



TPC Benchmark™ C Full Disclosure Report

**Unisys ES7000 Orion 540
Enterprise Server (32P)**

using

Microsoft SQL Server 2000 Enterprise Edition

on

**Microsoft Windows Server 2003,
Datacenter Edition**

**First Edition
June 27, 2003**

Unisys Part Number 4500 5279-000

First Edition – June 2003

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

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

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Overview

This report documents the methodology and results of the TPC Benchmark C (TPC-C) conducted on the Unisys Corporation ES7000 Orion 540 Enterprise Server (32P). The operating system on the server was Microsoft Windows Server 2003, Datacenter 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.

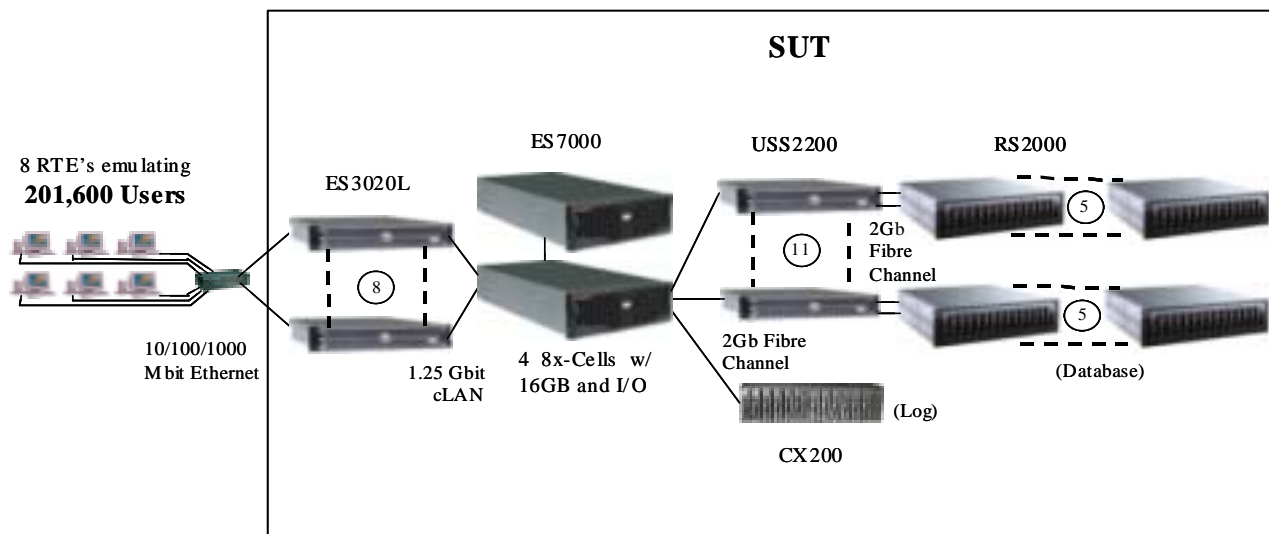
Executive Summary

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

Auditor

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

UNISYS	ES7000 Orion 540 Enterprise Server		TPC-C Rev. 5.1
			Report Date June 27, 2003
Total System Cost	TPC-C Throughput	Price Performance	Availability Date
\$1,824,732	252,920.49 tpmC	\$7.22 / tpmC	July 22, 2003
Processors	Database Manager	Operating System	Other Software
32 - Database 16 - Clients	Microsoft SQL Server 2000 Enterprise Edition	icrosoft Windows Server 2003, Datacenter Edition	Windows 2000 Server w/ IIS 5.0 and COM+ Microsoft Visual C++
			Number of Users
			201,600



Clients (each of 8)

ES3020L Server

2 x 2.4GHz Intel® Xeon™
Processor
w/ 512KB L2 cache,
1 GB memory,
1 x 18GB internal disk,
2 Inbuilt 10/100/1000Mb
Ethernet (1 used),
1 x PCI cLAN controller

ES7000 Orion 540

Enterprise Server

32 x 2.8GHz Intel® Xeon™
Processor MP
w/ 2MB L3 cache,
64 GB memory,
1 internal disk controller,
1 x 40GB internal disk,
12 x PCI Fibre Channel controllers,
8 x PCI cLAN controllers

Storage

USS2200/RS2000 & CX200

770 x 18GB + 18 x 73GB
Hot-Pluggable,
External Fibre Channel disks,
13 x FC RAID controllers

System Components	Enterprise Server		Clients (each of 8)	
	Quantity	Type	Quantity	Type
Processors	32	2.8GHz Intel® Xeon™ Processor MP, 2MB Lvl 3 Cache	2	2.4GHz Intel® Xeon™ Processor, 512KB Lvl 2 Cache
Memory	4	16 GB	2	512 KB
Disk Controllers	12	PCI Fibre Channel	1	Inbuilt SCSI
	1	Inbuilt (boot media)		
Disk Drives	770	18GB FC (17.1 GB useable)	1	18GB SCSI (16.9 GB useable)
	18	73GB FC (66.6 GB useable)		
	1	40GB boot (37.3 GB useable)		
Total Storage		14.0 TB		16.9 GB
Tape / CD-ROM	1	IDE CD-ROM	1	IDE CD-ROM
Terminals	1	Console Monitor	1	Console Monitor

UNISYS	ES7000 Orion 540 Enterprise Server		TPC-C Rev. 5.1				
			Report Date June 27, 2003				
Description	Part No.	Third Party		Qty.	Extended Price	3 yr.Maint. Price	
		Brand	Price				
Server Hardware:							
SYS: ES7000-540, 32x 2.8GHz, 128MB Cch, 16GB Mem	ES7540326-100		1	\$349,220	1	\$349,220	\$12,384
Inbuilt Disk Controller, 1x 40GB Disk (boot media)	Included						
SYS MGT: Sentinel Management S/W and Media	SEN70002-MSV		1	\$4,242	1	\$4,242	\$1,656
MEM: 16GB Memory, 1 GB DIMMs	RAM7-16G		1	\$9,500	3	\$28,500	
CTRL: Fibre Channel HBA, 2-Port, 64-bit PCI	FC76222-P64		1	\$2,850	12	\$34,200	
CTRL: cLAN, PCI Host Adapter & Cable	PCI10001-CXG		1	\$755	8	\$6,040	
I/F: Monitor, 15-inch Color, Kybrd, Mse & Cable	ES70003-UIF		1	\$570	1	\$570	
Server Software:							
O/S: Windows 2003 Srvr, Datacenter Edtn,32P, 1yr Lsub.	WND2332-TSP	2	1	\$70,224	1	\$70,224	
O/S: Windows 2003 Server, DC Lmted Sbscrptn, 1yr.	DUS200332-TSP	2	1	\$6,384	2	\$12,768	
O/S: Windows 2003 Server DC Support, 24x7x4, 1yr.	GTS7523432-SSA	2	1	\$17,168	3		\$51,504
APP: Microsoft SQL Server 2000 Enterprise Edtn, 32P	DQL200332-LX	2	1	\$425,600	1	\$425,600	* Inc. below
SRVC: Microsoft Database Server Support Package*	PRO-PRORS-16U-01 2	2	2	\$1,950	3		\$5,850
Server Subtotal						\$931,364	\$71,394
Storage Hardware:							
DISK: 18GB Drive, 15Krpm, 2Gb FC, SCA	JBD201815-2F		1	\$578	770	\$445,060	Spared
DISK: 18GB Drive, 15Krpm, 2Gb FC, SCA 10% spares*	JBD201815-2F		1	\$578	77		\$44,506
DISK: 73GB Drive, 10Krpm, 2Gb FC, SCA	CXR7310-2GF		1	\$1,748	18	\$31,464	Spared
DISK: 73GB Drive, 10Krpm, 2Gb FC, SCA 10% spares*	CXR7310-2GF		1	\$1,748	2		\$3,496
RCK: FC 2Gb Storage, Standard, Copper/Copper I/F	JBD2002-SA		1	\$3,197	33	\$105,501	\$17,820
RCK: FC 2Gb Storage, Standard, Optical/Copper I/F	JBD2011-SA		1	\$3,413	22	\$75,086	\$12,672
CTRL: Symmetric Disk Virt. 2x2GHz, 512MB Mem	RMM20103-ELS		1	\$5,502	11	\$60,522	\$12,804
CTRL: USS, Fibre Channel HBA, 1-Port, 64-bit PCI	RMM20701-TAR		1	\$2,209	33	\$72,897	\$15,048
APP: Unisys Storage Sentinel 2200 SDV Software	USS10300-SW		1	\$8,550	1	\$8,550	\$4,068
APP: Storage Sentinel SDV SW, 20TB License	USS20320-LIC		1	\$68,875	1	\$68,875	
CBL: FC, Copper, HSDC2 Conn's, 0.3m	JBD20003-CCL		1	\$54	33	\$1,782	
CBL: FC, Optical, LC->LC Conn's, 20m + 10% Spares	GCFAZLL		3	\$77	38	\$2,926	
RCK: Rack Mount Kit, Disk Enclosure	JBD2000-RMK		1	\$182	55	\$10,010	
CTRL: DPE: 2 RAID Cntrl, 1GB Cache ea., 0 Disk	CX200-DPE		1	\$19,000	1	\$19,000	\$2,976
RCK: FC 2Gb Storage,Optical I/F, DAE	CX600-DAE		1	\$7,600	1	\$7,600	\$1,176
SYS MGT: Storage, Navisphere Manager	CXN200-T3		1	\$3,800	1	\$3,800	\$744
SYS MGT: Storage, Navisphere Agent	CXN600-WIN		1	\$950	1	\$950	\$204
SWTCH: Switch, 10/100/1000Mb Ethernet	GS516-T16		1	\$2,850	1	\$2,850	
SWTCH: Switch, 8-port KVM	SWC81-SXR		1	\$1,520	3	\$4,560	\$3,348
CBL: Cable, KVM, 12 foot	CBL121-SWC		1	\$143	19	\$2,717	
KBD: Keyboard & Drawer, Rackmount	KBR28301-SXR		1	\$333	2	\$666	
MON: Display, Rackmount LCD	MON2145-LCD		1	\$2,565	2	\$5,130	
PWR: Distribution Strip, 9-Plug, 220V	SFR9-PWR		1	\$162	18	\$2,916	
CBL: Power, U.S. (Domestic), C20 - L6-20P	USE1936-LC6		1	\$86	18	\$1,548	
CAB: 36U x 19" x 41" Open Front Cabinet	HRT361941-OFT		1	\$1,425	6	\$8,550	
DOOR: 36U x 19", Rear	HRT3619-RDR		1	\$475	6	\$2,850	
PNL: 36U x 41" Side Skins, L&R HRT	HRT3641-SDS		1	\$475	6	\$2,850	
INSTL: Stabilizer Foot	RM1936-FOT		1	\$162	6	\$972	
Storage Subtotal						\$949,632	\$118,862
Client Hardware:							
SYS: ES3020L w/ 1x 2.4GHz Proc., 0MB Mem	ESL30201-240		1	\$1,557	8	\$12,456	\$10,464
PROC:1x 2.4GHz Intel Xeon/512KB Cache	CPL3020241-512		1	\$665	8	\$5,320	
MEM: 1GB, 2x 512KB DDR DRAM PC133ECC	DIM3000022-1GB		1	\$933	8	\$7,464	
RCK: ESL2026 Disk Backpanel, 1x4	HBP3020101-51		1	\$265	8	\$2,120	
DISK: 18GB 15Krpm U320 3.5 Internal	HDP18115-DC4		1	\$439	8	\$3,512	
CTRL: cLAN, PCI Host Adapter & Cable	PCI10001-CXG		1	\$755	8	\$6,040	
RCK: ES3020L Universal Rack Kit	ESL3020-VRL		1	\$333	8	\$2,664	
Client Software:							
O/S: Microsoft Windows 2000 Server	C11-00821	2	2	\$738	8	\$5,904	* Inc. above
ACC: Microsoft Visual C++ Standard	254-00170	2	2	\$109	1	\$109	* Inc. above
Client Subtotal						\$45,589	\$10,464
Total						\$1,926,585	\$200,720
						(\$302,573)	
Notes:							
1. 3rd Party Brand & Pricing: 1 = CRI Product Price, Unisys Maintenance Price 2 = Microsoft 3 = GoCables					Three Year Cost of Ownership: \$1,824,732 tpmC Rating: 252,920.49 \$ / tpmC: \$7.22		
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.							
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: 252,920.49 tpmC

Response Times, in seconds

Transaction	90th %ile	Average	Maximum
New-Order	0.43	0.30	8.00
Payment	0.39	0.25	5.55
Order-Status	0.40	0.28	9.95
Delivery (interactive portion)	0.25	0.17	2.89
Delivery (deferred portion)	0.28	0.20	2.63
Stock-Level	1.11	0.81	3.70
Menu	0.25	0.17	6.48

Response time delay added for emulated components, in seconds

RT Response time	0.1
Menu Response time	0.1

Transaction Mix, in percent of total transactions

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

Keying / Think Time Times, in seconds

Transaction	Minimum	Average	Maximum
New Order	18.01 / 0.00	18.01 / 12.03	18.05 / 120.31
Payment	3.01 / 0.00	3.01 / 12.03	3.03 / 120.31
Order-Status	2.01 / 0.00	2.01 / 10.06	2.03 / 100.70
Delivery (interactive portion)	2.01 / 0.00	2.01 / 5.06	2.03 / 50.61
Stock-Level	2.01 / 0.00	2.01 / 5.07	2.03 / 50.61

Test Duration

Ramp up time	40 minutes
Measurement interval (M)	120 minutes
Transactions (all types) completed during measurement interval	67,559,332
Ramp-down time	7 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 ES7000 Orion 540 Enterprise Server (32P) using Microsoft SQL Server 2000 Enterprise Edition on Microsoft Windows Server 2003, Datacenter Edition.

TPC Benchmark C Overview

The Transaction Processing Performance Council (TPC) developed The TPC Benchmark™ C Standard Specification Revision 5.1. It is the intent of the TPC to develop a suite of benchmarks to measure the performance of computer systems executing a wide range of applications. Unisys and Microsoft Corporations are active participants in the TPC to define and develop such a suite of benchmarks.

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

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

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

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

0.1. Order and Titles

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

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

0.2. Executive Summary Statement

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

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

0.3. Numerical Quantities Summary

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

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

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

0.4. Application Code Disclosure

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

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

0.5. Benchmark Sponsor

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

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

0.6. Parameter Settings

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

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

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

0.7. Configuration Diagrams

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

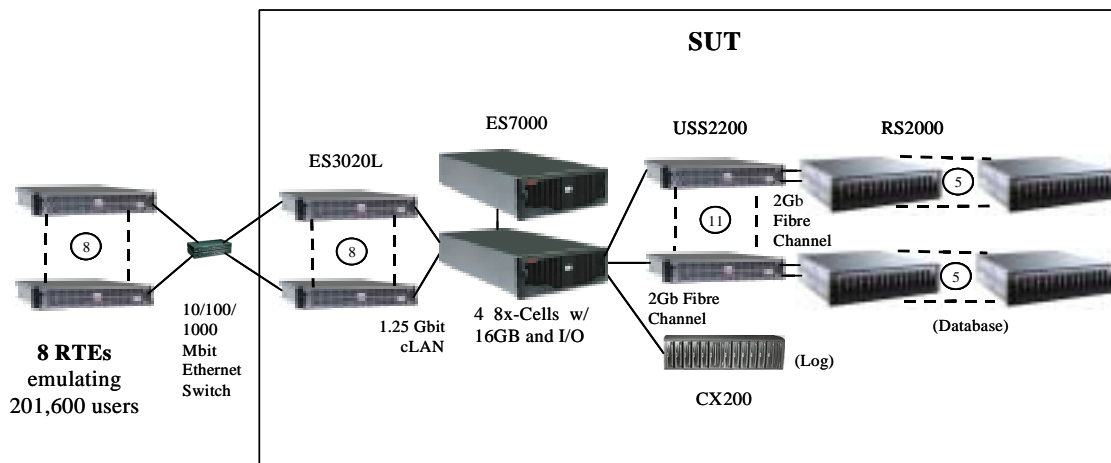
- *Number and type of processors.*
- *Size of allocated memory, and any specific mapping/partitioning of memory unique to the test.*
- *Number and type of disk units (and controllers, if applicable).*
- *Number of channels or bus connections to disk units, including their protocol type.*
- *Number of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

The Remote Terminal Emulator (RTE) software used for these TPC-C tests is proprietary to Unisys. The benchmarked configuration of the RTE and Unisys ES7000 Orion 540 Enterprise Server (32P) is illustrated in Figure 0.1. Tables 4.3 and 4.5 contain a detailed explanation of the disk configuration.

There was 1 drive of 18 GB @ 10Krpm serving each client as OS drive and 1 drive of 30 GB on the server used as the OS drive. The pricing substitutes 1 drive of 18 GB @ 15Krpm on each client and 1 drive of 40 GB on the server because the measured drives are no longer orderable through Unisys.

The priced configuration for the Unisys ES7000 Orion 540 Enterprise Server (32P) is shown in Figure 0.2.

Figure 0.1: Benchmarked Configuration

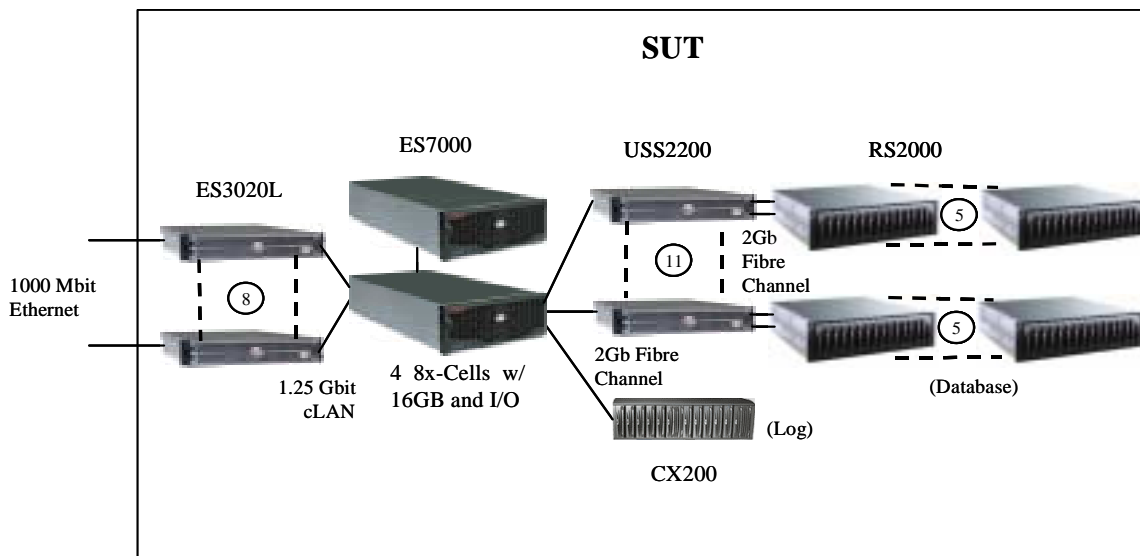


Clients (each of 8)
ES3020L Server
 2 x 2.4GHz Intel® Xeon™ Processor
 w/ 512KB L2 cache,
 1 GB memory,
 1 x 18GB internal disk,
 2 Inbuilt 10/100/1000Mb Ethernet (1 used),
 1 x PCI cLAN controller

ES7000 Orion 540 Enterprise Server
 32 x 2.8GHz Intel® Xeon™ Processor MP
 w/ 2MB L3 cache,
 64 GB memory,
 1 internal disk controller,
 1 x 30GB internal disk,
 12 x PCI Fibre Channel controllers,
 8 x PCI cLAN controllers

Storage
USS2200/RS2000 & CX200
 770 x 18GB + 18 x 73GB
 Hot-Pluggable,
 External Fibre Channel disks,
 13 x FC RAID controllers

Figure 0.2: Priced Configuration



Clients (each of 8)
ES3020L Server
 2 x 2.4GHz Intel® Xeon™ Processor
 w/ 512KB L2 cache,
 1 GB memory,
 1 x 18GB internal disk,
 2 Inbuilt 10/100/1000Mb Ethernet (1 used),
 1 x PCI cLAN controller

ES7000 Orion 540 Enterprise Server
 32 x 2.8GHz Intel® Xeon™ Processor MP
 w/ 2MB L3 cache,
 64 GB memory,
 1 internal disk controller,
 1 x 40GB internal disk,
 12 x PCI Fibre Channel controllers,
 8 x PCI cLAN controllers

Storage
USS2200/RS2000 & CX200
 770 x 18GB + 18x 73GB
 Hot-Pluggable,
 External Fibre Channel disks,
 13 x FC RAID controllers

1.

Clause 1: Logical Database Design

1.1. Table Definitions

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

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

1.2. Physical Organization of the Database

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

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

1.3. Insert and/or Delete Operations

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

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

1.4. Partitioning

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

Partitioning was not used for any table in this implementation.

1.5. Replication, Duplication or Additions

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

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

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

2.

Clause 2: Transaction & Terminal Profiles

2.1. Random Number Generation

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

The drivers used the Unisys RTE program, 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 24,280 emulated users. To the best of our knowledge, these tests prove that the fully scaled configuration used for the throughput test would also meet all durability tests.

3.5.1. Loss of Log Disk and Loss of Data Disk

The following steps were taken with only 24,280 emulated users to demonstrate durability in the case of loss of a log disk and loss of a data disk:

1. The database was backed up to extra space on a backup volume.
2. The D_NEXT_O_ID fields for all rows in the district table were summed up to determine the initial count of orders present in the database.
3. The RTE was started with 24,280 users. On the driver systems, committed and rolled back New-Order transactions were recorded in a "success" file.
4. After five minutes of running at steady state, a hot-pluggable log disk was removed from the disk cabinet, with no effect on the OS or 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, and then SQL Server was used to backup the transaction log to the backup volume.
8. Next, scripts were executed to drop the database and all its files. Then, SQL Server was shutdown.
9. A data disk was inserted in the disk cabinet to replace the one removed. The RAID controller, via Storage Sentinel Manager, was used to recreate the stripe set containing the new data disk. (The missing log drive was not replaced.)
10. The SUT was restarted, SQL Server was then restarted, and a new (empty) database created as part of the restore database process. That process loaded the initial database into the new database, but did not perform any recovery. Next the transaction log was restored, followed by transaction recovery. The latter step restored all committed transactions to the database.
11. Consistency condition 3 of Clause 3.3.2.3 was executed to verify database consistency.
12. Step 2 was repeated to determine the total number of orders. This number was subtracted from the count obtained previously in Step 2 to determine the number of additional orders added to the database.
13. The contents of the “success” files on the drivers were sampled to verify that the records in the “success” file for committed New-Order transactions had corresponding records in the ORDER table. 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. Removing the primary power to the System Under Test while the benchmark was executing induced this failure.

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

4.

Clause 4: Scaling & Database Population

4.1. Initial Cardinality of Tables

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

The TPC-C database for this test was configured with 20,160 warehouses. The cardinality of each table in the database is listed in Table 4.1

Table 4.1: Initial Cardinality of Database Table

Table	Occurrences
Warehouse	20,160
District	201,600
Customer	604,800,000
History	604,800,000
Order	604,800,000
New-Order	181,440,000
Order Line	6,047,984,984
Stock	2,016,000,000
Item	100,000

No rows of the warehouse table were inactive while executing the measurement runs.

4.2. Constant Values

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

Table 4.2: Constant C for NURand

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

4.3. Database Layout

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

Tables 4.3 and 4.5 list the distribution of the database over 770 18GB disks and the transaction log over 9 mirrored pairs of 73GB disks for the benchmark configuration. In addition, there was one 30GB disk in the host server containing Windows Server 2003, Datacenter 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. The tested and priced disk configurations were identical, except for the changes noted in section 0.7.

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/I, 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 4.4: ES7000 Server HBA-PCI Slot Map

8x2.8GHz Gallatin	16GB	PCIBus-3		PCIBus-2		16GB	8x2.8GHz Gallatin				
		Bus-3-1-2		Bus-2-1-2							
		Bus-3-1-1	IntellifibreV2 - 11	Bus-2-1-1	IntellifibreV2 - 8						
		Bus-3-0-2	IntellifibreV2 - 10	Bus-2-0-2	IntellifibreV2 - 7						
		Bus-3-0-1	IntellifibreV2 - 9	Bus-2-0-1	IntellifibreV2 - 6						
		Bus-3-0-3	cLAN - 8	Bus-2-0-3	cLAN - 6						
			cLAN - 7		cLAN - 5						
		8x2.8GHz Gallatin	16GB	PCIBus-1				PCIBus-0		16GB	8x2.8GHz Gallatin
				Bus-1-1-2	cLAN - 4			Bus-0-1-2	cLAN - 2		
					cLAN - 3				cLAN - 1		
Bus-1-1-1	IntellifibreV2 - 5			Bus-0-1-1	IntellifibreV2 - 2						
Bus-1-0-2	IntellifibreV2 - 4			Bus-0-0-2	IntellifibreV2 - 1						
Bus-1-0-1	IntellifibreV2 - 3			Bus-0-0-1	IntellifibreV2 - Log						
Bus-1-0-3					Bus-0-0-3	Uniscreen					
				CPH							

Table 4.5: Disk Management Configuration

Disk Management Configuration			
System Disks	Logical Disk#	Partition 1 Drive Letter	File System
30 GB Disk CD-ROM	0 CD-ROM 0	C: System D:	NTFS Capacity=27.95GB

		Logical Disk#	Partition 1 Size=333.03 GB FS=Raw Junction Point
CX200	SP	1	C:\BigDb\dbLogs\tpcclog1
CX200	SP	2	C:\BigDb\dbLogs\tpcclog2

Disk Management Configuration							
USS	HBA	Logical Disk#	Partition 1 Size=4.58GB FS=Raw Junction Point	Partition 2 Size=7.14GB FS=Raw Junction Point	Partition 3 Size=3.75GB FS=Raw Junction Point	Partition 4 Size=104.17GB FS=NTFS Junction Point	
1	0	3	C:\BigDb\cabA\ord1	C:\BigDb\cabA\cs1	C:\BigDb\cabA\misc1	Unallocated	
	0	4	C:\BigDb\cabA\ord2	C:\BigDb\cabA\cs2	C:\BigDb\cabA\misc2	Unallocated	
	0	5	C:\BigDb\cabA\ord3	C:\BigDb\cabA\cs3	C:\BigDb\cabA\misc3	C:\BigDb\dbBackups\backupA3	
	0	6	C:\BigDb\cabA\ord4	C:\BigDb\cabA\cs4	C:\BigDb\cabA\misc4	Unallocated	
	0	7	C:\BigDb\cabA\ord5	C:\BigDb\cabA\cs5	C:\BigDb\cabA\misc5	Unallocated	
	0	8	C:\BigDb\cabA\ord6	C:\BigDb\cabA\cs6	C:\BigDb\cabA\misc6	Unallocated	
	1	9	C:\BigDb\cabA\ord7	C:\BigDb\cabA\cs7	C:\BigDb\cabA\misc7	Unallocated	
	1	10	C:\BigDb\cabA\ord8	C:\BigDb\cabA\cs8	C:\BigDb\cabA\misc8	Unallocated	
	1	11	C:\BigDb\cabA\ord9	C:\BigDb\cabA\cs9	C:\BigDb\cabA\misc9	C:\BigDb\dbBackups\backupA9	
	1	12	C:\BigDb\cabA\ord10	C:\BigDb\cabA\cs10	C:\BigDb\cabA\misc10	C:\BigDb\dbBackups\backupA10	
	2	0	13	C:\BigDb\cabB\ord1	C:\BigDb\cabB\cs1	C:\BigDb\cabB\misc1	Unallocated
		0	14	C:\BigDb\cabB\ord2	C:\BigDb\cabB\cs2	C:\BigDb\cabB\misc2	Unallocated
0		15	C:\BigDb\cabB\ord3	C:\BigDb\cabB\cs3	C:\BigDb\cabB\misc3	C:\BigDb\dbBackups\backupB3	
0		16	C:\BigDb\cabB\ord4	C:\BigDb\cabB\cs4	C:\BigDb\cabB\misc4	Unallocated	
0		17	C:\BigDb\cabB\ord5	C:\BigDb\cabB\cs5	C:\BigDb\cabB\misc5	Unallocated	
0		18	C:\BigDb\cabB\ord6	C:\BigDb\cabB\cs6	C:\BigDb\cabB\misc6	Unallocated	
1		19	C:\BigDb\cabB\ord7	C:\BigDb\cabB\cs7	C:\BigDb\cabB\misc7	Unallocated	
1		20	C:\BigDb\cabB\ord8	C:\BigDb\cabB\cs8	C:\BigDb\cabB\misc8	Unallocated	
1		21	C:\BigDb\cabB\ord9	C:\BigDb\cabB\cs9	C:\BigDb\cabB\misc9	C:\BigDb\dbBackups\backupB9	
1		22	C:\BigDb\cabB\ord10	C:\BigDb\cabB\cs10	C:\BigDb\cabB\misc10	C:\BigDb\dbBackups\backupB10	
3	0	23	C:\BigDb\cabC\ord1	C:\BigDb\cabC\cs1	C:\BigDb\cabC\misc1	Unallocated	
	0	24	C:\BigDb\cabC\ord2	C:\BigDb\cabC\cs2	C:\BigDb\cabC\misc2	Unallocated	
	0	25	C:\BigDb\cabC\ord3	C:\BigDb\cabC\cs3	C:\BigDb\cabC\misc3	C:\BigDb\dbBackups\backupC3	
	0	26	C:\BigDb\cabC\ord4	C:\BigDb\cabC\cs4	C:\BigDb\cabC\misc4	Unallocated	
	0	27	C:\BigDb\cabC\ord5	C:\BigDb\cabC\cs5	C:\BigDb\cabC\misc5	Unallocated	
	0	28	C:\BigDb\cabC\ord6	C:\BigDb\cabC\cs6	C:\BigDb\cabC\misc6	Unallocated	
	1	29	C:\BigDb\cabC\ord7	C:\BigDb\cabC\cs7	C:\BigDb\cabC\misc7	Unallocated	
	1	30	C:\BigDb\cabC\ord8	C:\BigDb\cabC\cs8	C:\BigDb\cabC\misc8	Unallocated	
	1	31	C:\BigDb\cabC\ord9	C:\BigDb\cabC\cs9	C:\BigDb\cabC\misc9	C:\BigDb\dbBackups\backupC9	
	1	32	C:\BigDb\cabC\ord10	C:\BigDb\cabC\cs10	C:\BigDb\cabC\misc10	C:\BigDb\dbBackups\backupC10	

Table 4.5: Disk Management Configuration (Continued)

Disk Management Configuration						
USS	HBA	Logical Disk#	Partition 1 Size=4.58GB FS=Raw Junction Point	Partition 2 Size=7.14GB FS=Raw Junction Point	Partition 3 Size=3.75GB FS=Raw Junction Point	Partition 4 Size=104.17GB FS=NTFS Junction Point
4	0	33	C:\BigDb\cabD\ord1	C:\BigDb\cabD\cs1	C:\BigDb\cabD\misc1	Unallocated
	0	34	C:\BigDb\cabD\ord2	C:\BigDb\cabD\cs2	C:\BigDb\cabD\misc2	Unallocated
	0	35	C:\BigDb\cabD\ord3	C:\BigDb\cabD\cs3	C:\BigDb\cabD\misc3	C:\BigDb\dbBackups\backupD3
	0	36	C:\BigDb\cabD\ord4	C:\BigDb\cabD\cs4	C:\BigDb\cabD\misc4	Unallocated
	0	37	C:\BigDb\cabD\ord5	C:\BigDb\cabD\cs5	C:\BigDb\cabD\misc5	Unallocated
	0	38	C:\BigDb\cabD\ord6	C:\BigDb\cabD\cs6	C:\BigDb\cabD\misc6	Unallocated
5	1	39	C:\BigDb\cabD\ord8	C:\BigDb\cabD\cs8	C:\BigDb\cabD\misc7	Unallocated
	1	40	C:\BigDb\cabD\ord9	C:\BigDb\cabD\cs9	C:\BigDb\cabD\misc8	Unallocated
	1	41	C:\BigDb\cabD\ord10	C:\BigDb\cabD\cs10	C:\BigDb\cabD\misc9	C:\BigDb\dbBackups\backupD9
	1	42	C:\BigDb\cabD\ord12	C:\BigDb\cabD\cs12	C:\BigDb\cabD\misc10	C:\BigDb\dbBackups\backupD10
	0	43	C:\BigDb\cabE\ord1	C:\BigDb\cabE\cs1	C:\BigDb\cabE\misc1	Unallocated
	0	44	C:\BigDb\cabE\ord2	C:\BigDb\cabE\cs2	C:\BigDb\cabE\misc2	Unallocated
	0	45	C:\BigDb\cabE\ord3	C:\BigDb\cabE\cs3	C:\BigDb\cabE\misc3	C:\BigDb\dbBackups\backupE3
	0	46	C:\BigDb\cabE\ord4	C:\BigDb\cabE\cs4	C:\BigDb\cabE\misc4	Unallocated
6	0	47	C:\BigDb\cabE\ord5	C:\BigDb\cabE\cs5	C:\BigDb\cabE\misc5	Unallocated
	0	48	C:\BigDb\cabE\ord6	C:\BigDb\cabE\cs6	C:\BigDb\cabE\misc6	Unallocated
	1	49	C:\BigDb\cabE\ord7	C:\BigDb\cabE\cs7	C:\BigDb\cabE\misc7	Unallocated
	1	50	C:\BigDb\cabE\ord8	C:\BigDb\cabE\cs8	C:\BigDb\cabE\misc8	Unallocated
	1	51	C:\BigDb\cabE\ord9	C:\BigDb\cabE\cs9	C:\BigDb\cabE\misc9	C:\BigDb\dbBackups\backupE9
	1	52	C:\BigDb\cabE\ord10	C:\BigDb\cabE\cs10	C:\BigDb\cabE\misc10	C:\BigDb\dbBackups\backupE10
	0	53	C:\BigDb\cabF\ord1	C:\BigDb\cabF\cs1	C:\BigDb\cabF\misc1	Unallocated
	0	54	C:\BigDb\cabF\ord2	C:\BigDb\cabF\cs2	C:\BigDb\cabF\misc2	Unallocated
	0	55	C:\BigDb\cabF\ord3	C:\BigDb\cabF\cs3	C:\BigDb\cabF\misc3	C:\BigDb\dbBackups\backupF3
	0	56	C:\BigDb\cabF\ord4	C:\BigDb\cabF\cs4	C:\BigDb\cabF\misc4	Unallocated
7	0	57	C:\BigDb\cabF\ord5	C:\BigDb\cabF\cs5	C:\BigDb\cabF\misc5	Unallocated
	0	58	C:\BigDb\cabF\ord6	C:\BigDb\cabF\cs6	C:\BigDb\cabF\misc6	Unallocated
	1	59	C:\BigDb\cabF\ord7	C:\BigDb\cabF\cs7	C:\BigDb\cabF\misc7	Unallocated
	1	60	C:\BigDb\cabF\ord8	C:\BigDb\cabF\cs8	C:\BigDb\cabF\misc8	Unallocated
	1	61	C:\BigDb\cabF\ord9	C:\BigDb\cabF\cs9	C:\BigDb\cabF\misc9	C:\BigDb\dbBackups\backupF9
	1	62	C:\BigDb\cabF\ord10	C:\BigDb\cabF\cs10	C:\BigDb\cabF\misc10	C:\BigDb\dbBackups\backupF10
	0	63	C:\BigDb\cabG\ord1	C:\BigDb\cabG\cs1	C:\BigDb\cabG\misc1	Unallocated
	0	64	C:\BigDb\cabG\ord2	C:\BigDb\cabG\cs2	C:\BigDb\cabG\misc2	Unallocated
8	0	65	C:\BigDb\cabG\ord3	C:\BigDb\cabG\cs3	C:\BigDb\cabG\misc3	C:\BigDb\dbBackups\backupG3
	0	66	C:\BigDb\cabG\ord4	C:\BigDb\cabG\cs4	C:\BigDb\cabG\misc4	Unallocated
	0	67	C:\BigDb\cabG\ord5	C:\BigDb\cabG\cs5	C:\BigDb\cabG\misc5	Unallocated
	0	68	C:\BigDb\cabG\ord6	C:\BigDb\cabG\cs6	C:\BigDb\cabG\misc6	Unallocated
	1	69	C:\BigDb\cabG\ord7	C:\BigDb\cabG\cs7	C:\BigDb\cabG\misc7	Unallocated
	1	70	C:\BigDb\cabG\ord8	C:\BigDb\cabG\cs8	C:\BigDb\cabG\misc8	Unallocated
	1	71	C:\BigDb\cabG\ord9	C:\BigDb\cabG\cs9	C:\BigDb\cabG\misc9	C:\BigDb\dbBackups\backupG9
	1	72	C:\BigDb\cabG\ord10	C:\BigDb\cabG\cs10	C:\BigDb\cabG\misc10	C:\BigDb\dbBackups\backupG10
9	0	73	C:\BigDb\cabH\ord1	C:\BigDb\cabH\cs1	C:\BigDb\cabH\misc1	Unallocated
	0	74	C:\BigDb\cabH\ord2	C:\BigDb\cabH\cs2	C:\BigDb\cabH\misc2	Unallocated
	0	75	C:\BigDb\cabH\ord3	C:\BigDb\cabH\cs3	C:\BigDb\cabH\misc3	C:\BigDb\dbBackups\backupH3
	0	76	C:\BigDb\cabH\ord4	C:\BigDb\cabH\cs4	C:\BigDb\cabH\misc4	Unallocated
	0	77	C:\BigDb\cabH\ord5	C:\BigDb\cabH\cs5	C:\BigDb\cabH\misc5	Unallocated
	0	78	C:\BigDb\cabH\ord6	C:\BigDb\cabH\cs6	C:\BigDb\cabH\misc6	Unallocated
	1	79	C:\BigDb\cabH\ord7	C:\BigDb\cabH\cs7	C:\BigDb\cabH\misc7	Unallocated
	1	80	C:\BigDb\cabH\ord8	C:\BigDb\cabH\cs8	C:\BigDb\cabH\misc8	Unallocated
	1	81	C:\BigDb\cabH\ord9	C:\BigDb\cabH\cs9	C:\BigDb\cabH\misc9	C:\BigDb\dbBackups\backupH9
	1	82	C:\BigDb\cabH\ord10	C:\BigDb\cabH\cs10	C:\BigDb\cabH\misc10	C:\BigDb\dbBackups\backupH10
9	0	83	C:\BigDb\cabI\ord1	C:\BigDb\cabI\cs1	C:\BigDb\cabI\misc1	Unallocated
	0	84	C:\BigDb\cabI\ord2	C:\BigDb\cabI\cs2	C:\BigDb\cabI\misc2	Unallocated
	0	85	C:\BigDb\cabI\ord3	C:\BigDb\cabI\cs3	C:\BigDb\cabI\misc3	C:\BigDb\dbBackups\backupI3
	0	86	C:\BigDb\cabI\ord4	C:\BigDb\cabI\cs4	C:\BigDb\cabI\misc4	Unallocated
	0	87	C:\BigDb\cabI\ord5	C:\BigDb\cabI\cs5	C:\BigDb\cabI\misc5	Unallocated
	0	88	C:\BigDb\cabI\ord6	C:\BigDb\cabI\cs6	C:\BigDb\cabI\misc6	Unallocated
	1	89	C:\BigDb\cabI\ord7	C:\BigDb\cabI\cs7	C:\BigDb\cabI\misc7	Unallocated
	1	90	C:\BigDb\cabI\ord8	C:\BigDb\cabI\cs8	C:\BigDb\cabI\misc8	Unallocated
9	1	91	C:\BigDb\cabI\ord9	C:\BigDb\cabI\cs9	C:\BigDb\cabI\misc9	C:\BigDb\dbBackups\backupI9
	1	92	C:\BigDb\cabI\ord10	C:\BigDb\cabI\cs10	C:\BigDb\cabI\misc10	C:\BigDb\dbBackups\backupI10

Disk Management Configuration

USS	HBA	Logical Disk#	Partition 1	Partition 2	Partition 3	Partition 4
			Size=4.58GB FS=Raw Junction Point	Size=7.14GB FS=Raw Junction Point	Size=3.75GB FS=Raw Junction Point	Size=104.17GB FS=NTFS Junction Point
10	0	93	C:\BigDb\cabJ\ord1	C:\BigDb\cabJ\cs1	C:\BigDb\cabJ\misc1	Unallocated
		94	C:\BigDb\cabJ\ord2	C:\BigDb\cabJ\cs2	C:\BigDb\cabJ\misc2	Unallocated
		95	C:\BigDb\cabJ\ord3	C:\BigDb\cabJ\cs3	C:\BigDb\cabJ\misc3	C:\BigDb\dbBackups\backupJ3
		96	C:\BigDb\cabJ\ord4	C:\BigDb\cabJ\cs4	C:\BigDb\cabJ\misc4	Unallocated
		97	C:\BigDb\cabJ\ord5	C:\BigDb\cabJ\cs5	C:\BigDb\cabJ\misc5	Unallocated
		98	C:\BigDb\cabJ\ord6	C:\BigDb\cabJ\cs6	C:\BigDb\cabJ\misc6	Unallocated
	1	99	C:\BigDb\cabJ\ord7	C:\BigDb\cabJ\cs7	C:\BigDb\cabJ\misc7	Unallocated
		100	C:\BigDb\cabJ\ord8	C:\BigDb\cabJ\cs8	C:\BigDb\cabJ\misc8	Unallocated
		101	C:\BigDb\cabJ\ord9	C:\BigDb\cabJ\cs9	C:\BigDb\cabJ\misc9	C:\BigDb\dbBackups\backupJ9
		102	C:\BigDb\cabJ\ord10	C:\BigDb\cabJ\cs10	C:\BigDb\cabJ\misc10	C:\BigDb\dbBackups\backupJ10
11	0	103	C:\BigDb\cabK\ord1	C:\BigDb\cabK\cs1	C:\BigDb\cabK\misc1	Unallocated
		104	C:\BigDb\cabK\ord2	C:\BigDb\cabK\cs2	C:\BigDb\cabK\misc2	Unallocated
		105	C:\BigDb\cabK\ord3	C:\BigDb\cabK\cs3	C:\BigDb\cabK\misc3	C:\BigDb\dbBackups\backupK3
		106	C:\BigDb\cabK\ord4	C:\BigDb\cabK\cs4	C:\BigDb\cabK\misc4	Unallocated
		107	C:\BigDb\cabK\ord5	C:\BigDb\cabK\cs5	C:\BigDb\cabK\misc5	Unallocated
		108	C:\BigDb\cabK\ord6	C:\BigDb\cabK\cs6	C:\BigDb\cabK\misc6	Unallocated
	1	109	C:\BigDb\cabK\ord7	C:\BigDb\cabK\cs7	C:\BigDb\cabK\misc7	Unallocated
		110	C:\BigDb\cabK\ord8	C:\BigDb\cabK\cs8	C:\BigDb\cabK\misc8	Unallocated
		111	C:\BigDb\cabK\ord9	C:\BigDb\cabK\cs9	C:\BigDb\cabK\misc9	C:\BigDb\dbBackups\backupK9
		112	C:\BigDb\cabK\ord10	C:\BigDb\cabK\cs10	C:\BigDb\cabK\misc10	C:\BigDb\dbBackups\backupK10

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 252,920.49

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	0.30	8.00	0.43
Payment	0.25	5.55	0.39
Order Status	0.28	9.95	0.40
Delivery (interactive)	0.17	2.89	0.25
Delivery (deferred)	0.20	2.63	0.28
Stock-Level	0.81	3.70	1.11
Menu	0.17	6.48	0.25

5.3. Keying and Think Times

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

Table 5.2: Keying Times

Transaction	Minimum	Average	Maximum
New-Order	18.01	18.01	18.05
Payment	3.01	3.01	3.03
Order Status	2.01	2.01	2.03
Delivery (interactive)	2.01	2.01	2.03
Stock-Level	2.01	2.01	2.03

Table 5.3: Think Times

Transaction	Minimum	Average	Maximum
New-Order	0.00	12.03	120.31
Payment	0.00	12.03	120.31
Order Status	0.00	10.06	100.70
Delivery (interactive)	0.00	5.06	50.61
Stock-Level	0.00	5.07	50.61

5.4. Response Time Frequency Distribution Curves

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

Figure 5.1: New Order Response Time Distribution

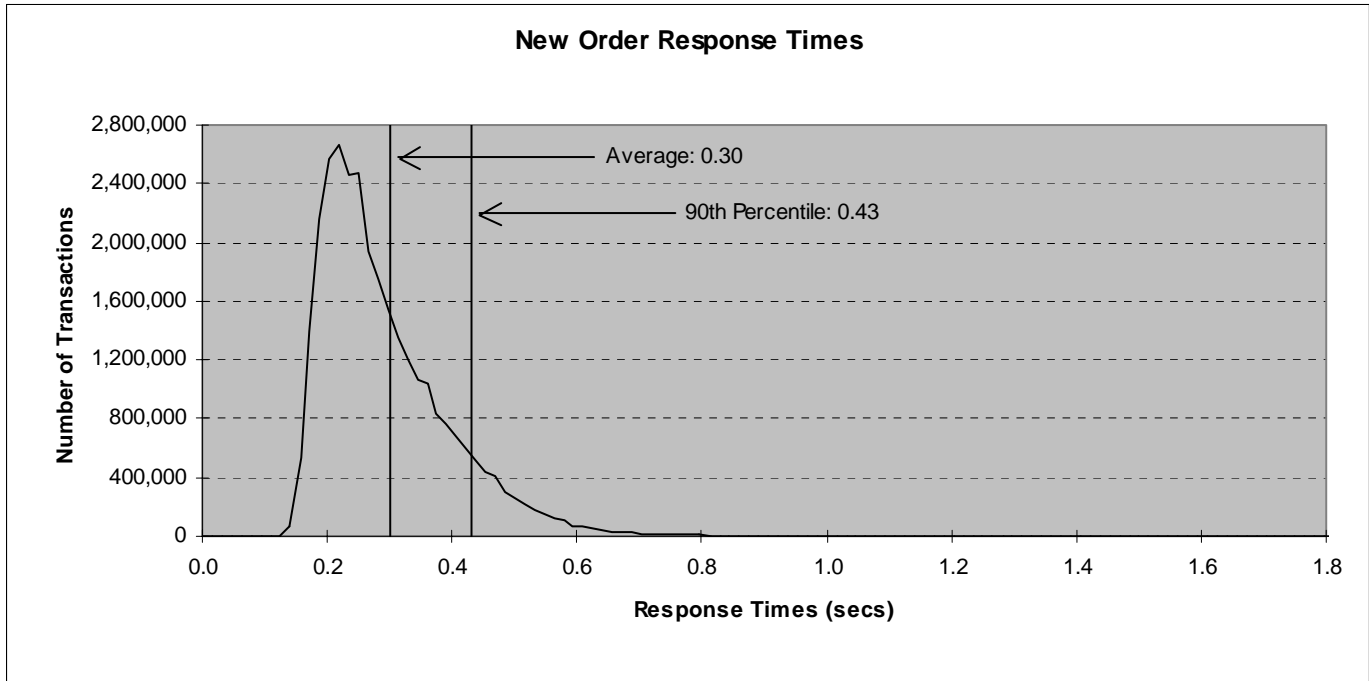


Figure 5.2: Payment Response Time Distribution

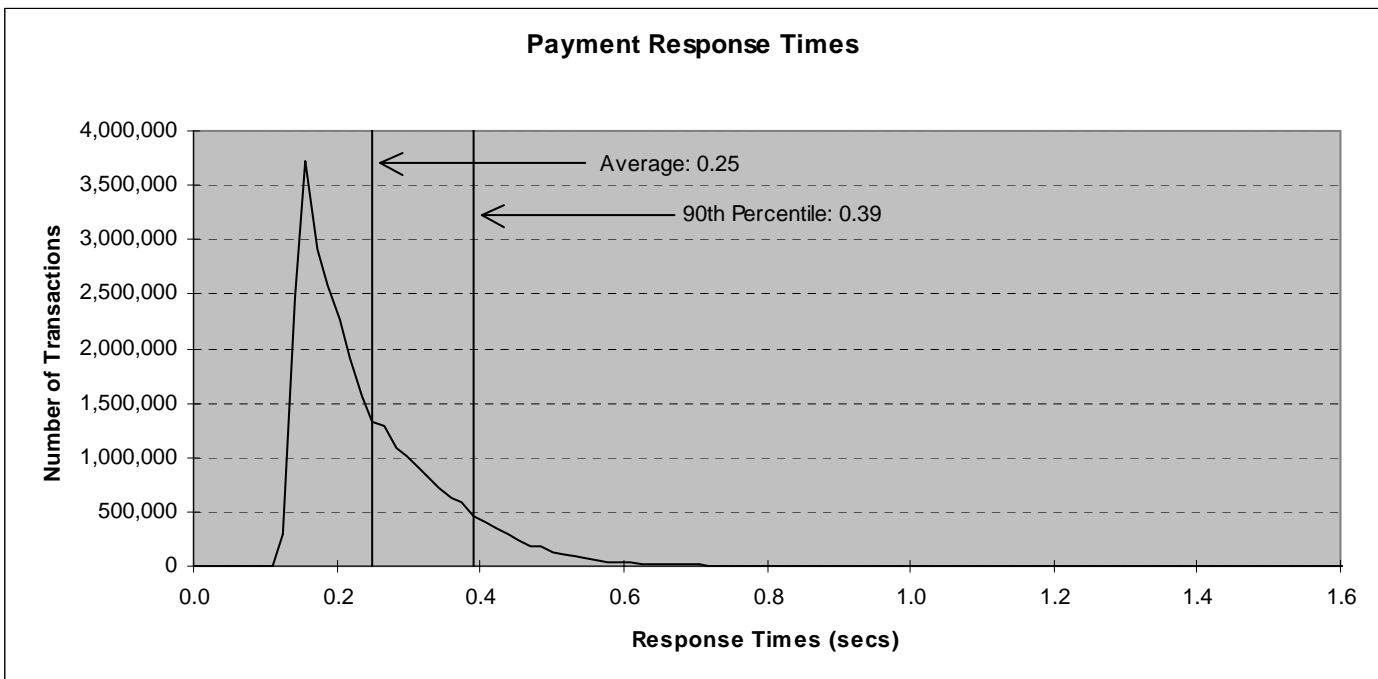


Figure 5.3: Order Status Response Time Distribution

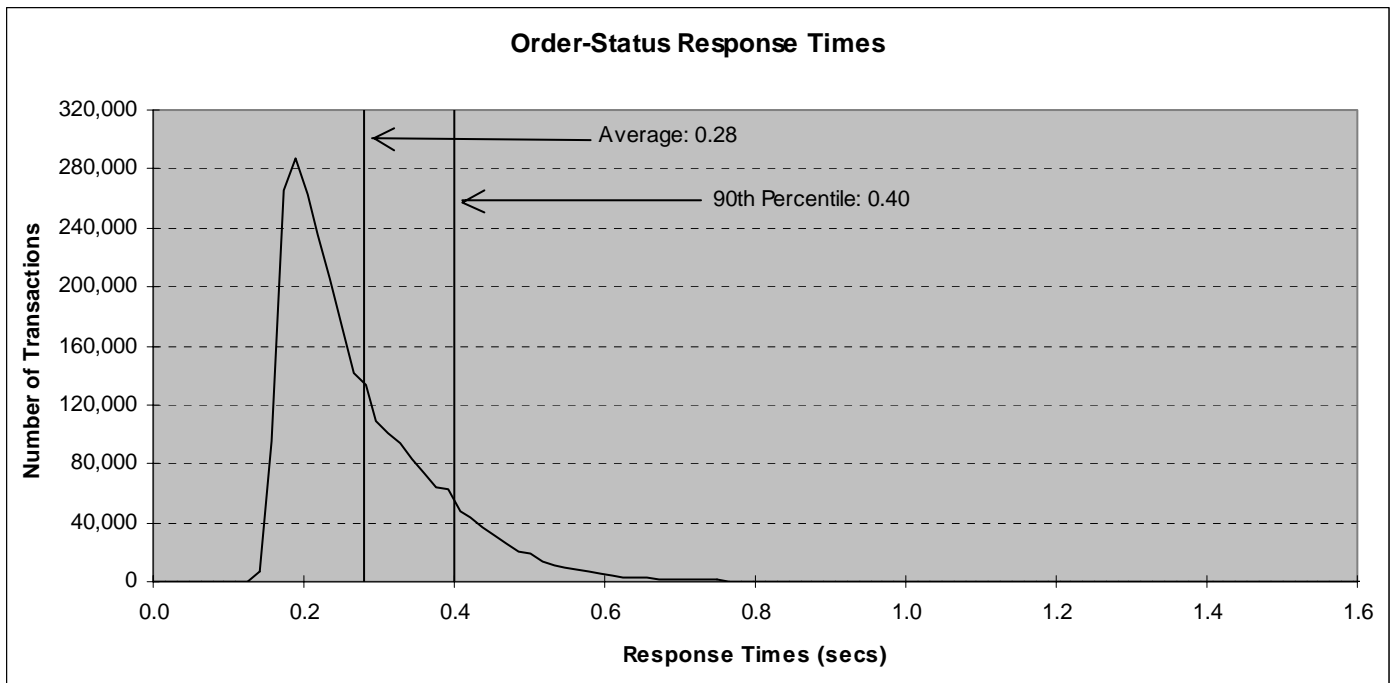


Figure 5.4: Delivery Response Time Distribution

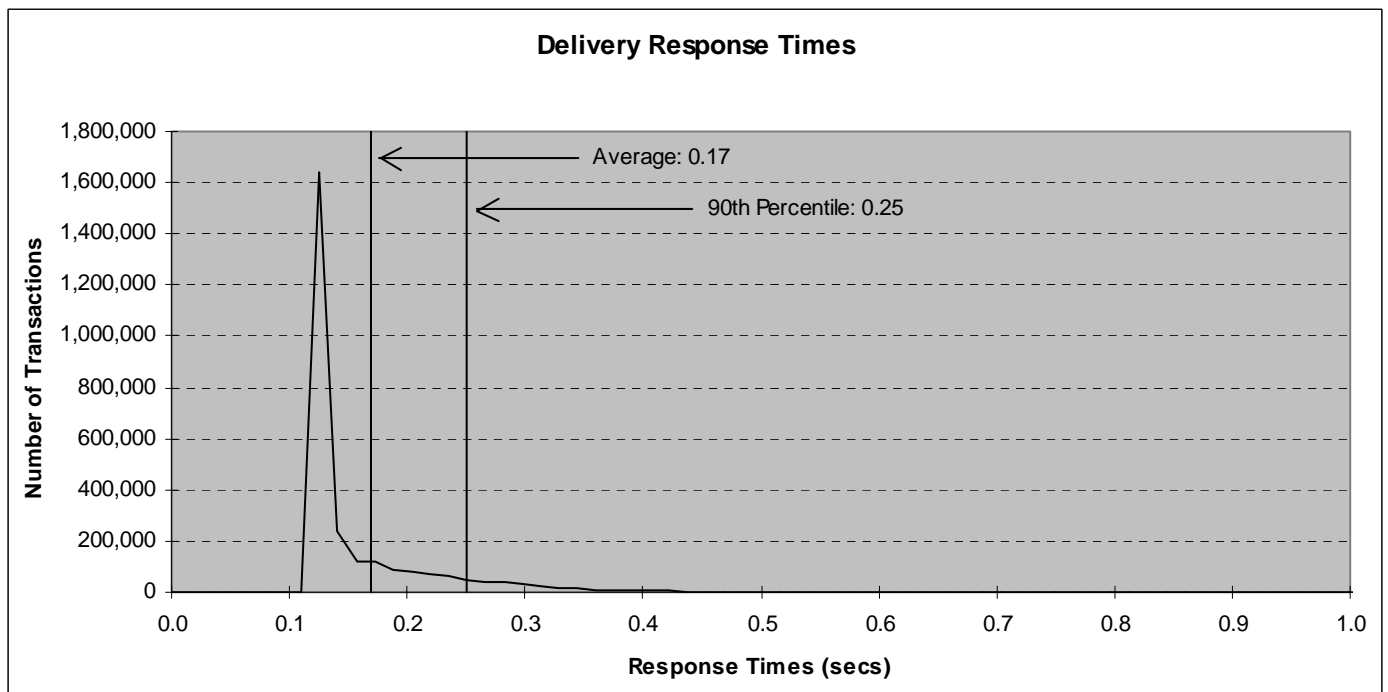
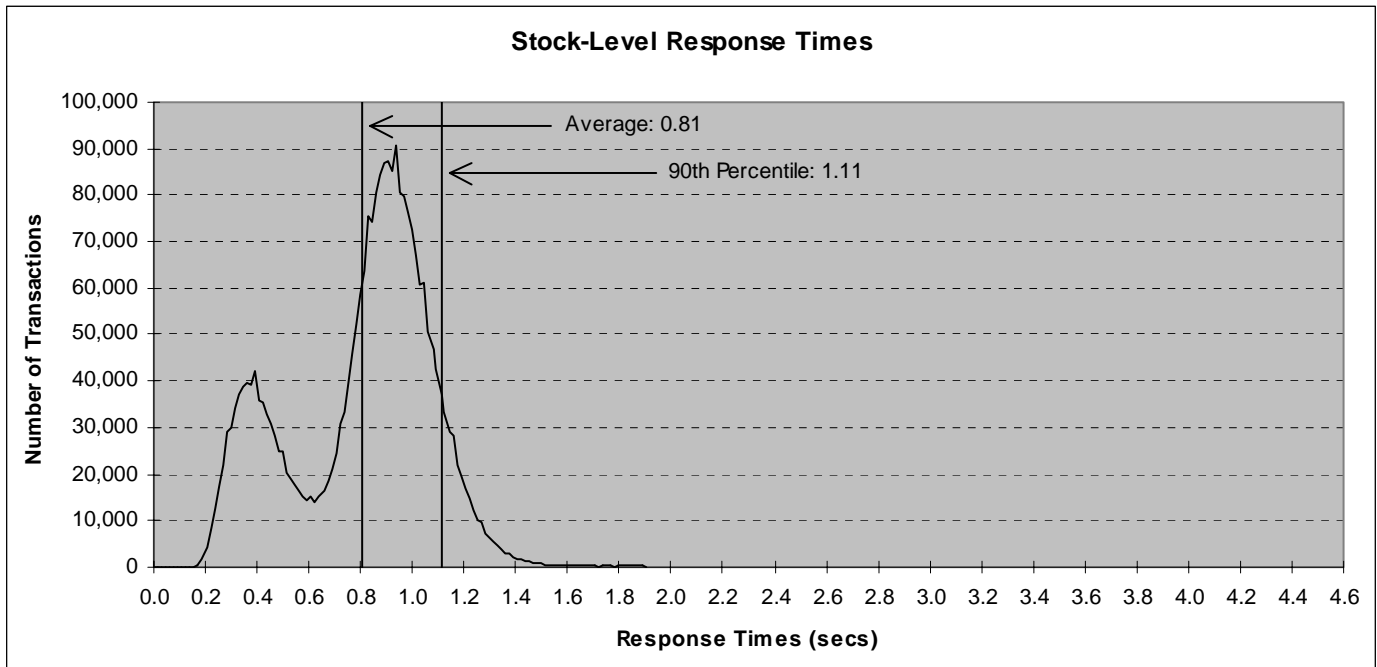


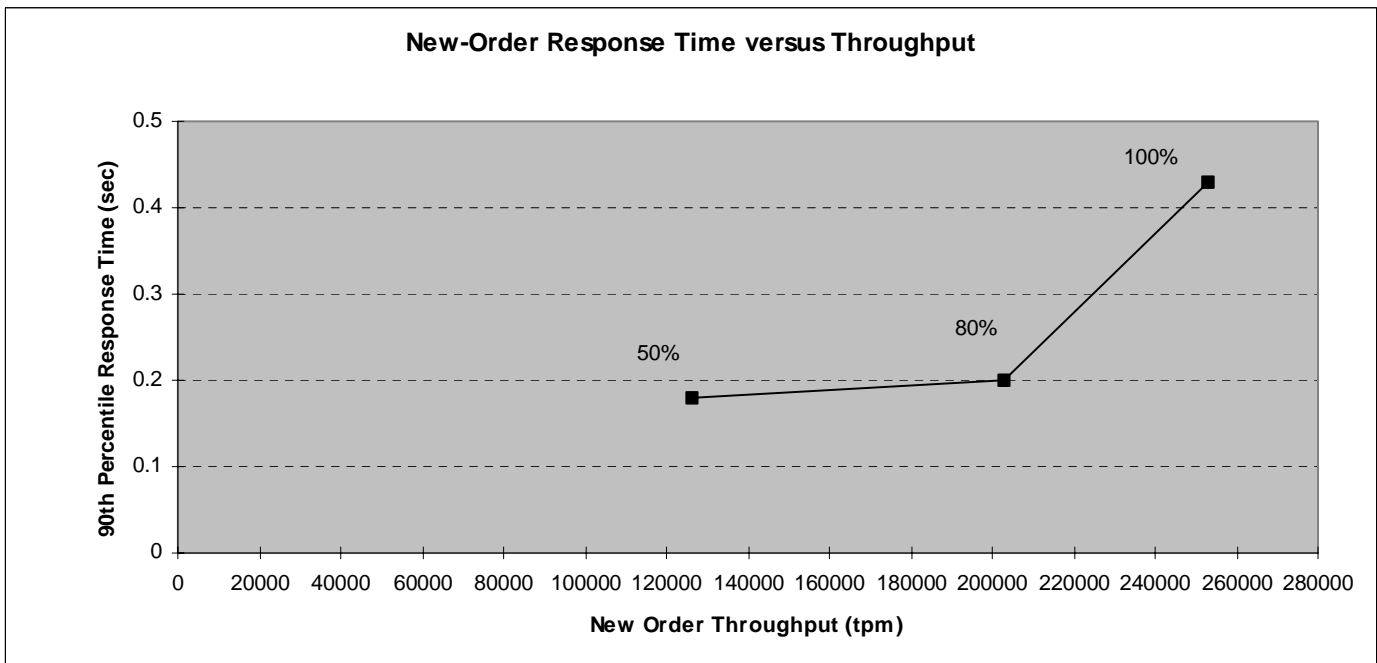
Figure 5.5: Stock Level Response Time Distribution



5.5. Response Time versus Throughput Performance Curve

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

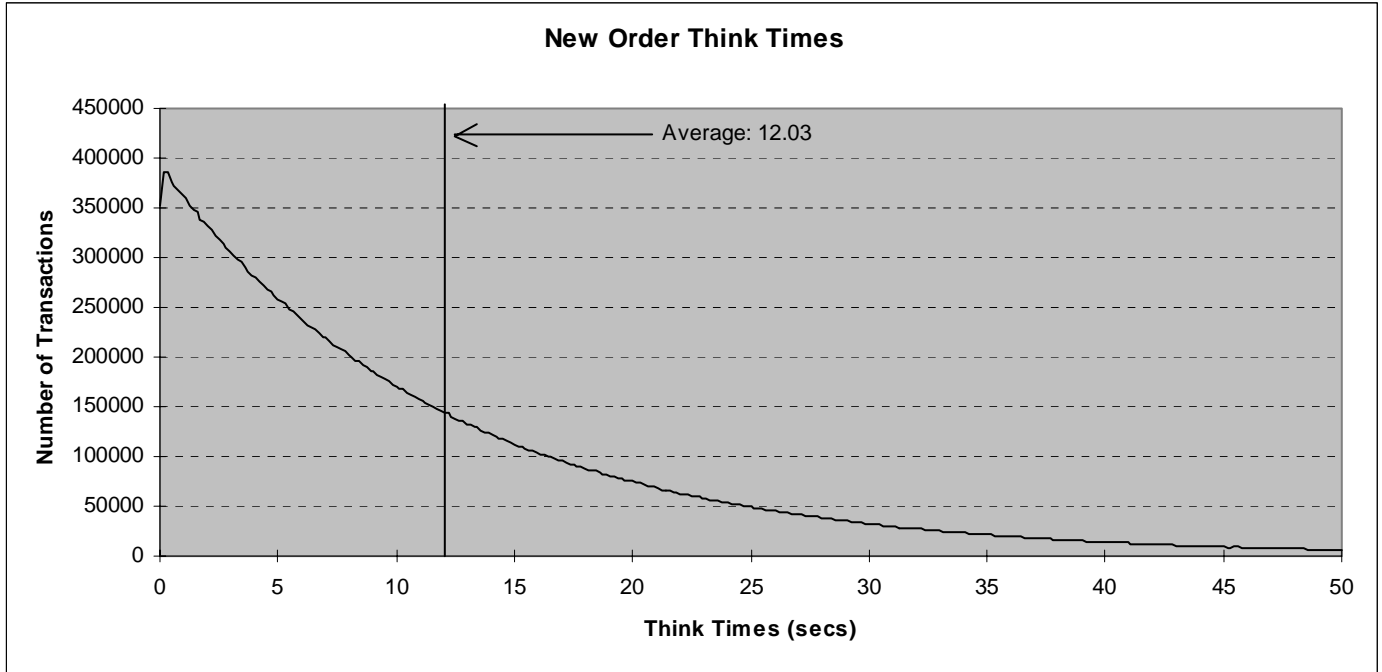
Figure 5.6: New Order Response Time versus Throughput



5.6. New Order Think Time Frequency Distribution Curve

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

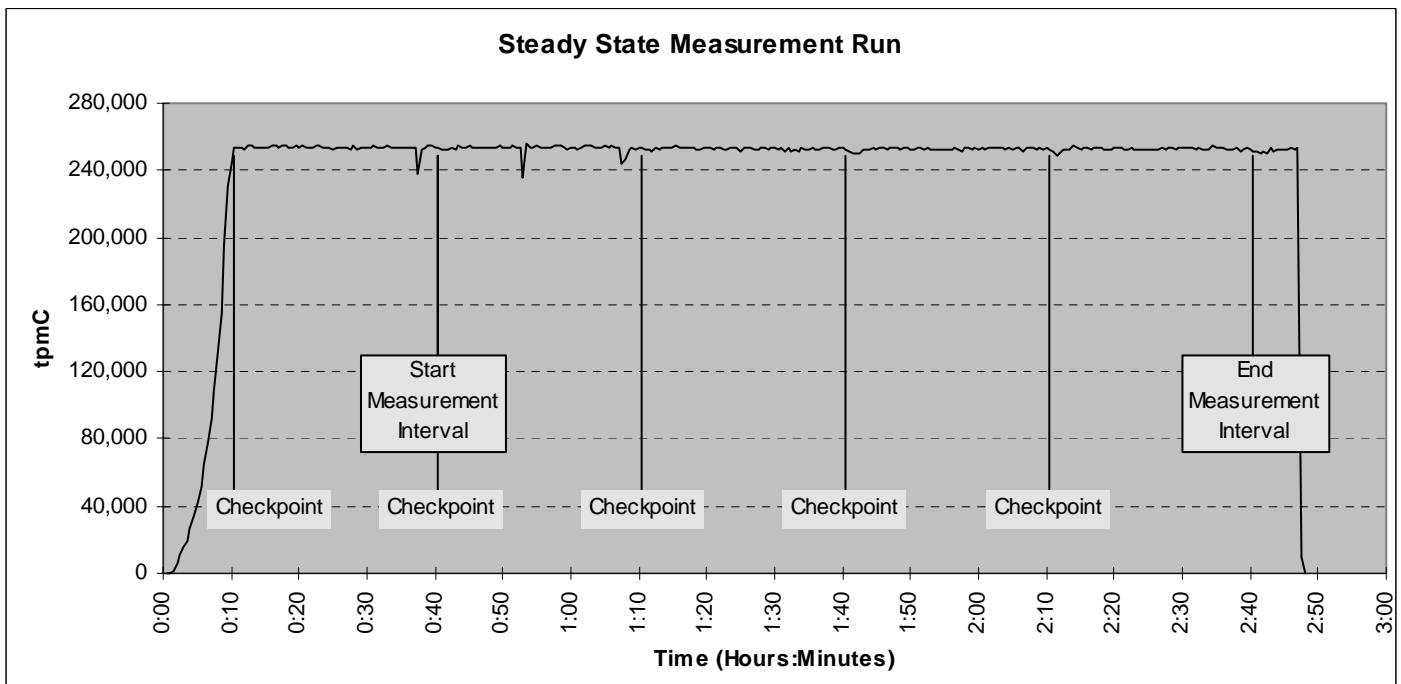
Figure 5.7: New Order Think Time Distribution



5.7. New-Order Throughput vs. Time

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

Figure 5.8: Throughput (tpmC) versus Time



5.8. Determination of “Steady State”

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

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

5.9. Work Performed During Steady State

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

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

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

To perform checkpoints at specific intervals, 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	85.01%
	Remote warehouse	14.99%
	Non-primary key access	60.01%
Order Status	Non-primary key access	59.99%
Delivery	Skipped transactions (Interactive)	0
	Skipped transaction counts (Deferred)	0
	Skipped District counts (Deferred)	0
Transaction Mix	New Order	44.92%
	Payment	43.03%
	Order-Status	4.00%
	Delivery	4.01%
	Stock-Level	4.01%

5.13. Checkpoint Statistics

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

There are four checkpoints in the measurement interval. The first checkpoint starts approximately 6 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	0:40:24	2:40:24	7200
1st Checkpoint	0:40:30	1:10:16	1786
2nd Checkpoint	1:10:30	1:40:16	1786
3rd Checkpoint	1:40:29	2:10:16	1787
4th Checkpoint	2:10:29	2:40:16	1787

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 two 10/100/1000 megabit-per-second inbuilt LAN controllers of which one was used in the tested configuration. A 10/100/1000 megabit-per-second switch was used to connect the clients to RTE driver systems emulating web browsers in the tested configuration. The 10/100/1000 LAN connections between the clients and switches run at 1000 megabits-per-second in the priced and tested configurations.

6.7. Operator Intervention

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

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

7.1. Pricing

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

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

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

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

A detailed list of hardware and software components along with their part numbers and prices are given in the Executive Summary near the beginning of this document. Microsoft SQL Server 2000 Enterprise Edition software has been supplemented by Service Pack 3 and Microsoft Knowledge Base # Q332004 AWE fix.

7.1.1. System Pricing

Each priced configuration consists of an integrated system package, additional options, and components. Prices for all products are U.S. list prices.

7.1.2. Maintenance Pricing

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

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

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

7.1.3. Discounts

Computer Resolutions, Inc. provides a standard large volume cash 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 might be included in the Full Disclosure Report for each country specific priced configuration. Country specific pricing is subject to Clause 7.1.7. (8.1.8.5)

None.

7.5. Usage Pricing

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

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

The component pricing based on usage is shown below:

- One (1) Microsoft Windows Server 2003, Datacenter Edition license, 32 processor
- One (1) Microsoft SQL Server 2000 Enterprise Edition license, 32 processor
- Eight (8) Microsoft Windows 2000 Server licenses
- One (1) Microsoft Visual C++ Standard license

8.

Clause 8 : Full Disclosure Availability

8.1. Availability

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

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

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

9.1. Auditor's Report

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

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

Lorna Livingtree, a TPC certified auditor, audited this implementation of the TPC Benchmark C on the Unisys ES7000 Orion 540 Enterprise Server (32P) representing:

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

June 24, 2003

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 ES7000 Orion 540 Enterprise Server
Database Manager: Microsoft SQL Server 2000 Enterprise Edition
Operating System: Microsoft Windows Server 2003, Datacenter Edition
Transaction Manager: Microsoft COM+ (included in Windows 2000)

Server: Unisys ES7000 Orion 540 Enterprise Server				
CPU's	Memory	Disks	90% Response	TpmC
32 Intel Xeon MP @ 2.8 GHz	Main: 64 GB Cache: 2 MB each	770 @ 18GB 18 @ 73GB 1 @ 30GB	0.43 sec	252,920.49
8 Clients: Unisys ES3020L Server				
2 Intel Xeon @ 2.4 GHz	Main: 1 GB Cache: 512KB	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 20,160 warehouses of which all were active during the Measured Interval.

PERFORMANCE METRICS INC.

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- The ACID properties were successfully demonstrated.
- The durability data loss and log loss tests were performed on the fully scaled database with 24,280 users and 2,428 active warehouses.
- 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 201,600 user contexts present on the system.
- Each emulated user started with a different random number seed.
- The NURand constants used for database load and at run time were 123 and 208 respectively.
- The steady state portion of the test was 2 hours (7200 seconds).
- One checkpoint was taken before the measured interval and after steady state was reached.
- Four checkpoints were taken during the measured interval.
- The system pricing was checked for major components and maintenance.

Auditor Notes:

There was 1 drive of 18 GB @ 10Krpm serving each client as OS drive and 1 drive of 30 GB on the server used as the OS drive. The pricing substitutes 1 drive of 18 GB @ 15Krpm on each client and 1 drive of 40 GB on the server because the measured drives are no longer orderable through Unisys. Performance and capacity of the substituted disks are the same or better than the measured disks. Monitoring statistics show that the client IO's were less than 2 writes per second and the server IO's were less than 1 read per second when measured with the reported TPC-C workload. This substitution is compliant with the current substitution rules.

