



TPC Benchmark™ C Full Disclosure Report

Unisys ES7000 Orion 230 Enterprise Server

using

Microsoft SQL Server 2000 Enterprise Edition

on

**Microsoft Windows Server 2003,
Datacenter Edition**

**Second Edition
March 28, 2003**

Second Edition – March 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 230 Enterprise Server. The operating system on the server was Microsoft Windows .NET Server 2003 Datacenter Edition. The DBMS used was Microsoft SQL Server 2000 Enterprise Edition. The operating system on the clients was Microsoft Windows 2000 Advanced Server. The clients ran Microsoft's Internet Information Server 5.0 and COM+.

TPC Benchmark Metrics

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

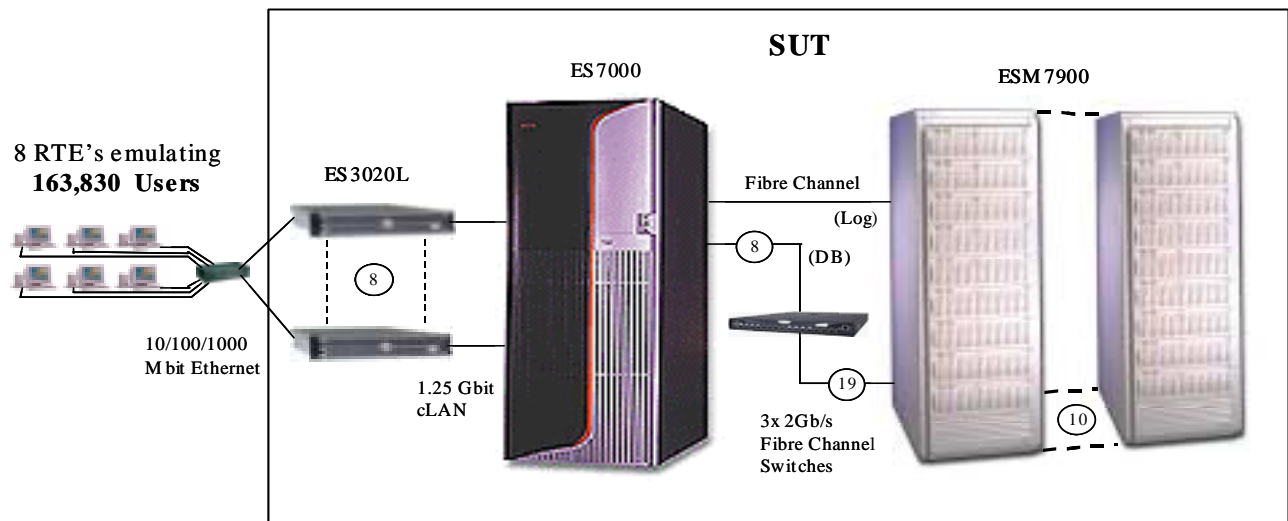
Executive Summary

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

Auditor

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

| | | | |
|-------------------------------|--|---|--|
| UNISYS | ES7000 Orion 230 Enterprise Server | | TPC-C Rev. 5.0 |
| | | | Report Date: Nov. 4, 2002 Updated: Mar. 28, 2003 |
| Total System Cost | TPC-C Throughput | Price Performance | Availability Date |
| \$2,681,773 | 203,518.03 tpmC | \$13.18 / tpmC | May 2, 2003 |
| Processors | Database Manager | Operating System | Other Software |
| 32 - Database 16 - Clients | Microsoft SQL Server 2000 Enterprise Edition | Microsoft Windows Server 2003, Datacenter Edition | Windows 2000 Adv. Srvr. w/ IIS 5.0 and COM+ Microsoft Visual C++ |
| | | | Number of Users |
| | | | 163,830 |



Clients (each of 8)
ES3020L Server
 2 x 2.4GHz Intel® Xeon™
 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 230
Enterprise Server**
 32 x 1.6GHz Intel® Xeon™ MP
 w/ 1MB L3 cache,
 64 GB memory,
 1 PCI SCSI RAID controller,
 2 x 36GB internal SCSI disks,
 9 x PCI Fibre Channel controllers,
 8 x PCI cLAN controllers

**Storage
ESM7900**
 683 x 18GB + 30 x 36GB
 Hot-Pluggable
 External Fibre Channel disks
 20 x FC RAID controllers

| System Components | Enterprise Server | | Clients (each of 8) | |
|-------------------|-------------------|---|---------------------|--|
| | Quantity | Type | Quantity | Type |
| Processors | 32 | 1.6GHz Intel® Xeon™ MP with 1MB Level 3 Cache | 2 | 2.4GHz Intel® Xeon™ with 512KB Level 2 Cache |
| Memory | 4 | 16 GB | 2 | 512 MB |
| Disk Controllers | 9 | PCI Fibre Channel | 1 | Inbuilt SCSI |
| Disk Drives | 1 | PCI SCSI RAID (boot media) | 1 | 18GB SCSI (16.9 GB useable) |
| | 683 | 18GB FC (16.4 GB useable) | | |
| | 30 | 36GB FC (32.7 GB useable) | | |
| | 2 | 36GB SCSI (32.7 GB useable) | | |
| Total Storage | 11.5 TB | | 16.9 GB | |
| Tape / CD-ROM | 1 | SCSI CD-ROM | 1 | IDE CD-ROM |
| Terminals | 2 | Console Monitor | 1 | Console Monitor |



ES7000 Orion 230 Enterprise Server

TPC-C Rev. 5.0

Report Date: Nov. 4, 2002
Updated: Mar. 28, 2003

| Description | Part No. | Third Party | | Unit Price | Qty. | Extended Price | 3 yr. Maint. Price |
|--|--------------------------------------|-------------|-------|------------|------|--------------------|-----------------------|
| | | Brand | Price | | | | |
| Server Hardware: | | | | | | | |
| SYS: ES7000 Orion 230, 32x 1.6GHz Procs, 16 GB Mem. 1x RAID Controller, 2x 36GB Disk (boot media) Sentinel System Management S/W and Media | ES7321231-GD Included Included | | | 1 | 1 | \$489,600 | \$67,824 |
| MEM: 16GB, 1 GB DIMMs | RAM7-16G | | | 1 | 3 | \$23,573 | \$70,719 |
| CTRL: Fibre Channel HBA, 2-Port, 64-bit PCI | FC76222-P64 | | | 1 | 9 | \$2,720 | \$24,480 |
| CTRL: eLAN, PCI Host Adapter & Cable | PCI10001-CXG | | | 1 | 8 | \$721 | \$5,768 |
| I/F: Monitor, 15-inch Color, Kybrd, Mse & Cable | ES70003-UIF | | | 1 | 2 | \$544 | \$1,088 |
| Server Software: | | | | | | | |
| O/S: Microsoft Windows .NET Datacenter & SQL Package | WNQ323232-LIT | 2 | 1 | | 1 | \$476,907 | \$43,200 |
| SRVC: Microsoft Database Server Support Package* | PRO-PRORS-16U-01 | 2 | 2 | | 3 | \$1,950 | \$5,850 |
| Server Subtotal | | | | | | \$1,068,562 | \$116,874 |
| Storage Hardware: | | | | | | | |
| DISK: 18GB Drive, 15K FC, SCA | ESM18304-F94 | | | 1 | 683 | \$864 | Spared |
| DISK: 18GB Drive, 15K FC, SCA 10% spares** | ESM18304-F94 | | | 1 | 69 | \$864 | \$59,616 |
| DISK: 36GB Drive, 10K FC, SCA | ESM36202-F94 | | | 1 | 30 | \$928 | Spared |
| DISK: 36GB Drive, 10K FC, SCA 10% spares** | ESM36202-F94 | | | 1 | 3 | \$928 | \$2,784 |
| DAE: Expansion Enclsr, w/ 0 Disk | ESM7200-DAE | | | 1 | 70 | \$4,087 | \$286,090 |
| DPE: 2 RAID Cntrl, 1GB Cache ea., 0 Disk | ESM7900-DPE | | | 1 | 10 | \$44,200 | \$442,000 |
| SYS MGT: Storage Agent, Monitor, Call Home & ATF | ESM7700-W2K | | | 1 | 1 | \$1,661 | \$864 |
| SWTCH: Switch & Software, 16-port FC, 2Gbit/s | HSC30438-S16 | | | 1 | 3 | \$18,936 | \$56,808 |
| ACC: SFP, 2Gb/s Shortwave | HSC50400-SFS | | | 1 | 39 | \$125 | \$4,875 |
| CBL: FC, 50um Dupx, LC->SC Conn's, 10m | CBL170-10 | | | 1 | 20 | \$277 | \$5,540 |
| CBL: FC, 50um Dupx, LC->LC Conn's, 10m | CBL171-10 | | | 1 | 14 | \$279 | \$3,906 |
| PWR: Distribution Strip, 9-Plug, 220V | SFR9-PWR | | | 1 | 20 | \$295 | \$5,900 |
| CBL: Power, U.S. (Domestic), C20 - L6-20P | USE1936-LC6 | | | 1 | 20 | \$126 | \$2,520 |
| CAB: 36U x 19" x 34" Open Front Cabinet | HRT361934-OFT | | | 1 | 10 | \$1,473 | \$14,730 |
| DOOR: 36U x 19", Rear | HRT3619-RDR | | | 1 | 10 | \$368 | \$3,680 |
| PNL: 36U x 34" Side Skins, L&R HRT | HRT3634-SDS | | | 1 | 10 | \$589 | \$5,890 |
| INSTL: Stabilizer Foot | RM1936-FOT | | | 1 | 10 | \$126 | \$1,260 |
| Storage Subtotal | | | | | | \$1,452,812 | \$240,060 |
| Client Hardware: | | | | | | | |
| SYS: ES3020L w/ 1x 2.4GHz Proc., OMB Mem | ESL30201-240 | | | 1 | 8 | \$1,800 | \$14,400 |
| PROC: 1x 2.4GHz Intel Xeon/512KB Cache | CPL3020241-512 | | | 1 | 8 | \$1,240 | \$9,920 |
| MEM: 1GB, 2x512MB DDR DRAM PC133ECC | DIM3000022-1GB | | | 1 | 8 | \$929 | \$7,432 |
| RCK: ESL2026 Disk Backpanel, 1x4 | HBP3020101-51 | | | 1 | 8 | \$205 | \$1,640 |
| DISK: 18GB 10Krpm 3.5 Internal | HDM18110-DC4 | | | 1 | 8 | \$258 | \$2,064 |
| CTRL: eLAN, PCI Host Adapter & Cable | PCI10001-CXG | | | 1 | 8 | \$721 | \$5,768 |
| RCK: ES3020L Universal Rack Kit | ESL3020-VRL | | | 1 | 8 | \$258 | \$2,064 |
| SWTCH: Switch, 8-port KVM | SWC81-SXR | | | 1 | 1 | \$1,179 | \$1,179 |
| CBL: Cable, KVM, 12 foot | CBL121-SWC | | | 1 | 8 | \$111 | \$888 |
| KBD: Keyboard & Drawer, Rackmount | KBR28301-SXR | | | 1 | 1 | \$258 | \$258 |
| MON: Display, Rackmount LCD | MON2145-LCD | | | 1 | 1 | \$1,989 | \$1,989 |
| PWR: Distribution Strip, 9-Plug, 220V | SFR9-PWR | | | 1 | 2 | \$295 | \$590 |
| CBL: Power, U.S. (Domestic), C20 - L6-20P | USE1936-LC6 | | | 1 | 2 | \$126 | \$252 |
| CAB: 36U x 19" x 34" Open Front Cabinet | HRT361934-OFT | | | 1 | 1 | \$1,473 | \$1,473 |
| DOOR: 36U x 19", Rear | HRT3619-RDR | | | 1 | 1 | \$368 | \$368 |
| PNL: 36U x 34" Side Skins, L&R HRT | HRT3634-SDS | | | 1 | 1 | \$589 | \$589 |
| INSTL: Stabilizer Foot | RM1936-FOT | | | 1 | 1 | \$126 | \$126 |
| Client Software: | | | | | | | |
| O/S: Microsoft Windows 2000 Advanced Server | C10-00475 | 2 | 2 | | 8 | \$2,399 | \$19,192 * Inc. above |
| ACC: Microsoft Visual C++ Professional 6.0 | 048-00317 | 2 | 2 | | 1 | \$549 | \$549 * Inc. above |
| Client Subtotal | | | | | | \$70,741 | \$10,464 |
| Total | | | | | | \$2,592,115 | \$367,398 |
| | | | | | | (\$263,477) | (\$14,263) |

Comark Large Volume Discount
Unisys Service Pre-Pay Discount

Notes:

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

Three Year Cost of Ownership: \$2,681,773
tpmC Rating: 203,518.03
\$ / tpmC: \$13.18

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: 203,518.03 tpmC

Response Times, in seconds

| Transaction | 90th %ile | Average | Maximum |
|--------------------------------|-----------|---------|---------|
| New-Order | 0.75 | 0.42 | 18.20 |
| Payment | 0.68 | 0.37 | 17.84 |
| Order-Status | 0.70 | 0.38 | 14.64 |
| Delivery (interactive portion) | 0.50 | 0.25 | 5.39 |
| Delivery (deferred portion) | 1.13 | 0.57 | 16.55 |
| Stock-Level | 1.43 | 0.87 | 15.92 |
| Menu | 0.51 | 0.25 | 5.41 |

Response time delay added for emulated components, in seconds

| | |
|--------------------|-----|
| RT Response time | 0.1 |
| Menu Response time | 0.1 |

Transaction Mix, in percent of total transactions

| | |
|--------------------------------|--------|
| New Order | 44.88% |
| Payment | 43.05% |
| Order-Status | 4.01% |
| Delivery (interactive portion) | 4.02% |
| Stock-Level | 4.02% |

Keying / Think Time Times, in seconds

| Transaction | Minimum | Average | Maximum |
|--------------------------------|--------------|---------------|----------------|
| New Order | 18.01 / 0.00 | 18.01 / 12.03 | 18.09 / 120.33 |
| Payment | 3.01 / 0.00 | 3.01 / 12.04 | 3.09 / 120.33 |
| Order-Status | 2.01 / 0.00 | 2.01 / 10.08 | 2.08 / 100.72 |
| Delivery (interactive portion) | 2.01 / 0.00 | 2.01 / 5.06 | 2.08 / 50.63 |
| Stock-Level | 2.01 / 0.00 | 2.01 / 5.07 | 2.08 / 50.63 |

Test Duration

| | |
|--|-------------|
| Ramp up time | 41 minutes |
| Measurement interval (M) | 120 minutes |
| Transactions (all types) completed during measurement interval | 54,415,481 |
| Ramp-down time | 61 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 230 Enterprise Server using Microsoft SQL Server 2000 Enterprise Edition on Microsoft Windows .NET Server 2003 Datacenter Edition.

