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

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

2.3. Priced Terminal Feature Verification

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

This was verified by the auditor.

2.4. Presentation Managers or Intelligent Terminal

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

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

2.5. Transaction Statistics

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

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

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

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

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

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

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

Table 5.4 in Section 5 contains all these statistics.

2.6. Queuing Mechanism of Delivery

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

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

3.

Clause 3: Transaction & System Properties

3.1. Transaction System Properties (ACID)

The results of the ACID tests must be disclosed along with a description of how the ACID requirements were met. This includes disclosing which case was followed for the execution of Isolation Test 7. (8.1.4.1)

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

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

3.2. Atomicity

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

3.2.1. Completed Transaction

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

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

3.2.2. Aborted Transactions

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

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

3.3. Consistency

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

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

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

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

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

3.4. Isolation

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

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

3.5. Durability

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

Three durability tests were executed to satisfy the requirements of the specification. The tests for loss of memory and instantaneous interruption were combined and performed with a fully scaled database with all emulated users. The loss of log and loss of data tests were performed on the same database with 14,880 emulated users. To the best of our knowledge, these tests prove that the fully scaled configuration used for the throughput test would also meet all durability tests.

3.5.1. Loss of Log Disk and Loss of Data Disk

The following steps were taken with only 14,880 emulated users to demonstrate durability in the case of loss of a log disk and loss of a data disk:

1. The database was backed up to extra space on a backup volume.
2. The D_NEXT_O_ID fields for all rows in the district table were summed up to determine the initial count of orders present in the database.
3. The RTE was started with 14,880 users. On the driver systems, committed and rolled back New-Order transactions were recorded in a “success” file.
4. After five minutes of running at steady state, a hot-pluggable log disk was removed from the disk cabinet, with no effect on the OS or SQL server.
5. After 5 additional minutes of operation, a hot-pluggable data disk was removed from the disk cabinet.
6. Windows Datacenter and SQL Server encountered IO errors due to the missing disk and recorded these errors in the system event log and SQL Server error log, respectively. The RTEs also recorded errors.
7. First, the RTEs and clients were stopped, then SQL Server was used to backup the transaction log to the backup volume.
8. Next, scripts were executed to drop the database and all its files. Then, SQL Server was shutdown.
9. A data disk was inserted in the disk cabinet to replace the one removed. The RAID controller, via Navisphere Manager, was used to recreate the stripe set containing the new data disk. (The missing log drive was not replaced.)
10. The SUT was restarted, SQL Server was then restarted, and a new (empty) database created as part of the restore database process. That process loaded the initial database into the new database, but did not perform any recovery. Next the transaction log was restored, followed by transaction recovery. The latter step restored all committed transactions to the database.
11. Consistency condition 3 of Clause 3.3.2.3 was executed to verify database consistency.
12. Step 2 was repeated to determine the total number of orders. This number was subtracted from the count obtained previously in Step 2 to determine the number of additional orders added to the database.
13. The contents of the “success” files on the drivers were sampled to verify that the records in the “success” file for committed New-Order transactions had corresponding records in the ORDER table. Moreover, the counts were matched with those obtained in step 12.

3.5.2. Instantaneous Interruption and Loss of Memory

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

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

9. The contents of the “success” files on the drivers were sampled to verify that the records in the “success” file for committed New-Order transactions had corresponding records in the ORDER table.

4.

Clause 4: Scaling & Database Population

4.1. Initial Cardinality of Tables

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

The TPC-C database for this test was configured with 13,392 warehouses. The cardinality of each table in the database is listed in Table 4.1

Table 4.1: Initial Cardinality of Database Table

Table	Occurrences
Warehouse	13,392
District	133,920
Customer	401,760,000
History	401,760,000
Order	401,760,000
New-Order	120,528,000
Order Line	4,017,582,641
Stock	1,339,200,000
Item	100,000

All rows of the warehouse table were active while executing the measurement runs.

4.2. Constant Values

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

Table 4.2: Constant C for NURand

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

4.3. Database Layout

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

Tables 4.3 and 4.4 list the distribution of the database over 920 18GB disks and the transaction log over 12 mirrored pairs of 36GB disks for the benchmark configuration. In addition, there were two 18GB disks in the host server, one containing Windows Datacenter Server Limited Edition and SQL Server 2000 code and the Master database plus the paging file. Unused-space partitions on the database drives were used for database backup. These partitions were not used during the measurements. Otherwise, the tested and priced disk configurations were identical.

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

A statement must be provided that describes: (8.1.5.3)

1. *The data model implemented by the DBMS used (e.g., relational, network, hierarchical).*
2. *The database interface (e.g., embedded, call level) and access language (e.g., SQL, DL/1, COBOL, read/write) used to implement the TPC-C transactions. If more than one interface/access language is used to implement TPC-C, each interface/access language must be described and a list of which interface/access language is used with which transaction type must be disclosed.*

Microsoft SQL Server 2000 is a relational DBMS.

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

4.5. DBMS Partitions/Replications

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

No table partitioning or replication was done.

4.6. DBMS Space Requirements

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

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

Table 4.3: Disk Rack Configuration

Disk Rack Configuration																
ESM7900 DPE	SP	HBA	Rack #	RAID Level	Lun Capacity	Id 0	Id 1	Id 2	Id 3	Id 4	Id 5	Id 6	Id 7	Id 8	Id 9	
1	A	1	1	10		36GB	36GB	36GB*	36GB*	36GB	36GB	Empty	Empty	Empty	Empty	
			2	10	196.49GB	36GB	36GB	36GB	36GB	36GB	36GB	36GB	36GB	36GB	36GB	36GB
			3	10	196.49GB	36GB	36GB	36GB	36GB	36GB	36GB	36GB	36GB	36GB	36GB	36GB
	B	2	4	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
			5	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
			6	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
			7	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
2	A	3	1	0	163.52GB	18GB	18GB	18GB*	18GB*	18GB	18GB	18GB	18GB	18GB	18GB	
			2	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			3	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			4	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			5	0	163.52GB	18GB	18GB	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	
	B	4	6	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
			7	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			8	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			9	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
3	A	5	1	0	163.52GB	18GB	18GB	18GB*	18GB*	18GB	18GB	18GB	18GB	18GB	18GB	
			2	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			3	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			4	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			5	0	163.52GB	18GB	18GB	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	
	B	6	6	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			7	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			8	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			9	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
4	A	7	1	0	163.52GB	18GB	18GB	18GB*	18GB*	18GB	18GB	18GB	18GB	18GB	18GB	
			2	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			3	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			4	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			5	0	163.52GB	18GB	18GB	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	
	B	8	6	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			7	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			8	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			9	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
5	A	9	1	0	163.52GB	18GB	18GB	18GB*	18GB*	18GB	18GB	18GB	18GB	18GB	18GB	
			2	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			3	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			4	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			5	0	163.52GB	18GB	18GB	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	
	B	10	6	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			7	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			8	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			9	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
6	A	11	1	0	163.52GB	18GB	18GB	18GB*	18GB*	18GB	18GB	18GB	18GB	18GB	18GB	
			2	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			3	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			4	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			5	0	163.52GB	18GB	18GB	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	
	B	12	6	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			7	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			8	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			9	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	

* = used for DPE controller PSM Function, not used for Database or Log

Table 4.3: Disk Rack Configuration (Continued)

Disk Rack Configuration																
ESM7900	SP	HBA	Rack #	RAID Level	Lun Capacity	Id 0	Id 1	Id 2	Id 3	Id 4	Id 5	Id 6	Id 7	Id 8	Id 9	
7	A	13	1	0	163.52GB	18GB	18GB	18GB*	18GB*	18GB	18GB	18GB	18GB	18GB	18GB	
			2	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
			3	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
			4	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
			5	0	163.52GB	18GB	18GB	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty
	B	14	6	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
			7	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			8	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			9	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
8	A	15	1	0	163.52GB	18GB	18GB	18GB*	18GB*	18GB	18GB	18GB	18GB	18GB	18GB	
			2	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			3	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			4	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			5	0	163.52GB	18GB	18GB	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	
	B	16	6	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
			7	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			8	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			9	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
9	A	17	1	0	163.52GB	18GB	18GB	18GB*	18GB*	18GB	18GB	18GB	18GB	18GB	18GB	
			2	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			3	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			4	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			5	0	163.52GB	18GB	18GB	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	
	B	18	6	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
			7	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			8	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			9	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
10	A	19	1	0	163.52GB	18GB	18GB	18GB*	18GB*	18GB	18GB	18GB	18GB	18GB	18GB	
			2	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			3	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			4	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			5	0	163.52GB	18GB	18GB	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	
	B	20	6	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
			7	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			8	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			9	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
11	A	21	1	0	163.52GB	18GB	18GB	18GB*	18GB*	18GB	18GB	18GB	18GB	18GB	18GB	
			2	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			3	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			4	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			5	0	163.52GB	18GB	18GB	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	
	B	22	6	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
			7	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			8	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			9	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
12	A	23	1	0	163.52GB	18GB	18GB	18GB*	18GB*	18GB	18GB	18GB	18GB	18GB	18GB	
			2	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			3	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			4	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			5	0	163.52GB	18GB	18GB	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	
	B	24	6	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB
			7	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			8	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	
			9	0	163.52GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	18GB	

* = used for DPE controller PSM Function, not used for Database or Log

Table 4.4: Disk Management Configuration

Disk Management Configuration			
System Disks	Logical Disk#	Partition 1 Drive Letter	File System
17 GB SCSI disk	0	C: System	NTFS
17 GB SCSI disk	1	D: No label	NTFS
CD-ROM	CD-ROM 0	F:	

ESM7900 DPE	SP	HBA	Logical Disk#	Partition 1 Size=196.49GB FS=Raw Junction Point
1	A	1	2	C:\BigDb\dbLogs\tpcclog1
			3	C:\BigDb\dbLogs\tpcclog2

Disk Management Configuration							
ESM7900 DPE	SP	HBA	Logical Disk#	Partition 1 Size=3120MB FS=Raw Junction Point	Partition 2 Size=5905MB FS=Raw Junction Point	Partition 3 Size=3530MB FS=Raw Junction Point	Partition 4 Size=151.25GB FS=NTFS Junction Point
1	B	2	4	C:\BigDb\cabA\misc5	C:\BigDb\cabB\cs5	C:\BigDb\cabB\ord5	Unallocated
			5	C:\BigDb\cabA\misc6	C:\BigDb\cabA\cs6	C:\BigDb\cabA\ord6	Unallocated
			6	C:\BigDb\cabA\misc7	C:\BigDb\cabA\cs7	C:\BigDb\cabA\ord7	Unallocated
			7	C:\BigDb\cabA\misc8	C:\BigDb\cabA\cs8	C:\BigDb\cabA\ord8	Unallocated
2	A	3	8	C:\BigDb\cabB\misc1	C:\BigDb\cabB\cs1	C:\BigDb\cabB\ord1	Unallocated
			9	C:\BigDb\cabB\misc2	C:\BigDb\cabB\cs2	C:\BigDb\cabB\ord2	Unallocated
			10	C:\BigDb\cabB\misc3	C:\BigDb\cabB\cs3	C:\BigDb\cabB\ord3	Unallocated
			11	C:\BigDb\cabB\misc4	C:\BigDb\cabB\cs4	C:\BigDb\cabB\ord4	Unallocated
	B	4	12	C:\BigDb\cabB\misc5	C:\BigDb\cabB\cs5	C:\BigDb\cabB\ord5	Unallocated
			13	C:\BigDb\cabB\misc6	C:\BigDb\cabB\cs6	C:\BigDb\cabB\ord6	Unallocated
			14	C:\BigDb\cabB\misc7	C:\BigDb\cabB\cs7	C:\BigDb\cabB\ord7	Unallocated
			15	C:\BigDb\cabB\misc8	C:\BigDb\cabB\cs8	C:\BigDb\cabB\ord8	C:\BigDb\dbBackups\backupB8
3	A	5	16	C:\BigDb\cabC\misc1	C:\BigDb\cabC\cs1	C:\BigDb\cabC\ord1	Unallocated
			17	C:\BigDb\cabC\misc2	C:\BigDb\cabC\cs2	C:\BigDb\cabC\ord2	Unallocated
			18	C:\BigDb\cabC\misc3	C:\BigDb\cabC\cs3	C:\BigDb\cabC\ord3	Unallocated
			19	C:\BigDb\cabC\misc4	C:\BigDb\cabC\cs4	C:\BigDb\cabC\ord4	Unallocated
	B	6	20	C:\BigDb\cabC\misc5	C:\BigDb\cabC\cs5	C:\BigDb\cabC\ord5	Unallocated
			21	C:\BigDb\cabC\misc6	C:\BigDb\cabC\cs6	C:\BigDb\cabC\ord6	Unallocated
			22	C:\BigDb\cabC\misc7	C:\BigDb\cabC\cs7	C:\BigDb\cabC\ord7	Unallocated
			23	C:\BigDb\cabC\misc8	C:\BigDb\cabC\cs8	C:\BigDb\cabC\ord8	C:\BigDb\dbBackups\backupC8
4	A	7	24	C:\BigDb\cabD\misc1	C:\BigDb\cabD\cs1	C:\BigDb\cabD\ord1	Unallocated
			25	C:\BigDb\cabD\misc2	C:\BigDb\cabD\cs2	C:\BigDb\cabD\ord2	Unallocated
			26	C:\BigDb\cabD\misc3	C:\BigDb\cabD\cs3	C:\BigDb\cabD\ord3	Unallocated
			27	C:\BigDb\cabD\misc4	C:\BigDb\cabD\cs4	C:\BigDb\cabD\ord4	Unallocated
	B	8	28	C:\BigDb\cabD\misc5	C:\BigDb\cabD\cs5	C:\BigDb\cabD\ord5	Unallocated
			29	C:\BigDb\cabD\misc6	C:\BigDb\cabD\cs6	C:\BigDb\cabD\ord6	Unallocated
			30	C:\BigDb\cabD\misc7	C:\BigDb\cabD\cs7	C:\BigDb\cabD\ord7	Unallocated
			31	C:\BigDb\cabD\misc8	C:\BigDb\cabD\cs8	C:\BigDb\cabD\ord8	C:\BigDb\dbBackups\backupD8
5	A	9	32	C:\BigDb\cabE\misc1	C:\BigDb\cabE\cs1	C:\BigDb\cabE\ord1	Unallocated
			33	C:\BigDb\cabE\misc2	C:\BigDb\cabE\cs2	C:\BigDb\cabE\ord2	Unallocated
			34	C:\BigDb\cabE\misc3	C:\BigDb\cabE\cs3	C:\BigDb\cabE\ord3	Unallocated
			35	C:\BigDb\cabE\misc4	C:\BigDb\cabE\cs4	C:\BigDb\cabE\ord4	Unallocated
	B	10	36	C:\BigDb\cabE\misc5	C:\BigDb\cabE\cs5	C:\BigDb\cabE\ord5	Unallocated
			37	C:\BigDb\cabE\misc6	C:\BigDb\cabE\cs6	C:\BigDb\cabE\ord6	Unallocated
			38	C:\BigDb\cabE\misc7	C:\BigDb\cabE\cs7	C:\BigDb\cabE\ord7	Unallocated
			39	C:\BigDb\cabE\misc8	C:\BigDb\cabE\cs8	C:\BigDb\cabE\ord8	C:\BigDb\dbBackups\backupE8
6	A	11	40	C:\BigDb\cabF\misc1	C:\BigDb\cabF\cs1	C:\BigDb\cabF\ord1	Unallocated
			41	C:\BigDb\cabF\misc2	C:\BigDb\cabF\cs2	C:\BigDb\cabF\ord2	Unallocated
			42	C:\BigDb\cabF\misc3	C:\BigDb\cabF\cs3	C:\BigDb\cabF\ord3	Unallocated
			43	C:\BigDb\cabF\misc4	C:\BigDb\cabF\cs4	C:\BigDb\cabF\ord4	Unallocated

Table 4.4: Disk Management Configuration (Continued)

Disk Management Configuration							
ESM7900 DPE	SP	HBA	Logical Disk#	Partition 1	Partition 2	Partition 3	Partition 4
				Size=3120MB	Size=5905MB	Size=3530MB	Size=151.25GB
				FS=Raw	FS=Raw	FS=Raw	FS=NTFS
				Junction Point	Junction Point	Junction Point	Junction Point
6	B	12	44	C:\BigDb\cabF\misc5	C:\BigDb\cabF\cs5	C:\BigDb\cabF\ord5	Unallocated
			45	C:\BigDb\cabF\misc6	C:\BigDb\cabF\cs6	C:\BigDb\cabF\ord6	Unallocated
			46	C:\BigDb\cabF\misc7	C:\BigDb\cabF\cs7	C:\BigDb\cabF\ord7	Unallocated
			47	C:\BigDb\cabF\misc8	C:\BigDb\cabF\cs8	C:\BigDb\cabF\ord8	C:\BigDb\dbBackups\backupF8
7	A	13	48	C:\BigDb\cabG\misc1	C:\BigDb\cabG\cs1	C:\BigDb\cabG\ord1	Unallocated
			49	C:\BigDb\cabG\misc2	C:\BigDb\cabG\cs2	C:\BigDb\cabG\ord2	Unallocated
			50	C:\BigDb\cabG\misc3	C:\BigDb\cabG\cs3	C:\BigDb\cabG\ord3	Unallocated
			51	C:\BigDb\cabG\misc4	C:\BigDb\cabG\cs4	C:\BigDb\cabG\ord4	Unallocated
	B	14	52	C:\BigDb\cabG\misc5	C:\BigDb\cabG\cs5	C:\BigDb\cabG\ord5	Unallocated
			53	C:\BigDb\cabG\misc6	C:\BigDb\cabG\cs6	C:\BigDb\cabG\ord6	Unallocated
			54	C:\BigDb\cabG\misc7	C:\BigDb\cabG\cs7	C:\BigDb\cabG\ord7	Unallocated
			55	C:\BigDb\cabG\misc8	C:\BigDb\cabG\cs8	C:\BigDb\cabG\ord8	C:\BigDb\dbBackups\backupG8
8	A	15	56	C:\BigDb\cabH\misc1	C:\BigDb\cabH\cs1	C:\BigDb\cabH\ord1	Unallocated
			57	C:\BigDb\cabH\misc2	C:\BigDb\cabH\cs2	C:\BigDb\cabH\ord2	Unallocated
			58	C:\BigDb\cabH\misc3	C:\BigDb\cabH\cs3	C:\BigDb\cabH\ord3	Unallocated
			59	C:\BigDb\cabH\misc4	C:\BigDb\cabH\cs4	C:\BigDb\cabH\ord4	Unallocated
	B	16	60	C:\BigDb\cabH\misc5	C:\BigDb\cabH\cs5	C:\BigDb\cabH\ord5	Unallocated
			61	C:\BigDb\cabH\misc6	C:\BigDb\cabH\cs6	C:\BigDb\cabH\ord6	Unallocated
			62	C:\BigDb\cabH\misc7	C:\BigDb\cabH\cs7	C:\BigDb\cabH\ord7	Unallocated
			63	C:\BigDb\cabH\misc8	C:\BigDb\cabH\cs8	C:\BigDb\cabH\ord8	C:\BigDb\dbBackups\backupH8
9	A	17	64	C:\BigDb\cabI\misc1	C:\BigDb\cabI\cs1	C:\BigDb\cabI\ord1	Unallocated
			65	C:\BigDb\cabI\misc2	C:\BigDb\cabI\cs2	C:\BigDb\cabI\ord2	Unallocated
			66	C:\BigDb\cabI\misc3	C:\BigDb\cabI\cs3	C:\BigDb\cabI\ord3	Unallocated
			67	C:\BigDb\cabI\misc4	C:\BigDb\cabI\cs4	C:\BigDb\cabI\ord4	Unallocated
	B	18	68	C:\BigDb\cabI\misc5	C:\BigDb\cabI\cs5	C:\BigDb\cabI\ord5	Unallocated
			69	C:\BigDb\cabI\misc6	C:\BigDb\cabI\cs6	C:\BigDb\cabI\ord6	Unallocated
			70	C:\BigDb\cabI\misc7	C:\BigDb\cabI\cs7	C:\BigDb\cabI\ord7	Unallocated
			71	C:\BigDb\cabI\misc8	C:\BigDb\cabI\cs8	C:\BigDb\cabI\ord8	C:\BigDb\dbBackups\backupI8
10	A	19	72	C:\BigDb\cabJ\misc1	C:\BigDb\cabJ\cs1	C:\BigDb\cabJ\ord1	Unallocated
			73	C:\BigDb\cabJ\misc2	C:\BigDb\cabJ\cs2	C:\BigDb\cabJ\ord2	Unallocated
			74	C:\BigDb\cabJ\misc3	C:\BigDb\cabJ\cs3	C:\BigDb\cabJ\ord3	Unallocated
			75	C:\BigDb\cabJ\misc4	C:\BigDb\cabJ\cs4	C:\BigDb\cabJ\ord4	Unallocated
	B	20	76	C:\BigDb\cabJ\misc5	C:\BigDb\cabJ\cs5	C:\BigDb\cabJ\ord5	Unallocated
			77	C:\BigDb\cabJ\misc6	C:\BigDb\cabJ\cs6	C:\BigDb\cabJ\ord6	Unallocated
			78	C:\BigDb\cabJ\misc7	C:\BigDb\cabJ\cs7	C:\BigDb\cabJ\ord7	Unallocated
			79	C:\BigDb\cabJ\misc8	C:\BigDb\cabJ\cs8	C:\BigDb\cabJ\ord8	C:\BigDb\dbBackups\backupJ8
11	A	21	80	C:\BigDb\cabK\misc1	C:\BigDb\cabK\cs1	C:\BigDb\cabK\ord1	Unallocated
			81	C:\BigDb\cabK\misc2	C:\BigDb\cabK\cs2	C:\BigDb\cabK\ord2	Unallocated
			82	C:\BigDb\cabK\misc3	C:\BigDb\cabK\cs3	C:\BigDb\cabK\ord3	Unallocated
			83	C:\BigDb\cabK\misc4	C:\BigDb\cabK\cs4	C:\BigDb\cabK\ord4	Unallocated
	B	22	84	C:\BigDb\cabK\misc5	C:\BigDb\cabK\cs5	C:\BigDb\cabK\ord5	Unallocated
			85	C:\BigDb\cabK\misc6	C:\BigDb\cabK\cs6	C:\BigDb\cabK\ord6	Unallocated
			86	C:\BigDb\cabK\misc7	C:\BigDb\cabK\cs7	C:\BigDb\cabK\ord7	Unallocated
			87	C:\BigDb\cabK\misc8	C:\BigDb\cabK\cs8	C:\BigDb\cabK\ord8	C:\BigDb\dbBackups\backupK8
12	A	23	88	C:\BigDb\cabL\misc1	C:\BigDb\cabL\cs1	C:\BigDb\cabL\ord1	Unallocated
			89	C:\BigDb\cabL\misc2	C:\BigDb\cabL\cs2	C:\BigDb\cabL\ord2	Unallocated
			90	C:\BigDb\cabL\misc3	C:\BigDb\cabL\cs3	C:\BigDb\cabL\ord3	Unallocated
			91	C:\BigDb\cabL\misc4	C:\BigDb\cabL\cs4	C:\BigDb\cabL\ord4	Unallocated
	B	24	92	C:\BigDb\cabL\misc5	C:\BigDb\cabL\cs5	C:\BigDb\cabL\ord5	Unallocated
			93	C:\BigDb\cabL\misc6	C:\BigDb\cabL\cs6	C:\BigDb\cabL\ord6	Unallocated
			94	C:\BigDb\cabL\misc7	C:\BigDb\cabL\cs7	C:\BigDb\cabL\ord7	Unallocated
			95	C:\BigDb\cabL\misc8	C:\BigDb\cabL\cs8	C:\BigDb\cabL\ord8	C:\BigDb\dbBackups\backupL8

5. Clause 5: Performance Metrics & Response Time

5.1. Measured Throughput (tpmC)

Measured tpmC must be reported. (8.1.6.1)

The measured tpmC was 165,218.71.

5.2. Response Times

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

Table 5.1: Response Time Data

Transaction	Average	Maximum	90th %ile
New-Order	0.55	19.09	0.96
Payment	0.49	13.81	0.90
Order Status	0.51	10.40	0.91
Delivery (interactive)	0.30	4.16	0.62
Delivery (deferred)	0.27	15.22	0.41
Stock-Level	0.74	14.40	1.20
Menu	0.31	4.17	0.63

5.3. Keying and Think Times

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

Table 5.2: Keying Times

Transaction	Minimum	Average	Maximum
New-Order	18.00	18.00	18.07
Payment	3.00	3.00	3.05
Order Status	2.00	2.00	2.03
Delivery (interactive)	2.00	2.00	2.05
Stock-Level	2.00	2.00	2.01

Table 5.3: Think Times

Transaction	Minimum	Average	Maximum
New-Order	0.00	12.03	120.31
Payment	0.00	12.03	120.30
Order Status	0.00	10.08	100.71
Delivery (interactive)	0.00	5.06	50.60
Stock-Level	0.00	5.06	50.60

5.4. Response Time Frequency Distribution Curves

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

Figure 5.1: New Order Response Time Distribution

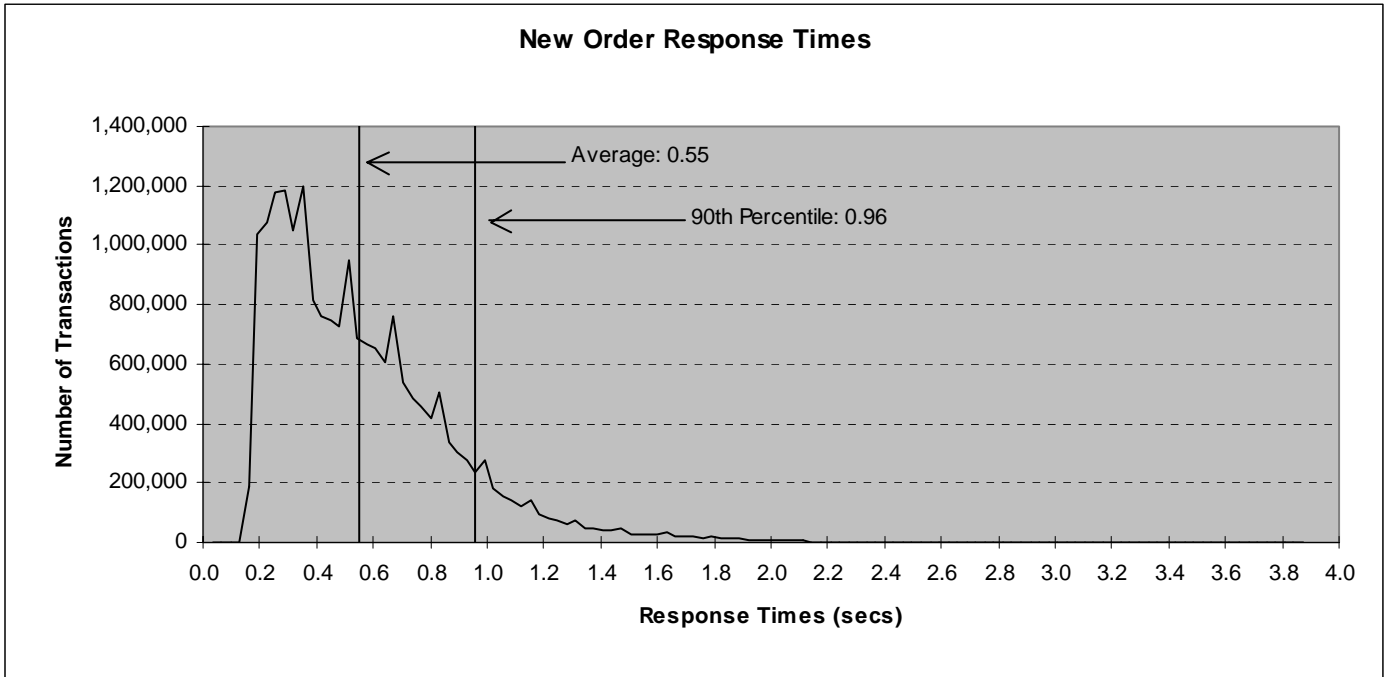


Figure 5.2: Payment Response Time Distribution

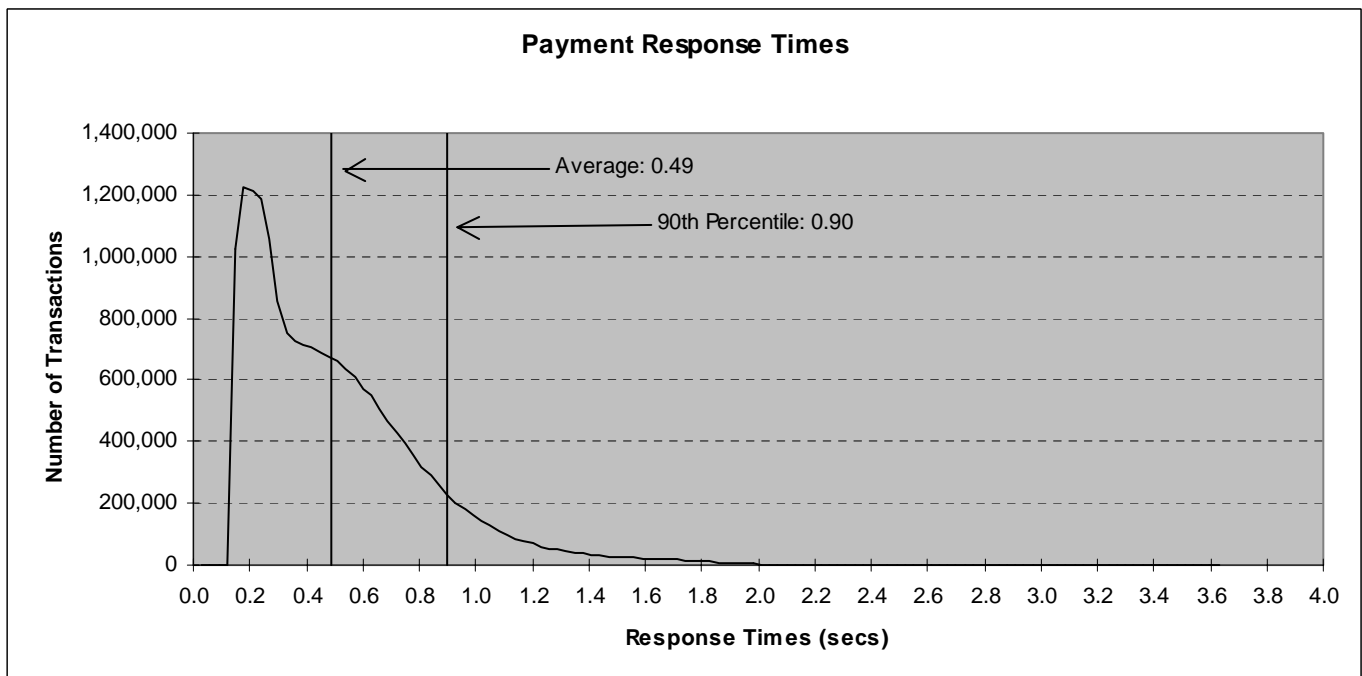


Figure 5.3: Order Status Response Time Distribution

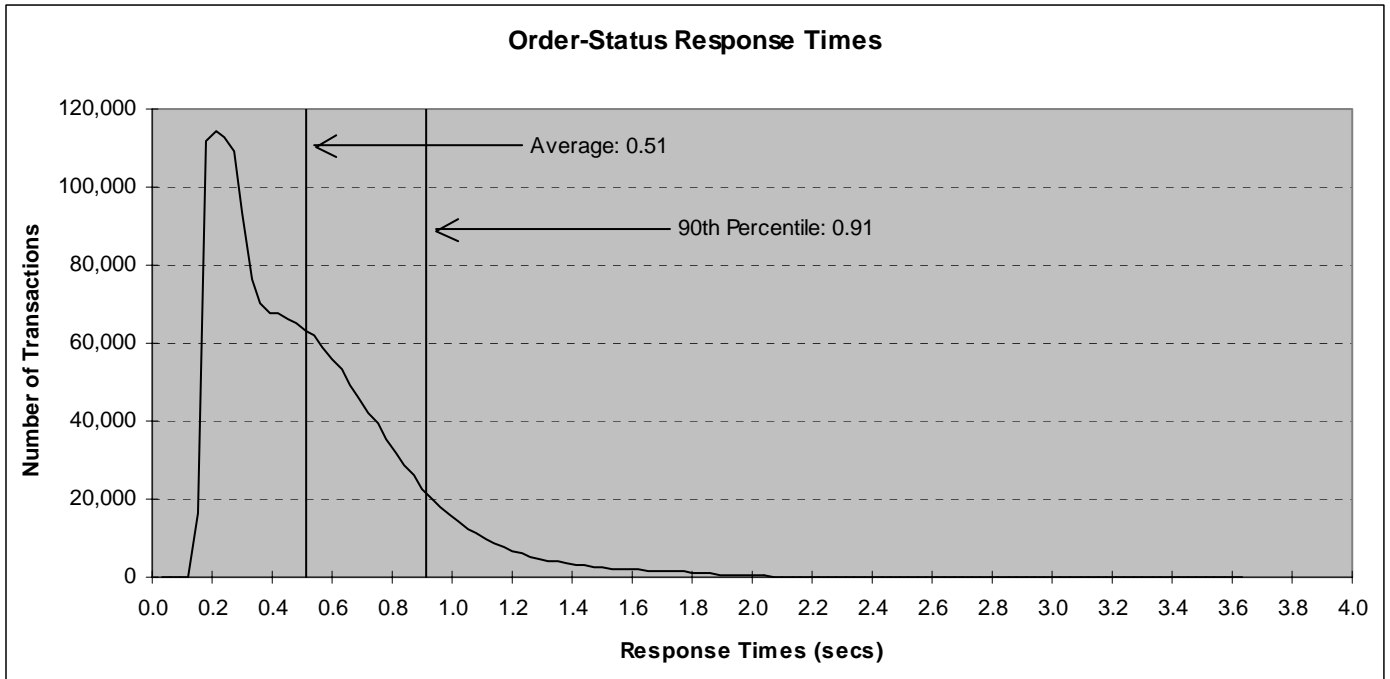


Figure 5.4: Delivery Response Time Distribution

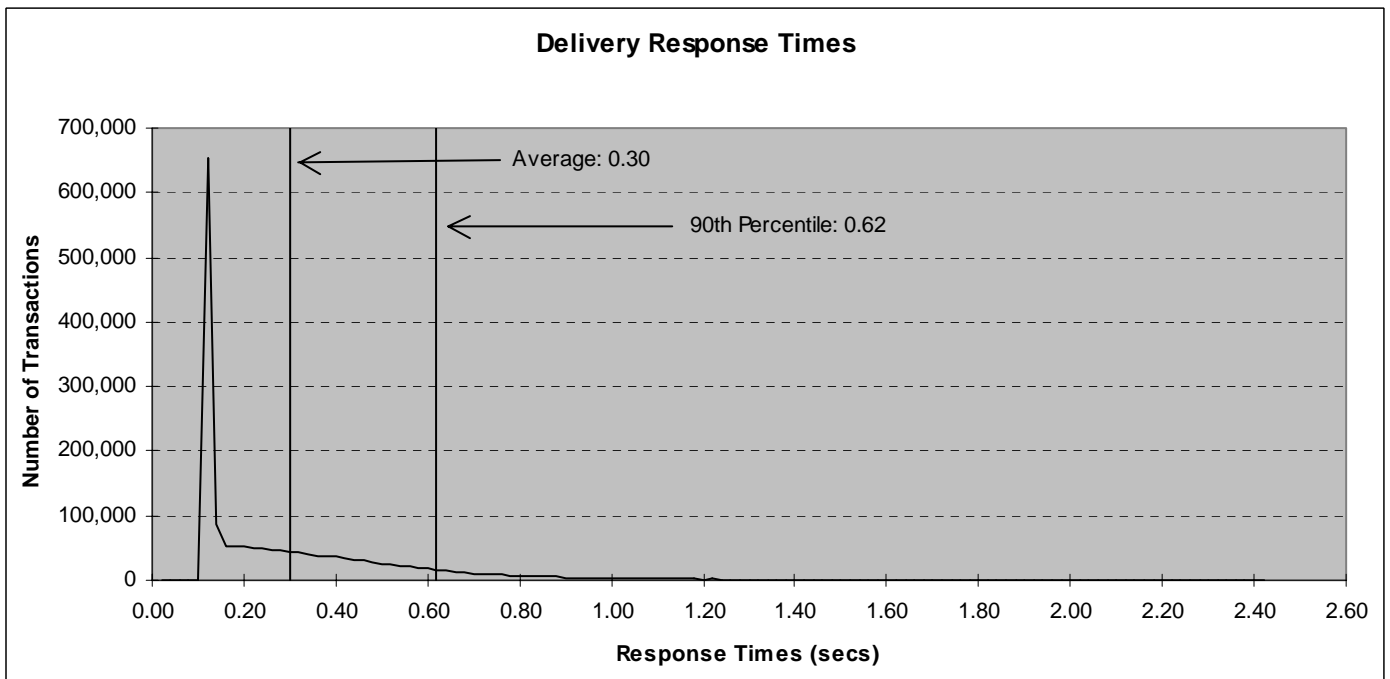
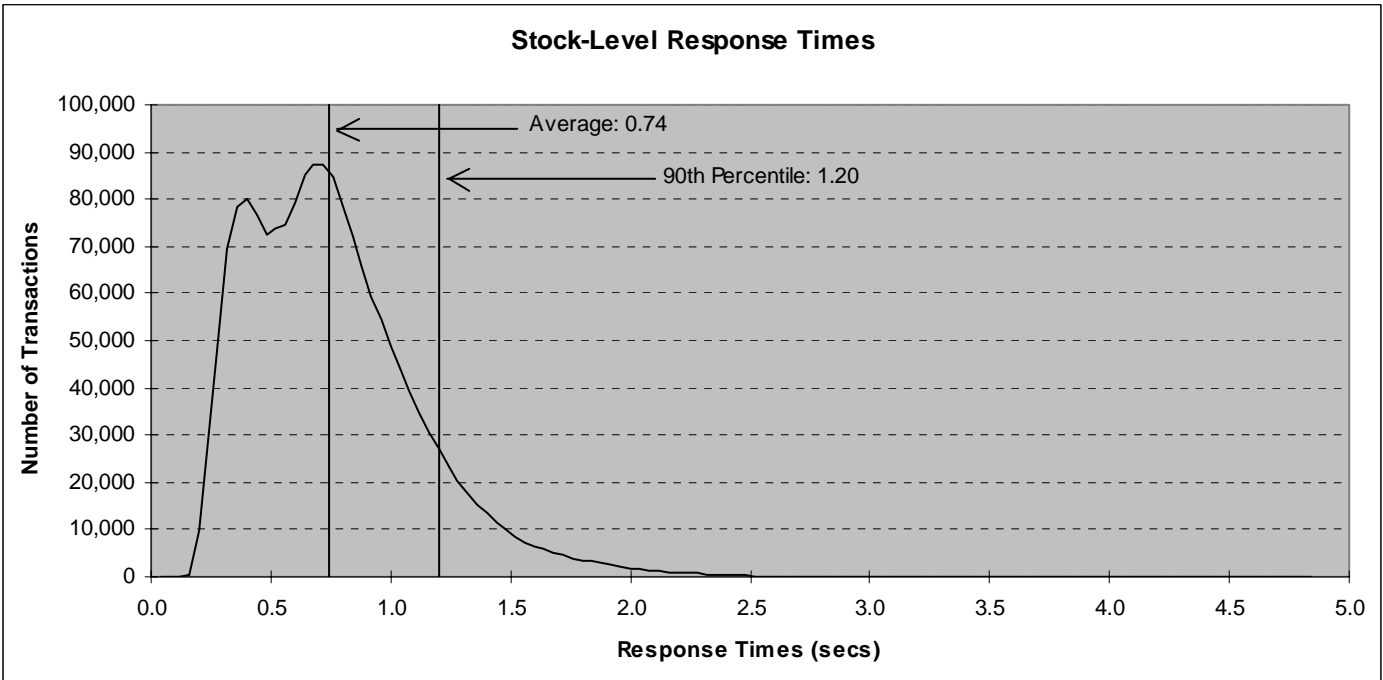


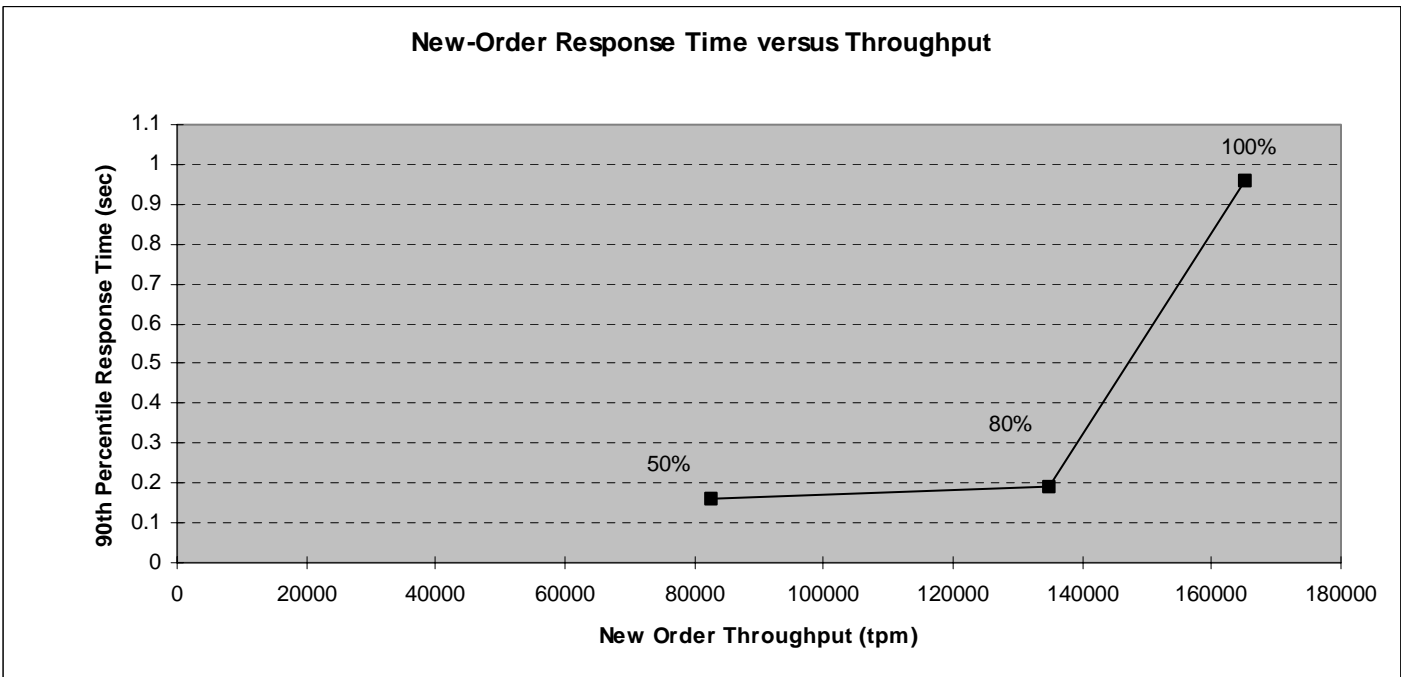
Figure 5.5: Stock Level Response Time Distribution



5.5. Response Time versus Throughput Performance Curve

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

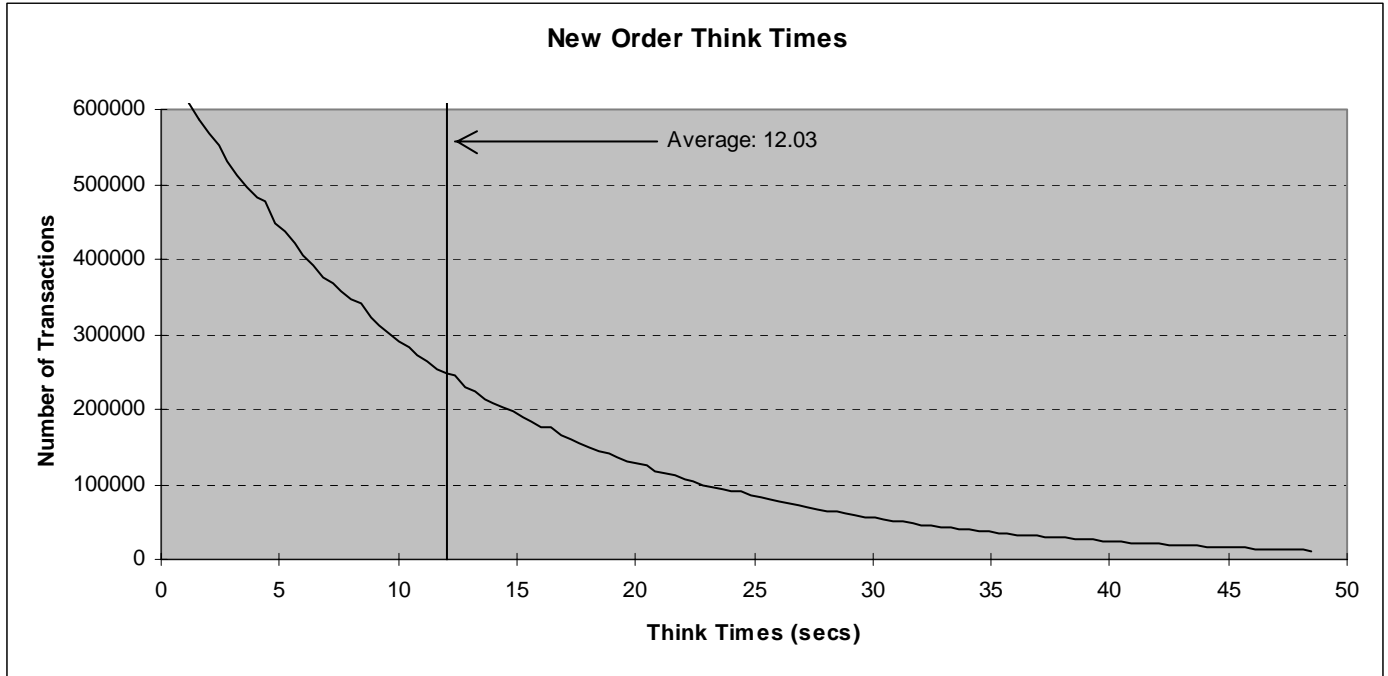
Figure 5.6: New Order Response Time versus Throughput



5.6. New Order Think Time Frequency Distribution Curve

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

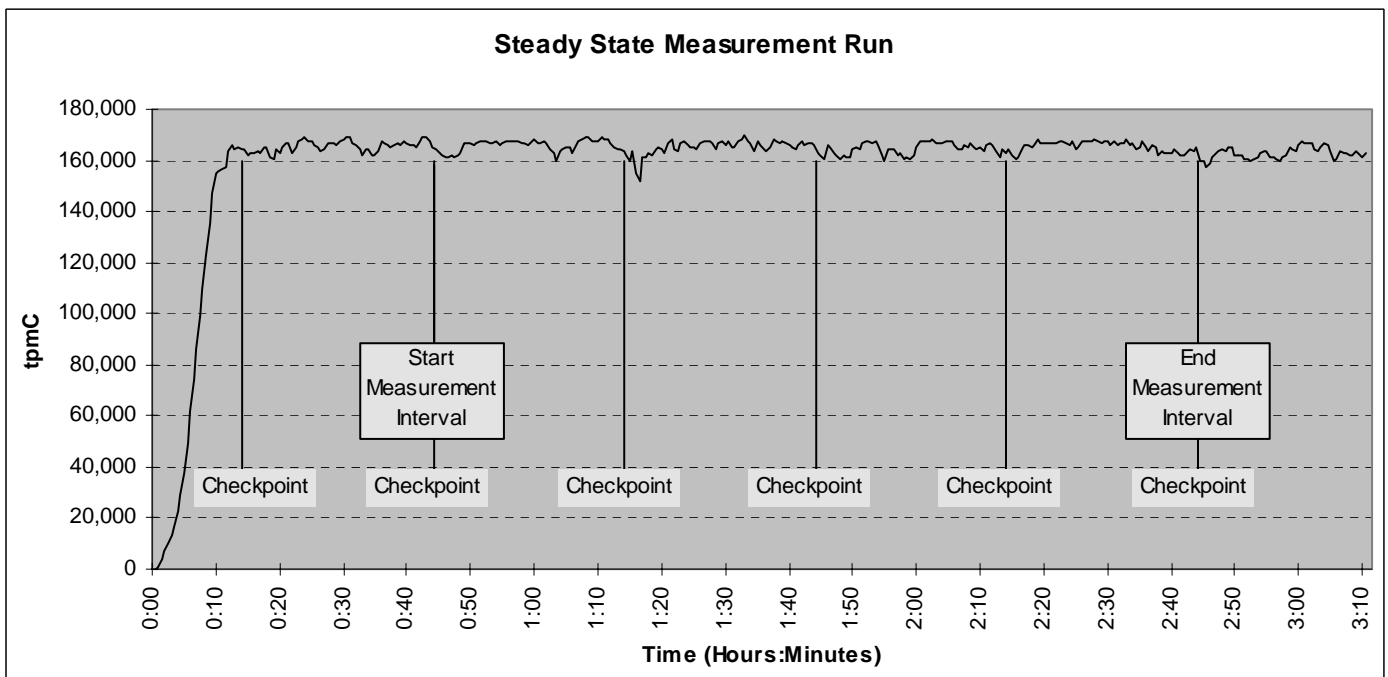
Figure 5.7: New Order Think Time Distribution



5.7. New-Order Throughput vs. Time

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

Figure 5.8: Throughput (tpmC) versus Time



5.8. Determination of “Steady State”

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

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

5.9. Work Performed During Steady State

A description of how the work normally performed during a sustained test (for example checkpointing, writing redo/undo log records, etc.) actually occurred during the measurement interval must be reported. (8.1.6.10)

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

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

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

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

5.10. Measurement Interval Duration

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

The measurement interval was 120 minutes.

5.11. Regulation of Transaction Mix

The method of regulation of the transaction mix (e.g. card decks or weighted random distribution) must be described. If weighted distribution is used and the RTE adjusts the weights associated with each transaction type, the maximum adjustments to the weight from the initial value must be disclosed. (8.1.6.13)

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

5.12. Transaction Statistics

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

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

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

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

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

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

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

Table 5.4 shows this information.

Table 5.4: Transaction Statistics

Transaction Type	Statistic	Value
New Order	Rolledback transactions	1.00%
	Home warehouse	99.00%
	Remote warehouse	1.00%
	Average Items per Order	10.00
Payment	Home warehouse	85.00%
	Remote warehouse	15.00%
	Non-primary key access	60.01%
Order Status	Non-primary key access	59.94%
Delivery	Skipped transactions (Interactive)	0
	Skipped transaction counts (Deferred)	0
	Skipped District counts (Deferred)	0
Transaction Mix	New Order	44.88%
	Payment	43.04%
	Order-Status	4.01%
	Delivery	4.02%
	Stock-Level	4.02%

5.13. Checkpoint Statistics

The number of checkpoints in the measurement interval, the time in seconds from the start of the measurement interval to the first checkpoint, and the Checkpoint Interval must be disclosed. (8.1.6.21)

There are four checkpoints in the measurement interval. The first checkpoint starts approximately 0 seconds into the measurement interval. The checkpoint interval is 30 minutes (from the start of one to the start of the next) and a checkpoint lasts approximately 29.8 minutes.

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

Table 5.5: Checkpoint Start Time and Duration

Item	Start	End	Duration
Measurement Interval	0:44:12	2:44:12	7200
1st Checkpoint	0:44:12	1:13:57	1785
2nd Checkpoint	1:14:10	1:43:56	1786
3rd Checkpoint	1:44:09	2:13:55	1786
4th Checkpoint	2:14:08	2:43:54	1786

6. Clause 6: SUT, Driver & Communications Definition

6.1. Remote Terminal Emulator (RTE) Description

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

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

6.2. Loss of Terminal Connections

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

No terminal connections were lost.

6.3. Emulated Components

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

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

6.4. Functional Diagrams

A complete functional diagram of both benchmark and the configuration of the proposed (target) system must be disclosed. A detailed list of all hardware and software functionality being performed on the Driver System and its interface to the SUT must be disclosed (see Clause 6.6.3.6). (8.1.7.4)

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

6.5. Network Configuration

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

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

6.6. Network Bandwidth

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

Local area networks (LANs) are used in the priced and tested configurations. The database server contains eight cLAN 1.25 gigabit-per-second LAN adapters. Each was direct-connected to a cLAN adapter in the eight clients. These LAN segments run at 1.25 gigabit-per-second in the priced and tested configurations. Each client also contains one 10/100 megabit-per-second inbuilt LAN controller. Two sixteen-port 10/100 megabit-per-second switches per client were concatenated and used to connect the client to RTE driver systems emulating web browsers in the tested configuration. The 10/100 LAN connections between the clients and switches run at 100 megabits-per-second in the priced and tested configurations. 144 (18 per client) user LAN segments run at 10 megabits-per-second in the tested configuration.

6.7. Operator Intervention

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

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

7.1. Pricing

A detailed list of hardware and software used in the priced system must be reported. Each separately orderable item must have vendor part number, description, and release/revision level, and either general availability status or committed delivery date. If package-pricing is used, vendor part number of the package and a description uniquely identifying each of the components of the package must be disclosed. Pricing source(s) and effective date(s) must also be reported. (8.1.8.1)

The total 3-year price of the entire configuration must be reported, including: hardware, software, and maintenance charges. Separate component pricing is recommended. The basis of all discounts used must be disclosed. (8.1.8.2)

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

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

A detailed list of hardware and software components along with their part numbers and prices are given in the Executive Summary near the beginning of this document. Microsoft SQL Server 2000 Enterprise Edition software has been supplemented by Service Pack 2 and QFE 356045 which will be available from the Microsoft SQL web site at www.microsoft.com/sql.

7.1.1. System Pricing

Each priced configuration consists of an integrated system package, additional options, and components. Prices for all products are US list prices. A three-year warranty is standard with this class of Unisys server products.

7.1.2. Maintenance Pricing

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

Microsoft support pricing is based on 3 years of annual support costs.

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

7.1.3. Discounts

Unisys provides a standard pre-pay discount for maintenance service of the client, server and storage components of the priced configuration.

Comark provides a standard dollar-volume discount for the client, server and storage components of the priced configuration.

7.2. Availability

The committed delivery date for general availability (availability date) of products used in the price calculation must be reported. When the priced system includes products with different availability dates, the reported availability date for the priced system must be the date at which all components are committed to be available. (8.1.8.3)

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

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

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

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

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

7.4. 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. (8.1.8.5)

None.

7.5. Usage Pricing

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

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

The component pricing based on usage is shown below:

- One (1) Microsoft Windows Datacenter Server Limited Edition license
- One (1) Microsoft SQL Server 2000 Enterprise Edition license
- Eight (8) Microsoft Windows 2000 Server licenses
- One (1) Microsoft Visual C++ Professional 6.0 license

8.

Clause 8 : Full Disclosure Availability

8.1. Availability

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

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

TPC Benchmark Administrator
Systems Analysis, Modeling & Measurement Group
Unisys Corporation, M/S 262
25725 Jeronimo Road
Mission Viejo, CA 92691
USA

9.1. Auditor's Report

The auditor's name, address, phone number and a copy of the auditor's attestation letter indicating compliance must be included in the Full Disclosure Report. (8.1.9.1)

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

This implementation of the TPC Benchmark C on the Unisys e-@ction Enterprise Server ES7000 was audited by Lorna Livingtree, a TPC certified auditor of:

Performance Metrics, Inc.
137 Yankton St. Suite 101
Folsom, CA 95630

Phone: (916) 985-1131
Fax: (916) 985-1185
email: Lorna@PerfMetrics.com

The attestation letter is shown on the next 2 pages.



PERFORMANCE METRICS INC.
TPC Certified Auditors

November 2, 2001

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

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

Platform: Unisys e-@ction Enterprise Server ES7000
Database Manager: Microsoft SQL Server 2000 Enterprise Edition
Operating System: Microsoft Windows Datacenter Server Limited Edition
Transaction Manager: Microsoft COM+ (included in Windows 2000)

Server: e-@ction Enterprise Server ES7000				
CPU's	Memory	Disks	90% Response	TpmC
32 Pentium III Xeon @ 900 MHz	Main: 64 GB Cache: 2MB each	944 @ 18GB 26 @ 36GB	0.96 sec	165,218.71
8 Clients: e-@ction ES2024				
2 Pentium III @ 1 GHz	Main: 1 GB Cache: 256K	1 @ 18GB	Na	Na

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

- The transactions were correctly implemented.
- The database was properly sized and populated.
- The database was properly scaled with 13,392 warehouses.
- The ACID properties were met.

PERFORMANCE METRICS INC.
TPC Certified Auditors

- The durability data loss and log loss tests were performed on a database scaled to 1488 warehouse with 14,880 users active.
- Input data was generated according to the specified percentages.
- Eight hours of mirrored log space was configured on the measured system.
- Eight hours of dynamic table growth space was configured on the measured system.
- The 60-day space calculation was verified. The measured configuration has sufficient storage to satisfy this requirement.
- Measurement cycle times included a 0.1-second menu and a 0.1 second response time delay for an emulated Web browser.
- There were 133,920 user contexts present on the system.
- Each emulated user started with a different random number seed.
- The NURand constants used for database load and at run time were 123 and 208.
- The steady state portion of the test was 2 hours (7200 seconds).
- 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.

Auditor Notes:

None.

Sincerely,



Lorna Livingtree
Auditor

Appendix A - Client Source

tpcc.def

```
EXPORTS
    GetExtensionVersion
    HttpExtensionProc
```

tpcc.h

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

#include <time.h>

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

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

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

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

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

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

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

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

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

typedef struct
{
    short ol_supply_w_id;
    long ol_i_id;
    char ol_i_name[25];
    short ol_quantity;
    char ol_brand_generic[2];
    double ol_i_price;
    double ol_amount;
    short ol_stock;
```

```

} OL_NEW_ORDER_DATA;

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

typedef struct
{
    bool bTPRslt;
    short iTPRslt;
    short w_id;
    short d_id;
    long c_id;
    short c_d_id;
    short c_w_id;
    double h_amount;
    DATEDETAILS h_date;
    char w_street_1[ADDR_LEN + 1];
    char w_street_2[ADDR_LEN + 1];
    char w_city[ADDR_LEN + 1];
    char w_state[STATE_LEN + 1];
    char w_zip[ZIP_LEN + 1];
    char d_street_1[ADDR_LEN + 1];
    char d_street_2[ADDR_LEN + 1];
    char d_city[ADDR_LEN + 1];
    char d_state[STATE_LEN + 1];
    char d_zip[ZIP_LEN + 1];
    char c_first[NAME_LEN + 1];
    char c_middle[3];
    char c_last[NAME_LEN + 1];
    char c_street_1[ADDR_LEN + 1];
    char c_street_2[ADDR_LEN + 1];
    char c_city[ADDR_LEN + 1];
    char c_state[STATE_LEN + 1];
    char c_zip[ZIP_LEN + 1];
    char c_phone[17];
    DATEDETAILS c_since;
    char c_credit[3];
    double c_credit_lim;
    double c_discount;
    double c_balance;
    char c_data[200+1];
    char execution_status[STATUS_LEN];

```

```

} PAYMENT_DATA;

typedef struct
{
    long ol_i_id;
    short ol_supply_w_id;
    short ol_quantity;
    double ol_amount;
    DATEDETAILS ol_delivery_d;
} OL_ORDER_STATUS_DATA;

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

typedef struct
{
    bool bTPRslt;
    short iTPRslt;
    short w_id;
    short o_carrier_id;
    long o_id[10];
    SYSTEMTIME QTime; // time delivery was queued
    SYSTEMTIME EndTime; // time delivery completed
} DELIVERY_DATA;

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

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

```

tpcc.cpp

```

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

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

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

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

// TMon Interface Settings
INT iTMaxMsg = 0;

// Term Interface Settings
INT iMaxTerms = 3000;

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

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

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

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

//=====
//
// Function name: DllMain
//

```

```

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

            InitializeCriticalSection(&csDllMain);
            ReadRegistry();
            DiagIoInit(pTitle,bSetConsole,bSetEventLog,uSetDiagLevel);
            wsprintf(szDiag,
                "(%s) EventLog = %d, Console = %d, DiagLevel = %d\n"
                "MaxTerms = %d\n",
                VERSIONINFO,bSetEventLog,bSetConsole,uSetDiagLevel,iMaxTerms);
            DiagIoWrite(szDiag,DIAG_FORCE);
            dwTlsInx = TlsAlloc();
            if (dwTlsInx == TLS_NULL)
            {
                wsprintf(szDiag,"PAttach(%ld): Tls Alloc Failed (%ld)\n",
                    GetCurrentThreadId(),GetLastError());
                DiagIoWrite(szDiag,DIAG_ERROR);
                return(FALSE);
            };
            if (TermInit(iMaxTerms))
                return(FALSE);
            iTMaxSz = max(iTMaxSz,sizeof(NEW_ORDER_DATA));
            iTMaxSz = max(iTMaxSz,sizeof(PAYMENT_DATA));
            iTMaxSz = max(iTMaxSz,sizeof(ORDER_STATUS_DATA));
            iTMaxSz = max(iTMaxSz,sizeof(DELIVERY_DATA));
            iTMaxSz = max(iTMaxSz,sizeof(STOCK_LEVEL_DATA));
            iTMaxSz += 10;
            TMonInit(iTMaxSz);
            if (DeliveryInit(lSetDThreads,lSetDQSize,szSetPath))
            {
                DeliveryTerm();
                return(FALSE);
            };
            iHHdrLen = strlen(HTTPHdr);
            iCTextLen = strlen(CTEXT);
            break;
        case DLL_THREAD_ATTACH:
            // Move ThreadAttach call to HttpExt since the DllMain call
            // for Thread Attach did not reliably come before the first
            // call to HttpExtProc.
            break;
        case DLL_THREAD_DETACH:
            ThreadDetach(pTPCC);
            break;
        case DLL_PROCESS_DETACH:
            ThreadDetach(pTPCC);
            DeleteCriticalSection(&csDllMain);
            DeliveryTerm();
            TMonTerm();
            TermTerm();
            TlsFree(dwTlsInx);
            dwTlsInx = TLS_NULL;
    }
}

```

```

        DiagIoTerm();
                break;
    };
    return TRUE;
}; // DllMain

//=====
//
// Function name: ThreadAttach
//
// Result:
// FALSE Thread state structure initialized
// TRUE Thread state structure initialization failure
//
//=====
BOOL ThreadAttach(TPCC_STATE * pTPCC, CHAR * pDiag)
{
    EnterCriticalSection(&csDllMain);
    __try
    {
        pTPCC = (TPCC_STATE *) calloc(1, sizeof(TPCC_STATE));
        if (pTPCC == NULL)
        {
            wsprintf(pDiag, "ThrAtt(%ld): pTPCC Alloc Failed (%ld)\n",
                GetCurrentThreadId(), GetLastError());
            DiagIoWrite(pDiag, DIAG_ERROR);
            return(TRUE);
        };
        TlsSetValue(dwTlsInx, pTPCC);
        pTPCC->tsTMon.pszErrTxt = pTPCC->ErrTxt;
        if (TMinInit(&pTPCC->tsTMon))
        {
            wsprintf(pDiag, "ThrAtt(%ld): TMinInit %s\n",
                GetCurrentThreadId(), pTPCC->ErrTxt);
            DiagIoWrite(pDiag, DIAG_ERROR);
            return(TRUE);
        };
    }
    __finally
    {
        LeaveCriticalSection(&csDllMain);
    };
    return(FALSE);
}; // ThreadAttach

//=====
//
// Function name: ThreadDetach
//
//=====
VOID ThreadDetach(TPCC_STATE * pTPCC)
{
    EnterCriticalSection(&csDllMain);
    __try
    {
        pTPCC = (TPCC_STATE *) TlsGetValue(dwTlsInx);
        if (pTPCC != NULL)
        {
            TMDone(&pTPCC->tsTMon);
            free(pTPCC);
            pTPCC = NULL;

```

```

        TlsSetValue(dwTlsInx, pTPCC);
    };
}
__finally
{
    LeaveCriticalSection(&csDllMain);
}; // ThreadDetach

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

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

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

```

```

    case TPCCSENDEND:
        SendResponse(pECB,pTPCC->SendMsg,pTPCC->szHeader);
        break;
    case TPCCENDNOW:
    default:
        break;
}; // switch (TPCCHandler result)

HttpXit:

    return(dwRslt);

}; // HttpExtensionProc

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

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

```

```

    INT i;
    CHAR szValue[100];
    if (RegOpenKeyEx(HKEY_LOCAL_MACHINE,"SOFTWARE\\Unisys\\TPCC",0,
        KEY_READ, &hkTPCC) != ERROR_SUCCESS )
        return(TRUE);
    dwMax = sizeof(szValue);
    if (RegQueryValueEx(hkTPCC,"EVENTLOG",0,&dwRT,(BYTE *) &szValue,&dwMax)
        == ERROR_SUCCESS)
    {
        if (abs(atoi(szValue) == 0))
            bSetEventLog = FALSE;
        else
            bSetEventLog = TRUE;
    };
    dwMax = sizeof(szValue);
    if (RegQueryValueEx(hkTPCC,"CONSOLE",0,&dwRT,(BYTE *) &szValue,&dwMax)
        == ERROR_SUCCESS )
    {
        if (abs(atoi(szValue) == 0))
            bSetConsole = FALSE;
        else
            bSetConsole = TRUE;
    };
    dwMax = sizeof(szValue);
    if (RegQueryValueEx(hkTPCC,"DIAGLEVEL",0,&dwRT,(BYTE *)
&szValue,&dwMax)
        == ERROR_SUCCESS )
    {
        i = atoi(szValue);
        if (i < DIAG_FORCE)
            i = DIAG_FORCE;
        else
            if (i > DIAG_INFO)
                i = DIAG_INFO;
        uSetDiagLevel = i;
    };
    dwMax = sizeof(szValue);
    if (RegQueryValueEx(hkTPCC,"MAXTERMS",0,&dwRT,(BYTE *) &szValue,&dwMax)
        == ERROR_SUCCESS )
    {
        iMaxTerms = abs(atoi(szValue));
    };
    dwMax = sizeof(szValue);
    if (RegQueryValueEx(hkTPCC,"DELIVERYTHREADS",0,&dwRT,(BYTE *)
&szValue,&dwMax)
        == ERROR_SUCCESS )
    {
        lSetDThreads = abs(atoi(szValue));
    };
    dwMax = sizeof(szValue);
    if (RegQueryValueEx(hkTPCC,"DQSIZE",0,&dwRT,(BYTE *) &szValue,&dwMax)
        == ERROR_SUCCESS )
    {
        lSetDQSize = abs(atoi(szValue));
    };
    dwMax = sizeof(szValue);
    if (RegQueryValueEx(hkTPCC,"DQPATH",0,&dwRT,(BYTE *) &szValue,&dwMax)
        == ERROR_SUCCESS )
    {
        strcpy(szSetPath,szValue);
    };

```

```

    RegCloseKey(hkTPCC);
    return(FALSE);
}; // ReadRegistry

```

tpcchandler.h

```

// tpcchandler.h
//
// Copyright Unisys, 1999
#define MAX_MSG_SZ 5000

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

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

```

tpcchandler.cpp

```

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

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

// pTPCC->iFormId - TPCC forms enumeration.
#define FORM_NULL 0
#define FORM_LOGON 1
#define FORM_MENU 2
#define FORM_NEWORDER 3
#define FORM_PAYMENT 4

```

```

#define FORM_DELIVERY 5
#define FORM_ORDERSTATUS 6
#define FORM_STOCKLEVEL 7
#define FORM_EXIT 8
#define FORM_MAX 9

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

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

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

static CHAR * szMenuList =
    "<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"..NewOrder..\">"
    "<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"..Payment..\">"
    "<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"..Delivery..\">"
    "<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"..Order-Status..\">"
    "<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"..Stock-Level..\">"
    "<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"..Exit..\">";

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

static CHAR * TERMINIDTOKEN = "TERMINID=";
static CHAR * SYNCIDTOKEN = "SYNCID=";

```

```

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

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

//=====
//
// Function name: TPCCclear
//
//=====
BOOL TPCCclear(TPCC_STATE * pTPCC)
{
    pTPCC->ConnID = 0;
    pTPCC->sWId = 0;
    pTPCC->sDId = 0;
    pTPCC->iSyncId = 0;
    pTPCC->iTermId = -2;
    pTPCC->uFormId = FORM_NULL;
    pTPCC->iStatusId = 0;
    strcpy(pTPCC->ErrMsg, "");
    return(FALSE);
}; // TPCCclear

//=====

```

```

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

    pTPCC->iStatusId = STATUS_OK;
    if (GetHidden(pTPCC->RecvMsg,&pTPCC->uFormId,&iSyncId,&iTermId))
    {
        uRslt = TPCCSEND;
        FormatLogin(pTPCC->SendMsg,pTPCC->ErrMsg);
        goto HdlrXit;
    };
    if (iTermId > 0)
    {
        pTerm = TermGet(iTermId);
        if (pTerm == NULL)
        {
            uRslt = TPCCSEND;
            strcpy(pTPCC->ErrMsg,"Invalid Term Id");
            FormatLogin(pTPCC->SendMsg,pTPCC->ErrMsg);
            goto HdlrXit;
        };
        pTPCC->sWId = pTerm->sWId;
        pTPCC->sDId = pTerm->sDId;
        pTPCC->iSyncId = pTerm->iSyncId;
        pTPCC->iTermId = pTerm->iTermId;
    };
    uCmdId = GetCmd(pTPCC->RecvMsg,pTPCC->szWork,sizeof(pTPCC->szWork));
    // Except for Submit(log in), sWId must already be set
    if (pTPCC->sWId == 0 && uCmdId != CMD_SUBMIT)
    {
        strcpy(pTPCC->ErrMsg,"Must log in first!");
        FormatLogin(pTPCC->SendMsg,pTPCC->ErrMsg);
        uRslt = TPCCSEND;
        goto HdlrXit;
    };
    // Check for multiple log in attempts
    if (pTPCC->sWId != 0 && uCmdId == CMD_SUBMIT)
    {
        strcpy(pTPCC->ErrMsg,ERRTXT_ALREADY_LOGGEDIN);
        pTPCC->iStatusId = ERR_ALREADY_LOGGEDIN;
        FormatMenu(pTPCC->SendMsg,pTPCC);
        uRslt = TPCCSEND;
        goto HdlrXit;
    };
    // If not logging in, validate hidden fields
    if (uCmdId != CMD_SUBMIT)
    {
        if (iTermId != pTPCC->iTermId || iTermId != iSyncId)
        {
            wsprintf(pTPCC->ErrMsg,"%s: Received %ld, %ld (%ld)",
ERRTXT_TERMID,iTermId,iSyncId,pTPCC->iTermId);
            pTPCC->iStatusId = ERR_TERMID;
            FormatMenu(pTPCC->SendMsg,pTPCC);

```

```

        goto HdlrXit;
    };
};
// Process the command
switch (uCmdId)
{
    case CMD_SUBMIT:
        ProcessLogin(pTPCC->RecvMsg, pTPCC->SendMsg, pTPCC);
        break;
    case CMD_MENU_FORM:
        FormatMenu(pTPCC->SendMsg, pTPCC);
        break;
    case CMD_PROCESS:
        ProcessForm(pTPCC->RecvMsg, pTPCC->SendMsg, pTPCC);
        break;
    case CMD_NEWORDER_FORM:
        FormatNewOrder(pTPCC->SendMsg, pTPCC);
        break;
    case CMD_PAYMENT_FORM:
        FormatPayment(pTPCC->SendMsg, pTPCC);
        break;
    case CMD_DELIVERY_FORM:
        FormatDelivery(pTPCC->SendMsg, pTPCC);
        break;
    case CMD_ORDERSTATUS_FORM:
        FormatOrderStatus(pTPCC->SendMsg, pTPCC);
        break;
    case CMD_STOCKLEVEL_FORM:
        FormatStockLevel(pTPCC->SendMsg, pTPCC);
        break;
    case CMD_EXIT:
        TermFree(pTPCC->iTermId);
        strcpy(pTPCC->ErrTxt, "Logged Off");
        FormatLogin(pTPCC->SendMsg, pTPCC->ErrTxt);
        goto HdlrXit;
    default:
        strcpy(pTPCC->ErrTxt, ERRTXT_CMD_UNKNOWN);
        pTPCC->iStatusId = ERR_CMD_UNKNOWN;
        if (pTPCC->sWid == 0)
            FormatLogin(pTPCC->SendMsg, pTPCC->ErrTxt);
        else
            FormatMenu(pTPCC->SendMsg, pTPCC);
        break;
}; // switch (uCmdId)

uRslt = TPCCSEND;

HdlrXit:

    return(uRslt);
}; // TPCCHandler

//=====
//
// Function name: ProcessLogin
//
// ProcessLogin extracts WId and DId from the incoming form. Assumes
// log in has not previously completed (sWid == 0 already verified).
//
// Result:

```

```

// FALSE - log in successful, sWid and sDId set in pTPCC,
//         pOut contains menu.
// TRUE  - log in failed, pOut contains log in form with
//         error message.
//
//=====
BOOL ProcessLogin(CHAR * pIn, CHAR * pOut, TPCC_STATE * pTPCC)
{
    SHORT sWid;
    SHORT sDId;
    TERM_STATE * pTerm;

    if (GetShortKey(&sWid, pIn, "w_id", pTPCC))
    {
        FormatLogin(pOut, pTPCC->ErrTxt);
        return(TRUE);
    };
    if (sWid < 1)
    {
        wsprintf(pTPCC->ErrTxt, "Warehouse Id (%d) Invalid", sWid);
        pTPCC->iStatusId = ERR_WID_INVALID;
        FormatLogin(pOut, pTPCC->ErrTxt);
        return(TRUE);
    };
    if (GetShortKey(&sDId, pIn, "d_id", pTPCC))
    {
        FormatLogin(pOut, pTPCC->ErrTxt);
        return(TRUE);
    };
    if (sDId < MIN_DId || sDId > MAX_DId)
    {
        wsprintf(pTPCC->ErrTxt, "DId Out of Range(%ld,%ld) - %ld",
            MIN_DId, MAX_DId, sDId);
        pTPCC->iStatusId = ERR_DID_INVALID;
        FormatLogin(pOut, pTPCC->ErrTxt);
        return(TRUE);
    };
    pTerm = TermAlloc();
    if (pTerm == NULL)
    {
        wsprintf(pTPCC->ErrTxt, "Unable to Allocate Terminal Entry");
        pTPCC->iStatusId = ERR_TERM_ALLOC;
        FormatLogin(pOut, pTPCC->ErrTxt);
        return(TRUE);
    };
    pTerm->ConnID = pTPCC->ConnID;
    pTerm->iSyncId = pTerm->iTermId;
    pTerm->sWid = abs(sWid);
    pTerm->sDId = abs(sDId);
    pTPCC->iTermId = pTerm->iTermId;
    pTPCC->iSyncId = pTerm->iSyncId;
    pTPCC->sWid = pTerm->sWid;
    pTPCC->sDId = pTerm->sDId;
    FormatMenu(pOut, pTPCC);
    return(FALSE);
}; // ProcessLogin

//=====
//
// Function name: ProcessForm
//

```



```

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

//=====
//
// Function name: ProcessNewOrder
//
// ProcessNewOrder extracts the input data fields from pIn, processes
// the data, and returns a response in pOut.
//
// Result:
// FALSE - NewOrder processed successfully.
// TRUE - NewOrder processing failed.
//
//=====
BOOL ProcessNewOrder(CHAR * pIn,CHAR * pOut,TPCC_STATE * pTPCC)
{
    NEW_ORDER_DATA * pnod;
    TMON_STATE * pTMon;
    CHAR szKey[20];
    CHAR * ptr;
    INT iInx;
    UINT u;
    UINT uLine;
    HRESULT hr;
    int iSize;

    pTMon = &pTPCC->tsTMon;
    pnod = (NEW_ORDER_DATA *) pTMon->pTxnData;
    ZeroMemory(pnod,sizeof(NEW_ORDER_DATA));
    pnod->w_id = pTPCC->swId;

```

```

if (GetShortKey(&pnod->d_id,pIn,"DID*",pTPCC))
{
    FormatMenu(pOut,pTPCC);
    return(TRUE);
};
if (pnod->d_id < MIN_DId || pnod->d_id > MAX_DId)
{
    wsprintf(pTPCC->ErrTxt,"Did Out of Range(%ld,%ld) - %ld",
        MIN_DId,MAX_DId,pnod->d_id);
    pTPCC->iStatusId = ERR_DID_INVALID;
    FormatMenu(pOut,pTPCC);
    return(TRUE);
};
if (GetLongKey(&pnod->c_id,pIn,"CID*",pTPCC))
{
    FormatMenu(pOut,pTPCC);
    return(TRUE);
};
pnod->o_ol_cnt = 0;
ptr = pIn;
for(u=0, uLine=0; u < MAX_OL; u++)
{
    wsprintf(szKey,"SP%2.2d*",u);
    ptr = strstr(ptr,szKey);
    if (GetShortKey(&pnod->Ol[uLine].ol_supply_w_id,ptr,szKey,pTPCC))
    {
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    wsprintf(szKey,"IID%2.2d*",u);
    if (GetLongKey(&pnod->Ol[uLine].ol_i_id,ptr,szKey,pTPCC))
    {
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    wsprintf(szKey,"Qty%2.2d*",u);
    if (GetShortKey(&pnod->Ol[uLine].ol_quantity,ptr,szKey,pTPCC))
    {
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    if (pnod->Ol[uLine].ol_i_id != 0)
    {
        if (pnod->Ol[uLine].ol_supply_w_id < 1)
        {
            wsprintf(pTPCC->ErrTxt,
                "Order Line %ld Contains Invalid Wid %d",
                u + 1,pnod->Ol[uLine].ol_supply_w_id);
            pTPCC->iStatusId = ERR_WID_INVALID;
            FormatMenu(pOut,pTPCC);
            return(TRUE);
        };
        if (pnod->Ol[uLine].ol_quantity < MIN_QUANTITY ||
            pnod->Ol[uLine].ol_quantity > MAX_QUANTITY)
        {
            wsprintf(pTPCC->ErrTxt,
                "Order Line %ld Contains Invalid Qty %d",
                u + 1,pnod->Ol[uLine].ol_quantity);
            pTPCC->iStatusId = ERR_QUANTITY_INVALID;
            FormatMenu(pOut,pTPCC);
            return(TRUE);
        };
    };
};

```

```

};
uLine++;
} // if (ol_i_id !=0)
else
{
if (pnod->Ol[uLine].ol_supply_w_id != 0)
{
wsprintf(pTPCC->ErrTxt,
"Order Line %ld WId Supplied with No Item",u + 1);
pTPCC->iStatusId = ERR_OL_INVALID;
FormatMenu(pOut,pTPCC);
return(TRUE);
};
if (pnod->Ol[uLine].ol_quantity != 0)
{
wsprintf(pTPCC->ErrTxt,
"Order Line %ld Qty Supplied with No Item",u + 1);
pTPCC->iStatusId = ERR_OL_INVALID;
FormatMenu(pOut,pTPCC);
return(TRUE);
};
}; // empty order line
}; // for (u < MAX_OL)
pnod->o_ol_cnt = uLine;
if (pnod->o_ol_cnt < MIN_OL)
{
wsprintf(pTPCC->ErrTxt,"Too Few Order Lines %d",pnod->o_ol_cnt);
pTPCC->iStatusId = ERR_OL_COUNT;
FormatMenu(pOut,pTPCC);
return(TRUE);
};
iSize = pTMon->iSize;
hr = pTMon->pIAllTxn->NewOrder(&iSize,(unsigned char*)&pTMon-
>pTxnData);
if (FAILED(hr))
{
pTPCC->iStatusId = ERR_TM_INTERFACE;
wsprintf(pTPCC->ErrTxt,
"COM Interface to NewOrder Call Failed, HRESULT %x",
hr);
FormatMenu(pOut,pTPCC);
return(TRUE);
};
};
pnod = (NEW_ORDER_DATA *) pTMon->pTxnData;
// Exclude invalid item id case
if (pnod->bTPRslt && pnod->iTPRslt < SVC_NOERROR)
{
wsprintf(pTPCC->ErrTxt,
"New Order Service Returned Error(%ld): %s",
pnod->iTPRslt,pnod->execution_status);
pTPCC->iStatusId = ERR_SERVICE_RSLT;
FormatMenu(pOut,pTPCC);
return(TRUE);
};
};
if (pnod->iTPRslt == SVC_BADITEMID)
pTPCC->iStatusId = INVALID_IID;

iInx = FormatRespHdr(pOut,"TPC-C New Order",pTPCC);
if (!pnod->bTPRslt)
{
iInx += wsprintf(pOut + iInx,

```

```

"<PRE> New Order<BR>"
"Warehouse: %4.4d District: %2.2d "
>Date: %2.2d-%2.2d-%4.4d %2.2d:%2.2d:%2.2d <BR>"
"Customer: %4.4d Name: %-16s Credit: %-2s ",
pnod->w_id,pnod->d_id,
pnod->o_entry_d.day,pnod->o_entry_d.month,
pnod->o_entry_d.year,pnod->o_entry_d.hour,
pnod->o_entry_d.minute,pnod->o_entry_d.second,
pnod->c_id,pnod->c_last,pnod->c_credit);
iInx += sprintf(pOut + iInx,
"%Disc: %5.2f <BR>"
"Order Number: %8.8d Number of Lines: %2.2d W_tax: %5.2f
D_tax: %5.2f <BR><BR>"
" Supp_W Item_Id Item Name Qty Stock B/G
Price Amount<BR>",
pnod->c_discount * 100,pnod->o_id,pnod->o_ol_cnt,pnod->w_tax *
100,pnod->d_tax * 100);
for (u = 0; u < (UINT) pnod->o_ol_cnt; u++)
{
iInx += sprintf(pOut + iInx,
"%4.4d %6.6d %-24s %2.2d %3.3d %1.1s %6.2f
$%7.2f <BR>",
pnod->Ol[u].ol_supply_w_id,pnod->Ol[u].ol_i_id,
pnod->Ol[u].ol_i_name,pnod->Ol[u].ol_quantity,pnod-
>Ol[u].ol_stock,
pnod->Ol[u].ol_brand_generic,pnod->Ol[u].ol_i_price,
pnod->Ol[u].ol_amount);
};
for( u < MAX_OL; u++)
{
strcat(pOut + iInx," <BR>");
iInx += 5;
};
sprintf(pOut + iInx,
"Execution Status: %24.24s Total: $%8.2f "
"</PRE><HR><BR>%s</FORM>%s",
pnod->execution_status,pnod->total_amount,
szMenuList,HTMLTrailer);
} // !bTPRslt
else
{
iInx += wsprintf(pOut + iInx,
"<PRE> New Order<BR>"
"Warehouse: %4.4d District: %2.2d
Date:<BR>"
"Customer: %4.4d Name: %-16s Credit: %-2s "
"%Disc:<BR>"
"Order Number: %8.8d Number of Lines: W_tax:
D_tax:<BR><BR>"
" Supp_W Item_Id Item Name Qty Stock B/G
Price Amount<BR>",
pnod->w_id,pnod->d_id,
pnod->c_id,pnod->c_last,pnod->c_credit,
pnod->o_id);
for(u = 0; u < MAX_OL; u++)
{
strcat(pOut + iInx," <BR>");
iInx += 5;
};
iInx += wsprintf(pOut + iInx,
"Execution Status: %24.24s Total:"

```

```

        "</PRE><HR><BR>%s</FORM>%s",
        pnod->execution_status,szMenuList,HTMLTrailer);
}; // bTPRslt

return(FALSE);

}; // ProcessNewOrder

//=====
//
// Function name: ProcessPayment
//
// ProcessPayment extracts the input data fields from pIn, processes
// the data, and returns a response in pOut.
//
// Result:
// FALSE - Payment processed successfully.
// TRUE - Payment processing failed.
//=====
BOOL ProcessPayment(CHAR * pIn,CHAR * pOut,TPCC_STATE * pTPCC)
{
    PAYMENT_DATA * ppd;
    TMON_STATE * pTMon;
    CHAR szWork1[60];
    CHAR szZip1[20];
    CHAR szZip2[20];
    CHAR szZip3[20];
    INT iInx;
    HRESULT hr;
    int iSize;

    pTMon = &pTPCC->tsTMon;
    ppd = (PAYMENT_DATA *) pTMon->pTxnData;
    ZeroMemory(ppd,sizeof(PAYMENT_DATA));
    ppd->w_id = pTPCC->sWid;
    // Get and validate DID
    if (GetShortKey(&ppd->d_id,pIn,"DID*",pTPCC))
    {
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    if (ppd->d_id < MIN_DID || ppd->d_id > MAX_DID)
    {
        wsprintf(pTPCC->ErrTxt,"DID Out of Range(%ld,%ld) - %ld",
            MIN_DID,MAX_DID,ppd->d_id);
        pTPCC->iStatusId = ERR_DID_INVALID;
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    // Get and validate customer Id and name
    if (GetLongKey(&ppd->c_id,pIn,"CID*",pTPCC))
    {
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    if (GetStringKey(ppd->c_last,pIn,"CLT*",pTPCC,NAME_LEN))
    {
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
};

```