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

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

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

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

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

```

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

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

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

```

```

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

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

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

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

```

```

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

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

```

tpcc.cpp

```

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

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

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

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

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

// TMon Interface Settings
INT iTMMaxMsg = 0;

```

```

// Term Interface Settings
INT iMaxTerms = 3000;

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

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

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

INT iHHdrLen = 0;
INT iCTextLen = 0;

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

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

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

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

```

```

        return(FALSE);
    };
    if (TermInit(iMaxTerms))
        return(FALSE);
    iTMMaxSz = max(iTMMaxSz, sizeof(NEW_ORDER_DATA));
    iTMMaxSz = max(iTMMaxSz, sizeof(PAYMENT_DATA));
    iTMMaxSz = max(iTMMaxSz, sizeof(ORDER_STATUS_DATA));
    iTMMaxSz = max(iTMMaxSz, sizeof(DELIVERY_DATA));
    iTMMaxSz = max(iTMMaxSz, sizeof(STOCK_LEVEL_DATA));
    iTMMaxSz += 10;
    TMonInit(iTMMaxSz);
    if (DeliveryInit(lSetDThreads, lSetDQSize, szSetPath))
    {
        DeliveryTerm();
        return(FALSE);
    };
    iHHdrLen = strlen(HTTPHDR);
    iCTextLen = strlen(CTEXT);
    break;
case DLL_THREAD_ATTACH:
    // Move ThreadAttach call to HttpExt since the DllMain call
    // for Thread Attach did not reliably come before the first
    // call to HttpExtProc.
    break;
    case DLL_THREAD_DETACH:
        ThreadDetach(pTPCC);
        break;
    case DLL_PROCESS_DETACH:
        ThreadDetach(pTPCC);
        DeleteCriticalSection(&csDllMain);
        DeliveryTerm();
        TMonTerm();
        TermTerm();
        TlsFree(dwTlsInx);
        dwTlsInx = TLS_NULL;
        DiagIoTerm();
        break;
};
return TRUE;
}; // DllMain

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

```

```

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

//=====
//
// Function name: ThreadDetach
//
//=====
VOID ThreadDetach(TPCC_STATE * pTPCC)
{
    EnterCriticalSection(&csDllMain);
    __try
    {
        pTPCC = (TPCC_STATE *) TlsGetValue(dwTlsInx);
        if (pTPCC != NULL)
        {
            TMDone(&pTPCC->tsTMon);
            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 HttpXit;
        }
    };
    if (pTPCC->tsTMon.pTxnData == NULL)
        SendResponse(pECB,szTMinError,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:
            break;
        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
#ifdef LONG_WID
    LONG sWid; // TPCC WareHouse Id
#else
    SHORT sWid; // TPCC WareHouse Id
#endif
    SHORT sDId; // TPCC District Id
    INT iSyncId; // TPCC Sync Id
    INT iTermId; // TPCC Term Id
    UINT uFormId; // TPCC Form Id

```

```

    INT iStatusId; // TPCC Status Id
    CHAR ErrTxt[500]; // Error text
    CHAR szWork[200]; // Thread work area
    CHAR szHeader[100]; // HTTP work area
    CHAR * RecvMsg; // HTML message from ECB
    CHAR SendMsg[MAX_MSG_SZ]; // HTML work area
    TMON_STATE tsTMon; // TMon Interface
} 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=\"TERMIN\" 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 * TERMINDTOKEN = "TERMIN=";
static CHAR * SYNCIDTOKEN = "SYNCID=";
static CHAR * FORMIDTOKEN = "FORMID=";
static CHAR * STATUSIDTOKEN = "STATUSID=";
static CHAR * CMDTOKEN = "CMD=";
static CHAR * NEWORDER_SERVICE = "NEWORDER";
static CHAR * PAYMENT_SERVICE = "PAYMENT";
static CHAR * ORDERSTATUS_SERVICE = "ORDERSTS";
static CHAR * DELIVERY_SERVICE = "DELIVERY";
static CHAR * STOCKLEVEL_SERVICE = "STOCKLVL";
static CHAR * ZIPPIC = "XXXXX-XXXX";

BOOL ProcessLogin(CHAR * pIn,CHAR * pOut,TPCC_STATE * pTPCC);
BOOL ProcessForm(CHAR * pIn,CHAR * pOut,TPCC_STATE * pTPCC);
BOOL ProcessNewOrder(CHAR * pIn,CHAR * pOut,TPCC_STATE * pTPCC);
BOOL ProcessPayment(CHAR * pIn,CHAR * pOut,TPCC_STATE * pTPCC);
BOOL ProcessDelivery(CHAR * pIn,CHAR * pOut,TPCC_STATE * pTPCC);
BOOL ProcessOrderStatus(CHAR * pIn,CHAR * pOut,TPCC_STATE * pTPCC);
BOOL ProcessStockLevel(CHAR * pIn,CHAR * pOut,TPCC_STATE * pTPCC);
VOID FormatLogin(CHAR * pMsg,CHAR * pAddText);
BOOL GetHidden(CHAR * pMsg,UINT * uFormId,INT * iSyncId,INT * iTermId);
BOOL GetCmd(CHAR * pMsg,CHAR * pWork,UINT uLen);
BOOL GetLongKey(LONG * lRslt,CHAR * pHTML,CHAR * pKey,TPCC_STATE * pTPCC);
BOOL GetIntKey(INT * iRslt,CHAR * pHTML,CHAR * pKey,TPCC_STATE * pTPCC);

```

```

BOOL GetShortKey(SHORT * sRslt,CHAR * pHTML,CHAR * pKey,TPCC_STATE *
pTPCC);
BOOL GetStringKey(CHAR * szRslt,CHAR * pHTML,CHAR * pKey,
    TPCC_STATE * pTPCC,UINT uMax);
BOOL GetAmountKey(DOUBLE * dRslt,CHAR * pHTML,CHAR * pKey,
    TPCC_STATE * pTPCC);
BOOL GetKeyValue(CHAR * pHTML,CHAR * pKey,CHAR * pValue,UINT uMax);
VOID FormatLogin(CHAR * pOut,CHAR * pAddText);
VOID FormatMenu(CHAR * pOut,TPCC_STATE * pTPCC);
VOID FormatNewOrder(CHAR * pOut,TPCC_STATE * pTPCC);
VOID FormatPayment(CHAR * pOut,TPCC_STATE * pTPCC);
VOID FormatDelivery(CHAR * pOut,TPCC_STATE * pTPCC);
VOID FormatOrderStatus(CHAR * pOut,TPCC_STATE * pTPCC);
VOID FormatStockLevel(CHAR * pOut,TPCC_STATE * pTPCC);
INT FormatFormHdr(CHAR * pOut,CHAR * pTitle,TPCC_STATE * pTPCC);
INT FormatRespHdr(CHAR * pOut,CHAR * pTitle,TPCC_STATE * pTPCC);
VOID FormatString(CHAR * pOut,CHAR * pPic,CHAR * pIn);
VOID UtilStrCpy(CHAR * pDest,CHAR * pSrc,INT n);
BOOL CheckNumeric(CHAR * pNum);

```

```

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

```

```

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

    pTPCC->iStatusId = STATUS_OK;
    if (GetHidden(pTPCC->RecvMsg,&pTPCC->uFormId,&iSyncId,&iTermId))
    {
        uRslt = TPCCSEND;
        FormatLogin(pTPCC->SendMsg,pTPCC->ErrTxt);
        goto HdlrXit;
    };
    if (iTermId > 0)
    {
        pTerm = TermGet(iTermId);
    }
}

```

```

if (pTerm == NULL)
{
    uRslt = TPCCSEND;
    strcpy(pTPCC->ErrTxt, "Invalid Term Id");
    FormatLogin(pTPCC->SendMsg, pTPCC->ErrTxt);
    goto HdlrXit;
};
pTPCC->sWId = pTerm->sWId;
pTPCC->sDId = pTerm->sDId;
pTPCC->iSyncId = pTerm->iSyncId;
pTPCC->iTermId = pTerm->iTermId;
};
uCmdId = GetCmd(pTPCC->RecvMsg, pTPCC->szWork, sizeof(pTPCC->szWork));
// Except for Submit(log in), sWId must already be set
if (pTPCC->sWId == 0 && uCmdId != CMD_SUBMIT)
{
    strcpy(pTPCC->ErrTxt, "Must log in first!");
    FormatLogin(pTPCC->SendMsg, pTPCC->ErrTxt);
    uRslt = TPCCSEND;
    goto HdlrXit;
};
// Check for multiple log in attempts
if (pTPCC->sWId != 0 && uCmdId == CMD_SUBMIT)
{
    strcpy(pTPCC->ErrTxt, ERRTXT_ALREADY_LOGGEDIN);
    pTPCC->iStatusId = ERR_ALREADY_LOGGEDIN;
    FormatMenu(pTPCC->SendMsg, pTPCC);
    uRslt = TPCCSEND;
    goto HdlrXit;
};
// If not logging in, validate hidden fields
if (uCmdId != CMD_SUBMIT)
{
    if (iTermId != pTPCC->iTermId || iTermId != iSyncId)
    {
        wprintf(pTPCC->ErrTxt, "%s: Received %ld, %ld (%ld)",
            ERRTXT_TERMID, iTermId, iSyncId, pTPCC->iTermId);
        pTPCC->iStatusId = ERR_TERMID;
        FormatMenu(pTPCC->SendMsg, pTPCC);
        goto HdlrXit;
    };
};
// Process the command
switch (uCmdId)
{
    case CMD_SUBMIT:
        ProcessLogin(pTPCC->RecvMsg, pTPCC->SendMsg, pTPCC);
        break;
    case CMD_MENU_FORM:
        FormatMenu(pTPCC->SendMsg, pTPCC);
        break;
    case CMD_PROCESS:
        ProcessForm(pTPCC->RecvMsg, pTPCC->SendMsg, pTPCC);
        break;
    case CMD_NEWORDER_FORM:
        FormatNewOrder(pTPCC->SendMsg, pTPCC);
        break;
    case CMD_PAYMENT_FORM:
        FormatPayment(pTPCC->SendMsg, pTPCC);
        break;
    case CMD_DELIVERY_FORM:

```

```

        FormatDelivery(pTPCC->SendMsg, pTPCC);
        break;
    case CMD_ORDERSTATUS_FORM:
        FormatOrderStatus(pTPCC->SendMsg, pTPCC);
        break;
    case CMD_STOCKLEVEL_FORM:
        FormatStockLevel(pTPCC->SendMsg, pTPCC);
        break;
    case CMD_EXIT:
        TermFree(pTPCC->iTermId);
        strcpy(pTPCC->ErrTxt, "Logged Off");
        FormatLogin(pTPCC->SendMsg, pTPCC->ErrTxt);
        goto HdlrXit;
    default:
        strcpy(pTPCC->ErrTxt, ERRTXT_CMD_UNKNOWN);
        pTPCC->iStatusId = ERR_CMD_UNKNOWN;
        if (pTPCC->sWId == 0)
            FormatLogin(pTPCC->SendMsg, pTPCC->ErrTxt);
        else
            FormatMenu(pTPCC->SendMsg, pTPCC);
        break;
}; // switch (uCmdId)

uRslt = TPCCSEND;

```

HdlrXit:

```
return(uRslt);
```

```
}; // TPCCHandler
```

```

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

```

```

{
    SHORT sWId;
    SHORT sDId;
    TERM_STATE * pTerm;

    if (GetShortKey(&sWId, pIn, "w_id", pTPCC))
    {
        FormatLogin(pOut, pTPCC->ErrTxt);
        return(TRUE);
    };
    if (sWId < 1)
    {
        wprintf(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 += sprintf(pOut + iInx,
            "<PRE>
            "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 += sprintf(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)
{
    sprintf(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);

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```

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>"
    " %-20s "
    ppd->h_date.day, ppd->h_date.month,
    ppd->h_date.year, ppd->h_date.hour,
    ppd->h_date.minute, ppd->h_date.second,
    ppd->w_id, ppd->d_id,
    ppd->w_street_1, ppd->d_street_1,
    ppd->w_street_2, ppd->d_street_2,
    ppd->w_city, ppd->w_state, szZip1, ppd->d_city, ppd->d_state, szZip2,
    ppd->c_id, ppd->c_w_id, ppd->c_d_id,
    ppd->c_first, ppd->c_middle, ppd->c_last,
    ppd->c_since.day, ppd->c_since.month, ppd->c_since.year,
    ppd->c_street_1, ppd->c_credit, ppd->c_street_2);
iInx += sprintf(pOut + iInx, "%Disc: %5.2f<BR>", ppd->c_discount *
100);
iInx += wsprintf(pOut + iInx,
    " %-20s %-2s %10.10s Phone: %-19.19s<BR><BR>",
    ppd->c_city, ppd->c_state, szZip3, szWork1);
iInx += sprintf(pOut + iInx,
    "Amount Paid: $%7.2f New Cust Balance: $%14.2f<BR>"
    "Credit Limit: $%13.2f<BR><BR>",
    ppd->h_amount, ppd->c_balance, ppd->c_credit_lim);
if (ppd->c_credit[0] == 'B' && ppd->c_credit[1] == 'C')
{
    wsprintf(pOut + iInx,
        "Cust-Data: %50.50s<BR> %50.50s<BR> "
        "%50.50s<BR> %50.50s<BR>"
        "</PRE><HR><BR>%s</FORM>%s",
        ppd->c_data, (ppd->c_data + 50), (ppd->c_data + 100), (ppd->c_data +
150),
        szMenuList, HTMLTrailer);
}
else
{
    wsprintf(pOut + iInx,
        "Cust-Data: <BR><BR><BR><BR>"
        "</PRE><HR><BR>%s</FORM>%s",
        szMenuList, HTMLTrailer);
};
return(FALSE);
}; // ProcessPayment
//=====
//
// Function name: ProcessDelivery
//
// ProcessDelivery extracts the input data fields from pIn, processes

```

```

// the data, and returns a response in pOut.
//
// Result:
// FALSE - Delivery processed successfully.
// TRUE - Delivery processing failed.
//
//=====
BOOL ProcessDelivery(CHAR * pIn,CHAR * pOut,TPCC_STATE * pTPCC)
{
    DELIVERY_DATA * pdd;
    TMON_STATE * pTMon;
    INT iInx;

    pTMon = &pTPCC->tsTMon;
    pdd = (DELIVERY_DATA *) pTMon->pTxnData;
    ZeroMemory(pdd,sizeof(DELIVERY_DATA));
    pdd->w_id = pTPCC->sWId;
    // Get and validate carrier id
    if (GetShortKey(&pdd->o_carrier_id,pIn,"OCD*",pTPCC))
    {
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    if (pdd->o_carrier_id < MIN_CARRIER ||
        pdd->o_carrier_id > MAX_CARRIER)
    {
        wsprintf(pTPCC->ErrTxt,"Carrier Id Out of Range(%ld,%ld) - %ld",
            MIN_CARRIER,MAX_CARRIER,pdd->o_carrier_id);
        pTPCC->iStatusId = ERR_CARRIER_INVALID;
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    GetLocalTime(&pdd->QTime);
    DeliveryPost(pdd);
    if (pdd->bTPRslt)
    {
        wsprintf(pTPCC->ErrTxt,
            "Delivery Post Returned Error(%ld): Queue Request Failed",
            pdd->iTPRslt);
        pTPCC->iStatusId = ERR_SERVICE_RSLT;
        FormatMenu(pOut,pTPCC);
        return(TRUE);
    };
    iInx = FormatRespHdr(pOut,"TPC-C Delivery",pTPCC);
    iInx += wsprintf(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)
    {
        wsprintf(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;
        wsprintf(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)
    {
        wsprintf(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 += wsprintf(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 += wsprintf(pOut + iInx,
        "Order-Number: %8.8d  Entry-Date: %2.2d-%2.2d-%4.4d
%2.2d:%2.2d:%2.2d  Carrier-Number: %2.2d<BR>"
        "Supply-W  Item-Id  Qty  Amount  Delivery-Date<BR>",
        posd->o_id,posd->o_entry_d.day,posd->o_entry_d.month,
        posd->o_entry_d.year,posd->o_entry_d.hour,
        posd->o_entry_d.minute,posd->o_entry_d.second,
        posd->o_carrier_id);
    for(i = 0; i < posd->o_ol_cnt; i++)
    {
        iInx += sprintf(pOut + iInx,
            " %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>
    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 = atol(pTPCC->szWork);
    return(FALSE);
}; // GetLongKey

//=====
//
// Function name: GetIntKey
//
//=====
BOOL GetIntKey(INT * iRslt,CHAR * pHTML,CHAR * pKey,TPCC_STATE * pTPCC)
{
    if (GetKeyValue(pHTML,pKey,pTPCC->szWork,sizeof(pTPCC->szWork)))
    {
        wsprintf(pTPCC->ErrTxt,"Error - Missing %s Key",pKey);
        pTPCC->iStatusId = ERR_MISSING_KEY;
        return(TRUE);
    };

```

```

};
if (pTPCC->szWork[0] != 0 )
{
    if (CheckNumeric(pTPCC->szWork))
    {
        wsprintf(pTPCC->ErrTxt,"Error - %s Value Not Numeric",pKey);
        pTPCC->iStatusId = ERR_NOT_NUMERIC;
        return(TRUE);
    }
};
};
*iRslt = atoi(pTPCC->szWork);
return(FALSE);
}; // GetIntKey

//=====
//
// Function name: GetShortKey
//
//=====
BOOL GetShortKey(SHORT * sRslt,CHAR * pHTML,CHAR * pKey,TPCC_STATE *
pTPCC)
{
    if (GetKeyValue(pHTML,pKey,pTPCC->szWork,sizeof(pTPCC->szWork)))
    {
        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=\"TERMINID\" 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 += sprintf(pOut + iInx,
" <PRE>
Payment<BR>"
"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);
sprintf(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);
sprintf(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);
sprintf(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=\"SYNCRID\" VALUE=\"%d\">",
HTTPhdr, pTitle, pTPCC->uFormId, pTPCC->iTermId, pTPCC->iSyncId)
);
}; // FormatFormHdr

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

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

//=====
// FUNCTION: UtilStrCpy
//
// Copies n characters from string pSrc to pDst and places a null

```

```

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

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

delivery.h

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

#define DEFAULTDQSIZE 2000

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

delivery.cpp

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

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

```

```

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

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

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

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

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

```

```

"DeliveryInit: Threads = %ld, DQSize(entries) = %ld\n",
    lDeliveryThreads,lDQSize);
    DiagIoWrite(szDiag,DIAG_FORCE);
    return(FALSE);
}; // DeliveryInit

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

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

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

```

```

        ResetEvent(hDQStart);
    }; // for (lDeliveryThreads)
    CloseHandle(hDQStart);
    return(FALSE);
}; // DoDQStart

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

//=====
//
// Function name: DeliveryPost
//
//=====
bool DeliveryPost(DELIVERY_DATA * pPost)
{
    DELIVERY_QUEUE * pDQSlot;
    DELIVERY_DATA * pddEntry;
    if (!bDQStarted)
    {
        if (DoDQStart())
        {
            pPost->bTPRslt = TRUE;
            pPost->iTPRslt = SVCERR_DQSTART;
            return(TRUE);
        };
    };
    __try
    {
        EnterCriticalSection(&csDQWrite);
        pDQSlot = &pDQ[lDQNextWrite];
        if (pDQSlot->bInUse)
        {
            char szDiag[MAX_DIAG_SZ];

```

```

            pPost->bTPRslt = TRUE;
            pPost->iTPRslt = SVCERR_DQFULL;
            wsprintf(szDiag,
                "Delivery Post: Queue Limit (%d) Exceeded\n",
                lDQSize);
            DiagIoWrite(szDiag,DIAG_ERROR);
            return(TRUE);
        };
        pddEntry = &pDQSlot->ddEntry;
        memcpy(pddEntry,pPost,sizeof(DELIVERY_DATA));
        pDQSlot->bInUse = TRUE;
        if (lDQNextWrite == lDQNextRead)
            SetEvent(hDQRead);
        lDQNextWrite++;
        if (lDQNextWrite == lDQSize)
            lDQNextWrite = 0;
    }
    __finally
    {
        LeaveCriticalSection(&csDQWrite);
    };
    pPost->bTPRslt = FALSE;
    pPost->iTPRslt = SVC_NOERROR;
    return(FALSE);
}; // DeliveryPost

//=====
//
// Function name: DoDelivery
//
//=====
UINT WINAPI DoDelivery(void * Unused)
{
    FILE *fpLog;
    char szLogTitle[300];
    bool bFlush = FALSE;
    DELIVERY_QUEUE * pDQSlot;
    DELIVERY_DATA * pddEntry;
    DELIVERY_DATA * pdd;
    TMON_STATE tsState;
    TMON_STATE * pTMon;
    HRESULT hr;
    int iSize;
    long lMyId;
    char szTMErrTxt[500];
    char szDiag[MAX_DIAG_SZ];
    int iElapsed;
    int iInx;
    long lDQReport = 0;
    bool bDQReport = FALSE;

    lMyId = InterlockedIncrement(&lDeliveryActive);
    pTMon = &tsState;
    pTMon->pIAllTxn = NULL;
    pTMon->pTxnData = NULL;
    pTMon->pszErrTxt = szTMErrTxt;
    if (TMInit(pTMon))
    {
        wsprintf(szDiag,"DoDelivery(%ld): TMInit %s\n",lMyId,szTMErrTxt);
        DiagIoWrite(szDiag,DIAG_ERROR);
    }

```

```

    InterlockedDecrement(&lDeliveryActive);
    SetEvent(hDQStart);
    return(1);
};
wsprintf(szLogTitle, "%sdelilog%d", 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,%d,%d,%d,%d,%d,%d",
    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 boundary, this will function for 24 hour period but
    // will fail over a 48 hours period.
    if (*pElapsed < 0)

```



```

    *pElapsed = *pElapsed + (24 * 60 * 60 * 1000);
    return;
}; // CalculateElapsed

```

term.h

```

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

#include <sys\timeb.h>

#define TMILLI_TIMEOUT 3600000 // One hour

typedef struct
{
    BOOL bInUse; // In use flag
    INT iTermId; // TermId
    LPVOID ConnID; // Connection Id
    INT iSyncId; // Sync Id
#ifdef LONG_WID
    LONG sWid; // TPCC WareHouse Id
#else
    SHORT sWid;
#endif
    SHORT 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;
                };
                iNextTerm++;
            }; // while(iNextTerm <= iMaxTerm) (2nd Try)
        }; // if (iTermId <= 0)
        if (iTermId <= 0)
            iNextTerm = 1;
    }
    _finally
    {
        LeaveCriticalSection(&csTerm);
    };

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

```

```

}; // TermAlloc
//=====
//
// Function name: TermMaint
// Clears entries whose last access time exceeds TMILLI_TIMEOUT.
// Assumes caller has entered csTerm.
//
//=====
VOID TermMaint(VOID)
{
    INT iTermId;
    TMILLI tmElapsed;
    // Free entries that have timed out
    for (iTermId = 1; iTermId <= iMaxTerm; iTermId++)
    {
        if (pTArray[iTermId].bInUse)
        {
            tmElapsed = TimebElapsed(&pTArray[iTermId].tbLastAccess);
            if (tmElapsed > TMILLI_TIMEOUT)
                TermFree(iTermId);
        };
    };
}; // TermMaint
//=====
//
// Function name: TermGet
// Returns pointer to TArray slot at iTermId.
//
// Returns:
// FALSE TArray entry made available
// TRUE iTermId invalid.
//
//=====
TERM_STATE * TermGet(INT iTermId)
{
    TERM_STATE * pTerm;
    TMILLI tmElapsed;
    if (iTermId <= 0 || iTermId > iMaxTerm)
    {
        CHAR szDiag[MAX_DIAG_SZ];
        wsprintf(szDiag,"TermGet(%ld): Invalid TermId (%ld)\n",
            GetCurrentThreadId(),iTermId);
        DiagIoWrite(szDiag,DIAG_ERROR);
        return(NULL);
    };
    pTerm = &pTArray[iTermId];
    if (!pTerm->bInUse)
        return(NULL);
    tmElapsed = TimebElapsed(&pTerm->tbLastAccess);
    if (tmElapsed > TMILLI_TIMEOUT)
        return(NULL); // Entry destined to be freed by maint
    _ftime(&pTArray[iTermId].tbLastAccess);
    return(&pTArray[iTermId]);
}; // TermGet
//=====
//
// Function name: TermFree
// Initializes contents of TArray slot at iTermId.

```

```

//
// Returns:
//   FALSE TArray entry made available
//   TRUE  iTermId invalid.
//
//=====
BOOL TermFree(INT iTermId)
{
    TERM_STATE * pTerm;
    if (iTermId <= 0 || iTermId > iMaxTerm)
    {
        CHAR szDiag[MAX_DIAG_SZ];
        wprintf(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 iTMMaxSz;

//=====
//
// Function name: TMonInit
//
//=====
VOID TMonInit(INT iSetMaxMsg)
{
    iTMMaxSz = 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))
    {
        wprintf(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.c

```

// timesupp.c
//
// Copyright Unisys, 1997 1998 1999
//
#include <stdio.h>
#include "timesupp.h"

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

```

```

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

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

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

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

    // Establish initial time
    _ftime(&tbInitialTimeb);

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

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

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

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

//=====
//

```

```

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

//=====
//
// Function name: TimebDiff
// Time difference in milliseconds between _timeb_t1 and _timeb_t2.
//
//=====
TMILLI TimebDiff(struct _timeb * p_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_t2;
    TimebStamp(&t2);

    return (TimebDiff(p_t1,&t2));
}
// 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_t1->time = 0;
        p_t1->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_t1->millitm = atoi(psz);
    }
    else
        p_t1->millitm = 0;
    p_t1->time = mktime(ptm);
    return(FALSE);
}
// TimebFromString

```

```

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

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

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

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

    p_tb->time += ttSecs;
};//TimebAddMilliseconds

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

//=====
//

```

```

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

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

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

    d1 = (DOUBLE)(liTickCount.QuadPart -liInitialTickCount.QuadPart);

    d2 = dTickCount * d1;

    d1 = d2 + 0.5;

    tmMilliseconds = (TMILLI) d1;

    TimebCopy(p_tb, &tbInitialTimeb);
    TimebAddMilliseconds(p_tb, tmMilliseconds);

    return(TRUE);
};//TimebStamp

timesupp.h

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

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

```

```
#define TIMEB_STRING_TIMESZ 12

typedef ULONG TMILLI;
typedef ULONG TMICRO;

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

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

diagio.h

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

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

#define DIAGNOSTICS TRUE
#define MAX_DIAG_SZ 2000

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

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

diagio.cpp

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

CRITICAL_SECTION csDiagIo;
HANDLE hEventLog = NULL;
UINT uDiagLevel;
BOOL bEventLog;
BOOL bConsoleLog;
CHAR * pDiagHdr;
CHAR * pEventHost;
```

```
CHAR * pErrHdr =
{"*** ERROR *** ERROR *** ERROR *** ERROR *** ERROR ***"};

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

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

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

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

```

}; // DiagIoTerm

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

INT WriteEventLog(CHAR * pDMsgs[], UINT uMsgCnt, UINT uSeverity)
{
    WORD wType;
    WORD wCount;
    wCount = uMsgCnt;
    switch (uSeverity)

```

```

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

```

tpccproxy.def

```

LIBRARY "tpcc_com_ps"

DESCRIPTION 'Proxy/Stub DLL'

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

```

tpccproxy.idl

```

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

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

[
    object,
    uuid(FEEE6AA2-84B1-11d2-BA47-00C04FBFE08B),

```



```

    helpstring("ITPCC Interface"),
    pointer_default(unique)
]
interface ITPCC : IUnknown
{
    HRESULT _stdcall NewOrder
    (
        [in, out] int * iSize,
        [in, out, size_is(*iSize)] char ** pTData
    );

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

    HRESULT _stdcall Delivery
    (
        [in] int * iSize,
        [in, out, size_is(*iSize)] char ** pTData
    );

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

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

    HRESULT _stdcall CallSetComplete
    (
    );

}; // interface ITPCC

```

tpccsvr.def

; tpccsvr.def : Declares the module parameters.

```

LIBRARY      "tpcc_com_all.dll"

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

```

tpccsvr.idl

```

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

interface TPCC;

import "oidl.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;
SQLINTEGER m_BindOffset;
SQLINTEGER 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,LPVOID
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;
};

#ifdef LONG_WID
    WriteEventLog("tpccsvr - long w_id", false);
#endif
return TRUE;
}; // DllMain

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

STDAPI DllGetClassObject(REFCLSID rclsid,REFIID riid,LPVOID* ppv)
{
    return _Module.GetClassObject(rclsid,riid,ppv);
};

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

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

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

bool CTPCC_Common::InitNOParams(void)
{
    char szDiag[300];
    int i;
    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,"InitNOParams(%ld): Allocate Stmt Handles
failed\n",m_lRefId);

```

```

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

m_hstmt = m_hstmtNewOrder;

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

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

    for (j=0; j < MAX_OL; j++)
    {
        if
(SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_SLONG,SQL_INTEGER,
0,0,&m_TData.NOData.Ol[j].ol_i_id,0,NULL) != SQL_SUCCESS
#ifdef LONG_WID
        ||
SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_SLONG,SQL_INTEGER,
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 ** pTData)
{
    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];
            wsprintf(szDiag, "NewOrder(%ld): SetStmtAttr NOCols1\n", m_lRefId);
            CheckDBError(szDiag);
            pnod->bTPRslt = TRUE;
            pnod->iTPRslt = SVCERR_ODBC;
            strcpy(pnod->execution_status, "Error, Bind NOCols1 Failed");
            return(S_OK);
        };
        // 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;
        wcsncpy(&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];
        wsprintf(szDiag, "NewOrder(%ld): Execute Direct\n", m_lRefId);
        if (CheckDBError(szDiag))
        {
            m_iTPRslt = SVCERR_ODBC;
            break;
        };
        continue;
    };
    // Get order line results
    m_TData.NOData.total_amount = 0;
    for (i = 0; i < m_TData.NOData.o_ol_cnt; i++)
    {
        // set the bind offset value...
        m_BindOffset = i * sizeof(m_TData.NOData.Ol[0]);
        if (SQLFetch(m_hstmt) == SQL_ERROR)
        {
            char szDiag[100];
            wsprintf(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];
            wsprintf(szDiag, "NewOrder(%ld): MoreResults
Ol%d\n", m_lRefId, (i + 1));
            if (CheckDBError(szDiag))
                m_iTPRslt = SVCERR_ODBC;
            else
                bRetry = TRUE;
            break;
        };
        m_TData.NOData.total_amount += m_TData.NOData.Ol[i].ol_amount;
    };
    // for o_ol_cnt
    if (m_iTPRslt == SVCERR_ODBC)
        break;
    if (bRetry)
        continue;
    // associate the column bindings for the second result set
    if (SQLSetStmtAttrW(m_hstmt, SQL_ATTR_APP_ROW_DESC,
        m_descNewOrderCols2, SQL_IS_POINTER) != SQL_SUCCESS)
    {

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        char szDiag[100];
        wsprintf(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];
        wsprintf(szDiag, "NewOrder(%ld): Fetch\n", m_lRefId);
        if (CheckDBError(szDiag))
        {
            m_iTPRslt = SVCERR_ODBC;
            break;
        };
        continue;
    };
    SQLFreeStmt(m_hstmt, SQL_CLOSE);
    if (m_no_commit_flag == 1)
    {
        m_TData.NOData.total_amount *=
            ((1 + m_TData.NOData.w_tax + m_TData.NOData.d_tax) *
            (1 - m_TData.NOData.c_discount));
        m_bTPRslt = FALSE;
        m_iTPRslt = SVC_NOERROR;
    }
    else
        m_iTPRslt = SVC_BADITEMID;
    break;
}; // for m_iMaxRetry
memcpy(pnod, &m_TData.NOData, sizeof(NEW_ORDER_DATA));
pnod->bTPRslt = m_bTPRslt;
pnod->iTPRslt = m_iTPRslt;
if (!m_bTPRslt)
{
    strcpy(pnod->execution_status, "Transaction committed.");
    return(S_OK);
};
if (m_iTPRslt == SVC_BADITEMID)
{
    strcpy(pnod->execution_status, "Item number is not valid.");
    return(S_OK);
};
if (m_iTPRslt == SVCERR_DEADLOCK)
    wsprintf(pnod->execution_status, "Hit retry
max(%d).", m_iMaxRetry);
else
    strcpy(pnod->execution_status, "DBTranAbort, Check Input Data");
return(S_OK);
}
catch (...)
{
    char szDiag[300];
    wsprintf(szDiag, "NewOrder(%ld): Unhandled exception\n", m_lRefId);
    WriteEventLog(szDiag, TRUE);
    m_bCanBePooled = FALSE;
    pnod->bTPRslt = TRUE;

```

```

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

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

```



```

HRESULT CTPCC_Common::Payment(int * iSize,UCHAR ** pTData)
{
    PAYMENT_DATA * ppd;
    RETCODE rc;
    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;
#ifdef LONG_WID
    if
(SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_SLONG,SQL_INTEGER,
#else
    if
(SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_SSHORT,SQL_SMALLINT,
#endif
        0,0,&m_TData.DLData.w_id, 0, NULL) != SQL_SUCCESS
        ||
SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_SSHORT,SQL_SMALLINT,
        0,0,&m_TData.DLData.o_carrier_id,0,NULL) != SQL_SUCCESS
        )
    {
        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);
        };
    };
}

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        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];
                sprintf(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];
                sprintf(szDiag,"Delivery(%ld): Fetch\n",m_lRefId);
                if (CheckDBError(szDiag))
                {
                    m_iTPRslt = SVCERR_ODBC;
                    break;
                };
                continue;
            };
            SQLFreeStmt(m_hstmt,SQL_CLOSE);
            m_bTPRslt = FALSE;
            m_iTPRslt = SVC_NOERROR;
            break;
        }; // for m_iMaxRetry
        memcpy(pdd,&m_TData.DLData,sizeof(DELIVERY_DATA));
        pdd->bTPRslt = m_bTPRslt;
        pdd->iTPRslt = m_iTPRslt;
        return(S_OK);
    }
    catch (...)
    {
        char szDiag[300];
        sprintf(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
    )
    {
        sprintf(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)
    {
        sprintf(szDiag,"InitOSParams(%ld): SetStmtAttr OSCols1
failed\n",m_lRefId);
        CheckDBError(szDiag);
        return(TRUE);
    };

    i = 0;
#ifdef LONG_WID
    if
(SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_SLONG,SQL_INTEGER,
#else
    if
(SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_SSHORT,SQL_SMALLINT,
#endif
0,0,&m_TData.OSData.w_id,0,NULL) != SQL_SUCCESS
    ||
SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_UTINYINT,SQL_TINYINT,
0,0,&m_TData.OSData.d_id,0,NULL) != SQL_SUCCESS
    ||
SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_SLONG,SQL_INTEGER,
0,0,&m_TData.OSData.c_id,0,NULL) != SQL_SUCCESS
    || SQLBindParameter(m_hstmt,++i,SQL_PARAM_INPUT,SQL_C_CHAR,SQL_CHAR,
sizeof(m_TData.OSData.c_last),0,&m_TData.OSData.c_last,
sizeof(m_TData.OSData.c_last),NULL) != SQL_SUCCESS
    )
    {
        sprintf(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,

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

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

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

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

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    || 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;
                    break;
                };
                continue;
            };
            rc = SQLExecDirectW(m_hstmt,(SQLWCHAR*)L"{call
tpcc_orderstatus(?,?,?,?)",SQL_NTS);

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        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];

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            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)
        wsprintf(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];
        wsprintf(szDiag, "OrderStatus(%ld): Unhandled exception\n", m_lRefId);
        WriteEventLog(szDiag, TRUE);
        m_bCanBePooled = FALSE;
        posd->bTPRslt = TRUE;
        posd->iTPRslt = SVCERR_EXCEPTION;
        strcpy(posd->execution_status, "Error, Unhandled exception");
        return(S_OK);
    };
}; // Orderstatus

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

```

```

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

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

```

```

        catch (...)
        {
            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)

backup database tpcc to
    tpccbackA10, tpccbackB10, tpccbackC10, tpccbackD10,
tpccbackE10,
    tpccbackF10, tpccbackG10, tpccbackH10, tpccbackI10,
tpccbackJ10,
    tpccbackK10,
tpccbackA9, tpccbackB9, tpccbackC9, tpccbackD9,
    tpccbackF9, tpccbackG9, tpccbackH9, tpccbackI9,
tpccbackJ9,
    tpccbackK9
with init, stats = 1

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

go
```

BACKUPDEVB.SQL

```
-- File:      BACKUPDEVB.SQL
-- File:      BACKUPDEVB.SQL
--           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','tpccbackA10','C:\Bigdb\dbBackups\BackupA10\backupA10.dmp'
exec sp_addumpdevice
'disk','tpccbackB10','C:\Bigdb\dbBackups\BackupB10\backupB10.dmp'
exec sp_addumpdevice
'disk','tpccbackC10','C:\Bigdb\dbBackups\BackupC10\backupC10.dmp'
exec sp_addumpdevice
'disk','tpccbackD10','C:\Bigdb\dbBackups\BackupD10\backupD10.dmp'
exec sp_addumpdevice
'disk','tpccbackE10','C:\Bigdb\dbBackups\BackupE10\backupE10.dmp'
exec sp_addumpdevice
'disk','tpccbackF10','C:\Bigdb\dbBackups\BackupF10\backupF10.dmp'
exec sp_addumpdevice
'disk','tpccbackG10','C:\Bigdb\dbBackups\BackupG10\backupG10.dmp'
exec sp_addumpdevice
'disk','tpccbackH10','C:\Bigdb\dbBackups\BackupH10\backupH10.dmp'
exec sp_addumpdevice
'disk','tpccbackI10','C:\Bigdb\dbBackups\BackupI10\backupI10.dmp'
exec sp_addumpdevice
'disk','tpccbackJ10','C:\Bigdb\dbBackups\BackupJ10\backupJ10.dmp'
exec sp_addumpdevice
'disk','tpccbackK10','C:\Bigdb\dbBackups\BackupK10\backupK10.dmp'

exec sp_addumpdevice
'disk','tpccbackA9','C:\Bigdb\dbBackups\BackupA9\backupA9.dmp'
exec sp_addumpdevice
'disk','tpccbackB9','C:\Bigdb\dbBackups\BackupB9\backupB9.dmp'
exec sp_addumpdevice
'disk','tpccbackC9','C:\Bigdb\dbBackups\BackupC9\backupC9.dmp'
exec sp_addumpdevice
'disk','tpccbackD9','C:\Bigdb\dbBackups\BackupD9\backupD9.dmp'
exec sp_addumpdevice
'disk','tpccbackE9','C:\Bigdb\dbBackups\BackupE9\backupE9.dmp'
exec sp_addumpdevice
'disk','tpccbackF9','C:\Bigdb\dbBackups\BackupF9\backupF9.dmp'
exec sp_addumpdevice
'disk','tpccbackG9','C:\Bigdb\dbBackups\BackupG9\backupG9.dmp'
exec sp_addumpdevice
'disk','tpccbackH9','C:\Bigdb\dbBackups\BackupH9\backupH9.dmp'
exec sp_addumpdevice
'disk','tpccbackI9','C:\Bigdb\dbBackups\BackupI9\backupI9.dmp'
exec sp_addumpdevice
'disk','tpccbackJ9','C:\Bigdb\dbBackups\BackupJ9\backupJ9.dmp'
exec sp_addumpdevice
'disk','tpccbackK9','C:\Bigdb\dbBackups\BackupK9\backupK9.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 = MSSQL_tpcc_root,
    FILENAME = "C:\Bigdb\dbRoots\tpcc_root.mdf",
    SIZE = 10MB, FILEGROWTH = 0),
FILEGROUP MSSQL_misc_fg
(
    NAME = MSSQL_miscA1,
    FILENAME = "C:\Bigdb\cabA\misc1\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscB1,
    FILENAME = "C:\Bigdb\cabB\misc1\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscC1,
    FILENAME = "C:\Bigdb\cabC\misc1\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscD1,
    FILENAME = "C:\Bigdb\cabD\misc1\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscE1,
    FILENAME = "C:\Bigdb\cabE\misc1\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscF1,
    FILENAME = "C:\Bigdb\cabF\misc1\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscG1,
    FILENAME = "C:\Bigdb\cabG\misc1\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscH1,
    FILENAME = "C:\Bigdb\cabH\misc1\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscI1,
    FILENAME = "C:\Bigdb\cabI\misc1\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscJ1,
    FILENAME = "C:\Bigdb\cabJ\misc1\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscK1,
    FILENAME = "C:\Bigdb\cabK\misc1\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscA2,
    FILENAME = "C:\Bigdb\cabA\misc2\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscB2,
    FILENAME = "C:\Bigdb\cabB\misc2\",

```

```

    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscC2,
    FILENAME = "C:\Bigdb\cabC\misc2\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscD2,
    FILENAME = "C:\Bigdb\cabD\misc2\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscE2,
    FILENAME = "C:\Bigdb\cabE\misc2\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscF2,
    FILENAME = "C:\Bigdb\cabF\misc2\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscG2,
    FILENAME = "C:\Bigdb\cabG\misc2\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscH2,
    FILENAME = "C:\Bigdb\cabH\misc2\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscI2,
    FILENAME = "C:\Bigdb\cabI\misc2\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscJ2,
    FILENAME = "C:\Bigdb\cabJ\misc2\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscK2,
    FILENAME = "C:\Bigdb\cabK\misc2\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscA3,
    FILENAME = "C:\Bigdb\cabA\misc3\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscB3,
    FILENAME = "C:\Bigdb\cabB\misc3\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscC3,
    FILENAME = "C:\Bigdb\cabC\misc3\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscD3,
    FILENAME = "C:\Bigdb\cabD\misc3\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscE3,
    FILENAME = "C:\Bigdb\cabE\misc3\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscF3,
    FILENAME = "C:\Bigdb\cabF\misc3\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscG3,
    FILENAME = "C:\Bigdb\cabG\misc3\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscH3,
    FILENAME = "C:\Bigdb\cabH\misc3\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscI3,
    FILENAME = "C:\Bigdb\cabI\misc3\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscJ3,
    FILENAME = "C:\Bigdb\cabJ\misc3\",
    SIZE = 3825MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscK3,
    FILENAME = "C:\Bigdb\cabK\misc3\",
    SIZE = 3825MB, FILEGROWTH = 0),

```



```

    SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscI7,
  FILENAME = "C:\Bigdb\cabI\misc7\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscJ7,
  FILENAME = "C:\Bigdb\cabJ\misc7\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscK7,
  FILENAME = "C:\Bigdb\cabK\misc7\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscA8,
  FILENAME = "C:\Bigdb\cabA\misc8\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscB8,
  FILENAME = "C:\Bigdb\cabB\misc8\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscC8,
  FILENAME = "C:\Bigdb\cabC\misc8\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscD8,
  FILENAME = "C:\Bigdb\cabD\misc8\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscE8,
  FILENAME = "C:\Bigdb\cabE\misc8\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscF8,
  FILENAME = "C:\Bigdb\cabF\misc8\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscG8,
  FILENAME = "C:\Bigdb\cabG\misc8\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscH8,
  FILENAME = "C:\Bigdb\cabH\misc8\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscI8,
  FILENAME = "C:\Bigdb\cabI\misc8\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscJ8,
  FILENAME = "C:\Bigdb\cabJ\misc8\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscK8,
  FILENAME = "C:\Bigdb\cabK\misc8\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscA9,
  FILENAME = "C:\Bigdb\cabA\misc9\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscB9,
  FILENAME = "C:\Bigdb\cabB\misc9\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscC9,
  FILENAME = "C:\Bigdb\cabC\misc9\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscD9,
  FILENAME = "C:\Bigdb\cabD\misc9\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscE9,
  FILENAME = "C:\Bigdb\cabE\misc9\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscF9,
  FILENAME = "C:\Bigdb\cabF\misc9\",
  SIZE      = 3825MB,  FILEGROWTH = 0),

```

```

(  NAME = MSSQL_miscG9,
  FILENAME = "C:\Bigdb\cabG\misc9\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscH9,
  FILENAME = "C:\Bigdb\cabH\misc9\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscI9,
  FILENAME = "C:\Bigdb\cabI\misc9\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscJ9,
  FILENAME = "C:\Bigdb\cabJ\misc9\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscK9,
  FILENAME = "C:\Bigdb\cabK\misc9\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscA10,
  FILENAME = "C:\Bigdb\cabA\misc10\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscB10,
  FILENAME = "C:\Bigdb\cabB\misc10\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscC10,
  FILENAME = "C:\Bigdb\cabC\misc10\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscD10,
  FILENAME = "C:\Bigdb\cabD\misc10\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscE10,
  FILENAME = "C:\Bigdb\cabE\misc10\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscF10,
  FILENAME = "C:\Bigdb\cabF\misc10\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscG10,
  FILENAME = "C:\Bigdb\cabG\misc10\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscH10,
  FILENAME = "C:\Bigdb\cabH\misc10\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscI10,
  FILENAME = "C:\Bigdb\cabI\misc10\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscJ10,
  FILENAME = "C:\Bigdb\cabJ\misc10\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
(  NAME = MSSQL_miscK10,
  FILENAME = "C:\Bigdb\cabK\misc10\",
  SIZE      = 3825MB,  FILEGROWTH = 0),
FILEGROUP      MSSQL_cs_fg
(  NAME = MSSQL_csB1,
  FILENAME = "C:\Bigdb\cabB\cs1\",
  SIZE      = 7300MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csC1,
  FILENAME = "C:\Bigdb\cabC\cs1\",
  SIZE      = 7300MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csD1,
  FILENAME = "C:\Bigdb\cabD\cs1\",
  SIZE      = 7300MB,  FILEGROWTH = 0),
(  NAME = MSSQL_csE1,
  FILENAME = "C:\Bigdb\cabE\cs1\",
  SIZE      = 7300MB,  FILEGROWTH = 0),

```



```

FILENAME = "C:\Bigdb\cabJ\cs8\",
SIZE = 7300MB, FILEGROWTH = 0),
(
NAME = MSSQL_csK8,
FILENAME = "C:\Bigdb\cabK\cs8\",
SIZE = 7300MB, FILEGROWTH = 0),
(
NAME = MSSQL_csA9,
FILENAME = "C:\Bigdb\cabA\cs9\",
SIZE = 7300MB, FILEGROWTH = 0),
(
NAME = MSSQL_csB9,
FILENAME = "C:\Bigdb\cabB\cs9\",
SIZE = 7300MB, FILEGROWTH = 0),
(
NAME = MSSQL_csC9,
FILENAME = "C:\Bigdb\cabC\cs9\",
SIZE = 7300MB, FILEGROWTH = 0),
(
NAME = MSSQL_csD9,
FILENAME = "C:\Bigdb\cabD\cs9\",
SIZE = 7300MB, FILEGROWTH = 0),
(
NAME = MSSQL_csE9,
FILENAME = "C:\Bigdb\cabE\cs9\",
SIZE = 7300MB, FILEGROWTH = 0),
(
NAME = MSSQL_csF9,
FILENAME = "C:\Bigdb\cabF\cs9\",
SIZE = 7300MB, FILEGROWTH = 0),
(
NAME = MSSQL_csG9,
FILENAME = "C:\Bigdb\cabG\cs9\",
SIZE = 7300MB, FILEGROWTH = 0),
(
NAME = MSSQL_csH9,
FILENAME = "C:\Bigdb\cabH\cs9\",
SIZE = 7300MB, FILEGROWTH = 0),
(
NAME = MSSQL_csI9,
FILENAME = "C:\Bigdb\cabI\cs9\",
SIZE = 7300MB, FILEGROWTH = 0),
(
NAME = MSSQL_csJ9,
FILENAME = "C:\Bigdb\cabJ\cs9\",
SIZE = 7300MB, FILEGROWTH = 0),
(
NAME = MSSQL_csK9,
FILENAME = "C:\Bigdb\cabK\cs9\",
SIZE = 7300MB, FILEGROWTH = 0),
(
NAME = MSSQL_csA10,
FILENAME = "C:\Bigdb\cabA\cs10\",
SIZE = 7300MB, FILEGROWTH = 0),
(
NAME = MSSQL_csB10,
FILENAME = "C:\Bigdb\cabB\cs10\",
SIZE = 7300MB, FILEGROWTH = 0),
(
NAME = MSSQL_csC10,
FILENAME = "C:\Bigdb\cabC\cs10\",
SIZE = 7300MB, FILEGROWTH = 0),
(
NAME = MSSQL_csD10,
FILENAME = "C:\Bigdb\cabD\cs10\",
SIZE = 7300MB, FILEGROWTH = 0),
(
NAME = MSSQL_csE10,
FILENAME = "C:\Bigdb\cabE\cs10\",
SIZE = 7300MB, FILEGROWTH = 0),
(
NAME = MSSQL_csF10,
FILENAME = "C:\Bigdb\cabF\cs10\",
SIZE = 7300MB, FILEGROWTH = 0),
(
NAME = MSSQL_csG10,
FILENAME = "C:\Bigdb\cabG\cs10\",
SIZE = 7300MB, FILEGROWTH = 0),
(
NAME = MSSQL_csH10,
FILENAME = "C:\Bigdb\cabH\cs10\",

```

```

SIZE = 7300MB, FILEGROWTH = 0),
(
NAME = MSSQL_csI10,
FILENAME = "C:\Bigdb\cabI\cs10\",
SIZE = 7300MB, FILEGROWTH = 0),
(
NAME = MSSQL_csJ10,
FILENAME = "C:\Bigdb\cabJ\cs10\",
SIZE = 7300MB, FILEGROWTH = 0),
(
NAME = MSSQL_csK10,
FILENAME = "C:\Bigdb\cabK\cs10\",
SIZE = 7300MB, FILEGROWTH = 0),
(
NAME = MSSQL_csA1,
FILENAME = "C:\Bigdb\cabA\cs1\",
SIZE = 7300MB, FILEGROWTH = 0),
FILEGROUP MSSQL_ord_fg
(
NAME = MSSQL_ordC1,
FILENAME = "C:\Bigdb\cabC\ord1\",
SIZE = 4675MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordD1,
FILENAME = "C:\Bigdb\cabD\ord1\",
SIZE = 4675MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordE1,
FILENAME = "C:\Bigdb\cabE\ord1\",
SIZE = 4675MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordF1,
FILENAME = "C:\Bigdb\cabF\ord1\",
SIZE = 4675MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordG1,
FILENAME = "C:\Bigdb\cabG\ord1\",
SIZE = 4675MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordH1,
FILENAME = "C:\Bigdb\cabH\ord1\",
SIZE = 4675MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordI1,
FILENAME = "C:\Bigdb\cabI\ord1\",
SIZE = 4675MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordJ1,
FILENAME = "C:\Bigdb\cabJ\ord1\",
SIZE = 4675MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordK1,
FILENAME = "C:\Bigdb\cabK\ord1\",
SIZE = 4675MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordA2,
FILENAME = "C:\Bigdb\cabA\ord2\",
SIZE = 4675MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordB2,
FILENAME = "C:\Bigdb\cabB\ord2\",
SIZE = 4675MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordC2,
FILENAME = "C:\Bigdb\cabC\ord2\",
SIZE = 4675MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordD2,
FILENAME = "C:\Bigdb\cabD\ord2\",
SIZE = 4675MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordE2,
FILENAME = "C:\Bigdb\cabE\ord2\",
SIZE = 4675MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordF2,
FILENAME = "C:\Bigdb\cabF\ord2\",
SIZE = 4675MB, FILEGROWTH = 0),
(
NAME = MSSQL_ordG2,
FILENAME = "C:\Bigdb\cabG\ord2\",

```



```

( NAME = MSSQL_ordA10,
  FILENAME = "C:\Bigdb\cabA\ord10\",
  SIZE = 4675MB, FILEGROWTH = 0),
( NAME = MSSQL_ordB10,
  FILENAME = "C:\Bigdb\cabB\ord10\",
  SIZE = 4675MB, FILEGROWTH = 0),
( NAME = MSSQL_ordC10,
  FILENAME = "C:\Bigdb\cabC\ord10\",
  SIZE = 4675MB, FILEGROWTH = 0),
( NAME = MSSQL_ordD10,
  FILENAME = "C:\Bigdb\cabD\ord10\",
  SIZE = 4675MB, FILEGROWTH = 0),
( NAME = MSSQL_ordE10,
  FILENAME = "C:\Bigdb\cabE\ord10\",
  SIZE = 4675MB, FILEGROWTH = 0),
( NAME = MSSQL_ordF10,
  FILENAME = "C:\Bigdb\cabF\ord10\",
  SIZE = 4675MB, FILEGROWTH = 0),
( NAME = MSSQL_ordG10,
  FILENAME = "C:\Bigdb\cabG\ord10\",
  SIZE = 4675MB, FILEGROWTH = 0),
( NAME = MSSQL_ordH10,
  FILENAME = "C:\Bigdb\cabH\ord10\",
  SIZE = 4675MB, FILEGROWTH = 0),
( NAME = MSSQL_ordI10,
  FILENAME = "C:\Bigdb\cabI\ord10\",
  SIZE = 4675MB, FILEGROWTH = 0),
( NAME = MSSQL_ordJ10,
  FILENAME = "C:\Bigdb\cabJ\ord10\",
  SIZE = 4675MB, FILEGROWTH = 0),
( NAME = MSSQL_ordK10,
  FILENAME = "C:\Bigdb\cabK\ord10\",
  SIZE = 4675MB, FILEGROWTH = 0),
( NAME = MSSQL_ordA1,
  FILENAME = "C:\Bigdb\cabA\ord1\",
  SIZE = 4675MB, FILEGROWTH = 0),
( NAME = MSSQL_ordB1,
  FILENAME = "C:\Bigdb\cabB\ord1\",
  SIZE = 4675MB, FILEGROWTH = 0)
LOG ON
( NAME = MSSQL_tpcc_log1,
  FILENAME = "C:\Bigdb\dblogs\tpcclog1\",
  SIZE = 340000MB, FILEGROWTH = 0),
( NAME = MSSQL_tpcc_log2,
  FILENAME = "C:\Bigdb\dblogs\tpcclog2\",
  SIZE = 246000MB, FILEGROWTH = 0)
update tpcc_timer
set end_date = (select convert(char(30), getdate(),9))
go
select "Elapsed time (in seconds): ", datediff(second,(select start_date
from tpcc_timer),(select end_date from tpcc_timer))
if exists ( select name from sysobjects where name = 'tpcc_timer' )
drop table tpcc_timer
go

```

DBOPT1.SQL

```

-- File:      DBOPT1.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.21

```

```

--           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
exec sp_dboption tpcc,'torn page detection',false

```

```

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)

```

```

--
-- Set option values for user-defined indexes
--

```

```

SET @msg = ' '
PRINT @msg
SET @msg = 'Setting SQL Server 2000 indexoptions'
PRINT @msg
SET @msg = ' '
PRINT @msg

```

```

EXEC sp_indexoption 'customer', 'DisallowPageLocks', TRUE
EXEC sp_indexoption 'district', 'DisallowPageLocks', TRUE

```



```

EXEC sp_indexoption 'warehouse', 'DisallowPageLocks', TRUE
EXEC sp_indexoption 'stock', 'DisallowPageLocks', TRUE
EXEC sp_indexoption 'order_line', 'DisallowRowLocks', TRUE
EXEC sp_indexoption 'orders', 'DisallowRowLocks', TRUE
EXEC sp_indexoption 'new_order', 'DisallowRowLocks', TRUE
EXEC sp_indexoption 'item', 'DisallowRowLocks', TRUE
EXEC sp_indexoption 'item', 'DisallowPageLocks', TRUE

```

```

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

```

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 'tpccbackA10'
exec sp_dropdevice 'tpccbackB10'
exec sp_dropdevice 'tpccbackC10'
exec sp_dropdevice 'tpccbackD10'
exec sp_dropdevice 'tpccbackE10'
exec sp_dropdevice 'tpccbackF10'

```

```

exec sp_dropdevice 'tpccbackG10'
exec sp_dropdevice 'tpccbackH10'
exec sp_dropdevice 'tpccbackI10'
exec sp_dropdevice 'tpccbackJ10'
exec sp_dropdevice 'tpccbackK10'

```

```

exec sp_dropdevice 'tpccbackA9'
exec sp_dropdevice 'tpccbackB9'
exec sp_dropdevice 'tpccbackC9'
exec sp_dropdevice 'tpccbackD9'
exec sp_dropdevice 'tpccbackE9'

```

```

exec sp_dropdevice 'tpccbackF9'
exec sp_dropdevice 'tpccbackG9'
exec sp_dropdevice 'tpccbackH9'
exec sp_dropdevice 'tpccbackI9'
exec sp_dropdevice 'tpccbackJ9'
exec sp_dropdevice 'tpccbackK9'

```

```

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)

```

```

restore database tpcc from
tpccbackA10, tpccbackB10, tpccbackC10, tpccbackD10,
tpccbackE10,
tpccbackF10, tpccbackG10, tpccbackH10, tpccbackI10,
tpccbackJ10,
tpccbackK10,
tpccbackE9,
tpccbackA9, tpccbackB9, tpccbackC9, tpccbackD9,
tpccbackF9, tpccbackG9, tpccbackH9, tpccbackI9,
tpccbackJ9,
tpccbackK9
with replace, 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
dbcc traceoff (3111)
go
use tpcc
go
EXEC sp_tableoption 'new_order', 'pintable',false
go

```

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.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...
rem @isql -Usa -P -S%1 -b -e < scripts\%2.war\ddl\idxhiscl.sql
    > logs\idxhiscl.log
@if '%4'==' ' loader\bin\tpccldr -S%1 -W%2 -flogs\bulkload.log -
dscripsts\%2.war\ddl -c0
@if errorlevel 1 goto END
@if '%4'=='normal' loader\bin\tpccldr -S%1 -W%2 -flogs\bulkload.log -
dscripsts\%2.war\ddl -c0
@if errorlevel 1 goto END
@if '%4'=='scale_down' loader\bin\tpccldr -S%1 -W%2 -flogs\bulkload.log -
dscripsts\%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
dbcheck *
@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\NEWORDER.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
@echo Order.
@echo.
@echo For SQL Server 8.0, please re-install and specify Latin1_General
@echo 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 TPC-C database checks to verify
--           that database load completed correctly

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

use tpcc
go

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

print 'WAREHOUSE TABLE'

select 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
```

Indexes and 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_c1 on customer(c_w_id, c_id,
c_d_id)
    on MSSQL_cs_fg

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

go
--          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_c1' )
    drop index customer.customer_c1

create unique clustered index customer_c1 on customer(c_w_id, c_id,
c_d_id)
    on MSSQL_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_nc1' )
    drop index customer.customer_nc1

create unique nonclustered index customer_nc1 on customer(c_w_id, c_d_id,
c_last, c_first, c_id)
    with SORT_IN_TEMPDB

```

```

on MSSQL_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 MSSQL_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_id, h_c_d_id, h_amount)
on MSSQL_misc_fg

```

```

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

```

```
go
```

IDXITMCL.SQL

```

-- File:      IDXITMCL.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.21
--           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_cl' )
drop index item.item_cl

```

```

create unique clustered index item_cl on item(i_id)
on MSSQL_misc_fg

```

```

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

```

```
go
```

IDXNODCL.SQL

```

-- File:      IDXNODCL.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.21
--           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_cl' )
drop index new_order.new_order_cl

```

```

create unique clustered index new_order_cl on new_order(no_w_id, no_d_id,
no_o_id)
with pad_index, fillfactor=90
on MSSQL_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 MSSQL_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 MSSQL_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 MSSQL_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 MSSQL_misc_fg

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

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                int,
    w_name              char(10),
    w_street_1         char(20),
    w_street_2         char(20),
    w_city             char(20),
    w_state            char(2),
    w_zip              char(9),
    w_tax              numeric(4,4),
    w_ytd              numeric(12,2)
) on MSSQL_misc_fg
go

create table district
(
    d_id                tinyint,
    d_w_id             int,
    d_name              char(10),
    d_street_1         char(20),
    d_street_2         char(20),
    d_city             char(20),
    d_state            char(2),
    d_zip              char(9),
    d_tax              numeric(4,4),
    d_ytd              numeric(12,2),
    d_next_o_id        int
) on MSSQL_misc_fg
go

create table customer
(
    c_id                int,
    c_d_id             tinyint,
    c_w_id             int,
    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 MSSQL_cs_fg
    textimage_on MSSQL_misc_fg
go

create table history
(

```

```

    h_c_id             int,
    h_c_d_id          tinyint,
    h_c_w_id          int,
    h_d_id            tinyint,
    h_w_id            int,
    h_date            datetime,
    h_amount          numeric(6,2),
    h_data            char(24)
) on MSSQL_misc_fg
go

create table new_order
(
    no_o_id           int,
    no_d_id           tinyint,
    no_w_id           int
) on MSSQL_ord_fg
go

create table orders
(
    o_id              int,
    o_d_id            tinyint,
    o_w_id            int,
    o_c_id            int,
    o_entry_d         datetime,
    o_carrier_id     tinyint,
    o_ol_cnt          tinyint,
    o_all_local       tinyint
) on MSSQL_ord_fg
go

create table order_line
(
    ol_o_id           int,
    ol_d_id           tinyint,
    ol_w_id           int,
    ol_number         tinyint,
    ol_i_id           int,
    ol_supply_w_id   int,
    ol_delivery_d     datetime,
    ol_quantity       smallint,
    ol_amount         numeric(6,2),
    ol_dist_info     char(24)
) on MSSQL_ord_fg
go

create table item
(
    i_id              int,
    i_im_id           int,
    i_name            char(24),
    i_price           numeric(5,2),
    i_data            varchar(50)
) on MSSQL_misc_fg
go

create table stock
(
    s_i_id            int,
    s_w_id            int,

```

```

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             varchar(50)
) on MSSQL_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          int,
                            @o_carrier_id  smallint
as

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

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       = o_c_id
        where o_w_id      = @w_id and
              o_d_id      = @d_id and
              o_id        = @o_id

-- set date in all lineitems for this order (and sum amounts)

        update order_line
        set   ol_delivery_d = getdate(),
              @total       = @total + ol_amount
        where ol_w_id      = @w_id and
              ol_d_id      = @d_id and
              ol_o_id      = @o_id

-- accumulate lineitem amounts for this order into customer

        update customer
        set   c_balance     = c_balance + @total,
              c_delivery_cnt = c_delivery_cnt + 1

        where c_w_id      = @w_id and
              c_d_id      = @d_id and
              c_id        = @c_id

    end

    select @oid1 = case @d_id when 1 then @o_id else @oid1 end,
           @oid2 = case @d_id when 2 then @o_id else @oid2 end,
           @oid3 = case @d_id when 3 then @o_id else @oid3 end,
           @oid4 = case @d_id when 4 then @o_id else @oid4 end,
           @oid5 = case @d_id when 5 then @o_id else @oid5 end,
           @oid6 = case @d_id when 6 then @o_id else @oid6 end,

```

```

        @oid7 = case @d_id when 7 then @o_id else @oid7 end,
        @oid8 = case @d_id when 8 then @o_id else @oid8 end,
        @oid9 = case @d_id when 9 then @o_id else @oid9 end,
        @oid10 = case @d_id when 10 then @o_id else @oid10 end

end

commit tran d

-- return delivery data to client

select @oid1,
       @oid2,
       @oid3,
       @oid4,
       @oid5,
       @oid6,
       @oid7,
       @oid8,
       @oid9,
       @oid10

go

```

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      int,
        @d_id      tinyint,
        @c_id      int,
        @o_ol_cnt  tinyint,
        @o_all_local tinyint,
        @i_id1     int = 0, @s_w_id1 int = 0,

        @i_id2     int = 0, @s_w_id2 int = 0,

        @i_id3     int = 0, @s_w_id3 int = 0,

        @i_id4     int = 0, @s_w_id4 int = 0,

        @i_id5     int = 0, @s_w_id5 int = 0,

        @i_id6     int = 0, @s_w_id6 int = 0,

        @i_id7     int = 0, @s_w_id7 int = 0,

        @ol_qty1   smallint = 0,

        @ol_qty2   smallint = 0,

        @ol_qty3   smallint = 0,

        @ol_qty4   smallint = 0,

        @ol_qty5   smallint = 0,

        @ol_qty6   smallint = 0,

        @ol_qty7   smallint = 0,

```

```

        @i_id8     int = 0, @s_w_id8 int = 0,

        @i_id9     int = 0, @s_w_id9 int = 0,

        @i_id10    int = 0, @s_w_id10 int = 0,

        @i_id11    int = 0, @s_w_id11 int = 0,

        @i_id12    int = 0, @s_w_id12 int = 0,

        @i_id13    int = 0, @s_w_id13 int = 0,

        @i_id14    int = 0, @s_w_id14 int = 0,

        @i_id15    int = 0, @s_w_id15 int = 0,

        @ol_qty8   smallint = 0,

        @ol_qty9   smallint = 0,

        @ol_qty10  smallint = 0,

        @ol_qty11  smallint = 0,

        @ol_qty12  smallint = 0,

        @ol_qty13  smallint = 0,

        @ol_qty14  smallint = 0,

        @ol_qty15  smallint = 0

as
declare @w_tax      numeric(4,4),
        @d_tax      numeric(4,4),
        @c_last     char(16),
        @c_credit    char(2),
        @c_discount  numeric(4,4),
        @i_price     numeric(5,2),
        @i_name      char(24),
        @i_data      char(50),
        @o_entry_d   datetime,
        @remote_flag int,
        @s_quantity  smallint,
        @s_data      char(50),
        @s_dist      char(24),
        @li_no       int,
        @o_id        int,
        @commit_flag tinyint,
        @li_id       int,
        @li_s_w_id   int,
        @li_qty      smallint,
        @ol_number   int,
        @c_id_local  int

begin

begin transaction n

-- get district tax and next available order id and update
-- plus initialize local variables

        update district
        set      @d_tax      = d_tax,
               @o_id      = d_next_o_id,
               d_next_o_id = d_next_o_id + 1,
               @o_entry_d  = getdate(),
               @li_no     = 0,
               @commit_flag = 1
        where   d_w_id     = @w_id and
               d_id      = @d_id

-- process orderlines

        while (@li_no < @o_ol_cnt)

```

```

begin
    select @li_no = @li_no + 1
-- set i_id, s_w_id, and qty for this lineitem
    select @li_id = case @li_no
        when 1 then @i_id1
        when 2 then @i_id2
        when 3 then @i_id3
        when 4 then @i_id4
        when 5 then @i_id5
        when 6 then @i_id6
        when 7 then @i_id7
        when 8 then @i_id8
        when 9 then @i_id9
        when 10 then @i_id10
        when 11 then @i_id11
        when 12 then @i_id12
        when 13 then @i_id13
        when 14 then @i_id14
        when 15 then @i_id15
        end,
    @li_s_w_id = case @li_no
        when 1 then @s_w_id1
        when 2 then @s_w_id2
        when 3 then @s_w_id3
        when 4 then @s_w_id4
        when 5 then @s_w_id5
        when 6 then @s_w_id6
        when 7 then @s_w_id7
        when 8 then @s_w_id8
        when 9 then @s_w_id9
        when 10 then @s_w_id10
        when 11 then @s_w_id11
        when 12 then @s_w_id12
        when 13 then @s_w_id13
        when 14 then @s_w_id14
        when 15 then @s_w_id15
        end,
    @li_qty = case @li_no
        when 1 then @ol_qty1
        when 2 then @ol_qty2
        when 3 then @ol_qty3
        when 4 then @ol_qty4
        when 5 then @ol_qty5
        when 6 then @ol_qty6
        when 7 then @ol_qty7
        when 8 then @ol_qty8
        when 9 then @ol_qty9
        when 10 then @ol_qty10
        when 11 then @ol_qty11
        when 12 then @ol_qty12
        when 13 then @ol_qty13
        when 14 then @ol_qty14
        when 15 then @ol_qty15
        end
-- get item data (no one updates item)

```

```

    select @i_price = i_price,
           @i_name = i_name,
           @i_data = i_data
    from item (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
        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 int,
                           @d_id tinyint,
                           @c_id int,
                           @c_last char(16) = ""

as

declare @c_balance      numeric(12,2),
        @c_first        char(16),
        @c_middle       char(2),
        @o_id           int,
        @o_entry_d      datetime,
        @o_carrier_id   smallint,
        @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

end

set rowcount 0

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 int,
                        @c_w_id int,
                        @h_amount numeric(6,2),
                        @d_id tinyint,
                        @c_d_id tinyint,
                        @c_id int,
                        @c_last char(16) = ''
as
declare @w_street_1 char(20),
        @w_street_2 char(20),
        @w_city char(20),
        @w_state char(2),
        @w_zip char(9),
        @w_name char(10),
        @d_street_1 char(20),
        @d_street_2 char(20),
        @d_city char(20),
        @d_state char(2),
        @d_zip char(9),
        @d_name char(10),
        @c_first char(16),
        @c_middle char(2),
        @c_street_1 char(20),

```

```

@c_street_2    char(20),
@c_city        char(20),
@c_state       char(2),
@c_zip         char(9),
@c_phone       char(16),
@c_since       datetime,
@c_credit      char(2),
@c_credit_lim  numeric(12,2),
@c_balance     numeric(12,2),
@c_discount    numeric(4,4),
@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    int,
@c_id_local    int

select @screen_data = ''

begin tran p

-- get payment date

select @datetime = getdate()

if (@c_id = 0)
begin

-- get customer id and info using last name

select @cnt = count(*)
from customer (repeatableread)
where c_last = @c_last and
c_w_id = @c_w_id and
c_d_id = @c_d_id

select @val = (@cnt + 1) / 2
set rowcount @val

select @c_id = c_id
from customer (repeatableread)
where c_last = @c_last and
c_w_id = @c_w_id and
c_d_id = @c_d_id

order by c_last, c_first

set rowcount 0

end

-- get customer info and update balances

update customer
set @c_balance = c_balance = c_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      int,
                          @d_id      tinyint,
                          @threshold smallint
as

declare @o_id_low int,
        @o_id_high int

select @o_id_low = (d_next_o_id - 20),
       @o_id_high = (d_next_o_id - 1)
from   district
where  d_w_id = @w_id and
       d_id = @d_id

select count(distinct(s_i_id))
from   stock, order_line
where  ol_w_id = @w_id and
       ol_d_id = @d_id and
       ol_o_id between @o_id_low and
               @o_id_high and
       s_w_id = ol_w_id and
       s_i_id = ol_i_id and
       s_quantity < @threshold

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, TPCCLDR_ARGS *pargs)
{
    int      i;
    char     *ptr;

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

    /* init args struct with some useful values */
    pargs->server      = SERVER;
    pargs->user         = USER;
    pargs->password     = PASSWORD;
    pargs->database     = DATABASE;
    pargs->batch        = BATCH;
    pargs->num_warehouses = UNDEF;
    pargs->tables_all   = TRUE;
    pargs->table_item   = FALSE;
    pargs->table_warehouse = FALSE;
    pargs->table_customer = FALSE;
    pargs->table_orders  = FALSE;
    pargs->loader_res_file = LOADER_RES_FILE;
    pargs->pack_size     = DEFLDPACKSIZE;
    pargs->starting_warehouse = DEF_STARTING_WAREHOUSE;
    pargs->build_index   = BUILD_INDEX;
    pargs->index_order   = INDEX_ORDER;
    pargs->index_script_path = INDEX_SCRIPT_PATH;

```

```

    pargs->scale_down      = SCALE_DOWN;

    /* check for zero command line args */
    if ( argc == 1 )
        GetArgsLoaderUsage();

    for ( i = 1; i < argc; ++i )
    {
        if (argv[i][0] != '-' && argv[i][0] != '/')
        {
            printf("\nUnrecognized command");
            GetArgsLoaderUsage();
            exit(1);
        }

        ptr = argv[i];

        switch (ptr[1])
        {
            case '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")
== 0)
                        pargs->table_warehouse =
TRUE;
                }
        }
    }

```

```

0)         else if (strcmp(ptr+2,"customer") == //
//=====
           pargs->table_customer = TRUE;
0)         else if (strcmp(ptr+2,"orders") ==
           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
%d\n", (long) BATCH);
    printf("-p TDS packet size
%d\n", (long) DEFLDAPACKSIZE);
    printf("-f Loader Results Output Filename
%s\n", LOADER_RES_FILE);
    printf("-s Starting Warehouse
%d\n", (long) DEF_STARTING_WAREHOUSE);
    printf("-i Build Option (data = 0, data and index = 1)
%d\n", (long) BUILD_INDEX);
    printf("-o Cluster Index Build Order (before = 1, after = 0)
%d\n", (long) INDEX_ORDER);
    printf("-c Build Scaled Database (normal = 0, tiny = 1)
%d\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

    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[] =
"0123456789ABCDEFGHIJKLMNQRSTUUVWXYZabcdefghijklmnopqrstuvwxyz";
    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[z] = 0;

    return len;
}

//=====
//
// Function name: MakeOriginalAlphaString
//
//=====
int MakeOriginalAlphaString(int x,
                           int y,
                           int z,
                           char *str,
                           int percent)
{
    int len;
    int val;
    int start;

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

    // verify percentage is valid
    if ((percent < 0) || (percent > 100))
    {
        printf("MakeOriginalAlphaString: Invalid percentage: %d\n",
percent);
        exit(-1);
    }

    // verify string is at least 8 chars in length
    if ((x + y) <= 8)
    {
        printf("MakeOriginalAlphaString: string length must be >=
8\n");
        exit(-1);
    }

    // Make Alpha String
    len = MakeAlphaString(x,y, z, str);

    val = RandomNumber(1,100);
    if (val <= percent)
    {
        start = RandomNumber(0, len - 8);
        strncpy(str + start, "ORIGINAL", 8);
    }

#ifdef DEBUG
    printf("[%ld]DBG: MakeOriginalAlphaString: : %s\n",

```

```

        (int) GetCurrentThreadId(), str);
#endif
    return strlen(str);
}

//=====
//
// Function name: MakeNumberString
//
//=====
int MakeNumberString(int x, int y, int z, char *str)
{
    char tmp[16];

    //MakeNumberString is always called MakeZipNumberString(16, 16,
16, string)

    memset(str, '0', 16);
    itoa(RandomNumber(0, 99999999), tmp, 10);
    memcpy(str, tmp, strlen(tmp));

    itoa(RandomNumber(0, 99999999), tmp, 10);
    memcpy(str+8, tmp, strlen(tmp));

    str[16] = 0;

    return 16;
}

//=====
//
// Function name: MakeZipNumberString
//
//=====
int MakeZipNumberString(int x, int y, int z, char *str)
{
    char tmp[16];

    //MakeZipNumberString is always called MakeZipNumberString(9, 9,
9, string)

    strcpy(str, "000011111");

    itoa(RandomNumber(0, 9999), tmp, 10);
    memcpy(str, tmp, strlen(tmp));

    return 9;
}

//=====
//
// Function name: InitString
//
//=====
void InitString(char *str, int len)
{
#ifdef DEBUG

```

```

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

    memset(str, ' ', len);
    str[len] = 0;
}

//=====
// Function name: InitAddress
//
// Description:
//
//=====

void InitAddress(char *street_1, char *street_2, char *city, char *state,
char *zip)
{
    memset(street_1, ' ', ADDRESS_LEN+1);
    memset(street_2, ' ', ADDRESS_LEN+1);
    memset(city, ' ', ADDRESS_LEN+1);

    street_1[ADDRESS_LEN+1] = 0;
    street_2[ADDRESS_LEN+1] = 0;
    city[ADDRESS_LEN+1] = 0;

    memset(state, ' ', STATE_LEN+1);
    state[STATE_LEN+1] = 0;

    memset(zip, ' ', ZIP_LEN+1);
    zip[ZIP_LEN+1] = 0;
}

```

```

//=====
//
// Function name: PaddString
//
//=====

```

```

void PaddString(int max, char *name)
{
    int len;

    len = strlen(name);
    if ( len < max )
        memset(name+len, ' ', max - len);
    name[max] = 0;

    return;
}

```

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: TPCC.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 DEFLDPACKSIZE 32768
#define LOADER_RES_FILE "logs\\load.out"
#define LOADER_NURAND_C 123
#define DEF_STARTING_WAREHOUSE 1
#define BUILD_INDEX 1 // build both
data and indexes
#define INDEX_ORDER 1 // build
indexes before load
#define SCALE_DOWN 0 // build a normal
scale database
#define INDEX_SCRIPT_PATH "scripts"

typedef struct
{
    char *server;
    char *database;
    char *user;
    char *password;
    BOOL tables_all; // set
if loading all tables
    BOOL table_item; // set
if loading ITEM table specifically
    BOOL table_warehouse; // set if
loading WAREHOUSE, DISTRICT, and STOCK
    BOOL table_customer; // set
if loading CUSTOMER and HISTORY
    BOOL table_orders; // set if
loading NEW-ORDER, ORDERS, ORDER-LINE
    long num_warehouses;
    long batch;
    long verbose;
    long pack_size;
    char *loader_res_file;
    char *synch_servername;
    long case_sensitivity;
    long starting_warehouse;
    long build_index;
    long index_order;
    long scale_down;
    char *index_script_path;
} TPCCLDR_ARGS;

// String length constants
#define SERVER_NAME_LEN 20

```

```

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

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

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

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

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

```

TPCCLDR.C

```
//      File:          TPCCLDR.C
//                      Microsoft TPC-C Kit Ver. 4.21
//                      Copyright Microsoft, 1996, 1997, 1998, 1999,
2000
//      Purpose:      Source file for TPC-C database loader
//      Modified     12/13/2002 to support 32 bit W-IDs - RBS
//                      05/28/2003 change 'rows loaded' to unsigned to avoid
overflow.
//                      05/29/2003 change load progress displays.