TPC Benchmark C Overview

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

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

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

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

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

0.1. Order and Titles

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

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

0.2. Executive Summary Statement

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

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

0.3. Numerical Quantities Summary

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

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

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

0.4. Application Code Disclosure

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

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

0.5. Benchmark Sponsor

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

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

0.6. Parameter Settings

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

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

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

0.7. Configuration Diagrams

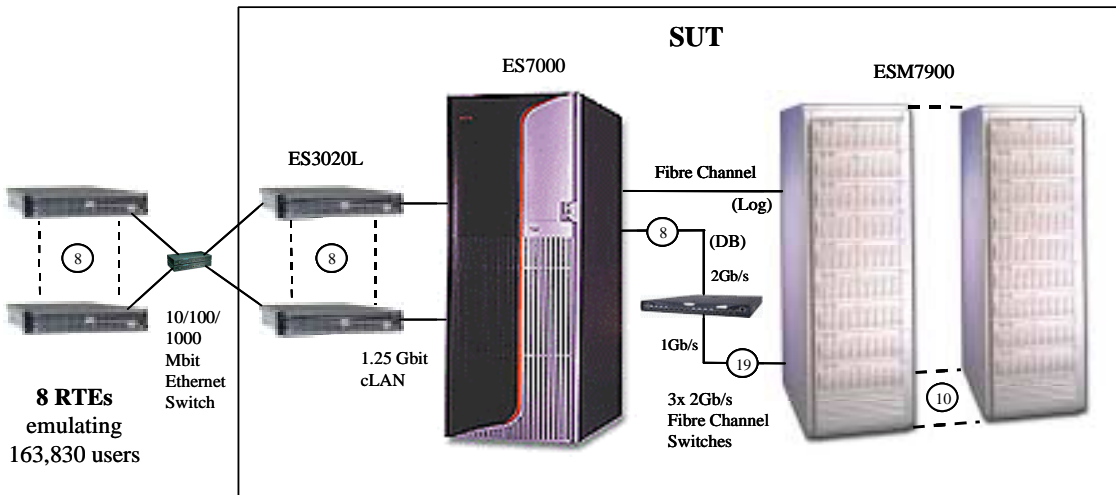
Diagrams of both measured and priced configurations must be provided, accompanied by a description of the differences. This includes, but is not limited to: (8.1.1.7)

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

The Remote Terminal Emulator (RTE) software used for these TPC-C tests is proprietary to Unisys. The benchmarked configuration of the RTE and Unisys ES7000 Orion 230 Enterprise Server is illustrated in Figure 0.1. Tables 4.3 and 4.4 contain a detailed explanation of the disk configuration.

The priced configuration for the Unisys ES7000 Orion 230 Enterprise Server is shown in Figure 0.2.

Figure 0.1: Benchmarked Configuration

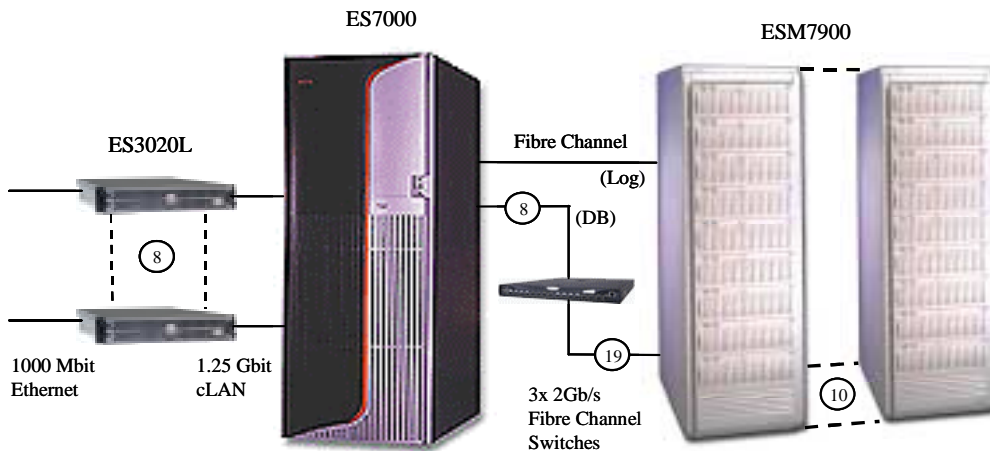


Clients (each of 8)
ES3020L Server
 2 x 2.4GHz Intel® Xeon™
 w/ 512KB L2 cache,
 1 GB memory,
 1 x 18GB internal disk,
 2 Inbuilt 10/100/1000Mb
 Ethernet (1 used),
 1 x PCI cLAN controller

ES7000 Orion 230
Enterprise Server
 32 x 1.6GHz Intel® Xeon™ MP
 w/ 1MB L3 cache,
 64 GB memory,
 1 PCI SCSI RAID controller,
 2 x 18GB internal SCSI disks,
 9 x PCI Fibre Channel controllers,
 8 x PCI cLAN controllers

Storage
ESM7900 Fibre Channel Disks
 665 x 18 GB data,
 28 x 36 GB log,
 18 x 18GB + 2 x 36GB psm,
 20 x FC RAID controllers

Figure 0.2: Priced Configuration



Clients (each of 8)
ES3020L Server
 2 x 2.4GHz Intel® Xeon™
 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 230
Enterprise Server
 32 x 1.6GHz Intel® Xeon™ MP
 w/ 1MB L3 cache,
 64 GB memory,
 1 PCI SCSI RAID controller,
 2 x 36GB internal SCSI disks,
 9 x PCI Fibre Channel controllers,
 8 x PCI cLAN controllers

Storage
ESM7900 Fibre Channel Disks
 665 x 18 GB data,
 28 x 36 GB log,
 18 x 18GB + 2 x 36GB psm,
 20 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 4.4. 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 16,480 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 16,480 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 16,480 users. On the driver systems, committed and rolled back New-Order transactions were recorded in a “success” file.
4. After five minutes of running at steady state, a hot-pluggable log disk was removed from the disk cabinet, with no effect on the OS or SQL server.
5. After 5 additional minutes of operation, a hot-pluggable data disk was removed from the disk cabinet.
6. Windows Datacenter and SQL Server encountered IO errors due to the missing disk and recorded these errors in the system event log and SQL Server error log, respectively. The RTEs also recorded errors.
7. First, the RTEs and clients were stopped, then SQL Server was used to backup the transaction log to the backup volume.
8. Next, scripts were executed to drop the database and all its files. Then, SQL Server was shutdown.
9. A data disk was inserted in the disk cabinet to replace the one removed. The RAID controller, via Navisphere Manager, was used to recreate the stripe set containing the new data disk. (The missing log drive was not replaced.)
10. The SUT was restarted, SQL Server was then restarted, and a new (empty) database created as part of the restore database process. That process loaded the initial database into the new database, but did not perform any recovery. Next the transaction log was restored, followed by transaction recovery. The latter step restored all committed transactions to the database.
11. Consistency condition 3 of Clause 3.3.2.3 was executed to verify database consistency.
12. Step 2 was repeated to determine the total number of orders. This number was subtracted from the count obtained previously in Step 2 to determine the number of additional orders added to the database.
13. The contents of the “success” files on the drivers were sampled to verify that the records in the “success” file for committed New-Order transactions had corresponding records in the ORDER table. Moreover, the counts were matched with those obtained in step 12.

3.5.2. Instantaneous Interruption and Loss of Memory

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

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

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

4.

Clause 4: Scaling & Database Population

4.1. Initial Cardinality of Tables

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

The TPC-C database for this test was configured with 16,383 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 | 16,383 |
| District | 163,830 |
| Customer | 491,490,000 |
| History | 491,490,000 |
| Order | 491,490,000 |
| New-Order | 147,447,000 |
| Order Line | 4,914,891,039 |
| Stock | 1,638,300,000 |
| Item | 100,000 |

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

4.2. Constant Values

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

Table 4.2: Constant C for NURand

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

4.3. Database Layout

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

Tables 4.3 and 4.4 list the distribution of the database over 665 18GB disks and the transaction log over 14 mirrored pairs of 36GB disks for the benchmark configuration. In addition, there were two 18GB disks in the host server, one containing Windows .NET Server 2003 Datacenter Edition and SQL Server 2000 code and the Master database plus the paging file. The priced configuration included two 36GB 15Krpm disks vs. the two 18GB 10Krpm disks used in the tested configuration. Unused-space partitions on the database drives were used for database backup. These partitions were not used during the measurements. Otherwise, the tested and priced disk configurations were identical.

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

A statement must be provided that describes: (8.1.5.3)

1. *The data model implemented by the DBMS used (e.g., relational, network, hierarchical).*
2. *The database interface (e.g., embedded, call level) and access language (e.g., SQL, DL/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 4.3: Disk Rack Configuration

| Disk Rack Configuration | | | | | | | | | | | | | | | |
|-------------------------|-----|--------|------------|--------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| ESM7900 | Bus | Rack # | RAID Level | Lun Capacity | Id 0 | Id 1 | Id 2 | Id 3 | Id 4 | Id 5 | Id 6 | Id 7 | Id 8 | Id 9 | |
| 1 Cab A | 0 | 1 | 10 | 229.23 GB | 36GB | 36GB | 36GB* | 36GB* | 36GB | 36GB | 36GB | 36GB | 36GB | Empty | |
| | 1 | 2 | 10 | | 36GB | 36GB | Empty | Empty | 36GB | 36GB | 36GB | 36GB | 36GB | 36GB | Empty |
| | 0 | 3 | 10 | | 36GB | 36GB | Empty | Empty | 36GB | 36GB | 36GB | 36GB | 36GB | 36GB | Empty |
| | 1 | 4 | 10 | | 36GB | 36GB | Empty | Empty | 36GB | 36GB | 36GB | 36GB | 36GB | 36GB | Empty |
| | 1 | 5 | 0 | 81.76 GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| | 1 | 6 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| | 1 | 7 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| | 1 | 8 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | Empty | Empty | Empty | Empty | Empty |
| 2 Cab B | 0 | 1 | 0 | 81.76 GB | 18GB | 18GB | 18GB* | 18GB* | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 0 | 2 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 0 | 3 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 0 | 4 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 0 | 5 | 0 | 18GB | 18GB | Empty | Empty | Empty | Empty | Empty | Empty | Empty | Empty | Empty | |
| | 1 | 6 | 0 | 81.76 GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 1 | 7 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 1 | 8 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| 1 | 8 | 0 | 18GB | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | | |
| 3 Cab C | 0 | 1 | 0 | 81.76 GB | 18GB | 18GB | 18GB* | 18GB* | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 0 | 2 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 0 | 3 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 0 | 4 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 0 | 5 | 0 | 18GB | 18GB | Empty | Empty | Empty | Empty | Empty | Empty | Empty | Empty | | |
| | 1 | 6 | 0 | 81.76 GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 1 | 7 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 1 | 8 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| 1 | 8 | 0 | 18GB | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | | |
| 4 Cab D | 0 | 1 | 0 | 81.76 GB | 18GB | 18GB | 18GB* | 18GB* | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 0 | 2 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 0 | 3 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 0 | 4 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 0 | 5 | 0 | 18GB | 18GB | Empty | Empty | Empty | Empty | Empty | Empty | Empty | Empty | | |
| | 1 | 6 | 0 | 81.76 GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 1 | 7 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 1 | 8 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| 1 | 8 | 0 | 18GB | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | | |
| 5 Cab E | 0 | 1 | 0 | 81.76 GB | 18GB | 18GB | 18GB* | 18GB* | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 0 | 2 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 0 | 3 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 0 | 4 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 0 | 5 | 0 | 18GB | 18GB | Empty | Empty | Empty | Empty | Empty | Empty | Empty | Empty | | |
| | 1 | 6 | 0 | 81.76 GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 1 | 7 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 1 | 8 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| 1 | 8 | 0 | 18GB | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | | |
| 6 Cab F | 0 | 1 | 0 | 81.76 GB | 18GB | 18GB | 18GB* | 18GB* | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 0 | 2 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 0 | 3 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 0 | 4 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 0 | 5 | 0 | 18GB | 18GB | Empty | Empty | Empty | Empty | Empty | Empty | Empty | Empty | | |
| | 1 | 6 | 0 | 81.76 GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 1 | 7 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 1 | 8 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| 1 | 8 | 0 | 18GB | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | | |

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

Table 4.3: Disk Rack Configuration (Continued)

| Disk Rack Configuration | | | | | | | | | | | | | | | |
|-------------------------|-------------|--------|------------|--------------|----------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| ESM7900 | Bus | Rack # | RAID Level | Lun Capacity | Id 0 | Id 1 | Id 2 | Id 3 | Id 4 | Id 5 | Id 6 | Id 7 | Id 8 | Id 9 | |
| 7 Cab G | 0 | 1 | 0 | 81.76 GB | 18GB | 18GB | 18GB* | 18GB* | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | |
| | 0 | 2 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| | 0 | 3 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| | 0 | 4 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| | 0 | 5 | 0 | | 18GB | 18GB | Empty | Empty | Empty | Empty | Empty | Empty | Empty | Empty | Empty |
| | 1 | 6 | 0 | 81.76 GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| | 1 | 7 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| | 1 | 8 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| | 8 Cab H | 0 | 1 | 0 | 81.76 GB | 18GB | 18GB | 18GB* | 18GB* | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| | | 0 | 2 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| 0 | | 3 | 0 | 18GB | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| 0 | | 4 | 0 | 18GB | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| 0 | | 5 | 0 | 18GB | | 18GB | Empty | Empty | Empty | Empty | Empty | Empty | Empty | Empty | Empty |
| 1 | | 6 | 0 | 81.76 GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| 1 | | 7 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| 1 | | 8 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| 9 Cab I | | 0 | 1 | 0 | 81.76 GB | 18GB | 18GB | 18GB* | 18GB* | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| | | 0 | 2 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| | 0 | 3 | 0 | 18GB | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| | 0 | 4 | 0 | 18GB | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| | 0 | 5 | 0 | 18GB | | 18GB | Empty | Empty | Empty | Empty | Empty | Empty | Empty | Empty | Empty |
| | 1 | 6 | 0 | 81.76 GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| | 1 | 7 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| | 1 | 8 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| | 10 Cab J | 0 | 1 | 0 | 81.76 GB | 18GB | 18GB | 18GB* | 18GB* | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| | | 0 | 2 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| 0 | | 3 | 0 | 18GB | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| 0 | | 4 | 0 | 18GB | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| 0 | | 5 | 0 | 18GB | | 18GB | Empty | Empty | Empty | Empty | Empty | Empty | Empty | Empty | Empty |
| 1 | | 6 | 0 | 81.76 GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| 1 | | 7 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |
| 1 | | 8 | 0 | | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB | 18GB |