```

if (ppd->c_id == 0 && ppd->c_last[0] == 0)
{
    strcpy(pTPCC->ErrTxt,"Error - Customer Id and Name Empty");
    pTPCC->iStatusId = ERR_IDANDNAME_EMPTY;
    FormatMenu(pOut,pTPCC);
    return(TRUE);
};
if (ppd->c_id != 0 && ppd->c_last[0] != 0)
{
    strcpy(pTPCC->ErrTxt,
        "Error - Specify Customer Id or Name, not Both");
    pTPCC->iStatusId = ERR_IDANDNAME_ENTERED;
    FormatMenu(pOut,pTPCC);
    return(TRUE);
};
// Get and validate customer DID
if (GetShortKey(&ppd->c_d_id,pIn,"CDI*",pTPCC))
{
    FormatMenu(pOut,pTPCC);
    return(TRUE);
};
if (ppd->c_d_id < MIN_DID || ppd->c_d_id > MAX_DID)
{
    wsprintf(pTPCC->ErrTxt,"Cust Did Out of Range(%ld,%ld) - %ld",
        MIN_DID,MAX_DID,ppd->d_id);
    pTPCC->iStatusId = ERR_DID_INVALID;
    FormatMenu(pOut,pTPCC);
    return(TRUE);
};
// Get and validate customer WID
if (GetShortKey(&ppd->c_w_id,pIn,"CWI*",pTPCC))
{
    FormatMenu(pOut,pTPCC);
    return(TRUE);
};
if (ppd->c_w_id < 1)
{
    wsprintf(pTPCC->ErrTxt,
        "Payment Contains Invalid Customer WId %d",
        ppd->c_w_id);
    pTPCC->iStatusId = ERR_WID_INVALID;
    FormatMenu(pOut,pTPCC);
    return(TRUE);
};
// Get and validate amount
if (GetAmountKey(&ppd->h_amount,pIn,"HAM*",pTPCC))
{
    FormatMenu(pOut,pTPCC);
    return(TRUE);
};
if (ppd->h_amount <= 0)
{
    wsprintf(pTPCC->ErrTxt,
        "Payment Amount Negative or Missing");
    pTPCC->iStatusId = ERR_AMOUNT_INVALID;
    FormatMenu(pOut,pTPCC);
    return(TRUE);
};
iSize = pTMon->iSize;
hr = pTMon->pIAllTxn->Payment(&iSize,(unsigned char*)&pTMon-
>pTxnData);

```

```

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

```

```

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

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

```

```

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

return(FALSE);
}; // ProcessDelivery

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

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

```

```

    if (GetStringKey(posd->c_last,pIn,"CLT*",pTPCC,NAME_LEN))
    {
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    if (posd->c_id == 0 && posd->c_last[0] == 0)
    {
        strcpy(pTPCC->ErrTxt,"Error - Customer Id and Name Empty");
        pTPCC->iStatusId = ERR_IDANDNAME_EMPTY;
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    if (posd->c_id != 0 && posd->c_last[0] != 0)
    {
        strcpy(pTPCC->ErrTxt,
            "Error - Specify Customer Id or Name, not Both");
        pTPCC->iStatusId = ERR_IDANDNAME_ENTERED;
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    iSize = pTMon->iSize;
    hr = pTMon->pIAllTxn->OrderStatus(&iSize,(unsigned char*)&pTMon-
    >pTxnData);
    if (FAILED(hr))
    {
        pTPCC->iStatusId = ERR_TM_INTERFACE;
        sprintf(pTPCC->ErrTxt,
            "COM Interface to OrderStatus Call Failed, HRESULT %x",
            hr);
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    posd = (ORDER_STATUS_DATA *) pTMon->pTxnData;
    if (posd->bTPRslt)
    {
        sprintf(pTPCC->ErrTxt,
            "Order Status Service Returned Error(%ld): %s",
            posd->iTPRslt,posd->execution_status);
        pTPCC->iStatusId = ERR_SERVICE_RSLT;
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    iInx = FormatRespHdr(pOut,"TPC-C Order-Status",pTPCC);
    iInx += sprintf(pOut + iInx,
        "<PRE>                                Order-Status<BR>"
        "Warehouse: %4.4d  District: %2.2d<BR>"
        "Customer: %4.4d  Name: %-16s %-2s %-16s<BR>",
        posd->w_id,posd->d_id,
        posd->c_id,posd->c_first,posd->c_middle,posd->c_last);
    iInx += sprintf(pOut + iInx,"Cust-Balance: $%9.2f<BR><BR>",posd-
    >c_balance);
    iInx += sprintf(pOut + iInx,
        "Order-Number: %8.8d  Entry-Date: %2.2d-%2.2d-%4.4d
    %2.2d:%2.2d:%2.2d  Carrier-Number: %2.2d<BR>"
        "Supply-W  Item-Id  Qty  Amount  Delivery-Date<BR>",
        posd->o_id,posd->o_entry_d.day,posd->o_entry_d.month,
        posd->o_entry_d.year,posd->o_entry_d.hour,
        posd->o_entry_d.minute,posd->o_entry_d.second,
        posd->o_carrier_id);
    for(i = 0; i < posd->o_ol_cnt; i++)
    {

```

```

    iInx += sprintf(pOut + iInx,
        " %4.4d %6.6d %2.2d %8.2f %2.2d-%2.2d-%4.4d<BR>",
        posd->OlOrderStatusData[i].ol_supply_w_id,
        posd->OlOrderStatusData[i].ol_i_id,
        posd->OlOrderStatusData[i].ol_quantity,
        posd->OlOrderStatusData[i].ol_amount,
        posd->OlOrderStatusData[i].ol_delivery_d.day,
        posd->OlOrderStatusData[i].ol_delivery_d.month,
        posd->OlOrderStatusData[i].ol_delivery_d.year);
};
wsprintf(pOut + iInx,
    "<BR></PRE><HR><BR>%s</FORM>%s", szMenuList, HTMLTrailer);

return(FALSE);
}; // ProcessOrderStatus

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

    pTMon = &pTPCC->tsTMon;
    psld = (STOCK_LEVEL_DATA *) pTMon->pTxnData;
    ZeroMemory(psld, sizeof(STOCK_LEVEL_DATA));
    psld->w_id = pTPCC->sWid;
    psld->d_id = pTPCC->sDId;
    psld->low_stock = 0;
    psld->execution_status[0] = 0;
    if (GetShortKey(&psld->thresh_hold, pIn, "TT*", pTPCC))
    {
        FormatMenu(pOut, pTPCC);
        return(TRUE);
    };
    if (psld->thresh_hold < MIN_THRESHOLD ||
        psld->thresh_hold > MAX_THRESHOLD)
    {
        wsprintf(pTPCC->ErrTxt, "Threshold Out of Range(%ld,%ld) - %ld",
            MIN_THRESHOLD, MAX_THRESHOLD, psld->thresh_hold);
        pTPCC->iStatusId = ERR_THRESHOLD_RANGE;
        FormatMenu(pOut, pTPCC);
        return(TRUE);
    };
    iSize = pTMon->iSize;

```

```

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

    return(FALSE);
}; // ProcessStockLevel

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

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

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

    // Extract FORMID
    pPtr = strstr(pMsg, FORMIDTOKEN);

```

```

if (pPtr == NULL)
    goto xit;
pPtr += strlen(FORMIDTOKEN);
*uFormId = abs(atoi(pPtr));

bRslt = FALSE;

xit:

    return(bRslt);
}; // GetHidden

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

    // Check for CMD key
    if (!(ptr = strstr(pMsg,CMDTOKEN)))
        return(CMD_NULL);
    ptr += sizeof(CMDTOKEN);
    pUpd = pWork;
    while (*ptr && *ptr != '&')
        *pUpd++ = *ptr++;
    *pUpd = 0;

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

    // Command string not found
    return(CMD_NULL);
}; // GetCmd

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

```

```

{
    wsprintf(pTPCC->ErrTxt,"Error - %s Value Not Numeric",pKey);
    pTPCC->iStatusId = ERR_NOT_NUMERIC;
    return(TRUE);
};
};
*lRslt = atoi(pTPCC->szWork);
return(FALSE);
}; // GetLongKey

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

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

```

```

}; // GetShortKey

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

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

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

```

```

ptr++;
if (!*ptr)
    break;
if (*ptr < '0' || *ptr > '9')
{
    bInvalid = TRUE;
    break;
};
ptr++;
if (*ptr)
{
    bInvalid = TRUE;
    break;
};
break;
}
else
if (*ptr < '0' || *ptr > '9')
{
    bInvalid = TRUE;
    break;
};
ptr++;
}; // while(!*ptr)

if (!bInvalid)
*dRslt = atof(pTPCC->szWork);
else
{
    wsprintf(pTPCC->ErrTxt,
            "Error - Invalid Amount Format (%s)",pTPCC->szWork);
    pTPCC->iStatusId = ERR_AMOUNT_BADFORM;
};

return(bInvalid);
}; // GetAmountKey

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

```



```

        *pValue++ = *ptr++;
        uMax--;
    };
    *pValue = 0;
    return(FALSE);
}; // GetKeyValue

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

//=====
//
// Function name: FormatMenu
//
//=====
VOID FormatMenu(CHAR * pOut,TPCC_STATE * pTPCC)
{
    wsprintf(pOut,
        "%s<HTML><HEAD><TITLE>TPC-C MainMenu</TITLE></HEAD><BODY>"
        "Select Desired Transaction.<BR><HR>"
        "<FORM ACTION=\"tpcc.dll\"METHOD=\"GET\">"
        "<INPUT TYPE=\"hidden\" NAME=\"STATUSID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\" NAME=\"TERMID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\" NAME=\"SYNCID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\" NAME=\"FORMID\" VALUE=\"%d\">"
        "%s</FORM><BR>%s<BR>%s",
        HTTPHdr,pTPCC->iStatusId,pTPCC->iTermId,pTPCC->iSyncId,FORM_MENU,
        szMenuList,pTPCC->ErrTxt,HTMLTrailer);
}; // FormatMenu

//=====
//
// Function name: FormatNewOrder
//
//=====
VOID FormatNewOrder(CHAR * pOut,TPCC_STATE * pTPCC)
{
    INT iInx;
    pTPCC->uFormId = FORM_NEWORDER;
    iInx = FormatFormHdr(pOut,"TPC-C New Order",pTPCC);
    iInx += wsprintf(pOut + iInx,
        "<PRE>
        "Warehouse: %4.4d District: <INPUT NAME=\"DID\" SIZE=1>
Date:<BR>",
        pTPCC->sWId);
        strcpy(pOut + iInx,
        "Customer: <INPUT NAME=\"CID\" SIZE=4> Name:
Credit: %Disc:<BR>"
        "Order Number: Number of Lines: W_tax:
D_tax:<BR><BR>"
        " Supp_W Item_Id Item Name Qty Stock B/G Price
Amount<BR>"
        " <INPUT NAME=\"SP00\" SIZE=4> <INPUT NAME=\"IID00\" SIZE=6>
<INPUT NAME=\"Qty00\" SIZE=1><BR>"

```

```

        " <INPUT NAME=\"SP01\" SIZE=4> <INPUT NAME=\"IID01\" SIZE=6>
<INPUT NAME=\"Qty01\" SIZE=1><BR>"
        " <INPUT NAME=\"SP02\" SIZE=4> <INPUT NAME=\"IID02\" SIZE=6>
<INPUT NAME=\"Qty02\" SIZE=1><BR>"
        " <INPUT NAME=\"SP03\" SIZE=4> <INPUT NAME=\"IID03\" SIZE=6>
<INPUT NAME=\"Qty03\" SIZE=1><BR>"
        " <INPUT NAME=\"SP04\" SIZE=4> <INPUT NAME=\"IID04\" SIZE=6>
<INPUT NAME=\"Qty04\" SIZE=1><BR>"
        " <INPUT NAME=\"SP05\" SIZE=4> <INPUT NAME=\"IID05\" SIZE=6>
<INPUT NAME=\"Qty05\" SIZE=1><BR>"
        " <INPUT NAME=\"SP06\" SIZE=4> <INPUT NAME=\"IID06\" SIZE=6>
<INPUT NAME=\"Qty06\" SIZE=1><BR>"
        " <INPUT NAME=\"SP07\" SIZE=4> <INPUT NAME=\"IID07\" SIZE=6>
<INPUT NAME=\"Qty07\" SIZE=1><BR>"
        " <INPUT NAME=\"SP08\" SIZE=4> <INPUT NAME=\"IID08\" SIZE=6>
<INPUT NAME=\"Qty08\" SIZE=1><BR>"
        " <INPUT NAME=\"SP09\" SIZE=4> <INPUT NAME=\"IID09\" SIZE=6>
<INPUT NAME=\"Qty09\" SIZE=1><BR>"
        " <INPUT NAME=\"SP10\" SIZE=4> <INPUT NAME=\"IID10\" SIZE=6>
<INPUT NAME=\"Qty10\" SIZE=1><BR>"
        " <INPUT NAME=\"SP11\" SIZE=4> <INPUT NAME=\"IID11\" SIZE=6>
<INPUT NAME=\"Qty11\" SIZE=1><BR>"
        " <INPUT NAME=\"SP12\" SIZE=4> <INPUT NAME=\"IID12\" SIZE=6>
<INPUT NAME=\"Qty12\" SIZE=1><BR>"
        " <INPUT NAME=\"SP13\" SIZE=4> <INPUT NAME=\"IID13\" SIZE=6>
<INPUT NAME=\"Qty13\" SIZE=1><BR>"
        " <INPUT NAME=\"SP14\" SIZE=4> <INPUT NAME=\"IID14\" SIZE=6>
<INPUT NAME=\"Qty14\" SIZE=1><BR>"
        "Execution Status:
Total:<BR><HR>"
        "<INPUT TYPE=\"submit\"NAME=\"CMD\" VALUE=\"Process\">"
        "<INPUT TYPE=\"submit\"NAME=\"CMD\" VALUE=\"Menu\">"
        "</FORM></BODY></HTML>");
}; // FormatNewOrder

//=====
//
// Function name: FormatPayment
//
//=====
VOID FormatPayment(CHAR * pOut,TPCC_STATE * pTPCC)
{
    INT iInx;
    pTPCC->uFormId = FORM_PAYMENT;
    iInx = FormatFormHdr(pOut,"TPC-C Payment",pTPCC);
    iInx += wsprintf(pOut + iInx,
        "<PRE>
        "Date:<BR><BR>"
        "Warehouse: %4.4d",
        pTPCC->sWId);
        strcpy(pOut + iInx,
        "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></PRE><HR>"
        "<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"Process\">"
        "<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"Menu\">"
        "</FORM></BODY></HTML>");
}; // FormatPayment

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

//=====
//
// Function name: FormatOrderStatus
//
//=====
VOID FormatOrderStatus(CHAR * pOut,TPCC_STATE * pTPCC)
{
    INT iInx;
    pTPCC->uFormId = FORM_ORDERSTATUS;
    iInx = FormatFormHdr(pOut,"TPC-C Order-Status",pTPCC);
    wsprintf(pOut + iInx,
        "<PRE>                                Order-Status<BR>"
        "Warehouse: %4.4d "
        "District: <INPUT NAME=\"DID*\" SIZE=1><BR>"
        "Customer: <INPUT NAME=\"CID*\" SIZE=4>   Name:
<INPUT NAME=\"CLT*\" SIZE=23><BR>"
        "Cust-Balance:<BR><BR>"
        "Order-Number:          Entry-Date:          Carrier-
Number:<BR>"
        "Supply-W   Item-Id   Qty   Amount   Delivery-
Date<BR></PRE><HR>"
        "<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"Process\">"
        "<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"Menu\">"
        "</FORM></BODY></HTML>",
        pTPCC->sWid);
}; // FormatOrderStatus

//=====
//
// Function name: FormatStockLevel
//
//=====

```

```

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

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

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

//=====
//
// Function name: FormatString
//
// Encodes formatted string for HTML transmission.
//
//=====

```

```

VOID FormatString(CHAR * pOut,CHAR * pPic,CHAR * pIn)
{
    while(*pPic)
    {
        if (*pPic == 'X' )
        {
            if (*pIn)
                *pOut++ = *pIn++;
            else
                *pOut++ = ' ';
        }
        else
            *pOut++ = *pPic;
        pPic++;
    };
    *pOut = 0;
}; // FormatString

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

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

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

```

delivery.h

```

#define DEFAULTDQSIZE 2000

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

//=====
//
// Function name: DeliveryInit
//
//=====
bool DeliveryInit(long lSetThreads,long lSetQSize,char * pszPath)
{
    char szDiag[MAX_DIAG_SZ];

    lDeliveryThreads = lSetThreads;
    lDQSize = lSetQSize;
    if (lDQSize <= 0)

```

delivery.cpp

```

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

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

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

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

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

//=====
//
// Function name: DeliveryInit
//
//=====
bool DeliveryInit(long lSetThreads,long lSetQSize,char * pszPath)
{
    char szDiag[MAX_DIAG_SZ];

    lDeliveryThreads = lSetThreads;
    lDQSize = lSetQSize;
    if (lDQSize <= 0)

```

```

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

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

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

        if (hThread == 0)
        {
            wsprintf(szDiag,

```

```

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

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

//=====
//
// Function name: DeliveryPost
//
//=====

```

```

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

//=====
//
// Function name: DoDelivery
//
//=====
UINT WINAPI DoDelivery(void * Unused)
{
    FILE *fpLog;
    char szLogTitle[300];
    bool bFlush = FALSE;
    DELIVERY_QUEUE * pDQSlot;
    DELIVERY_DATA * pddEntry;
    DELIVERY_DATA * pdd;
    TMON_STATE tsState;
    TMON_STATE * pTMon;

```

```

HRESULT hr;
int iSize;
long lMyId;
char szTMErrTxt[500];
char szDiag[MAX_DIAG_SZ];
int iElapsed;
int iInx;
long lDQReport = 0;
bool bDQReport = FALSE;

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

while (!bDQQuit)
{
    EnterCriticalSection(&csDQRead);
    WaitForSingleObject(hDQRead,INFINITE);
    if (bDQQuit)
    {
        LeaveCriticalSection(&csDQRead);
        break;
    };
    pDQSlot = &pDQ[lDQNextRead];
    if (!pDQSlot->bInUse)
    {
        wsprintf(szDiag,
            "DoDelivery(%ld): QSlot for Read Not InUse (%ld)\n",
            lMyId);
        DiagIoWrite(szDiag,DIAG_ERROR);
        LeaveCriticalSection(&csDQRead);
        break;
    };
    pddEntry = &pDQSlot->ddEntry;
    pdd = (DELIVERY_DATA *) pTMon->pTxnData;

```

```

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

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

```

```

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

```

term.h

```

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

#include <sys\timeb.h>

#define TMILLI_TIMEOUT 3600000 // One hour

typedef struct
{
    BOOL bInUse; // In use flag
    INT iTermId; // TermId
    LPVOID ConnID; // Connection Id
    INT iSyncId; // Sync Id
    SHORT sWId; // TPCC WareHouse Id
    SHORT sDId; // TPCC District Id
    struct_timeb tbLastAccess; // Last activity timestamp
} TERM_STATE;

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

```

term.cpp

```

// term.cpp
//
// Copyright Unisys, 1999
//

```

```

#include <windows.h>
#include <stdio.h>
#include "diagio.h"
#include "timesupp.h"
#include "term.h"

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

VOID TermMaint(VOID);

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

//=====
//
// Function name: TermTerm
// Frees TArray and deletes csTerm critical section. Assumes access
// to function is single threaded and no other threads are actively
// accessing TArray entries (DLL_PROCESS_DETACH).
//

```

```

//=====
VOID TermTerm(VOID)
{
    DeleteCriticalSection(&csTerm);
    if (pTArray != NULL)
        free(pTArray);
    iNextTerm = 0;
    iMaxTerm = 0;
}; // TermTerm

//=====
//
// Function name: TermAlloc
// Allocates empty TArray. Uses iNextTerm to start search.
//
// Returns:
// > 0 TArray entry index (iTermId)
// < 0 Empty TArray entry not available
//=====
TERM_STATE * TermAlloc(VOID)
{
    INT iTermId = -1;
    if (pTArray == NULL)
    {
        CHAR szDiag[MAX_DIAG_SZ];
        wsprintf(szDiag,"TermAlloc(%ld): Term Array Not Allocated\n",
            GetCurrentThreadId());
        DiagIoWrite(szDiag,DIAG_ERROR);
        return(NULL);
    };
    EnterCriticalSection(&csTerm);
    __try
    {
        while(iNextTerm <= iMaxTerm)
        {
            if (!pTArray[iNextTerm].bInUse)
            {
                pTArray[iNextTerm].bInUse = TRUE;
                _ftime(&pTArray[iNextTerm].tbLastAccess);
                iTermId = iNextTerm;
                iNextTerm++;
                break;
            };
            iNextTerm++;
        }; // while(iNextTerm <= iMaxTerm) (1st Try)
        if (iTermId <= 0)
        {
            // No entry found. Perform maint and try again
            TermMaint();
            iNextTerm = 1;
            while(iNextTerm <= iMaxTerm)
            {
                if (!pTArray[iNextTerm].bInUse)
                {
                    pTArray[iNextTerm].bInUse = TRUE;
                    _ftime(&pTArray[iNextTerm].tbLastAccess);
                    iTermId = iNextTerm;
                    iNextTerm++;
                    break;
                };
            };
        };
    }
    __except(0)
    {
        // Exception handling
    };
};

```

```

        iNextTerm++;
    }; // while(iNextTerm <= iMaxTerm) (2nd Try)
}; // if (iTermId <= 0)
if (iTermId <= 0)
    iNextTerm = 1;
}
_finally
{
    LeaveCriticalSection(&csTerm);
};

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

}; // TermAlloc

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

//=====
//
// Function name: TermGet
// Returns pointer to TArray slot at iTermId.
//
// Returns:
// FALSE TArray entry made available
// TRUE iTermId invalid.
//
//=====
TERM_STATE * TermGet(INT iTermId)
{
    TERM_STATE * pTerm;
    TMILLI tmElapsed;
    if (iTermId <= 0 || iTermId > iMaxTerm)
    {
        CHAR szDiag[MAX_DIAG_SZ];
        sprintf(szDiag, "TermGet(%ld): Invalid TermId (%ld)\n",
            GetCurrentThreadId(), iTermId);
    }
}

```

```

    DiagIoWrite(szDiag, DIAG_ERROR);
    return(NULL);
};
pTerm = &pTArray[iTermId];
if (!pTerm->bInUse)
    return(NULL);
tmElapsed = TimebElapsed(&pTerm->tbLastAccess);
if (tmElapsed > TMILLI_TIMEOUT)
    return(NULL); // Entry destined to be freed by maint
_ftime(&pTArray[iTermId].tbLastAccess);
return(&pTArray[iTermId]);
}; // TermGet

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

tmon.h

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

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

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

```



```

} TMON_STATE;

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

```

tmon.cpp

```

// tmon.cpp
//
// Copyright Unisys, 1999
//

// needed for CoinitializeEx
#define _WIN32_WINNT 0x0400

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

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

#include "tmon.h"

INT iTMMMaxSz;

//=====
//
// Function name: TMonInit
//
//=====
VOID TMonInit(INT iSetMaxMsg)
{
    iTMMMaxSz = iSetMaxMsg;
}; // TMonInit

//=====
//
// Function name: TMonTerm
//
//=====
VOID TMonTerm(VOID)
{
}; // TMonTerm

//=====
//
// Function name: TMinInit
//
// Result:
// FALSE Initialization completed successfully
// TRUE Initialization failed
//
//=====
BOOL TMinInit(TMON_STATE * pTMon)
{
    HRESULT hr = NULL;

```

```

long lRet = 0;

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

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

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

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

```

timesupp.h

```

// timesupp.h
//
// Copyright Unisys, 1999

```

```

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

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

typedef ULONG TMILLI;

TMILLI TimebDiff(struct _timeb * p_t1, struct _timeb * p_t2);
VOID TimebCopy(struct _timeb * p_tDest, struct _timeb * p_tSource);
TMILLI TimebElapsed(struct _timeb * p_t1);
VOID TimebClear(struct _timeb * p_t1);
CHAR * TimebToString(struct _timeb * p_t1, CHAR * psz, BOOL bMillis);
BOOL TimebFromString(struct _timeb * p_t1, CHAR * psz);
VOID TimebAddSecs(struct _timeb * p_t1, INT iSeconds);
ULONG TimebSeed(VOID);

```

timesupp.cpp

```

// timesupp.c
//
// Copyright Unisys, 1997 1998 1999 2000
//

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

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

//=====
//
// Function name: TimebDiff
// Time difference in milliseconds between _timeb_t1 and _timeb_t2.
//
//=====
TMILLI TimebDiff(struct _timeb * p_t1, struct _timeb * p_t2)
{
    LONG lRslt;
    lRslt = ((p_t2->time - p_t1->time) * 1000) +
        (p_t2->millitm - p_t1->millitm);
}

```

```

if (lRslt < 0)
    return(0);
else
    return((TMILLI) lRslt);
}; // TimebDiff

//=====
//
// Function name: TimebElapsed
//
//=====
TMILLI TimebElapsed(struct _timeb * p_t1)
{
    struct _timeb _tb2;
    _ftime(&_tb2);
    return (TimebDiff(p_t1, &_tb2));
}; // TimebElapsed

//=====
//
// Function name: TimebClear
//
//=====
VOID TimebClear(struct _timeb * p_t1)
{
    p_t1->time = 0;
    p_t1->millitm = 0;
}; // TimebClear

//=====
//
// Function name: TimebToString
// Converts timeb to yyyy:mm:dd,hh:mm:ss.sss format
//
//=====
CHAR * TimebToString(struct _timeb * p_t1, CHAR * psz, BOOL bMillis)
{
    struct tm * ptm;
    int iInx;
    ptm = localtime(&p_t1->time);
    iInx = wsprintf(psz, "%4.4d/%2.2d/%2.2d,%2.2d:%2.2d:%2.2d",
        ptm->tm_year + 1900, ptm->tm_mon + 1, ptm->tm_mday,
        ptm->tm_hour, ptm->tm_min, ptm->tm_sec);
    if (bMillis)
        wsprintf(psz + iInx, ".%3.3d", p_t1->millitm);
    return(psz);
}; // TimebToString

//=====
//
// Function name: TimebFromString
// Converts yyyy:mm:dd,hh:mm:ss.sss (TimebToString) format to timeb
//
//=====
BOOL TimebFromString(struct _timeb * p_t1, CHAR * psz)
{
    struct tm tmTime;
    struct tm * ptm;
}

```

```

UINT uLen;

ptm = &tmTime;
uLen = strlen(psz);
if (uLen < (TIMEB_STRING_SZ - 4)) // millis are optional
{
    p_tbl->time = 0;
    p_tbl->millitm = 0;
    return (TRUE);
};
// Clear fields that won't be set
ptm->tm_wday = 0;
ptm->tm_yday = 0;
ptm->tm_isdst = -1;
// Set tm struct fields from string
ptm->tm_year = (atoi(psz)) - 1900;
psz += 5;
ptm->tm_mon = (atoi(psz)) - 1;
psz += 3;
ptm->tm_mday = atoi(psz);
psz += 3;
ptm->tm_hour = atoi(psz);
psz += 3;
ptm->tm_min = atoi(psz);
psz +=3;
ptm->tm_sec = atoi(psz);
if (uLen >= TIMEB_STRING_SZ) // Millis present
{
    psz += 3;
    p_tbl->millitm = atoi(psz);
}
else
    p_tbl->millitm = 0;
p_tbl->time = mktime(ptm);
return(FALSE);
}; // TimebFromString

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

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

```

diagio.h

```

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

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

#define DIAGNOSTICS TRUE
#define MAX_DIAG_SZ 2000

// Severity level of diagnostic report
#define DIAG_FORCE 1
#define DIAG_ERROR 2
#define DIAG_STATE 3
#define DIAG_INFO 4

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

```

diagio.cpp

```

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

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

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

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

        uDiagLevel = uLevel;
        bEventLog = bEvent;
        bConsoleLog = bConsole;
    }
}

```

```

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

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

//=====
//
// Function name: DiagIoWrite
//
//=====
VOID DiagIoWrite(CHAR * pDiagBuffer, UINT uSeverity)
{
    CHAR * pDMsgs[3];
    UINT uMsgCnt = 0;
    INT iERslt = 0;
    if (DIAGNOSTICS)
    {
        if (uDiagLevel >= uSeverity)
        {
            EnterCriticalSection(&csDiagIo);
            _try
            {

```

```

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

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

```

```

    {
        DeregisterEventSource(hEventLog);
        hEventLog = NULL;
        bEventLog = FALSE;
        return(GetLastError());
    }; // ReportEvent failed
}; // if wType != 0
return(0);
}; // WriteEventLog

```

tpccproxy.def

```

LIBRARY      "tpcc_com_ps"

DESCRIPTION  'Proxy/Stub DLL'

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

```

tpccproxy.idl

```

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

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

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

    HRESULT _stdcall Payment
    (
        [in, out] int * iSize,
        [in, out, size_is(*iSize)] char ** pData
    );

    HRESULT _stdcall Delivery

```

```

    (
        [in] int * iSize,
        [in, out, size_is(*iSize)] char ** pData
    );

    HRESULT _stdcall StockLevel
    (
        [in, out] int* iSize,
        [in, out, size_is(*iSize)] char ** pData
    );

    HRESULT _stdcall OrderStatus
    (
        [in, out] int* iSize,
        [in, out, size_is(*iSize)] char ** pData
    );

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

```

tpccsvr.def

; tpccsvr.def : Declares the module parameters.

```

LIBRARY      "tpcc_com_all.dll"

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

```

tpccsvr.idl

```

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

interface TPCC;

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

[
    uuid(122A3117-2520-11D3-BA71-00C04FBFE08B),
    version(1.0),
    helpstring("TPC-C 1.0 Type Library")
]
library TPCCLib
{
    importlib("stdole32.tlb");

```

```

importlib("stdole2.tlb");

[
    uuid(122A3128-2520-11D3-BA71-00C04FBFE08B),
    helpstring("All Txns Class")
]
coclass TPCC
{
    [default] interface ITPCC;
};
};

```

tpccsvr.h

```

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

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

CTPCC_Common();
~CTPCC_Common();

// ITPCC
public:
HRESULT __stdcall NewOrder(int * iSize, UCHAR ** pTData);
HRESULT __stdcall Payment(int * iSize, UCHAR ** pTData);
HRESULT __stdcall Delivery(int * iSize, UCHAR ** pTData);
HRESULT __stdcall StockLevel( int* iSize, UCHAR ** pTData);
HRESULT __stdcall OrderStatus(int* iSize, UCHAR ** pTData);
HRESULT __stdcall CallSetComplete();

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

// IObjectConstruct
STDMETHODIMP Construct(IDispatch * pUnk);

    // state
private:
    bool m_bCanBePooled;
    long m_lRefId;
    int m_iMaxRetry;
    int m_iTryCount;
    bool m_bTPRslt;

```

```

int m_iTPRslt;
union
{
    NEW_ORDER_DATA NOData;
    PAYMENT_DATA PYData;
    DELIVERY_DATA DLData;
    ORDER_STATUS_DATA OSData;
    STOCK_LEVEL_DATA SLData;
} m_TData;
SQLHDBC m_hdbc;
SQLHSTMT m_hstmt;
SQLHSTMT m_hstmtNewOrder;
SQLHSTMT m_hstmtPayment;
SQLHSTMT m_hstmtDelivery;
SQLHSTMT m_hstmtOrderStatus;
SQLHSTMT m_hstmtStockLevel;
SQLHDESC m_descNewOrderCols1;
SQLHDESC m_descNewOrderCols2;
SQLHDESC m_descOrderStatusCols1;
SQLHDESC m_descOrderStatusCols2;
SQLUIINTEGER m_BindOffset;
SQLUIINTEGER m_RowsFetched;
int m_no_commit_flag;

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

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

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

```

tpccsvr.cpp

```

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

#define STRICT
#define _WIN32_WINNT 0x0400
#define _ATL_APARTMENT_THREADED

#include <stdio.h>

```

```

#include <atlbase.h>
//You may derive a class from CComModule and use it if you want to
override
//something, but do not change the name of _Module
extern CComModule _Module;

#include <atlcom.h>
#include <initguid.h>
#include <transact.h>
#include <atlimpl.cpp>
#include <comsvcs.h>

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

#include "tpccproxy.h"
#include "tpcc.h"

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

CComModule _Module;

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

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

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

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

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

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

```

```

try
{
    switch(ul_reason_for_call)
    {
        case DLL_PROCESS_ATTACH:
            _Module.Init(ObjectMap,hInst);
            DisableThreadLibraryCalls(hInst);
            wsprintf(pProgId,"%s%d",pPName,iInstance);
            if (ReadRegistry())
            {
                WriteEventLog("DllMain: Registry Key Not Present\n",TRUE);
                return(FALSE);
            };
            wsprintf(pProgId,"%s%d(%s)",pPName,iInstance,szServer);
            GetComputerName(szMyHost,&dwCNSize);
            szMyHost[dwCNSize] = 0;
            if (SQLAllocHandleStd(SQL_HANDLE_ENV,SQL_NULL_HANDLE,&henv) !=
SQL_SUCCESS)
            {
                wsprintf(szDiag,"DllMain(%s): Allocate Environment
Failed\n"
                "ServerName=%s,DB=%s,User=%s,PW=%s,Retries=%d\n",
                VERSIONINFO,szServer,szDatabase,szUser,szPassword,iDeadlockRetry);
                WriteEventLog(szDiag,FALSE);
                return FALSE;
            };
            wsprintf(szDiag,"DllMain(%s): Initialization Complete\n"
            "ServerName=%s,DB=%s,User=%s,PW=%s,Retries=%d\n",
            VERSIONINFO,szServer,szDatabase,szUser,szPassword,iDeadlockRetry);
            WriteEventLog(szDiag,FALSE);
            break;

            case DLL_PROCESS_DETACH:
                WriteEventLog("DllMain: Closing down for Process
Detach\n",FALSE);
                if (henv != NULL)
                    SQLFreeEnv(henv);
                _Module.Term();
                break;
            }; // switch ul_reason_for_call
    }
    catch (...)
    {
        wsprintf(szDiag,"DllMain: Unhandled exception during %s call\n",
        ul_reason_for_call == DLL_PROCESS_ATTACH ? "ATTACH" : "DETACH");
        WriteEventLog(szDiag,TRUE);
        return FALSE;
    };
    return TRUE;
}; // DllMain

STDAPI DllCanUnloadNow(void)
{
    return (_Module.GetLockCount()==0) ? S_OK : S_FALSE;
};

STDAPI DllGetClassObject(REFCLSID rclsid,REFIID riid,LPOVID* ppv)

```

```

{
    return _Module.GetClassObject(rclsid,riid,ppv);
};

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

STDAPI DllUnregisterServer(void)
{
    _Module.UnregisterServer();
    return S_OK;
};

inline void ReleaseInterface(IUnknown *pUnk)
{
    if (pUnk)
    {
        pUnk->Release();
        pUnk = NULL;
    };
};

CTPCC_Common::CTPCC_Common()
{
    char szDiag[300];
    Sleep(100);
    m_bCanBePooled = TRUE;
    m_iMaxRetry = iDeadlockRetry;
    m_lRefId = InterlockedIncrement(&lCount);
    InterlockedIncrement(&lActive);
    m_hdbc = SQL_NULL_HDBC;
    m_hstmt = SQL_NULL_HSTMT;
    m_hstmtNewOrder = SQL_NULL_HSTMT;
    m_hstmtPayment = SQL_NULL_HSTMT;
    m_hstmtDelivery = SQL_NULL_HSTMT;
    m_hstmtOrderStatus = SQL_NULL_HSTMT;
    m_hstmtStockLevel = SQL_NULL_HSTMT;
    m_descNewOrderCols1 = SQL_NULL_HDESC;
    m_descNewOrderCols2 = SQL_NULL_HDESC;
    m_descOrderStatusCols1 = SQL_NULL_HDESC;
    m_descOrderStatusCols2 = SQL_NULL_HDESC;
    wsprintf(szDiag,"CTPCC_Common: Initialized %ld\n",m_lRefId);
    WriteEventLog(szDiag,FALSE);
};

CTPCC_Common::~CTPCC_Common()
{
    char szDiag[300];
    SQLFreeHandle(SQL_HANDLE_STMT,m_hstmtNewOrder);
    SQLFreeHandle(SQL_HANDLE_STMT,m_hstmtPayment);
    SQLFreeHandle(SQL_HANDLE_STMT,m_hstmtDelivery);
    SQLFreeHandle(SQL_HANDLE_STMT,m_hstmtOrderStatus);
    SQLFreeHandle(SQL_HANDLE_STMT,m_hstmtStockLevel);
    SQLDisconnect(m_hdbc);
    SQLFreeHandle(SQL_HANDLE_DBC,m_hdbc);
    InterlockedDecrement(&lActive);
    wsprintf(szDiag,"~CTPCC_Common(%ld): Database closed\n",m_lRefId);
    WriteEventLog(szDiag,FALSE);
};

```

```

};

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

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

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

    try
    {
        if (SQLAllocHandle(SQL_HANDLE_DBC,henv,&m_hdbc) != SQL_SUCCESS)
        {
            wsprintf(szDiag,"Construct(%ld): Allocate DBC Handle
failed\n",m_lRefId);

```



```

    CheckDBError(szDiag);
    return(E_FAIL);
};
if (SQLSetConnectOption(m_hdbc,SQL_PACKET_SIZE,4096) != SQL_SUCCESS)
{
    wsprintf(szDiag,
        "Construct(%ld): Set Connection Packet Size failed\n",
        m_lRefId);
    CheckDBError(szDiag);
    return(E_FAIL);
};
wsprintf(szConnectStr,
    "DRIVER=SQL Server;SERVER=%s;UID=%s;PWD=%s;DATABASE=%s;WSID=%s-
%ld",
    szServer,szUser,szPassword,szDatabase,szMyHost,m_lRefId);
rc = SQLDriverConnect(m_hdbc,NULL,(SQLCHAR * ) szConnectStr,
    sizeof(szConnectStr),(SQLCHAR * ) szOutStr, sizeof(szOutStr),
    &iOutStrLen,SQL_DRIVER_NOPROMPT);
if (rc != SQL_SUCCESS && rc != SQL_SUCCESS_WITH_INFO)
{
    wsprintf(szDiag,"Construct(%ld): Connect failed\n",m_lRefId);
    CheckDBError(szDiag);
    return(E_FAIL);
};
if (SQLAllocHandle(SQL_HANDLE_STMT,m_hdbc,&m_hstmt) != SQL_SUCCESS)
{
    wsprintf(szDiag,"Construct(%ld): Allocate STMT Handle
failed\n",m_lRefId);
    CheckDBError(szDiag);
    return(E_FAIL);
};

strcpy(buffer,"set nocount on set XACT_ABORT ON");
rc = SQLExecDirect(m_hstmt,(unsigned char *)buffer,SQL_NTS);
if (rc != SQL_SUCCESS && rc != SQL_SUCCESS_WITH_INFO)
{
    wsprintf(szDiag,"Construct(%ld): Set DB Options
failed\n",m_lRefId);
    CheckDBError(szDiag);
    return(E_FAIL);
};
SQLFreeHandle(SQL_HANDLE_STMT,m_hstmt);

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

```

```

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

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

bool CTPCC_Common::InitNOPParams(void)
{
    char szDiag[300];
    int i;
    int j;
    if (SQLAllocHandle(SQL_HANDLE_STMT,m_hdbc,&m_hstmtNewOrder) !=
SQL_SUCCESS
        || SQLAllocHandle(SQL_HANDLE_DESC,m_hdbc,&m_descNewOrderCols1) !=
SQL_SUCCESS
        || SQLAllocHandle(SQL_HANDLE_DESC,m_hdbc,&m_descNewOrderCols2) !=
SQL_SUCCESS
        )
    {
        wsprintf(szDiag,"InitNOPParams(%ld): Allocate Stmt Handles
failed\n",m_lRefId);
        CheckDBError(szDiag);
        return(TRUE);
    };

    m_hstmt = m_hstmtNewOrder;

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

    i = 0;
    if
(SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_SSHORT,SQL_SMALLINT,
        0,0,&m_TData.NOData.w_id,0,NULL) != SQL_SUCCESS
        ||
SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_UTINYINT,SQL_TINYINT,
        0,0,&m_TData.NOData.d_id,0,NULL) != SQL_SUCCESS

```

```

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

for (j=0; j < MAX_OL; j++)
{
    if
(SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SLONG, SQL_INTEGER,
    0, 0, &m_TData.NOData.Ol[j].ol_i_id, 0, NULL) != SQL_SUCCESS
    ||
SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SSHORT, SQL_SMALLINT,
    0, 0, &m_TData.NOData.Ol[j].ol_supply_w_id, 0, NULL) !=
SQL_SUCCESS
    ||
SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SSHORT, SQL_SMALLINT,
    0, 0, &m_TData.NOData.Ol[j].ol_quantity, 0, NULL) !=
SQL_SUCCESS
    )
    {
        wsprintf(szDiag, "InitNOParams(%ld): Bind Param(%d)
failed\n", m_lRefId, j);
        CheckDBError(szDiag);
        return(TRUE);
    };
};

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

i = 0;
if (SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.NOData.Ol[0].ol_i_name,
    sizeof(m_TData.NOData.Ol[0].ol_i_name), NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt, ++i, SQL_C_SSHORT, &m_TData.NOData.Ol[0].ol_stock,
    0, NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.NOData.Ol[0].ol_brand_generic,
    sizeof(m_TData.NOData.Ol[0].ol_brand_generic), NULL) !=
SQL_SUCCESS
    ||
SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE, &m_TData.NOData.Ol[0].ol_i_price,
    0, NULL) != SQL_SUCCESS

```

```

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

// associate the column bindings for the second result set
if ( SQLSetStmtAttrW(m_hstmt, SQL_ATTR_APP_ROW_DESC,
    m_descNewOrderCols2, SQL_IS_POINTER ) != SQL_SUCCESS)
{
    wsprintf(szDiag, "InitNOParams(%ld): SetStmtAttr NOCols2
failed\n", m_lRefId);
    CheckDBError(szDiag);
    return(TRUE);
};

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

HRESULT CTPCC_Common::NewOrder(int * iSize, UCHAR ** pData)
{
    NEW_ORDER_DATA * pnod;
    RETCODE rc;
    bool bRetry;

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

    int i;

```

```

pnod = (NEW_ORDER_DATA *) *pTData;
try
{
    m_hstmt = m_hstmtNewOrder;
    m_bTPRslt = TRUE;
    m_iTPRslt = SVCERR_DEADLOCK;
    // associate the parameter and column bindings for this transaction
    if (SQLSetStmtAttrW(m_hstmt, SQL_ATTR_APP_ROW_DESC,
        m_descNewOrderCols1, SQL_IS_POINTER ) != SQL_SUCCESS)
    {
        char szDiag[100];
        sprintf(szDiag, "NewOrder(%ld): SetStmtAttr NOCols1\n", m_lRefId);
        CheckDBError(szDiag);
        pnod->bTPRslt = TRUE;
        pnod->iTPRslt = SVCERR_ODBC;
        strcpy(pnod->execution_status, "Error, Bind NOCols1 Failed");
        return(S_OK);
    };
    // clip statement buffer based on number of parameters
    // fixed part is 29 chars and variable part is 6 chars per line
item
    i = 29 + pnod->o_ol_cnt * 6;
    wcscpy(&szSqlTemplate[i], L"}");
    // check whether any order lines are for a remote warehouse
    pnod->o_all_local = 1;
    for (i = 0; i < pnod->o_ol_cnt; i++)
    {
        if (pnod->Ol[i].ol_supply_w_id != pnod->w_id)
        {
            pnod->o_all_local = 0;
            break;
        };
    };
    memcpy(&m_TData.NOData, pnod, sizeof(NEW_ORDER_DATA));
    for (m_iTryCount = 1; m_iTryCount <= m_iMaxRetry; m_iTryCount++)
    {
        bRetry = FALSE;
        m_BindOffset = 0;
        rc = SQLExecDirectW(m_hstmt, (SQLWCHAR *) szSqlTemplate, SQL_NTS);
        if (rc != SQL_SUCCESS && rc !=
SQL_SUCCESS_WITH_INFO)
        {
            char szDiag[100];
            sprintf(szDiag, "NewOrder(%ld): Execute Direct\n", m_lRefId);
            if (CheckDBError(szDiag))
            {
                m_iTPRslt = SVCERR_ODBC;
                break;
            };
            continue;
        };
        // Get order line results
        m_TData.NOData.total_amount = 0;
        for (i = 0; i < m_TData.NOData.o_ol_cnt; i++)
        {
            // set the bind offset value...
            m_BindOffset = i * sizeof(m_TData.NOData.Ol[0]);
            if (SQLFetch(m_hstmt) == SQL_ERROR)
            {
                char szDiag[100];

```

```

        sprintf(szDiag, "NewOrder(%ld): Fetch Ol%d\n", m_lRefId, (i +
1));
        if (CheckDBError(szDiag))
            m_iTPRslt = SVCERR_ODBC;
        else
            bRetry = TRUE;
        break;
    };
    // move to the next resultset
    if (SQLMoreResults(m_hstmt) == SQL_ERROR)
    {
        char szDiag[100];
        sprintf(szDiag, "NewOrder(%ld): MoreResults
Ol%d\n", m_lRefId, (i + 1));
        if (CheckDBError(szDiag))
            m_iTPRslt = SVCERR_ODBC;
        else
            bRetry = TRUE;
        break;
    };
    m_TData.NOData.total_amount += m_TData.NOData.Ol[i].ol_amount;
}; // for o_ol_cnt
if (m_iTPRslt == SVCERR_ODBC)
    break;
if (bRetry)
    continue;
// associate the column bindings for the second result set
if (SQLSetStmtAttrW(m_hstmt, SQL_ATTR_APP_ROW_DESC,
    m_descNewOrderCols2, SQL_IS_POINTER ) != SQL_SUCCESS)
{
    char szDiag[100];
    sprintf(szDiag, "NewOrder(%ld): SetStmtAttr
NOCols2\n", m_lRefId);
    if (CheckDBError(szDiag))
    {
        m_iTPRslt = SVCERR_ODBC;
        break;
    };
    continue;
};
if (SQLFetch(m_hstmt) == SQL_ERROR)
{
    char szDiag[100];
    sprintf(szDiag, "NewOrder(%ld): Fetch\n", m_lRefId);
    if (CheckDBError(szDiag))
    {
        m_iTPRslt = SVCERR_ODBC;
        break;
    };
    continue;
};
SQLFreeStmt(m_hstmt, SQL_CLOSE);
if (m_no_commit_flag == 1)
{
    m_TData.NOData.total_amount *=
        ((1 + m_TData.NOData.w_tax + m_TData.NOData.d_tax) *
        (1 - m_TData.NOData.c_discount));
    m_bTPRslt = FALSE;
    m_iTPRslt = SVC_NOERROR;
}
}
else

```

```

        m_iTPRslt = SVC_BADITEMID;
        break;
    }; // for m_iMaxRetry
    memcpy(pnod,&m_TData.NOData,sizeof(NEW_ORDER_DATA));
    pnod->bTPRslt = m_bTPRslt;
    pnod->iTPRslt = m_iTPRslt;
    if (!m_bTPRslt)
    {
        strcpy(pnod->execution_status,"Transaction committed.");
        return(S_OK);
    };
    if (m_iTPRslt == SVC_BADITEMID)
    {
        strcpy(pnod->execution_status,"Item number is not valid.");
        return(S_OK);
    };
    if (m_iTPRslt == SVCERR_DEADLOCK)
        sprintf(pnod->execution_status,"Hit retry
max(%d).",m_iMaxRetry);
    else
        strcpy(pnod->execution_status,"DBTranAbort, Check Input Data");
    return(S_OK);
}

catch (...)
{
    char szDiag[300];
    sprintf(szDiag,"NewOrder(%ld): Unhandled exception\n",m_lRefId);
    WriteEventLog(szDiag,TRUE);
    m_bCanBePooled = FALSE;
    pnod->bTPRslt = TRUE;
    pnod->iTPRslt = SVCERR_EXCEPTION;
    strcpy(pnod->execution_status,"Error, Unhandled exception");
    return(S_OK);
};

}; // NewOrder

bool CTPCC_Common::InitPYParams(void)
{
    int i;
    char szDiag[300];
    if (SQLAllocHandle(SQL_HANDLE_STMT,m_hdbc,&m_hstmtPayment) !=
SQL_SUCCESS)
    {
        sprintf(szDiag,"InitPYParams(%ld): Allocate Stmt Handle
failed\n",m_lRefId);
        CheckDBError(szDiag);
        return(TRUE);
    };
    m_hstmt = m_hstmtPayment;
    i = 0;
    if
(SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_SSHORT,SQL_SMALLINT,
0,0,&m_TData.PYData.w_id,0,NULL) != SQL_SUCCESS
    ||
SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_SSHORT,SQL_SMALLINT,
0,0,&m_TData.PYData.c_w_id,0,NULL) != SQL_SUCCESS
    ||
SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_DOUBLE,SQL_NUMERIC,
6,2,&m_TData.PYData.h_amount,0,NULL) != SQL_SUCCESS
    ||
SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_UTINYINT,SQL_TINYINT,

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```

0,0,&m_TData.PYData.d_id, 0, NULL) != SQL_SUCCESS
    ||
SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_UTINYINT,SQL_TINYINT,
0,0,&m_TData.PYData.c_d_id,0,NULL) != SQL_SUCCESS
    ||
SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_SLONG,SQL_INTEGER,
0,0,&m_TData.PYData.c_id,0,NULL) != SQL_SUCCESS
    ||
SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_CHAR,SQL_CHAR,
sizeof(m_TData.PYData.c_last),0,&m_TData.PYData.c_last,
sizeof(m_TData.PYData.c_last), NULL) != SQL_SUCCESS
    )
    {
        sprintf(szDiag,"InitPYParams(%ld): Bind Param
failed\n",m_lRefId);
        CheckDBError(szDiag);
        return(TRUE);
    };
    i = 0;
    if (SQLBindCol(m_hstmt,++i,SQL_C_SLONG,&m_TData.PYData.
c_id,0,NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt,++i,SQL_C_CHAR,&m_TData.PYData.c_last,
sizeof(m_TData.PYData.c_last), NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt,++i,SQL_C_TYPE_TIMESTAMP,&m_TData.PYData.h_date,
0,NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt,++i,SQL_C_CHAR,&m_TData.PYData.w_street_1,
sizeof(m_TData.PYData.w_street_1), NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt,++i,SQL_C_CHAR,&m_TData.PYData.w_street_2,
sizeof(m_TData.PYData.w_street_2),NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt,++i,SQL_C_CHAR,&m_TData.PYData.w_city,
sizeof(m_TData.PYData.w_city),NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt,++i,SQL_C_CHAR,&m_TData.PYData.w_state,
sizeof(m_TData.PYData.w_state),NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt,++i,SQL_C_CHAR,&m_TData.PYData.w_zip,
sizeof(m_TData.PYData.w_zip),NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt,++i,SQL_C_CHAR,&m_TData.PYData.d_street_1,
sizeof(m_TData.PYData.d_street_1),NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt,++i,SQL_C_CHAR,&m_TData.PYData.d_street_2,
sizeof(m_TData.PYData.d_street_2),NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt,++i,SQL_C_CHAR,&m_TData.PYData.d_city,
sizeof(m_TData.PYData.d_city),NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt,++i,SQL_C_CHAR,&m_TData.PYData.d_state,
sizeof(m_TData.PYData.d_state),NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt,++i,SQL_C_CHAR,&m_TData.PYData.d_zip,
sizeof(m_TData.PYData.d_zip),NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt,++i,SQL_C_CHAR,&m_TData.PYData.c_first,
sizeof(m_TData.PYData.c_first),NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt,++i,SQL_C_CHAR,&m_TData.PYData.c_middle,
sizeof(m_TData.PYData.c_middle),NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt,++i,SQL_C_CHAR,&m_TData.PYData.c_street_1,
sizeof(m_TData.PYData.c_street_1),NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt,++i,SQL_C_CHAR,&m_TData.PYData.c_street_2,
sizeof(m_TData.PYData.c_street_2),NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt,++i,SQL_C_CHAR,&m_TData.PYData.c_city,
sizeof(m_TData.PYData.c_city),NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt,++i,SQL_C_CHAR,&m_TData.PYData.c_state,
sizeof(m_TData.PYData.c_state),NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt,++i,SQL_C_CHAR,&m_TData.PYData.c_zip,
sizeof(m_TData.PYData.c_zip),NULL) != SQL_SUCCESS
    ||
SQLBindCol(m_hstmt,++i,SQL_C_CHAR,&m_TData.PYData.c_phone,
sizeof(m_TData.PYData.c_phone),NULL) != SQL_SUCCESS

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||
SQLBindCol(m_hstmt, ++i, SQL_C_TYPE_TIMESTAMP, &m_TData.PYData.c_since,
0, NULL) != SQL_SUCCESS
|| SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.PYData.c_credit,
sizeof(m_TData.PYData.c_credit), NULL) != SQL_SUCCESS
|| SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE, &m_TData.PYData.c_credit_lim,
0, NULL) != SQL_SUCCESS
|| SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE, &m_TData.PYData.c_discount,
0, NULL) != SQL_SUCCESS
|| SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE, &m_TData.PYData.c_balance,
0, NULL) != SQL_SUCCESS
|| SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_TData.PYData.c_data,
sizeof(m_TData.PYData.c_data), NULL) != SQL_SUCCESS
)
{
    wsprintf(szDiag, "InitPYParams(%ld): Bind Col failed\n", m_lRefId);
    CheckDBError(szDiag);
    return(TRUE);
};
return(FALSE);
}; // InitPYParams

HRESULT CTPCC_Common::Payment(int * iSize, UCHAR ** pTData)
{
    PAYMENT_DATA * ppd;
    RETCODE rc;
    ppd = (PAYMENT_DATA *) *pTData;
    try
    {
        m_hstmt = m_hstmtPayment;
        m_bTPRslt = TRUE;
        m_iTPRslt = SVCERR_DEADLOCK;
        if (ppd->c_id != 0)
            ppd->c_last[0] = 0;
        memcpy(&m_TData.PYData, ppd, sizeof(PAYMENT_DATA));
        for (m_iTryCount = 1; m_iTryCount <= m_iMaxRetry; m_iTryCount++)
        {
            rc = SQLExecDirectW(m_hstmt, (SQLWCHAR *)L"call
tpcc_payment(?,?,?, ?, ?, ?, ?)", SQL_NTS);
            if (rc != SQL_SUCCESS && rc != SQL_SUCCESS_WITH_INFO)
            {
                char szDiag[100];
                wsprintf(szDiag, "Payment(%ld): Execute Direct\n", m_lRefId);
                if (CheckDBError(szDiag))
                {
                    m_iTPRslt = SVCERR_ODBC;
                    break;
                };
                continue;
            };
            if (SQLFetch(m_hstmt) == SQL_ERROR)
            {
                char szDiag[100];
                wsprintf(szDiag, "Payment(%ld): Fetch\n", m_lRefId);
                if (CheckDBError(szDiag))
                {
                    m_iTPRslt = SVCERR_ODBC;
                    break;
                };
                continue;
            };
        };
    };
};

```

```

SQLFreeStmt(m_hstmt, SQL_CLOSE);
if (m_TData.PYData.c_id == 0)
    m_iTPRslt = SVCERR_NOCUSTOMER;
else
{
    m_bTPRslt = FALSE;
    m_iTPRslt = SVC_NOERROR;
}
break;
}; // for m_iMaxRetry
memcpy(ppd, &m_TData.PYData, sizeof(PAYMENT_DATA));
ppd->bTPRslt = m_bTPRslt;
ppd->iTPRslt = m_iTPRslt;
if (!m_bTPRslt)
{
    strcpy(ppd->execution_status, "Transaction committed.");
    return(S_OK);
};
if (m_iTPRslt == SVCERR_NOCUSTOMER)
{
    strcpy(ppd->execution_status, "Invalid Customer id,name.");
    return(S_OK);
};
if (m_iTPRslt == SVCERR_DEADLOCK)
    wsprintf(ppd->execution_status, "Hit retry max(%d).", m_iMaxRetry);
else
    strcpy(ppd->execution_status, "DBTranAbort, Check Input Data");
return(S_OK);
}

catch (...)
{
    char szDiag[300];
    wsprintf(szDiag, "Payment(%ld): Unhandled exception\n", m_lRefId);
    WriteEventLog(szDiag, TRUE);
    m_bCanBePooled = FALSE;
    ppd->bTPRslt = TRUE;
    ppd->iTPRslt = SVCERR_EXCEPTION;
    strcpy(ppd->execution_status, "Error, Unhandled exception");
    return(S_OK);
};
}; // Payment

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

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

HRESULT CTPCC_Common::Delivery(int * iSize, UCHAR ** pTData)
{
    DELIVERY_DATA * pdd;
    RETCODE rc;
    pdd = (DELIVERY_DATA *) *pTData;
    try
    {
        m_hstmt = m_hstmtDelivery;
        m_bTPRslt = TRUE;
        m_iTPRslt = SVCERR_DEADLOCK;
        memcpy(&m_TData.DLData,pdd,sizeof(DELIVERY_DATA));
        for (m_iTryCount = 1; m_iTryCount <= m_iMaxRetry; m_iTryCount++)
        {
            rc = SQLExecDirectW(m_hstmt, (SQLWCHAR *)L"call
tpcc_delivery(?,?)", SQL_NTS);
            if (rc != SQL_SUCCESS && rc != SQL_SUCCESS_WITH_INFO)
            {
                char szDiag[100];
                wsprintf(szDiag,"Delivery(%ld): Execute Direct\n",m_lRefId);
                if (CheckDBError(szDiag))
                {
                    m_iTPRslt = SVCERR_ODBC;
                    break;
                };
                continue;
            };
            if ( SQLFetch(m_hstmt) == SQL_ERROR )
            {
                char szDiag[100];
                wsprintf(szDiag,"Delivery(%ld): Fetch\n",m_lRefId);
                if (CheckDBError(szDiag))
                {
                    m_iTPRslt = SVCERR_ODBC;
                    break;
                };
                continue;
            };
            SQLFreeStmt(m_hstmt, SQL_CLOSE);

```

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        m_bTPRslt = FALSE;
        m_iTPRslt = SVC_NOERROR;
        break;
    }; // for m_iMaxRetry
    memcpy(pdd,&m_TData.DLData,sizeof(DELIVERY_DATA));
    pdd->bTPRslt = m_bTPRslt;
    pdd->iTPRslt = m_iTPRslt;
    return(S_OK);
}

catch (...)
{
    char szDiag[300];
    wsprintf(szDiag,"Delivery(%ld): Unhandled exception\n",m_lRefId);
    WriteEventLog(szDiag,TRUE);
    m_bCanBePooled = FALSE;
    pdd->bTPRslt = TRUE;
    pdd->iTPRslt = SVCERR_EXCEPTION;
    return(S_OK);
}; // Delivery

bool CTPCC_Common::InitOSParams(void)
{
    char szDiag[300];
    int i;
    if (SQLAllocHandle(SQL_HANDLE_STMT,m_hdbc,&m_hstmtOrderStatus) !=
SQL_SUCCESS
    || SQLAllocHandle(SQL_HANDLE_DESC,m_hdbc,&m_descOrderStatusCols1) !=
SQL_SUCCESS
    || SQLAllocHandle(SQL_HANDLE_DESC,m_hdbc,&m_descOrderStatusCols2) !=
SQL_SUCCESS
    )
    {
        wsprintf(szDiag,"InitOSParams(%ld): Allocate Stmt Handles
failed\n",m_lRefId);
        CheckDBError(szDiag);
        return(TRUE);
    };

    m_hstmt = m_hstmtOrderStatus;

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

    i = 0;
    if
(SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_SSHORT,SQL_SMALLINT,
0,0,&m_TData.OSData.w_id,0,NULL) != SQL_SUCCESS
    ||
SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_UTINYINT,SQL_TINYINT,
0,0,&m_TData.OSData.d_id,0,NULL) != SQL_SUCCESS
    ||
SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_SLONG,SQL_INTEGER,
0,0,&m_TData.OSData.c_id,0,NULL) != SQL_SUCCESS
    || SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_CHAR,SQL_CHAR,

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```

        sizeof(m_TData.OSData.c_last),0,&m_TData.OSData.c_last,
        sizeof(m_TData.OSData.c_last),NULL) != SQL_SUCCESS
    )
    {
        wsprintf(szDiag,"InitOSParams(%ld): Bind Param failed\n",m_lRefId);
        CheckDBError(szDiag);
        return(TRUE);
    };

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

    i = 0;
    if (SQLBindCol(m_hstmt,++i,SQL_C_SSHORT,
        &m_TData.OSData.OlOrderStatusData[0].ol_supply_w_id, 0, NULL)
!= SQL_SUCCESS
        || SQLBindCol(m_hstmt,++i,SQL_C_SLONG,
        &m_TData.OSData.OlOrderStatusData[0].ol_i_id, 0, NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt,++i,SQL_C_SSHORT,
        &m_TData.OSData.OlOrderStatusData[0].ol_quantity, 0, NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt,++i,SQL_C_DOUBLE,
        &m_TData.OSData.OlOrderStatusData[0].ol_amount, 0, NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt,++i,SQL_C_TYPE_TIMESTAMP,
        &m_TData.OSData.OlOrderStatusData[0].ol_delivery_d, 0, NULL)
!= SQL_SUCCESS
        )
    {
        wsprintf(szDiag,"InitOSParams(%ld): Bind Col Ol
failed\n",m_lRefId);
        CheckDBError(szDiag);
        return(TRUE);
    };

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

    i = 0;
    if (SQLBindCol(m_hstmt,++i,SQL_C_SLONG,&m_TData.OSData.c_id,
        0,NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt,++i,SQL_C_CHAR,&m_TData.OSData.c_last,
        sizeof(m_TData.OSData.c_last),NULL) != SQL_SUCCESS

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

HRESULT CTPCC_Common::OrderStatus(int * iSize,UCHAR ** pTData)
{
    ORDER_STATUS_DATA * posd;
    RETCODE rc;

    posd = (ORDER_STATUS_DATA *) *pTData;
    try
    {
        m_hstmt = m_hstmtOrderStatus;
        m_bTPRslt = TRUE;
        m_iTPRslt = SVCERR_DEADLOCK;
        if (SQLSetStmtAttrW(m_hstmt,SQL_ATTR_APP_ROW_DESC,
            m_descOrderStatusCols1,SQL_IS_POINTER) != SQL_SUCCESS)
        {
            char szDiag[100];
            wsprintf(szDiag,"OrderStatus(%ld): SetStmtAttr
OSCols1\n",m_lRefId);
            CheckDBError(szDiag);
            posd->bTPRslt = TRUE;
            posd->iTPRslt = SVCERR_ODBC;
            strcpy(posd->execution_status,"Error, SetStmt OSCols1");
            return(S_OK);
        };
        if (posd->c_id != 0)
            posd->c_last[0] = 0;
        memcpy(&m_TData.OSData,posd,sizeof(ORDER_STATUS_DATA));
        for (m_iTryCount = 1; m_iTryCount <= m_iMaxRetry; m_iTryCount++)
        {
            // configure block cursor
            if
(SQLSetStmtAttrW(m_hstmt,SQL_ATTR_ROW_ARRAY_SIZE,(SQLPOINTER)1,0) !=
SQL_SUCCESS)
            {
                char szDiag[100];
                wsprintf(szDiag,"OrderStatus(%ld): SetStmtAttr
RowArraySize\n",m_lRefId);
                if (CheckDBError(szDiag))
                {
                    m_iTPRslt = SVCERR_ODBC;

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    break;
};
continue;
};
rc = SQLExecDirectW(m_hstmt, (SQLWCHAR*)L"{call
tpcc_orderstatus(?,?,?,?)", SQL_NTS);
if ( ((rc == SQL_SUCCESS_WITH_INFO) && (m_RowsFetched != 0)) ||
(rc == SQL_ERROR) )
{
char szDiag[100];
wsprintf(szDiag, "OrderStatus(%ld): Execute
Direct\n", m_lRefId);
if (CheckDBError(szDiag))
{
m_iTPRslt = SVCERR_ODBC;
break;
};
continue;
};
// configure block cursor
if (SQLSetStmtAttrW(m_hstmt, SQL_ATTR_ROW_ARRAY_SIZE,
(SQLPOINTER)MAX_OL, 0) != SQL_SUCCESS)
{
char szDiag[100];
wsprintf(szDiag, "OrderStatus(%ld): SetStmtAttr RowArraySize
MAX_OL\n", m_lRefId);
if (CheckDBError(szDiag))
{
m_iTPRslt = SVCERR_ODBC;
break;
};
continue;
};
rc = SQLFetchScroll(m_hstmt, SQL_FETCH_NEXT, 0);
if ( ((rc == SQL_SUCCESS_WITH_INFO) && (m_RowsFetched != 0)) ||
(rc == SQL_ERROR) )
{
char szDiag[100];
wsprintf(szDiag, "OrderStatus(%ld): FetchScroll\n", m_lRefId);
if (CheckDBError(szDiag))
{
m_iTPRslt = SVCERR_ODBC;
break;
};
continue;
};
m_TData.OSData.o_ol_cnt = (short)m_RowsFetched;

if (m_TData.OSData.o_ol_cnt != 0)
{
if
(SQLSetStmtAttrW(m_hstmt, SQL_ATTR_APP_ROW_DESC, m_descOrderStatusCols2,
SQL_IS_POINTER) != SQL_SUCCESS)
{
char szDiag[100];
wsprintf(szDiag, "OrderStatus(%ld): SetStmtAttr
OSCols2\n", m_lRefId);
if (CheckDBError(szDiag))
{
m_iTPRslt = SVCERR_ODBC;
break;
};

```

```

};
continue;
};
if (SQLMoreResults(m_hstmt) == SQL_ERROR)
{
char szDiag[100];
wsprintf(szDiag, "OrderStatus(%ld):
MoreResults\n", m_lRefId);
if (CheckDBError(szDiag))
{
m_iTPRslt = SVCERR_ODBC;
break;
};
continue;
};
if (SQLFetch(m_hstmt) == SQL_ERROR)
{
char szDiag[100];
wsprintf(szDiag, "OrderStatus(%ld): Fetch\n", m_lRefId);
CheckDBError(szDiag);
if (SQLSetStmtAttrW(m_hstmt, SQL_ATTR_APP_ROW_DESC,
m_descOrderStatusCols1, SQL_IS_POINTER) != SQL_SUCCESS)
{
char szDiag[100];
wsprintf(szDiag, "OrderStatus(%ld): SetStmtAttr (Fetch
OSCols1\n", m_lRefId);
CheckDBError(szDiag);
posd->bTPRslt = TRUE;
posd->iTPRslt = SVCERR_ODBC;
strcpy(posd->execution_status, "Error, SetStmt Cols1
Fetch");
return(S_OK);
};
memcpy(&m_TData.OSData, posd, sizeof(ORDER_STATUS_DATA));
Sleep(20);
continue;
};
}; // order lines exist
SQLFreeStmt(m_hstmt, SQL_CLOSE);
if (m_TData.OSData.o_ol_cnt == 0)
m_iTPRslt = SVCERR_NOORDERS;
else
if (m_TData.OSData.c_id == 0 && m_TData.OSData.c_last[0] == 0)
m_iTPRslt = SVCERR_NOCUSTOMER;
else
{
m_bTPRslt = FALSE;
m_iTPRslt = SVC_NOERROR;
};
break;
}; // for m_iMaxRetry
memcpy(posd, &m_TData.OSData, sizeof(ORDER_STATUS_DATA));
posd->bTPRslt = m_bTPRslt;
posd->iTPRslt = m_iTPRslt;
if (!m_bTPRslt)
{
strcpy(posd->execution_status, "Transaction committed.");
return(S_OK);
};
if (m_iTPRslt == SVCERR_NOCUSTOMER)
{

```



```

        strcpy(posd->execution_status,"Invalid Customer id,name.");
        return(S_OK);
    };
    if (m_iTPRslt == SVCERR_NOORDERS)
    {
        strcpy(posd->execution_status,"Customer has no orders.");
        return(S_OK);
    };
    if (m_iTPRslt == SVCERR_DEADLOCK)
        sprintf(posd->execution_status,"Hit retry
max(%d).",m_iMaxRetry);
    else
        strcpy(posd->execution_status,"DBTranAbort, Check Input Data");
        return(S_OK);
    }
    catch (...)
    {
        char szDiag[300];
        sprintf(szDiag,"OrderStatus(%ld): Unhandled exception\n",m_lRefId);
        WriteEventLog(szDiag,TRUE);
        m_bCanBePooled = FALSE;
        posd->bTPRslt = TRUE;
        posd->iTPRslt = SVCERR_EXCEPTION;
        strcpy(posd->execution_status,"Error, Unhandled exception");
        return(S_OK);
    };
}; // Orderstatus

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

```

```

        return(TRUE);
    };
    return(FALSE);
}; // InitSLParams

HRESULT CTPCC_Common::StockLevel(int * iSize,UCHAR ** pTData)
{
    STOCK_LEVEL_DATA * psld;
    RETCODE rc;
    psld = (STOCK_LEVEL_DATA *) *pTData;
    try
    {
        m_hstmt = m_hstmtStockLevel;
        m_bTPRslt = TRUE;
        m_iTPRslt = SVCERR_DEADLOCK;
        memcpy(&m_TData.SLData,psld,sizeof(STOCK_LEVEL_DATA));
        for (m_iTryCount = 1; m_iTryCount <= m_iMaxRetry; m_iTryCount++)
        {
            rc = SQLExecDirectW(m_hstmt,
(SQLWCHAR*)L"{call tpcc_stocklevel(?,?,?)}",SQL_NTS);
            if (rc != SQL_SUCCESS && rc != SQL_SUCCESS_WITH_INFO)
            {
                char szDiag[100];
                sprintf(szDiag,"StockLevel(%ld): Execute Direct\n",m_lRefId);
                if (CheckDBError(szDiag))
                {
                    m_iTPRslt = SVCERR_ODBC;
                    break;
                };
                continue;
            };
            if (SQLFetch(m_hstmt) == SQL_ERROR)
            {
                char szDiag[100];
                sprintf(szDiag,"StockLevel(%ld): Fetch\n",m_lRefId);
                if (CheckDBError(szDiag))
                {
                    m_iTPRslt = SVCERR_ODBC;
                    break;
                };
                continue;
            };
            SQLFreeStmt(m_hstmt,SQL_CLOSE);
            m_bTPRslt = FALSE;
            m_iTPRslt = SVC_NOERROR;
            break;
        }; // for m_iMaxRetry
        memcpy(psld,&m_TData.SLData,sizeof(STOCK_LEVEL_DATA));
        psld->bTPRslt = m_bTPRslt;
        psld->iTPRslt = m_iTPRslt;
        if (!m_bTPRslt)
        {
            strcpy(psld->execution_status,"Transaction committed.");
            return(S_OK);
        };
        if (m_iTPRslt == SVCERR_DEADLOCK)
            sprintf(psld->execution_status,"Hit retry
max(%d).",m_iMaxRetry);
        else
            strcpy(psld->execution_status,"DBTranAbort, Check Input Data");
        return(S_OK);
    }
}

```

```

}
    catch (...)
    {
        char szDiag[300];
        wsprintf(szDiag,"StockLevel(%ld): Unhandled exception\n",m_lRefId);
        WriteEventLog(szDiag,TRUE);
        m_bCanBePooled = FALSE;
        psld->bTPRslt = TRUE;
        psld->iTPRslt = SVCERR_EXCEPTION;
        strcpy(psld->execution_status,"Error, Unhandled exception");
        return(S_OK);
    };
}; // Stocklevel

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

```

```

        strcpy(szDatabase,pszEnvData);
    if ((pszEnvData = getenv("WEBDRIVERNO")) != NULL)
        iInstance = abs(atoi(pszEnvData));

    return(FALSE);
}; // ReadRegistry

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

```

Appendix B - Database Design

Build Scripts

BACKUP.SQL

```
-- File:      BACKUP.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.21
--           Copyright Microsoft, 1999, 2000
-- Purpose:   Creates backup of tpcc database

DBCC TRACEON (3111)
GO

declare @startdate datetime
declare @enddate datetime
select @startdate = getdate()
select "Start date:", convert(varchar(30),@startdate,9)

dump database tpcc to tpccbackb8, tpccbackc8, tpccbackd8, tpccbacke8,
tpccbackf8, tpccbackg8, tpccbackh8, tpccbacki8 with init, stats = 1,
blocksize=65536

select @enddate = getdate()
select "End date: ", convert(varchar(30),@enddate,9)
select "Elapsed time (in seconds): ", datediff(second, @startdate,
@enddate)

go
```

BACKUPDEV.BSQL

```
-- File:      BACKUPDEV.BSQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.21
--           Copyright Microsoft, 1999, 2000
-- Purpose:   Creates tpcc database Backup Devices

use master
go

-- create backup devices

exec sp_addumpdevice
'disk','tpccbackb8','C:\Bigdb\dbBackups\backupb8\tpccbackb8.dmp'
exec sp_addumpdevice
'disk','tpccbackc8','C:\Bigdb\dbBackups\backupc8\tpccbackc8.dmp'
exec sp_addumpdevice
'disk','tpccbackd8','C:\Bigdb\dbBackups\backupd8\tpccbackd8.dmp'
exec sp_addumpdevice
'disk','tpccbacke8','C:\Bigdb\dbBackups\backupe8\tpccbacke8.dmp'
```

```
exec sp_addumpdevice
'disk','tpccbackf8','C:\Bigdb\dbBackups\backupf8\tpccbackf8.dmp'
exec sp_addumpdevice
'disk','tpccbackg8','C:\Bigdb\dbBackups\backupg8\tpccbackg8.dmp'
exec sp_addumpdevice
'disk','tpccbackh8','C:\Bigdb\dbBackups\backuph8\tpccbackh8.dmp'
exec sp_addumpdevice
'disk','tpccbacki8','C:\Bigdb\dbBackups\backupi8\tpccbacki8.dmp'

go
```

CREATEDB.SQL

```
use master
go
if exists ( select name from sysobjects where name = 'tpcc_timer' )
drop table tpcc_timer
go

create table tpcc_timer
(
    start_date                char(30),
    end_date                  char(30)
)

insert into tpcc_timer values (0,0)
go

update tpcc_timer
set start_date = (select convert(char(30), getdate(),9))
go

CREATE DATABASE tpcc
ON PRIMARY
(
    NAME                = MSSQL70_tpcc_root,
    FILENAME             = "C:\Bigdb\dbRoots\tpcc_root.mdf",
    SIZE                 = 10MB,
    FILEGROWTH           = 0),
FILEGROUP MSSQL70_misc_fg
(
    NAME = MSSQL70_miscL8,
    FILENAME = "C:\Bigdb\CABL\misc8\",
    SIZE = 3115MB,
    FILEGROWTH = 0),
(
    NAME = MSSQL70_miscL7,
    FILENAME = "C:\Bigdb\CABL\misc7\",
    SIZE = 3115MB,
    FILEGROWTH = 0),
(
    NAME = MSSQL70_miscL6,
    FILENAME = "C:\Bigdb\CABL\misc6\",
    SIZE = 3115MB,
    FILEGROWTH = 0),
(
    NAME = MSSQL70_miscL5,
    FILENAME = "C:\Bigdb\CABL\misc5\",
    SIZE = 3115MB,
    FILEGROWTH = 0),
(
    NAME = MSSQL70_miscL4,
    FILENAME = "C:\Bigdb\CABL\misc4\",
    SIZE = 3115MB,
    FILEGROWTH = 0),
(
    NAME = MSSQL70_miscL3,
    FILENAME = "C:\Bigdb\CABL\misc3\",
```



```

( NAME = MSSQL70_miscB1,
  FILENAME = "C:\Bigdb\CABB\misc1\",
  SIZE = 3115MB, FILEGROWTH = 0),
( NAME = MSSQL70_miscA8,
  FILENAME = "C:\Bigdb\CABA\misc8\",
  SIZE = 3115MB, FILEGROWTH = 0),
( NAME = MSSQL70_miscA7,
  FILENAME = "C:\Bigdb\CABA\misc7\",
  SIZE = 3115MB, FILEGROWTH = 0),
( NAME = MSSQL70_miscA6,
  FILENAME = "C:\Bigdb\CABA\misc6\",
  SIZE = 3115MB, FILEGROWTH = 0),
( NAME = MSSQL70_miscA5,
  FILENAME = "C:\Bigdb\CABA\misc5\",
  SIZE = 3115MB, FILEGROWTH = 0),
FILEGROUP MSSQL70_cs_fg
( NAME = MSSQL70_csL8,
  FILENAME = "C:\Bigdb\CABL\cs8\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csL7,
  FILENAME = "C:\Bigdb\CABL\cs7\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csL6,
  FILENAME = "C:\Bigdb\CABL\cs6\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csL5,
  FILENAME = "C:\Bigdb\CABL\cs5\",
  SIZE = 5900MB, FILEGROWTH = 0),
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( NAME = MSSQL70_csL3,
  FILENAME = "C:\Bigdb\CABL\cs3\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csL2,
  FILENAME = "C:\Bigdb\CABL\cs2\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csL1,
  FILENAME = "C:\Bigdb\CABL\cs1\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csK8,
  FILENAME = "C:\Bigdb\CABK\cs8\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csK7,
  FILENAME = "C:\Bigdb\CABK\cs7\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csK6,
  FILENAME = "C:\Bigdb\CABK\cs6\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csK5,
  FILENAME = "C:\Bigdb\CABK\cs5\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csK4,
  FILENAME = "C:\Bigdb\CABK\cs4\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csK3,
  FILENAME = "C:\Bigdb\CABK\cs3\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csK2,
  FILENAME = "C:\Bigdb\CABK\cs2\",
  SIZE = 5900MB, FILEGROWTH = 0),

```

```

( NAME = MSSQL70_csK1,
  FILENAME = "C:\Bigdb\CABK\cs1\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csJ8,
  FILENAME = "C:\Bigdb\CABJ\cs8\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csJ7,
  FILENAME = "C:\Bigdb\CABJ\cs7\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csJ6,
  FILENAME = "C:\Bigdb\CABJ\cs6\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csJ5,
  FILENAME = "C:\Bigdb\CABJ\cs5\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csJ4,
  FILENAME = "C:\Bigdb\CABJ\cs4\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csJ3,
  FILENAME = "C:\Bigdb\CABJ\cs3\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csJ2,
  FILENAME = "C:\Bigdb\CABJ\cs2\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csJ1,
  FILENAME = "C:\Bigdb\CABJ\cs1\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csI8,
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  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csI7,
  FILENAME = "C:\Bigdb\CABI\cs7\",
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( NAME = MSSQL70_csI6,
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( NAME = MSSQL70_csI5,
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  SIZE = 5900MB, FILEGROWTH = 0),
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  FILENAME = "C:\Bigdb\CABI\cs3\",
  SIZE = 5900MB, FILEGROWTH = 0),
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  FILENAME = "C:\Bigdb\CABI\cs2\",
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  FILENAME = "C:\Bigdb\CABI\cs1\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csH8,
  FILENAME = "C:\Bigdb\CABH\cs8\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csH7,
  FILENAME = "C:\Bigdb\CABH\cs7\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csH6,
  FILENAME = "C:\Bigdb\CABH\cs6\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csH5,

```



```

( NAME = MSSQL70_csC4,
  FILENAME = "C:\Bigdb\CABC\cs4\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csC3,
  FILENAME = "C:\Bigdb\CABC\cs3\",
  SIZE = 5900MB, FILEGROWTH = 0),
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  FILENAME = "C:\Bigdb\CABC\cs2\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csC1,
  FILENAME = "C:\Bigdb\CABC\cs1\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csB8,
  FILENAME = "C:\Bigdb\CABB\cs8\",
  SIZE = 5900MB, FILEGROWTH = 0),
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  FILENAME = "C:\Bigdb\CABB\cs6\",
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  FILENAME = "C:\Bigdb\CABB\cs5\",
  SIZE = 5900MB, FILEGROWTH = 0),
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( NAME = MSSQL70_csB3,
  FILENAME = "C:\Bigdb\CABB\cs3\",
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  FILENAME = "C:\Bigdb\CABB\cs2\",
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( NAME = MSSQL70_csB1,
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( NAME = MSSQL70_csA8,
  FILENAME = "C:\Bigdb\CABA\cs8\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csA7,
  FILENAME = "C:\Bigdb\CABA\cs7\",
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( NAME = MSSQL70_csA6,
  FILENAME = "C:\Bigdb\CABA\cs6\",
  SIZE = 5900MB, FILEGROWTH = 0),
( NAME = MSSQL70_csA5,
  FILENAME = "C:\Bigdb\CABA\cs5\",
  SIZE = 5900MB, FILEGROWTH = 0),
FILEGROUP MSSQL70_ord_fg
( NAME = MSSQL70_ordL8,
  FILENAME = "C:\Bigdb\CABL\ord8\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordL7,
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  FILENAME = "C:\Bigdb\CABL\ord6\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordL5,
  FILENAME = "C:\Bigdb\CABL\ord5\",
  SIZE = 3525MB, FILEGROWTH = 0),

```

```

( NAME = MSSQL70_ordL4,
  FILENAME = "C:\Bigdb\CABL\ord4\",
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( NAME = MSSQL70_ordL3,
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  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordL2,
  FILENAME = "C:\Bigdb\CABL\ord2\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordL1,
  FILENAME = "C:\Bigdb\CABL\ord1\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordK8,
  FILENAME = "C:\Bigdb\CABK\ord8\",
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  FILENAME = "C:\Bigdb\CABK\ord7\",
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( NAME = MSSQL70_ordK6,
  FILENAME = "C:\Bigdb\CABK\ord6\",
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( NAME = MSSQL70_ordK5,
  FILENAME = "C:\Bigdb\CABK\ord5\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordK4,
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( NAME = MSSQL70_ordK3,
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( NAME = MSSQL70_ordK2,
  FILENAME = "C:\Bigdb\CABK\ord2\",
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  FILENAME = "C:\Bigdb\CABK\ord1\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordJ8,
  FILENAME = "C:\Bigdb\CABJ\ord8\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordJ7,
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  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordJ6,
  FILENAME = "C:\Bigdb\CABJ\ord6\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordJ5,
  FILENAME = "C:\Bigdb\CABJ\ord5\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordJ4,
  FILENAME = "C:\Bigdb\CABJ\ord4\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordJ3,
  FILENAME = "C:\Bigdb\CABJ\ord3\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordJ2,
  FILENAME = "C:\Bigdb\CABJ\ord2\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordJ1,
  FILENAME = "C:\Bigdb\CABJ\ord1\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordI8,

```



```

( NAME = MSSQL70_ordD7,
  FILENAME = "C:\Bigdb\CABD\ord7\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordD6,
  FILENAME = "C:\Bigdb\CABD\ord6\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordD5,
  FILENAME = "C:\Bigdb\CABD\ord5\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordD4,
  FILENAME = "C:\Bigdb\CABD\ord4\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordD3,
  FILENAME = "C:\Bigdb\CABD\ord3\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordD2,
  FILENAME = "C:\Bigdb\CABD\ord2\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordD1,
  FILENAME = "C:\Bigdb\CABD\ord1\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordC8,
  FILENAME = "C:\Bigdb\CABC\ord8\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordC7,
  FILENAME = "C:\Bigdb\CABC\ord7\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordC6,
  FILENAME = "C:\Bigdb\CABC\ord6\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordC5,
  FILENAME = "C:\Bigdb\CABC\ord5\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordC4,
  FILENAME = "C:\Bigdb\CABC\ord4\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordC3,
  FILENAME = "C:\Bigdb\CABC\ord3\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordC2,
  FILENAME = "C:\Bigdb\CABC\ord2\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordC1,
  FILENAME = "C:\Bigdb\CABC\ord1\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordB8,
  FILENAME = "C:\Bigdb\CABB\ord8\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordB7,
  FILENAME = "C:\Bigdb\CABB\ord7\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordB6,
  FILENAME = "C:\Bigdb\CABB\ord6\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordB5,
  FILENAME = "C:\Bigdb\CABB\ord5\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordB4,
  FILENAME = "C:\Bigdb\CABB\ord4\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordB3,