// 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;
    long          ol_supply_w_id;
    short         ol_quantity;
    double        ol_amount;
    char          ol_dist_info[DIST_INFO_LEN+1];
    char          ol_delivery_d[OL_DELIVERY_D_LEN+1];
} ORDER_LINE_STRUCT;

typedef struct
{
    long          o_id;
    short         o_d_id;
    long          o_w_id;
    long          o_c_id;
    short         o_carrier_id;
    short         o_ol_cnt;
    short         o_all_local;
    ORDER_LINE_STRUCT o_ol[15];
} ORDERS_STRUCT;

typedef struct
{
    long          c_id;
    short         c_d_id;
    long          c_w_id;
    char          c_first[FIRST_NAME_LEN+1];
    char          c_middle[MIDDLE_NAME_LEN+1];
    char          c_last[LAST_NAME_LEN+1];
    char          c_street_1[ADDRESS_LEN+1];
    char          c_street_2[ADDRESS_LEN+1];
    char          c_city[ADDRESS_LEN+1];
    char          c_state[STATE_LEN+1];
    char          c_zip[ZIP_LEN+1];
    char          c_phone[PHONE_LEN+1];
    char          c_credit[CREDIT_LEN+1];
    double        c_credit_lim;
    double        c_discount;
    // fix to avoid ODBC float to numeric conversion problem.
    // double
    char          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];
ULONG            orders_rows_loaded;
ULONG            new_order_rows_loaded;
ULONG            order_line_rows_loaded;
ULONG            history_rows_loaded;
ULONG            customer_rows_loaded;
ULONG            stock_rows_loaded;
ULONG            district_rows_loaded;
ULONG            item_rows_loaded;
ULONG            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;

TPCCLDR_ARGS    *aptr, args;
HANDLE          hIndexMutex;

//=====
//
// 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);
    hIndexMutex = CreateMutex (NULL, FALSE, NULL);
    // start parallel load threads

    if (aptr->tables_all || aptr->table_item)
    {
        fprintf(fLoader, "\nStarting loader threads for: item\n");

        hThread[0] = CreateThread(NULL,
                                0,
(LPTHREAD_START_ROUTINE) LoadItem,
                                NULL,
                                0,
                                &dwThreadID[0]);

        if (hThread[0] == NULL)
        {
            printf("Error, failed in creating creating thread =
0.\n");
            exit(-1);
        }
    }

    if (aptr->tables_all || aptr->table_warehouse)
    {
        fprintf(fLoader, "Starting loader threads for:
warehouse\n");

        hThread[1] = CreateThread(NULL,
                                0,

```

```

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

        if (hThread[1] == NULL)
        {
            printf("Error, failed in creating creating thread =
1.\n");
            exit(-1);
        }
    }

    if (aptr->tables_all || aptr->table_customer)
    {
        fprintf(fLoader, "Starting loader threads for:
customer\n");

        hThread[2] = CreateThread(NULL,
                                0,
(LPTHREAD_START_ROUTINE) LoadCustomer,
                                NULL,
                                0,
                                &dwThreadID[2]);

        if (hThread[2] == NULL)
        {
            printf("Error, failed in creating creating main
thread = 2.\n");
            exit(-1);
        }
    }

    if (aptr->tables_all || aptr->table_orders)
    {
        fprintf(fLoader, "Starting loader threads for: orders\n");

        hThread[3] = CreateThread(NULL,
                                0,
(LPTHREAD_START_ROUTINE) LoadOrders,
                                NULL,
                                0,
                                &dwThreadID[3]);

        if (hThread[3] == NULL)
        {
            printf("Error, failed in creating creating main
thread = 3.\n");
            exit(-1);
        }
    }

    // Wait for threads to finish...
    for (i=0; i<MAX_MAIN_THREADS; i++)
    {

```

```

        if (hThread[i] != NULL)
        {
            WaitForSingleObject( hThread[i], INFINITE );
            CloseHandle(hThread[i]);
            hThread[i] = NULL;
        }
    }

    main_time_end = (TimeNow() / MILLI);

    sprintf(buffer, "\nTPC-C load completed successfully in %ld
minutes.\n",
            (main_time_end - main_time_start)/60);

    printf("%s",buffer);
    fprintf(fLoader, "%s", buffer);

    fclose(fLoader);

    SQLFreeEnv(henv);

    exit(0);

    return 0;
}

//=====
//
// Function name: LoadItem
//
//=====

void LoadItem()
{
    long          i_id;
    long          i_im_id;
    char          i_name[I_NAME_LEN+1];
    double        i_price;
    char          i_data[I_DATA_LEN+1];
    char          name[20];
    long          time_start;
    RETCODE       rc;
    DBINT         rcint;
    char          bcphint[128];

    // 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()
{
    long        w_id;
    char        w_name[W_NAME_LEN+1];
    char        w_street_1[ADDRESS_LEN+1];
    char        w_street_2[ADDRESS_LEN+1];
    char        w_city[ADDRESS_LEN+1];
    char        w_state[STATE_LEN+1];
    char        w_zip[ZIP_LEN+1];
    double      w_tax;
    double      w_ytd;
    char        name[20];
    long        time_start;
    RETCODE rc;
    DBINT       rcint;
    char        bcphint[128];

    // 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 = 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;
    long     d_w_id;
    char     d_name[D_NAME_LEN+1];
    char     d_street_1[ADDRESS_LEN+1];
    char     d_street_2[ADDRESS_LEN+1];
    char     d_city[ADDRESS_LEN+1];
    char     d_state[STATE_LEN+1];
    char     d_zip[ZIP_LEN+1];
    double   d_tax;
    double   d_ytd;
    char     name[20];
    long     d_next_o_id;
    long     time_start;
    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;
    long      s_w_id;
    short     s_quantity;
    char      s_dist_01[S_DIST_LEN+1];
    char      s_dist_02[S_DIST_LEN+1];
    char      s_dist_03[S_DIST_LEN+1];
    char      s_dist_04[S_DIST_LEN+1];
    char      s_dist_05[S_DIST_LEN+1];
    char      s_dist_06[S_DIST_LEN+1];
    char      s_dist_07[S_DIST_LEN+1];
    char      s_dist_08[S_DIST_LEN+1];
    char      s_dist_09[S_DIST_LEN+1];
    char      s_dist_10[S_DIST_LEN+1];
    long      s_ytd;
    short     s_order_cnt;
    short     s_remote_cnt;
    char      s_data[S_DATA_LEN+1];
    short     len;
    char      name[20];
    long      time_start;
    RETCODE rc;
    DBINT rcint;
    char      bcphint[128];

    // Seed with unique number
    seed(3);

    // if build index before load...
    if ((aptr->build_index == 1) && (aptr->index_order == 1))
        BuildIndex("idxstkcl");

    Sleep(60000);
    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++)
    {
        if ((s_i_id % 100) == 0)
            printf("loading STOCK S_I_ID %d\n",s_i_id);
        for (s_w_id = aprtr->starting_warehouse; s_w_id <= aprtr-
>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_items", &time_start);

```

```

    }
}

rcint = bcp_done(w_hdbc1);
if (rcint < 0)
    HandleErrorDBC(w_hdbc1);

printf("Finished loading stock table.\n");

SQLFreeStmt(w_hstmt1, SQL_DROP);
SQLDisconnect(w_hdbc1);
SQLFreeConnect(w_hdbc1);

// if build index after load...
if ((aptr->build_index == 1) && (aptr->index_order == 0))
    BuildIndex("idxstkcl");

return;
}

//=====
//
// Function   : LoadCustomer
//
//=====

void LoadCustomer()
{
    LOADER_TIME_STRUCT    customer_time_start;
    LOADER_TIME_STRUCT    history_time_start;
    long                  w_id;
    short                  d_id;
    DWORD                  dwThreadID[MAX_CUSTOMER_THREADS];
    HANDLE                 hThread[MAX_CUSTOMER_THREADS];
    char                   name[20];
    RETCODE                rc;
    DBINT                  rcint;
    char                   bcphint[128];
    char                   cmd[256];
    char                   rc_l;
    // SQLRETURN
    // SQLSMALLINT
    // SQLCHAR
    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
    }

    RBS
}

Sleep(60000); // Give the other guys a chance to get finished

```

```

// 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 = aptr->starting_warehouse; w_id <= aptr-
>num_warehouses; w_id++)
    {
        printf("STARTING TO LOAD CUST&HIST FOR W_ID:%d\n",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,
(LPPTHREAD_START_ROUTINE) LoadHistoryTable,
&history_time_start,
                                0,
&dwThreadID[1]);

    if (hThread[1] == NULL)
    {
        printf("Error, failed in creating creating
thread = 1.\n");
        exit(-1);
    }

    WaitForSingleObject( hThread[0], INFINITE );
    WaitForSingleObject( hThread[1], INFINITE );

    if (CloseHandle(hThread[0]) == FALSE)
    {
        printf("Error, failed in closing customer
thread handle with errno: %d\n", GetLastError());
    }

    if (CloseHandle(hThread[1]) == FALSE)
    {
        printf("Error, failed in closing history
thread handle with errno: %d\n", GetLastError());
    }

}

// flush the bulk connection
rcint = bcp_done(c_hdbc1);
if (rcint < 0)
    HandleErrorDBC(c_hdbc1);

rcint = bcp_done(c_hdbc2);

```

```

if (rcint < 0)
    HandleErrorDBC(c_hdbc2);

printf("Finished loading customer table.\n");

// if build index after load...
if ((aptr->build_index == 1) && (aptr->index_order == 0))
    BuildIndex("idxcuscl");

// build non-clustered index
if (aptr->build_index == 1)
    BuildIndex("idxcusnc");

// Output the NURAND used for the loader into C_FIRST for C_ID =
1,
// C_W_ID = 1, and C_D_ID = 1
sprintf(cmd, "isql -S%s -U%s -P%s -d%s -e -Q\"update customer set
c_first = 'C_LOAD = %d' where c_id = 1 and c_w_id = 1 and c_d_id = 1\" >
logs\\nurand_load.log",
                                aptr->server,
                                aptr->user,
                                aptr->password,
                                aptr->database,
                                LOADER_NURAND_C);

    system(cmd);

SQLFreeStmt(c_hstmt1, SQL_DROP);
SQLDisconnect(c_hdbc1);
SQLFreeConnect(c_hdbc1);

SQLFreeStmt(c_hstmt2, SQL_DROP);
SQLDisconnect(c_hdbc2);
SQLFreeConnect(c_hdbc2);

return;
}

//=====
//
// Function   : CustomerBufInit
//
//=====

void CustomerBufInit()
{
    int    i;

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

        strcpy(customer_buf[i].c_first,"");
        strcpy(customer_buf[i].c_middle,"");
        strcpy(customer_buf[i].c_last,"");
        strcpy(customer_buf[i].c_street_1,"");
    }
}

```

```

strcpy(customer_buf[i].c_street_2,"");
strcpy(customer_buf[i].c_city,"");
strcpy(customer_buf[i].c_state,"");
strcpy(customer_buf[i].c_zip,"");
strcpy(customer_buf[i].c_phone,"");
strcpy(customer_buf[i].c_credit,"");

customer_buf[i].c_credit_lim = 0;
customer_buf[i].c_discount = (float) 0;

// fix to avoid ODBC float to numeric conversion problem.
// customer_buf[i].c_balance = 0;
strcpy(customer_buf[i].c_balance,"");

customer_buf[i].c_ytd_payment = 0;
customer_buf[i].c_payment_cnt = 0;
customer_buf[i].c_delivery_cnt = 0;

strcpy(customer_buf[i].c_data,"");

customer_buf[i].h_amount = 0;

strcpy(customer_buf[i].h_data,"");
}

}

//=====
//
// Function : CustomerBufLoad
//
// Fills shared buffer for HISTORY and CUSTOMER
//=====

void CustomerBufLoad(int d_id, int w_id)
{
    long i;
    CUSTOMER_SORT_STRUCT c[CUSTOMERS_PER_DISTRICT];

    for (i=0;i<customers_per_district;i++)
    {
        if (i < 1000)
            LastName(i, c[i].c_last);
        else
            LastName(NURand(255,0,999,LOADER_NURAND_C),
c[i].c_last);

        MakeAlphaString(8,16,FIRST_NAME_LEN, c[i].c_first);

        c[i].c_id = i+1;
    }

// printf("...Loading customer buffer for: d_id = %d, w_id = %d\n",
// d_id, w_id);
for (i=0;i<customers_per_district;i++)
{

```

```

customer_buf[i].c_d_id = d_id;
customer_buf[i].c_w_id = w_id;
customer_buf[i].h_amount = 10.0;

customer_buf[i].c_ytd_payment = 10.0;

customer_buf[i].c_payment_cnt = 1;
customer_buf[i].c_delivery_cnt = 0;

// Generate CUSTOMER and HISTORY data

customer_buf[i].c_id = c[i].c_id;

strcpy(customer_buf[i].c_first, c[i].c_first);
strcpy(customer_buf[i].c_last, c[i].c_last);

customer_buf[i].c_middle[0] = '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;
    long           c_w_id;
    char           c_first[FIRST_NAME_LEN+1];
    char           c_middle[MIDDLE_NAME_LEN+1];
    char           c_last[LAST_NAME_LEN+1];
    char           c_street_1[ADDRESS_LEN+1];
    char           c_street_2[ADDRESS_LEN+1];
    char           c_city[ADDRESS_LEN+1];
    char           c_state[STATE_LEN+1];
    char           c_zip[ZIP_LEN+1];
    char           c_phone[PHONE_LEN+1];
    char           c_credit[CREDIT_LEN+1];
    double         c_credit_lim;
    double         c_discount;

    // fix to avoid ODBC float to numeric conversion problem.

    // double         c_balance;
    char           c_balance[6];

    double         c_ytd_payment;
    short          c_payment_cnt;
    short          c_delivery_cnt;
    char           c_data[C_DATA_LEN+1];
    char           c_since[C_SINCE_LEN+1];
    RETCODE        rc;

    rc = bcp_bind(c_hdbc1, (BYTE *) &c_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT4, 1);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) &c_d_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT2, 2);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) &c_w_id, 0, SQL_VARLEN_DATA, NULL,
0, SQLINT2, 3);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) c_first, 0, FIRST_NAME_LEN, NULL, 0,
0, 4);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) c_middle, 0, MIDDLE_NAME_LEN, NULL, 0,
0, 5);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) c_last, 0, LAST_NAME_LEN, NULL, 0, 0,
6);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) c_street_1, 0, ADDRESS_LEN, NULL, 0,
0, 7);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) c_street_2, 0, ADDRESS_LEN, NULL, 0, 0,
8);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) c_city, 0, ADDRESS_LEN, NULL, 0, 0,
9);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

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

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

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

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

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

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

    rc = bcp_bind(c_hdbc1, (BYTE *) &c_discount, 0, SQL_VARLEN_DATA,
0, SQLFLT8, 16);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);

    // fix to avoid ODBC float to numeric conversion problem.

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

```

```

    rc = bcp_bind(c_hdbc1, (BYTE *) &c_ytd_payment, 0, SQL_VARLEN_DATA,
NULL, 0, SQLFLT8, 18);
    if (rc != 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;
    long         c_w_id;
    double       h_amount;
    char         h_data[H_DATA_LEN+1];
    char         h_date[H_DATE_LEN+1];
    RETCODE      rc;

    rc = bcp_bind(c_hdbc2, (BYTE *) &c_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT4, 1);
    if (rc != SUCCEEDED)
        HandleErrorDBC(c_hdbc2);

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

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

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

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

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

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

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

```

```

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

    FormatDate(&h_date);

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

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

}

//=====
//
// Function   : LoadOrders
//
//=====
void LoadOrders()
{
    LOADER_TIME_STRUCT    orders_time_start;
    LOADER_TIME_STRUCT    new_order_time_start;
    LOADER_TIME_STRUCT    order_line_time_start;
    long                  w_id;
    short                 d_id;
    DWORD                 dwThreadID[MAX_ORDER_THREADS];
    HANDLE                hThread[MAX_ORDER_THREADS];
    char                  name[20];
    RETCODE                rc;
    char                  bcphint[128];

    // seed with unique number
    seed(6);

    printf("Loading orders...\n");

    // if build index before load...
    if ((aptr->build_index == 1) && (aptr->index_order == 1))
    {
        BuildIndex("idxordcl");
        BuildIndex("idxnodcl");
        BuildIndex("idxodlcl");
    }
    Sleep(60000);
    // 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 *
30000));
        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 = aptr->starting_warehouse; w_id <= aptr-
>num_warehouses; w_id++)
    {
        printf("...Loading Order info for: w_id = %d\n", 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;
    long    o_w_id;
    long    o_c_id;
    short   o_carrier_id;
    short   o_ol_cnt;
    short   o_all_local;
    char    o_entry_d[O_ENTRY_D_LEN+1];
    RETCODE rc;
    DBINT   rcint;

    // bind ORDER data

```

```

    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;
    long         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 != SUCCEEDED)
            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("idxnodcl");
    }
}

//=====
//
// Function   : LoadOrderLineTable
//
//=====

void LoadOrderLineTable(LOADER_TIME_STRUCT *order_line_time_start)
{
    int         i,j;
    long        o_id;
    short       o_d_id;
    long        o_w_id;
    long        ol;
    long        ol_i_id;
    long        ol_supply_w_id;
    short       ol_quantity;
    double      ol_amount;
    char        ol_dist_info[DIST_INFO_LEN+1];
    char        ol_delivery_d[OL_DELIVERY_D_LEN+1];
    RETCODE     rc;
    DBINT       rcint;

    // bind ORDER-LINE data
    rc = bcp_bind(o_hdbc3, (BYTE *) &o_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT4, 1);

```

```

        if (rc != SUCCEEDED)
            HandleErrorDBC(o_hdbc3);

        rc = bcp_bind(o_hdbc3, (BYTE *) &o_d_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT2, 2);
        if (rc != SUCCEEDED)
            HandleErrorDBC(o_hdbc3);

        rc = bcp_bind(o_hdbc3, (BYTE *) &o_w_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT2, 3);
        if (rc != SUCCEEDED)
            HandleErrorDBC(o_hdbc3);

        rc = bcp_bind(o_hdbc3, (BYTE *) &ol, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT4, 4);
        if (rc != SUCCEEDED)
            HandleErrorDBC(o_hdbc3);

        rc = bcp_bind(o_hdbc3, (BYTE *) &ol_i_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT4, 5);
        if (rc != SUCCEEDED)
            HandleErrorDBC(o_hdbc3);

        rc = bcp_bind(o_hdbc3, (BYTE *) &ol_supply_w_id, 0, SQL_VARLEN_DATA,
NULL, 0, SQLINT2, 6);
        if (rc != SUCCEEDED)
            HandleErrorDBC(o_hdbc3);

        rc = bcp_bind(o_hdbc3, (BYTE *) &ol_delivery_d, 0,
OL_DELIVERY_D_LEN, NULL, 0, SQLCHARACTER, 7);
        if (rc != SUCCEEDED)
            HandleErrorDBC(o_hdbc3);

        rc = bcp_bind(o_hdbc3, (BYTE *) &ol_quantity, 0, SQL_VARLEN_DATA,
NULL, 0, SQLINT2, 8);
        if (rc != SUCCEEDED)
            HandleErrorDBC(o_hdbc3);

        rc = bcp_bind(o_hdbc3, (BYTE *) &ol_amount, 0, SQL_VARLEN_DATA, NULL,
0, SQLFLT8, 9);
        if (rc != SUCCEEDED)
            HandleErrorDBC(o_hdbc3);

        rc = bcp_bind(o_hdbc3, (BYTE *) ol_dist_info, 0, DIST_INFO_LEN, NULL,
0, 0, 10);
        if (rc != SUCCEEDED)
            HandleErrorDBC(o_hdbc3);

        for (i = 0; i < orders_per_district; i++)
        {
            o_id    = orders_buf[i].o_id;
            o_d_id  = orders_buf[i].o_d_id;
            o_w_id  = orders_buf[i].o_w_id;

            for (j=0; j < orders_buf[i].o_ol_cnt; j++)
            {
                ol            = orders_buf[i].o_ol[j].ol;
                ol_i_id      = orders_buf[i].o_ol[j].ol_i_id;
                ol_supply_w_id =
orders_buf[i].o_ol[j].ol_supply_w_id;
                ol_quantity  = orders_buf[i].o_ol[j].ol_quantity;

```

```

        ol_amount      = orders_buf[i].o_ol[j].ol_amount;

strcpy(ol_delivery_d,orders_buf[i].o_ol[j].ol_delivery_d);

strcpy(ol_dist_info,orders_buf[i].o_ol[j].ol_dist_info);

        rc = bcp_sendrow(o_hdbc3);
        if (rc != 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,
                    ULONG rows_loaded,
                    char *table_name,
                    long *time_start)
{
    long          time_end, time_diff;
                // DBINT          rcint;

    if ( !(rows_loaded % aptr->batch) )
    {

        // rcint = bcp_batch(hdbc);
        // if (rcint < 0)
        //     HandleErrorDBC(hdbc);

        time_end = (TimeNow() / MILLI);
        time_diff = time_end - *time_start;

        printf("-> Loaded %ld rows into %s in %ld sec - Total = %d
(%.2f rps)\n",
                aptr->batch,
                table_name,
                time_diff,
                rows_loaded,
                (float) aptr->batch / (time_diff ? time_diff
: 1L));

        *time_start = time_end;
    }

    return;
}

//=====
//
// Function   : OpenConnections
//
//=====
void OpenConnections()
{
    RETCODE      rc;

    char          szDriverString[300];
    char          szDriverStringOut[1024];
    SQLSMALLINT  cbDriverStringOut;
}

```

```

SQLAllocHandle(SQL_HANDLE_ENV, SQL_NULL_HANDLE, &henv );
SQLSetEnvAttr(henv, SQL_ATTR_ODBC_VERSION, (void*)SQL_OV_ODBC3, 0
);

SQLAllocHandle(SQL_HANDLE_DBC, henv , &i_hdbc1);
SQLAllocHandle(SQL_HANDLE_DBC, henv , &w_hdbc1);
SQLAllocHandle(SQL_HANDLE_DBC, henv , &c_hdbc1);
SQLAllocHandle(SQL_HANDLE_DBC, henv , &c_hdbc2);
SQLAllocHandle(SQL_HANDLE_DBC, henv , &o_hdbc1);
SQLAllocHandle(SQL_HANDLE_DBC, henv , &o_hdbc2);
SQLAllocHandle(SQL_HANDLE_DBC, henv , &o_hdbc3);

SQLSetConnectAttr(i_hdbc1, SQL_COPT_SS_BCP, (void *)SQL_BCP_ON,
SQL_IS_INTEGER );
SQLSetConnectAttr(w_hdbc1, SQL_COPT_SS_BCP, (void *)SQL_BCP_ON,
SQL_IS_INTEGER );
SQLSetConnectAttr(c_hdbc1, SQL_COPT_SS_BCP, (void *)SQL_BCP_ON,
SQL_IS_INTEGER );
SQLSetConnectAttr(c_hdbc2, SQL_COPT_SS_BCP, (void *)SQL_BCP_ON,
SQL_IS_INTEGER );
SQLSetConnectAttr(o_hdbc1, SQL_COPT_SS_BCP, (void *)SQL_BCP_ON,
SQL_IS_INTEGER );
SQLSetConnectAttr(o_hdbc2, SQL_COPT_SS_BCP, (void *)SQL_BCP_ON,
SQL_IS_INTEGER );
SQLSetConnectAttr(o_hdbc3, SQL_COPT_SS_BCP, (void *)SQL_BCP_ON,
SQL_IS_INTEGER );

// Open connections to SQL Server

// Connection 1

sprintf( szDriverString , "DRIVER={SQL
Server};SERVER=%s;UID=%s;PWD=%s;DATABASE=%s" ,
aptr->server,
aptr->user,
aptr->password,
aptr->database );

rc = SQLSetConnectOption ( i_hdbc1, SQL_PACKET_SIZE, aptr-
>pack_size);
if (rc != SUCCEED)
HandleErrorDBC(i_hdbc1);

rc = SQLDriverConnect ( i_hdbc1,
NULL,
(SQLCHAR*)&szDriverString[0]
,
SQL_NTS,
(SQLCHAR*)&szDriverStringOut[0],
sizeof(szDriverStringOut),
&cbDriverStringOut,
SQL_DRIVER_NOPROMPT );

if (rc != SUCCEED)
HandleErrorDBC(i_hdbc1);

// Connection 2

sprintf( szDriverString , "DRIVER={SQL
Server};SERVER=%s;UID=%s;PWD=%s;DATABASE=%s" ,

```

```

aptr->server,
aptr->user,
aptr->password,
aptr->database );

rc = SQLSetConnectOption ( w_hdbc1, SQL_PACKET_SIZE, aptr-
>pack_size);
if (rc != SUCCEED)
HandleErrorDBC(w_hdbc1);

rc = SQLDriverConnect ( w_hdbc1,
NULL,
(SQLCHAR*)&szDriverString[0] ,
SQL_NTS,
(SQLCHAR*)&szDriverStringOut[0],
sizeof(szDriverStringOut),
&cbDriverStringOut,
SQL_DRIVER_NOPROMPT
);

if (rc != SUCCEED)
HandleErrorDBC(w_hdbc1);

// Connection 3

sprintf( szDriverString , "DRIVER={SQL
Server};SERVER=%s;UID=%s;PWD=%s;DATABASE=%s" ,
aptr->server,
aptr->user,
aptr->password,
aptr->database );

rc = SQLSetConnectOption ( c_hdbc1, SQL_PACKET_SIZE, aptr-
>pack_size);
if (rc != SUCCEED)
HandleErrorDBC(c_hdbc1);

rc = SQLDriverConnect ( c_hdbc1,
NULL,
(SQLCHAR*)&szDriverString[0] ,
SQL_NTS,
(SQLCHAR*)&szDriverStringOut[0],
sizeof(szDriverStringOut),
&cbDriverStringOut,
SQL_DRIVER_NOPROMPT
);

if (rc != SUCCEED)
HandleErrorDBC(c_hdbc1);

// Connection 4

sprintf( szDriverString , "DRIVER={SQL
Server};SERVER=%s;UID=%s;PWD=%s;DATABASE=%s" ,
aptr->server,
aptr->user,
aptr->password,

```

```

        aptr->database );
    rc = SQLSetConnectOption (c_hdbc2, SQL_PACKET_SIZE, aptr-
>pack_size);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc2);
    rc = SQLDriverConnect ( c_hdbc2,
        NULL,
        (SQLCHAR*)&szDriverString[0] ,
        SQL_NTS,
        (SQLCHAR*)&szDriverStringOut[0],
        sizeof(szDriverStringOut),
        &cbDriverStringOut,
        SQL_DRIVER_NOPROMPT
);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc2);

    // Connection 5
    sprintf( szDriverString , "DRIVER={SQL
Server};SERVER=%s;UID=%s;PWD=%s;DATABASE=%s" ,
        aptr->server,
        aptr->user,
        aptr->password,
        aptr->database );
    rc = SQLSetConnectOption (o_hdbc1, SQL_PACKET_SIZE, aptr-
>pack_size);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc1);
    rc = SQLDriverConnect ( o_hdbc1,
        NULL,
        (SQLCHAR*)&szDriverString[0] ,
        SQL_NTS,
        (SQLCHAR*)&szDriverStringOut[0],
        sizeof(szDriverStringOut),
        &cbDriverStringOut,
        SQL_DRIVER_NOPROMPT
);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc1);

    // Connection 6
    sprintf( szDriverString , "DRIVER={SQL
Server};SERVER=%s;UID=%s;PWD=%s;DATABASE=%s" ,
        aptr->server,
        aptr->user,
        aptr->password,
        aptr->database );

```

```

    rc = SQLSetConnectOption (o_hdbc2, SQL_PACKET_SIZE, aptr-
>pack_size);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc2);
    rc = SQLDriverConnect ( o_hdbc2,
        NULL,
        (SQLCHAR*)&szDriverString[0] ,
        SQL_NTS,
        (SQLCHAR*)&szDriverStringOut[0],
        sizeof(szDriverStringOut),
        &cbDriverStringOut,
        SQL_DRIVER_NOPROMPT
);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc2);

    // Connection 7
    sprintf( szDriverString , "DRIVER={SQL
Server};SERVER=%s;UID=%s;PWD=%s;DATABASE=%s" ,
        aptr->server,
        aptr->user,
        aptr->password,
        aptr->database );
    rc = SQLSetConnectOption (o_hdbc3, SQL_PACKET_SIZE, aptr-
>pack_size);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc3);
    rc = SQLDriverConnect ( o_hdbc3,
        NULL,
        (SQLCHAR*)&szDriverString[0] ,
        SQL_NTS,
        (SQLCHAR*)&szDriverStringOut[0],
        sizeof(szDriverStringOut),
        &cbDriverStringOut,
        SQL_DRIVER_NOPROMPT
);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc3);
}

//=====
//
// Function name: BuildIndex
//
//=====
void BuildIndex(char *index_script)
{
    char cmd[256];
    WaitForSingleObject( hIndexMutex, INFINITE );

```

```

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);
Sleep(5000);
ReleaseMutex( hIndexMutex);
}

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] = {"0000000000"};
    int              i, ExitFlag;

    SQLSMALLINT      cbDriverStringOut;
    SQLCHAR          TabName[10];
    SQLINTEGER       TabNameInd, TabCount, TabCountInd;

    ExitFlag = 0;

    SQLAllocHandle(SQL_HANDLE_ENV, SQL_NULL_HANDLE, &henv );
    SQLSetEnvAttr(henv, SQL_ATTR_ODBC_VERSION, (void*)SQL_OV_ODBC3, 0
);
    SQLAllocHandle(SQL_HANDLE_DBC, henv , &v_hdbc);

    SQLSetConnectAttr(v_hdbc, SQL_COPT_SS_BCP, (void *)SQL_BCP_ON,
SQL_IS_INTEGER );

    // Open connection to SQL Server

    sprintf( szDriverString , "DRIVER={SQL
Server};SERVER=%s;UID=%s;PWD=%s;DATABASE=%s" ,
            aptr->server,
            aptr->user,
            aptr->password,
            aptr->database );

    rc = SQLSetConnectAttr( v_hdbc, SQL_ATTR_PACKET_SIZE,
(SQLPOINTER)aptr->pack_size, SQL_IS_UIINTEGER );
    if (rc != SQL_SUCCESS)
        HandleErrorDBC(v_hdbc);

    rc = SQLDriverConnect ( v_hdbc,
        NULL,
        (SQLCHAR*)&szDriverString[0]
        ,
        SQL_NTS,
        (SQLCHAR*)&szDriverStringOut[0],
        sizeof(szDriverStringOut),
        &cbDriverStringOut,
        SQL_DRIVER_NOPROMPT );

    // if the rc is SQL_ERROR, the the TPCC database probably does not
exist
    if (rc == SQL_ERROR)
    {
        printf("The database TPCC does not appear to exist!\n");
        printf("\nCheck LOGS\ directory for database creation
errors.\n");

        // cleanup database connections and handles

```

```

        SQLFreeHandle(SQL_HANDLE_STMT, v_hstmt);
        SQLDisconnect(v_hdbc);
        SQLFreeHandle(SQL_HANDLE_DBC, v_hdbc);

        // since there is not a database, exit back to SETUP.CMD
        exit(1);
    }

    if ( SQLAllocHandle(SQL_HANDLE_STMT, v_hdbc , &v_hstmt) !=
SQL_SUCCESS )
        HandleErrorDBC(v_hdbc);

    if ( SQLBindCol(v_hstmt, 1, SQL_C_ULONG, &TabCount, 0,
&TabCountInd) != SQL_SUCCESS )
        HandleErrorSTMT(v_hstmt);

    // count the number of user tables from sysobjects
    rc = SQLExecDirect(v_hstmt, "select count(*) from sysobjects where
xtype = \'U\'", SQL_NTS);
    if ((rc != SQL_SUCCESS) && (rc != SQL_SUCCESS_WITH_INFO))
        HandleErrorSTMT(v_hstmt);

    if ( SQLFetch(v_hstmt) != SQL_SUCCESS )
        HandleErrorSTMT(v_hstmt);

    // if the number of tables is less than 9, select all the user
tables in TPCC
    if (TabCount != 9)
    {
        SQLFreeHandle(SQL_HANDLE_STMT, v_hstmt);

        SQLAllocHandle(SQL_HANDLE_STMT, v_hdbc , &v_hstmt);

        if ( SQLBindCol(v_hstmt, 1, SQL_C_CHAR, &TabName,
sizeof(TabName), &TabNameInd) != SQL_SUCCESS )
            HandleErrorSTMT(v_hstmt);

        // select the list of user tables into a result set
        rc = SQLExecDirect(v_hstmt, "select * from sysobjects where
xtype = \'U\'", SQL_NTS);
        if ((rc != SQL_SUCCESS) && (rc != SQL_SUCCESS_WITH_INFO))
            HandleErrorSTMT(v_hstmt);

        // go through the result set and set the bitmap for each
found table
        // set the bitmap to '1' if the table name is found
        while ((rc = SQLFetch(v_hstmt)) != SQL_NO_DATA)
        {
            switch( TabName[0] )
            {
                case 'w':
                    TablesBitMap[0] = '1';
                    break;
                case 'd':
                    TablesBitMap[1] = '1';
                    break;
                case 'c':
                    TablesBitMap[2] = '1';
                    break;
                case 'h':

```



```

        TablesBitMap[3] = '1';
        break;
    case 'n':
        TablesBitMap[4] = '1';
        break;
    case 'o':
        if (TabName[5] = 's')
            TablesBitMap[5] = '1';
        if (TabName[5] = '_')
            TablesBitMap[6] = '1';
        break;
    case 'i':
        TablesBitMap[7] = '1';
        break;
    case 's':
        TablesBitMap[8] = '1';
        break;
    }
}

// a '0' ExitFlag means do NOT exit the loader early, a '1'
means exit the loader early
ExitFlag = 0;

// 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

```
sqlservr -c -x -g300 -T3502 -T3428
```

Where:

- -c Start SQL Server independently of the Service Control Manager
- -x Disables the keeping of CPU time and cache hit ratio statistics
- -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.
- -T3502 Writes a message to the SQL Server Errorlog showing the beginning and ending time of each checkpoint
- T3428 Use half of the memory available on the system during the recovery process to keep a hash table that enables recovery to proceed smoothly.

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="Windows Server 2003,
Datacenter" /fastdetect /pae /hb=0 /CLSTR=f7f6f5f4f3f2f1e0
```

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 " "
```

```
-----
Jun 18 2003  4:24:13:750PM
```

(1 row affected)

```
1> 2> 3>
select @@version
```

```
-----
-----
-----
-----
Microsoft SQL Server  2000 - 8.00.761 (Intel X86)
Feb 27 2003 12:09:37
Cop
yright (c) 1988-2003 Microsoft Corporation
Enterprise Edition on Windo
ws NT 5.2 (Build 3790: )
```

(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 " "

Jun 18 2003 4:24:15:937PM

(1 row affected)

l> 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
l> 2> reconfigure with override
l> 2> sp_configure

name	minimum	maximum	config_value	run_value

affinity mask				-
2147483648	2147483647		-1	-1
allow updates				
0	1	0	0	0
awe enabled				
0	1	1	1	1
c2 audit mode				
0	1	0	0	0
cost threshold for parallelism				
0	32767	5	5	5
Cross DB Ownership Chaining				
0	1	0	0	0
cursor threshold				
-1	2147483647			-1
default full-text language				
0	2147483647	1033	1033	1033
default language				
0	9999	0	0	0
fill factor (%)				
0	100	0	0	0
index create memory (KB)				
704	2147483647	0	0	0
lightweight pooling				
0	1	1	1	1
locks				
5000	2147483647	0	0	0
max degree of parallelism				
0	32	1	1	1
max server memory (MB)				
4	2147483647	63300	63300	63300
max text repl size (B)				
0	2147483647	65536	65536	65536
max worker threads				
32	32767	800	800	800
media retention				
0	365	0	0	0
min memory per query (KB)				
512	2147483647	512	512	512
min server memory (MB)				
0	2147483647	0	0	0

nested triggers			
0	1	0	0
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	0	0
remote login timeout (s)			
0	2147483647	20	20
remote proc trans			
0	1	0	0
remote query timeout (s)			
0	2147483647	600	600
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

l>

Storage Configuration Information

Log DPE-Cache Configuration

SP Read Cache State	Disabled
SP Write Cache State	Enabled
Cache Page size:	8
Write Cache Mirrored:	YES
Low Watermark:	15
High Watermark:	85
SPA Cache pages:	25349
SPB Cache pages:	0
Unassigned Cache Pages:	0
Read Hit Ratio:	N/A
Write Hit Ratio:	0
Prct Dirty Cache Pages =	0
Prct Cache Pages Owned =	0
SPA Read Cache State	Disabled
SPB Read Cache State	Disabled

```

SPA Write Cache State      Enabled
SPB Write Cache State      Enabled
System Buffer (spA):       275 MB
System Buffer (spB):       275 MB
SPS Test Day:             Saturday
SPS Test Time:            18:00
SPA Physical Memory Size = 512
SPB Physical Memory Size = 512
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 =    237
SPB Write Cache Size =    237
SPA Optimized Raid 3 Memory Size = 0
SPB Optimized Raid 3 Memory Size = 0

```

Log DPE LUN Configurations

Lun 0

Statistics logging is disabled.

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

```

Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 4096
Prefetch Disable Size (blocks) = 4097
Prefetch idle count = 40

```

```

Variable length prefetching YES
Prefetched data retained YES

```

Read cache configured according to specified parameters.

```

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

```

```

RAID Type:              RAID1/0
RAIDGroup ID:           0
State:                  Bound
Stripe Crossing:        0
Element Size:           256
Current owner:          SP A
Offset:                 0

```

```

Auto-trespass:          DISABLED
Auto-assign:            DISABLED
Write cache:            ENABLED
Read cache:             DISABLED
Idle Threshold:         0
Idle Delay Time:        20
Write Aside Size:       1023
Default Owner:          SP A
Rebuild Priority:       ASAP
Verify Priority:        ASAP
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt:           100
Prct Bound:             100
LUN Capacity(Megabytes): 341020
LUN Capacity(Blocks):  698408960
UID:
60:06:01:F3:95:0C:00:00:2F:DF:DD:46:FE:82:D7:11
Bus 0 Enclosure 0 Disk 8 Queue Length: 0
Bus 0 Enclosure 0 Disk 10 Queue Length: 0
Bus 0 Enclosure 0 Disk 12 Queue Length: 0
Bus 0 Enclosure 0 Disk 14 Queue Length: 0
Bus 0 Enclosure 1 Disk 1 Queue Length: 0
Bus 0 Enclosure 0 Disk 9 Queue Length: 0
Bus 0 Enclosure 0 Disk 11 Queue Length: 0
Bus 0 Enclosure 0 Disk 13 Queue Length: 0
Bus 0 Enclosure 1 Disk 0 Queue Length: 0
Bus 0 Enclosure 1 Disk 2 Queue Length: 0
Bus 0 Enclosure 0 Disk 8 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 10 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 12 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 14 Hard Read Errors: 0
Bus 0 Enclosure 1 Disk 1 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 9 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 11 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 13 Hard Read Errors: 0
Bus 0 Enclosure 1 Disk 0 Hard Read Errors: 0
Bus 0 Enclosure 1 Disk 2 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 8 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 10 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 12 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 14 Hard Write Errors: 0
Bus 0 Enclosure 1 Disk 1 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 9 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 11 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 13 Hard Write Errors: 0
Bus 0 Enclosure 1 Disk 0 Hard Write Errors: 0
Bus 0 Enclosure 1 Disk 2 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 8 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 10 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 12 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 14 Soft Read Errors: 0
Bus 0 Enclosure 1 Disk 1 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 9 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 11 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 13 Soft Read Errors: 0
Bus 0 Enclosure 1 Disk 0 Soft Read Errors: 0
Bus 0 Enclosure 1 Disk 2 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 8 Soft Write Errors: 0

```

```

Bus 0 Enclosure 0 Disk 10 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 12 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 14 Soft Write Errors: 0
Bus 0 Enclosure 1 Disk 1 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 9 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 11 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 13 Soft Write Errors: 0
Bus 0 Enclosure 1 Disk 0 Soft Write Errors: 0
Bus 0 Enclosure 1 Disk 2 Soft Write Errors: 0

```

```

Bus 0 Enclosure 0 Disk 8 Enabled
Bus 0 Enclosure 0 Disk 10 Enabled
Bus 0 Enclosure 0 Disk 12 Enabled
Bus 0 Enclosure 0 Disk 14 Enabled
Bus 0 Enclosure 1 Disk 1 Enabled
Bus 0 Enclosure 0 Disk 9 Enabled
Bus 0 Enclosure 0 Disk 11 Enabled
Bus 0 Enclosure 0 Disk 13 Enabled
Bus 0 Enclosure 1 Disk 0 Enabled
Bus 0 Enclosure 1 Disk 2 Enabled
Is Private: NO
Snapshots List: None
MirrorView Name if any: Not Mirrored

```

Lun 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) = 4096
Prefetch Disable Size (blocks) = 4097
Prefetch idle count = 40

```

```

Variable length prefetching YES
Prefetched data retained YES

```

Read cache configured according to specified parameters.

```

Total Hard Errors: 0
Total Soft Errors: 0
Total Queue Length: 0
Name LUN 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
Offset: 0
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: ENABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP A
Rebuild Priority: ASAP
Verify Priority: ASAP
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100
Prct Bound: 100
LUN Capacity(Megabytes): 247368
LUN Capacity(Blocks): 506609664
UID:

```

60:06:01:F3:95:0C:00:00:30:DF:DD:46:FE:82:D7:11

```

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

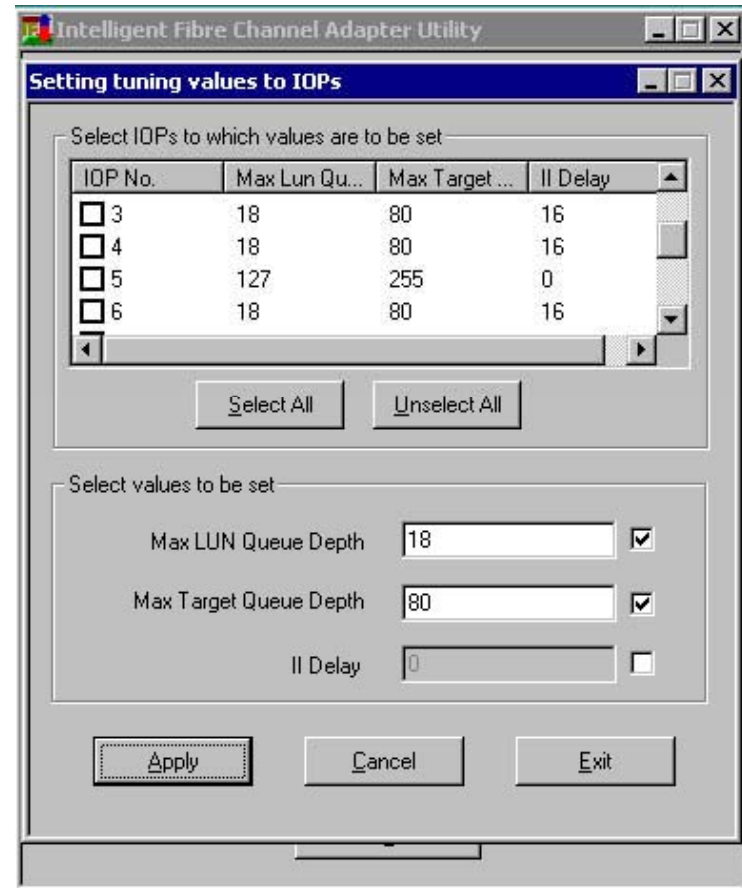
```

```

Bus 0 Enclosure 0 Disk 7 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 0 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 2 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 4 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 6 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 1 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 3 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 5 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 7 Soft Write Errors: 0

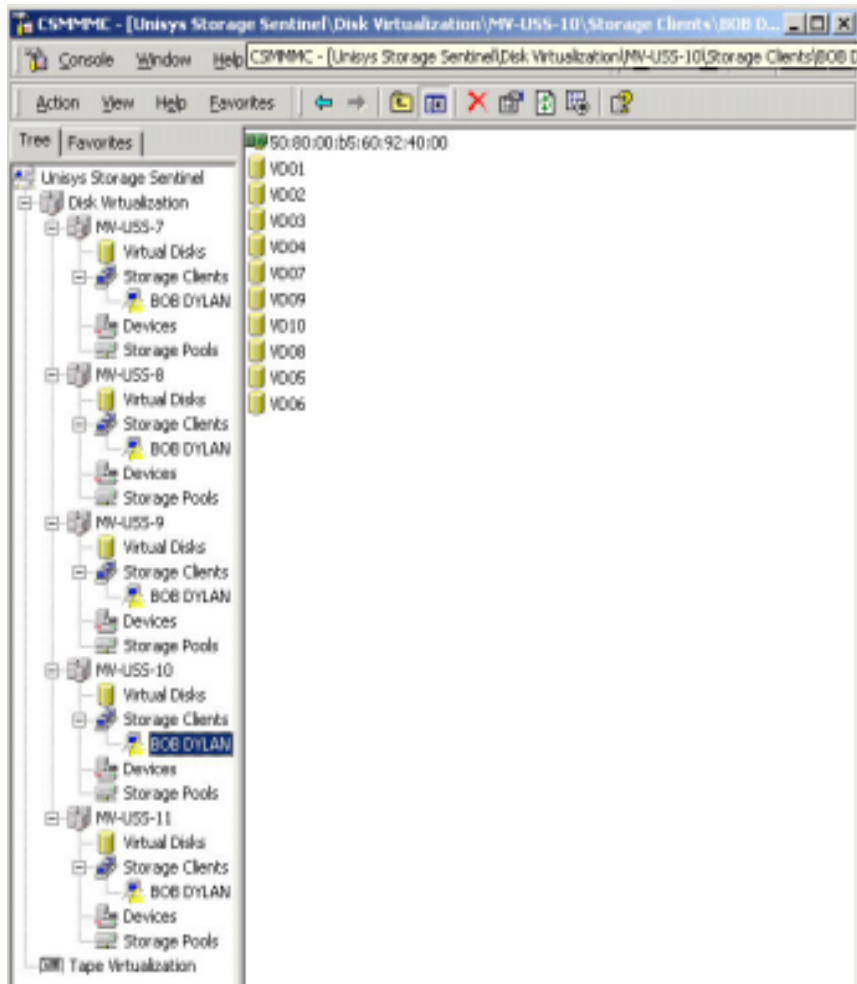
Bus 0 Enclosure 0 Disk 0 Enabled
Bus 0 Enclosure 0 Disk 2 Enabled
Bus 0 Enclosure 0 Disk 4 Enabled
Bus 0 Enclosure 0 Disk 6 Enabled
Bus 0 Enclosure 0 Disk 1 Enabled
Bus 0 Enclosure 0 Disk 3 Enabled
Bus 0 Enclosure 0 Disk 5 Enabled
Bus 0 Enclosure 0 Disk 7 Enabled
Is Private: NO
Snapshots List: None
MirrorView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

```



Intelligent Fibre Channel Adapter Utility Settings

Database USS Configuration Info (common to USS 1-11)



Windows Datacenter Server Configuration Information

System Information report written at: 06/18/03 15:30:19
 System Name: MV-BOBDYLAN
 [System Summary]

Item	Value
OS Name	Microsoft(R) Windows(R) Server 2003, Datacenter Edition
Version	5.2.3790 Build 3790
OS Manufacturer	Microsoft Corporation
System Name	MV-BOBDYLAN
System Manufacturer	UNISYS
System Model	ES7000
System Type	X86-based PC
Processor	x86 Family 15 Model 2 Stepping 5 GenuineIntel ~2800 Mhz
Processor	x86 Family 15 Model 2 Stepping 5 GenuineIntel ~2800 Mhz
Processor	x86 Family 15 Model 2 Stepping 5 GenuineIntel ~2800 Mhz
Processor	x86 Family 15 Model 2 Stepping 5 GenuineIntel ~2800 Mhz
Processor	x86 Family 15 Model 2 Stepping 5 GenuineIntel ~2800 Mhz
Processor	x86 Family 15 Model 2 Stepping 5 GenuineIntel ~2800 Mhz
Processor	x86 Family 15 Model 2 Stepping 5 GenuineIntel ~2800 Mhz
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Processor	x86 Family 15 Model 2 Stepping 5 GenuineIntel ~2800 Mhz
Processor	x86 Family 15 Model 2 Stepping 5 GenuineIntel ~2800 Mhz
Processor	x86 Family 15 Model 2 Stepping 5 GenuineIntel ~2800 Mhz
Processor	x86 Family 15 Model 2 Stepping 5 GenuineIntel ~2800 Mhz


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Processor      x86 Family 15 Model 2 Stepping 5 GenuineIntel ~2800 Mhz
Processor      x86 Family 15 Model 2 Stepping 5 GenuineIntel ~2800 Mhz
Processor      x86 Family 15 Model 2 Stepping 5 GenuineIntel ~2800 Mhz
Processor      x86 Family 15 Model 2 Stepping 5 GenuineIntel ~2800 Mhz
Processor      x86 Family 15 Model 2 Stepping 5 GenuineIntel ~2800 Mhz
Processor      x86 Family 15 Model 2 Stepping 5 GenuineIntel ~2800 Mhz
Processor      x86 Family 15 Model 2 Stepping 5 GenuineIntel ~2800 Mhz
Processor      x86 Family 15 Model 2 Stepping 5 GenuineIntel ~2800 Mhz
Processor      x86 Family 15 Model 2 Stepping 5 GenuineIntel ~2800 Mhz
Processor      x86 Family 15 Model 2 Stepping 5 GenuineIntel ~2800 Mhz
Processor      x86 Family 15 Model 2 Stepping 5 GenuineIntel ~2800 Mhz
Processor      x86 Family 15 Model 2 Stepping 5 GenuineIntel ~2800 Mhz
Processor      x86 Family 15 Model 2 Stepping 5 GenuineIntel ~2800 Mhz
Processor      x86 Family 15 Model 2 Stepping 5 GenuineIntel ~2800 Mhz
Processor      x86 Family 15 Model 2 Stepping 5 GenuineIntel ~2800 Mhz
Processor      x86 Family 15 Model 2 Stepping 5 GenuineIntel ~2800 Mhz

```

```

BIOS Version/Date      Phoenix Technologies LTD BIOS Release 000150 Build
000177, 5/8/2003
SMBIOS Version 2.31
Windows Directory      C:\WINDOWS
System Directory       C:\WINDOWS\system32
Boot Device             \Device\HarddiskVolumel
Locale United States
Hardware Abstraction Layer  Version = "5.2.3790.309 built by: WinDDK"

```

```

User Name              MV-BOBDYLAN\Administrator
Time Zone               Pacific Daylight Time
Total Physical Memory  65,536.00 MB
Available Physical Memory  85.97 MB
Total Virtual Memory   129.77 GB
Available Virtual Memory  3.87 GB
Page File Space        66.43 GB
Page File               C:\pagefile.sys

```

[Hardware Resources]

[Conflicts/Sharing]

```

Resource      Device
Memory Address 0xF7800000-0xF7FFFFFF PCI standard PCI-to-PCI bridge
Memory Address 0xF7800000-0xF7FFFFFF Unisys Intelligent Fibre Channel
Fabric Bus Adapter

```

```

Memory Address 0xF5400000-0xF5FFFFFF PCI bus
Memory Address 0xF5400000-0xF5FFFFFF PCI standard PCI-to-PCI bridge
Memory Address 0xF5400000-0xF5FFFFFF Unisys Intelligent Fibre Channel
Fabric Bus Adapter
I/O Port 0x00000000-0x00002FFF PCI bus
I/O Port 0x00000000-0x00002FFF Direct memory access controller
Memory Address 0xF9000000-0xFBFFFFFF PCI bus
Memory Address 0xF9000000-0xFBFFFFFF cLAN Host Adapter #3
Memory Address 0xF8800000-0xF8FFFFFF PCI standard PCI-to-PCI bridge
Memory Address 0xF8800000-0xF8FFFFFF Unisys Intelligent Fibre Channel
Fabric Bus Adapter
Memory Address 0xF8400000-0xF8FFFFFF PCI bus
Memory Address 0xF8400000-0xF8FFFFFF PCI standard PCI-to-PCI bridge
Memory Address 0xF8400000-0xF8FFFFFF Unisys Intelligent Fibre Channel
Fabric Bus Adapter
Memory Address 0xF0800000-0xF0FFFFFF PCI standard PCI-to-PCI bridge
Memory Address 0xF0800000-0xF0FFFFFF Unisys Intelligent Fibre Channel
Fabric Bus Adapter
I/O Port 0x000003C0-0x000003DF DEC 21152 PCI to PCI bridge
I/O Port 0x000003C0-0x000003DF Console Manager Video Driver
IRQ 10 Adaptec AIC-7896/AIC-7897 - Ultra2 SCSI
IRQ 10 Adaptec AIC-7896/AIC-7897 - Ultra2 SCSI
IRQ 10 Intel(R) 825xER PCI Adapter
Memory Address 0xD6100000-0xD9FFFFFF DEC 21152 PCI to PCI bridge
Memory Address 0xD6100000-0xD9FFFFFF Console Manager Video Driver
I/O Port 0x00002000-0x00002FFF DEC 21152 PCI to PCI bridge
I/O Port 0x00002000-0x00002FFF Adaptec AIC-7896/AIC-7897 - Ultra2
SCSI
Memory Address 0xE8000000-0xE9FFFFFF PCI bus
Memory Address 0xE8000000-0xE9FFFFFF PCI standard PCI-to-PCI bridge
Memory Address 0xE8000000-0xE9FFFFFF Unisys Intelligent Fibre Channel
Fabric Bus Adapter
I/O Port 0x000003F6-0x000003F6 System speaker
I/O Port 0x000003F6-0x000003F6 Primary IDE Channel
Memory Address 0xF2000000-0xF4FFFFFF PCI bus
Memory Address 0xF2000000-0xF4FFFFFF cLAN Host Adapter #5
Memory Address 0xEE400000-0xEEFFFFFF PCI bus
Memory Address 0xEE400000-0xEEFFFFFF PCI standard PCI-to-PCI bridge

```

Memory Address 0xEE400000-0xEEFFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter

Memory Address 0xE9800000-0xE9FFFFFF PCI standard PCI-to-PCI bridge

Memory Address 0xE9800000-0xE9FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter

Memory Address 0xF6000000-0xF7FFFFFF PCI bus
Memory Address 0xF6000000-0xF7FFFFFF PCI standard PCI-to-PCI bridge

Memory Address 0xF6000000-0xF7FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter

Memory Address 0xF5800000-0xF5FFFFFF PCI standard PCI-to-PCI bridge

Memory Address 0xF5800000-0xF5FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter

Memory Address 0xEF000000-0xF0FFFFFF PCI bus
Memory Address 0xEF000000-0xF0FFFFFF PCI standard PCI-to-PCI bridge

Memory Address 0xEF000000-0xF0FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter

Memory Address 0xEB000000-0xEDFFFFFF PCI bus
Memory Address 0xEB000000-0xEDFFFFFF cLAN Host Adapter

Memory Address 0xEA800000-0xEAFFFFFFFF PCI standard PCI-to-PCI bridge

Memory Address 0xEA800000-0xEAFFFFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter

Memory Address 0xE4000000-0xE6FFFFFF PCI bus
Memory Address 0xE4000000-0xE6FFFFFF cLAN Host Adapter #7

Memory Address 0xE3800000-0xE3FFFFFF PCI standard PCI-to-PCI bridge

Memory Address 0xE3800000-0xE3FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter

Memory Address 0xE2000000-0xE3FFFFFF PCI bus
Memory Address 0xE2000000-0xE3FFFFFF PCI standard PCI-to-PCI bridge

Memory Address 0xE2000000-0xE3FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter

Memory Address 0xE1800000-0xE1FFFFFF PCI standard PCI-to-PCI bridge

Memory Address 0xE1800000-0xE1FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter

Memory Address 0xE0000000-0xE1FFFFFF PCI bus
Memory Address 0xE0000000-0xE1FFFFFF PCI standard PCI-to-PCI bridge

Memory Address 0xE0000000-0xE1FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter

Memory Address 0xDE000000-0xDFFFFFFF PCI bus

Memory Address 0xDE000000-0xDFFFFFFF PCI standard PCI-to-PCI bridge

Memory Address 0xDE000000-0xDFFFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter

Memory Address 0xE7800000-0xE7FFFFFF PCI standard PCI-to-PCI bridge

Memory Address 0xE7800000-0xE7FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter

Memory Address 0xDF800000-0xDFFFFFFF PCI standard PCI-to-PCI bridge

Memory Address 0xDF800000-0xDFFFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter

Memory Address 0xF1800000-0xF1FFFFFF PCI standard PCI-to-PCI bridge

Memory Address 0xF1800000-0xF1FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter

Memory Address 0xEE800000-0xEEFFFFFF PCI standard PCI-to-PCI bridge

Memory Address 0xEE800000-0xEEFFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter

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 0xF1400000-0xF1FFFFFF PCI bus
Memory Address 0xF1400000-0xF1FFFFFF PCI standard PCI-to-PCI bridge

Memory Address 0xF1400000-0xF1FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter

I/O Port 0x000003B0-0x000003BB DEC 21152 PCI to PCI bridge
I/O Port 0x000003B0-0x000003BB Console Manager Video Driver

Memory Address 0xEA400000-0xEAFFFFFFFF PCI bus
Memory Address 0xEA400000-0xEAFFFFFFFF PCI standard PCI-to-PCI bridge

Memory Address 0xEA400000-0xEAFFFFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter

Memory Address 0xDC000000-0xDDFFFFFF DEC 21152 PCI to PCI bridge
Memory Address 0xDC000000-0xDDFFFFFF Console Manager control device

IRQ 0 Unisys Intelligent Fibre Channel Fabric Bus Adapter
IRQ 0 System timer

Memory Address 0xE7400000-0xE7FFFFFF PCI bus
Memory Address 0xE7400000-0xE7FFFFFF PCI standard PCI-to-PCI bridge

Memory Address 0xE7400000-0xE7FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter

[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	
0x00003000-0x0000300F	PCI bus	OK	
0x00003010-0x000033FF	PCI bus	OK	
0x00000000-0x00002FFF	PCI bus	OK	
0x00000000-0x00002FFF	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	
0x000003F6-0x000003F6	Primary IDE Channel		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
0x00000D78-0x00000DCD	System speaker	OK
0x00000DD0-0x00000DEF	System speaker	OK
0x00000DF8-0x00000E77	System speaker	OK
0x00000E80-0x00000EE7	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
0x00000378-0x0000037F	ECP Printer Port (LPT1)	OK
0x00000778-0x0000077F	ECP Printer Port (LPT1)	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
0x000003F0-0x000003F5 Standard floppy disk controller OK
0x000003F7-0x000003F7 Standard floppy disk controller OK
0x00001060-0x0000106F Intel(r) 82371AB/EB PCI Bus Master IDE Controller
OK
0x000001F0-0x000001F7 Primary IDE Channel OK
0x00000170-0x00000177 Secondary IDE Channel OK
0x00000376-0x00000376 Secondary IDE Channel OK
0x00001040-0x0000105F Intel(r) 82371AB/EB PCI to USB Universal Host
Controller OK
0x00002000-0x00002FFF DEC 21152 PCI to PCI bridge OK
0x00002000-0x00002FFF Adaptec AIC-7896/AIC-7897 - Ultra2 SCSI 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
0x00002400-0x000024FF Adaptec AIC-7896/AIC-7897 - Ultra2 SCSI OK

0x00001000-0x0000103F Intel(R) 8255xER PCI Adapter OK
0x00003400-0x0000340F PCI bus OK
0x00003410-0x0000341F PCI bus OK
0x00003420-0x000037FF PCI bus OK
0x00003800-0x0000380F PCI bus OK
0x00003810-0x0000381F PCI bus OK
0x00003820-0x00003BFF PCI bus OK
0x00003C00-0x00003C0F PCI bus OK
0x00003C10-0x00003C1F PCI bus OK
0x00003C20-0x00003FFF PCI bus OK
0x00004000-0x0000400F PCI bus OK
0x00004010-0x0000401F PCI bus OK
0x00004020-0x000043FF PCI bus OK
0x00004400-0x0000440F PCI bus OK
0x00004410-0x0000441F PCI bus OK
0x00004420-0x000047FF PCI bus OK
0x00004800-0x0000480F PCI bus OK
0x00004810-0x0000481F PCI bus OK
0x00004820-0x00004BFF PCI bus OK
0x00004C00-0x00004C0F PCI bus OK
0x00004C10-0x00004C1F PCI bus OK
0x00004C20-0x0000FFFF PCI bus OK

```

[IRQs]

```

Resource Device Status
IRQ 23 Microsoft ACPI-Compliant System OK
IRQ 0 Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
IRQ 0 System timer OK
IRQ 4 Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
IRQ 8 System CMOS/real time clock OK
IRQ 12 PS/2 Compatible Mouse OK
IRQ 1 Standard 101/102-Key or Microsoft Natural PS/2 Keyboard OK

IRQ 6 Standard floppy disk controller OK
IRQ 14 Primary IDE Channel OK
IRQ 13 Secondary IDE Channel OK

```

```

IRQ 11 Intel(r) 82371AB/EB PCI to USB Universal Host Controller OK
IRQ 9 Console Manager control device OK
IRQ 10 Adaptec AIC-7896/AIC-7897 - Ultra2 SCSI OK
IRQ 10 Adaptec AIC-7896/AIC-7897 - Ultra2 SCSI OK
IRQ 10 Intel(R) 8255xER PCI Adapter OK
IRQ 24 Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
IRQ 28 cLAN Host Adapter #7 OK
IRQ 29 cLAN Host Adapter #8 OK
IRQ 48 Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
IRQ 52 Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
IRQ 72 Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
IRQ 76 cLAN Host Adapter OK
IRQ 77 cLAN Host Adapter #2 OK
IRQ 96 Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
IRQ 100 Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
IRQ 120 Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
IRQ 124 cLAN Host Adapter #5 OK
IRQ 125 cLAN Host Adapter #6 OK
IRQ 144 Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
IRQ 148 Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
IRQ 168 Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
IRQ 172 cLAN Host Adapter #3 OK
IRQ 173 cLAN Host Adapter #4 OK

```

[Memory]

```

Resource Device Status
0xDE000000-0xDFFFFFFF PCI bus OK
0xDE000000-0xDFFFFFFF PCI standard PCI-to-PCI bridge OK
0xDE000000-0xDFFFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter
OK
0xDF800000-0xDFFFFFFF PCI standard PCI-to-PCI bridge OK
0xDF800000-0xDFFFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter
OK
0xE0000000-0xE1FFFFFF PCI bus OK
0xE0000000-0xE1FFFFFF PCI standard PCI-to-PCI bridge OK
0xE0000000-0xE1FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter
OK
0xE1800000-0xE1FFFFFF PCI standard PCI-to-PCI bridge OK
0xE1800000-0xE1FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter
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
0xD6000000-0xDDFFFFFF PCI bus OK
0xD6100000-0xD9FFFFFF DEC 21152 PCI to PCI bridge OK
0xD6100000-0xD9FFFFFF Console Manager Video Driver OK
0xDC000000-0xDDFFFFFF DEC 21152 PCI to PCI bridge OK
0xDC000000-0xDDFFFFFF Console Manager control device OK
0xD6110000-0xD6110FFF Adaptec AIC-7896/AIC-7897 - Ultra2 SCSI OK