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

Table 4.4: Disk Management Configuration

| Disk Management Configuration | | | |
|-------------------------------|---------------|-----------------------------|-------------|
| System Disks | Logical Disk# | Partition 1 Drive Letter | File System |
| 18 GB SCSI disk | 0 | C: System | NTFS |
| 18 GB SCSI disk | 1 | D: No label | NTFS |
| CD-ROM | CD-ROM 0 | F: | |

| | | | |
|---------|----|--|--|
| ESM7900 | | Partition 1 Size=229.23GB FS=Raw Junction Point | |
| DPE | SP | | |
| 1 | A | C:\BigDb\dbLogs\tpcclog2 C:\BigDb\dbLogs\tpcclog1 | |

| Disk Management Configuration | | | | | |
|-------------------------------|----|--|--|--|--|
| ESM7900 | | Partition 1 Size=2.47GB FS=Raw Junction Point | Partition 2 Size=4.74GB FS=Raw Junction Point | Partition 3 Size=2.89GB FS=Raw Junction Point | Partition 4 Size=71.66GB FS=NTFS Junction Point |
| DPE | SP | | | | |
| 1 | B | C:\BigDb\cabA\misc1 | C:\BigDb\cabA\cs1 | C:\BigDb\cabA\ord1 | Unallocated |
| | B | C:\BigDb\cabA\misc2 | C:\BigDb\cabA\cs2 | C:\BigDb\cabA\ord2 | Unallocated |
| | B | C:\BigDb\cabA\misc3 | C:\BigDb\cabA\cs3 | C:\BigDb\cabA\ord3 | Unallocated |
| | B | C:\BigDb\cabA\misc4 | C:\BigDb\cabA\cs4 | C:\BigDb\cabA\ord4 | Unallocated |
| | B | C:\BigDb\cabA\misc5 | C:\BigDb\cabA\cs5 | C:\BigDb\cabA\ord5 | Unallocated |
| | B | C:\BigDb\cabA\misc6 | C:\BigDb\cabA\cs6 | C:\BigDb\cabA\ord6 | Unallocated |
| | B | C:\BigDb\cabA\misc7 | C:\BigDb\cabA\cs7 | C:\BigDb\cabA\ord7 | Unallocated |
| 2 | A | C:\BigDb\cabB\misc1 | C:\BigDb\cabB\cs1 | C:\BigDb\cabB\ord1 | Unallocated |
| | A | C:\BigDb\cabB\misc2 | C:\BigDb\cabB\cs2 | C:\BigDb\cabB\ord2 | Unallocated |
| | A | C:\BigDb\cabB\misc3 | C:\BigDb\cabB\cs3 | C:\BigDb\cabB\ord3 | Unallocated |
| | A | C:\BigDb\cabB\misc4 | C:\BigDb\cabB\cs4 | C:\BigDb\cabB\ord4 | Unallocated |
| | B | C:\BigDb\cabB\misc5 | C:\BigDb\cabB\cs5 | C:\BigDb\cabB\ord5 | Unallocated |
| | B | C:\BigDb\cabB\misc6 | C:\BigDb\cabB\cs6 | C:\BigDb\cabB\ord6 | Unallocated |
| | B | C:\BigDb\cabB\misc7 | C:\BigDb\cabB\cs7 | C:\BigDb\cabB\ord7 | Unallocated |
| | A | C:\BigDb\cabB\misc8 | C:\BigDb\cabB\cs8 | C:\BigDb\cabB\ord8 | Unallocated |
| | A | C:\BigDb\cabB\misc9 | C:\BigDb\cabB\cs9 | C:\BigDb\cabB\ord9 | Unallocated |
| | A | C:\BigDb\cabB\misc10 | C:\BigDb\cabB\cs10 | C:\BigDb\cabB\ord10 | Unallocated |
| | B | C:\BigDb\cabB\misc11 | C:\BigDb\cabB\cs11 | C:\BigDb\cabB\ord11 | Unallocated |
| | B | C:\BigDb\cabB\misc12 | C:\BigDb\cabB\cs12 | C:\BigDb\cabB\ord12 | Unallocated |
| | B | C:\BigDb\cabB\misc13 | C:\BigDb\cabB\cs13 | C:\BigDb\cabB\ord13 | C:\BigDb\dbBackups\backupB13 |
| | B | C:\BigDb\cabB\misc14 | C:\BigDb\cabB\cs14 | C:\BigDb\cabB\ord14 | C:\BigDb\dbBackups\backupB14 |
| 3 | A | C:\BigDb\cabC\misc1 | C:\BigDb\cabC\cs1 | C:\BigDb\cabC\ord1 | Unallocated |
| | A | C:\BigDb\cabC\misc2 | C:\BigDb\cabC\cs2 | C:\BigDb\cabC\ord2 | Unallocated |
| | A | C:\BigDb\cabC\misc3 | C:\BigDb\cabC\cs3 | C:\BigDb\cabC\ord3 | Unallocated |
| | A | C:\BigDb\cabC\misc4 | C:\BigDb\cabC\cs4 | C:\BigDb\cabC\ord4 | Unallocated |
| | B | C:\BigDb\cabC\misc5 | C:\BigDb\cabC\cs5 | C:\BigDb\cabC\ord5 | Unallocated |
| | B | C:\BigDb\cabC\misc6 | C:\BigDb\cabC\cs6 | C:\BigDb\cabC\ord6 | Unallocated |
| | B | C:\BigDb\cabC\misc7 | C:\BigDb\cabC\cs7 | C:\BigDb\cabC\ord7 | Unallocated |
| | A | C:\BigDb\cabC\misc8 | C:\BigDb\cabC\cs8 | C:\BigDb\cabC\ord8 | Unallocated |
| | A | C:\BigDb\cabC\misc9 | C:\BigDb\cabC\cs9 | C:\BigDb\cabC\ord9 | Unallocated |
| | A | C:\BigDb\cabC\misc10 | C:\BigDb\cabC\cs10 | C:\BigDb\cabC\ord10 | Unallocated |
| | B | C:\BigDb\cabC\misc11 | C:\BigDb\cabC\cs11 | C:\BigDb\cabC\ord11 | Unallocated |
| | B | C:\BigDb\cabC\misc12 | C:\BigDb\cabC\cs12 | C:\BigDb\cabC\ord12 | Unallocated |
| | B | C:\BigDb\cabC\misc13 | C:\BigDb\cabC\cs13 | C:\BigDb\cabC\ord13 | C:\BigDb\dbBackups\backupC13 |
| | B | C:\BigDb\cabC\misc14 | C:\BigDb\cabC\cs14 | C:\BigDb\cabC\ord14 | C:\BigDb\dbBackups\backupC14 |

Table 4.4: Disk Management Configuration (Continued)

| Disk Management Configuration | | | | | |
|-------------------------------|----|----------------------|--------------------|---------------------|------------------------------|
| ESM7900 DPE | SP | Partition 1 | Partition 2 | Partition 3 | Partition 4 |
| | | Size=2526MB | Size=4855MB | Size=2955MB | Size=72GB |
| | | FS=Raw | FS=Raw | FS=Raw | FS=NTFS |
| | | Junction Point | Junction Point | Junction Point | Junction Point |
| 4 | A | C:\BigDb\cabD\misc1 | C:\BigDb\cabD\cs1 | C:\BigDb\cabD\ord1 | Unallocated |
| | A | C:\BigDb\cabD\misc2 | C:\BigDb\cabD\cs2 | C:\BigDb\cabD\ord2 | Unallocated |
| | A | C:\BigDb\cabD\misc3 | C:\BigDb\cabD\cs3 | C:\BigDb\cabD\ord3 | Unallocated |
| | A | C:\BigDb\cabD\misc4 | C:\BigDb\cabD\cs4 | C:\BigDb\cabD\ord4 | Unallocated |
| | B | C:\BigDb\cabD\misc5 | C:\BigDb\cabD\cs5 | C:\BigDb\cabD\ord5 | Unallocated |
| | B | C:\BigDb\cabD\misc6 | C:\BigDb\cabD\cs6 | C:\BigDb\cabD\ord6 | Unallocated |
| | B | C:\BigDb\cabD\misc7 | C:\BigDb\cabD\cs7 | C:\BigDb\cabD\ord7 | Unallocated |
| | A | C:\BigDb\cabD\misc8 | C:\BigDb\cabD\cs8 | C:\BigDb\cabD\ord8 | Unallocated |
| | A | C:\BigDb\cabD\misc9 | C:\BigDb\cabD\cs9 | C:\BigDb\cabD\ord9 | Unallocated |
| | A | C:\BigDb\cabD\misc10 | C:\BigDb\cabD\cs10 | C:\BigDb\cabD\ord10 | Unallocated |
| | B | C:\BigDb\cabD\misc11 | C:\BigDb\cabD\cs11 | C:\BigDb\cabD\ord11 | Unallocated |
| | B | C:\BigDb\cabD\misc12 | C:\BigDb\cabD\cs12 | C:\BigDb\cabD\ord12 | Unallocated |
| | B | C:\BigDb\cabD\misc13 | C:\BigDb\cabD\cs13 | C:\BigDb\cabD\ord13 | C:\BigDb\dbBackups\backupD13 |
| | B | C:\BigDb\cabD\misc14 | C:\BigDb\cabD\cs14 | C:\BigDb\cabD\ord14 | C:\BigDb\dbBackups\backupD14 |
| 5 | A | C:\BigDb\cabE\misc1 | C:\BigDb\cabE\cs1 | C:\BigDb\cabE\ord1 | Unallocated |
| | A | C:\BigDb\cabE\misc2 | C:\BigDb\cabE\cs2 | C:\BigDb\cabE\ord2 | Unallocated |
| | A | C:\BigDb\cabE\misc3 | C:\BigDb\cabE\cs3 | C:\BigDb\cabE\ord3 | Unallocated |
| | A | C:\BigDb\cabE\misc4 | C:\BigDb\cabE\cs4 | C:\BigDb\cabE\ord4 | Unallocated |
| | B | C:\BigDb\cabE\misc5 | C:\BigDb\cabE\cs5 | C:\BigDb\cabE\ord5 | Unallocated |
| | B | C:\BigDb\cabE\misc6 | C:\BigDb\cabE\cs6 | C:\BigDb\cabE\ord6 | Unallocated |
| | B | C:\BigDb\cabE\misc7 | C:\BigDb\cabE\cs7 | C:\BigDb\cabE\ord7 | Unallocated |
| | A | C:\BigDb\cabE\misc8 | C:\BigDb\cabE\cs8 | C:\BigDb\cabE\ord8 | Unallocated |
| | A | C:\BigDb\cabE\misc9 | C:\BigDb\cabE\cs9 | C:\BigDb\cabE\ord9 | Unallocated |
| | A | C:\BigDb\cabE\misc10 | C:\BigDb\cabE\cs10 | C:\BigDb\cabE\ord10 | Unallocated |
| | B | C:\BigDb\cabE\misc11 | C:\BigDb\cabE\cs11 | C:\BigDb\cabE\ord11 | Unallocated |
| | B | C:\BigDb\cabE\misc12 | C:\BigDb\cabE\cs12 | C:\BigDb\cabE\ord12 | Unallocated |
| | B | C:\BigDb\cabE\misc13 | C:\BigDb\cabE\cs13 | C:\BigDb\cabE\ord13 | C:\BigDb\dbBackups\backupE13 |
| | B | C:\BigDb\cabE\misc14 | C:\BigDb\cabE\cs14 | C:\BigDb\cabE\ord14 | C:\BigDb\dbBackups\backupE14 |
| 6 | A | C:\BigDb\cabF\misc1 | C:\BigDb\cabF\cs1 | C:\BigDb\cabF\ord1 | Unallocated |
| | A | C:\BigDb\cabF\misc2 | C:\BigDb\cabF\cs2 | C:\BigDb\cabF\ord2 | Unallocated |
| | A | C:\BigDb\cabF\misc3 | C:\BigDb\cabF\cs3 | C:\BigDb\cabF\ord3 | Unallocated |
| | A | C:\BigDb\cabF\misc4 | C:\BigDb\cabF\cs4 | C:\BigDb\cabF\ord4 | Unallocated |
| | B | C:\BigDb\cabF\misc5 | C:\BigDb\cabF\cs5 | C:\BigDb\cabF\ord5 | Unallocated |
| | B | C:\BigDb\cabF\misc6 | C:\BigDb\cabF\cs6 | C:\BigDb\cabF\ord6 | Unallocated |
| | B | C:\BigDb\cabF\misc7 | C:\BigDb\cabF\cs7 | C:\BigDb\cabF\ord7 | Unallocated |
| | A | C:\BigDb\cabF\misc8 | C:\BigDb\cabF\cs8 | C:\BigDb\cabF\ord8 | Unallocated |
| | A | C:\BigDb\cabF\misc9 | C:\BigDb\cabF\cs9 | C:\BigDb\cabF\ord9 | Unallocated |
| | A | C:\BigDb\cabF\misc10 | C:\BigDb\cabF\cs10 | C:\BigDb\cabF\ord10 | Unallocated |
| | B | C:\BigDb\cabF\misc11 | C:\BigDb\cabF\cs11 | C:\BigDb\cabF\ord11 | Unallocated |
| | B | C:\BigDb\cabF\misc12 | C:\BigDb\cabF\cs12 | C:\BigDb\cabF\ord12 | Unallocated |
| | B | C:\BigDb\cabF\misc13 | C:\BigDb\cabF\cs13 | C:\BigDb\cabF\ord13 | C:\BigDb\dbBackups\backupF13 |
| | B | C:\BigDb\cabF\misc14 | C:\BigDb\cabF\cs14 | C:\BigDb\cabF\ord14 | C:\BigDb\dbBackups\backupF14 |
| 7 | A | C:\BigDb\cabG\misc1 | C:\BigDb\cabG\cs1 | C:\BigDb\cabG\ord1 | Unallocated |
| | A | C:\BigDb\cabG\misc2 | C:\BigDb\cabG\cs2 | C:\BigDb\cabG\ord2 | Unallocated |
| | A | C:\BigDb\cabG\misc3 | C:\BigDb\cabG\cs3 | C:\BigDb\cabG\ord3 | Unallocated |
| | A | C:\BigDb\cabG\misc4 | C:\BigDb\cabG\cs4 | C:\BigDb\cabG\ord4 | Unallocated |
| | B | C:\BigDb\cabG\misc5 | C:\BigDb\cabG\cs5 | C:\BigDb\cabG\ord5 | Unallocated |
| | B | C:\BigDb\cabG\misc6 | C:\BigDb\cabG\cs6 | C:\BigDb\cabG\ord6 | Unallocated |
| | B | C:\BigDb\cabG\misc7 | C:\BigDb\cabG\cs7 | C:\BigDb\cabG\ord7 | Unallocated |
| | A | C:\BigDb\cabG\misc8 | C:\BigDb\cabG\cs8 | C:\BigDb\cabG\ord8 | Unallocated |
| | A | C:\BigDb\cabG\misc9 | C:\BigDb\cabG\cs9 | C:\BigDb\cabG\ord9 | Unallocated |
| | A | C:\BigDb\cabG\misc10 | C:\BigDb\cabG\cs10 | C:\BigDb\cabG\ord10 | Unallocated |
| | B | C:\BigDb\cabG\misc11 | C:\BigDb\cabG\cs11 | C:\BigDb\cabG\ord11 | Unallocated |
| | B | C:\BigDb\cabG\misc12 | C:\BigDb\cabG\cs12 | C:\BigDb\cabG\ord12 | Unallocated |
| | B | C:\BigDb\cabG\misc13 | C:\BigDb\cabG\cs13 | C:\BigDb\cabG\ord13 | C:\BigDb\dbBackups\backupG13 |
| | B | C:\BigDb\cabG\misc14 | C:\BigDb\cabG\cs14 | C:\BigDb\cabG\ord14 | C:\BigDb\dbBackups\backupG14 |