```

```

  FILENAME = "C:\Bigdb\CABB\ord3\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordB2,
  FILENAME = "C:\Bigdb\CABB\ord2\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_ordB1,
  FILENAME = "C:\Bigdb\CABB\ord1\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_orda8,
  FILENAME = "C:\Bigdb\CABA\ord8\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_orda7,
  FILENAME = "C:\Bigdb\CABA\ord7\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_orda6,
  FILENAME = "C:\Bigdb\CABA\ord6\",
  SIZE = 3525MB, FILEGROWTH = 0),
( NAME = MSSQL70_orda5,
  FILENAME = "C:\Bigdb\CABA\ord5\",
  SIZE = 3525MB, FILEGROWTH = 0)
LOG ON
( NAME = MSSQL70_tpcc_log1,
  FILENAME = "C:\Bigdb\dblogs\tpcclog1\",
  SIZE = 100001MB, FILEGROWTH = 0),
( NAME = MSSQL70_tpcc_log2,
  FILENAME = "C:\Bigdb\dblogs\tpcclog2\",
  SIZE = 100001MB, FILEGROWTH = 0)

```

```

go
update tpcc_timer
set end_date = (select convert(char(30), getdate(),9))
go
select "Elapsed time (in seconds): ", datediff(second,(select start_date
from tpcc_timer),(select end_date from tpcc_timer))
if exists ( select name from sysobjects where name = 'tpcc_timer' )
drop table tpcc_timer
go

```

DBOPT1.SQL

```

-- File:      DBOPT1.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.21
--           Copyright Microsoft, 1999, 2000
-- 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. 4.21
--           Copyright Microsoft, 1999, 2000
-- 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)

IF (SELECT (SUBSTRING((SELECT @@version),1,25))) = 'Microsoft SQL Server
2000'
    BEGIN
        --
        --           OPTIONS FOR SQL SERVER 8.0
        -- Set option values for user-defined indexes
        --
        SET @msg = ' '
        PRINT @msg
        SET @msg = 'Setting SQL Server 8.0 indexoptions'
        PRINT @msg
        SET @msg = ' '
        PRINT @msg

        TRUE 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',
    
```

```
ELSE
    BEGIN
        --
        --           OPTIONS FOR SQL SERVER 7.0
        -- Set option values for user-defined indexes
        --
        SET @msg = ' '
        PRINT @msg
        SET @msg = 'Setting SQL Server 7.0 indexoptions'
        PRINT @msg
        SET @msg = ' '
        PRINT @msg

        FALSE EXEC sp_indexoption 'customer', 'AllowPageLocks',
        FALSE EXEC sp_indexoption 'district', 'AllowPageLocks',
        FALSE EXEC sp_indexoption 'warehouse', 'AllowPageLocks',
        FALSE EXEC sp_indexoption 'stock', 'AllowPageLocks',
        FALSE EXEC sp_indexoption 'order_line', 'AllowRowLocks',
        FALSE EXEC sp_indexoption 'orders', 'AllowRowLocks',
        FALSE EXEC sp_indexoption 'new_order', 'AllowRowLocks',
        FALSE EXEC sp_indexoption 'item', 'AllowRowLocks',
        FALSE EXEC sp_indexoption 'item', 'AllowPageLocks',
    END
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

```

DBOPT3.SQL

```

use tpcc
go

EXEC sp_tableoption 'new_order', 'pintable', true
GO

```

REMOVEDB.SQL

```

-- File:      REMOVEDB.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.21
--           Copyright Microsoft, 1999, 2000
-- 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 'tpccbackb8'
exec sp_dropdevice 'tpccbackc8'
exec sp_dropdevice 'tpccbackd8'
exec sp_dropdevice 'tpccbacke8'
exec sp_dropdevice 'tpccbackf8'
exec sp_dropdevice 'tpccbackg8'
exec sp_dropdevice 'tpccbackh8'
exec sp_dropdevice 'tpccbacki8'

```

```

go

```

RESTORE.SQL

```

-- File:      RESTORE.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.21
--           Copyright Microsoft, 1999, 2000
-- Purpose:   Loads database backup from backup files

```

```

DBCC TRACEON (3111)
GO

declare @startdate datetime
declare @enddate datetime
select @startdate = getdate()
select 'Start date:', convert(varchar(30),@startdate,9)

load database tpcc from tpccbackb8, tpccbackc8, tpccbackd8, tpccbacke8,
tpccbackf8, tpccbackg8, tpccbackh8, tpccbacki8 with replace, stats =
1,blocksize=65536
go
dbcc traceoff (3111)

select @enddate = getdate()
select 'End date: ', convert(varchar(30),@enddate,9)
select 'Elapsed time (in seconds): ', datediff(second, @startdate,
@enddate)

go
dbcc traceoff (3111)

```

SETUP.CMD

```

::@ECHO OFF

@ECHO
*****
**
@ECHO *
*
@ECHO * Microsoft TPC-C V3 Benchmark Kit Ver. 4.21
*
@ECHO *
*
@ECHO
*****
**

@if '%1'==' ' goto usage
@if '%2'==' ' goto usage
@if '%3'==' ' goto usage
@if not '%4'==' ' if not '%4' == 'normal' if not '%4' == 'scale_down' goto
usage

:: Cleanup any old .err files
@if exist logs\*.err del logs\*.err >nul

@if '%3'=='full' goto start
@if '%3'=='bulddb' goto bulddb
@if '%3'=='objects' goto objects
@if '%3'=='bulkload' goto bulkload
@if '%3'=='objectsfull' goto objects
@if '%3'=='bulkloadfull' goto bulkload
@if '%3'=='backup' goto backup
@if '%3'=='backupfull' goto backup
@if '%3'=='verifyload' goto verifyload
goto usage

```

```

:start
:: Cleanup the logs directory...
@if exist logs\version.log del logs\version.log
    >nul
@if exist logs\db.log del logs\db.log
    >nul
@if exist logs\objects.log del logs\objects.log
    >nul
@if exist logs\objects.log del logs\objects.log
    >nul
@if exist logs\bulkload.log del logs\bulkload.log
    >nul
@if exist logs\backup.log del logs\backup.log
    >nul

@isql -Usa -P -S%1 -Q"select @@version"
    > logs\version.log
@isql -Usa -P -S%1 -Q"select getdate()"
    >> logs\version.log

:Verify_Installation
@isql -Usa -P -S%1 -b -iscripts\utility\verify_msg.sql
    >nul
@isql -Usa -P -S%1 -b -iscripts\utility\verify_sort.sql
    >nul
@isql -Usa -P -S%1 -b -Q"ms_verify_sort"
    >nul
@if errorlevel 1 goto BAD_SORT

:bulddb
@@if exist logs\db.log del logs\db.log
    >nul
@ECHO Removing any existing TPCC database and backup devices...
@isql -Usa -P -S%1 -e < scripts\%2.war\database\removedb.sql
    > logs\db.log
@ECHO Creating Backup Device(s)...
@isql -Usa -P -S%1 -e < scripts\%2.war\database\backupdev.sql
    >> logs\db.log
@if errorlevel 1 goto CREATE_ERROR
@ECHO Building database files and database...
@isql -Usa -P -S%1 -b -e < scripts\%2.war\database\createdb.sql
    >> logs\db.log
@if errorlevel 1 goto CREATE_ERROR
@ECHO Database build complete.
@if '%3'=='full' goto objects
goto end

:objects
@if exist logs\objects.log del logs\objects.log
    >nul
@ECHO Creating TPC-C database tables...
@isql -Usa -P -S%1 -b -e < scripts\%2.war\ddl\tables.sql
    > logs\objects.log
@if errorlevel 1 goto TABLES_ERROR
@ECHO Creating database objects...
@isql -Usa -P -S%1 -b -e < scripts\dml\neword.sql
    >> logs\objects.log
@if errorlevel 1 goto NEWORDER_ERROR
@isql -Usa -P -S%1 -b -e < scripts\dml\payment-c_data.sql
    >> logs\objects.log
@if errorlevel 1 goto PAYMENT_ERROR
@isql -Usa -P -S%1 -b -e < scripts\dml\ordstat.sql
    >> logs\objects.log

@if errorlevel 1 goto ORDERSTATUS_ERROR
@isql -Usa -P -S%1 -b -e < scripts\dml\delivery.sql
    >> logs\objects.log
@if errorlevel 1 goto DELIVERY_ERROR
@isql -Usa -P -S%1 -b -e < scripts\dml\stocklev.sql
    >> logs\objects.log
@if errorlevel 1 goto STOCKLEVEL_ERROR
@isql -Usa -P -S%1 -e < scripts\dml\version.sql
    >> logs\objects.log
@ECHO Database object creation complete.
@if '%3'=='full' goto bulkload
@if '%3'=='objectsfull' goto bulkload
goto end

:bulkload
@if exist logs\bulkload.log del logs\bulkload.log
    >nul
@ECHO Setting database options before load...
@isql -Usa -P -S%1 -b -e < scripts\utility\dbopt1.sql
    >> logs\bulkload.log
@if errorlevel 1 goto DBOPT1_ERROR
@ECHO Beginning data load and index creation...
@if '%4'=='' loader\bin\tpccldr -S%1 -W%2 -flogs\bulkload.log -
    dscripts\%2.war\ddl -c0
@if errorlevel 1 goto END
@if '%4'=='normal' loader\bin\tpccldr -S%1 -W%2 -flogs\bulkload.log -
    dscripts\%2.war\ddl -c0
@if errorlevel 1 goto END
@if '%4'=='scale_down' loader\bin\tpccldr -S%1 -W%2 -flogs\bulkload.log -
    dscripts\%2.war\ddl -c1
@if errorlevel 1 goto END
goto bulkloaddone
:bulkloaddone
@ECHO Setting database options after load...
@isql -Usa -P -S%1 -b -e < scripts\utility\dbopt2.sql
    >> logs\bulkload.log
@if errorlevel 1 goto DBOPT2_ERROR
@ECHO Data load and index creation complete.

@ECHO.
@ECHO Calculating initial database space usage...
@cd..\acid\space
@call space.cmd %1
@cd..\..\setup

@if '%3'=='full' goto backup
@if '%3'=='objectsfull' goto backup
@if '%3'=='bulkloadfull' goto backup
goto end

:backup
@if exist logs\backup.log del logs\backup.log
    >nul
@ECHO Backing up database...
@isql -Usa -P -S%1 -b -e < scripts\%2.war\database\backup.sql
    > logs\backup.log
@if errorlevel 1 goto BACKUP_ERROR
@ECHO Database backup complete.
@if '%3'=='full' goto verifyload
@if '%3'=='objectsfull' goto verifyload
@if '%3'=='bulkloadfull' goto verifyload
@if '%3'=='backupfull' goto verifyload

```

```

goto complete

:verifyload
@if exist logs\verifyload.log del logs\verifyload.log
    >nul
@Echo Verifying TPC-C database load...
@isql -Usa -P -S%1 -b -e < scripts\utility\verifytpccload.sql >
logs\verifyload.log
@if errorlevel 1 goto VERIFY_ERROR
@ECHO Check logs\verifyload.log to verify database load.

@ECHO.
@ECHO Checking database build
@cd ..\acid
@call doall.cmd %1
@cd ..\setup

:complete
@ECHO
*****
**
@ECHO *
*
@ECHO * Full TPC-C V3 build complete. Check logs directory for setup
errors. *
@ECHO *
*
@ECHO
*****
**

goto end

:usage
@ECHO
*****
@ECHO *
*
@ECHO * The TPC-C setup command file requires the following parameters:
*
@ECHO *
*
@ECHO * setup SERVER NUMWAR BLDOPT VERSION DBTYPE
*
@ECHO *
*
@ECHO * SERVER = machine name of server (use "" for local server)
*
@ECHO * NUMWAR = number of warehouses
*
@ECHO * BLDOPT = full, bulddb, objects, objectsfull, bulkload,
*
@ECHO * bulkloadfull, backup, or backupfull
*
@ECHO * DBTYPE = normal or scale_down
*
@ECHO *
*
@ECHO * Note #1: the BLDOPT and VERSION parameters are case sensitive.
*

```

```

@ECHO *
*
@ECHO * Note #2: the DBTYPE is optional. If no DBTYPE is specified,
SETUP *
@ECHO * will default to NORMAL.
*
@ECHO *
*
@ECHO * Example:
*
@ECHO *
*
@ECHO * The following command would be used to build a complete 200
*
@ECHO * warehouse database on SQL Server 7.0 running on server
\\myserver. *
@ECHO *
*
@ECHO * SETUP myserver 200 full
*
@ECHO *
*
@ECHO * NOTE 1: This command file does a backup of the database by
default *
@ECHO * after the database build process is complete. If you do not wish
*
@ECHO * to make a backup (strongly discouraged), you must edit this file
*
@ECHO * and comment that section out. Also, if you need to run the
*
@ECHO * and the dbtables scripts on the fresh database load for an audit,
*
@ECHO * you must either run them manually or edit this file to include
them. *
@ECHO *
*
@ECHO * NOTE 2: The TPC-C setup program supports both Intel and Alpha
*
@ECHO * systems. It queries the %PROCESSOR_ARCHITECTURE% environment
*
@ECHO * variable and runs the appropriate executables.
*
@ECHO *
*
@ECHO
*****
@goto end

:CREATE_ERROR
@echo.
@echo BUILD ABORTED!
@echo.
@echo There was an error in the database/backup device creation.
@echo.
@echo Check your CREATEDB.SQL, BACKUPDEV.SQL, LOGS\DB.LOG, and the
@echo SQL Server errorlog (MSSQL7\LOG\ERRORLOG) for details.
@echo.
@goto END

:TABLES_ERROR

```

```

@echo.
@echo BUILD ABORTED!
@echo.
@echo There was an error in the table creation.
@echo.
@echo Verify that the FileGroup names specified in CREATEDB.SQL
@echo match those specified in SCRIPTS\DDL\TABLES.SQL.
@echo.
@goto END

:NEWORDER_ERROR
@echo.
@echo BUILD ABORTED!
@echo.
@echo There was an error in the creation of the New Order stored
procedure.
@echo.
@echo Check your LOGS\OBJECTS.LOG, SCRIPTS\DML\NEWORD.SQL and the
@echo SQL Server errorlog (MSSQL7\LOG\ERRORLOG) for details.
@echo.
@goto END

:PAYMENT_ERROR
@echo.
@echo BUILD ABORTED!
@echo.
@echo There was an error in the creation of the Payment stored procedure.
@echo.
@echo Check your LOGS\OBJECTS.LOG, SCRIPTS\DML\PAYMENT.SQL and the
@echo SQL Server errorlog (MSSQL7\LOG\ERRORLOG) for details.
@echo.
@goto END

:ORDERSTATUS_ERROR
@echo.
@echo BUILD ABORTED!
@echo.
@echo There was an error in the creation of the Order Status stored
procedure.
@echo.
@echo Check your LOGS\OBJECTS.LOG, SCRIPTS\DML\ORDSTAT.SQL and the
@echo SQL Server errorlog (MSSQL7\LOG\ERRORLOG) for details.
@echo.
@goto END

:DELIVERY_ERROR
@echo.
@echo BUILD ABORTED!
@echo.
@echo There was an error in the creation of the Delivery stored procedure.
@echo.
@echo Check your LOGS\OBJECTS.LOG, SCRIPTS\DML\DELIVERY.SQL and the
@echo SQL Server errorlog (MSSQL7\LOG\ERRORLOG) for details.
@echo.
@goto END

:STOCKLEVEL_ERROR
@echo.
@echo BUILD ABORTED!
@echo.

```

```

@echo There was an error in the creation of the Stock Level stored
procedure.
@echo.
@echo Check your LOGS\OBJECTS.LOG, SCRIPTS\DML\STOCKLEV.SQL and the
@echo SQL Server errorlog (MSSQL7\LOG\ERRORLOG) for details.
@echo.
@goto END

:DBOPT1_ERROR
@echo.
@echo BUILD ABORTED!
@echo.
@echo There was an error setting the database options before load.
@echo.
@echo Check your LOGS\OBJECTS.LOG and the SQL Server errorlog
@echo (MSSQL7\LOG\ERRORLOG) for details.
@echo.
@goto END

:DBOPT2_ERROR
@echo.
@echo BUILD ABORTED!
@echo.
@echo There was an error setting the database options after load.
@echo.
@echo Check your LOGS\OBJECTS.LOG and the SQL Server errorlog
@echo (MSSQL7\LOG\ERRORLOG) for details.
@echo.
@goto END

:BACKUP_ERROR
@echo.
@echo BUILD ABORTED!
@echo.
@echo There was an error backing up the database after load.
@echo.
@echo Check your LOGS\BACKUP.LOG and the SQL Server errorlog
@echo (MSSQL7\LOG\ERRORLOG) for details.
@echo.
@goto END

:VERIFY_ERROR
@echo.
@echo BUILD ABORTED!
@echo.
@echo There was an error performing TPC-C database verification.
@echo.
@echo Check your LOGS\VERIFYLOAD.LOG and the SQL Server errorlog
@echo (MSSQL7\LOG\ERRORLOG) for details.
@echo.
@goto END

:BAD_SORT
@echo.
@echo BUILD ABORTED!
@echo.
@echo Incorrect SQL Server Sort Order. For performance and compatibility
@echo issues, you must run SQL Server with the Binary Sort Order.
@echo.
@echo For SQL Server 7.0, please re-install and specify the Binary Sort
Order.

```

```

@echo.
@echo For SQL Server 8.0, please re-install and specify Latin1_General
with the Binary Option.
@echo.
@goto END
:end

echo on

```

VERIFY_MSG.SQL

```

exec sp_dropmessage 50003
exec sp_addmessage 50003, 1,"Incorrect Sort Order - Please re-install SQL
Server with the Binary Sort Order"

```

VERIFY_SORT.SQL

```

-- File:      VERIFY_SORT.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.21
--           Copyright Microsoft, 1999, 2000
-- Purpose:   Verifies the Sort Order

if exists (select name from sysobjects where name = "ms_verify_sort" )
    drop procedure ms_verify_sort
go

create proc ms_verify_sort
as

declare @sort_order    int

-- get the sort order
select @sort_order    = (select value from sysconfigures where config =
'1123')

if (select @sort_order) <> 50
    RAISERROR (50003,11,1)
Go

```

VERIFYTPCCLOAD

```

-- File:      VERIFYTPCCLOAD.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.21
--           Copyright Microsoft, 1999, 2000
-- Purpose:   Performs series of TPCC database checks to verify
--           that database load completed correctly

print " "
select convert(char(30), getdate(),9)

```

```

print " "
use tpc
go

-- *****
-- Check rows per table from SYSINDEXES
-- *****

print 'WAREHOUSE TABLE'

select rowcnt
from sysindexes
where id = object_id("warehouse")
go

print 'DISTRICT TABLE = (10 * No of warehouses)'

select rowcnt
from sysindexes
where id =object_id("district")
go

print 'ITEM TABLE = 100,000'

select rowcnt
from sysindexes
where id =object_id("item")
go

print 'CUSTOMER TABLE = (30,000 * No of warehouses)'

select rowcnt
from sysindexes
where id =object_id("customer")
go

print 'ORDERS TABLE = (30,000 * No of warehouses)'

select rowcnt
from sysindexes
where id =object_id("orders")
go

print 'HISTORY TABLE = (30,000 * No of warehouses)'

select rowcnt
from sysindexes
where id =object_id("history")
go

print 'STOCK TABLE = (100,000 * No of warehouses)'

select rowcnt
from sysindexes
where id =object_id("stock")
go

print 'ORDER_LINE TABLE = (300,000 * No of warehouses some change)'

```



```

select rowcnt
from sysindexes
where id =object_id("order_line")
go

print 'NEW_ORDER TABLE = (9000 * No of warehouses)'
```

```

select rowcnt
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
```

Tables

IDXCUSCL.SQL

```

-- File: IDXCUSCL.SQL
-- Microsoft TPC-C Benchmark Kit Ver. 4.21
-- Copyright Microsoft, 1999, 2000
-- 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_cl' )
drop index customer.customer_cl

create unique clustered index customer_cl on customer(c_w_id, c_d_id,
c_id)
on MSSQL70_cs_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. 4.21
-- Copyright Microsoft, 1999, 2000
-- 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_ncl' )
drop index customer.customer_ncl

create unique nonclustered index customer_ncl on customer(c_w_id, c_d_id,
c_last, c_first, c_id)
-- with SORT_IN_TEMPDB
on MSSQL70_cs_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. 4.21
```

```
--          Copyright Microsoft, 1999, 2000
-- 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 MSSQL70_misc_fg
```

```
select @enddate = getdate()
select "End date: ", convert(varchar(30),@enddate,9)
select "Elapsed time (in seconds): ", datediff(second, @startdate,
@enddate)
```

```
go
```

IDXHISCL.SQL

```
-- File:      IDXHISCL.SQL
-- Purpose:   Creates clustered index on history 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 = 'history_c1' )
    drop index history.history_c1
```

```
create unique clustered index history_c1 on history(h_c_w_id, h_date,
h_c_d_id, h_c_id, h_amount)
on MSSQL70_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. 4.21
```

```
--          Copyright Microsoft, 1999, 2000
-- 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 MSSQL70_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. 4.21
--           Copyright Microsoft, 1999, 2000
-- 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 MSSQL70_ord_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. 4.21
--           Copyright Microsoft, 1999, 2000
-- 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_cl' )
    drop index order_line.order_line_cl

create unique clustered index order_line_cl on order_line(ol_w_id,
ol_d_id, ol_o_id, ol_number)
    on MSSQL70_ord_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. 4.21
--           Copyright Microsoft, 1999, 2000
-- 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_cl' )
    drop index orders.orders_cl

create unique clustered index orders_cl on orders(o_w_id, o_d_id, o_id)
    on MSSQL70_ord_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. 4.21
--           Copyright Microsoft, 1999, 2000
-- 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_cl' )
    drop index stock.stock_cl

create unique clustered index stock_cl on stock(s_i_id, s_w_id)
    on MSSQL70_cs_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. 4.21
--           Copyright Microsoft, 1999, 2000
-- 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_cl' )
    drop index warehouse.warehouse_cl

create unique clustered index warehouse_cl on warehouse(w_id)
    with fillfactor=100 on MSSQL70_misc_fg

select @enddate = getdate()
select "End date: ", convert(varchar(30),@enddate,9)
select "Elapsed time (in seconds): ", datediff(second, @startdate,
@enddate)

go
```

go

TABLES.SQL

```
-- File:      TABLES.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.21
--           Copyright Microsoft, 1999, 2000
-- 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 MSSQL70_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 MSSQL70_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        text
) on MSSQL70_cs_fg
    textimage_on MSSQL70_misc_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 MSSQL70_misc_fg
go

create table new_order
```

```

(
    no_o_id          int,
    no_d_id          tinyint,
    no_w_id          smallint
) on MSSQL70_ord_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 MSSQL70_ord_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 MSSQL70_ord_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 MSSQL70_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 MSSQL70_cs_fg
go

```

Stored Procedures

DELIVERY.SQL

```

-- File:      DELIVERY.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.21.000
--           Copyright Microsoft, 1999, 2000
-- 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 (@d_id < 10)
    begin

        select @d_id = @d_id + 1,
               @total = 0,
               @o_id = 0

        select top 1
               @o_id = no_o_id

```

```

from new_order (serializable uplock)
where no_w_id = @w_id and
      no_d_id = @d_id
order by no_o_id asc

if (@@rowcount <> 0)
begin
-- claim the order for this district

delete new_order
where no_w_id = @w_id and
      no_d_id = @d_id and
      no_o_id = @o_id

-- set carrier_id on this order (and get customer id)

update orders
set o_carrier_id = @o_carrier_id,
    @c_id = @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

-- accummulate 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

NEWORD.SQL

```

-- File: NEWORD.SQL
-- Microsoft TPC-C Benchmark Kit Ver. 4.21.000
-- Copyright Microsoft, 1999, 2000
-- 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,
    @i_id5 int = 0, @s_w_id5 smallint
= 0, @ol_qty5 smallint = 0,
    @i_id6 int = 0, @s_w_id6 smallint
= 0, @ol_qty6 smallint = 0,
    @i_id7 int = 0, @s_w_id7 smallint
= 0, @ol_qty7 smallint = 0,
    @i_id8 int = 0, @s_w_id8 smallint
= 0, @ol_qty8 smallint = 0,
    @i_id9 int = 0, @s_w_id9 smallint
= 0, @ol_qty9 smallint = 0,
    @i_id10 int = 0, @s_w_id10 smallint
= 0, @ol_qty10 smallint = 0,
    @i_id11 int = 0, @s_w_id11 smallint
= 0, @ol_qty11 smallint = 0,

```

```

= 0, @ol_qty12 smallint = 0,          @i_id12 int = 0, @s_w_id12 smallint
= 0, @ol_qty13 smallint = 0,          @i_id13 int = 0, @s_w_id13 smallint
= 0, @ol_qty14 smallint = 0,          @i_id14 int = 0, @s_w_id14 smallint
= 0, @ol_qty15 smallint = 0,          @i_id15 int = 0, @s_w_id15 smallint

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,
                                               @d_id,
                                               @w_id,
                                               @li_no,
                                               @li_id,
                                               @li_s_w_id,
                                               "dec 31, 1899",
                                               @li_qty,
                                               @i_price * @li_qty,
                                               @s_dist)

-- send line-item data to client
                select @i_name,
                       @s_quantity,
                       b_g = case when (
(patindex("%ORIGINAL%",@i_data) > 0) and
(patindex("%ORIGINAL%",@s_data) > 0) )
                           then "B" else "G" end,
                       @i_price,
                       @i_price * @li_qty
        end
        else
        begin
-- no item (or stock) found - triggers rollback condition
                select "",0,"",0,0
                select @commit_flag = 0
        end

-- get customer last name, discount, and credit rating
                select @c_last      = c_last,
                       @c_discount = c_discount,
                       @c_credit    = c_credit,
                       @c_id_local  = c_id
                from   customer (repeatableread)
                where  c_id          = @c_id and
                       c_w_id       = @w_id and
                       c_d_id       = @d_id

-- insert fresh row into orders table
                insert into orders values ( @o_id,
                                             @d_id,
                                             @w_id,
                                             @c_id_local,
                                             @o_entry_d,
                                             0,
                                             @o_ol_cnt,
                                             @o_all_local)

-- insert corresponding row into new-order table
                insert into new_order values ( @o_id,
                                               @d_id,
                                               @w_id)

-- select warehouse tax
                select @w_tax = w_tax
                from   warehouse (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. 4.21.000
--           Copyright Microsoft, 1999, 2000
-- 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. 4.21.000
--           Copyright Microsoft, 1999, 2000
-- 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),
@c_data       char(42),
@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 - @h_amount,
        c_payment_cnt = c_payment_cnt + 1,
        c_ytd_payment = c_ytd_payment + @h_amount,
        @c_first = c_first,
        @c_middle = c_middle,
        @c_last = c_last,
        @c_street_1 = c_street_1,
        @c_street_2 = c_street_2,
        @c_city = c_city,
```

```

        @c_state      = c_state,
        @c_zip        = c_zip,
        @c_phone      = c_phone,
        @c_credit     = c_credit,
        @c_credit_lim = c_credit_lim,
        @c_discount   = c_discount,
        @c_since      = c_since,
        @c_id_local   = c_id
where   c_id         = @c_id and
        c_w_id       = @c_w_id and
        c_d_id       = @c_d_id

-- if customer has bad credit get some more info
      if (@c_credit = 'BC')
      begin

--      compute new info

          select @c_data = convert(char(5),@c_id) +
                    convert(char(4),@c_d_id) +
                    convert(char(5),@c_w_id) +
                    convert(char(4),@d_id) +
                    convert(char(5),@w_id) +
                    convert(char(19),@h_amount)

--      update customer info

          update customer
          set   c_data = @c_data + substring(c_data, 1, 458),
               @screen_data = @c_data + substring(c_data, 1, 158)

          where c_id   = @c_id and
                 c_w_id = @c_w_id and
                 c_d_id = @c_d_id

--      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

STOCKLEV.SQL

-- File:      STOCKLEV.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.21.000
--           Copyright Microsoft, 1999, 2000
-- 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

```

VERSION.SQL

```

-- File:      VERSION.SQL
--            Microsoft TPC-C Benchmark Kit Ver. 4.21.000
--            Copyright Microsoft, 1999, 2000
-- 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

```

Loader Source

GETARGS.C

```

// File:      GETARGS.C
//            Microsoft TPC-C Kit Ver. 4.21
//            Copyright Microsoft, 1996, 1997, 1998, 1999,
//            2000
// 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       = DEF_LD_PACKSIZE;
    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 throught */
        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")
                    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);
}

```

RANDOM.C

```

//      File:          RANDOM.C
//
//      Microsoft TPC-C Kit Ver. 4.21
//      Copyright Microsoft, 1996, 1997, 1998, 1999,
2000
//      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
}

```

```

#endif

    return rand_num;
}
#endif

//=====
// Function   : NURand
//
// Description:
//=====
long NURand(int iConst,
            long x,
            long y,
            long C)
{
    long rand_num;

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

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

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

    return rand_num;
}

```

STRINGS.C

```

//      File:          STRINGS.C
//                      Microsoft TPC-C Kit Ver. 4.21
//                      Copyright Microsoft, 1996, 1997, 1998, 1999,
2000
//      Purpose:       Source file for database loader string functions

// Includes
#include "tpcc.h"
#include <string.h>
#include <ctype.h>

//=====
//
// Function name: MakeAddress
//
//=====

void MakeAddress(char *street_1,
                char *street_2,
                char *city,
                char *state,

```

```

                char *zip)
{
#ifdef DEBUG
    printf("[%ld]DBG: Entering MakeAddress()\n", (int)
GetCurrentThreadId());
#endif

    MakeAlphaString (10, 20, ADDRESS_LEN, street_1);
    MakeAlphaString (10, 20, ADDRESS_LEN, street_2);
    MakeAlphaString (10, 20, ADDRESS_LEN, city);
    MakeAlphaString ( 2,  2, STATE_LEN, state);
    MakeZipNumberString( 9,  9, ZIP_LEN, zip);

#ifdef DEBUG
    printf("[%ld]DBG: MakeAddress: street_1: %s, street_2: %s, city: %s,
state: %s, zip: %s\n",
            (int) GetCurrentThreadId(), street_1, street_2,
city, state, zip);
#endif

    return;
}

//=====
//
// Function name: LastName
//
//=====

void LastName(int num,
             char *name)
{
    static char *n[] =
    {
        "BAR" , "OUGHT", "ABLE" , "PRI" , "PRES",
        "ESE" , "ANTI" , "CALLY", "ATION", "EING"
    };

#ifdef DEBUG
    printf("[%ld]DBG: Entering LastName()\n", (int) GetCurrentThreadId());
#endif

    if ((num >= 0) && (num < 1000))
    {
        strcpy(name, n[(num/100)%10]);
        strcat(name, n[(num/10)%10]);
        strcat(name, n[(num/1)%10]);

        if (strlen(name) < LAST_NAME_LEN)
        {
            PaddString(LAST_NAME_LEN, name);
        }
    }
    else
    {
        printf("\nError in LastName()... num <%ld> out of range
(0,999)\n", num);
    }
}

```



```

        exit(-1);
    }

#ifdef DEBUG
    printf("[%ld]DBG: LastName: num = [%d] ==> [%d][%d][%d]\n",
           (int) GetCurrentThreadId(), num, num/100,
           (num/10)%10, num%10);
    printf("[%ld]DBG: LastName: String = %s\n", (int)
           GetCurrentThreadId(), name);
#endif

    return;
}

//=====
//
// Function name: MakeAlphaString
//
//=====

//philipdu 08/13/96 Changed MakeAlphaString to use A-Z, a-z, and 0-9 in
//accordance with spec see below:
//The spec says:
//4.3.2.2 The notation random a-string [x .. y]
//(respectively, n-string [x .. y]) represents a string of random
alphanumeric
//(respectively, numeric) characters of a random length of minimum x,
maximum y,
//and mean (y+x)/2. Alphanumerics are A..Z, a..z, and 0..9. The only
other
//requirement is that the character set used "must be able to represent a
minimum
//of 128 different characters". We are using 8-bit chars, so this is a
non issue.
//It is completely unreasonable to stuff non-printing chars into the text
fields.
//-CLevine 08/13/96

int MakeAlphaString( int x, int y, int z, char *str)
{
    int len;
    int i;
    char cc = 'a';
    static char chArray[] =
"0123456789ABCDEFGHIJKLMNQRSTUvwxyzabcdefghijklmnopqrstuvwxy";
    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("MakeOrigianlAlphaString: 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;
}

TIME.C

// File: TIME.C
// Microsoft TPC-C Kit Ver. 4.21
// Copyright Microsoft, 1996, 1997, 1998, 1999,
2000
// 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:          TPC.H
//               Microsoft TPC-C Kit Ver. 4.21
//               Copyright Microsoft, 1996, 1997, 1998, 1999,
//               2000
// Purpose:       Header file for TPC-C database loader

// Build number of TPC Benchmark Kit
#define TPCKIT_VER    "4.21"

// 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 DEFLOADPACKSIZE 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;
} TPCCCLR_ARGS;

// String length constants
#define SERVER_NAME_LEN 20

```

```

#define DATABASE_NAME_LEN      20
#define USER_NAME_LEN          20
#define PASSWORD_LEN           20
#define TABLE_NAME_LEN       20
#define I_DATA_LEN             50
#define I_NAME_LEN             24
#define BRAND_LEN              1
#define LAST_NAME_LEN          16
#define W_NAME_LEN             10
#define ADDRESS_LEN            20
#define STATE_LEN              2
#define ZIP_LEN                 9
#define S_DIST_LEN             24
#define S_DATA_LEN             50
#define D_NAME_LEN             10
#define FIRST_NAME_LEN         16
#define MIDDLE_NAME_LEN        2
#define PHONE_LEN              16
#define CREDIT_LEN             2
#define C_DATA_LEN             500
#define H_DATA_LEN             24
#define DIST_INFO_LEN          24
#define MAX_OL_NEW_ORDER_ITEMS 15
#define MAX_OL_ORDER_STATUS_ITEMS 15
#define STATUS_LEN             25
#define OL_DIST_INFO_LEN       24
#define C_SINCE_LEN            23
#define H_DATE_LEN             23
#define OL_DELIVERY_D_LEN      23
#define O_ENTRY_D_LEN          23

// Functions in random.c
void seed();
long irand();
double drand();
void WUCreate();
short WURand();
long RandomNumber(long lower, long upper);

// Functions in getargs.c;
void GetArgsLoader();
void GetArgsLoaderUsage();

// Functions in time.c
long TimeNow();

// Functions in strings.c
void MakeAddress();
void LastName();
int MakeAlphaString();
int MakeOriginalAlphaString();
int MakeNumberString();
int MakeZipNumberString();
void InitString();
void InitAddress();
void PaddString();

```

TPCCLDR.C

```

// File: TPCCLDR.C
// Microsoft TPC-C Kit Ver. 4.21
// Copyright Microsoft, 1996, 1997, 1998, 1999,
2000
// 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\n");
);

// process command line arguments

aptr = &args;
GetArgsLoader(argc, argv, aptr);

// verify database and tables exist before attempting to load

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,
                                0,
(LPTHREAD_START_ROUTINE) LoadWarehouse,
                                NULL,
                                0,
&dwThreadID[1]);

```

```

        if (hThread[1] == NULL)
        {
            printf("Error, failed in creating creating thread =
1.\n");
            exit(-1);
        }
        if (aptr->tables_all || aptr->table_customer)
        {
            fprintf(fLoader, "Starting loader threads for:
customer\n");
            hThread[2] = CreateThread(NULL,
0,
(LPCTSTR) LoadCustomer,
NULL,
0,
&dwThreadID[2]);
            if (hThread[2] == NULL)
            {
                printf("Error, failed in creating creating main
thread = 2.\n");
                exit(-1);
            }
            if (aptr->tables_all || aptr->table_orders)
            {
                fprintf(fLoader, "Starting loader threads for: orders\n");
                hThread[3] = CreateThread(NULL,
0,
(LPCTSTR) LoadOrders,
NULL,
0,
&dwThreadID[3]);
                if (hThread[3] == NULL)
                {
                    printf("Error, failed in creating creating main
thread = 3.\n");
                    exit(-1);
                }
            }
            // Wait for threads to finish...
            for (i=0; i<MAX_MAIN_THREADS; i++)
            {
                if (hThread[i] != NULL)
                {
                    WaitForSingleObject( hThread[i], INFINITE );
                    CloseHandle(hThread[i]);
                    hThread[i] = NULL;
                }
            }

```

```

        }
        main_time_end = (TimeNow() / MILLI);
        sprintf(buffer, "\nTPC-C load completed successfully in %ld
minutes.\n",
            (main_time_end - main_time_start)/60);
        printf("%s",buffer);
        fprintf(fLoader, "%s", buffer);
        fclose(fLoader);
        SQLFreeEnv(henv);
        exit(0);
        return 0;
    }
    //=====
    //
    // Function name: LoadItem
    //
    //=====
    void LoadItem()
    {
        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        bcpint[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("idxwarcl");

    InitString(w_name, W_NAME_LEN+1);
    InitAddress(w_street_1, w_street_2, w_city, w_state, w_zip);

    sprintf(name, "%s..%s", aptr->database, "warehouse");

    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("idxwarcl");

    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);

rc = bcp_bind(w_hdbc1, (BYTE *) d_street_1, 0, ADDRESS_LEN, NULL,
0, 0, 4);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

rc = bcp_bind(w_hdbc1, (BYTE *) d_street_2, 0, ADDRESS_LEN, NULL,
0, 0, 5);
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      bcphint[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(bcphint, "tablock, order (s_i_id, s_w_id),
ROWS_PER_BATCH = %u", (aptr->num_warehouses * 100000));
        rc = bcp_control(w_hdbc1, BCPHINTS, (void*) bcphint);
        if (rc != SUCCEED)
            HandleErrorDBC(w_hdbc1);
    }

    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 != SUCCEED)
                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;
    DWORD dwThreadID[MAX_CUSTOMER_THREADS];
    HANDLE hThread[MAX_CUSTOMER_THREADS];
    char name[20];
    RETCODE rc;
    DBINT rcint;
    char bcphint[128];
    char cmd[256];
    // SQLRETURN rc_1;
    // SQLSMALLINT recnum, MsgLen;
    // SQLCHAR SqlState[6],
    Msg[SQL_MAX_MESSAGE_LENGTH];
    // SQLINTEGER NativeError;

    // 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");
        BuildIndex("idxhiscl"); // added history clustered index
        // 9/10/2001
    }

    // Initialize bulk copy
    sprintf(name, "%s..%s", aptr->database, "customer");

    rc = bcp_init(c_hdbc1, name, NULL, "logs\\customer.err", DB_IN);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

```

```

    if ((aptr->build_index == 1) && (aptr->index_order == 1))
    {
        sprintf(bcphint, "tablock, order (c_w_id, c_d_id, c_id),
ROWS_PER_BATCH = %u", (aptr->num_warehouses * 30000));
        rc = bcp_control(c_hdbc1, BCPHINTS, (void*) bcphint);
        if (rc != SUCCEED)
            HandleErrorDBC(c_hdbc1);
    }

    sprintf(name, "%s..%s", aptr->database, "history");

    rc = bcp_init(c_hdbc2, name, NULL, "logs\\history.err", DB_IN);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc2);

//    sprintf(bcphint, "tablock");
    sprintf(bcphint, "tablock, order (h_c_w_id, h_date, h_c_d_id,
h_c_id, h_amount), ROWS_PER_BATCH = %u", (aptr->num_warehouses * 30000));
//    Add hint to help history index creation
//    9/10/2001 RBS
    rc = bcp_control(c_hdbc2, BCPHINTS, (void*) bcphint);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc2);

    customer_rows_loaded = 0;
    history_rows_loaded = 0;

    CustomerBufInit();

    customer_time_start.time_start = (TimeNow() / MILLI);
    history_time_start.time_start = (TimeNow() / MILLI);

    for (w_id = (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("idxcus1");

```

```

// 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] = 'O';
customer_buf[i].c_middle[1] = 'E';

MakeAddress(customer_buf[i].c_street_1,
            customer_buf[i].c_street_2,
            customer_buf[i].c_city,
            customer_buf[i].c_state,
            customer_buf[i].c_zip);

MakeNumberString(16, 16, PHONE_LEN,
customer_buf[i].c_phone);

if (RandomNumber(1L, 100L) > 10)
    customer_buf[i].c_credit[0] = 'G';
else
    customer_buf[i].c_credit[0] = 'B';
customer_buf[i].c_credit[1] = 'C';

customer_buf[i].c_credit_lim = 50000.0;
customer_buf[i].c_discount = ((float) RandomNumber(0L,
5000L)) / 10000.0;

// 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 != SUCCEEDED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) c_state, 0, STATE_LEN, NULL, 0, 0,
10);
    if (rc != SUCCEEDED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) c_zip, 0, ZIP_LEN, NULL, 0, 0, 11);
    if (rc != SUCCEEDED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) c_phone, 0, PHONE_LEN, NULL, 0, 0,
12);
    if (rc != SUCCEEDED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) &c_since, 0, C_SINCE_LEN, NULL, 0,
SQLCHARACTER, 13);
    if (rc != SUCCEEDED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) c_credit, 0, CREDIT_LEN, NULL, 0, 0,
14);
    if (rc != SUCCEEDED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) &c_credit_lim, 0, SQL_VARLEN_DATA,
NULL, 0, SQLFLT8, 15);
    if (rc != SUCCEEDED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) &c_discount, 0, SQL_VARLEN_DATA, NULL,
0, SQLFLT8, 16);
    if (rc != SUCCEEDED)
        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 != SUCCEEDED)
    //     HandleErrorDBC(c_hdbc1);
    rc = bcp_bind(c_hdbc1, (BYTE *) c_balance, 0, 5, NULL, 0,
SQLCHARACTER, 17);
    if (rc != SUCCEEDED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) &c_ytd_payment, 0, SQL_VARLEN_DATA,
NULL, 0, SQLFLT8, 18);
    if (rc != SUCCEEDED)
        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 != SUCCEED)
        HandleErrorDBC(c_hdbc2);

    rc = bcp_bind(c_hdbc2, (BYTE *) &c_d_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT2, 2);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc2);

    rc = bcp_bind(c_hdbc2, (BYTE *) &c_w_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT2, 3);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc2);

    rc = bcp_bind(c_hdbc2, (BYTE *) &c_d_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT2, 4);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc2);

    rc = bcp_bind(c_hdbc2, (BYTE *) &c_w_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT2, 5);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc2);

    rc = bcp_bind(c_hdbc2, (BYTE *) &h_date, 0, H_DATE_LEN, NULL, 0,
SQLCHARACTER, 6);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc2);

    rc = bcp_bind(c_hdbc2, (BYTE *) &h_amount, 0, SQL_VARLEN_DATA, NULL,
0, SQLFLT8, 7);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc2);

    rc = bcp_bind(c_hdbc2, (BYTE *) h_data, 0, H_DATA_LEN, NULL, 0, 0, 8);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc2);

    for (i = 0; i < customers_per_district; i++)
    {
        c_id = customer_buf[i].c_id;
        c_d_id = customer_buf[i].c_d_id;
        c_w_id = customer_buf[i].c_w_id;
        h_amount = customer_buf[i].h_amount;
        strcpy(h_data, customer_buf[i].h_data);

```

```

        FormatDate(&h_date);

        // send to server
        rc = bcp_sendrow(c_hdbc2);
        if (rc != SUCCEED)
            HandleErrorDBC(c_hdbc2);

        history_rows_loaded++;
        CheckForCommit(c_hdbc2, c_hstmt2, history_rows_loaded,
"history", &history_time_start->time_start);
    }
}

//=====
//
// Function   : LoadOrders
//
//=====
void LoadOrders()
{
    LOADER_TIME_STRUCT    orders_time_start;
    LOADER_TIME_STRUCT    new_order_time_start;
    LOADER_TIME_STRUCT    order_line_time_start;
    short                 w_id;
    short                 d_id;
    DWORD                 dwThreadID[MAX_ORDER_THREADS];
    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("idxordc1");
        BuildIndex("idxnodc1");
        BuildIndex("idxodlc1");
    }

    // 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))
    {
        sprintf(bcphint, "tablock, order (o_w_id, o_d_id, o_id),
ROWS_PER_BATCH = %u", (aptr->num_warehouses * 30000));
        rc = bcp_control(o_hdbc1, BCPHINTS, (void*) bcphint);

```

```

        if (rc != SUCCEED)
            HandleErrorDBC(o_hdbc1);
    }

    sprintf(name, "%s.%s", aptr->database, "new_order");

    rc = bcp_init(o_hdbc2, name, NULL, "logs\\neword.err", DB_IN);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc2);

    if ((aptr->build_index == 1) && (aptr->index_order == 1))
    {
        sprintf(bcphint, "tablock, order (no_w_id, no_d_id,
no_o_id), ROWS_PER_BATCH = %u", (aptr->num_warehouses * 9000));
        rc = bcp_control(o_hdbc2, BCPHINTS, (void*) bcphint);
        if (rc != SUCCEED)
            HandleErrorDBC(o_hdbc2);
    }

    sprintf(name, "%s.%s", aptr->database, "order_line");

    rc = bcp_init(o_hdbc3, name, NULL, "logs\\ordline.err", DB_IN);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc3);

    if ((aptr->build_index == 1) && (aptr->index_order == 1))
    {
        sprintf(bcphint, "tablock, order (ol_w_id, ol_d_id,
ol_o_id, ol_number), ROWS_PER_BATCH = %u", (aptr->num_warehouses *
300000));
        rc = bcp_control(o_hdbc3, BCPHINTS, (void*) bcphint);
        if (rc != SUCCEED)
            HandleErrorDBC(o_hdbc3);
    }

    orders_rows_loaded      = 0;
    new_order_rows_loaded  = 0;
    order_line_rows_loaded  = 0;

    OrdersBufInit();

    orders_time_start.time_start = (TimeNow() / MILLI);
    new_order_time_start.time_start = (TimeNow() / MILLI);
    order_line_time_start.time_start = (TimeNow() / MILLI);

    for (w_id = (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");
    // No Non Clustered index on orders
    }

}

//=====
//
// 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("idxnodc1");
    }
}

//=====
//
// 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
(%0.2f 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],
                            SQL_NTS,
                            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],
                            SQL_NTS,
                            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],
                            SQL_NTS,
                            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],
                            SQL_NTS,
                            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 )
    {
        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 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   : 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_INTEGER );
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;

        // iterate 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')
                    {
                        printf("The Warehouse table is
missing or damaged.\n");
                        ExitFlag = 1;
                    }
                    break;
                case 1:
                    if (TablesBitMap[i] == '0')
                    {
                        printf("The District table is
missing or damaged.\n");
                        ExitFlag = 1;
                    }
                    break;
                case 2:
                    if (TablesBitMap[i] == '0')
                    {
                        printf("The Customer table is
missing or damaged.\n");
                        ExitFlag = 1;
                    }
                    break;
                case 3:
                    if (TablesBitMap[i] == '0')
                    {
                        printf("The History table is missing
or damaged.\n");
                        ExitFlag = 1;
                    }
                    break;
                case 4:
                    if (TablesBitMap[i] == '0')
                    {
                        printf("The New_Order table is
missing or damaged.\n");
                        ExitFlag = 1;
                    }

```

```

        }
        break;
    case 5:
        if (TablesBitMap[i] == '0')
        {
            printf("The Orders table is missing
or damaged.\n");
            ExitFlag = 1;
        }
        break;
    case 6:
        if (TablesBitMap[i] == '0')
        {
            printf("The Order_Line table is
missing or damaged.\n");
            ExitFlag = 1;
        }
        break;
    case 7:
        if (TablesBitMap[i] == '0')
        {
            printf("The Item table is missing or
damaged.\n");
            ExitFlag = 1;
        }
        break;
    case 8:
        if (TablesBitMap[i] == '0')
        {
            printf("The Stock table is missing
or damaged.\n");
            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;
}

```

Appendix C - Tunable Parameters

Microsoft SQL Server Startup Parameters

```
c:\sql80\mssql\binn\sqlservr -c -x -g300 /T3502
```

Where:

- -c Start SQL Server independently of the Service Control Manager
- -x Disables the keeping of CPU time and cache hit ratio statistics
- /T3502 Writes a message to the SQL Server Errorlog showing the beginning and ending time of each checkpoint
- -g300 Specifies the amount of virtual address space, in MB, SQL Server will leave available for memory allocations, excluding the buffer pool and thread stacks, such as dynamically-loaded DLLs, extended procedure calls, etc. If this option is not specified, SQL Server will use a value that is suitable for a wide range of runtime environments. Use of this option may be appropriate in 2GB (3GB Enterprise Edition) configurations in which the memory usage requirements of SQL Server are atypical and the virtual address space of the SQL Server process is totally in use. Incorrect use of this option can lead to conditions under which SQL Server may not start or may encounter runtime errors.

SQL Server Stack Size

The default stack size for Microsoft SQL Server 2000 was changed using the EDITBIN utility. The EDITBIN utility ships with Microsoft Visual C++ V6.0. The command used to change the stack size is:

```
editbin /S: 262144 sqlservr.exe
```

This command is fully documented as an article in the Microsoft Knowledge Base on the Microsoft Web Site at www.Microsoft.com/support.

BOOT.INI

```
[boot loader]
timeout=30
default=multi(0)disk(0)rdisk(0)partition(1)\WINDOWS
[operating systems]
multi(0)disk(0)rdisk(0)partition(1)\WINDOWS="Microsoft Windows .NET Datacenter
Server" /fastdetect /pae /clstr=0706050403020100
```

The /pae switch was added to the boot.ini file to cause the OS to support more than 4GB of physical memory.

The /clstr=0706050403020100 switch was added to bind interrupts from an IO module (DIB) to a specific 4-processor group.

User Rights Assignment

The Group Policy Editor of the OS was used to modify an entry under User Rights Assignment. Specifically, the right to “Lock pages in memory” was given to the Administrators group so that SQL Server 2000 could use large amounts of physical memory.

Microsoft SQL Server Configuration Parameters

```
1> 2> 3> 4> 5> 6> 7> 8> 9> 10> 11>
-- File:      VERSION.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.21
--           Copyright Microsoft, 1999, 2000
-- Purpose:   Returns SQL Server version string
```

```
print " "
select convert(char(30), getdate(),9)
print " "
```

```
-----
Oct 29 2001  4:08:28:297PM
```

```
(1 row affected)
```

```
1> 2> 3>
```

```
select @@version
```

```

-----
-----
-----
Microsoft SQL Server 2000 - 8.00.523 (Intel X86)
Oct 1 2001 09:30:06
Cop
yright (c) 1988-2000 Microsoft Corporation
Enterprise Edition on Windo
ws NT 5.1 (Build 3562: )

```

```
(1 row affected)
```

```
1> 2>
```

```
1> 2> 3> 4> 5> 6> 7> 8> 9> 10>
```

```

-- File:      CONFIG.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.21
--           Copyright Microsoft, 1999, 2000
-- Purpose:   Collects SQL Server configuration parameters

```

```

print " "
select convert(char(30), getdate(),9)
print " "

```

```

-----
Oct 29 2001 4:08:29:123PM

```

```
(1 row affected)
```

```

1> 2> 3> DBCC execution completed. If DBCC printed error messages, contact
your system administrator.
Configuration option 'show advanced options' changed from 1 to 1. Run the
RECONFIGURE statement to install.

```

```

sp_configure "show advanced",1
1> 2> reconfigure with override
1> 2> sp_configure

```

```

name
minimum maximum config_value run_value

```

```

-----
affinity mask -
2147483648 2147483647 -1 -1
allow updates
0 1 1 1
awe enabled
0 1 1 1
c2 audit mode
0 1 0 0
cost threshold for parallelism
0 32767 1 1

```

```

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 0 0
lightweight pooling
0 1 1 1
locks
5000 2147483647 0 0
max degree of parallelism
0 32 1 1
max server memory (MB)
4 2147483647 63500 63500
max text repl size (B)
0 2147483647 65536 65536
max worker threads
32 32767 448 448
media retention
0 365 0 0
min memory per query (KB)
512 2147483647 1024 1024
min server memory (MB)
0 2147483647 0 0
nested triggers
0 1 1 1
network packet size (B)
512 65536 4096 4096
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 119 119
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 0 0
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>

ESM7900 Storage Configuration Information

Log and Database DPE-Cache Configuration

```

C:\Program Files\EMC\Navisphere CLI>navicli -h 10.10.10.3 getcache
SP Read Cache State      Disabled
SP Write Cache State     Enabled
Cache Page size:        16
Write Cache Mirrored:    YES
Low Watermark:          15
High Watermark:         85
SPA Cache pages:        46998
SPB Cache pages:        0
Unassigned Cache Pages: 0
Read Hit Ratio:         0
Write Hit Ratio:        0
Prct Dirty Cache Pages = 0
Prct Cache Pages Owned = 0
SPA Read Cache State     Disabled
SPB Read Cache State     Disabled
SPA Write Cache State     Enabled
SPB Write Cache State     Enabled
System Buffer (spA):     22 MB
System Buffer (spB):     22 MB
SPS Test Day:           Saturday
SPS Test Time:          17:00
SPA Physical Memory Size = 904
SPB Physical Memory Size = 904
Physical memory size of Front-End = Switch not supported
Physical memory size of Back-End = Switch not supported
SPA Free Memory Size = 0
SPB Free Memory Size = 0
Free Memory Size of Front-End = Switch not supported
Free Memory Size of Back-End = Switch not supported
SPA Read Cache Size = 0
SPB Read Cache Size = 0
SPA Write Cache Size = 882
SPB Write Cache Size = 882
SPA Optimized Raid 3 Memory Size = 0
SPB Optimized Raid 3 Memory Size = 0

```

```

C:\Program Files\EMC\Navisphere CLI>navicli -h 10.10.10.4 getcache
SP Read Cache State      Disabled
SP Write Cache State     Enabled
Cache Page size:        16
Write Cache Mirrored:    YES

```

```

Low Watermark:          15
High Watermark:         85
SPA Cache pages:        0
SPB Cache pages:        8294
Unassigned Cache Pages: 0
Read Hit Ratio:         0
Write Hit Ratio:        0
Prct Dirty Cache Pages = 0
Prct Cache Pages Owned = 0
SPA Read Cache State     Disabled
SPB Read Cache State     Disabled
SPA Write Cache State     Enabled
SPB Write Cache State     Enabled
System Buffer (spA):     22 MB
System Buffer (spB):     22 MB
SPS Test Day:           Saturday
SPS Test Time:          17:00
SPA Physical Memory Size = 904
SPB Physical Memory Size = 904
Physical memory size of Front-End = Switch not supported
Physical memory size of Back-End = Switch not supported
SPA Free Memory Size = 0
SPB Free Memory Size = 0
Free Memory Size of Front-End = Switch not supported
Free Memory Size of Back-End = Switch not supported
SPA Read Cache Size = 0
SPB Read Cache Size = 0
SPA Write Cache Size = 882
SPB Write Cache Size = 882
SPA Optimized Raid 3 Memory Size = 0
SPB Optimized Raid 3 Memory Size = 0

```

Database DPE-Cache (common to 11 DPEs)

```

C:\Program Files\EMC\Navisphere CLI>navicli -h 10.10.10.5 getcache
SP Read Cache State      Disabled
SP Write Cache State     Disabled
Cache Page size:        16
Write Cache Mirrored:    YES
Low Watermark:          10
High Watermark:         90
SPA Cache pages:        0
SPB Cache pages:        0
Unassigned Cache Pages: 0
Read Hit Ratio:         0
Write Hit Ratio:        0
Prct Dirty Cache Pages = 0
Prct Cache Pages Owned = 0
SPA Read Cache State     Disabled
SPB Read Cache State     Disabled
SPA Write Cache State     Disabled
SPB Write Cache State     Disabled
System Buffer (spA):     22 MB
System Buffer (spB):     22 MB
SPS Test Day:           Saturday

```

```

SPS Test Time: 17:00
SPA Physical Memory Size = 904
SPB Physical Memory Size = 904
Physical memory size of Front-End = Switch not supported
Physical memory size of Back-End = Switch not supported
SPA Free Memory Size = 882
SPB Free Memory Size = 882
Free Memory Size of Front-End = Switch not supported
Free Memory Size of Back-End = Switch not supported
SPA Read Cache Size = 0
SPB Read Cache Size = 0
SPA Write Cache Size = 0
SPB Write Cache Size = 0
SPA Optimized Raid 3 Memory Size = 0
SPB Optimized Raid 3 Memory Size = 0

```

```

C:\Program Files\EMC\Navisphere CLI>navicli -h 10.10.10.6 getcache
SP Read Cache State Disabled
SP Write Cache State Disabled
Cache Page size: 16
Write Cache Mirrored: YES
Low Watermark: 10
High Watermark: 90
SPA Cache pages: 0
SPB Cache pages: 0
Unassigned Cache Pages: 0
Read Hit Ratio: 0
Write Hit Ratio: 0
Prct Dirty Cache Pages = 0
Prct Cache Pages Owned = 0
SPA Read Cache State Disabled
SPB Read Cache State Disabled
SPA Write Cache State Disabled
SPB Write Cache State Disabled
System Buffer (spA): 22 MB
System Buffer (spB): 22 MB
SPS Test Day: Saturday
SPS Test Time: 17:00
SPA Physical Memory Size = 904
SPB Physical Memory Size = 904
Physical memory size of Front-End = Switch not supported
Physical memory size of Back-End = Switch not supported
SPA Free Memory Size = 882
SPB Free Memory Size = 882
Free Memory Size of Front-End = Switch not supported
Free Memory Size of Back-End = Switch not supported
SPA Read Cache Size = 0
SPB Read Cache Size = 0
SPA Write Cache Size = 0
SPB Write Cache Size = 0
SPA Optimized Raid 3 Memory Size = 0
SPB Optimized Raid 3 Memory Size = 0

```

Log and Database DPE LUN Configurations

```

C:\Program Files\EMC\Navisphere CLI>navicli -h 10.10.10.3 getlun 0
Statistics logging is disabled.
Certain fields are not printed if statistics
logging is not enabled.
Prefetch size (blocks) = 0
Prefetch multiplier = 0
Segment size (blocks) = 0
Segment multiplier = 0
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40

Prefetching: NO
Prefetched data retained YES

Read cache configured according to
specified parameters.

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

RAID Type: RAID1/0
RAIDGroup ID: 0
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP A
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: ENABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP A
Rebuild Priority: ASAP
Verify Priority: Low
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100
Prct Bound: 100
LUN Capacity(Megabytes): 201202
LUN Capacity(Blocks): 412062720
UID:
60:06:01:EF:15:8D:00:00:76:19:0A:76:13:C4:D5:11
Enclosure 0 Disk 0 Queue Length: 0
Enclosure 1 Disk 0 Queue Length: 0
Enclosure 1 Disk 4 Queue Length: 0
Enclosure 0 Disk 1 Queue Length: 0
Enclosure 1 Disk 1 Queue Length: 0
Enclosure 1 Disk 5 Queue Length: 0
Enclosure 0 Disk 4 Queue Length: 0
Enclosure 1 Disk 2 Queue Length: 0

```



```

Enclosure 1 Disk 6 Queue Length: 0
Enclosure 0 Disk 5 Queue Length: 0
Enclosure 1 Disk 3 Queue Length: 0
Enclosure 1 Disk 7 Queue Length: 0
Enclosure 0 Disk 0 Hard Read Errors: 0
Enclosure 1 Disk 0 Hard Read Errors: 0
Enclosure 1 Disk 4 Hard Read Errors: 0
Enclosure 0 Disk 1 Hard Read Errors: 0
Enclosure 1 Disk 1 Hard Read Errors: 0
Enclosure 1 Disk 5 Hard Read Errors: 0
Enclosure 0 Disk 4 Hard Read Errors: 0
Enclosure 1 Disk 2 Hard Read Errors: 0
Enclosure 1 Disk 6 Hard Read Errors: 0
Enclosure 0 Disk 5 Hard Read Errors: 0
Enclosure 1 Disk 3 Hard Read Errors: 0
Enclosure 1 Disk 7 Hard Read Errors: 0
Enclosure 0 Disk 0 Hard Write Errors: 0
Enclosure 1 Disk 0 Hard Write Errors: 0
Enclosure 1 Disk 4 Hard Write Errors: 0
Enclosure 0 Disk 1 Hard Write Errors: 0
Enclosure 1 Disk 1 Hard Write Errors: 0
Enclosure 1 Disk 5 Hard Write Errors: 0
Enclosure 0 Disk 4 Hard Write Errors: 0
Enclosure 1 Disk 2 Hard Write Errors: 0
Enclosure 1 Disk 6 Hard Write Errors: 0
Enclosure 0 Disk 5 Hard Write Errors: 0
Enclosure 1 Disk 3 Hard Write Errors: 0
Enclosure 1 Disk 7 Hard Write Errors: 0
Enclosure 0 Disk 0 Soft Read Errors: 0
Enclosure 1 Disk 4 Soft Read Errors: 0
Enclosure 0 Disk 1 Soft Read Errors: 0
Enclosure 1 Disk 1 Soft Read Errors: 0
Enclosure 1 Disk 5 Soft Read Errors: 0
Enclosure 0 Disk 4 Soft Read Errors: 0
Enclosure 1 Disk 2 Soft Read Errors: 0
Enclosure 1 Disk 6 Soft Read Errors: 0
Enclosure 0 Disk 5 Soft Read Errors: 0
Enclosure 1 Disk 3 Soft Read Errors: 0
Enclosure 1 Disk 7 Soft Read Errors: 0
Enclosure 0 Disk 0 Soft Write Errors: 0
Enclosure 1 Disk 0 Soft Write Errors: 0
Enclosure 1 Disk 4 Soft Write Errors: 0
Enclosure 0 Disk 1 Soft Write Errors: 0
Enclosure 1 Disk 1 Soft Write Errors: 0
Enclosure 1 Disk 5 Soft Write Errors: 0
Enclosure 0 Disk 4 Soft Write Errors: 0
Enclosure 1 Disk 2 Soft Write Errors: 0
Enclosure 1 Disk 6 Soft Write Errors: 0
Enclosure 0 Disk 5 Soft Write Errors: 0
Enclosure 1 Disk 3 Soft Write Errors: 0
Enclosure 1 Disk 7 Soft Write Errors: 0

Bus 0 Enclosure 0 Disk 0 Enabled
Bus 0 Enclosure 1 Disk 0 Enabled
Bus 0 Enclosure 1 Disk 4 Enabled

```

```

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

```

```

C:\Program Files\EMC\Navisphere CLI>navicli -h 10.10.10.3 getlun 1
Statistics logging is disabled.
Certain fields are not printed if statistics
logging is not enabled.
Prefetch size (blocks) = 0
Prefetch multiplier = 0
Segment size (blocks) = 0
Segment multiplier = 0
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40

Prefetching: NO
Prefetched data retained YES

Read cache configured according to
specified parameters.

Total Hard Errors: 0
Total Soft Errors: 0
Total Queue Length: 0
Name Flare LUN 1
Minimum latency reads N/A

RAID Type: RAID1/0
RAIDGroup ID: 1
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP A
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: ENABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023

```

```

Default Owner:          SP A
Rebuild Priority:       ASAP
Verify Priority:        Low
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt:          100
Prct Bound:            100
LUN Capacity(Megabytes): 201202
LUN Capacity(Blocks):  412062720
UID:
60:06:01:EF:15:8D:00:00:77:19:0A:76:13:C4:D5:11
Enclosure 1 Disk 8 Queue Length: 0
Enclosure 2 Disk 2 Queue Length: 0
Enclosure 2 Disk 6 Queue Length: 0
Enclosure 1 Disk 9 Queue Length: 0
Enclosure 2 Disk 3 Queue Length: 0
Enclosure 2 Disk 7 Queue Length: 0
Enclosure 2 Disk 0 Queue Length: 0
Enclosure 2 Disk 4 Queue Length: 0
Enclosure 2 Disk 8 Queue Length: 0
Enclosure 2 Disk 1 Queue Length: 0
Enclosure 2 Disk 5 Queue Length: 0
Enclosure 2 Disk 9 Queue Length: 0
Enclosure 1 Disk 8 Hard Read Errors: 0
Enclosure 2 Disk 2 Hard Read Errors: 0
Enclosure 2 Disk 6 Hard Read Errors: 0
Enclosure 1 Disk 9 Hard Read Errors: 0
Enclosure 2 Disk 3 Hard Read Errors: 0
Enclosure 2 Disk 7 Hard Read Errors: 0
Enclosure 2 Disk 0 Hard Read Errors: 0
Enclosure 2 Disk 4 Hard Read Errors: 0
Enclosure 2 Disk 8 Hard Read Errors: 0
Enclosure 2 Disk 1 Hard Read Errors: 0
Enclosure 2 Disk 5 Hard Read Errors: 0
Enclosure 2 Disk 9 Hard Read Errors: 0
Enclosure 1 Disk 8 Hard Write Errors: 0
Enclosure 2 Disk 2 Hard Write Errors: 0
Enclosure 2 Disk 6 Hard Write Errors: 0
Enclosure 1 Disk 9 Hard Write Errors: 0
Enclosure 2 Disk 3 Hard Write Errors: 0
Enclosure 2 Disk 7 Hard Write Errors: 0
Enclosure 2 Disk 0 Hard Write Errors: 0
Enclosure 2 Disk 4 Hard Write Errors: 0
Enclosure 2 Disk 8 Hard Write Errors: 0
Enclosure 2 Disk 1 Hard Write Errors: 0
Enclosure 2 Disk 5 Hard Write Errors: 0
Enclosure 2 Disk 9 Hard Write Errors: 0
Enclosure 1 Disk 8 Soft Read Errors: 0
Enclosure 2 Disk 2 Soft Read Errors: 0
Enclosure 2 Disk 6 Soft Read Errors: 0
Enclosure 1 Disk 9 Soft Read Errors: 0
Enclosure 2 Disk 3 Soft Read Errors: 0
Enclosure 2 Disk 7 Soft Read Errors: 0
Enclosure 2 Disk 0 Soft Read Errors: 0
Enclosure 2 Disk 4 Soft Read Errors: 0
Enclosure 2 Disk 8 Soft Read Errors: 0
Enclosure 2 Disk 1 Soft Read Errors: 0
Enclosure 2 Disk 5 Soft Read Errors: 0
Enclosure 2 Disk 9 Soft Read Errors: 0

```

```

Enclosure 1 Disk 8 Soft Write Errors: 0
Enclosure 2 Disk 2 Soft Write Errors: 0
Enclosure 2 Disk 6 Soft Write Errors: 0
Enclosure 1 Disk 9 Soft Write Errors: 0
Enclosure 2 Disk 3 Soft Write Errors: 0
Enclosure 2 Disk 7 Soft Write Errors: 0
Enclosure 2 Disk 0 Soft Write Errors: 0
Enclosure 2 Disk 4 Soft Write Errors: 0
Enclosure 2 Disk 8 Soft Write Errors: 0
Enclosure 2 Disk 1 Soft Write Errors: 0
Enclosure 2 Disk 5 Soft Write Errors: 0
Enclosure 2 Disk 9 Soft Write Errors: 0

```

```
Bus 0 Enclosure 1 Disk 8 Enabled
```

```
Bus 0 Enclosure 2 Disk 2 Enabled
```

```
Bus 0 Enclosure 2 Disk 6 Enabled
```

```
Bus 0 Enclosure 1 Disk 9 Enabled
```

```
Bus 0 Enclosure 2 Disk 3 Enabled
```

```
Bus 0 Enclosure 2 Disk 7 Enabled
```

```
Bus 0 Enclosure 2 Disk 0 Enabled
```

```
Bus 0 Enclosure 2 Disk 4 Enabled
```

```
Bus 0 Enclosure 2 Disk 8 Enabled
```

```
Bus 0 Enclosure 2 Disk 1 Enabled
```

```
Bus 0 Enclosure 2 Disk 5 Enabled
```

```
Bus 0 Enclosure 2 Disk 9 Enabled
```

```
Is Private: NO
```

```
Snapshots List: None
```

```
MirrorView Name if any: Not Mirrored
```

```
C:\Program Files\EMC\Navisphere CLI>navicli -h 10.10.10.3 getlun 2
```

```
Statistics logging is disabled.
```

```
  Certain fields are not printed if statistics
  logging is not enabled.
```

```
Prefetch size (blocks) = 0
```

```
Prefetch multiplier = 0
```

```
Segment size (blocks) = 0
```

```
Segment multiplier = 0
```

```
Maximum prefetch (blocks) = 512
```

```
Prefetch Disable Size (blocks) = 129
```

```
Prefetch idle count = 40
```

```
Prefetching: NO
```

```
Prefetched data retained YES
```

```
Read cache configured according to
specified parameters.
```

Total Hard Errors: 0
Total Soft Errors: 0
Total Queue Length: 0
Name Flare LUN 2
Minimum latency reads N/A

RAID Type: RAID0
RAIDGroup ID: 2
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP B
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: DISABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP B
Rebuild Priority: N/A
Verify Priority: N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100
Prct Bound: 100
LUN Capacity(Megabytes): 167441
LUN Capacity(Blocks): 342919680

UID:
60:06:01:6F:E3:8A:00:00:18:54:C2:90:13:C4:D5:11

Enclosure 13 Disk 0	Queue Length:	0
Enclosure 13 Disk 1	Queue Length:	0
Enclosure 13 Disk 2	Queue Length:	0
Enclosure 13 Disk 3	Queue Length:	0
Enclosure 13 Disk 4	Queue Length:	0
Enclosure 13 Disk 5	Queue Length:	0
Enclosure 13 Disk 6	Queue Length:	0
Enclosure 13 Disk 7	Queue Length:	0
Enclosure 13 Disk 8	Queue Length:	0
Enclosure 13 Disk 9	Queue Length:	0
Enclosure 13 Disk 0	Hard Read Errors:	0
Enclosure 13 Disk 1	Hard Read Errors:	0
Enclosure 13 Disk 2	Hard Read Errors:	0
Enclosure 13 Disk 3	Hard Read Errors:	0
Enclosure 13 Disk 4	Hard Read Errors:	0
Enclosure 13 Disk 5	Hard Read Errors:	0
Enclosure 13 Disk 6	Hard Read Errors:	0
Enclosure 13 Disk 7	Hard Read Errors:	0
Enclosure 13 Disk 8	Hard Read Errors:	0
Enclosure 13 Disk 9	Hard Read Errors:	0
Enclosure 13 Disk 0	Hard Write Errors:	0
Enclosure 13 Disk 1	Hard Write Errors:	0
Enclosure 13 Disk 2	Hard Write Errors:	0
Enclosure 13 Disk 3	Hard Write Errors:	0
Enclosure 13 Disk 4	Hard Write Errors:	0
Enclosure 13 Disk 5	Hard Write Errors:	0
Enclosure 13 Disk 6	Hard Write Errors:	0
Enclosure 13 Disk 7	Hard Write Errors:	0
Enclosure 13 Disk 8	Hard Write Errors:	0

Enclosure 13 Disk 9	Hard Write Errors:	0
Enclosure 13 Disk 0	Soft Read Errors:	0
Enclosure 13 Disk 1	Soft Read Errors:	0
Enclosure 13 Disk 2	Soft Read Errors:	0
Enclosure 13 Disk 3	Soft Read Errors:	0
Enclosure 13 Disk 4	Soft Read Errors:	0
Enclosure 13 Disk 5	Soft Read Errors:	0
Enclosure 13 Disk 6	Soft Read Errors:	0
Enclosure 13 Disk 7	Soft Read Errors:	0
Enclosure 13 Disk 8	Soft Read Errors:	0
Enclosure 13 Disk 9	Soft Read Errors:	0
Enclosure 13 Disk 0	Soft Write Errors:	0
Enclosure 13 Disk 1	Soft Write Errors:	0
Enclosure 13 Disk 2	Soft Write Errors:	0
Enclosure 13 Disk 3	Soft Write Errors:	0
Enclosure 13 Disk 4	Soft Write Errors:	0
Enclosure 13 Disk 5	Soft Write Errors:	0
Enclosure 13 Disk 6	Soft Write Errors:	0
Enclosure 13 Disk 7	Soft Write Errors:	0
Enclosure 13 Disk 8	Soft Write Errors:	0
Enclosure 13 Disk 9	Soft Write Errors:	0

Bus 1 Enclosure 1 Disk 0 Enabled

Bus 1 Enclosure 1 Disk 1 Enabled

Bus 1 Enclosure 1 Disk 2 Enabled

Bus 1 Enclosure 1 Disk 3 Enabled

Bus 1 Enclosure 1 Disk 4 Enabled

Bus 1 Enclosure 1 Disk 5 Enabled

Bus 1 Enclosure 1 Disk 6 Enabled

Bus 1 Enclosure 1 Disk 7 Enabled

Bus 1 Enclosure 1 Disk 8 Enabled

Bus 1 Enclosure 1 Disk 9 Enabled

Is Private: NO

Snapshots List: None

MirrorView Name if any: Not Mirrored

C:\Program Files\EMC\Navisphere CLI>navicli -h 10.10.10.3 getlun 3
Statistics logging is disabled.

Certain fields are not printed if statistics logging is not enabled.

Prefetch size (blocks) =	0
Prefetch multiplier =	0
Segment size (blocks) =	0
Segment multiplier =	0
Maximum prefetch (blocks) =	512
Prefetch Disable Size (blocks) =	129
Prefetch idle count =	40

Prefetching: NO

Prefetched data retained YES

Read cache configured according to specified parameters.

Total Hard Errors: 0
Total Soft Errors: 0
Total Queue Length: 0
Name Flare LUN 3
Minimum latency reads N/A

RAID Type: RAID0
RAIDGroup ID: 3
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP B
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: DISABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP B
Rebuild Priority: N/A
Verify Priority: N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100
Prct Bound: 100
LUN Capacity(Megabytes): 167441
LUN Capacity(Blocks): 342919680
UID:

60:06:01:6F:E3:8A:00:00:19:54:C2:90:13:C4:D5:11

Enclosure 14 Disk 0 Queue Length: 0
Enclosure 14 Disk 1 Queue Length: 0
Enclosure 14 Disk 2 Queue Length: 0
Enclosure 14 Disk 3 Queue Length: 0
Enclosure 14 Disk 4 Queue Length: 0
Enclosure 14 Disk 5 Queue Length: 0
Enclosure 14 Disk 6 Queue Length: 0
Enclosure 14 Disk 7 Queue Length: 0
Enclosure 14 Disk 8 Queue Length: 0
Enclosure 14 Disk 9 Queue Length: 0
Enclosure 14 Disk 0 Hard Read Errors: 0
Enclosure 14 Disk 1 Hard Read Errors: 0
Enclosure 14 Disk 2 Hard Read Errors: 0
Enclosure 14 Disk 3 Hard Read Errors: 0
Enclosure 14 Disk 4 Hard Read Errors: 0
Enclosure 14 Disk 5 Hard Read Errors: 0
Enclosure 14 Disk 6 Hard Read Errors: 0
Enclosure 14 Disk 7 Hard Read Errors: 0
Enclosure 14 Disk 8 Hard Read Errors: 0
Enclosure 14 Disk 9 Hard Read Errors: 0
Enclosure 14 Disk 0 Hard Write Errors: 0
Enclosure 14 Disk 1 Hard Write Errors: 0
Enclosure 14 Disk 2 Hard Write Errors: 0
Enclosure 14 Disk 3 Hard Write Errors: 0

Enclosure 14 Disk 4 Hard Write Errors: 0
Enclosure 14 Disk 5 Hard Write Errors: 0
Enclosure 14 Disk 6 Hard Write Errors: 0
Enclosure 14 Disk 7 Hard Write Errors: 0
Enclosure 14 Disk 8 Hard Write Errors: 0
Enclosure 14 Disk 9 Hard Write Errors: 0
Enclosure 14 Disk 0 Soft Read Errors: 0
Enclosure 14 Disk 1 Soft Read Errors: 0
Enclosure 14 Disk 2 Soft Read Errors: 0
Enclosure 14 Disk 3 Soft Read Errors: 0
Enclosure 14 Disk 4 Soft Read Errors: 0
Enclosure 14 Disk 5 Soft Read Errors: 0
Enclosure 14 Disk 6 Soft Read Errors: 0
Enclosure 14 Disk 7 Soft Read Errors: 0
Enclosure 14 Disk 8 Soft Read Errors: 0
Enclosure 14 Disk 9 Soft Read Errors: 0
Enclosure 14 Disk 0 Soft Write Errors: 0
Enclosure 14 Disk 1 Soft Write Errors: 0
Enclosure 14 Disk 2 Soft Write Errors: 0
Enclosure 14 Disk 3 Soft Write Errors: 0
Enclosure 14 Disk 4 Soft Write Errors: 0
Enclosure 14 Disk 5 Soft Write Errors: 0
Enclosure 14 Disk 6 Soft Write Errors: 0
Enclosure 14 Disk 7 Soft Write Errors: 0
Enclosure 14 Disk 8 Soft Write Errors: 0
Enclosure 14 Disk 9 Soft Write Errors: 0

Bus 1 Enclosure 2 Disk 0 Enabled

Bus 1 Enclosure 2 Disk 1 Enabled

Bus 1 Enclosure 2 Disk 2 Enabled

Bus 1 Enclosure 2 Disk 3 Enabled

Bus 1 Enclosure 2 Disk 4 Enabled

Bus 1 Enclosure 2 Disk 5 Enabled

Bus 1 Enclosure 2 Disk 6 Enabled

Bus 1 Enclosure 2 Disk 7 Enabled

Bus 1 Enclosure 2 Disk 8 Enabled

Bus 1 Enclosure 2 Disk 9 Enabled

Is Private: NO
Snapshots List: None
MirrorView Name if any: Not Mirrored

C:\Program Files\EMC\Navisphere CLI>navicli -h 10.10.10.3 getlun 4

Statistics logging is disabled.
Certain fields are not printed if statistics logging is not enabled.
Prefetch size (blocks) = 0
Prefetch multiplier = 0
Segment size (blocks) = 0
Segment multiplier = 0

Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40

Prefetching: NO
Prefetched data retained YES

Read cache configured according to
specified parameters.

Total Hard Errors: 0
Total Soft Errors: 0
Total Queue Length: 0
Name Flare LUN 4
Minimum latency reads N/A

RAID Type: RAID0
RAIDGroup ID: 4
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP B
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: DISABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP B
Rebuild Priority: N/A
Verify Priority: N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100
Prct Bound: 100
LUN Capacity(Megabytes): 167441
LUN Capacity(Blocks): 342919680

UID:
60:06:01:6F:E3:8A:00:00:1A:54:C2:90:13:C4:D5:11

Enclosure 15 Disk 0	Queue Length:	0
Enclosure 15 Disk 1	Queue Length:	0
Enclosure 15 Disk 2	Queue Length:	0
Enclosure 15 Disk 3	Queue Length:	0
Enclosure 15 Disk 4	Queue Length:	0
Enclosure 15 Disk 5	Queue Length:	0
Enclosure 15 Disk 6	Queue Length:	0
Enclosure 15 Disk 7	Queue Length:	0
Enclosure 15 Disk 8	Queue Length:	0
Enclosure 15 Disk 9	Queue Length:	0
Enclosure 15 Disk 0	Hard Read Errors:	0
Enclosure 15 Disk 1	Hard Read Errors:	0
Enclosure 15 Disk 2	Hard Read Errors:	0
Enclosure 15 Disk 3	Hard Read Errors:	0
Enclosure 15 Disk 4	Hard Read Errors:	0
Enclosure 15 Disk 5	Hard Read Errors:	0
Enclosure 15 Disk 6	Hard Read Errors:	0
Enclosure 15 Disk 7	Hard Read Errors:	0
Enclosure 15 Disk 8	Hard Read Errors:	0

Enclosure 15 Disk 9	Hard Read Errors:	0
Enclosure 15 Disk 0	Hard Write Errors:	0
Enclosure 15 Disk 1	Hard Write Errors:	0
Enclosure 15 Disk 2	Hard Write Errors:	0
Enclosure 15 Disk 3	Hard Write Errors:	0
Enclosure 15 Disk 4	Hard Write Errors:	0
Enclosure 15 Disk 5	Hard Write Errors:	0
Enclosure 15 Disk 6	Hard Write Errors:	0
Enclosure 15 Disk 7	Hard Write Errors:	0
Enclosure 15 Disk 8	Hard Write Errors:	0
Enclosure 15 Disk 9	Hard Write Errors:	0
Enclosure 15 Disk 0	Soft Read Errors:	0
Enclosure 15 Disk 1	Soft Read Errors:	0
Enclosure 15 Disk 2	Soft Read Errors:	0
Enclosure 15 Disk 3	Soft Read Errors:	0
Enclosure 15 Disk 4	Soft Read Errors:	0
Enclosure 15 Disk 5	Soft Read Errors:	0
Enclosure 15 Disk 6	Soft Read Errors:	0
Enclosure 15 Disk 7	Soft Read Errors:	0
Enclosure 15 Disk 8	Soft Read Errors:	0
Enclosure 15 Disk 9	Soft Read Errors:	0
Enclosure 15 Disk 0	Soft Write Errors:	0
Enclosure 15 Disk 1	Soft Write Errors:	0
Enclosure 15 Disk 2	Soft Write Errors:	0
Enclosure 15 Disk 3	Soft Write Errors:	0
Enclosure 15 Disk 4	Soft Write Errors:	0
Enclosure 15 Disk 5	Soft Write Errors:	0
Enclosure 15 Disk 6	Soft Write Errors:	0
Enclosure 15 Disk 7	Soft Write Errors:	0
Enclosure 15 Disk 8	Soft Write Errors:	0
Enclosure 15 Disk 9	Soft Write Errors:	0

Bus 1 Enclosure 3 Disk 0 Enabled

Bus 1 Enclosure 3 Disk 1 Enabled

Bus 1 Enclosure 3 Disk 2 Enabled

Bus 1 Enclosure 3 Disk 3 Enabled

Bus 1 Enclosure 3 Disk 4 Enabled

Bus 1 Enclosure 3 Disk 5 Enabled

Bus 1 Enclosure 3 Disk 6 Enabled

Bus 1 Enclosure 3 Disk 7 Enabled

Bus 1 Enclosure 3 Disk 8 Enabled

Bus 1 Enclosure 3 Disk 9 Enabled

Is Private: NO

Snapshots List: None

MirrorView Name if any: Not Mirrored

C:\Program Files\EMC\Navisphere CLI>navicli -h 10.10.10.3 getlun 5
Statistics logging is disabled.

Certain fields are not printed if statistics

```

logging is not enabled.
Prefetch size (blocks) =          0
Prefetch multiplier =             0
Segment size (blocks) =          0
Segment multiplier =             0
Maximum prefetch (blocks) =      512
Prefetch Disable Size (blocks) = 129
Prefetch idle count =            40

```

```

Prefetching: NO
Prefetched data retained    YES

```

```

Read cache configured according to
specified parameters.