0xD6111000-0xD6111FFF Adaptec AIC-7896/AIC-7897 - Ultra2 SCSI OK

0xD8000000-0xD9FFFFFF Console Manager Video Driver OK
0xD6001000-0xD6001FFF Intel(R) 8255xER PCI Adapter OK
0xD6020000-0xD603FFFF Intel(R) 8255xER PCI Adapter OK

```

0xE2000000-0xE3FFFFFF PCI bus OK
 0xE2000000-0xE3FFFFFF PCI standard PCI-to-PCI bridge OK
 0xE2000000-0xE3FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
 0xE3800000-0xE3FFFFFF PCI standard PCI-to-PCI bridge OK
 0xE3800000-0xE3FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
 0xE4000000-0xE6FFFFFF PCI bus OK
 0xE4000000-0xE6FFFFFF cLAN Host Adapter #7 OK
 0xE4020000-0xE403FFFF cLAN Host Adapter #7 OK
 0xE4200000-0xE43FFFFF cLAN Host Adapter #7 OK
 0xE5000000-0xE5FFFFFF cLAN Host Adapter #7 OK
 0xE4040000-0xE405FFFF cLAN Host Adapter #8 OK
 0xE4400000-0xE45FFFFF cLAN Host Adapter #8 OK
 0xE6000000-0xE6FFFFFF cLAN Host Adapter #8 OK
 0xE4010000-0xE401FFFF cLAN Host Adapter #8 OK
 0xE7000000-0xE73FFFFFF PCI bus OK
 0xE7400000-0xE7FFFFFF PCI bus OK
 0xE7400000-0xE7FFFFFF PCI standard PCI-to-PCI bridge OK
 0xE7400000-0xE7FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
 0xE7800000-0xE7FFFFFF PCI standard PCI-to-PCI bridge OK
 0xE7800000-0xE7FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
 0xE8000000-0xE9FFFFFF PCI bus OK
 0xE8000000-0xE9FFFFFF PCI standard PCI-to-PCI bridge OK
 0xE8000000-0xE9FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
 0xE9800000-0xE9FFFFFF PCI standard PCI-to-PCI bridge OK
 0xE9800000-0xE9FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
 0xEA000000-0xEA3FFFFFF PCI bus OK
 0xEA400000-0xEAFFFFFF PCI bus OK
 0xEA400000-0xEAFFFFFF PCI standard PCI-to-PCI bridge OK
 0xEA400000-0xEAFFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
 0xEA800000-0xEAFFFFFF PCI standard PCI-to-PCI bridge OK
 0xEA800000-0xEAFFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
 0xEB000000-0xEDFFFFFF PCI bus OK
 0xEB000000-0xEDFFFFFF cLAN Host Adapter OK
 0xEB020000-0xEB03FFFF cLAN Host Adapter OK
 0xEB200000-0xEB3FFFFF cLAN Host Adapter OK
 0xEC000000-0xECFFFFFF cLAN Host Adapter OK
 0xEB040000-0xEB05FFFF cLAN Host Adapter #2 OK
 0xEB400000-0xEB5FFFFF cLAN Host Adapter #2 OK
 0xED000000-0xEDFFFFFF cLAN Host Adapter #2 OK
 0xEB010000-0xEB01FFFF cLAN Host Adapter #2 OK
 0xEE000000-0xEE3FFFFFF PCI bus OK
 0xEE400000-0xEEFFFFFF PCI bus OK
 0xEE400000-0xEEFFFFFF PCI standard PCI-to-PCI bridge OK
 0xEE400000-0xEEFFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
 0xEE800000-0xEEFFFFFF PCI standard PCI-to-PCI bridge OK
 0xEE800000-0xEEFFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
 0xEF000000-0xF0FFFFFF PCI bus OK
 0xEF000000-0xF0FFFFFF PCI standard PCI-to-PCI bridge OK

0xEF000000-0xF0FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
 0xF0800000-0xF0FFFFFF PCI standard PCI-to-PCI bridge OK
 0xF0800000-0xF0FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
 0xF1000000-0xF13FFFFF PCI bus OK
 0xF1400000-0xF1FFFFFF PCI bus OK
 0xF1400000-0xF1FFFFFF PCI standard PCI-to-PCI bridge OK
 0xF1400000-0xF1FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
 0xF1800000-0xF1FFFFFF PCI standard PCI-to-PCI bridge OK
 0xF1800000-0xF1FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
 0xF2000000-0xF4FFFFFF PCI bus OK
 0xF2000000-0xF4FFFFFF cLAN Host Adapter #5 OK
 0xF2020000-0xF203FFFF cLAN Host Adapter #5 OK
 0xF2200000-0xF23FFFFF cLAN Host Adapter #5 OK
 0xF3000000-0xF3FFFFFF cLAN Host Adapter #5 OK
 0xF2040000-0xF205FFFF cLAN Host Adapter #6 OK
 0xF2400000-0xF25FFFFF cLAN Host Adapter #6 OK
 0xF4000000-0xF4FFFFFF cLAN Host Adapter #6 OK
 0xF2010000-0xF201FFFF cLAN Host Adapter #6 OK
 0xF5000000-0xF53FFFFFF PCI bus OK
 0xF5400000-0xF5FFFFFF PCI bus OK
 0xF5400000-0xF5FFFFFF PCI standard PCI-to-PCI bridge OK
 0xF5400000-0xF5FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
 0xF5800000-0xF5FFFFFF PCI standard PCI-to-PCI bridge OK
 0xF5800000-0xF5FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
 0xF6000000-0xF7FFFFFF PCI bus OK
 0xF6000000-0xF7FFFFFF PCI standard PCI-to-PCI bridge OK
 0xF6000000-0xF7FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
 0xF7800000-0xF7FFFFFF PCI standard PCI-to-PCI bridge OK
 0xF7800000-0xF7FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
 0xF8000000-0xF83FFFFF PCI bus OK
 0xF8400000-0xF8FFFFFF PCI bus OK
 0xF8400000-0xF8FFFFFF PCI standard PCI-to-PCI bridge OK
 0xF8400000-0xF8FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
 0xF8800000-0xF8FFFFFF PCI standard PCI-to-PCI bridge OK
 0xF8800000-0xF8FFFFFF Unisys Intelligent Fibre Channel Fabric Bus Adapter OK
 0xF9000000-0xFBFFFFFF PCI bus OK
 0xF9000000-0xFBFFFFFF cLAN Host Adapter #3 OK
 0xF9020000-0xF903FFFF cLAN Host Adapter #3 OK
 0xF9200000-0xF93FFFFF cLAN Host Adapter #3 OK
 0xFA000000-0xFAFFFFFF cLAN Host Adapter #3 OK
 0xF9040000-0xF905FFFF cLAN Host Adapter #4 OK
 0xF9400000-0xF95FFFFF cLAN Host Adapter #4 OK
 0xFB000000-0xFBFFFFFF cLAN Host Adapter #4 OK
 0xF9010000-0xF901FFFF cLAN Host Adapter #4 OK
 0xFC000000-0xFDFFFFFF PCI bus OK

[Components]

[Multimedia]

[Audio Codecs]

CODEC	Manufacturer	Description	Status	File	Version	Size
		Creation Date				
c:\windows\system32\imaadp32.acm	Microsoft Corporation		OK			
2048	C:\WINDOWS\system32\IMAADP32.ACM	15.50 KB (15,872 bytes)	3/25/2003 4:00 AM	5.2.3790.0 (srv03_rtm.030324-		
c:\windows\system32\msadp32.acm	Microsoft Corporation		OK			
2048	C:\WINDOWS\system32\MSADP32.ACM	14.50 KB (14,848 bytes)	3/25/2003 4:00 AM	5.2.3790.0 (srv03_rtm.030324-		
c:\windows\system32\msg711.acm	Microsoft Corporation		OK			
2048	C:\WINDOWS\system32\MSG711.ACM	10.00 KB (10,240 bytes)	3/25/2003 4:00 AM	5.2.3790.0 (srv03_rtm.030324-		
c:\windows\system32\sl_anet.acm	Sipro Lab Telecom Inc.					
Telecom Audio Codec	OK	C:\WINDOWS\system32\SL_ANET.ACM	3.02			
		84.00 KB (86,016 bytes)	3/25/2003 4:00 AM			
c:\windows\system32\tsoft32.acm	DSP GROUP, INC.		OK			
		C:\WINDOWS\system32\TSSOFT32.ACM	1.01	9.50 KB (9,728 bytes)		
		3/25/2003 4:00 AM				
c:\windows\system32\msgsm32.acm	Microsoft Corporation		OK			
2048	C:\WINDOWS\system32\MSGSM32.ACM	20.50 KB (20,992 bytes)	3/25/2003 4:00 AM	5.2.3790.0 (srv03_rtm.030324-		
c:\windows\system32\msg723.acm	Microsoft Corporation		OK			
		C:\WINDOWS\system32\MSG723.ACM	4.4.4000	116.00 KB		
		(118,784 bytes)	5/19/2003 2:01 PM			
c:\windows\system32\msaud32.acm	Microsoft Corporation					
Audio Codec	OK	C:\WINDOWS\system32\MSAUD32.ACM	8.00.00.4487			
		288.00 KB (294,912 bytes)	3/25/2003 4:00 AM			

[Video Codecs]

CODEC	Manufacturer	Description	Status	File	Version	Size
		Creation Date				
c:\windows\system32\iyuv_32.dll	Microsoft Corporation		OK			
2048	C:\WINDOWS\system32\IYUV_32.DLL	45.00 KB (46,080 bytes)	3/24/2003 5:49 PM	5.2.3790.0 (srv03_rtm.030324-		
c:\windows\system32\msrle32.dll	Microsoft Corporation		OK			
2048	C:\WINDOWS\system32\MSRLE32.DLL	10.50 KB (10,752 bytes)	3/25/2003 4:00 AM	5.2.3790.0 (srv03_rtm.030324-		
c:\windows\system32\tsbyuv.dll	Microsoft Corporation		OK			
2048	C:\WINDOWS\system32\TSBYUV.DLL	8.00 KB (8,192 bytes)	3/24/2003 5:50 PM	5.2.3790.0 (srv03_rtm.030324-		
c:\windows\system32\msvidc32.dll	Microsoft Corporation		OK			
2048	C:\WINDOWS\system32\MSVIDC32.DLL	26.50 KB (27,136 bytes)	3/25/2003 4:00 AM	5.2.3790.0 (srv03_rtm.030324-		
c:\windows\system32\msh261.drv	Microsoft Corporation		OK			
		C:\WINDOWS\system32\MSH261.DRV	4.4.4000	180.00 KB		
		(184,320 bytes)	5/19/2003 2:01 PM			
c:\windows\system32\msh263.drv	Microsoft Corporation		OK			
		C:\WINDOWS\system32\MSH263.DRV	4.4.4000	284.00 KB		
		(290,816 bytes)	3/24/2003 5:46 PM			
c:\windows\system32\msyuv.dll	Microsoft Corporation		OK			
		C:\WINDOWS\system32\MSYUV.DLL	5.2.3790.0 (srv03_rtm.030324-2048)			
		16.50 KB (16,896 bytes)	3/24/2003 5:49 PM			

[CD-ROM]

Item	Value
Drive	D:
Description	CD-ROM Drive
Media Loaded	No
Media Type	CD-ROM
Name	TEAC CD-224E
Manufacturer	(Standard CD-ROM drives)
Status	OK
Transfer Rate	Not Available
SCSI Target ID	0
PNP Device ID	IDE\CDROMTEAC_CD-224E_____1.9A____\5&1B78D9&0&0.0.0

[Sound Device]

Item	Value
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[Display]

Item	Value
Name	Console Manager Video Driver
PNP Device ID	PCI\VEN_1013&DEV_00D6&SUBSYS_80D61018&REV_03\4&32BB70A2&0&1008
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	6.0.3.29
INF File	oem2.inf (unescons section)
Color Planes	1
Color Table Entries	256
Resolution	800 x 600 x 72 hertz
Bits/Pixel	8
Memory Address	0xD8000000-0xD9FFFFFF
Memory Address	0xD6100000-0xD9FFFFFF
I/O Port	0x000003B0-0x000003BB
I/O Port	0x000003C0-0x000003DF
Memory Address	0xA0000-0xBFFFF
[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\D

Number of Function Keys 12
I/O Port 0x00000060-0x00000060
I/O Port 0x00000064-0x00000064
IRQ Channel IRQ 1

[Pointing Device]

Item Value
Hardware Type PS/2 Compatible Mouse
Number of Buttons 3
Status OK
PNP Device ID ACPI\PNP0F13\D
Power Management Supported No
Double Click Threshold 6
Handedness Right Handed Operation
IRQ Channel IRQ 12

[Modem]

Item Value

[Network]

[Adapter]

Item Value
Name [00000001] RAS Async Adapter
Adapter Type Not Available
Product Type RAS Async Adapter
Installed Yes
PNP Device ID Not Available
Last Reset 6/18/2003 9:14 AM
Index 1
Service Name AsyncMac
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000002] WAN Miniport (L2TP)
Adapter Type Not Available
Product Type WAN Miniport (L2TP)
Installed Yes
PNP Device ID ROOT\MS_L2TPMINIPORT\0000
Last Reset 6/18/2003 9:14 AM
Index 2
Service Name Rasl2tp
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available

DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000003] 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 6/18/2003 9:14 AM
Index 3
Service Name PptpMiniport
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 50:50:54:50:30:30

Name [00000004] 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 6/18/2003 9:14 AM
Index 4
Service Name RasPppoe
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 33:50:6F:45:30:30

Name [00000005] Direct Parallel
Adapter Type Not Available
Product Type Direct Parallel
Installed Yes
PNP Device ID ROOT\MS_PTMINIPORT\0000
Last Reset 6/18/2003 9:14 AM
Index 5
Service Name Raspti
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000006] WAN Miniport (IP)
Adapter Type Not Available
Product Type WAN Miniport (IP)
Installed Yes
PNP Device ID ROOT\MS_NDISWANIP\0000

Last Reset 6/18/2003 9:14 AM
Index 6
Service Name Ndiswan
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000007] Intel(R) 8255xER PCI Adapter
Adapter Type Ethernet 802.3
Product Type Intel(R) 8255xER PCI Adapter
Installed Yes
PNP Device ID
PCI\VEN_8086&DEV_1209&SUBSYS_10180D88&REV_09\3&172E68DD&0&10

Last Reset 6/18/2003 9:14 AM
Index 7
Service Name E100E
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 08:00:0B:26:01:04
Memory Address 0xD6001000-0xD6001FFF
I/O Port 0x00001000-0x0000103F
Memory Address 0xD6020000-0xD603FFFF
IRQ Channel IRQ 10

Name [00000008] 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&00

Last Reset 6/18/2003 9:14 AM
Index 8
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 0xEB020000-0xEB03FFFF
Memory Address 0xEB200000-0xEB3FFFFF
Memory Address 0xEC000000-0xECFFFFFF
Memory Address 0xEB000000-0xEDFFFFFF
IRQ Channel IRQ 76

Name [00000009] 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 6/18/2003 9:14 AM
Index 9
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 0xEB040000-0xEB05FFFF
Memory Address 0xEB400000-0xEB5FFFFF
Memory Address 0xED000000-0xEDFFFFFF
Memory Address 0xEB010000-0xEB01FFFF
IRQ Channel IRQ 77

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&23FF515D&0&00

Last Reset 6/18/2003 9:14 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:00:1C:5D
Memory Address 0xF9020000-0xF903FFFF
Memory Address 0xF9200000-0xF93FFFFF
Memory Address 0xFA000000-0xFAFFFFFF
Memory Address 0xF9000000-0xFBFFFFFF
IRQ Channel IRQ 172

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&23FF515D&0&08

Last Reset 6/18/2003 9:14 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 0xF9040000-0xF905FFFF
Memory Address 0xF9400000-0xF95FFFFF
Memory Address 0xFB000000-0xFBFFFFFF
Memory Address 0xF9010000-0xF901FFFF
IRQ Channel IRQ 173

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&300BC0BE&0&00

Last Reset 6/18/2003 9:14 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 0xF2020000-0xF203FFFF
Memory Address 0xF2200000-0xF23FFFFF
Memory Address 0xF3000000-0xF3FFFFFF
Memory Address 0xF2000000-0xF4FFFFFF
IRQ Channel IRQ 124

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&300BC0BE&0&08

Last Reset 6/18/2003 9:14 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:15
Memory Address 0xF2040000-0xF205FFFF
Memory Address 0xF2400000-0xF25FFFFF
Memory Address 0xF4000000-0xF4FFFFFF
Memory Address 0xF2010000-0xF201FFFF
IRQ Channel IRQ 125

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&E44F86D&0&00

Last Reset 6/18/2003 9:14 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:00:14:BC
Memory Address 0xE4020000-0xE403FFFF
Memory Address 0xE4200000-0xE43FFFFF
Memory Address 0xE5000000-0xE5FFFFFF
Memory Address 0xE4000000-0xE6FFFFFF
IRQ Channel IRQ 28

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&E44F86D&0&08

Last Reset 6/18/2003 9:14 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:00:15:9A
Memory Address 0xE4040000-0xE405FFFF
Memory Address 0xE4400000-0xE45FFFFF
Memory Address 0xE6000000-0xE6FFFFFF
Memory Address 0xE4010000-0xE401FFFF
IRQ Channel IRQ 29

[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_{673C0D58-F5EB-453F-9BFA-0A43D84D4546}] 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_{673C0D58-F5EB-453F-9BFA-0A43D84D4546}] 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_{5034BD52-D354-4046-B457-E7E3C9AC5325}] 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_{5034BD52-D354-4046-B457-E7E3C9AC5325}] 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_{FE855E69-1D27-4DC2-8034-9DD376E76055}] SEQUENCEPACKET 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_{FE855E69-1D27-4DC2-8034-9DD376E76055}] 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_{85F51972-D34B-4F56-81F7-6243FB72DC76}] SEQUENCEPACKET 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_{85F51972-D34B-4F56-81F7-6243FB72DC76}] 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_{A81AE65B-3225-4C4A-94EE-99BF2237FDC3}] SEQUENCEPACKET 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_{A81AE65B-3225-4C4A-94EE-99BF2237FDC3}] 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_{EF5AECCA-9578-455E-ABDD-CC5F7FC15894}] SEQPACKET 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_{EF5AECCA-9578-455E-ABDD-CC5F7FC15894}] 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_{ADF7EA98-863A-435C-8775-B7AACA9FAEAE}] 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_{ADF7EA98-863A-435C-8775-B7AACA9FAEAE}] 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_{C56D2264-3BDF-4208-B422-63F86DBFA996}] 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_{C56D2264-3BDF-4208-B422-63F86DBFA996}] DATAGRAM 3
Connectionless Service Yes
Guarantees Delivery No
Guarantees Sequencing No
Maximum Address Size 20 bytes

Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting Yes
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{18EE8E5C-9E7B-40E4-85B3-BB0E4C200021}] SEQUENCEPACKET 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_{18EE8E5C-9E7B-40E4-85B3-BB0E4C200021}] 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_{5479A0E4-B3B7-4D9B-8580-A76F042B8466}] SEQUENCEPACKET 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_{5479A0E4-B3B7-4D9B-8580-A76F042B8466}] 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_{0CB8E048-E047-4AC5-A74F-012AECB50BC0}] SEQUENCEPACKET 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_{0CB8E048-E047-4AC5-A74F-012AECB50BC0}] DATAGRAM 2
Connectionless Service Yes
Guarantees Delivery No
Guarantees Sequencing No
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No

Supports Broadcasting Yes
 Supports Connect Data No
 Supports Disconnect Data No
 Supports Encryption No
 Supports Expedited Data No
 Supports Graceful Closing No
 Supports Guaranteed Bandwidth No
 Supports Multicasting No

[WinSock]

Item Value
 File c:\windows\system32\winsock.dll
 Size 2.80 KB (2,864 bytes)
 Version 3.10

File c:\windows\system32\wsock32.dll
 Size 22.00 KB (22,528 bytes)
 Version 5.2.3790.0 (srv03_rtm.030324-2048)

[Ports]

[Serial]

Item Value

[Parallel]

Item Value
 Name LPT1
 PNP Device ID ACPI\PNP0401\D
 I/O Port 0x00000378-0x0000037F
 I/O Port 0x00000778-0x0000077F
 DMA Channel Channel 1

[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 27.94 GB (29,997,559,808 bytes)
 Free Space 20.16 GB (21,648,736,256 bytes)
 Volume Name
 Volume Serial Number 107639C4

Drive D:
 Description CD-ROM Disc

[Disks]

Item Value
 Description Disk drive
 Manufacturer (Standard disk drives)
 Model FUJITSU MHS2030AT
 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 27.95 GB (30,005,821,440 bytes)
 Total Cylinders 3,648
 Total Sectors 58,605,120
 Total Tracks 930,240
 Tracks/Cylinder 255
 Partition Disk #0, Partition #0
 Partition Size 27.94 GB (29,997,563,904 bytes)
 Partition Starting Offset 32,256 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model DGC RAID 10 0099
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus Not Available
 SCSI Logical Unit Not Available
 SCSI Port Not Available
 SCSI Target ID Not Available
 Sectors/Track 63
 Size 333.02 GB (357,577,597,440 bytes)
 Total Cylinders 43,473
 Total Sectors 698,393,745
 Total Tracks 11,085,615
 Tracks/Cylinder 255
 Partition Disk #2, Partition #0
 Partition Size 333.03 GB (357,584,306,176 bytes)
 Partition Starting Offset 32,768 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model DGC RAID 10 0099
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus Not Available
 SCSI Logical Unit Not Available
 SCSI Port Not Available
 SCSI Target ID Not Available
 Sectors/Track 63
 Size 241.56 GB (259,375,979,520 bytes)
 Total Cylinders 31,534

Total Sectors 506,593,710
Total Tracks 8,041,170
Tracks/Cylinder 255
Partition Disk #1, Partition #0
Partition Size 241.57 GB (259,383,066,624 bytes)
Partition Starting Offset 32,768 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #92, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #92, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #92, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #92, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #91, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #91, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)

Partition Starting Offset 4,913,627,136 bytes
Partition Disk #91, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #91, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #90, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #90, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #90, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #90, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #89, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #89, Partition #1

Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #89, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #89, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #88, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #88, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #88, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #88, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #87, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes

Partition Disk #87, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #87, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #87, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #86, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #86, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #86, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #86, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #85, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)

Partition Starting Offset 32,768 bytes
Partition Disk #85, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #85, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #85, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #84, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #84, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #84, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #84, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #83, Partition #0

Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #83, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #83, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #83, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #72, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #72, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #72, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #72, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255

Partition Disk #71, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #71, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #71, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #71, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #70, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #70, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #70, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #70, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080

Tracks/Cylinder 255
Partition Disk #69, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #69, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #69, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #69, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #68, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #68, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #68, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #68, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040

Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #67, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #67, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #67, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #67, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)

Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #66, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #66, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #66, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #66, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616

Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #65, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #65, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #65, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #65, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)

Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #64, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #64, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #64, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #64, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)

Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #63, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #63, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #63, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #63, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available

Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #52, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #52, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #52, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #52, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available

Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #51, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #51, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #51, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #51, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available

Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #50, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #50, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #50, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #50, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available

Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #49, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #49, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #49, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #49, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #48, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #48, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #48, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #48, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available

SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #47, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #47, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #47, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #47, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #46, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #46, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #46, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #46, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available

SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #45, Partition #0
Partition Size 4.58 GB (4,918,685,184 bytes)
Partition Starting Offset 32,256 bytes
Partition Disk #45, Partition #1
Partition Size 7.14 GB (7,665,960,960 bytes)
Partition Starting Offset 4,918,717,440 bytes
Partition Disk #45, Partition #2
Partition Size 3.75 GB (4,022,161,920 bytes)
Partition Starting Offset 12,584,678,400 bytes
Partition Disk #45, Partition #3
Partition Size 104.16 GB (111,839,132,160 bytes)
Partition Starting Offset 16,606,840,320 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #44, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #44, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #44, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #44, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available

SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #43, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #43, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #43, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #43, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #22, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #22, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #22, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #22, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

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

SCSI Bus Not Available
 SCSI Logical Unit Not Available
 SCSI Port Not Available
 SCSI Target ID Not Available
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #21, Partition #0
 Partition Size 4.58 GB (4,913,594,368 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #21, Partition #1
 Partition Size 7.14 GB (7,665,090,560 bytes)
 Partition Starting Offset 4,913,627,136 bytes
 Partition Disk #21, Partition #2
 Partition Size 3.75 GB (4,021,288,960 bytes)
 Partition Starting Offset 12,578,717,696 bytes
 Partition Disk #21, Partition #3
 Partition Size 104.17 GB (111,849,504,768 bytes)
 Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus Not Available
 SCSI Logical Unit Not Available
 SCSI Port Not Available
 SCSI Target ID Not Available
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #20, Partition #0
 Partition Size 4.58 GB (4,913,594,368 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #20, Partition #1
 Partition Size 7.14 GB (7,665,090,560 bytes)
 Partition Starting Offset 4,913,627,136 bytes
 Partition Disk #20, Partition #2
 Partition Size 3.75 GB (4,021,288,960 bytes)
 Partition Starting Offset 12,578,717,696 bytes
 Partition Disk #20, Partition #3
 Partition Size 104.17 GB (111,849,504,768 bytes)
 Partition Starting Offset 16,600,006,656 bytes

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

Partitions 4
 SCSI Bus Not Available
 SCSI Logical Unit Not Available
 SCSI Port Not Available
 SCSI Target ID Not Available
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #19, Partition #0
 Partition Size 4.58 GB (4,913,594,368 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #19, Partition #1
 Partition Size 7.14 GB (7,665,090,560 bytes)
 Partition Starting Offset 4,913,627,136 bytes
 Partition Disk #19, Partition #2
 Partition Size 3.75 GB (4,021,288,960 bytes)
 Partition Starting Offset 12,578,717,696 bytes
 Partition Disk #19, Partition #3
 Partition Size 104.17 GB (111,849,504,768 bytes)
 Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus Not Available
 SCSI Logical Unit Not Available
 SCSI Port Not Available
 SCSI Target ID Not Available
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #18, Partition #0
 Partition Size 4.58 GB (4,913,594,368 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #18, Partition #1
 Partition Size 7.14 GB (7,665,090,560 bytes)
 Partition Starting Offset 4,913,627,136 bytes
 Partition Disk #18, Partition #2
 Partition Size 3.75 GB (4,021,288,960 bytes)
 Partition Starting Offset 12,578,717,696 bytes
 Partition Disk #18, Partition #3
 Partition Size 104.17 GB (111,849,504,768 bytes)
 Partition Starting Offset 16,600,006,656 bytes

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

Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #17, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #17, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #17, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #17, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #16, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #16, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #16, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #16, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

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

Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #15, Partition #0
Partition Size 4.58 GB (4,918,685,184 bytes)
Partition Starting Offset 32,256 bytes
Partition Disk #15, Partition #1
Partition Size 7.14 GB (7,665,960,960 bytes)
Partition Starting Offset 4,918,717,440 bytes
Partition Disk #15, Partition #2
Partition Size 3.75 GB (4,022,161,920 bytes)
Partition Starting Offset 12,584,678,400 bytes
Partition Disk #15, Partition #3
Partition Size 104.16 GB (111,839,132,160 bytes)
Partition Starting Offset 16,606,840,320 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #14, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #14, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #14, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #14, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

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

Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #13, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #13, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #13, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #13, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #82, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #82, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #82, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #82, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation

Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #81, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #81, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #81, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #81, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #80, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #80, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #80, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #80, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver

Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #79, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #79, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #79, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #79, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #78, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #78, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #78, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #78, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #77, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #77, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #77, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #77, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #75, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #75, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #75, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #75, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #76, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #76, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #76, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #76, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #74, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #74, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #74, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #74, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)

Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #73, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #73, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #73, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #73, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #102, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #102, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #102, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #102, Partition #3

Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #101, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #101, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #101, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #101, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #100, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #100, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #100, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes

Partition Disk #100, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #99, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #99, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #99, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #99, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #98, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #98, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #98, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)

Partition Starting Offset 12,578,717,696 bytes
Partition Disk #98, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #97, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #97, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #97, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #97, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #96, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #96, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #96, Partition #2

Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #96, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #95, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #95, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #95, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #95, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #94, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #94, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes

Partition Disk #94, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #94, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #93, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #93, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #93, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #93, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #62, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #62, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)

Partition Starting Offset 4,913,627,136 bytes
Partition Disk #62, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #62, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #61, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #61, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #61, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #61, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #60, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #60, Partition #1

Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #60, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #60, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #59, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #59, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #59, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #59, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #58, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes

Partition Disk #58, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #58, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #58, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #57, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #57, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #57, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #57, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #56, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)

Partition Starting Offset 32,768 bytes
Partition Disk #56, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #56, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #56, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #55, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #55, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #55, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #55, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #54, Partition #0

Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #54, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #54, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #54, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #53, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #53, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #53, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #53, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255

Partition Disk #32, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #32, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #32, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #32, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #31, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #31, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #31, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #31, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080

Tracks/Cylinder 255
Partition Disk #30, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #30, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #30, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #30, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #29, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #29, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #29, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #29, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040

Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #28, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #28, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #28, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #28, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)

Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #27, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #27, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #27, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #27, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616

Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #26, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #26, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #26, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #26, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)

Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #25, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #25, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #25, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #25, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)

Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #24, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #24, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #24, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #24, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)

Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #23, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #23, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #23, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #23, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63

Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #42, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #42, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #42, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #42, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)

Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #41, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #41, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #41, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #41, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available

Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #40, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #40, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #40, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #40, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #39, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #39, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #39, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #39, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available

SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #38, Partition #0
Partition Size 4.58 GB (4,918,685,184 bytes)
Partition Starting Offset 32,256 bytes
Partition Disk #38, Partition #1
Partition Size 7.14 GB (7,665,960,960 bytes)
Partition Starting Offset 4,918,717,440 bytes
Partition Disk #38, Partition #2
Partition Size 3.75 GB (4,022,161,920 bytes)
Partition Starting Offset 12,584,678,400 bytes
Partition Disk #38, Partition #3
Partition Size 104.16 GB (111,839,132,160 bytes)
Partition Starting Offset 16,606,840,320 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #37, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #37, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #37, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #37, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available

SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #36, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #36, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #36, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #36, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #35, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #35, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #35, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #35, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available

SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #34, Partition #0
Partition Size 4.58 GB (4,918,685,184 bytes)
Partition Starting Offset 32,256 bytes
Partition Disk #34, Partition #1
Partition Size 7.14 GB (7,665,960,960 bytes)
Partition Starting Offset 4,918,717,440 bytes
Partition Disk #34, Partition #2
Partition Size 3.75 GB (4,022,161,920 bytes)
Partition Starting Offset 12,584,678,400 bytes
Partition Disk #34, Partition #3
Partition Size 104.16 GB (111,839,132,160 bytes)
Partition Starting Offset 16,606,840,320 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #33, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #33, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #33, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #33, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

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

SCSI Bus Not Available
 SCSI Logical Unit Not Available
 SCSI Port Not Available
 SCSI Target ID Not Available
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #112, Partition #0
 Partition Size 4.58 GB (4,913,594,368 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #112, Partition #1
 Partition Size 7.14 GB (7,665,090,560 bytes)
 Partition Starting Offset 4,913,627,136 bytes
 Partition Disk #112, Partition #2
 Partition Size 3.75 GB (4,021,288,960 bytes)
 Partition Starting Offset 12,578,717,696 bytes
 Partition Disk #112, Partition #3
 Partition Size 104.17 GB (111,849,504,768 bytes)
 Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus Not Available
 SCSI Logical Unit Not Available
 SCSI Port Not Available
 SCSI Target ID Not Available
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #111, Partition #0
 Partition Size 4.58 GB (4,913,594,368 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #111, Partition #1
 Partition Size 7.14 GB (7,665,090,560 bytes)
 Partition Starting Offset 4,913,627,136 bytes
 Partition Disk #111, Partition #2
 Partition Size 3.75 GB (4,021,288,960 bytes)
 Partition Starting Offset 12,578,717,696 bytes
 Partition Disk #111, Partition #3
 Partition Size 104.17 GB (111,849,504,768 bytes)
 Partition Starting Offset 16,600,006,656 bytes

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

Partitions 4
 SCSI Bus Not Available
 SCSI Logical Unit Not Available
 SCSI Port Not Available
 SCSI Target ID Not Available
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #110, Partition #0
 Partition Size 4.58 GB (4,913,594,368 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #110, Partition #1
 Partition Size 7.14 GB (7,665,090,560 bytes)
 Partition Starting Offset 4,913,627,136 bytes
 Partition Disk #110, Partition #2
 Partition Size 3.75 GB (4,021,288,960 bytes)
 Partition Starting Offset 12,578,717,696 bytes
 Partition Disk #110, Partition #3
 Partition Size 104.17 GB (111,849,504,768 bytes)
 Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
 Manufacturer Unisys Corporation
 Model UNISYS VirtualStorage 01.0
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus Not Available
 SCSI Logical Unit Not Available
 SCSI Port Not Available
 SCSI Target ID Not Available
 Sectors/Track 63
 Size 119.62 GB (128,445,972,480 bytes)
 Total Cylinders 15,616
 Total Sectors 250,871,040
 Total Tracks 3,982,080
 Tracks/Cylinder 255
 Partition Disk #109, Partition #0
 Partition Size 4.58 GB (4,913,594,368 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #109, Partition #1
 Partition Size 7.14 GB (7,665,090,560 bytes)
 Partition Starting Offset 4,913,627,136 bytes
 Partition Disk #109, Partition #2
 Partition Size 3.75 GB (4,021,288,960 bytes)
 Partition Starting Offset 12,578,717,696 bytes
 Partition Disk #109, Partition #3
 Partition Size 104.17 GB (111,849,504,768 bytes)
 Partition Starting Offset 16,600,006,656 bytes

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

Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #108, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #108, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #108, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #108, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #107, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #107, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #107, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #107, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

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

Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #106, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #106, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #106, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #106, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #105, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #105, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #105, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #105, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

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

Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #104, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #104, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #104, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #104, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #103, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #103, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #103, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #103, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation

Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #12, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #12, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #12, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #12, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #11, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #11, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #11, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #11, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver

Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #10, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #10, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #10, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #10, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #9, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #9, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #9, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #9, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #8, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #8, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #8, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #8, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #7, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #7, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #7, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #7, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #6, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #6, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #6, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #6, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #5, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #5, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #5, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #5, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)

Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #4, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #4, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #4, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #4, Partition #3
Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

Description Unisys Intelligent Fibre Channel Fabric Disk Driver
Manufacturer Unisys Corporation
Model UNISYS VirtualStorage 01.0
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus Not Available
SCSI Logical Unit Not Available
SCSI Port Not Available
SCSI Target ID Not Available
Sectors/Track 63
Size 119.62 GB (128,445,972,480 bytes)
Total Cylinders 15,616
Total Sectors 250,871,040
Total Tracks 3,982,080
Tracks/Cylinder 255
Partition Disk #3, Partition #0
Partition Size 4.58 GB (4,913,594,368 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #3, Partition #1
Partition Size 7.14 GB (7,665,090,560 bytes)
Partition Starting Offset 4,913,627,136 bytes
Partition Disk #3, Partition #2
Partition Size 3.75 GB (4,021,288,960 bytes)
Partition Starting Offset 12,578,717,696 bytes
Partition Disk #3, Partition #3

Partition Size 104.17 GB (111,849,504,768 bytes)
Partition Starting Offset 16,600,006,656 bytes

[SCSI]

Item Value
Name Unisys Intelligent Fibre Channel Fabric Bus Adapter
Manufacturer Unisys Corporation
Status OK
PNP Device ID
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&25EA3EC6&0&0000

Memory Address 0xDF800000-0xDFFFFFFF
Memory Address 0xDE000000-0xDFFFFFFF
IRQ Channel IRQ 0

Name Unisys Intelligent Fibre Channel Fabric Bus Adapter
Manufacturer Unisys Corporation
Status OK
PNP Device ID
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&2CF6F8ED&0&0000

Memory Address 0xE1800000-0xE1FFFFFF
Memory Address 0xE0000000-0xE1FFFFFF
IRQ Channel IRQ 4

Name Adaptec AIC-7896/AIC-7897 - Ultra2 SCSI
Manufacturer Adaptec
Status OK
PNP Device ID
PCI\VEN_9005&DEV_005F&SUBSYS_080F9005&REV_00\4&32BB70A2&0&0808

I/O Port 0x00002000-0x00002FFF
Memory Address 0xD6110000-0xD6110FFF
IRQ Channel IRQ 10

Name Adaptec AIC-7896/AIC-7897 - Ultra2 SCSI
Manufacturer Adaptec
Status OK
PNP Device ID
PCI\VEN_9005&DEV_005F&SUBSYS_080F9005&REV_00\4&32BB70A2&0&0908

I/O Port 0x00002400-0x000024FF
Memory Address 0xD6111000-0xD6111FFF
IRQ Channel IRQ 10

Name Unisys Intelligent Fibre Channel Fabric Bus Adapter
Manufacturer Unisys Corporation
Status OK
PNP Device ID
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&A75DC64&0&0000

Memory Address 0xE3800000-0xE3FFFFFF
Memory Address 0xE2000000-0xE3FFFFFF
IRQ Channel IRQ 24

Name Unisys Intelligent Fibre Channel Fabric Bus Adapter
Manufacturer Unisys Corporation
Status OK

PNP Device ID
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&1B316B8F&0&0000

Memory Address 0xE7800000-0xE7FFFFFF
Memory Address 0xE7400000-0xE7FFFFFF
IRQ Channel IRQ 48

Name Unisys Intelligent Fibre Channel Fabric Bus Adapter
Manufacturer Unisys Corporation
Status OK
PNP Device ID
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&101F93C3&0&0000

Memory Address 0xE9800000-0xE9FFFFFF
Memory Address 0xE8000000-0xE9FFFFFF
IRQ Channel IRQ 52

Name Unisys Intelligent Fibre Channel Fabric Bus Adapter
Manufacturer Unisys Corporation
Status OK
PNP Device ID
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&5E54501&0&0000

Memory Address 0xEA800000-0xEAFFFFFF
Memory Address 0xEA400000-0xEAFFFFFF
IRQ Channel IRQ 72

Name Unisys Intelligent Fibre Channel Fabric Bus Adapter
Manufacturer Unisys Corporation
Status OK
PNP Device ID
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&BBE9921&0&0000

Memory Address 0xEE800000-0xEEFFFFFF
Memory Address 0xEE400000-0xEEFFFFFF
IRQ Channel IRQ 96

Name Unisys Intelligent Fibre Channel Fabric Bus Adapter
Manufacturer Unisys Corporation
Status OK
PNP Device ID
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&32DC1527&0&0000

Memory Address 0xF0800000-0xF0FFFFFF
Memory Address 0xEF000000-0xF0FFFFFF
IRQ Channel IRQ 100

Name Unisys Intelligent Fibre Channel Fabric Bus Adapter
Manufacturer Unisys Corporation
Status OK
PNP Device ID
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&30F36DAA&0&0000

Memory Address 0xF1800000-0xF1FFFFFF
Memory Address 0xF1400000-0xF1FFFFFF
IRQ Channel IRQ 120

Name Unisys Intelligent Fibre Channel Fabric Bus Adapter
Manufacturer Unisys Corporation

Status OK
PNP Device ID
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&1F3768A3&0&0000

Memory Address 0xF5800000-0xF5FFFFFF
Memory Address 0xF5400000-0xF5FFFFFF
IRQ Channel IRQ 144

Name Unisys Intelligent Fibre Channel Fabric Bus Adapter
Manufacturer Unisys Corporation
Status OK
PNP Device ID
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&102FA53&0&0000

Memory Address 0xF7800000-0xF7FFFFFF
Memory Address 0xF6000000-0xF7FFFFFF
IRQ Channel IRQ 148

Name Unisys Intelligent Fibre Channel Fabric Bus Adapter
Manufacturer Unisys Corporation
Status OK
PNP Device ID
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&1A68EB24&0&0000

Memory Address 0xF8800000-0xF8FFFFFF
Memory Address 0xF8400000-0xF8FFFFFF
IRQ Channel IRQ 168

[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&172E68DD&0&01

I/O Port 0x00001060-0x0000106F

Name Primary IDE Channel
Manufacturer (Standard IDE ATA/ATAPI controllers)
Status OK
PNP Device ID PCIIDE\IDECHANNEL\4&100E6A2D&0&0
I/O Port 0x000001F0-0x000001F7
I/O Port 0x000003F6-0x000003F6
IRQ Channel IRQ 14

Name Secondary IDE Channel
Manufacturer (Standard IDE ATA/ATAPI controllers)
Status OK
PNP Device ID PCIIDE\IDECHANNEL\4&100E6A2D&0&1
I/O Port 0x00000170-0x00000177
I/O Port 0x00000376-0x00000376
IRQ Channel IRQ 13

[Printing]

Name Driver Port Name Server Name

[Problem Devices]

Device PNP Device ID Error Code
Not Available ACPI\UNO4501\0 The drivers for this device are not installed.

[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&172E68DD&0&02

USB Root Hub USB\ROOT_HUB\4&27B1EF4B&0

[Software Environment]

[System Drivers]

Name	Description	File	Type	Started	Start Mode	State	Status
abiosdsk	Abiosdsk		Kernel Driver	Not Available	Accept Stop	No	No
acpi	Microsoft ACPI Driver	c:\windows\system32\drivers\acpi.sys	Kernel Driver	Yes	Running OK	Normal	Yes
acpiec	ACPIEC	c:\windows\system32\drivers\acpiec.sys	Kernel Driver	No	Stopped OK	Normal	No
adpu160m	adpu160m		Kernel Driver	Not Available	Accept Stop	No	No
adpu320	adpu320		Kernel Driver	Not Available	Accept Stop	No	Disabled
afcnt	afcnt		Kernel Driver	Not Available	Accept Stop	No	Disabled
afd	AFD Networking Support Environment	c:\windows\system32\drivers\afd.sys	Kernel Driver	Running OK	Normal	Yes	Auto
aha154x	Aha154x		Kernel Driver	Not Available	Accept Stop	No	Disabled
aic78u2	aic78u2	c:\windows\system32\drivers\aic78u2.sys	Kernel Driver	Yes	Running OK	Normal	Yes
aic78xx	aic78xx		Kernel Driver	Not Available	Accept Stop	No	Disabled
aliide	AliIde		Kernel Driver	Not Available	Accept Stop	No	Disabled
asyncmac	RAS Asynchronous Media Driver	c:\windows\system32\drivers\asyncmac.sys	Kernel Driver	Manual	Stopped OK	Normal	No
atapi	Standard IDE/ESDI Hard Disk Controller	c:\windows\system32\drivers\atapi.sys	Kernel Driver	Running OK	Normal	Yes	Boot
atdisk	Atdisk		Kernel Driver	Not Available	Accept Stop	No	Disabled
atmarpc	ATM ARP Client Protocol	c:\windows\system32\drivers\atmarpc.sys	Kernel Driver	Manual	Stopped OK	Normal	No
audstub	Audio Stub Driver	c:\windows\system32\drivers\audstub.sys	Kernel Driver	Kernel Driver	Yes	Manual Running OK	Normal No Yes

beep	Beep	c:\windows\system32\drivers\beep.sys	Kernel Driver	Yes					
	System	Running OK	Normal	No	Yes				
cbidf2k	cbidf2k	c:\windows\system32\drivers\cbidf2k.sys	Kernel Driver						
	No	Disabled	Stopped OK	Normal	No	No			
cdfs	Cdfs	c:\windows\system32\drivers\cdfs.sys	File System Driver						
	Yes	Disabled	Running OK	Normal	No	Yes			
cdrom	CD-ROM Driver	c:\windows\system32\drivers\cdrom.sys	Kernel Driver						
	Yes	System	Running OK	Normal	No	Yes			
changer	Changer	Not Available	Kernel Driver	No		System	Stopped OK		
	Ignore	No	No						
clusdisk	Cluster Disk Driver								
	c:\windows\system32\drivers\clusdisk.sys		Kernel Driver	No					
	Disabled	Stopped OK	Normal	No	No				
cmdide	CmdIde	Not Available	Kernel Driver	No		Disabled			
	Stopped OK	Normal	No	No					
cpqarray	Cpqarray	Not Available	Kernel Driver	No					
	Disabled	Stopped OK	Normal	No	No				
cpqarry2	cpqarry2	Not Available	Kernel Driver	No					
	Disabled	Stopped OK	Normal	No	No				
cpqcissm	cpqcissm	Not Available	Kernel Driver	No					
	Disabled	Stopped OK	Normal	No	No				
cpqfcalm	cpqfcalm	Not Available	Kernel Driver	No					
	Disabled	Stopped OK	Normal	No	No				
crcdisk	CRC Disk Filter Driver	c:\windows\system32\drivers\crcdisk.sys							
	Kernel Driver	Yes	Boot	Running OK	Normal	No	Yes		
dac960nt	dac960nt	Not Available	Kernel Driver	No					
	Disabled	Stopped OK	Normal	No	No				
dellcerc	dellcerc	Not Available	Kernel Driver	No					
	Disabled	Stopped OK	Normal	No	No				
dfsdriver	DfsDriver	c:\windows\system32\drivers\dfs.sys	File System Driver	Yes	Boot	Running OK	Normal	No	Yes
disk	Disk Driver	c:\windows\system32\drivers\disk.sys	Kernel Driver						
	Yes	Boot	Running OK	Normal	No	Yes			
dmboot	dmboot	c:\windows\system32\drivers\dmboot.sys	Kernel Driver						
	No	Disabled	Stopped OK	Normal	No	No			
dmio	Logical Disk Manager Driver	c:\windows\system32\drivers\dmio.sys							
	Kernel Driver	Yes	Boot	Running OK	Normal	No	Yes		
dmload	dmload	c:\windows\system32\drivers\dmload.sys	Kernel Driver						
	Yes	Boot	Running OK	Normal	No	Yes			
dpti2o	dpti2o	Not Available	Kernel Driver	No		Disabled			
	Stopped OK	Normal	No	No					
e100e	E100E	c:\windows\system32\drivers\e100ent.sys	Kernel Driver						
	Yes	Manual	Running OK	Normal	No	Yes			
em	em	??\c:\windows\system32\drivers\em.sys	Kernel Driver						
	No	Manual	Stopped OK	Normal	No	No			
escon	Console Manager Control Device	c:\windows\system32\drivers\escon.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No	Yes
	Running OK	Normal	No	Yes					
esvuart	Console Manager Network Connection	c:\windows\system32\drivers\esvuart.sys	Kernel Driver	No					
	Auto	Stopped OK	Normal	No	No				
fastfat	Fastfat	c:\windows\system32\drivers\fastfat.sys	File System Driver	No	Disabled	Stopped OK	Normal	No	No
	Driver	No	Disabled	Stopped OK	Normal	No	No		
fdc	Floppy Disk Controller Driver	c:\windows\system32\drivers\fdc.sys	Kernel Driver	Yes	Manual	Running OK	Normal	No	Yes
	Kernel Driver	Yes	Manual	Running OK	Normal	No	Yes		

fips	Fips	c:\windows\system32\drivers\fips.sys	Kernel Driver	Yes					
	System	Running OK	Normal	No	Yes				
flpydisk	Floppy Disk Driver	c:\windows\system32\drivers\flpydisk.sys	Kernel Driver	Yes					
	Manual	Running OK	Normal	No	Yes				
ftdisk	Volume Manager Driver	c:\windows\system32\drivers\ftdisk.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No	Yes
	Kernel Driver	Yes	Boot	Running OK	Normal	No	Yes		
gnindis	cLAN NDIS Driver	c:\windows\system32\drivers\gnindis.sys	Kernel Driver	Yes	Auto	Running OK	Normal	No	Yes
	Kernel Driver	Yes	Auto	Running OK	Normal	No	Yes		
gnivia	cLAN VIA Driver	c:\windows\system32\drivers\gnivia.sys	Kernel Driver	Yes	Auto	Running OK	Normal	No	Yes
	Kernel Driver	Yes	Auto	Running OK	Normal	No	Yes		
gpc	Generic Packet Classifier	c:\windows\system32\drivers\msgpc.sys	Kernel Driver	Yes	Manual	Running OK	Normal	No	Yes
	Running OK	Normal	No	Yes					
hpn	hpn	Not Available	Kernel Driver	No		Disabled			
	Stopped OK	Normal	No	No					
hpt3xx	hpt3xx	Not Available	Kernel Driver	No		Disabled			
	Stopped OK	Normal	No	No					
http	HTTP	c:\windows\system32\drivers\http.sys	Kernel Driver	No					
	Manual	Stopped OK	Normal	No	No				
i2omgmt	i2omgmt	Not Available	Kernel Driver	No		System	Stopped OK		
	Normal	No	No						
i2omp	i2omp	Not Available	Kernel Driver	No		Disabled			
	Stopped OK	Normal	No	No					
i8042prt	i8042 Keyboard and PS/2 Mouse Port Driver	c:\windows\system32\drivers\i8042prt.sys	Kernel Driver	Yes					
	System	Running OK	Normal	No	Yes				
ifba	Unisys Intelligent Fibre Channel Adapter SCSI Processor	c:\windows\system32\drivers\ifba.sys	Kernel Driver	Yes	Manual	Running OK	Normal	No	Yes
	Running OK	Normal	No	Yes					
ifdisk	Unisys Intelligent Fibre Channel Fabric Disk Driver	c:\windows\system32\drivers\ifdisk.sys	Kernel Driver	Yes					
	Boot	Running OK	Normal	No	Yes				
ifip	Unisys Intelligent Fibre Channel Fabric Bus Enumerator	c:\windows\system32\drivers\ifip.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No	Yes
	Running OK	Normal	No	Yes					
ifxp	Unisys Intelligent Fibre Channel Fabric Bus Adapter	c:\windows\system32\drivers\ifxp.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No	Yes
	Running OK	Normal	No	Yes					
iirsp	iirsp	Not Available	Kernel Driver	No		Disabled			
	Stopped OK	Normal	No	No					
imapi	CD-Burning Filter Driver	c:\windows\system32\drivers\imapi.sys	Kernel Driver	No	System	Stopped OK	Normal	No	Yes
	Stopped OK	Normal	No	No					
intelide	IntelIde	c:\windows\system32\drivers\intelide.sys	Kernel Driver	Yes	Boot	Running OK	Normal	No	Yes
	Kernel Driver	Yes	Boot	Running OK	Normal	No	Yes		
ipfilterdriver	IP Traffic Filter Driver	c:\windows\system32\drivers\ipfltdrv.sys	Kernel Driver	No					
	Manual	Stopped OK	Normal	No	No				
ipinip	IP in IP Tunnel Driver	c:\windows\system32\drivers\ipinip.sys	Kernel Driver	No	Manual	Stopped OK	Normal	No	No
	Kernel Driver	No	Manual	Stopped OK	Normal	No	No		
ipnat	IP Network Address Translator	c:\windows\system32\drivers\ipnat.sys	Kernel Driver	No	Manual	Stopped OK	Normal	No	Yes
	Stopped OK	Normal	No	No					


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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 RDPcDD c:\windows\system32\drivers\rdpcdd.sys Kernel Driver
Yes System Running OK Ignore No Yes

rdpdr Terminal Server Device Redirector Driver
c:\windows\system32\drivers\rdpdr.sys Kernel Driver Yes Manual
Running OK Normal No Yes

rdpwd RDPWD c:\windows\system32\drivers\rdpwd.sys Kernel Driver No
Manual Stopped OK Ignore No No

redbook Digital CD Audio Playback Filter Driver
c:\windows\system32\drivers\redbook.sys Kernel Driver Yes
System Running OK Normal No Yes

secdrv Secdrv c:\windows\system32\drivers\secdrv.sys Kernel Driver
No Manual Stopped OK Normal No No

serenum Serenum Filter Driver c:\windows\system32\drivers\serenum.sys
Kernel Driver No Manual Stopped OK Normal No No

serial Serial port driver c:\windows\system32\drivers\serial.sys
Kernel Driver No System Stopped OK Ignore No No

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

tcppip TCP/IP Protocol Driver c:\windows\system32\drivers\tcppip.sys Kernel
Driver Yes System Running OK Normal No Yes

tdpipe TDPIPE c:\windows\system32\drivers\tdpipe.sys Kernel Driver
No Manual Stopped OK Ignore No No

tdtcp TDTCP c:\windows\system32\drivers\tdtcp.sys Kernel Driver 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

udfs Udfs c:\windows\system32\drivers\udfs.sys File System Driver
No Disabled Stopped OK Normal No No

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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

vga vga c:\windows\system32\drivers\vgapnp.sys Kernel Driver
No Manual Stopped OK Ignore No No

vgasave VGA Display Controller. c:\windows\system32\drivers\vga.sys
Kernel Driver Yes System Running OK Ignore No Yes

viaide ViaIde Not Available Kernel Driver No Disabled
Stopped OK Normal No No

volsnap Storage volumes c:\windows\system32\drivers\volsnap.sys
Kernel Driver Yes Boot Running OK Normal No Yes

wanarp Remote Access IP ARP Driver
c:\windows\system32\drivers\wanarp.sys Kernel Driver Yes
Manual Running OK Normal No Yes

wdica WDICA Not Available Kernel Driver No Manual Stopped OK
Ignore No No

wlbs Network Load Balancing c:\windows\system32\drivers\wlbs.sys Kernel
Driver No Manual Stopped OK Normal No No

[Signed Drivers]

Device Name Signed Device Class Driver Version Driver Date
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 5.3790.8.309 3/28/2003
Unisys oem0.inf Not Available ROOT\ACPI_HAL\0000
Microsoft ACPI-Compliant System No SYSTEM 5.2.3790.0
10/1/2002 Microsoft acpi.inf Not Available
ACPI_HAL\PNP0C08\0
Not Available Not Available Not Available Not Available Not Available
Not Available Not Available Not Available ACPI\UNO4501\0
PCI bus No SYSTEM 5.2.3790.0 10/1/2002 (Standard system
devices) machine.inf Not Available ACPI\PNP0A03\2
PCI standard PCI-to-PCI bridge No SYSTEM 5.2.3790.0
10/1/2002 (Standard system devices) machine.inf Not
Available PCI\VEN_8086&DEV_0309&SUBSYS_00000000&REV_01\3&1070020&0&00

Unisys Intelligent Fibre Channel Fabric Bus Adapter No SCSIADAPTER
2.45.0.16 5/19/2003 Unisys Corporation oem11.inf
Not Available
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&25EA3EC6&0&0000

Unisys Intelligent Fibre Channel Adapter SCSI Processor No SYSTEM
2.45.0.6 5/19/2003 Unisys Corporation oem10.inf
Not Available SCSI\PROCESSORUNISYS_FC76222-
P64_V2_5&3A90EBEF&1&8804560B00080010

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Unisys Intelligent Fibre Channel Adapter SCSI Processor No SYSTEM
2.45.0.6 5/19/2003 Unisys Corporation oem10.inf
Not Available SCSI\PROCESSORUNISYS_FC76222-
P64_V2_5&3A90EBEF&1&8904560B00080010
PCI bus No SYSTEM 5.2.3790.0 10/1/2002 (Standard system
devices) machine.inf Not Available ACPI\PNP0A03\3
PCI standard PCI-to-PCI bridge No SYSTEM 5.2.3790.0
10/1/2002 (Standard system devices) machine.inf Not
Available
PCI\VEN_8086&DEV_0309&SUBSYS_00000000&REV_01\3&29E81982&0&00

Unisys Intelligent Fibre Channel Fabric Bus Adapter No SCSIADAPTER
2.45.0.16 5/19/2003 Unisys Corporation oem11.inf
Not Available
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&2CF6F8ED&0&0000

Unisys Intelligent Fibre Channel Adapter SCSI Processor No SYSTEM
2.45.0.6 5/19/2003 Unisys Corporation oem10.inf
Not Available SCSI\PROCESSORUNISYS_FC76222-
P64_V2_5&7A21384&1&A004560B00080010
Unisys Intelligent Fibre Channel Adapter SCSI Processor No SYSTEM
2.45.0.6 5/19/2003 Unisys Corporation oem10.inf
Not Available SCSI\PROCESSORUNISYS_FC76222-
P64_V2_5&7A21384&1&A104560B00080010
PCI bus No SYSTEM 5.2.3790.0 10/1/2002 (Standard system
devices) machine.inf Not Available ACPI\PNP0A03\4
Intel 82371AB/EB PCI to ISA bridge (ISA mode) No SYSTEM
5.2.3790.0 10/1/2002 Intel machine.inf Not Available
PCI\VEN_8086&DEV_7110&SUBSYS_00000000&REV_01\3&172E68DD&0&00

ISAPNP Read Data Port No SYSTEM 5.2.3790.0 10/1/2002
(Standard system devices) machine.inf Not Available
ISAPNP\READDATAPORT\0

Direct memory access controller No SYSTEM 5.2.3790.0
10/1/2002 (Standard system devices) machine.inf Not
Available ACPI\PNP0200\D

Programmable interrupt controller No SYSTEM 5.2.3790.0
10/1/2002 (Standard system devices) machine.inf Not
Available ACPI\PNP0000\D

System CMOS/real time clock No SYSTEM 5.2.3790.0 10/1/2002
(Standard system devices) machine.inf Not Available
ACPI\PNP0B00\D

System timer No SYSTEM 5.2.3790.0 10/1/2002 (Standard
system devices) machine.inf Not Available ACPI\PNP0100\D

System speaker No SYSTEM 5.2.3790.0 10/1/2002 (Standard
system devices) machine.inf Not Available ACPI\PNP0800\D

Generic Bus No SYSTEM 5.2.3790.0 10/1/2002 (Standard
system devices) machine.inf Not Available ACPI\PNP0A05\D

ECP Printer Port No PORTS 5.2.3790.0 10/1/2002
(Standard port types) msports.inf Not Available ACPI\PNP0401\D

Printer Port Logical Interface No SYSTEM 5.2.3790.0
10/1/2002 (Standard system devices) machine.inf Not
Available LPTENUM\MICROSOFTRAWPORT\6&2DCCF168&0&LPT1

PS/2 Compatible Mouse No MOUSE 5.2.3790.0 10/1/2002
Microsoft msmouse.inf Not Available ACPI\PNP0F13\D

Standard 101/102-Key or Microsoft Natural PS/2 Keyboard No
KEYBOARD 5.2.3790.0 10/1/2002 (Standard keyboards)
keyboard.inf Not Available ACPI\PNP0303\D

Standard floppy disk controller No FDC 5.2.3790.0
10/1/2002 (Standard floppy disk controllers) fdc.inf Not
Available ACPI\PNP0700\D

Floppy disk drive No FLOPPYDISK 5.2.3790.0 10/1/2002
(Standard floppy disk drives) floppydisk.inf Not Available
FDC\GENERIC_FLOPPY_DRIVE\6&1E621CEF&0&0

Intel(r) 82371AB/EB PCI Bus Master IDE Controller No HDC
5.2.3790.0 10/1/2002 Intel mshdc.inf Not Available
PCI\VEN_8086&DEV_7111&SUBSYS_00000000&REV_01\3&172E68DD&0&01

Primary IDE Channel No HDC 5.2.3790.0 10/1/2002
(Standard IDE ATA/ATAPI controllers) mshdc.inf Not Available
PCIIDE\IDECHANNEL\4&100E6A2D&0&0

Disk drive No DISKDRIVE 5.2.3790.0 10/1/2002
(Standard disk drives) disk.inf Not Available
IDE\DISKFUJITSU_MHS2030AT_8004_V2_5&28FC923
B&0&0.0.0

Secondary IDE Channel No HDC 5.2.3790.0 10/1/2002
(Standard IDE ATA/ATAPI controllers) mshdc.inf Not Available
PCIIDE\IDECHANNEL\4&100E6A2D&0&1

CD-ROM Drive No CDROM 5.2.3790.0 10/1/2002 (Standard CD-
ROM drives) cdrom.inf Not Available IDE\CDROMTEAC_CD-
224E_1.9A_V2_5&1B78D9&0&0.0.0

Intel(r) 82371AB/EB PCI to USB Universal Host Controller No USB
5.2.3790.0 10/1/2002 Intel usbport.inf Not Available
PCI\VEN_8086&DEV_7112&SUBSYS_00000000&REV_01\3&172E68DD&0&02

USB Root Hub No USB 5.2.3790.0 10/1/2002 (Standard USB
Host Controller) usbport.inf Not Available
USB\ROOT_HUB\4&27B1EF4B&0

DEC 21152 PCI to PCI bridge No SYSTEM 5.2.3790.0 10/1/2002
DEC machine.inf Not Available
PCI\VEN_1011&DEV_0024&SUBSYS_00000000&REV_03\3&172E68DD&0&08

PCI standard PCI-to-PCI bridge No SYSTEM 5.2.3790.0
10/1/2002 (Standard system devices) machine.inf Not
Available
PCI\VEN_8086&DEV_0960&SUBSYS_00000000&REV_05\4&32BB70A2&0&0008

Console Manager control device No SYSTEM 6.0.3.29
9/19/2002 Unisys Corporation oem1.inf Not Available
PCI\VEN_8086&DEV_1960&SUBSYS_C2001018&REV_05\4&32BB70A2&0&0108

Adaptec AIC-7896/AIC-7897 - Ultra2 SCSI No SCSIADAPTER
5.2.3790.0 10/1/2002 Adaptec pnpscsi.inf Not Available
PCI\VEN_9005&DEV_005F&SUBSYS_080F9005&REV_00\4&32BB70A2&0&0808

Adaptec AIC-7896/AIC-7897 - Ultra2 SCSI No SCSIADAPTER
5.2.3790.0 10/1/2002 Adaptec pnpscsi.inf Not Available
PCI\VEN_9005&DEV_005F&SUBSYS_080F9005&REV_00\4&32BB70A2&0&0908

Console Manager Video Driver No DISPLAY 6.0.3.29 9/19/2002
Unisys Corporation oem2.inf Not Available
PCI\VEN_1013&DEV_00D6&SUBSYS_80D61018&REV_03\4&32BB70A2&0&1008

Default Monitor No MONITOR 5.1.2001.0 6/6/2001
(Standard monitor types) monitor.inf Not Available
DISPLAY\DEFAULT_MONITOR\5&10CA584C&0&11223344&02&02

Intel(R) 8255xER PCI Adapter No NET 1.0.0.1 4/3/2001 Intel
oem3.inf Not Available
PCI\VEN_8086&DEV_1209&SUBSYS_10180D88&REV_09\3&172E68DD&0&10

PCI bus No SYSTEM 5.2.3790.0 10/1/2002 (Standard system devices)
machine.inf Not Available ACPI\PNP0A03\5
PCI standard PCI-to-PCI bridge No SYSTEM 5.2.3790.0
10/1/2002 (Standard system devices) machine.inf Not Available
PCI\VEN_8086&DEV_0309&SUBSYS_00000000&REV_01\3&474B838&0&00

Unisys Intelligent Fibre Channel Fabric Bus Adapter No SCSIADAPTER
2.45.0.16 5/19/2003 Unisys Corporation oem11.inf
Not Available
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&A75DC64&0&0000

Unisys Intelligent Fibre Channel Adapter SCSI Processor No SYSTEM
2.45.0.6 5/19/2003 Unisys Corporation oem10.inf
Not Available SCSI\PROCESSORUNISYS_FC76222-
P64_V2_\5&11F71242&1&D004560B00080010
Unisys Intelligent Fibre Channel Adapter SCSI Processor No SYSTEM
2.45.0.6 5/19/2003 Unisys Corporation oem10.inf
Not Available SCSI\PROCESSORUNISYS_FC76222-
P64_V2_\5&11F71242&1&D104560B00080010
PCI bus No SYSTEM 5.2.3790.0 10/1/2002 (Standard system devices)
machine.inf Not Available ACPI\PNP0A03\6
cLAN Host Adapter No NET 4.2.0.75 10/5/2000
Giganet oem8.inf Not Available
PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&E44F86D&0&00
cLAN Host Adapter No NET 4.2.0.75 10/5/2000
Giganet oem8.inf Not Available
PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&E44F86D&0&08
PCI bus No SYSTEM 5.2.3790.0 10/1/2002 (Standard system devices)
machine.inf Not Available ACPI\PNP0A03\7
PCI bus No SYSTEM 5.2.3790.0 10/1/2002 (Standard system devices)
machine.inf Not Available ACPI\PNP0A03\8
PCI standard PCI-to-PCI bridge No SYSTEM 5.2.3790.0
10/1/2002 (Standard system devices) machine.inf Not Available
PCI\VEN_8086&DEV_0309&SUBSYS_00000000&REV_01\3&33B859B7&0&00

Unisys Intelligent Fibre Channel Fabric Bus Adapter No SCSIADAPTER
2.45.0.16 5/19/2003 Unisys Corporation oem11.inf
Not Available
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&1B316B8F&0&0000

Unisys Intelligent Fibre Channel Adapter SCSI Processor No SYSTEM
2.45.0.6 5/19/2003 Unisys Corporation oem10.inf
Not Available SCSI\PROCESSORUNISYS_FC76222-
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Unisys Intelligent Fibre Channel Adapter SCSI Processor No SYSTEM
2.45.0.6 5/19/2003 Unisys Corporation oem10.inf
Not Available SCSI\PROCESSORUNISYS_FC76222-
P64_V2_\5&24C648AC&1&C504560B00080010
PCI bus No SYSTEM 5.2.3790.0 10/1/2002 (Standard system devices)
machine.inf Not Available ACPI\PNP0A03\9
PCI standard PCI-to-PCI bridge No SYSTEM 5.2.3790.0
10/1/2002 (Standard system devices) machine.inf Not Available
PCI\VEN_8086&DEV_0309&SUBSYS_00000000&REV_01\3&AD74055&0&00

Unisys Intelligent Fibre Channel Fabric Bus Adapter No SCSIADAPTER
2.45.0.16 5/19/2003 Unisys Corporation oem11.inf
Not Available
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&101F93C3&0&0000

Unisys Intelligent Fibre Channel Adapter SCSI Processor No SYSTEM
2.45.0.6 5/19/2003 Unisys Corporation oem10.inf
Not Available SCSI\PROCESSORUNISYS_FC76222-
P64_V2_\5&55E65EF&1&B004560B00080010
Unisys Intelligent Fibre Channel Adapter SCSI Processor No SYSTEM
2.45.0.6 5/19/2003 Unisys Corporation oem10.inf
Not Available SCSI\PROCESSORUNISYS_FC76222-
P64_V2_\5&55E65EF&1&B104560B00080010
PCI bus No SYSTEM 5.2.3790.0 10/1/2002 (Standard system devices)
machine.inf Not Available ACPI\PNP0A03\A
PCI bus No SYSTEM 5.2.3790.0 10/1/2002 (Standard system devices)
machine.inf Not Available ACPI\PNP0A03\B
PCI standard PCI-to-PCI bridge No SYSTEM 5.2.3790.0
10/1/2002 (Standard system devices) machine.inf Not Available
PCI\VEN_8086&DEV_0309&SUBSYS_00000000&REV_01\3&1106BFD7&0&00

Unisys Intelligent Fibre Channel Fabric Bus Adapter No SCSIADAPTER
2.45.0.16 5/19/2003 Unisys Corporation oem11.inf
Not Available
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&5E54501&0&0000

Unisys Intelligent Fibre Channel Adapter SCSI Processor No SYSTEM
2.45.0.6 5/19/2003 Unisys Corporation oem10.inf
Not Available SCSI\PROCESSORUNISYS_FC76222-
P64_V2_\5&324B9A0D&1&FC04560B00080010
Unisys Intelligent Fibre Channel Adapter SCSI Processor No SYSTEM
2.45.0.6 5/19/2003 Unisys Corporation oem10.inf
Not Available SCSI\PROCESSORUNISYS_FC76222-
P64_V2_\5&324B9A0D&1&FD04560B00080010
PCI bus No SYSTEM 5.2.3790.0 10/1/2002 (Standard system devices)
machine.inf Not Available ACPI\PNP0A03\C
cLAN Host Adapter No NET 4.2.0.75 10/5/2000
Giganet oem8.inf Not Available
PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&1B2F0CE&0&00
cLAN Host Adapter No NET 4.2.0.75 10/5/2000
Giganet oem8.inf Not Available
PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&1B2F0CE&0&08
PCI bus No SYSTEM 5.2.3790.0 10/1/2002 (Standard system devices)
machine.inf Not Available ACPI\PNP0A03\D
PCI bus No SYSTEM 5.2.3790.0 10/1/2002 (Standard system devices)
machine.inf Not Available ACPI\PNP0A03\E
PCI standard PCI-to-PCI bridge No SYSTEM 5.2.3790.0
10/1/2002 (Standard system devices) machine.inf Not Available
PCI\VEN_8086&DEV_0309&SUBSYS_00000000&REV_01\3&27265218&0&00

Unisys Intelligent Fibre Channel Fabric Bus Adapter No SCSIADAPTER
2.45.0.16 5/19/2003 Unisys Corporation oem11.inf
Not Available
PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&BBE9921&0&0000

Unisys Intelligent Fibre Channel Adapter SCSI Processor No SYSTEM
2.45.0.6 5/19/2003 Unisys Corporation oem10.inf

Not Available SCSI\PROCESSORUNISYS_FC76222-
 P64_V2_\5&382242AB&1&9C04560B00080010
 Unisys Intelligent Fibre Channel Adapter SCSI Processor No SYSTEM
 2.45.0.6 5/19/2003 Unisys Corporation oem10.inf
 Not Available SCSI\PROCESSORUNISYS_FC76222-
 P64_V2_\5&382242AB&1&9D04560B00080010
 PCI bus No SYSTEM 5.2.3790.0 10/1/2002 (Standard system
 devices) machine.inf Not Available ACPI\PNP0A03\F
 PCI standard PCI-to-PCI bridge No SYSTEM 5.2.3790.0
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 cLAN Host Adapter No NET 4.2.0.75 10/5/2000
 Giganet oem8.inf Not Available
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 cLAN Host Adapter No NET 4.2.0.75 10/5/2000
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PCI bus No SYSTEM 5.2.3790.0 10/1/2002 (Standard system
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 PCI bus No SYSTEM 5.2.3790.0 10/1/2002 (Standard system
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 PCI standard PCI-to-PCI bridge No SYSTEM 5.2.3790.0
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 PCI standard PCI-to-PCI bridge No SYSTEM 5.2.3790.0
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 Unisys Intelligent Fibre Channel Adapter SCSI Processor No SYSTEM
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PCI bus No SYSTEM 5.2.3790.0 10/1/2002 (Standard system
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Giganet oem8.inf Not Available
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cLAN Host Adapter No NET 4.2.0.75 10/5/2000
Giganet oem8.inf Not Available
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PCI bus No SYSTEM 5.2.3790.0 10/1/2002 (Standard system
devices) machine.inf Not Available ACPI\PNP0A03\19
Logical Disk Manager No SYSTEM 5.2.3790.0 10/1/2002
(Standard system devices) machine.inf Not Available
ROOT\DMIO\0000
Volume Manager No SYSTEM 5.2.3790.0 10/1/2002 (Standard
system devices) machine.inf Not Available ROOT\FTDISK\0000

Generic volume No VOLUME 5.2.3790.0 10/1/2002 Microsoft
volume.inf Not Available
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Generic volume No VOLUME 5.2.3790.0 10/1/2002 Microsoft
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F8000
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Generic volume No VOLUME 5.2.3790.0 10/1/2002 Microsoft
volume.inf Not Available
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Generic volume No VOLUME 5.2.3790.0 10/1/2002 Microsoft
volume.inf Not Available

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Generic volume No	VOLUME 5.2.3790.0	10/1/2002	Microsoft	Beep	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available
volume.inf	Not Available			Available	Not Available	Not Available	Not Available	ROOT\LEGACY_BEEP\0000		
STORAGE\VOLUME\1&30A96598&0&SIGNATURE18B6BC41OFFSET2EDC00000LENGTH				CRC Disk Filter Driver	Not Available	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available
EFB00000				Available	Not Available	Not Available	Not Available	Not Available		
Generic volume No	VOLUME 5.2.3790.0	10/1/2002	Microsoft					ROOT\LEGACY_CRCDISK\0000		
volume.inf	Not Available			dmboot	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available
STORAGE\VOLUME\1&30A96598&0&SIGNATURE18B6BC41OFFSET3DD700000LENGTH				Available	Not Available	Not Available	Not Available	ROOT\LEGACY_DMBOOT\0000		
1A0AC00000										
Generic volume No	VOLUME 5.2.3790.0	10/1/2002	Microsoft	dmload	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available
volume.inf	Not Available			Available	Not Available	Not Available	Not Available	ROOT\LEGACY_DMLOAD\0000		
STORAGE\VOLUME\1&30A96598&0&SIGNATURE18B6BC4EOFFSET8000LENGTH124DF										
8000				em	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available
Generic volume No	VOLUME 5.2.3790.0	10/1/2002	Microsoft	Available	Not Available	Not Available	Not Available	ROOT\LEGACY_EM\0000		
volume.inf	Not Available			Console Manager Network Connection	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available
STORAGE\VOLUME\1&30A96598&0&SIGNATURE18B6BC4EOFFSET124E00000LENGTH				Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
1C8E00000								ROOT\LEGACY_ESVUART\0000		
Generic volume No	VOLUME 5.2.3790.0	10/1/2002	Microsoft	Fips	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available
volume.inf	Not Available			Available	Not Available	Not Available	Not Available	ROOT\LEGACY_FIPS\0000		
STORAGE\VOLUME\1&30A96598&0&SIGNATURE18B6BC4EOFFSET2EDC00000LENGTH				cLAN VIA Driver	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available
EFB00000				Available	Not Available	Not Available	Not Available	ROOT\LEGACY_GNIVIA\0000		
Generic volume No	VOLUME 5.2.3790.0	10/1/2002	Microsoft	Generic Packet Classifier	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available
volume.inf	Not Available			Available	Not Available	Not Available	Not Available	ROOT\LEGACY_GPC\0000		
STORAGE\VOLUME\1&30A96598&0&SIGNATURE18B6BC4EOFFSET3DD700000LENGTH				IPSEC driver	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available
1A0AC00000				Available	Not Available	Not Available	Not Available	ROOT\LEGACY_IPSEC\0000		
Generic volume No	VOLUME 5.2.3790.0	10/1/2002	Microsoft	ksecdd	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available
volume.inf	Not Available			Available	Not Available	Not Available	Not Available	ROOT\LEGACY_KSECDD\0000		
STORAGE\VOLUME\1&30A96598&0&SIGNATURE18B6BC4FOFFSET8000LENGTH124DF										
8000				mnmd	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available
Generic volume No	VOLUME 5.2.3790.0	10/1/2002	Microsoft	Available	Not Available	Not Available	Not Available	ROOT\LEGACY_MNMD\0000		
volume.inf	Not Available			mountmgr	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available
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EFB00000										
Generic volume No	VOLUME 5.2.3790.0	10/1/2002	Microsoft	NDIS System Driver	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available
volume.inf	Not Available			Available	Not Available	Not Available	Not Available	ROOT\LEGACY_NDIS\0000		
STORAGE\VOLUME\1&30A96598&0&SIGNATURE18B6BC4FOFFSET3DD700000LENGTH				Remote Access NDIS TAPI Driver	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available
1A0AC00000				Available	Not Available	Not Available	Not Available	ROOT\LEGACY_NDISTAPI\0000		
Generic volume No	VOLUME 5.2.3790.0	10/1/2002	Microsoft	NDIS Usermode I/O Protocol	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available
volume.inf	Not Available			Available	Not Available	Not Available	Not Available	ROOT\LEGACY_NDISUIO\0000		
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8000				NDRProxy	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available
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volume.inf	Not Available									
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1C8E00000				Available	Not Available	Not Available	Not Available	ROOT\LEGACY_NETBT\0000		
Generic volume No	VOLUME 5.2.3790.0	10/1/2002	Microsoft	Null	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available
volume.inf	Not Available			Available	Not Available	Not Available	Not Available	ROOT\LEGACY_NULL\0000		
STORAGE\VOLUME\1&30A96598&0&SIGNATURE18B6BC4DOFFSET2EDC00000LENGTH				Partition Manager	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available
EFB00000				Available	Not Available	Not Available	Not Available	ROOT\LEGACY_PARTMGR\0000		
Generic volume No	VOLUME 5.2.3790.0	10/1/2002	Microsoft	Parvdm	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available	Not Available
volume.inf	Not Available			Available	Not Available	Not Available	Not Available	ROOT\LEGACY_PARVDM\0000		
STORAGE\VOLUME\1&30A96598&0&SIGNATURE18B6BC4DOFFSET3DD700000LENGTH										
1A0AC00000										
AFD Networking Support Environment	Not Available			Available	Not Available	Not Available	Not Available	ROOT\LEGACY_AFD\0000		
Available	Not Available									
ROOT\LEGACY_AFD\0000										

Remote Access Auto Connection Driver	Not Available	LEGACYDRIVER	Not Available	Not Available
Available	Not Available	Not Available	Not Available	Not Available
		ROOT\LEGACY_RASACD\0000		
RDPCCD	Not Available	LEGACYDRIVER	Not Available	Not Available
Available	Not Available	Not Available	Not Available	Not Available
		ROOT\LEGACY_RDPCCD\0000		
RDPWD	Not Available	LEGACYDRIVER	Not Available	Not Available
Available	Not Available	Not Available	Not Available	Not Available
		ROOT\LEGACY_RDPWD\0000		
TCP/IP Protocol Driver	Not Available	LEGACYDRIVER	Not Available	Not Available
Available	Not Available	Not Available	Not Available	Not Available
		ROOT\LEGACY_TCPIP\0000		
TDTCP	Not Available	LEGACYDRIVER	Not Available	Not Available
Available	Not Available	Not Available	Not Available	Not Available
		ROOT\LEGACY_TDTCP\0000		
VGA Display Controller.	Not Available	LEGACYDRIVER	Not Available	Not Available
Available	Not Available	Not Available	Not Available	Not Available
		ROOT\LEGACY_VGASAVE\0000		
volsnap	Not Available	LEGACYDRIVER	Not Available	Not Available
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
Available	Not Available	Not Available	Not Available	Not Available
		ROOT\LEGACY_WANARP\0000		
Audio Codecs	No	MEDIA	5.2.3790.0	10/1/2002
system devices)		wave.inf	Not Available	(Standard system devices)
		ROOT\MEDIA\MS_MMCM		
Legacy Audio Drivers	No	MEDIA	5.2.3790.0	10/1/2002
(Standard system devices)		wave.inf	Not Available	
		ROOT\MEDIA\MS_MMDRV		
Media Control Devices	No	MEDIA	5.2.3790.0	10/1/2002
(Standard system devices)		wave.inf	Not Available	
		ROOT\MEDIA\MS_MMMCI		
Legacy Video Capture Devices	No	MEDIA	5.2.3790.0	10/1/2002
(Standard system devices)		wave.inf	Not Available	
		ROOT\MEDIA\MS_MMVCD		
Video Codecs	No	MEDIA	5.2.3790.0	10/1/2002
system devices)		wave.inf	Not Available	(Standard system devices)
		ROOT\MEDIA\MS_MMVID		
WAN Miniport (L2TP)	No	NET	5.2.3790.0	10/1/2002
Microsoft		netrasa.inf	Not Available	
		ROOT\MS_L2TPMINIPORT\0000		
WAN Miniport (IP)	No	NET	5.2.3790.0	10/1/2002
Microsoft		netrasa.inf	Not Available	
		ROOT\MS_NDISWANIP\0000		
WAN Miniport (PPPOE)	No	NET	5.2.3790.0	10/1/2002
Microsoft		netrasa.inf	Not Available	
		ROOT\MS_PPPOEMINIPORT\0000		
WAN Miniport (PPTP)	No	NET	5.2.3790.0	10/1/2002
Microsoft		netrasa.inf	Not Available	
		ROOT\MS_PPTPMINIPORT\0000		
Direct Parallel	No	NET	5.2.3790.0	10/1/2002
Microsoft		netrasa.inf	Not Available	
		ROOT\MS_PTMINIPORT\0000		
Terminal Server Device Redirector	No	SYSTEM	5.2.3790.0	10/1/2002
Available		(Standard system devices)	machine.inf	Not Available
		ROOT\RDPDR\0000		
Terminal Server Keyboard Driver	No	SYSTEM	5.2.3790.0	10/1/2002
Available		(Standard system devices)	machine.inf	Not Available
		ROOT\RDP_KBD\0000		

Terminal Server Mouse Driver	No	SYSTEM	5.2.3790.0	10/1/2002
(Standard system devices)		machine.inf	Not Available	
		ROOT\RDP_MOU\0000		
Plug and Play Software Device Enumerator	No	SYSTEM	5.2.3790.0	10/1/2002
Available		(Standard system devices)	machine.inf	Not Available
		ROOT\SYSTEM\0000		
Microcode Update Device	No	SYSTEM	5.2.3790.0	10/1/2002
(Standard system devices)		machine.inf	Not Available	
		ROOT\SYSTEM\0001		
Unisys Intelligent Fibre Channel Fabric Bus Enumerator	No	SYSTEM		
2.45.0.41	5/19/2003	Unisys Corporation	oem9.inf	
Not Available		ROOT\SYSTEM\0002		
Unisys Intelligent Fibre Channel Fabric Disk Driver	No	DISKDRIVE		
2.36.0.5	2/19/2003	Unisys Corporation	oem7.inf	
Not Available				
SCSI\DISK&VEN_DGC_____RAID_10_____0099\1&1A590E2C&0&A724201060				
01065000000000000000000000000000				
Unisys Intelligent Fibre Channel Fabric Disk Driver	No	DISKDRIVE		
2.36.0.5	2/19/2003	Unisys Corporation	oem7.inf	
Not Available				
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01065000000000000000000000000000				
Unisys Intelligent Fibre Channel Fabric Disk Driver	No	DISKDRIVE		
2.36.0.5	2/19/2003	Unisys Corporation	oem7.inf	
Not Available				
SCSI\DISK&VEN_UNISYS__VIRTUALSTORAGE__01.0\1&1A590E2C&0&A53F008610				
00001000000000000000000000000000				
Unisys Intelligent Fibre Channel Fabric Disk Driver	No	DISKDRIVE		
2.36.0.5	2/19/2003	Unisys Corporation	oem7.inf	
Not Available				
SCSI\DISK&VEN_UNISYS__VIRTUALSTORAGE__01.0\1&1A590E2C&0&A53F008610				
00001000000000000000000000000000				
Unisys Intelligent Fibre Channel Fabric Disk Driver	No	DISKDRIVE		
2.36.0.5	2/19/2003	Unisys Corporation	oem7.inf	
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00001000000000000000000000000000				
Unisys Intelligent Fibre Channel Fabric Disk Driver	No	DISKDRIVE		
2.36.0.5	2/19/2003	Unisys Corporation	oem7.inf	
Not Available				
SCSI\DISK&VEN_UNISYS__VIRTUALSTORAGE__01.0\1&1A590E2C&0&A53F008610				
00001000000000000000000000000000				
Unisys Intelligent Fibre Channel Fabric Disk Driver	No	DISKDRIVE		
2.36.0.5	2/19/2003	Unisys Corporation	oem7.inf	
Not Available				
SCSI\DISK&VEN_UNISYS__VIRTUALSTORAGE__01.0\1&1A590E2C&0&A53F008610				
00001000000000000000000000000000				
Unisys Intelligent Fibre Channel Fabric Disk Driver	No	DISKDRIVE		
2.36.0.5	2/19/2003	Unisys Corporation	oem7.inf	
Not Available				
SCSI\DISK&VEN_UNISYS__VIRTUALSTORAGE__01.0\1&1A590E2C&0&A53F008610				
00001000000000000000000000000000				
Unisys Intelligent Fibre Channel Fabric Disk Driver	No	DISKDRIVE		
2.36.0.5	2/19/2003	Unisys Corporation	oem7.inf	
Not Available				
SCSI\DISK&VEN_UNISYS__VIRTUALSTORAGE__01.0\1&1A590E2C&0&A53F008610				
00001000000000000000000000000000				
Unisys Intelligent Fibre Channel Fabric Disk Driver	No	DISKDRIVE		
2.36.0.5	2/19/2003	Unisys Corporation	oem7.inf	