Table 4.4: Disk Management Configuration (Continued)

| Disk Management Configuration | | | | | | |
|-------------------------------|----|---|---|---|--|--|
| ESM7900 DPE | SP | Partition 1 | Partition 2 | Partition 3 | Partition 4 | |
| | | Size=2526MB FS=Raw Junction Point | Size=4855MB FS=Raw Junction Point | Size=2955MB FS=Raw Junction Point | Size=72GB FS=NTFS Junction Point | |
| 8 | A | C:\BigDb\cabH\misc1 | C:\BigDb\cabH\cs1 | C:\BigDb\cabH\ord1 | Unallocated | |
| | A | C:\BigDb\cabH\misc2 | C:\BigDb\cabH\cs2 | C:\BigDb\cabH\ord2 | Unallocated | |
| | A | C:\BigDb\cabH\misc3 | C:\BigDb\cabH\cs3 | C:\BigDb\cabH\ord3 | Unallocated | |
| | A | C:\BigDb\cabH\misc4 | C:\BigDb\cabH\cs4 | C:\BigDb\cabH\ord4 | Unallocated | |
| | B | C:\BigDb\cabH\misc5 | C:\BigDb\cabH\cs5 | C:\BigDb\cabH\ord5 | Unallocated | |
| | B | C:\BigDb\cabH\misc6 | C:\BigDb\cabH\cs6 | C:\BigDb\cabH\ord6 | Unallocated | |
| | B | C:\BigDb\cabH\misc7 | C:\BigDb\cabH\cs7 | C:\BigDb\cabH\ord7 | Unallocated | |
| | A | C:\BigDb\cabH\misc8 | C:\BigDb\cabH\cs8 | C:\BigDb\cabH\ord8 | Unallocated | |
| | A | C:\BigDb\cabH\misc9 | C:\BigDb\cabH\cs9 | C:\BigDb\cabH\ord9 | Unallocated | |
| | A | C:\BigDb\cabH\misc10 | C:\BigDb\cabH\cs10 | C:\BigDb\cabH\ord10 | Unallocated | |
| | B | C:\BigDb\cabH\misc11 | C:\BigDb\cabH\cs11 | C:\BigDb\cabH\ord11 | Unallocated | |
| | B | C:\BigDb\cabH\misc12 | C:\BigDb\cabH\cs12 | C:\BigDb\cabH\ord12 | Unallocated | |
| | B | C:\BigDb\cabH\misc13 | C:\BigDb\cabH\cs13 | C:\BigDb\cabH\ord13 | C:\BigDb\dbBackups\backupH13 | |
| | B | C:\BigDb\cabH\misc14 | C:\BigDb\cabH\cs14 | C:\BigDb\cabH\ord14 | C:\BigDb\dbBackups\backupH14 | |
| 9 | A | C:\BigDb\cabI\misc1 | C:\BigDb\cabI\cs1 | C:\BigDb\cabI\ord1 | Unallocated | |
| | A | C:\BigDb\cabI\misc2 | C:\BigDb\cabI\cs2 | C:\BigDb\cabI\ord2 | Unallocated | |
| | A | C:\BigDb\cabI\misc3 | C:\BigDb\cabI\cs3 | C:\BigDb\cabI\ord3 | Unallocated | |
| | A | C:\BigDb\cabI\misc4 | C:\BigDb\cabI\cs4 | C:\BigDb\cabI\ord4 | Unallocated | |
| | B | C:\BigDb\cabI\misc5 | C:\BigDb\cabI\cs5 | C:\BigDb\cabI\ord5 | Unallocated | |
| | B | C:\BigDb\cabI\misc6 | C:\BigDb\cabI\cs6 | C:\BigDb\cabI\ord6 | Unallocated | |
| | B | C:\BigDb\cabI\misc7 | C:\BigDb\cabI\cs7 | C:\BigDb\cabI\ord7 | Unallocated | |
| | A | C:\BigDb\cabI\misc8 | C:\BigDb\cabI\cs8 | C:\BigDb\cabI\ord8 | Unallocated | |
| | A | C:\BigDb\cabI\misc9 | C:\BigDb\cabI\cs9 | C:\BigDb\cabI\ord9 | Unallocated | |
| | A | C:\BigDb\cabI\misc10 | C:\BigDb\cabI\cs10 | C:\BigDb\cabI\ord10 | Unallocated | |
| | B | C:\BigDb\cabI\misc11 | C:\BigDb\cabI\cs11 | C:\BigDb\cabI\ord11 | Unallocated | |
| | B | C:\BigDb\cabI\misc12 | C:\BigDb\cabI\cs12 | C:\BigDb\cabI\ord12 | Unallocated | |
| | B | C:\BigDb\cabI\misc13 | C:\BigDb\cabI\cs13 | C:\BigDb\cabI\ord13 | C:\BigDb\dbBackups\backupI13 | |
| | B | C:\BigDb\cabI\misc14 | C:\BigDb\cabI\cs14 | C:\BigDb\cabI\ord14 | C:\BigDb\dbBackups\backupI14 | |
| 10 | A | C:\BigDb\cabJ\misc1 | C:\BigDb\cabJ\cs1 | C:\BigDb\cabJ\ord1 | Unallocated | |
| | A | C:\BigDb\cabJ\misc2 | C:\BigDb\cabJ\cs2 | C:\BigDb\cabJ\ord2 | Unallocated | |
| | A | C:\BigDb\cabJ\misc3 | C:\BigDb\cabJ\cs3 | C:\BigDb\cabJ\ord3 | Unallocated | |
| | A | C:\BigDb\cabJ\misc4 | C:\BigDb\cabJ\cs4 | C:\BigDb\cabJ\ord4 | Unallocated | |
| | B | C:\BigDb\cabJ\misc5 | C:\BigDb\cabJ\cs5 | C:\BigDb\cabJ\ord5 | Unallocated | |
| | B | C:\BigDb\cabJ\misc6 | C:\BigDb\cabJ\cs6 | C:\BigDb\cabJ\ord6 | Unallocated | |
| | B | C:\BigDb\cabJ\misc7 | C:\BigDb\cabJ\cs7 | C:\BigDb\cabJ\ord7 | Unallocated | |
| | A | C:\BigDb\cabJ\misc8 | C:\BigDb\cabJ\cs8 | C:\BigDb\cabJ\ord8 | Unallocated | |
| | A | C:\BigDb\cabJ\misc9 | C:\BigDb\cabJ\cs9 | C:\BigDb\cabJ\ord9 | Unallocated | |
| | A | C:\BigDb\cabJ\misc10 | C:\BigDb\cabJ\cs10 | C:\BigDb\cabJ\ord10 | Unallocated | |
| | B | C:\BigDb\cabJ\misc11 | C:\BigDb\cabJ\cs11 | C:\BigDb\cabJ\ord11 | Unallocated | |
| | B | C:\BigDb\cabJ\misc12 | C:\BigDb\cabJ\cs12 | C:\BigDb\cabJ\ord12 | Unallocated | |
| | B | C:\BigDb\cabJ\misc13 | C:\BigDb\cabJ\cs13 | C:\BigDb\cabJ\ord13 | C:\BigDb\dbBackups\backupJ13 | |
| | B | C:\BigDb\cabJ\misc14 | C:\BigDb\cabJ\cs14 | C:\BigDb\cabJ\ord14 | C:\BigDb\dbBackups\backupJ14 | |

Table 4.5: Fibre Channel Switch Connections

| Fibre Channel Switch Connections | | | | | | | | | | | | | | | | |
|----------------------------------|-------|-------|-------|-------|-------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------|--------|--------|--------|
| Port No. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| Switch # 1 | HBA-1 | HBA-4 | HBA-7 | empty | empty | empty | Cab B SPB | Cab C SPA | Cab E SPB | Cab F SPA | Cab H SPB | Cab I SPA | Sw3-14 | Sw3-15 | Sw2-14 | Sw2-15 |
| Switch # 2 | HBA-2 | HBA-5 | HBA-8 | empty | empty | Cab A SPB | Cab B SPA | Cab D SPB | Cab E SPA | Cab G SPB | Cab H SPA | Cab J SPB | Sw3-12 | Sw3-13 | Sw1-14 | Sw1-15 |
| Switch # 3 | HBA-3 | HBA-6 | empty | empty | empty | empty | Cab C SPB | Cab D SPA | Cab F SPB | Cab G SPA | Cab I SPB | Cab J SPA | Sw2-12 | Sw2-13 | Sw1-12 | Sw1-13 |

Table 4.6: Server HBA-PCI Slot Map

| ES7000 Orion 230 FRONT | | | | | | | | ES7000 Orion 230 REAR | | | | | | | | |
|------------------------|---|------------|---|----------|---------|----------|---|-----------------------|---|----------|---|----------|---------|----------|---|--|
| POD 0 | | | | POD 1 | | | | POD 3 | | | | POD 2 | | | | |
| CPU # | 3 | | | 3 | CPU # | | | CPU # | 3 | | | 3 | CPU # | | | |
| SUB-POD | 2 | | | 2 | SUB-POD | | | SUB-POD | 2 | | | 2 | SUB-POD | | | |
| 0-1 | 1 | M | M | 1 | 1-1 | | | 3-1 | 1 | M | M | 1 | 2-1 | | | |
| | 0 | S | S | 0 | | | | | 0 | S | S | 0 | | | | |
| | | U | U | | | | | | | U | U | | | | | |
| CPU # | 3 | | | 3 | CPU # | | | CPU # | 3 | | | 3 | CPU # | | | |
| SUB-POD | 2 | | | 2 | SUB-POD | | | SUB-POD | 2 | | | 2 | SUB-POD | | | |
| 0-0 | 1 | 2 | 3 | 1 | 1-0 | | | 3-0 | 1 | 1 | 0 | 1 | 2-0 | | | |
| | 0 | | | 0 | | | | | 0 | | | 0 | | | | |
| PCI Card Slots | | | | | | | | PCI Card Slots | | | | | | | | |
| DIBX 0-1 | | DIBX 0-0 | | DIBX 1-1 | | DIBX 1-0 | | DIBX 3-1 | | DIBX 3-0 | | DIBX 2-1 | | DIBX 2-0 | | |
| 0-1-1 | | 0-0-1 | | 1-1-1 | | 1-0-1 | | 3-1-1 | | 3-0-1 | | 2-1-1 | | 2-0-1 | | |
| Slot # | 0 | FC LOG | 0 | Slot # | 0 | Slot # | 0 | Slot # | 0 | Slot # | 0 | Slot # | 0 | Slot # | 0 | |
| | 1 | | 1 | | 1 | | 1 | | 1 | | 1 | | 1 | | 1 | |
| | 2 | | 2 | | 2 | | 2 | | 2 | | 2 | | 2 | | 2 | |
| | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | |
| 0-1-2 | | 0-0-2 | | 1-1-2 | | 1-0-2 | | 3-1-2 | | 3-0-2 | | 2-1-2 | | 2-0-2 | | |
| FC HBA 2 | 0 | FC HBA 1 | 0 | FC HBA 4 | 0 | FC HBA 3 | 0 | FC HBA 8 | 0 | FC HBA 7 | 0 | FC HBA 6 | 0 | FC HBA 5 | 0 | |
| | 1 | Boot Cntl | 1 | | 1 | | 1 | | 1 | | 1 | | 1 | | 1 | |
| | 2 | | 2 | | 2 | | 2 | | 2 | | 2 | | 2 | | 2 | |
| | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | |
| 0-1-3 | | 0-0-3 | | 1-1-3 | | 1-0-3 | | 3-1-3 | | 3-0-3 | | 2-1-3 | | 2-0-3 | | |
| 100 Mbit | 0 | Floppy | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| | 1 | CPB | 1 | | 1 | | 1 | | 1 | | 1 | | 1 | | 1 | |
| | 2 | Uniscreeen | 2 | | 2 | | 2 | | 2 | | 2 | | 2 | | 2 | |
| cLAN | 3 | cLAN | 3 | cLAN | 3 | cLAN | 3 | cLAN | 3 | cLAN | 3 | cLAN | 3 | cLAN | 3 | |

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 203,518.03.