```

```

Total Hard Errors:          0
Total Soft Errors:         0
Total Queue Length:        0
Name                       Flare LUN 5
Minimum latency reads N/A

```

```

RAID Type:                 RAID0
RAIDGroup ID:              5
State:                     Bound
Stripe Crossing:           0
Element Size:              256
Current owner:             SP B
Auto-trespass:             DISABLED
Auto-assign:               DISABLED
Write cache:               DISABLED
Read cache:                DISABLED
Idle Threshold:            0
Idle Delay Time:           20
Write Aside Size:          1023
Default Owner:             SP B
Rebuild Priority:           N/A
Verify Priority:           N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt:              100
Prct Bound:                100
LUN Capacity(Megabytes):   167441
LUN Capacity(Blocks):      342919680

```

```

UID:
60:06:01:6F:E3:8A:00:00:1B:54:C2:90:13:C4:D5:11

```

```

Enclosure 16 Disk 0 Queue Length: 0
Enclosure 16 Disk 1 Queue Length: 0
Enclosure 16 Disk 2 Queue Length: 0
Enclosure 16 Disk 3 Queue Length: 0
Enclosure 16 Disk 4 Queue Length: 0
Enclosure 16 Disk 5 Queue Length: 0
Enclosure 16 Disk 6 Queue Length: 0
Enclosure 16 Disk 7 Queue Length: 0
Enclosure 16 Disk 8 Queue Length: 0
Enclosure 16 Disk 9 Queue Length: 0
Enclosure 16 Disk 0 Hard Read Errors: 0
Enclosure 16 Disk 1 Hard Read Errors: 0
Enclosure 16 Disk 2 Hard Read Errors: 0
Enclosure 16 Disk 3 Hard Read Errors: 0

```

```

Enclosure 16 Disk 4 Hard Read Errors: 0
Enclosure 16 Disk 5 Hard Read Errors: 0
Enclosure 16 Disk 6 Hard Read Errors: 0
Enclosure 16 Disk 7 Hard Read Errors: 0
Enclosure 16 Disk 8 Hard Read Errors: 0
Enclosure 16 Disk 9 Hard Read Errors: 0
Enclosure 16 Disk 0 Hard Write Errors: 0
Enclosure 16 Disk 1 Hard Write Errors: 0
Enclosure 16 Disk 2 Hard Write Errors: 0
Enclosure 16 Disk 3 Hard Write Errors: 0
Enclosure 16 Disk 4 Hard Write Errors: 0
Enclosure 16 Disk 5 Hard Write Errors: 0
Enclosure 16 Disk 6 Hard Write Errors: 0
Enclosure 16 Disk 7 Hard Write Errors: 0
Enclosure 16 Disk 8 Hard Write Errors: 0
Enclosure 16 Disk 9 Hard Write Errors: 0
Enclosure 16 Disk 0 Soft Read Errors: 0
Enclosure 16 Disk 1 Soft Read Errors: 0
Enclosure 16 Disk 2 Soft Read Errors: 0
Enclosure 16 Disk 3 Soft Read Errors: 0
Enclosure 16 Disk 4 Soft Read Errors: 0
Enclosure 16 Disk 5 Soft Read Errors: 0
Enclosure 16 Disk 6 Soft Read Errors: 0
Enclosure 16 Disk 7 Soft Read Errors: 0
Enclosure 16 Disk 8 Soft Read Errors: 0
Enclosure 16 Disk 9 Soft Read Errors: 0
Enclosure 16 Disk 0 Soft Write Errors: 0
Enclosure 16 Disk 1 Soft Write Errors: 0
Enclosure 16 Disk 2 Soft Write Errors: 0
Enclosure 16 Disk 3 Soft Write Errors: 0
Enclosure 16 Disk 4 Soft Write Errors: 0
Enclosure 16 Disk 5 Soft Write Errors: 0
Enclosure 16 Disk 6 Soft Write Errors: 0
Enclosure 16 Disk 7 Soft Write Errors: 0
Enclosure 16 Disk 8 Soft Write Errors: 0
Enclosure 16 Disk 9 Soft Write Errors: 0

```

```

Bus 1 Enclosure 4 Disk 0 Enabled

```

```

Bus 1 Enclosure 4 Disk 1 Enabled

```

```

Bus 1 Enclosure 4 Disk 2 Enabled

```

```

Bus 1 Enclosure 4 Disk 3 Enabled

```

```

Bus 1 Enclosure 4 Disk 4 Enabled

```

```

Bus 1 Enclosure 4 Disk 5 Enabled

```

```

Bus 1 Enclosure 4 Disk 6 Enabled

```

```

Bus 1 Enclosure 4 Disk 7 Enabled

```

```

Bus 1 Enclosure 4 Disk 8 Enabled

```

```

Bus 1 Enclosure 4 Disk 9 Enabled

```

```

Is Private:                NO
Snapshots List:            None
MirrorView Name if any:    Not Mirrored

```

Database DPE LUN Configurations (common to 11 DPEs)

```
C:\Program Files\EMC\Navisphere CLI>navicli -h 10.10.10.5 getlun 0
Statistics logging is disabled.
```

```
Certain fields are not printed if statistics
logging is not enabled.
```

```
Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40
```

```
Prefetching: NO
Prefetched data retained YES
```

```
Read cache configured according to
specified parameters.
```

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

```
RAID Type: RAID0
RAIDGroup ID: 0
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP A
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: DISABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP A
Rebuild Priority: N/A
Verify Priority: N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100
Prct Bound: 100
LUN Capacity(Megabytes): 167441
LUN Capacity(Blocks): 342919680
```

```
UID:
60:06:01:F4:E8:8B:00:00:5C:B4:FD:CA:83:C6:D5:11
Enclosure 0 Disk 0 Queue Length: 0
Enclosure 0 Disk 1 Queue Length: 0
Enclosure 0 Disk 4 Queue Length: 0
Enclosure 0 Disk 5 Queue Length: 0
Enclosure 0 Disk 6 Queue Length: 0
```

```
Enclosure 0 Disk 7 Queue Length: 0
Enclosure 0 Disk 8 Queue Length: 0
Enclosure 0 Disk 9 Queue Length: 0
Enclosure 1 Disk 0 Queue Length: 0
Enclosure 1 Disk 1 Queue Length: 0
Enclosure 0 Disk 0 Hard Read Errors: 0
Enclosure 0 Disk 1 Hard Read Errors: 0
Enclosure 0 Disk 4 Hard Read Errors: 0
Enclosure 0 Disk 5 Hard Read Errors: 0
Enclosure 0 Disk 6 Hard Read Errors: 0
Enclosure 0 Disk 7 Hard Read Errors: 0
Enclosure 0 Disk 8 Hard Read Errors: 0
Enclosure 0 Disk 9 Hard Read Errors: 0
Enclosure 1 Disk 0 Hard Read Errors: 0
Enclosure 1 Disk 1 Hard Read Errors: 0
Enclosure 0 Disk 0 Hard Write Errors: 0
Enclosure 0 Disk 1 Hard Write Errors: 0
Enclosure 0 Disk 4 Hard Write Errors: 0
Enclosure 0 Disk 5 Hard Write Errors: 0
Enclosure 0 Disk 6 Hard Write Errors: 0
Enclosure 0 Disk 7 Hard Write Errors: 0
Enclosure 0 Disk 8 Hard Write Errors: 0
Enclosure 0 Disk 9 Hard Write Errors: 0
Enclosure 1 Disk 0 Hard Write Errors: 0
Enclosure 1 Disk 1 Hard Write Errors: 0
Enclosure 0 Disk 0 Soft Read Errors: 0
Enclosure 0 Disk 1 Soft Read Errors: 0
Enclosure 0 Disk 4 Soft Read Errors: 0
Enclosure 0 Disk 5 Soft Read Errors: 0
Enclosure 0 Disk 6 Soft Read Errors: 0
Enclosure 0 Disk 7 Soft Read Errors: 0
Enclosure 0 Disk 8 Soft Read Errors: 0
Enclosure 0 Disk 9 Soft Read Errors: 0
Enclosure 1 Disk 0 Soft Read Errors: 0
Enclosure 1 Disk 1 Soft Read Errors: 0
Enclosure 0 Disk 0 Soft Write Errors: 0
Enclosure 0 Disk 1 Soft Write Errors: 0
Enclosure 0 Disk 4 Soft Write Errors: 0
Enclosure 0 Disk 5 Soft Write Errors: 0
Enclosure 0 Disk 6 Soft Write Errors: 0
Enclosure 0 Disk 7 Soft Write Errors: 0
Enclosure 0 Disk 8 Soft Write Errors: 0
Enclosure 0 Disk 9 Soft Write Errors: 0
Enclosure 1 Disk 0 Soft Write Errors: 0
Enclosure 1 Disk 1 Soft Write Errors: 0
```

```
Bus 0 Enclosure 0 Disk 0 Enabled
```

```
Bus 0 Enclosure 0 Disk 1 Enabled
```

```
Bus 0 Enclosure 0 Disk 4 Enabled
```

```
Bus 0 Enclosure 0 Disk 5 Enabled
```

```
Bus 0 Enclosure 0 Disk 6 Enabled
```

```
Bus 0 Enclosure 0 Disk 7 Enabled
```

```
Bus 0 Enclosure 0 Disk 8 Enabled
```

```

Bus 0 Enclosure 0 Disk 9 Enabled
Bus 0 Enclosure 1 Disk 0 Enabled
Bus 0 Enclosure 1 Disk 1 Enabled
Is Private: NO
Snapshots List: None
MirrorView Name if any: Not Mirrored

```

```

C:\Program Files\EMC\Navisphere CLI>navicli -h 10.10.10.5 getlun 1
Statistics logging is disabled.

```

```

Certain fields are not printed if statistics
logging is not enabled.

```

```

Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40

```

```

Prefetching: NO
Prefetched data retained YES

```

```

Read cache configured according to
specified parameters.

```

```

Total Hard Errors: 0
Total Soft Errors: 0
Total Queue Length: 0
Name Flare LUN 1
Minimum latency reads N/A

```

```

RAID Type: RAID0
RAIDGroup ID: 1
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP A
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: DISABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP A
Rebuild Priority: N/A
Verify Priority: N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100
Prct Bound: 100
LUN Capacity(Megabytes): 167441
LUN Capacity(Blocks): 342919680
UID:
60:06:01:F4:E8:8B:00:00:5D:B4:FD:CA:83:C6:D5:11

```

```

Enclosure 1 Disk 2 Queue Length: 0
Enclosure 1 Disk 3 Queue Length: 0
Enclosure 1 Disk 4 Queue Length: 0
Enclosure 1 Disk 5 Queue Length: 0
Enclosure 1 Disk 6 Queue Length: 0
Enclosure 1 Disk 7 Queue Length: 0
Enclosure 1 Disk 8 Queue Length: 0
Enclosure 1 Disk 9 Queue Length: 0
Enclosure 2 Disk 0 Queue Length: 0
Enclosure 2 Disk 1 Queue Length: 0
Enclosure 1 Disk 2 Hard Read Errors: 0
Enclosure 1 Disk 3 Hard Read Errors: 0
Enclosure 1 Disk 4 Hard Read Errors: 0
Enclosure 1 Disk 5 Hard Read Errors: 0
Enclosure 1 Disk 6 Hard Read Errors: 0
Enclosure 1 Disk 7 Hard Read Errors: 0
Enclosure 1 Disk 8 Hard Read Errors: 0
Enclosure 1 Disk 9 Hard Read Errors: 0
Enclosure 2 Disk 0 Hard Read Errors: 0
Enclosure 2 Disk 1 Hard Read Errors: 0
Enclosure 1 Disk 2 Hard Write Errors: 0
Enclosure 1 Disk 3 Hard Write Errors: 0
Enclosure 1 Disk 4 Hard Write Errors: 0
Enclosure 1 Disk 5 Hard Write Errors: 0
Enclosure 1 Disk 6 Hard Write Errors: 0
Enclosure 1 Disk 7 Hard Write Errors: 0
Enclosure 1 Disk 8 Hard Write Errors: 0
Enclosure 1 Disk 9 Hard Write Errors: 0
Enclosure 2 Disk 0 Hard Write Errors: 0
Enclosure 2 Disk 1 Hard Write Errors: 0
Enclosure 1 Disk 2 Soft Read Errors: 0
Enclosure 1 Disk 3 Soft Read Errors: 0
Enclosure 1 Disk 4 Soft Read Errors: 0
Enclosure 1 Disk 5 Soft Read Errors: 0
Enclosure 1 Disk 6 Soft Read Errors: 0
Enclosure 1 Disk 7 Soft Read Errors: 0
Enclosure 1 Disk 8 Soft Read Errors: 0
Enclosure 1 Disk 9 Soft Read Errors: 0
Enclosure 2 Disk 0 Soft Read Errors: 0
Enclosure 2 Disk 1 Soft Read Errors: 0
Enclosure 1 Disk 2 Soft Write Errors: 0
Enclosure 1 Disk 3 Soft Write Errors: 0
Enclosure 1 Disk 4 Soft Write Errors: 0
Enclosure 1 Disk 5 Soft Write Errors: 0
Enclosure 1 Disk 6 Soft Write Errors: 0
Enclosure 1 Disk 7 Soft Write Errors: 0
Enclosure 1 Disk 8 Soft Write Errors: 0
Enclosure 1 Disk 9 Soft Write Errors: 0
Enclosure 2 Disk 0 Soft Write Errors: 0
Enclosure 2 Disk 1 Soft Write Errors: 0

```

```

Bus 0 Enclosure 1 Disk 2 Enabled
Bus 0 Enclosure 1 Disk 3 Enabled
Bus 0 Enclosure 1 Disk 4 Enabled
Bus 0 Enclosure 1 Disk 5 Enabled

```



```

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

```

```

C:\Program Files\EMC\Navisphere CLI>navicli -h 10.10.10.5 getlun 2
Statistics logging is disabled.

```

```

Certain fields are not printed if statistics
logging is not enabled.

```

```

Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40

```

```

Prefetching: NO
Prefetched data retained YES

```

```

Read cache configured according to
specified parameters.

```

```

Total Hard Errors: 0
Total Soft Errors: 0
Total Queue Length: 0
Name Flare LUN 2
Minimum latency reads N/A

```

```

RAID Type: RAID0
RAIDGroup ID: 2
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP A
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: DISABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP A
Rebuild Priority: N/A
Verify Priority: N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100

```

```

Prct Bound: 100
LUN Capacity(Megabytes): 167441
LUN Capacity(Blocks): 342919680
UID:
60:06:01:F4:E8:8B:00:00:5E:B4:FD:CA:83:C6:D5:11
Enclosure 2 Disk 2 Queue Length: 0
Enclosure 2 Disk 3 Queue Length: 0
Enclosure 2 Disk 4 Queue Length: 0
Enclosure 2 Disk 5 Queue Length: 0
Enclosure 2 Disk 6 Queue Length: 0
Enclosure 2 Disk 7 Queue Length: 0
Enclosure 2 Disk 8 Queue Length: 0
Enclosure 2 Disk 9 Queue Length: 0
Enclosure 3 Disk 0 Queue Length: 0
Enclosure 3 Disk 1 Queue Length: 0
Enclosure 2 Disk 2 Hard Read Errors: 0
Enclosure 2 Disk 3 Hard Read Errors: 0
Enclosure 2 Disk 4 Hard Read Errors: 0
Enclosure 2 Disk 5 Hard Read Errors: 0
Enclosure 2 Disk 6 Hard Read Errors: 0
Enclosure 2 Disk 7 Hard Read Errors: 0
Enclosure 2 Disk 8 Hard Read Errors: 0
Enclosure 2 Disk 9 Hard Read Errors: 0
Enclosure 3 Disk 0 Hard Read Errors: 0
Enclosure 3 Disk 1 Hard Read Errors: 0
Enclosure 2 Disk 2 Hard Write Errors: 0
Enclosure 2 Disk 3 Hard Write Errors: 0
Enclosure 2 Disk 4 Hard Write Errors: 0
Enclosure 2 Disk 5 Hard Write Errors: 0
Enclosure 2 Disk 6 Hard Write Errors: 0
Enclosure 2 Disk 7 Hard Write Errors: 0
Enclosure 2 Disk 8 Hard Write Errors: 0
Enclosure 2 Disk 9 Hard Write Errors: 0
Enclosure 3 Disk 0 Hard Write Errors: 0
Enclosure 3 Disk 1 Hard Write Errors: 0
Enclosure 2 Disk 2 Soft Read Errors: 0
Enclosure 2 Disk 3 Soft Read Errors: 0
Enclosure 2 Disk 4 Soft Read Errors: 0
Enclosure 2 Disk 5 Soft Read Errors: 0
Enclosure 2 Disk 6 Soft Read Errors: 0
Enclosure 2 Disk 7 Soft Read Errors: 0
Enclosure 2 Disk 8 Soft Read Errors: 0
Enclosure 2 Disk 9 Soft Read Errors: 0
Enclosure 3 Disk 0 Soft Read Errors: 0
Enclosure 3 Disk 1 Soft Read Errors: 0
Enclosure 2 Disk 2 Soft Write Errors: 0
Enclosure 2 Disk 3 Soft Write Errors: 0
Enclosure 2 Disk 4 Soft Write Errors: 0
Enclosure 2 Disk 5 Soft Write Errors: 0
Enclosure 2 Disk 6 Soft Write Errors: 0
Enclosure 2 Disk 7 Soft Write Errors: 0
Enclosure 2 Disk 8 Soft Write Errors: 0
Enclosure 2 Disk 9 Soft Write Errors: 0
Enclosure 3 Disk 0 Soft Write Errors: 0
Enclosure 3 Disk 1 Soft Write Errors: 0

```

```

Bus 0 Enclosure 2 Disk 2 Enabled

```

```

Bus 0 Enclosure 2 Disk 3 Enabled

```

```

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

```

```

C:\Program Files\EMC\Navisphere CLI>navicli -h 10.10.10.5 getlun 3
Statistics logging is disabled.

```

```

Certain fields are not printed if statistics
logging is not enabled.

```

```

Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40

```

```

Prefetching: NO
Prefetched data retained YES

```

```

Read cache configured according to
specified parameters.

```

```

Total Hard Errors: 0
Total Soft Errors: 0
Total Queue Length: 0
Name Flare LUN 3
Minimum latency reads N/A

```

```

RAID Type: RAID0
RAIDGroup ID: 3
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP A
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: DISABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP A

```

```

Rebuild Priority: N/A
Verify Priority: N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100
Prct Bound: 100
LUN Capacity(Megabytes): 167441
LUN Capacity(Blocks): 342919680
UID:
60:06:01:F4:E8:8B:00:00:5F:B4:FD:CA:83:C6:D5:11
Enclosure 3 Disk 2 Queue Length: 0
Enclosure 3 Disk 3 Queue Length: 0
Enclosure 3 Disk 4 Queue Length: 0
Enclosure 3 Disk 5 Queue Length: 0
Enclosure 3 Disk 6 Queue Length: 0
Enclosure 3 Disk 7 Queue Length: 0
Enclosure 3 Disk 8 Queue Length: 0
Enclosure 3 Disk 9 Queue Length: 0
Enclosure 4 Disk 0 Queue Length: 0
Enclosure 4 Disk 1 Queue Length: 0
Enclosure 3 Disk 2 Hard Read Errors: 0
Enclosure 3 Disk 3 Hard Read Errors: 0
Enclosure 3 Disk 4 Hard Read Errors: 0
Enclosure 3 Disk 5 Hard Read Errors: 0
Enclosure 3 Disk 6 Hard Read Errors: 0
Enclosure 3 Disk 7 Hard Read Errors: 0
Enclosure 3 Disk 8 Hard Read Errors: 0
Enclosure 3 Disk 9 Hard Read Errors: 0
Enclosure 4 Disk 0 Hard Read Errors: 0
Enclosure 4 Disk 1 Hard Read Errors: 0
Enclosure 3 Disk 2 Hard Write Errors: 0
Enclosure 3 Disk 3 Hard Write Errors: 0
Enclosure 3 Disk 4 Hard Write Errors: 0
Enclosure 3 Disk 5 Hard Write Errors: 0
Enclosure 3 Disk 6 Hard Write Errors: 0
Enclosure 3 Disk 7 Hard Write Errors: 0
Enclosure 3 Disk 8 Hard Write Errors: 0
Enclosure 3 Disk 9 Hard Write Errors: 0
Enclosure 4 Disk 0 Hard Write Errors: 0
Enclosure 4 Disk 1 Hard Write Errors: 0
Enclosure 3 Disk 2 Soft Read Errors: 0
Enclosure 3 Disk 3 Soft Read Errors: 0
Enclosure 3 Disk 4 Soft Read Errors: 0
Enclosure 3 Disk 5 Soft Read Errors: 0
Enclosure 3 Disk 6 Soft Read Errors: 0
Enclosure 3 Disk 7 Soft Read Errors: 0
Enclosure 3 Disk 8 Soft Read Errors: 0
Enclosure 3 Disk 9 Soft Read Errors: 0
Enclosure 4 Disk 0 Soft Read Errors: 0
Enclosure 4 Disk 1 Soft Read Errors: 0
Enclosure 3 Disk 2 Soft Write Errors: 0
Enclosure 3 Disk 3 Soft Write Errors: 0
Enclosure 3 Disk 4 Soft Write Errors: 0
Enclosure 3 Disk 5 Soft Write Errors: 0
Enclosure 3 Disk 6 Soft Write Errors: 0
Enclosure 3 Disk 7 Soft Write Errors: 0
Enclosure 3 Disk 8 Soft Write Errors: 0
Enclosure 3 Disk 9 Soft Write Errors: 0
Enclosure 4 Disk 0 Soft Write Errors: 0

```

```

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

```

```
C:\Program Files\EMC\Navisphere CLI>navicli -h 10.10.10.5 getlun 4
```

```

Statistics logging is disabled.
Certain fields are not printed if statistics
logging is not enabled.
Prefetch size (blocks) =          0
Prefetch multiplier =             4
Segment size (blocks) =           0
Segment multiplier =             4
Maximum prefetch (blocks) =       512
Prefetch Disable Size (blocks) =  129
Prefetch idle count =             40

```

```

Prefetching: NO
Prefetched data retained    YES

```

```

Read cache configured according to
specified parameters.

```

```

Total Hard Errors:          0
Total Soft Errors:          0
Total Queue Length:        0
Name                        Flare LUN 4
Minimum latency reads N/A

```

```

RAID Type:                  RAID0
RAIDGroup ID:               4
State:                      Bound
Stripe Crossing:            0
Element Size:               256
Current owner:              SP B
Auto-trespass:              DISABLED
Auto-assign:                DISABLED
Write cache:                DISABLED

```

```

Read cache:                  DISABLED
Idle Threshold:              0
Idle Delay Time:            20
Write Aside Size:           1023
Default Owner:              SP B
Rebuild Priority:            N/A
Verify Priority:             N/A
Prct Reads Forced Flushed:  0
Prct Writes Forced Flushed: 0
Prct Rebuilt:               100
Prct Bound:                 100
LUN Capacity(Megabytes):    167441
LUN Capacity(Blocks):       342919680
UID:
60:06:01:61:88:8E:00:00:FA:C9:84:F4:83:C6:D5:11
Enclosure 13 Disk 0 Queue Length: 0
Enclosure 13 Disk 1 Queue Length: 0
Enclosure 13 Disk 2 Queue Length: 0
Enclosure 13 Disk 3 Queue Length: 0
Enclosure 13 Disk 4 Queue Length: 0
Enclosure 13 Disk 5 Queue Length: 0
Enclosure 13 Disk 6 Queue Length: 0
Enclosure 13 Disk 7 Queue Length: 0
Enclosure 13 Disk 8 Queue Length: 0
Enclosure 13 Disk 9 Queue Length: 0
Enclosure 13 Disk 0 Hard Read Errors: 0
Enclosure 13 Disk 1 Hard Read Errors: 0
Enclosure 13 Disk 2 Hard Read Errors: 0
Enclosure 13 Disk 3 Hard Read Errors: 0
Enclosure 13 Disk 4 Hard Read Errors: 0
Enclosure 13 Disk 5 Hard Read Errors: 0
Enclosure 13 Disk 6 Hard Read Errors: 0
Enclosure 13 Disk 7 Hard Read Errors: 0
Enclosure 13 Disk 8 Hard Read Errors: 0
Enclosure 13 Disk 9 Hard Read Errors: 0
Enclosure 13 Disk 0 Hard Write Errors: 0
Enclosure 13 Disk 1 Hard Write Errors: 0
Enclosure 13 Disk 2 Hard Write Errors: 0
Enclosure 13 Disk 3 Hard Write Errors: 0
Enclosure 13 Disk 4 Hard Write Errors: 0
Enclosure 13 Disk 5 Hard Write Errors: 0
Enclosure 13 Disk 6 Hard Write Errors: 0
Enclosure 13 Disk 7 Hard Write Errors: 0
Enclosure 13 Disk 8 Hard Write Errors: 0
Enclosure 13 Disk 9 Hard Write Errors: 0
Enclosure 13 Disk 0 Soft Read Errors: 0
Enclosure 13 Disk 1 Soft Read Errors: 0
Enclosure 13 Disk 2 Soft Read Errors: 0
Enclosure 13 Disk 3 Soft Read Errors: 0
Enclosure 13 Disk 4 Soft Read Errors: 0
Enclosure 13 Disk 5 Soft Read Errors: 0
Enclosure 13 Disk 6 Soft Read Errors: 0
Enclosure 13 Disk 7 Soft Read Errors: 0
Enclosure 13 Disk 8 Soft Read Errors: 0
Enclosure 13 Disk 9 Soft Read Errors: 0
Enclosure 13 Disk 0 Soft Write Errors: 0
Enclosure 13 Disk 1 Soft Write Errors: 0
Enclosure 13 Disk 2 Soft Write Errors: 0
Enclosure 13 Disk 3 Soft Write Errors: 0

```

```
Enclosure 13 Disk 4 Soft Write Errors: 0
Enclosure 13 Disk 5 Soft Write Errors: 0
Enclosure 13 Disk 6 Soft Write Errors: 0
Enclosure 13 Disk 7 Soft Write Errors: 0
Enclosure 13 Disk 8 Soft Write Errors: 0
Enclosure 13 Disk 9 Soft Write Errors: 0
```

```
Bus 1 Enclosure 1 Disk 0 Enabled
```

```
Bus 1 Enclosure 1 Disk 1 Enabled
```

```
Bus 1 Enclosure 1 Disk 2 Enabled
```

```
Bus 1 Enclosure 1 Disk 3 Enabled
```

```
Bus 1 Enclosure 1 Disk 4 Enabled
```

```
Bus 1 Enclosure 1 Disk 5 Enabled
```

```
Bus 1 Enclosure 1 Disk 6 Enabled
```

```
Bus 1 Enclosure 1 Disk 7 Enabled
```

```
Bus 1 Enclosure 1 Disk 8 Enabled
```

```
Bus 1 Enclosure 1 Disk 9 Enabled
```

```
Is Private: NO
Snapshots List: None
MirrorView Name if any: Not Mirrored
```

```
C:\Program Files\EMC\Navisphere CLI>navicli -h 10.10.10.5 getlun 5
```

```
Statistics logging is disabled.
Certain fields are not printed if statistics
logging is not enabled.
```

```
Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40
```

```
Prefetching: NO
Prefetched data retained YES
```

```
Read cache configured according to
specified parameters.
```

```
Total Hard Errors: 0
Total Soft Errors: 0
Total Queue Length: 0
Name Flare LUN 5
Minimum latency reads N/A
```

```
RAID Type: RAID0
RAIDGroup ID: 5
State: Bound
Stripe Crossing: 0
```

```
Element Size: 256
Current owner: SP B
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: DISABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP B
Rebuild Priority: N/A
Verify Priority: N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100
Prct Bound: 100
LUN Capacity(Megabytes): 167441
LUN Capacity(Blocks): 342919680
UID:
```

```
60:06:01:61:88:8E:00:00:FB:C9:84:F4:83:C6:D5:11
```

```
Enclosure 14 Disk 0 Queue Length: 0
Enclosure 14 Disk 1 Queue Length: 0
Enclosure 14 Disk 2 Queue Length: 0
Enclosure 14 Disk 3 Queue Length: 0
Enclosure 14 Disk 4 Queue Length: 0
Enclosure 14 Disk 5 Queue Length: 0
Enclosure 14 Disk 6 Queue Length: 0
Enclosure 14 Disk 7 Queue Length: 0
Enclosure 14 Disk 8 Queue Length: 0
Enclosure 14 Disk 9 Queue Length: 0
Enclosure 14 Disk 0 Hard Read Errors: 0
Enclosure 14 Disk 1 Hard Read Errors: 0
Enclosure 14 Disk 2 Hard Read Errors: 0
Enclosure 14 Disk 3 Hard Read Errors: 0
Enclosure 14 Disk 4 Hard Read Errors: 0
Enclosure 14 Disk 5 Hard Read Errors: 0
Enclosure 14 Disk 6 Hard Read Errors: 0
Enclosure 14 Disk 7 Hard Read Errors: 0
Enclosure 14 Disk 8 Hard Read Errors: 0
Enclosure 14 Disk 9 Hard Read Errors: 0
Enclosure 14 Disk 0 Hard Write Errors: 0
Enclosure 14 Disk 1 Hard Write Errors: 0
Enclosure 14 Disk 2 Hard Write Errors: 0
Enclosure 14 Disk 3 Hard Write Errors: 0
Enclosure 14 Disk 4 Hard Write Errors: 0
Enclosure 14 Disk 5 Hard Write Errors: 0
Enclosure 14 Disk 6 Hard Write Errors: 0
Enclosure 14 Disk 7 Hard Write Errors: 0
Enclosure 14 Disk 8 Hard Write Errors: 0
Enclosure 14 Disk 9 Hard Write Errors: 0
Enclosure 14 Disk 0 Soft Read Errors: 0
Enclosure 14 Disk 1 Soft Read Errors: 0
Enclosure 14 Disk 2 Soft Read Errors: 0
Enclosure 14 Disk 3 Soft Read Errors: 0
Enclosure 14 Disk 4 Soft Read Errors: 0
Enclosure 14 Disk 5 Soft Read Errors: 0
Enclosure 14 Disk 6 Soft Read Errors: 0
Enclosure 14 Disk 7 Soft Read Errors: 0
Enclosure 14 Disk 8 Soft Read Errors: 0
```

```

Enclosure 14 Disk 9 Soft Read Errors: 0
Enclosure 14 Disk 0 Soft Write Errors: 0
Enclosure 14 Disk 1 Soft Write Errors: 0
Enclosure 14 Disk 2 Soft Write Errors: 0
Enclosure 14 Disk 3 Soft Write Errors: 0
Enclosure 14 Disk 4 Soft Write Errors: 0
Enclosure 14 Disk 5 Soft Write Errors: 0
Enclosure 14 Disk 6 Soft Write Errors: 0
Enclosure 14 Disk 7 Soft Write Errors: 0
Enclosure 14 Disk 8 Soft Write Errors: 0
Enclosure 14 Disk 9 Soft Write Errors: 0

```

```

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

```

```

C:\Program Files\EMC\Navisphere CLI>navicli -h 10.10.10.5 getlun 6
Statistics logging is disabled.

```

```

Certain fields are not printed if statistics
logging is not enabled.

```

```

Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40

```

```

Prefetching: NO
Prefetched data retained YES

```

```

Read cache configured according to
specified parameters.

```

```

Total Hard Errors: 0
Total Soft Errors: 0
Total Queue Length: 0
Name Flare LUN 6
Minimum latency reads N/A

```

```

RAID Type: RAID0
RAIDGroup ID: 6
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP B
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: DISABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP B
Rebuild Priority: N/A
Verify Priority: N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100
Prct Bound: 100
LUN Capacity(Megabytes): 167441
LUN Capacity(Blocks): 342919680
UID:
60:06:01:61:88:8E:00:00:FC:C9:84:F4:83:C6:D5:11
Enclosure 15 Disk 0 Queue Length: 0
Enclosure 15 Disk 1 Queue Length: 0
Enclosure 15 Disk 2 Queue Length: 0
Enclosure 15 Disk 3 Queue Length: 0
Enclosure 15 Disk 4 Queue Length: 0
Enclosure 15 Disk 5 Queue Length: 0
Enclosure 15 Disk 6 Queue Length: 0
Enclosure 15 Disk 7 Queue Length: 0
Enclosure 15 Disk 8 Queue Length: 0
Enclosure 15 Disk 9 Queue Length: 0
Enclosure 15 Disk 0 Hard Read Errors: 0
Enclosure 15 Disk 1 Hard Read Errors: 0
Enclosure 15 Disk 2 Hard Read Errors: 0
Enclosure 15 Disk 3 Hard Read Errors: 0
Enclosure 15 Disk 4 Hard Read Errors: 0
Enclosure 15 Disk 5 Hard Read Errors: 0
Enclosure 15 Disk 6 Hard Read Errors: 0
Enclosure 15 Disk 7 Hard Read Errors: 0
Enclosure 15 Disk 8 Hard Read Errors: 0
Enclosure 15 Disk 9 Hard Read Errors: 0
Enclosure 15 Disk 0 Hard Write Errors: 0
Enclosure 15 Disk 1 Hard Write Errors: 0
Enclosure 15 Disk 2 Hard Write Errors: 0
Enclosure 15 Disk 3 Hard Write Errors: 0
Enclosure 15 Disk 4 Hard Write Errors: 0
Enclosure 15 Disk 5 Hard Write Errors: 0
Enclosure 15 Disk 6 Hard Write Errors: 0
Enclosure 15 Disk 7 Hard Write Errors: 0
Enclosure 15 Disk 8 Hard Write Errors: 0
Enclosure 15 Disk 9 Hard Write Errors: 0
Enclosure 15 Disk 0 Soft Read Errors: 0
Enclosure 15 Disk 1 Soft Read Errors: 0
Enclosure 15 Disk 2 Soft Read Errors: 0
Enclosure 15 Disk 3 Soft Read Errors: 0

```

```

Enclosure 15 Disk 4 Soft Read Errors: 0
Enclosure 15 Disk 5 Soft Read Errors: 0
Enclosure 15 Disk 6 Soft Read Errors: 0
Enclosure 15 Disk 7 Soft Read Errors: 0
Enclosure 15 Disk 8 Soft Read Errors: 0
Enclosure 15 Disk 9 Soft Read Errors: 0
Enclosure 15 Disk 0 Soft Write Errors: 0
Enclosure 15 Disk 1 Soft Write Errors: 0
Enclosure 15 Disk 2 Soft Write Errors: 0
Enclosure 15 Disk 3 Soft Write Errors: 0
Enclosure 15 Disk 4 Soft Write Errors: 0
Enclosure 15 Disk 5 Soft Write Errors: 0
Enclosure 15 Disk 6 Soft Write Errors: 0
Enclosure 15 Disk 7 Soft Write Errors: 0
Enclosure 15 Disk 8 Soft Write Errors: 0
Enclosure 15 Disk 9 Soft Write Errors: 0

```

```

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

```

```

C:\Program Files\EMC\Navisphere CLI>navicli -h 10.10.10.5 getlun 7
Statistics logging is disabled.

```

```

Certain fields are not printed if statistics
logging is not enabled.

```

```

Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40

```

```

Prefetching: NO
Prefetched data retained YES

```

```

Read cache configured according to
specified parameters.

```

```

Total Hard Errors: 0
Total Soft Errors: 0
Total Queue Length: 0
Name Flare LUN 7
Minimum latency reads N/A

```

```

RAID Type: RAID0
RAIDGroup ID: 7
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP B
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: DISABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP B
Rebuild Priority: N/A
Verify Priority: N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100
Prct Bound: 100
LUN Capacity(Megabytes): 167441
LUN Capacity(Blocks): 342919680
UID:

```

```

60:06:01:61:88:8E:00:00:FD:C9:84:F4:83:C6:D5:11
Enclosure 16 Disk 0 Queue Length: 0
Enclosure 16 Disk 1 Queue Length: 0
Enclosure 16 Disk 2 Queue Length: 0
Enclosure 16 Disk 3 Queue Length: 0
Enclosure 16 Disk 4 Queue Length: 0
Enclosure 16 Disk 5 Queue Length: 0
Enclosure 16 Disk 6 Queue Length: 0
Enclosure 16 Disk 7 Queue Length: 0
Enclosure 16 Disk 8 Queue Length: 0
Enclosure 16 Disk 9 Queue Length: 0
Enclosure 16 Disk 0 Hard Read Errors: 0
Enclosure 16 Disk 1 Hard Read Errors: 0
Enclosure 16 Disk 2 Hard Read Errors: 0
Enclosure 16 Disk 3 Hard Read Errors: 0
Enclosure 16 Disk 4 Hard Read Errors: 0
Enclosure 16 Disk 5 Hard Read Errors: 0
Enclosure 16 Disk 6 Hard Read Errors: 0
Enclosure 16 Disk 7 Hard Read Errors: 0
Enclosure 16 Disk 8 Hard Read Errors: 0
Enclosure 16 Disk 9 Hard Read Errors: 0
Enclosure 16 Disk 0 Hard Write Errors: 0
Enclosure 16 Disk 1 Hard Write Errors: 0
Enclosure 16 Disk 2 Hard Write Errors: 0
Enclosure 16 Disk 3 Hard Write Errors: 0
Enclosure 16 Disk 4 Hard Write Errors: 0
Enclosure 16 Disk 5 Hard Write Errors: 0
Enclosure 16 Disk 6 Hard Write Errors: 0
Enclosure 16 Disk 7 Hard Write Errors: 0
Enclosure 16 Disk 8 Hard Write Errors: 0

```


Processor x86 Family 6 Model 10 Stepping 4 GenuineIntel ~900 Mhz
 Processor x86 Family 6 Model 10 Stepping 4 GenuineIntel ~900 Mhz
 Processor x86 Family 6 Model 10 Stepping 4 GenuineIntel ~900 Mhz
 Processor x86 Family 6 Model 10 Stepping 4 GenuineIntel ~900 Mhz

BIOS Version/Date Phoenix Technologies LTD BIOS Release 000052 Build
 000332, 7/18/2001
 SMBIOS Version 2.31
 Windows Directory C:\WINDOWS
 System Directory C:\WINDOWS\System32
 Boot Device \Device\HarddiskVolume1
 Locale United States
 Hardware Abstraction Layer Version = "5.1.3562.300 built by: WinDDK"

User Name MV-LE030P1\Administrator
 Time Zone Pacific Standard Time
 Total Physical Memory 65,536.00 MB
 Available Physical Memory 169.64 MB
 Total Virtual Memory 130.24 GB
 Available Virtual Memory 4.19 GB
 Page File Space 66.77 GB
 Page File C:\pagefile.sys

[Hardware Resources]

[Conflicts/Sharing]

Resource	Device
Memory Address 0xFD800000-0xFDFFFFFF	PCI bus
Memory Address 0xFD800000-0xFDFFFFFF	DEC 21154 PCI to PCI bridge
Memory Address 0xFD800000-0xFDFFFFFF	Unisys Fibre Channel Driver v1.3.15
Memory Address 0xF7800000-0xF7FFFFFF	PCI bus
Memory Address 0xF7800000-0xF7FFFFFF	DEC 21154 PCI to PCI bridge
Memory Address 0xF7800000-0xF7FFFFFF	Unisys Fibre Channel Driver v1.3.15
Memory Address 0xF0000000-0xF0FFFFFF	DEC 21154 PCI to PCI bridge
Memory Address 0xF0000000-0xF0FFFFFF	Unisys Fibre Channel Driver v1.3.15
IRQ 3	Communications Port (COM2)
IRQ 3	Unisys Fibre Channel Driver v1.3.15
I/O Port 0x00000000-0x0000102F	PCI bus
I/O Port 0x00000000-0x0000102F	Direct memory access controller
Memory Address 0xF8800000-0xFA7FFFFFF	PCI bus
Memory Address 0xF8800000-0xFA7FFFFFF	cLAN Host Adapter #5
Memory Address 0xF7000000-0xF77FFFFFF	DEC 21154 PCI to PCI bridge

Memory Address 0xF7000000-0xF77FFFFFF	Unisys Fibre Channel Driver v1.3.15
Memory Address 0xF4000000-0xF47FFFFFF	DEC 21154 PCI to PCI bridge
Memory Address 0xF4000000-0xF47FFFFFF	Unisys Fibre Channel Driver v1.3.15
Memory Address 0xF0800000-0xF0FFFFFF	PCI bus
Memory Address 0xF0800000-0xF0FFFFFF	DEC 21154 PCI to PCI bridge
Memory Address 0xF0800000-0xF0FFFFFF	Unisys Fibre Channel Driver v1.3.15
I/O Port 0x000003C0-0x000003DF	DEC 21152 PCI to PCI bridge
I/O Port 0x000003C0-0x000003DF	Console Manager Video Driver
Memory Address 0xE8000000-0xEA7FFFFFF	PCI bus
Memory Address 0xE8000000-0xEA7FFFFFF	cLAN Host Adapter #4
Memory Address 0xDE100000-0xE3FFFFFF	DEC 21152 PCI to PCI bridge
Memory Address 0xDE100000-0xE3FFFFFF	Console Manager Video Driver
Memory Address 0xF2000000-0xF47FFFFFF	PCI bus
Memory Address 0xF2000000-0xF47FFFFFF	cLAN Host Adapter
Memory Address 0xF1000000-0xF17FFFFFF	PCI bus
Memory Address 0xF1000000-0xF17FFFFFF	DEC 21154 PCI to PCI bridge
Memory Address 0xF1000000-0xF17FFFFFF	Unisys Fibre Channel Driver v1.3.15
IRQ 8	System CMOS/real time clock
IRQ 8	Adaptec SCSI Card 39160 - Ultra160 SCSI
Memory Address 0xFB000000-0xFB7FFFFFF	PCI bus
Memory Address 0xFB000000-0xFB7FFFFFF	DEC 21154 PCI to PCI bridge
Memory Address 0xFB000000-0xFB7FFFFFF	Unisys Fibre Channel Driver v1.3.15
IRQ 9	Adaptec SCSI Card 39160 - Ultra160 SCSI
IRQ 9	Unisys Fibre Channel Driver v1.3.15
Memory Address 0xFD000000-0xFD7FFFFFF	DEC 21154 PCI to PCI bridge
Memory Address 0xFD000000-0xFD7FFFFFF	Unisys Fibre Channel Driver v1.3.15
Memory Address 0xEB800000-0xED7FFFFFF	PCI bus
Memory Address 0xEB800000-0xED7FFFFFF	cLAN Host Adapter #7
Memory Address 0xEB000000-0xEB7FFFFFF	PCI bus
Memory Address 0xEB000000-0xEB7FFFFFF	DEC 21154 PCI to PCI bridge
Memory Address 0xEB000000-0xEB7FFFFFF	Unisys Fibre Channel Driver v1.3.15
Memory Address 0xE6800000-0xE77FFFFFF	PCI bus
Memory Address 0xE6800000-0xE77FFFFFF	Adaptec SCSI Card 39160 - Ultra160 SCSI
Memory Address 0xE4000000-0xE47FFFFFF	DEC 21154 PCI to PCI bridge
Memory Address 0xE4000000-0xE47FFFFFF	Unisys Fibre Channel Driver v1.3.15

Memory Address 0xEA800000-0xEAFFFFFF PCI bus
Memory Address 0xEA800000-0xEAFFFFFF DEC 21154 PCI to PCI bridge
Memory Address 0xEA800000-0xEAFFFFFF Unisys Fibre Channel Driver v1.3.15

Memory Address 0xED000000-0xED7FFFFF DEC 21154 PCI to PCI bridge
Memory Address 0xED000000-0xED7FFFFF Unisys Fibre Channel Driver v1.3.15

Memory Address 0xE7000000-0xE77FFFFF DEC 21154 PCI to PCI bridge
Memory Address 0xE7000000-0xE77FFFFF Unisys Fibre Channel Driver v1.3.15

Memory Address 0xE6000000-0xE67FFFFF DEC 21154 PCI to PCI bridge
Memory Address 0xE6000000-0xE67FFFFF Unisys Fibre Channel Driver v1.3.15

Memory Address 0xE4A00000-0xE67FFFFF PCI bus
Memory Address 0xE4A00000-0xE67FFFFF cLAN Host Adapter #8

Memory Address 0xE7800000-0xE77FFFFF PCI bus
Memory Address 0xE7800000-0xE77FFFFF DEC 21154 PCI to PCI bridge
Memory Address 0xE7800000-0xE77FFFFF Unisys Fibre Channel Driver v1.3.15

Memory Address 0xF5000000-0xF77FFFFF PCI bus
Memory Address 0xF5000000-0xF77FFFFF cLAN Host Adapter #6

Memory Address 0xF4800000-0xF4FFFFF PCI bus
Memory Address 0xF4800000-0xF4FFFFF DEC 21154 PCI to PCI bridge
Memory Address 0xF4800000-0xF4FFFFF Unisys Fibre Channel Driver v1.3.15

Memory Address 0xF1800000-0xF1FFFFF PCI bus
Memory Address 0xF1800000-0xF1FFFFF DEC 21154 PCI to PCI bridge
Memory Address 0xF1800000-0xF1FFFFF Unisys Fibre Channel Driver v1.3.15

Memory Address 0xEE800000-0xF07FFFFF PCI bus
Memory Address 0xEE800000-0xF07FFFFF cLAN Host Adapter #2

Memory Address 0xA0000-0xBFFFF PCI bus
Memory Address 0xA0000-0xBFFFF DEC 21152 PCI to PCI bridge
Memory Address 0xA0000-0xBFFFF Console Manager Video Driver

Memory Address 0xFA000000-0xFA7FFFFF DEC 21154 PCI to PCI bridge
Memory Address 0xFA000000-0xFA7FFFFF Unisys Fibre Channel Driver v1.3.15

Memory Address 0xF8000000-0xF87FFFFF PCI bus
Memory Address 0xF8000000-0xF87FFFFF DEC 21154 PCI to PCI bridge
Memory Address 0xF8000000-0xF87FFFFF Unisys Fibre Channel Driver v1.3.15

I/O Port 0x000003B0-0x000003BB DEC 21152 PCI to PCI bridge
I/O Port 0x000003B0-0x000003BB Console Manager Video Driver

Memory Address 0xFB800000-0xFD7FFFFF PCI bus

Memory Address 0xFB800000-0xFD7FFFFF cLAN Host Adapter #3

Memory Address 0xFA800000-0xFAFFFFF PCI bus
Memory Address 0xFA800000-0xFAFFFFF DEC 21154 PCI to PCI bridge
Memory Address 0xFA800000-0xFAFFFFF Unisys Fibre Channel Driver v1.3.15

I/O Port 0x00001040-0x000013FF PCI bus
I/O Port 0x00001040-0x000013FF Intel(R) PRO/100+ PCI Adapter

IRQ 0 System timer
IRQ 0 Intel(r) 82371AB/EB PCI to USB Universal Host Controller

Memory Address 0xEE000000-0xEE7FFFFF PCI bus
Memory Address 0xEE000000-0xEE7FFFFF DEC 21154 PCI to PCI bridge
Memory Address 0xEE000000-0xEE7FFFFF Unisys Fibre Channel Driver v1.3.15

Memory Address 0xED800000-0xEDFFFFF PCI bus
Memory Address 0xED800000-0xEDFFFFF DEC 21154 PCI to PCI bridge
Memory Address 0xED800000-0xEDFFFFF Unisys Fibre Channel Driver v1.3.15

Memory Address 0xEA000000-0xEA7FFFFF DEC 21154 PCI to PCI bridge
Memory Address 0xEA000000-0xEA7FFFFF Unisys Fibre Channel Driver v1.3.15

[DMA]

Resource	Device	Status
Channel 4	Direct memory access controller	OK
Channel 1	ECP Printer Port (LPT1)	OK
Channel 2	Standard floppy disk controller	OK

[Forced Hardware]

Device PNP Device ID

[I/O]

Resource	Device	Status
0x00001400-0x0000140F	PCI bus	OK
0x00001410-0x0000141F	PCI bus	OK
0x00001420-0x000017FF	PCI bus	OK
0x00000000-0x0000102F	PCI bus	OK
0x00000000-0x0000102F	Direct memory access controller	OK
0x00000A79-0x00000A79	ISAPNP Read Data Port	OK
0x00000279-0x00000279	ISAPNP Read Data Port	OK
0x00000274-0x00000277	ISAPNP Read Data Port	OK
0x00000081-0x0000008F	Direct memory access controller	OK
0x000000C0-0x000000DF	Direct memory access controller	OK
0x00000020-0x00000021	Programmable interrupt controller	OK
0x000000A0-0x000000A1	Programmable interrupt controller	OK
0x00000070-0x00000071	System CMOS/real time clock	OK
0x00000040-0x00000043	System timer	OK
0x00000061-0x00000061	System speaker	OK
0x00000101-0x0000016F	System speaker	OK
0x00000178-0x000001CD	System speaker	OK

0x000001D0-0x000001EF System speaker OK
 0x000001F8-0x00000273 System speaker OK
 0x00000280-0x000002E7 System speaker OK
 0x000002F0-0x000002F7 System speaker OK
 0x00000300-0x00000377 System speaker OK
 0x00000380-0x000003AF System speaker OK
 0x000003BC-0x000003BF System speaker OK
 0x000003E0-0x000003E7 System speaker OK
 0x000003F6-0x000003F6 System speaker OK
 0x00000501-0x0000056F System speaker OK
 0x00000578-0x000005CD System speaker OK
 0x000005D0-0x000005EF System speaker OK
 0x000005F8-0x00000677 System speaker OK
 0x00000680-0x000006E7 System speaker OK
 0x000006F0-0x000006F7 System speaker OK
 0x00000700-0x00000777 System speaker OK
 0x00000780-0x000007AF System speaker OK
 0x000007BC-0x000007BF System speaker OK
 0x000007E0-0x000007E7 System speaker OK
 0x000007F6-0x000007F6 System speaker OK
 0x00000901-0x0000096F System speaker OK
 0x00000978-0x000009CD System speaker OK
 0x000009D0-0x000009EF System speaker OK
 0x000009F8-0x00000A77 System speaker OK
 0x00000A80-0x00000AE7 System speaker OK
 0x00000AF0-0x00000AF7 System speaker OK
 0x00000B00-0x00000B77 System speaker OK
 0x00000B80-0x00000BAF System speaker OK
 0x00000BBC-0x00000BBF System speaker OK
 0x00000BE0-0x00000BE7 System speaker OK
 0x00000BF6-0x00000BF6 System speaker OK
 0x00000D01-0x00000D6F System speaker OK
 0x00000D78-0x00000D6F System speaker OK
 0x00000DD0-0x00000DEF System speaker OK
 0x00000DF8-0x00000E77 System speaker OK
 0x00000E80-0x00000E77 System speaker OK
 0x00000EF0-0x00000EF7 System speaker OK
 0x00000F00-0x00000F77 System speaker OK
 0x00000F80-0x00000FAF System speaker OK
 0x00000FBC-0x00000FBF System speaker OK
 0x00000FE0-0x00000FE7 System speaker OK
 0x00000FF6-0x00000FF6 System speaker OK
 0x00001101-0x0000116F System speaker OK
 0x00001178-0x000011CD System speaker OK
 0x000011D0-0x000011EF System speaker OK
 0x000011F8-0x00001277 System speaker OK
 0x00001280-0x000012E7 System speaker OK
 0x000012F0-0x000012F7 System speaker OK
 0x00001300-0x00001377 System speaker OK
 0x00001380-0x000013AF System speaker OK
 0x000013BC-0x000013BF System speaker OK
 0x000013E0-0x000013E7 System speaker OK
 0x000013F6-0x000013F6 System speaker OK
 0x00001501-0x0000156F System speaker OK
 0x00001578-0x000015CD System speaker OK
 0x000015D0-0x000015EF System speaker OK
 0x000015F8-0x00001677 System speaker OK
 0x00001680-0x000016E7 System speaker OK
 0x000016F0-0x000016F7 System speaker OK

0x00001700-0x00001777 System speaker OK
 0x00001780-0x000017AF System speaker OK
 0x000017BC-0x000017BF System speaker OK
 0x000017E0-0x000017E7 System speaker OK
 0x000017F6-0x000017F6 System speaker OK
 0x00001901-0x0000196F System speaker OK
 0x00001978-0x000019CD System speaker OK
 0x000019D0-0x000019EF System speaker OK
 0x000019F8-0x00001A77 System speaker OK
 0x00001A80-0x00001AE7 System speaker OK
 0x00001AF0-0x00001AF7 System speaker OK
 0x00001B00-0x00001B77 System speaker OK
 0x00001B80-0x00001BAF System speaker OK
 0x00001BBC-0x00001BBF System speaker OK
 0x00001BE0-0x00001BE7 System speaker OK
 0x00001BF6-0x00001BF6 System speaker OK
 0x00001D01-0x00001D6F System speaker OK
 0x00001D78-0x00001DCD System speaker OK
 0x00001DD0-0x00001DEF System speaker OK
 0x00001DF8-0x00001E77 System speaker OK
 0x00001E80-0x00001EE7 System speaker OK
 0x00001EF0-0x00001EF7 System speaker OK
 0x00001F00-0x00001F77 System speaker OK
 0x00001F80-0x00001FAF System speaker OK
 0x00001FBC-0x00001FBF System speaker OK
 0x00001FE0-0x00001FE7 System speaker OK
 0x00001FF6-0x00001FF6 System speaker OK
 0x000003F8-0x000003FF Communications Port (COM1) OK
 0x000002F8-0x000002FF Communications Port (COM2) OK
 0x00000378-0x0000037F ECP Printer Port (LPT1) OK
 0x00000778-0x0000077F ECP Printer Port (LPT1) OK
 0x000003F0-0x000003F5 Standard floppy disk controller OK
 0x000003F7-0x000003F7 Standard floppy disk controller OK
 0x00000060-0x00000060 Standard 101/102-Key or Microsoft Natural PS/2 Keyboard OK
 0x00000064-0x00000064 Standard 101/102-Key or Microsoft Natural PS/2 Keyboard OK
 0x00001020-0x0000102F Intel(r) 82371AB/EB PCI Bus Master IDE Controller OK
 0x00001000-0x0000101F Intel(r) 82371AB/EB PCI to USB Universal Host Controller OK
 0x000003B0-0x000003BB DEC 21152 PCI to PCI bridge OK
 0x000003B0-0x000003BB Console Manager Video Driver OK
 0x000003C0-0x000003DF DEC 21152 PCI to PCI bridge OK
 0x000003C0-0x000003DF Console Manager Video Driver OK
 0x00001030-0x0000103F PCI bus OK
 0x00001040-0x0000103F PCI bus OK
 0x00001040-0x000013FF Intel(R) PRO/100+ PCI Adapter OK
 0x00001100-0x000011FF Adaptec SCSI Card 39160 - Ultra160 SCSI OK
 0x00001200-0x000012FF Adaptec SCSI Card 39160 - Ultra160 SCSI OK
 0x00001800-0x0000180F PCI bus OK
 0x00001810-0x0000181F PCI bus OK
 0x00001820-0x000018FF PCI bus OK
 0x00001C00-0x00001C0F PCI bus OK
 0x00001C10-0x00001C1F PCI bus OK
 0x00001C20-0x00001FFF PCI bus OK
 0x00002000-0x0000200F PCI bus OK

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0x00002010-0x0000201F PCI bus OK
0x00002020-0x0000203F PCI bus OK
0x00002400-0x0000240F PCI bus OK
0x00002410-0x0000241F PCI bus OK
0x00002420-0x000027FF PCI bus OK
0x00002800-0x0000280F PCI bus OK
0x00002810-0x0000281F PCI bus OK
0x00002820-0x00002BFF PCI bus OK
0x00002C00-0x00002C0F PCI bus OK
0x00002C10-0x00002C1F PCI bus OK
0x00002C20-0x0000FFFF PCI bus OK

```

[IRQs]

Resource	Device	Status
IRQ 23	Microsoft ACPI-Compliant System	OK
IRQ 26	Unisys Fibre Channel Driver v1.3.15	OK
IRQ 29	Unisys Fibre Channel Driver v1.3.15	OK
IRQ 31	cLAN Host Adapter #4	OK
IRQ 33	Unisys Fibre Channel Driver v1.3.15	OK
IRQ 8	System CMOS/real time clock	OK
IRQ 8	Adaptec SCSI Card 39160 - Ultra160 SCSI	OK
IRQ 0	System timer	OK
IRQ 0	Intel(r) 82371AB/EB PCI to USB Universal Host Controller	OK
IRQ 4	Communications Port (COM1)	OK
IRQ 3	Communications Port (COM2)	OK
IRQ 3	Unisys Fibre Channel Driver v1.3.15	OK
IRQ 6	Standard floppy disk controller	OK
IRQ 12	PS/2 Compatible Mouse	OK
IRQ 1	Standard 101/102-Key or Microsoft Natural PS/2 Keyboard	OK
IRQ 2	Console Manager control device	OK
IRQ 5	Unisys Fibre Channel Driver v1.3.15	OK
IRQ 7	cLAN Host Adapter #8	OK
IRQ 9	Adaptec SCSI Card 39160 - Ultra160 SCSI	OK
IRQ 9	Unisys Fibre Channel Driver v1.3.15	OK
IRQ 10	Intel(R) PRO/100+ PCI Adapter	OK
IRQ 49	Unisys Fibre Channel Driver v1.3.15	OK
IRQ 52	Unisys Fibre Channel Driver v1.3.15	OK
IRQ 54	cLAN Host Adapter #7	OK
IRQ 57	Unisys Fibre Channel Driver v1.3.15	OK
IRQ 73	Unisys Fibre Channel Driver v1.3.15	OK
IRQ 77	cLAN Host Adapter #2	OK
IRQ 79	Unisys Fibre Channel Driver v1.3.15	OK
IRQ 81	Unisys Fibre Channel Driver v1.3.15	OK
IRQ 96	Unisys Fibre Channel Driver v1.3.15	OK
IRQ 101	Unisys Fibre Channel Driver v1.3.15	OK
IRQ 105	cLAN Host Adapter	OK
IRQ 106	Unisys Fibre Channel Driver v1.3.15	OK
IRQ 121	Unisys Fibre Channel Driver v1.3.15	OK
IRQ 125	Unisys Fibre Channel Driver v1.3.15	OK
IRQ 127	cLAN Host Adapter #6	OK
IRQ 129	Unisys Fibre Channel Driver v1.3.15	OK
IRQ 144	Unisys Fibre Channel Driver v1.3.15	OK
IRQ 149	Unisys Fibre Channel Driver v1.3.15	OK
IRQ 151	cLAN Host Adapter #5	OK
IRQ 153	Unisys Fibre Channel Driver v1.3.15	OK
IRQ 168	Unisys Fibre Channel Driver v1.3.15	OK

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IRQ 173 Unisys Fibre Channel Driver v1.3.15 OK
IRQ 175 cLAN Host Adapter #3 OK
IRQ 177 Unisys Fibre Channel Driver v1.3.15 OK

```

[Memory]

Resource	Device	Status
0xE7800000-0xE7FFFFFF	PCI bus	OK
0xE7800000-0xE7FFFFFF	DEC 21154 PCI to PCI bridge	OK
0xE7800000-0xE7FFFFFF	Unisys Fibre Channel Driver v1.3.15	OK
0xE8000000-0xEA7FFFFFF	PCI bus	OK
0xE8000000-0xEA7FFFFFF	cLAN Host Adapter #4	OK
0xEA000000-0xEA7FFFFFF	DEC 21154 PCI to PCI bridge	OK
0xEA000000-0xEA7FFFFFF	Unisys Fibre Channel Driver v1.3.15	OK
0xE8020000-0xE803FFFF	cLAN Host Adapter #4	OK
0xE8200000-0xE83FFFFF	cLAN Host Adapter #4	OK
0xE9000000-0xE99FFFFF	cLAN Host Adapter #4	OK
0xEA800000-0xEAFFFFFF	PCI bus	OK
0xEA800000-0xEAFFFFFF	DEC 21154 PCI to PCI bridge	OK
0xEA800000-0xEAFFFFFF	Unisys Fibre Channel Driver v1.3.15	OK
0xA0000-0xBFFFF	PCI bus	OK
0xA0000-0xBFFFF	DEC 21152 PCI to PCI bridge	OK
0xA0000-0xBFFFF	Console Manager Video Driver	OK
0xC0000-0xDFFFF	PCI bus	OK
0xE0000-0xFFFF	PCI bus	OK
0xDE000000-0xE49FFFFF	PCI bus	OK
0xDE100000-0xE3FFFFFF	DEC 21152 PCI to PCI bridge	OK
0xDE100000-0xE3FFFFFF	Console Manager Video Driver	OK
0xE0000000-0xE1FFFFFF	Console Manager control device	OK
0xE2000000-0xE3FFFFFF	Console Manager video device	OK
0xE4000000-0xE47FFFFFF	DEC 21154 PCI to PCI bridge	OK
0xE4000000-0xE47FFFFFF	Unisys Fibre Channel Driver v1.3.15	OK
0xE4A00000-0xE67FFFFFF	PCI bus	OK
0xE4A00000-0xE67FFFFFF	cLAN Host Adapter #8	OK
0xE6000000-0xE67FFFFFF	DEC 21154 PCI to PCI bridge	OK
0xE6000000-0xE67FFFFFF	Unisys Fibre Channel Driver v1.3.15	OK
0xE4A20000-0xE4A3FFFF	cLAN Host Adapter #8	OK
0xE4C00000-0xE4DFFFFF	cLAN Host Adapter #8	OK
0xE5000000-0xE5FFFFFF	cLAN Host Adapter #8	OK
0xE6800000-0xE77FFFFFF	PCI bus	OK
0xE6800000-0xE77FFFFFF	Adaptec SCSI Card 39160 - Ultra160 SCSI	OK
0xE6801000-0xE6801FFF	Adaptec SCSI Card 39160 - Ultra160 SCSI	OK
0xE7000000-0xE77FFFFFF	DEC 21154 PCI to PCI bridge	OK
0xE7000000-0xE77FFFFFF	Unisys Fibre Channel Driver v1.3.15	OK
0xE6802000-0xE6802FFF	Intel(R) PRO/100+ PCI Adapter	OK
0xE6900000-0xE69FFFFFF	Intel(R) PRO/100+ PCI Adapter	OK
0xEB000000-0xEB7FFFFFF	PCI bus	OK
0xEB000000-0xEB7FFFFFF	DEC 21154 PCI to PCI bridge	OK
0xEB000000-0xEB7FFFFFF	Unisys Fibre Channel Driver v1.3.15	OK
0xEB800000-0xED7FFFFFF	PCI bus	OK
0xEB800000-0xED7FFFFFF	cLAN Host Adapter #7	OK
0xED000000-0xED7FFFFFF	DEC 21154 PCI to PCI bridge	OK
0xED000000-0xED7FFFFFF	Unisys Fibre Channel Driver v1.3.15	OK
0xEB820000-0xEB83FFFF	cLAN Host Adapter #7	OK
0xEBA00000-0xEBBFFFFFF	cLAN Host Adapter #7	OK
0xEC000000-0xECFFFFFF	cLAN Host Adapter #7	OK
0xED800000-0xEDFFFFFF	PCI bus	OK

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0xED800000-0xEDFFFFFF DEC 21154 PCI to PCI bridge OK
0xED800000-0xEDFFFFFF Unisys Fibre Channel Driver v1.3.15 OK
0xEE000000-0xEE7FFFFFF PCI bus OK
0xEE000000-0xEE7FFFFFF DEC 21154 PCI to PCI bridge OK
0xEE000000-0xEE7FFFFFF Unisys Fibre Channel Driver v1.3.15 OK
0xEE800000-0xF07FFFFFF PCI bus OK
0xEE800000-0xF07FFFFFF cLAN Host Adapter #2 OK
0xEEA20000-0xEEA3FFFF cLAN Host Adapter #2 OK
0xEF000000-0xEFFFFFFF cLAN Host Adapter #2 OK
0xEEA00000-0xEEA0FFFF cLAN Host Adapter #2 OK
0xF0000000-0xF07FFFFFF DEC 21154 PCI to PCI bridge OK
0xF0000000-0xF07FFFFFF Unisys Fibre Channel Driver v1.3.15 OK
0xF0800000-0xF0FFFFFF PCI bus OK
0xF0800000-0xF0FFFFFF DEC 21154 PCI to PCI bridge OK
0xF0800000-0xF0FFFFFF Unisys Fibre Channel Driver v1.3.15 OK
0xF1000000-0xF17FFFFFF PCI bus OK
0xF1000000-0xF17FFFFFF DEC 21154 PCI to PCI bridge OK
0xF1000000-0xF17FFFFFF Unisys Fibre Channel Driver v1.3.15 OK
0xF1800000-0xF1FFFFFF PCI bus OK
0xF1800000-0xF1FFFFFF DEC 21154 PCI to PCI bridge OK
0xF1800000-0xF1FFFFFF Unisys Fibre Channel Driver v1.3.15 OK
0xF2000000-0xF47FFFFFF PCI bus OK
0xF2000000-0xF47FFFFFF cLAN Host Adapter OK
0xF2020000-0xF203FFFF cLAN Host Adapter OK
0xF2200000-0xF23FFFFF cLAN Host Adapter OK
0xF3000000-0xF3FFFFFF cLAN Host Adapter OK
0xF4000000-0xF47FFFFFF DEC 21154 PCI to PCI bridge OK
0xF4000000-0xF47FFFFFF Unisys Fibre Channel Driver v1.3.15 OK
0xF4800000-0xF4FFFFFF PCI bus OK
0xF4800000-0xF4FFFFFF DEC 21154 PCI to PCI bridge OK
0xF4800000-0xF4FFFFFF Unisys Fibre Channel Driver v1.3.15 OK
0xF5000000-0xF77FFFFFF PCI bus OK
0xF5000000-0xF77FFFFFF cLAN Host Adapter #6 OK
0xF7000000-0xF77FFFFFF DEC 21154 PCI to PCI bridge OK
0xF7000000-0xF77FFFFFF Unisys Fibre Channel Driver v1.3.15 OK
0xF5020000-0xF503FFFF cLAN Host Adapter #6 OK
0xF5200000-0xF53FFFFF cLAN Host Adapter #6 OK
0xF6000000-0xF6FFFFFF cLAN Host Adapter #6 OK
0xF7800000-0xF7FFFFFF PCI bus OK
0xF7800000-0xF7FFFFFF DEC 21154 PCI to PCI bridge OK
0xF7800000-0xF7FFFFFF Unisys Fibre Channel Driver v1.3.15 OK
0xF8000000-0xF87FFFFFF PCI bus OK
0xF8000000-0xF87FFFFFF DEC 21154 PCI to PCI bridge OK
0xF8000000-0xF87FFFFFF Unisys Fibre Channel Driver v1.3.15 OK
0xF8800000-0xFA7FFFFFF PCI bus OK
0xF8800000-0xFA7FFFFFF cLAN Host Adapter #5 OK
0xFA000000-0xFA7FFFFFF DEC 21154 PCI to PCI bridge OK
0xFA000000-0xFA7FFFFFF Unisys Fibre Channel Driver v1.3.15 OK
0xF8A20000-0xF8A3FFFF cLAN Host Adapter #5 OK
0xF9000000-0xF9FFFFFF cLAN Host Adapter #5 OK
0xF8A00000-0xF8A0FFFF cLAN Host Adapter #5 OK
0xFA800000-0xFAFFFFFF PCI bus OK
0xFA800000-0xFAFFFFFF DEC 21154 PCI to PCI bridge OK
0xFA800000-0xFAFFFFFF Unisys Fibre Channel Driver v1.3.15 OK
0xFB000000-0xFB7FFFFFF PCI bus OK
0xFB000000-0xFB7FFFFFF DEC 21154 PCI to PCI bridge OK
0xFB000000-0xFB7FFFFFF Unisys Fibre Channel Driver v1.3.15 OK
0xFB800000-0xFD7FFFFFF PCI bus OK
0xFB800000-0xFD7FFFFFF cLAN Host Adapter #3 OK

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```

0xFD000000-0xFD7FFFFFF DEC 21154 PCI to PCI bridge OK
0xFD000000-0xFD7FFFFFF Unisys Fibre Channel Driver v1.3.15 OK
0xFB820000-0xFB83FFFF cLAN Host Adapter #3 OK
0xFBA00000-0xFBFFFFFF cLAN Host Adapter #3 OK
0xFC000000-0xFCFFFFFF cLAN Host Adapter #3 OK
0xFD800000-0xFDFFFFFF PCI bus OK
0xFD800000-0xFDFFFFFF DEC 21154 PCI to PCI bridge OK
0xFD800000-0xFDFFFFFF Unisys Fibre Channel Driver v1.3.15 OK

```

[Components]

[Multimedia]

[Audio Codecs]

CODEC	Manufacturer	Description	Status	File	Version	Size
		Creation Date				
c:\windows\system32\msg723.acm	Microsoft Corporation		OK			
	C:\WINDOWS\System32\MSG723.ACM	4.4.3400		116.00 KB		
(118,784 bytes)	10/19/2001 5:37 PM					
c:\windows\system32\msgsm32.acm	Microsoft Corporation		OK			
	C:\WINDOWS\System32\MSGSM32.ACM	5.1.2600.0 (xpclient.010817-1148)		8/17/2001 3:35 PM		
c:\windows\system32\msadp32.acm	Microsoft Corporation		OK			
	C:\WINDOWS\System32\MSADP32.ACM	5.1.2600.0 (xpclient.010817-1148)		8/17/2001 3:33 PM		
	13.00 KB (13,312 bytes)					
c:\windows\system32\imaadp32.acm	Microsoft Corporation		OK			
	C:\WINDOWS\System32\IMAADP32.ACM	5.1.2600.0 (xpclient.010817-1148)		8/17/2001 3:35 PM		
c:\windows\system32\tssoft32.acm	DSP GROUP, INC.		OK			
	C:\WINDOWS\System32\TSSOFT32.ACM	1.01		8.00 KB (8,192 bytes)		
	8/17/2001 3:35 PM					
c:\windows\system32\msg711.acm	Microsoft Corporation		OK			
	C:\WINDOWS\System32\MSG711.ACM	5.1.2600.0 (xpclient.010817-1148)		9.00 KB (9,216 bytes)		
	8/17/2001 3:35 PM					
c:\windows\system32\iac25_32.ax	Intel Corporation		Indeo® audio software	OK		
	C:\WINDOWS\System32\IAC25_32.AX	2.05.53		195.00 KB (199,680 bytes)		
	8/17/2001 3:37 PM					

[Video Codecs]

CODEC	Manufacturer	Description	Status	File	Version	Size
		Creation Date				
c:\windows\system32\msh261.drv	Microsoft Corporation		OK			
	C:\WINDOWS\System32\MSH261.DRV	4.4.3400		180.00 KB		
(184,320 bytes)	10/19/2001 5:37 PM					
c:\windows\system32\tsbuyuv.dll	Microsoft Corporation		OK			
	C:\WINDOWS\System32\TSBUYUV.DLL	5.1.2600.0 (XPClient.010817-1148)		8.00 KB (8,192 bytes)		
	8/17/2001 3:36 PM					
c:\windows\system32\msyuv.dll	Microsoft Corporation		OK			
	C:\WINDOWS\System32\MSYUV.DLL	5.1.2600.0 (XPClient.010817-1148)		16.00 KB (16,384 bytes)		
	8/17/2001 3:36 PM					
c:\windows\system32\iccvid.dll	Radius Inc.		OK			
	C:\WINDOWS\System32\ICCVID.DLL	1.10.0.6		108.00 KB		
(110,592 bytes)	8/17/2001 3:36 PM					

```

c:\windows\system32\iyuv_32.dll      Microsoft Corporation      OK
C:\WINDOWS\System32\IYUV_32.DLL    5.1.2600.0 (XPClient.010817-
1148) 44.50 KB (45,568 bytes)      8/17/2001 3:36 PM
c:\windows\system32\msvidc32.dll    Microsoft Corporation      OK
C:\WINDOWS\System32\MSVIDC32.DLL  5.1.2600.0 (xpclient.010817-
1148) 25.00 KB (25,600 bytes)      8/17/2001 3:36 PM
c:\windows\system32\msrle32.dll     Microsoft Corporation      OK
C:\WINDOWS\System32\MSRLE32.DLL   5.1.3562.0 (idx02.011004-
1354) 9.50 KB (9,728 bytes) 10/8/2001 10:20 AM
c:\windows\system32\msh263.drv     Microsoft Corporation      OK
C:\WINDOWS\System32\MSH263.DRV    4.4.3400      280.00 KB
(286,720 bytes) 8/17/2001 3:37 PM
c:\windows\system32\ir32_32.dll     Not Available             OK
C:\WINDOWS\System32\IR32_32.DLL   Not Available  194.50 KB
(199,168 bytes) 8/17/2001 3:36 PM
c:\windows\system32\ir41_32.ax     Intel Corporation         OK
C:\WINDOWS\System32\IR41_32.AX    4.51.16.03    828.50 KB
(848,384 bytes) 8/17/2001 3:37 PM
c:\windows\system32\ir50_32.dll     Intel Corporation         Indeo® video
5.10 OK C:\WINDOWS\System32\IR50_32.DLL R.5.10.15.2.55 737.50
KB (755,200 bytes) 8/17/2001 3:36 PM

```

[CD-ROM]

Item Value

[Sound Device]

Item Value

[Display]

```

Item Value
Name Console Manager Video Driver
PNP Device ID
PCI\VEN_1013&DEV_00D6&SUBSYS_80D61018&REV_03\4&3A6BE3A2&0&1010

```

```

Adapter Type Cirrus Logic 5465, Unisys Corporation compatible
Adapter Description Console Manager Video Driver
Adapter RAM 2.00 MB (2,097,152 bytes)
Installed Drivers unesconf.dll
Driver Version 6,0,2,12
INF File oem4.inf (unescons section)
Color Planes 1
Color Table Entries 256
Resolution 800 x 600 x 72 hertz
Bits/Pixel 8
Memory Address 0xE2000000-0xE3FFFFFF
Memory Address 0xDE100000-0xE3FFFFFF
I/O Port 0x000003B0-0x000003BB
I/O Port 0x000003C0-0x000003DF
Memory Address 0xA0000-0xBFFFF
Driver c:\windows\system32\drivers\unescons.sys (6,0,2,12, 249.79 KB
(255,783 bytes), 9/18/2001 1:05 PM)

```

[Infrared]

Item Value

[Input]

[Keyboard]

```

Item Value
Description Standard 101/102-Key or Microsoft Natural PS/2 Keyboard
Name Enhanced (101- or 102-key)
Layout 00000409
PNP Device ID ACPI\PNP0303\2
Number of Function Keys 12
I/O Port 0x00000060-0x00000060
I/O Port 0x00000064-0x00000064
IRQ Channel IRQ 1
Driver c:\windows\system32\drivers\i8042prt.sys (5.1.3562.0
(idx02.011004-1354), 51.50 KB (52,736 bytes), 10/4/2001 2:57 PM)

```

[Pointing Device]

```

Item Value
Hardware Type PS/2 Compatible Mouse
Number of Buttons 3
Status OK
PNP Device ID ACPI\PNP0F13\2
Power Management Supported No
Double Click Threshold 6
Handedness Right Handed Operation
IRQ Channel IRQ 12
Driver c:\windows\system32\drivers\i8042prt.sys (5.1.3562.0
(idx02.011004-1354), 51.50 KB (52,736 bytes), 10/4/2001 2:57 PM)

```

[Modem]

Item Value

[Network]

[Adapter]

```

Item Value
Name [00000001] Intel(R) PRO/1000 F Server Adapter
Adapter Type Not Available
Product Type Intel(R) PRO/1000 F Server Adapter
Installed Yes
PNP Device ID Not Available
Last Reset 10/31/2001 11:32 AM
Index 1
Service Name E1000
IP Address 192.59.13.213
IP Subnet 255.255.255.0
Default IP Gateway 192.59.13.250
DHCP Enabled Yes
DHCP Server 255.255.255.255
DHCP Lease Expires 1/18/2038 7:14 PM
DHCP Lease Obtained 10/19/2001 6:28 PM

```

MAC Address 00:A0:C9:D9:76:D5

Name [00000002] Intel(R) PRO/100+ Server Adapter (PILA8470B)
Adapter Type Not Available
Product Type Intel(R) PRO/100+ Server Adapter (PILA8470B)
Installed Yes
PNP Device ID Not Available
Last Reset 10/31/2001 11:32 AM
Index 2
Service Name E100B
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled Yes
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000003] RAS Async Adapter
Adapter Type Not Available
Product Type RAS Async Adapter
Installed Yes
PNP Device ID Not Available
Last Reset 10/31/2001 11:32 AM
Index 3
Service Name AsyncMac
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000004] WAN Miniport (L2TP)
Adapter Type Not Available
Product Type WAN Miniport (L2TP)
Installed Yes
PNP Device ID ROOT\MS_L2TPMINIPORT\0000
Last Reset 10/31/2001 11:32 AM
Index 4
Service Name Rasl2tp
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available
Driver c:\windows\system32\drivers\rasl2tp.sys (5.1.3562.0 (idx02.011004-1354), 47.13 KB (48,256 bytes), 10/4/2001 3:05 PM)

Name [00000005] WAN Miniport (PPTP)
Adapter Type Wide Area Network (WAN)
Product Type WAN Miniport (PPTP)
Installed Yes

PNP Device ID ROOT\MS_PPTPMINIPORT\0000
Last Reset 10/31/2001 11:32 AM
Index 5
Service Name PptpMiniport
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 50:50:54:50:30:30
Driver c:\windows\system32\drivers\raspppt.sys (5.1.3562.0 (idx02.011004-1354), 44.50 KB (45,568 bytes), 10/4/2001 3:05 PM)

Name [00000006] WAN Miniport (PPPOE)
Adapter Type Wide Area Network (WAN)
Product Type WAN Miniport (PPPOE)
Installed Yes
PNP Device ID ROOT\MS_PPPOEMINIPORT\0000
Last Reset 10/31/2001 11:32 AM
Index 6
Service Name RasPppoe
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 33:50:6F:45:30:30
Driver c:\windows\system32\drivers\raspppoe.sys (5.1.2600.0 (xpclient.010817-1148), 38.00 KB (38,912 bytes), 8/17/2001 6:55 AM)

Name [00000007] Direct Parallel
Adapter Type Not Available
Product Type Direct Parallel
Installed Yes
PNP Device ID ROOT\MS_PTMINIPORT\0000
Last Reset 10/31/2001 11:32 AM
Index 7
Service Name Raspti
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available
Driver c:\windows\system32\drivers\raspti.sys (5.1.2600.0 (xpclient.010817-1148), 16.13 KB (16,512 bytes), 8/17/2001 6:55 AM)

Name [00000008] WAN Miniport (IP)
Adapter Type Not Available
Product Type WAN Miniport (IP)
Installed Yes
PNP Device ID ROOT\MS_NDISWANIP\0000
Last Reset 10/31/2001 11:32 AM

Index 8
Service Name NdisWan
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available
Driver c:\windows\system32\drivers\ndiswan.sys (5.1.3562.0 (idx02.011004-1354), 85.25 KB (87,296 bytes), 10/4/2001 3:05 PM)

Name [00000009] Intel(R) PRO/100+ PCI Adapter
Adapter Type Ethernet 802.3
Product Type Intel(R) PRO/100+ PCI Adapter
Installed Yes
PNP Device ID
PCI\VEN_8086&DEV_1229&SUBSYS_00098086&REV_05\3&20FEA912&0&10

Last Reset 10/31/2001 11:32 AM
Index 9
Service Name E100B
IP Address 192.59.13.213
IP Subnet 255.255.255.0
Default IP Gateway 192.59.13.250
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:A0:C9:D9:76:D5
Memory Address 0xE6802000-0xE6802FFF
I/O Port 0x00001040-0x000013FF
Memory Address 0xE6900000-0xE69FFFFF
IRQ Channel IRQ 10
Driver c:\windows\system32\drivers\e100b325.sys (5.41.22.0000 built by: WinDDK, 115.00 KB (117,760 bytes), 10/19/2001 10:23 AM)

Name [00000010] cLAN Host Adapter
Adapter Type Ethernet 802.3
Product Type cLAN Host Adapter
Installed Yes
PNP Device ID PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&A985F74&0&08

Last Reset 10/31/2001 11:32 AM
Index 10
Service Name GNINDIS
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled Yes
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:90:FA:00:14:BC
Memory Address 0xF2020000-0xF203FFFF
Memory Address 0xF2200000-0xF23FFFFF
Memory Address 0xF3000000-0xF3FFFFFF
Memory Address 0xF2000000-0xF47FFFFF

IRQ Channel IRQ 105
Driver c:\windows\system32\drivers\gnindis.sys (4.2.0.75, 22.19 KB (22,726 bytes), 9/6/2001 5:38 PM)

Name [00000011] cLAN Host Adapter
Adapter Type Ethernet 802.3
Product Type cLAN Host Adapter
Installed Yes
PNP Device ID PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&1B2F0CE&0&08

Last Reset 10/31/2001 11:32 AM
Index 11
Service Name GNINDIS
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled Yes
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:90:FA:00:1C:0F
Memory Address 0xEEA20000-0xEEA3FFFF
Memory Address 0xEE800000-0xF07FFFFF
Memory Address 0xEF000000-0xEFFFFFFF
Memory Address 0xEEA00000-0xEEA0FFFF
IRQ Channel IRQ 77
Driver c:\windows\system32\drivers\gnindis.sys (4.2.0.75, 22.19 KB (22,726 bytes), 9/6/2001 5:38 PM)

Name [00000012] cLAN Host Adapter
Adapter Type Ethernet 802.3
Product Type cLAN Host Adapter
Installed Yes
PNP Device ID
PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&23FF515D&0&18

Last Reset 10/31/2001 11:32 AM
Index 12
Service Name GNINDIS
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled Yes
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:90:FA:00:1C:8C
Memory Address 0xFB820000-0xFB83FFFF
Memory Address 0xFBA00000-0xFBBFFFFFFF
Memory Address 0xFC000000-0xFCFFFFFFF
Memory Address 0xFB800000-0xFD7FFFFFFF
IRQ Channel IRQ 175
Driver c:\windows\system32\drivers\gnindis.sys (4.2.0.75, 22.19 KB (22,726 bytes), 9/6/2001 5:38 PM)

Name [00000013] cLAN Host Adapter
Adapter Type Ethernet 802.3
Product Type cLAN Host Adapter
Installed Yes

PNP Device ID
PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&29E81982&0&18

Last Reset 10/31/2001 11:32 AM
Index 13
Service Name GNINDIS
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled Yes
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:90:FA:00:1C:34
Memory Address 0xE8020000-0xE803FFFF
Memory Address 0xE8200000-0xE83FFFFF
Memory Address 0xE9000000-0xE9FFFFFF
Memory Address 0xE8000000-0xEA7FFFFF
IRQ Channel IRQ 31
Driver c:\windows\system32\drivers\gnindis.sys (4.2.0.75, 22.19 KB
(22,726 bytes), 9/6/2001 5:38 PM)

Name [00000014] cLAN Host Adapter
Adapter Type Ethernet 802.3
Product Type cLAN Host Adapter
Installed Yes
PNP Device ID

PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&2C9E08A6&0&18

Last Reset 10/31/2001 11:32 AM
Index 14
Service Name GNINDIS
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled Yes
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:90:FA:00:15:9A
Memory Address 0xF8A20000-0xF8A3FFFF
Memory Address 0xF8800000-0xFA7FFFFF
Memory Address 0xF9000000-0xF9FFFFFF
Memory Address 0xF8A00000-0xF8A0FFFF
IRQ Channel IRQ 151
Driver c:\windows\system32\drivers\gnindis.sys (4.2.0.75, 22.19 KB
(22,726 bytes), 9/6/2001 5:38 PM)

Name [00000015] cLAN Host Adapter
Adapter Type Ethernet 802.3
Product Type cLAN Host Adapter
Installed Yes
PNP Device ID

PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&300BC0BE&0&18

Last Reset 10/31/2001 11:32 AM
Index 15
Service Name GNINDIS
IP Address Not Available

IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled Yes
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:90:FA:00:1C:45
Memory Address 0xF5020000-0xF503FFFF
Memory Address 0xF5200000-0xF53FFFFF
Memory Address 0xF6000000-0xF6FFFFFF
Memory Address 0xF5000000-0xF77FFFFF
IRQ Channel IRQ 127
Driver c:\windows\system32\drivers\gnindis.sys (4.2.0.75, 22.19 KB
(22,726 bytes), 9/6/2001 5:38 PM)

Name [00000016] cLAN Host Adapter
Adapter Type Ethernet 802.3
Product Type cLAN Host Adapter
Installed Yes
PNP Device ID PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&AD74055&0&10

Last Reset 10/31/2001 11:32 AM
Index 16
Service Name GNINDIS
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled Yes
DHCP Server Not Available

DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:90:FA:00:1C:15
Memory Address 0xEB820000-0xEB83FFFF
Memory Address 0xEBA00000-0xEBBFFFFF
Memory Address 0xEC000000-0xECFFFFFF
Memory Address 0xEB800000-0xED7FFFFF
IRQ Channel IRQ 54
Driver c:\windows\system32\drivers\gnindis.sys (4.2.0.75, 22.19 KB
(22,726 bytes), 9/6/2001 5:38 PM)

Name [00000017] cLAN Host Adapter
Adapter Type Ethernet 802.3
Product Type cLAN Host Adapter
Installed Yes
PNP Device ID PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&E44F86D&0&18

Last Reset 10/31/2001 11:32 AM
Index 17
Service Name GNINDIS
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled Yes
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:90:FA:00:1C:5D
Memory Address 0xE4A20000-0xE4A3FFFF
Memory Address 0xE4C00000-0xE4DFFFFF

Memory Address 0xE5000000-0xE5FFFFFF
Memory Address 0xE4A00000-0xE67FFFFFF
IRQ Channel IRQ 7
Driver c:\windows\system32\drivers\gnindis.sys (4.2.0.75, 22.19 KB
(22,726 bytes), 9/6/2001 5:38 PM)

[Protocol]

Item Value

Name MSAFD Tcpip [TCP/IP]
Connectionless Service No
Guarantees Delivery Yes
Guarantees Sequencing Yes
Maximum Address Size 16 bytes
Maximum Message Size 0 bytes
Message Oriented No
Minimum Address Size 16 bytes
Pseudo Stream Oriented No
Supports Broadcasting No
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data Yes
Supports Graceful Closing Yes
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD Tcpip [UDP/IP]
Connectionless Service Yes
Guarantees Delivery No
Guarantees Sequencing No
Maximum Address Size 16 bytes
Maximum Message Size 63.93 KB (65,467 bytes)
Message Oriented Yes
Minimum Address Size 16 bytes
Pseudo Stream Oriented No
Supports Broadcasting Yes
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting Yes

Name RSVP UDP Service Provider
Connectionless Service Yes
Guarantees Delivery No
Guarantees Sequencing No
Maximum Address Size 16 bytes
Maximum Message Size 63.93 KB (65,467 bytes)
Message Oriented Yes
Minimum Address Size 16 bytes
Pseudo Stream Oriented No
Supports Broadcasting Yes
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption Yes
Supports Expedited Data No

Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting Yes

Name RSVP TCP Service Provider
Connectionless Service No
Guarantees Delivery Yes
Guarantees Sequencing Yes
Maximum Address Size 16 bytes
Maximum Message Size 0 bytes
Message Oriented No
Minimum Address Size 16 bytes
Pseudo Stream Oriented No
Supports Broadcasting No
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption Yes
Supports Expedited Data Yes
Supports Graceful Closing Yes
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{F901D0FB-B7DA-4050-A1E1-73825F0A4B9C}] SEQUENCEPACKET 12
Connectionless Service No
Guarantees Delivery Yes
Guarantees Sequencing Yes
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting No
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{F901D0FB-B7DA-4050-A1E1-73825F0A4B9C}] DATAGRAM 12
Connectionless Service Yes
Guarantees Delivery No
Guarantees Sequencing No
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting Yes
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{5B1F3571-1FE2-46F5-84FC-F8814639AA02}] SEQPACKET 11
Connectionless Service No
Guarantees Delivery Yes
Guarantees Sequencing Yes
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting No
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{5B1F3571-1FE2-46F5-84FC-F8814639AA02}] DATAGRAM 11
Connectionless Service Yes
Guarantees Delivery No
Guarantees Sequencing No
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting Yes
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{35060006-F042-4285-991D-ED76C5F587AF}] SEQPACKET 10
Connectionless Service No
Guarantees Delivery Yes
Guarantees Sequencing Yes
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting No
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{35060006-F042-4285-991D-ED76C5F587AF}] DATAGRAM 10
Connectionless Service Yes
Guarantees Delivery No
Guarantees Sequencing No
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting Yes
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{80D4476A-56C6-4719-9975-328DB0273938}] SEQPACKET 9
Connectionless Service No
Guarantees Delivery Yes
Guarantees Sequencing Yes
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting No
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{80D4476A-56C6-4719-9975-328DB0273938}] DATAGRAM 9
Connectionless Service Yes
Guarantees Delivery No
Guarantees Sequencing No
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting Yes
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{B4EEE6EC-2D6E-454A-ACFB-BEB4E391A25E}] SEQPACKET 8

Connectionless Service No
Guarantees Delivery Yes
Guarantees Sequencing Yes
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting No
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{B4EEE6EC-2D6E-454A-ACFB-BEB4E391A25E}] DATAGRAM 8
Connectionless Service Yes
Guarantees Delivery No
Guarantees Sequencing No
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting Yes
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{6352DAF0-CB57-41D5-A22C-ED3B4D860D46}] SEQUENCE 7
Connectionless Service No
Guarantees Delivery Yes
Guarantees Sequencing Yes
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting No
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{6352DAF0-CB57-41D5-A22C-ED3B4D860D46}] DATAGRAM 7
Connectionless Service Yes
Guarantees Delivery No

Guarantees Sequencing No
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting Yes
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{F50E1EE4-2556-494C-A4A0-1A03589702ED}] SEQUENCE 6
Connectionless Service No
Guarantees Delivery Yes
Guarantees Sequencing Yes
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting No
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{F50E1EE4-2556-494C-A4A0-1A03589702ED}] DATAGRAM 6
Connectionless Service Yes
Guarantees Delivery No
Guarantees Sequencing No
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting Yes
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{404EB7B1-6888-49A6-AC85-1D7B3D49DBD2}] SEQUENCE 5
Connectionless Service No
Guarantees Delivery Yes
Guarantees Sequencing Yes
Maximum Address Size 20 bytes

Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting No
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{404EB7B1-6888-49A6-AC85-1D7B3D49DBD2}] DATAGRAM 5
Connectionless Service Yes
Guarantees Delivery No
Guarantees Sequencing No
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting Yes
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{357C014C-A204-4FF6-A374-431C2B971C69}] SEQPACKET 4
Connectionless Service No
Guarantees Delivery Yes
Guarantees Sequencing Yes
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting No
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{357C014C-A204-4FF6-A374-431C2B971C69}] DATAGRAM 4
Connectionless Service Yes
Guarantees Delivery No
Guarantees Sequencing No
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes

Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting Yes
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{C1E8762A-B29B-4C09-BA5A-2D97427E5ACB}] SEQPACKET 0
Connectionless Service No
Guarantees Delivery Yes
Guarantees Sequencing Yes
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting No
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{C1E8762A-B29B-4C09-BA5A-2D97427E5ACB}] DATAGRAM 0
Connectionless Service Yes
Guarantees Delivery No
Guarantees Sequencing No
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting Yes
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{171D8564-0A1F-42C4-BA01-5108EF73ADFE}] SEQPACKET 1
Connectionless Service No
Guarantees Delivery Yes
Guarantees Sequencing Yes
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No

Supports Broadcasting No
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{171D8564-0A1F-42C4-BA01-5108EF73ADFE}] DATAGRAM 1
Connectionless Service Yes
Guarantees Delivery No
Guarantees Sequencing No
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting Yes
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{2250FCB8-2DF4-4B1B-851C-D755C3D0E812}] SEQPACKET 2
Connectionless Service No
Guarantees Delivery Yes
Guarantees Sequencing Yes
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting No
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{2250FCB8-2DF4-4B1B-851C-D755C3D0E812}] DATAGRAM 2
Connectionless Service Yes
Guarantees Delivery No
Guarantees Sequencing No
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting Yes
Supports Connect Data No

Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{D3631195-DFB2-44CA-8E4C-990CE426F973}] SEQPACKET 3
Connectionless Service No
Guarantees Delivery Yes
Guarantees Sequencing Yes
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting No
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{D3631195-DFB2-44CA-8E4C-990CE426F973}] DATAGRAM 3
Connectionless Service Yes
Guarantees Delivery No
Guarantees Sequencing No
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting Yes
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

[WinSock]

Item Value
File c:\windows\system32\winsock.dll
Size 2.80 KB (2,864 bytes)
Version 3.10

File c:\windows\system32\wsock32.dll
Size 21.00 KB (21,504 bytes)
Version 5.1.2600.0 (xpclient.010817-1148)

[Ports]

[Serial]