```

        SCSI\DISK&VEN_UNISYS__VIRTUALSTORAGE__01.0\1&1A590E2C&0&9B3F008610
00001000000000000000A000
Unisys Intelligent Fibre Channel Fabric Disk Driver No      DISKDRIVE
2.36.0.5      2/19/2003      Unisys Corporation      oem7.inf
Not Available
        SCSI\DISK&VEN_UNISYS__VIRTUALSTORAGE__01.0\1&1A590E2C&0&9B3F008610
000010000000000000009000
Unisys Intelligent Fibre Channel Fabric Disk Driver No      DISKDRIVE
2.36.0.5      2/19/2003      Unisys Corporation      oem7.inf
Not Available
        SCSI\DISK&VEN_UNISYS__VIRTUALSTORAGE__01.0\1&1A590E2C&0&9B3F008610
000010000000000000008000
Unisys Intelligent Fibre Channel Fabric Disk Driver No      DISKDRIVE
2.36.0.5      2/19/2003      Unisys Corporation      oem7.inf
Not Available
        SCSI\DISK&VEN_UNISYS__VIRTUALSTORAGE__01.0\1&1A590E2C&0&9B3F008610
000010000000000000007000
Unisys Intelligent Fibre Channel Fabric Disk Driver No      DISKDRIVE
2.36.0.5      2/19/2003      Unisys Corporation      oem7.inf
Not Available
        SCSI\DISK&VEN_UNISYS__VIRTUALSTORAGE__01.0\1&1A590E2C&0&9B3F008610
000010000000000000006000
Unisys Intelligent Fibre Channel Fabric Disk Driver No      DISKDRIVE
2.36.0.5      2/19/2003      Unisys Corporation      oem7.inf
Not Available
        SCSI\DISK&VEN_UNISYS__VIRTUALSTORAGE__01.0\1&1A590E2C&0&9B3F008610
000010000000000000005000
Unisys Intelligent Fibre Channel Fabric Disk Driver No      DISKDRIVE
2.36.0.5      2/19/2003      Unisys Corporation      oem7.inf
Not Available
        SCSI\DISK&VEN_UNISYS__VIRTUALSTORAGE__01.0\1&1A590E2C&0&9B3F008610
000010000000000000004000
Unisys Intelligent Fibre Channel Fabric Disk Driver No      DISKDRIVE
2.36.0.5      2/19/2003      Unisys Corporation      oem7.inf
Not Available
        SCSI\DISK&VEN_UNISYS__VIRTUALSTORAGE__01.0\1&1A590E2C&0&9B3F008610
000010000000000000003000
Unisys Intelligent Fibre Channel Fabric Disk Driver No      DISKDRIVE
2.36.0.5      2/19/2003      Unisys Corporation      oem7.inf
Not Available
        SCSI\DISK&VEN_UNISYS__VIRTUALSTORAGE__01.0\1&1A590E2C&0&9B3F008610
000010000000000000002000
Unisys Intelligent Fibre Channel Fabric Disk Driver No      DISKDRIVE
2.36.0.5      2/19/2003      Unisys Corporation      oem7.inf
Not Available
        SCSI\DISK&VEN_UNISYS__VIRTUALSTORAGE__01.0\1&1A590E2C&0&9B3F008610
000010000000000000001000

[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 15 Model 2 Stepping 5, GenuineIntel
<SYSTEM>
PROCESSOR_LEVEL        15      <SYSTEM>
PROCESSOR_REVISION     0205   <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-BOBDYLAN\Administrator
TMP                    %USERPROFILE%\Local Settings\Temp      MV-BOBDYLAN\Administrator

[Print Jobs]

Document      Size      Owner      Notify      Status      Time Submitted      Start Time
Until Time    Elapsed Time    Pages Printed    Job ID Priority
Parameters    Driver Print Processor      Host Print Queue
Data Type     Name

[Network Connections]

Local Name     Remote Name     Type     Status      User Name

[Running Tasks]

Name      Path      Process ID      Priority      Min Working Set      Max
Working Set      Start Time      Version Size      File Date
system idle process      Not Available      0      0      Not Available      Not
Available      Not Available      Not Available
Available      Not Available      Not Available      Not Available      Not Available      Not Available
smss.exe      Not Available      496      11      204800      1413120      6/18/2003      9:21
AM      Not Available      Not Available      Not Available
csrss.exe      Not Available      544      13      Not Available      Not Available
6/18/2003      9:21 AM      Not Available      Not Available      Not Available

winlogon.exe  c:\windows\system32\winlogon.exe      568      13      204800
1413120      6/18/2003      9:21 AM      5.2.3790.0 (srv03_rtm.030324-2048)
536.50 KB (549,376 bytes)      3/25/2003      4:00 AM
services.exe  c:\windows\system32\services.exe      612      9      204800
1413120      6/18/2003      9:21 AM      5.2.3790.0 (srv03_rtm.030324-2048)
102.00 KB (104,448 bytes)      3/25/2003      4:00 AM
lsass.exe     c:\windows\system32\lsass.exe      624      9      204800
1413120      6/18/2003      9:21 AM      5.2.3790.0 (srv03_rtm.030324-2048)
13.00 KB (13,312 bytes)      3/25/2003      4:00 AM
svchost.exe   c:\windows\system32\svchost.exe      828      8      204800
1413120      6/18/2003      9:21 AM      5.2.3790.0 (srv03_rtm.030324-2048)
13.00 KB (13,312 bytes)      3/25/2003      4:00 AM
gnconmgr.exe  c:\windows\system32\gnconmgr.exe      936      8      204800
1413120      6/18/2003      9:21 AM      4.2.0.75      168.05 KB (172,079
bytes)      5/22/2003      7:32 AM

```



```
svchost.exe c:\windows\system32\svchost.exe 980 8 204800
1413120 6/18/2003 9:21 AM 5.2.3790.0 (srv03_rtm.030324-2048)
13.00 KB (13,312 bytes) 3/25/2003 4:00 AM
esconmgr.exe c:\windows\system32\esconmgr.exe 1172 24 204800
1413120 6/18/2003 9:21 AM 6.0.3.29 265.02 KB (271,376
bytes) 2/6/2003 5:43 PM
wmiprvse.exe Not Available 1604 8 Not Available Not Available
6/18/2003 9:22 AM Not Available Not Available Not Available
```

```
explorer.exe c:\windows\explorer.exe 1824 8 204800
1413120 6/18/2003 9:26 AM 6.00.3790.0 (srv03_rtm.030324-2048)
1,008.50 KB (1,032,704 bytes) 3/25/2003 4:00 AM
cmd.exe c:\windows\system32\cmd.exe 1972 8 204800 1413120
6/18/2003 9:26 AM 5.2.3790.0 (srv03_rtm.030324-2048) 374.00
KB (382,976 bytes) 3/25/2003 4:00 AM
sqlservr.exe c:\sql80\sqlbuilds\02_07_03_qfe_128awe\sqlservr.exe 1992
13 204800 1413120 6/18/2003 9:26 AM 2000.080.0761.00
7.10 MB (7,446,568 bytes) 5/22/2003 5:39 PM
helpctr.exe c:\windows\pchealth\helpctr\binaries\helpctr.exe 1596
8 204800 1413120 6/18/2003 3:23 PM 5.2.3790.0
(srv03_rtm.030324-2048) 764.00 KB (782,336 bytes) 5/19/2003 2:01
PM
wmiprvse.exe Not Available 1544 8 Not Available Not Available
6/18/2003 3:23 PM Not Available Not Available Not Available
```

```
helpsvc.exe c:\windows\pchealth\helpctr\binaries\helpsvc.exe 1620
8 204800 1413120 6/18/2003 3:23 PM 5.2.3790.0
(srv03_rtm.030324-2048) 720.00 KB (737,280 bytes) 5/19/2003 2:01
PM
```

[Loaded Modules]

Name	Version	Size	File Date	Manufacturer	Path
winlogon	5.2.3790.0 (srv03_rtm.030324-2048)	536.50 KB (549,376 bytes)	3/25/2003 4:00 AM	Microsoft Corporation	c:\windows\system32\winlogon.exe
ntdll	5.2.3790.0 (srv03_rtm.030324-2048)	722.50 KB (739,840 bytes)	3/25/2003 4:00 AM	Microsoft Corporation	c:\windows\system32\ntdll.dll
kernel32	5.2.3790.0 (srv03_rtm.030324-2048)	965.00 KB (988,160 bytes)	3/25/2003 4:00 AM	Microsoft Corporation	c:\windows\system32\kernel32.dll
msvcrt	7.0.3790.0 (srv03_rtm.030324-2048)	319.50 KB (327,168 bytes)	3/25/2003 4:00 AM	Microsoft Corporation	c:\windows\system32\msvcrt.dll
advapi32	5.2.3790.0 (srv03_rtm.030324-2048)	559.50 KB (572,928 bytes)	3/25/2003 4:00 AM	Microsoft Corporation	c:\windows\system32\advapi32.dll
rpcrt4	5.2.3790.0 (srv03_rtm.030324-2048)	643.50 KB (658,944 bytes)	3/25/2003 4:00 AM	Microsoft Corporation	c:\windows\system32\rpcrt4.dll
user32	5.2.3790.0 (srv03_rtm.030324-2048)	562.00 KB (575,488 bytes)	3/25/2003 4:00 AM	Microsoft Corporation	c:\windows\system32\user32.dll
gdi32	5.2.3790.0 (srv03_rtm.030324-2048)	263.00 KB (269,312 bytes)	3/25/2003 4:00 AM	Microsoft Corporation	c:\windows\system32\gdi32.dll

userenv	5.2.3790.0 (srv03_rtm.030324-2048)	732.50 KB (750,080 bytes)	3/25/2003 4:00 AM	Microsoft Corporation	c:\windows\system32\userenv.dll
nddeapi	5.2.3790.0 (srv03_rtm.030324-2048)	16.00 KB (16,384 bytes)	3/25/2003 4:00 AM	Microsoft Corporation	c:\windows\system32\nddeapi.dll
crypt32	5.131.3790.0 (srv03_rtm.030324-2048)	598.00 KB (612,352 bytes)	3/25/2003 4:00 AM	Microsoft Corporation	c:\windows\system32\crypt32.dll
msasn1	5.2.3790.0 (srv03_rtm.030324-2048)	58.00 KB (59,392 bytes)	3/25/2003 4:00 AM	Microsoft Corporation	c:\windows\system32\msasn1.dll
secur32	5.2.3790.0 (srv03_rtm.030324-2048)	63.00 KB (64,512 bytes)	3/25/2003 4:00 AM	Microsoft Corporation	c:\windows\system32\secur32.dll
winsta	5.2.3790.0 (srv03_rtm.030324-2048)	51.00 KB (52,224 bytes)	3/25/2003 4:00 AM	Microsoft Corporation	c:\windows\system32\winsta.dll
netapi32	5.2.3790.0 (srv03_rtm.030324-2048)	317.00 KB (324,608 bytes)	3/25/2003 4:00 AM	Microsoft Corporation	c:\windows\system32\netapi32.dll
profmap	5.2.3790.0 (srv03_rtm.030324-2048)	22.00 KB (22,528 bytes)	3/25/2003 4:00 AM	Microsoft Corporation	c:\windows\system32\profmap.dll
regapi	5.2.3790.0 (srv03_rtm.030324-2048)	48.50 KB (49,664 bytes)	3/25/2003 4:00 AM	Microsoft Corporation	c:\windows\system32\regapi.dll
ws2_32	5.2.3790.0 (srv03_rtm.030324-2048)	87.50 KB (89,600 bytes)	3/25/2003 4:00 AM	Microsoft Corporation	c:\windows\system32\ws2_32.dll
ws2help	5.2.3790.0 (srv03_rtm.030324-2048)	19.50 KB (19,968 bytes)	3/25/2003 4:00 AM	Microsoft Corporation	c:\windows\system32\ws2help.dll
psapi	5.2.3790.0 (srv03_rtm.030324-2048)	21.50 KB (22,016 bytes)	3/25/2003 4:00 AM	Microsoft Corporation	c:\windows\system32\psapi.dll
version	5.2.3790.0 (srv03_rtm.030324-2048)	17.00 KB (17,408 bytes)	3/25/2003 4:00 AM	Microsoft Corporation	c:\windows\system32\version.dll
setupapi	5.2.3790.0 (srv03_rtm.030324-2048)	1,014.50 KB (1,038,848 bytes)	3/25/2003 4:00 AM	Microsoft Corporation	c:\windows\system32\setupapi.dll
msgina	5.2.3790.0 (srv03_rtm.030324-2048)	1.14 MB (1,191,936 bytes)	3/25/2003 4:00 AM	Microsoft Corporation	c:\windows\system32\msgina.dll
shsvcs	6.00.3790.0 (srv03_rtm.030324-2048)	121.50 KB (124,416 bytes)	3/25/2003 4:00 AM	Microsoft Corporation	c:\windows\system32\shsvcs.dll
shlwapi	6.00.3790.0 (srv03_rtm.030324-2048)	281.00 KB (287,744 bytes)	3/25/2003 4:00 AM	Microsoft Corporation	c:\windows\system32\shlwapi.dll
sfc	5.2.3790.0 (srv03_rtm.030324-2048)	4.50 KB (4,608 bytes)	3/25/2003 4:00 AM	Microsoft Corporation	c:\windows\system32\sfc.dll
sfc_os	5.2.3790.0 (srv03_rtm.030324-2048)	133.00 KB (136,192 bytes)	3/25/2003 4:00 AM	Microsoft Corporation	c:\windows\system32\sfc_os.dll

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wintrust 5.131.3790.0 (srv03_rtm.030324-2048) 161.50 KB (165,376
bytes) 3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\wintrust.dll
ole32 5.2.3790.0 (srv03_rtm.030324-2048) 1.13 MB (1,187,328 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\ole32.dll
imagehlp 5.2.3790.0 (srv03_rtm.030324-2048) 142.50 KB (145,920
bytes) 3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\imagehlp.dll
comctl32 6.0 (srv03_rtm.030324-2048) 907.00 KB (928,768 bytes)
5/19/2003 6:47 AM Microsoft Corporation
c:\windows\winsxs\x86_microsoft.windows.common-
controls_6595b64144ccf1df_6.0.100.0_x-ww_8417450b\comctl32.dll
winscard 5.2.3790.0 (srv03_rtm.030324-2048) 98.50 KB (100,864
bytes) 3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\winscard.dll
wtsapi32 5.2.3790.0 (srv03_rtm.030324-2048) 17.50 KB (17,920
bytes) 3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\wtsapi32.dll
sxs 5.2.3790.0 (srv03_rtm.030324-2048) 733.00 KB (750,592 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\sxs.dll
wldap32 5.2.3790.0 (srv03_rtm.030324-2048) 158.00 KB (161,792 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\wldap32.dll
rsaenh 5.2.3790.0 (srv03_rtm.030324-2048) 176.83 KB (181,072 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\rsaenh.dll
cscdll 5.2.3790.0 (srv03_rtm.030324-2048) 99.00 KB (101,376 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\cscdll.dll
wlnotify 5.2.3790.0 (srv03_rtm.030324-2048) 87.50 KB (89,600
bytes) 3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\wlnotify.dll
winmm 5.2.3790.0 (srv03_rtm.030324-2048) 166.00 KB (169,984 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\winmm.dll
winspool 5.2.3790.0 (srv03_rtm.030324-2048) 140.00 KB (143,360
bytes) 3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\winspool.drv
mpr 5.2.3790.0 (srv03_rtm.030324-2048) 56.00 KB (57,344 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\mpr.dll
shell32 6.00.3790.0 (srv03_rtm.030324-2048) 7.79 MB (8,166,400 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\shell32.dll
comctl32 5.82 (srv03_rtm.030324-2048) 561.00 KB (574,464 bytes)
5/19/2003 6:47 AM Microsoft Corporation
c:\windows\winsxs\x86_microsoft.windows.common-
controls_6595b64144ccf1df_5.82.0.0_x-ww_8a69ba05\comctl32.dll
uxtheme 6.00.3790.0 (srv03_rtm.030324-2048) 196.00 KB (200,704 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\uxtheme.dll
samlib 5.2.3790.0 (srv03_rtm.030324-2048) 49.00 KB (50,176 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\samlib.dll
cscui 5.2.3790.0 (srv03_rtm.030324-2048) 305.00 KB (312,320 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\cscui.dll

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oleaut32 5.2.3790.0 486.00 KB (497,664 bytes) 3/25/2003 4:00
AM Microsoft Corporation c:\windows\system32\oleaut32.dll
clbcatq 2001.12.4720.0 (srv03_rtm.030324-2048) 481.00 KB (492,544
bytes) 5/19/2003 1:57 PM Microsoft Corporation
c:\windows\system32\clbcatq.dll
comres 2001.12.4720.0 (srv03_rtm.030324-2048) 778.00 KB (796,672
bytes) 3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\comres.dll
ntmarta 5.2.3790.0 (srv03_rtm.030324-2048) 114.00 KB (116,736 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\ntmarta.dll
wbemprox 5.2.3790.0 (srv03_rtm.030324-2048) 17.50 KB (17,920
bytes) 5/19/2003 1:57 PM Microsoft Corporation
c:\windows\system32\wbem\wbemprox.dll
wbemcomn 5.2.3790.0 (srv03_rtm.030324-2048) 211.50 KB (216,576
bytes) 3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\wbem\wbemcomn.dll
wbemsvc 5.2.3790.0 (srv03_rtm.030324-2048) 42.50 KB (43,520 bytes)
5/19/2003 1:57 PM Microsoft Corporation
c:\windows\system32\wbem\wbemsvc.dll
fastprox 5.2.3790.0 (srv03_rtm.030324-2048) 443.00 KB (453,632
bytes) 5/19/2003 1:57 PM Microsoft Corporation
c:\windows\system32\wbem\fastprox.dll
msvcpx60 6.05.2144.0 388.00 KB (397,312 bytes) 3/25/2003 4:00 AM
Microsoft Corporation c:\windows\system32\msvcpx60.dll
ntdsapi 5.2.3790.0 (srv03_rtm.030324-2048) 76.00 KB (77,824 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\ntdsapi.dll
dnsapi 5.2.3790.0 (srv03_rtm.030324-2048) 147.50 KB (151,040 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\dnsapi.dll
services 5.2.3790.0 (srv03_rtm.030324-2048) 102.00 KB (104,448
bytes) 3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\services.exe
scesrv 5.2.3790.0 (srv03_rtm.030324-2048) 316.50 KB (324,096 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\scesrv.dll
authz 5.2.3790.0 (srv03_rtm.030324-2048) 67.00 KB (68,608 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\authz.dll
umpnpgmr 5.2.3790.0 (srv03_rtm.030324-2048) 121.50 KB (124,416
bytes) 3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\umpnpgmr.dll
ncobjapi 5.2.3790.0 (srv03_rtm.030324-2048) 34.50 KB (35,328
bytes) 3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\ncobjapi.dll
eventlog 5.2.3790.0 (srv03_rtm.030324-2048) 60.50 KB (61,952
bytes) 3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\eventlog.dll
lsass 5.2.3790.0 (srv03_rtm.030324-2048) 13.00 KB (13,312 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\lsass.exe
lsasrv 5.2.3790.0 (srv03_rtm.030324-2048) 780.50 KB (799,232 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\lsasrv.dll
samsrv 5.2.3790.0 (srv03_rtm.030324-2048) 452.00 KB (462,848 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\samsrv.dll

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```

cryptdll 5.2.3790.0 (srv03_rtm.030324-2048) 34.00 KB (34,816
bytes) 3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\cryptdll.dll
msprivs 5.2.3790.0 (srv03_rtm.030324-2048) 46.50 KB (47,616 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\msprivs.dll
kerberos 5.2.3790.0 (srv03_rtm.030324-2048) 332.50 KB (340,480
bytes) 3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\kerberos.dll
msvl_0 5.2.3790.0 (srv03_rtm.030324-2048) 127.00 KB (130,048 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\msvl_0.dll
netlogon 5.2.3790.0 (srv03_rtm.030324-2048) 409.00 KB (418,816
bytes) 3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\netlogon.dll
w32time 5.2.3790.0 (srv03_rtm.030324-2048) 216.00 KB (221,184 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\w32time.dll
iphlpapi 5.2.3790.0 (srv03_rtm.030324-2048) 82.50 KB (84,480
bytes) 3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\iphlpapi.dll
schannel 5.2.3790.0 (srv03_rtm.030324-2048) 149.50 KB (153,088
bytes) 3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\schannel.dll
wdigest 5.2.3790.0 (srv03_rtm.030324-2048) 61.00 KB (62,464 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\wdigest.dll
rassfm 5.2.3790.0 (srv03_rtm.030324-2048) 20.50 KB (20,992 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\rassfm.dll
kdcsvc 5.2.3790.0 (srv03_rtm.030324-2048) 221.00 KB (226,304 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\kdcsvc.dll
ntdsa 5.2.3790.0 (srv03_rtm.030324-2048) 1.45 MB (1,520,640 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\ntdsa.dll
ntdsatq 5.2.3790.0 (srv03_rtm.030324-2048) 32.00 KB (32,768 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\ntdsatq.dll
mswsock 5.2.3790.0 (srv03_rtm.030324-2048) 254.00 KB (260,096 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\mswsock.dll
esent 5.2.3790.0 (srv03_rtm.030324-2048) 1.01 MB (1,056,256 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\esent.dll
scecli 5.2.3790.0 (srv03_rtm.030324-2048) 179.50 KB (183,808 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\scecli.dll
pstorsvc 5.2.3790.0 (srv03_rtm.030324-2048) 24.00 KB (24,576
bytes) 3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\pstorsvc.dll
psbase 5.2.3790.0 (srv03_rtm.030324-2048) 81.00 KB (82,944 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\psbase.dll
wshtcpip 5.2.3790.0 (srv03_rtm.030324-2048) 18.00 KB (18,432
bytes) 3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\wshtcpip.dll

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dssenh 5.2.3790.0 (srv03_rtm.030324-2048) 131.33 KB (134,480 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\dssenh.dll
svchost 5.2.3790.0 (srv03_rtm.030324-2048) 13.00 KB (13,312 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\svchost.exe
rpcss 5.2.3790.0 (srv03_rtm.030324-2048) 276.50 KB (283,136 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\rpcss.dll
gnconmgr 4.2.0.75 168.05 KB (172,079 bytes) 5/22/2003 7:32
AM Giganet Incorporated c:\windows\system32\gnconmgr.exe
vipl 4.2.0.75 80.00 KB (81,920 bytes) 5/22/2003 7:32 AM
Giganet Incorporated c:\windows\system32\vipl.dll
wkssvc 5.2.3790.0 (srv03_rtm.030324-2048) 125.00 KB (128,000 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\wkssvc.dll
dmserver 5.2.3790.0 (srv03_rtm.030324-2048) 24.00 KB (24,576
bytes) 3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\dmserver.dll
es 2001.12.4720.0 (srv03_rtm.030324-2048) 221.50 KB (226,816
bytes) 3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\es.dll
srvsvc 5.2.3790.0 (srv03_rtm.030324-2048) 89.00 KB (91,136 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\srvsvc.dll
wmisvc 5.2.3790.0 (srv03_rtm.030324-2048) 131.00 KB (134,144 bytes)
5/19/2003 1:57 PM Microsoft Corporation
c:\windows\system32\wbem\wmisvc.dll
vssapi 5.2.3790.0 (srv03_rtm.030324-2048) 528.00 KB (540,672 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\vssapi.dll
atl 3.05.2283 83.00 KB (84,992 bytes) 3/25/2003 4:00 AM
Microsoft Corporation c:\windows\system32\atl.dll
sens 5.2.3790.0 (srv03_rtm.030324-2048) 35.50 KB (36,352 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\sens.dll
comsvcs 2001.12.4720.0 (srv03_rtm.030324-2048) 1.14 MB (1,199,616
bytes) 5/19/2003 1:57 PM Microsoft Corporation
c:\windows\system32\comsvcs.dll
wbemcore 5.2.3790.0 (srv03_rtm.030324-2048) 457.00 KB (467,968
bytes) 5/19/2003 1:57 PM Microsoft Corporation
c:\windows\system32\wbem\wbemcore.dll
esscli 5.2.3790.0 (srv03_rtm.030324-2048) 235.50 KB (241,152 bytes)
5/19/2003 1:57 PM Microsoft Corporation
c:\windows\system32\wbem\esscli.dll
wmiutils 5.2.3790.0 (srv03_rtm.030324-2048) 90.50 KB (92,672
bytes) 5/19/2003 1:57 PM Microsoft Corporation
c:\windows\system32\wbem\wmiutils.dll
repdrvfs 5.2.3790.0 (srv03_rtm.030324-2048) 165.00 KB (168,960
bytes) 5/19/2003 1:57 PM Microsoft Corporation
c:\windows\system32\wbem\repdrvfs.dll
wmiprvsd 5.2.3790.0 (srv03_rtm.030324-2048) 405.50 KB (415,232
bytes) 5/19/2003 1:57 PM Microsoft Corporation
c:\windows\system32\wbem\wmiprvsd.dll
wbemess 5.2.3790.0 (srv03_rtm.030324-2048) 256.50 KB (262,656 bytes)
5/19/2003 1:57 PM Microsoft Corporation
c:\windows\system32\wbem\wbemess.dll

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ncprov 5.2.3790.0 (srv03_rtm.030324-2048) 43.00 KB (44,032 bytes)
5/19/2003 1:57 PM Microsoft Corporation
c:\windows\system32\wbem\ncprov.dll

wiarpc 5.2.3790.0 (srv03_rtm.030324-2048) 30.00 KB (30,720 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\wiarpc.dll

netman 5.2.3790.0 (srv03_rtm.030324-2048) 209.00 KB (214,016 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\netman.dll

mprapi 5.2.3790.0 (srv03_rtm.030324-2048) 81.00 KB (82,944 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\mprapi.dll

activeds 5.2.3790.0 (srv03_rtm.030324-2048) 189.00 KB (193,536 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\activeds.dll

adsldpc 5.2.3790.0 (srv03_rtm.030324-2048) 142.50 KB (145,920 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\adsldpc.dll

credui 5.2.3790.0 (srv03_rtm.030324-2048) 159.00 KB (162,816 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\credui.dll

rtutils 5.2.3790.0 (srv03_rtm.030324-2048) 32.00 KB (32,768 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\rtutils.dll

rasapi32 5.2.3790.0 (srv03_rtm.030324-2048) 227.50 KB (232,960 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\rasapi32.dll

rasman 5.2.3790.0 (srv03_rtm.030324-2048) 56.50 KB (57,856 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\rasman.dll

tapi32 5.2.3790.0 (srv03_rtm.030324-2048) 175.00 KB (179,200 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\tapi32.dll

wzcsvc 5.2.3790.0 (srv03_rtm.030324-2048) 272.50 KB (279,040 bytes)
3/25/2003 4:15 AM Microsoft Corporation
c:\windows\system32\wzcsvc.dll

wmi 5.2.3790.0 (srv03_rtm.030324-2048) 6.50 KB (6,656 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\wmi.dll

dhcpcsvc 5.2.3790.0 (srv03_rtm.030324-2048) 101.50 KB (103,936 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\dhcpcsvc.dll

wzcsapi 5.2.3790.0 (srv03_rtm.030324-2048) 24.50 KB (25,088 bytes)
3/25/2003 4:15 AM Microsoft Corporation
c:\windows\system32\wzcsapi.dll

netshell 5.2.3790.0 (srv03_rtm.030324-2048) 1.67 MB (1,747,456 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\netshell.dll

clusapi 5.2.3790.0 (srv03_rtm.030324-2048) 56.00 KB (57,344 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\clusapi.dll

hnetcfg 5.2.3790.0 (srv03_rtm.030324-2048) 243.50 KB (249,344 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\hnetcfg.dll

wininet 6.00.3790.0 (srv03_rtm.030324-2048) 609.00 KB (623,616 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\wininet.dll

rasdlg 5.2.3790.0 (srv03_rtm.030324-2048) 642.00 KB (657,408 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\rasdlg.dll

rasadhlp 5.2.3790.0 (srv03_rtm.030324-2048) 6.50 KB (6,656 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\rasadhlp.dll

ntlsapi 5.2.3790.0 (srv03_rtm.030324-2048) 8.00 KB (8,192 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\ntlsapi.dll

pchsvc 5.2.3790.0 (srv03_rtm.030324-2048) 31.50 KB (32,256 bytes)
5/19/2003 2:01 PM Microsoft Corporation
c:\windows\pchealth\helpctr\binaries\pchsvc.dll

wbemcons 5.2.3790.0 (srv03_rtm.030324-2048) 69.00 KB (70,656 bytes)
5/19/2003 1:57 PM Microsoft Corporation
c:\windows\system32\wbem\wbemcons.dll

esconmgr 6.0.3.29 265.02 KB (271,376 bytes) 2/6/2003 5:43 PM
Unisys Corporation c:\windows\system32\esconmgr.exe

explorer 6.00.3790.0 (srv03_rtm.030324-2048) 1,008.50 KB (1,032,704 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\explorer.exe

browseui 6.00.3790.0 (srv03_rtm.030324-2048) 1.01 MB (1,057,280 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\browseui.dll

shdocvw 6.00.3790.0 (srv03_rtm.030324-2048) 1.33 MB (1,393,664 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\shdocvw.dll

apphelp 5.2.3790.0 (srv03_rtm.030324-2048) 122.00 KB (124,928 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\apphelp.dll

themeui 6.00.3790.0 (srv03_rtm.030324-2048) 360.50 KB (369,152 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\themeui.dll

msimg32 5.2.3790.0 (srv03_rtm.030324-2048) 4.50 KB (4,608 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\msimg32.dll

linkinfo 5.2.3790.0 (srv03_rtm.030324-2048) 16.50 KB (16,896 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\linkinfo.dll

ntshruil 6.00.3790.0 (srv03_rtm.030324-2048) 136.00 KB (139,264 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\ntshruil.dll

urlmon 6.00.3790.0 (srv03_rtm.030324-2048) 501.50 KB (513,536 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\urlmon.dll

webcheck 6.00.3790.0 (srv03_rtm.030324-2048) 261.50 KB (267,776 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\webcheck.dll

wsock32 5.2.3790.0 (srv03_rtm.030324-2048) 22.00 KB (22,528 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\wsock32.dll

stobject 5.2.3790.0 (srv03_rtm.030324-2048) 117.50 KB (120,320 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\stobject.dll

batmeter 6.00.3790.0 (srv03_rtm.030324-2048) 28.50 KB (29,184 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\batmeter.dll

powrprof 6.00.3790.0 (srv03_rtm.030324-2048) 14.50 KB (14,848 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\powrprof.dll

printui	5.2.3790.0 (srv03_rtm.030324-2048)	536.50 KB (549,376 bytes)	
	3/25/2003 4:00 AM	Microsoft Corporation	
	c:\windows\system32\printui.dll		
cfgmgr32	5.2.3790.0 (srv03_rtm.030324-2048)	17.50 KB (17,920 bytes)	
	3/25/2003 4:00 AM	Microsoft Corporation	
	c:\windows\system32\cfgmgr32.dll		
drprov	5.2.3790.0 (srv03_rtm.030324-2048)	12.50 KB (12,800 bytes)	
	3/25/2003 4:00 AM	Microsoft Corporation	
	c:\windows\system32\drprov.dll		
ntlanman	5.2.3790.0 (srv03_rtm.030324-2048)	41.00 KB (41,984 bytes)	
	3/25/2003 4:00 AM	Microsoft Corporation	
	c:\windows\system32\ntlanman.dll		
netui0	5.2.3790.0 (srv03_rtm.030324-2048)	75.50 KB (77,312 bytes)	
	3/25/2003 4:00 AM	Microsoft Corporation	
	c:\windows\system32\netui0.dll		
netuil	5.2.3790.0 (srv03_rtm.030324-2048)	184.00 KB (188,416 bytes)	
	3/25/2003 4:00 AM	Microsoft Corporation	
	c:\windows\system32\netuil.dll		
davclnt	5.2.3790.0 (srv03_rtm.030324-2048)	23.50 KB (24,064 bytes)	
	3/25/2003 4:00 AM	Microsoft Corporation	
	c:\windows\system32\davclnt.dll		
browsei	6.00.3790.0 (srv03_rtm.030324-2048)	62.00 KB (63,488 bytes)	
	3/25/2003 4:00 AM	Microsoft Corporation	
	c:\windows\system32\browsei.dll		
shdoclc	6.00.3790.0 (srv03_rtm.030324-2048)	588.50 KB (602,624 bytes)	
	3/25/2003 4:00 AM	Microsoft Corporation	
	c:\windows\system32\shdoclc.dll		
cmd	5.2.3790.0 (srv03_rtm.030324-2048)	374.00 KB (382,976 bytes)	
	3/25/2003 4:00 AM	Microsoft Corporation	
	c:\windows\system32\cmd.exe		
sqlservr	2000.080.0761.00	7.10 MB (7,446,568 bytes)	
	5/22/2003 5:39 PM	Microsoft Corporation	
	c:\sql80\sqlbuilds\02_07_03_qfe_128awe\sqlservr.exe		
opends60	2000.080.0194.00	24.06 KB (24,639 bytes)	
	5/22/2003 4:47 PM	Microsoft Corporation	
	c:\sql80\mssql\binn\opends60.dll		
ums	2000.080.0760.00	52.55 KB (53,808 bytes)	5/22/2003 4:47 PM
	Microsoft Corporation	c:\sql80\mssql\binn\ums.dll	
sqlsort	2000.080.0760.00	576.56 KB (590,396 bytes)	5/22/2003 4:47 PM
	Microsoft Corporation	c:\sql80\mssql\binn\sqlsort.dll	
msvcirt	7.0.3790.0 (srv03_rtm.030324-2048)	50.00 KB (51,200 bytes)	
	3/25/2003 4:00 AM	Microsoft Corporation	
	c:\windows\system32\msvcirt.dll		
sqllevn70	2000.080.0760.00	28.00 KB (28,672 bytes)	
	5/22/2003 4:47 PM	Microsoft Corporation	
	c:\sql80\mssql\binn\resources\1033\sqllevn70.rll		
xolehlp	2001.12.4720.0 (srv03_rtm.030324-2048)	8.50 KB (8,704 bytes)	
	5/19/2003 1:57 PM	Microsoft Corporation	
	c:\windows\system32\xolehlp.dll		
msdtcprx	2001.12.4720.0 (srv03_rtm.030324-2048)	427.50 KB (437,760 bytes)	
	5/19/2003 1:57 PM	Microsoft Corporation	
	c:\windows\system32\msdtcprx.dll		
mtxclu	2001.12.4720.0 (srv03_rtm.030324-2048)	74.50 KB (76,288 bytes)	
	3/25/2003 4:00 AM	Microsoft Corporation	
	c:\windows\system32\mtxclu.dll		
resutils	5.2.3790.0 (srv03_rtm.030324-2048)	59.00 KB (60,416 bytes)	
	3/25/2003 4:00 AM	Microsoft Corporation	
	c:\windows\system32\resutils.dll		
mfc42u	6.05.3014.0	960.00 KB (983,040 bytes)	3/25/2003 4:00 AM
	Microsoft Corporation	c:\windows\system32\mfc42u.dll	
winrnr	5.2.3790.0 (srv03_rtm.030324-2048)	15.00 KB (15,360 bytes)	
	3/25/2003 4:00 AM	Microsoft Corporation	
	c:\windows\system32\winrnr.dll		
ssnetlib	2000.080.0760.00	80.56 KB (82,492 bytes)	
	5/22/2003 4:47 PM	Microsoft Corporation	
	c:\sql80\mssql\binn\ssnetlib.dll		
ssnmpn70	2000.080.0534.00	24.56 KB (25,148 bytes)	
	5/22/2003 4:47 PM	Microsoft Corporation	
	c:\sql80\mssql\binn\ssnmpn70.dll		
security	5.2.3790.0 (srv03_rtm.030324-2048)	5.50 KB (5,632 bytes)	
	3/25/2003 4:00 AM	Microsoft Corporation	
	c:\windows\system32\security.dll		
ssmslpcn	2000.080.0760.00	28.56 KB (29,244 bytes)	
	5/22/2003 4:47 PM	Microsoft Corporation	
	c:\sql80\mssql\binn\ssmslpcn.dll		
ssmsgnet	2000.080.0382.00	32.56 KB (33,340 bytes)	
	5/22/2003 4:48 PM	Microsoft Corporation	
	c:\sql80\mssql\binn\ssmsgnet.dll		
helpctr	5.2.3790.0 (srv03_rtm.030324-2048)	764.00 KB (782,336 bytes)	
	5/19/2003 2:01 PM	Microsoft Corporation	
	c:\windows\pchealth\helpctr\binaries\helpctr.exe		
hcappres	5.2.3790.0 (srv03_rtm.030324-2048)	6.50 KB (6,656 bytes)	
	5/19/2003 2:01 PM	Microsoft Corporation	
	c:\windows\pchealth\helpctr\binaries\hcappres.dll		
itss	5.2.3790.0 (srv03_rtm.030324-2048)	119.50 KB (122,368 bytes)	
	3/25/2003 4:00 AM	Microsoft Corporation	
	c:\windows\system32\itss.dll		
msxml3	8.40.9419.0	1.28 MB (1,337,344 bytes)	3/25/2003 4:00 AM
	Microsoft Corporation	c:\windows\system32\msxml3.dll	
pchshell	5.2.3790.0 (srv03_rtm.030324-2048)	100.50 KB (102,912 bytes)	
	5/19/2003 2:01 PM	Microsoft Corporation	
	c:\windows\pchealth\helpctr\binaries\pchshell.dll		
mlang	6.00.3790.0 (srv03_rtm.030324-2048)	570.00 KB (583,680 bytes)	
	3/25/2003 4:00 AM	Microsoft Corporation	
	c:\windows\system32\mlang.dll		
mshtml	6.00.3790.0 (srv03_rtm.030324-2048)	2.78 MB (2,916,352 bytes)	
	3/25/2003 4:00 AM	Microsoft Corporation	
	c:\windows\system32\mshtml.dll		
msimtf	5.2.3790.0 (srv03_rtm.030324-2048)	149.00 KB (152,576 bytes)	
	3/25/2003 4:00 AM	Microsoft Corporation	
	c:\windows\system32\msimtf.dll		
msctf	5.2.3790.0 (srv03_rtm.030324-2048)	287.00 KB (293,888 bytes)	
	3/25/2003 4:00 AM	Microsoft Corporation	
	c:\windows\system32\msctf.dll		
jscrip	5.6.0.8515	436.00 KB (446,464 bytes)	3/25/2003 4:00 AM
	Microsoft Corporation	c:\windows\system32\jscrip.dll	
msls31	3.10.349.0	147.00 KB (150,528 bytes)	3/25/2003 4:00 AM
	Microsoft Corporation	c:\windows\system32\msls31.dll	
imm32	5.2.3790.0 (srv03_rtm.030324-2048)	105.50 KB (108,032 bytes)	
	3/25/2003 4:00 AM	Microsoft Corporation	
	c:\windows\system32\imm32.dll		
mshtml	6.00.3790.0 (srv03_rtm.030324-2048)	443.50 KB (454,144 bytes)	
	3/25/2003 4:00 AM	Microsoft Corporation	
	c:\windows\system32\mshtml.dll		
vbscript	5.6.0.8515	404.00 KB (413,696 bytes)	3/25/2003 4:00 AM
	Microsoft Corporation	c:\windows\system32\vbscript.dll	

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mfc42 6.05.3014.0 960.00 KB (983,040 bytes) 3/25/2003 4:00 AM
Microsoft Corporation c:\windows\system32\mfc42.dll
msinfo 5.2.3790.0 (srv03_rtm.030324-2048) 358.50 KB (367,104 bytes)
5/19/2003 2:01 PM Microsoft Corporation
c:\windows\pchealth\helpctr\binaries\msinfo.dll
comdlg32 6.00.3790.0 (srv03_rtm.030324-2048) 261.00 KB (267,264
bytes) 3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\comdlg32.dll
riched32 5.2.3790.0 (srv03_rtm.030324-2048) 3.50 KB (3,584 bytes)
3/25/2003 4:00 AM Microsoft Corporation
c:\windows\system32\riched32.dll
riched20 5.31.23.1218 406.00 KB (415,744 bytes) 3/25/2003 4:00
AM Microsoft Corporation c:\windows\system32\riched20.dll
helpsvc 5.2.3790.0 (srv03_rtm.030324-2048) 720.00 KB (737,280 bytes)
5/19/2003 2:01 PM Microsoft Corporation
c:\windows\pchealth\helpctr\binaries\helpsvc.exe

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[Services]

Display Name	Name	State	Start Mode	Service Type	Path	Error
Control Start Name	Name	Tag ID				
Alerter	Alerter	Stopped Disabled		Share Process		
	c:\windows\system32\svchost.exe -k localservice			Normal NT		
AUTHORITY\LocalService	0					
Application Layer Gateway Service		ALG	Stopped Manual	Own Process		
	c:\windows\system32\alg.exe	Normal NT		AUTHORITY\LocalService		
0						
Application Management AppMgmt		Stopped Manual	Share Process			
	c:\windows\system32\svchost.exe -k netsvcs	Normal		LocalSystem		
0						
Windows Audio	AudioSrv	Stopped Disabled		Share Process		
	c:\windows\system32\svchost.exe -k netsvcs	Normal		LocalSystem		
0						
Background Intelligent Transfer Service		BITS	Stopped Manual	Share		
Process	c:\windows\system32\svchost.exe -k netsvcs	Normal		LocalSystem		
0						
Computer Browser	Browser	Stopped Manual	Share Process			
	c:\windows\system32\svchost.exe -k netsvcs	Normal		LocalSystem		
0						
Indexing Service	CiSvc	Stopped Disabled		Share Process		
	c:\windows\system32\cisvc.exe	Normal		LocalSystem	0	
ClipBook	ClipSrv	Stopped Disabled		Own Process		
	c:\windows\system32\clipsrv.exe	Normal		LocalSystem	0	
COM+ System Application	COMSysApp	Stopped Manual	Own Process			
	c:\windows\system32\dlhhost.exe /processid:{02d4b3f1-fd88-11d1-960d-00805fc79235}	Normal		LocalSystem	0	
Cryptographic Services	CryptSvc	Stopped Manual	Share Process			
	c:\windows\system32\svchost.exe -k netsvcs	Normal		LocalSystem		
0						
Distributed File System	Dfs	Stopped Manual	Own Process			
	c:\windows\system32\dfssvc.exe	Normal		LocalSystem	0	
DHCP Client	Dhcp	Stopped Disabled		Share Process		
	c:\windows\system32\svchost.exe -k networkservice	Normal		NT		
AUTHORITY\NetworkService	0					
Logical Disk Manager Administrative Service	dmdmadmin	Stopped Manual	Share			
Process	c:\windows\system32\dmdmadmin.exe /com	Normal		LocalSystem	0	

Logical Disk Manager	dmserv	Running Auto	Share Process			
	c:\windows\system32\svchost.exe -k netsvcs	Normal		LocalSystem		
0						
DNS Client	Dnscache	Stopped Manual	Share Process			
	c:\windows\system32\svchost.exe -k networkservice	Normal		NT		
AUTHORITY\NetworkService	0					
Error Reporting Service	ERSvc	Stopped Manual	Share Process			
	c:\windows\system32\svchost.exe -k winerr	Ignore		LocalSystem		
0						
Console Manager Network Connection Co-Installer		ESCOINST				
	Stopped Manual	Own Process				
	c:\windows\system32\escoinst.dll	Normal		LocalSystem	0	
Console Manager	ESCONMGR	Running Auto	Own Process			
	c:\windows\system32\esconmgr.exe	Normal		LocalSystem	0	
Event Log	Eventlog	Running Auto	Share Process			
	c:\windows\system32\services.exe	Normal		LocalSystem	0	
COM+ Event System	EventSystem	Running Manual	Share Process			
	c:\windows\system32\svchost.exe -k netsvcs	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						
HTTP SSL	HTTPFilter	Stopped Manual	Share Process			
	c:\windows\system32\lsass.exe	Normal		LocalSystem	0	
IMAPI CD-Burning COM Service	ImapiService	Stopped Disabled		Own		
Process	c:\windows\system32\imapi.exe	Normal		LocalSystem	0	
Intersite Messaging	IsmServ	Stopped Disabled		Own Process		
	c:\windows\system32\ismsserv.exe	Normal		LocalSystem	0	
Kerberos Key Distribution Center	kdc	Stopped Disabled		Share		
Process	c:\windows\system32\lsass.exe	Normal		LocalSystem	0	
Server lanmanserver	Running Auto	Share Process				
	c:\windows\system32\svchost.exe -k netsvcs	Normal		LocalSystem		
0						
Workstation	lanmanworkstation	Running Auto	Share Process			
	c:\windows\system32\svchost.exe -k netsvcs	Normal		LocalSystem		
0						
License Logging	LicenseService	Stopped Disabled		Own Process		
	c:\windows\system32\llssrv.exe	Normal		NT		
AUTHORITY\NetworkService	0					
TCP/IP NetBIOS Helper	LmHosts	Stopped Manual	Share Process			
	c:\windows\system32\svchost.exe -k localservice	Normal		NT		
AUTHORITY\LocalService	0					
Messenger	Messenger	Stopped Disabled		Share Process		
	c:\windows\system32\svchost.exe -k netsvcs	Normal		LocalSystem		
0						
NetMeeting Remote Desktop Sharing	mnmsrvc	Stopped Disabled		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 MSI Server 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

MSSQLServerADHelper MSSQLServerADHelper Stopped Manual Own Process
 c:\program files\microsoft sql server\80\tools\bin\sqladhlp.exe Normal LocalSystem 0

Network DDE NetDDE Stopped Disabled Share Process
 c:\windows\system32\netdde.exe Normal LocalSystem 0

Network DDE DSDM NetDDEdsdm Stopped Disabled Share Process
 c:\windows\system32\netdde.exe Normal LocalSystem 0

Net Logon Netlogon Stopped Manual Share Process
 c:\windows\system32\lsass.exe Normal LocalSystem 0

Network Connections Netman Running Manual Share Process
 c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

Network Location Awareness (NLA) Nla Running Manual Share Process
 c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

File Replication NtFrs Stopped Manual Own Process
 c:\windows\system32\ntfrs.exe Ignore LocalSystem 0

NT LM Security Support Provider NtLmSsp Stopped Manual Share Process
 c:\windows\system32\lsass.exe Normal LocalSystem 0

Removable Storage NtmsSvc Stopped Manual Share Process
 c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

Plug and Play PlugPlay Running Auto Share Process
 c:\windows\system32\services.exe Normal LocalSystem 0

IPSEC Services PolicyAgent Stopped Manual Share Process
 c:\windows\system32\lsass.exe Normal LocalSystem 0

Protected Storage ProtectedStorage Running Auto Share Process
 c:\windows\system32\lsass.exe Normal LocalSystem 0

Remote Access Auto Connection Manager RasAuto Stopped Manual Share Process
 c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

Remote Access Connection Manager RasMan 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

Special Administration Console Helper sacsvr Stopped Manual Share Process
 c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

Security Accounts Manager SamSs Running Auto Share Process
 c:\windows\system32\lsass.exe Normal LocalSystem 0

Smart Card SCardSvr Stopped Manual Share Process
 c:\windows\system32\scardsvr.exe Ignore NT AUTHORITY\LocalService 0

Task Scheduler Schedule Stopped Manual Share Process
 c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

Secondary Logon seclogon Stopped Manual Share Process
 c:\windows\system32\svchost.exe -k netsvcs Ignore LocalSystem 0

System Event Notification SENS Running Auto Share Process
 c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

Shell Hardware Detection ShellHWDetection Running Auto Share Process
 c:\windows\system32\svchost.exe -k netsvcs Ignore LocalSystem 0

Print Spooler Spooler Stopped Manual Own Process
 c:\windows\system32\spoolsv.exe Normal LocalSystem 0

SQLSERVERAGENT SQLSERVERAGENT Stopped Manual Own Process
 c:\sql80\mssql\bin\sqlagent.exe Normal LocalSystem 0

Windows Image Acquisition (WIA) stisvc Stopped Disabled Share Process
 c:\windows\system32\svchost.exe -k imgsvc Normal NT AUTHORITY\LocalService 0

Microsoft Software Shadow Copy Provider swprv Stopped Manual Own Process
 c:\windows\system32\svchost.exe -k swprv Normal LocalSystem 0

Performance Logs and Alerts SysmonLog Stopped Manual Own Process
 c:\windows\system32\smlogsvc.exe Normal NT AUTHORITY\NetworkService 0

Telephony TapiSrv 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 Disabled Own Process
 c:\windows\system32\tlntsvr.exe Normal NT AUTHORITY\LocalService 0

Distributed Link Tracking Server TrkSvr Stopped Disabled Share Process
 c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

Distributed Link Tracking Client TrkWks Stopped Manual Share Process
 c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0

```

Terminal Services Session Directory Tssdis Stopped Disabled Own
Process c:\windows\system32\tssdis.exe Normal LocalSystem 0

Upload Manager uploadmgr Stopped Disabled 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

Virtual Disk Service vds Stopped Manual Own Process
c:\windows\system32\vds.exe Normal LocalSystem 0

Volume Shadow Copy VSS Stopped Manual Own Process
c:\windows\system32\vssvc.exe Normal LocalSystem 0

Windows Time W32Time Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem
0

WebClient WebClient Stopped Disabled Share Process
c:\windows\system32\svchost.exe -k localservice Normal NT
AUTHORITY\LocalService 0

WinHTTP Web Proxy Auto-Discovery Service WinHttpAutoProxySvc
Stopped Manual Share Process c:\windows\system32\svchost.exe -k
localservice Normal NT AUTHORITY\LocalService 0

Windows Management Instrumentation winmgmt Running Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs Ignore LocalSystem
0

Portable Media Serial Number Service WmdmPmSN Stopped Manual Share
Process c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem
0

Windows Management Instrumentation Driver Extensions Wmi Stopped Manual
Share Process c:\windows\system32\svchost.exe -k netsvcs Normal
LocalSystem 0

WMI Performance Adapter WmiApSrv Stopped Manual Own Process
c:\windows\system32\wbem\wmiapsrv.exe Normal LocalSystem 0

Automatic Updates wuauclt Stopped Disabled Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem
0

Wireless Configuration WZCSVC Stopped Disabled Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem
0

```

[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
Microsoft SQL Server - Switch All Users:Microsoft SQL Server - Switch
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-BOBDYLAN\Administrator:Accessories MV-
BOBDYLAN\Administrator
Accessories\Accessibility MV-
BOBDYLAN\Administrator:Accessories\Accessibility MV-
BOBDYLAN\Administrator
Accessories\Entertainment MV-
BOBDYLAN\Administrator:Accessories\Entertainment MV-
BOBDYLAN\Administrator
Administrative Tools MV-BOBDYLAN\Administrator:Administrative Tools
MV-BOBDYLAN\Administrator
Startup MV-BOBDYLAN\Administrator:Startup MV-BOBDYLAN\Administrator

```

[Startup Programs]

```

Program Command User Name Location
desktop desktop.ini NT AUTHORITY\SYSTEM Startup
desktop desktop.ini MV-BOBDYLAN\Administrator Startup
desktop desktop.ini .DEFAULT Startup
desktop desktop.ini All Users Common Startup
KernelFaultCheck %systemroot%\system32\dumprep 0 -k 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"

Windows Media Services DRM Storage object Not Available
Bitmap Image mspaint.exe

```

[Windows Error Reporting]

```

Time Type Details

```

[Internet Settings]

[Internet Explorer]

[Following are sub-categories of this main category]
[Summary]

Item Value
Version 6.0.3790.0
Build 63790
Application Path C:\Program Files\Internet Explorer
Language English (United States)
Active Printer Not Available

Cipher Strength 128-bit
Content Advisor Disabled
IEAK Install No

[File Versions]

File	Version	Size	Date	Path	Company
actxprxy.dll	6.0.3790.0	95 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
advpack.dll	6.0.3790.0	94 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
asctrls.ocx	6.0.3790.0	90 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
browseui.dll	6.0.3790.0	62 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
browseui.dll	6.0.3790.0	1,033 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
cdfview.dll	6.0.3790.0	144 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
comctl32.dll	5.82.3790.0	561 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
dxtmsft.dll	6.3.3790.0	198 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
dxtmsft.dll	6.3.3790.0	344 KB	3/25/2003 5:00:00 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	16.0.3790.0	300 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
iepeers.dll	6.0.3790.0	230 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
iesetup.dll	6.0.3790.0	59 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
ieuinit.inf	Not Available	20 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Not Available
ieexplore.exe	6.0.3790.0	90 KB	3/25/2003 5:00:00 AM	C:\Program Files\Internet Explorer	Microsoft Corporation
imgutil.dll	5.2.3790.0	35 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
inetcpl.cpl	6.0.3790.0	303 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
inetcplc.dll	6.0.3790.0	109 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation

inseng.dll	6.0.3790.0	72 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
mlang.dll	6.0.3790.0	570 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
msencode.dll	2002.10.4.0	112 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Not Available
mshta.exe	6.0.3790.0	26 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
mshtml.dll	6.0.3790.0	2,848 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
mshtml.tlb	6.0.3790.0	1,319 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
mshtml.dll	6.0.3790.0	444 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
mshtml.dll	6.0.3790.0	55 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
mshtml.dll	6.0.3790.0	47 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
mshtml.dll	6.0.3790.0	15 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
msieftp.dll	6.0.3790.0	230 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
msrating.dll	6.0.3790.0	132 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
mstime.dll	6.0.3790.0	491 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
occache.dll	6.0.3790.0	89 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
proctexe.ocx	6.3.3790.0	78 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Intel Corporation
sendmail.dll	6.0.3790.0	52 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
shdoclc.dll	6.0.3790.0	589 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
shdocvw.dll	6.0.3790.0	1,361 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
shfolder.dll	6.0.3790.0	23 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
shlwapi.dll	6.0.3790.0	281 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
tdc.ocx	1.3.0.3130	58 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
url.dll	6.0.3790.0	36 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
urlmon.dll	6.0.3790.0	502 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
webcheck.dll	6.0.3790.0	262 KB	3/25/2003 5:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
wininet.dll	6.0.3790.0	609 KB	3/25/2003 5:00:00 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\LocalService\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: 6/18/2003 - 9:21 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\cLAN Management
Console
Class Name: <NO CLASS>
Last Write Time: 5/22/2003 - 5:43 PM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\cLAN Management
Console\1.00.000
Class Name: <NO CLASS>
Last Write Time: 5/22/2003 - 5:43 PM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\0
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\0\BeginModify
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM
Value 0
Name: <NO NAME>
Type: REG_SZ
Data: 09:21:42

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\0\Fabric
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\0\LastModified
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM
Value 0
Name: <NO NAME>
Type: REG_SZ
Data: 09:21:42

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\0\NodeList
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\0\NodeList\Node0
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM

Value 0
Name: Name
Type: REG_SZ
Data: MV-BOBDYLAN

Value 1
Name: NICName
Type: REG_SZ
Data: gnivia0

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\0\NodeList\Node2
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 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: 0090FA001CB5

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: 6/18/2003 - 9:21 AM

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\1\BeginModify
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM

Value 0
Name: <NO NAME>
Type: REG_SZ
Data: 09:21:42

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\1\Fabric
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\1\LastModified
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM

Value 0
Name: <NO NAME>
Type: REG_SZ
Data: 09:21:42

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\1\NodeList
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\1\NodeList\Node0
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM

Value 0
Name: Name
Type: REG_SZ
Data: MV-BOBDYLAN

Value 1
Name: NICName
Type: REG_SZ
Data: gnivial

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\1\NodeList\Node2
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 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: 0090FA001D14

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: 6/18/2003 - 9:21 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\2\BeginModify
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM

Value 0
Name: <NO NAME>
Type: REG_SZ
Data: 09:21:42

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\2\Fabric
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\2\LastModified
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM

Value 0
Name: <NO NAME>
Type: REG_SZ
Data: 09:21:42

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\2\NodeList
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\2\NodeList\Node0
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM

Value 0
Name: Name
Type: REG_SZ
Data: MV-BOBDYLAN

Value 1
 Name: NICName
 Type: REG_SZ
 Data: gnivia2

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: n2

Value 6
 Name: NodeNumber
 Type: REG_DWORD
 Data: 0x1

Key Name:
 HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\2\NodeList\Node2
 Class Name: <NO CLASS>
 Last Write Time: 6/18/2003 - 9:21 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: 0090FA001D1D

Value 3
 Name: MediaType
 Type: REG_SZ
 Data:

Value 4
 Name: State
 Type: REG_DWORD
 Data:

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\3
 Class Name: <NO CLASS>
 Last Write Time: 6/18/2003 - 9:21 AM

Key Name:
 HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\3\BeginModify
 Class Name: <NO CLASS>
 Last Write Time: 6/18/2003 - 9:21 AM

Value 0
 Name: <NO NAME>
 Type: REG_SZ
 Data: 09:21:42

Key Name:
 HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\3\Fabric
 Class Name: <NO CLASS>
 Last Write Time: 6/18/2003 - 9:21 AM

Key Name:
 HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\3>LastModified
 Class Name: <NO CLASS>
 Last Write Time: 6/18/2003 - 9:21 AM

Value 0
 Name: <NO NAME>
 Type: REG_SZ
 Data: 09:21:42

Key Name:
 HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\3\NodeList
 Class Name: <NO CLASS>
 Last Write Time: 6/18/2003 - 9:21 AM

Key Name:
 HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\3\NodeList\Node0
 Class Name: <NO CLASS>
 Last Write Time: 6/18/2003 - 9:21 AM

Value 0
 Name: Name
 Type: REG_SZ
 Data: MV-BOBDYLAN

Value 1
 Name: NICName
 Type: REG_SZ
 Data:

Data: gnivia3

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\3\NodeList\Node2
 Class Name: <NO CLASS>
 Last Write Time: 6/18/2003 - 9:21 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: 0090FA001D12

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: nl

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: 6/18/2003 - 9:21 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\4\BeginModify
 Class Name: <NO CLASS>
 Last Write Time: 6/18/2003 - 9:21 AM

Value 0
 Name: <NO NAME>
 Type: REG_SZ
 Data: 09:21:42

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\4\Fabric
 Class Name: <NO CLASS>
 Last Write Time: 6/18/2003 - 9:21 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\4\LastModified
 Class Name: <NO CLASS>
 Last Write Time: 6/18/2003 - 9:21 AM

Value 0
 Name: <NO NAME>
 Type: REG_SZ
 Data: 09:21:42

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\4\NodeList
 Class Name: <NO CLASS>
 Last Write Time: 6/18/2003 - 9:21 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\4\NodeList\Node0
 Class Name: <NO CLASS>
 Last Write Time: 6/18/2003 - 9:21 AM

Value 0
 Name: Name
 Type: REG_SZ
 Data: MV-BOBDYLAN

Value 1
 Name: NICName
 Type: REG_SZ
 Data: gnivia4

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: 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: 6/18/2003 - 9:21 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: 0090FA001D11

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: 6/18/2003 - 9:21 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\5\BeginModify
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM

Value 0
Name: <NO NAME>
Type: REG_SZ
Data: 09:21:42

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\5\Fabric
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\5\LastModified
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM

Value 0
Name: <NO NAME>
Type: REG_SZ
Data: 09:21:42

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\5\NodeList
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\5\NodeList\Node0
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM

Value 0
Name: Name
Type: REG_SZ
Data: MV-BOBDYLAN

Value 1
Name: NICName
Type: REG_SZ
Data: gnivia5

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: 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: 6/18/2003 - 9:21 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: 0090FA001CD7

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: 6/18/2003 - 9:21 AM

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\6\BeginModify
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM
Value 0
Name: <NO NAME>
Type: REG_SZ
Data: 09:21:42

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\6\Fabric
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\6>LastModified
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM
Value 0
Name: <NO NAME>
Type: REG_SZ
Data: 09:21:42

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\6\NodeList
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\6\NodeList\Node0
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM
Value 0
Name: Name
Type: REG_SZ
Data: MV-BOBDYLAN

Value 1
Name: NICName
Type: REG_SZ
Data: gnivia6

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: 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: 6/18/2003 - 9:21 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: 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: 6/18/2003 - 9:21 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\7\BeginModify
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM

Value 0
Name: <NO NAME>
Type: REG_SZ
Data: 09:21:42

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\7\Fabric
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\7\LastModified
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM

Value 0
Name: <NO NAME>
Type: REG_SZ
Data: 09:21:42

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\7\NodeList
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Giganet\GniConMgrMgmt2\7\NodeList\Node0
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM

Value 0
Name: Name
Type: REG_SZ
Data: MV-BOBDYLAN

Value 1
Name: NICName
Type: REG_SZ
Data: gnivia7

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\7\NodeList\Node2
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 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: 0090FA001CBB

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\LastModified
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:21 AM
Value 0
Name: <NO NAME>
Type: REG_SZ
Data: 09:21:40

Software\Microsoft\MSSQLServer

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer
Class Name: <NO CLASS>
Last Write Time: 5/22/2003 - 4:49 PM

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client
Class Name: <NO CLASS>
Last Write Time: 5/22/2003 - 4:49 PM
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: 5/22/2003 - 4:48 PM
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: 5/22/2003 - 4:49 PM
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: 5/22/2003 - 4:55 PM
Value 0
Name: ProtocolOrder
Type: REG_MULTI_SZ
Data: tcp
np

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\SuperSocketNetLib
\LastConnect

Class Name: <NO CLASS>
 Last Write Time: 5/22/2003 - 4:53 PM
 Value 0
 Name: MV-BOBDYLAN
 Type: REG_SZ
 Data: -1040187384:lpc:MV-BOBDYLAN

Key Name:
 HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\SuperSocketNetLib
 \Np
 Class Name: <NO CLASS>
 Last Write Time: 5/22/2003 - 4:49 PM
 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: 5/22/2003 - 4:49 PM
 Value 0
 Name: DefaultPort
 Type: REG_DWORD
 Data: 0x599

Key Name:
 HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\SuperSocketNetLib
 \VIA
 Class Name: <NO CLASS>
 Last Write Time: 5/22/2003 - 4:55 PM
 Value 0
 Name: RecognizedVendors
 Type: REG_SZ
 Data: Giganet,QLogic,ServerNet II

Key Name:
 HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\MSSQLServer
 Class Name: <NO CLASS>
 Last Write Time: 6/24/2003 - 4:02 PM
 Value 0
 Name: ListenOn
 Type: REG_MULTI_SZ
 Data: SSMSSH70
 SSNETLIB

Value 1
 Name: ResourceMgrID
 Type: REG_SZ
 Data: {206764EB-3489-421E-888A-BDA86999C0E6}

Value 2
 Name: SetHostName
 Type: REG_DWORD

Data: 0

Value 3
 Name: AuditLevel
 Type: REG_DWORD
 Data: 0

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-BOBDYLAN

Value 12
 Name: DefaultCollationName
 Type: REG_SZ
 Data: Latin1_General_BIN

Value 13
 Name: uptime_pid
 Type: REG_DWORD
 Data: 0xaf0

Value 14
 Name: uptime_time_utc

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Type:          REG_BINARY
Data:
f6 71 74 a2 a4 3a c3 01 -
                                öqtçµ:Ã.

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\MSSQLServer\CurrentVersion
Class Name:    <NO CLASS>
Last Write Time: 5/22/2003 - 5:02 PM
Value 0
  Name:        checksum
  Type:        REG_BINARY
  Data:
00000000 38 30 32 32 63 31 35 38 - 61 65 37 64 34 63 64 37
8022c158ae7d4cd7
00000010 35 30 64 61 30 33 34 62 - 36 30 31 35 62 65 36 62
50da034b6015be6b
00000020 63 66 63 62 30 64 31 65 - 64 65 31 30 38 36 38 36
cfcb0d1ede108686
00000030 33 62 35 33 30 37 66 35 - 38 34 63 33 65 63 65 39
3b5307f584c3ece9
00000040 34 39 34 64 61 31 36 61 - 38 34 37 38 61 35 38 30
494da16a8478a580
00000050 33 37 33 33 35 61 64 35 - 34 32 62 36 36 64 34 37
37335ad542b66d47
00000060 63 35 38 33 61 35 62 64 - 36 65 34 64 64 31 65 64
c583a5bd6e4dd1ed
00000070 65 31 61 37 65 33 31 63 - 61 65 30 35 32 34 63 34
e1a7e31cae0524c4
00000080 62 30 66 34 33 38 65 39 - 30 63 37 35 65 39 62 39
b0f438e90c75e9b9
00000090 32 38 30 65 32 62 63 66 - 64 63 32 66 37 36 31 64
280e2bcfdc2f761d
32 38 00
                                28.