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 | 0.42 | 18.20 | 0.75 |
| Payment | 0.37 | 17.84 | 0.68 |
| Order Status | 0.38 | 14.64 | 0.70 |
| Delivery (interactive) | 0.25 | 5.39 | 0.50 |
| Delivery (deferred) | 0.57 | 16.55 | 1.13 |
| Stock-Level | 0.87 | 15.92 | 1.43 |
| Menu | 0.25 | 5.41 | 0.51 |

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 | 18.09 |
| Payment | 3.01 | 3.01 | 3.09 |
| Order Status | 2.01 | 2.01 | 2.08 |
| Delivery (interactive) | 2.01 | 2.01 | 2.08 |
| Stock-Level | 2.01 | 2.01 | 2.08 |

Table 5.3: Think Times

| Transaction | Minimum | Average | Maximum |
|------------------------|----------------|----------------|----------------|
| New-Order | 0.00 | 12.03 | 120.33 |
| Payment | 0.00 | 12.04 | 120.33 |
| Order Status | 0.00 | 10.08 | 100.72 |
| Delivery (interactive) | 0.00 | 5.06 | 50.63 |
| Stock-Level | 0.00 | 5.07 | 50.63 |

5.4. Response Time Frequency Distribution Curves

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

Figure 5.1: New Order Response Time Distribution

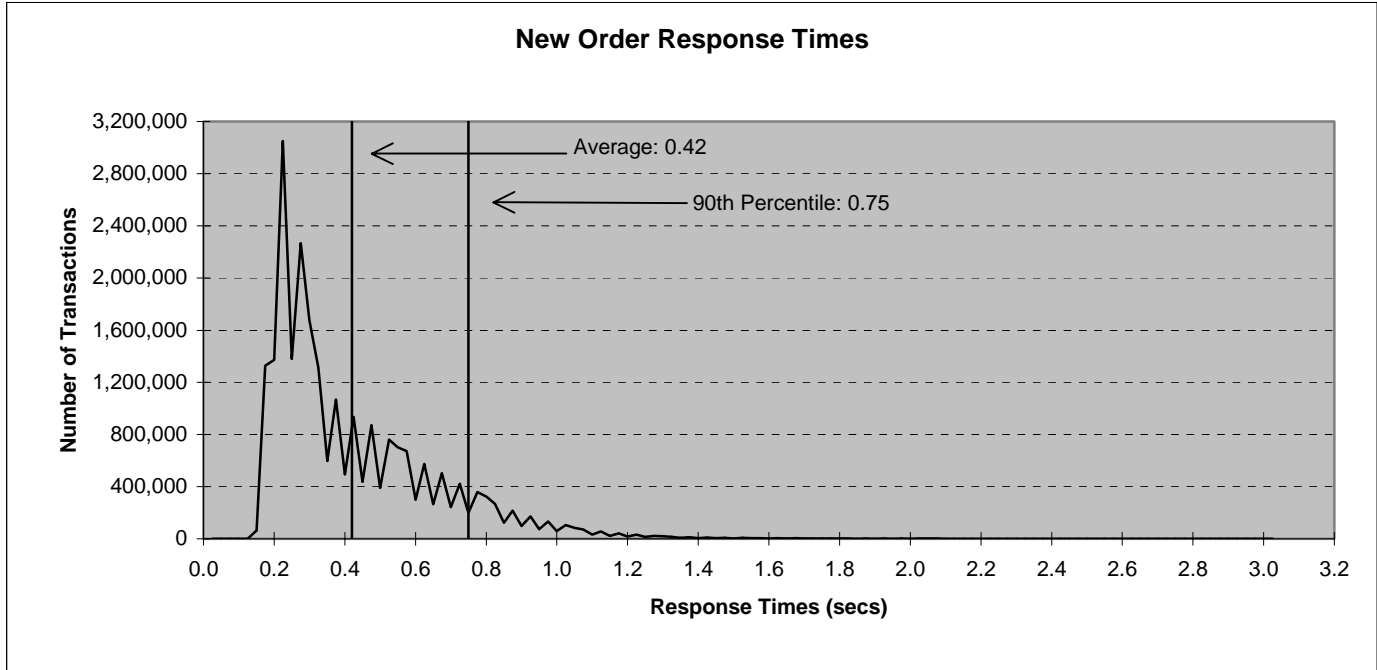


Figure 5.2: Payment Response Time Distribution

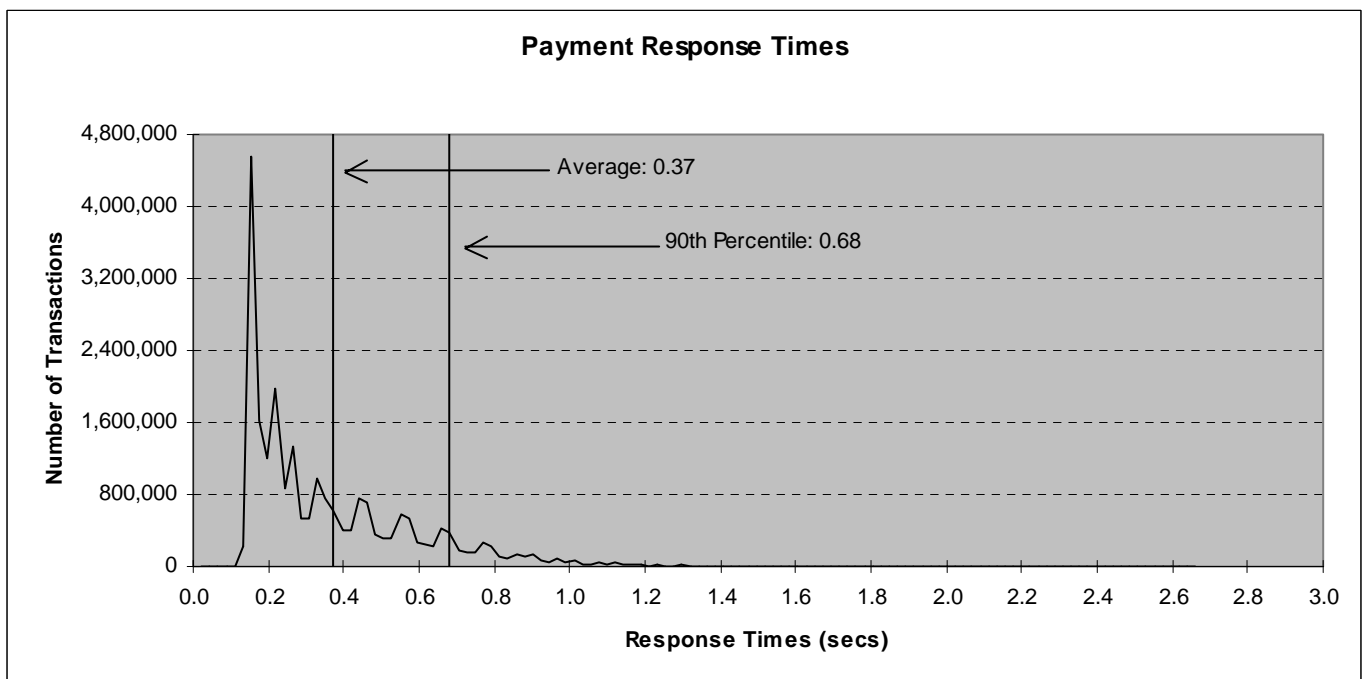


Figure 5.3: Order Status Response Time Distribution

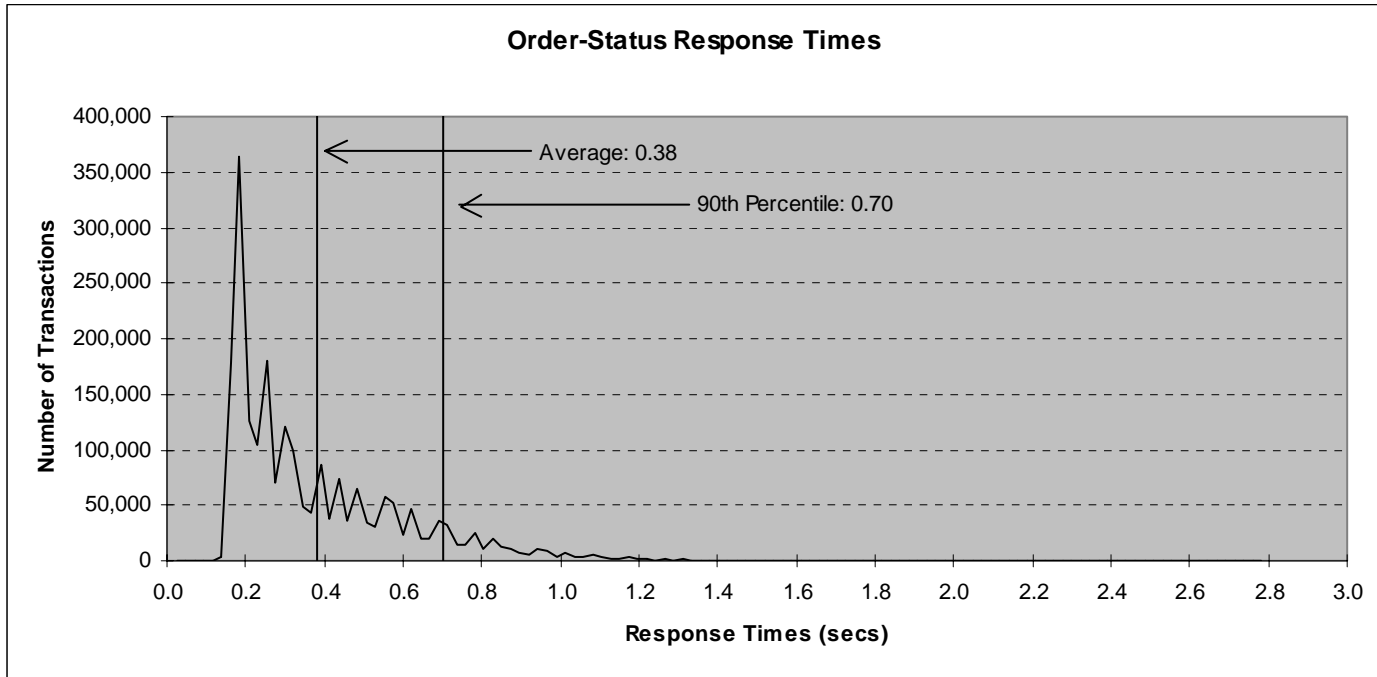


Figure 5.4: Delivery Response Time Distribution

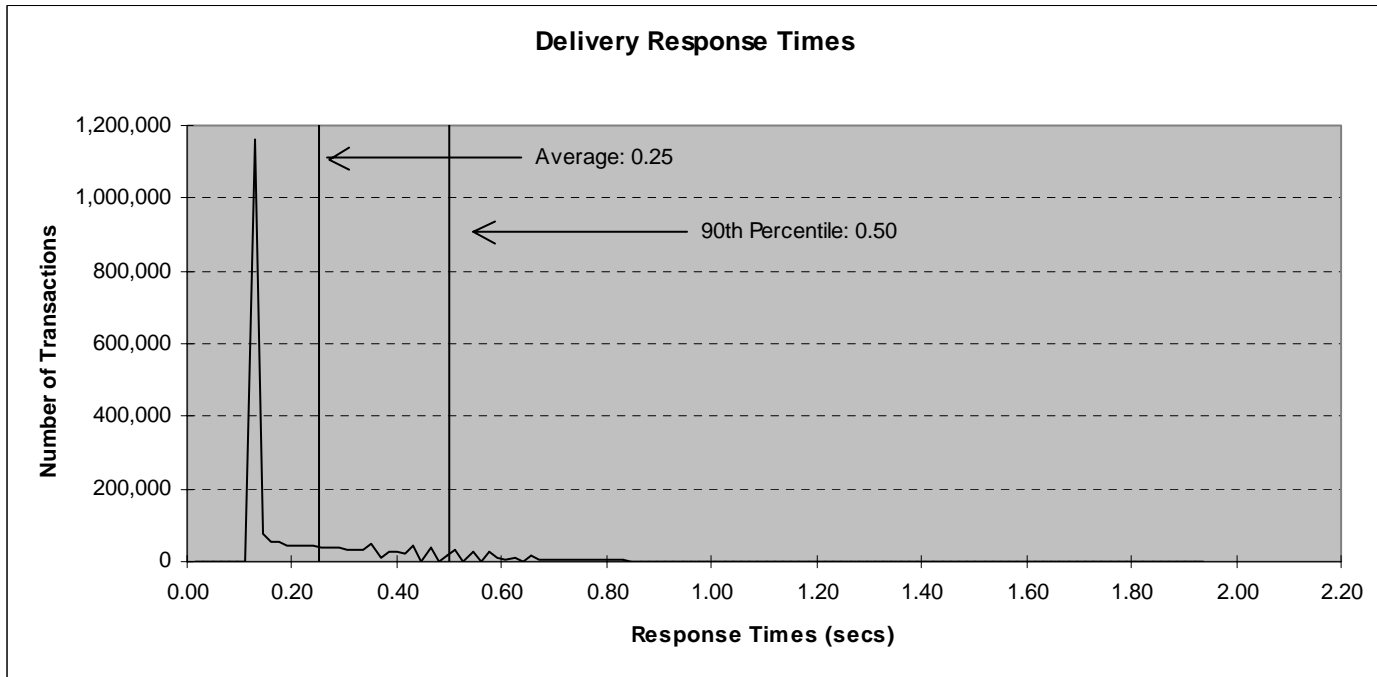
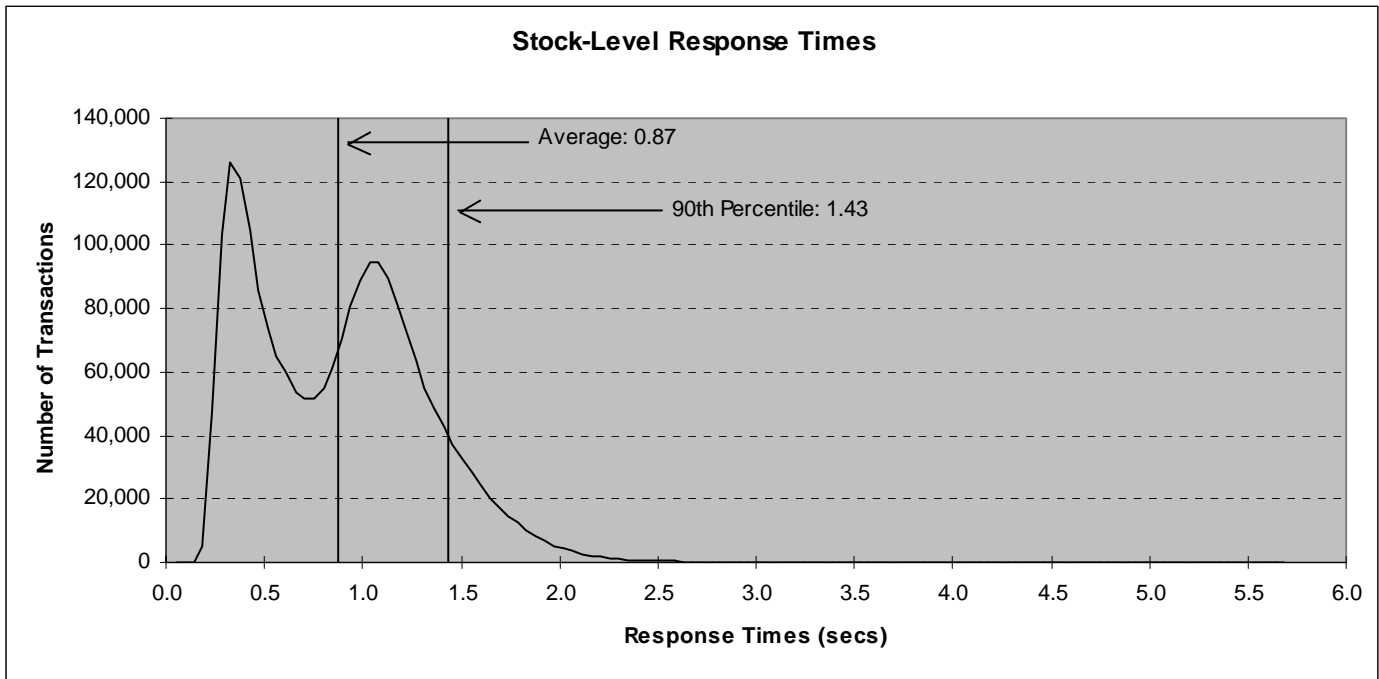