```
Item      Value
Name      Communications Port (COM1)
Status    OK
PNP Device ID  ACPI\PNP0501\3
Maximum Input Buffer Size      0
Maximum Output Buffer Size     No
Settable Baud Rate             Yes
Settable Data Bits             Yes
Settable Flow Control          Yes
Settable Parity                Yes
Settable Parity Check          Yes
Settable Stop Bits            Yes
Settable RLSD                  Yes
Supports RLSD                  Yes
Supports 16 Bit Mode          No
Supports Special Characters    No
Baud Rate                      9600
Bits/Byte                      8
Stop Bits                      1
Parity None
Busy No
Abort Read/Write on Error      No
Binary Mode Enabled           Yes
Continue Xmit on XOff         No
CTS Outflow Control           No
Discard NULL Bytes            No
DSR Outflow Control           0
DSR Sensitivity                0
DTR Flow Control Type         Enable
EOF Character                  0
Error Replace Character        0
Error Replacement Enabled      No
Event Character                0
Parity Check Enabled          No
RTS Flow Control Type         Enable
XOff Character                19
XOffXmit Threshold            512
XOn Character                  17
XOnXmit Threshold             2048
XOnXOff InFlow Control        0
XOnXOff OutFlow Control       0
I/O Port                      0x000003F8-0x000003FF
IRQ Channel                    IRQ 4
Driver c:\windows\system32\drivers\serial.sys (5.1.3562.0 (idx02.011004-1354), 59.38 KB (60,800 bytes), 10/4/2001 2:58 PM)
```

```
Name      Communications Port (COM2)
Status    OK
PNP Device ID  ACPI\PNP0501\4
Maximum Input Buffer Size      0
Maximum Output Buffer Size     No
Settable Baud Rate             Yes
Settable Data Bits             Yes
Settable Flow Control          Yes
Settable Parity                Yes
Settable Parity Check          Yes
```

```
Settable Stop Bits            Yes
Settable RLSD                  Yes
Supports RLSD                  Yes
Supports 16 Bit Mode          No
Supports Special Characters    No
Baud Rate                      9600
Bits/Byte                      8
Stop Bits                      1
Parity None
Busy No
Abort Read/Write on Error      No
Binary Mode Enabled           Yes
Continue Xmit on XOff         No
CTS Outflow Control           No
Discard NULL Bytes            No
DSR Outflow Control           0
DSR Sensitivity                0
DTR Flow Control Type         Enable
EOF Character                  0
Error Replace Character        0
Error Replacement Enabled      No
Event Character                0
Parity Check Enabled          No
RTS Flow Control Type         Enable
XOff Character                19
XOffXmit Threshold            512
XOn Character                  17
XOnXmit Threshold             2048
XOnXOff InFlow Control        0
XOnXOff OutFlow Control       0
I/O Port                      0x000002F8-0x000002FF
IRQ Channel                    IRQ 3
Driver c:\windows\system32\drivers\serial.sys (5.1.3562.0 (idx02.011004-1354), 59.38 KB (60,800 bytes), 10/4/2001 2:58 PM)
```

[Parallel]

```
Item      Value
Name      LPT1
PNP Device ID  ACPI\PNP0401\2
I/O Port      0x00000378-0x0000037F
I/O Port      0x00000778-0x0000077F
DMA Channel    Channel 1
Driver c:\windows\system32\drivers\parport.sys (5.1.3562.0 (idx02.011004-1354), 74.38 KB (76,160 bytes), 10/4/2001 2:58 PM)
```

[Storage]

[Drives]

```
Item      Value
Drive A:
Description  3 1/2 Inch Floppy Drive

Drive C:
Description  Local Fixed Disk
Compressed   No
```

File System NTFS
Size 17.01 GB (18,260,086,784 bytes)
Free Space 8.70 GB (9,343,283,200 bytes)
Volume Name
Volume Serial Number 40496EDD

Drive D:
Description Local Fixed Disk
Compressed No
File System NTFS
Size 17.02 GB (18,275,766,272 bytes)
Free Space 12.84 GB (13,785,927,680 bytes)
Volume Name
Volume Serial Number 68A8D53E

Drive E:
Description CD-ROM Disc

[Disks]

Item Value
Description \\.\PHYSICALDRIVE72
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 20
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #72, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #72, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #72, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #72, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE73
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0

SCSI Logical Unit 1
SCSI Port 20
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #73, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #73, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #73, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #73, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE74
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 2
SCSI Port 20
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #74, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #74, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #74, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #74, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE75
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4

```

SCSI Bus          0
SCSI Logical Unit 3
SCSI Port         20
SCSI Target ID   0
Sectors/Track    32
Size             163.52 GB (175,574,614,016 bytes)
Total Cylinders  167,441
Total Sectors    342,919,168
Total Tracks     10,716,224
Tracks/Cylinder  64
Partition        Disk #75, Partition #0
Partition Size   3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition        Disk #75, Partition #1
Partition Size   5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition        Disk #75, Partition #2
Partition Size   3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition        Disk #75, Partition #3
Partition Size   151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

```

Description \\.\PHYSICALDRIVE76

```

Manufacturer      Not Available
Model             Not Available
Bytes/Sector      512
Media Loaded      Yes
Media Type        Fixed hard disk
Partitions        4
SCSI Bus          0
SCSI Logical Unit 4
SCSI Port         21
SCSI Target ID   0
Sectors/Track    32
Size             163.52 GB (175,574,614,016 bytes)
Total Cylinders  167,441
Total Sectors    342,919,168
Total Tracks     10,716,224
Tracks/Cylinder  64

```

```

Partition        Disk #76, Partition #0
Partition Size   3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition        Disk #76, Partition #1
Partition Size   5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition        Disk #76, Partition #2
Partition Size   3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition        Disk #76, Partition #3
Partition Size   151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

```

Description \\.\PHYSICALDRIVE77

```

Manufacturer      Not Available
Model             Not Available
Bytes/Sector      512
Media Loaded      Yes
Media Type        Fixed hard disk

```

```

Partitions        4
SCSI Bus          0
SCSI Logical Unit 5
SCSI Port         21
SCSI Target ID   0
Sectors/Track    32
Size             163.52 GB (175,574,614,016 bytes)
Total Cylinders  167,441
Total Sectors    342,919,168
Total Tracks     10,716,224
Tracks/Cylinder  64
Partition        Disk #77, Partition #0
Partition Size   3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition        Disk #77, Partition #1
Partition Size   5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition        Disk #77, Partition #2
Partition Size   3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition        Disk #77, Partition #3
Partition Size   151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

```

Description \\.\PHYSICALDRIVE78

```

Manufacturer      Not Available
Model             Not Available
Bytes/Sector      512
Media Loaded      Yes
Media Type        Fixed hard disk
Partitions        4
SCSI Bus          0
SCSI Logical Unit 6
SCSI Port         21
SCSI Target ID   0
Sectors/Track    32
Size             163.52 GB (175,574,614,016 bytes)
Total Cylinders  167,441
Total Sectors    342,919,168
Total Tracks     10,716,224
Tracks/Cylinder  64

```

```

Partition        Disk #78, Partition #0
Partition Size   3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition        Disk #78, Partition #1
Partition Size   5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition        Disk #78, Partition #2
Partition Size   3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition        Disk #78, Partition #3
Partition Size   151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

```

Description \\.\PHYSICALDRIVE79

```

Manufacturer      Not Available
Model             Not Available
Bytes/Sector      512
Media Loaded      Yes

```


Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 7
SCSI Port 21
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #79, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #79, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #79, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #79, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE92
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 4
SCSI Port 25
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #92, Partition #0
Partition Size 3.05 GB (3,273,629,184 bytes)
Partition Starting Offset 32,256 bytes
Partition Disk #92, Partition #1
Partition Size 5.77 GB (6,193,635,840 bytes)
Partition Starting Offset 3,273,661,440 bytes
Partition Disk #92, Partition #2
Partition Size 3.45 GB (3,709,601,280 bytes)
Partition Starting Offset 9,467,297,280 bytes
Partition Disk #92, Partition #3
Partition Size 151.24 GB (162,391,703,040 bytes)
Partition Starting Offset 13,176,898,560 bytes

Description \\.\PHYSICALDRIVE93
Manufacturer Not Available
Model Not Available
Bytes/Sector 512

Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 5
SCSI Port 25
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #93, Partition #0
Partition Size 3.05 GB (3,273,629,184 bytes)
Partition Starting Offset 32,256 bytes
Partition Disk #93, Partition #1
Partition Size 5.77 GB (6,193,635,840 bytes)
Partition Starting Offset 3,273,661,440 bytes
Partition Disk #93, Partition #2
Partition Size 3.45 GB (3,709,601,280 bytes)
Partition Starting Offset 9,467,297,280 bytes
Partition Disk #93, Partition #3
Partition Size 151.24 GB (162,391,703,040 bytes)
Partition Starting Offset 13,176,898,560 bytes

Description \\.\PHYSICALDRIVE94
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 6
SCSI Port 25
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #94, Partition #0
Partition Size 3.05 GB (3,273,629,184 bytes)
Partition Starting Offset 32,256 bytes
Partition Disk #94, Partition #1
Partition Size 5.77 GB (6,193,635,840 bytes)
Partition Starting Offset 3,273,661,440 bytes
Partition Disk #94, Partition #2
Partition Size 3.45 GB (3,709,601,280 bytes)
Partition Starting Offset 9,467,297,280 bytes
Partition Disk #94, Partition #3
Partition Size 151.24 GB (162,391,703,040 bytes)
Partition Starting Offset 13,176,898,560 bytes

Description \\.\PHYSICALDRIVE95
Manufacturer Not Available
Model Not Available

Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 7
SCSI Port 25
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #95, Partition #0
Partition Size 3.05 GB (3,273,629,184 bytes)
Partition Starting Offset 32,256 bytes
Partition Disk #95, Partition #1
Partition Size 5.77 GB (6,193,635,840 bytes)
Partition Starting Offset 3,273,661,440 bytes
Partition Disk #95, Partition #2
Partition Size 3.45 GB (3,709,601,280 bytes)
Partition Starting Offset 9,467,297,280 bytes
Partition Disk #95, Partition #3
Partition Size 151.24 GB (162,391,703,040 bytes)
Partition Starting Offset 13,176,898,560 bytes

Description \\.\PHYSICALDRIVE44
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 4
SCSI Port 13
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #44, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #44, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #44, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #44, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE45
Manufacturer Not Available

Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 5
SCSI Port 13
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #45, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #45, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #45, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #45, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE46
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 6
SCSI Port 13
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #46, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #46, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #46, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #46, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE47

Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 7
 SCSI Port 13
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)
 Total Cylinders 167,441
 Total Sectors 342,919,168
 Total Tracks 10,716,224
 Tracks/Cylinder 64
 Partition Disk #47, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #47, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #47, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #47, Partition #3
 Partition Size 151.25 GB (162,407,645,184 bytes)
 Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE40
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 12
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)
 Total Cylinders 167,441
 Total Sectors 342,919,168
 Total Tracks 10,716,224
 Tracks/Cylinder 64
 Partition Disk #40, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #40, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #40, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #40, Partition #3
 Partition Size 151.25 GB (162,407,645,184 bytes)
 Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE41
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 1
 SCSI Port 12
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)
 Total Cylinders 167,441
 Total Sectors 342,919,168
 Total Tracks 10,716,224
 Tracks/Cylinder 64
 Partition Disk #41, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #41, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #41, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #41, Partition #3
 Partition Size 151.25 GB (162,407,645,184 bytes)
 Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE42
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 2
 SCSI Port 12
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)
 Total Cylinders 167,441
 Total Sectors 342,919,168
 Total Tracks 10,716,224
 Tracks/Cylinder 64
 Partition Disk #42, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #42, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #42, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #42, Partition #3
 Partition Size 151.25 GB (162,407,645,184 bytes)
 Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE43
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 3
 SCSI Port 12
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)
 Total Cylinders 167,441
 Total Sectors 342,919,168
 Total Tracks 10,716,224
 Tracks/Cylinder 64
 Partition Disk #43, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #43, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #43, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #43, Partition #3
 Partition Size 151.25 GB (162,407,645,184 bytes)
 Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE48
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 14
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)
 Total Cylinders 167,441
 Total Sectors 342,919,168
 Total Tracks 10,716,224
 Tracks/Cylinder 64
 Partition Disk #48, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #48, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #48, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #48, Partition #3
 Partition Size 151.25 GB (162,407,645,184 bytes)

Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE49
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 1
 SCSI Port 14
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)
 Total Cylinders 167,441
 Total Sectors 342,919,168
 Total Tracks 10,716,224
 Tracks/Cylinder 64
 Partition Disk #49, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #49, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #49, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #49, Partition #3
 Partition Size 151.25 GB (162,407,645,184 bytes)
 Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE50
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 2
 SCSI Port 14
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)
 Total Cylinders 167,441
 Total Sectors 342,919,168
 Total Tracks 10,716,224
 Tracks/Cylinder 64
 Partition Disk #50, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #50, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #50, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #50, Partition #3

Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE51
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 3
SCSI Port 14
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #51, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #51, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #51, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #51, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE84
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 4
SCSI Port 23
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #84, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #84, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #84, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes

Partition Disk #84, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE85
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 5
SCSI Port 23
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #85, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #85, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #85, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #85, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE86
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 6
SCSI Port 23
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #86, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #86, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #86, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)

Partition Starting Offset 9,464,446,976 bytes
Partition Disk #86, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE87
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 7
SCSI Port 23
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #87, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #87, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #87, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #87, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE20
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 4
SCSI Port 7
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #20, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #20, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #20, Partition #2

Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #20, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE21
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 5
SCSI Port 7
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #21, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #21, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #21, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #21, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE22
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 6
SCSI Port 7
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #22, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #22, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes

Partition Disk #22, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #22, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE23
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 7
SCSI Port 7
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #23, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #23, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #23, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #23, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE52
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 4
SCSI Port 15
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #52, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #52, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)

Partition Starting Offset 3,272,605,696 bytes
Partition Disk #52, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #52, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE53
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 5
SCSI Port 15
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #53, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #53, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #53, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #53, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE54
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 6
SCSI Port 15
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #54, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #54, Partition #1

Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #54, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #54, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE55
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 7
SCSI Port 15
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #55, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #55, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #55, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #55, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE4
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 2
SCSI Port 3
SCSI Target ID 1
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #4, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes

Partition Disk #4, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #4, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #4, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE5
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 3
SCSI Port 3
SCSI Target ID 1
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #5, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #5, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #5, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #5, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE6
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 4
SCSI Port 3
SCSI Target ID 1
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #6, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)

Partition Starting Offset 16,384 bytes
Partition Disk #6, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #6, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #6, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE7
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 5
SCSI Port 3
SCSI Target ID 1
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #7, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #7, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #7, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #7, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE16
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 6
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #16, Partition #0

Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #16, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #16, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #16, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE17
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 1
SCSI Port 6
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #17, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #17, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #17, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #17, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE18
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 2
SCSI Port 6
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64

Partition Disk #18, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #18, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #18, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #18, Partition #3
 Partition Size 151.25 GB (162,407,645,184 bytes)
 Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE19
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 3
 SCSI Port 6
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)
 Total Cylinders 167,441
 Total Sectors 342,919,168
 Total Tracks 10,716,224
 Tracks/Cylinder 64
 Partition Disk #19, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #19, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #19, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #19, Partition #3
 Partition Size 151.25 GB (162,407,645,184 bytes)
 Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE56
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 16
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)
 Total Cylinders 167,441
 Total Sectors 342,919,168
 Total Tracks 10,716,224

Tracks/Cylinder 64
 Partition Disk #56, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #56, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #56, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #56, Partition #3
 Partition Size 151.25 GB (162,407,645,184 bytes)
 Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE57
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 1
 SCSI Port 16
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)
 Total Cylinders 167,441
 Total Sectors 342,919,168
 Total Tracks 10,716,224
 Tracks/Cylinder 64
 Partition Disk #57, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #57, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #57, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #57, Partition #3
 Partition Size 151.25 GB (162,407,645,184 bytes)
 Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE58
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 2
 SCSI Port 16
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)
 Total Cylinders 167,441
 Total Sectors 342,919,168

Total Tracks 10,716,224
 Tracks/Cylinder 64
 Partition Disk #58, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #58, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #58, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #58, Partition #3
 Partition Size 151.25 GB (162,407,645,184 bytes)
 Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE59
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 3
 SCSI Port 16
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)
 Total Cylinders 167,441
 Total Sectors 342,919,168
 Total Tracks 10,716,224
 Tracks/Cylinder 64
 Partition Disk #59, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #59, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #59, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #59, Partition #3
 Partition Size 151.25 GB (162,407,645,184 bytes)
 Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE80
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 22
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)
 Total Cylinders 167,441

Total Sectors 342,919,168
 Total Tracks 10,716,224
 Tracks/Cylinder 64
 Partition Disk #80, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #80, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #80, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #80, Partition #3
 Partition Size 151.25 GB (162,407,645,184 bytes)
 Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE81
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 1
 SCSI Port 22
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)
 Total Cylinders 167,441
 Total Sectors 342,919,168
 Total Tracks 10,716,224
 Tracks/Cylinder 64
 Partition Disk #81, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #81, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #81, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #81, Partition #3
 Partition Size 151.25 GB (162,407,645,184 bytes)
 Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE82
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 2
 SCSI Port 22
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)

Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #82, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #82, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #82, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #82, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE83
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 3
SCSI Port 22
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #83, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #83, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #83, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #83, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE68
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 4
SCSI Port 19
SCSI Target ID 0
Sectors/Track 32

Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #68, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #68, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #68, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #68, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE69
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 5
SCSI Port 19
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #69, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #69, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #69, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #69, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE70
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 6
SCSI Port 19
SCSI Target ID 0

Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #70, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #70, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #70, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #70, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE71
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 7
SCSI Port 19
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #71, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #71, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #71, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #71, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE88
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 24

SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #88, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #88, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #88, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #88, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE89
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 1
SCSI Port 24
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #89, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #89, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #89, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #89, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE90
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 2

SCSI Port 24
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #90, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #90, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #90, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #90, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE91
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 3
SCSI Port 24
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #91, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #91, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #91, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #91, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE60
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0

SCSI Logical Unit 4
SCSI Port 17
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #60, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #60, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #60, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #60, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE61
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 5
SCSI Port 17
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #61, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #61, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #61, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #61, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE62
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4

```

SCSI Bus          0
SCSI Logical Unit 6
SCSI Port         17
SCSI Target ID   0
Sectors/Track    32
Size             163.52 GB (175,574,614,016 bytes)
Total Cylinders  167,441
Total Sectors    342,919,168
Total Tracks     10,716,224
Tracks/Cylinder  64
Partition        Disk #62, Partition #0
Partition Size   3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition        Disk #62, Partition #1
Partition Size   5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition        Disk #62, Partition #2
Partition Size   3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition        Disk #62, Partition #3
Partition Size   151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

```

Description \\.\PHYSICALDRIVE63

```

Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk

```

```

Partitions 4
SCSI Bus 0
SCSI Logical Unit 7
SCSI Port 17
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64

```

```

Partition Disk #63, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #63, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #63, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #63, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

```

Description \\.\PHYSICALDRIVE32

```

Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk

```

```

Partitions 4
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 10
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #32, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #32, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #32, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #32, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

```

Description \\.\PHYSICALDRIVE33

```

Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk

```

```

Partitions 4
SCSI Bus 0
SCSI Logical Unit 1
SCSI Port 10
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64

```

```

Partition Disk #33, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #33, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #33, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #33, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

```

Description \\.\PHYSICALDRIVE34

```

Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes

```

Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 2
SCSI Port 10
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #34, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #34, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #34, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #34, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE35
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 3
SCSI Port 10
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #35, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #35, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #35, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #35, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE36
Manufacturer Not Available
Model Not Available
Bytes/Sector 512

Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 4
SCSI Port 11
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #36, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #36, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #36, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #36, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE37
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 5
SCSI Port 11
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #37, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #37, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #37, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #37, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE38
Manufacturer Not Available
Model Not Available

Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 6
 SCSI Port 11
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)
 Total Cylinders 167,441
 Total Sectors 342,919,168
 Total Tracks 10,716,224
 Tracks/Cylinder 64
 Partition Disk #38, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #38, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #38, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #38, Partition #3
 Partition Size 151.25 GB (162,407,645,184 bytes)
 Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE39
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 7
 SCSI Port 11
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)
 Total Cylinders 167,441
 Total Sectors 342,919,168
 Total Tracks 10,716,224
 Tracks/Cylinder 64
 Partition Disk #39, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #39, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #39, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #39, Partition #3
 Partition Size 151.25 GB (162,407,645,184 bytes)
 Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE12
 Manufacturer Not Available

Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 4
 SCSI Port 5
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)
 Total Cylinders 167,441
 Total Sectors 342,919,168
 Total Tracks 10,716,224
 Tracks/Cylinder 64
 Partition Disk #12, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #12, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #12, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #12, Partition #3
 Partition Size 151.25 GB (162,407,645,184 bytes)
 Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE13
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 5
 SCSI Port 5
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)
 Total Cylinders 167,441
 Total Sectors 342,919,168
 Total Tracks 10,716,224
 Tracks/Cylinder 64
 Partition Disk #13, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #13, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #13, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #13, Partition #3
 Partition Size 151.25 GB (162,407,645,184 bytes)
 Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE14

Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 6
 SCSI Port 5
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)
 Total Cylinders 167,441
 Total Sectors 342,919,168
 Total Tracks 10,716,224
 Tracks/Cylinder 64
 Partition Disk #14, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #14, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #14, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #14, Partition #3
 Partition Size 151.25 GB (162,407,645,184 bytes)
 Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE15
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 7
 SCSI Port 5
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)
 Total Cylinders 167,441
 Total Sectors 342,919,168
 Total Tracks 10,716,224
 Tracks/Cylinder 64
 Partition Disk #15, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #15, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #15, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #15, Partition #3
 Partition Size 151.25 GB (162,407,645,184 bytes)
 Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE64
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 18
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)
 Total Cylinders 167,441
 Total Sectors 342,919,168
 Total Tracks 10,716,224
 Tracks/Cylinder 64
 Partition Disk #64, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #64, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #64, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #64, Partition #3
 Partition Size 151.25 GB (162,407,645,184 bytes)
 Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE65
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 1
 SCSI Port 18
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)
 Total Cylinders 167,441
 Total Sectors 342,919,168
 Total Tracks 10,716,224
 Tracks/Cylinder 64
 Partition Disk #65, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #65, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #65, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #65, Partition #3
 Partition Size 151.25 GB (162,407,645,184 bytes)
 Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE66
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 2
 SCSI Port 18
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)
 Total Cylinders 167,441
 Total Sectors 342,919,168
 Total Tracks 10,716,224
 Tracks/Cylinder 64
 Partition Disk #66, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #66, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #66, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #66, Partition #3
 Partition Size 151.25 GB (162,407,645,184 bytes)
 Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE67
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 3
 SCSI Port 18
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)
 Total Cylinders 167,441
 Total Sectors 342,919,168
 Total Tracks 10,716,224
 Tracks/Cylinder 64
 Partition Disk #67, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #67, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #67, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #67, Partition #3
 Partition Size 151.25 GB (162,407,645,184 bytes)

Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE24
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)
 Total Cylinders 167,441
 Total Sectors 342,919,168
 Total Tracks 10,716,224
 Tracks/Cylinder 64
 Partition Disk #24, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #24, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #24, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #24, Partition #3
 Partition Size 151.25 GB (162,407,645,184 bytes)
 Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE25
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 0
 SCSI Logical Unit 1
 SCSI Port 8
 SCSI Target ID 0
 Sectors/Track 32
 Size 163.52 GB (175,574,614,016 bytes)
 Total Cylinders 167,441
 Total Sectors 342,919,168
 Total Tracks 10,716,224
 Tracks/Cylinder 64
 Partition Disk #25, Partition #0
 Partition Size 3.05 GB (3,272,589,312 bytes)
 Partition Starting Offset 16,384 bytes
 Partition Disk #25, Partition #1
 Partition Size 5.77 GB (6,191,841,280 bytes)
 Partition Starting Offset 3,272,605,696 bytes
 Partition Disk #25, Partition #2
 Partition Size 3.45 GB (3,701,473,280 bytes)
 Partition Starting Offset 9,464,446,976 bytes
 Partition Disk #25, Partition #3

Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE26
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 2
SCSI Port 8
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #26, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #26, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #26, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #26, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE27
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 3
SCSI Port 8
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #27, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #27, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #27, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes

Partition Disk #27, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE8
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 4
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #8, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #8, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #8, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #8, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE9
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 1
SCSI Port 4
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #9, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #9, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #9, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)

Partition Starting Offset 9,464,446,976 bytes
Partition Disk #9, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE10
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 2
SCSI Port 4
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #10, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #10, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #10, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #10, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE11
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 3
SCSI Port 4
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #11, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #11, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #11, Partition #2

Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #11, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE28
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 4
SCSI Port 9
SCSI Target ID 0
Sectors/Track 63
Size 163.51 GB (175,568,601,600 bytes)
Total Cylinders 21,345
Total Sectors 342,907,425
Total Tracks 5,442,975
Tracks/Cylinder 255
Partition Disk #28, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #28, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #28, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #28, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE29
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 5
SCSI Port 9
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #29, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #29, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes

Partition Disk #29, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #29, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE30
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 6
SCSI Port 9
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #30, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #30, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)
Partition Starting Offset 3,272,605,696 bytes
Partition Disk #30, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #30, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE31
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 0
SCSI Logical Unit 7
SCSI Port 9
SCSI Target ID 0
Sectors/Track 32
Size 163.52 GB (175,574,614,016 bytes)
Total Cylinders 167,441
Total Sectors 342,919,168
Total Tracks 10,716,224
Tracks/Cylinder 64
Partition Disk #31, Partition #0
Partition Size 3.05 GB (3,272,589,312 bytes)
Partition Starting Offset 16,384 bytes
Partition Disk #31, Partition #1
Partition Size 5.77 GB (6,191,841,280 bytes)

Partition Starting Offset 3,272,605,696 bytes
Partition Disk #31, Partition #2
Partition Size 3.45 GB (3,701,473,280 bytes)
Partition Starting Offset 9,464,446,976 bytes
Partition Disk #31, Partition #3
Partition Size 151.25 GB (162,407,645,184 bytes)
Partition Starting Offset 13,165,920,256 bytes

Description \\.\PHYSICALDRIVE2
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 2
SCSI Target ID 2
Sectors/Track 32
Size 196.49 GB (210,975,588,352 bytes)
Total Cylinders 201,202
Total Sectors 412,061,696
Total Tracks 12,876,928
Tracks/Cylinder 64
Partition Disk #2, Partition #0
Partition Size 196.49 GB (210,974,523,392 bytes)
Partition Starting Offset 16,384 bytes

Description \\.\PHYSICALDRIVE3
Manufacturer Not Available
Model Not Available
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 1
SCSI Port 2
SCSI Target ID 2
Sectors/Track 32
Size 196.49 GB (210,975,588,352 bytes)
Total Cylinders 201,202
Total Sectors 412,061,696
Total Tracks 12,876,928
Tracks/Cylinder 64
Partition Disk #3, Partition #0
Partition Size 196.49 GB (210,974,523,392 bytes)
Partition Starting Offset 16,384 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model UNISYS 018404ST318404LC SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0

```

SCSI Port      0
SCSI Target ID 0
Sectors/Track 63
Size 17.01 GB (18,268,346,880 bytes)
Total Cylinders 2,221
Total Sectors 35,680,365
Total Tracks 566,355
Tracks/Cylinder 255
Partition Disk #0, Partition #0
Partition Size 17.01 GB (18,260,089,344 bytes)
Partition Starting Offset 32,256 bytes

```

```

Description Disk drive
Manufacturer (Standard disk drives)
Model UNISYS 018404ST318404LC SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 1
Sectors/Track 63
Size 17.01 GB (18,268,346,880 bytes)
Total Cylinders 2,221
Total Sectors 35,680,365
Total Tracks 566,355
Tracks/Cylinder 255
Partition Disk #1, Partition #0
Partition Size 17.02 GB (18,275,768,320 bytes)
Partition Starting Offset 0 bytes

```

[SCSI]

```
Item Value
```

[IDE]

```

Item Value
Name Intel(r) 82371AB/EB PCI Bus Master IDE Controller
Manufacturer Intel
Status OK
PNP Device ID PCI\VEN_8086&DEV_7111&SUBSYS_00000000&REV_01\3&474B838&0&09

I/O Port 0x00001020-0x0000102F
Driver c:\windows\system32\drivers\intelide.sys (5.1.2600.0
(XPClient.010817-1148), 4.50 KB (4,608 bytes), 8/17/2001 6:51 AM)

```

[Printing]

```
Name Driver Port Name Server Name
```

[Problem Devices]

```
Device PNP Device ID Error Code
```

[USB]

```

Device PNP Device ID
Intel(r) 82371AB/EB PCI to USB Universal Host Controller
PCI\VEN_8086&DEV_7112&SUBSYS_00000000&REV_01\3&474B838&0&0A
USB Root Hub USB\ROOT_HUB\4&A0E0C64&0

```

[Software Environment]

[System Drivers]

Name	Description	File	Type	Started	Start Mode	State	Status
abiosdsk	Abiosdsk		Not Available	Kernel Driver	No	No	
	Disabled	Stopped	OK	Ignore	No	No	
acpi	Microsoft ACPI Driver	c:\windows\system32\drivers\acpi.sys	Kernel Driver	Running	OK	Normal	Yes
acpiec	ACPIEC	c:\windows\system32\drivers\acpiec.sys	Kernel Driver	Stopped	OK	Normal	No
	No	Disabled	Stopped	OK	Normal	No	No
adpulg60m	adpulg60m	c:\windows\system32\drivers\adpulg60m.sys	Kernel Driver	Yes	Boot	Running	OK
	Kernel Driver	Yes	Boot	Running	OK	Normal	No
							Yes
afc9xxx	afc9xxx	Not Available	Kernel Driver	No	Disabled		
	Stopped	OK	Normal	No	No		
afcnc	afcnc	Not Available	Kernel Driver	No	Disabled		
	Stopped	OK	Normal	No	No		
afd	AFD Networking Support Environment	c:\windows\system32\drivers\afd.sys	Kernel Driver	Yes	Auto		
	Running	OK	Normal	No	Yes		
aha154x	Aha154x	Not Available	Kernel Driver	No	Disabled		
	Stopped	OK	Normal	No	No		
aic78u2	aic78u2	Not Available	Kernel Driver	No	Disabled		
	Stopped	OK	Normal	No	No		
aic78xx	aic78xx	Not Available	Kernel Driver	No	Disabled		
	Stopped	OK	Normal	No	No		
aliide	AliIde	Not Available	Kernel Driver	No	Disabled		
	Stopped	OK	Normal	No	No		
asynmac	RAS Asynchronous Media Driver	c:\windows\system32\drivers\asynmac.sys	Kernel Driver	No			
	Manual	Stopped	OK	Normal	No	No	
atapi	atapi	c:\windows\system32\drivers\atapi.sys	Kernel Driver	No			
	Disabled	Stopped	OK	Normal	No	No	
atdisk	Atdisk	Not Available	Kernel Driver	No	Disabled		
	Stopped	OK	Ignore	No	No		
atmarpc	ATM ARP Client Protocol	c:\windows\system32\drivers\atmarpc.sys	Kernel Driver	No			
	Manual	Stopped	OK	Normal	No	No	
audstub	Audio Stub Driver	c:\windows\system32\drivers\audstub.sys	Kernel Driver	Yes	Manual	Running	OK
	Kernel Driver	Yes	Manual	Running	OK	Normal	No
							Yes
beep	Beep	c:\windows\system32\drivers\beep.sys	Kernel Driver	Yes			
	System	Running	OK	Normal	No	Yes	
cbidf2k	cbidf2k	c:\windows\system32\drivers\cbidf2k.sys	Kernel Driver	No			
	No	Disabled	Stopped	OK	Normal	No	No
cdaudio	Cdaudio	c:\windows\system32\drivers\cdaudio.sys	Kernel Driver	No			
	No	System	Stopped	OK	Ignore	No	No
cdfs	Cdfs	c:\windows\system32\drivers\cdfs.sys	File System Driver	Yes	Disabled	Running	OK
	Yes	Disabled	Running	OK	Normal	No	Yes

cdrom	CD-ROM Driver	c:\windows\system32\drivers\cdrom.sys	Kernel Driver	Yes	System Running OK	Normal	No	Yes
changer	Changer	Not Available	Kernel Driver	No	System Stopped OK	Ignore	No	No
clusdisk	Cluster Disk Driver	c:\windows\system32\drivers\clusdisk.sys	Kernel Driver	No	Disabled	Stopped OK	Normal	No
cmdide	CmdIde	Not Available	Kernel Driver	No	Stopped OK	Normal	No	Disabled
cpqarray	Cpqarray	Not Available	Kernel Driver	No	Disabled	Stopped OK	Normal	No
cpqarry2	cpqarry2	Not Available	Kernel Driver	No	Disabled	Stopped OK	Normal	No
cpqcissm	cpqcissm	Not Available	Kernel Driver	No	Disabled	Stopped OK	Normal	No
cpqfcalm	cpqfcalm	Not Available	Kernel Driver	No	Disabled	Stopped OK	Normal	No
dac960nt	dac960nt	Not Available	Kernel Driver	No	Disabled	Stopped OK	Normal	No
dasd	Unisys DASD Driver v1.3.15	c:\windows\system32\drivers\dasd.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No
dfsdriver	DfsDriver	c:\windows\system32\drivers\dfs.sys	File System Driver	Yes	Boot	Running OK	Normal	No
disk	Disk Driver	c:\windows\system32\drivers\disk.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No
dmboot	dmboot	c:\windows\system32\drivers\dmboot.sys	Kernel Driver	No	Disabled	Stopped OK	Normal	No
dmio	Logical Disk Manager Driver	c:\windows\system32\drivers\dmio.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No
dmload	dmload	c:\windows\system32\drivers\dmload.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No
dpti2o	dpti2o	Not Available	Kernel Driver	No	Stopped OK	Normal	No	Disabled
e1000	Intel(R) PRO/1000 Adapter Driver	c:\windows\system32\drivers\e1000nt5.sys	Kernel Driver	No	Manual	Stopped OK	Normal	No
e100b	Intel(R) PRO Adapter Driver	c:\windows\system32\drivers\e100b325.sys	Kernel Driver	Yes	Manual	Running OK	Normal	No
elxsl12	elxsl12	c:\windows\system32\drivers\elxsl12.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No
escon	ESCON	c:\windows\system32\drivers\escon.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No
esvuart	Console Manager Network Connection	c:\windows\system32\drivers\esvuart.sys	Kernel Driver	Yes	Auto	Running OK	Normal	No
fastfat	Fastfat Driver	c:\windows\system32\drivers\fastfat.sys	File System Driver	Yes	Disabled	Running OK	Normal	No
fdc	Floppy Disk Controller Driver	c:\windows\system32\drivers\fdc.sys	Kernel Driver	Yes	Manual	Running OK	Normal	No
fips	Fips System	c:\windows\system32\drivers\fips.sys	Kernel Driver	Yes	System	Running OK	Normal	No
flpydisk	Floppy Disk Driver	c:\windows\system32\drivers\flpydisk.sys	Kernel Driver	Yes	Manual	Running OK	Normal	No
ftdisk	Volume Manager Driver	c:\windows\system32\drivers\ftdisk.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No
gnindis	cLAN NDIS Driver	c:\windows\system32\drivers\gnindis.sys	Kernel Driver	Yes	Auto	Running OK	Normal	No
gnivia	cLAN VIA Driver	c:\windows\system32\drivers\gnivia.sys	Kernel Driver	Yes	Auto	Running OK	Normal	No
gpc	Generic Packet Classifier	c:\windows\system32\drivers\msgpc.sys	Kernel Driver	Yes	Running OK	Normal	No	Yes
hpn	hpn	Not Available	Kernel Driver	No	Stopped OK	Normal	No	Disabled
hpt3xx	hpt3xx	Not Available	Kernel Driver	No	Stopped OK	Normal	No	Disabled
i2omgmt	i2omgmt	Not Available	Kernel Driver	No	Normal	No	No	System Stopped OK
i2omp	i2omp	Not Available	Kernel Driver	No	Stopped OK	Normal	No	Disabled
i2oubbs	Unisys Fibre Channel Driver v1.3.15	c:\windows\system32\drivers\i2oubbs.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No
i8042prt	i8042 Keyboard and PS/2 Mouse Port Driver	c:\windows\system32\drivers\i8042prt.sys	Kernel Driver	Yes	System	Running OK	Normal	No
imapi	CD-Burning Filter Driver	c:\windows\system32\drivers\imapi.sys	Kernel Driver	No	Stopped OK	Normal	No	System
intelide	IntelIde	c:\windows\system32\drivers\intelide.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No
ipfilterdriver	IP Traffic Filter Driver	c:\windows\system32\drivers\ipfltdrv.sys	Kernel Driver	No	Manual	Stopped OK	Normal	No
ipinip	IP in IP Tunnel Driver	c:\windows\system32\drivers\ipinip.sys	Kernel Driver	No	Manual	Stopped OK	Normal	No
ipnat	IP Network Address Translator	c:\windows\system32\drivers\ipnat.sys	Kernel Driver	No	Stopped OK	Normal	No	Manual
ipsec	IPSEC driver	c:\windows\system32\drivers\ipsec.sys	Kernel Driver	Yes	System	Running OK	Normal	No
ipsraidn	ipsraidn	Not Available	Kernel Driver	No	Disabled	Stopped OK	Normal	No
isapnp	PnP ISA/EISA Bus Driver	c:\windows\system32\drivers\isapnp.sys	Kernel Driver	Yes	Boot	Running OK	Critical	No
kbdclass	Keyboard Class Driver	c:\windows\system32\drivers\kbdclass.sys	Kernel Driver	Yes	System	Running OK	Normal	No
ksecdd	KSecDD	c:\windows\system32\drivers\ksecdd.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No
laguna	laguna	c:\windows\system32\drivers\cl546xm.sys	Kernel Driver	No	Manual	Stopped OK	Ignore	No
lbrtfdc	lbrtfdc	Not Available	Kernel Driver	No	Ignore	No	No	System Stopped OK

lp6nds35	lp6nds35	c:\windows\system32\drivers\lp6nds35.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No	Yes
nmdd	nmdd	c:\windows\system32\drivers\nmdd.sys	Kernel Driver	Yes	System	Running OK	Ignore	No	Yes
modem	Modem	c:\windows\system32\drivers\modem.sys	Kernel Driver	No	Manual	Stopped OK	Ignore	No	No
mouclass	Mouse Class Driver	c:\windows\system32\drivers\mouclass.sys	Kernel Driver	Yes	System	Running OK	Normal	No	Yes
mountmgr	MountMgr	c:\windows\system32\drivers\mountmgr.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No	Yes
mraid35x	mraid35x	Not Available	Kernel Driver	No	Disabled	Stopped OK	Normal	No	No
mrxdav	WebDav Client Redirector	c:\windows\system32\drivers\mrxdav.sys	File System Driver	No	Manual	Stopped OK	Normal	No	No
mrxsm	MRXSMB	c:\windows\system32\drivers\mrxsm.sys	File System Driver	Yes	System	Running OK	Normal	No	Yes
msfs	Msfs	c:\windows\system32\drivers\msfs.sys	File System Driver	Yes	System	Running OK	Normal	No	Yes
mup	Mup	c:\windows\system32\drivers\mup.sys	File System Driver	Yes	Boot	Running OK	Normal	No	Yes
ndis	NDIS System Driver	c:\windows\system32\drivers\ndis.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No	Yes
ndistapi	Remote Access NDIS TAPI Driver	c:\windows\system32\drivers\ndistapi.sys	Kernel Driver	Yes	Manual	Running OK	Normal	No	Yes
ndisuio	NDIS Usermode I/O Protocol	c:\windows\system32\drivers\ndisuio.sys	Kernel Driver	No	Manual	Stopped OK	Normal	No	No
ndiswan	Remote Access NDIS WAN Driver	c:\windows\system32\drivers\ndiswan.sys	Kernel Driver	Yes	Manual	Running OK	Normal	No	Yes
ndproxy	NDIS Proxy	c:\windows\system32\drivers\ndproxy.sys	Kernel Driver	Yes	Manual	Running OK	Normal	No	Yes
netbios	NetBIOS Interface	c:\windows\system32\drivers\netbios.sys	File System Driver	Yes	System	Running OK	Normal	No	Yes
netbt	NetBios over Tcpip	c:\windows\system32\drivers\netbt.sys	Kernel Driver	Yes	System	Running OK	Normal	No	Yes
nfrd960	nfrd960	Not Available	Kernel Driver	No	Stopped OK	Normal	No	No	Disabled
npfs	Npfs	c:\windows\system32\drivers\npfs.sys	File System Driver	Yes	System	Running OK	Normal	No	Yes
ntfs	Ntfs	c:\windows\system32\drivers\ntfs.sys	File System Driver	Yes	Disabled	Running OK	Normal	No	Yes
null	Null	c:\windows\system32\drivers\null.sys	Kernel Driver	No	System	Stopped OK	Normal	No	No
nwlkflt	IPX Traffic Filter Driver	c:\windows\system32\drivers\nwlkflt.sys	Kernel Driver	No	Manual	Stopped OK	Normal	No	No
nwlkfld	IPX Traffic Forwarder Driver	c:\windows\system32\drivers\nwlkfld.sys	Kernel Driver	No	Manual	Stopped OK	Normal	No	No
parport	Parallel port driver	c:\windows\system32\drivers\parport.sys	Kernel Driver	Yes	Manual	Running OK	Normal	No	Yes

partmgr	PartMgr	c:\windows\system32\drivers\partmgr.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No	Yes
parvdm	ParVdm	c:\windows\system32\drivers\parvdm.sys	Kernel Driver	Yes	Auto	Running OK	Ignore	No	Yes
pci	PCI Bus Driver	c:\windows\system32\drivers\pci.sys	Kernel Driver	Yes	Boot	Running OK	Critical	No	Yes
pcidump	PCIDump	Not Available	Kernel Driver	No	Ignore	No	No	No	System Stopped OK
pciide	PCIIde	Not Available	Kernel Driver	No	Stopped OK	Normal	No	No	Disabled
pcmcia	Pcmcia	c:\windows\system32\drivers\pcmcia.sys	Kernel Driver	No	Disabled	Stopped OK	Normal	No	No
pdcomp	PDCOMP	Not Available	Kernel Driver	No	Ignore	No	No	No	Manual Stopped OK
pdframe	PDFRAME	Not Available	Kernel Driver	No	Ignore	No	No	No	Manual Stopped OK
pdreli	PDRELI	Not Available	Kernel Driver	No	Ignore	No	No	No	Manual Stopped OK
pdrframe	PDRFRAME	Not Available	Kernel Driver	No	Stopped OK	Ignore	No	No	Manual
perc2	perc2	Not Available	Kernel Driver	No	Stopped OK	Normal	No	No	Disabled
perc2hib	perc2hib	Not Available	Kernel Driver	No	Disabled	Stopped OK	Normal	No	No
pptpminiport	WAN Miniport (PPTP)	c:\windows\system32\drivers\rasppptp.sys	Kernel Driver	Yes	Manual	Running OK	Normal	No	Yes
processor	Processor Driver	c:\windows\system32\drivers\processr.sys	Kernel Driver	Yes	System	Running OK	Normal	No	Yes
ptilink	Direct Parallel Link Driver	c:\windows\system32\drivers\ptilink.sys	Kernel Driver	Yes	Manual	Running OK	Normal	No	Yes
ql1080	ql1080	Not Available	Kernel Driver	No	Stopped OK	Normal	No	No	Disabled
ql10wnt	Ql10wnt	Not Available	Kernel Driver	No	Stopped OK	Normal	No	No	Disabled
ql12160	ql12160	Not Available	Kernel Driver	No	Stopped OK	Normal	No	No	Disabled
ql1240	ql1240	Not Available	Kernel Driver	No	Stopped OK	Normal	No	No	Disabled
ql1280	ql1280	Not Available	Kernel Driver	No	Stopped OK	Normal	No	No	Disabled
ql2100	ql2100	Not Available	Kernel Driver	No	Stopped OK	Normal	No	No	Disabled
ql2200	ql2200	Not Available	Kernel Driver	No	Stopped OK	Normal	No	No	Disabled
ql2300	ql2300	Not Available	Kernel Driver	No	Stopped OK	Normal	No	No	Disabled
rasacd	Remote Access Auto Connection Driver	c:\windows\system32\drivers\rasacd.sys	Kernel Driver	Yes	System	Running OK	Normal	No	Yes
rasl2tp	WAN Miniport (L2TP)	c:\windows\system32\drivers\rasl2tp.sys	Kernel Driver	Yes	Manual	Running OK	Normal	No	Yes
raspppoe	Remote Access PPPoE Driver	c:\windows\system32\drivers\raspppoe.sys	Kernel Driver	Yes	Manual	Running OK	Normal	No	Yes

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raspti Direct Parallel c:\windows\system32\drivers\raspti.sys
Kernel Driver Yes Manual Running OK Normal No Yes

rdbss Rdbss c:\windows\system32\drivers\rdbss.sys File System Driver
Yes System Running OK Normal No Yes

rdpcdd RDPCCD c:\windows\system32\drivers\rdpcdd.sys Kernel Driver
Yes System Running OK Ignore No Yes

rdpdr Terminal Server Device Redirector Driver
c:\windows\system32\drivers\rdpdr.sys Kernel Driver Yes Manual
Running OK Normal No Yes

rdpwd RDPWD c:\windows\system32\drivers\rdpwd.sys Kernel Driver No
Manual Stopped OK Ignore No No

redbook Digital CD Audio Playback Filter Driver
c:\windows\system32\drivers\redbook.sys Kernel Driver No
System Stopped OK Normal No No

serenum Serenum Filter Driver c:\windows\system32\drivers\serenum.sys
Kernel Driver Yes Manual Running OK Normal No Yes

serial Serial port driver c:\windows\system32\drivers\serial.sys
Kernel Driver Yes System Running OK Ignore No Yes

sfloppy Sfloppy c:\windows\system32\drivers\sfloppy.sys Kernel Driver
No System Stopped OK Ignore No No

simbad Simbad Not Available Kernel Driver No Disabled
Stopped OK Normal No No

sparrow Sparrow Not Available Kernel Driver No Disabled
Stopped OK Normal No No

srv Srv c:\windows\system32\drivers\srv.sys File System Driver
Yes Manual Running OK Normal No Yes

swenum Software Bus Driver c:\windows\system32\drivers\swenum.sys
Kernel Driver Yes Manual Running OK Normal No Yes

symc810 symc810 Not Available Kernel Driver No Disabled
Stopped OK Normal No No

symc8xx symc8xx Not Available Kernel Driver No Disabled
Stopped OK Normal No No

symmpi symmpi Not Available Kernel Driver No Disabled
Stopped OK Normal No No

sym_hi sym_hi Not Available Kernel Driver No Disabled
Stopped OK Normal No No

sym_u3 sym_u3 Not Available Kernel Driver No Disabled
Stopped OK Normal No No

tcPIP TCP/IP Protocol Driver c:\windows\system32\drivers\tcpip.sys Kernel
Driver Yes System Running OK Normal No Yes

tdasync TDASYN C:\windows\system32\drivers\tdasync.sys Kernel Driver
No Manual Stopped OK Ignore No No

tdipx TDIPX c:\windows\system32\drivers\tdipx.sys Kernel Driver No
Manual Stopped OK Ignore No No

tdpipe TDPIPE c:\windows\system32\drivers\tdpipe.sys Kernel Driver
No Manual Stopped OK Ignore No No

tdspX TDSPX c:\windows\system32\drivers\tdspX.sys Kernel Driver No
Manual Stopped OK Ignore No No

tdtcp TDTCP c:\windows\system32\drivers\tdtcp.sys Kernel Driver No
Manual Stopped OK Ignore No No

termdd Terminal Device Driver c:\windows\system32\drivers\termdd.sys
Kernel Driver Yes System Running OK Normal No Yes

toside TosIde Not Available Kernel Driver No Disabled
Stopped OK Normal No No

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udfs Udfs c:\windows\system32\drivers\udfs.sys File System Driver
No Disabled Stopped OK Normal No No

unescons Console Manager Video Driver
c:\windows\system32\drivers\unescons.sys Kernel Driver Yes
Manual Running OK Ignore No Yes

update Microcode Update Driver
c:\windows\system32\drivers\update.sys Kernel Driver Yes
Manual Running OK Normal No Yes

usbhub USB2 Enabled Hub c:\windows\system32\drivers\usbhub.sys
Kernel Driver Yes Manual Running OK Normal No Yes

usbuhci Microsoft USB Universal Host Controller Miniport Driver
c:\windows\system32\drivers\usbuhci.sys Kernel Driver Yes
Manual Running OK Normal No Yes

vgasave VgaSave c:\windows\system32\drivers\vga.sys Kernel Driver Yes
System Running OK Ignore No Yes

viaide ViaIde Not Available Kernel Driver No Disabled
Stopped OK Normal No No

volsnap VolSnap c:\windows\system32\drivers\volsnap.sys Kernel Driver
Yes Boot Running OK Normal No Yes

wanarp Remote Access IP ARP Driver
c:\windows\system32\drivers\wanarp.sys Kernel Driver Yes
Manual Running OK Normal No Yes

wdica WDICA Not Available Kernel Driver No Manual Stopped OK
Ignore No No

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[Signed Drivers]

Device Name	Signed	Device Class	Driver Version	Driver Date
Manufacturer	INF Name	Driver Name	Device ID	
Not Available	Not Available	Not Available	Not Available	Not Available
Not Available	Not Available	Not Available	HTREE\ROOT\0	
CMP (ACPI) Server	No	COMPUTER	5.3549.8.300	4/12/2001
Unisys oem0.inf	Not Available	Not Available	ROOT\ACPI_HAL\0000	
Microsoft ACPI-Compliant System	No	SYSTEM	5.1.2535.0	
7/1/2001	Microsoft	acpi.inf	Not Available	
ACPI_HAL\PNP0C08\0				
PCI bus No	SYSTEM	5.1.3562.0	7/1/2001	(Standard system
devices)	machine.inf	Not Available	ACPI\PNP0A03\2	
DEC 21154 PCI to PCI bridge	No	SYSTEM	5.1.3562.0	7/1/2001
DEC	machine.inf	Not Available		
PCI\VEN_1011&DEV_0026&SUBSYS_00000000&REV_05\3&1070020&0&10				
Unisys Fibre Channel Driver v1.3.15	No	SCSIADAPTER	1.3.15.0	
6/20/2001	Unisys Corporation	oem2.inf	Not Available	
PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&6CA15C9&0&4010				
Unisys DASD Driver v1.3.15	No	DISKDRIVE	1.3.15.0	
6/20/2001	Unisys Corporation	oem3.inf	Not Available	
SCSI\DISK&VEN_DGC&PROD_RAID&REV_10_\5&60EF60D&0&DASD00000000				
Unisys DASD Driver v1.3.15	No	DISKDRIVE	1.3.15.0	
6/20/2001	Unisys Corporation	oem3.inf	Not Available	
SCSI\DISK&VEN_DGC&PROD_RAID&REV_10_\5&60EF60D&0&DASD00000001				
PCI bus No	SYSTEM	5.1.3562.0	7/1/2001	(Standard system
devices)	machine.inf	Not Available	ACPI\PNP0A03\3	
DEC 21154 PCI to PCI bridge	No	SYSTEM	5.1.3562.0	7/1/2001
DEC	machine.inf	Not Available		

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PCI\VEN_1011&DEV_0026&SUBSYS_00000000&REV_05\3&29E81982&0&08
Unisys Fibre Channel Driver v1.3.15 No SCSIADAPTER 1.3.15.0
6/20/2001 Unisys Corporation oem2.inf Not Available
PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&1132EE93&0&4008
Unisys DASD Driver v1.3.15 No DISKDRIVE 1.3.15.0
6/20/2001 Unisys Corporation oem3.inf Not Available
SCSI\DISK&VEN_DGC&PROD_RAID&REV_0___\5&213B4095&0&DASD00010002
Unisys DASD Driver v1.3.15 No DISKDRIVE 1.3.15.0
6/20/2001 Unisys Corporation oem3.inf Not Available
SCSI\DISK&VEN_DGC&PROD_RAID&REV_0___\5&213B4095&0&DASD00010003
Unisys DASD Driver v1.3.15 No DISKDRIVE 1.3.15.0
6/20/2001 Unisys Corporation oem3.inf Not Available
SCSI\DISK&VEN_DGC&PROD_RAID&REV_0___\5&213B4095&0&DASD00010004
Unisys DASD Driver v1.3.15 No DISKDRIVE 1.3.15.0
6/20/2001 Unisys Corporation oem3.inf Not Available
SCSI\DISK&VEN_DGC&PROD_RAID&REV_0___\5&213B4095&0&DASD00010005
cLAN Host Adapter No NET 4.2.0.75 10/5/2000
Giganet oem5.inf Not Available
PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&29E81982&0&18
PCI bus No SYSTEM 5.1.3562.0 7/1/2001 (Standard system
devices) machine.inf Not Available ACPI\PNP0A03\4
DEC 21154 PCI to PCI bridge No SYSTEM 5.1.3562.0 7/1/2001
DEC machine.inf Not Available
PCI\VEN_1011&DEV_0026&SUBSYS_00000000&REV_05\3&172E68DD&0&08
Unisys Fibre Channel Driver v1.3.15 No SCSIADAPTER 1.3.15.0
6/20/2001 Unisys Corporation oem2.inf Not Available
PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&2AAB4416&0&4008
Unisys DASD Driver v1.3.15 No DISKDRIVE 1.3.15.0
6/20/2001 Unisys Corporation oem3.inf Not Available
SCSI\DISK&VEN_DGC&PROD_RAID&REV_0___\5&AD29EFD&0&DASD00020000
Unisys DASD Driver v1.3.15 No DISKDRIVE 1.3.15.0
6/20/2001 Unisys Corporation oem3.inf Not Available
SCSI\DISK&VEN_DGC&PROD_RAID&REV_0___\5&AD29EFD&0&DASD00020001
Unisys DASD Driver v1.3.15 No DISKDRIVE 1.3.15.0
6/20/2001 Unisys Corporation oem3.inf Not Available
SCSI\DISK&VEN_DGC&PROD_RAID&REV_0___\5&AD29EFD&0&DASD00020002
Unisys DASD Driver v1.3.15 No DISKDRIVE 1.3.15.0
6/20/2001 Unisys Corporation oem3.inf Not Available
SCSI\DISK&VEN_DGC&PROD_RAID&REV_0___\5&AD29EFD&0&DASD00020003
PCI bus No SYSTEM 5.1.3562.0 7/1/2001 (Standard system
devices) machine.inf Not Available ACPI\PNP0A03\5
Intel 82371AB/EB PCI to ISA bridge (ISA mode) No SYSTEM
5.1.3562.0 7/1/2001 Intel machine.inf Not Available
PCI\VEN_8086&DEV_7110&SUBSYS_00000000&REV_02\3&474B838&0&08

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ISAPNP Read Data Port No SYSTEM 5.1.3562.0 7/1/2001
(Standard system devices) machine.inf Not Available
ISAPNP\READDATAAPORT\0
Direct memory access controller No SYSTEM 5.1.3562.0
7/1/2001 (Standard system devices) machine.inf Not
Available ACPI\PNP0200\2
Programmable interrupt controller No SYSTEM 5.1.3562.0
7/1/2001 (Standard system devices) machine.inf Not
Available ACPI\PNP0000\2
System CMOS/real time clock No SYSTEM 5.1.3562.0 7/1/2001
(Standard system devices) machine.inf Not Available
ACPI\PNP0B00\2
System timer No SYSTEM 5.1.3562.0 7/1/2001 (Standard
system devices) machine.inf Not Available ACPI\PNP0100\2
System speaker No SYSTEM 5.1.3562.0 7/1/2001 (Standard
system devices) machine.inf Not Available ACPI\PNP0800\2
Generic Bus No SYSTEM 5.1.3562.0 7/1/2001 (Standard
system devices) machine.inf Not Available ACPI\PNP0A05\4
Communications Port No PORTS 5.1.3562.0 7/1/2001
(Standard port types) msports.inf Not Available ACPI\PNP0501\3
Communications Port No PORTS 5.1.3562.0 7/1/2001
(Standard port types) msports.inf Not Available ACPI\PNP0501\4
ECP Printer Port No PORTS 5.1.3562.0 7/1/2001
(Standard port types) msports.inf Not Available ACPI\PNP0401\2
Printer Port Logical Interface No SYSTEM 5.1.3562.0
7/1/2001 (Standard system devices) machine.inf Not
Available LPTENUM\MICROSOFTRAWPORT\6&23417A32&0&LPT1
Standard floppy disk controller No FDC 5.1.3562.0
7/1/2001 (Standard floppy disk controllers) fdc.inf Not
Available ACPI\PNP0700\2
Floppy disk drive No FLOPPYDISK 5.1.3562.0 7/1/2001
(Standard floppy disk drives) flpydisk.inf Not Available
FDC\GENERIC_FLOPPY_DRIVE\6&1959E369&0&0
PS/2 Compatible Mouse No MOUSE 5.1.3562.0 7/1/2001
Microsoft msmouse.inf Not Available ACPI\PNP0F13\2
Standard 101/102-Key or Microsoft Natural PS/2 Keyboard No
KEYBOARD 5.1.3562.0 7/1/2001 (Standard keyboards)
keyboard.inf Not Available ACPI\PNP0303\2
Intel(r) 82371AB/EB PCI Bus Master IDE Controller No HDC
5.1.3562.0 7/1/2001 Intel mshdc.inf Not Available
PCI\VEN_8086&DEV_7111&SUBSYS_00000000&REV_01\3&474B838&0&09
Intel(r) 82371AB/EB PCI to USB Universal Host Controller No USB
5.1.3562.0 7/1/2001 Intel usbport.inf Not Available
PCI\VEN_8086&DEV_7112&SUBSYS_00000000&REV_01\3&474B838&0&0A
USB Root Hub No USB 5.1.3562.0 7/1/2001 (Standard USB
Host Controller) usbport.inf Not Available
USB\ROOT_HUB\4&A0E0C64&0
DEC 21152 PCI to PCI bridge No SYSTEM 5.1.3562.0 7/1/2001
DEC machine.inf Not Available
PCI\VEN_1011&DEV_0024&SUBSYS_00000000&REV_03\3&474B838&0&10
PCI standard PCI-to-PCI bridge No SYSTEM 5.1.3562.0
7/1/2001 (Standard system devices) machine.inf Not
Available
PCI\VEN_8086&DEV_0960&SUBSYS_00000000&REV_05\4&3A6BE3A2&0&0010

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Console Manager control device No SYSTEM 6.0.2.12
6/1/2001 Unisys Corporation oem1.inf Not Available
PCI\VEN_8086&DEV_1960&SUBSYS_C2001018&REV_05\4&3A6BE3A2&0&0110

Console Manager Video Driver No DISPLAY 6.0.2.12 6/1/2001
Unisys Corporation oem4.inf Not Available
PCI\VEN_1013&DEV_00D6&SUBSYS_80D61018&REV_03\4&3A6BE3A2&0&1010

Default Monitor No MONITOR 5.1.2001.0 6/6/2001
(Standard monitor types) monitor.inf Not Available
DISPLAY\DEFAULT_MONITOR\5&5D770CA&0&11223344&02&02

DEC 21154 PCI to PCI bridge No SYSTEM 5.1.3562.0 7/1/2001
DEC machine.inf Not Available
PCI\VEN_1011&DEV_0026&SUBSYS_00000000&REV_05\3&474B838&0&18

Unisys Fibre Channel Driver v1.3.15 No SCSIADAPTER 1.3.15.0
6/20/2001 Unisys Corporation oem2.inf Not Available
PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&8928022&0&4018

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6/20/2001 Unisys Corporation oem3.inf Not Available
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DEC 21154 PCI to PCI bridge No SYSTEM 5.1.3562.0 7/1/2001
DEC machine.inf Not Available
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cLAN Host Adapter No NET 4.2.0.75 10/5/2000
Giganet oem5.inf Not Available
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PCI bus No SYSTEM 5.1.3562.0 7/1/2001 (Standard system
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Adaptec SCSI Card 39160 - Ultra160 SCSI No SCSIADAPTER
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CD-ROM Drive No CDROM 5.1.2535.0 7/1/2001 (Standard CD-
ROM drives) cdrom.inf Not Available
SCSI\CDROM&VEN_TOSHIBA&PROD_CD-ROM_XM-
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Adaptec SCSI Card 39160 - Ultra160 SCSI No SCSIADAPTER
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Unisys Fibre Channel Driver v1.3.15 No SCSIADAPTER 1.3.15.0
6/20/2001 Unisys Corporation oem2.inf Not Available
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Unisys DASD Driver v1.3.15 No DISKDRIVE 1.3.15.0
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Unisys DASD Driver v1.3.15 No DISKDRIVE 1.3.15.0
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Unisys DASD Driver v1.3.15 No DISKDRIVE 1.3.15.0
6/20/2001 Unisys Corporation oem3.inf Not Available
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Intel(R) PRO/100+ PCI Adapter No NET 5.41.22.0 7/1/2001
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Unisys DASD Driver v1.3.15 No DISKDRIVE 1.3.15.0
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cLAN Host Adapter No NET 4.2.0.75 10/5/2000
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PCI bus No SYSTEM 5.1.3562.0 7/1/2001 (Standard system
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Giganet oem5.inf Not Available
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Giganet oem5.inf Not Available
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Unisys DASD Driver v1.3.15 No DISKDRIVE 1.3.15.0
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DEC machine.inf    Not Available
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ROOT\LEGACY_LP6NDS35\0000
mmdd Not Available LEGACYDRIVER Not Available Not Available Not
Available Not Available Not Available ROOT\LEGACY_MMDD\0000
mountmgr Not Available LEGACYDRIVER Not Available Not Available
Not Available Not Available Not Available
ROOT\LEGACY_MOUNTMGR\0000
NDIS System Driver Not Available LEGACYDRIVER Not Available Not
Available Not Available Not Available Not Available
ROOT\LEGACY_NDIS\0000
Remote Access NDIS TAPI Driver Not Available LEGACYDRIVER Not
Available Not Available Not Available Not Available Not Available
ROOT\LEGACY_NDIS_TAPI\0000
NDIS Usermode I/O Protocol Not Available LEGACYDRIVER Not Available
Not Available Not Available Not Available Not Available
ROOT\LEGACY_NDISUIO\0000
NDProxy Not Available LEGACYDRIVER Not Available Not Available Not
Available Not Available Not Available ROOT\LEGACY_NDPROXY\0000

NetBios over Tcpip Not Available LEGACYDRIVER Not Available Not
Available Not Available Not Available Not Available
ROOT\LEGACY_NETBT\0000
PartMgr Not Available LEGACYDRIVER Not Available Not Available Not
Available Not Available Not Available ROOT\LEGACY_PARTMGR\0000

ParVdm Not Available LEGACYDRIVER Not Available Not Available Not
Available Not Available Not Available ROOT\LEGACY_PARVDM\0000

Remote Access Auto Connection Driver Not Available LEGACYDRIVER Not
Available Not Available Not Available Not Available
ROOT\LEGACY_RASACD\0000
RDPCCD Not Available LEGACYDRIVER Not Available Not Available Not
Available Not Available Not Available ROOT\LEGACY_RDPCCD\0000

RDPWD Not Available LEGACYDRIVER Not Available Not Available Not
Available Not Available Not Available ROOT\LEGACY_RDPWD\0000
TCP/IP Protocol Driver Not Available LEGACYDRIVER Not Available Not
Available Not Available Not Available Not Available
ROOT\LEGACY_TCPIP\0000
TDTCP Not Available LEGACYDRIVER Not Available Not Available Not
Available Not Available Not Available ROOT\LEGACY_TDTCP\0000
VgaSave Not Available LEGACYDRIVER Not Available Not Available Not
Available Not Available Not Available ROOT\LEGACY_VGASAVE\0000

VolSnap Not Available LEGACYDRIVER Not Available Not Available Not
Available Not Available Not Available ROOT\LEGACY_VOLSNAP\0000

Remote Access IP ARP Driver Not Available LEGACYDRIVER Not Available
Not Available Not Available Not Available Not Available
ROOT\LEGACY_WANARP\0000

```

```

Audio Codecs No MEDIA 5.1.2535.0 7/1/2001 (Standard
system devices) wave.inf Not Available ROOT\MEDIA\MS_MMACM

Legacy Audio Drivers No MEDIA 5.1.2535.0 7/1/2001
(Standard system devices) wave.inf Not Available
ROOT\MEDIA\MS_MMDRV

Media Control Devices No MEDIA 5.1.2535.0 7/1/2001
(Standard system devices) wave.inf Not Available
ROOT\MEDIA\MS_MMMCI

Legacy Video Capture Devices No MEDIA 5.1.2535.0 7/1/2001
(Standard system devices) wave.inf Not Available
ROOT\MEDIA\MS_MMVCD

Video Codecs No MEDIA 5.1.2535.0 7/1/2001 (Standard
system devices) wave.inf Not Available ROOT\MEDIA\MS_MMVID

WAN Miniport (L2TP) No NET 5.1.2535.0 7/1/2001
Microsoft netrasa.inf Not Available
ROOT\MS_L2TPMINIPORT\0000
WAN Miniport (IP) No NET 5.1.2535.0 7/1/2001
Microsoft netrasa.inf Not Available
ROOT\MS_NDISWANIP\0000
WAN Miniport (PPPOE) No NET 5.1.2535.0 7/1/2001
Microsoft netrasa.inf Not Available
ROOT\MS_PPPOEMINIPORT\0000
WAN Miniport (PPTP) No NET 5.1.2535.0 7/1/2001
Microsoft netrasa.inf Not Available
ROOT\MS_PPTPMINIPORT\0000
Direct Parallel No NET 5.1.2535.0 7/1/2001
Microsoft netrasa.inf Not Available
ROOT\MS_PTMINIPORT\0000
Terminal Server Device Redirector No SYSTEM 5.1.3562.0
7/1/2001 (Standard system devices) machine.inf Not
Available ROOT\RDPDR\0000
Terminal Server Keyboard Driver No SYSTEM 5.1.3562.0
7/1/2001 (Standard system devices) machine.inf Not
Available ROOT\RDP_KBD\0000
Terminal Server Mouse Driver No SYSTEM 5.1.3562.0 7/1/2001
(Standard system devices) machine.inf Not Available
ROOT\RDP_MOU\0000
Plug and Play Software Device Enumerator No SYSTEM 5.1.3562.0
7/1/2001 (Standard system devices) machine.inf Not
Available ROOT\SYSTEM\0000
Microcode Update Device No SYSTEM 5.1.3562.0 7/1/2001
(Standard system devices) machine.inf Not Available
ROOT\SYSTEM\0001

[Environment Variables]

Variable Value User Name
ClusterLog C:\WINDOWS\Cluster\cluster.log <SYSTEM>
ComSpec %SystemRoot%\system32\cmd.exe <SYSTEM>
NUMBER_OF_PROCESSORS 32 <SYSTEM>
OS Windows_NT <SYSTEM>
Path
%SystemRoot%\system32;%SystemRoot%;%SystemRoot%\System32\Wbem;C:\P
rogram Files\Microsoft SQL Server\80\Tools\Binn;c:\sql80\MSSQL\Binn
<SYSTEM>
PATHEXT .COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH <SYSTEM>

```

```

PROCESSOR_ARCHITECTURE x86 <SYSTEM>
PROCESSOR_IDENTIFIER x86 Family 6 Model 10 Stepping 4, GenuineIntel
<SYSTEM>
PROCESSOR_LEVEL 6 <SYSTEM>
PROCESSOR_REVISION 0a04 <SYSTEM>
TEMP %SystemRoot%\TEMP <SYSTEM>
TMP %SystemRoot%\TEMP <SYSTEM>
windir %SystemRoot% <SYSTEM>
TEMP %USERPROFILE%\Local Settings\Temp NT AUTHORITY\SYSTEM
TMP %USERPROFILE%\Local Settings\Temp NT AUTHORITY\SYSTEM
TEMP %USERPROFILE%\Local Settings\Temp MV-LE030P1\Administrator

TMP %USERPROFILE%\Local Settings\Temp MV-LE030P1\Administrator

```

[Print Jobs]

Document	Size	Owner	Notify	Status	Time Submitted	Start Time
Parameters	Driver	Print Processor	Host	Print Queue		
Data Type	Name					

[Network Connections]

Local Name	Remote Name	Type	Status	User Name
------------	-------------	------	--------	-----------

[Running Tasks]

Name	Path	Process ID	Priority	Min Working Set	Max Working Set
system idle process	Available	Not Available	Not Available	Not Available	Not Available
smss.exe	c:\windows\system32\smss.exe	448	11	204800	
csrss.exe	Not Available	496	13	Not Available	Not Available
winlogon.exe	c:\windows\system32\winlogon.exe	520	13	204800	
services.exe	c:\windows\system32\services.exe	564	9	204800	
lsass.exe	c:\windows\system32\lsass.exe	576	9	204800	
svchost.exe	c:\windows\system32\svchost.exe	768	8	204800	
gnconmgr.exe	c:\windows\system32\gnconmgr.exe	900	8	204800	
svchost.exe	c:\windows\system32\svchost.exe	976	8	204800	

```

esconmgr.exe c:\windows\system32\esconmgr.exe 1060 24 204800
1413120 10/31/2001 11:59 AM 6,0,2,12 260.39 KB (266,640
bytes) 9/18/2001 1:05 PM
explorer.exe c:\windows\explorer.exe 1808 8 204800
1413120 10/31/2001 12:00 PM 6.00.3562.0000 (idx02.011004-1354)
976.00 KB (999,424 bytes) 10/4/2001 2:50 PM
notepad.exe c:\windows\system32\notepad.exe 180 8 204800
1413120 10/31/2001 7:31 PM 5.1.2600.0 (xpclient.010817-1148)
64.50 KB (66,048 bytes) 8/17/2001 3:36 PM
cmd.exe c:\windows\system32\cmd.exe 3048 8 204800 1413120
10/31/2001 9:28 PM 5.1.3562.0 (idx02.011004-1354) 249.50
KB (255,488 bytes) 10/4/2001 2:33 PM
sqlservr.exe c:\sql80\sqlbuilds\10_1_sp2_calcgm\sqlservr.exe 3084
13 204800 1413120 10/31/2001 9:28 PM 2000.080.0523.00
7.09 MB (7,434,280 bytes) 10/21/2001 11:42 AM
notepad.exe c:\windows\system32\notepad.exe 3732 8 204800
1413120 11/1/2001 8:09 AM 5.1.2600.0 (xpclient.010817-1148)
64.50 KB (66,048 bytes) 8/17/2001 3:36 PM
notepad.exe c:\windows\system32\notepad.exe 3864 8 204800
1413120 11/1/2001 8:14 AM 5.1.2600.0 (xpclient.010817-1148)
64.50 KB (66,048 bytes) 8/17/2001 3:36 PM
mmc.exe c:\windows\system32\mmc.exe 3920 8 204800 1413120
11/1/2001 8:15 AM 5.1.3562.0 (idx02.011004-1354) 753.00
KB (771,072 bytes) 10/4/2001 2:37 PM
helpctr.exe c:\windows\pchealth\helpctr\binaries\helpctr.exe 652
8 204800 1413120 11/1/2001 9:48 AM 5.1.3562.0
(idx02.011004-1354) 666.50 KB (682,496 bytes) 10/19/2001 5:38 PM
helpsvc.exe c:\windows\pchealth\helpctr\binaries\helpsvc.exe 1980
8 204800 1413120 11/1/2001 9:48 AM 5.1.3562.0
(idx02.011004-1354) 681.50 KB (697,856 bytes) 10/19/2001 5:38 PM
wmiprvse.exe Not Available 1752 8 Not Available Not Available
11/1/2001 9:48 AM Not Available Not Available Not Available

```

[Loaded Modules]