Value 1
  Name:        RegisteredOwner
  Type:        REG_SZ
  Data:        TRACKS

Value 2
  Name:        SerialNumber
  Type:        REG_DWORD
  Data:        0x81fd0040

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

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Data:          0x300
Value 6
  Name:        CSDVersion
  Type:        REG_SZ
  Data:        8.00.760

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\MSSQLServer\Parameters
Class Name:    <NO CLASS>
Last Write Time: 5/22/2003 - 4:48 PM
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: 5/22/2003 - 4:48 PM
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: 5/22/2003 - 5:49 PM
Value 0
  Name:        ProtocolList
  Type:        REG_MULTI_SZ
  Data:        np
                via

Value 1
  Name:        Encrypt
  Type:        REG_DWORD
  Data:        0

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\MSSQLServer\SuperSocketNetLib\Np
Class Name:    <NO CLASS>

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Last Write Time: 5/22/2003 - 4:48 PM
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: 5/22/2003 - 4:55 PM
Value 0
Name: TcpHideFlag
Type: REG_DWORD
Data: 0

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: 5/22/2003 - 6:30 PM
Value 0
Name: Vendor
Type: REG_SZ
Data: Giganet

Value 1
Name: ListenInfo
Type: REG_SZ
Data: 0:1423[0x00000f00],1:1424[0x0000f000],2:1427[0x0f000000],3:1428[0xf0000000],4:1425[0x000f0000],5:1426[0x00f00000],6:1421[0x0000000f],7:1422[0x000000f0]

Value 2
Name: RecognizedVendors
Type: REG_MULTI_SZ
Data: Giganet
ServerNet II
QLogic

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Providers
Class Name: <NO CLASS>
Last Write Time: 5/22/2003 - 4:49 PM

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: 5/22/2003 - 4:49 PM

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: 5/22/2003 - 4:49 PM

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: 5/22/2003 - 4:49 PM

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: 5/22/2003 - 4:49 PM

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: 5/22/2003 - 4:49 PM

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: 5/22/2003 - 4:49 PM
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: 5/22/2003 - 4:49 PM
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: 5/22/2003 - 4:49 PM
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: 5/22/2003 - 4:49 PM
Value 0
Name: AllowInProcess
Type: REG_DWORD
Data: 0x1

Value 1
Name: DisallowAdhocAccess
Type: REG_DWORD
Data: 0

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Setup
Class Name: <NO CLASS>
Last Write Time: 5/22/2003 - 5:02 PM
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: \\usmv-host2\shared\systems
analysis\Microsoft\sql_2k_sp3\Sql2ksp3

Value 3
Name: firststart
Type: REG_DWORD
Data: 0

Value 4
Name: Scripts
Type: REG_MULTI_SZ
Data: sp1_serv_uni.sql
80sp1-tools.sql
sp2_serv_uni.sql
80sp2-tools.sql
sp3_serv_uni.sql
80sp3-tools.sql
replsys.sql
replcom.sql
repltran.sql
replmerg.sql
remove_old_msx_accounts.sql

sp_vupgrade_replication:@login=N'sa',@password=N'',@ver_old=194

Value 5
Name: EnableErrorReporting
Type: REG_DWORD
Data: 0

Key Name:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\SQLServerAgent
Class Name: <NO CLASS>
Last Write Time: 5/22/2003 - 4:49 PM

Value 0
Name: JobHistoryMaxRowsPerJob
Type: REG_DWORD
Data: 0x64

Value 1
Name: RestartServer
Type: REG_DWORD
Data: 0x1

Value 2
Name: DownloadedMaxRows
Type: REG_DWORD
Data: 0x64

Value 3
Name: JobHistoryMaxRows
Type: REG_DWORD
Data: 0x3e8

Value 4
Name: ErrorLoggingLevel
Type: REG_DWORD

Data: 0x3

Value 5
 Name: NonAlertableErrors
 Type: REG_SZ
 Data: 1204,4002

Value 6
 Name: MSXServerName
 Type: REG_SZ
 Data:

Value 7
 Name: ServerHost
 Type: REG_SZ
 Data:

Value 8
 Name: WorkingDirectory
 Type: REG_SZ
 Data: C:\sql80\MSSQL\JOBS

Value 9
 Name: ErrorLogFile
 Type: REG_SZ
 Data: C:\sql80\MSSQL\LOG\SQLAGENT.OUT

Value 10
 Name: SysAdminOnly
 Type: REG_DWORD
 Data: 0x1

Key Name:
 HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\SQLServerAgent\Subsystems

Class Name: <NO CLASS>
 Last Write Time: 5/22/2003 - 4:49 PM

Value 0
 Name: CmdExec
 Type: REG_SZ
 Data:
 C:\sql80\MSSQL\BINN\SQLCMDSS.DLL, NULL, CmdExecStart, CmdEvent, CmdExecStop, 10

Value 1
 Name: Snapshot
 Type: REG_SZ
 Data: C:\sql80\MSSQL\BINN\SQLREPSS.DLL, C:\Program Files\Microsoft SQL Server\80\COM\SNAPSHOT.EXE, ReplStart, ReplEvent, ReplStop, 100

Value 2
 Name: Distribution
 Type: REG_SZ
 Data: C:\sql80\MSSQL\BINN\SQLREPSS.DLL, C:\Program Files\Microsoft SQL Server\80\COM\DISTRIB.EXE, ReplStart, ReplEvent, ReplStop, 100

Value 3

Name: Merge
 Type: REG_SZ
 Data: C:\sql80\MSSQL\BINN\SQLREPSS.DLL, C:\Program Files\Microsoft SQL Server\80\COM\REPLMERG.EXE, ReplStart, ReplEvent, ReplStop, 100

Value 4
 Name: ActiveScripting
 Type: REG_SZ
 Data: C:\sql80\MSSQL\BINN\SQLATXSS.DLL, NULL, ActiveScriptStart, ActiveScriptEvent, ActiveScriptStop, 10

Value 5
 Name: QueueReader
 Type: REG_SZ
 Data: C:\sql80\MSSQL\BINN\SQLREPSS.DLL, C:\Program Files\Microsoft SQL Server\80\COM\QRDRSVC.EXE, ReplStart, ReplEvent, ReplStop, 100

Value 6
 Name: LogReader
 Type: REG_SZ
 Data: C:\sql80\MSSQL\BINN\SQLREPSS.DLL, C:\Program 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: 5/22/2003 - 4:49 PM

Value 0
 Name: {E07FDDA4-5A21-11d2-9DAD-00C04F79D434}
 Type: REG_SZ
 Data:

Value 1
 Name: {E07FDDA5-5A21-11d2-9DAD-00C04F79D434}
 Type: REG_SZ
 Data:

Value 2
 Name: {6DC86044-0C71-11d3-9E18-00C04F79D434}
 Type: REG_SZ
 Data:

Value 3
 Name: {E07FDDA8-5A21-11d2-9DAD-00C04F79D434}
 Type: REG_SZ
 Data:

Value 4
 Name: {E07FDDA9-5A21-11d2-9DAD-00C04F79D434}
 Type: REG_SZ
 Data:

Value 5
 Name: {E07FDDAA-5A21-11d2-9DAD-00C04F79D434}

```

Type:          REG_SZ
Data:

Value 6
Name:          {E07FDDAC-5A21-11d2-9DAD-00C04F79D434}
Type:          REG_SZ
Data:

Value 7
Name:          {E07FDDAD-5A21-11d2-9DAD-00C04F79D434}
Type:          REG_SZ
Data:

Value 8
Name:          {E07FDDAF-5A21-11d2-9DAD-00C04F79D434}
Type:          REG_SZ
Data:

Value 9
Name:          {E07FDDBE-5A21-11d2-9DAD-00C04F79D434}
Type:          REG_SZ
Data:

Value 10
Name:          {E07FDDC0-5A21-11d2-9DAD-00C04F79D434}
Type:          REG_SZ
Data:

Value 11
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: 5/22/2003 - 4:49 PM
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:

```

Software\Microsoft\Microsoft SQL Server

```

Key Name:      HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server
Class Name:    <NO CLASS>
Last Write Time: 5/22/2003 - 4:49 PM
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: 5/22/2003 - 4:47 PM

Key Name:      HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\80
Class Name:    <NO CLASS>
Last Write Time: 5/22/2003 - 5:02 PM

```


Value 0
 Name: SharedCode
 Type: REG_SZ
 Data: C:\Program Files\Microsoft SQL Server\80\COM\
 Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\80\DTS
 Class Name: <NO CLASS>
 Last Write Time: 5/22/2003 - 5:02 PM
 Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\80\DTS\Settings
 Class Name: <NO CLASS>
 Last Write Time: 5/22/2003 - 5:02 PM
 Value 0
 Name: EnableSaveToRepository
 Type: REG_DWORD
 Data: 0
 Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\80\MSSQLLicenseInfo
 Class Name: <NO CLASS>
 Last Write Time: 5/22/2003 - 4:47 PM
 Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\80\MSSQLLicenseInfo\MSSQL8.00
 Class Name: <NO CLASS>
 Last Write Time: 5/22/2003 - 4:47 PM
 Value 0
 Name: FlipAllow
 Type: REG_DWORD
 Data: 0
 Value 1
 Name: ConcurrentLimit
 Type: REG_DWORD
 Data: 0x20
 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: 0x2
 Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\80\Registration
 Class Name: <NO CLASS>

Last Write Time: 5/22/2003 - 4:47 PM
 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 35 35 33 00 0-0000095-
 05553.
 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 - 8e fe cc 3e 5b 0a 50 00
pI>[.P.
 00000050 00 00 00 00 00 00 00 - 00 00 00 00 00 00 00 00

 00000060 00 00 00 00 00 00 00 - 36 36 35 32 37 00 00 00
66527...
 00000070 00 00 00 00 63 0f 00 00 - c4 39 76 10 00 08 00 00
Ä9v.....
 00000080 3f 1f 00 00 00 00 00 - 00 00 00 00 00 00 00 00
 ?.....
 00000090 00 00 00 00 00 00 00 - 00 00 00 00 00 00 00 00

 2c db 98 ca ,Û.Ê
 Value 1
 Name: ProductID
 Type: REG_SZ
 Data: 53934-000-0000095-05553
 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: 5/22/2003 - 4:49 PM
 Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\80\Replication\MergeReplicationProvider
 Class Name: <NO CLASS>
 Last Write Time: 5/22/2003 - 5:02 PM
 Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\80\Replication\MergeReplicationProvider\MsJet
 Class Name: <NO CLASS>
 Last Write Time: 5/22/2003 - 5:02 PM
 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: 5/22/2003 - 4:49 PM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\80\Tools\ClientSetup
Class Name: <NO CLASS>
Last Write Time: 5/22/2003 - 4:48 PM
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: 5/22/2003 - 4:48 PM
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: 5/22/2003 - 4:49 PM
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: 5/22/2003 - 4:49 PM
Value 0
Name: Action Verify
Type: REG_DWORD
Data: 0

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\SQLEW
Class Name: <NO CLASS>
Last Write Time: 5/22/2003 - 4:49 PM
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: Feedback&k

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\80\Tools\SQLEW\Replication
Class Name: <NO CLASS>
Last Write Time: 5/22/2003 - 4:49 PM
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\SQLEW\Wizards
Class Name: <NO CLASS>
Last Write Time: 5/22/2003 - 4:49 PM
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: 5/22/2003 - 4:49 PM

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: 5/22/2003 - 4:49 PM

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\Unisys

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\UNISYS
Class Name: <NO CLASS>
Last Write Time: 6/3/2003 - 5:34 PM

Key Name: HKEY_LOCAL_MACHINE\SOFTWARE\UNISYS\Intelligent Fibre
Utility
Class Name: <NO CLASS>
Last Write Time: 6/3/2003 - 5:54 PM

Value 0
Name: AccessTuning
Type: REG_DWORD
Data: 0x1

CurrentControlSet\Control\Session Manager\I/O System

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Session Manager\I/O System
Class Name: <NO CLASS>
Last Write Time: 3/25/2003 - 3:05 PM
Value 0
Name: CountOperations
Type: REG_DWORD
Data: 0

CurrentControlSet\Services\GniConMgr

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\GniConMgr
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:14 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: 5/22/2003 - 7:31 AM
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: 5/22/2003 - 7:31 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 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
.....
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: 6/18/2003 - 9:14 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: 6/18/2003 - 9:14 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:      0xd

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: 5/22/2003 - 7:31 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 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
.....
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: 6/18/2003 - 9:14 AM
Value 0
Name:      0
Type:      REG_SZ
Data:      PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&e44f86d&0&00

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&08

Value 4
Name:      2
Type:      REG_SZ

```

Data:
PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&1b2f0ce&0&00

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&300bc0be&0&00

Value 7
Name: 5
Type: REG_SZ
Data:
PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&300bc0be&0&08

Value 8
Name: 6
Type: REG_SZ
Data:
PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&23ff515d&0&00

Value 9
Name: 7
Type: REG_SZ
Data:
PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&23ff515d&0&08

CurrentControlSet\Services\GniVIA

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\GniVIA
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:14 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: 0x8

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: 5/22/2003 - 11:36 AM

Value 0
Name: Bind
Type: REG_MULTI_SZ
Data:
\Device\{673C0D58-F5EB-453F-9BFA-0A43D84D4546}
\Device\{5034BD52-D354-4046-B457-E7E3C9AC5325}
\Device\{FE855E69-1D27-4DC2-8034-9DD376E76055}
\Device\{85F51972-D34B-4F56-81F7-6243FB72DC76}
\Device\{A81AE65B-3225-4C4A-94EE-99BF2237FDC3}
\Device\{EF5AECCA-9578-455E-ABDD-CC5F7FC15894}
\Device\{ADF7EA98-863A-435C-8775-B7AAC9FAEAE}
\Device\{C56D2264-3BDF-4208-B422-63F86DBFA996}

Value 1
Name: Route
Type: REG_MULTI_SZ
Data:
"{673C0D58-F5EB-453F-9BFA-0A43D84D4546}"
"{5034BD52-D354-4046-B457-E7E3C9AC5325}"
"{FE855E69-1D27-4DC2-8034-9DD376E76055}"
"{85F51972-D34B-4F56-81F7-6243FB72DC76}"
"{A81AE65B-3225-4C4A-94EE-99BF2237FDC3}"
"{EF5AECCA-9578-455E-ABDD-CC5F7FC15894}"
"{ADF7EA98-863A-435C-8775-B7AAC9FAEAE}"
"{C56D2264-3BDF-4208-B422-63F86DBFA996}"

Value 2
Name: Export
Type: REG_MULTI_SZ
Data:
\Device\GniVIA_{673C0D58-F5EB-453F-9BFA-0A43D84D4546}
\Device\GniVIA_{5034BD52-D354-4046-B457-E7E3C9AC5325}
\Device\GniVIA_{FE855E69-1D27-4DC2-8034-9DD376E76055}
\Device\GniVIA_{85F51972-D34B-4F56-81F7-6243FB72DC76}
\Device\GniVIA_{A81AE65B-3225-4C4A-94EE-99BF2237FDC3}
\Device\GniVIA_{EF5AECCA-9578-455E-ABDD-CC5F7FC15894}
\Device\GniVIA_{ADF7EA98-863A-435C-8775-B7AAC9FAEAE}
\Device\GniVIA_{C56D2264-3BDF-4208-B422-63F86DBFA996}

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\GniVIA\Parameters
Class Name: <NO CLASS>
Last Write Time: 5/22/2003 - 11:36 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: 5/22/2003 - 4:51 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: 0x9e0

Value 6
Name: Last Help
Type: REG_DWORD
Data: 0x9e1

Value 7
Name: First Counter
Type: REG_DWORD

Data: 0x9a2

Value 8
Name: First Help
Type: REG_DWORD
Data: 0x9a3

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
r'õ.à.-k NASû'°

Value 10
Name: WbemAdapFileTime
Type: REG_BINARY
Data:

00 d1 0f b7 ca 1e c3 01 - .Ñ.·Ê.Ã.

Value 11
Name: WbemAdapFileSize
Type: REG_DWORD
Data: 0xc000

Value 12
Name: WbemAdapStatus
Type: REG_DWORD
Data: 0

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\GniVIA\Security
Class Name: <NO CLASS>
Last Write Time: 5/22/2003 - 7:31 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 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
.....
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: 6/18/2003 - 9:14 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

CurrentControlSet\Services\Ifba

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ifba
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:15 AM
Value 0
Name: Type
Type: REG_DWORD
Data: 0x1

Value 1
Name: Start
Type: REG_DWORD
Data: 0x3

Value 2
Name: ErrorControl
Type: REG_DWORD
Data: 0x1

Value 3
Name: Tag
Type: REG_DWORD
Data: 0x4

Value 4
Name: ImagePath
Type: REG_EXPAND_SZ
Data: system32\DRIVERS\ifba.sys

Value 5

Name: DisplayName
Type: REG_SZ
Data: Unisys Intelligent Fibre Channel Adapter SCSI Processor

Value 6
Name: Group
Type: REG_SZ
Data: SCSI Class

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ifba\Security
Class Name: <NO CLASS>
Last Write Time: 5/22/2003 - 11:37 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 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
.....
00 00 00 05 12 00 00 00 -

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ifba\Enum
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:17 AM
Value 0
Name: 0
Type: REG_SZ
Data: SCSI\ProcessorUNISYS_FC76222-
P64_____v2__\5&3a90ebef&1&8804560B00080010

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: SCSI\ProcessorUNISYS_FC76222-P64_v2_\5&3a90ebef&1&8904560B00080010

Value 4
 Name: 2
 Type: REG_SZ
 Data: SCSI\ProcessorUNISYS_FC76222-P64_v2_\5&7a21384&1&A004560B00080010

Value 5
 Name: 3
 Type: REG_SZ
 Data: SCSI\ProcessorUNISYS_FC76222-P64_v2_\5&7a21384&1&A104560B00080010

Value 6
 Name: 4
 Type: REG_SZ
 Data: SCSI\ProcessorUNISYS_FC76222-P64_v2_\5&11f71242&1&D004560B00080010

Value 7
 Name: 5
 Type: REG_SZ
 Data: SCSI\ProcessorUNISYS_FC76222-P64_v2_\5&11f71242&1&D104560B00080010

Value 8
 Name: 6
 Type: REG_SZ
 Data: SCSI\ProcessorUNISYS_FC76222-P64_v2_\5&24c648ac&1&C404560B00080010

Value 9
 Name: 7
 Type: REG_SZ
 Data: SCSI\ProcessorUNISYS_FC76222-P64_v2_\5&24c648ac&1&C504560B00080010

Value 10
 Name: 8
 Type: REG_SZ
 Data: SCSI\ProcessorUNISYS_FC76222-P64_v2_\5&55e65ef&1&B004560B00080010

Value 11
 Name: 9
 Type: REG_SZ
 Data: SCSI\ProcessorUNISYS_FC76222-P64_v2_\5&55e65ef&1&B104560B00080010

Value 12
 Name: 10
 Type: REG_SZ

Data: SCSI\ProcessorUNISYS_FC76222-P64_v2_\5&324b9a0d&1&FC04560B00080010

Value 13
 Name: 11
 Type: REG_SZ
 Data: SCSI\ProcessorUNISYS_FC76222-P64_v2_\5&324b9a0d&1&FD04560B00080010

Value 14
 Name: 12
 Type: REG_SZ
 Data: SCSI\ProcessorUNISYS_FC76222-P64_v2_\5&382242ab&1&9C04560B00080010

Value 15
 Name: 13
 Type: REG_SZ
 Data: SCSI\ProcessorUNISYS_FC76222-P64_v2_\5&382242ab&1&9D04560B00080010

Value 16
 Name: 14
 Type: REG_SZ
 Data: SCSI\ProcessorUNISYS_FC76222-P64_v2_\5&13e7de95&1&5406560B00080010

Value 17
 Name: 15
 Type: REG_SZ
 Data: SCSI\ProcessorUNISYS_FC76222-P64_v2_\5&13e7de95&1&5506560B00080010

Value 18
 Name: 16
 Type: REG_SZ
 Data: SCSI\ProcessorUNISYS_FC76222-P64_v2_\5&1225c8e9&1&B804560B00080010

Value 19
 Name: 17
 Type: REG_SZ
 Data: SCSI\ProcessorUNISYS_FC76222-P64_v2_\5&1225c8e9&1&B904560B00080010

Value 20
 Name: 18
 Type: REG_SZ
 Data: SCSI\ProcessorUNISYS_FC76222-P64_v2_\5&1181d662&1&F004560B00080010

Value 21
 Name: 19
 Type: REG_SZ
 Data: SCSI\ProcessorUNISYS_FC76222-P64_v2_\5&1181d662&1&F104560B00080010

Value 22
 Name: 20

Type: REG_SZ
Data: SCSI\ProcessorUNISYS_FC76222-
P64_____v2_\5&3081098b&1&2409560B00080010

Value 23
Name: 21
Type: REG_SZ
Data: SCSI\ProcessorUNISYS_FC76222-
P64_____v2_\5&3081098b&1&2509560B00080010

Value 24
Name: 22
Type: REG_SZ
Data: SCSI\ProcessorUNISYS_FC76222-
P64_____v2_\5&38090f63&1&2009560B00080010

Value 25
Name: 23
Type: REG_SZ
Data: SCSI\ProcessorUNISYS_FC76222-
P64_____v2_\5&38090f63&1&2109560B00080010

CurrentControlSet\Services\Ifdisk

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ifdisk
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:17 AM

Value 0
Name: Type
Type: REG_DWORD
Data: 0x1

Value 1
Name: Start
Type: REG_DWORD
Data: 0

Value 2
Name: ErrorControl
Type: REG_DWORD
Data: 0x1

Value 3
Name: ImagePath
Type: REG_EXPAND_SZ
Data: system32\DRIVERS\ifdisk.sys

Value 4
Name: DisplayName
Type: REG_SZ
Data: Unisys Intelligent Fibre Channel Fabric Disk Driver

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ifdisk\Security

Class Name: <NO CLASS>
Last Write Time: 5/22/2003 - 11:39 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 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
.....
00 00 00 05 12 00 00 00 -

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ifdisk\Enum
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:17 AM
Value 0
Name: 0
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC_____RAID_10_____0099\1&1a590e2c&0&A72420106001065000
000000000001000

Value 1
Name: Count
Type: REG_DWORD
Data: 0x70

Value 2
Name: NextInstance
Type: REG_DWORD
Data: 0x70

Value 3
Name: 1
Type: REG_SZ
Data:
SCSI\Disk&Ven_DGC_____RAID_10_____0099\1&1a590e2c&0&A72420106001065000
000000000000000

Value 4
Name: 2

Type:	REG_SZ	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&A53F008610000010000000000000A000
Data:			000000000002000
Value 5		Value 13	
Name:	3	Name:	11
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&A53F0086100000100000000000001000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&A53F0086100000100000000000009000			
Value 6		Value 14	
Name:	4	Name:	12
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&1D4008610000010000000000000A000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&A53F0086100000100000000000008000			
Value 7		Value 15	
Name:	5	Name:	13
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&1D40086100000100000000000009000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&A53F0086100000100000000000007000			
Value 8		Value 16	
Name:	6	Name:	14
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&1D40086100000100000000000008000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&A53F0086100000100000000000006000			
Value 9		Value 17	
Name:	7	Name:	15
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&1D40086100000100000000000007000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&A53F0086100000100000000000005000			
Value 10		Value 18	
Name:	8	Name:	16
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&1D40086100000100000000000006000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&A53F0086100000100000000000004000			
Value 11		Value 19	
Name:	9	Name:	17
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&1D40086100000100000000000005000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&A53F0086100000100000000000003000			
Value 12		Value 20	
Name:	10	Name:	18
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&1D40086100000100000000000004000

Value 21		Type:	REG_SZ
Name:	19	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6D4000861000001000
Type:	REG_SZ		000000000005000
Data:		Value 30	
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&1D4000861000001000		Name:	28
000000000003000		Type:	REG_SZ
Value 22		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6D4000861000001000
Name:	20		000000000004000
Type:	REG_SZ	Value 31	
Data:		Name:	29
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&1D4000861000001000		Type:	REG_SZ
000000000002000		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6D4000861000001000
Value 23			000000000003000
Name:	21	Value 32	
Type:	REG_SZ	Name:	30
Data:		Type:	REG_SZ
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&1D4000861000001000		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6D4000861000001000
000000000001000			000000000002000
Value 24		Value 33	
Name:	22	Name:	31
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6D4000861000001000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6D4000861000001000			000000000001000
00000000000A000		Value 34	
Value 25		Name:	32
Name:	23	Type:	REG_SZ
Type:	REG_SZ	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6D4000861000001000
Data:			000000000001000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6D4000861000001000		Value 35	
000000000009000		Name:	33
Value 26		Type:	REG_SZ
Name:	24	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6F4000861000001000
Type:	REG_SZ		00000000000A000
Data:		Value 36	
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6D4000861000001000		Name:	34
000000000008000		Type:	REG_SZ
Value 27		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6F4000861000001000
Name:	25		000000000009000
Type:	REG_SZ	Value 37	
Data:		Name:	35
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6D4000861000001000		Type:	REG_SZ
000000000007000			
Value 28			
Name:	26		
Type:	REG_SZ		
Data:			
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6D4000861000001000			
000000000006000			
Value 29			
Name:	27		

Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6F4000861000001000 000000000007000	Value 46 Name: 44 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&154000861000001000 000000000008000
Value 38 Name: 36 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6F4000861000001000 000000000006000	Value 47 Name: 45 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&154000861000001000 000000000007000
Value 39 Name: 37 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6F4000861000001000 000000000005000	Value 48 Name: 46 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&154000861000001000 000000000006000
Value 40 Name: 38 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6F4000861000001000 000000000004000	Value 49 Name: 47 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&154000861000001000 000000000005000
Value 41 Name: 39 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6F4000861000001000 000000000003000	Value 50 Name: 48 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&154000861000001000 000000000004000
Value 42 Name: 40 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6F4000861000001000 000000000002000	Value 51 Name: 49 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&154000861000001000 000000000003000
Value 43 Name: 41 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6F4000861000001000 000000000001000	Value 52 Name: 50 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&154000861000001000 000000000002000
Value 44 Name: 42 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&154000861000001000 00000000000A000	Value 53 Name: 51 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&154000861000001000 000000000001000
Value 45 Name: 43 Type: REG_SZ Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&154000861000001000 000000000009000	Value 54 Name: 52

Type:	REG_SZ	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&454000861000001000
Data:			000000000002000
Value 55		Value 63	
Name:	53	Name:	61
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&454000861000001000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&454000861000001000			000000000001000
Value 56		Value 64	
Name:	54	Name:	62
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&0B4000861000001000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&454000861000001000			00000000000A000
Value 57		Value 65	
Name:	55	Name:	63
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&0B4000861000001000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&454000861000001000			000000000009000
Value 58		Value 66	
Name:	56	Name:	64
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&0B4000861000001000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&454000861000001000			000000000008000
Value 59		Value 67	
Name:	57	Name:	65
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&0B4000861000001000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&454000861000001000			000000000007000
Value 60		Value 68	
Name:	58	Name:	66
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&0B4000861000001000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&454000861000001000			000000000006000
Value 61		Value 69	
Name:	59	Name:	67
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&0B4000861000001000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&454000861000001000			000000000005000
Value 62		Value 70	
Name:	60	Name:	68
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&0B4000861000001000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&454000861000001000			000000000004000

Value 71		Type:	REG_SZ
Name:	69	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&234000861000001000
Type:	REG_SZ		000000000005000
Data:		Value 80	
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&0B4000861000001000		Name:	78
000000000003000		Type:	REG_SZ
		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&234000861000001000
Value 72			000000000004000
Name:	70	Value 81	
Type:	REG_SZ	Name:	79
Data:		Type:	REG_SZ
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&0B4000861000001000		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&234000861000001000
000000000002000			000000000003000
Value 73		Value 82	
Name:	71	Name:	80
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&234000861000001000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&0B4000861000001000			000000000002000
000000000001000		Value 83	
Value 74		Name:	81
Name:	72	Type:	REG_SZ
Type:	REG_SZ	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&234000861000001000
Data:			000000000001000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&234000861000001000		Value 84	
00000000000A000		Name:	82
Value 75		Type:	REG_SZ
Name:	73	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&094000861000001000
Type:	REG_SZ		00000000000A000
Data:		Value 85	
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&234000861000001000		Name:	83
000000000009000		Type:	REG_SZ
Value 76		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&094000861000001000
Name:	74		000000000009000
Type:	REG_SZ	Value 86	
Data:		Name:	84
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&234000861000001000		Type:	REG_SZ
000000000007000		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&094000861000001000
Value 77			000000000008000
Name:	75	Value 87	
Type:	REG_SZ	Name:	85
Data:		Type:	REG_SZ
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&234000861000001000			
000000000008000			
Value 78			
Name:	76		
Type:	REG_SZ		
Data:			
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&234000861000001000			
000000000006000			
Value 79			
Name:	77		

Data:			
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&094000861000001000	000000000007000	Value 96	
		Name:	94
		Type:	REG_SZ
		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&354000861000001000
			000000000008000
Value 88		Value 97	
Name:	86	Name:	95
Type:	REG_SZ	Type:	REG_SZ
Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&094000861000001000	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&354000861000001000
	000000000006000		000000000007000
Value 89		Value 98	
Name:	87	Name:	96
Type:	REG_SZ	Type:	REG_SZ
Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&094000861000001000	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&354000861000001000
	000000000005000		000000000006000
Value 90		Value 99	
Name:	88	Name:	97
Type:	REG_SZ	Type:	REG_SZ
Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&094000861000001000	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&354000861000001000
	000000000004000		000000000005000
Value 91		Value 100	
Name:	89	Name:	98
Type:	REG_SZ	Type:	REG_SZ
Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&094000861000001000	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&354000861000001000
	000000000003000		000000000004000
Value 92		Value 101	
Name:	90	Name:	99
Type:	REG_SZ	Type:	REG_SZ
Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&094000861000001000	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&354000861000001000
	000000000002000		000000000003000
Value 93		Value 102	
Name:	91	Name:	100
Type:	REG_SZ	Type:	REG_SZ
Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&094000861000001000	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&354000861000001000
	000000000001000		000000000002000
Value 94		Value 103	
Name:	92	Name:	101
Type:	REG_SZ	Type:	REG_SZ
Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&354000861000001000	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&354000861000001000
	00000000000A000		000000000001000
Value 95		Value 104	
Name:	93	Name:	102
Type:	REG_SZ		
Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&354000861000001000		
	000000000009000		

Type: REG_SZ
 Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&9B3F008610000010000000000000A000

Value 105
 Name: 103
 Type: REG_SZ
 Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&9B3F0086100000100000000000009000

Value 106
 Name: 104
 Type: REG_SZ
 Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&9B3F0086100000100000000000008000

Value 107
 Name: 105
 Type: REG_SZ
 Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&9B3F0086100000100000000000007000

Value 108
 Name: 106
 Type: REG_SZ
 Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&9B3F0086100000100000000000006000

Value 109
 Name: 107
 Type: REG_SZ
 Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&9B3F0086100000100000000000005000

Value 110
 Name: 108
 Type: REG_SZ
 Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&9B3F0086100000100000000000004000

Value 111
 Name: 109
 Type: REG_SZ
 Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&9B3F0086100000100000000000003000

Value 112
 Name: 110
 Type: REG_SZ

Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&9B3F0086100000100000000000002000

Value 113
 Name: 111
 Type: REG_SZ
 Data: SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&9B3F0086100000100000000000001000

CurrentControlSet\Services\IfIp

Key Name: HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\IfIp
 Class Name: <NO CLASS>
 Last Write Time: 6/18/2003 - 9:14 AM

Value 0
 Name: Type
 Type: REG_DWORD
 Data: 0x1

Value 1
 Name: Start
 Type: REG_DWORD
 Data: 0

Value 2
 Name: ErrorControl
 Type: REG_DWORD
 Data: 0x1

Value 3
 Name: Tag
 Type: REG_DWORD
 Data: 0x6

Value 4
 Name: ImagePath
 Type: REG_EXPAND_SZ
 Data: system32\DRIVERS\IfIp.sys

Value 5
 Name: DisplayName
 Type: REG_SZ
 Data: Unisys Intelligent Fibre Channel Fabric Bus Enumerator

Value 6
 Name: Group
 Type: REG_SZ
 Data: Boot Bus Extender

Key Name: HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\IfIp\Security
 Class Name: <NO CLASS>

```

Last Write Time: 5/20/2003 - 4:20 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
.....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
.....
00 00 00 05 12 00 00 00 - .....

```

```

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\IfIp\Enum
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:14 AM
Value 0
  Name: 0
  Type: REG_SZ
  Data: Root\SYSTEM\0002

Value 1
  Name: Count
  Type: REG_DWORD
  Data: 0x1

Value 2
  Name: NextInstance
  Type: REG_DWORD
  Data: 0x1

```

CurrentControlSet\Services\ifxp

```

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ifxp
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:14 AM
Value 0
  Name: Type
  Type: REG_DWORD

```

```

  Data: 0x1

Value 1
  Name: Start
  Type: REG_DWORD
  Data: 0

Value 2
  Name: ErrorControl
  Type: REG_DWORD
  Data: 0x1

Value 3
  Name: Tag
  Type: REG_DWORD
  Data: 0x21

Value 4
  Name: ImagePath
  Type: REG_EXPAND_SZ
  Data: system32\DRIVERS\ifxp.sys

Value 5
  Name: DisplayName
  Type: REG_SZ
  Data: Unisys Intelligent Fibre Channel Fabric Bus Adapter

Value 6
  Name: Group
  Type: REG_SZ
  Data: SCSI Miniport

```

```

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ifxp\Parameters
Class Name: <NO CLASS>
Last Write Time: 5/22/2003 - 7:31 AM

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ifxp\Parameters\PnpIn
terface
Class Name: <NO CLASS>
Last Write Time: 5/22/2003 - 7:31 AM
Value 0
  Name: 5
  Type: REG_DWORD
  Data: 0x1

```

```

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ifxp\Security
Class Name: <NO CLASS>
Last Write Time: 5/22/2003 - 7:31 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 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
.....
00 00 00 05 12 00 00 00 -
.....

```

```

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ifxp\Enum
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:14 AM

```

```

Value 0
Name: 0
Type: REG_SZ
Data: PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&25ea3ec6&0&0000

```

```

Value 1
Name: Count
Type: REG_DWORD
Data: 0xc

```

```

Value 2
Name: NextInstance
Type: REG_DWORD
Data: 0xc

```

```

Value 3
Name: 1
Type: REG_SZ
Data: PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&2cf6f8ed&0&0000

```

```

Value 4
Name: 2
Type: REG_SZ
Data: PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&a75dc64&0&0000

```

```

Value 5
Name: 3
Type: REG_SZ
Data: PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&1b316b8f&0&0000

```

```

Value 6
Name: 4
Type: REG_SZ
Data: PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&101f93c3&0&0000

```

```

Value 7
Name: 5
Type: REG_SZ
Data: PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&5e54501&0&0000

```

```

Value 8
Name: 6
Type: REG_SZ
Data: PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&bbe9921&0&0000

```

```

Value 9
Name: 7
Type: REG_SZ
Data: PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&32dc1527&0&0000

```

```

Value 10
Name: 8
Type: REG_SZ
Data: PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&30f36daa&0&0000

```

```

Value 11
Name: 9
Type: REG_SZ
Data: PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&1f3768a3&0&0000

```

```

Value 12
Name: 10
Type: REG_SZ
Data: PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&102fa53&0&0000

```

```

Value 13
Name: 11
Type: REG_SZ
Data: PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&1a68eb24&0&0000

```

CurrentControlSet\Services\MSSQLSERVER

```

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSSQLSERVER
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:14 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: 5/22/2003 - 4:55 PM

Value 0
Name: Export
Type: REG_MULTI_SZ
Data: MSSQLSERVER

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSSQLSERVER\Performance
Class Name: <NO CLASS>
Last Write Time: 5/22/2003 - 4:55 PM

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: 0xafc

Value 6
Name: Last Help
Type: REG_DWORD
Data: 0xafd

Value 7
Name: First Counter
Type: REG_DWORD
Data: 0x9e8

Value 8
Name: First Help
Type: REG_DWORD
Data: 0x9e9

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
0 'ÃÑ.xc01.ð.Q.]

Value 10
Name: WbemAdapFileTime
Type: REG_BINARY
Data: d6 89 2a 97 bc 20 c3 01 - Ö.*.¼ Ã.

Value 11
Name: WbemAdapFileSize
Type: REG_DWORD
Data: 0x803b

Value 12
Name: WbemAdapStatus
Type: REG_DWORD
Data: 0

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSSQLSERVER\Security
Class Name: <NO CLASS>
Last Write Time: 5/22/2003 - 4:55 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
.....
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: 6/18/2003 - 9:14 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: 6/18/2003 - 9:14 AM
Value 0
  Name: DisplayName
  Type: REG_SZ
  Data: Partition Manager

```

```

Value 1
  Name: ErrorControl
  Type: REG_DWORD
  Data: 0x1

```

```

Value 2
  Name: Group
  Type: REG_SZ
  Data: System Bus Extender

```

```

Value 3
  Name: Start
  Type: REG_DWORD
  Data: 0

```

```

Value 4
  Name: Tag
  Type: REG_DWORD
  Data: 0x6

```

```

Value 5
  Name: Type
  Type: REG_DWORD
  Data: 0x1

```

```

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PartMgr\Enum
Class Name: <NO CLASS>
Last Write Time: 6/18/2003 - 9:17 AM
Value 0
  Name: 0
  Type: REG_SZ
  Data: Root\LEGACY_PARTMGR\0000

```

```

Value 1
  Name: Count
  Type: REG_DWORD
  Data: 0x72

```

```

Value 2
  Name: NextInstance
  Type: REG_DWORD
  Data: 0x72

```

```

Value 3
  Name: 1
  Type: REG_SZ
  Data:

```

```

IDE\DiskFUJITSU_MHS2030AT_____8004____\5&28fc923b&0&0.0.
0

```

```

Value 4
  Name: 2
  Type: REG_SZ
  Data:

```

```

SCSI\Disk&Ven_DGC_____RAID_10_____0099\1&1a590e2c&0&A72420106001065000
00000000001000

```

Value 5		Type:	REG_SZ
Name:	3	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&A53F0086100000100000000000003000
Type:	REG_SZ		
Data:			
SCSI\Disk&Ven_DGC_____RAID_10_____0099\1&1a590e2c&0&A72420106001065000		Value 14	
0000000000000000		Name:	12
		Type:	REG_SZ
		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&A53F0086100000100000000000002000
Value 6		Value 15	
Name:	4	Name:	13
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&A53F0086100000100000000000001000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&A53F008610000010000000000000A000		Value 16	
		Name:	14
Value 7		Type:	REG_SZ
Name:	5	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&A53F0086100000100000000000001000
Type:	REG_SZ	Value 17	
Data:		Name:	15
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&A53F0086100000100000000000009000		Type:	REG_SZ
		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&1D400086100000100000000000009000
Value 8		Value 18	
Name:	6	Name:	16
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&1D40008610000010000000000000A000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&A53F0086100000100000000000008000		Value 19	
		Name:	17
Value 9		Type:	REG_SZ
Name:	7	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&1D400086100000100000000000009000
Type:	REG_SZ	Value 20	
Data:		Name:	18
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&A53F0086100000100000000000007000		Type:	REG_SZ
		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&1D400086100000100000000000008000
Value 10		Value 21	
Name:	8	Name:	19
Type:	REG_SZ	Type:	REG_SZ
Data:			
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&A53F0086100000100000000000006000			
Value 11			
Name:	9		
Type:	REG_SZ		
Data:			
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&A53F0086100000100000000000005000			
Value 12			
Name:	10		
Type:	REG_SZ		
Data:			
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&A53F0086100000100000000000004000			
Value 13			
Name:	11		

Data:			
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&1D4000861000001000	Value 30		
0000000000005000	Name:	28	
	Type:	REG_SZ	
	Data:		
Value 22	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6D4000861000001000		
Name:	0000000000006000		
Type:			
REG_SZ			
Data:			
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&1D4000861000001000	Value 31		
0000000000004000	Name:	29	
	Type:	REG_SZ	
	Data:		
Value 23	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6D4000861000001000		
Name:	0000000000005000		
Type:			
REG_SZ			
Data:			
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&1D4000861000001000	Value 32		
0000000000003000	Name:	30	
	Type:	REG_SZ	
	Data:		
Value 24	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6D4000861000001000		
Name:	0000000000004000		
Type:			
REG_SZ			
Data:			
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&1D4000861000001000	Value 33		
0000000000002000	Name:	31	
	Type:	REG_SZ	
	Data:		
Value 25	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6D4000861000001000		
Name:	0000000000003000		
Type:			
REG_SZ			
Data:			
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&1D4000861000001000	Value 34		
0000000000001000	Name:	32	
	Type:	REG_SZ	
	Data:		
Value 26	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6D4000861000001000		
Name:	0000000000002000		
Type:			
REG_SZ			
Data:			
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6D4000861000001000	Value 35		
000000000000A000	Name:	33	
	Type:	REG_SZ	
	Data:		
Value 27	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6D4000861000001000		
Name:	0000000000001000		
Type:			
REG_SZ			
Data:			
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6D4000861000001000	Value 36		
0000000000009000	Name:	34	
	Type:	REG_SZ	
	Data:		
Value 28	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6F4000861000001000		
Name:	000000000000A000		
Type:			
REG_SZ			
Data:			
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6D4000861000001000	Value 37		
0000000000008000	Name:	35	
	Type:	REG_SZ	
	Data:		
Value 29	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6F4000861000001000		
Name:	0000000000009000		
Type:			
REG_SZ			
Data:			
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6D4000861000001000	Value 38		
0000000000007000	Name:	36	

Type:	REG_SZ	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6F400086100000100000000000008000
Data:			00000000000A000
Value 39		Value 47	
Name:	37	Name:	45
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6F400086100000100000000000009000
Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6F400086100000100000000000007000		
Value 40		Value 48	
Name:	38	Name:	46
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6F400086100000100000000000008000
Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6F400086100000100000000000006000		
Value 41		Value 49	
Name:	39	Name:	47
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6F400086100000100000000000007000
Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6F400086100000100000000000005000		
Value 42		Value 50	
Name:	40	Name:	48
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6F400086100000100000000000006000
Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6F400086100000100000000000004000		
Value 43		Value 51	
Name:	41	Name:	49
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6F400086100000100000000000005000
Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6F400086100000100000000000003000		
Value 44		Value 52	
Name:	42	Name:	50
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6F400086100000100000000000004000
Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6F400086100000100000000000002000		
Value 45		Value 53	
Name:	43	Name:	51
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6F400086100000100000000000003000
Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6F400086100000100000000000001000		
Value 46		Value 54	
Name:	44	Name:	52
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&6F400086100000100000000000002000

Value 55		Type:	REG_SZ
Name:	53	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&454000861000001000
Type:	REG_SZ		0000000000003000
Data:		Value 64	
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&154000861000001000		Name:	62
0000000000001000		Type:	REG_SZ
Value 56		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&454000861000001000
Name:	54		0000000000002000
Type:	REG_SZ	Value 65	
Data:		Name:	63
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&454000861000001000		Type:	REG_SZ
000000000000A000		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&454000861000001000
Value 57			0000000000001000
Name:	55	Value 66	
Type:	REG_SZ	Name:	64
Data:		Type:	REG_SZ
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&454000861000001000		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&0B4000861000001000
0000000000009000			000000000000A000
Value 58		Value 67	
Name:	56	Name:	65
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&0B4000861000001000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&454000861000001000			0000000000009000
0000000000008000		Value 68	
Value 59		Name:	66
Name:	57	Type:	REG_SZ
Type:	REG_SZ	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&0B4000861000001000
Data:			0000000000007000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&454000861000001000		Value 69	
0000000000007000		Name:	67
Value 60		Type:	REG_SZ
Name:	58	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&0B4000861000001000
Type:	REG_SZ		0000000000008000
Data:		Value 70	
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&454000861000001000		Name:	68
0000000000006000		Type:	REG_SZ
Value 61		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&0B4000861000001000
Name:	59		0000000000007000
Type:	REG_SZ	Value 71	
Data:		Name:	69
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&454000861000001000		Type:	REG_SZ
0000000000005000			
Value 62			
Name:	60		
Type:	REG_SZ		
Data:			
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&454000861000001000			
0000000000004000			
Value 63			
Name:	61		

Data:			
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&0B4000861000001000	0000000000005000	Value 80	
		Name:	78
		Type:	REG_SZ
		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&234000861000001000
			0000000000006000
Value 72		Value 81	
Name:	70	Name:	79
Type:	REG_SZ	Type:	REG_SZ
Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&0B4000861000001000	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&234000861000001000
	0000000000004000		0000000000005000
Value 73		Value 82	
Name:	71	Name:	80
Type:	REG_SZ	Type:	REG_SZ
Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&0B4000861000001000	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&234000861000001000
	0000000000003000		0000000000004000
Value 74		Value 83	
Name:	72	Name:	81
Type:	REG_SZ	Type:	REG_SZ
Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&0B4000861000001000	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&234000861000001000
	0000000000002000		0000000000003000
Value 75		Value 84	
Name:	73	Name:	82
Type:	REG_SZ	Type:	REG_SZ
Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&0B4000861000001000	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&234000861000001000
	0000000000001000		0000000000002000
Value 76		Value 85	
Name:	74	Name:	83
Type:	REG_SZ	Type:	REG_SZ
Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&234000861000001000	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&234000861000001000
	000000000000A000		0000000000001000
Value 77		Value 86	
Name:	75	Name:	84
Type:	REG_SZ	Type:	REG_SZ
Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&234000861000001000	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&094000861000001000
	0000000000009000		000000000000A000
Value 78		Value 87	
Name:	76	Name:	85
Type:	REG_SZ	Type:	REG_SZ
Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&234000861000001000	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&094000861000001000
	0000000000007000		0000000000009000
Value 79		Value 88	
Name:	77	Name:	86
Type:	REG_SZ		
Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&234000861000001000		
	0000000000008000		

Type:	REG_SZ	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&09400086100000100000000000008000
Data:			000000000000A000
Value 89		Value 97	
Name:	87	Name:	95
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&09400086100000100000000000009000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&09400086100000100000000000007000		Value 98	
Value 90		Name:	96
Name:	88	Type:	REG_SZ
Type:	REG_SZ	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&09400086100000100000000000008000
Data:		Value 99	
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&09400086100000100000000000006000		Name:	97
Value 91		Type:	REG_SZ
Name:	89	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&09400086100000100000000000007000
Type:	REG_SZ	Value 100	
Data:		Name:	98
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&09400086100000100000000000005000		Type:	REG_SZ
Value 92		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&09400086100000100000000000006000
Name:	90	Value 101	
Type:	REG_SZ	Name:	99
Data:		Type:	REG_SZ
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&09400086100000100000000000004000		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&09400086100000100000000000005000
Value 93		Value 102	
Name:	91	Name:	100
Type:	REG_SZ	Type:	REG_SZ
Data:		Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&09400086100000100000000000004000
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&09400086100000100000000000003000		Value 103	
Value 94		Name:	101
Name:	92	Type:	REG_SZ
Type:	REG_SZ	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&09400086100000100000000000003000
Data:		Value 104	
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&09400086100000100000000000002000		Name:	102
Value 95		Type:	REG_SZ
Name:	93	Data:	SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&09400086100000100000000000002000
Type:	REG_SZ		
Data:			
SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&09400086100000100000000000001000			
Value 96			
Name:	94		
Type:	REG_SZ		

Value 105
 Name: 103
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&35400861000001000
 000000000001000

Value 106
 Name: 104
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&9B3F00861000001000
 00000000000A000

Value 107
 Name: 105
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&9B3F00861000001000
 000000000009000

Value 108
 Name: 106
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&9B3F00861000001000
 000000000008000

Value 109
 Name: 107
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&9B3F00861000001000
 000000000007000

Value 110
 Name: 108
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&9B3F00861000001000
 000000000006000

Value 111
 Name: 109
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&9B3F00861000001000
 000000000005000

Value 112
 Name: 110
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&9B3F00861000001000
 000000000004000

Value 113
 Name: 111

Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&9B3F00861000001000
 000000000003000

Value 114
 Name: 112
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&9B3F00861000001000
 000000000002000

Value 115
 Name: 113
 Type: REG_SZ
 Data:
 SCSI\Disk&Ven_UNISYS__VirtualStorage__01.0\1&1a590e2c&0&9B3F00861000001000
 000000000001000

Windows 2000 Server Client Configuration Information

(Common to 8 clients except for System Name, IP Address & MAC Address)

System Information report written at: 06/18/2003 01:56:26 PM
 [System Information]

[Following are sub-categories of this main category]

[System Summary]

Item	Value
OS Name	Microsoft Windows 2000 Server
Version	5.0.2195 Service Pack 3 Build 2195
OS Manufacturer	Microsoft Corporation
System Name	CLIENT1
System Manufacturer	UNISYS Corp.
System Model	ES3020L
System Type	X86-based PC
Processor	x86 Family 15 Model 2 Stepping 4 GenuineIntel ~2392 Mhz
Processor	x86 Family 15 Model 2 Stepping 4 GenuineIntel ~2392 Mhz
Processor	x86 Family 15 Model 2 Stepping 4 GenuineIntel ~2392 Mhz
Processor	x86 Family 15 Model 2 Stepping 4 GenuineIntel ~2392 Mhz
BIOS Version	02/14/03
Windows Directory	C:\WINNT
System Directory	C:\WINNT\System32
Boot Device	\Device\Harddisk0\Partition1
Locale	United States
User Name	CLIENT1\Administrator
Time Zone	Pacific Daylight Time
Total Physical Memory	1,048,048 KB
Available Physical Memory	893,072 KB
Total Virtual Memory	4,093,024 KB
Available Virtual Memory	3,871,168 KB
Page File Space	3,044,976 KB
Page File	C:\pagefile.sys

[Hardware Resources]

[Following are sub-categories of this main category]

[Conflicts/Sharing]

Resource	Device
IRQ 7	PCI Device
IRQ 7	Standard OpenHCD USB Host Controller

[DMA]

Channel	Device	Status
4	Direct memory access controller	OK
2	Standard floppy disk controller	OK

[Forced Hardware]

Device	PNP Device ID
No Forced Hardware	

[I/O]

Address Range	Device	Status
0x0000-0x03AF	PCI bus	OK
0x0000-0x03AF	Direct memory access controller	OK
0x03B0-0x03DF	PCI bus	OK
0x03B0-0x03DF	ATI Technologies Inc. RAGE XL PCI	OK
0x03E0-0x0CF7	PCI bus	OK
0x0D00-0x0FFF	PCI bus	OK
0xE000-0xEFFF	PCI bus	OK
0xECF8-0xEFFF	PCI Device	OK
0xECE8-0xECEF	PCI Device	OK
0xEC80-0xECBF	PCI Device	OK
0xECF4-0xECF7	PCI Device	OK
0xE800-0xE8FF	ATI Technologies Inc. RAGE XL PCI	OK
0x03C0-0x03DF	ATI Technologies Inc. RAGE XL PCI	OK
0x0080-0x009F	Direct memory access controller	OK
0x00C0-0x00DF	Direct memory access controller	OK
0x040B-0x040B	Direct memory access controller	OK
0x04D6-0x04D6	Direct memory access controller	OK
0x00F0-0x00FF	Numeric data processor	OK
0x0020-0x003F	Programmable interrupt controller	OK
0x00A0-0x00BF	Programmable interrupt controller	OK
0x04D0-0x04D1	Programmable interrupt controller	OK
0x0061-0x0061	System speaker	OK
0x0040-0x005F	System timer	OK
0x03F0-0x03F5	Standard floppy disk controller	OK
0x03F7-0x03F7	Standard floppy disk controller	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
0x03F8-0x03FF	Communications Port (COM1)	OK
0x02F8-0x02FF	Communications Port (COM2)	OK
0x0070-0x007F	System CMOS/real time clock	OK
0x0800-0x089F	System board	OK
0x08A0-0x08AF	System board	OK
0x0C00-0x0CD7	System board	OK
0x0F50-0x0F58	System board	OK

0x08E0-0x08E3	System board	OK
0x00E0-0x00EF	System board	OK
0x08B0-0x08BF	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
0x0A79-0x0A79	ISAPNP Read Data Port	OK
0x0279-0x0279	ISAPNP Read Data Port	OK
0x02F4-0x02F7	ISAPNP Read Data Port	OK
0xC000-0xCFFF	PCI bus	OK
0xC000-0xCFFF	PCI standard PCI-to-PCI bridge	OK
0xCC00-0xCCFF	Adaptec AIC-7899 Ultral60/m PCI SCSI Card	OK
0xC800-0xC8FF	Adaptec AIC-7899 Ultral60/m PCI SCSI Card	OK
0xD000-0xDFFF	PCI bus	OK

[IRQs]

IRQ Number	Device
9	Microsoft ACPI-Compliant System
11	PCI Device
10	PCI Device
7	PCI Device
7	Standard OpenHCD USB Host Controller
13	Numeric data processor
6	Standard floppy disk controller
1	Standard 101/102-Key or Microsoft Natural PS/2 Keyboard
12	PS/2 Compatible Mouse
4	Communications Port (COM1)
3	Communications Port (COM2)
8	System CMOS/real time clock
14	Primary IDE Channel
30	Adaptec AIC-7899 Ultral60/m PCI SCSI Card
31	Adaptec AIC-7899 Ultral60/m PCI SCSI Card
28	Broadcom NetXtreme Gigabit Ethernet #2
29	Broadcom NetXtreme Gigabit Ethernet
16	cLAN Host Adapter

[Memory]

Range	Device	Status
0xA0000-0xBFFFF	PCI bus	OK
0xA0000-0xBFFFF	ATI Technologies Inc. RAGE XL PCI	OK
0xD0000-0xE7FFF	PCI bus	OK
0xFD000000-0xFEBFFFFFF	PCI bus	OK
0xFD000000-0xFEBFFFFFF	ATI Technologies Inc. RAGE XL PCI	OK
0xFEB80000-0xFEB80FFF	PCI Device	OK
0xFE102000-0xFE102FFF	PCI Device	OK
0xFEB00000-0xFEB7FFFF	PCI Device	OK
0xFE101000-0xFE101FFF	ATI Technologies Inc. RAGE XL PCI	OK
0x0000-0x9FFFF	System board	OK
0x100000-0x3FFFFFFF	System board	OK
0xF0000-0xFFFFF	System board	OK
0xFEC00000-0xFEC0FFFF	System board	OK
0xFEE00000-0xFEE0FFFF	System board	OK
0xFFE00000-0xFFFFFFF	System board	OK
0xFE100000-0xFE100FFF	Standard OpenHCD USB Host Controller	OK
0xF9000000-0xFADFFFFF	PCI bus	OK
0xFAC00000-0xFADFFFFF	PCI standard PCI-to-PCI bridge	OK

```

0xFACFF000-0xFACFFFFF Adaptec AIC-7899 Ultra160/m PCI SCSI Card OK
0xFACFE000-0xFACFEFFF Adaptec AIC-7899 Ultra160/m PCI SCSI Card OK
0xFAE00000-0xFAEFFFFF PCI bus OK
0xFAF10000-0xFAF1FFFF Broadcom NetXtreme Gigabit Ethernet #2 OK
0xFAF00000-0xFAF0FFFF Broadcom NetXtreme Gigabit Ethernet OK
0xFB000000-0xFC3FFFFF PCI bus OK
0xFB000000-0xFC3FFFFF cLAN Host Adapter OK
0xFC300000-0xFC31FFFF cLAN Host Adapter OK
0xFC000000-0xFC1FFFFF cLAN Host Adapter OK
0xFC320000-0xFC32FFFF cLAN Host Adapter 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\lhacm.acm	Microsoft Corporation		OK	C:\WINNT\System32\LHACM.ACM	4.4.3385	33.27 KB (34,064 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\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\TSOFT32.ACM	1.01	9.27 KB (9,488 bytes)
c:\winnt\system32\imaadp32.acm	Microsoft Corporation		OK	C:\WINNT\System32\IMAADP32.ACM	5.00.2134.1	16.27 KB (16,656 bytes)
c:\winnt\system32\msg711.acm	Microsoft Corporation		OK	C:\WINNT\System32\MSG711.ACM	5.00.2134.1	10.27 KB (10,512 bytes)

[Video Codecs]

Codec	Manufacturer	Description	Status	File	Version	Size
		Creation Date				
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)
c:\winnt\system32\msh263.driv	Microsoft Corporation		OK	C:\WINNT\System32\MSH263.DRV	4.4.3385	252.27 KB (258,320 bytes)

```

c:\winnt\system32\msh261.driv Microsoft Corporation OK
C:\WINNT\System32\MSH261.DRV 4.4.3385 163.77 KB (167,696 bytes) 11/14/2002 8:47:09 PM
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\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
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\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

```

[CD-ROM]

Item	Value
Drive	D:
Description	CD-ROM Drive
Media Loaded	False
Media Type	CD-ROM
Name	TEAC CD-224E
Manufacturer	(Standard CD-ROM drives)
Status	OK
Transfer Rate	Not Available
SCSI Target ID	0
PNP Device ID	IDE\CDROMTEAC_CD-224E_____K.9A_____\5&3125DC91&0&0.0.0

[Sound Device]

Item	Value
No sound devices	

[Display]

Item	Value
Name	ATI Technologies Inc. RAGE XL PCI
PNP Device ID	PCI\VEN_1002&DEV_4752&SUBSYS_01211028&REV_27\3&13C0B0C5&0&70
Adapter Type	ATI RAGE XL PCI, ATI Technologies Inc. compatible
Adapter Description	ATI Technologies Inc. RAGE XL PCI
Adapter RAM	8.00 MB (8,388,608 bytes)
Installed Drivers	atidrab.dll
Driver Version	5.00.2179.1
INF File	display.inf (atirage3 section)
Color Planes	1
Color Table Entries	65536
Resolution	1024 x 768 x 60 hertz
Bits/Pixel	16

[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&25F73A82&0
NumberOfFunctionKeys 12

[Pointing Device]

Item Value
Hardware Type PS/2 Compatible Mouse
Number of Buttons 5
Status OK
PNP Device ID ACPI\PNP0F13\4&25F73A82&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] RAS Async Adapter
Adapter Type Not Available
Product Name RAS Async Adapter
Installed True
PNP Device ID Not Available
Last Reset 6/17/2003 9:31:39 AM
Index 0
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 [00000001] WAN Miniport (L2TP)
Adapter Type Not Available

Product Name WAN Miniport (L2TP)
Installed True
PNP Device ID ROOT\MS_L2TPMINIPOINT\0000
Last Reset 6/17/2003 9:31:39 AM
Index 1
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 (52112, 5.00.2195.4052)

Name [00000002] WAN Miniport (PPTP)
Adapter Type Wide Area Network (WAN)
Product Name WAN Miniport (PPTP)
Installed True
PNP Device ID ROOT\MS_PPTPMINIPOINT\0000
Last Reset 6/17/2003 9:31:39 AM
Index 2
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 (47888, 5.00.2195.4080)

Name [00000003] Direct Parallel
Adapter Type Not Available
Product Name Direct Parallel
Installed True
PNP Device ID ROOT\MS_PTMINIPOINT\0000
Last Reset 6/17/2003 9:31:39 AM
Index 3
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 [00000004] WAN Miniport (IP)
Adapter Type Not Available
Product Name WAN Miniport (IP)
Installed True

PNP Device ID ROOT\MS_NDISWANIP\0000
Last Reset 6/17/2003 9:31:39 AM
Index 4
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 (93104, 5.00.2195.5241)

Name [00000005] Broadcom NetXtreme Gigabit Ethernet
Adapter Type Ethernet 802.3
Product Name Broadcom NetXtreme Gigabit Ethernet
Installed True
PNP Device ID
PCI\VEN_14E4&DEV_1645&SUBSYS_01211028&REV_15\3&172E68DD&0&40
Last Reset 6/17/2003 9:31:39 AM
Index 5
Service Name b57w2k
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 00:06:5B:8C:9B:81
Service Name b57w2k
IRQ Number 29
Driver c:\winnt\system32\drivers\b57w2k.sys (77438, 2.67.0.0)

Name [00000006] Broadcom NetXtreme Gigabit Ethernet
Adapter Type Ethernet 802.3
Product Name Broadcom NetXtreme Gigabit Ethernet
Installed True
PNP Device ID
PCI\VEN_14E4&DEV_1645&SUBSYS_01211028&REV_15\3&172E68DD&0&30
Last Reset 6/17/2003 9:31:39 AM
Index 6
Service Name b57w2k
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 00:06:5B:8C:9B:80
Service Name b57w2k
IRQ Number 28
Driver c:\winnt\system32\drivers\b57w2k.sys (77438, 2.67.0.0)

Name [00000007] 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&1070020&0&30
Last Reset 6/17/2003 9:31:39 AM
Index 7
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:00:13:6E
Service Name GNINDIS
IRQ Number 16
Driver c:\winnt\system32\drivers\gnindis.sys (22726, 4.2.0.75)

[Protocol]

Item	Value
Name	MSAFD Tcpip [TCP/IP]
ConnectionlessService	False
GuaranteesDelivery	True
GuaranteesSequencing	True
MaximumAddressSize	16 bytes
MaximumMessageSize	0 bytes
MessageOriented	False
MinimumAddressSize	16 bytes
PseudoStreamOriented	False
SupportsBroadcasting	False
SupportsConnectData	False
SupportsDisconnectData	False
SupportsEncryption	False
SupportsExpeditedData	True
SupportsGracefulClosing	True
SupportsGuaranteedBandwidth	False
SupportsMulticasting	False

Name	MSAFD Tcpip [UDP/IP]
ConnectionlessService	True
GuaranteesDelivery	False
GuaranteesSequencing	False
MaximumAddressSize	16 bytes
MaximumMessageSize	65467 bytes
MessageOriented	True
MinimumAddressSize	16 bytes
PseudoStreamOriented	False
SupportsBroadcasting	True
SupportsConnectData	False
SupportsDisconnectData	False
SupportsEncryption	False
SupportsExpeditedData	False
SupportsGracefulClosing	False
SupportsGuaranteedBandwidth	False
SupportsMulticasting	True

Name RSVP UDP Service Provider

ConnectionlessService True
 GuaranteesDelivery False
 GuaranteesSequencing False
 MaximumAddressSize 16 bytes
 MaximumMessageSize 65467 bytes
 MessageOriented True
 MinimumAddressSize 16 bytes
 PseudoStreamOriented False
 SupportsBroadcasting True
 SupportsConnectData False
 SupportsDisconnectData False
 SupportsEncryption True
 SupportsExpeditedData False
 SupportsGracefulClosing False
 SupportsGuaranteedBandwidth False
 SupportsMulticasting True

Name RSVP TCP Service Provider
 ConnectionlessService False
 GuaranteesDelivery True
 GuaranteesSequencing True
 MaximumAddressSize 16 bytes
 MaximumMessageSize 0 bytes
 MessageOriented False
 MinimumAddressSize 16 bytes
 PseudoStreamOriented False
 SupportsBroadcasting False
 SupportsConnectData False
 SupportsDisconnectData False
 SupportsEncryption True
 SupportsExpeditedData True
 SupportsGracefulClosing True
 SupportsGuaranteedBandwidth False
 SupportsMulticasting False

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{592704BD-A8EF-4DEB-AC45-
 BE32F7F359C3}] SEQUENCE 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_{592704BD-A8EF-4DEB-AC45-
 BE32F7F359C3}] 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_{3D55F2FD-CE2E-4072-8B10-
 42A97A6EA309}] SEQUENCE 3
 ConnectionlessService False
 GuaranteesDelivery True
 GuaranteesSequencing True
 MaximumAddressSize 20 bytes
 MaximumMessageSize 64000 bytes
 MessageOriented True
 MinimumAddressSize 20 bytes
 PseudoStreamOriented False
 SupportsBroadcasting False
 SupportsConnectData False
 SupportsDisconnectData False
 SupportsEncryption False
 SupportsExpeditedData False
 SupportsGracefulClosing False
 SupportsGuaranteedBandwidth False
 SupportsMulticasting False

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{3D55F2FD-CE2E-4072-8B10-
 42A97A6EA309}] DATAGRAM 3
 ConnectionlessService True
 GuaranteesDelivery False
 GuaranteesSequencing False
 MaximumAddressSize 20 bytes
 MaximumMessageSize 64000 bytes
 MessageOriented True
 MinimumAddressSize 20 bytes
 PseudoStreamOriented False
 SupportsBroadcasting True
 SupportsConnectData False
 SupportsDisconnectData False
 SupportsEncryption False
 SupportsExpeditedData False
 SupportsGracefulClosing False
 SupportsGuaranteedBandwidth False
 SupportsMulticasting False

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{9D20D885-9BA8-490D-AABB-
 1A03BEA0A5B9}] SEQUENCE 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_{9D20D885-9BA8-490D-AABB-1A03BEA0A5B9}] 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_{429130B1-6084-46AD-A1DE-D9C2C11E8C8B}] SEQPACKET 1
 ConnectionlessService False
 GuaranteesDelivery True
 GuaranteesSequencing True
 MaximumAddressSize 20 bytes
 MaximumMessageSize 64000 bytes
 MessageOriented True
 MinimumAddressSize 20 bytes
 PseudoStreamOriented False
 SupportsBroadcasting False
 SupportsConnectData False
 SupportsDisconnectData False
 SupportsEncryption False
 SupportsExpeditedData False
 SupportsGracefulClosing False
 SupportsGuaranteedBandwidth False
 SupportsMulticasting False

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{429130B1-6084-46AD-A1DE-D9C2C11E8C8B}] DATAGRAM 1
 ConnectionlessService True
 GuaranteesDelivery False
 GuaranteesSequencing False
 MaximumAddressSize 20 bytes
 MaximumMessageSize 64000 bytes
 MessageOriented True
 MinimumAddressSize 20 bytes

PseudoStreamOriented False
 SupportsBroadcasting True
 SupportsConnectData False
 SupportsDisconnectData False
 SupportsEncryption False
 SupportsExpeditedData False
 SupportsGracefulClosing False
 SupportsGuaranteedBandwidth False
 SupportsMulticasting False

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{338997ED-371A-4B63-9093-DFA4D717C2D5}] SEQPACKET 2
 ConnectionlessService False
 GuaranteesDelivery True
 GuaranteesSequencing True
 MaximumAddressSize 20 bytes
 MaximumMessageSize 64000 bytes
 MessageOriented True
 MinimumAddressSize 20 bytes
 PseudoStreamOriented False
 SupportsBroadcasting False
 SupportsConnectData False
 SupportsDisconnectData False
 SupportsEncryption False
 SupportsExpeditedData False
 SupportsGracefulClosing False
 SupportsGuaranteedBandwidth False
 SupportsMulticasting False

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{338997ED-371A-4B63-9093-DFA4D717C2D5}] DATAGRAM 2
 ConnectionlessService True
 GuaranteesDelivery False
 GuaranteesSequencing False
 MaximumAddressSize 20 bytes
 MaximumMessageSize 64000 bytes
 MessageOriented True
 MinimumAddressSize 20 bytes
 PseudoStreamOriented False
 SupportsBroadcasting True
 SupportsConnectData False
 SupportsDisconnectData False
 SupportsEncryption False
 SupportsExpeditedData False
 SupportsGracefulClosing False
 SupportsGuaranteedBandwidth False
 SupportsMulticasting False

[WinSock]

Item	Value
File	c:\winnt\system32\winsock.dll
Version	3.10
Size	2.80 KB (2,864 bytes)
File	c:\winnt\system32\wsock32.dll
Version	5.00.2195.4874
Size	21.27 KB (21,776 bytes)

[Ports]

[Following are sub-categories of this main category]

[Serial]

Item	Value
Name	COM1
Status	OK
PNP Device ID	ACPI\PNP0501\1
Maximum Input Buffer Size	0
Maximum Output Buffer Size	False
Settable Baud Rate	True
Settable Data Bits	True
Settable Flow Control	True
Settable Parity	True
Settable Parity Check	True
Settable Stop Bits	True
Settable RLSD	True
Supports RLSD	True
Supports 16 Bit Mode	False
Supports Special Characters	False
Baud Rate	9600
Bits/Byte	8
Stop Bits	1
Parity	None
Busy	0
Abort Read/Write on Error	0
Binary Mode Enabled	-1
Continue Xmit on XOff	0
CTS Outflow Control	0
Discard NULL Bytes	0
DSR Outflow Control	0
DSR Sensitivity	0
DTR Flow Control Type	Enable
EOF Character	0
Error Replace Character	0
Error Replacement Enabled	0
Event Character	0
Parity Check Enabled	0
RTS Flow Control Type	Enable
XOff Character	19
XOffxMit Threshold	512
XOn Character	17
XOnXmit Threshold	2048
XOnXOff InFlow Control	0
XOnXOff OutFlow Control	0
IRQ Number	4
I/O Port	0x03F8-0x03FF
Driver	c:\winnt\system32\drivers\serial.sys (62512, 5.00.2195.5080)

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 (62512, 5.00.2195.5080)

[Parallel]

Item	Value
No parallel port information	

[Storage]

[Following are sub-categories of this main category]

[Drives]

Item	Value
Drive A:	
Description	3 1/2 Inch Floppy Drive
Drive C:	
Description	Local Fixed Disk
Compressed	False
File System	NTFS
Size	16.95 GB (18,202,509,312 bytes)

Free Space 13.58 GB (14,579,044,352 bytes)
Volume Name
Volume Serial Number COE2039E
Partition Disk #0, Partition #0
Partition Size 16.95 GB (18,202,512,384 bytes)
Starting Offset 32256 bytes
Drive Description Disk drive
Drive Manufacturer (Standard disk drives)
Drive Model FUJITSU MAN3184MC SCSI Disk Device
Drive BytesPerSector 512
Drive MediaLoaded True
Drive MediaType Fixed hard disk media
Drive Partitions 1
Drive SCSI Bus 0
Drive SCSI LogicalUnit 0
Drive SCSI Port 2
Drive SCSI TargetId 0
Drive SectorsPerTrack 63
Drive Size 18202544640 bytes
Drive TotalCylinders 2213
Drive TotalSectors 35551845
Drive TotalTracks 564315
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_01211028&REV_01\4&22300438&0&3040
Device ID
PCI\VEN_9005&DEV_00CF&SUBSYS_01211028&REV_01\4&22300438&0&3040
Device Map Not Available
Index Not Available
Max Number Controlled Not Available
IRQ Number 30
I/O Port 0xCC00-0xCCFF
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_01211028&REV_01\4&22300438&0&3140
Device ID
PCI\VEN_9005&DEV_00CF&SUBSYS_01211028&REV_01\4&22300438&0&3140
Device Map Not Available
Index Not Available
Max Number Controlled Not Available
IRQ Number 31
I/O Port 0xC800-0xC8FF
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
PCI Device	PCI\VEN_1028&DEV_000C&SUBSYS_000C1028&REV_00\3&13C0B0C5&0&2028	
PCI Device	PCI\VEN_1028&DEV_0008&SUBSYS_00081028&REV_00\3&13C0B0C5&0&2128	
PCI Device	PCI\VEN_1028&DEV_000D&SUBSYS_000D1028&REV_00\3&13C0B0C5&0&2228	

[USB]

Device	PNP Device ID
Standard OpenHCD USB Host Controller	PCI\VEN_1166&DEV_0220&SUBSYS_02201166&REV_05\3&13C0B0C5&0&7A
USB Root Hub	USB\ROOT_HUB\4&1A0F8909&0

[Software Environment]

[Following are sub-categories of this main category]

[Drivers]

Name	Description	File	Type	Started	Start Mode	State	Status
abiosdsk	Error Control	Accept Pause	Accept Stop	Not Available	Kernel Driver	False	
abp480n5	abp480n5	Not Available	Kernel Driver	False			
acpi	Microsoft ACPI Driver	c:\winnt\system32\drivers\acpi.sys	Kernel	True	Boot	Running	OK
acpiec	ACPIEC	c:\winnt\system32\drivers\acpiec.sys	Kernel Driver	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		
aic116x	aic116x	Not Available	Kernel Driver	False	Disabled		
aic78u2	aic78u2	Not Available	Kernel Driver	False	Disabled		
aic78xx	aic78xx	Not Available	Kernel Driver	False	Disabled		
ami0nt	ami0nt	Not Available	Kernel Driver	False	Disabled		
amsint	amsint	Not Available	Kernel Driver	False	Disabled		

asc	asc	Not Available	Kernel Driver	False	Disabled				
		Stopped OK	Normal	False	False				
asc3350p	asc3350p	Not Available	Kernel Driver	False	Disabled				
		Disabled	Stopped OK	Normal	False	False			
asc3550	asc3550	Not Available	Kernel Driver	False	Disabled				
		Stopped OK	Normal	False	False				
asynmac	RAS Asynchronous Media Driver								
	c:\winnt\system32\drivers\asynmac.sys		Kernel Driver	False					
		Manual	Stopped OK	Normal	False	False			
atapi	Standard IDE/ESDI Hard Disk Controller								
	c:\winnt\system32\drivers\atapi.sys		Kernel Driver	True	Boot				
		Running OK	Normal	False	True				
atdisk	AtDisk	Not Available	Kernel Driver	False	Disabled				
		Stopped OK	Ignore	False	False				
atirage3	atirage3		c:\winnt\system32\drivers\atimpab.sys	Kernel					
Driver	True	Manual	Running OK	Ignore	False	True			
atmarpc	ATM ARP Client Protocol								
	c:\winnt\system32\drivers\atmarpc.sys		Kernel Driver	False	Manual				
		Stopped OK	Normal	False	False				
audstub	Audio Stub Driver		c:\winnt\system32\drivers\audstub.sys	Kernel					
Driver	True	Manual	Running OK	Normal	False	True			
b57w2k	Broadcom NetXtreme Gigabit Ethernet								
	c:\winnt\system32\drivers\b57w2k.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				
		Disabled	Stopped OK	Normal	False	False			
cd20xrnt	cd20xrnt	Not Available	Kernel Driver	False	Disabled				
		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				
		Disabled	Stopped OK	Normal	False	False			
cpqarry2	cpqarry2	Not Available	Kernel Driver	False	Disabled				
		Disabled	Stopped OK	Normal	False	False			
cpqfcalm	cpqfcalm	Not Available	Kernel Driver	False	Disabled				
		Disabled	Stopped OK	Normal	False	False			
cpqfws2e	cpqfws2e	Not Available	Kernel Driver	False	Disabled				
		Disabled	Stopped OK	Normal	False	False			
dac960nt	dac960nt	Not Available	Kernel Driver	False	Disabled				
		Disabled	Stopped OK	Normal	False	False			
deckzpsx	deckzpsx	Not Available	Kernel Driver	False	Disabled				
		Disabled	Stopped OK	Normal	False	False			
dfsdriver	DfsDriver		c:\winnt\system32\drivers\dfs.sys	File					
System	Driver	True	Boot	Running OK	Normal	False	True		
disk	Disk Driver		c:\winnt\system32\drivers\disk.sys	Kernel Driver					
		True	Boot	Running OK	Normal	False	True		
diskperf	Diskperf		c:\winnt\system32\drivers\diskperf.sys						
		Kernel Driver	True	Boot	Running OK	Normal	False	True	
dmboot	dmboot		c:\winnt\system32\drivers\dmboot.sys	Kernel Driver	False				
		Disabled	Stopped OK	Normal	False	False			

dmio	Logical Driver Manager Driver		c:\winnt\system32\drivers\dmio.sys						
		Kernel Driver	True	Boot	Running OK	Normal	False	True	
dmload	dmload		c:\winnt\system32\drivers\dmload.sys	Kernel Driver	True				
		Boot	Running OK	Normal	False	True			
efs	EFS		c:\winnt\system32\drivers\efs.sys	File System Driver					
		True	Disabled	Running OK	Normal	False	True		
fastfat	Fastfat		c:\winnt\system32\drivers\fastfat.sys	File System Driver					
		True	Disabled	Running OK	Normal	False	True		
fd16_700	Fd16_700	Not Available	Kernel Driver	False	Disabled				
		Disabled	Stopped OK	Normal	False	False			
fdc	Floppy Disk Controller Driver		c:\winnt\system32\drivers\fdc.sys						
		Kernel Driver	True	Manual	Running OK	Normal	False	True	
fips	Fips		c:\winnt\system32\drivers\fips.sys	Kernel Driver	True				
		Auto	Running OK	Normal	False	True			
fireport	fireport	Not Available	Kernel Driver	False	Disabled				
		Disabled	Stopped OK	Normal	False	False			
flashpnt	flashpnt	Not Available	Kernel Driver	False	Disabled				
		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			
ftdisk	Volume Manager Driver		c:\winnt\system32\drivers\ftdisk.sys	Kernel					
Driver	True	Boot	Running OK	Normal	False	True			
gnindis	cLAN NDIS Driver		c:\winnt\system32\drivers\gnindis.sys	Kernel					
Driver	True	Auto	Running OK	Normal	False	True			
gnivia	cLAN VIA Driver		c:\winnt\system32\drivers\gnivia.sys	Kernel					
Driver	True	Auto	Running OK	Normal	False	True			
gpc	Generic Packet Classifier		c:\winnt\system32\drivers\msgpc.sys						
		Kernel Driver	True	Manual	Running OK	Normal	False	True	
i8042prt	i8042 Keyboard and PS/2 Mouse Port Driver								
			c:\winnt\system32\drivers\i8042prt.sys	Kernel Driver	True				
		System	Running OK	Normal	False	True			
ini910u	ini910u	Not Available	Kernel Driver	False	Disabled				
		Stopped OK	Normal	False	False				
intelide	IntelIde	Not Available	Kernel Driver	False	Disabled				
		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			
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				
		Disabled	Stopped OK	Normal	False	False			
irenum	IR Enumerator Service		c:\winnt\system32\drivers\irenum.sys	Kernel					
Driver	False	Manual	Stopped OK	Normal	False	False			
isapnp	PnP ISA/EISA Bus Driver		c:\winnt\system32\drivers\isapnp.sys						
		Kernel Driver	True	Boot	Running OK	Critical	False		
		True							
kbdclass	Keyboard Class Driver								
			c:\winnt\system32\drivers\kbdclass.sys	Kernel Driver	True				
		System	Running OK	Normal	False	True			
ksecdd	KSecDD		c:\winnt\system32\drivers\ksecdd.sys	Kernel Driver	True				
		Boot	Running OK	Normal	False	True			
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
mmdd       mmmdd    c:\winnt\system32\drivers\mmdd.sys Kernel Driver True
            System Running OK Ignore False True
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
mountmgr   MountMgr   c:\winnt\system32\drivers\mountmgr.sys
            Kernel Driver True Boot Running OK Normal False True
mraid35x   mraid35x   Not Available Kernel Driver False
            Disabled Stopped OK Normal False False
mrxsmb     MRXSMB    c:\winnt\system32\drivers\mrxsmb.sys File System Driver
            True System Running OK Normal False True
msfs       Msfs      c:\winnt\system32\drivers\msfs.sys File System Driver
            True System Running OK Normal False True
mskssrv    Microsoft Streaming Service Proxy
            c:\winnt\system32\drivers\mskssrv.sys Kernel Driver False Manual
            Stopped OK Normal False False
mspclock   Microsoft Streaming Clock Proxy
            c:\winnt\system32\drivers\mspclock.sys Kernel Driver False
            Manual Stopped OK Normal False False
mspqm      Microsoft Streaming Quality Manager Proxy
            c:\winnt\system32\drivers\mspqm.sys Kernel Driver False Manual
            Stopped OK Normal False False
mup        Mup       c:\winnt\system32\drivers\mup.sys File System Driver
            True Boot Running OK Normal False True
ncrc710    Ncrc710   Not Available Kernel Driver False Disabled
            Stopped OK Normal False False
ndis       NDIS System Driver c:\winnt\system32\drivers\ndis.sys Kernel
            Driver True Boot Running OK Normal False True
ndistapi   Remote Access NDIS TAPI Driver
            c:\winnt\system32\drivers\ndistapi.sys Kernel Driver True
            Manual Running OK Normal False True
ndiswan    Remote Access NDIS WAN Driver
            c:\winnt\system32\drivers\ndiswan.sys Kernel Driver True Manual
            Running OK Normal False True
ndproxy    NDIS Proxy c:\winnt\system32\drivers\ndproxy.sys Kernel Driver
            True Manual Running OK Normal False True
netbios    NetBIOS Interface c:\winnt\system32\drivers\netbios.sys File
            System Driver True System Running OK Normal False True
netbt     NetBios over Tcpip c:\winnt\system32\drivers\netbt.sys Kernel
            Driver True System Running OK Normal False True
netdetect  NetDetect   c:\winnt\system32\drivers\netdtect.sys
            Kernel Driver False Manual Stopped OK Normal False False
npfs       Npfs      c:\winnt\system32\drivers\npfs.sys File System Driver
            True System Running OK Normal False True
ntfs       Ntfs      c:\winnt\system32\drivers\ntfs.sys File System Driver
            True Disabled Running OK Normal False True
null       Null      c:\winnt\system32\drivers\null.sys Kernel Driver True
            System Running OK Normal False True
nwlkflt    IPX Traffic Filter Driver
            c:\winnt\system32\drivers\nwlkflt.sys Kernel Driver False
            Manual Stopped OK Normal False False
nwlkfwd    IPX Traffic Forwarder Driver
            c:\winnt\system32\drivers\nwlkfwd.sys Kernel Driver False
            Manual Stopped OK Normal False False

```