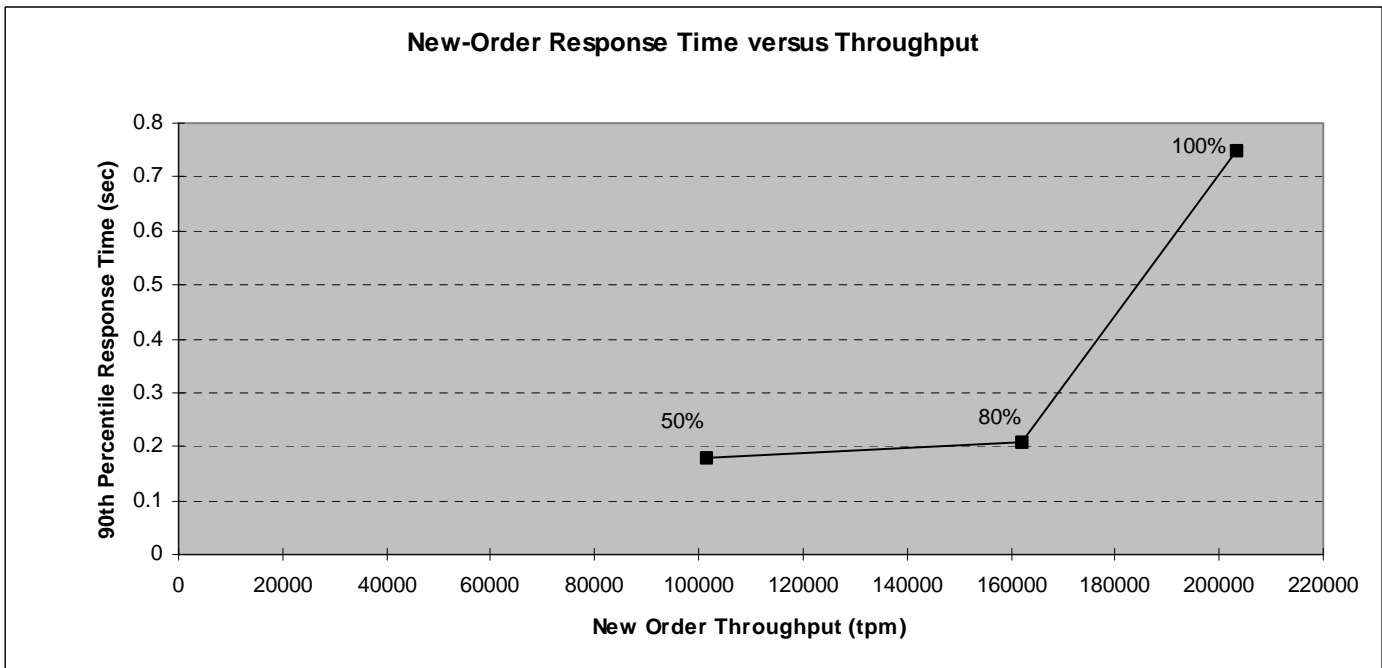
Figure 5.5: Stock Level Response Time Distribution



5.5. Response Time versus Throughput Performance Curve

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

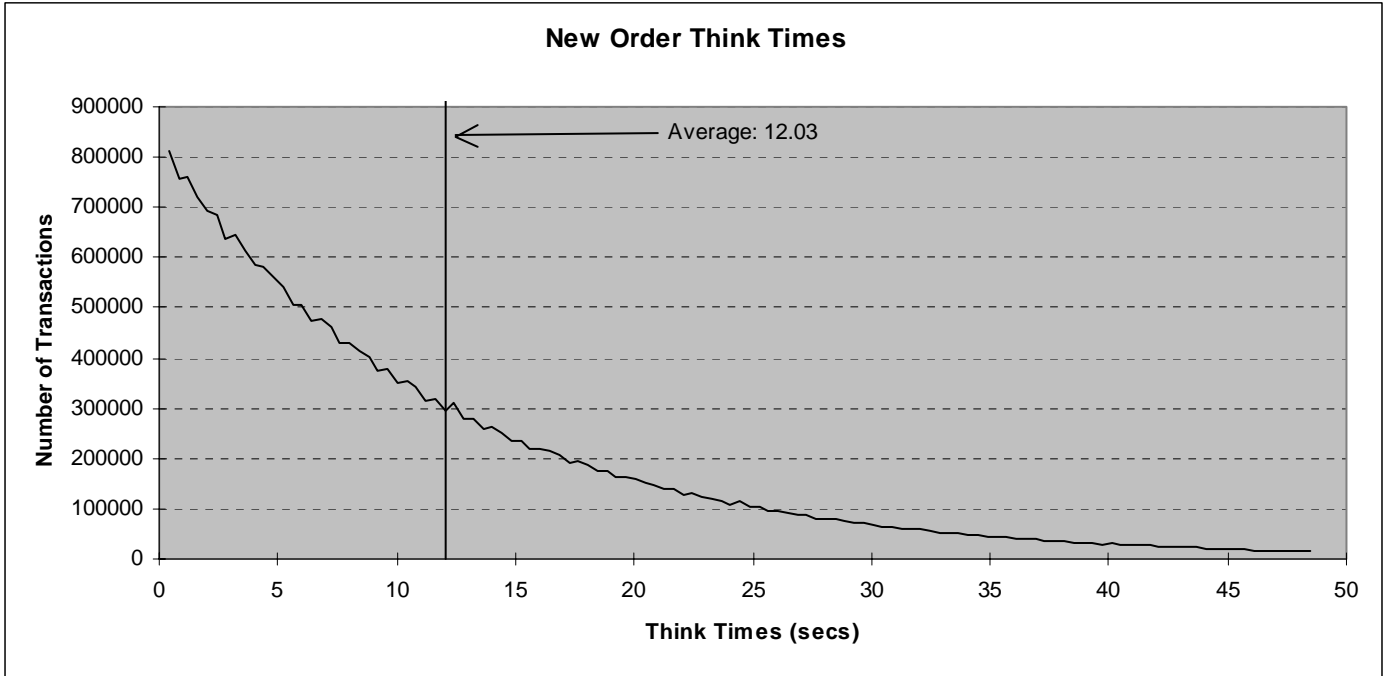
Figure 5.6: New Order Response Time versus Throughput



5.6. New Order Think Time Frequency Distribution Curve

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

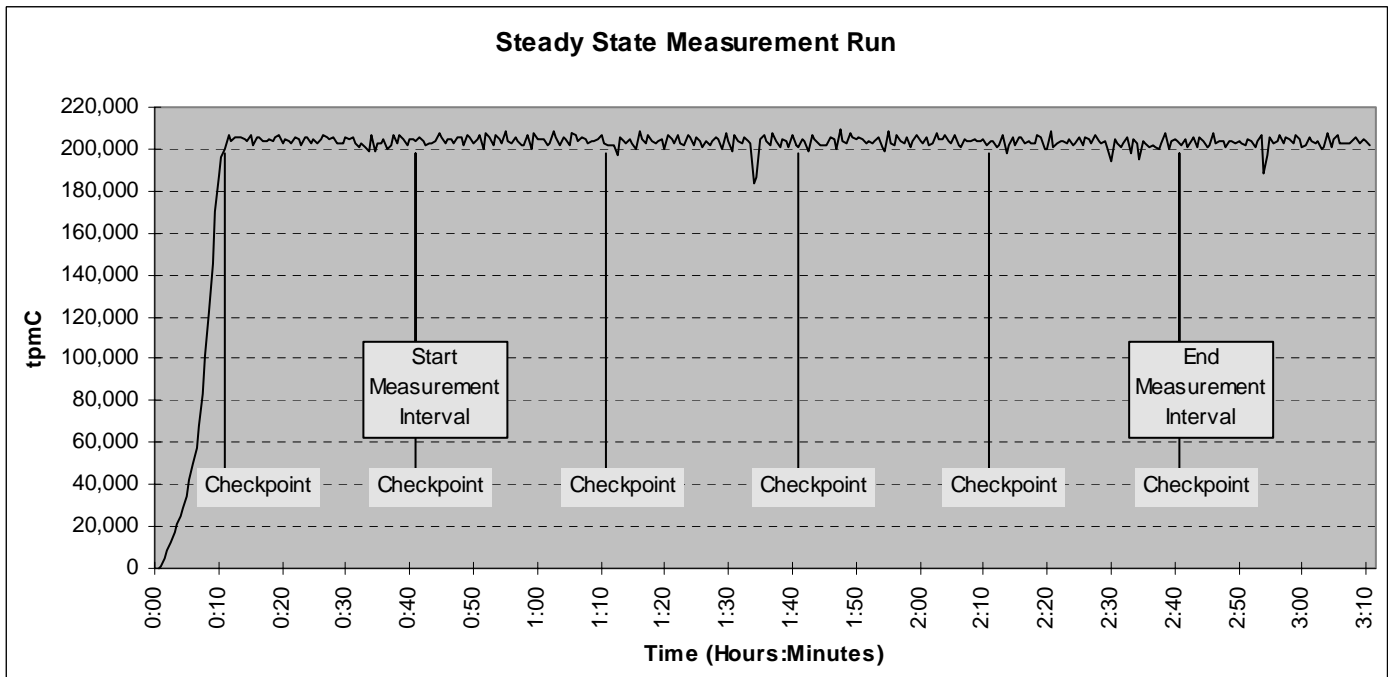
Figure 5.7: New Order Think Time Distribution



5.7. New-Order Throughput vs. Time

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

Figure 5.8: Throughput (tpmC) versus Time



5.8. Determination of “Steady State”

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

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

5.9. Work Performed During Steady State

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

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

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

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

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

5.10. Measurement Interval Duration

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

The measurement interval was 120 minutes.

5.11. Regulation of Transaction Mix

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

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

5.12. Transaction Statistics

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

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

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

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

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

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

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

Table 5.4 shows this information.

Table 5.4: Transaction Statistics

| Transaction Type | Statistic | Value |
|-------------------------|---------------------------------------|--------------|
| New Order | Rolledback transactions | 1.00% |
| | Home warehouse | 99.00% |
| | Remote warehouse | 1.00% |
| | Average Items per Order | 10.00 |
| Payment | Home warehouse | 85.00% |
| | Remote warehouse | 15.00% |
| | Non-primary key access | 59.99% |
| Order Status | Non-primary key access | 60.04% |
| Delivery | Skipped transactions (Interactive) | 0 |
| | Skipped transaction counts (Deferred) | 0 |
| | Skipped District counts (Deferred) | 0 |
| Transaction Mix | New Order | 44.88% |
| | Payment | 43.05% |
| | Order-Status | 4.01% |
| | Delivery | 4.02% |
| | Stock-Level | 4.02% |

5.13. Checkpoint Statistics

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

There are four checkpoints in the measurement interval. The first checkpoint starts approximately 2 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 | 0:40:51 | 2:40:51 | 7200 |
| 1st Checkpoint | 0:40:53 | 1:10:39 | 1786 |
| 2nd Checkpoint | 1:10:52 | 1:40:38 | 1786 |
| 3rd Checkpoint | 1:40:51 | 2:10:37 | 1786 |
| 4th Checkpoint | 2:10:50 | 2:40:36 | 1786 |

6. Clause 6: SUT, Driver & Communications Definition

6.1. Remote Terminal Emulator (RTE) Description

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

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

6.2. Loss of Terminal Connections

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

No terminal connections were lost.

6.3. Emulated Components

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

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

6.4. Functional Diagrams

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

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

6.5. Network Configuration

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

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

6.6. Network Bandwidth

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

Local area networks (LANs) are used in the priced and tested configurations. The database server contains eight cLAN 1.25 gigabit-per-second LAN adapters. Each was direct-connected to a cLAN adapter in the eight clients. These LAN segments run at 1.25 gigabit-per-second in the priced and tested configurations. Each client also contains 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 US list prices. A three-year warranty is standard with this class of Unisys server products.

7.1.2. Maintenance Pricing

Three-year support pricing for Unisys Corporation products is based on standard new product warranty, upgraded to 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 Comark's 3 year, return-to-factory warranty with seven day maximum replenishment, and appropriate spares are included in the priced configuration.

7.1.3. Discounts

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

Comark provides a standard 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 may be included in the Full Disclosure Report for each country specific priced configuration. Country specific pricing is subject to Clause 7.1.7. (8.1.8.5)

None.

7.5. Usage Pricing

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

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

The component pricing based on usage is shown below:

- One (1) Microsoft Windows .NET Server 2003 Datacenter Edition license, 32 processor
- One (1) Microsoft SQL Server 2000 Enterprise Edition license, 32 processor
- Eight (8) Microsoft Windows 2000 Advanced Server licenses
- One (1) Microsoft Visual C++ Professional 6.0 license

8.

Clause 8 : Full Disclosure Availability

8.1. Availability

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

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

TPC Benchmark Administrator
Systems Analysis, Modeling & Measurement Group
Unisys Corporation, M/S 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)

This implementation of the TPC Benchmark C on the Unisys ES7000 Orion 230 Enterprise Server was audited by Lorna Livingtree, a TPC certified auditor of:

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

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

The attestation letter is shown on the next 2 pages.



PERFORMANCE METRICS INC.
TPC Certified Auditors

October 29, 2002

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 230 Enterprise Server
Database Manager: Microsoft SQL Server 2000 Enterprise Edition
Operating System: Microsoft Windows .NET Server 2003 Datacenter Edition
Transaction Manager: Microsoft COM+ (included in Windows 2000)

| Server: Unisys ES7000 Orion 230 Enterprise Server | | | | |
|---|--------------------------------|-------------------------|-----------------|-------------------|
| CPU's | Memory | Disks | 90% Response | TpmC |
| 32 Intel Xeon MP @ 1.6 GHz | Main: 64 GB Cache: 1MB each | 683 @ 18GB 32 @ 36GB | 0.75 sec | 203,518.03 |
| 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 16,383 warehouses.
- The ACID properties were demonstrated.

PERFORMANCE METRICS INC.
TPC Certified Auditors

- The durability data loss and log loss tests were performed on a database scaled to 1648 warehouse with 16,480 users active.
- Input data was generated according to the specified percentages.
- Eight hours of mirrored log space was configured on the measured system.
- Eight hours of dynamic table growth space was configured on the measured system.
- The 60-day space calculation was verified. The measured configuration has sufficient storage to satisfy this requirement.
- Measurement cycle times included a 0.1-second menu and a 0.1 second response time delay for an emulated Web browser.
- There were 163,830 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.
- Four checkpoints were taken during the measured interval.
- The system pricing was checked for major components and maintenance.