Name	Version	Size	File Date	Manufacturer	Path
smss	5.1.3562.0 (idx02.011004-1354)	44.50 KB (45,568 bytes)	10/4/2001 2:29 PM	Microsoft Corporation	c:\windows\system32\smss.exe
ntdll	5.1.3562.0 (idx02.011004-1354)	660.50 KB (676,352 bytes)	10/8/2001 10:20 AM	Microsoft Corporation	c:\windows\system32\ntdll.dll
winlogon	5.1.3562.0 (idx02.011004-1354)	424.00 KB (434,176 bytes)	10/8/2001 10:14 AM	Microsoft Corporation	c:\windows\system32\winlogon.exe
kernel32	5.1.3562.0 (idx02.011004-1354)	892.00 KB (913,408 bytes)	10/8/2001 10:20 AM	Microsoft Corporation	c:\windows\system32\kernel32.dll
advapi32	5.1.3562.0 (idx02.011004-1354)	511.50 KB (523,776 bytes)	10/8/2001 10:20 AM	Microsoft Corporation	c:\windows\system32\advapi32.dll
rpcrt4	5.1.3562.0 (idx02.011004-1354)	432.00 KB (442,368 bytes)	10/15/2001 12:04 PM	Microsoft Corporation	c:\windows\system32\rpcrt4.dll

authz 5.1.3562.0 (idx02.011004-1354) 54.00 KB (55,296 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\authz.dll
 msvcr7 7.0.3562.0 (idx02.011004-1354) 316.00 KB (323,584 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\msvcr7.dll
 crypt32 5.1.3562.0 (idx02.011004-1354) 524.00 KB (536,576 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\crypt32.dll
 user32 5.1.3562.0 (idx02.011004-1354) 520.00 KB (532,480 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\user32.dll
 gdi32 5.1.3562.0 (idx02.011004-1354) 229.50 KB (235,008 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\gdi32.dll
 msasn1 5.1.3562.0 (idx02.011004-1354) 49.50 KB (50,688 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\msasn1.dll
 nddeapi 5.1.3562.0 (idx02.011004-1354) 15.00 KB (15,360 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\nddeapi.dll
 profmap 5.1.3562.0 (idx02.011004-1354) 28.00 KB (28,672 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\profmap.dll
 netapi32 5.1.3562.0 (idx02.011004-1354) 299.00 KB (306,176 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\netapi32.dll
 userenv 5.1.3562.0 (idx02.011004-1354) 646.50 KB (662,016 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\userenv.dll
 psapi 5.1.2600.0 (xpclient.010817-1148) 17.00 KB (17,408 bytes)
 8/17/2001 3:36 PM Microsoft Corporation
 c:\windows\system32\psapi.dll
 regapi 5.1.3562.0 (idx02.011004-1354) 43.50 KB (44,544 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\regapi.dll
 secur32 5.1.3562.0 (idx02.011012-1620) 51.00 KB (52,224 bytes)
 10/12/2001 11:04 AM Microsoft Corporation
 c:\windows\system32\secur32.dll
 setupapi 5.1.3562.0 (idx02.011004-1354) 915.50 KB (937,472 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\setupapi.dll
 sfc_os 5.1.3562.0 (idx02.011004-1354) 129.50 KB (132,608 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\sfc_os.dll
 wintrust 5.1.3562.0 (idx02.011004-1354) 155.50 KB (159,232 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\wintrust.dll
 ole32 5.1.3562.0 (idx02.011004-1354) 1.05 MB (1,097,216 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\ole32.dll
 imagehlp 5.1.3562.0 (idx02.011004-1354) 123.50 KB (126,464 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\imagehlp.dll
 version 5.1.2600.0 (xpclient.010817-1148) 16.00 KB (16,384 bytes)
 8/17/2001 3:36 PM Microsoft Corporation
 c:\windows\system32\version.dll

winsta 5.1.3562.0 (idx02.011004-1354) 47.50 KB (48,640 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\winsta.dll
 ws2_32 5.1.3562.0 (idx02.011004-1354) 69.00 KB (70,656 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\ws2_32.dll
 ws2help 5.1.3562.0 (idx02.011004-1354) 18.00 KB (18,432 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\ws2help.dll
 msgina 5.1.3562.0 (idx02.011004-1354) 1.18 MB (1,234,944 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\msgina.dll
 shell32 6.00.3562.0000 (idx02.011004-1354) 8.14 MB (8,531,456 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\shell32.dll
 shlwapi 6.00.3562.0000 (idx02.011004-1354) 389.50 KB (398,848 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\shlwapi.dll
 comctl32 5.82 (idx02.011004-1354) 521.50 KB (534,016 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\comctl32.dll
 odbc32 3.520.7924.0 196.00 KB (200,704 bytes) 10/3/2001 12:37 PM
 Microsoft Corporation c:\windows\system32\odbc32.dll
 comdlg32 6.00.3562.0000 (idx02.011004-1354) 250.00 KB (256,000 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\comdlg32.dll
 comctl32 6.0 (idx02.011004-1354) 900.00 KB (921,600 bytes)
 10/19/2001 10:17 AM Microsoft Corporation
 c:\windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_6.0.0.0_x-ww_1382d70a\comctl32.dll
 odbcint 3.520.7713.0 88.00 KB (90,112 bytes) 10/3/2001 12:37 PM
 Microsoft Corporation c:\windows\system32\odbcint.dll
 shsvcs 6.00.3562.0000 (idx02.011004-1354) 112.50 KB (115,200 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\shsvcs.dll
 sfc 5.1.2600.0 (xpclient.010817-1148) 4.00 KB (4,096 bytes)
 8/17/2001 3:36 PM Microsoft Corporation
 c:\windows\system32\sfc.dll
 winscard 5.1.3562.0 (idx02.011004-1354) 91.50 KB (93,696 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\winscard.dll
 wtsapi32 5.1.3562.0 (idx02.011004-1354) 16.50 KB (16,896 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\wtsapi32.dll
 sxs 5.1.3562.0 (idx02.011004-1354) 633.50 KB (648,704 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\sxs.dll
 rsaenh 5.1.3562.0 (idx02.011004-1354) 162.56 KB (166,464 bytes)
 10/15/2001 12:04 PM Microsoft Corporation
 c:\windows\system32\rsaenh.dll
 wldap32 5.1.3562.0 (idx02.011012-1620) 127.50 KB (130,560 bytes)
 10/12/2001 11:04 AM Microsoft Corporation
 c:\windows\system32\wldap32.dll
 cscdll 5.1.2600.0 (xpclient.010817-1148) 87.50 KB (89,600 bytes)
 8/17/2001 3:36 PM Microsoft Corporation
 c:\windows\system32\cscdll.dll
 wlnotify 5.1.3562.0 (idx02.011004-1354) 84.00 KB (86,016 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\wlnotify.dll

winmm	5.1.3562.0 (idx02.011004-1354)	159.00 KB (162,816 bytes)	netmsg	5.1.3562.0 (idx02.011004-1354)	170.50 KB (174,592 bytes)
	10/8/2001 10:20 AM Microsoft Corporation			10/8/2001 10:20 AM Microsoft Corporation	
	c:\windows\system32\winmm.dll			c:\windows\system32\netmsg.dll	
winspool	5.1.3562.0 (idx02.011004-1354)	127.50 KB (130,560 bytes)	comres	2001.12.4492.0 (idx02.011004-1354)	775.00 KB (793,600 bytes)
	10/8/2001 10:20 AM Microsoft Corporation			10/8/2001 10:20 AM Microsoft Corporation	
	c:\windows\system32\winspool.drv			c:\windows\system32\comres.dll	
mpr	5.1.2600.0 (xpclient.010817-1148)	54.50 KB (55,808 bytes)	ntmarta	5.1.3562.0 (idx02.011004-1354)	105.00 KB (107,520 bytes)
	8/17/2001 3:36 PM Microsoft Corporation			10/8/2001 10:20 AM Microsoft Corporation	
	c:\windows\system32\mpr.dll			c:\windows\system32\ntmarta.dll	
uxtheme	6.00.3562.0000 (idx02.011004-1354)	186.00 KB (190,464 bytes)	clbcatq	2001.12.4492.0 (idx02.011004-1354)	488.50 KB (500,224 bytes)
	10/8/2001 10:19 AM Microsoft Corporation			10/19/2001 5:31 PM Microsoft Corporation	
	c:\windows\system32\uxtheme.dll			c:\windows\system32\clbcatq.dll	
samlib	5.1.3562.0 (idx02.011012-1620)	48.50 KB (49,664 bytes)	msvl_0	5.1.3562.0 (idx02.011004-1354)	98.50 KB (100,864 bytes)
	10/12/2001 11:04 AM Microsoft Corporation			10/8/2001 10:20 AM Microsoft Corporation	
	c:\windows\system32\samlib.dll			c:\windows\system32\msvl_0.dll	
cscui	5.1.3562.0 (idx02.011004-1354)	303.00 KB (310,272 bytes)	wbemprox	5.1.3562.0 (idx02.011004-1354)	31.00 KB (31,744 bytes)
	10/8/2001 10:20 AM Microsoft Corporation			10/19/2001 5:30 PM Microsoft Corporation	
	c:\windows\system32\cscui.dll			c:\windows\system32\wbem\wbemprox.dll	
mprapi	5.1.3562.0 (idx02.011004-1354)	77.00 KB (78,848 bytes)	wbemcomn	5.1.3562.0 (idx02.011004-1354)	200.50 KB (205,312 bytes)
	10/8/2001 10:20 AM Microsoft Corporation			10/19/2001 5:30 PM Microsoft Corporation	
	c:\windows\system32\mprapi.dll			c:\windows\system32\wbem\wbemcomn.dll	
activeds	5.1.3562.0 (idx02.011004-1354)	180.00 KB (184,320 bytes)	wbemsvc	5.1.3562.0 (idx02.011004-1354)	47.00 KB (48,128 bytes)
	10/8/2001 10:20 AM Microsoft Corporation			10/19/2001 5:30 PM Microsoft Corporation	
	c:\windows\system32\activeds.dll			c:\windows\system32\wbem\wbemsvc.dll	
adslrpc	5.1.3562.0 (idx02.011004-1354)	134.00 KB (137,216 bytes)	fastprox	5.1.3562.0 (idx02.011004-1354)	571.50 KB (585,216 bytes)
	10/8/2001 10:20 AM Microsoft Corporation			10/19/2001 5:30 PM Microsoft Corporation	
	c:\windows\system32\adslrpc.dll			c:\windows\system32\wbem\fastprox.dll	
atl	3.00.9238	73.05 KB (74,802 bytes)	services	5.1.3562.0 (idx02.011004-1354)	97.00 KB (99,328 bytes)
	10/8/2001 10:20 AM Microsoft Corporation			10/4/2001 2:31 PM Microsoft Corporation	
	c:\windows\system32\atl.dll			c:\windows\system32\services.exe	
oleaut32	3.50.5014.0	556.00 KB (569,344 bytes)	scesrv	5.1.3562.0 (idx02.011004-1354)	366.50 KB (375,296 bytes)
	8/17/2001 3:36 PM Microsoft Corporation			10/8/2001 10:20 AM Microsoft Corporation	
	c:\windows\system32\oleaut32.dll			c:\windows\system32\scesrv.dll	
rtutils	5.1.3562.0 (idx02.011004-1354)	39.50 KB (40,448 bytes)	umpnpgmr	5.1.3562.0 (idx02.011004-1354)	100.50 KB (102,912 bytes)
	10/8/2001 10:20 AM Microsoft Corporation			10/8/2001 10:20 AM Microsoft Corporation	
	c:\windows\system32\rtutils.dll			c:\windows\system32\umpnpgmr.dll	
drprov	5.1.3562.0 (idx02.011004-1354)	11.00 KB (11,264 bytes)	ncobjapi	5.1.2600.0 (xpclient.010817-1148)	41.50 KB (42,496 bytes)
	10/8/2001 10:20 AM Microsoft Corporation			8/17/2001 3:36 PM Microsoft Corporation	
	c:\windows\system32\drprov.dll			c:\windows\system32\ncobjapi.dll	
ntlanman	5.1.3562.0 (idx02.011004-1354)	37.00 KB (37,888 bytes)	eventlog	5.1.3562.0 (idx02.011004-1354)	46.00 KB (47,104 bytes)
	10/8/2001 10:20 AM Microsoft Corporation			10/8/2001 10:20 AM Microsoft Corporation	
	c:\windows\system32\ntlanman.dll			c:\windows\system32\eventlog.dll	
netui0	5.1.2600.0 (xpclient.010817-1148)	73.00 KB (74,752 bytes)	apphelp	5.1.2600.0 (xpclient.010817-1148)	102.00 KB (104,448 bytes)
	8/17/2001 3:36 PM Microsoft Corporation			8/17/2001 3:36 PM Microsoft Corporation	
	c:\windows\system32\netui0.dll			c:\windows\system32\apphelp.dll	
netuil	5.1.2600.0 (xpclient.010817-1148)	225.00 KB (230,400 bytes)	lsass	5.1.3562.0 (idx02.011012-1620)	11.50 KB (11,776 bytes)
	8/17/2001 3:36 PM Microsoft Corporation			10/12/2001 9:25 AM Microsoft Corporation	
	c:\windows\system32\netuil.dll			c:\windows\system32\lsass.exe	
netrap	5.1.2600.0 (xpclient.010817-1148)	10.50 KB (10,752 bytes)	lsasrv	5.1.3562.0 (idx02.011012-1620)	662.50 KB (678,400 bytes)
	8/17/2001 3:36 PM Microsoft Corporation			10/12/2001 11:04 AM Microsoft Corporation	
	c:\windows\system32\netrap.dll			c:\windows\system32\lsasrv.dll	
davclnt	5.1.3562.0 (idx02.011004-1354)	22.00 KB (22,528 bytes)	samsrv	5.1.3562.0 (idx02.011012-1620)	423.50 KB (433,664 bytes)
	10/8/2001 10:20 AM Microsoft Corporation			10/12/2001 11:04 AM Microsoft Corporation	
	c:\windows\system32\davclnt.dll			c:\windows\system32\samsrv.dll	
mprui	5.1.2600.0 (xpclient.010817-1148)	46.00 KB (47,104 bytes)	cryptdll	5.1.3562.0 (idx02.011004-1354)	27.00 KB (27,648 bytes)
	8/17/2001 3:36 PM Microsoft Corporation			10/8/2001 10:20 AM Microsoft Corporation	
	c:\windows\system32\mprui.dll			c:\windows\system32\cryptdll.dll	
netui2	5.1.3562.0 (idx02.011004-1354)	302.50 KB (309,760 bytes)			
	10/8/2001 10:20 AM Microsoft Corporation				
	c:\windows\system32\netui2.dll				

dnsapi 5.1.3562.0 (idx02.011004-1354) 138.50 KB (141,824 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\dnsapi.dll
 ntdsapi 5.1.3562.0 (idx02.011012-1620) 63.50 KB (65,024 bytes)
 10/12/2001 11:04 AM Microsoft Corporation
 c:\windows\system32\ntdsapi.dll
 msprivs 5.1.3562.0 (idx02.011012-1620) 44.00 KB (45,056 bytes)
 10/12/2001 11:04 AM Microsoft Corporation
 c:\windows\system32\msprivs.dll
 kerberos 5.1.3562.0 (idx02.011004-1354) 270.50 KB (276,992 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\kerberos.dll
 netlogon 5.1.3562.0 (idx02.011004-1354) 383.00 KB (392,192 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\netlogon.dll
 w32time 5.1.3562.0 (idx02.011004-1354) 172.50 KB (176,640 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\w32time.dll
 msvcp60 6.00.8972.0 392.05 KB (401,462 bytes) 9/26/2001 5:54 AM
 Microsoft Corporation c:\windows\system32\msvcp60.dll
 iphlpapi 5.1.3562.2 (idx02.011004-1354) 72.00 KB (73,728 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\iphlpapi.dll
 schannel 5.1.3562.0 (idx02.011004-1354) 134.50 KB (137,728 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\schannel.dll
 wdigest 5.1.3562.0 (idx02.011004-1354) 50.00 KB (51,200 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\wdigest.dll
 rassfm 5.1.3562.0 (idx02.011004-1354) 19.50 KB (19,968 bytes)
 10/8/2001 10:19 AM Microsoft Corporation
 c:\windows\system32\rassfm.dll
 kdcsvc 5.1.3562.0 (idx02.011015-1631) 181.00 KB (185,344 bytes)
 10/15/2001 12:03 PM Microsoft Corporation
 c:\windows\system32\kdcsvc.dll
 ntdsatq 5.1.3562.0 (idx02.011012-1620) 30.00 KB (30,720 bytes)
 10/12/2001 11:04 AM Microsoft Corporation
 c:\windows\system32\ntdsatq.dll
 mswsock 5.1.3562.0 (idx02.011004-1354) 217.50 KB (222,720 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\mswsock.dll
 scecli 5.1.3562.0 (idx02.011004-1354) 194.00 KB (198,656 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\scecli.dll
 pstorsvc 5.1.3562.0 (idx02.011004-1354) 22.50 KB (23,040 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\pstorsvc.dll
 psbase 5.1.3562.0 (idx02.011004-1354) 78.50 KB (80,384 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\psbase.dll
 dssenh 5.1.3562.0 (idx02.011004-1354) 127.06 KB (130,112 bytes)
 10/15/2001 12:04 PM Microsoft Corporation
 c:\windows\system32\dssenh.dll
 svchost 5.1.3562.0 (idx02.011004-1354) 11.50 KB (11,776 bytes)
 10/4/2001 2:31 PM Microsoft Corporation
 c:\windows\system32\svchost.exe
 rpcss 5.1.3562.0 (idx02.011004-1354) 198.50 KB (203,264 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\rpcss.dll

wshtcpip 5.1.3562.0 (idx02.011004-1354) 16.50 KB (16,896 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\wshtcpip.dll
 winnrnr 5.1.3562.0 (idx02.011004-1354) 14.50 KB (14,848 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\winnrnr.dll
 rasadhlp 5.1.2600.0 (xpclient.010817-1148) 6.00 KB (6,144 bytes)
 8/17/2001 3:36 PM Microsoft Corporation
 c:\windows\system32\rasadhlp.dll
 gnconmgr 4.2.0.75 168.05 KB (172,079 bytes) 10/21/2001
 1:27 PM Giganet Incorporated c:\windows\system32\gnconmgr.exe
 vipl 4.2.0.75 80.00 KB (81,920 bytes) 10/21/2001 1:27 PM
 Giganet Incorporated c:\windows\system32\vipl.dll
 wkssvc 5.1.3562.0 (idx02.011004-1354) 117.50 KB (120,320 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\wkssvc.dll
 dmserver 3562.0.503.0 21.00 KB (21,504 bytes) 10/8/2001
 10:20 AM Microsoft Corp. c:\windows\system32\dmserver.dll
 ersvc 5.1.3562.0 (idx02.011004-1354) 19.00 KB (19,456 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\ersvc.dll
 srvsvc 5.1.3562.0 (idx02.011004-1354) 76.50 KB (78,336 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\srvsvc.dll
 seclogon 5.1.3562.0 (idx02.011004-1354) 14.50 KB (14,848 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\seclogon.dll
 pchsvc 5.1.3562.0 (idx02.011004-1354) 32.00 KB (32,768 bytes)
 10/19/2001 5:38 PM Microsoft Corporation
 c:\windows\pchealth\helpctr\binaries\pchsvc.dll
 wmisvc 5.1.3562.0 (idx02.011004-1354) 103.50 KB (105,984 bytes)
 10/19/2001 5:30 PM Microsoft Corporation
 c:\windows\system32\wbem\wmisvc.dll
 vssapi 5.1.3562.0 (idx02.011004-1354) 536.50 KB (549,376 bytes)
 10/8/2001 10:19 AM Microsoft Corporation
 c:\windows\system32\vssapi.dll
 es 2001.12.4492.0 (idx02.011004-1354) 217.00 KB (222,208 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\es.dll
 comsvcs 2001.12.4492.0 (idx02.011004-1354) 1.13 MB (1,187,840 bytes)
 10/19/2001 5:31 PM Microsoft Corporation
 c:\windows\system32\comsvcs.dll
 mtxclu 2001.12.4492.0 (idx02.011004-1354) 64.00 KB (65,536 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\mtxclu.dll
 wsock32 5.1.2600.0 (xpclient.010817-1148) 21.00 KB (21,504 bytes)
 8/17/2001 3:36 PM Microsoft Corporation
 c:\windows\system32\wsock32.dll
 colbact 2001.12.4492.0 (idx02.011004-1354) 58.50 KB (59,904 bytes)
 10/19/2001 5:31 PM Microsoft Corporation
 c:\windows\system32\colbact.dll
 clusapi 5.1.3562.0 (idx02.011004-1354) 54.50 KB (55,808 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\clusapi.dll
 resutils 5.1.3562.0 (idx02.011004-1354) 55.00 KB (56,320 bytes)
 10/8/2001 10:20 AM Microsoft Corporation
 c:\windows\system32\resutils.dll

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mtxoci 2001.12.4492.0 (idx02.011004-1354) 77.00 KB (78,848 bytes)
10/19/2001 5:31 PM Microsoft Corporation
c:\windows\system32\mtxoci.dll
sens 5.1.3562.0 (idx02.011004-1354) 34.50 KB (35,328 bytes)
10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\sens.dll
wbemcore 5.1.3562.0 (idx02.011004-1354) 459.50 KB (470,528
bytes) 10/19/2001 5:30 PM Microsoft Corporation
c:\windows\system32\wbem\wbemcore.dll
esscli 5.1.3562.0 (idx02.011004-1354) 231.00 KB (236,544 bytes)
10/19/2001 5:30 PM Microsoft Corporation
c:\windows\system32\wbem\esscli.dll
wmiutils 5.1.3562.0 (idx02.011004-1354) 93.50 KB (95,744
bytes) 10/19/2001 5:30 PM Microsoft Corporation
c:\windows\system32\wbem\wmiutils.dll
repdrvfs 5.1.3562.0 (idx02.011004-1354) 135.00 KB (138,240
bytes) 10/19/2001 5:30 PM Microsoft Corporation
c:\windows\system32\wbem\repdrvfs.dll
wmiprvsd 5.1.3562.0 (idx02.011004-1354) 398.50 KB (408,064
bytes) 10/19/2001 5:30 PM Microsoft Corporation
c:\windows\system32\wbem\wmiprvsd.dll
wbemess 5.1.3562.0 (idx02.011004-1354) 254.50 KB (260,608 bytes)
10/19/2001 5:30 PM Microsoft Corporation
c:\windows\system32\wbem\wbemess.dll
ncprov 5.1.3562.0 (idx02.011004-1354) 60.00 KB (61,440 bytes)
10/19/2001 5:30 PM Microsoft Corporation
c:\windows\system32\wbem\ncprov.dll
netman 5.1.3562.0 (idx02.011004-1354) 145.00 KB (148,480 bytes)
10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\netman.dll
rasapi32 5.1.3562.0 (idx02.011004-1354) 212.00 KB (217,088
bytes) 10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\rasapi32.dll
rasman 5.1.3562.0 (idx02.011004-1354) 56.50 KB (57,856 bytes)
10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\rasman.dll
tapi32 5.1.3562.0 (idx02.011004-1354) 162.00 KB (165,888 bytes)
10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\tapi32.dll
wzcsvc 5.1.3562.0 (idx02.011004-1354) 195.00 KB (199,680 bytes)
10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\wzcsvc.dll
wmi 5.1.3562.0 (idx02.011004-1354) 5.50 KB (5,632 bytes)
10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\wmi.dll
dhcpcsvc 5.1.3562.0 (idx02.011004-1354) 92.50 KB (94,720
bytes) 10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\dhcpcsvc.dll
esent 5.1.3562.0 (idx02.011004-1354) 876.00 KB (897,024 bytes)
10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\esent.dll
netshell 5.1.3562.0 (idx02.011004-1354) 1.56 MB (1,630,720
bytes) 10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\netshell.dll
credui 5.1.3562.0 (idx02.011004-1354) 158.50 KB (162,304 bytes)
10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\credui.dll

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hnetcfg 5.1.3562.0 (idx02.011004-1354) 236.50 KB (242,176 bytes)
10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\hnetcfg.dll
wininet 6.00.3562.0000 (idx02.011004-1354) 555.00 KB (568,320 bytes)
10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\wininet.dll
rasdlg 5.1.3562.0 (idx02.011004-1354) 631.50 KB (646,656 bytes)
10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\rasdlg.dll
msvfw32 5.1.3562.0 (idx02.011004-1354) 110.50 KB (113,152 bytes)
10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\msvfw32.dll
ntlsapi 5.1.3562.0 (idx02.011004-1354) 6.00 KB (6,144 bytes)
10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\ntlsapi.dll
wbemcons 5.1.3562.0 (idx02.011004-1354) 67.50 KB (69,120
bytes) 10/19/2001 5:30 PM Microsoft Corporation
c:\windows\system32\wbem\wbemcons.dll
esconmgr 6,0,2,12 260.39 KB (266,640 bytes) 9/18/2001 1:05
PM Unisys Corporation c:\windows\system32\esconmgr.exe
explorer 6.00.3562.0000 (idx02.011004-1354) 976.00 KB (999,424
bytes) 10/4/2001 2:50 PM Microsoft Corporation
c:\windows\explorer.exe
browseui 6.00.3562.0000 (idx02.011004-1354) 991.50 KB (1,015,296
bytes) 10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\browseui.dll
shdocvw 6.00.3562.0000 (idx02.011004-1354) 1.27 MB (1,331,712 bytes)
10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\shdocvw.dll
themeui 6.00.3562.0000 (idx02.011004-1354) 375.00 KB (384,000 bytes)
10/8/2001 10:19 AM Microsoft Corporation
c:\windows\system32\themeui.dll
msimg32 5.1.2600.0 (xpclient.010817-1148) 4.50 KB (4,608 bytes)
8/17/2001 3:36 PM Microsoft Corporation
c:\windows\system32\msimg32.dll
linkinfo 5.1.3562.0 (idx02.011004-1354) 15.00 KB (15,360
bytes) 10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\linkinfo.dll
ntshrui 5.1.3562.0 (idx02.011004-1354) 139.00 KB (142,336 bytes)
10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\ntshrui.dll
webcheck 6.00.3562.0000 (idx02.011004-1354) 257.50 KB (263,680
bytes) 10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\webcheck.dll
stobject 5.1.3562.0 (idx02.011004-1354) 116.50 KB (119,296
bytes) 10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\stobject.dll
batmeter 6.00.3562.0000 (idx02.011004-1354) 28.00 KB (28,672
bytes) 10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\batmeter.dll
powrprof 6.00.2600.0000 (xpclient.010817-1148) 14.50 KB (14,848
bytes) 8/17/2001 3:36 PM Microsoft Corporation
c:\windows\system32\powrprof.dll
printui 5.1.3562.0 (idx02.011004-1354) 521.00 KB (533,504 bytes)
10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\printui.dll
cfgmgr32 5.1.2600.0 (xpclient.010817-1148) 16.50 KB (16,896
bytes) 8/17/2001 3:33 PM Microsoft Corporation
c:\windows\system32\cfgmgr32.dll

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browsecl 6.00.2600.0000 (xpclient.010817-1148) 61.50 KB (62,976
bytes) 8/17/2001 3:33 PM Microsoft Corporation
c:\windows\system32\browsecl.dll
urlmon 6.00.3562.0000 (idx02.011004-1354) 432.50 KB (442,880 bytes)
10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32?urlmon.dll
shdoclc 6.00.2600.0000 (xpclient.010817-1148) 536.00 KB (548,864 bytes)
8/17/2001 3:33 PM Microsoft Corporation
c:\windows\system32\shdoclc.dll
wzcsapi 5.1.3562.0 (idx02.011004-1354) 19.00 KB (19,456 bytes)
10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\wzcsapi.dll
notepad 5.1.2600.0 (xpclient.010817-1148) 64.50 KB (66,048 bytes)
8/17/2001 3:36 PM Microsoft Corporation
c:\windows\system32\notepad.exe
cmd 5.1.3562.0 (idx02.011004-1354) 249.50 KB (255,488 bytes)
10/4/2001 2:33 PM Microsoft Corporation
c:\windows\system32\cmd.exe
sqlservr 2000.080.0523.00 7.09 MB (7,434,280 bytes)
10/21/2001 11:42 AM Microsoft Corporation
c:\sql80\sqlbuilds\10_1_sp2_calcgm\sqlservr.exe
opends60 2000.080.0194.00 24.06 KB (24,639 bytes)
9/6/2001 5:44 PM Microsoft Corporation
c:\sql80\mssql\binn\opends60.dll
ums 2000.080.0391.00 76.06 KB (77,885 bytes) 10/21/2001
11:42 AM Microsoft Corporation
c:\sql80\sqlbuilds\10_1_sp2_calcgm\ums.dll
sqlsort 2000.080.0382.00 576.56 KB (590,396 bytes) 10/21/2001
11:42 AM Microsoft Corporation
c:\sql80\sqlbuilds\10_1_sp2_calcgm\sqlsort.dll
msvcirt 7.0.3562.0 (idx02.011004-1354) 49.50 KB (50,688 bytes)
10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\msvcirt.dll
sqllevn70 2000.080.0194.00 28.00 KB (28,672 bytes)
9/6/2001 5:44 PM Microsoft Corporation
c:\sql80\mssql\binn\resources\1033\sqllevn70.rll
xolehlp 2001.12.4492.0 (idx02.011004-1354) 11.00 KB (11,264 bytes)
10/19/2001 5:31 PM Microsoft Corporation
c:\windows\system32\xolehlp.dll
msdtcprx 2001.12.4492.0 (idx02.011004-1354) 355.00 KB (363,520
bytes) 10/19/2001 5:31 PM Microsoft Corporation
c:\windows\system32\msdtcprx.dll
ssnetlib 2000.080.0382.00 84.56 KB (86,588 bytes)
10/21/2001 11:42 AM Microsoft Corporation
c:\sql80\sqlbuilds\10_1_sp2_calcgm\ssnetlib.dll
ssnmpn70 2000.080.0194.00 24.06 KB (24,638 bytes)
9/6/2001 5:44 PM Microsoft Corporation
c:\sql80\mssql\binn\ssnmpn70.dll
security 5.1.3562.0 (idx02.011012-1620) 5.00 KB (5,120 bytes)
10/12/2001 11:04 AM Microsoft Corporation
c:\windows\system32\security.dll
ssmslpcn 2000.080.0382.00 28.56 KB (29,244 bytes)
9/6/2001 5:44 PM Microsoft Corporation
c:\sql80\mssql\binn\ssmslpcn.dll
ssmsgnet 2000.080.0382.00 32.56 KB (33,340 bytes)
10/21/2001 11:42 AM Microsoft Corporation
c:\sql80\sqlbuilds\10_1_sp2_calcgm\ssmsgnet.dll

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sqloledb 2000.081.7924.00 440.00 KB (450,560 bytes)
10/19/2001 5:37 PM Microsoft Corporation c:\program
files\common files\system\ole db\sqloledb.dll
msdart 2.71.7924.0 built by: Lab06_N(dagbuild) 124.00 KB (126,976
bytes) 10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\msdart.dll
msdatl3 2.71.7924.0 built by: Lab06_N(dagbuild) 84.00 KB (86,016
bytes) 10/19/2001 5:37 PM Microsoft Corporation c:\program
files\common files\system\ole db\msdatl3.dll
oledb32 2.71.7924.0 built by: Lab06_N(dagbuild) 404.00 KB (413,696
bytes) 10/19/2001 5:37 PM Microsoft Corporation c:\program
files\common files\system\ole db\oledb32.dll
oledb32r 2.70.7713.0 built by: Lab06_N(dagbuild) 64.00 KB
(65,536 bytes) 9/6/2001 3:35 PM Microsoft Corporation c:\program
files\common files\system\ole db\oledb32r.dll
xpstar 2000.080.0382.00 272.56 KB (279,104 bytes) 9/6/2001 5:44
PM Microsoft Corporation c:\sql80\mssql\binn\xpstar.dll
sqlresld 2000.080.0382.00 28.56 KB (29,248 bytes)
9/6/2001 5:45 PM Microsoft Corporation c:\program
files\microsoft sql server\80\tools\binn\sqlresld.dll
sqlsvc 2000.080.0382.00 92.56 KB (94,784 bytes) 9/6/2001 5:45
PM Microsoft Corporation c:\program files\microsoft sql
server\80\tools\binn\sqlsvc.dll
odbcbc 2000.081.7924.00 24.00 KB (24,576 bytes) 10/4/2001 2:11
PM Microsoft Corporation c:\windows\system32\odbcbc.dll
w95scm 2000.080.0194.00 48.56 KB (49,728 bytes) 9/6/2001 5:45
PM Microsoft Corporation c:\program files\microsoft sql
server\80\tools\binn\w95scm.dll
sqlunirl 2000.080.0380.00 176.56 KB (180,800 bytes)
8/17/2001 3:35 PM Microsoft Corporation
c:\windows\system32\sqlunirl.dll
shfolder 6.00.2600.0000 (xpclient.010817-1148) 22.00 KB (22,528
bytes) 8/17/2001 3:36 PM Microsoft Corporation
c:\windows\system32\shfolder.dll
sqlsvc 2000.080.0194.00 24.00 KB (24,576 bytes) 9/6/2001 5:45
PM Microsoft Corporation c:\program files\microsoft sql
server\80\tools\binn\resources\1033\sqlsvc.rll
xpstar 2000.080.0382.00 36.00 KB (36,864 bytes) 9/6/2001 5:44
PM Microsoft Corporation
c:\sql80\mssql\binn\resources\1033\xpstar.rll
mmc 5.1.3562.0 (idx02.011004-1354) 753.00 KB (771,072 bytes)
10/4/2001 2:37 PM Microsoft Corporation
c:\windows\system32\mmc.exe
mfc42u 6.00.8665.0 972.05 KB (995,384 bytes) 10/8/2001 10:20 AM
Microsoft Corporation c:\windows\system32\mfc42u.dll
oleacc 4.2.5406.0 (idx02.011004-1354) 160.00 KB (163,840 bytes)
10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\oleacc.dll
mmcbase 5.1.2600.0 (xpclient.010817-1148) 65.00 KB (66,560 bytes)
8/17/2001 3:36 PM Microsoft Corporation
c:\windows\system32\mmcbase.dll
mmcmdmgr 5.1.3562.0 (idx02.011004-1354) 1.09 MB (1,143,296
bytes) 10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\mmcmdmgr.dll
msxml3 8.20.8822.0 1.07 MB (1,120,256 bytes) 10/8/2001 10:20 AM
Microsoft Corporation c:\windows\system32\msxml3.dll
els 5.1.3562.0 (idx02.011004-1354) 162.50 KB (166,400 bytes)
10/8/2001 10:20 AM Microsoft Corporation
c:\windows\system32\els.dll

```

riched32	5.1.3562.0 (idx02.011009-1709)	3.00 KB (3,072 bytes)	Application Management AppMgmt	Stopped Manual Share Process
10/9/2001 11:25 AM	Microsoft Corporation		c:\windows\system32\svchost.exe -k netsvcs	Normal LocalSystem
c:\windows\system32\riched32.dll			0	
riched20	5.30.23.1210	394.00 KB (403,456 bytes)	Windows Audio AudioSrv	Stopped Manual Share Process
11:25 AM	Microsoft Corporation		c:\windows\system32\svchost.exe -k netsvcs	Normal LocalSystem
c:\windows\system32\riched20.dll			0	
mlang	6.00.3562.0000 (idx02.011004-1354)	564.00 KB (577,536 bytes)	Background Intelligent Transfer Service	BITS Stopped Manual Share
10/8/2001 10:20 AM	Microsoft Corporation		Process c:\windows\system32\svchost.exe -k netsvcs	Normal LocalSystem
c:\windows\system32\mlang.dll			0	
helpctr	5.1.3562.0 (idx02.011004-1354)	666.50 KB (682,496 bytes)	Computer Browser	Browser Stopped Manual Share Process
10/19/2001 5:38 PM	Microsoft Corporation		c:\windows\system32\svchost.exe -k netsvcs	Normal LocalSystem
c:\windows\pchealth\helpctr\binaries\helpctr.exe			0	
hcappres	5.1.3562.0 (idx02.011004-1354)	6.50 KB (6,656 bytes)	Indexing Service	cisvc Stopped Manual Share Process
10/19/2001 5:38 PM	Microsoft Corporation		c:\windows\system32\cisvc.exe	Normal LocalSystem 0
c:\windows\pchealth\helpctr\binaries\hcappres.dll				
itss	4.72.8085.0	134.81 KB (138,048 bytes)	ClipBook	ClipSrv Stopped Manual Own Process
8/17/2001 3:36 PM	Microsoft Corporation		c:\windows\system32\clipsrv.exe	Normal LocalSystem 0
Microsoft Corporation	c:\windows\system32\itss.dll			
pchshell	5.1.3562.0 (idx02.011004-1354)	92.00 KB (94,208 bytes)	COM+ System Application	COMSysApp Stopped Manual Own Process
10/19/2001 5:38 PM	Microsoft Corporation		c:\windows\system32\dllhost.exe /processid:{02d4b3f1-fd88-11d1-960d-00805fc79235}	Normal LocalSystem 0
c:\windows\pchealth\helpctr\binaries\pchshell.dll				
mshtml	6.00.3562.0000 (idx02.011004-1354)	2.54 MB (2,661,888 bytes)	.NET Framework Support Service	CORRTSvc Stopped Manual Share
10/8/2001 10:20 AM	Microsoft Corporation		Process c:\windows\system32\svchost.exe -k corsvcs	Normal LocalSystem
c:\windows\system32\mshtml.dll			0	
msimtf	5.1.3562.0 (idx02.011009-1709)	57.00 KB (58,368 bytes)	Cryptographic Services CryptSvc	Stopped Manual Share Process
10/9/2001 11:25 AM	Microsoft Corporation		c:\windows\system32\svchost.exe -k netsvcs	Normal LocalSystem
c:\windows\system32\msimtf.dll			0	
imm32	5.1.3562.0 (idx02.011004-1354)	100.00 KB (102,400 bytes)	Distributed File System	Dfs Stopped Manual Own Process
10/8/2001 10:20 AM	Microsoft Corporation		c:\windows\system32\dfssvc.exe	Normal LocalSystem 0
c:\windows\system32\imm32.dll				
msctf	5.1.3562.0 (idx02.011009-1709)	288.50 KB (295,424 bytes)	DHCP Client	Dhcp Stopped Manual Share Process
10/9/2001 11:25 AM	Microsoft Corporation		c:\windows\system32\svchost.exe -k netsvcs	Normal LocalSystem
c:\windows\system32\msctf.dll			0	
jscript	5.6.0.6827	576.05 KB (589,874 bytes)	Logical Disk Manager Administrative Service	dmadmin Stopped Manual Share
10/8/2001 10:20 AM	Microsoft Corporation		Process c:\windows\system32\dmadmin.exe /com	Normal LocalSystem 0
c:\windows\system32\jscript.dll				
msls31	3.10.349.0	136.00 KB (139,264 bytes)	Logical Disk Manager	dmserver Running Auto Share Process
10/9/2001 11:25 AM	Microsoft Corporation		c:\windows\system32\svchost.exe -k netsvcs	Normal LocalSystem
c:\windows\system32\msls31.dll			0	
mshtml	6.00.3562.0000 (idx02.011004-1354)	424.00 KB (434,176 bytes)	DNS Client	Dnscache Stopped Manual Share Process
10/8/2001 10:20 AM	Microsoft Corporation		c:\windows\system32\svchost.exe -k networkservice	Normal NT
c:\windows\system32\mshtml.dll				
vbscript	5.6.0.6827	472.05 KB (483,379 bytes)	AUTHORITY\NetworkService	0
10:20 AM	Microsoft Corporation		IP4700 Trap Catcher	DTCserver Stopped Disabled Own Process
c:\windows\system32\vbscript.dll			c:\program files\emc\navisphere agent\dtcsrv.exe	Normal LocalSystem 0
msinfo	7, 0, 0, 0	340.00 KB (348,160 bytes)	Error Reporting Service	ERSvc Running Auto Share Process
10/19/2001 5:38 PM	Microsoft Corporation		c:\windows\system32\svchost.exe -k netsvcs	Ignore LocalSystem
c:\windows\pchealth\helpctr\binaries\msinfo.dll			0	
cabinet	5.1.3562.0 (idx02.011004-1354)	53.50 KB (54,784 bytes)	Console Manager	esConMgr Running Auto Own Process
10/8/2001 10:20 AM	Microsoft Corporation		c:\windows\system32\esconmgr.exe	Normal LocalSystem 0
c:\windows\system32\cabinet.dll				
helpsvc	5.1.3562.0 (idx02.011004-1354)	681.50 KB (697,856 bytes)	Event Log	Eventlog Running Auto Share Process
10/19/2001 5:38 PM	Microsoft Corporation		c:\windows\system32\services.exe	Normal LocalSystem 0
c:\windows\pchealth\helpctr\binaries\helpsvc.exe				
[Services]				
Display Name	Name	State	Start Mode	Service Type
Control Start Name	Tag ID			
Alerter	Alerter	Stopped Manual	Share Process	
	c:\windows\system32\svchost.exe -k local service		Normal NT	
AUTHORITY\LocalService	0			
COM+ Event System	EventSystem	Running Manual	Share Process	
	c:\windows\system32\svchost.exe -k netsvcs		Normal LocalSystem	
0				
Fast User Switching Compatibility	FastUserSwitchingCompatibility	Stopped Manual	Share Process	
	c:\windows\system32\svchost.exe		Normal LocalSystem	
0				

```

cLAN Connection Manager      GniConMgr      Running Auto    Own Process
c:\windows\system32\gnconmgr.exe Normal LocalSystem 0

Help and Support            helpsvc Running Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

Human Interface Device Access HidServ Stopped Disabled Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

IMAPI CD-Burning COM Service ImapiService Stopped Manual Own Process
c:\windows\system32\imapi.exe Normal LocalSystem 0

Intersite Messaging        IsmServ Stopped Disabled Own Process
c:\windows\system32\ismserv.exe Normal LocalSystem 0

Kerberos Key Distribution Center kdc Stopped Disabled Share
Process c:\windows\system32\lsass.exe Normal LocalSystem 0

Server lanmanserver Running Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

Workstation lanmanworkstation Running Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

License Logging            LicenseService Stopped Manual Own Process
c:\windows\system32\llssrv.exe Normal NT
AUTHORITY\NetworkService 0

TCP/IP NetBIOS Helper      LmHosts Stopped Manual Share Process
c:\windows\system32\svchost.exe -k localservice Normal NT
AUTHORITY\LocalService 0

Messenger Messenger Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

NetMeeting Remote Desktop Sharing mnmsrvc Stopped Manual Own Process
c:\windows\system32\mnmsrvc.exe Normal LocalSystem 0

Distributed Transaction Coordinator MSDTC Stopped Manual Own Process
c:\windows\system32\msdtc.exe Normal NT AUTHORITY\NetworkService 0

Windows Installer         MSIServer Stopped Manual Share Process
c:\windows\system32\msiexec.exe /v Normal LocalSystem 0

MSSQLSERVER MSSQLSERVER Stopped Manual Own Process
c:\sql80\mssql\bin\sqlservr.exe Normal LocalSystem 0

Navisphere Agent          Navisphere_Agent Stopped Manual Own Process
c:\program files\emc\navisphere agent\naviagent.exe Normal
LocalSystem 0

Network DDE NetDDE Stopped Manual Share Process
c:\windows\system32\netdde.exe Normal LocalSystem 0

Network DDE DSDM          NetDDEdsdm Stopped Manual Share Process
c:\windows\system32\netdde.exe Normal LocalSystem 0

Net Logon Netlogon Stopped Manual Share Process
c:\windows\system32\lsass.exe Normal LocalSystem 0

Network Connections Netman Running Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

```

```

Network Location Awareness (NLA) Nla Running Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

File Replication NtFrs Stopped Manual Own Process
c:\windows\system32\ntfrs.exe Ignore LocalSystem 0

NT LM Security Support Provider NtLmSsp Stopped Manual Share Process
c:\windows\system32\lsass.exe Normal LocalSystem 0

Removable Storage NtmsSvc Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

Plug and Play PlugPlay Running Auto Share Process
c:\windows\system32\services.exe Normal LocalSystem 0

IPSEC Services PolicyAgent Stopped Manual Share Process
c:\windows\system32\lsass.exe Normal LocalSystem 0

Process Control Service ProcCon Stopped Manual Own Process
c:\windows\system32\procconsvcs.exe Normal LocalSystem 0

Protected Storage ProtectedStorage Running Auto Share Process
c:\windows\system32\lsass.exe Normal LocalSystem 0

Remote Access Auto Connection Manager RasAuto Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

Remote Access Connection Manager RasMan Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

Remote Desktop Help Session Manager RDSessMgr Stopped Manual Own
Process c:\windows\system32\sessmgr.exe Normal LocalSystem 0

Routing and Remote Access RemoteAccess Stopped Disabled Share
Process c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

Remote Registry RemoteRegistry Stopped Manual Share Process
c:\windows\system32\svchost.exe -k regsvc Normal NT
AUTHORITY\LocalService 0

Remote Procedure Call (RPC) Locator RpcLocator Stopped Manual Own
Process c:\windows\system32\locator.exe Normal NT
AUTHORITY\NetworkService 0

Remote Procedure Call (RPC) RpcSs Running Auto Share Process
c:\windows\system32\svchost -k rpcss Normal LocalSystem 0

Resultant Set of Policy Provider RSOPProv Stopped Manual Share
Process c:\windows\system32\rsopprov.exe Normal LocalSystem 0

QoS RSVP RSVP Stopped Manual Own Process
c:\windows\system32\rsvp.exe Normal LocalSystem 0

Security Accounts Manager SamSs Running Auto Share Process
c:\windows\system32\lsass.exe Normal LocalSystem 0

Smart Card Helper SCardDrv Stopped Manual Share Process
c:\windows\system32\scardsvr.exe Ignore NT
AUTHORITY\LocalService 0

Smart Card SCardSvr Stopped Manual Share Process
c:\windows\system32\scardsvr.exe Ignore NT
AUTHORITY\LocalService 0

Task Scheduler Schedule Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

```

```

Secondary Logon      seclogon      Running Auto      Share Process
c:\windows\system32\svchost.exe -k netsvcs  Ignore LocalSystem
0
System Event Notification      SENS      Running Manual      Share Process
c:\windows\system32\svchost.exe -k netsvcs  Normal LocalSystem
0
Internet Connection Firewall (ICF) / Internet Connection Sharing (ICS)
SharedAccess      Stopped Manual      Share Process
c:\windows\system32\svchost.exe -k netsvcs  Normal LocalSystem
0
Shell Hardware Detection      ShellHWDetection      Stopped Manual      Share
Process c:\windows\system32\svchost.exe -k netsvcs  Ignore LocalSystem
0
Print Spooler      Spooler Stopped Manual      Own Process
c:\windows\system32\spoolsv.exe      Normal LocalSystem      0
SQLSERVERAGENT      SQLSERVERAGENT Stopped Manual      Own Process
c:\sql80\mssql\bin\sqlagent.exe      Normal LocalSystem      0
Windows Image Acquisition (WIA)      stisvc Stopped Manual      Share Process
c:\windows\system32\svchost.exe -k imgsvc  Normal LocalSystem
0
MS Software Shadow Copy Provider      SwPrv  Stopped Manual      Own Process
c:\windows\system32\dllhost.exe /processid:{bdcea923-755f-492c-
97a6-4e05626dca8e}      Ignore LocalSystem      0
Performance Logs and Alerts      SysmonLog      Stopped Manual      Own Process
c:\windows\system32\smlogsvc.exe      Normal NT
Authority\NetworkService      0
Telephony      TapiSrv Stopped Manual      Share Process
c:\windows\system32\svchost.exe -k tapisrv  Normal LocalSystem
0
Terminal Services      TermService      Stopped Disabled      Share Process
c:\windows\system32\svchost.exe -k termsvcs  Normal LocalSystem
0
Themes      Themes Stopped Disabled      Share Process
c:\windows\system32\svchost.exe -k netsvcs  Normal LocalSystem
0
Telnet      TlntSvr Stopped Manual      Own Process
c:\windows\system32\tlntsvr.exe      Normal LocalSystem      0
Distributed Link Tracking Server      TrkSvr Stopped Manual      Share Process
c:\windows\system32\svchost.exe -k netsvcs  Normal LocalSystem
0
Distributed Link Tracking Client      TrkWks Stopped Manual      Share Process
c:\windows\system32\svchost.exe -k netsvcs  Normal LocalSystem
0
Terminal Services Session Directory      Tssdis Stopped Manual      Own Process
c:\windows\system32\tssdis.exe      Normal LocalSystem      0
Upload Manager uploadmgr      Running Auto      Share Process
c:\windows\system32\svchost.exe -k netsvcs  Normal LocalSystem
0
Uninterruptible Power Supply      UPS      Stopped Manual      Own Process
c:\windows\system32\ups.exe      Normal NT AUTHORITY\LocalService
0
Volume Shadow Copy      VSS      Stopped Manual      Own Process
c:\windows\system32\vssvc.exe      Normal LocalSystem      0

```

```

Windows Time      W32Time Running Auto      Share Process
c:\windows\system32\svchost.exe -k netsvcs  Normal LocalSystem
0
WebClient      WebClient      Stopped Manual      Share Process
c:\windows\system32\svchost.exe -k localservice  Normal NT
AUTHORITY\LocalService 0
Windows Management Instrumentation      winmgmt Running Auto      Share Process
c:\windows\system32\svchost.exe -k netsvcs  Ignore LocalSystem
0
Windows Management Instrumentation Driver Extensions Wmi      Stopped Manual
Share Process c:\windows\system32\svchost.exe -k netsvcs  Normal
LocalSystem 0
WMI Performance Adapter      WmiApSrv      Stopped Manual      Own Process
c:\windows\system32\wbem\wmiapsrv.exe Normal LocalSystem      0
Wireless Configuration WZCSVC Stopped Manual      Share Process
c:\windows\system32\svchost.exe -k netsvcs  Normal LocalSystem
0

```

[Program Groups]

```

Group Name      Name      User Name
Accessories      Default User:Accessories      Default User
Accessories\Accessibility      Default User:Accessories\Accessibility
Default User
Accessories\Entertainment      Default User:Accessories\Entertainment
Default User
Startup Default User:Startup      Default User
Accessories      All Users:Accessories      All Users
Accessories\Accessibility      All Users:Accessories\Accessibility      All
Users
Accessories\Communications      All Users:Accessories\Communications      All
Users
Accessories\Entertainment      All Users:Accessories\Entertainment      All
Users
Accessories\System Tools      All Users:Accessories\System Tools      All
Users
Administrative Tools      All Users:Administrative Tools      All Users
GigaNet All Users:GigaNet      All Users
Microsoft SQL Server      All Users:Microsoft SQL Server      All Users
Navisphere 5.2.0      All Users:Navisphere 5.2.0      All Users
Startup All Users:Startup      All Users
Accessories      NT AUTHORITY\SYSTEM:Accessories      NT AUTHORITY\SYSTEM
Accessories\Accessibility      NT
AUTHORITY\SYSTEM:Accessories\Accessibility      NT AUTHORITY\SYSTEM
Accessories\Entertainment      NT
AUTHORITY\SYSTEM:Accessories\Entertainment      NT AUTHORITY\SYSTEM
Startup NT AUTHORITY\SYSTEM:Startup      NT AUTHORITY\SYSTEM
Accessories      MV-LE030P1\Administrator:Accessories      MV-
LE030P1\Administrator
Accessories\Accessibility      MV-
LE030P1\Administrator:Accessories\Accessibility      MV-
LE030P1\Administrator
Accessories\Entertainment      MV-
LE030P1\Administrator:Accessories\Entertainment      MV-
LE030P1\Administrator

```


Administrative Tools MV-LE030P1\Administrator:Administrative Tools
MV-LE030P1\Administrator
Startup MV-LE030P1\Administrator:Startup MV-LE030P1\Administrator

[Startup Programs]

Program	Command	User	Name	Location	Startup
desktop	desktop.ini			NT AUTHORITY\SYSTEM	Startup
desktop	desktop.ini			MV-LE030P1\Administrator	Startup
desktop	desktop.ini			.DEFAULT	Startup
desktop	desktop.ini			All Users	Common Startup
IDW Logging Tool				c:\windows\system32\idwlog.exe -3	All Users
				Common Startup	
Service Manager				c:\progra~1\microso~1\80\tools\binn\sqlmangr.exe /n	All Users
				Common Startup	
UserFaultCheck				%systemroot%\system32\dumprep 0 -u	All Users
				HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Run	

[OLE Registration]

Object	Local Server
Sound (OLE2)	sndrec32.exe
Media Clip	mplay32.exe
Video Clip	mplay32.exe /avi
MIDI Sequence	mplay32.exe /mid
Sound	Not Available
Media Clip	Not Available
WordPad Document	"%programfiles%\windows nt\accessories\wordpad.exe"

Bitmap Image mspaint.exe

[Windows Error Reporting]

Time	Type	Details
10/21/2001 9:11 PM	Application Hang	Hanging application mmc.exe, version 5.1.3562.0, hang module hungapp, version 0.0.0.0, hang address 0x00000000.

10/21/2001 7:08 PM	Application Hang	Hanging application mmc.exe, version 5.1.3562.0, hang module hungapp, version 0.0.0.0, hang address 0x00000000.

[Internet Settings]

[Internet Explorer]

[Following are sub-categories of this main category]
[Summary]

Item	Value
Version	6.0.3562.0000
Build	63562
Application Path	C:\Program Files\Internet Explorer
Language	English (United States)
Active Printer	Not Available

Cipher Strength 128-bit

Content Advisor Disabled
IEAK Install No

[File Versions]

File	Version	Size	Date	Path	Company
actxprxy.dll	6.0.3562.0	98 KB	10/8/2001 9:20:28 AM	C:\WINDOWS\system32	Microsoft Corporation
advpack.dll	6.0.3562.0	89 KB	10/8/2001 9:20:40 AM	C:\WINDOWS\system32	Microsoft Corporation
asctrls.ocx	6.0.2600.0	88 KB	8/17/2001 2:35:56 PM	C:\WINDOWS\system32	Microsoft Corporation
browsecl.dll	6.0.2600.0	62 KB	8/17/2001 2:33:34 PM	C:\WINDOWS\system32	Microsoft Corporation
browseui.dll	6.0.3562.0	992 KB	10/8/2001 9:20:42 AM	C:\WINDOWS\system32	Microsoft Corporation
cdfview.dll	6.0.2600.0	139 KB	8/17/2001 2:36:10 PM	C:\WINDOWS\system32	Microsoft Corporation
comctl32.dll	5.82.3562.0	522 KB	10/8/2001 9:20:48 AM	C:\WINDOWS\system32	Microsoft Corporation
dxtrans.dll	6.3.3562.0	183 KB	10/8/2001 9:20:06 AM	C:\WINDOWS\system32	Microsoft Corporation
dxtmsft.dll	6.3.3562.0	344 KB	10/8/2001 9:20:06 AM	C:\WINDOWS\system32	Microsoft Corporation
iecont.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
iecontlc.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
iedkcs32.dll	16.0.3562.0	288 KB	10/8/2001 9:20:00 AM	C:\WINDOWS\system32	Microsoft Corporation
iepeers.dll	6.0.3562.0	225 KB	10/8/2001 9:20:00 AM	C:\WINDOWS\system32	Microsoft Corporation
iesetup.dll	6.0.3562.0	58 KB	10/8/2001 9:19:58 AM	C:\WINDOWS\system32	Microsoft Corporation
ieuinit.inf	Not Available	19 KB	10/4/2001 10:09:44 AM	C:\WINDOWS\system32	Not Available
ieexplore.exe	6.0.2600.0	89 KB	8/17/2001 10:36:46 PM	C:\Program Files\Internet Explorer	Microsoft Corporation
imgutil.dll	6.0.2600.0	30 KB	8/17/2001 2:36:18 PM	C:\WINDOWS\system32	Microsoft Corporation
inetctl.cpl	6.0.3562.0	288 KB	10/8/2001 9:19:00 AM	C:\WINDOWS\system32	Microsoft Corporation
inetctl.c.dll	6.0.2600.0	108 KB	8/17/2001 2:34:34 PM	C:\WINDOWS\system32	Microsoft Corporation
inseng.dll	6.0.3562.0	68 KB	10/8/2001 9:19:56 AM	C:\WINDOWS\system32	Microsoft Corporation
mlang.dll	6.0.3562.0	564 KB	10/8/2001 9:20:36 AM	C:\WINDOWS\system32	Microsoft Corporation
msencode.dll	2000.7.25.0	92 KB	8/17/2001 2:36:22 PM	C:\WINDOWS\system32	Not Available
mshta.exe	6.0.3562.0	25 KB	10/4/2001 1:53:52 PM	C:\WINDOWS\system32	Microsoft Corporation
mshtml.dll	6.0.3562.0	2,600 KB	10/8/2001 9:20:36 AM	C:\WINDOWS\system32	Microsoft Corporation
mshtml.tlb	6.0.3562.0	1,319 KB	10/4/2001 1:54:04 PM	C:\WINDOWS\system32	Microsoft Corporation
mshtml.ed.dll	6.0.3562.0	424 KB	10/8/2001 9:20:38 AM	C:\WINDOWS\system32	Microsoft Corporation

```

mshtml.dll 6.0.2600.0 55 KB 8/17/2001 2:35:06 PM
C:\WINDOWS\system32 Microsoft Corporation
msident.dll 6.0.3562.0 43 KB 10/8/2001 9:19:42 AM
C:\WINDOWS\system32 Microsoft Corporation
msidntld.dll 6.0.2600.0 15 KB 8/17/2001 2:35:06 PM
C:\WINDOWS\system32 Microsoft Corporation
msieftp.dll 6.0.3562.0 227 KB 10/8/2001 9:19:42 AM
C:\WINDOWS\system32 Microsoft Corporation
msrating.dll 6.0.3562.0 129 KB 10/8/2001 9:19:38 AM
C:\WINDOWS\system32 Microsoft Corporation
mstime.dll 6.0.3562.0 486 KB 10/8/2001 9:19:36 AM
C:\WINDOWS\system32 Microsoft Corporation
occache.dll 6.0.2600.0 86 KB 8/17/2001 2:36:28 PM
C:\WINDOWS\system32 Microsoft Corporation
proctexe.ocx 6.2.3562.0 75 KB 10/8/2001 9:18:58 AM
C:\WINDOWS\system32 Intel Corporation
sendmail.dll 6.0.3562.0 53 KB 10/8/2001 9:19:22 AM
C:\WINDOWS\system32 Microsoft Corporation
shdoclc.dll 6.0.2600.0 536 KB 8/17/2001 2:33:12 PM
C:\WINDOWS\system32 Microsoft Corporation
shdocvw.dll 6.0.3562.0 1,301 KB 10/8/2001 9:20:46 AM
C:\WINDOWS\system32 Microsoft Corporation
shfolder.dll 6.0.2600.0 22 KB 8/17/2001 2:36:32 PM
C:\WINDOWS\system32 Microsoft Corporation
shlwapi.dll 6.0.3562.0 390 KB 10/8/2001 9:20:46 AM
C:\WINDOWS\system32 Microsoft Corporation
tdc.ocx 1.3.0.3130 55 KB 10/8/2001 9:18:58 AM C:\WINDOWS\system32
Microsoft Corporation
url.dll 6.0.3562.0 107 KB 10/8/2001 9:20:28 AM C:\WINDOWS\system32
Microsoft Corporation
urlmon.dll 6.0.3562.0 433 KB 10/8/2001 9:20:42 AM
C:\WINDOWS\system32 Microsoft Corporation
webcheck.dll 6.0.3562.0 258 KB 10/8/2001 9:20:36 AM
C:\WINDOWS\system32 Microsoft Corporation
wininet.dll 6.0.3562.0 555 KB 10/8/2001 9:20:44 AM
C:\WINDOWS\system32 Microsoft Corporation

```

[Connectivity]

```

Item Value
Connection Preference Never dial

```

LAN Settings

```

AutoConfigProxy Not Available
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\Default
User.WINDOWS\Local Settings\Temporary Internet Files
Total Disk Space Not Available
Available Disk Space Not Available
Maximum Cache Size Not Available
Available Cache Size Not Available

```

[List of Objects]

```

Program File Status CodeBase
No cached object information available

```

[Content]

[Following are sub-categories of this main category]
[Summary]

```

Item Value
Content Advisor Disabled

```

[Personal Certificates]

```

Issued To Issued By Validity Signature Algorithm
No personal certificate information available

```

[Other People Certificates]

```

Issued To Issued By Validity Signature Algorithm
No other people certificate information available

```

[Publishers]

```

Name
No publisher information available

```

[Security]

```

Zone Security Level
My Computer Custom
Local intranet Medium-low
Trusted sites Low
Internet Medium
Restricted sites High

```

Windows Datacenter Server Registry Information

Software\GigaNet

```

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

```

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\cLAN Management
Console
Class Name: <NO CLASS>
Last Write Time: 10/21/2001 - 1:13 PM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\cLAN Management
Console\1.00.000
Class Name: <NO CLASS>
Last Write Time: 10/21/2001 - 1:13 PM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\0
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\0\BeginModify
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Value 0
Name: <NO NAME>
Type: REG_SZ
Data: 10:49:55

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\0\Fabric
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\0>LastModified
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Value 0
Name: <NO NAME>
Type: REG_SZ
Data: 10:49:55

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\0\NodeList
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\0\NodeList\Node0
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Value 0
Name: Name
Type: REG_SZ
Data: MV-LE030P1

Value 1
Name: NICName

Type: REG_SZ
Data: gnivia0

Value 2
Name: Address
Type: REG_SZ
Data: 0090FA0014BC

Value 3
Name: MediaType
Type: REG_SZ
Data:

Value 4
Name: State
Type: REG_DWORD
Data: 0x1

Value 5
Name: SwitchPort
Type: REG_SZ
Data: n2

Value 6
Name: NodeNumber
Type: REG_DWORD
Data: 0x1

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\0\NodeList\Node2
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Value 0
Name: Name
Type: REG_SZ
Data: CLIENT5

Value 1
Name: NICName
Type: REG_SZ
Data: nic0

Value 2
Name: Address
Type: REG_SZ
Data: 0090FA001C1C

Value 3
Name: MediaType
Type: REG_SZ
Data:

Value 4
Name: State
Type: REG_DWORD
Data: 0x1

Value 5

Name: SwitchPort
 Type: REG_SZ
 Data: n1

Value 6
 Name: NodeNumber
 Type: REG_DWORD
 Data: 0x2

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\1
 Class Name: <NO CLASS>
 Last Write Time: 10/30/2001 - 10:49 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\1\BeginModify
 Class Name: <NO CLASS>
 Last Write Time: 10/30/2001 - 10:49 AM

Value 0
 Name: <NO NAME>
 Type: REG_SZ
 Data: 10:49:55

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\1\Fabric
 Class Name: <NO CLASS>
 Last Write Time: 10/30/2001 - 10:49 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\1\LastModified
 Class Name: <NO CLASS>
 Last Write Time: 10/30/2001 - 10:49 AM

Value 0
 Name: <NO NAME>
 Type: REG_SZ
 Data: 10:49:55

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\1\NodeList
 Class Name: <NO CLASS>
 Last Write Time: 10/30/2001 - 10:49 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\1\NodeList\Node0
 Class Name: <NO CLASS>
 Last Write Time: 10/30/2001 - 10:49 AM

Value 0
 Name: Name
 Type: REG_SZ
 Data: MV-LE030P1

Value 1
 Name: NICName
 Type: REG_SZ
 Data: gnivial

Value 2

Name: Address
 Type: REG_SZ
 Data: 0090FA001C0F

Value 3
 Name: MediaType
 Type: REG_SZ
 Data:

Value 4
 Name: State
 Type: REG_DWORD
 Data: 0x1

Value 5
 Name: SwitchPort
 Type: REG_SZ
 Data: n2

Value 6
 Name: NodeNumber
 Type: REG_DWORD
 Data: 0x1

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\1\NodeList\Node2
 Class Name: <NO CLASS>
 Last Write Time: 10/30/2001 - 10:49 AM

Value 0
 Name: Name
 Type: REG_SZ
 Data: CLIENT4

Value 1
 Name: NICName
 Type: REG_SZ
 Data: nic0

Value 2
 Name: Address
 Type: REG_SZ
 Data: 0090FA001C35

Value 3
 Name: MediaType
 Type: REG_SZ
 Data:

Value 4
 Name: State
 Type: REG_DWORD
 Data: 0x1

Value 5
 Name: SwitchPort
 Type: REG_SZ
 Data: n1

Value 6
Name: NodeNumber
Type: REG_DWORD
Data: 0x2

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\2
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\2\BeginModify
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Value 0
Name: <NO NAME>
Type: REG_SZ
Data: 10:49:54

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\2\Fabric
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\2\LastModified
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Value 0
Name: <NO NAME>
Type: REG_SZ
Data: 10:49:54

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\2\NodeList
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\2\NodeList\Node0
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Value 0
Name: Name
Type: REG_SZ
Data: MV-LE030P1

Value 1
Name: NICName
Type: REG_SZ
Data: gnivia2

Value 2
Name: Address
Type: REG_SZ
Data: 0090FA001C8C

Value 3
Name: MediaType
Type: REG_SZ
Data:

Value 4
Name: State
Type: REG_DWORD
Data: 0x1

Value 5
Name: SwitchPort
Type: REG_SZ
Data: n1

Value 6
Name: NodeNumber
Type: REG_DWORD
Data: 0x2

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\2\NodeList\Node1
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Value 0
Name: Name
Type: REG_SZ
Data: CLIENT8

Value 1
Name: NICName
Type: REG_SZ
Data: nic0

Value 2
Name: Address
Type: REG_SZ
Data: 0090FA000779

Value 3
Name: MediaType
Type: REG_SZ
Data:

Value 4
Name: State
Type: REG_DWORD
Data: 0x1

Value 5
Name: SwitchPort
Type: REG_SZ
Data: n2

Value 6
Name: NodeNumber
Type: REG_DWORD
Data: 0x1

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\3
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\3\BeginModify
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Value 0
Name: <NO NAME>
Type: REG_SZ
Data: 10:49:54

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\3\Fabric
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\3\LastModified
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Value 0
Name: <NO NAME>
Type: REG_SZ
Data: 10:49:54

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\3\NodeList
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\3\NodeList\Node0
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Value 0
Name: Name
Type: REG_SZ
Data: MV-LE030P1

Value 1
Name: NICName
Type: REG_SZ
Data: gnivia3

Value 2
Name: Address
Type: REG_SZ
Data: 0090FA001C34

Value 3
Name: MediaType
Type: REG_SZ
Data:

Value 4
Name: State
Type: REG_DWORD
Data: 0x1

Value 5
Name: SwitchPort
Type: REG_SZ
Data: n2

Value 6
Name: NodeNumber
Type: REG_DWORD
Data: 0x1

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\3\NodeList\Node2
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Value 0
Name: Name
Type: REG_SZ
Data: CLIENT1

Value 1
Name: NICName
Type: REG_SZ
Data: nic0

Value 2
Name: Address
Type: REG_SZ
Data: 0090FA001C8A

Value 3
Name: MediaType
Type: REG_SZ
Data:

Value 4
Name: State
Type: REG_DWORD
Data: 0x1

Value 5
Name: SwitchPort
Type: REG_SZ
Data: n1

Value 6
Name: NodeNumber
Type: REG_DWORD
Data: 0x2

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\4
Class Name: <NO CLASS>

Last Write Time: 10/30/2001 - 10:49 AM

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\4\BeginModify
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM
Value 0
Name: <NO NAME>
Type: REG_SZ
Data: 10:49:55

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\4\Fabric
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\4\LastModified
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM
Value 0
Name: <NO NAME>
Type: REG_SZ
Data: 10:49:55

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\4\NodeList
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\4\NodeList\Node0
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM
Value 0
Name: Name
Type: REG_SZ
Data: MV-LE030P1

Value 1
Name: NICName
Type: REG_SZ
Data: gnivia4

Value 2
Name: Address
Type: REG_SZ
Data: 0090FA00159A

Value 3
Name: MediaType
Type: REG_SZ
Data:

Value 4
Name: State
Type: REG_DWORD

Data: 0x1

Value 5
Name: SwitchPort
Type: REG_SZ
Data: n2

Value 6
Name: NodeNumber
Type: REG_DWORD
Data: 0x1

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\4\NodeList\Node2
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Value 0
Name: Name
Type: REG_SZ
Data: CLIENT7

Value 1
Name: NICName
Type: REG_SZ
Data: nic0

Value 2
Name: Address
Type: REG_SZ
Data: 0090FA001C94

Value 3
Name: MediaType
Type: REG_SZ
Data:

Value 4
Name: State
Type: REG_DWORD
Data: 0x1

Value 5
Name: SwitchPort
Type: REG_SZ
Data: n1

Value 6
Name: NodeNumber
Type: REG_DWORD
Data: 0x2

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\5
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\5\BeginModify

Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM
Value 0
Name: <NO NAME>
Type: REG_SZ
Data: 10:49:55

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\5\Fabric
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\5\LastModified
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM
Value 0
Name: <NO NAME>
Type: REG_SZ
Data: 10:49:55

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\5\NodeList
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\5\NodeList\Node0
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM
Value 0
Name: Name
Type: REG_SZ
Data: MV-LE030P1

Value 1
Name: NICName
Type: REG_SZ
Data: gnivia5

Value 2
Name: Address
Type: REG_SZ
Data: 0090FA001C45

Value 3
Name: MediaType
Type: REG_SZ
Data:

Value 4
Name: State
Type: REG_DWORD
Data: 0x1

Value 5
Name: SwitchPort

Type: REG_SZ
Data: n2

Value 6
Name: NodeNumber
Type: REG_DWORD
Data: 0x1

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\5\NodeList\Node2
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Value 0
Name: Name
Type: REG_SZ
Data: CLIENT6

Value 1
Name: NICName
Type: REG_SZ
Data: nic0

Value 2
Name: Address
Type: REG_SZ
Data: 0090FA001C7A

Value 3
Name: MediaType
Type: REG_SZ
Data:

Value 4
Name: State
Type: REG_DWORD
Data: 0x1

Value 5
Name: SwitchPort
Type: REG_SZ
Data: n1

Value 6
Name: NodeNumber
Type: REG_DWORD
Data: 0x2

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\6
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\6\BeginModify
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM
Value 0
Name: <NO NAME>

Type: REG_SZ
Data: 10:49:55

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\6\Fabric
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\6\LastModified
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM
Value 0
Name: <NO NAME>
Type: REG_SZ
Data: 10:49:55

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\6\NodeList
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\6\NodeList\Node0
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM
Value 0
Name: Name
Type: REG_SZ
Data: MV-LE030P1

Value 1
Name: NICName
Type: REG_SZ
Data: gnivia6

Value 2
Name: Address
Type: REG_SZ
Data: 0090FA001C15

Value 3
Name: MediaType
Type: REG_SZ
Data:

Value 4
Name: State
Type: REG_DWORD
Data: 0x1

Value 5
Name: SwitchPort
Type: REG_SZ
Data: n1

Value 6

Name: NodeNumber
Type: REG_DWORD
Data: 0x2

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\6\NodeList\Node1
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Value 0
Name: Name
Type: REG_SZ
Data: CLIENT3

Value 1
Name: NICName
Type: REG_SZ
Data: nic0

Value 2
Name: Address
Type: REG_SZ
Data: 0090FA00136E

Value 3
Name: MediaType
Type: REG_SZ
Data:

Value 4
Name: State
Type: REG_DWORD
Data: 0x1

Value 5
Name: SwitchPort
Type: REG_SZ
Data: n2

Value 6
Name: NodeNumber
Type: REG_DWORD
Data: 0x1

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\7
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\7\BeginModify
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Value 0
Name: <NO NAME>
Type: REG_SZ
Data: 10:49:54

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\7\Fabric
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\7\LastModified
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM
Value 0
Name: <NO NAME>
Type: REG_SZ
Data: 10:49:54

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\7\NodeList
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\7\NodeList\Node0
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM
Value 0
Name: Name
Type: REG_SZ
Data: MV-LE030P1

Value 1
Name: NICName
Type: REG_SZ
Data: gnivia7

Value 2
Name: Address
Type: REG_SZ
Data: 0090FA001C5D

Value 3
Name: MediaType
Type: REG_SZ
Data:

Value 4
Name: State
Type: REG_DWORD
Data: 0x1

Value 5
Name: SwitchPort
Type: REG_SZ
Data: n1

Value 6
Name: NodeNumber
Type: REG_DWORD
Data: 0x2

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\7\NodeList\Node1
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Value 0
Name: Name
Type: REG_SZ
Data: CLIENT2

Value 1
Name: NICName
Type: REG_SZ
Data: nic0

Value 2
Name: Address
Type: REG_SZ
Data: 0090FA001420

Value 3
Name: MediaType
Type: REG_SZ
Data:

Value 4
Name: State
Type: REG_DWORD
Data: 0x1

Value 5
Name: SwitchPort
Type: REG_SZ
Data: n2

Value 6
Name: NodeNumber
Type: REG_DWORD
Data: 0x1

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\LastModified
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:49 AM

Value 0
Name: <NO NAME>
Type: REG_SZ
Data: 10:49:53

Software\Microsoft\Microsoft SQL Server

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server
Class Name: <NO CLASS>
Last Write Time: 10/26/2001 - 10:23 AM

```

Value 0
  Name: SsrpActiveServer
  Type: REG_SZ
  Data: MSSQLServer

Value 1
  Name: InstalledInstances
  Type: REG_MULTI_SZ
  Data: MSSQLSERVER

Value 2
  Name: SqlMdacRegRefCount
  Type: REG_DWORD
  Data: 0x1

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\8.00.000
Class Name: <NO CLASS>
Last Write Time: 10/21/2001 - 10:52 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\80
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:43 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\80\MSSQLLicenseInfo
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:43 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\80\MSSQLLicenseInfo\MSSQL8.00
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:43 AM
Value 0
  Name: FlipAllow
  Type: REG_DWORD
  Data: 0x1

Value 1
  Name: ConcurrentLimit
  Type: REG_DWORD
  Data: 0xa

Value 2
  Name: DisplayName
  Type: REG_SZ
  Data: SQL Server 2000

Value 3
  Name: FamilyDisplayName
  Type: REG_SZ
  Data: Microsoft SQL Server

Value 4
  Name: Mode
  Type: REG_DWORD
  Data: 0x0

```

```

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\80\Registration
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:43 AM
Value 0
  Name: DigitalProductID
  Type: REG_BINARY
  Data:
00000000 a4 00 00 00 03 00 00 00 - 35 33 39 33 34 2d 30 30
00000010 30 2d 30 30 30 30 39 - 35 2d 30 35 31 30 30 00 0-0000095-
05100.
00000020 0a 00 00 00 38 31 30 2d - 30 30 35 36 30 00 00 00 ...810-
00560...
00000030 00 00 00 00 12 00 00 00 - 00 a6 0a 0f 5e 9d 9e ef
.....|.^.i
00000040 0d 05 00 00 00 00 00 00 - 6d b6 d2 3b 28 d5 0c 00
.....m0;(õ..
00000050 00 00 00 00 00 00 00 00 - 00 00 00 00 00 00 00 00
.....
00000060 00 00 00 00 00 00 00 00 - 31 33 35 32 38 00 00 00
.....13528...
00000070 00 00 00 00 ed 0d 00 00 - dd 6e 49 40 00 08 00 00
....i...ŸnI@....
00000080 ff 1a 00 00 00 00 00 00 - 00 00 00 00 00 00 00 00
ÿ.....
00000090 00 00 00 00 00 00 00 00 - 00 00 00 00 00 00 00 00
.....
000000a0 d6 5b 77 c4
Ö[wÄ

Value 1
  Name: ProductID
  Type: REG_SZ
  Data: 53934-000-0000095-05100

Value 2
  Name: CD_KEY
  Type: REG_SZ
  Data: BC6JV-WVYQ9-PC8H6-W938R-8BWJD

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\80\Replication
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:43 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\80\Replication\MergeReplicationProvider
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:45 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\80\Replication\MergeReplicationProvider\MsJet
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:45 AM
Value 0
  Name: <NO NAME>

```

Type: REG_SZ
 Data: {f159cf30-0db4-11d1-b272-00aa00b8de95}

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\80\Tools
 Class Name: <NO CLASS>
 Last Write Time: 10/29/2001 - 8:47 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\80\Tools\ClientSetup
 Class Name: <NO CLASS>
 Last Write Time: 10/29/2001 - 8:43 AM

Value 0
 Name: SQLPath
 Type: REG_SZ
 Data: C:\Program Files\Microsoft SQL Server\80\Tools

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\80\Tools\ClientSetup\CurrentVersion
 Class Name: <NO CLASS>
 Last Write Time: 10/29/2001 - 8:43 AM

Value 0
 Name: CurrentVersion
 Type: REG_SZ
 Data: 8.00.194

Value 1
 Name: Language
 Type: REG_DWORD
 Data: 0x409

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\80\Tools\Help
 Class Name: <NO CLASS>
 Last Write Time: 10/29/2001 - 8:43 AM

Value 0
 Name: RefCount
 Type: REG_DWORD
 Data: 0x1

Value 1
 Name: HelpFile
 Type: REG_SZ
 Data: C:\Program Files\Microsoft SQL Server\80\Tools\Books\SQL80.col

Value 2
 Name: HelpLCID
 Type: REG_SZ
 Data: 1033

Value 3
 Name: HelpPath
 Type: REG_SZ
 Data: C:\Program Files\Microsoft SQL Server\80\Tools\Books

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\80\Tools\Service Manager
 Class Name: <NO CLASS>
 Last Write Time: 10/29/2001 - 8:43 AM

Value 0
 Name: Action Verify
 Type: REG_DWORD
 Data: 0x0

Value 1
 Name: Default
 Type: REG_SZ
 Data: MSSQLSERVER

Value 2
 Name: Remote
 Type: REG_DWORD
 Data: 0x1

Value 3
 Name: Services
 Type: REG_MULTI_SZ
 Data: MSDTC

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\80\Tools\SQLLEW
 Class Name: <NO CLASS>
 Last Write Time: 10/29/2001 - 8:43 AM

Value 0
 Name: CustomizableAlertBaseURL
 Type: REG_SZ
 Data:

Value 1
 Name: CustomizableAlertDefaultButtonText
 Type: REG_SZ
 Data: &Send Feedback

Value 2
 Name: CustomizableAlertDefaultBtnShortText
 Type: REG_SZ
 Data: Feedbac&k

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\80\Tools\SQLLEW\Replication
 Class Name: <NO CLASS>
 Last Write Time: 10/29/2001 - 8:43 AM

Value 0
 Name: PerfmonFile
 Type: REG_SZ
 Data: C:\Program Files\Microsoft SQL Server\80\Tools\BINN\REPLMON.PMC

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\80\Tools\SQLLEW\Wizards

Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:43 AM
Value 0
Name: Web Assistant
Type: REG_SZ
Data: C:\Program Files\Microsoft SQL
Server\80\Tools\BINN\semwebwz.DLL^WebWizardEntry

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\80\Tools\Tracking
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:43 AM
Value 0
Name: {E07FDDA8-5A21-11d2-9DAD-00C04F79D434}
Type: REG_DWORD
Data: 0x1

Value 1
Name: {E07FDDA9-5A21-11d2-9DAD-00C04F79D434}
Type: REG_DWORD
Data: 0x1

Value 2
Name: {E07FDDAA-5A21-11d2-9DAD-00C04F79D434}
Type: REG_DWORD
Data: 0x1

Value 3
Name: {E07FDDAC-5A21-11d2-9DAD-00C04F79D434}
Type: REG_DWORD
Data: 0x1

Value 4
Name: {E07FDDAD-5A21-11d2-9DAD-00C04F79D434}
Type: REG_DWORD
Data: 0x1

Value 5
Name: {E07FDDAF-5A21-11d2-9DAD-00C04F79D434}
Type: REG_DWORD
Data: 0x1

Value 6
Name: {E07FDDBE-5A21-11d2-9DAD-00C04F79D434}
Type: REG_DWORD
Data: 0x1

Value 7
Name: {E07FDDBF-5A21-11d2-9DAD-00C04F79D434}
Type: REG_DWORD
Data: 0x1

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\80\Tools\Tracking\Shortcuts
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:43 AM
Value 0

Name: Enterprise Manager
Type: REG_DWORD
Data: 0x1

Value 1
Name: Query Analyzer
Type: REG_DWORD
Data: 0x1

Value 2
Name: Profiler
Type: REG_DWORD
Data: 0x1

Value 3
Name: Client Network Utility
Type: REG_DWORD
Data: 0x1

Value 4
Name: Configure SQL XML Support in IIS
Type: REG_DWORD
Data: 0x1

Value 5
Name: Import and Export Data
Type: REG_DWORD
Data: 0x1

Value 6
Name: Service Manager
Type: REG_DWORD
Data: 0x1

Value 7
Name: Server Network Utility
Type: REG_DWORD
Data: 0x1

Value 8
Name: Books Online
Type: REG_DWORD
Data: 0x1

Software\Microsoft\MSSQLServer

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer
Class Name: <NO CLASS>
Last Write Time: 10/21/2001 - 10:54 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client
Class Name: <NO CLASS>
Last Write Time: 10/21/2001 - 10:54 AM
Value 0
Name: SharedMemoryOn

Type: REG_DWORD
Data: 0x1

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\ConnectTo
Class Name: <NO CLASS>
Last Write Time: 10/21/2001 - 10:53 AM
Value 0
Name: DSQUERY
Type: REG_SZ
Data: DBNETLIB

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\DB-Lib
Class Name: <NO CLASS>
Last Write Time: 10/21/2001 - 10:54 AM
Value 0
Name: AutoAnsiToOem
Type: REG_SZ
Data: ON

Value 1
Name: UseIntlSettings
Type: REG_SZ
Data: ON

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\SuperSocketNetLib
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:38 AM
Value 0
Name: ProtocolOrder
Type: REG_MULTI_SZ
Data: np
tcp

Value 1
Name: Encrypt
Type: REG_DWORD
Data: 0x0

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\SuperSocketNetLib
\Np
Class Name: <NO CLASS>
Last Write Time: 10/21/2001 - 10:54 AM
Value 0
Name: DefaultPipe
Type: REG_SZ
Data: sql\query

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\SuperSocketNetLib
\Tcp

Class Name: <NO CLASS>
Last Write Time: 10/21/2001 - 10:54 AM
Value 0
Name: DefaultPort
Type: REG_DWORD
Data: 0x599

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\TDS
Class Name: <NO CLASS>
Last Write Time: 10/22/2001 - 5:22 PM
Value 0
Name: MV-LE030P1
Type: REG_SZ
Data: 7.0

Value 1
Name: (local)
Type: REG_SZ
Data: 7.0

Value 2
Name: <NO NAME>
Type: REG_SZ
Data: 7.0

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\MSSQLServer
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:43 AM
Value 0
Name: ListenOn
Type: REG_MULTI_SZ
Data: SSMSSH70
SSNETLIB

Value 1
Name: ResourceMgrID
Type: REG_SZ
Data: {F771DB6C-60A3-4A86-8795-83D0101B797A}

Value 2
Name: SetHostName
Type: REG_DWORD
Data: 0x0

Value 3
Name: AuditLevel
Type: REG_DWORD
Data: 0x0

Value 4
Name: LoginMode
Type: REG_DWORD
Data: 0x2

Value 5

```

Name: Tapeloadwaittime
Type: REG_DWORD
Data: 0xffffffff

Value 6
Name: DefaultLogin
Type: REG_SZ
Data: guest

Value 7
Name: Map_
Type: REG_SZ
Data: \

Value 8
Name: Map#
Type: REG_SZ
Data: -

Value 9
Name: Map$
Type: REG_SZ
Data:

Value 10
Name: BackupDirectory
Type: REG_SZ
Data: c:\sql80\MSSQL\BACKUP

Value 11
Name: DefaultDomain
Type: REG_SZ
Data: MV-LE030P1

Value 12
Name: DefaultCollationName
Type: REG_SZ
Data: Latin1_General_BIN

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\MSSQLServer\CurrentVersion
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:45 AM
Value 0
Name: checksum
Type: REG_BINARY
Data:
00000000 37 39 32 32 63 31 35 38 - 61 65 37 64 34 63 64 37
7922c158ae7d4cd7
00000010 35 30 64 61 30 33 34 62 - 36 30 31 35 62 65 36 65
50da034b6015be6e
00000020 30 65 33 62 35 66 33 30 - 62 31 66 32 61 61 32 37
0e3b5f30b1f2aa27
00000030 61 35 61 30 39 34 66 32 - 62 35 38 65 31 39 33 38
a5a094f2b58e1938
00000040 66 66 30 65 64 61 33 63 - 66 64 63 39 32 61 39 32
ff0eda3cfdc92a92

```

```

00000050 39 36 33 36 37 64 65 62 - 31 61 66 30 66 37 64 30
96367deb1af0f7d0
00000060 38 34 30 64 37 39 33 62 - 30 62 62 61 35 61 65 37
840d793b0bba5ae7
00000070 62 62 36 36 31 36 61 38 - 36 33 37 30 39 30 64 63
bb6616a8637090dc
00000080 31 38 39 30 33 33 61 37 - 65 35 36 30 35 64 38 34
189033a7e5605d84
00000090 61 64 62 35 61 30 65 33 - 31 35 35 30 35 32 66 66
adb5a0e3155052ff
000000a0 00

```

```

Value 1
Name: RegisteredOwner
Type: REG_SZ
Data: TRACKS

```

```

Value 2
Name: SerialNumber
Type: REG_DWORD
Data: 0x82900040

```

```

Value 3
Name: CurrentVersion
Type: REG_SZ
Data: 8.00.194

```

```

Value 4
Name: Language
Type: REG_DWORD
Data: 0x409

```

```

Value 5
Name: CSDVersionNumber
Type: REG_DWORD
Data: 0x100

```

```

Value 6
Name: CSDVersion
Type: REG_SZ
Data: 8.00.384

```

```

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\MSSQLServer\Parameters
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:43 AM
Value 0
Name: SQLArg0
Type: REG_SZ
Data: -dc:\sql80\MSSQL\data\master.mdf

```

```

Value 1
Name: SQLArg1
Type: REG_SZ
Data: -ec:\sql80\MSSQL\log\ERRORLOG

```

```

Value 2
Name: SQLArg2

```

Type: REG_SZ
Data: -lc:\sql80\MSSQL\data\mastlog.ldf

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\MSSQLServer\RPCNetLib
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:43 AM
Value 0
Name: Security
Type: REG_SZ
Data:

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\MSSQLServer\SuperSocketNetLib
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:43 AM
Value 0
Name: ProtocolList
Type: REG_MULTI_SZ
Data: np
via

Value 1
Name: Encrypt
Type: REG_DWORD
Data: 0x0

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\MSSQLServer\SuperSocketNetLib\Np
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:43 AM
Value 0
Name: PipeName
Type: REG_SZ
Data: \\.\pipe\sql\query

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\MSSQLServer\SuperSocketNetLib\Tcp
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:43 AM
Value 0
Name: TcpHideFlag
Type: REG_DWORD
Data: 0x0

Value 1
Name: TcpPort
Type: REG_SZ
Data: 1433

Value 2
Name: TcpDynamicPorts

Type: REG_SZ
Data:

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\MSSQLServer\SuperSocketNetLib\VIA
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:43 AM
Value 0
Name: Vendor
Type: REG_SZ
Data: Giganet

Value 1
Name: ListenInfo
Type: REG_SZ
Data: 0:1435[0x000f0000],1:1434[0x000f0000],2:1423[0xf0000000],3:1431[0x000000f],4:1422[0x0f000000],5:1421[0x0f000000],6:1433[0x00000f00],7:1432[0x000000f0]

Value 2
Name: RecognizedVendors
Type: REG_MULTI_SZ
Data: Giganet
ServerNet II

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Providers
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:45 AM
Value 0
Name: AllowInProcess
Type: REG_DWORD
Data: 0x1

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Providers\ADSDSOObject
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:45 AM
Value 0
Name: AllowInProcess
Type: REG_DWORD
Data: 0x1

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Providers\DB2OLEDB
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:45 AM
Value 0
Name: AllowInProcess
Type: REG_DWORD
Data: 0x1

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Providers\Microsoft.Jet.
OLEDB.4.0
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:45 AM
Value 0
Name: AllowInProcess
Type: REG_DWORD
Data: 0x1

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Providers\MSDAORA
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:45 AM
Value 0
Name: AllowInProcess
Type: REG_DWORD
Data: 0x1

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Providers\MSDASQL
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:45 AM
Value 0
Name: AllowInProcess
Type: REG_DWORD
Data: 0x1

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Providers\MSIDX
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:45 AM
Value 0
Name: AllowInProcess
Type: REG_DWORD
Data: 0x1

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Providers\MSQLImpProv
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:45 AM
Value 0
Name: AllowInProcess
Type: REG_DWORD
Data: 0x1

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Providers\MSSEARCHSQL
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:45 AM
Value 0
Name: AllowInProcess
Type: REG_DWORD
Data: 0x1

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Providers\SQLOLEDB
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:45 AM
Value 0
Name: AllowInProcess
Type: REG_DWORD
Data: 0x1

Value 1
Name: DisallowAdhocAccess
Type: REG_DWORD
Data: 0x0

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Setup
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:47 AM
Value 0
Name: SQLPath
Type: REG_SZ
Data: c:\sql80\MSSQL

Value 1
Name: SQLDataRoot
Type: REG_SZ
Data: c:\sql80\MSSQL

Value 2
Name: SourcePath
Type: REG_SZ
Data: C:\sql2ksp1

Value 3
Name: firststart
Type: REG_DWORD
Data: 0x0

Value 4
Name: Scripts
Type: REG_MULTI_SZ
Data: spl_serv_uni.sql
80spl-tools.sql
spl_repl.sql

sp_vupgrade_replication:@login=N'sa',@password=N'',@ver_old=194

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\SQLServerAgent
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:45 AM
Value 0
Name: JobHistoryMaxRowsPerJob
Type: REG_DWORD
Data: 0x64

Value 1	Name: RestartServer	Type: REG_DWORD	Data: 0x1	Type: REG_SZ	Data: c:\sql80\MSSQL\BINN\SQLCMDSS.DLL,NULL,CmdExecStart,CmdEvent,CmdExecStop,10
Value 2	Name: DownloadedMaxRows	Type: REG_DWORD	Data: 0x64	Value 1	Name: Snapshot
Value 3	Name: JobHistoryMaxRows	Type: REG_DWORD	Data: 0x3e8	Type: REG_SZ	Data: c:\sql80\MSSQL\BINN\SQLREPS.DLL,C:\Program
Value 4	Name: ErrorLoggingLevel	Type: REG_DWORD	Data: 0x3	Data: Files\Microsoft SQL	Server\80\COM\SNAPSHOT.EXE,ReplStart,ReplEvent,ReplStop,100
Value 5	Name: NonAlertableErrors	Type: REG_SZ	Data: 1204,4002	Value 2	Name: Distribution
Value 6	Name: MSXServerName	Type: REG_SZ	Data:	Type: REG_SZ	Data: c:\sql80\MSSQL\BINN\SQLREPS.DLL,C:\Program
Value 7	Name: ServerHost	Type: REG_SZ	Data:	Data: Files\Microsoft SQL	Server\80\COM\DISTRI.B.EXE,ReplStart,ReplEvent,ReplStop,100
Value 8	Name: WorkingDirectory	Type: REG_SZ	Data: c:\sql80\MSSQL\JOBS	Value 3	Name: Merge
Value 9	Name: ErrorLogFile	Type: REG_SZ	Data: c:\sql80\MSSQL\LOG\SQLAGENT.OUT	Type: REG_SZ	Data: c:\sql80\MSSQL\BINN\SQLREPS.DLL,C:\Program
Value 10	Name: SysAdminOnly	Type: REG_DWORD	Data: 0x1	Data: Files\Microsoft SQL	Server\80\COM\REPLMERG.EXE,ReplStart,ReplEvent,ReplStop,100
Key Name:	HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\SQLServerAgent\Subsystems			Value 4	Name: ActiveScripting
Class Name:	<NO CLASS>			Type: REG_SZ	Data: c:\sql80\MSSQL\BINN\SQLATXSS.DLL,NULL,ActiveScriptStart,ActiveScriptEvent,ActiveScriptStop,10
Last Write Time:	10/29/2001 - 8:45 AM			Value 5	Name: QueueReader
Value 0	Name: CmdExec	Type: REG_SZ	Data:	Type: REG_SZ	Data: c:\sql80\MSSQL\BINN\SQLREPS.DLL,C:\Program
				Data: Files\Microsoft SQL	Server\80\COM\QRDRSVC.EXE,ReplStart,ReplEvent,ReplStop,100
				Value 6	Name: LogReader
				Type: REG_SZ	Data: c:\sql80\MSSQL\BINN\SQLREPS.DLL,C:\Program
				Data: Files\Microsoft SQL	Server\80\COM\LOGREAD.EXE,ReplStart,ReplEvent,ReplStop,25
				Key Name:	HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Tracking
				Class Name:	<NO CLASS>
				Last Write Time:	10/29/2001 - 8:45 AM
				Value 0	Name: {E07FDDA4-5A21-11d2-9DAD-00C04F79D434}
				Type: REG_SZ	Data:
				Value 1	Name: {6DC86044-0C71-11d3-9E18-00C04F79D434}
				Type: REG_SZ	Data:

```

Data:
Value 2
  Name: {E07FDDA8-5A21-11d2-9DAD-00C04F79D434}
  Type: REG_SZ
  Data:
Value 3
  Name: {E07FDDA9-5A21-11d2-9DAD-00C04F79D434}
  Type: REG_SZ
  Data:
Value 4
  Name: {E07FDDAA-5A21-11d2-9DAD-00C04F79D434}
  Type: REG_SZ
  Data:
Value 5
  Name: {E07FDDAC-5A21-11d2-9DAD-00C04F79D434}
  Type: REG_SZ
  Data:
Value 6
  Name: {E07FDDAD-5A21-11d2-9DAD-00C04F79D434}
  Type: REG_SZ
  Data:
Value 7
  Name: {E07FDDAF-5A21-11d2-9DAD-00C04F79D434}
  Type: REG_SZ
  Data:
Value 8
  Name: {E07FDDBE-5A21-11d2-9DAD-00C04F79D434}
  Type: REG_SZ
  Data:
Value 9
  Name: {E07FDDC0-5A21-11d2-9DAD-00C04F79D434}
  Type: REG_SZ
  Data:
Value 10
  Name: {E07FDDBF-5A21-11d2-9DAD-00C04F79D434}
  Type: REG_SZ
  Data:

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Tracking\Shortcuts
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:45 AM
Value 0
  Name: Enterprise Manager
  Type: REG_SZ
  Data:
Value 1
  Name: Query Analyzer

```

```

Type: REG_SZ
Data:
Value 2
  Name: Profiler
  Type: REG_SZ
  Data:
Value 3
  Name: Client Network Utility
  Type: REG_SZ
  Data:
Value 4
  Name: Configure SQL XML Support in IIS
  Type: REG_SZ
  Data:
Value 5
  Name: Import and Export Data
  Type: REG_SZ
  Data:
Value 6
  Name: Service Manager
  Type: REG_SZ
  Data:
Value 7
  Name: Server Network Utility
  Type: REG_SZ
  Data:
Value 8
  Name: Books Online
  Type: REG_SZ
  Data:

```

CurrentControlSet\Control\Session Manager\I/O System

```

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Session Manager\I/O
System
Class Name: <NO CLASS>
Last Write Time: 10/19/2001 - 7:57 PM
Value 0
  Name: CountOperations
  Type: REG_DWORD
  Data: 0x0

```

CurrentControlSet\Services\Dasd

```

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Dasd
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:26 AM
Value 0
  Name:
  Type: REG_DWORD
  Data: 0x1
Value 1
  Name: Start
  Type: REG_DWORD
  Data: 0x0
Value 2
  Name: ErrorControl
  Type: REG_DWORD
  Data: 0x1
Value 3
  Name: ImagePath
  Type: REG_EXPAND_SZ
  Data: System32\DRIVERS\dasd.sys
Value 4
  Name: DisplayName
  Type: REG_SZ
  Data: Unisys DASD Driver v1.3.15

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Dasd\Parameters
Class Name: <NO CLASS>
Last Write Time: 10/19/2001 - 7:53 PM
Value 0
  Name: LogLevel
  Type: REG_DWORD
  Data: 0x2
Value 1
  Name: Direct
  Type: REG_DWORD
  Data: 0x1
Value 2
  Name: Path
  Type: REG_SZ
  Data: C:\WINDOWS

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Dasd\Security
Class Name: <NO CLASS>
Last Write Time: 10/19/2001 - 7:53 PM
Value 0
  Name: Security

```

```

Type: REG_BINARY
Data:
00000000 01 00 14 80 90 00 00 00 - 9c 00 00 00 14 00 00 00
.....
00000010 30 00 00 00 02 00 1c 00 - 01 00 00 00 02 80 14 00
0.....
00000020 ff 01 0f 00 01 01 00 00 - 00 00 00 01 00 00 00 00
ÿ.....
00000030 02 00 60 00 04 00 00 00 - 00 00 14 00 fd 01 02 00
ÿ.....ÿ...
00000040 01 01 00 00 00 00 00 05 - 12 00 00 00 00 00 18 00
.....ÿ...
00000050 ff 01 0f 00 01 02 00 00 - 00 00 00 05 20 00 00 00
ÿ.....
...
00000060 20 02 00 00 00 00 14 00 - 8d 01 02 00 01 01 00 00
.....
00000070 00 00 00 05 0b 00 00 00 - 00 00 18 00 fd 01 02 00
.....ÿ...
00000080 01 02 00 00 00 00 00 05 - 20 00 00 00 23 02 00 00
.....
...#...
00000090 01 01 00 00 00 00 00 05 - 12 00 00 00 01 01 00 00
.....
000000a0 00 00 00 05 12 00 00 00 -
.....