```

openhci    Microsoft USB Open Host Controller Driver
            c:\winnt\system32\drivers\openhci.sys Kernel Driver True Manual
            Running OK Normal False True
parallel   Parallel   c:\winnt\system32\drivers\parallel.sys
            Kernel Driver False Auto Stopped OK Ignore False False
parport    Parport   c:\winnt\system32\drivers\parport.sys Kernel Driver False
            Auto Stopped OK Ignore False False
partmgr    PartMgr   c:\winnt\system32\drivers\partmgr.sys Kernel Driver True
            Boot Running OK Normal False True
parvdm     ParVdm    c:\winnt\system32\drivers\parvdm.sys Kernel Driver False
            Auto Stopped OK Ignore False False
pci        PCI Bus Driver c:\winnt\system32\drivers\pci.sys Kernel Driver
            True Boot Running OK Critical False True
pcidump    PCIDump   Not Available Kernel Driver False System Stopped OK
            Ignore False False
pciide     PCIIDE    c:\winnt\system32\drivers\pciide.sys Kernel Driver True
            Boot Running OK Normal False True
pcmcia     Pcmcia    c:\winnt\system32\drivers\pcmcia.sys Kernel Driver False
            Disabled Stopped OK Normal False False
pdcomp     PDCOMP    Not Available Kernel Driver False Manual Stopped OK
            Ignore False False
pdframe    PDFRAME   Not Available Kernel Driver False Manual Stopped OK
            Ignore False False
pdreli     PDRELI    Not Available Kernel Driver False Manual Stopped OK
            Ignore False False
pdrframe   PDRFRAME   Not Available Kernel Driver False Manual
            Stopped OK Ignore False False
pptpminiport WAN Miniport (PPTP)
            c:\winnt\system32\drivers\rasptp.sys Kernel Driver True Manual
            Running OK Normal False True
ptilink    Direct Parallel Link Driver
            c:\winnt\system32\drivers\ptilink.sys Kernel Driver True Manual
            Running OK Normal False True
ql1080     ql1080    Not Available Kernel Driver False Disabled
            Stopped OK Normal False False
ql10wnt    Ql10wnt   Not Available Kernel Driver False Disabled
            Stopped OK Normal False False
ql1240     ql1240    Not Available Kernel Driver False Disabled
            Stopped OK Normal False False
ql2100     ql2100    Not Available Kernel Driver False Disabled
            Stopped OK Normal False False
ql2300     ql2300    c:\winnt\system32\drivers\ql2300.sys Kernel Driver False
            Boot Stopped OK Normal False False
qlvika     qlvika    Not Available Kernel Driver False Auto Stopped OK
            Normal False False
rasacd     Remote Access Auto Connection Driver
            c:\winnt\system32\drivers\rasacd.sys Kernel Driver True System
            Running OK Normal False True
rasl2tp    WAN Miniport (L2TP) c:\winnt\system32\drivers\rasl2tp.sys Kernel
            Driver True Manual Running OK Normal False True
raspti     Direct Parallel   c:\winnt\system32\drivers\raspti.sys Kernel
            Driver True Manual Running OK Normal False True
rca        Microsoft Streaming Network Raw Channel Access
            c:\winnt\system32\drivers\rca.sys Kernel Driver False Manual
            Stopped OK Normal False False
rdbss      Rdbss     c:\winnt\system32\drivers\rdbss.sys File System Driver
            True System Running OK Normal False True

```

```

rdpdr Terminal Server Device Redirector Driver
c:\winnt\system32\drivers\rdpdr.sys Kernel Driver True Manual
Running OK Normal False True
rdpwd RDPWD c:\winnt\system32\drivers\rdpwd.sys Kernel Driver True
Manual Running OK Ignore False True
redbook Digital CD Audio Playback Filter Driver
c:\winnt\system32\drivers\redbook.sys Kernel Driver False System
Stopped OK Normal False False
serenum Serenum Filter Driver c:\winnt\system32\drivers\serenum.sys Kernel
Driver True Manual Running OK Normal False True
serial Serial port driver c:\winnt\system32\drivers\serial.sys Kernel
Driver True System Running OK Ignore False True
sfloppy Sfloppy c:\winnt\system32\drivers\sfloppy.sys Kernel Driver False
System Stopped OK Ignore False False
sglfb sglfb Not Available Kernel Driver False System Stopped OK
Normal False False
simbad Simbad Not Available Kernel Driver False Disabled
Stopped OK Normal False False
sparrow Sparrow Not Available Kernel Driver False Disabled
Stopped OK Normal False False
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
sym_hi sym_hi Not Available Kernel Driver False Disabled
Stopped OK Normal False False
tcpip TCP/IP Protocol Driver c:\winnt\system32\drivers\tcpip.sys Kernel
Driver True System Running OK Normal False True
tdasync TDASYNC c:\winnt\system32\drivers\tdasync.sys Kernel Driver False
Manual Stopped OK Ignore False False
tdipx TDIPX c:\winnt\system32\drivers\tdipx.sys Kernel Driver False
Manual Stopped OK Ignore False False
tdnetb TDNETB c:\winnt\system32\drivers\tdnetb.sys Kernel Driver False
Manual Stopped OK Ignore False False
tdpipe TDPIPE c:\winnt\system32\drivers\tdpipe.sys Kernel Driver False
Manual Stopped OK Ignore False False
tdspix TDSPX c:\winnt\system32\drivers\tdspix.sys Kernel Driver False
Manual Stopped OK Ignore False False
tdtcp TDTCP c:\winnt\system32\drivers\tdtcp.sys Kernel Driver True
Manual Running OK Ignore False True
termdd Terminal Device Driver c:\winnt\system32\drivers\termdd.sys Kernel
Driver True Auto Running OK Normal False True
tga tga Not Available Kernel Driver False System Stopped OK
Ignore False False
udfs Udfs c:\winnt\system32\drivers\udfs.sys File System Driver
False Disabled Stopped OK Normal False False
ultra66 ultra66 Not Available Kernel Driver False Disabled
Stopped OK Normal False False
update Microcode Update Driver c:\winnt\system32\drivers\update.sys
Kernel Driver True Manual Running OK Normal False True

```

```

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>
Os2LibPath	%SystemRoot%\system32\os2\dll;	<SYSTEM>
Path	%SystemRoot%\system32;%SystemRoot%;%SystemRoot%\System32\Wbem;C:\P	
rogram	Files\Microsoft SQL Server\80\Tools\BINN	<SYSTEM>
windir	%SystemRoot%	<SYSTEM>
OS	Windows_NT	<SYSTEM>
PROCESSOR_ARCHITECTURE	x86	<SYSTEM>
PROCESSOR_LEVEL	15	<SYSTEM>
PROCESSOR_IDENTIFIER	x86 Family 15 Model 2 Stepping 4, GenuineIntel	<SYSTEM>
PROCESSOR_REVISION	0204	<SYSTEM>
NUMBER_OF_PROCESSORS	4	<SYSTEM>
PATHEXT	.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH	<SYSTEM>
TEMP	%SystemRoot%\TEMP	<SYSTEM>
TMP	%SystemRoot%\TEMP	<SYSTEM>
TEMP	%USERPROFILE%\Local Settings\Temp	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
Until Time		Elapsed Time	Pages Printed	Job ID	Priority	
Parameters		Driver Name	Print Processor	Host Print		
Queue	Data Type	Name				
Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Unknown						

[Network Connections]

Local Name	Remote Name	Type	Status	User Name
No network connections information				

[Running Tasks]

Name	Path	Process ID	Priority	Min Working Set	Max
Working Set	Start Time	Version Size	File Date		
system idle process	Not Available	0	0	Not Available	Not
Available	Not Available	Unknown	Unknown	Unknown	
system	Not Available	8	8	1413120	Not Available
Unknown	Unknown	Unknown			

```

smss.exe c:\winnt\system32\smss.exe 188 11 204800
1413120 6/17/2003 4:29:29 AM 5.00.2195.5382 44.77 KB (45,840
bytes) 12/7/1999 4:00:00 AM
csrss.exe Not Available 216 13 Not Available Not Available
6/17/2003 4:29:31 AM Unknown Unknown Unknown
winlogon.exe c:\winnt\system32\winlogon.exe 212 13 204800
1413120 6/17/2003 4:29:32 AM 5.00.2195.5386 174.77 KB (178,960
bytes) 11/14/2002 9:53:44 PM
services.exe c:\winnt\system32\services.exe 268 9 204800
1413120 6/17/2003 4:29:33 AM 5.00.2195.3940 86.77 KB (88,848
bytes) 12/7/1999 4:00:00 AM
lsass.exe c:\winnt\system32\lsass.exe 280 9 204800
1413120 6/17/2003 4:29:33 AM 5.00.2195.5430 32.77 KB (33,552
bytes) 12/7/1999 4:00:00 AM
termsrv.exe c:\winnt\system32\termsrv.exe 388 10 204800
1413120 6/17/2003 4:29:34 AM 5.00.2195.5276 138.77 KB (142,096
bytes) 11/14/2002 9:53:42 PM
gnconmgr.exe c:\winnt\system32\gnconmgr.exe 452 8 204800
1413120 6/17/2003 4:29:35 AM 4.2.0.75 168.05 KB (172,079
bytes) 2/18/2003 9:21:16 AM
svchost.exe c:\winnt\system32\svchost.exe 500 8 204800
1413120 6/17/2003 4:29:35 AM 5.00.2134.1 7.77 KB (7,952 bytes)
12/7/1999 4:00:00 AM
msdtc.exe c:\winnt\system32\msdtc.exe 532 8 204800
1413120 6/17/2003 4:29:36 AM 1999.9.3421.3 6.77 KB (6,928 bytes)
11/14/2002 12:44:42 PM
svchost.exe c:\winnt\system32\svchost.exe 692 8 204800
1413120 6/17/2003 4:29:37 AM 5.00.2134.1 7.77 KB (7,952 bytes)
12/7/1999 4:00:00 AM
mnmsrvc.exe c:\winnt\system32\mnmsrvc.exe 716 8 204800
1413120 6/17/2003 4:29:37 AM 4.4.3385 21.27 KB (21,776
bytes) 11/14/2002 8:47:09 PM
regsvc.exe c:\winnt\system32\regsvc.exe 732 8 204800
1413120 6/17/2003 4:29:37 AM 5.00.2195.3649 65.27 KB (66,832
bytes) 11/14/2002 9:53:37 PM
mstask.exe c:\winnt\system32\mstask.exe 752 8 204800
1413120 6/17/2003 4:29:38 AM 4.71.2195.1 115.77 KB (118,544
bytes) 11/14/2002 9:53:29 PM
winmgmt.exe c:\winnt\system32\wbem\winmgmt.exe 856 8 204800
1413120 6/17/2003 4:29:38 AM 1.50.1085.0070 192.08 KB (196,685
bytes) 11/14/2002 9:53:50 PM
explorer.exe c:\winnt\explorer.exe 980 8 204800 1413120
6/17/2003 4:33:59 AM 5.00.3502.5321 237.27 KB (242,960 bytes)
11/14/2002 9:53:45 PM
rhostsrvr.exe c:\rhost\rhostsrvr.exe 1036 8 204800 1413120
6/17/2003 4:34:00 AM Not Available 54.50 KB (55,808 bytes)
10/8/2002 4:29:32 PM
dllhost.exe Not Available 1152 8 Not Available Not Available
6/17/2003 8:11:19 AM Unknown Unknown Unknown
csrss.exe Not Available 1588 13 Not Available Not Available
6/18/2003 1:55:42 PM Unknown Unknown Unknown
winlogon.exe c:\winnt\system32\winlogon.exe 2084 13 204800
1413120 6/18/2003 1:55:42 PM 5.00.2195.5386 174.77 KB (178,960
bytes) 11/14/2002 9:53:44 PM
rdpclip.exe c:\winnt\system32\rdpclip.exe 1584 8 204800
1413120 6/18/2003 1:55:46 PM 5.00.2174.1 39.77 KB (40,720
bytes) 11/14/2002 12:44:44 PM

```

```

explorer.exe c:\winnt\explorer.exe 1424 8 204800 1413120
6/18/2003 1:55:46 PM 5.00.3502.5321 237.27 KB (242,960 bytes)
11/14/2002 9:53:45 PM
msinfo32.exe c:\program files\common files\microsoft
shared\msinfo\msinfo32.exe 1764 8 204800 1413120 6/18/2003
1:55:56 PM 5.00.2134.1 15.77 KB (16,144 bytes) 11/14/2002
8:47:06 PM
rsvp.exe c:\winnt\system32\rsvp.exe 1676 8 204800
1413120 6/18/2003 1:56:13 PM 5.00.2167.1 172.77 KB (176,912
bytes) 12/7/1999 4:00:00 AM

```

[Loaded Modules]

Name	Version	Size	File Date	Manufacturer	Path
traffic.dll	5.00.2139.1	30.77 KB (31,504 bytes)			12/7/1999
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			
wbemprox.dll	1.50.1085.0045	40.08 KB (41,040 bytes)			11/14/2002
9:53:50 PM	Microsoft Corporation	c:\winnt\system32\wbem\wbemprox.dll			
cabinet.dll	5.00.2147.1	54.77 KB (56,080 bytes)			12/7/1999
4:00:00 AM	Microsoft Corporation	c:\winnt\system32\cabinet.dll			
msinfo32.dll	5.00.2195.4601	312.27 KB (319,760 bytes)			11/14/2002
9:53:51 PM	Microsoft Corporation	c:\program files\common			
files\microsoft shared\msinfo\msinfo32.dll					
mfc42u.dll	6.00.8665.0	972.05 KB (995,384 bytes)			12/7/1999
4:00:00 AM	Microsoft Corporation	c:\winnt\system32\mfc42u.dll			
msinfo32.exe	5.00.2134.1	15.77 KB (16,144 bytes)			11/14/2002
8:47:06 PM	Microsoft Corporation	c:\program files\common			
files\microsoft shared\msinfo\msinfo32.exe					
rdpclip.exe	5.00.2174.1	39.77 KB (40,720 bytes)			11/14/2002
12:44:44 PM	Microsoft Corporation	c:\winnt\system32\rdpclip.exe			
rhostsrvr.exe	Not Available	54.50 KB (55,808 bytes)			10/8/2002
4:29:32 PM	Not Available	c:\rhost\rhostsrvr.exe			
ntshruil.dll	5.00.2134.1	46.77 KB (47,888 bytes)			12/7/1999
4:00:00 AM	Microsoft Corporation	c:\winnt\system32\ntshruil.dll			
linkinfo.dll	5.00.2134.1	15.77 KB (16,144 bytes)			12/7/1999
4:00:00 AM	Microsoft Corporation	c:\winnt\system32\linkinfo.dll			
msi.dll	2.0.2600.1	1.90 MB (1,991,168 bytes)			11/14/2002 9:53:27 PM
	Microsoft Corporation	c:\winnt\system32\msi.dll			
powrprof.dll	5.00.3502.5305	13.27 KB (13,584 bytes)			11/14/2002
9:53:36 PM	Microsoft Corporation	c:\winnt\system32\powrprof.dll			
batmeter.dll	5.00.3502.5305	20.27 KB (20,752 bytes)			11/14/2002
9:53:10 PM	Microsoft Corporation	c:\winnt\system32\batmeter.dll			
stobject.dll	5.00.2195.4455	79.27 KB (81,168 bytes)			11/14/2002
9:53:41 PM	Microsoft Corporation	c:\winnt\system32\stobject.dll			
webcheck.dll	5.00.3315.3727	250.77 KB (256,784 bytes)			11/14/2002
9:53:44 PM	Microsoft Corporation	c:\winnt\system32\webcheck.dll			
browseui.dll	5.00.3502.4373	791.27 KB (810,256 bytes)			11/14/2002
9:53:10 PM	Microsoft Corporation	c:\winnt\system32\browseui.dll			
shdocvw.dll	5.00.3502.5400	1.05 MB (1,105,168 bytes)			12/14/2002
9:53:39 PM	Microsoft Corporation	c:\winnt\system32\shdocvw.dll			
explorer.exe	5.00.3502.5321	237.27 KB (242,960 bytes)			11/14/2002
9:53:45 PM	Microsoft Corporation	c:\winnt\explorer.exe			
netui1.dll	5.00.2134.1	210.27 KB (215,312 bytes)			12/7/1999
4:00:00 AM	Microsoft Corporation	c:\winnt\system32\netui1.dll			
netui0.dll	5.00.2195.4874	70.77 KB (72,464 bytes)			11/14/2002
9:53:32 PM	Microsoft Corporation	c:\winnt\system32\netui0.dll			

ntlanman.dll 5.00.2195.5428 35.27 KB (36,112 bytes) 12/7/1999
 4:00:00 AM Microsoft Corporation c:\winnt\system32\ntlmanman.dll
 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
 ntmarta.dll 5.00.2195.4836 99.77 KB (102,160 bytes) 11/14/2002
 9:53:33 PM Microsoft Corporation c:\winnt\system32\ntmarta.dll
 provthrd.dll 1.50.1085.0000 68.07 KB (69,708 bytes) 11/14/2002
 8:46:58 PM Microsoft Corporation c:\winnt\system32\wbem\provthrd.dll
 ntevt.dll 1.50.1085.0072 192.06 KB (196,671 bytes) 11/14/2002
 9:53:49 PM Microsoft Corporation c:\winnt\system32\wbem\ntevt.dll
 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
 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
 framedyn.dll 1.50.1085.0076 164.07 KB (168,009 bytes) 11/14/2002
 9:53:48 PM Microsoft Corporation c:\winnt\system32\wbem\framedyn.dll
 cimwin32.dll 1.50.1085.0073 1.04 MB (1,085,520 bytes) 11/14/2002
 9:53:48 PM Microsoft Corporation c:\winnt\system32\wbem\cimwin32.dll
 wbemsvc.dll 1.50.1085.0007 40.07 KB (41,036 bytes) 11/14/2002
 9:53:50 PM Microsoft Corporation c:\winnt\system32\wbem\wbemsvc.dll
 wbemess.dll 1.50.1085.0074 364.07 KB (372,804 bytes) 11/14/2002
 9:53:50 PM Microsoft Corporation c:\winnt\system32\wbem\wbemess.dll
 fastprox.dll 1.50.1085.0056 144.08 KB (147,536 bytes) 11/14/2002
 9:53:48 PM Microsoft Corporation c:\winnt\system32\wbem\fastprox.dll
 wbemcore.dll 1.50.1085.0085 628.07 KB (643,146 bytes) 11/14/2002
 9:53:49 PM Microsoft Corporation c:\winnt\system32\wbem\wbemcore.dll
 wbemcomn.dll 1.50.1085.0077 692.07 KB (708,675 bytes) 11/14/2002
 9:53:49 PM Microsoft Corporation c:\winnt\system32\wbem\wbemcomn.dll
 winmgmt.exe 1.50.1085.0070 192.08 KB (196,685 bytes) 11/14/2002
 9:53:50 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
 mtask.exe 4.71.2195.1 115.77 KB (118,544 bytes) 11/14/2002
 9:53:29 PM Microsoft Corporation c:\winnt\system32\msk.exe
 regsvc.exe 5.00.2195.3649 65.27 KB (66,832 bytes) 11/14/2002
 9:53:37 PM Microsoft Corporation c:\winnt\system32\regsvc.exe
 dcap32.dll 4.4.3385 35.77 KB (36,624 bytes) 11/14/2002
 8:47:09 PM Microsoft Corporation c:\program
 files\netmeeting\dcap32.dll
 msvfw32.dll 5.00.2134.1 113.77 KB (116,496 bytes) 12/7/1999
 4:00:00 AM Microsoft Corporation c:\winnt\system32\msvfw32.dll
 msacm32.dll 5.00.2134.1 65.27 KB (66,832 bytes) 12/7/1999
 4:00:00 AM Microsoft Corporation c:\winnt\system32\msacm32.dll
 nac.dll 4.4.3385 196.77 KB (201,488 bytes) 11/14/2002 8:47:08 PM
 Microsoft Corporation c:\program files\netmeeting\nac.dll
 callcont.dll 4.4.3385 383.77 KB (392,976 bytes) 11/14/2002
 9:53:56 PM Microsoft Corporation c:\program
 files\netmeeting\callcont.dll
 h323cc.dll 4.4.3385 39.27 KB (40,208 bytes) 11/14/2002
 8:47:08 PM Microsoft Corporation c:\program
 files\netmeeting\h323cc.dll
 nmasnt.dll 4.4.3385 8.77 KB (8,976 bytes) 11/14/2002 8:47:08 PM
 Microsoft Corporation c:\program files\netmeeting\nmasnt.dll
 nmas.dll 4.4.3385 207.27 KB (212,240 bytes) 11/14/2002
 8:47:08 PM Microsoft Corporation c:\program files\netmeeting\nmas.dll
 mstl20.dll 4.4.3385 241.77 KB (247,568 bytes) 11/14/2002
 9:53:57 PM Microsoft Corporation c:\program
 files\netmeeting\mstl20.dll

nmcom.dll 4.4.3385 60.77 KB (62,224 bytes) 11/14/2002
 9:53:57 PM Microsoft Corporation c:\program
 files\netmeeting\nmcom.dll
 mnmsrv.exe 4.4.3385 21.27 KB (21,776 bytes) 11/14/2002
 8:47:09 PM Microsoft Corporation c:\winnt\system32\mnmsrv.exe
 rasdlg.dll 5.00.2195.5438 515.77 KB (528,144 bytes) 12/7/1999
 4:00:00 AM Microsoft Corporation c:\winnt\system32\rasdlg.dll
 netcfgx.dll 5.00.2195.4874 534.77 KB (547,600 bytes) 11/14/2002
 9:53:31 PM Microsoft Corporation c:\winnt\system32\netcfgx.dll
 rasmans.dll 5.00.2195.5436 149.27 KB (152,848 bytes) 11/14/2002
 9:53:36 PM Microsoft Corporation c:\winnt\system32\rasmans.dll
 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 5.00.2195.5431 457.77 KB (468,752 bytes) 11/14/2002
 9:53:32 PM Microsoft Corporation c:\winnt\system32\netshell.dll
 netman.dll 5.00.2195.5282 89.27 KB (91,408 bytes) 11/14/2002
 9:53:32 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
 es.dll 2000.2.3497.0 225.27 KB (230,672 bytes) 11/14/2002 9:53:17 PM
 Microsoft Corporation c:\winnt\system32\es.dll
 mtxoci.dll 2000.2.3497.0 103.77 KB (106,256 bytes) 11/14/2002
 9:53:31 PM Microsoft Corporation c:\winnt\system32\mtxoci.dll
 resutils.dll 5.00.2195.5339 39.77 KB (40,720 bytes) 11/14/2002
 9:53:37 PM Microsoft Corporation c:\winnt\system32\resutils.dll
 clusapi.dll 5.00.2195.4678 54.27 KB (55,568 bytes) 11/14/2002
 9:53:12 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) 11/14/2002
 12:44:42 PM Microsoft Corporation c:\winnt\system32\xolehlp.dll
 msdtclog.dll 2000.2.3497.0 86.77 KB (88,848 bytes) 11/14/2002
 9:53:25 PM Microsoft Corporation c:\winnt\system32\msdtclog.dll
 mtxclu.dll 2000.2.3497.0 51.27 KB (52,496 bytes) 11/14/2002
 9:53:31 PM Microsoft Corporation c:\winnt\system32\mtxclu.dll
 msdtcprx.dll 2000.2.3497.0 683.77 KB (700,176 bytes) 11/14/2002
 9:53:25 PM Microsoft Corporation c:\winnt\system32\msdtcprx.dll
 txfaux.dll 2000.2.3497.0 383.27 KB (392,464 bytes) 11/14/2002
 9:53:42 PM Microsoft Corporation c:\winnt\system32\txfaux.dll
 msdtctm.dll 2000.2.3497.0 1.08 MB (1,128,208 bytes) 11/14/2002
 9:53:25 PM Microsoft Corporation c:\winnt\system32\msdtctm.dll
 msdtc.exe 1999.9.3421.3 6.77 KB (6,928 bytes) 11/14/2002 12:44:42
 PM Microsoft Corporation c:\winnt\system32\msdtc.exe
 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 5.00.2195.4874 87.77 KB (89,872 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 5.00.2195.5292 54.77 KB (56,080 bytes) 12/7/1999
 4:00:00 AM Microsoft Corporation c:\winnt\system32\rasman.dll
 rasapi32.dll 5.00.2195.5438 191.77 KB (196,368 bytes) 12/7/1999
 4:00:00 AM Microsoft Corporation c:\winnt\system32\rasapi32.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
 iphlpapi.dll 5.00.2195.2 68.27 KB (69,904 bytes) 11/14/2002
 9:53:20 PM Microsoft Corporation c:\winnt\system32\iphlpapi.dll

rnr20.dll	5.00.2195.4874	35.77 KB (36,624 bytes)	11/14/2002	rsabase.dll	5.00.2195.3839	128.27 KB (131,344 bytes)	7/22/2002
9:53:37 PM	Microsoft Corporation	c:\winnt\system32\rnr20.dll		1:05:04 PM	Microsoft Corporation	c:\winnt\system32\rsabase.dll	
wshtcpip.dll	5.00.2195.4874	17.27 KB (17,680 bytes)	11/14/2002	schannel.dll	5.00.2195.5284	139.27 KB (142,608 bytes)	5/4/2001
9:53:45 PM	Microsoft Corporation	c:\winnt\system32\wshtcpip.dll		1:05:02 PM	Microsoft Corporation	c:\winnt\system32\schannel.dll	
msafd.dll	5.00.2195.4874	103.27 KB (105,744 bytes)	11/14/2002	netlogon.dll	5.00.2195.5400	362.77 KB (371,472 bytes)	11/14/2002
9:53:24 PM	Microsoft Corporation	c:\winnt\system32\msafd.dll		9:53:31 PM	Microsoft Corporation	c:\winnt\system32\netlogon.dll	
rpcss.dll	5.00.2195.5429	231.27 KB (236,816 bytes)	11/14/2002	msvl_0.dll	5.00.2195.4745	112.27 KB (114,960 bytes)	12/7/1999
9:53:38 PM	Microsoft Corporation	c:\winnt\system32\rpcss.dll		4:00:00 AM	Microsoft Corporation	c:\winnt\system32\msvl_0.dll	
svchost.exe	5.00.2134.1	7.77 KB (7,952 bytes)	12/7/1999 4:00:00 AM	kerberos.dll	5.00.2195.5246	202.77 KB (207,632 bytes)	11/14/2002
	Microsoft Corporation	c:\winnt\system32\svchost.exe		9:53:22 PM	Microsoft Corporation	c:\winnt\system32\kerberos.dll	
vipl.dll	4.2.0.75	80.00 KB (81,920 bytes)	2/18/2003	msprivs.dll	5.00.2154.1	41.50 KB (42,496 bytes)	12/7/1999
9:21:16 AM	Giganet Incorporated	c:\winnt\system32\vipl.dll		4:00:00 AM	Microsoft Corporation	c:\winnt\system32\msprivs.dll	
gnconmgr.exe	4.2.0.75	168.05 KB (172,079 bytes)	2/18/2003	samsrv.dll	5.00.2195.5201	374.27 KB (383,248 bytes)	12/7/1999
9:21:16 AM	Giganet Incorporated	c:\winnt\system32\gnconmgr.exe		4:00:00 AM	Microsoft Corporation	c:\winnt\system32\samsrv.dll	
rdpwsx.dll	5.00.2195.5243	97.90 KB (100,248 bytes)	11/14/2002	lsasrv.dll	5.00.2195.5430	500.27 KB (512,272 bytes)	12/7/1999
9:53:37 PM	Microsoft Corporation	c:\winnt\system32\rdpwsx.dll		4:00:00 AM	Microsoft Corporation	c:\winnt\system32\lsasrv.dll	
mstlsapi.dll	5.00.2195.3895	25.77 KB (26,384 bytes)	11/14/2002	lsass.exe	5.00.2195.5430	32.77 KB (33,552 bytes)	12/7/1999
9:53:30 PM	Microsoft Corporation	c:\winnt\system32\mstlsapi.dll		4:00:00 AM	Microsoft Corporation	c:\winnt\system32\lsass.exe	
icaapi.dll	5.00.2195.3895	122.77 KB (125,712 bytes)	11/14/2002	ntlsapi.dll	5.00.2195.4907	6.77 KB (6,928 bytes)	12/7/1999 4:00:00 AM
9:53:19 PM	Microsoft Corporation	c:\winnt\system32\icaapi.dll			Microsoft Corporation	c:\winnt\system32\ntlsapi.dll	
regapi.dll	5.00.2195.5201	35.27 KB (36,112 bytes)	11/14/2002	wmicore.dll	5.00.2195.3649	72.27 KB (74,000 bytes)	11/14/2002
9:53:37 PM	Microsoft Corporation	c:\winnt\system32\regapi.dll		9:53:44 PM	Microsoft Corporation	c:\winnt\system32\wmicore.dll	
termsrv.exe	5.00.2195.5276	138.77 KB (142,096 bytes)	11/14/2002	browser.dll	5.00.2195.4874	48.77 KB (49,936 bytes)	11/14/2002
9:53:42 PM	Microsoft Corporation	c:\winnt\system32\termsrv.exe		9:53:10 PM	Microsoft Corporation	c:\winnt\system32\browser.dll	
iissuba.dll	5.00.0984	9.77 KB (10,000 bytes)	12/7/1999 4:00:00 AM	seclogon.dll	5.00.2195.5201	17.27 KB (17,680 bytes)	11/14/2002
	Microsoft Corporation	c:\winnt\system32\iissuba.dll		9:53:38 PM	Microsoft Corporation	c:\winnt\system32\seclogon.dll	
cryptnet.dll	5.131.2195.3992	41.77 KB (42,768 bytes)	11/14/2002 9:53:13 PM	psbase.dll	5.00.2195.4822	111.77 KB (114,448 bytes)	11/14/2002
	Microsoft Corporation	c:\winnt\system32\cryptnet.dll		9:53:36 PM	Microsoft Corporation	c:\winnt\system32\psbase.dll	
dssenh.dll	5.00.2195.3665	142.77 KB (146,192 bytes)	11/14/2002	cryptsvc.dll	5.00.2195.4368	73.27 KB (75,024 bytes)	11/14/2002
9:53:59 PM	Microsoft Corporation	c:\winnt\system32\dssenh.dll		9:53:13 PM	Microsoft Corporation	c:\winnt\system32\cryptsvc.dll	
scecli.dll	5.00.2195.4874	109.27 KB (111,888 bytes)	11/14/2002	cryptdll.dll	5.00.2135.1	41.27 KB (42,256 bytes)	12/7/1999
9:53:38 PM	Microsoft Corporation	c:\winnt\system32\scecli.dll		4:00:00 AM	Microsoft Corporation	c:\winnt\system32\cryptdll.dll	
atl.dll	3.00.9435	73.06 KB (74,810 bytes)	11/14/2002 9:53:09 PM	wkssvc.dll	5.00.2195.4874	95.27 KB (97,552 bytes)	12/7/1999
	Microsoft Corporation	c:\winnt\system32\atl.dll		4:00:00 AM	Microsoft Corporation	c:\winnt\system32\wkssvc.dll	
certcli.dll	5.00.2195.3649	130.27 KB (133,392 bytes)	11/14/2002	srvsvc.dll	5.00.2195.5400	81.77 KB (83,728 bytes)	12/7/1999
9:53:11 PM	Microsoft Corporation	c:\winnt\system32\certcli.dll		4:00:00 AM	Microsoft Corporation	c:\winnt\system32\srvsvc.dll	
esent.dll	6.0.3940.25	1.09 MB (1,137,936 bytes)	11/14/2002	cfgmgr32.dll	5.00.2134.1	16.77 KB (17,168 bytes)	12/7/1999
9:53:17 PM	Microsoft Corporation	c:\winnt\system32\esent.dll		4:00:00 AM	Microsoft Corporation	c:\winnt\system32\cfgmgr32.dll	
mswsock.dll	5.00.2195.4874	62.77 KB (64,272 bytes)	11/14/2002	dmserver.dll	2195.3649.297.3	12.27 KB (12,560 bytes)	11/14/2002 9:53:15 PM
9:53:30 PM	Microsoft Corporation	c:\winnt\system32\mswsock.dll			Microsoft Corporation	c:\winnt\system32\dmserver.dll	
ntdsatq.dll	5.00.2195.5246	31.27 KB (32,016 bytes)	11/14/2002	eventlog.dll	5.00.2195.5336	44.27 KB (45,328 bytes)	11/14/2002
9:53:32 PM	Microsoft Corporation	c:\winnt\system32\ntdsatq.dll		9:53:17 PM	Microsoft Corporation	c:\winnt\system32\eventlog.dll	
ntdsa.dll	5.00.2195.5438	1002.27 KB (1,026,320 bytes)	11/14/2002	ntdsapi.dll	5.00.2195.4827	56.27 KB (57,616 bytes)	11/14/2002
9:53:32 PM	Microsoft Corporation	c:\winnt\system32\ntdsa.dll		9:53:32 PM	Microsoft Corporation	c:\winnt\system32\ntdsapi.dll	
kdcsvc.dll	5.00.2195.5246	141.77 KB (145,168 bytes)	11/14/2002	scesrv.dll	5.00.2195.5316	242.77 KB (248,592 bytes)	11/14/2002
9:53:22 PM	Microsoft Corporation	c:\winnt\system32\kdcsvc.dll		9:53:38 PM	Microsoft Corporation	c:\winnt\system32\scesrv.dll	
sfmapi.dll	5.00.2134.1	38.77 KB (39,696 bytes)	12/7/1999	umpnpmgr.dll	5.00.2182.1	86.27 KB (88,336 bytes)	12/7/1999
4:00:00 AM	Microsoft Corporation	c:\winnt\system32\sfmapi.dll		4:00:00 AM	Microsoft Corporation	c:\winnt\system32\umpnpmgr.dll	
rtutils.dll	5.00.2168.1	43.77 KB (44,816 bytes)	12/7/1999	services.exe	5.00.2195.3940	86.77 KB (88,848 bytes)	12/7/1999
4:00:00 AM	Microsoft Corporation	c:\winnt\system32\rtutils.dll		4:00:00 AM	Microsoft Corporation	c:\winnt\system32\services.exe	
adslrpc.dll	5.00.2195.5400	127.77 KB (130,832 bytes)	11/14/2002	clbcatq.dll	2000.2.3497.0	497.77 KB (509,712 bytes)	11/14/2002
9:53:08 PM	Microsoft Corporation	c:\winnt\system32\adslrpc.dll		9:53:12 PM	Microsoft Corporation	c:\winnt\system32\clbcatq.dll	
activeds.dll	5.00.2195.5312	175.27 KB (179,472 bytes)	11/14/2002	oleaut32.dll	2.40.4518	612.27 KB (626,960 bytes)	12/7/1999
9:53:04 PM	Microsoft Corporation	c:\winnt\system32\activeds.dll		4:00:00 AM	Microsoft Corporation	c:\winnt\system32\oleaut32.dll	
mprapi.dll	5.00.2181.1	79.27 KB (81,168 bytes)	12/7/1999	cscui.dll	5.00.2195.4104	233.77 KB (239,376 bytes)	11/14/2002
4:00:00 AM	Microsoft Corporation	c:\winnt\system32\mprapi.dll		9:53:13 PM	Microsoft Corporation	c:\winnt\system32\cscui.dll	
rassfm.dll	5.00.2195.4874	21.27 KB (21,776 bytes)	11/14/2002	lz32.dll	5.00.2134.1	9.77 KB (10,000 bytes)	12/7/1999 4:00:00 AM
9:53:37 PM	Microsoft Corporation	c:\winnt\system32\rassfm.dll			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 5.00.2195.3839 130.77 KB (133,904 bytes) 11/14/2002
9:53:59 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 5.00.2195.5400 968.27 KB (991,504 bytes) 11/14/2002
9:53:35 PM Microsoft Corporation c:\winnt\system32\ole32.dll
imagehlp.dll 5.00.2195.5242 125.77 KB (128,784 bytes) 5/4/2001
1:05:02 PM Microsoft Corporation c:\winnt\system32\imagehlp.dll
wintrust.dll 5.131.2195.3775 162.27 KB (166,160 bytes)
11/14/2002 9:53:44 PM Microsoft Corporation
c:\winnt\system32\wintrust.dll
winspool.drv 5.00.2195.5225 111.27 KB (113,936 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\winspool.drv
msasn1.dll 5.00.2195.4067 51.27 KB (52,496 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\msasn1.dll
crypt32.dll 5.131.2195.4558 464.27 KB (475,408 bytes)
11/14/2002 9:53:13 PM Microsoft Corporation
c:\winnt\system32\crypt32.dll
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 5.00.2195.5377 54.27 KB (55,568 bytes) 11/14/2002
9:53:44 PM Microsoft Corporation c:\winnt\system32\wlnotify.dll
csd.dll 5.00.2195.5434 98.77 KB (101,136 bytes) 11/14/2002
9:53:13 PM Microsoft Corporation c:\winnt\system32\csd.dll
mpr.dll 5.00.2195.3649 53.77 KB (55,056 bytes) 11/14/2002 9:53:24 PM
Microsoft Corporation c:\winnt\system32\mpr.dll
shlwapi.dll 5.00.3502.5332 283.27 KB (290,064 bytes) 11/14/2002
9:53:40 PM Microsoft Corporation c:\winnt\system32\shlwapi.dll
shell32.dll 5.00.3502.5436 2.26 MB (2,374,416 bytes) 11/14/2002
9:53:39 PM Microsoft Corporation c:\winnt\system32\shell32.dll
msgina.dll 5.00.2195.4733 324.77 KB (332,560 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\msgina.dll
comctl32.dll 5.81 539.27 KB (552,208 bytes) 12/7/1999 4:00:00 AM
Microsoft Corporation c:\winnt\system32\comctl32.dll
setupapi.dll 5.00.2195.5400 553.77 KB (567,056 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 5.00.2195.4655 36.77 KB (37,648 bytes) 11/14/2002
9:53:44 PM Microsoft Corporation c:\winnt\system32\winsta.dll
wsock32.dll 5.00.2195.4874 21.27 KB (21,776 bytes) 11/14/2002
9:53:45 PM Microsoft Corporation c:\winnt\system32\wsock32.dll
dnsapi.dll 5.00.2195.5354 131.27 KB (134,416 bytes) 11/14/2002
9:53:15 PM Microsoft Corporation c:\winnt\system32\dnsapi.dll
wldap32.dll 5.00.2195.5400 158.77 KB (162,576 bytes) 11/14/2002
9:53:44 PM Microsoft Corporation c:\winnt\system32\wldap32.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 5.00.2195.4874 66.77 KB (68,368 bytes) 11/14/2002
9:53:44 PM Microsoft Corporation c:\winnt\system32\ws2_32.dll
samlib.dll 5.00.2195.4827 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 5.00.2195.5427 305.27 KB (312,592 bytes) 11/14/2002
9:53:31 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 5.00.2195.4587 47.27 KB (48,400 bytes) 11/14/2002
9:53:38 PM Microsoft Corporation c:\winnt\system32\secur32.dll
sfc.dll 5.00.2195.3649 92.11 KB (94,320 bytes) 11/14/2002 9:53:38 PM
Microsoft Corporation c:\winnt\system32\sfc.dll
nddeapi.dll 5.00.2195.4509 15.77 KB (16,144 bytes) 11/14/2002
9:53:31 PM Microsoft Corporation c:\winnt\system32\nddeapi.dll
userenv.dll 5.00.2195.5425 363.77 KB (372,496 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\userenv.dll
user32.dll 5.00.2195.4314 395.77 KB (405,264 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\user32.dll
gdi32.dll 5.00.2195.5252 228.77 KB (234,256 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\gdi32.dll
rpcrt4.dll 5.00.2195.5419 440.27 KB (450,832 bytes) 11/14/2002
9:53:37 PM Microsoft Corporation c:\winnt\system32\rpcrt4.dll
advapi32.dll 5.00.2195.5385 358.77 KB (367,376 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\advapi32.dll
kernel32.dll 5.00.2195.5400 716.77 KB (733,968 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\kernel32.dll
msvcrt.dll 6.10.9359.0 284.05 KB (290,869 bytes) 7/22/2002
1:05:04 PM Microsoft Corporation c:\winnt\system32\msvcrt.dll
winlogon.exe 5.00.2195.5386 174.77 KB (178,960 bytes) 11/14/2002
9:53:44 PM Microsoft Corporation c:\winnt\system32\winlogon.exe
sfcfiles.dll 5.00.2195.5426 951.27 KB (974,096 bytes) 11/14/2002
9:53:38 PM Microsoft Corporation c:\winnt\system32\sfcfiles.dll
ntdll.dll 5.00.2195.5400 479.27 KB (490,768 bytes) 5/4/2001
1:05:02 PM Microsoft Corporation c:\winnt\system32\ntdll.dll
smss.exe 5.00.2195.5382 44.77 KB (45,840 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\smss.exe

```

[Services]

Display Name	Name	State	Start Mode	Service Type	Path	Error
Control Start	Name Tag ID					
Alerter	Alerter	Stopped	Manual	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
Background Intelligent Transfer Service				BITS	Stopped Manual Share	
Process	c:\winnt\system32\svchost.exe -k bitsgroup			Normal LocalSystem		
						0
Computer 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
Distributed File System	Dfs	Stopped	Manual	Own Process		
	c:\winnt\system32\dfssvc.exe			Normal LocalSystem		0
DHCP Client	Dhcp	Stopped	Manual	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	Manual	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\inetrv\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 Manual      Own Process
c:\winnt\system32\llssrv.exe      Normal LocalSystem 0
TCP/IP NetBIOS Helper Service      LmHosts Stopped Manual      Share Process
c:\winnt\system32\services.exe      Normal LocalSystem 0
Messenger      Messenger      Stopped Manual      Share Process
c:\winnt\system32\services.exe      Normal LocalSystem 0
NetMeeting Remote Desktop Sharing      mnmsrvc Running Auto      Own Process
c:\winnt\system32\mnmsrvc.exe      Normal LocalSystem 0
Distributed Transaction Coordinator      MSDTC      Running Auto      Own Process
c:\winnt\system32\msdtc.exe      Normal LocalSystem 0
Windows Installer      MSIServer      Stopped Manual      Share Process
c:\winnt\system32\msiexec.exe /v      Normal LocalSystem 0
Network DDE      NetDDE Stopped Manual      Share Process
c:\winnt\system32\netdde.exe      Normal LocalSystem 0
Network DDE DSDM      NetDDEdsdm      Stopped Manual      Share Process
c:\winnt\system32\netdde.exe      Normal LocalSystem 0
Net Logon      Netlogon      Stopped Manual      Share Process
c:\winnt\system32\lsass.exe      Normal LocalSystem 0
Network Connections      Netman Running Manual      Share Process
c:\winnt\system32\svchost.exe -k netsvcs      Normal LocalSystem
0
File Replication      NtFrs      Stopped Manual      Own Process
c:\winnt\system32\ntfrs.exe      Ignore LocalSystem 0
NT LM Security Support Provider      NtLmSsp Stopped Manual      Share Process
c:\winnt\system32\lsass.exe      Normal LocalSystem 0
Removable Storage      NtmsSvc Stopped Manual      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 Manual      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      RpcLocator      Stopped Manual      Own
Process c:\winnt\system32\locator.exe      Normal LocalSystem 0
Remote Procedure Call (RPC)      RpcSs      Running Auto      Share Process
c:\winnt\system32\svchost -k rpcss      Normal LocalSystem 0
QoS RSVP      RSVP      Running Manual      Own Process
c:\winnt\system32\rsvp.exe -s      Normal LocalSystem 0
Security Accounts Manager      SamSs      Running Auto      Share Process
c:\winnt\system32\lsass.exe      Normal LocalSystem 0
Smart Card Helper      SCardDrv      Stopped Manual      Share Process
c:\winnt\system32\scardsvr.exe      Ignore LocalSystem 0
Smart Card      SCardSvr      Stopped Manual      Share Process
c:\winnt\system32\scardsvr.exe      Ignore LocalSystem 0
Task Scheduler Schedule      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      Running Auto      Own Process
c:\winnt\system32\termsrv.exe      Normal LocalSystem 0
Telnet      TlntSvr Stopped Manual      Own Process      c:\winnt\system32\tlntsvr.exe
Normal LocalSystem 0
Distributed Link Tracking Server      TrkSvr      Stopped Manual      Share Process
c:\winnt\system32\services.exe      Normal LocalSystem 0
Distributed Link Tracking Client      TrkWks      Stopped Manual      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\inetrv\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

```

Automatic Updates wuauserv Stopped Manual Share Process
c:\winnt\system32\svchost.exe -k wugroup Normal LocalSystem
0

[Program Groups]

Group Name	Name	User Name
Accessories	Default User:Accessories	Default User
Accessories\Accessibility	Default User:Accessories\Accessibility	Default User
Accessories\Entertainment	Default User:Accessories\Entertainment	Default User
Accessories\System Tools	Default User:Accessories\System Tools	Default User
Startup	Default User:Startup	Default User
Accessories	All Users:Accessories	All Users
Accessories\Communications	All Users:Accessories\Communications	All Users
Accessories\Entertainment	All Users:Accessories\Entertainment	All Users
Accessories\System Tools	All Users:Accessories\System Tools	All Users
Administrative Tools	All Users:Administrative Tools	All Users
Microsoft SQL Server	All Users:Microsoft SQL Server	All Users
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
QLogic Corporation	CLIENT1\Administrator:QLogic Corporation	CLIENT1\Administrator
QLogic Corporation\SANblade Control VIX	CLIENT1\Administrator:QLogic Corporation\SANblade Control VIX	CLIENT1\Administrator
Startup	CLIENT1\Administrator:Startup	CLIENT1\Administrator

[Startup Programs]

Program Command	User Name	Location
rhostsvr.exe	c:\rhost\rhostsvr.exe	-d\rhost -crhosthdlr.exe
	CLIENT1\Administrator	Startup

[OLE Registration]

Object	Local Server
Sound (OLE2)	sndrec32.exe
Media Clip	mplay32.exe
Video Clip	mplay32.exe /avi
MIDI Sequence	mplay32.exe /mid
Sound	Not Available
Media Clip	Not Available
Image Document	"C:\Program Files\Windows NT\Accessories\ImageVue\KodakImg.exe"

WordPad Document "%ProgramFiles%\Windows NT\Accessories\WORDPAD.EXE"
Windows Media Services DRM Storage object Not Available
Bitmap Image C:\WINNT\System32\mspaint.exe

[Internet Explorer 5]

[Following are sub-categories of this main category]

[Summary]

Item	Value
Version	5.00.3502.1000
Build	53502.1000
Product ID	51876-270-3062037-05739
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	5.0.2195.5385	359 KB	7/22/2002 1:05:04 PM	C:\WINNT\system32	Microsoft Corporation
advpack.dll	5.0.3502.4373	87 KB	7/22/2002 1:05:04 PM	C:\WINNT\system32	Microsoft Corporation
browseic.dll	5.0.3502.4373	35 KB	7/22/2002 1:05:04 PM	C:\WINNT\system32	Microsoft Corporation
browseui.dll	5.0.3502.4373	791 KB	7/22/2002 1:05:04 PM	C:\WINNT\system32	Microsoft Corporation
ckcnv.exe	5.0.2189.1	9 KB	12/7/1999 5:00:00 AM	C:\WINNT\system32	Microsoft Corporation
comctl32.dll	5.81.3315.3727	539 KB	7/22/2002 1:05:04 PM	C:\WINNT\system32	Microsoft Corporation
crypt32.dll	5.131.2195.4558	464 KB	7/22/2002 1:05:04 PM	C:\WINNT\system32	Microsoft Corporation
enhsig.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	5.0.3502.4373	57 KB	7/22/2002 1:05:04 PM	C:\WINNT\system32	Microsoft Corporation
iexplore.exe	5.0.2920.0	59 KB	12/7/1999 5:00:00 AM	C:\Program Files\Internet Explorer	Microsoft Corporation
imagehlp.dll	5.0.2195.5242	126 KB	7/22/2002 1:05:04 PM	C:\WINNT\system32	Microsoft Corporation
imghelp.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
inseng.dll	5.0.3502.4373	72 KB	7/22/2002 1:05:04 PM	C:\WINNT\system32	Microsoft Corporation
jobexec.dll	5.0.0.147 KB	12/7/1999 5:00:00 AM	C:\WINNT\system32	Microsoft Corporation	
jscript.dll	5.1.0.5907	476 KB	7/22/2002 1:05:04 PM	C:\WINNT\system32	Microsoft Corporation
jsproxy.dll	5.0.2920.0	13 KB	12/7/1999 5:00:00 AM	C:\WINNT\system32	Microsoft Corporation

```

msahtml.dll <File Missing> Not Available Not Available Not Available
Not Available
mshtml.dll 5.0.3502.5390 2284 KB 7/22/2002 1:05:04 PM
C:\WINNT\system32 Microsoft Corporation
msjava.dll 5.0.3805.0 924 KB 7/22/2002 1:05:04 PM
C:\WINNT\system32 Microsoft Corporation
msoss.dll <File Missing> Not Available Not Available Not Available
Not Available
msxml.dll 8.0.6730.0 494 KB 7/22/2002 1:05:04 PM
C:\WINNT\system32 Microsoft Corporation
occache.dll 5.0.3315.3727 86 KB 7/22/2002 1:05:04 PM
C:\WINNT\system32 Microsoft Corporation
ole32.dll 5.0.2195.5400 968 KB 7/22/2002 1:05:04 PM
C:\WINNT\system32 Microsoft Corporation
oleaut32.dll 2.40.4518.0 612 KB 7/22/2002 1:05:04 PM
C:\WINNT\system32 Microsoft Corporation
olepro32.dll 5.0.4518.0 160 KB 7/22/2002 1:05:04 PM
C:\WINNT\system32 Microsoft Corporation
rsabase.dll 5.0.2195.3839 128 KB 7/22/2002 1:05:04 PM
C:\WINNT\system32 Microsoft Corporation
rsaenh.dll 5.0.2195.3839 131 KB 7/22/2002 1:05:04 PM
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 5.1.2195.0 139 KB 7/22/2002 1:05:04 PM
C:\WINNT\system32 Microsoft Corporation
shdoc401.dll <File Missing> Not Available Not Available Not Available
Not Available
shdocvw.dll 5.0.3502.5400 1079 KB 7/22/2002 1:05:04 PM
C:\WINNT\system32 Microsoft Corporation
shell32.dll 5.0.3502.5436 2319 KB 7/22/2002 1:05:04 PM
C:\WINNT\system32 Microsoft Corporation
shlwapi.dll 5.0.3502.5332 283 KB 7/22/2002 1:05:04 PM
C:\WINNT\system32 Microsoft Corporation
url.dll 5.0.3502.4510 82 KB 7/22/2002 1:05:04 PM C:\WINNT\system32
Microsoft Corporation
urlmon.dll 5.0.3502.5400 442 KB 7/22/2002 1:05:04 PM
C:\WINNT\system32 Microsoft Corporation
vbscript.dll 5.1.0.7426 428 KB 7/22/2002 1:05:04 PM
C:\WINNT\system32 Microsoft Corporation
webcheck.dll 5.0.3315.3727 251 KB 7/22/2002 1:05:04 PM
C:\WINNT\system32 Microsoft Corporation
win.com 5.0.2134.1 24 KB 12/7/1999 5:00:00 AM C:\WINNT\system32
Microsoft Corporation
wininet.dll 5.0.3502.4619 451 KB 7/22/2002 1:05:04 PM
C:\WINNT\system32 Microsoft Corporation
winsock.dll 3.10.0.103 3 KB 12/7/1999 5:00:00 AM
C:\WINNT\system32 Microsoft Corporation
wintrust.dll 5.131.2195.3775 162 KB 7/22/2002 1:05:04 PM
C:\WINNT\system32 Microsoft Corporation
wsock.vxd <File Missing> Not Available Not Available Not Available
Not Available
wsock32.dll 5.0.2195.4874 21 KB 7/22/2002 1:05:04 PM
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\CLIENT\Local Settings\Temporary Internet Files
Total Disk Space 17359 MB
Available Disk Space 13903 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 11/14/2002 to 10/21/2102 sha1RSA

[Other People Certificates]
Issued To Issued By Validity Signature Algorithm
No other people certificate information available

[Publishers]
Name
No publisher information available

```

[Security]

Zone Security Level
Local intranet Medium-low
Trusted sites Low
Internet Medium
Restricted sites High

Client Hyperthreading Information (Common to 8 clients)

```
C:\DetectHyperthreading>detecthyperthreading
Hyper-Threading Technology is available.
Logical Processors Per Package: 2
OS Affinity ID: 0x00000001, APIC ID: 0 PHY ID: 0, LOG ID: 0
OS Affinity ID: 0x00000002, APIC ID: 6 PHY ID: 3, LOG ID: 0
OS Affinity ID: 0x00000004, APIC ID: 1 PHY ID: 0, LOG ID: 1
OS Affinity ID: 0x00000008, APIC ID: 7 PHY ID: 3, LOG ID: 1
Processors with Hyper-Threading Technology enabled was detected.
```

```
C:\DetectHyperthreading>
```

Windows 2000 IP Configuration Information

(Common to 8 clients except for Host Name, Physical Address, and IP Address)

Windows 2000 IP Configuration

```
Host Name . . . . . : client1
Primary DNS Suffix . . . . . :
Node Type . . . . . : Broadcast
```

```
IP Routing Enabled. . . . . : No
```

```
WINS Proxy Enabled. . . . . : No
```

Ethernet adapter Admin:

```
Connection-specific DNS Suffix . :
Description . . . . . : Broadcom NetXtreme Gigabit
Ethernet #2
Physical Address. . . . . : 00-06-5B-8C-9B-80

DHCP Enabled. . . . . : No

IP Address. . . . . : 192.168.91.1

Subnet Mask . . . . . : 255.255.255.0

Default Gateway . . . . . :
```

```
DNS Servers . . . . . :
NetBIOS over Tcpip. . . . . : Disabled
```

Ethernet adapter RTE:

```
Connection-specific DNS Suffix . :
Description . . . . . : Broadcom NetXtreme Gigabit
Ethernet
Physical Address. . . . . : 00-06-5B-8C-9B-81

DHCP Enabled. . . . . : No

IP Address. . . . . : 192.1.1.1

Subnet Mask . . . . . : 255.255.255.0

Default Gateway . . . . . :

DNS Servers . . . . . :
NetBIOS over Tcpip. . . . . : Disabled
```

```
Volume in drive C has no label.
Volume Serial Number is C0E2-039E
```

Directory of C:\inetpub\wwwroot

```
06/04/2003 03:05p          101,376 tpcc.dll
                1 File(s)          101,376 bytes
                0 Dir(s) 14,578,872,320 bytes free
```

```
Volume in drive C has no label.
Volume Serial Number is C0E2-039E
```

Directory of C:\inetpub\wwwroot

```
06/04/2003 03:04p          92,672 tpcc_com_all.dll
                1 File(s)          92,672 bytes
                0 Dir(s) 14,578,872,320 bytes free
```

```
Volume in drive C has no label.
Volume Serial Number is C0E2-039E
```

Directory of C:\inetpub\wwwroot

```
06/04/2003 03:04p           4,608 tpcc_com_ps.dll
                1 File(s)           4,608 bytes
                0 Dir(s) 14,578,872,320 bytes free
```

Component Services Configuration

```
COM+ Component TPCC.AllTxns Settings:
Transactions not supported
Enable object pooling
Minimum pool size 100
Maximum pool size 100
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 "LDAPSVC"
PoolThreadLimit = REG_DWORD 0x000000c8
ThreadTimeout = REG_DWORD 0x00015180
BandwidthLevel = REG_DWORD 0xffffffff
DisableMemoryCache = REG_DWORD 0x00000001
MemoryCacheSize = REG_DWORD 0x00000000
ObjectCacheTTL = REG_DWORD 0xffffffff
Performance
Library = infoctrs.dll
Open = OpenINFOPerformanceData
Close = CloseINFOPerformanceData
Collect = CollectINFOPerformanceData
WbemAdapFileTime = REG_BINARY 0x00000008 0x1160d800 0x01c231bb
WbemAdapFileSize = REG_DWORD 0x00002510
WbemAdapStatus = REG_DWORD 0x00000000
Last Counter = REG_DWORD 0x00000b7c
Last Help = REG_DWORD 0x00000b7d
First Counter = REG_DWORD 0x00000b3c
First Help = REG_DWORD 0x00000b3d
Library Validation Code = REG_BINARY 0x00000010 0x4d3ef59a
0x01c28c6b 0x00002510 0x00000000
```

MSSQL Server Registry Parameters

```
\registry\machine\software\microsoft\mssqlserver\client\connectto
DSQUERY = DBMSSOCN
DBSERVER = DBNETLIB, via: MV-BOBDYLAN, 1421, 0

\registry\machine\software\microsoft\mssqlserver\client\connectto
DSQUERY = DBMSSOCN
DBSERVER = DBNETLIB, via: MV-BOBDYLAN, 1422, 0

\registry\machine\software\microsoft\mssqlserver\client\connectto
DSQUERY = DBMSSOCN
DBSERVER = DBNETLIB, via: MV-BOBDYLAN, 1423, 0

\registry\machine\software\microsoft\mssqlserver\client\connectto
DSQUERY = DBMSSOCN
DBSERVER = DBNETLIB, via: MV-BOBDYLAN, 1424, 0

\registry\machine\software\microsoft\mssqlserver\client\connectto
DSQUERY = DBMSSOCN
DBSERVER = DBNETLIB, via: MV-BOBDYLAN, 1425, 0

\registry\machine\software\microsoft\mssqlserver\client\connectto
DSQUERY = DBMSSOCN
```

```
DBSERVER = DBNETLIB, via: MV-BOBDYLAN, 1426, 0
```

```
\registry\machine\software\microsoft\mssqlserver\client\connectto
DSQUERY = DBMSSOCN
DBSERVER = DBNETLIB, via: MV-BOBDYLAN, 1427, 0
```

```
\registry\machine\software\microsoft\mssqlserver\client\connectto
DSQUERY = DBMSSOCN
DBSERVER = DBNETLIB, via: MV-BOBDYLAN, 1428, 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\inetsrv\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\inetsrv
CertMapList = C:\WINNT\System32\inetsrv\iisrmap.dll
AccessDeniedMessage = Error: Access is Denied.
Filter DLLs =
LogFileDirectory = C:\WINNT\System32\LogFiles
AcceptExOutstanding = REG_DWORD 0x00000028
ADCLaunch
AdvancedDataFactory
RDSSEServer.DataFactory
Script Map
Virtual Roots
/ = c:\inetpub\wwwroot,,207
/Scripts = c:\inetpub\scripts,,204
/IISHelp = c:\winnt\help\iishelp,,201
/IISAdmin = C:\WINNT\System32\inetsrv\iisadmin,,201
/IISamples = 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
WbemAdapFileTime = REG_BINARY 0x00000008 0x1160d800 0x01c231bb
WbemAdapFileSize = REG_DWORD 0x00001d10
WbemAdapStatus = REG_DWORD 0x00000000
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
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

```

MAXTERMS = 60000
DELIVERYTHREADS = 20
SERVERNAME = DBSERVER
DATABASE = tpcc

```

TPCC Application Settings

\registry\machine\software\unisys

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 "webnnn.cmd <cfg file suffix> <min driver #> <max driver #>"
pause

:end
```

Profiles used for Performance Run

WebAdmin.cfg

```
//
// Common Driver Configuration
//
INITBASEPORT 4300
INITSYNCMAX 4
INITPAUSE 1
INITRSCALE 1200
INITTSCALE 100
INITRWID 1,20160
INITFIXEDWID 1
INITCCLAST 208
INITCCID 208
INITCITEMID 208
//
//Configuration Driver 1
//
1 INITIPADDR 192.168.93.1
1 INITIISADDR 192.1.1.1
1 INITIISPORT 80
```

```
1 INITBROWSERS 1020
1 INITMYWID 1,102
//
//Configuration Driver 2
//
2 INITIPADDR 192.168.93.1
2 INITIISADDR 192.1.1.1
2 INITIISPORT 80
2 INITBROWSERS 1010
2 INITMYWID 103,203
//
//Configuration Driver 3
//
3 INITIPADDR 192.168.93.1
3 INITIISADDR 192.1.1.1
3 INITIISPORT 80
3 INITBROWSERS 1020
3 INITMYWID 204,305
//
//Configuration Driver 4
//
4 INITIPADDR 192.168.93.1
4 INITIISADDR 192.1.1.1
4 INITIISPORT 80
4 INITBROWSERS 1010
4 INITMYWID 306,406
//
//Configuration Driver 5
//
5 INITIPADDR 192.168.93.1
5 INITIISADDR 192.1.1.1
5 INITIISPORT 80
5 INITBROWSERS 1020
5 INITMYWID 407,508
//
//Configuration Driver 6
//
6 INITIPADDR 192.168.93.1
6 INITIISADDR 192.1.1.1
6 INITIISPORT 80
6 INITBROWSERS 1010
6 INITMYWID 509,609
//
//Configuration Driver 7
//
7 INITIPADDR 192.168.93.1
7 INITIISADDR 192.1.1.1
7 INITIISPORT 80
7 INITBROWSERS 1020
7 INITMYWID 610,711
//
//Configuration Driver 8
//
8 INITIPADDR 192.168.93.1
```

```
8 INITIISADDR 192.1.1.1
8 INITIISPORT 80
8 INITBROWSERS 1010
8 INITMYWID 712,812
//
//Configuration Driver 9
//
9 INITIPADDR 192.168.93.1
9 INITIISADDR 192.1.1.1
9 INITIISPORT 80
9 INITBROWSERS 1020
9 INITMYWID 813,914
//
//Configuration Driver 10
//
10 INITIPADDR 192.168.93.1
10 INITIISADDR 192.1.1.1
10 INITIISPORT 80
10 INITBROWSERS 1010
10 INITMYWID 915,1015
//
//Configuration Driver 11
//
11 INITIPADDR 192.168.93.1
11 INITIISADDR 192.1.1.1
11 INITIISPORT 80
11 INITBROWSERS 1020
11 INITMYWID 1016,1117
//
//Configuration Driver 12
//
12 INITIPADDR 192.168.93.1
12 INITIISADDR 192.1.1.1
12 INITIISPORT 80
12 INITBROWSERS 1010
12 INITMYWID 1118,1218
//
//Configuration Driver 13
//
13 INITIPADDR 192.168.93.1
13 INITIISADDR 192.1.1.1
13 INITIISPORT 80
13 INITBROWSERS 1020
13 INITMYWID 1219,1320
//
//Configuration Driver 14
//
14 INITIPADDR 192.168.93.1
14 INITIISADDR 192.1.1.1
14 INITIISPORT 80
14 INITBROWSERS 1010
14 INITMYWID 1321,1421
//
//Configuration Driver 15
//
15 INITIPADDR 192.168.93.1
15 INITIISADDR 192.1.1.1
15 INITIISPORT 80
15 INITBROWSERS 1020
```

```
15 INITMYWID 1422,1523
//
//Configuration Driver 16
//
16 INITIPADDR 192.168.93.1
16 INITIISADDR 192.1.1.1
16 INITIISPORT 80
16 INITBROWSERS 1010
16 INITMYWID 1524,1624
//
//Configuration Driver 17
//
17 INITIPADDR 192.168.93.1
17 INITIISADDR 192.1.1.1
17 INITIISPORT 80
17 INITBROWSERS 1020
17 INITMYWID 1625,1726
//
//Configuration Driver 18
//
18 INITIPADDR 192.168.93.1
18 INITIISADDR 192.1.1.1
18 INITIISPORT 80
18 INITBROWSERS 1010
18 INITMYWID 1727,1827
//
//Configuration Driver 19
//
19 INITIPADDR 192.168.93.1
19 INITIISADDR 192.1.1.1
19 INITIISPORT 80
19 INITBROWSERS 1020
19 INITMYWID 1828,1929
//
//Configuration Driver 20
//
20 INITIPADDR 192.168.93.1
20 INITIISADDR 192.1.1.1
20 INITIISPORT 80
20 INITBROWSERS 1010
20 INITMYWID 1930,2030
//
//Configuration Driver 21
//
21 INITIPADDR 192.168.93.1
21 INITIISADDR 192.1.1.1
21 INITIISPORT 80
21 INITBROWSERS 1020
21 INITMYWID 2031,2132
//
//Configuration Driver 22
//
22 INITIPADDR 192.168.93.1
22 INITIISADDR 192.1.1.1
22 INITIISPORT 80
22 INITBROWSERS 1010
22 INITMYWID 2133,2233
//
//Configuration Driver 23
```

```

//
23 INITIPADDR 192.168.93.1
23 INITIISADDR 192.1.1.1
23 INITIISPORT 80
23 INITBROWSERS 1020
23 INITMYWID 2234,2335
//
//Configuration Driver 24
//
24 INITIPADDR 192.168.93.1
24 INITIISADDR 192.1.1.1
24 INITIISPORT 80
24 INITBROWSERS 1010
24 INITMYWID 2336,2436
//
//Configuration Driver 25
//
25 INITIPADDR 192.168.93.2
25 INITIISADDR 192.2.1.1
25 INITIISPORT 80
25 INITBROWSERS 1020
25 INITMYWID 2437,2538
//
//Configuration Driver 26
//
26 INITIPADDR 192.168.93.2
26 INITIISADDR 192.2.1.1
26 INITIISPORT 80
26 INITBROWSERS 1010
26 INITMYWID 2539,2639
//
//Configuration Driver 27
//
27 INITIPADDR 192.168.93.2
27 INITIISADDR 192.2.1.1
27 INITIISPORT 80
27 INITBROWSERS 1020
27 INITMYWID 2640,2741
//
//Configuration Driver 28
//
28 INITIPADDR 192.168.93.2
28 INITIISADDR 192.2.1.1
28 INITIISPORT 80
28 INITBROWSERS 1010
28 INITMYWID 2742,2842
//
//Configuration Driver 29
//
29 INITIPADDR 192.168.93.2
29 INITIISADDR 192.2.1.1
29 INITIISPORT 80
29 INITBROWSERS 1020
29 INITMYWID 2843,2944
//
//Configuration Driver 30
//
30 INITIPADDR 192.168.93.2
30 INITIISADDR 192.2.1.1

```

```

30 INITIISPORT 80
30 INITBROWSERS 1010
30 INITMYWID 2945,3045
//
//Configuration Driver 31
//
31 INITIPADDR 192.168.93.2
31 INITIISADDR 192.2.1.1
31 INITIISPORT 80
31 INITBROWSERS 1020
31 INITMYWID 3046,3147
//
//Configuration Driver 32
//
32 INITIPADDR 192.168.93.2
32 INITIISADDR 192.2.1.1
32 INITIISPORT 80
32 INITBROWSERS 1010
32 INITMYWID 3148,3248
//
//Configuration Driver 33
//
33 INITIPADDR 192.168.93.2
33 INITIISADDR 192.2.1.1
33 INITIISPORT 80
33 INITBROWSERS 1020
33 INITMYWID 3249,3350
//
//Configuration Driver 34
//
34 INITIPADDR 192.168.93.2
34 INITIISADDR 192.2.1.1
34 INITIISPORT 80
34 INITBROWSERS 1010
34 INITMYWID 3351,3451
//
//Configuration Driver 35
//
35 INITIPADDR 192.168.93.2
35 INITIISADDR 192.2.1.1
35 INITIISPORT 80
35 INITBROWSERS 1020
35 INITMYWID 3452,3553
//
//Configuration Driver 36
//
36 INITIPADDR 192.168.93.2
36 INITIISADDR 192.2.1.1
36 INITIISPORT 80
36 INITBROWSERS 1010
36 INITMYWID 3554,3654
//
//Configuration Driver 37
//
37 INITIPADDR 192.168.93.2
37 INITIISADDR 192.2.1.1
37 INITIISPORT 80
37 INITBROWSERS 1020
37 INITMYWID 3655,3756

```

```

//
//Configuration Driver 38
//
38 INITIPADDR 192.168.93.2
38 INITIISADDR 192.2.1.1
38 INITIISPORT 80
38 INITBROWSERS 1010
38 INITMYWID 3757,3857
//
//Configuration Driver 39
//
39 INITIPADDR 192.168.93.2
39 INITIISADDR 192.2.1.1
39 INITIISPORT 80
39 INITBROWSERS 1020
39 INITMYWID 3858,3959
//
//Configuration Driver 40
//
40 INITIPADDR 192.168.93.2
40 INITIISADDR 192.2.1.1
40 INITIISPORT 80
40 INITBROWSERS 1010
40 INITMYWID 3960,4060
//
//Configuration Driver 41
//
41 INITIPADDR 192.168.93.2
41 INITIISADDR 192.2.1.1
41 INITIISPORT 80
41 INITBROWSERS 1020
41 INITMYWID 4061,4162
//
//Configuration Driver 42
//
42 INITIPADDR 192.168.93.2
42 INITIISADDR 192.2.1.1
42 INITIISPORT 80
42 INITBROWSERS 1010
42 INITMYWID 4163,4263
//
//Configuration Driver 43
//
43 INITIPADDR 192.168.93.2
43 INITIISADDR 192.2.1.1
43 INITIISPORT 80
43 INITBROWSERS 1020
43 INITMYWID 4264,4365
//
//Configuration Driver 44
//
44 INITIPADDR 192.168.93.2
44 INITIISADDR 192.2.1.1
44 INITIISPORT 80
44 INITBROWSERS 1010
44 INITMYWID 4366,4466
//
//Configuration Driver 45
//