Auditor Notes:

There were 2 drives of 18 GB @ 10Krpm on the SUT serving as the OS drives. The pricing substitutes 2 drives of 36 GB @ 15Krpm because the system is currently sold that way. The performance monitoring statistics show that the C: drive was almost inactive (0.33 reads per second) and the D: drive was completely inactive during the TPC-C workload which was greater than 90% of the reported rate. This substitution was allowed as the correct pricing.

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

```

} OL_NEW_ORDER_DATA;

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

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

```

```

} PAYMENT_DATA;

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

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

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

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

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

```

tpcc.cpp

```

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

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

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

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

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

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

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

```

```

//=====
BOOL APIENTRY DllMain(HANDLE hInst, ULONG ul_reason_for_call,
LPVOID lpReserved)
{
    TPCC_STATE * pTPCC = NULL;
    CHAR szDiag[MAX_DIAG_SZ];
    UINT 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);
            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 (TMinit(&pTPCC->tsTMon))
        {
            wsprintf(pDiag, "ThrAtt(%ld): TMinit %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, szTMinitError, pTPCC->szHeader);
    TPCCclear(pTPCC);
    pTPCC->ConnID = pECB->ConnID;
    pTPCC->RecvMsg = pECB->lpszQueryString;
    uRslt = TPCCHandler(pTPCC);
    switch (uRslt)
    {
        case TPCCSEND:
            SendResponse(pECB, pTPCC->SendMsg, pTPCC->szHeader);
            dwRslt = HSE_STATUS_SUCCESS_AND_KEEP_CONN;
            break;
    }
}

```

```

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

Httpxit:

    return(dwRslt);

}; // HttpExtensionProc

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

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

```

```

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

```

```

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

```

tpcchandler.h

```

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

#define MAX_MSG_SZ 5000

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

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

```

tpcchandler.cpp

```

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

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

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

```

```

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

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

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

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

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

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

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

```



```

static CHAR * FORMIDTOKEN = "FORMID=";
static CHAR * STATUSIDTOKEN = "STATUSID=";
static CHAR * CMDTOKEN = "CMD=";
static CHAR * NEWORDER_SERVICE = "NEWORDER";
static CHAR * PAYMENT_SERVICE = "PAYMENT";
static CHAR * ORDERSTATUS_SERVICE = "ORDERSTS";
static CHAR * DELIVERY_SERVICE = "DELIVERY";
static CHAR * STOCKLEVEL_SERVICE = "STOCKLVL";
static CHAR * ZIPPIC = "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 = TPCCSEND; // default error handling
    TERM_STATE * pTerm;

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

```

```

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

uRslt = TPCCSEND;

HdlrXit:

    return(uRslt);

}; // TPCCHandler

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

```

```

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

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

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

```

```

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

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

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

```

```

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

```

```

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

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

```

```

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

```

```

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

return(FALSE);

}; // ProcessNewOrder

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

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

```

```

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

```

```

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

```

```

    "</PRE><HR><BR>%s</FORM>%s",
    ppd->c_data, (ppd->c_data + 50), (ppd->c_data + 100), (ppd->c_data +
150),
    szMenuList, HTMLTrailer);
}
else
{
    wsprintf(pOut + iInx,
        "Cust-Data: <BR><BR><BR><BR>"
        "</PRE><HR><BR>%s</FORM>%s",
        szMenuList, HTMLTrailer);
};

return(FALSE);
}; // ProcessPayment

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

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

```

```

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

return(FALSE);
}; // ProcessDelivery

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

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

```

```

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

```

```

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

return(FALSE);
}; // ProcessOrderStatus

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

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

```

```

    hr = pTMon->pIAllTxn->StockLevel(&iSize, (unsigned char**) &pTMon-
>pTxnData);
    if (FAILED(hr))
    {
        pTPCC->iStatusId = ERR_TM_INTERFACE;
        wsprintf(pTPCC->ErrTxt,
            "COM Interface to StockLevel Call Failed, HRESULT %x",
            hr);
        FormatMenu(pOut, pTPCC);
        return(TRUE);
    };
    psld = (STOCK_LEVEL_DATA *) pTMon->pTxnData;
    if (psld->bTPRslt)
    {
        wsprintf(pTPCC->ErrTxt,
            "Stock Level Service Returned Error(%ld): %s",
            psld->iTPRslt, psld->execution_status);
        pTPCC->iStatusId = ERR_SERVICE_RSLT;
        FormatMenu(pOut, pTPCC);
        return(TRUE);
    };
    iInx = FormatRespHdr(pOut, "TPC-C Stock Level", pTPCC);
    wsprintf(pOut + iInx,
        "<PRE>
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 = (LONG) atoi(pTPCC->szWork);
        return(FALSE);
    };
}; // GetLongKey

```

```

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

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

```

```

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

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

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

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

```

```

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

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

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

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

```

```

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

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

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

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

```

delivery.h

```

#define DEFAULTDQSIZE 2000

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

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

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

```

delivery.cpp

```

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

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

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

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

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

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

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

```

```

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

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

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

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

```

```

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

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

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

```

```

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

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

```

```

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

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

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

```

```

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

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

```

```

}; // DoDelivery
//=====
//
// Function name: CalculateElapsed (milliseconds)
//
//=====
void CalculateElapsed(int * pElapsed,LPSYSTEMTIME lpBegin,
                    LPSYSTEMTIME lpEnd)
{
    int tmBegin;
    int tmEnd;
    tmBegin = (lpBegin->wHour * 3600000) + (lpBegin->wMinute * 60000) +
        (lpBegin->wSecond * 1000) + lpBegin->wMilliseconds;
    tmEnd = (lpEnd->wHour * 3600000) + (lpEnd->wMinute * 60000) +
        (lpEnd->wSecond * 1000) + lpEnd->wMilliseconds;
    *pElapsed = tmEnd - tmBegin;
    // Check for day 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
    SHORT sWId; // TPCC WareHouse Id
    SHORT sDId; // TPCC District Id
    struct_timeb tbLastAccess; // Last activity timestamp
} TERM_STATE;

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

```

term.cpp

```

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

```



```

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

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

VOID TermMaint(VOID);

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

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

```

```

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

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

```

```

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

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

}; // TermAlloc

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

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

```

```

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

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

tmon.h

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

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

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

```

```

} TMON_STATE;

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

```

tmon.cpp

```

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

// needed for CoinitializeEx
#define _WIN32_WINNT 0x0400

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

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

#include "tmon.h"

INT 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))
{
    wsprintf(pTMon->pszErrTxt, "COM Initialize Failed, HRESULT %x\n", hr);
    return(TRUE);
};

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

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

timesupp.h

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

```

```

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

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

typedef ULONG TMILLI;

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

```

timesupp.cpp

```

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

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

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

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

```

```

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

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

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

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

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

```

```

UINT uLen;

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

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

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

```

diagio.h

```

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

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

#define DIAGNOSTICS TRUE
#define MAX_DIAG_SZ 2000

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

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

```

diagio.cpp

```

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

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

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

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

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

```

```

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

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

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

```

```

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

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

```

```

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

```

tpccproxy.def

```

LIBRARY      "tpcc_com_ps"

DESCRIPTION  'Proxy/Stub DLL'

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

```

tpccproxy.idl

```

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

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

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

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

    HRESULT _stdcall Delivery

```

```

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

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

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

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

```

tpccsvr.def

; tpccsvr.def : Declares the module parameters.

```

LIBRARY      "tpcc_com_all.dll"

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

```

tpccsvr.idl

```

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

interface TPCC;

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

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

```

```

importlib("stdole2.tlb");

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

};

                                tpccsvr.h

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

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

CTPCC_Common();
~CTPCC_Common();

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

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

// IObjectConstruct
STDMETHODIMP Construct(IDispatch * pUnk);

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

```

```

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

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

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

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

                                tpccsvr.cpp

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

#define STRICT
#define _WIN32_WINNT 0x0400
#define _ATL_APARTMENT_THREADED

#include <stdio.h>

```



```

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

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

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

```

```

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

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

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

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

```

```

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

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

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

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

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

    int i;

```

```

pnod = (NEW_ORDER_DATA *) *pTData;
try
{
    m_hstmt = m_hstmtNewOrder;
    m_bTPRslt = TRUE;
    m_iTPRslt = SVCERR_DEADLOCK;
    // associate the parameter and column bindings for this transaction
    if (SQLSetStmtAttrW(m_hstmt, SQL_ATTR_APP_ROW_DESC,
        m_descNewOrderCols1, SQL_IS_POINTER) != SQL_SUCCESS)
    {
        char szDiag[100];
        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;
    wcscpy(&szSqlTemplate[i], L" }");
    // check whether any order lines are for a remote warehouse
    pnod->o_all_local = 1;
    for (i = 0; i < pnod->o_ol_cnt; i++)
    {
        if (pnod->Ol[i].ol_supply_w_id != pnod->w_id)
        {
            pnod->o_all_local = 0;
            break;
        };
    };
    memcpy(&m_TData.NOData, pnod, sizeof(NEW_ORDER_DATA));
    for (m_iTryCount = 1; m_iTryCount <= m_iMaxRetry; m_iTryCount++)
    {
        bRetry = FALSE;
        m_BindOffset = 0;
        rc = SQLExecDirectW(m_hstmt, (SQLWCHAR *) szSqlTemplate, SQL_NTS);
        if (rc != SQL_SUCCESS && rc !=
SQL_SUCCESS_WITH_INFO)
        {
            char szDiag[100];
            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)
{
    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)
        sprintf(pnod->execution_status,"Hit retry
max(%d).",m_iMaxRetry);
    else
        strcpy(pnod->execution_status,"DBTranAbort, Check Input Data");
    return(S_OK);
}
catch (...)
{
    char szDiag[300];
    sprintf(szDiag,"NewOrder(%ld): Unhandled exception\n",m_lRefId);
    WriteEventLog(szDiag,TRUE);
    m_bCanBePooled = FALSE;
    pnod->bTPRslt = TRUE;
    pnod->iTPRslt = SVCERR_EXCEPTION;
    strcpy(pnod->execution_status,"Error, Unhandled exception");
    return(S_OK);
};
}; // NewOrder

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

```

```

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

```

```

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

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

```

```

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

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

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

```

```

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

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

```

```

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

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

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

    m_hstmt = m_hstmtOrderStatus;

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

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

```



```

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

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

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

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

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

```

```

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

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

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

```



```

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

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

```

```

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

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

```

```

}
    catch (...)
    {
        char szDiag[300];
        wsprintf(szDiag,"StockLevel(%ld): Unhandled exception\n",m_lRefId);
        WriteEventLog(szDiag,TRUE);
        m_bCanBePooled = FALSE;
        psld->bTPRsIt = TRUE;
        psld->iTPRsIt = 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)

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

dump database tpcc to tpccbackb14, tpccbackc14, tpccbackd14, tpccbacke14,
tpccbackf14, tpccbackg14, tpccbackh14, tpccbacki14, tpccbackj14
, tpccbackb13, tpccbackc13, tpccbackd13, tpccbacke13, tpccbackf13,
tpccbackg13, tpccbackh13, tpccbacki13, tpccbackj13 with init, stats = 1,
blocksize = 65536

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

go
```

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','tpccbackb14','C:\Bigdb\dbBackups\backupB14\tpccbackb14.dmp'
exec sp_addumpdevice
'disk','tpccbackc14','C:\Bigdb\dbBackups\backupC14\tpccbackc14.dmp'
exec sp_addumpdevice
'disk','tpccbackd14','C:\Bigdb\dbBackups\backupD14\tpccbackd14.dmp'
exec sp_addumpdevice
'disk','tpccbacke14','C:\Bigdb\dbBackups\backupE14\tpccbacke14.dmp'
```

```
exec sp_addumpdevice
'disk','tpccbackf14','C:\Bigdb\dbBackups\backupF14\tpccbackf14.dmp'
exec sp_addumpdevice
'disk','tpccbackg14','C:\Bigdb\dbBackups\backupG14\tpccbackg14.dmp'
exec sp_addumpdevice
'disk','tpccbackh14','C:\Bigdb\dbBackups\backupH14\tpccbackh14.dmp'
exec sp_addumpdevice
'disk','tpccbacki14','C:\Bigdb\dbBackups\backupI14\tpccbacki14.dmp'
exec sp_addumpdevice
'disk','tpccbackj14','C:\Bigdb\dbBackups\backupJ14\tpccbackj14.dmp'
```

```
exec sp_addumpdevice
'disk','tpccbackb13','C:\Bigdb\dbBackups\backupB13\tpccbackb13.dmp'
exec sp_addumpdevice
'disk','tpccbackc13','C:\Bigdb\dbBackups\backupC13\tpccbackc13.dmp'
exec sp_addumpdevice
'disk','tpccbackd13','C:\Bigdb\dbBackups\backupD13\tpccbackd13.dmp'
exec sp_addumpdevice
'disk','tpccbacke13','C:\Bigdb\dbBackups\backupE13\tpccbacke13.dmp'
exec sp_addumpdevice
'disk','tpccbackf13','C:\Bigdb\dbBackups\backupF13\tpccbackf13.dmp'
exec sp_addumpdevice
'disk','tpccbackg13','C:\Bigdb\dbBackups\backupG13\tpccbackg13.dmp'
exec sp_addumpdevice
'disk','tpccbackh13','C:\Bigdb\dbBackups\backupH13\tpccbackh13.dmp'
exec sp_addumpdevice
'disk','tpccbacki13','C:\Bigdb\dbBackups\backupI13\tpccbacki13.dmp'
exec sp_addumpdevice
'disk','tpccbackj13','C:\Bigdb\dbBackups\backupJ13\tpccbackj13.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_miscJ14,
    FILENAME = "C:\Bigdb\CABJ\misc14\",
    SIZE = 2520MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscJ13,
    FILENAME = "C:\Bigdb\CABJ\misc13\",
    SIZE = 2520MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscJ12,
    FILENAME = "C:\Bigdb\CABJ\misc12\",
    SIZE = 2520MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscJ11,
    FILENAME = "C:\Bigdb\CABJ\misc11\",
    SIZE = 2520MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscJ10,
    FILENAME = "C:\Bigdb\CABJ\misc10\",
    SIZE = 2520MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscJ9,
    FILENAME = "C:\Bigdb\CABJ\misc9\",
    SIZE = 2520MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscJ8,
    FILENAME = "C:\Bigdb\CABJ\misc8\",
    SIZE = 2520MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscJ7,
    FILENAME = "C:\Bigdb\CABJ\misc7\",
    SIZE = 2520MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscJ6,
    FILENAME = "C:\Bigdb\CABJ\misc6\",
    SIZE = 2520MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscJ5,
    FILENAME = "C:\Bigdb\CABJ\misc5\",
    SIZE = 2520MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscJ4,
    FILENAME = "C:\Bigdb\CABJ\misc4\",
    SIZE = 2520MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscJ3,
    FILENAME = "C:\Bigdb\CABJ\misc3\",
    SIZE = 2520MB, FILEGROWTH = 0),
(
    NAME = MSSQL_miscJ2,
    FILENAME = "C:\Bigdb\CABJ\misc2\",
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```