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Dasd\Enum
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:43 AM
Value 0
  Name: 0
  Type: REG_SZ
  Data: SCSI\Disk&Ven_DGC&Prod_RAID&Rev_10__\5&60ef60d&0&DASD00000000
Value 1
  Name: Count
  Type: REG_DWORD
  Data: 0x5e
Value 2
  Name: NextInstance
  Type: REG_DWORD
  Data: 0x5e
Value 3
  Name: 1
  Type: REG_SZ
  Data: SCSI\Disk&Ven_DGC&Prod_RAID&Rev_10__\5&60ef60d&0&DASD00000001
Value 4
  Name: 2
  Type: REG_SZ
  Data: SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0__\5&213b4095&0&DASD00010002
Value 5
  Name: 3

```

Type: REG_SZ
 Data: SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&213b4095&0&DASD00010003

Value 6
 Name: 4
 Type: REG_SZ
 Data: SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&213b4095&0&DASD00010004

Value 7
 Name: 5
 Type: REG_SZ
 Data: SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&213b4095&0&DASD00010005

Value 8
 Name: 6
 Type: REG_SZ
 Data: SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&ad29efd&0&DASD00020000

Value 9
 Name: 7
 Type: REG_SZ
 Data: SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&ad29efd&0&DASD00020001

Value 10
 Name: 8
 Type: REG_SZ
 Data: SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&ad29efd&0&DASD00020002

Value 11
 Name: 9
 Type: REG_SZ
 Data: SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&ad29efd&0&DASD00020003

Value 12
 Name: 10
 Type: REG_SZ
 Data: SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&3b512c20&0&DASD00030004

Value 13
 Name: 11
 Type: REG_SZ
 Data: SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&3b512c20&0&DASD00030005

Value 14
 Name: 12
 Type: REG_SZ
 Data: SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&3b512c20&0&DASD00030006

Value 15

Name: 13
 Type: REG_SZ
 Data: SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&3b512c20&0&DASD00030007

Value 16
 Name: 14
 Type: REG_SZ
 Data: SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&24f53ab5&0&DASD00040000

Value 17
 Name: 15
 Type: REG_SZ
 Data: SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&24f53ab5&0&DASD00040001

Value 18
 Name: 16
 Type: REG_SZ
 Data: SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&24f53ab5&0&DASD00040002

Value 19
 Name: 17
 Type: REG_SZ
 Data: SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&24f53ab5&0&DASD00040003

Value 20
 Name: 18
 Type: REG_SZ
 Data: SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1aa36f4a&0&DASD00050004

Value 21
 Name: 19
 Type: REG_SZ
 Data: SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1aa36f4a&0&DASD00050005

Value 22
 Name: 20
 Type: REG_SZ
 Data: SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1aa36f4a&0&DASD00050006

Value 23
 Name: 21
 Type: REG_SZ
 Data: SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1aa36f4a&0&DASD00050007

Value 24
 Name: 22
 Type: REG_SZ
 Data: SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&6ec533&0&DASD00060000

Value 25
 Name: 23
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&6ec533&0&DASD00060001

Value 26
 Name: 24
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&6ec533&0&DASD00060002

Value 27
 Name: 25
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&6ec533&0&DASD00060003

Value 28
 Name: 26
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&e294ad9&0&DASD00070004

Value 29
 Name: 27
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&e294ad9&0&DASD00070005

Value 30
 Name: 28
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&e294ad9&0&DASD00070006

Value 31
 Name: 29
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&e294ad9&0&DASD00070007

Value 32
 Name: 30
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&36d5a68d&0&DASD00080000

Value 33
 Name: 31
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&36d5a68d&0&DASD00080001

Value 34
 Name: 32
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&36d5a68d&0&DASD00080002

Value 35
 Name: 33
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&36d5a68d&0&DASD00080003

Value 36
 Name: 34
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&3780b30a&0&DASD00090004

Value 37
 Name: 35
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&3780b30a&0&DASD00090005

Value 38
 Name: 36
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&3780b30a&0&DASD00090006

Value 39
 Name: 37
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&3780b30a&0&DASD00090007

Value 40
 Name: 38
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&17844904&0&DASD000a0000

Value 41
 Name: 39
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&17844904&0&DASD000a0001

Value 42
 Name: 40
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&17844904&0&DASD000a0002

Value 43
 Name: 41
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&17844904&0&DASD000a0003

Value 44
 Name: 42
 Type: REG_SZ

Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1654829d&0&DASD000b0004

Value 45
 Name: 43
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1654829d&0&DASD000b0005

Value 46
 Name: 44
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1654829d&0&DASD000b0006

Value 47
 Name: 45
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1654829d&0&DASD000b0007

Value 48
 Name: 46
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&179cbaec&0&DASD000c0000

Value 49
 Name: 47
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&179cbaec&0&DASD000c0001

Value 50
 Name: 48
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&179cbaec&0&DASD000c0002

Value 51
 Name: 49
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&179cbaec&0&DASD000c0003

Value 52
 Name: 50
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1c168788&0&DASD000d0004

Value 53
 Name: 51
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1c168788&0&DASD000d0005

Value 54
 Name: 52

Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1c168788&0&DASD000d0006

Value 55
 Name: 53
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1c168788&0&DASD000d0007

Value 56
 Name: 54
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&2ddca9e0&0&DASD000e0000

Value 57
 Name: 55
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&2ddca9e0&0&DASD000e0001

Value 58
 Name: 56
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&2ddca9e0&0&DASD000e0002

Value 59
 Name: 57
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&2ddca9e0&0&DASD000e0003

Value 60
 Name: 58
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&34cb3ec0&0&DASD000f0004

Value 61
 Name: 59
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&34cb3ec0&0&DASD000f0005

Value 62
 Name: 60
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&34cb3ec0&0&DASD000f0006

Value 63
 Name: 61
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&34cb3ec0&0&DASD000f0007

Value 64

Name: 62
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&5831bac&0&DASD00100000

Value 65
Name: 63
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&5831bac&0&DASD00100001

Value 66
Name: 64
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&5831bac&0&DASD00100002

Value 67
Name: 65
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&5831bac&0&DASD00100003

Value 68
Name: 66
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&2fec7d27&0&DASD00110004

Value 69
Name: 67
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&2fec7d27&0&DASD00110005

Value 70
Name: 68
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&2fec7d27&0&DASD00110006

Value 71
Name: 69
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&2fec7d27&0&DASD00110007

Value 72
Name: 70
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1155b2b4&0&DASD00120000

Value 73
Name: 71
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1155b2b4&0&DASD00120001

Value 74
Name: 72
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1155b2b4&0&DASD00120002

Value 75
Name: 73
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1155b2b4&0&DASD00120003

Value 76
Name: 74
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&12a2ac15&0&DASD00130004

Value 77
Name: 75
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&12a2ac15&0&DASD00130005

Value 78
Name: 76
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&12a2ac15&0&DASD00130006

Value 79
Name: 77
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&12a2ac15&0&DASD00130007

Value 80
Name: 78
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&2e2169fa&0&DASD00140000

Value 81
Name: 79
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&2e2169fa&0&DASD00140001

Value 82
Name: 80
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&2e2169fa&0&DASD00140002

Value 83
Name: 81
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&2e2169fa&0&DASD00140003

Value 84
 Name: 82
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&187f1edc&0&DASD00150004

Value 85
 Name: 83
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&187f1edc&0&DASD00150005

Value 86
 Name: 84
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&187f1edc&0&DASD00150006

Value 87
 Name: 85
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&187f1edc&0&DASD00150007

Value 88
 Name: 86
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&30fd3e66&0&DASD00160000

Value 89
 Name: 87
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&30fd3e66&0&DASD00160001

Value 90
 Name: 88
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&30fd3e66&0&DASD00160002

Value 91
 Name: 89
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&30fd3e66&0&DASD00160003

Value 92
 Name: 90
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&14b7c5a0&0&DASD00170004

Value 93
 Name: 91
 Type: REG_SZ

Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&14b7c5a0&0&DASD00170005

Value 94
 Name: 92
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&14b7c5a0&0&DASD00170006

Value 95
 Name: 93
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&14b7c5a0&0&DASD00170007

CurrentControlSet\Services\GniConMgr

Key Name:
 HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\GniConMgr
 Class Name: <NO CLASS>
 Last Write Time: 10/30/2001 - 10:23 AM

Value 0
 Name: Type
 Type: REG_DWORD
 Data: 0x10

Value 1
 Name: Start
 Type: REG_DWORD
 Data: 0x2

Value 2
 Name: ErrorControl
 Type: REG_DWORD
 Data: 0x1

Value 3
 Name: ImagePath
 Type: REG_EXPAND_SZ
 Data: %SystemRoot%\System32\GnConMgr.exe

Value 4
 Name: DisplayName
 Type: REG_SZ
 Data: cLAN Connection Manager

Value 5
 Name: Group
 Type: REG_SZ
 Data: TDI

Value 6
 Name: DependOnService
 Type: REG_MULTI_SZ
 Data: GniVIA

Value 7
Name: DependOnGroup
Type: REG_MULTI_SZ
Data:

Value 8
Name: ObjectName
Type: REG_SZ
Data: LocalSystem

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\GniConMgr\Parameters
Class Name: <NO CLASS>
Last Write Time: 10/21/2001 - 12:27 PM

Value 0
Name: NicName
Type: REG_SZ
Data: GniVIA

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\GniConMgr\Security
Class Name: <NO CLASS>
Last Write Time: 10/21/2001 - 12:27 PM

Value 0
Name: Security
Type: REG_BINARY
Data:
00000000 01 00 14 80 90 00 00 00 - 9c 00 00 00 14 00 00 00
.....
00000010 30 00 00 00 02 00 1c 00 - 01 00 00 00 02 80 14 00
0.....
00000020 ff 01 0f 00 01 01 00 00 - 00 00 00 01 00 00 00 00
ÿ.....
00000030 02 00 60 00 04 00 00 00 - 00 00 14 00 fd 01 02 00
..`.....ÿ...
00000040 01 01 00 00 00 00 00 05 - 12 00 00 00 00 00 18 00
.....
00000050 ff 01 0f 00 01 02 00 00 - 00 00 00 05 20 00 00 00 ÿ.....
...
00000060 20 02 00 00 00 00 14 00 - 8d 01 02 00 01 01 00 00
.....
00000070 00 00 00 05 0b 00 00 00 - 00 00 18 00 fd 01 02 00
.....ÿ...
00000080 01 02 00 00 00 00 00 05 - 20 00 00 00 23 02 00 00
...#...
00000090 01 01 00 00 00 00 00 05 - 12 00 00 00 01 01 00 00
.....
000000a0 00 00 00 05 12 00 00 00 -

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\GniConMgr\Enum
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:23 AM
Value 0
Name: 0

Type: REG_SZ
Data: Root\LEGACY_GNICONMGR\0000

Value 1
Name: Count
Type: REG_DWORD
Data: 0x1

Value 2
Name: NextInstance
Type: REG_DWORD
Data: 0x1

CurrentControlSet\Services\GNINDIS

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\GNINDIS
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:23 AM

Value 0
Name: Type
Type: REG_DWORD
Data: 0x1

Value 1
Name: Start
Type: REG_DWORD
Data: 0x2

Value 2
Name: ErrorControl
Type: REG_DWORD
Data: 0x1

Value 3
Name: Tag
Type: REG_DWORD
Data: 0xe

Value 4
Name: ImagePath
Type: REG_EXPAND_SZ
Data: System32\DRIVERS\gnindis.sys

Value 5
Name: DisplayName
Type: REG_SZ
Data: cLAN NDIS Driver

Value 6
Name: Group
Type: REG_SZ
Data: NDIS

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\GNINDIS\Security
Class Name: <NO CLASS>
Last Write Time: 10/21/2001 - 12:27 PM
Value 0
Name: Security
Type: REG_BINARY
Data:
00000000 01 00 14 80 90 00 00 00 - 9c 00 00 00 14 00 00 00
.....
00000010 30 00 00 00 02 00 1c 00 - 01 00 00 00 02 80 14 00
0.....
00000020 ff 01 0f 00 01 01 00 00 - 00 00 00 01 00 00 00 00
ÿ.....
00000030 02 00 60 00 04 00 00 00 - 00 00 14 00 fd 01 02 00
..`.....ÿ...
00000040 01 01 00 00 00 00 00 05 - 12 00 00 00 00 00 18 00
.....
00000050 ff 01 0f 00 01 02 00 00 - 00 00 00 05 20 00 00 00 ÿ.....
...
00000060 20 02 00 00 00 00 14 00 - 8d 01 02 00 01 01 00 00
.....
00000070 00 00 00 05 0b 00 00 00 - 00 00 18 00 fd 01 02 00
.....ÿ...
00000080 01 02 00 00 00 00 00 05 - 20 00 00 00 23 02 00 00
...#...
00000090 01 01 00 00 00 00 00 05 - 12 00 00 00 01 01 00 00
.....
000000a0 00 00 00 05 12 00 00 00 -

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\GNINDIS\Enum
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:23 AM
Value 0
Name: 0
Type: REG_SZ
Data:
PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&29e81982&0&18

Value 1
Name: Count
Type: REG_DWORD
Data: 0x8

Value 2
Name: NextInstance
Type: REG_DWORD
Data: 0x8

Value 3
Name: 1
Type: REG_SZ
Data:
PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&e44f86d&0&18

Value 4
Name: 2

Type: REG_SZ
Data:
PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&ad74055&0&10
Value 5
Name: 3
Type: REG_SZ
Data:
PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&1b2f0ce&0&08
Value 6
Name: 4
Type: REG_SZ
Data:
PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&a985f74&0&08
Value 7
Name: 5
Type: REG_SZ
Data:
PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&300bc0be&0&18
Value 8
Name: 6
Type: REG_SZ
Data:
PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&2c9e08a6&0&18
Value 9
Name: 7
Type: REG_SZ
Data:
PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&23ff515d&0&18

CurrentControlSet\Services\GniVIA

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\GniVIA
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:23 AM
Value 0
Name: Type
Type: REG_DWORD
Data: 0x1
Value 1
Name: Start
Type: REG_DWORD
Data: 0x2
Value 2
Name: ErrorControl
Type: REG_DWORD
Data: 0x1

Value 3
 Name: Tag
 Type: REG_DWORD
 Data: 0x7

Value 4
 Name: ImagePath
 Type: REG_EXPAND_SZ
 Data: System32\DRIVERS\GniVIA.sys

Value 5
 Name: DisplayName
 Type: REG_SZ
 Data: cLAN VIA Driver

Value 6
 Name: Group
 Type: REG_SZ
 Data: PNP_TDI

Key Name:
 HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\GniVIA\Linkage
 Class Name: <NO CLASS>
 Last Write Time: 10/23/2001 - 10:49 AM

Value 0
 Name: Bind
 Type: REG_MULTI_SZ
 Data: \Device\{F901D0FB-B7DA-4050-A1E1-73825F0A4B9C}
 \Device\{5B1F3571-1FE2-46F5-84FC-F8814639AA02}
 \Device\{35060006-F042-4285-991D-ED76C5F587AF}
 \Device\{80D4476A-56C6-4719-9975-328DB0273938}
 \Device\{B4EEE6EC-2D6E-454A-ACFB-BEB4E391A25E}
 \Device\{6352DAF0-CB57-41D5-A22C-ED3B4D860D46}
 \Device\{F50E1EE4-2556-494C-A4A0-1A03589702ED}
 \Device\{404EB7B1-6888-49A6-AC85-1D7B3D49DBD2}

Value 1
 Name: Route
 Type: REG_MULTI_SZ
 Data: "{F901D0FB-B7DA-4050-A1E1-73825F0A4B9C}"
 "{5B1F3571-1FE2-46F5-84FC-F8814639AA02}"
 "{35060006-F042-4285-991D-ED76C5F587AF}"
 "{80D4476A-56C6-4719-9975-328DB0273938}"
 "{B4EEE6EC-2D6E-454A-ACFB-BEB4E391A25E}"
 "{6352DAF0-CB57-41D5-A22C-ED3B4D860D46}"
 "{F50E1EE4-2556-494C-A4A0-1A03589702ED}"
 "{404EB7B1-6888-49A6-AC85-1D7B3D49DBD2}"

Value 2
 Name: Export
 Type: REG_MULTI_SZ
 Data: \Device\GniVIA_{F901D0FB-B7DA-4050-A1E1-73825F0A4B9C}
 \Device\GniVIA_{5B1F3571-1FE2-46F5-84FC-F8814639AA02}
 \Device\GniVIA_{35060006-F042-4285-991D-ED76C5F587AF}
 \Device\GniVIA_{80D4476A-56C6-4719-9975-328DB0273938}
 \Device\GniVIA_{B4EEE6EC-2D6E-454A-ACFB-BEB4E391A25E}
 \Device\GniVIA_{6352DAF0-CB57-41D5-A22C-ED3B4D860D46}
 \Device\GniVIA_{F50E1EE4-2556-494C-A4A0-1A03589702ED}

\Device\GniVIA_{404EB7B1-6888-49A6-AC85-1D7B3D49DBD2}

Key Name:
 HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\GniVIA\Parameters
 Class Name: <NO CLASS>
 Last Write Time: 10/23/2001 - 10:49 AM

Value 0
 Name: <NO NAME>
 Type: REG_SZ
 Data:

Value 1
 Name: MaxNumberNics
 Type: REG_DWORD
 Data: 0x8

Key Name:
 HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\GniVIA\Performance
 Class Name: <NO CLASS>
 Last Write Time: 10/21/2001 - 12:29 PM

Value 0
 Name: Open
 Type: REG_SZ
 Data: OpenNicPerformanceData

Value 1
 Name: Close
 Type: REG_SZ
 Data: CloseNicPerformanceData

Value 2
 Name: Collect
 Type: REG_SZ
 Data: CollectNicPerformanceData

Value 3
 Name: Library
 Type: REG_SZ
 Data: gni_perf.dll

Value 4
 Name: PerfIniFile
 Type: REG_SZ
 Data: gni_perf.ini

Value 5
 Name: Last Counter
 Type: REG_DWORD
 Data: 0xab6

Value 6
 Name: Last Help
 Type: REG_DWORD
 Data: 0xab7

Value 7
 Name: First Counter

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Type:          REG_DWORD
Data:          0xa78

Value 8
Name:          First Help
Type:          REG_DWORD
Data:          0xa79

Value 9
Name:          WbemAdapFileSignature
Type:          REG_BINARY
Data:          00000000 72 b9 f5 07 e0 89 b7 ad - 6b a0 4e 41 53 fb b4 ba
r¹õ.â..-k NASŪ´°

Value 10
Name:          WbemAdapFileTime
Type:          REG_BINARY
Data:          00000000 d4 26 cb 73 35 37 c1 01 -                ô&Ës57Á.

Value 11
Name:          WbemAdapFileSize
Type:          REG_DWORD
Data:          0xc000

Value 12
Name:          WbemAdapStatus
Type:          REG_DWORD
Data:          0x0

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\GniVIA\Security
Class Name:    <NO CLASS>
Last Write Time: 10/21/2001 - 12:27 PM
Value 0
Name:          Security
Type:          REG_BINARY
Data:          00000000 01 00 14 80 90 00 00 00 - 9c 00 00 00 14 00 00 00
.....
00000010 30 00 00 00 02 00 1c 00 - 01 00 00 00 02 80 14 00
0.....
00000020 ff 01 0f 00 01 01 00 00 - 00 00 00 01 00 00 00 00
ÿ.....
00000030 02 00 60 00 04 00 00 00 - 00 00 14 00 fd 01 02 00
..`.....ÿ...
00000040 01 01 00 00 00 00 00 05 - 12 00 00 00 00 00 18 00
.....
00000050 ff 01 0f 00 01 02 00 00 - 00 00 00 05 20 00 00 00  ÿ.....
...
00000060 20 02 00 00 00 00 14 00 - 8d 01 02 00 01 01 00 00
.....
00000070 00 00 00 05 0b 00 00 00 - 00 00 18 00 fd 01 02 00
.....ÿ...
00000080 01 02 00 00 00 00 05 - 20 00 00 00 23 02 00 00  .....
...#...

```

```

00000090 01 01 00 00 00 00 00 05 - 12 00 00 00 01 01 00 00
.....
000000a0 00 00 00 05 12 00 00 00 - .....

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\GniVIA\Enum
Class Name:    <NO CLASS>
Last Write Time: 10/30/2001 - 10:23 AM
Value 0
Name:          0
Type:          REG_SZ
Data:          Root\LEGACY_GNIVIA\0000

Value 1
Name:          Count
Type:          REG_DWORD
Data:          0x1

Value 2
Name:          NextInstance
Type:          REG_DWORD
Data:          0x1

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CurrentControlSet\Services\i2oubbs

```

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\I2OUbbs
Class Name:    <NO CLASS>
Last Write Time: 10/30/2001 - 10:23 AM
Value 0
Name:          Type
Type:          REG_DWORD
Data:          0x1

Value 1
Name:          Start
Type:          REG_DWORD
Data:          0x0

Value 2
Name:          ErrorControl
Type:          REG_DWORD
Data:          0x1

Value 3
Name:          ImagePath
Type:          REG_EXPAND_SZ
Data:          System32\DRIVERS\i2oubbs.sys

Value 4
Name:          DisplayName
Type:          REG_SZ
Data:          Unisys Fibre Channel Driver v1.3.15

```

```

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\I20Ulbs\Parameters
Class Name: <NO CLASS>
Last Write Time: 10/24/2001 - 8:20 PM
Value 0
  Name: LogLevel
  Type: REG_DWORD
  Data: 0x2
Value 1
  Name: Path
  Type: REG_SZ
  Data: C:\WINDOWS
Value 2
  Name: XP
  Type: REG_DWORD
  Data: 0x1
Value 3
  Name: GenDisk
  Type: REG_DWORD
  Data: 0x0
Value 4
  Name: ScanReg
  Type: REG_DWORD
  Data: 0x1
Value 5
  Name: nopStartStopUnit
  Type: REG_DWORD
  Data: 0x0
Value 6
  Name: DownLoad
  Type: REG_DWORD
  Data: 0x0
Value 7
  Name: VA
  Type: REG_DWORD
  Data: 0x1
Value 8
  Name: DisablePullMessages
  Type: REG_DWORD
  Data: 0x0
Value 9
  Name: DisableOutboundOption
  Type: REG_DWORD
  Data: 0x0
Value 10
  Name: VA_More
  Type: REG_DWORD
  Data: 0x0

```

```

Value 11
  Name: DcpPri
  Type: REG_DWORD
  Data: 0x1
Value 12
  Name: PostListBatchSize
  Type: REG_DWORD
  Data: 0x1
Value 13
  Name: PostListBatchDelayMax
  Type: REG_DWORD
  Data: 0x0
Value 14
  Name: IIDelay
  Type: REG_DWORD
  Data: 0x0
Value 15
  Name: SepIIDelay
  Type: REG_DWORD
  Data: 0x20
Value 16
  Name: SepBusNum
  Type: REG_DWORD
  Data: 0xffffffff
Value 17
  Name: ProcessorGroupMask
  Type: REG_DWORD
  Data: 0x0
Value 18
  Name: DpcPri
  Type: REG_DWORD
  Data: 0x2
Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\I20Ulbs\Security
Class Name: <NO CLASS>
Last Write Time: 10/19/2001 - 7:51 PM
Value 0
  Name: Security
  Type: REG_BINARY
  Data:
00000000 01 00 14 80 90 00 00 00 - 9c 00 00 00 14 00 00 00
.....
00000010 30 00 00 00 02 00 1c 00 - 01 00 00 00 02 80 14 00
0.....
00000020 ff 01 0f 00 01 01 00 00 - 00 00 00 01 00 00 00 00
ÿ.....
00000030 02 00 60 00 04 00 00 00 - 00 00 14 00 fd 01 02 00
..`.....ÿ...
00000040 01 01 00 00 00 00 05 - 12 00 00 00 00 00 18 00
.....

```

```

00000050  ff 01 0f 00 01 02 00 00 - 00 00 00 05 20 00 00 00  ỳ.....
...
00000060  20 02 00 00 00 00 14 00 - 8d 01 02 00 01 01 00 00
.....
00000070  00 00 00 05 0b 00 00 00 - 00 00 18 00 fd 01 02 00
.....ỳ...
00000080  01 02 00 00 00 00 00 05 - 20 00 00 00 23 02 00 00  .....
...#...
00000090  01 01 00 00 00 00 00 05 - 12 00 00 00 01 01 00 00
.....
000000a0  00 00 00 05 12 00 00 00 - .....

```

```

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\I2OUbbs\Enum
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:23 AM
Value 0
  Name: 0
  Type: REG_SZ
  Data: PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&6ca15c9&0&4010

```

```

Value 1
  Name: Count
  Type: REG_DWORD
  Data: 0x18

```

```

Value 2
  Name: NextInstance
  Type: REG_DWORD
  Data: 0x18

```

```

Value 3
  Name: 1
  Type: REG_SZ
  Data: PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&1132ee93&0&4008

```

```

Value 4
  Name: 2
  Type: REG_SZ
  Data: PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&2aab4416&0&4008

```

```

Value 5
  Name: 3
  Type: REG_SZ
  Data: PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&8928022&0&4018

```

```

Value 6
  Name: 4
  Type: REG_SZ
  Data: PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&6afa766&0&4008

```

```

Value 7
  Name: 5

```

```

Type: REG_SZ
Data: PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&13747bce&0&4008
Value 8
  Name: 6
  Type: REG_SZ
  Data: PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&22f87bf1&0&4008
Value 9
  Name: 7
  Type: REG_SZ
  Data: PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&2c236eec&0&4000
Value 10
  Name: 8
  Type: REG_SZ
  Data: PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&230bbb3&0&4008
Value 11
  Name: 9
  Type: REG_SZ
  Data: PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&3562788&0&4008
Value 12
  Name: 10
  Type: REG_SZ
  Data: PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&372ecf6d&0&4018
Value 13
  Name: 11
  Type: REG_SZ
  Data: PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&de6f207&0&4008
Value 14
  Name: 12
  Type: REG_SZ
  Data: PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&3d39d8e&0&4000
Value 15
  Name: 13
  Type: REG_SZ
  Data: PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&17c46f4b&0&4008
Value 16
  Name: 14
  Type: REG_SZ
  Data: PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&360a088b&0&4010
Value 17

```

Name: 15
 Type: REG_SZ
 Data: PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&19ad16c8&0&4008

Value 18
 Name: 16
 Type: REG_SZ
 Data: PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&13078ee0&0&4008

Value 19
 Name: 17
 Type: REG_SZ
 Data: PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&22565e32&0&4008

Value 20
 Name: 18
 Type: REG_SZ
 Data: PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&2ec99f52&0&4000

Value 21
 Name: 19
 Type: REG_SZ
 Data: PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&18c2326&0&4008

Value 22
 Name: 20
 Type: REG_SZ
 Data: PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&f30bf4&0&4008

Value 23
 Name: 21
 Type: REG_SZ
 Data: PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&ad6b475&0&4000

Value 24
 Name: 22
 Type: REG_SZ
 Data: PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&edc3ee2&0&4008

Value 25
 Name: 23
 Type: REG_SZ
 Data: PCI\VEN_1011&DEV_1065&SUBSYS_C0FC1018&REV_04\4&39369b90&0&4008

CurrentControlSet\Services\MSSQLSERVER

Key Name:
 HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSSQLSERVER
 Class Name: <NO CLASS>
 Last Write Time: 10/30/2001 - 10:23 AM

Value 0
 Name: Type
 Type: REG_DWORD
 Data: 0x10

Value 1
 Name: Start
 Type: REG_DWORD
 Data: 0x3

Value 2
 Name: ErrorControl
 Type: REG_DWORD
 Data: 0x1

Value 3
 Name: ImagePath
 Type: REG_EXPAND_SZ
 Data: c:\sql80\MSSQL\bin\sqlservr.exe

Value 4
 Name: DisplayName
 Type: REG_SZ
 Data: MSSQLSERVER

Value 5
 Name: ObjectName
 Type: REG_SZ
 Data: LocalSystem

Key Name:
 HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSSQLSERVER\Linkage
 Class Name: <NO CLASS>
 Last Write Time: 10/29/2001 - 8:45 AM

Value 0
 Name: Export
 Type: REG_MULTI_SZ
 Data: MSSQLSERVER

Key Name:
 HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSSQLSERVER\Performance
 Class Name: <NO CLASS>
 Last Write Time: 10/29/2001 - 8:45 AM

Value 0
 Name: Library
 Type: REG_SZ
 Data: c:\sql80\MSSQL\BINN\SQLCTR80.DLL

Value 1


```

Name: Collect
Type: REG_SZ
Data: CollectSQLPerformanceData

Value 2
Name: Open
Type: REG_SZ
Data: OpenSQLPerformanceData

Value 3
Name: Close
Type: REG_SZ
Data: CloseSQLPerformanceData

Value 4
Name: PerfIniFile
Type: REG_SZ
Data: sqlctr.ini

Value 5
Name: Last Counter
Type: REG_DWORD
Data: 0xa76

Value 6
Name: Last Help
Type: REG_DWORD
Data: 0xa77

Value 7
Name: First Counter
Type: REG_DWORD
Data: 0x962

Value 8
Name: First Help
Type: REG_DWORD
Data: 0x963

Value 9
Name: WbemAdapFileSignature
Type: REG_BINARY
Data: 00000000 d6 a0 b9 c1 d1 85 78 63 - 4f 31 8b f2 18 51 1a 5d
Ö 'ÁÑ.xc01.ð.Q.]

Value 10
Name: WbemAdapFileTime
Type: REG_BINARY
Data: 00000000 96 4b 25 55 36 37 c1 01 - .K%U67Á.

Value 11
Name: WbemAdapFileSize
Type: REG_DWORD
Data: 0x803b

Value 12

```

```

Name: WbemAdapStatus
Type: REG_DWORD
Data: 0x0

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSSQLSERVER\Security
Class Name: <NO CLASS>
Last Write Time: 10/29/2001 - 8:45 AM
Value 0
Name: Security
Type: REG_BINARY
Data:
00000000 01 00 14 80 90 00 00 00 - 9c 00 00 00 14 00 00 00
.....
00000010 30 00 00 00 02 00 1c 00 - 01 00 00 00 02 80 14 00
0.....
00000020 ff 01 0f 00 01 01 00 00 - 00 00 00 01 00 00 00 00
ÿ.....
00000030 02 00 60 00 04 00 00 00 - 00 00 14 00 fd 01 02 00
..`.....ÿ...
00000040 01 01 00 00 00 00 00 05 - 12 00 00 00 00 00 18 00
.....
00000050 ff 01 0f 00 01 02 00 00 - 00 00 00 05 20 00 00 00
ÿ.....
...
00000060 20 02 00 00 00 00 14 00 - 8d 01 02 00 01 01 00 00
.....
00000070 00 00 00 05 0b 00 00 00 - 00 00 18 00 fd 01 02 00
.....ÿ...
00000080 01 02 00 00 00 00 05 - 20 00 00 00 23 02 00 00
...#...
00000090 01 01 00 00 00 00 05 - 12 00 00 00 01 01 00 00
.....
000000a0 00 00 00 05 12 00 00 00 -
.....

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSSQLSERVER\Enum
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:23 AM
Value 0
Name: 0
Type: REG_SZ
Data: Root\LEGACY_MSSQLSERVER\0000

Value 1
Name: Count
Type: REG_DWORD
Data: 0x1

Value 2
Name: NextInstance
Type: REG_DWORD
Data: 0x1

```

CurrentControlSet\Services\PartMgr

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PartMgr
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:23 AM

Value 0
Name: ErrorControl
Type: REG_DWORD
Data: 0x1

Value 1
Name: Group
Type: REG_SZ
Data: System Bus Extender

Value 2
Name: Start
Type: REG_DWORD
Data: 0x0

Value 3
Name: Tag
Type: REG_DWORD
Data: 0x2

Value 4
Name: Type
Type: REG_DWORD
Data: 0x1

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PartMgr\Enum
Class Name: <NO CLASS>
Last Write Time: 10/30/2001 - 10:43 AM

Value 0
Name: 0
Type: REG_SZ
Data: Root\LEGACY_PARTMGR\0000

Value 1
Name: Count
Type: REG_DWORD
Data: 0x61

Value 2
Name: NextInstance
Type: REG_DWORD
Data: 0x61

Value 3
Name: 1
Type: REG_SZ
Data:
SCSI\Disk&Ven_UNISYS&Prod_018404ST318404LC&Rev_3114\4&37ddca42&0&000

Value 4

Name: 2
Type: REG_SZ
Data:
SCSI\Disk&Ven_UNISYS&Prod_018404ST318404LC&Rev_3237\4&37ddca42&0&010

Value 5
Name: 3
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_10___\5&60ef60d&0&DASD00000000

Value 6
Name: 4
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_10___\5&60ef60d&0&DASD00000001

Value 7
Name: 5
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&213b4095&0&DASD00010002

Value 8
Name: 6
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&213b4095&0&DASD00010003

Value 9
Name: 7
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&213b4095&0&DASD00010004

Value 10
Name: 8
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&213b4095&0&DASD00010005

Value 11
Name: 9
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&ad29efd&0&DASD00020000

Value 12
Name: 10
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&ad29efd&0&DASD00020001

Value 13
Name: 11
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&ad29efd&0&DASD00020002

Value 14
 Name: 12
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&ad29efd&0&DASD00020003

Value 15
 Name: 13
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&3b512c20&0&DASD00030004

Value 16
 Name: 14
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&3b512c20&0&DASD00030005

Value 17
 Name: 15
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&3b512c20&0&DASD00030006

Value 18
 Name: 16
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&3b512c20&0&DASD00030007

Value 19
 Name: 17
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&24f53ab5&0&DASD00040000

Value 20
 Name: 18
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&24f53ab5&0&DASD00040001

Value 21
 Name: 19
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&24f53ab5&0&DASD00040002

Value 22
 Name: 20
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&24f53ab5&0&DASD00040003

Value 23
 Name: 21
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1aa36f4a&0&DASD00050004

Value 24
 Name: 22
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1aa36f4a&0&DASD00050005

Value 25
 Name: 23
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1aa36f4a&0&DASD00050006

Value 26
 Name: 24
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1aa36f4a&0&DASD00050007

Value 27
 Name: 25
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&6ec533&0&DASD00060000

Value 28
 Name: 26
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&6ec533&0&DASD00060001

Value 29
 Name: 27
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&6ec533&0&DASD00060002

Value 30
 Name: 28
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&6ec533&0&DASD00060003

Value 31
 Name: 29
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&e294ad9&0&DASD00070004

Value 32
 Name: 30
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&e294ad9&0&DASD00070005

Value 33
 Name: 31
 Type: REG_SZ

Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&e294ad9&0&DASD00070006

Value 34
 Name: 32
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&e294ad9&0&DASD00070007

Value 35
 Name: 33
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&36d5a68d&0&DASD00080000

Value 36
 Name: 34
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&36d5a68d&0&DASD00080001

Value 37
 Name: 35
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&36d5a68d&0&DASD00080002

Value 38
 Name: 36
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&36d5a68d&0&DASD00080003

Value 39
 Name: 37
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&3780b30a&0&DASD00090004

Value 40
 Name: 38
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&3780b30a&0&DASD00090005

Value 41
 Name: 39
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&3780b30a&0&DASD00090006

Value 42
 Name: 40
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&3780b30a&0&DASD00090007

Value 43
 Name: 41

Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&17844904&0&DASD000a0000

Value 44
 Name: 42
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&17844904&0&DASD000a0001

Value 45
 Name: 43
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&17844904&0&DASD000a0002

Value 46
 Name: 44
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&17844904&0&DASD000a0003

Value 47
 Name: 45
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1654829d&0&DASD000b0004

Value 48
 Name: 46
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1654829d&0&DASD000b0005

Value 49
 Name: 47
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1654829d&0&DASD000b0006

Value 50
 Name: 48
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1654829d&0&DASD000b0007

Value 51
 Name: 49
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&179cbaec&0&DASD000c0000

Value 52
 Name: 50
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&179cbaec&0&DASD000c0001

Value 53

Name: 51
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&179cbaec&0&DASD000c0002

Value 54
Name: 52
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&179cbaec&0&DASD000c0003

Value 55
Name: 53
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1c168788&0&DASD000d0004

Value 56
Name: 54
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1c168788&0&DASD000d0005

Value 57
Name: 55
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1c168788&0&DASD000d0006

Value 58
Name: 56
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1c168788&0&DASD000d0007

Value 59
Name: 57
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&2ddca9e0&0&DASD000e0000

Value 60
Name: 58
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&2ddca9e0&0&DASD000e0001

Value 61
Name: 59
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&2ddca9e0&0&DASD000e0002

Value 62
Name: 60
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&2ddca9e0&0&DASD000e0003

Value 63
Name: 61
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&34cb3ec0&0&DASD000f0004

Value 64
Name: 62
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&34cb3ec0&0&DASD000f0005

Value 65
Name: 63
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&34cb3ec0&0&DASD000f0006

Value 66
Name: 64
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&34cb3ec0&0&DASD000f0007

Value 67
Name: 65
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&5831bac&0&DASD00100000

Value 68
Name: 66
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&5831bac&0&DASD00100001

Value 69
Name: 67
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&5831bac&0&DASD00100002

Value 70
Name: 68
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&5831bac&0&DASD00100003

Value 71
Name: 69
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&2fec7d27&0&DASD00110004

Value 72
Name: 70
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&2fec7d27&0&DASD00110005

Value 73
 Name: 71
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&2fec7d27&0&DASD00110006

Value 74
 Name: 72
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&2fec7d27&0&DASD00110007

Value 75
 Name: 73
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1155b2b4&0&DASD00120000

Value 76
 Name: 74
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1155b2b4&0&DASD00120001

Value 77
 Name: 75
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1155b2b4&0&DASD00120002

Value 78
 Name: 76
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&1155b2b4&0&DASD00120003

Value 79
 Name: 77
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&12a2ac15&0&DASD00130004

Value 80
 Name: 78
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&12a2ac15&0&DASD00130005

Value 81
 Name: 79
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&12a2ac15&0&DASD00130006

Value 82
 Name: 80
 Type: REG_SZ

Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&12a2ac15&0&DASD00130007

Value 83
 Name: 81
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&2e2169fa&0&DASD00140000

Value 84
 Name: 82
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&2e2169fa&0&DASD00140001

Value 85
 Name: 83
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&2e2169fa&0&DASD00140002

Value 86
 Name: 84
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&2e2169fa&0&DASD00140003

Value 87
 Name: 85
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&187f1edc&0&DASD00150004

Value 88
 Name: 86
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&187f1edc&0&DASD00150005

Value 89
 Name: 87
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&187f1edc&0&DASD00150006

Value 90
 Name: 88
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&187f1edc&0&DASD00150007

Value 91
 Name: 89
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&30fd3e66&0&DASD00160000

Value 92
 Name: 90

```

Type:          REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&30fd3e66&0&DASD00160001

Value 93
Name:          91
Type:          REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&30fd3e66&0&DASD00160002

Value 94
Name:          92
Type:          REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&30fd3e66&0&DASD00160003

Value 95
Name:          93
Type:          REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&14b7c5a0&0&DASD00170004

Value 96
Name:          94
Type:          REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&14b7c5a0&0&DASD00170005

Value 97
Name:          95
Type:          REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&14b7c5a0&0&DASD00170006

Value 98
Name:          96
Type:          REG_SZ
Data:
SCSI\Disk&Ven_DGC&Prod_RAID&Rev_0___\5&14b7c5a0&0&DASD00170007

```

Windows 2000 Server Client Configuration Information

(common to 8 clients except for System Name, IP Address & MAC Address)

System Information report written at: 10/30/2001 03:24:06 PM
client1[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   CLIENT1
System Manufacturer  IBM

```

```

System Model      Unisys e-action Enterprise Server
System Type       X86-based PC
Processor         x86 Family 6 Model 8 Stepping 6 GenuineIntel ~1000 Mhz
Processor         x86 Family 6 Model 8 Stepping 6 GenuineIntel ~1000 Mhz
BIOS Version      IBM BIOS Ver 7.0
Windows Directory C:\WINNT
System Directory  C:\WINNT\System32
Boot Device       \Device\Harddisk0\Partition1
Locale            United States
User Name         CLIENT1\Administrator
Time Zone         Pacific Standard Time
Total Physical Memory 1,048,084 KB
Available Physical Memory 871,984 KB
Total Virtual Memory 2,784,280 KB
Available Virtual Memory 2,524,216 KB
Page File Space   1,736,196 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
2      Standard floppy disk controller      OK
4      Direct memory access 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
0x0D00-0x207F  PCI bus OK
0xFD00-0xFFFF  PCI bus OK
0xFD00-0xFFFF  Motherboard resources OK
0x03B0-0x03BB  S3 Inc. Savage4      OK
0x03C0-0x03DF  S3 Inc. Savage4      OK
0x2000-0x201F  IBM Netfinity Fault Tolerance PCI Adapter      OK
0x2040-0x207F  Intel(R) PRO/100+ Server Adapter (PILA8470B) OK
0x0A79-0x0A79  ISAPNP Read Data Port OK
0x0279-0x0279  ISAPNP Read Data Port OK
0x02F4-0x02F7  ISAPNP Read Data Port 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
0x03F0-0x03F5  Standard floppy disk controller      OK
0x03F7-0x03F7  Standard floppy disk controller      OK

```

```

0x0378-0x037F Printer Port (LPT1) OK
0x03F8-0x03FF Communications Port (COM1) OK
0x02F8-0x02FF Communications Port (COM2) OK
0x0020-0x0021 Advanced programmable interrupt controller OK
0x00A0-0x00A1 Advanced programmable interrupt controller OK
0x04D0-0x04D1 Advanced programmable interrupt controller OK
0x0080-0x008F Direct memory access controller OK
0x00C0-0x00DF Direct memory access controller OK
0x0040-0x0043 System timer OK
0x0070-0x0073 System CMOS/real time clock OK
0x0061-0x0061 System speaker OK
0x00F0-0x00FF Numeric data processor OK
0x0F50-0x0F58 Motherboard resources OK
0xFE80-0xFE8F Motherboard resources OK
0xFEC0-0xFEDF Motherboard resources OK
0xEE9B-0xEE9B Motherboard resources OK
0x00E8-0x00E9 Not Available OK
0x0840-0x084F 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
0x2080-0x208F PCI bus OK
0x2100-0x21FF Adaptec AIC-7899 Ultra160/m PCI SCSI Card OK
0x2200-0x22FF Adaptec AIC-7899 Ultra160/m PCI SCSI Card OK

```

[IRQs]

IRQ Number	Device
30	Microsoft ACPI-Compliant System
31	S3 Inc. Savage4
27	IBM Netfinity Fault Tolerance PCI Adapter
18	Intel(R) PRO/100+ Server Adapter (PILA8470B)
1	Standard 101/102-Key or Microsoft Natural PS/2 Keyboard
12	PS/2 Compatible Mouse
6	Standard floppy disk controller
4	Communications Port (COM1)
3	Communications Port (COM2)
8	System CMOS/real time clock
13	Numeric data processor
5	Not Available
14	Primary IDE Channel
11	Standard OpenHCD USB Host Controller
28	Adaptec AIC-7899 Ultra160/m PCI SCSI Card
29	Adaptec AIC-7899 Ultra160/m PCI SCSI Card
20	cLAN Host Adapter

[Memory]

Range	Device	Status
0xA0000-0xBFFFF	PCI bus	OK
0xA0000-0xBFFFF	S3 Inc. Savage4	OK
0xF0000000-0xFFFFFFFF	PCI bus	OK
0xF0000000-0xFFFFFFFF	S3 Inc. Savage4	OK
0xFEB80000-0xFEBFFFF	S3 Inc. Savage4	OK
0xFEB7FC00-0xFEB7FC1F	IBM Netfinity Fault Tolerance PCI Adapter	OK
0xFEB7E000-0xFEB7EFFF	Intel(R) PRO/100+ Server Adapter (PILA8470B)	OK
0xFEAA0000-0xFEAFFFFF	Intel(R) PRO/100+ Server Adapter (PILA8470B)	OK
0xFEC00000-0xFECFFFFF	Advanced programmable interrupt controller	OK

```

0xFEE00000-0xFEEFFFFF Advanced programmable interrupt controller OK
0xFF700000-0xFF70FFFF Standard OpenHCD USB Host Controller OK
0x40000000-0xEFFFFFFF PCI bus OK
0xEFFF0000-0xEFFFFFFF Adaptec AIC-7899 Ultra160/m PCI SCSI Card OK
0xEFFF0000-0xEFFFFFFF Adaptec AIC-7899 Ultra160/m PCI SCSI Card OK
0xEFFC0000-0xEFFDFFFF cLAN Host Adapter OK
0xEFC00000-0xEFFDFFFF cLAN Host Adapter OK
0xEE000000-0xEEFFFFFF cLAN Host Adapter OK
0xEFFE0000-0xEFFDFFFF cLAN Host Adapter OK
0x0000-0x9FFFF System board OK
0x100000-0xFFFFF System board OK
0x1000000-0x3FFFFFFF System board OK
0xE0000-0xFFFFF System board OK
0xFFFFE0000-0xFFFFFFFF System board OK
0xC8000-0xCBFFF System board OK
0xCC000-0xCFFFF System board OK
0xD0000-0xD3FFF 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				
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)
c:\winnt\system32\msg723.acm	Microsoft Corporation		OK	C:\WINNT\System32\MSG723.ACM	4.4.3385	106.77 KB (109,328 bytes)
c:\winnt\system32\msgsm32.acm	Microsoft Corporation		OK	C:\WINNT\System32\MSGSM32.ACM	5.00.2134.1	22.27 KB (22,800 bytes)
c:\winnt\system32\lhacm.acm	Microsoft Corporation		OK	C:\WINNT\System32\LHACM.ACM	4.4.3385	33.27 KB (34,064 bytes)
c:\winnt\system32\msadp32.acm	Microsoft Corporation		OK	C:\WINNT\System32\MSADP32.ACM	5.00.2134.1	14.77 KB (15,120 bytes)
c:\winnt\system32\tssoft32.acm	DSP GROUP, INC.		OK	C:\WINNT\System32\TSSOFT32.ACM	1.01	9.27 KB (9,488 bytes)
c:\winnt\system32\msg711.acm	Microsoft Corporation		OK	C:\WINNT\System32\MSG711.ACM	5.00.2134.1	10.27 KB (10,512 bytes)
c:\winnt\system32\imaadp32.acm	Microsoft Corporation		OK	C:\WINNT\System32\IMAADP32.ACM	5.00.2134.1	16.27 KB (16,656 bytes)

[Video Codecs]

Codec	Manufacturer	Description	Status	File	Version	Size
		Creation Date				


```

c:\winnt\system32\msh261.drv Microsoft Corporation OK
C:\WINNT\System32\MSH261.DRV 4.4.3385 163.77 KB (167,696
bytes) 1/16/2001 2:59:40 PM
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 4:00:00 AM
c:\winnt\system32\msh263.drv Microsoft Corporation OK
C:\WINNT\System32\MSH263.DRV 4.4.3385 252.27 KB (258,320
bytes) 1/16/2001 2:59:16 PM
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 4:00:00 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 4:00:00 AM
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 4:00:00 AM
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 4:00:00 AM

```

[CD-ROM]

```

Item Value
Drive D:
Description CD-ROM Drive
Media Loaded False
Media Type CD-ROM
Name LITEON CD-ROM LTN403S
Manufacturer (Standard CD-ROM drives)
Status OK
Transfer Rate Not Available
SCSI Target ID 0
PNP Device ID IDE\CDROMLITEON_CD-
ROM_LTN403S\QU05\5&326853DD&0&0.0.0

```

[Sound Device]

```

Item Value
No sound devices

```

[Display]

```

Item Value
Name S3 Inc. Savage4
PNP Device ID
PCI\VEN_5333&DEV_8A22&SUBSYS_01C51014&REV_04\3&267A616A&0&08
Adapter Type S3 Savage4, S3 compatible
Adapter Description S3 Inc. Savage4
Adapter RAM 8.00 MB (8,388,608 bytes)
Installed Drivers s3sav4.dll
Driver Version 5.01.840.0001
INF File s3sav4.inf (S3Inc section)
Color Planes 1
Color Table Entries 256
Resolution 800 x 600 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&F0B8F99&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&F0B8F99&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] IBM Netfinity Fault Tolerance PCI Adapter
Adapter Type Ethernet 802.3
Product Name IBM Netfinity Fault Tolerance PCI Adapter
Installed True
PNP Device ID
PCI\VEN_1022&DEV_2000&SUBSYS_20001014&REV_44\3&267A616A&0&10
Last Reset 10/24/2001 4:51:54 AM
Index 0
Service Name PCNet5
IP Address 192.168.91.1
IP Subnet 255.255.255.0
Default IP Gateway Not Available
DHCP Enabled False
DHCP Server Not Available

```

DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:02:55:58:14:95
Service Name PCnet
IRQ Number 27
I/O Port 0x2000-0x201F
Driver c:\winnt\system32\drivers\pcnnt5m.sys (29968, 4.09.00)

Name [00000004] RAS Async Adapter
Adapter Type Not Available
Product Name RAS Async Adapter
Installed True
PNP Device ID Not Available
Last Reset 10/24/2001 4:51:54 AM
Index 4
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 [00000005] WAN Miniport (L2TP)
Adapter Type Not Available
Product Name WAN Miniport (L2TP)
Installed True
PNP Device ID ROOT\MS_L2TPMINIPORT\0000
Last Reset 10/24/2001 4:51:54 AM
Index 5
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 [00000006] WAN Miniport (PPTP)
Adapter Type Wide Area Network (WAN)
Product Name WAN Miniport (PPTP)
Installed True
PNP Device ID ROOT\MS_PPTPMINIPORT\0000
Last Reset 10/24/2001 4:51:54 AM
Index 6
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 [00000007] Direct Parallel
Adapter Type Not Available
Product Name Direct Parallel
Installed True
PNP Device ID ROOT\MS_PTMINIPORT\0000
Last Reset 10/24/2001 4:51:54 AM
Index 7
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 [00000008] WAN Miniport (IP)
Adapter Type Not Available
Product Name WAN Miniport (IP)
Installed True
PNP Device ID ROOT\MS_NDISWANIP\0000
Last Reset 10/24/2001 4:51:54 AM
Index 8
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 [00000009] WAN Miniport (NetBEUI, Dial In)
Adapter Type Not Available
Product Name WAN Miniport (NetBEUI, Dial In)
Installed True
PNP Device ID ROOT\MS_NDISWANNBFIN\0000
Last Reset 10/24/2001 4:51:54 AM
Index 9
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 [00000010] WAN Miniport (NetBEUI, Dial In)
Adapter Type Not Available
Product Name WAN Miniport (NetBEUI, Dial In)
Installed True
PNP Device ID ROOT\MS_NDISWANNBFIN\0001
Last Reset 10/24/2001 4:51:54 AM
Index 10
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 [00000011] WAN Miniport (NetBEUI, Dial Out)
Adapter Type Not Available
Product Name WAN Miniport (NetBEUI, Dial Out)
Installed True
PNP Device ID ROOT\MS_NDISWANNBFOUT\0000
Last Reset 10/24/2001 4:51:54 AM
Index 11
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 [00000012] WAN Miniport (NetBEUI, Dial Out)
Adapter Type Not Available
Product Name WAN Miniport (NetBEUI, Dial Out)
Installed True
PNP Device ID ROOT\MS_NDISWANNBFOUT\0001
Last Reset 10/24/2001 4:51:54 AM
Index 12
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 [00000013] WAN Miniport (NetBEUI, Dial Out)
Adapter Type Not Available
Product Name WAN Miniport (NetBEUI, Dial Out)
Installed True
PNP Device ID ROOT\MS_NDISWANNBFOUT\0002
Last Reset 10/24/2001 4:51:54 AM
Index 13
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 [00000014] cLAN Host Adapter
Adapter Type Ethernet 802.3
Product Name cLAN Host Adapter
Installed True
PNP Device ID PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&13C0B0C5&0&28
Last Reset 10/24/2001 4:51:54 AM
Index 14
Service Name GNINDIS
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled True
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:90:FA:00:1C:8A
Service Name GNINDIS
IRQ Number 20
Driver c:\winnt\system32\drivers\gnindis.sys (22726, 4.2.0.75)

Name [00000015] Intel(R) PRO/100+ Server Adapter (PILA8470B)
Adapter Type Ethernet 802.3
Product Name Intel(R) PRO/100+ Server Adapter (PILA8470B)
Installed True
PNP Device ID PCI\VEN_8086&DEV_1229&SUBSYS_100C8086&REV_08\3&267A616A&0&50
Last Reset 10/24/2001 4:51:54 AM
Index 15
Service Name E100B
IP Address 192.1.1.1
IP Subnet 255.255.255.0
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:D0:B7:BF:FE:BE
Service Name E100B

IRQ Number 18
I/O Port 0x2040-0x207F
Driver c:\winnt\system32\drivers\e100bnt5.sys (85776, 4.02.38.0000)

[Protocol]

Item Value
Name MSAFD Tcpi [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 Tcpi [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\Nbf_{BAC8900B-457B-4294-A0ED-FD124E8A1212}]
SEQPACKET 17
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\Nbf_{BAC8900B-457B-4294-A0ED-FD124E8A1212}]
DATAGRAM 17
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\Nbf_{7488D6FD-F754-46DC-9D28-8B4824EE0DC5}]
 SEQPACKET 15
 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\Nbf_{7488D6FD-F754-46DC-9D28-8B4824EE0DC5}]
 DATAGRAM 15
 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\Nbf_{FCA901D1-07B8-4C5C-A941-E0F04B1E76EB}]
 SEQPACKET 6
 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\Nbf_{FCA901D1-07B8-4C5C-A941-E0F04B1E76EB}]
 DATAGRAM 6

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\Nbf_NdisWanNbfIn{82E99CDB-174B-4E11-BA71-18DCCE0A24AE}] SEQPACKET 10
 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\Nbf_NdisWanNbfIn{82E99CDB-174B-4E11-BA71-18DCCE0A24AE}] DATAGRAM 10
 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\Nbf_NdisWanNbfIn{CDF4FCFD-9D61-47C6-9F00-26205FD125B3}] SEQPACKET 11
 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\Nbf_NdisWanNbfIn{CDF4FCFD-9D61-47C6-9F00-26205FD125B3}] DATAGRAM 11
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\Nbf_NdisWanNbfOut{41802B0C-7E2A-494F-9B6C-3FB781035176}] SEQPACKET 12
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\Nbf_NdisWanNbfOut{41802B0C-7E2A-494F-9B6C-3FB781035176}] DATAGRAM 12
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\Nbf_NdisWanNbfOut{71CB1DF0-3F1B-457A-B7C5-4F5FDE9C8A5F}] SEQPACKET 13
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\Nbf_NdisWanNbfOut{71CB1DF0-3F1B-457A-B7C5-4F5FDE9C8A5F}] DATAGRAM 13
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\Nbf_NdisWanNbfOut{B5D0BAD9-B12C-43B9-B40E-D89AA5241F84}] SEQPACKET 14
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\Nbf_NdisWanNbfOut{B5D0BAD9-B12C-43B9-B40E-D89AA5241F84}] DATAGRAM 14
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_{BAC8900B-457B-4294-A0ED-FD124E8A1212}] SEQPACKET 18
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_{BAC8900B-457B-4294-A0ED-FD124E8A1212}] DATAGRAM 18
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_{7488D6FD-F754-46DC-9D28-8B4824EE0DC5}] SEQPACKET 16
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_{7488D6FD-F754-46DC-9D28-8B4824EE0DC5}] DATAGRAM 16
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_{FCA901D1-07B8-4C5C-A941-E0F04B1E76EB}] 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_{FCA901D1-07B8-4C5C-A941-E0F04B1E76EB}] 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_{9CC59D60-6563-4459-B51A-CFE8755EAA2C}] 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_{9CC59D60-6563-4459-B51A-CFE8755EAA2C}] 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_{C0FE4CDF-79B0-4356-B3E7-BF4B29CC58E9}] 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_{C0FE4CDF-79B0-4356-B3E7-BF4B29CC58E9}] 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

[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 Not Available
Maximum Output Buffer Size Not Available
Settable Baud Rate Not Available
Settable Data Bits Not Available
Settable Flow Control Not Available
Settable Parity Not Available
Settable Parity Check Not Available
Settable Stop Bits Not Available
Settable RLSD Not Available
Supports RLSD Not Available
Supports 16 Bit Mode Not Available
Supports Special Characters Not Available
Baud Rate 9600
Bits/Byte 8
Stop Bits 1
Parity None
Busy -1
Abort Read/Write on Error Not Available
Binary Mode Enabled Not Available
Continue Xmit on XOff Not Available
CTS Outflow Control Not Available
Discard NULL Bytes Not Available
DSR Outflow Control Not Available
DSR Sensitivity Not Available
DTR Flow Control Type Not Available
EOF Character Not Available
Error Replace Character Not Available
Error Replacement Enabled Not Available
Event Character Not Available
Parity Check Enabled -1
RTS Flow Control Type Not Available
XOff Character 19
XOffXmit Threshold 512
XOn Character 17
XOnXmit Threshold 2048
XOnXOff InFlow Control Not Available
XOnXOff OutFlow Control Not Available
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\PNP0400\1

[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 16.94 GB (18,194,284,544 bytes)
Free Space 14.90 GB (15,994,859,520 bytes)
Volume Name
Volume Serial Number E0561636

```

Partition      Disk #0, Partition #0
Partition Size 16.94 GB (18,194,287,104 bytes)
Starting Offset      32256 bytes
Drive Description    Disk drive
Drive Manufacturer   (Standard disk drives)
Drive Model          IBM-PSG ST318404LC    !# SCSI Disk Device
Drive BytesPerSector 512
Drive MediaLoaded    True
Drive MediaType      Fixed hard disk media
Drive Partitions     1
Drive SCSIbus        0
Drive SCSILogicalUnit 0
Drive SCSIport       2
Drive SCsITargetId   0
Drive SectorsPerTrack 63
Drive Size           18194319360 bytes
Drive TotalCylinders 2212
Drive TotalSectors   35535780
Drive TotalTracks    564060
Drive TracksPerCylinder 255

```

[SCSI]

```

Item      Value
Name      Adaptec AIC-7899 Ultra160/m PCI SCSI Card
Caption   Adaptec AIC-7899 Ultra160/m PCI SCSI Card
Driver    adpu160m
Status    OK
PNP Device ID
          PCI\VEN_9005&DEV_00CF&SUBSYS_019D1014&REV_01\3&13C0B0C5&0&18
Device ID
          PCI\VEN_9005&DEV_00CF&SUBSYS_019D1014&REV_01\3&13C0B0C5&0&18
Device Map      Not Available
Index          Not Available
Max Number Controlled Not Available
IRQ Number     28
I/O Port       0x2100-0x21FF
Driver         c:\winnt\system32\drivers\adpu160m.sys (64432, v3.10a)

```

```

Name      Adaptec AIC-7899 Ultra160/m PCI SCSI Card
Caption   Adaptec AIC-7899 Ultra160/m PCI SCSI Card
Driver    adpu160m
Status    OK
PNP Device ID
          PCI\VEN_9005&DEV_00CF&SUBSYS_019D1014&REV_01\3&13C0B0C5&0&19
Device ID
          PCI\VEN_9005&DEV_00CF&SUBSYS_019D1014&REV_01\3&13C0B0C5&0&19
Device Map      Not Available
Index          Not Available
Max Number Controlled Not Available
IRQ Number     29
I/O Port       0x2200-0x22FF
Driver         c:\winnt\system32\drivers\adpu160m.sys (64432, v3.10a)

```

[Printing]

```

Name      Port Name      Server Name

```

No printing information

[Problem Devices]

```

Device PNP Device ID Error Code
Not Available ACPI\IBM37C0\4&F0B8F99&0      28

```

[USB]

```

Device PNP Device ID
Standard OpenHCD USB Host Controller
          PCI\VEN_1166&DEV_0220&SUBSYS_02201166&REV_04\3&267A616A&0&7A
USB Root Hub      USB\ROOT_HUB\4&372644EA&0

```

[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	False	False	False
abp480n5	abp480n5	Not Available	Kernel Driver	False	False	False	False
acpi	Microsoft ACPI Driver	c:\winnt\system32\drivers\acpi.sys	Kernel	Running	OK	Normal	True
acpiec	ACPIEC	c:\winnt\system32\drivers\acpiec.sys	Kernel Driver	False	False	False	False
adpu160m	adpu160m	c:\winnt\system32\drivers\adpu160m.sys	Kernel Driver	True	Boot	Running	OK
afd	AFD Networking Support Environment	c:\winnt\system32\drivers\afd.sys	Kernel Driver	True	Auto	Running	OK
aha154x	Aha154x	Not Available	Kernel Driver	False	Disabled	Stopped	OK
aic116x	aic116x	Not Available	Kernel Driver	False	Disabled	Stopped	OK
aic78u2	aic78u2	Not Available	Kernel Driver	False	Disabled	Stopped	OK
aic78xx	aic78xx	Not Available	Kernel Driver	False	Disabled	Stopped	OK
ami0nt	ami0nt	Not Available	Kernel Driver	False	Disabled	Stopped	OK
amsint	amsint	Not Available	Kernel Driver	False	Disabled	Stopped	OK
asc	asc	Not Available	Kernel Driver	False	Disabled	Stopped	OK
asc3350p	asc3350p	Not Available	Kernel Driver	False	False	Disabled	Stopped
asc3550	asc3550	Not Available	Kernel Driver	False	Disabled	Stopped	OK
asyncmac	RAS Asynchronous Media Driver	c:\winnt\system32\drivers\asyncmac.sys	Kernel Driver	False	False	Manual	Stopped
atapi	Standard IDE/ESDI Hard Disk Controller	c:\winnt\system32\drivers\atapi.sys	Kernel Driver	True	Boot	Running	OK

atdisk	Atdisk	Not Available	Kernel Driver	False	Disabled		
		Stopped OK	Ignore	False	False		
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	
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
						True	False
disk	Disk Driver	c:\winnt\system32\drivers\disk.sys	Kernel Driver				
				True	Boot	Running OK	Normal
						True	False
diskperf	Diskperf	c:\winnt\system32\drivers\diskperf.sys	Kernel Driver	True	Boot	Running OK	Normal
						True	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
						True	False
dmload	dmload	c:\winnt\system32\drivers\dmload.sys	Kernel Driver	True			
				Boot	Running OK	Normal	False
						True	False
e1000	Intel(R) PRO/1000 Gigabit Server Adapter Driver	c:\winnt\system32\drivers\el000nt5.sys	Kernel Driver	False			
				Manual	Stopped OK	Normal	False
						False	
e100b	Intel PRO Adapter Driver	c:\winnt\system32\drivers\el00bnt5.sys	Kernel Driver	True			
				Manual	Running OK	Normal	False
						True	False
efs	EFS	c:\winnt\system32\drivers\efs.sys	File System Driver	True	Disabled	Running OK	Normal
						True	False
fastfat	Fastfat	c:\winnt\system32\drivers\fastfat.sys	File System Driver	True	Disabled	Running OK	Normal
						True	False
fd16_700	Fdl16_700	Not Available	Kernel Driver	False			
		Disabled	Stopped OK	Normal	False	False	
fdc	Floppy Disk Controller Driver	c:\winnt\system32\drivers\fdc.sys	Kernel Driver	True	Manual	Running OK	Normal
						True	False

fips	Fips	c:\winnt\system32\drivers\fips.sys	Kernel Driver	True			
				Auto	Running OK	Normal	False
						True	False
fireport	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
						True	False
ftdisk	Volume Manager Driver	c:\winnt\system32\drivers\ftdisk.sys	Kernel Driver	True	Boot	Running OK	Normal
						True	False
gnindis	cLAN NDIS Driver	c:\winnt\system32\drivers\gnindis.sys	Kernel Driver	True	Auto	Running OK	Normal
						True	False
gnivia	cLAN VIA Driver	c:\winnt\system32\drivers\gnivia.sys	Kernel Driver	True	Auto	Running OK	Normal
						True	False
gpc	Generic Packet Classifier	c:\winnt\system32\drivers\msgpc.sys	Kernel Driver	True	Manual	Running OK	Normal
						True	False
hptx	HP 10/100TX PCI LAN Adapter NT Driver	c:\winnt\system32\drivers\hptxnt5.sys	Kernel Driver	False	Manual	Stopped OK	Normal
						False	False
i8042prt	i8042 Keyboard and PS/2 Mouse Port Driver	c:\winnt\system32\drivers\i8042prt.sys	Kernel Driver	True			
					System Running OK	Normal	False
						True	False
ini910u	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
						False	False
ipinip	IP in IP Tunnel Driver	c:\winnt\system32\drivers\ipinip.sys	Kernel Driver	False	Manual	Stopped OK	Normal
						False	False
ipnat	IP Network Address Translator	c:\winnt\system32\drivers\ipnat.sys	Kernel Driver	False	Manual	Stopped OK	Normal
						False	False
ipsec	IPSEC driver	c:\winnt\system32\drivers\ipsec.sys	Kernel Driver	False	Manual	Stopped OK	Normal
						False	False
ipsraidn	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
						True	False
kbdclass	Keyboard Class Driver	c:\winnt\system32\drivers\kbdclass.sys	Kernel Driver	True			
					System Running OK	Normal	False
						True	False
ksecdd	KSecDD	c:\winnt\system32\drivers\ksecdd.sys	Kernel Driver	True			
				Boot	Running OK	Normal	False
						True	False
lbrtfdc	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	mnmdd	c:\winnt\system32\drivers\mnmdd.sys	Kernel Driver	True			
				System	Running OK	Ignore	False
						True	False
modem	Modem	c:\winnt\system32\drivers\modem.sys	Kernel Driver	False	Manual	Stopped OK	Ignore
						False	False
mouclass	Mouse Class Driver	c:\winnt\system32\drivers\mouclass.sys	Kernel Driver	True			
					System Running OK	Normal	False
						True	False
mountmgr	MountMgr	c:\winnt\system32\drivers\mountmgr.sys	Kernel Driver	True	Boot	Running OK	Normal
						True	False


```

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
spud Special Purpose Utility Driver
c:\winnt\system32\drivers\spud.sys Kernel Driver True Manual
Running OK Normal False True
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
symentevent SymEvent \\?\c:\program files\symantec\symentevent.sys
Kernel Driver False Manual 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 TDIPIPE 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 False
Manual Stopped OK Ignore False False
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
usbhub Microsoft USB Standard Hub Driver
c:\winnt\system32\drivers\usbhub.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>
NUMBER_OF_PROCESSORS	2	<SYSTEM>
OS	Windows_NT	<SYSTEM>
Os2LibPath	%SystemRoot%\system32\os2\dll;	<SYSTEM>
Path	%SystemRoot%\system32;%SystemRoot%;%SystemRoot%\System32\Wbem;C:\P rogram Files\Microsoft SQL Server\80\Tools\BINN	<SYSTEM>
PATHEXT	.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH	<SYSTEM>
PROCESSOR_ARCHITECTURE	x86	<SYSTEM>
PROCESSOR_IDENTIFIER	x86 Family 6 Model 8 Stepping 6, GenuineIntel	<SYSTEM>
PROCESSOR_LEVEL	6	<SYSTEM>
PROCESSOR_REVISION	0806	<SYSTEM>
TEMP	%SystemRoot%\TEMP	<SYSTEM>
TMP	%SystemRoot%\TEMP	<SYSTEM>
WEBSPPNUMBER	1	<SYSTEM>
windir	%SystemRoot%	<SYSTEM>
TEMP	%USERPROFILE%\Local Settings\Temp	CLIENT1\Administrator
TMP	%USERPROFILE%\Local Settings\Temp	CLIENT1\Administrator

[Jobs]

[Following are sub-categories of this main category]

[Print]

Document	Size	Owner	Notify	Status	Time Submitted	Start Time
Queue	Data Type	Name	Parameters	Driver Name	Print Processor	Host Print
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	Not Available
Available	Not Available	Unknown	Unknown	Unknown	Unknown
system	Not Available	8	8	0	1413120 Not Available
smss.exe	c:\winnt\system32\smss.exe	164	11	204800	
bytes)	12/7/1999 4:00:00 AM				
csrss.exe	c:\winnt\system32\csrss.exe	188	13	204800	
bytes)	1413120 10/24/2001 11:52:31 AM	5.00.2195.2581	5.27	KB (5,392 bytes)	
	9/19/2001 4:57:07 PM				
winlogon.exe	c:\winnt\system32\winlogon.exe	184	13	204800	
bytes)	1413120 10/24/2001 11:52:32 AM	5.00.2195.2953	173.77	KB (177,936	
	12/7/1999 4:00:00 AM				

services.exe	c:\winnt\system32\services.exe	240	9	204800	mfcsubs.dll	1999.9.3421.3	26.27 KB (26,896 bytes)	12/7/1999
bytes)	1413120 10/24/2001 11:52:33 AM 5.00.2195.2780	86.77 KB (88,848			4:00:00 AM	Microsoft Corporation	c:\winnt\system32\mfcsubs.dll	
lsass.exe	c:\winnt\system32\lsass.exe	252	9	204800	cabinet.dll	5.00.2147.1	54.77 KB (56,080 bytes)	12/7/1999
bytes)	1413120 10/24/2001 11:52:33 AM 5.00.2195.2964	32.77 KB (33,552			4:00:00 AM	Microsoft Corporation	c:\winnt\system32\cabinet.dll	
gnconmgr.exe	c:\winnt\system32\gnconmgr.exe	392	8	204800	catsrvut.dll	2000.2.3471.1	560.27 KB (573,712 bytes)	9/19/2001
bytes)	1413120 10/24/2001 11:52:35 AM 4.2.0.75	168.05 KB (172,079			4:57:03 PM	Microsoft Corporation	c:\winnt\system32\catsrvut.dll	
svchost.exe	c:\winnt\system32\svchost.exe	440	8	204800	catsrvps.dll	1999.9.3421.3	53.77 KB (55,056 bytes)	1/16/2001
bytes)	1413120 10/24/2001 11:52:36 AM 5.00.2134.1	7.77 KB (7,952 bytes)			7:06:58 AM	Microsoft Corporation	c:\winnt\system32\catsrvps.dll	
msdtc.exe	c:\winnt\system32\msdtc.exe	484	8	204800	security.dll	5.00.2154.1	5.77 KB (5,904 bytes)	12/7/1999 4:00:00 AM
bytes)	1413120 10/24/2001 11:52:40 AM 1999.9.3421.3	6.77 KB (6,928 bytes)				Microsoft Corporation	c:\winnt\system32\security.dll	
defwatch.exe	c:\program files\navnt\defwatch.exe	608	8	204800	catsrv.dll	2000.2.3471.1	161.77 KB (165,648 bytes)	9/19/2001
bytes)	1413120 10/24/2001 11:52:44 AM 7, 51, 0, 1	32.00 KB (32,768			4:57:03 PM	Microsoft Corporation	c:\winnt\system32\catsrv.dll	
svchost.exe	c:\winnt\system32\svchost.exe	624	8	204800	txflog.dll	1999.9.3421.3	82.27 KB (84,240 bytes)	1/16/2001
bytes)	1413120 10/24/2001 11:52:44 AM 5.00.2134.1	7.77 KB (7,952 bytes)			7:06:58 AM	Microsoft Corporation	c:\winnt\system32\txflog.dll	
rtvscan.exe	c:\program files\navnt\rtvscan.exe	652	8	204800	comsvcs.dll	2000.2.3471.1	1.35 MB (1,417,488 bytes)	9/19/2001
bytes)	1413120 10/24/2001 11:52:44 AM 7.51.00.847	420.00 KB (430,080			4:57:06 PM	Microsoft Corporation	c:\winnt\system32\comsvcs.dll	
regsvc.exe	c:\winnt\system32\regsvc.exe	692	8	204800	dllhost.exe	5.00.2195.2815	5.77 KB (5,904 bytes)	9/19/2001 4:57:08 PM
bytes)	1413120 10/24/2001 11:52:49 AM 5.00.2195.2104	65.27 KB (66,832				Microsoft Corporation	c:\winnt\system32\dllhost.exe	
mstask.exe	c:\winnt\system32\mstask.exe	740	8	204800	rhostsrvr.exe	Not Available	54.50 KB (55,808 bytes)	1/16/2001
bytes)	1413120 10/24/2001 11:52:50 AM 4.71.2195.1	115.27 KB (118,032			6:29:11 PM	Not Available	c:\rhost\rhostsrvr.exe	
winmgmt.exe	c:\winnt\system32\wbem\winmgmt.exe	788	8	204800	cliscan.dll	7.51.00.847	232.00 KB (237,568 bytes)	12/22/2000
bytes)	1413120 10/24/2001 11:52:50 AM 1.50.1085.0029	192.08 KB (196,685			6:51:00 AM	Symantec Corporation	c:\program files\navnt\cliscan.dll	
msgsys.exe	c:\winnt\system32\msgsys.exe	988	8	204800	cliproxy.dll	7.51.00.847	156.00 KB (159,744 bytes)	12/22/2000
bytes)	1413120 10/24/2001 11:52:53 AM 6.0.201.0940 E	14.00 KB (14,336			6:51:00 AM	Symantec Corporation	c:\program files\navnt\cliproxy.dll	
explorer.exe	c:\winnt\explorer.exe	1136	8	204800	vp trays.exe	7.51.00.847	52.00 KB (53,248 bytes)	12/22/2000
bytes)	10/24/2001 11:53:12 AM 5.00.3315.2846	237.27 KB (242,960 bytes)			6:51:00 AM	Symantec Corporation	c:\program files\navnt\vp trays.exe	
vp trays.exe	c:\program files\navnt\vp trays.exe	1180	8	204800	shdoclc.dll	5.00.3315.2879	324.50 KB (332,288 bytes)	9/19/2001
bytes)	1413120 10/24/2001 11:53:13 AM 7.51.00.847	52.00 KB (53,248			4:57:35 PM	Microsoft Corporation	c:\winnt\system32\shdoclc.dll	
rhostsrvr.exe	c:\rhost\rhostsrvr.exe	1196	8	204800	wininet.dll	5.00.3404.200	450.77 KB (461,584 bytes)	4/2/2001
bytes)	10/24/2001 11:53:13 AM Not Available	54.50 KB (55,808 bytes)			5:55:20 PM	Microsoft Corporation	c:\winnt\system32\wininet.dll	
dllhost.exe	c:\winnt\system32\dllhost.exe	1064	8	204800	mydocs.dll	5.00.2920.0000	55.77 KB (57,104 bytes)	12/7/1999
bytes)	1413120 10/24/2001 11:59:02 AM 5.00.2195.2815	5.77 KB (5,904 bytes)			4:00:00 AM	Microsoft Corporation	c:\winnt\system32\mydocs.dll	
rsvp.exe	c:\winnt\system32\rsvp.exe	2028	8	204800	rasdlg.dll	5.00.2195.2671	514.27 KB (526,608 bytes)	12/7/1999
bytes)	1413120 10/30/2001 3:12:10 PM 5.00.2167.1	172.77 KB (176,912			4:00:00 AM	Microsoft Corporation	c:\winnt\system32\rasdlg.dll	
[Loaded Modules]					urlmon.dll	5.00.3315.1000	441.27 KB (451,856 bytes)	9/19/2001
Name	Version	Size	File Date	Manufacturer	Path			
traffic.dll	5.00.2139.1	30.77 KB (31,504 bytes)			12/7/1999			
4:00:00 AM	Microsoft Corporation	c:\winnt\system32\traffic.dll						
rsvp.exe	5.00.2167.1	172.77 KB (176,912 bytes)			12/7/1999			
4:00:00 AM	Microsoft Corporation	c:\winnt\system32\rsvp.exe						
netui0.dll	5.00.2134.1	210.27 KB (215,312 bytes)			12/7/1999			
4:00:00 AM	Microsoft Corporation	c:\winnt\system32\netui0.dll						
netui0.dll	5.00.2134.1	70.27 KB (71,952 bytes)			12/7/1999			
4:00:00 AM	Microsoft Corporation	c:\winnt\system32\netui0.dll						

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ntlanman.dll 5.00.2157.1 35.27 KB (36,112 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\ntlanman.dll
browseui.dll 5.00.3315.2846 788.77 KB (807,696 bytes) 9/19/2001
4:57:03 PM Microsoft Corporation c:\winnt\system32\browseui.dll
shdocvw.dll 5.00.3315.2879 1.05 MB (1,104,144 bytes) 9/19/2001
4:57:35 PM Microsoft Corporation c:\winnt\system32\shdocvw.dll
explorer.exe 5.00.3315.2846 237.27 KB (242,960 bytes) 9/19/2001
4:57:42 PM Microsoft Corporation c:\winnt\explorer.exe
msgsys.exe 6.0.201.0940 E 14.00 KB (14,336 bytes) 9/18/2000
5:12:40 PM Intel Corporation c:\winnt\system32\msgsys.exe
perfos.dll 5.00.2155.1 21.27 KB (21,776 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\perfos.dll
rapilib.dll 5.00.2195.2717 24.77 KB (25,360 bytes) 9/19/2001
4:57:32 PM Microsoft Corporation c:\winnt\system32\rapilib.dll
rsvpsp.dll 5.00.2195.2749 74.77 KB (76,560 bytes) 9/19/2001
4:57:34 PM Microsoft Corporation c:\winnt\system32\rsvpsp.dll
provthrd.dll 1.50.1085.0000 68.07 KB (69,708 bytes) 1/16/2001
2:59:29 PM Microsoft Corporation c:\winnt\system32\wbem\provthrd.dll
ntevt.dll 1.50.1085.0000 192.06 KB (196,669 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\wbem\ntevt.dll
framedyn.dll 1.50.1085.0000 164.05 KB (167,992 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\wbem\framedyn.dll
cimwin32.dll 1.50.1085.0038 1.02 MB (1,073,232 bytes) 9/19/2001
4:57:45 PM Microsoft Corporation c:\winnt\system32\wbem\cimwin32.dll
wbemsvc.dll 1.50.1085.0007 40.07 KB (41,036 bytes) 9/19/2001
4:57:47 PM Microsoft Corporation c:\winnt\system32\wbem\wbemsvc.dll
wbemess.dll 1.50.1085.0039 364.07 KB (372,804 bytes) 9/19/2001
4:57:46 PM Microsoft Corporation c:\winnt\system32\wbem\wbemess.dll
fastprox.dll 1.50.1085.0037 144.08 KB (147,536 bytes) 9/19/2001
4:57:45 PM Microsoft Corporation c:\winnt\system32\wbem\fastprox.dll
wbemcore.dll 1.50.1085.0036 628.07 KB (643,140 bytes) 9/19/2001
4:57:46 PM Microsoft Corporation c:\winnt\system32\wbem\wbemcore.dll
wbemcomn.dll 1.50.1085.0021 692.07 KB (708,675 bytes) 9/19/2001
4:57:46 PM Microsoft Corporation c:\winnt\system32\wbem\wbemcomn.dll
winmgmt.exe 1.50.1085.0029 192.08 KB (196,685 bytes) 9/19/2001
4:57:47 PM Microsoft Corporation c:\winnt\system32\wbem\winmgmt.exe
msidle.dll 5.00.2920.0000 6.27 KB (6,416 bytes) 12/7/1999 4:00:00 AM
Microsoft Corporation c:\winnt\system32\msidle.dll
mstask.exe 4.71.2195.1 115.27 KB (118,032 bytes) 9/19/2001
4:57:24 PM Microsoft Corporation c:\winnt\system32\mstask.exe
ntmarta.dll 5.00.2195.2862 98.77 KB (101,136 bytes) 9/19/2001
4:57:28 PM Microsoft Corporation c:\winnt\system32\ntmarta.dll
regsvc.exe 5.00.2195.2104 65.27 KB (66,832 bytes) 9/19/2001
4:57:33 PM Microsoft Corporation c:\winnt\system32\regsvc.exe
loc32vc0.dll 3, 0, 0, 2 76.00 KB (77,824 bytes) 9/18/2000
5:12:40 PM Intel c:\winnt\system32\loc32vc0.dll
amslib.dll 6.0.201.0940 E 15.50 KB (15,872 bytes) 9/18/2000
5:12:40 PM Intel Corporation c:\winnt\system32\amslib.dll
navap32.dll 5.3.1.39 37.00 KB (37,888 bytes) 12/22/2000
6:51:00 AM Symantec Corporation c:\program files\navnt\navap32.dll
naveng32.dll Not Available 137.50 KB (140,800 bytes) 9/19/2001
12:24:03 PM Not Available
c:\progra~1\common~1\symant~1\virusd~1\20010918.064\naveng32.dll
navex32a.dll Not Available 559.00 KB (572,416 bytes) 9/19/2001
12:24:03 PM Not Available
c:\progra~1\common~1\symant~1\virusd~1\20010918.064\navex32a.dll
navapi32.dll 4.1.0.6 204.00 KB (208,896 bytes) 8/3/2000 7:08:24 PM
Symantec Corp. c:\program files\navnt\navapi32.dll