```

```

45 INITIPADDR 192.168.93.2
45 INITIISADDR 192.2.1.1
45 INITIISPORT 80
45 INITBROWSERS 1020
45 INITMYWID 4467,4568
//
//Configuration Driver 46
//
46 INITIPADDR 192.168.93.2
46 INITIISADDR 192.2.1.1
46 INITIISPORT 80
46 INITBROWSERS 1010
46 INITMYWID 4569,4669
//
//Configuration Driver 47
//
47 INITIPADDR 192.168.93.2
47 INITIISADDR 192.2.1.1
47 INITIISPORT 80
47 INITBROWSERS 1020
47 INITMYWID 4670,4771
//
//Configuration Driver 48
//
48 INITIPADDR 192.168.93.2
48 INITIISADDR 192.2.1.1
48 INITIISPORT 80
48 INITBROWSERS 1010
48 INITMYWID 4772,4872
//
//Configuration Driver 49
//
49 INITIPADDR 192.168.93.2
49 INITIISADDR 192.2.1.1
49 INITIISPORT 80
49 INITBROWSERS 1020
49 INITMYWID 4873,4974
//
//Configuration Driver 50
//
50 INITIPADDR 192.168.93.3
50 INITIISADDR 192.3.1.1
50 INITIISPORT 80
50 INITBROWSERS 1000
50 INITMYWID 4975,5074
//
//Configuration Driver 51
//
51 INITIPADDR 192.168.93.3
51 INITIISADDR 192.3.1.1
51 INITIISPORT 80
51 INITBROWSERS 1000
51 INITMYWID 5075,5174
//
//Configuration Driver 52
//
52 INITIPADDR 192.168.93.3
52 INITIISADDR 192.3.1.1
52 INITIISPORT 80

```

```
52 INITBROWSERS 1000
52 INITMYWID 5175,5274
//
//Configuration Driver 53
//
53 INITIPADDR 192.168.93.3
53 INITIISADDR 192.3.1.1
53 INITIISPORT 80
53 INITBROWSERS 1000
53 INITMYWID 5275,5374
//
//Configuration Driver 54
//
54 INITIPADDR 192.168.93.3
54 INITIISADDR 192.3.1.1
54 INITIISPORT 80
54 INITBROWSERS 1000
54 INITMYWID 5375,5474
//
//Configuration Driver 55
//
55 INITIPADDR 192.168.93.3
55 INITIISADDR 192.3.1.1
55 INITIISPORT 80
55 INITBROWSERS 1000
55 INITMYWID 5475,5574
//
//Configuration Driver 56
//
56 INITIPADDR 192.168.93.3
56 INITIISADDR 192.3.1.1
56 INITIISPORT 80
56 INITBROWSERS 1000
56 INITMYWID 5575,5674
//
//Configuration Driver 57
//
57 INITIPADDR 192.168.93.3
57 INITIISADDR 192.3.1.1
57 INITIISPORT 80
57 INITBROWSERS 1000
57 INITMYWID 5675,5774
//
//Configuration Driver 58
//
58 INITIPADDR 192.168.93.3
58 INITIISADDR 192.3.1.1
58 INITIISPORT 80
58 INITBROWSERS 1000
58 INITMYWID 5775,5874
//
//Configuration Driver 59
//
59 INITIPADDR 192.168.93.3
59 INITIISADDR 192.3.1.1
59 INITIISPORT 80
59 INITBROWSERS 1000
59 INITMYWID 5875,5974
//
```

```
//Configuration Driver 60
//
60 INITIPADDR 192.168.93.3
60 INITIISADDR 192.3.1.1
60 INITIISPORT 80
60 INITBROWSERS 1000
60 INITMYWID 5975,6074
//
//Configuration Driver 61
//
61 INITIPADDR 192.168.93.3
61 INITIISADDR 192.3.1.1
61 INITIISPORT 80
61 INITBROWSERS 1000
61 INITMYWID 6075,6174
//
//Configuration Driver 62
//
62 INITIPADDR 192.168.93.3
62 INITIISADDR 192.3.1.1
62 INITIISPORT 80
62 INITBROWSERS 1000
62 INITMYWID 6175,6274
//
//Configuration Driver 63
//
63 INITIPADDR 192.168.93.3
63 INITIISADDR 192.3.1.1
63 INITIISPORT 80
63 INITBROWSERS 1000
63 INITMYWID 6275,6374
//
//Configuration Driver 64
//
64 INITIPADDR 192.168.93.3
64 INITIISADDR 192.3.1.1
64 INITIISPORT 80
64 INITBROWSERS 1000
64 INITMYWID 6375,6474
//
//Configuration Driver 65
//
65 INITIPADDR 192.168.93.3
65 INITIISADDR 192.3.1.1
65 INITIISPORT 80
65 INITBROWSERS 1000
65 INITMYWID 6475,6574
//
//Configuration Driver 66
//
66 INITIPADDR 192.168.93.3
66 INITIISADDR 192.3.1.1
66 INITIISPORT 80
66 INITBROWSERS 1000
66 INITMYWID 6575,6674
//
//Configuration Driver 67
//
67 INITIPADDR 192.168.93.3
```

```

67 INITIISADDR 192.3.1.1
67 INITIISPORT 80
67 INITBROWSERS 1000
67 INITMYWID 6675,6774
//
//Configuration Driver 68
//
68 INITIPADDR 192.168.93.3
68 INITIISADDR 192.3.1.1
68 INITIISPORT 80
68 INITBROWSERS 1000
68 INITMYWID 6775,6874
//
//Configuration Driver 69
//
69 INITIPADDR 192.168.93.3
69 INITIISADDR 192.3.1.1
69 INITIISPORT 80
69 INITBROWSERS 1000
69 INITMYWID 6875,6974
//
//Configuration Driver 70
//
70 INITIPADDR 192.168.93.3
70 INITIISADDR 192.3.1.1
70 INITIISPORT 80
70 INITBROWSERS 1000
70 INITMYWID 6975,7074
//
//Configuration Driver 71
//
71 INITIPADDR 192.168.93.3
71 INITIISADDR 192.3.1.1
71 INITIISPORT 80
71 INITBROWSERS 1000
71 INITMYWID 7075,7174
//
//Configuration Driver 72
//
72 INITIPADDR 192.168.93.3
72 INITIISADDR 192.3.1.1
72 INITIISPORT 80
72 INITBROWSERS 1000
72 INITMYWID 7175,7274
//
//Configuration Driver 73
//
73 INITIPADDR 192.168.93.3
73 INITIISADDR 192.3.1.1
73 INITIISPORT 80
73 INITBROWSERS 1000
73 INITMYWID 7275,7374
//
//Configuration Driver 74
//
74 INITIPADDR 192.168.93.3
74 INITIISADDR 192.3.1.1
74 INITIISPORT 80
74 INITBROWSERS 1000

```

```

74 INITMYWID 7375,7474
//
//Configuration Driver 75
//
75 INITIPADDR 192.168.93.4
75 INITIISADDR 192.4.1.1
75 INITIISPORT 80
75 INITBROWSERS 1020
75 INITMYWID 7475,7576
//
//Configuration Driver 76
//
76 INITIPADDR 192.168.93.4
76 INITIISADDR 192.4.1.1
76 INITIISPORT 80
76 INITBROWSERS 1010
76 INITMYWID 7577,7677
//
//Configuration Driver 77
//
77 INITIPADDR 192.168.93.4
77 INITIISADDR 192.4.1.1
77 INITIISPORT 80
77 INITBROWSERS 1020
77 INITMYWID 7678,7779
//
//Configuration Driver 78
//
78 INITIPADDR 192.168.93.4
78 INITIISADDR 192.4.1.1
78 INITIISPORT 80
78 INITBROWSERS 1010
78 INITMYWID 7780,7880
//
//Configuration Driver 79
//
79 INITIPADDR 192.168.93.4
79 INITIISADDR 192.4.1.1
79 INITIISPORT 80
79 INITBROWSERS 1020
79 INITMYWID 7881,7982
//
//Configuration Driver 80
//
80 INITIPADDR 192.168.93.4
80 INITIISADDR 192.4.1.1
80 INITIISPORT 80
80 INITBROWSERS 1010
80 INITMYWID 7983,8083
//
//Configuration Driver 81
//
81 INITIPADDR 192.168.93.4
81 INITIISADDR 192.4.1.1
81 INITIISPORT 80
81 INITBROWSERS 1020
81 INITMYWID 8084,8185
//
//Configuration Driver 82

```



```

//
82 INITIPADDR 192.168.93.4
82 INITIISADDR 192.4.1.1
82 INITIISPORT 80
82 INITBROWSERS 1010
82 INITMYWID 8186,8286
//
//Configuration Driver 83
//
83 INITIPADDR 192.168.93.4
83 INITIISADDR 192.4.1.1
83 INITIISPORT 80
83 INITBROWSERS 1020
83 INITMYWID 8287,8388
//
//Configuration Driver 84
//
84 INITIPADDR 192.168.93.4
84 INITIISADDR 192.4.1.1
84 INITIISPORT 80
84 INITBROWSERS 1010
84 INITMYWID 8389,8489
//
//Configuration Driver 85
//
85 INITIPADDR 192.168.93.4
85 INITIISADDR 192.4.1.1
85 INITIISPORT 80
85 INITBROWSERS 1020
85 INITMYWID 8490,8591
//
//Configuration Driver 86
//
86 INITIPADDR 192.168.93.4
86 INITIISADDR 192.4.1.1
86 INITIISPORT 80
86 INITBROWSERS 1010
86 INITMYWID 8592,8692
//
//Configuration Driver 87
//
87 INITIPADDR 192.168.93.4
87 INITIISADDR 192.4.1.1
87 INITIISPORT 80
87 INITBROWSERS 1020
87 INITMYWID 8693,8794
//
//Configuration Driver 88
//
88 INITIPADDR 192.168.93.4
88 INITIISADDR 192.4.1.1
88 INITIISPORT 80
88 INITBROWSERS 1010
88 INITMYWID 8795,8895
//
//Configuration Driver 89
//
89 INITIPADDR 192.168.93.4
89 INITIISADDR 192.4.1.1

```

```

89 INITIISPORT 80
89 INITBROWSERS 1020
89 INITMYWID 8896,8997
//
//Configuration Driver 90
//
90 INITIPADDR 192.168.93.4
90 INITIISADDR 192.4.1.1
90 INITIISPORT 80
90 INITBROWSERS 1010
90 INITMYWID 8998,9098
//
//Configuration Driver 91
//
91 INITIPADDR 192.168.93.4
91 INITIISADDR 192.4.1.1
91 INITIISPORT 80
91 INITBROWSERS 1020
91 INITMYWID 9099,9200
//
//Configuration Driver 92
//
92 INITIPADDR 192.168.93.4
92 INITIISADDR 192.4.1.1
92 INITIISPORT 80
92 INITBROWSERS 1010
92 INITMYWID 9201,9301
//
//Configuration Driver 93
//
93 INITIPADDR 192.168.93.4
93 INITIISADDR 192.4.1.1
93 INITIISPORT 80
93 INITBROWSERS 1020
93 INITMYWID 9302,9403
//
//Configuration Driver 94
//
94 INITIPADDR 192.168.93.4
94 INITIISADDR 192.4.1.1
94 INITIISPORT 80
94 INITBROWSERS 1010
94 INITMYWID 9404,9504
//
//Configuration Driver 95
//
95 INITIPADDR 192.168.93.4
95 INITIISADDR 192.4.1.1
95 INITIISPORT 80
95 INITBROWSERS 1020
95 INITMYWID 9505,9606
//
//Configuration Driver 96
//
96 INITIPADDR 192.168.93.4
96 INITIISADDR 192.4.1.1
96 INITIISPORT 80
96 INITBROWSERS 1010
96 INITMYWID 9607,9707

```

```

//
//Configuration Driver 97
//
97 INITIPADDR 192.168.93.4
97 INITIISADDR 192.4.1.1
97 INITIISPORT 80
97 INITBROWSERS 1020
97 INITMYWID 9708,9809
//
//Configuration Driver 98
//
98 INITIPADDR 192.168.93.4
98 INITIISADDR 192.4.1.1
98 INITIISPORT 80
98 INITBROWSERS 1010
98 INITMYWID 9810,9910
//
//Configuration Driver 99
//
99 INITIPADDR 192.168.93.4
99 INITIISADDR 192.4.1.1
99 INITIISPORT 80
99 INITBROWSERS 1020
99 INITMYWID 9911,10012
//
//Configuration Driver 100
//
100 INITIPADDR 192.168.93.5
100 INITIISADDR 192.5.1.1
100 INITIISPORT 80
100 INITBROWSERS 1010
100 INITMYWID 10013,10113
//
//Configuration Driver 101
//
101 INITIPADDR 192.168.93.5
101 INITIISADDR 192.5.1.1
101 INITIISPORT 80
101 INITBROWSERS 1020
101 INITMYWID 10114,10215
//
//Configuration Driver 102
//
102 INITIPADDR 192.168.93.5
102 INITIISADDR 192.5.1.1
102 INITIISPORT 80
102 INITBROWSERS 1010
102 INITMYWID 10216,10316
//
//Configuration Driver 103
//
103 INITIPADDR 192.168.93.5
103 INITIISADDR 192.5.1.1
103 INITIISPORT 80
103 INITBROWSERS 1020
103 INITMYWID 10317,10418
//
//Configuration Driver 104
//

```

```

104 INITIPADDR 192.168.93.5
104 INITIISADDR 192.5.1.1
104 INITIISPORT 80
104 INITBROWSERS 1010
104 INITMYWID 10419,10519
//
//Configuration Driver 105
//
105 INITIPADDR 192.168.93.5
105 INITIISADDR 192.5.1.1
105 INITIISPORT 80
105 INITBROWSERS 1020
105 INITMYWID 10520,10621
//
//Configuration Driver 106
//
106 INITIPADDR 192.168.93.5
106 INITIISADDR 192.5.1.1
106 INITIISPORT 80
106 INITBROWSERS 1010
106 INITMYWID 10622,10722
//
//Configuration Driver 107
//
107 INITIPADDR 192.168.93.5
107 INITIISADDR 192.5.1.1
107 INITIISPORT 80
107 INITBROWSERS 1020
107 INITMYWID 10723,10824
//
//Configuration Driver 108
//
108 INITIPADDR 192.168.93.5
108 INITIISADDR 192.5.1.1
108 INITIISPORT 80
108 INITBROWSERS 1010
108 INITMYWID 10825,10925
//
//Configuration Driver 109
//
109 INITIPADDR 192.168.93.5
109 INITIISADDR 192.5.1.1
109 INITIISPORT 80
109 INITBROWSERS 1020
109 INITMYWID 10926,11027
//
//Configuration Driver 110
//
110 INITIPADDR 192.168.93.5
110 INITIISADDR 192.5.1.1
110 INITIISPORT 80
110 INITBROWSERS 1010
110 INITMYWID 11028,11128
//
//Configuration Driver 111
//
111 INITIPADDR 192.168.93.5
111 INITIISADDR 192.5.1.1
111 INITIISPORT 80

```

```

111 INITBROWSERS 1020
111 INITMYWID 11129,11230
//
//Configuration Driver 112
//
112 INITIPADDR 192.168.93.5
112 INITIISADDR 192.5.1.1
112 INITIISPORT 80
112 INITBROWSERS 1010
112 INITMYWID 11231,11331
//
//Configuration Driver 113
//
113 INITIPADDR 192.168.93.5
113 INITIISADDR 192.5.1.1
113 INITIISPORT 80
113 INITBROWSERS 1020
113 INITMYWID 11332,11433
//
//Configuration Driver 114
//
114 INITIPADDR 192.168.93.5
114 INITIISADDR 192.5.1.1
114 INITIISPORT 80
114 INITBROWSERS 1010
114 INITMYWID 11434,11534
//
//Configuration Driver 115
//
115 INITIPADDR 192.168.93.5
115 INITIISADDR 192.5.1.1
115 INITIISPORT 80
115 INITBROWSERS 1020
115 INITMYWID 11535,11636
//
//Configuration Driver 116
//
116 INITIPADDR 192.168.93.5
116 INITIISADDR 192.5.1.1
116 INITIISPORT 80
116 INITBROWSERS 1010
116 INITMYWID 11637,11737
//
//Configuration Driver 117
//
117 INITIPADDR 192.168.93.5
117 INITIISADDR 192.5.1.1
117 INITIISPORT 80
117 INITBROWSERS 1020
117 INITMYWID 11738,11839
//
//Configuration Driver 118
//
118 INITIPADDR 192.168.93.5
118 INITIISADDR 192.5.1.1
118 INITIISPORT 80
118 INITBROWSERS 1010
118 INITMYWID 11840,11940
//

```

```

//Configuration Driver 119
//
119 INITIPADDR 192.168.93.5
119 INITIISADDR 192.5.1.1
119 INITIISPORT 80
119 INITBROWSERS 1020
119 INITMYWID 11941,12042
//
//Configuration Driver 120
//
120 INITIPADDR 192.168.93.5
120 INITIISADDR 192.5.1.1
120 INITIISPORT 80
120 INITBROWSERS 1010
120 INITMYWID 12043,12143
//
//Configuration Driver 121
//
121 INITIPADDR 192.168.93.5
121 INITIISADDR 192.5.1.1
121 INITIISPORT 80
121 INITBROWSERS 1020
121 INITMYWID 12144,12245
//
//Configuration Driver 122
//
122 INITIPADDR 192.168.93.5
122 INITIISADDR 192.5.1.1
122 INITIISPORT 80
122 INITBROWSERS 1010
122 INITMYWID 12246,12346
//
//Configuration Driver 123
//
123 INITIPADDR 192.168.93.5
123 INITIISADDR 192.5.1.1
123 INITIISPORT 80
123 INITBROWSERS 1020
123 INITMYWID 12347,12448
//
//Configuration Driver 124
//
124 INITIPADDR 192.168.93.5
124 INITIISADDR 192.5.1.1
124 INITIISPORT 80
124 INITBROWSERS 1010
124 INITMYWID 12449,12549
//
//Configuration Driver 125
//
125 INITIPADDR 192.168.93.6
125 INITIISADDR 192.6.1.1
125 INITIISPORT 80
125 INITBROWSERS 1020
125 INITMYWID 12550,12651
//
//Configuration Driver 126
//
126 INITIPADDR 192.168.93.6

```

```
126 INITIISADDR 192.6.1.1
126 INITIISPORT 80
126 INITBROWSERS 1010
126 INITMYWID 12652,12752
//
//Configuration Driver 127
//
127 INITIPADDR 192.168.93.6
127 INITIISADDR 192.6.1.1
127 INITIISPORT 80
127 INITBROWSERS 1020
127 INITMYWID 12753,12854
//
//Configuration Driver 128
//
128 INITIPADDR 192.168.93.6
128 INITIISADDR 192.6.1.1
128 INITIISPORT 80
128 INITBROWSERS 1010
128 INITMYWID 12855,12955
//
//Configuration Driver 129
//
129 INITIPADDR 192.168.93.6
129 INITIISADDR 192.6.1.1
129 INITIISPORT 80
129 INITBROWSERS 1020
129 INITMYWID 12956,13057
//
//Configuration Driver 130
//
130 INITIPADDR 192.168.93.6
130 INITIISADDR 192.6.1.1
130 INITIISPORT 80
130 INITBROWSERS 1010
130 INITMYWID 13058,13158
//
//Configuration Driver 131
//
131 INITIPADDR 192.168.93.6
131 INITIISADDR 192.6.1.1
131 INITIISPORT 80
131 INITBROWSERS 1020
131 INITMYWID 13159,13260
//
//Configuration Driver 132
//
132 INITIPADDR 192.168.93.6
132 INITIISADDR 192.6.1.1
132 INITIISPORT 80
132 INITBROWSERS 1010
132 INITMYWID 13261,13361
//
//Configuration Driver 133
//
133 INITIPADDR 192.168.93.6
133 INITIISADDR 192.6.1.1
133 INITIISPORT 80
133 INITBROWSERS 1020
```

```
133 INITMYWID 13362,13463
//
//Configuration Driver 134
//
134 INITIPADDR 192.168.93.6
134 INITIISADDR 192.6.1.1
134 INITIISPORT 80
134 INITBROWSERS 1010
134 INITMYWID 13464,13564
//
//Configuration Driver 135
//
135 INITIPADDR 192.168.93.6
135 INITIISADDR 192.6.1.1
135 INITIISPORT 80
135 INITBROWSERS 1020
135 INITMYWID 13565,13666
//
//Configuration Driver 136
//
136 INITIPADDR 192.168.93.6
136 INITIISADDR 192.6.1.1
136 INITIISPORT 80
136 INITBROWSERS 1010
136 INITMYWID 13667,13767
//
//Configuration Driver 137
//
137 INITIPADDR 192.168.93.6
137 INITIISADDR 192.6.1.1
137 INITIISPORT 80
137 INITBROWSERS 1020
137 INITMYWID 13768,13869
//
//Configuration Driver 138
//
138 INITIPADDR 192.168.93.6
138 INITIISADDR 192.6.1.1
138 INITIISPORT 80
138 INITBROWSERS 1010
138 INITMYWID 13870,13970
//
//Configuration Driver 139
//
139 INITIPADDR 192.168.93.6
139 INITIISADDR 192.6.1.1
139 INITIISPORT 80
139 INITBROWSERS 1020
139 INITMYWID 13971,14072
//
//Configuration Driver 140
//
140 INITIPADDR 192.168.93.6
140 INITIISADDR 192.6.1.1
140 INITIISPORT 80
140 INITBROWSERS 1010
140 INITMYWID 14073,14173
//
//Configuration Driver 141
```

```

//
141 INITIPADDR 192.168.93.6
141 INITIISADDR 192.6.1.1
141 INITIISPORT 80
141 INITBROWSERS 1020
141 INITMYWID 14174,14275
//
//Configuration Driver 142
//
142 INITIPADDR 192.168.93.6
142 INITIISADDR 192.6.1.1
142 INITIISPORT 80
142 INITBROWSERS 1010
142 INITMYWID 14276,14376
//
//Configuration Driver 143
//
143 INITIPADDR 192.168.93.6
143 INITIISADDR 192.6.1.1
143 INITIISPORT 80
143 INITBROWSERS 1020
143 INITMYWID 14377,14478
//
//Configuration Driver 144
//
144 INITIPADDR 192.168.93.6
144 INITIISADDR 192.6.1.1
144 INITIISPORT 80
144 INITBROWSERS 1010
144 INITMYWID 14479,14579
//
//Configuration Driver 145
//
145 INITIPADDR 192.168.93.6
145 INITIISADDR 192.6.1.1
145 INITIISPORT 80
145 INITBROWSERS 1020
145 INITMYWID 14580,14681
//
//Configuration Driver 146
//
146 INITIPADDR 192.168.93.6
146 INITIISADDR 192.6.1.1
146 INITIISPORT 80
146 INITBROWSERS 1010
146 INITMYWID 14682,14782
//
//Configuration Driver 147
//
147 INITIPADDR 192.168.93.6
147 INITIISADDR 192.6.1.1
147 INITIISPORT 80
147 INITBROWSERS 1020
147 INITMYWID 14783,14884
//
//Configuration Driver 148
//
148 INITIPADDR 192.168.93.6
148 INITIISADDR 192.6.1.1

```

```

148 INITIISPORT 80
148 INITBROWSERS 1010
148 INITMYWID 14885,14985
//
//Configuration Driver 149
//
149 INITIPADDR 192.168.93.6
149 INITIISADDR 192.6.1.1
149 INITIISPORT 80
149 INITBROWSERS 1020
149 INITMYWID 14986,15087
//
//Configuration Driver 150
//
150 INITIPADDR 192.168.93.7
150 INITIISADDR 192.7.1.1
150 INITIISPORT 80
150 INITBROWSERS 1010
150 INITMYWID 15088,15188
//
//Configuration Driver 151
//
151 INITIPADDR 192.168.93.7
151 INITIISADDR 192.7.1.1
151 INITIISPORT 80
151 INITBROWSERS 1020
151 INITMYWID 15189,15290
//
//Configuration Driver 152
//
152 INITIPADDR 192.168.93.7
152 INITIISADDR 192.7.1.1
152 INITIISPORT 80
152 INITBROWSERS 1010
152 INITMYWID 15291,15391
//
//Configuration Driver 153
//
153 INITIPADDR 192.168.93.7
153 INITIISADDR 192.7.1.1
153 INITIISPORT 80
153 INITBROWSERS 1020
153 INITMYWID 15392,15493
//
//Configuration Driver 154
//
154 INITIPADDR 192.168.93.7
154 INITIISADDR 192.7.1.1
154 INITIISPORT 80
154 INITBROWSERS 1010
154 INITMYWID 15494,15594
//
//Configuration Driver 155
//
155 INITIPADDR 192.168.93.7
155 INITIISADDR 192.7.1.1
155 INITIISPORT 80
155 INITBROWSERS 1020
155 INITMYWID 15595,15696

```

```

//
//Configuration Driver 156
//
156 INITIPADDR 192.168.93.7
156 INITIISADDR 192.7.1.1
156 INITIISPORT 80
156 INITBROWSERS 1010
156 INITMYWID 15697,15797
//
//Configuration Driver 157
//
157 INITIPADDR 192.168.93.7
157 INITIISADDR 192.7.1.1
157 INITIISPORT 80
157 INITBROWSERS 1020
157 INITMYWID 15798,15899
//
//Configuration Driver 158
//
158 INITIPADDR 192.168.93.7
158 INITIISADDR 192.7.1.1
158 INITIISPORT 80
158 INITBROWSERS 1010
158 INITMYWID 15900,16000
//
//Configuration Driver 159
//
159 INITIPADDR 192.168.93.7
159 INITIISADDR 192.7.1.1
159 INITIISPORT 80
159 INITBROWSERS 1020
159 INITMYWID 16001,16102
//
//Configuration Driver 160
//
160 INITIPADDR 192.168.93.7
160 INITIISADDR 192.7.1.1
160 INITIISPORT 80
160 INITBROWSERS 1010
160 INITMYWID 16103,16203
//
//Configuration Driver 161
//
161 INITIPADDR 192.168.93.7
161 INITIISADDR 192.7.1.1
161 INITIISPORT 80
161 INITBROWSERS 1020
161 INITMYWID 16204,16305
//
//Configuration Driver 162
//
162 INITIPADDR 192.168.93.7
162 INITIISADDR 192.7.1.1
162 INITIISPORT 80
162 INITBROWSERS 1010
162 INITMYWID 16306,16406
//
//Configuration Driver 163
//

```

```

163 INITIPADDR 192.168.93.7
163 INITIISADDR 192.7.1.1
163 INITIISPORT 80
163 INITBROWSERS 1020
163 INITMYWID 16407,16508
//
//Configuration Driver 164
//
164 INITIPADDR 192.168.93.7
164 INITIISADDR 192.7.1.1
164 INITIISPORT 80
164 INITBROWSERS 1010
164 INITMYWID 16509,16609
//
//Configuration Driver 165
//
165 INITIPADDR 192.168.93.7
165 INITIISADDR 192.7.1.1
165 INITIISPORT 80
165 INITBROWSERS 1020
165 INITMYWID 16610,16711
//
//Configuration Driver 166
//
166 INITIPADDR 192.168.93.7
166 INITIISADDR 192.7.1.1
166 INITIISPORT 80
166 INITBROWSERS 1010
166 INITMYWID 16712,16812
//
//Configuration Driver 167
//
167 INITIPADDR 192.168.93.7
167 INITIISADDR 192.7.1.1
167 INITIISPORT 80
167 INITBROWSERS 1020
167 INITMYWID 16813,16914
//
//Configuration Driver 168
//
168 INITIPADDR 192.168.93.7
168 INITIISADDR 192.7.1.1
168 INITIISPORT 80
168 INITBROWSERS 1010
168 INITMYWID 16915,17015
//
//Configuration Driver 169
//
169 INITIPADDR 192.168.93.7
169 INITIISADDR 192.7.1.1
169 INITIISPORT 80
169 INITBROWSERS 1020
169 INITMYWID 17016,17117
//
//Configuration Driver 170
//
170 INITIPADDR 192.168.93.7
170 INITIISADDR 192.7.1.1
170 INITIISPORT 80

```

```
170 INITBROWSERS 1010
170 INITMYWID 17118,17218
//
//Configuration Driver 171
//
171 INITIPADDR 192.168.93.7
171 INITIISADDR 192.7.1.1
171 INITIISPORT 80
171 INITBROWSERS 1020
171 INITMYWID 17219,17320
//
//Configuration Driver 172
//
172 INITIPADDR 192.168.93.7
172 INITIISADDR 192.7.1.1
172 INITIISPORT 80
172 INITBROWSERS 1010
172 INITMYWID 17321,17421
//
//Configuration Driver 173
//
173 INITIPADDR 192.168.93.7
173 INITIISADDR 192.7.1.1
173 INITIISPORT 80
173 INITBROWSERS 1020
173 INITMYWID 17422,17523
//
//Configuration Driver 174
//
174 INITIPADDR 192.168.93.7
174 INITIISADDR 192.7.1.1
174 INITIISPORT 80
174 INITBROWSERS 1010
174 INITMYWID 17524,17624
//
//Configuration Driver 175
//
175 INITIPADDR 192.168.93.8
175 INITIISADDR 192.8.1.1
175 INITIISPORT 80
175 INITBROWSERS 1020
175 INITMYWID 17625,17726
//
//Configuration Driver 176
//
176 INITIPADDR 192.168.93.8
176 INITIISADDR 192.8.1.1
176 INITIISPORT 80
176 INITBROWSERS 1010
176 INITMYWID 17727,17827
//
//Configuration Driver 177
//
177 INITIPADDR 192.168.93.8
177 INITIISADDR 192.8.1.1
177 INITIISPORT 80
177 INITBROWSERS 1020
177 INITMYWID 17828,17929
//
```

```
//Configuration Driver 178
//
178 INITIPADDR 192.168.93.8
178 INITIISADDR 192.8.1.1
178 INITIISPORT 80
178 INITBROWSERS 1010
178 INITMYWID 17930,18030
//
//Configuration Driver 179
//
179 INITIPADDR 192.168.93.8
179 INITIISADDR 192.8.1.1
179 INITIISPORT 80
179 INITBROWSERS 1020
179 INITMYWID 18031,18132
//
//Configuration Driver 180
//
180 INITIPADDR 192.168.93.8
180 INITIISADDR 192.8.1.1
180 INITIISPORT 80
180 INITBROWSERS 1010
180 INITMYWID 18133,18233
//
//Configuration Driver 181
//
181 INITIPADDR 192.168.93.8
181 INITIISADDR 192.8.1.1
181 INITIISPORT 80
181 INITBROWSERS 1020
181 INITMYWID 18234,18335
//
//Configuration Driver 182
//
182 INITIPADDR 192.168.93.8
182 INITIISADDR 192.8.1.1
182 INITIISPORT 80
182 INITBROWSERS 1010
182 INITMYWID 18336,18436
//
//Configuration Driver 183
//
183 INITIPADDR 192.168.93.8
183 INITIISADDR 192.8.1.1
183 INITIISPORT 80
183 INITBROWSERS 1020
183 INITMYWID 18437,18538
//
//Configuration Driver 184
//
184 INITIPADDR 192.168.93.8
184 INITIISADDR 192.8.1.1
184 INITIISPORT 80
184 INITBROWSERS 1010
184 INITMYWID 18539,18639
//
//Configuration Driver 185
//
185 INITIPADDR 192.168.93.8
```

```

185 INITIISADDR 192.8.1.1
185 INITIISPORT 80
185 INITBROWSERS 1020
185 INITMYWID 18640,18741
//
//Configuration Driver 186
//
186 INITIPADDR 192.168.93.8
186 INITIISADDR 192.8.1.1
186 INITIISPORT 80
186 INITBROWSERS 1010
186 INITMYWID 18742,18842
//
//Configuration Driver 187
//
187 INITIPADDR 192.168.93.8
187 INITIISADDR 192.8.1.1
187 INITIISPORT 80
187 INITBROWSERS 1020
187 INITMYWID 18843,18944
//
//Configuration Driver 188
//
188 INITIPADDR 192.168.93.8
188 INITIISADDR 192.8.1.1
188 INITIISPORT 80
188 INITBROWSERS 1010
188 INITMYWID 18945,19045
//
//Configuration Driver 189
//
189 INITIPADDR 192.168.93.8
189 INITIISADDR 192.8.1.1
189 INITIISPORT 80
189 INITBROWSERS 1020
189 INITMYWID 19046,19147
//
//Configuration Driver 190
//
190 INITIPADDR 192.168.93.8
190 INITIISADDR 192.8.1.1
190 INITIISPORT 80
190 INITBROWSERS 1010
190 INITMYWID 19148,19248
//
//Configuration Driver 191
//
191 INITIPADDR 192.168.93.8
191 INITIISADDR 192.8.1.1
191 INITIISPORT 80
191 INITBROWSERS 1020
191 INITMYWID 19249,19350
//
//Configuration Driver 192
//
192 INITIPADDR 192.168.93.8
192 INITIISADDR 192.8.1.1
192 INITIISPORT 80
192 INITBROWSERS 1010

```

```

192 INITMYWID 19351,19451
//
//Configuration Driver 193
//
193 INITIPADDR 192.168.93.8
193 INITIISADDR 192.8.1.1
193 INITIISPORT 80
193 INITBROWSERS 1020
193 INITMYWID 19452,19553
//
//Configuration Driver 194
//
194 INITIPADDR 192.168.93.8
194 INITIISADDR 192.8.1.1
194 INITIISPORT 80
194 INITBROWSERS 1010
194 INITMYWID 19554,19654
//
//Configuration Driver 195
//
195 INITIPADDR 192.168.93.8
195 INITIISADDR 192.8.1.1
195 INITIISPORT 80
195 INITBROWSERS 1020
195 INITMYWID 19655,19756
//
//Configuration Driver 196
//
196 INITIPADDR 192.168.93.8
196 INITIISADDR 192.8.1.1
196 INITIISPORT 80
196 INITBROWSERS 1010
196 INITMYWID 19757,19857
//
//Configuration Driver 197
//
197 INITIPADDR 192.168.93.8
197 INITIISADDR 192.8.1.1
197 INITIISPORT 80
197 INITBROWSERS 1020
197 INITMYWID 19858,19959
//
//Configuration Driver 198
//
198 INITIPADDR 192.168.93.8
198 INITIISADDR 192.8.1.1
198 INITIISPORT 80
198 INITBROWSERS 1010
198 INITMYWID 19960,20060
//
//Configuration Driver 199
//
199 INITIPADDR 192.168.93.8
199 INITIISADDR 192.8.1.1
199 INITIISPORT 80
199 INITBROWSERS 1000
199 INITMYWID 20061,20160

```


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=4494
set WEBPAYMENTPROB=4303
set WEBORDERSTATUSPROB=401
set WEBDELIVERYPROB=401
set WEBSTOCKLEVELPROB=401
set WEBTNEWORDER=12030
set WEBTPAYMENT=12030
set WEBTDELIVERY=5060
set WEBTORDERSTATUS=10070
set WEBTSTOCKLEVEL=5060

webdriver.exe

goto end

:usage
@ECHO You must supply the following parameters:
@ECHO "webdriver.cmd <driver number>"
pause

:end
exit
```

RTE IP Configuration Information

(common to 8 RTEs except for Host Name, Physical Address and IP Address)

```
C:\rhost>if 'ipconfig' == ' ' goto usage
C:\rhost>c:
C:\rhost>cd \webdriver
C:\webdriver>call ipconfig /all

Windows 2000 IP Configuration
```

```
Host Name . . . . . : RTE1
```

```
Primary DNS Suffix . . . . . :
Node Type . . . . . : Broadcast

IP Routing Enabled. . . . . : No

WINS Proxy Enabled. . . . . : No
```

Ethernet adapter Client:

```
Connection-specific DNS Suffix . :
Description . . . . . : Broadcom NetXtreme Gigabit
Ethernet
Physical Address. . . . . : 00-06-5B-39-9A-83

DHCP Enabled. . . . . : No

IP Address. . . . . : 192.1.1.2

Subnet Mask . . . . . : 255.255.255.0

Default Gateway . . . . . :

DNS Servers . . . . . :
NetBIOS over Tcpi. . . . . : Disabled
```

Ethernet adapter Admin:

```
Connection-specific DNS Suffix . :
Description . . . . . : Intel 8255x-based PCI Ethernet
Adapter (10/100)
Physical Address. . . . . : 00-06-5B-39-9A-82

DHCP Enabled. . . . . : No

IP Address. . . . . : 192.168.93.1

Subnet Mask . . . . . : 255.255.255.0

Default Gateway . . . . . :

DNS Servers . . . . . :
NetBIOS over Tcpi. . . . . : Disabled
```

C:\webdriver>goto end

```
C:\rhost>if 'ipconfig' == ' ' goto usage
C:\rhost>c:
C:\rhost>cd \webdriver
C:\webdriver>call ipconfig /all
```

Windows 2000 IP Configuration

Host Name : RTE2
Primary DNS Suffix :
Node Type : Broadcast

IP Routing Enabled. : No

WINS Proxy Enabled. : No

Ethernet adapter RTE:

Media State : Cable Disconnected
Description : Intel(R) PRO/100+ Server
Adapter (PILA8470B)
Physical Address. : 00-D0-B7-BF-FE-BE

Ethernet adapter Client:

Ethernet
Connection-specific DNS Suffix . :
Description : Broadcom NetXtreme Gigabit
Physical Address. : 00-06-5B-39-9B-F0
DHCP Enabled. : No
IP Address. : 192.1.1.22
Subnet Mask : 255.255.255.0
IP Address. : 192.2.1.2
Subnet Mask : 255.255.255.0
Default Gateway :
DNS Servers :
NetBIOS over Tcpip. : Disabled

Ethernet adapter Admin:

Adapter (10/100)
Connection-specific DNS Suffix . :
Description : Intel 825x-based PCI Ethernet

Physical Address. : 00-06-5B-39-9B-EF
DHCP Enabled. : No
IP Address. : 192.168.93.2
Subnet Mask : 255.255.255.0
Default Gateway :
DNS Servers :
NetBIOS over Tcpip. : Disabled

C:\webdriver>goto end

C:\rhost>if 'ipconfig' == '' goto usage

C:\rhost>c:

C:\rhost>cd \webdriver

C:\webdriver>call ipconfig /all

Windows 2000 IP Configuration

Host Name : RTE3
Primary DNS Suffix :
Node Type : Broadcast

IP Routing Enabled. : No

WINS Proxy Enabled. : No

Ethernet adapter Client:

Ethernet
Connection-specific DNS Suffix . :
Description : Broadcom NetXtreme Gigabit
Physical Address. : 00-06-5B-39-9C-DC
DHCP Enabled. : No
IP Address. : 192.2.1.23
Subnet Mask : 255.255.255.0
IP Address. : 192.3.1.2
Subnet Mask : 255.255.255.0
Default Gateway :

```
DNS Servers . . . . . :
Ethernet adapter Admin:

    Connection-specific DNS Suffix . :
    Description . . . . . : Intel 8255x-based PCI Ethernet
Adapter (10/100)
    Physical Address. . . . . : 00-06-5B-39-9C-DB

    DHCP Enabled. . . . . : No

    IP Address. . . . . : 192.168.93.3

    Subnet Mask . . . . . : 255.255.255.0

    Default Gateway . . . . . :

    DNS Servers . . . . . :
    NetBIOS over Tcpip. . . . . : Disabled
```

```
C:\webdriver>goto end
C:\rhost>if 'ipconfig' == '' goto usage
C:\rhost>c:
C:\rhost>cd \webdriver
C:\webdriver>call ipconfig /all
```

Windows 2000 IP Configuration

```
Host Name . . . . . : RTE4
Primary DNS Suffix . . . . . :
Node Type . . . . . : Broadcast

IP Routing Enabled. . . . . : No

WINS Proxy Enabled. . . . . : No
```

Ethernet adapter Client:

```
    Connection-specific DNS Suffix . :
    Description . . . . . : Broadcom NetXtreme Gigabit
Ethernet
    Physical Address. . . . . : 00-06-5B-39-9E-FE

    DHCP Enabled. . . . . : No
```

```
IP Address. . . . . : 192.2.1.24
Subnet Mask . . . . . : 255.255.255.0

IP Address. . . . . : 192.4.1.2
Subnet Mask . . . . . : 255.255.255.0

Default Gateway . . . . . :

DNS Servers . . . . . :
NetBIOS over Tcpip. . . . . : Disabled
```

Ethernet adapter Admin:

```
    Connection-specific DNS Suffix . :
    Description . . . . . : Intel 8255x-based PCI Ethernet
Adapter (10/100)
    Physical Address. . . . . : 00-06-5B-39-9E-FD

    DHCP Enabled. . . . . : No

    IP Address. . . . . : 192.168.93.4

    Subnet Mask . . . . . : 255.255.255.0

    Default Gateway . . . . . :

    DNS Servers . . . . . :
    NetBIOS over Tcpip. . . . . : Disabled
```

```
C:\webdriver>goto end
C:\rhost>if 'ipconfig' == '' goto usage
C:\rhost>c:
C:\rhost>cd \webdriver
C:\webdriver>call ipconfig /all
```

Windows 2000 IP Configuration

```
Host Name . . . . . : RTE5
Primary DNS Suffix . . . . . :
Node Type . . . . . : Broadcast

IP Routing Enabled. . . . . : No

WINS Proxy Enabled. . . . . : No
```

Ethernet adapter Client:

```
Connection-specific DNS Suffix . :  
Description . . . . . : Broadcom NetXtreme Gigabit  
Ethernet  
Physical Address. . . . . : 00-06-5B-39-9C-D8  
DHCP Enabled. . . . . : No  
IP Address. . . . . : 192.3.1.25  
Subnet Mask . . . . . : 255.255.255.0  
IP Address. . . . . : 192.5.1.2  
Subnet Mask . . . . . : 255.255.255.0  
Default Gateway . . . . . :  
DNS Servers . . . . . :  
NetBIOS over Tcpip. . . . . : Disabled
```

Ethernet adapter Admin:

```
Connection-specific DNS Suffix . :  
Description . . . . . : Intel 8255x-based PCI Ethernet  
Adapter (10/100)  
Physical Address. . . . . : 00-06-5B-39-9C-D7  
DHCP Enabled. . . . . : No  
IP Address. . . . . : 192.168.93.5  
Subnet Mask . . . . . : 255.255.255.0  
Default Gateway . . . . . :  
DNS Servers . . . . . :  
NetBIOS over Tcpip. . . . . : Disabled
```

C:\webdriver>goto end

C:\rhost>if 'ipconfig' == '' goto usage

C:\rhost>c:

C:\rhost>cd \webdriver

C:\webdriver>call ipconfig /all

Windows 2000 IP Configuration

```
Host Name . . . . . : RTE6  
Primary DNS Suffix . . . . . :  
Node Type . . . . . : Broadcast  
IP Routing Enabled. . . . . : No  
WINS Proxy Enabled. . . . . : No
```

Ethernet adapter Client:

```
Connection-specific DNS Suffix . :  
Description . . . . . : Broadcom NetXtreme Gigabit  
Ethernet  
Physical Address. . . . . : 00-06-5B-39-96-6E  
DHCP Enabled. . . . . : No  
IP Address. . . . . : 192.3.1.26  
Subnet Mask . . . . . : 255.255.255.0  
IP Address. . . . . : 192.6.1.2  
Subnet Mask . . . . . : 255.255.255.0  
Default Gateway . . . . . :  
DNS Servers . . . . . :  
NetBIOS over Tcpip. . . . . : Disabled
```

Ethernet adapter Admin:

```
Connection-specific DNS Suffix . :  
Description . . . . . : Intel 8255x-based PCI Ethernet  
Adapter (10/100)  
Physical Address. . . . . : 00-06-5B-39-96-6D  
DHCP Enabled. . . . . : No  
IP Address. . . . . : 192.168.93.6  
Subnet Mask . . . . . : 255.255.255.0  
Default Gateway . . . . . :  
DNS Servers . . . . . :  
NetBIOS over Tcpip. . . . . : Disabled
```

C:\webdriver>goto end

```
C:\rhost>if 'ipconfig' == '' goto usage
```

```
C:\rhost>c:
```

```
C:\rhost>cd \webdriver
```

```
C:\webdriver>call ipconfig /all
```

Windows 2000 IP Configuration

```
Host Name . . . . . : RTE7
Primary DNS Suffix . . . . . :
Node Type . . . . . : Broadcast

IP Routing Enabled. . . . . : No

WINS Proxy Enabled. . . . . : No
```

Ethernet adapter Client:

```
Connection-specific DNS Suffix . :
Description . . . . . : Broadcom NetXtreme Gigabit Ethernet
Physical Address. . . . . : 00-06-5B-39-9E-DB

DHCP Enabled. . . . . : No

IP Address. . . . . : 192.4.1.27

Subnet Mask . . . . . : 255.255.255.0

IP Address. . . . . : 192.7.1.2

Subnet Mask . . . . . : 255.255.255.0

Default Gateway . . . . . :

DNS Servers . . . . . :
NetBIOS over Tcpip. . . . . : Disabled
```

Ethernet adapter Admin:

```
Connection-specific DNS Suffix . :
Description . . . . . : Intel 825x-based PCI Ethernet Adapter (10/100)
Physical Address. . . . . : 00-06-5B-39-9E-DA

DHCP Enabled. . . . . : No
```

```
IP Address. . . . . : 192.168.93.7
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :
DNS Servers . . . . . :
NetBIOS over Tcpip. . . . . : Disabled
```

```
C:\webdriver>goto end
```

```
C:\rhost>if 'ipconfig' == '' goto usage
```

```
C:\rhost>c:
```

```
C:\rhost>cd \webdriver
```

```
C:\webdriver>call ipconfig /all
```

Windows 2000 IP Configuration

```
Host Name . . . . . : RTE8
Primary DNS Suffix . . . . . :
Node Type . . . . . : Broadcast

IP Routing Enabled. . . . . : No

WINS Proxy Enabled. . . . . : No
```

Ethernet adapter Client:

```
Connection-specific DNS Suffix . :
Description . . . . . : Broadcom NetXtreme Gigabit Ethernet
Physical Address. . . . . : 00-06-5B-39-1E-65

DHCP Enabled. . . . . : No

IP Address. . . . . : 192.4.1.28

Subnet Mask . . . . . : 255.255.255.0

IP Address. . . . . : 192.8.1.2

Subnet Mask . . . . . : 255.255.255.0

Default Gateway . . . . . :

DNS Servers . . . . . :
NetBIOS over Tcpip. . . . . : Disabled
```

```

Ethernet adapter Admin:

    Connection-specific DNS Suffix  . : 
    Description . . . . . : Intel 8255x-based PCI Ethernet
Adapter (10/100)
    Physical Address. . . . . : 00-06-5B-39-1E-64

    DHCP Enabled. . . . . : No

    IP Address. . . . . : 192.168.93.8

    Subnet Mask . . . . . : 255.255.255.0

    Default Gateway . . . . . : 

    DNS Servers . . . . . : 
    NetBIOS over TcPIP. . . . . : Disabled

```

```

C:\webdriver>goto end
Volume in drive \\rtel\c$ is Server
Volume Serial Number is F4CA-F2E9

```

```
Directory of \\rtel\c$\webdriver
```

```

06/04/2003  03:00p                106,496 webdriver.exe
             1 File(s)              106,496 bytes
             0 Dir(s)  14,354,722,816 bytes free
Volume in drive \\rte2\c$ is Server
Volume Serial Number is F4CA-F2E9

```

```
Directory of \\rte2\c$\webdriver
```

```

06/04/2003  03:00p                106,496 webdriver.exe
             1 File(s)              106,496 bytes
             0 Dir(s)  14,302,396,416 bytes free
Volume in drive \\rte3\c$ is Server
Volume Serial Number is F4CA-F2E9

```

```
Directory of \\rte3\c$\webdriver
```

```

06/04/2003  03:00p                106,496 webdriver.exe
             1 File(s)              106,496 bytes
             0 Dir(s)  14,340,231,168 bytes free
Volume in drive \\rte4\c$ is Server
Volume Serial Number is F4CA-F2E9

```

```
Directory of \\rte4\c$\webdriver
```

```

06/04/2003  03:00p                106,496 webdriver.exe
             1 File(s)              106,496 bytes
             0 Dir(s)  14,294,700,032 bytes free
Volume in drive \\rte5\c$ is Server
Volume Serial Number is F4CA-F2E9

```

```
Directory of \\rte5\c$\webdriver
```

```

06/04/2003  03:00p                106,496 webdriver.exe
             1 File(s)              106,496 bytes
             0 Dir(s)  14,295,764,992 bytes free
Volume in drive \\rte6\c$ is Server
Volume Serial Number is F4CA-F2E9

```

```
Directory of \\rte6\c$\webdriver
```

```

06/04/2003  03:00p                106,496 webdriver.exe
             1 File(s)              106,496 bytes
             0 Dir(s)  14,295,719,936 bytes free
Volume in drive \\rte7\c$ is Server
Volume Serial Number is F4CA-F2E9

```

```
Directory of \\rte7\c$\webdriver
```

```

06/04/2003  03:00p                106,496 webdriver.exe
             1 File(s)              106,496 bytes
             0 Dir(s)  14,305,406,976 bytes free
Volume in drive \\rte8\c$ is Server
Volume Serial Number is F4CA-F2E9

```

```
Directory of \\rte8\c$\webdriver
```

```

06/04/2003  03:00p                106,496 webdriver.exe
             1 File(s)              106,496 bytes
             0 Dir(s)  14,307,037,184 bytes free
Volume in drive Z is NAS4
Volume Serial Number is 6C16-6083

```

```
Directory of z:\mstpcc\tpcc audit
```

```

06/04/2003  03:00p                 70,144 rapic.exe
             1 File(s)               70,144 bytes
             0 Dir(s)  72,007,589,888 bytes free

```

Start RTE Cmd

```

start " D1 RTE1 " /MIN webdriver.cmd 1
start " D1 RTE2 " /MIN webdriver.cmd 2
start " D1 RTE3 " /MIN webdriver.cmd 3
start " D1 RTE4 " /MIN webdriver.cmd 4
start " D1 RTE5 " /MIN webdriver.cmd 5
start " D1 RTE6 " /MIN webdriver.cmd 6
start " D1 RTE7 " /MIN webdriver.cmd 7
start " D1 RTE8 " /MIN webdriver.cmd 8
start " D1 RTE9 " /MIN webdriver.cmd 9
start " D1 RTE10 " /MIN webdriver.cmd 10
start " D1 RTE11 " /MIN webdriver.cmd 11
start " D1 RTE12 " /MIN webdriver.cmd 12
start " D1 RTE13 " /MIN webdriver.cmd 13
start " D1 RTE14 " /MIN webdriver.cmd 14
start " D1 RTE15 " /MIN webdriver.cmd 15
start " D1 RTE16 " /MIN webdriver.cmd 16
start " D1 RTE17 " /MIN webdriver.cmd 17
start " D1 RTE18 " /MIN webdriver.cmd 18

```

```

start " D1 RTE19 " /MIN webdriver.cmd 19
start " D1 RTE20 " /MIN webdriver.cmd 20
start " D1 RTE21 " /MIN webdriver.cmd 21
start " D1 RTE22 " /MIN webdriver.cmd 22
start " D1 RTE23 " /MIN webdriver.cmd 23
start " D1 RTE24 " /MIN webdriver.cmd 24

start " D2 RTE25 " /MIN webdriver.cmd 25
start " D2 RTE26 " /MIN webdriver.cmd 26
start " D2 RTE27 " /MIN webdriver.cmd 27
start " D2 RTE28 " /MIN webdriver.cmd 28
start " D2 RTE29 " /MIN webdriver.cmd 29
start " D2 RTE30 " /MIN webdriver.cmd 30
start " D2 RTE31 " /MIN webdriver.cmd 31
start " D2 RTE32 " /MIN webdriver.cmd 32
start " D2 RTE33 " /MIN webdriver.cmd 33
start " D2 RTE34 " /MIN webdriver.cmd 34
start " D2 RTE35 " /MIN webdriver.cmd 35
start " D2 RTE36 " /MIN webdriver.cmd 36
start " D2 RTE37 " /MIN webdriver.cmd 37
start " D2 RTE38 " /MIN webdriver.cmd 38
start " D2 RTE39 " /MIN webdriver.cmd 39
start " D2 RTE40 " /MIN webdriver.cmd 40
start " D2 RTE41 " /MIN webdriver.cmd 41
start " D2 RTE42 " /MIN webdriver.cmd 42
start " D2 RTE43 " /MIN webdriver.cmd 43
start " D2 RTE44 " /MIN webdriver.cmd 44
start " D2 RTE45 " /MIN webdriver.cmd 45
start " D2 RTE46 " /MIN webdriver.cmd 46
start " D2 RTE47 " /MIN webdriver.cmd 47
start " D2 RTE48 " /MIN webdriver.cmd 48
start " D2 RTE49 " /MIN webdriver.cmd 49

start " D3 RTE50 " /MIN webdriver.cmd 50
start " D3 RTE51 " /MIN webdriver.cmd 51
start " D3 RTE52 " /MIN webdriver.cmd 52
start " D3 RTE53 " /MIN webdriver.cmd 53
start " D3 RTE54 " /MIN webdriver.cmd 54
start " D3 RTE55 " /MIN webdriver.cmd 55
start " D3 RTE56 " /MIN webdriver.cmd 56
start " D3 RTE57 " /MIN webdriver.cmd 57
start " D3 RTE58 " /MIN webdriver.cmd 58
start " D3 RTE59 " /MIN webdriver.cmd 59
start " D3 RTE60 " /MIN webdriver.cmd 60
start " D3 RTE61 " /MIN webdriver.cmd 61
start " D3 RTE62 " /MIN webdriver.cmd 62
start " D3 RTE63 " /MIN webdriver.cmd 63
start " D3 RTE64 " /MIN webdriver.cmd 64
start " D3 RTE65 " /MIN webdriver.cmd 65
start " D3 RTE66 " /MIN webdriver.cmd 66
start " D3 RTE67 " /MIN webdriver.cmd 67
start " D3 RTE68 " /MIN webdriver.cmd 68
start " D3 RTE69 " /MIN webdriver.cmd 69
start " D3 RTE70 " /MIN webdriver.cmd 70
start " D3 RTE71 " /MIN webdriver.cmd 71
start " D3 RTE72 " /MIN webdriver.cmd 72
start " D3 RTE73 " /MIN webdriver.cmd 73
start " D3 RTE74 " /MIN webdriver.cmd 74

```

```

start " D4 RTE75 " /MIN webdriver.cmd 75
start " D4 RTE76 " /MIN webdriver.cmd 76
start " D4 RTE77 " /MIN webdriver.cmd 77
start " D4 RTE78 " /MIN webdriver.cmd 78
start " D4 RTE79 " /MIN webdriver.cmd 79
start " D4 RTE80 " /MIN webdriver.cmd 80
start " D4 RTE81 " /MIN webdriver.cmd 81
start " D4 RTE82 " /MIN webdriver.cmd 82
start " D4 RTE83 " /MIN webdriver.cmd 83
start " D4 RTE84 " /MIN webdriver.cmd 84
start " D4 RTE85 " /MIN webdriver.cmd 85
start " D4 RTE86 " /MIN webdriver.cmd 86
start " D4 RTE87 " /MIN webdriver.cmd 87
start " D4 RTE88 " /MIN webdriver.cmd 88
start " D4 RTE89 " /MIN webdriver.cmd 89
start " D4 RTE90 " /MIN webdriver.cmd 90
start " D4 RTE91 " /MIN webdriver.cmd 91
start " D4 RTE92 " /MIN webdriver.cmd 92
start " D4 RTE93 " /MIN webdriver.cmd 93
start " D4 RTE94 " /MIN webdriver.cmd 94
start " D4 RTE95 " /MIN webdriver.cmd 95
start " D4 RTE96 " /MIN webdriver.cmd 96
start " D4 RTE97 " /MIN webdriver.cmd 97
start " D4 RTE98 " /MIN webdriver.cmd 98
start " D4 RTE99 " /MIN webdriver.cmd 99

start " D5 RTE100 " /MIN webdriver.cmd 100
start " D5 RTE101 " /MIN webdriver.cmd 101
start " D5 RTE102 " /MIN webdriver.cmd 102
start " D5 RTE103 " /MIN webdriver.cmd 103
start " D5 RTE104 " /MIN webdriver.cmd 104
start " D5 RTE105 " /MIN webdriver.cmd 105
start " D5 RTE106 " /MIN webdriver.cmd 106
start " D5 RTE107 " /MIN webdriver.cmd 107
start " D5 RTE108 " /MIN webdriver.cmd 108
start " D5 RTE109 " /MIN webdriver.cmd 109
start " D5 RTE110 " /MIN webdriver.cmd 110
start " D5 RTE111 " /MIN webdriver.cmd 111
start " D5 RTE112 " /MIN webdriver.cmd 112
start " D5 RTE113 " /MIN webdriver.cmd 113
start " D5 RTE114 " /MIN webdriver.cmd 114
start " D5 RTE115 " /MIN webdriver.cmd 115
start " D5 RTE116 " /MIN webdriver.cmd 116
start " D5 RTE117 " /MIN webdriver.cmd 117
start " D5 RTE118 " /MIN webdriver.cmd 118
start " D5 RTE119 " /MIN webdriver.cmd 119
start " D5 RTE120 " /MIN webdriver.cmd 120
start " D5 RTE121 " /MIN webdriver.cmd 121
start " D5 RTE122 " /MIN webdriver.cmd 122
start " D5 RTE123 " /MIN webdriver.cmd 123
start " D5 RTE124 " /MIN webdriver.cmd 124

start " D6 RTE125 " /MIN webdriver.cmd 125
start " D6 RTE126 " /MIN webdriver.cmd 126
start " D6 RTE127 " /MIN webdriver.cmd 127
start " D6 RTE128 " /MIN webdriver.cmd 128
start " D6 RTE129 " /MIN webdriver.cmd 129
start " D6 RTE130 " /MIN webdriver.cmd 130
start " D6 RTE131 " /MIN webdriver.cmd 131

```

start " D6 RTE132 " /MIN webdriver.cmd 132
start " D6 RTE133 " /MIN webdriver.cmd 133
start " D6 RTE134 " /MIN webdriver.cmd 134
start " D6 RTE135 " /MIN webdriver.cmd 135
start " D6 RTE136 " /MIN webdriver.cmd 136
start " D6 RTE137 " /MIN webdriver.cmd 137
start " D6 RTE138 " /MIN webdriver.cmd 138
start " D6 RTE139 " /MIN webdriver.cmd 139
start " D6 RTE140 " /MIN webdriver.cmd 140
start " D6 RTE141 " /MIN webdriver.cmd 141
start " D6 RTE142 " /MIN webdriver.cmd 142
start " D6 RTE143 " /MIN webdriver.cmd 143
start " D6 RTE144 " /MIN webdriver.cmd 144
start " D6 RTE145 " /MIN webdriver.cmd 145
start " D6 RTE146 " /MIN webdriver.cmd 146
start " D6 RTE147 " /MIN webdriver.cmd 147
start " D6 RTE148 " /MIN webdriver.cmd 148
start " D6 RTE149 " /MIN webdriver.cmd 149

start " D7 RTE150 " /MIN webdriver.cmd 150
start " D7 RTE151 " /MIN webdriver.cmd 151
start " D7 RTE152 " /MIN webdriver.cmd 152
start " D7 RTE153 " /MIN webdriver.cmd 153
start " D7 RTE154 " /MIN webdriver.cmd 154
start " D7 RTE155 " /MIN webdriver.cmd 155
start " D7 RTE156 " /MIN webdriver.cmd 156
start " D7 RTE157 " /MIN webdriver.cmd 157
start " D7 RTE158 " /MIN webdriver.cmd 158
start " D7 RTE159 " /MIN webdriver.cmd 159
start " D7 RTE160 " /MIN webdriver.cmd 160
start " D7 RTE161 " /MIN webdriver.cmd 161
start " D7 RTE162 " /MIN webdriver.cmd 162
start " D7 RTE163 " /MIN webdriver.cmd 163
start " D7 RTE164 " /MIN webdriver.cmd 164
start " D7 RTE165 " /MIN webdriver.cmd 165
start " D7 RTE166 " /MIN webdriver.cmd 166
start " D7 RTE167 " /MIN webdriver.cmd 167
start " D7 RTE168 " /MIN webdriver.cmd 168
start " D7 RTE169 " /MIN webdriver.cmd 169
start " D7 RTE170 " /MIN webdriver.cmd 170
start " D7 RTE171 " /MIN webdriver.cmd 171
start " D7 RTE172 " /MIN webdriver.cmd 172
start " D7 RTE173 " /MIN webdriver.cmd 173
start " D7 RTE174 " /MIN webdriver.cmd 174

start " D8 RTE175 " /MIN webdriver.cmd 175
start " D8 RTE176 " /MIN webdriver.cmd 176
start " D8 RTE177 " /MIN webdriver.cmd 177
start " D8 RTE178 " /MIN webdriver.cmd 178
start " D8 RTE179 " /MIN webdriver.cmd 179
start " D8 RTE180 " /MIN webdriver.cmd 180
start " D8 RTE181 " /MIN webdriver.cmd 181
start " D8 RTE182 " /MIN webdriver.cmd 182
start " D8 RTE183 " /MIN webdriver.cmd 183
start " D8 RTE184 " /MIN webdriver.cmd 184
start " D8 RTE185 " /MIN webdriver.cmd 185
start " D8 RTE186 " /MIN webdriver.cmd 186
start " D8 RTE187 " /MIN webdriver.cmd 187
start " D8 RTE188 " /MIN webdriver.cmd 188

start " D8 RTE189 " /MIN webdriver.cmd 189
start " D8 RTE190 " /MIN webdriver.cmd 190
start " D8 RTE191 " /MIN webdriver.cmd 191
start " D8 RTE192 " /MIN webdriver.cmd 192
start " D8 RTE193 " /MIN webdriver.cmd 193
start " D8 RTE194 " /MIN webdriver.cmd 194
start " D8 RTE195 " /MIN webdriver.cmd 195
start " D8 RTE196 " /MIN webdriver.cmd 196
start " D8 RTE197 " /MIN webdriver.cmd 197
start " D8 RTE198 " /MIN webdriver.cmd 198
start " D8 RTE199 " /MIN webdriver.cmd 199

Appendix E - Disk Storage

TPC-C 60-Day Disk Space Requirements					
Warehouses	20,160	tpmC	252,920.49	tpmC/W	12.55
Table	Initial Rows	Data KB	Index KB	Extra 5% KB	Total With 5% KB
Warehouse	20,160	2,184	416	130	2,730
District	201,600	22,720	928	1,182	24,830
Customer	604,800,000	124,061,544	26,740,992	7,540,127	158,342,663
Customer.Text	604,800,000	361,750,424		18,087,521	379,837,945
History (D)	604,800,000	36,107,464	140,848		36,248,312
Order (D)	604,800,000	19,748,576	45,176		19,793,752
New-Order	181,440,000	3,584,000	9,784	179,689	3,773,473
Order-Line (D)	6,047,984,984	403,199,000	954,080		404,153,080
Item	100,000	8,744	856	480	10,080
Stock	2,016,000,000	629,847,392	1,333,368	31,559,038	662,739,798
Totals KB		1,578,332,048	29,226,448	57,368,168	1,664,926,664
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_ord_fg	110	4,675	514,250	417,696	510,346
mssql70_cs_fg	110	7,300	803,000	801,838	801,838
mssql70_misc_fg	110	3,825	420,750	406,371	413,744
Total Allocated MB			1,738,042	1,625,947	1,725,970
MB					
Dynamic Space MB	448,296	Sum of data for orders, order_line & history			
Static Space	1,177,609	Sum of data+index+5% - Dynamic Space			
Free Space	112,137	Total allocated space - (Dynamic & Static Spaces)			
Daily Growth	89,987	(Dynamic Space / (W * 62.5)) * tpmC			
Daily Spread	0	Free space - 1.5 * Daily growth (zero if negative)			
	0	SQL Server can be configured to eliminate Daily Spread			
60 Day Space MB	6,576,810	Static Space + 60 * (Daily Growth + Daily Spread)			
60 Day Space GB	6,422.67				
8 hr log GB	558.61	(need double for mirroring)			
Disk Capacity MB	17499	17.089 GB	Capacity of 18GB disks (15,000 RPM)		
	68204	66.605 GB	Capacity of 73GB disks (10,000 RPM)		
Space Usage	GB Needed	Disks Priced	GB Priced		
60-day space DB	6422.67 GB	770	13158.43 GB	18GB drives	
Total DB		770	13158.43 GB		
8-hr log+mirror	1117.23 GB	18	1149.19 GB	73GB drives	
OS, SQL Server	14.00 GB	1	27.95 GB	30GB drive	
Total space	7553.89 GB	789	14335.57 GB	14.0 TB	

TPC-C Dynamic Table Growth Rates for 8 Hours					252,920.49 tpmC	
Tables	Initial (KB)	Final (KB)	Change(KB)	KB / New-Order	8-Hr MB	
History	36,248,312	42,457,912	6,209,600	0.0622	42,771.45	
Orders	19,793,752	26,164,352	6,370,600	0.0638	26,893.70	
Order_line	404,153,080	474,490,712	70,337,632	0.7044	478,193.20	
Dynamic	460,195,144	543,112,976	82,917,832	0.8304	547,858.36	
New_order	3,593,784	5,067,264	1,473,480	0.0148	5,259.03	
Static						
Log	17,734,255	484,927,038	467,192,783	4.6788	572,020.53	558.614 GB
SUM(d_next_o_id)	605,001,600	704,854,745	99,853,145			

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

June 17, 2003

Unisys Corporation
Glenn Weeks
MS237
25725 Jeronimo Road
Mission Viejo, CA 92691

Mr. Weeks:

Here is the information you requested regarding pricing for several Microsoft products to be used in conjunction with your TPC-C benchmark testing.

All pricing shown is in US Dollars (\$).

Part Number	Description	Unit Price	Quantity	Price
C11-00821	Windows 2000 Server <i>Server license only - No CALs</i> <i>Discount Schedule: Open Program - No Level</i> <i>Unit Price reflects a 8% discount from the</i> <i>retail unit price of \$799.</i>	\$738	8	\$5,904
254-00170	Visual C++ Standard <i>No discounts applied</i>	\$109	1	\$109
PRO-PRORS-16U-01	Database Server Support Package <i>1 Year Term</i>	\$1,950	3	\$5,850

All products are currently orderable through Microsoft's normal distribution channels.

This quote is valid for the next 90 days.

If we can be of any further assistance, please contact Jamie Reding at (425) 703-0510 or jamiere@microsoft.com.

Reference ID: PCglwe0317064188

Please include this Reference ID in any correspondence regarding this price quote.



Phone: 800-848-7185
 Fax: 203-384-0473
 35 Benham Avenue
 Bridgeport, CT 06605
 www.cri1.com

SALES QUOTE	
SQ-15747	Jun 17, 2003

Customer	Contact	Ship To
UNISYS CORPORATION 25725 JERONIMO RD MISSION VIEJO CA 92691 UNITED STATES		UNISYS CORPORATION 25725 JERONIMO RD MISSION VIEJO CA 92691 UNITED STATES

Account	Terms	Due Date	Account Rep	Schedule Dat
UNIMISSI	NET 30	Jul 17, 2003	John Palmieri	

Quotation	PO #	Reference	Ship VIA	Pag	Printed
SQ-15747			UPS GROUND	1	06/24/0314:56

L	Item	Description	Qty	Ship	Price	M	Discount	Amount
1	ES7540326-100	SYS:ES7000-540, 32X 2.8GHZ 128MB CH	1		349220.00	EA		349220.00
2	SEN70001-MSV	SRV:SENTINEL MNGMT SRV	1		4242.00	EA		4242.00
3	RAM7-16G	MEM: 16GB MEM 1GB DIMM	3		9500.00	EA		28500.00
4	FC76222-P64	CTRL: 2 GB FC, INTELLIFIBRE	12		2850.00	EA		34200.00
5	PCI10001-CXG	COMM HW:GIGANET CLUSTER XCNT ADPT	8		755.00	EA		6040.00
6	ES70003-UIF	RCK:105 KBRD/MOUSE/MON	1		570.00	EA		570.00
7	WND2332-TSP	O/S:WIN 2003 SRVR,DCENTER EDTN 32P	1		70224.0	EA		70224.00
8	DUS200332-TSP	O/S:WIN 2003 SRVR, DC LMTD SBSCRPTN,	2		6384.00	EA		12768.00
9	GTS7523432-SSA	O/S WIN 2003 SERVER DC SUPPORT24X7X4	3		17168.0	EA		51504.00
10	DQL200332-LX	APP:MICROSOFT SQL SERVER 2000 ENT ED	1		425600.00	EA		425600.00
11		USS200/RS2000 STORAGE						
12	JBD201815-2F	DISK: 18GB 15K RPM	847		578.00	EA		489566.00
13	CXR7310-2GF	EMC DISK:73 GB, 10K DRIVE, FACT	20		1748.00	EA		34960.00
14	JBD2002-SA	DISK:NON-HA ENCLOSURE WITH 14 DRIVE	33		3197.00	EA		105501.00
15	JBD2011-SA	DISK:NON-HA ENCLOSURE WITH 14 DRIVE	22		3413.00	EA		75086.00
16	RMM20103-ELS	SAN:SYMM DISK VIRT SRVR II-ELS	11		5502.00	EA		60522.00
17	RMM20701-TAR	SAN:HBA,ATTO PCI3300	33		2209.00	EA		72897.00
18	USS10300-SW	SAN:USS2100 SW & PROD INF	1		8550.00	EA		8550.00
19	USS20320-LIC	SAN:USS2100 20 TBYTE LIC	1		68875.0	EA		68875.00
20	JBD20003-CCL	DISK:.3 METER 2GB FIBRE CHANNEL	33		54.00	EA		1782.00
21	JBD2000-RMK	RCK:RACK MOUNT KIT, DISK ENCLOSURE	55		182.00	EA		10010.00
22	CX200-DPE	EMCDISK:3U DPE, HA, W/SPS, FIELD	1		19000.0	EA		19000.00
23	CX600-DAE	RCK:FC 2GB STORAGE, OPTICAL I/F, DAE	1		7600.00	EA		7600.00
24	CXN200-T3	EMC SW:NAVISPHERE MANAGER BASE -	1		3800.00	EA		3800.00
25	CXN600-WIN	EMC SW:NAVISPHERE AGENT NT/W2K	1		950.00	EA		950.00
26	GS516-T16	LAN HW:GIGABIT SWITCH, 16P	1		2850.00	EA		2850.00

Page 1							
SubTota 1944817.00							



Phone: 800-848-7185
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SQ-15747

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Account	Terms	Due Date	Account Rep	Schedule Dat				
UNIMISSI	NET 30	Jul 17, 2003	John Palmieri					
Quotation	PO #	Reference	Ship VIA	Pag	Printed			
SQ-15747			UPS GROUND	2	06/24/0314:56			
L	Item	Description	Qty	Ship	Price	M	Discount	Amount
27	SWC81-SXR	ADPTR:8 PORT SWITCH UNIT	3		1520.00	EA		4560.00
28	CBL121-SWC	CABLE:12FT SYS TO ADJ RK	19		143.00	EA		2717.00
29	KBR28301-SXR	KEYBD:RACK MOUNT KYBD	2		333.00	EA		666.00
30	MON2145-LCD	DISPLAY: 1U LCD MONITOR	2		2565.00	EA		5130.00
31	SFR9-PWR	ACC: 9-PLUG POWER STRIP	18		162.00	EA		2916.00
32	USE1936-LC6	PWR CORD:C20/NEMA L6-20P	18		86.00	EA		1548.00
33	HRT361941-OFT	ACC:36U 19X41 OPEN FRT CAB, HRT	6		1425.00	EA		8550.00
34	HRT3619-RDR	ACC:36U X19" REAR DOOR, HRT COLOR	6		475.00	EA		2850.00
35	HRT3641-SDS	ACC:SIDE SKINS, HRT COLOR	6		475.00	EA		2850.00
36	RM1936-FOT	INSTL:STABILIZER FOOT	6		162.00	EA		972.00
37		ES3020L SERVER						
38	ESL30201-240	SVR:ESL3020 2.4GHZ DUAL	8		1557.00	EA		12456.00
39	CPL3020241-512	ACC: ESL3020 2.4GHZ 512K 1	8		665.00	EA		5320.00
40	DIM3000022-1GB	MEM:1GB 2X512MB 8K	8		933.00	EA		7464.00
41	HBP3020101-51	DISK:ESL3020 HSBP 1X4 1"	8		265.00	EA		2120.00
42	HDP18115-DC4	DISK:18GB 15KRPM U320	8		439.00	EA		3512.00
43	PCI10001-CXG	COMM HW:GIGANET CLUSTER XCNT ADPT	8		755.00	EA		6040.00
44	ESL3020-VRL	ACC:ESL3020 V-RAILS	8		333.00	EA		2664.00
45	DISCOUNT	LARGE VOLUME CASH DISCOUNT	1		-302573.00	EA		-302573.00
46		7 DAY REPLENISHMENT.						
47		QUOTE VALID FOR 90 DAYS						
48								
							Taxable	0.00
							Tax	0.00
							Exempt	1714579.00
							Total	1714579.00
							Paid	0.00
							Tr Disc	0.00
							Balance	1714579.00
							Amount shown in Rate :0.00 of	

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