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i2ldvp3.dll 7.51.00.847 236.00 KB (241,664 bytes) 12/22/2000
6:51:00 AM Symantec Corporation c:\program files\navnt\i2ldvp3.dll
navntutl1.dll 1, 0, 0, 1 48.00 KB (49,152 bytes) 12/22/2000
6:51:00 AM Symantec/Peter Norton Group c:\program
files\navnt\navntutl1.dll
psapi.dll 5.00.2134.1 28.27 KB (28,944 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\psapi.dll
mfc42.dll 6.00.8267.0 972.05 KB (995,383 bytes) 9/19/2001
12:23:06 PM Microsoft Corporation c:\program files\navnt\mfc42.dll
navlu.dll 7.51.00.847 60.00 KB (61,440 bytes) 12/22/2000
6:51:00 AM Symantec Corporation c:\program files\navnt\navlu.dll
ctl3d32.dll 2.31.0000 26.50 KB (27,136 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\ctl3d32.dll
pds.dll 6.0.201.0940 E 79.50 KB (81,408 bytes) 9/18/2000 5:16:20 PM
Intel Corporation c:\winnt\system32\pds.dll
nts.dll 6.0.201.0940 E 60.50 KB (61,952 bytes) 9/18/2000 5:16:20 PM
Intel Corporation c:\winnt\system32\nts.dll
msgsys.dll 6.0.201.0940 E 20.50 KB (20,992 bytes) 9/18/2000
5:16:20 PM Intel Corporation c:\winnt\system32\msgsys.dll
cba.dll 6.0.201.0940 E 13.50 KB (13,824 bytes) 9/18/2000 5:16:20 PM
Intel Corporation c:\winnt\system32\cba.dll
dec2rtf.dll 2.16.0.45 19.00 KB (19,456 bytes) 12/15/2000
5:03:00 PM Symantec Corporation c:\program files\navnt\dec2rtf.dll
dec2ss.dll 2.16.0.45 20.00 KB (20,480 bytes) 12/15/2000
5:03:00 PM Symantec Corporation c:\program files\navnt\dec2ss.dll
dec2uee.dll 2.16.0.45 17.00 KB (17,408 bytes) 12/15/2000
5:03:00 PM Symantec Corporation c:\program files\navnt\dec2uee.dll
symamg32.dll 2.16.0.45 69.00 KB (70,656 bytes) 12/15/2000
5:03:00 PM Symantec Corporation with portions by FUJITSU DEVICES INC.
c:\program files\navnt\symamg32.dll
dec2amg.dll 2.16.0.45 20.00 KB (20,480 bytes) 12/15/2000
5:03:00 PM Symantec Corporation c:\program files\navnt\dec2amg.dll
dec2zip.dll 2.16.0.45 142.50 KB (145,920 bytes) 12/15/2000
5:03:00 PM Symantec Corporation c:\program files\navnt\dec2zip.dll
dec2mime.dll 2.16.0.45 33.50 KB (34,304 bytes) 12/15/2000
5:03:00 PM Symantec Corporation c:\program files\navnt\dec2mime.dll
dec21z.dll 2.16.0.45 14.50 KB (14,848 bytes) 12/15/2000
5:03:00 PM Symantec Corporation c:\program files\navnt\dec21z.dll
symlha.dll 2.16.0.45 46.50 KB (47,616 bytes) 12/15/2000
5:03:00 PM Symantec Corporation c:\program files\navnt\symlha.dll
dec21ha.dll 2.16.0.45 18.50 KB (18,944 bytes) 12/15/2000
5:03:00 PM Symantec Corporation c:\program files\navnt\dec21ha.dll
dec2id.dll 2.16.0.45 10.00 KB (10,240 bytes) 12/15/2000
5:03:00 PM Symantec Corporation c:\program files\navnt\dec2id.dll
dec2arj.dll 2.16.0.45 19.50 KB (19,968 bytes) 12/15/2000
5:03:00 PM Symantec Corporation c:\program files\navnt\dec2arj.dll
dec2.dll 2.16.0.45 12.00 KB (12,288 bytes) 12/15/2000
5:03:00 PM Symantec Corporation c:\program files\navnt\dec2.dll
rtvscan.exe 7.51.00.847 420.00 KB (430,080 bytes) 12/22/2000
6:51:00 AM Symantec Corporation c:\program files\navnt\rtvscan.exe
wmi.dll 5.00.2191.1 6.27 KB (6,416 bytes) 12/7/1999 4:00:00 AM
Microsoft Corporation c:\winnt\system32\wmi.dll
netshell.dll 5.00.2195.2779 457.27 KB (468,240 bytes) 9/19/2001
4:57:27 PM Microsoft Corporation c:\winnt\system32\netshell.dll
netman.dll 5.00.2195.2779 89.27 KB (91,408 bytes) 9/19/2001
4:57:26 PM Microsoft Corporation c:\winnt\system32\netman.dll
sens.dll 5.00.2163.1 36.77 KB (37,648 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\sens.dll

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es.dll 2000.2.3471.1 222.27 KB (227,600 bytes) 9/19/2001 4:57:11 PM
Microsoft Corporation c:\winnt\system32\es.dll
defwatch.exe 7, 51, 0, 1 32.00 KB (32,768 bytes) 12/22/2000
6:51:00 AM Symantec Corporation c:\program files\navnt\defwatch.exe
mtxoci.dll 2000.2.3471.1 101.77 KB (104,208 bytes) 9/19/2001
4:57:26 PM Microsoft Corporation c:\winnt\system32\mtxoci.dll
resutils.dll 5.00.2195.2787 39.77 KB (40,720 bytes) 9/19/2001
4:57:33 PM Microsoft Corporation c:\winnt\system32\resutils.dll
clusapi.dll 5.00.2195.2104 54.27 KB (55,568 bytes) 9/19/2001
4:57:05 PM Microsoft Corporation c:\winnt\system32\clusapi.dll
msvcp50.dll 5.00.7051 552.50 KB (565,760 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\msvcp50.dll
xolehlp.dll 1999.9.3421.3 17.27 KB (17,680 bytes) 1/16/2001
7:07:03 AM Microsoft Corporation c:\winnt\system32\xolehlp.dll
msdtclog.dll 1999.9.3421.3 89.77 KB (91,920 bytes) 1/16/2001
7:07:02 AM Microsoft Corporation c:\winnt\system32\msdtclog.dll
mtxclu.dll 2000.2.3471.1 51.27 KB (52,496 bytes) 9/19/2001
4:57:25 PM Microsoft Corporation c:\winnt\system32\mtxclu.dll
msdtcprx.dll 2000.2.3471.1 665.77 KB (681,744 bytes) 9/19/2001
4:57:18 PM Microsoft Corporation c:\winnt\system32\msdtcprx.dll
txfaux.dll 2000.2.3471.1 374.27 KB (383,248 bytes) 9/19/2001
4:57:38 PM Microsoft Corporation c:\winnt\system32\txfaux.dll
msdtctm.dll 2000.2.3471.1 1.07 MB (1,120,528 bytes) 9/19/2001
4:57:19 PM Microsoft Corporation c:\winnt\system32\msdtctm.dll
msdtc.exe 1999.9.3421.3 6.77 KB (6,928 bytes) 1/16/2001 7:07:02 AM
Microsoft Corporation c:\winnt\system32\msdtc.exe
wshnetbs.dll 5.00.2134.1 7.77 KB (7,952 bytes) 12/7/1999 4:00:00 AM
Microsoft Corporation c:\winnt\system32\wshnetbs.dll
rasadhlp.dll 5.00.2168.1 7.27 KB (7,440 bytes) 12/7/1999 4:00:00 AM
Microsoft Corporation c:\winnt\system32\rasadhlp.dll
winrnr.dll 5.00.2160.1 18.77 KB (19,216 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\winrnr.dll
dhcpcsvc.dll 5.00.2195.2778 88.77 KB (90,896 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\dhcpcsvc.dll
tapi32.dll 5.00.2182.1 123.27 KB (126,224 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\tapi32.dll
rasman.dll 5.00.2195.2780 54.77 KB (56,080 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\rasman.dll
rasapi32.dll 5.00.2195.2671 189.77 KB (194,320 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\rasapi32.dll
iphlpapi.dll 5.00.2173.2 67.77 KB (69,392 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\iphlpapi.dll
rnr20.dll 5.00.2195.2871 35.77 KB (36,624 bytes) 9/19/2001
4:57:33 PM Microsoft Corporation c:\winnt\system32\rnr20.dll
wshtcpip.dll 5.00.2195.2104 17.27 KB (17,680 bytes) 9/19/2001
4:57:41 PM Microsoft Corporation c:\winnt\system32\wshtcpip.dll
msafd.dll 5.00.2195.2779 106.77 KB (109,328 bytes) 9/19/2001
4:57:18 PM Microsoft Corporation c:\winnt\system32\msafd.dll
rpcss.dll 5.00.2195.2815 231.27 KB (236,816 bytes) 9/19/2001
4:57:33 PM Microsoft Corporation c:\winnt\system32\rpcss.dll
svchost.exe 5.00.2134.1 7.77 KB (7,952 bytes) 12/7/1999 4:00:00 AM
Microsoft Corporation c:\winnt\system32\svchost.exe
vipl.dll 4.2.0.75 80.00 KB (81,920 bytes) 7/20/2001
1:28:11 PM Gigaset Incorporated c:\winnt\system32\vipl.dll
gnconmgr.exe 4.2.0.75 168.05 KB (172,079 bytes) 6/5/2001
1:12:35 PM Gigaset Incorporated c:\winnt\system32\gnconmgr.exe
dssenh.dll 5.00.2195.2228 142.77 KB (146,192 bytes) 9/19/2001
4:58:57 PM Microsoft Corporation c:\winnt\system32\dssenh.dll

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iissuba.dll 5.00.0984 9.77 KB (10,000 bytes) 12/7/1999 4:00:00 AM
Microsoft Corporation c:\winnt\system32\iissuba.dll
scecli.dll 5.00.2195.2780 105.27 KB (107,792 bytes) 9/19/2001
4:57:34 PM Microsoft Corporation c:\winnt\system32\scecli.dll
atl.dll 3.00.8449 57.56 KB (58,938 bytes) 12/7/1999 4:00:00 AM
Microsoft Corporation c:\winnt\system32\atl.dll
certcli.dll 5.00.2195.2778 130.77 KB (133,904 bytes) 9/19/2001
4:57:04 PM Microsoft Corporation c:\winnt\system32\certcli.dll
esent.dll 6.0.3940.13 1.08 MB (1,135,376 bytes) 9/19/2001
4:57:11 PM Microsoft Corporation c:\winnt\system32\esent.dll
msock.dll 5.00.2195.2871 62.77 KB (64,272 bytes) 9/19/2001
4:57:25 PM Microsoft Corporation c:\winnt\system32\msock.dll
ntdsatq.dll 5.00.2195.2878 31.27 KB (32,016 bytes) 9/19/2001
4:57:27 PM Microsoft Corporation c:\winnt\system32\ntdsatq.dll
ntdsa.dll 5.00.2195.2899 990.77 KB (1,014,544 bytes) 9/19/2001
4:57:27 PM Microsoft Corporation c:\winnt\system32\ntdsa.dll
kdcsvc.dll 5.00.2195.2878 137.77 KB (141,072 bytes) 9/19/2001
4:57:16 PM Microsoft Corporation c:\winnt\system32\kdcsvc.dll
sfmapi.dll 5.00.2134.1 38.77 KB (39,696 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\sfmapi.dll
rtutils.dll 5.00.2168.1 43.77 KB (44,816 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\rtutils.dll
adslrpc.dll 5.00.2195.2842 127.27 KB (130,320 bytes) 9/19/2001
4:57:01 PM Microsoft Corporation c:\winnt\system32\adslrpc.dll
activeds.dll 5.00.2195.2778 174.77 KB (178,960 bytes) 9/19/2001
4:56:57 PM Microsoft Corporation c:\winnt\system32\activeds.dll
mprapi.dll 5.00.2181.1 79.27 KB (81,168 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\mprapi.dll
rassfm.dll 5.00.2195.2671 21.27 KB (21,776 bytes) 9/19/2001
4:57:32 PM Microsoft Corporation c:\winnt\system32\rassfm.dll
mpr.dll 5.00.2195.2779 53.27 KB (54,544 bytes) 9/19/2001 4:57:17 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) 9/19/2001
4:57:26 PM Microsoft Corporation c:\winnt\system32\netlogon.dll
msvl_0.dll 5.00.2195.2900 111.77 KB (114,448 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\msvl_0.dll
kerberos.dll 5.00.2195.2913 198.77 KB (203,536 bytes) 9/19/2001
4:57:16 PM Microsoft Corporation c:\winnt\system32\kerberos.dll
msprivs.dll 5.00.2154.1 41.50 KB (42,496 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\msprivs.dll
samsrv.dll 5.00.2195.2918 369.77 KB (378,640 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\samsrv.dll
lsasrv.dll 5.00.2195.2964 492.77 KB (504,592 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\lsasrv.dll
lsass.exe 5.00.2195.2964 32.77 KB (33,552 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\lsass.exe
ntlsapi.dll 5.00.2134.1 6.77 KB (6,928 bytes) 12/7/1999 4:00:00 AM
Microsoft Corporation c:\winnt\system32\ntlsapi.dll
xactsrv.dll 5.00.2134.1 90.27 KB (92,432 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\xactsrv.dll
wmi.dll 5.00.2195.2842 72.27 KB (74,000 bytes) 9/19/2001
4:57:41 PM Microsoft Corporation c:\winnt\system32\wmi.dll
browser.dll 5.00.2195.2778 48.27 KB (49,424 bytes) 9/19/2001
4:57:03 PM Microsoft Corporation c:\winnt\system32\browser.dll

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seclogon.dll 5.00.2135.1 15.77 KB (16,144 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\seclogon.dll
psbase.dll 5.00.2195.2779 111.77 KB (114,448 bytes) 9/19/2001
4:57:31 PM Microsoft Corporation c:\winnt\system32\psbase.dll
cryptsvc.dll 5.00.2181.1 61.77 KB (63,248 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\cryptsvc.dll
cryptdll.dll 5.00.2135.1 41.27 KB (42,256 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\cryptdll.dll
wkssvc.dll 5.00.2195.2780 95.27 KB (97,552 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\wkssvc.dll
srvsvc.dll 5.00.2195.2904 79.27 KB (81,168 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\srvsvc.dll
cfgmgr32.dll 5.00.2134.1 16.77 KB (17,168 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\cfgmgr32.dll
dmserver.dll 2195.2778.297.3 11.77 KB (12,048 bytes)
9/19/2001 4:57:09 PM VERITAS Software Corp.
c:\winnt\system32\dmserver.dll
icmp.dll 5.00.2134.1 7.27 KB (7,440 bytes) 12/7/1999 4:00:00 AM
Microsoft Corporation c:\winnt\system32\icmp.dll
lmhsvc.dll 5.00.2195.2778 9.77 KB (10,000 bytes) 12/7/1999 4:00:00 AM
Microsoft Corporation c:\winnt\system32\lmhsvc.dll
eventlog.dll 5.00.2178.1 43.77 KB (44,816 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\eventlog.dll
ntdsapi.dll 5.00.2195.2661 55.77 KB (57,104 bytes) 9/19/2001
4:57:27 PM Microsoft Corporation c:\winnt\system32\ntdsapi.dll
scesrv.dll 5.00.2195.2780 226.27 KB (231,696 bytes) 9/19/2001
4:57:34 PM Microsoft Corporation c:\winnt\system32\scesrv.dll
umpnpgmgr.dll 5.00.2182.1 86.27 KB (88,336 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\umpnpgmgr.dll
services.exe 5.00.2195.2780 86.77 KB (88,848 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\services.exe
clbcatq.dll 2000.2.3471.1 496.77 KB (508,688 bytes) 9/19/2001
4:57:05 PM Microsoft Corporation c:\winnt\system32\clbcatq.dll
oleaut32.dll 2.40.4517 612.27 KB (626,960 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\oleaut32.dll
navlogon.dll Not Available 28.00 KB (28,672 bytes) 12/22/2000
6:51:00 AM Not Available c:\winnt\system32\navlogon.dll
cscui.dll 5.00.2195.2959 228.27 KB (233,744 bytes) 9/19/2001
4:57:06 PM Microsoft Corporation c:\winnt\system32\cscui.dll
winspool.drv 5.00.2195.2780 109.77 KB (112,400 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\winspool.drv
wincard.dll 5.00.2134.1 77.27 KB (79,120 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\wincard.dll
wlnotify.dll 5.00.2195.2780 53.77 KB (55,056 bytes) 9/19/2001
4:57:41 PM Microsoft Corporation c:\winnt\system32\wlnotify.dll
csddl.dll 5.00.2195.2401 98.27 KB (100,624 bytes) 9/19/2001
4:57:06 PM Microsoft Corporation c:\winnt\system32\csddl.dll
lz32.dll 5.00.2134.1 9.77 KB (10,000 bytes) 12/7/1999 4:00:00 AM
Microsoft Corporation c:\winnt\system32\lz32.dll
version.dll 5.00.2134.1 15.77 KB (16,144 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\version.dll
rsaenh.dll 5.00.2195.2228 130.77 KB (133,904 bytes) 9/19/2001
4:58:57 PM Microsoft Corporation c:\winnt\system32\rsaenh.dll
mscat32.dll 5.131.2134.1 7.77 KB (7,952 bytes) 12/7/1999 4:00:00 AM
Microsoft Corporation c:\winnt\system32\mscat32.dll
ole32.dll 5.00.2195.2887 969.77 KB (993,040 bytes) 9/19/2001
4:57:30 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

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msasn1.dll 5.00.2134.1 51.27 KB (52,496 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\msasn1.dll
crypt32.dll 5.131.2195.2833 451.27 KB (462,096 bytes)
9/19/2001 4:57:06 PM Microsoft Corporation
c:\winnt\system32\crypt32.dll
wintrust.dll 5.131.2195.2779 162.27 KB (166,160 bytes)
9/19/2001 4:57:41 PM Microsoft Corporation
c:\winnt\system32\wintrust.dll
shlwapi.dll 5.00.3315.1000 282.77 KB (289,552 bytes) 9/19/2001
4:57:36 PM Microsoft Corporation c:\winnt\system32\shlwapi.dll
shell32.dll 5.00.3315.2902 2.25 MB (2,359,056 bytes) 9/19/2001
4:57:35 PM Microsoft Corporation c:\winnt\system32\shell32.dll
msgina.dll 5.00.2195.2779 324.27 KB (332,048 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\msgina.dll
comctl32.dll 5.81 537.77 KB (550,672 bytes) 12/7/1999 4:00:00 AM
Microsoft Corporation c:\winnt\system32\comctl32.dll
setupapi.dll 5.00.2195.2663 555.77 KB (569,104 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\setupapi.dll
winmm.dll 5.00.2161.1 184.77 KB (189,200 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\winmm.dll
winsta.dll 5.00.2195.2386 36.77 KB (37,648 bytes) 9/19/2001
4:57:40 PM Microsoft Corporation c:\winnt\system32\winsta.dll
wsock32.dll 5.00.2195.2871 21.27 KB (21,776 bytes) 9/19/2001
4:57:41 PM Microsoft Corporation c:\winnt\system32\wsock32.dll
dnsapi.dll 5.00.2195.2785 130.77 KB (133,904 bytes) 9/19/2001
4:57:09 PM Microsoft Corporation c:\winnt\system32\dnsapi.dll
ldap32.dll 5.00.2195.2797 125.27 KB (128,272 bytes) 9/19/2001
4:57:41 PM Microsoft Corporation c:\winnt\system32\ldap32.dll
ws2help.dll 5.00.2134.1 17.77 KB (18,192 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\ws2help.dll
ws2_32.dll 5.00.2195.2780 67.77 KB (69,392 bytes) 9/19/2001
4:57:41 PM Microsoft Corporation c:\winnt\system32\ws2_32.dll
samlib.dll 5.00.2195.2780 49.77 KB (50,960 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\samlib.dll
netrap.dll 5.00.2134.1 11.27 KB (11,536 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\netrap.dll
netapi32.dll 5.00.2195.2808 303.77 KB (311,056 bytes) 9/19/2001
4:57:26 PM Microsoft Corporation c:\winnt\system32\netapi32.dll
profmap.dll 5.00.2181.1 29.27 KB (29,968 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\profmap.dll
secur32.dll 5.00.2195.2862 46.77 KB (47,888 bytes) 9/19/2001
4:57:34 PM Microsoft Corporation c:\winnt\system32\secur32.dll
sfc.dll 5.00.2195.2896 92.11 KB (94,320 bytes) 9/19/2001 4:57:34 PM
Microsoft Corporation c:\winnt\system32\sfc.dll
nddeapi.dll 5.00.2137.1 15.27 KB (15,632 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\nddeapi.dll
userenv.dll 5.00.2195.2780 361.77 KB (370,448 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\userenv.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
4:00:00 AM Microsoft Corporation c:\winnt\system32\winlogon.exe
rpcrt4.dll 5.00.2195.2832 437.27 KB (447,760 bytes) 9/19/2001
4:57:33 PM Microsoft Corporation c:\winnt\system32\rpcrt4.dll
advapi32.dll 5.00.2195.2867 351.77 KB (360,208 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\advapi32.dll
gdi32.dll 5.00.2195.2778 228.77 KB (234,256 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\gdi32.dll

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kernel32.dll 5.00.2195.2778 714.77 KB (731,920 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\kernel32.dll
user32.dll 5.00.2195.2821 392.77 KB (402,192 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\user32.dll
winsrv.dll 5.00.2195.2797 246.27 KB (252,176 bytes) 11/30/1999
3:39:54 PM Microsoft Corporation c:\winnt\system32\winsrv.dll
basesrv.dll 5.00.2195.2581 40.77 KB (41,744 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\basesrv.dll
csrssrv.dll 5.00.2195.2581 33.77 KB (34,576 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\csrssrv.dll
csrss.exe 5.00.2195.2581 5.27 KB (5,392 bytes) 9/19/2001 4:57:07 PM
Microsoft Corporation c:\winnt\system32\csrss.exe
sfcfiles.dll 5.00.2195.2967 948.27 KB (971,024 bytes) 9/19/2001
4:57:35 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
4:00:00 AM Microsoft Corporation c:\winnt\system32\smss.exe

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[Services]

Display Name	Name	State	Start Mode	Service Type	Path	Error
Control Start Name	Name	State	Start Mode	Service Type	Path	Error
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	Manual	Share Process		
	c:\winnt\system32\cisvc.exe			Normal LocalSystem		0
ClipBook	ClipSrv	Stopped	Manual	Own Process		
	c:\winnt\system32\clipsrv.exe			Normal LocalSystem		0
DefWatch	DefWatch	Running	Auto	Own Process	c:\program	
files\navnt\defwatch.exe		Ignore	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	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	Manual	Own Process		
	c:\winnt\system32\faxsvc.exe			Normal LocalSystem		0
cLAN Connection Manager	GniConMgr	Running	Auto	Own Process		
	c:\winnt\system32\gnconmgr.exe			Normal LocalSystem		0
IIS Admin Service	IISADMIN	Stopped	Auto	Share Process		
	c:\winnt\system32\inetsrv\inetinfo.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\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	Stopped	Disabled	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		
Norton AntiVirus Client	Norton AntiVirus Server	Running	Auto	LocalSystem		
Own Process	c:\program files\navnt\rtvscan.exe		Ignore			
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	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	Running	Auto	Own Process		
	c:\winnt\system32\regsvc.exe		Normal	LocalSystem		0
Remote Procedure Call (RPC)	Locator	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.exe	-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 Running Auto 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 Manual 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 Stopped Disabled 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 Disabled Share
Process c:\winnt\system32\services.exe Normal LocalSystem 0
Distributed Link Tracking Client TrkWks Stopped Disabled 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 Manual Share Process
c:\winnt\system32\inet_srv\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 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
GigaNet All Users:GigaNet All Users
Microsoft SQL Server All Users:Microsoft SQL Server All Users
Norton AntiVirus Corporate Edition All Users:Norton AntiVirus Corporate
Edition All Users
Startup All Users:Startup All Users
Accessories CLIENT1\Administrator:Accessories CLIENT1\Administrator
Accessories\Accessibility
CLIENT1\Administrator:Accessories\Accessibility
CLIENT1\Administrator
Accessories\Entertainment
CLIENT1\Administrator:Accessories\Entertainment
CLIENT1\Administrator
Accessories\System Tools CLIENT1\Administrator:Accessories\System
Tools CLIENT1\Administrator
Administrative Tools CLIENT1\Administrator:Administrative Tools
CLIENT1\Administrator
Startup CLIENT1\Administrator:Startup CLIENT1\Administrator

```

[Startup Programs]

```

Program Command User Name Location
Start rhostsvr c:\rhost\rhostsvr.exe -d\rhost -crhosthdlr.exe
CLIENT1\Administrator Startup
vptray c:\program files\navnt\vptray.exe All Users
HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Run

```

[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 51876-270-6563967-05450

```

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	Company
advapi32.dll	5.0.2195.2867	352 KB	5/4/2001 11:05:02 AM	C:\WINNT\system32	Microsoft Corporation
advpack.dll	5.0.3103.1000	87 KB	5/4/2001 11:05:02 AM	C:\WINNT\system32	Microsoft Corporation
browselc.dll	5.0.3315.2846	35 KB	5/4/2001 11:05:02 AM	C:\WINNT\system32	Microsoft Corporation
browseui.dll	5.0.3315.2846	789 KB	5/4/2001 11:05:02 AM	C:\WINNT\system32	Microsoft Corporation
ckcnv.exe	5.0.2189.1	9 KB	12/7/1999 4:00:00 AM	C:\WINNT\system32	Microsoft Corporation
comctl32.dll	5.81.3103.1000	538 KB	5/4/2001 11:05:02 AM	C:\WINNT\system32	Microsoft Corporation
crypt32.dll	5.131.2195.2833	451 KB	5/4/2001 11:05:02 AM	C:\WINNT\system32	Microsoft Corporation
enhsg.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
iemigrat.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
iesetup.dll	5.0.3103.1000	57 KB	5/4/2001 11:05:02 AM	C:\WINNT\system32	Microsoft Corporation
iexplore.exe	5.0.2920.0	59 KB	12/7/1999 4:00:00 AM	C:\Program Files\Internet Explorer	Microsoft Corporation
imagehlp.dll	5.0.2195.2778	126 KB	5/4/2001 11:05:02 AM	C:\WINNT\system32	Microsoft Corporation
imghelp.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
inseng.dll	5.0.3103.1000	72 KB	5/4/2001 11:05:02 AM	C:\WINNT\system32	Microsoft Corporation
jobexec.dll	5.0.0.1 47 KB	12/7/1999 4:00:00 AM		C:\WINNT\system32	Microsoft Corporation
jscript.dll	5.1.0.5907	476 KB	5/4/2001 11:05:02 AM	C:\WINNT\system32	Microsoft Corporation
jsproxy.dll	5.0.2920.0	13 KB	12/7/1999 4:00:00 AM	C:\WINNT\system32	Microsoft Corporation
msaahtml.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
mshtml.dll	5.0.3315.2870	2290 KB	5/4/2001 11:05:02 AM	C:\WINNT\system32	Microsoft Corporation
msjava.dll	5.0.3802.0	923 KB	5/4/2001 11:05:02 AM	C:\WINNT\system32	Microsoft Corporation
msoss.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
msxml.dll	8.0.5718.1	493 KB	5/4/2001 11:05:02 AM	C:\WINNT\system32	Microsoft Corporation
occache.dll	5.0.3103.1000	86 KB	5/4/2001 11:05:02 AM	C:\WINNT\system32	Microsoft Corporation
ole32.dll	5.0.2195.2887	970 KB	5/4/2001 11:05:02 AM	C:\WINNT\system32	Microsoft Corporation

oleaut32.dll	2.40.4517.0	612 KB	5/4/2001 11:05:02 AM	C:\WINNT\system32	Microsoft Corporation
olepro32.dll	5.0.4517.0	160 KB	5/4/2001 11:05:02 AM	C:\WINNT\system32	Microsoft Corporation
rsabase.dll	5.0.2195.2228	128 KB	5/4/2001 11:05:02 AM	C:\WINNT\system32	Microsoft Corporation
rsaenh.dll	5.0.2195.2228	131 KB	5/4/2001 11:05:02 AM	C:\WINNT\system32	Microsoft Corporation
rsapi32.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
rsasig.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
schannel.dll	5.1.2195.0	138 KB	5/4/2001 11:05:02 AM	C:\WINNT\system32	Microsoft Corporation
shdoc401.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
shdocvw.dll	5.0.3315.2879	1078 KB	5/4/2001 11:05:02 AM	C:\WINNT\system32	Microsoft Corporation
shell32.dll	5.0.3315.2902	2304 KB	5/4/2001 11:05:02 AM	C:\WINNT\system32	Microsoft Corporation
shlwapi.dll	5.0.3315.1000	283 KB	5/4/2001 11:05:02 AM	C:\WINNT\system32	Microsoft Corporation
url.dll	5.0.2920.0	82 KB	12/7/1999 4:00:00 AM	C:\WINNT\system32	Microsoft Corporation
urlmon.dll	5.0.3315.1000	441 KB	5/4/2001 11:05:02 AM	C:\WINNT\system32	Microsoft Corporation
vbscript.dll	5.1.0.5907	428 KB	5/4/2001 11:05:02 AM	C:\WINNT\system32	Microsoft Corporation
webcheck.dll	5.0.3315.1000	252 KB	5/4/2001 11:05:02 AM	C:\WINNT\system32	Microsoft Corporation
win.com	5.0.2134.1	24 KB	12/7/1999 4:00:00 AM	C:\WINNT\system32	Microsoft Corporation
wininet.dll	5.0.3404.200	451 KB	4/2/2001 5:55:20 PM	C:\WINNT\system32	Microsoft Corporation
winsock.dll	3.10.0.103	3 KB	12/7/1999 4:00:00 AM	C:\WINNT\system32	Microsoft Corporation
wintrust.dll	5.131.2195.2779	162 KB	5/4/2001 11:05:02 AM	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 11:05:02 AM	C:\WINNT\system32	Microsoft Corporation
wsock32n.dll	<File Missing>	Not 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	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	17351 MB
Available Disk Space	15253 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	1/16/2001 to 12/23/2100		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

Windows 2000 IP Configuration Information

(common to 8 clients except for Host and Physical Address)

Windows 2000 IP Configuration

```

Host Name . . . . . : client1
Primary DNS Suffix . . . . . :
Node Type . . . . . : Broadcast

IP Routing Enabled. . . . . : No

WINS Proxy Enabled. . . . . : No

```

Ethernet adapter rte:

```

Connection-specific DNS Suffix . :
Description . . . . . : Intel(R) PRO/100+ Server
Adapter (PILA8470B)
Physical Address. . . . . : 00-D0-B7-BF-FE-BE

DHCP Enabled. . . . . : No

IP Address. . . . . : 192.1.19.3

Subnet Mask . . . . . : 255.255.255.0

IP Address. . . . . : 192.1.9.3

Subnet Mask . . . . . : 255.255.255.0

IP Address. . . . . : 192.1.18.2

Subnet Mask . . . . . : 255.255.255.0

IP Address. . . . . : 192.1.17.2

Subnet Mask . . . . . : 255.255.255.0

IP Address. . . . . : 192.1.16.2

Subnet Mask . . . . . : 255.255.255.0

IP Address. . . . . : 192.1.15.2

Subnet Mask . . . . . : 255.255.255.0

IP Address. . . . . : 192.1.14.2

Subnet Mask . . . . . : 255.255.255.0

```

```

IP Address. . . . . : 192.1.13.2
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.1.12.2
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.1.11.2
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.1.8.1
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.1.7.1
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.1.6.1
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.1.5.1
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.1.4.1
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.1.3.1
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.1.2.1
Subnet Mask . . . . . : 255.255.255.0
IP Address. . . . . : 192.1.1.1
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :
DNS Servers . . . . . :

```

Ethernet adapter admin:

```

Connection-specific DNS Suffix . :
Description . . . . . : IBM Netfinity Fault Tolerance
PCI Adapter
Physical Address. . . . . : 00-02-55-58-14-95
DHCP Enabled. . . . . : No

```

```

IP Address. . . . . : 192.168.91.1
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :
DNS Servers . . . . . :
NetBIOS over Tcpi. . . . . : Disabled

```

Volume in drive C has no label.
Volume Serial Number is E056-1636

Directory of C:\inetpub\wwwroot

```

10/17/2000 12:17p           101,376 tpcc.dll
                1 File(s)          101,376 bytes
                0 Dir(s)    15,994,859,520 bytes free

```

Volume in drive C has no label.
Volume Serial Number is E056-1636

Directory of C:\inetpub\wwwroot

```

10/17/2000 12:15p           92,672 tpcc_com_all.dll
                1 File(s)          92,672 bytes
                0 Dir(s)    15,994,859,520 bytes free

```

Volume in drive C has no label.
Volume Serial Number is E056-1636

Directory of C:\inetpub\wwwroot

```

10/17/2000 12:14p           4,608 tpcc_com_ps.dll
                1 File(s)          4,608 bytes
                0 Dir(s)    15,994,859,520 bytes free

```

Component Services Configuration

```

COM+ Component TPCC.AllTxns Settings:
Transactions not supported
Enable object pooling
Minimum pool size 56
Maximum pool size 56
Creation timeout 120,000
Enable object construction
Enable just in time activation
Concurrency required

```

Internet Information Server Registry Parameters

```

\registry\machine\system\currentcontrolset\services\inetinfo
Parameters
ListenBackLog = REG_DWORD 0x00000019
DispatchEntries = REG_MULTI_SZ "LDAPSV"
BandwidthLevel = REG_DWORD 0xffffffff

```

```

ThreadTimeout = REG_DWORD 0x00015180
DisableMemoryCache = REG_DWORD 0x00000001
MemoryCacheSize = REG_DWORD 0x00000000
PoolThreadLimit = REG_DWORD 0x000000c8
ObjectCacheTTL = REG_DWORD 0xffffffff
Performance
Library = infoctrs.dll
Open = OpenINFOPerformanceData
Close = CloseINFOPerformanceData
Collect = CollectINFOPerformanceData
Last Counter = REG_DWORD 0x00000842
Last Help = REG_DWORD 0x00000843
First Counter = REG_DWORD 0x00000802
First Help = REG_DWORD 0x00000803
Library Validation Code = REG_BINARY 0x00000010 0x03d6ec42
0x01c07fce 0x00002510 0x00000000
WbemAdapFileTime = REG_BINARY 0x00000008 0x1f024300 0x01c0d4cd
WbemAdapFileSize = REG_DWORD 0x00002510
WbemAdapStatus = REG_DWORD 0x00000000

```

MSSQL Server Registry Parameters

```

\registry\machine\software\microsoft\mssqlserver\client\connectto
DSQUERY = DBMSSOCN
DBSERVER = DBNETLIB,via:mv-le030pl,1431,0

\registry\machine\software\microsoft\mssqlserver\client\connectto
DSQUERY = DBMSSOCN
DBSERVER = DBNETLIB,via:mv-le030pl,1432,0

\registry\machine\software\microsoft\mssqlserver\client\connectto
DSQUERY = DBMSSOCN
DBSERVER = DBNETLIB,via:mv-le030pl,1433,0

\registry\machine\software\microsoft\mssqlserver\client\connectto
DSQUERY = DBMSSOCN
DBSERVER = DBNETLIB,via:mv-le030pl,1434,0

\registry\machine\software\microsoft\mssqlserver\client\connectto
DSQUERY = DBMSSOCN
DBSERVER = DBNETLIB,via:mv-le030pl,1435,0

\registry\machine\software\microsoft\mssqlserver\client\connectto
DSQUERY = DBMSSOCN
DBSERVER = DBNETLIB,via:mv-le030pl,1421,0

\registry\machine\software\microsoft\mssqlserver\client\connectto
DSQUERY = DBMSSOCN
DBSERVER = DBNETLIB,via:mv-le030pl,1422,0

\registry\machine\software\microsoft\mssqlserver\client\connectto
DSQUERY = DBMSSOCN
DBSERVER = DBNETLIB,via:mv-le030pl,1423,0

```

Start World Wide Web Server Registry Parameters

```

\registry\machine\system\currentcontrolset\services\w3svc
Type = REG_DWORD 0x00000020
Start = REG_DWORD 0x00000003
ErrorControl = REG_DWORD 0x00000001
ImagePath = REG_EXPAND_SZ C:\WINNT\System32\inet_srv\inetinfo.exe
DisplayName = World Wide Web Publishing Service
DependOnService = REG_MULTI_SZ "IISADMIN"
DependOnGroup = REG_MULTI_SZ
ObjectName = LocalSystem
Description = Provides Web connectivity and administration through the
Internet Information Services snap-in.
ASP
NOTE = This is for backward compatibility only.
Parameters
Parameters
MajorVersion = REG_DWORD 0x00000005
MinorVersion = REG_DWORD 0x00000000
InstallPath = C:\WINNT\System32\inet_srv
CertMapList = C:\WINNT\System32\inet_srv\iisrmap.dll
AccessDeniedMessage = Error: Access is Denied.
Filter DLLs =
LogFileDirectory = C:\WINNT\System32\LogFiles
AcceptExOutStanding = REG_DWORD 0x00000028
ADCLaunch
AdvancedDataFactory
RDSSEver.DataFactory
Script Map
Virtual Roots
/ = c:\inetpub\wwwroot,,207
/Scripts = c:\inetpub\scripts,,204
/IISHelp = c:\winnt\help\iishelp,,1
/IISAdmin = C:\WINNT\System32\inet_srv\iisadmin,,201
/IISSamples = c:\inetpub\iissamples,,201
/MSADC = c:\program files\common files\system\msadc,,205
/Printers = C:\WINNT\web\printers,,201
Performance
Library = w3ctrs.dll
Open = OpenW3PerformanceData
Close = CloseW3PerformanceData
Collect = CollectW3PerformanceData
Last Counter = REG_DWORD 0x000008e6
Last Help = REG_DWORD 0x000008e7
First Counter = REG_DWORD 0x00000844
First Help = REG_DWORD 0x00000845
Library Validation Code = REG_BINARY 0x00000010 0xc18a727c
0x01c026d2 0x00003d10 0x00000000
WbemAdapFileTime = REG_BINARY 0x00000008 0x964e6000 0x01bf40aa
WbemAdapFileSize = REG_DWORD 0x00003d10
WbemAdapStatus = REG_DWORD 0x00000000
Security [17 1]
Security = REG_BINARY 0x000000b8 0x80140001 0x000000a0 0x000000ac
0x00000014 0x00000030 0x001c0002 0x00000001 0x00148002 0x000f01ff
0x00000101 0x01000000 0x00000000 0x00700002 0x00000004 0x00180000
0x000201fd 0x00000101 0x05000000 \
0x00000012 0x006f0074 0x001c0000 0x000f01ff 0x00000201
0x05000000 0x00000020 0x00000220 0x00730072 0x00180000 0x0002018d

```

```
0x00000101 0x05000000 0x0000000b 0x00000220 0x001c0000 0x000201fd
0x00000201 0x05000000 0x00000020 \
                0x00000223 0x00730072 0x00000101 0x05000000 0x00000012
0x00000101 0x05000000 0x00000012
Enum
0 = Root\LEGACY_W3SVC\0000
Count = REG_DWORD 0x00000001
NextInstance = REG_DWORD 0x00000001
```

TPCC Application Settings

```
\registry\machine\software\unisys
TPCC
MAXTERMS = 20000
DELIVERYTHREADS = 10
SERVERNAME = DBSERVER
DATABASE = tpcc
```


Appendix D - RTE Code

Admin Environment

```
if '%1'==' ' goto usage
if '%2'==' ' goto usage
if '%3'==' ' goto usage

:paramok

set WEBCHECKWIDS=1
set WEBDIAGLEVEL=4
set WEBEVENTLOG=0
set WEBEVENTHOST=
set WEBCHECKLEVEL=2

c:\webdriver\webadmin.exe -cweb%1.cfg -m%2 -d%3 -s160
if %ERRORLEVEL% NEQ 0 pause

goto end

:usage
@ECHO You must supply the following parameters:
@ECHO "webnnc.cmd <cfg file suffix> <min driver #> <max driver #>"
pause

:end
```

Profiles used for Performance Run

Web13392.cfg

```
//
// Common Driver Configuration
//
INITBASEPORT 4300
INITSYNCMAX 4
INITPAUSE 1
INITRSCALE 1200
INITTSCALE 100
INITRWID 1,13392
INITFIXEDWID 1
INITCCLAST 208
INITCCID 208
INITCITEMID 208
//
//Configuration Driver 1
//
1 INITIPADDR 192.168.93.11
1 INITIISADDR 192.1.01.1
```

```
1 INITIISPORT 80
1 INITBROWSERS 930
1 INITMYWID 1,93
//
//Configuration Driver 2
//
2 INITIPADDR 192.168.93.11
2 INITIISADDR 192.1.02.1
2 INITIISPORT 80
2 INITBROWSERS 930
2 INITMYWID 94,186
//
//Configuration Driver 3
//
3 INITIPADDR 192.168.93.11
3 INITIISADDR 192.1.03.1
3 INITIISPORT 80
3 INITBROWSERS 930
3 INITMYWID 187,279
//
//Configuration Driver 4
//
4 INITIPADDR 192.168.93.11
4 INITIISADDR 192.1.04.1
4 INITIISPORT 80
4 INITBROWSERS 930
4 INITMYWID 280,372
//
//Configuration Driver 5
//
5 INITIPADDR 192.168.93.11
5 INITIISADDR 192.1.05.1
5 INITIISPORT 80
5 INITBROWSERS 930
5 INITMYWID 373,465
//
//Configuration Driver 6
//
6 INITIPADDR 192.168.93.11
6 INITIISADDR 192.1.06.1
6 INITIISPORT 80
6 INITBROWSERS 930
6 INITMYWID 466,558
//
//Configuration Driver 7
//
7 INITIPADDR 192.168.93.11
7 INITIISADDR 192.1.07.1
7 INITIISPORT 80
7 INITBROWSERS 930
7 INITMYWID 559,651
//
//Configuration Driver 8
//
```

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8 INITIPADDR 192.168.93.11
8 INITIISADDR 192.1.08.1
8 INITIISPORT 80
8 INITBROWSERS 930
8 INITMYWID 652,744
//
//Configuration Driver 9
//
9 INITIPADDR 192.168.93.91
9 INITIISADDR 192.1.09.3
9 INITIISPORT 80
9 INITBROWSERS 930
9 INITMYWID 745,837
//
//Configuration Driver 10
//
10 INITIPADDR 192.168.93.12
10 INITIISADDR 192.1.11.2
10 INITIISPORT 80
10 INITBROWSERS 930
10 INITMYWID 838,930
//
//Configuration Driver 11
//
11 INITIPADDR 192.168.93.12
11 INITIISADDR 192.1.12.2
11 INITIISPORT 80
11 INITBROWSERS 930
11 INITMYWID 931,1023
//
//Configuration Driver 12
//
12 INITIPADDR 192.168.93.12
12 INITIISADDR 192.1.13.2
12 INITIISPORT 80
12 INITBROWSERS 930
12 INITMYWID 1024,1116
//
//Configuration Driver 13
//
13 INITIPADDR 192.168.93.12
13 INITIISADDR 192.1.14.2
13 INITIISPORT 80
13 INITBROWSERS 930
13 INITMYWID 1117,1209
//
//Configuration Driver 14
//
14 INITIPADDR 192.168.93.12
14 INITIISADDR 192.1.15.2
14 INITIISPORT 80
14 INITBROWSERS 930
14 INITMYWID 1210,1302
//
//Configuration Driver 15
//
15 INITIPADDR 192.168.93.12
15 INITIISADDR 192.1.16.2
15 INITIISPORT 80

```

```

15 INITBROWSERS 930
15 INITMYWID 1303,1395
//
//Configuration Driver 16
//
16 INITIPADDR 192.168.93.12
16 INITIISADDR 192.1.17.2
16 INITIISPORT 80
16 INITBROWSERS 930
16 INITMYWID 1396,1488
//
//Configuration Driver 17
//
17 INITIPADDR 192.168.93.12
17 INITIISADDR 192.1.18.2
17 INITIISPORT 80
17 INITBROWSERS 930
17 INITMYWID 1489,1581
//
//Configuration Driver 18
//
18 INITIPADDR 192.168.93.92
18 INITIISADDR 192.1.19.3
18 INITIISPORT 80
18 INITBROWSERS 930
18 INITMYWID 1582,1674
//
//Configuration Driver 19
//
19 INITIPADDR 192.168.93.21
19 INITIISADDR 192.2.01.1
19 INITIISPORT 80
19 INITBROWSERS 930
19 INITMYWID 1675,1767
//
//Configuration Driver 20
//
20 INITIPADDR 192.168.93.21
20 INITIISADDR 192.2.02.1
20 INITIISPORT 80
20 INITBROWSERS 930
20 INITMYWID 1768,1860
//
//Configuration Driver 21
//
21 INITIPADDR 192.168.93.21
21 INITIISADDR 192.2.03.1
21 INITIISPORT 80
21 INITBROWSERS 930
21 INITMYWID 1861,1953
//
//Configuration Driver 22
//
22 INITIPADDR 192.168.93.21
22 INITIISADDR 192.2.04.1
22 INITIISPORT 80
22 INITBROWSERS 930
22 INITMYWID 1954,2046
//

```

```

//Configuration Driver 23
//
23 INITIPADDR 192.168.93.21
23 INITIISADDR 192.2.05.1
23 INITIISPORT 80
23 INITBROWSERS 930
23 INITMYWID 2047,2139
//
//Configuration Driver 24
//
24 INITIPADDR 192.168.93.21
24 INITIISADDR 192.2.06.1
24 INITIISPORT 80
24 INITBROWSERS 930
24 INITMYWID 2140,2232
//
//Configuration Driver 25
//
25 INITIPADDR 192.168.93.21
25 INITIISADDR 192.2.07.1
25 INITIISPORT 80
25 INITBROWSERS 930
25 INITMYWID 2233,2325
//
//Configuration Driver 26
//
26 INITIPADDR 192.168.93.21
26 INITIISADDR 192.2.08.1
26 INITIISPORT 80
26 INITBROWSERS 930
26 INITMYWID 2326,2418
//
//Configuration Driver 27
//
27 INITIPADDR 192.168.93.91
27 INITIISADDR 192.2.09.3
27 INITIISPORT 80
27 INITBROWSERS 930
27 INITMYWID 2419,2511
//
//Configuration Driver 28
//
28 INITIPADDR 192.168.93.22
28 INITIISADDR 192.2.11.2
28 INITIISPORT 80
28 INITBROWSERS 930
28 INITMYWID 2512,2604
//
//Configuration Driver 29
//
29 INITIPADDR 192.168.93.22
29 INITIISADDR 192.2.12.2
29 INITIISPORT 80
29 INITBROWSERS 930
29 INITMYWID 2605,2697
//
//Configuration Driver 30
//
30 INITIPADDR 192.168.93.22

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30 INITIISADDR 192.2.13.2
30 INITIISPORT 80
30 INITBROWSERS 930
30 INITMYWID 2698,2790
//
//Configuration Driver 31
//
31 INITIPADDR 192.168.93.22
31 INITIISADDR 192.2.14.2
31 INITIISPORT 80
31 INITBROWSERS 930
31 INITMYWID 2791,2883
//
//Configuration Driver 32
//
32 INITIPADDR 192.168.93.22
32 INITIISADDR 192.2.15.2
32 INITIISPORT 80
32 INITBROWSERS 930
32 INITMYWID 2884,2976
//
//Configuration Driver 33
//
33 INITIPADDR 192.168.93.22
33 INITIISADDR 192.2.16.2
33 INITIISPORT 80
33 INITBROWSERS 930
33 INITMYWID 2977,3069
//
//Configuration Driver 34
//
34 INITIPADDR 192.168.93.22
34 INITIISADDR 192.2.17.2
34 INITIISPORT 80
34 INITBROWSERS 930
34 INITMYWID 3070,3162
//
//Configuration Driver 35
//
35 INITIPADDR 192.168.93.22
35 INITIISADDR 192.2.18.2
35 INITIISPORT 80
35 INITBROWSERS 930
35 INITMYWID 3163,3255
//
//Configuration Driver 36
//
36 INITIPADDR 192.168.93.92
36 INITIISADDR 192.2.19.3
36 INITIISPORT 80
36 INITBROWSERS 930
36 INITMYWID 3256,3348
//
//Configuration Driver 37
//
37 INITIPADDR 192.168.93.31
37 INITIISADDR 192.3.01.1
37 INITIISPORT 80
37 INITBROWSERS 930

```

```
37 INITMYWID 3349,3441
//
//Configuration Driver 38
//
38 INITIPADDR 192.168.93.31
38 INITIISADDR 192.3.02.1
38 INITIISPORT 80
38 INITBROWSERS 930
38 INITMYWID 3442,3534
//
//Configuration Driver 39
//
39 INITIPADDR 192.168.93.31
39 INITIISADDR 192.3.03.1
39 INITIISPORT 80
39 INITBROWSERS 930
39 INITMYWID 3535,3627
//
//Configuration Driver 40
//
40 INITIPADDR 192.168.93.31
40 INITIISADDR 192.3.04.1
40 INITIISPORT 80
40 INITBROWSERS 930
40 INITMYWID 3628,3720
//
//Configuration Driver 41
//
41 INITIPADDR 192.168.93.31
41 INITIISADDR 192.3.05.1
41 INITIISPORT 80
41 INITBROWSERS 930
41 INITMYWID 3721,3813
//
//Configuration Driver 42
//
42 INITIPADDR 192.168.93.31
42 INITIISADDR 192.3.06.1
42 INITIISPORT 80
42 INITBROWSERS 930
42 INITMYWID 3814,3906
//
//Configuration Driver 43
//
43 INITIPADDR 192.168.93.31
43 INITIISADDR 192.3.07.1
43 INITIISPORT 80
43 INITBROWSERS 930
43 INITMYWID 3907,3999
//
//Configuration Driver 44
//
44 INITIPADDR 192.168.93.31
44 INITIISADDR 192.3.08.1
44 INITIISPORT 80
44 INITBROWSERS 930
44 INITMYWID 4000,4092
//
//Configuration Driver 45
```

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//
45 INITIPADDR 192.168.93.91
45 INITIISADDR 192.3.09.3
45 INITIISPORT 80
45 INITBROWSERS 930
45 INITMYWID 4093,4185
//
//Configuration Driver 46
//
46 INITIPADDR 192.168.93.32
46 INITIISADDR 192.3.11.2
46 INITIISPORT 80
46 INITBROWSERS 930
46 INITMYWID 4186,4278
//
//Configuration Driver 47
//
47 INITIPADDR 192.168.93.32
47 INITIISADDR 192.3.12.2
47 INITIISPORT 80
47 INITBROWSERS 930
47 INITMYWID 4279,4371
//
//Configuration Driver 48
//
48 INITIPADDR 192.168.93.32
48 INITIISADDR 192.3.13.2
48 INITIISPORT 80
48 INITBROWSERS 930
48 INITMYWID 4372,4464
//
//Configuration Driver 49
//
49 INITIPADDR 192.168.93.32
49 INITIISADDR 192.3.14.2
49 INITIISPORT 80
49 INITBROWSERS 930
49 INITMYWID 4465,4557
//
//Configuration Driver 50
//
50 INITIPADDR 192.168.93.32
50 INITIISADDR 192.3.15.2
50 INITIISPORT 80
50 INITBROWSERS 930
50 INITMYWID 4558,4650
//
//Configuration Driver 51
//
51 INITIPADDR 192.168.93.32
51 INITIISADDR 192.3.16.2
51 INITIISPORT 80
51 INITBROWSERS 930
51 INITMYWID 4651,4743
//
//Configuration Driver 52
//
52 INITIPADDR 192.168.93.32
52 INITIISADDR 192.3.17.2
```

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52 INITIISPORT 80
52 INITBROWSERS 930
52 INITMYWID 4744,4836
//
//Configuration Driver 53
//
53 INITIPADDR 192.168.93.32
53 INITIISADDR 192.3.18.2
53 INITIISPORT 80
53 INITBROWSERS 930
53 INITMYWID 4837,4929
//
//Configuration Driver 54
//
54 INITIPADDR 192.168.93.92
54 INITIISADDR 192.3.19.3
54 INITIISPORT 80
54 INITBROWSERS 930
54 INITMYWID 4930,5022
//
//Configuration Driver 55
//
55 INITIPADDR 192.168.93.41
55 INITIISADDR 192.4.01.1
55 INITIISPORT 80
55 INITBROWSERS 930
55 INITMYWID 5023,5115
//
//Configuration Driver 56
//
56 INITIPADDR 192.168.93.41
56 INITIISADDR 192.4.02.1
56 INITIISPORT 80
56 INITBROWSERS 930
56 INITMYWID 5116,5208
//
//Configuration Driver 57
//
57 INITIPADDR 192.168.93.41
57 INITIISADDR 192.4.03.1
57 INITIISPORT 80
57 INITBROWSERS 930
57 INITMYWID 5209,5301
//
//Configuration Driver 58
//
58 INITIPADDR 192.168.93.41
58 INITIISADDR 192.4.04.1
58 INITIISPORT 80
58 INITBROWSERS 930
58 INITMYWID 5302,5394
//
//Configuration Driver 59
//
59 INITIPADDR 192.168.93.41
59 INITIISADDR 192.4.05.1
59 INITIISPORT 80
59 INITBROWSERS 930
59 INITMYWID 5395,5487
```

```
//
//Configuration Driver 60
//
60 INITIPADDR 192.168.93.41
60 INITIISADDR 192.4.06.1
60 INITIISPORT 80
60 INITBROWSERS 930
60 INITMYWID 5488,5580
//
//Configuration Driver 61
//
61 INITIPADDR 192.168.93.41
61 INITIISADDR 192.4.07.1
61 INITIISPORT 80
61 INITBROWSERS 930
61 INITMYWID 5581,5673
//
//Configuration Driver 62
//
62 INITIPADDR 192.168.93.41
62 INITIISADDR 192.4.08.1
62 INITIISPORT 80
62 INITBROWSERS 930
62 INITMYWID 5674,5766
//
//Configuration Driver 63
//
63 INITIPADDR 192.168.93.91
63 INITIISADDR 192.4.09.3
63 INITIISPORT 80
63 INITBROWSERS 930
63 INITMYWID 5767,5859
//
//Configuration Driver 64
//
64 INITIPADDR 192.168.93.42
64 INITIISADDR 192.4.11.2
64 INITIISPORT 80
64 INITBROWSERS 930
64 INITMYWID 5860,5952
//
//Configuration Driver 65
//
65 INITIPADDR 192.168.93.42
65 INITIISADDR 192.4.12.2
65 INITIISPORT 80
65 INITBROWSERS 930
65 INITMYWID 5953,6045
//
//Configuration Driver 66
//
66 INITIPADDR 192.168.93.42
66 INITIISADDR 192.4.13.2
66 INITIISPORT 80
66 INITBROWSERS 930
66 INITMYWID 6046,6138
//
//Configuration Driver 67
//
```

```
67 INITIPADDR 192.168.93.42
67 INITIISADDR 192.4.14.2
67 INITIISPORT 80
67 INITBROWSERS 930
67 INITMYWID 6139,6231
//
//Configuration Driver 68
//
68 INITIPADDR 192.168.93.42
68 INITIISADDR 192.4.15.2
68 INITIISPORT 80
68 INITBROWSERS 930
68 INITMYWID 6232,6324
//
//Configuration Driver 69
//
69 INITIPADDR 192.168.93.42
69 INITIISADDR 192.4.16.2
69 INITIISPORT 80
69 INITBROWSERS 930
69 INITMYWID 6325,6417
//
//Configuration Driver 70
//
70 INITIPADDR 192.168.93.42
70 INITIISADDR 192.4.17.2
70 INITIISPORT 80
70 INITBROWSERS 930
70 INITMYWID 6418,6510
//
//Configuration Driver 71
//
71 INITIPADDR 192.168.93.42
71 INITIISADDR 192.4.18.2
71 INITIISPORT 80
71 INITBROWSERS 930
71 INITMYWID 6511,6603
//
//Configuration Driver 72
//
72 INITIPADDR 192.168.93.92
72 INITIISADDR 192.4.19.3
72 INITIISPORT 80
72 INITBROWSERS 930
72 INITMYWID 6604,6696
//
//Configuration Driver 73
//
73 INITIPADDR 192.168.93.51
73 INITIISADDR 192.5.01.1
73 INITIISPORT 80
73 INITBROWSERS 930
73 INITMYWID 6697,6789
//
//Configuration Driver 74
//
74 INITIPADDR 192.168.93.51
74 INITIISADDR 192.5.02.1
74 INITIISPORT 80
```

```
74 INITBROWSERS 930
74 INITMYWID 6790,6882
//
//Configuration Driver 75
//
75 INITIPADDR 192.168.93.51
75 INITIISADDR 192.5.03.1
75 INITIISPORT 80
75 INITBROWSERS 930
75 INITMYWID 6883,6975
//
//Configuration Driver 76
//
76 INITIPADDR 192.168.93.51
76 INITIISADDR 192.5.04.1
76 INITIISPORT 80
76 INITBROWSERS 930
76 INITMYWID 6976,7068
//
//Configuration Driver 77
//
77 INITIPADDR 192.168.93.51
77 INITIISADDR 192.5.05.1
77 INITIISPORT 80
77 INITBROWSERS 930
77 INITMYWID 7069,7161
//
//Configuration Driver 78
//
78 INITIPADDR 192.168.93.51
78 INITIISADDR 192.5.06.1
78 INITIISPORT 80
78 INITBROWSERS 930
78 INITMYWID 7162,7254
//
//Configuration Driver 79
//
79 INITIPADDR 192.168.93.51
79 INITIISADDR 192.5.07.1
79 INITIISPORT 80
79 INITBROWSERS 930
79 INITMYWID 7255,7347
//
//Configuration Driver 80
//
80 INITIPADDR 192.168.93.51
80 INITIISADDR 192.5.08.1
80 INITIISPORT 80
80 INITBROWSERS 930
80 INITMYWID 7348,7440
//
//Configuration Driver 81
//
81 INITIPADDR 192.168.93.91
81 INITIISADDR 192.5.09.3
81 INITIISPORT 80
81 INITBROWSERS 930
81 INITMYWID 7441,7533
//
```

```
//Configuration Driver 82
//
82 INITIPADDR 192.168.93.52
82 INITIISADDR 192.5.11.2
82 INITIISPORT 80
82 INITBROWSERS 930
82 INITMYWID 7534,7626
//
//Configuration Driver 83
//
83 INITIPADDR 192.168.93.52
83 INITIISADDR 192.5.12.2
83 INITIISPORT 80
83 INITBROWSERS 930
83 INITMYWID 7627,7719
//
//Configuration Driver 84
//
84 INITIPADDR 192.168.93.52
84 INITIISADDR 192.5.13.2
84 INITIISPORT 80
84 INITBROWSERS 930
84 INITMYWID 7720,7812
//
//Configuration Driver 85
//
85 INITIPADDR 192.168.93.52
85 INITIISADDR 192.5.14.2
85 INITIISPORT 80
85 INITBROWSERS 930
85 INITMYWID 7813,7905
//
//Configuration Driver 86
//
86 INITIPADDR 192.168.93.52
86 INITIISADDR 192.5.15.2
86 INITIISPORT 80
86 INITBROWSERS 930
86 INITMYWID 7906,7998
//
//Configuration Driver 87
//
87 INITIPADDR 192.168.93.52
87 INITIISADDR 192.5.16.2
87 INITIISPORT 80
87 INITBROWSERS 930
87 INITMYWID 7999,8091
//
//Configuration Driver 88
//
88 INITIPADDR 192.168.93.52
88 INITIISADDR 192.5.17.2
88 INITIISPORT 80
88 INITBROWSERS 930
88 INITMYWID 8092,8184
//
//Configuration Driver 89
//
89 INITIPADDR 192.168.93.52
```

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89 INITIISADDR 192.5.18.2
89 INITIISPORT 80
89 INITBROWSERS 930
89 INITMYWID 8185,8277
//
//Configuration Driver 90
//
90 INITIPADDR 192.168.93.92
90 INITIISADDR 192.5.19.3
90 INITIISPORT 80
90 INITBROWSERS 930
90 INITMYWID 8278,8370
//
//Configuration Driver 91
//
91 INITIPADDR 192.168.93.61
91 INITIISADDR 192.6.01.1
91 INITIISPORT 80
91 INITBROWSERS 930
91 INITMYWID 8371,8463
//
//Configuration Driver 92
//
92 INITIPADDR 192.168.93.61
92 INITIISADDR 192.6.02.1
92 INITIISPORT 80
92 INITBROWSERS 930
92 INITMYWID 8464,8556
//
//Configuration Driver 93
//
93 INITIPADDR 192.168.93.61
93 INITIISADDR 192.6.03.1
93 INITIISPORT 80
93 INITBROWSERS 930
93 INITMYWID 8557,8649
//
//Configuration Driver 94
//
94 INITIPADDR 192.168.93.61
94 INITIISADDR 192.6.04.1
94 INITIISPORT 80
94 INITBROWSERS 930
94 INITMYWID 8650,8742
//
//Configuration Driver 95
//
95 INITIPADDR 192.168.93.61
95 INITIISADDR 192.6.05.1
95 INITIISPORT 80
95 INITBROWSERS 930
95 INITMYWID 8743,8835
//
//Configuration Driver 96
//
96 INITIPADDR 192.168.93.61
96 INITIISADDR 192.6.06.1
96 INITIISPORT 80
96 INITBROWSERS 930
```

```
96 INITMYWID 8836,8928
//
//Configuration Driver 97
//
97 INITIPADDR 192.168.93.61
97 INITIISADDR 192.6.07.1
97 INITIISPORT 80
97 INITBROWSERS 930
97 INITMYWID 8929,9021
//
//Configuration Driver 98
//
98 INITIPADDR 192.168.93.61
98 INITIISADDR 192.6.08.1
98 INITIISPORT 80
98 INITBROWSERS 930
98 INITMYWID 9022,9114
//
//Configuration Driver 99
//
99 INITIPADDR 192.168.93.91
99 INITIISADDR 192.6.09.3
99 INITIISPORT 80
99 INITBROWSERS 930
99 INITMYWID 9115,9207
//
//Configuration Driver 100
//
100 INITIPADDR 192.168.93.62
100 INITIISADDR 192.6.11.2
100 INITIISPORT 80
100 INITBROWSERS 930
100 INITMYWID 9208,9300
//
//Configuration Driver 101
//
101 INITIPADDR 192.168.93.62
101 INITIISADDR 192.6.12.2
101 INITIISPORT 80
101 INITBROWSERS 930
101 INITMYWID 9301,9393
//
//Configuration Driver 102
//
102 INITIPADDR 192.168.93.62
102 INITIISADDR 192.6.13.2
102 INITIISPORT 80
102 INITBROWSERS 930
102 INITMYWID 9394,9486
//
//Configuration Driver 103
//
103 INITIPADDR 192.168.93.62
103 INITIISADDR 192.6.14.2
103 INITIISPORT 80
103 INITBROWSERS 930
103 INITMYWID 9487,9579
//
//Configuration Driver 104
```

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//
104 INITIPADDR 192.168.93.62
104 INITIISADDR 192.6.15.2
104 INITIISPORT 80
104 INITBROWSERS 930
104 INITMYWID 9580,9672
//
//Configuration Driver 105
//
105 INITIPADDR 192.168.93.62
105 INITIISADDR 192.6.16.2
105 INITIISPORT 80
105 INITBROWSERS 930
105 INITMYWID 9673,9765
//
//Configuration Driver 106
//
106 INITIPADDR 192.168.93.62
106 INITIISADDR 192.6.17.2
106 INITIISPORT 80
106 INITBROWSERS 930
106 INITMYWID 9766,9858
//
//Configuration Driver 107
//
107 INITIPADDR 192.168.93.62
107 INITIISADDR 192.6.18.2
107 INITIISPORT 80
107 INITBROWSERS 930
107 INITMYWID 9859,9951
//
//Configuration Driver 108
//
108 INITIPADDR 192.168.93.92
108 INITIISADDR 192.6.19.3
108 INITIISPORT 80
108 INITBROWSERS 930
108 INITMYWID 9952,10044
//
//Configuration Driver 109
//
109 INITIPADDR 192.168.93.71
109 INITIISADDR 192.7.01.1
109 INITIISPORT 80
109 INITBROWSERS 930
109 INITMYWID 10045,10137
//
//Configuration Driver 110
//
110 INITIPADDR 192.168.93.71
110 INITIISADDR 192.7.02.1
110 INITIISPORT 80
110 INITBROWSERS 930
110 INITMYWID 10138,10230
//
//Configuration Driver 111
//
111 INITIPADDR 192.168.93.71
111 INITIISADDR 192.7.03.1
```



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111 INITIISPORT 80
111 INITBROWSERS 930
111 INITMYWID 10231,10323
//
//Configuration Driver 112
//
112 INITIPADDR 192.168.93.71
112 INITIISADDR 192.7.04.1
112 INITIISPORT 80
112 INITBROWSERS 930
112 INITMYWID 10324,10416
//
//Configuration Driver 113
//
113 INITIPADDR 192.168.93.71
113 INITIISADDR 192.7.05.1
113 INITIISPORT 80
113 INITBROWSERS 930
113 INITMYWID 10417,10509
//
//Configuration Driver 114
//
114 INITIPADDR 192.168.93.71
114 INITIISADDR 192.7.06.1
114 INITIISPORT 80
114 INITBROWSERS 930
114 INITMYWID 10510,10602
//
//Configuration Driver 115
//
115 INITIPADDR 192.168.93.71
115 INITIISADDR 192.7.07.1
115 INITIISPORT 80
115 INITBROWSERS 930
115 INITMYWID 10603,10695
//
//Configuration Driver 116
//
116 INITIPADDR 192.168.93.71
116 INITIISADDR 192.7.08.1
116 INITIISPORT 80
116 INITBROWSERS 930
116 INITMYWID 10696,10788
//
//Configuration Driver 117
//
117 INITIPADDR 192.168.93.91
117 INITIISADDR 192.7.09.3
117 INITIISPORT 80
117 INITBROWSERS 930
117 INITMYWID 10789,10881
//
//Configuration Driver 118
//
118 INITIPADDR 192.168.93.72
118 INITIISADDR 192.7.11.2
118 INITIISPORT 80
118 INITBROWSERS 930
118 INITMYWID 10882,10974
```

```
//
//Configuration Driver 119
//
119 INITIPADDR 192.168.93.72
119 INITIISADDR 192.7.12.2
119 INITIISPORT 80
119 INITBROWSERS 930
119 INITMYWID 10975,11067
//
//Configuration Driver 120
//
120 INITIPADDR 192.168.93.72
120 INITIISADDR 192.7.13.2
120 INITIISPORT 80
120 INITBROWSERS 930
120 INITMYWID 11068,11160
//
//Configuration Driver 121
//
121 INITIPADDR 192.168.93.72
121 INITIISADDR 192.7.14.2
121 INITIISPORT 80
121 INITBROWSERS 930
121 INITMYWID 11161,11253
//
//Configuration Driver 122
//
122 INITIPADDR 192.168.93.72
122 INITIISADDR 192.7.15.2
122 INITIISPORT 80
122 INITBROWSERS 930
122 INITMYWID 11254,11346
//
//Configuration Driver 123
//
123 INITIPADDR 192.168.93.72
123 INITIISADDR 192.7.16.2
123 INITIISPORT 80
123 INITBROWSERS 930
123 INITMYWID 11347,11439
//
//Configuration Driver 124
//
124 INITIPADDR 192.168.93.72
124 INITIISADDR 192.7.17.2
124 INITIISPORT 80
124 INITBROWSERS 930
124 INITMYWID 11440,11532
//
//Configuration Driver 125
//
125 INITIPADDR 192.168.93.72
125 INITIISADDR 192.7.18.2
125 INITIISPORT 80
125 INITBROWSERS 930
125 INITMYWID 11533,11625
//
//Configuration Driver 126
//
```

```

126 INITIPADDR 192.168.93.92
126 INITIISADDR 192.7.19.3
126 INITIISPORT 80
126 INITBROWSERS 930
126 INITMYWID 11626,11718
//
//Configuration Driver 127
//
127 INITIPADDR 192.168.93.81
127 INITIISADDR 192.8.01.1
127 INITIISPORT 80
127 INITBROWSERS 930
127 INITMYWID 11719,11811
//
//Configuration Driver 128
//
128 INITIPADDR 192.168.93.81
128 INITIISADDR 192.8.02.1
128 INITIISPORT 80
128 INITBROWSERS 930
128 INITMYWID 11812,11904
//
//Configuration Driver 129
//
129 INITIPADDR 192.168.93.81
129 INITIISADDR 192.8.03.1
129 INITIISPORT 80
129 INITBROWSERS 930
129 INITMYWID 11905,11997
//
//Configuration Driver 130
//
130 INITIPADDR 192.168.93.81
130 INITIISADDR 192.8.04.1
130 INITIISPORT 80
130 INITBROWSERS 930
130 INITMYWID 11998,12090
//
//Configuration Driver 131
//
131 INITIPADDR 192.168.93.81
131 INITIISADDR 192.8.05.1
131 INITIISPORT 80
131 INITBROWSERS 930
131 INITMYWID 12091,12183
//
//Configuration Driver 132
//
132 INITIPADDR 192.168.93.81
132 INITIISADDR 192.8.06.1
132 INITIISPORT 80
132 INITBROWSERS 930
132 INITMYWID 12184,12276
//
//Configuration Driver 133
//
133 INITIPADDR 192.168.93.81
133 INITIISADDR 192.8.07.1
133 INITIISPORT 80

```

```

133 INITBROWSERS 930
133 INITMYWID 12277,12369
//
//Configuration Driver 134
//
134 INITIPADDR 192.168.93.81
134 INITIISADDR 192.8.08.1
134 INITIISPORT 80
134 INITBROWSERS 930
134 INITMYWID 12370,12462
//
//Configuration Driver 135
//
135 INITIPADDR 192.168.93.91
135 INITIISADDR 192.8.09.3
135 INITIISPORT 80
135 INITBROWSERS 930
135 INITMYWID 12463,12555
//
//Configuration Driver 136
//
136 INITIPADDR 192.168.93.82
136 INITIISADDR 192.8.11.2
136 INITIISPORT 80
136 INITBROWSERS 930
136 INITMYWID 12556,12648
//
//Configuration Driver 137
//
137 INITIPADDR 192.168.93.82
137 INITIISADDR 192.8.12.2
137 INITIISPORT 80
137 INITBROWSERS 930
137 INITMYWID 12649,12741
//
//Configuration Driver 138
//
138 INITIPADDR 192.168.93.82
138 INITIISADDR 192.8.13.2
138 INITIISPORT 80
138 INITBROWSERS 930
138 INITMYWID 12742,12834
//
//Configuration Driver 139
//
139 INITIPADDR 192.168.93.82
139 INITIISADDR 192.8.14.2
139 INITIISPORT 80
139 INITBROWSERS 930
139 INITMYWID 12835,12927
//
//Configuration Driver 140
//
140 INITIPADDR 192.168.93.82
140 INITIISADDR 192.8.15.2
140 INITIISPORT 80
140 INITBROWSERS 930
140 INITMYWID 12928,13020
//

```

```

//Configuration Driver 141
//
141 INITIPADDR 192.168.93.82
141 INITIISADDR 192.8.16.2
141 INITIISPORT 80
141 INITBROWSERS 930
141 INITMYWID 13021,13113
//
//Configuration Driver 142
//
142 INITIPADDR 192.168.93.82
142 INITIISADDR 192.8.17.2
142 INITIISPORT 80
142 INITBROWSERS 930
142 INITMYWID 13114,13206
//
//Configuration Driver 143
//
143 INITIPADDR 192.168.93.82
143 INITIISADDR 192.8.18.2
143 INITIISPORT 80
143 INITBROWSERS 930
143 INITMYWID 13207,13299
//
//Configuration Driver 144
//
144 INITIPADDR 192.168.93.92
144 INITIISADDR 192.8.19.3
144 INITIISPORT 80
144 INITBROWSERS 930
144 INITMYWID 13300,13392
//

```

```

set WEBTTPAYMENT=12030
set WEBTTDELIVERY=5060
set WEBTTORDERSTATUS=10070
set WEBTTSTOCKLEVEL=5060

```

```
webdriver.exe
```

```
goto end
```

```
:usage
```

```
@ECHO You must supply the following parameters:
```

```
@ECHO "webdriver.cmd <driver number>"
```

```
pause
```

```
:end
```

```
exit
```

Driver Environment

```
if '%1'==' ' goto usage
```

```
:paramok
```

```

set WEBDRIVerno=%1
set WEBADMBASEPORT=4300
set WEBDIAGLEVEL=2
set WEBEVENTLOG=1
set WEBEVENTHOST=
set WEBLOGLEVEL=1
set WEBSINGLETRAN=0
set WEBTPCCAUDIT=0
set WEBRTFUDGETM=110
set WEBNEWORDERPROB=4489
set WEBPAYMENTPROB=4305
set WEBORDERSTATUSPROB=402
set WEBDELIVERYPROB=402
set WEBSTOCKLEVELPROB=402
set WEBTTNEWORDER=12030

```


Appendix E - Disk Storage

TPC-C 60-Day Disk Space Requirements					
Warehouses	13,392	tpmC	165,218.71	tpmC/W	12.34
Table	Initial Rows	Data KB	Index KB	Extra 5% KB	Total With 5% KB
Warehouse	13,392	1,432	200	82	1,714
District	133,920	14,888	752	782	16,422
Customer	401,760,000	82,412,312	17,007,040	4,970,968	104,390,320
Customer.Text	401,760,000	240,305,792		12,015,290	252,321,082
History (D)	401,760,000	22,320,024	81,624		22,401,648
Order (D)	401,760,000	12,314,512	25,256		12,339,768
New-Order	120,528,000	1,905,616	4,536	95,508	2,005,660
Order-Line (D)	4,017,582,641	251,098,944	531,616		251,630,560
Stock	1,339,200,000	428,544,008	801,008	21,467,251	450,812,267
Item	100,000	9,528	688	511	10,727
Totals KB		1,038,917,528	18,452,032	38,549,879	1,095,919,439
Db/Filegroup	Count	Size MB	MB Allocated	MB Loaded +5%	MB for 8 Hours
master, model & msdb		22	22	22	22
tempdb		10	10	10	10
mssql70_tpcc_root	1	10	10	10	10
mssql70_misc_fg	92	3,115	286,580	268,312	272,507
mssql70_cs_fg	92	5,900	542,800	542,190	542,190
mssql70_ord_fg	92	3,525	324,300	259,742	312,498
Total Allocated MB			1,153,722	1,070,286	1,127,237
MB					
Dynamic Space MB	279,037	Sum of data for orders, order_line & history			
Static Space	791,197	Sum of data+index+5% - Dynamic Space			
Free Space	83,488	Total allocated space - (Dynamic & Static Spaces)			
Daily Growth	55,080	(Dynamic Space / (W * 62.5)) * tpmC			
Daily Spread	868	Free space - 1.5 * Daily growth (zero if negative)			
		0 SQL Server can be configured to eliminate Daily Spread			
60 Day Space MB	4,096,005	Static Space + 60 * (Daily Growth + Daily Spread)			
60 Day Space GB	4,000.00				
8 hr log GB	346.09	(need double for mirroring)			
Disk Capacity MB	33,534	32.748 GB	Capacity of 36GB disks (10,000 RPM)		
	16,744	16.352 GB	Capacity of 18GB disks (15,000 RPM)		
Space Usage	GB Needed	Disks Priced	GB Priced		
60-day space DB	4000.00 GB	920	15043.84 GB	18GB drives	
		0	0.00 GB	36GB drives	
Total DB		920	15043.84 GB		
8-hr log+mirror	692.18 GB	24	785.96 GB	36GB drives	
OS, SQL Server	3.10 GB	2	32.70 GB	18GB drive	
Total space	4695.29 GB	946	15862.50 GB	15.49 TB	

TPC-C Dynamic Table Growth Rates for 8 Hours						165,218.71 tpmC
Tables	Initial (KB)	Final (KB)	Change(KB)	Unused (KB)	KB / New-Order	8-Hr MB
History	22,905,656	25,139,424	2,233,768	24	0.0542	26,563.56
Orders	13,435,656	15,573,568	2,137,912	200	0.0518	17,135.50
Order_line	257,150,336	282,942,960	25,792,624	1,552	0.6254	299,558.86
Dynamic	293,491,648	323,655,952	30,164,304	1,776	0.7314	343,257.92
New_order	2,900,032	3,112,288	212,256	148,064	0.0051	3,230.65
Static						
Log	5,914,644	191,560,634	185,645,991		4.5015	354,397.17 346.091 GB
SUM(d_next_o_id)	406,915,079	448,156,379	41,241,300			

Appendix F - Third-Party Price Quotations

Microsoft Corporation
One Microsoft Way
Redmond, WA 98052-6399

Tel 425 882 8080
Fax 425 936 7329
<http://www.microsoft.com/>

Microsoft

October 29, 2001

Unisys Corp.
Glenn Weeks
MS237
25725 Jeronimo Road
Mission Viejo, CA 92691

Glenn:

Here is the information you requested regarding pricing for several Microsoft products to be used in conjunction with your TPC-C V5.0 benchmark testing.

All pricing shown is in US Dollars (\$).

Part Number	Description	Unit Price	Quantity	Price
810-00846	SQL Server 2000 Enterprise Edition <i>Per processor licensing</i> <i>Discount schedule: Open Program Level C</i>	\$ 16,541	32	\$ 529,312
C11-00821	Windows 2000 Server <i>Server license only - No CALs</i> <i>Discount schedule: Open Program - No Level</i>	\$ 738	1	\$ 738
048-00317	Visual C++ Professional 6.0 Win32	\$ 549	1	\$ 549
	3-year maintenance for above software	\$ 2,095	1	\$ 6,285

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: Patdt0129109533

Please include this Reference ID in any correspondence regarding this price quote.



Advanced Systems Division

Quote # DM011031-UN008

Oct 31, 2001

To: Unisys Corporation TPC-C

Qty	Prod #	Description	Unit Price	Net Price
ES7000 Server				
1	ES73251-GDN	SYS: ES7000, 2 Domain, 32P, 8 GB, 2 MSUs, 2 DIBs	\$521,333.00	\$521,333.00
3	RAM7-16G	MEM: 16GB, 1 GB DIMMs	\$81,600.00	\$244,800.00
1	RAM7-8GB	MEM: 8GB, 1 GB DIMMs	\$43,520.00	\$43,520.00
2	MSU2000-MBD	BRD: Memory Carrier Board, 0 Mem.	\$10,880.00	\$21,760.00
6	PCI2053-12	IO: Module, PCI Enclosure w/ BID Motherboard	\$2,992.00	\$17,952.00
20	PCI3-MOD	IO: Module, PCI Enclosure 3.3V, 4 Card	\$363.00	\$7,260.00
24	PCI6220-SW	CTRL: Fibre Channel HBA, 2-Port, 64-bit PCI	\$2,063.00	\$49,512.00
8	PCI10001-CXG	CTRL: cLAN, PCI Host Adapter & Cable	\$586.00	\$4,688.00
1	PCI7602-P64	CTRL: 2Ch SCSI, U160, PCI	\$442.00	\$442.00
2	HDM18110-CX1	DISK: 18GB, 10K SCSI LVD, SCA	\$568.00	\$1,136.00
1	ES70001-UIF	I/F: Monitor, 15-inch Color, Kybrd, Mse & Cable	\$340.00	\$340.00
1	ESS700030-N	SYS MGT: ES7000 Value Add Software	\$4,533.00	\$4,533.00
1	LED320032-EN	O/S: Microsoft Windows Datacenter Lmtd Edtn, 1-32P	\$90,667.00	\$90,667.00
2	WM320032-EN	O/S: Windows Datacenter Annual Update, 1-32P	\$26,293.00	\$52,586.00
ESM7700 Storage				
1037	ESM18304-F94	DISK: 18GB Drive, 15K FC, SCA + 10% spares	\$853.00	\$884,561.00
29	ESM36202-F94	DISK: 36GB Drive, 10K FC, SCA + 10% spares	\$928.00	\$26,912.00
94	ESM7200-DAE	DAE: Expansion Enclsr, w/ 0 Disk	\$4,087.00	\$384,178.00
12	ESM7900-DPE	DPE: 2 RAID Cntrl, 512MB Cache ea., 0 Disk	\$44,200.00	\$530,400.00
1	ESM7700-W2K	SYS MGT: Storage Agent, Monitor, Call Home & ATF	\$1,661.00	\$1,661.00
24	CBL144-10	CBL: FC, 50um Dupx, SC->SC Conn's, 10m	\$206.00	\$4,944.00
24	SFR9-PWR	PWR: Distribution Strip, 220V	\$295.00	\$7,080.00
24	USE1936-LC6	CBL: Power, U.S. (Domestic), L6-20P	\$56.00	\$1,344.00
12	RM361934-OFE	CAB: 36U x 19" x 34" Cabinet, e-@ction	\$810.00	\$9,720.00
12	RM3619-RDR	DOOR: 36U x 19", Rear	\$277.00	\$3,324.00
12	RM3634-SDS	PNL: 36U x 34" Side Skins, L&R	\$221.00	\$2,652.00
ES2024 Servers				
8	ES202141-GZN	SYS: ES2024 Tower, w/ 0 Proc., 0MB Mem	\$1,547.00	\$12,376.00
16	CPU31000-256	PROC:1x1GHz Pentium III/256KB Cache	\$884.00	\$14,144.00
8	VRM3-83	ACC: Voltage Regulator	\$29.00	\$232.00
16	DIM13368-512	MEM: 512 MB SDRAM PC133ECC Memory	\$681.00	\$10,896.00
8	ES2024-18G	DISK: 18GB SCSI 3.5 Internal	\$553.00	\$4,424.00
8	PCI10001-CXG	CTRL: cLAN, PCI Host Adapter & Cable	\$586.00	\$4,688.00
8	WI2003-CGS	MAINT: 3 Yr. Cmprhnsv-Gold Svc Warranty Upgrade	\$1,326.00	\$10,608.00
8	EVG2100-P	MONITOR:15-inch Color	\$221.00	\$1,768.00
1		Large Purchase Cash Prepay Discount Prices may vary when items are purchased separately. Disks come with a 3 year return-to-factory warranty, 7 day replenishment. Quote valid for 90 days.	-\$297,644.00	-\$297,644.00
TOTAL				\$2,678,797.00