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  FILENAME = "C:\Bigdb\CABA\cs4\",
  SIZE = 4850MB, FILEGROWTH = 0),
( NAME = MSSQL_csA3,
  FILENAME = "C:\Bigdb\CABA\cs3\",
  SIZE = 4850MB, FILEGROWTH = 0),
( NAME = MSSQL_csA2,
  FILENAME = "C:\Bigdb\CABA\cs2\",
  SIZE = 4850MB, FILEGROWTH = 0),
( NAME = MSSQL_csA1,
  FILENAME = "C:\Bigdb\CABA\cs1\",
  SIZE = 4850MB, FILEGROWTH = 0),
FILEGROUP MSSQL_ord_fg
( NAME = MSSQL_ordJ14,
  FILENAME = "C:\Bigdb\CABJ\ord14\",
  SIZE = 2950MB, FILEGROWTH = 0),
( NAME = MSSQL_ordJ13,
  FILENAME = "C:\Bigdb\CABJ\ord13\",
  SIZE = 2950MB, FILEGROWTH = 0),
( NAME = MSSQL_ordJ12,
  FILENAME = "C:\Bigdb\CABJ\ord12\",
  SIZE = 2950MB, FILEGROWTH = 0),
( NAME = MSSQL_ordJ11,
  FILENAME = "C:\Bigdb\CABJ\ord11\",
  SIZE = 2950MB, FILEGROWTH = 0),
( NAME = MSSQL_ordJ10,
  FILENAME = "C:\Bigdb\CABJ\ord10\",
  SIZE = 2950MB, FILEGROWTH = 0),
( NAME = MSSQL_ordJ9,
  FILENAME = "C:\Bigdb\CABJ\ord9\",
  SIZE = 2950MB, FILEGROWTH = 0),
( NAME = MSSQL_ordJ8,
  FILENAME = "C:\Bigdb\CABJ\ord8\",
  SIZE = 2950MB, FILEGROWTH = 0),
( NAME = MSSQL_ordJ7,
  FILENAME = "C:\Bigdb\CABJ\ord7\",
  SIZE = 2950MB, FILEGROWTH = 0),
( NAME = MSSQL_ordJ6,
  FILENAME = "C:\Bigdb\CABJ\ord6\",
  SIZE = 2950MB, FILEGROWTH = 0),
( NAME = MSSQL_ordJ5,
  FILENAME = "C:\Bigdb\CABJ\ord5\",
  SIZE = 2950MB, FILEGROWTH = 0),
( NAME = MSSQL_ordJ4,
  FILENAME = "C:\Bigdb\CABJ\ord4\",
  SIZE = 2950MB, FILEGROWTH = 0),
( NAME = MSSQL_ordJ3,
  FILENAME = "C:\Bigdb\CABJ\ord3\",
  SIZE = 2950MB, FILEGROWTH = 0),
( NAME = MSSQL_ordJ2,
  FILENAME = "C:\Bigdb\CABJ\ord2\",
  SIZE = 2950MB, FILEGROWTH = 0),
( NAME = MSSQL_ordJ1,
  FILENAME = "C:\Bigdb\CABJ\ord1\",
  SIZE = 2950MB, FILEGROWTH = 0),
( NAME = MSSQL_ordI14,
  FILENAME = "C:\Bigdb\CABI\ord14\",
  SIZE = 2950MB, FILEGROWTH = 0),
( NAME = MSSQL_ordI13,
  FILENAME = "C:\Bigdb\CABI\ord13\",
  SIZE = 2950MB, FILEGROWTH = 0),
( NAME = MSSQL_ordI12,

```



```

    SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_ordC14,
  FILENAME = "C:\Bigdb\CABC\ord14\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_ordC13,
  FILENAME = "C:\Bigdb\CABC\ord13\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_ordC12,
  FILENAME = "C:\Bigdb\CABC\ord12\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_ordC11,
  FILENAME = "C:\Bigdb\CABC\ord11\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_ordC10,
  FILENAME = "C:\Bigdb\CABC\ord10\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_ordC9,
  FILENAME = "C:\Bigdb\CABC\ord9\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_ordC8,
  FILENAME = "C:\Bigdb\CABC\ord8\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_ordC7,
  FILENAME = "C:\Bigdb\CABC\ord7\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_ordC6,
  FILENAME = "C:\Bigdb\CABC\ord6\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_ordC5,
  FILENAME = "C:\Bigdb\CABC\ord5\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_ordC4,
  FILENAME = "C:\Bigdb\CABC\ord4\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_ordC3,
  FILENAME = "C:\Bigdb\CABC\ord3\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_ordC2,
  FILENAME = "C:\Bigdb\CABC\ord2\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_ordC1,
  FILENAME = "C:\Bigdb\CABC\ord1\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_ordB14,
  FILENAME = "C:\Bigdb\CABB\ord14\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_ordB13,
  FILENAME = "C:\Bigdb\CABB\ord13\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_ordB12,
  FILENAME = "C:\Bigdb\CABB\ord12\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_ordB11,
  FILENAME = "C:\Bigdb\CABB\ord11\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_ordB10,
  FILENAME = "C:\Bigdb\CABB\ord10\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_ordB9,
  FILENAME = "C:\Bigdb\CABB\ord9\",
  SIZE      = 2950MB,  FILEGROWTH = 0),

```

```

(  NAME = MSSQL_ordB8,
  FILENAME = "C:\Bigdb\CABB\ord8\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_ordB7,
  FILENAME = "C:\Bigdb\CABB\ord7\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_ordB6,
  FILENAME = "C:\Bigdb\CABB\ord6\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_ordB5,
  FILENAME = "C:\Bigdb\CABB\ord5\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_ordB4,
  FILENAME = "C:\Bigdb\CABB\ord4\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_ordB3,
  FILENAME = "C:\Bigdb\CABB\ord3\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_ordB2,
  FILENAME = "C:\Bigdb\CABB\ord2\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_ordB1,
  FILENAME = "C:\Bigdb\CABB\ord1\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_orda7,
  FILENAME = "C:\Bigdb\CABA\ord7\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_orda6,
  FILENAME = "C:\Bigdb\CABA\ord6\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_orda5,
  FILENAME = "C:\Bigdb\CABA\ord5\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_orda4,
  FILENAME = "C:\Bigdb\CABA\ord4\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_orda3,
  FILENAME = "C:\Bigdb\CABA\ord3\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_orda2,
  FILENAME = "C:\Bigdb\CABA\ord2\",
  SIZE      = 2950MB,  FILEGROWTH = 0),
(  NAME = MSSQL_orda1,
  FILENAME = "C:\Bigdb\CABA\ord1\",
  SIZE      = 2950MB,  FILEGROWTH = 0)
LOG ON
(  NAME      = MSSQL_tpcc_log1,
  FILENAME = "C:\Bigdb\dblogs\tpcclog1\",
  SIZE = 120001MB, FILEGROWTH = 0),
(  NAME      = MSSQL_tpcc_log2,
  FILENAME = "C:\Bigdb\dblogs\tpcclog2\",
  SIZE = 120001MB, FILEGROWTH = 0)
go
update tpcc_timer
set   end_date      = (select convert(char(30), getdate(),9))
go
select "Elapsed time (in seconds): ", datediff(second,(select start_date
from tpcc_timer),(select end_date from tpcc_timer))
if exists ( select name from sysobjects where name = 'tpcc_timer' )
drop table tpcc_timer
go

```

DBOPT1.SQL

```
-- File:      DBOPT1.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.21
--           Copyright Microsoft, 1999, 2000
-- Purpose:   Sets database options for data load

use master
go

exec sp_dboption tpcc,'select into/bulkcopy',true
exec sp_dboption tpcc,'trunc. log on chkpt.',true
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.SQL32 processor

```
-- 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 'tpccbackb14'
exec sp_dropdevice 'tpccbackc14'
exec sp_dropdevice 'tpccbackd14'
exec sp_dropdevice 'tpccbacke14'
exec sp_dropdevice 'tpccbackf14'
exec sp_dropdevice 'tpccbackg14'
exec sp_dropdevice 'tpccbackh14'
exec sp_dropdevice 'tpccbacki14'
exec sp_dropdevice 'tpccbackj14'
exec sp_dropdevice 'tpccbackb13'
exec sp_dropdevice 'tpccbackc13'
exec sp_dropdevice 'tpccbackd13'
exec sp_dropdevice 'tpccbacke13'
exec sp_dropdevice 'tpccbackf13'
exec sp_dropdevice 'tpccbackg13'
exec sp_dropdevice 'tpccbackh13'
exec sp_dropdevice 'tpccbacki13'
exec sp_dropdevice 'tpccbackj13'
```

```
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 tpccbackb14, tpccbackc14, tpccbackd14,
tpccbacke14, tpccbackf14, tpccbackg14, tpccbackh14, tpccbacki14,
tpccbackj14
,tpccbackb13, tpccbackc13, tpccbackd13, tpccbacke13, tpccbackf13,
tpccbackg13, tpccbackh13, tpccbacki13, tpccbackj13 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)
```

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"
@if errorlevel 1 goto BAD_SORT

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

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

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

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

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

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

:complete

```

```

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

goto end

:usage
@ECHO
*****
@ECHO *
*
@ECHO * The TPC-C setup command file requires the following parameters:
*
@ECHO *
*
@ECHO * setup SERVER NUMWAR BLDOPT VERSION DBTYPE
*
@ECHO *
*
@ECHO * SERVER = machine name of server (use "" for local server)
*
@ECHO * NUMWAR = number of warehouses
*
@ECHO * BLDOPT = full, bulddb, objects, objectsfull, bulkload,
*
@ECHO * bulkloadfull, backup, or backupfull
*
@ECHO * DBTYPE = normal or scale_down
*
@ECHO *
*
@ECHO * Note #1: the BLDOPT and VERSION parameters are case sensitive.
*
@ECHO *
*
@ECHO * Note #2: the DBTYPE is optional. If no DBTYPE is specified,
SETUP *
@ECHO * will default to NORMAL.
*
@ECHO *
*
@ECHO * Example:
*
@ECHO *
*
@ECHO * The following command would be used to build a complete 200
*
@ECHO * warehouse database on SQL Server 7.0 running on server
\\myserver. *
@ECHO *
*

```

```

@ECHO * SETUP myserver 200 full
*
@ECHO *
*
@ECHO * NOTE 1: This command file does a backup of the database by
default *
@ECHO * after the database build process is complete. If you do not wish
*
@ECHO * to make a backup (strongly discouraged), you must edit this file
*
@ECHO * and comment that section out. Also, if you need to run the
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
Order.
@echo.
@echo For SQL Server 8.0, please re-install and specify Latin1_General
with the Binary Option.
@echo.
@goto END
:end

echo on

```

VERIFY_MSG.SQL

```

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

```

VERIFY_SORT.SQL

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

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

create proc ms_verify_sort
as

declare @sort_order    int

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

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

VERIFYTPCCLOAD

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

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

use 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

```

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_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_cl' )
    drop index history.history_cl
```

```
create unique clustered index history_cl 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
-- Purpose:   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
-- Purpose:   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)
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
-- Purpose:   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
```

IDXORDNC.SQL

```

-- File:      IDXORDNC.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.21
--           Copyright Microsoft, 1999, 2000
-- Purpose:   Creates non-clustered index on orders table

```

```

use tpcc
go

```

```

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

```

```

--if exists ( select name from sysindexes where name = 'orders_ncl' )
--    drop index orders.orders_ncl

```

```

--create index orders_ncl on orders( o_w_id, o_d_id, o_c_id, o_id)

```

```

-- with pad_index, fillfactor=90,
-- --SORT_IN_TEMPDB
-- 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                smallint,
    w_name              char(10),
    w_street_1          char(20),
    w_street_2          char(20),
    w_city              char(20),
    w_state             char(2),
    w_zip              char(9),
    w_tax              numeric(4,4),
    w_ytd              numeric(12,2)
) on MSSQL_misc_fg
go

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

create table customer
(
    c_id                int,
    c_d_id             tinyint,
    c_w_id             smallint,
    c_first             char(16),
    c_middle            char(2),
    c_last              char(16),
    c_street_1          char(20),
    c_street_2          char(20),
    c_city              char(20),
    c_state             char(2),
    c_zip              char(9),
    c_phone             char(16),
    c_since             datetime,
    c_credit            char(2),
    c_credit_lim        numeric(12,2),
    c_discount          numeric(4,4),
    c_balance           numeric(12,2),
    c_ytd_payment       numeric(12,2),
    c_payment_cnt       smallint,
    c_delivery_cnt      smallint,
    c_data              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          smallint,
        h_d_id           tinyint,
        h_w_id           smallint,
        h_date           datetime,
        h_amount         numeric(6,2),
        h_data           char(24)
) on MSSQL_misc_fg
go

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

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

create table order_line
(
    ol_o_id              int,
    ol_d_id              tinyint,
    ol_w_id              smallint,
    ol_number           tinyint,
    ol_i_id             int,
    ol_supply_w_id      smallint,
    ol_delivery_d        datetime,
    ol_quantity         smallint,
    ol_amount           numeric(6,2),
    ol_dist_info        char(24)
) on 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              smallint,
    s_quantity          smallint,
    s_dist_01           char(24),

```

```

        s_dist_02        char(24),
        s_dist_03        char(24),
        s_dist_04        char(24),
        s_dist_05        char(24),
        s_dist_06        char(24),
        s_dist_07        char(24),
        s_dist_08        char(24),
        s_dist_09        char(24),
        s_dist_10        char(24),
        s_ytd            int,
        s_order_cnt      smallint,
        s_remote_cnt     smallint,
        s_data            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          smallint,
                              @o_carrier_id  smallint
as

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

select @d_id = 0

```

```

begin tran d
    while (@d_id < 10)
    begin
        select @d_id = @d_id + 1,
               @total = 0,
               @o_id = 0

        select top 1
               @o_id = no_o_id
        from   new_order (serializable uplock)
        where  no_w_id = @w_id and
               no_d_id = @d_id
        order  by no_o_id asc

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

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

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

            update orders
            set    o_carrier_id = @o_carrier_id,
                   @c_id = 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          smallint,
    @d_id          tinyint,
    @c_id          int,
    @o_ol_cnt      tinyint,
    @o_all_local   tinyint,
    @i_id1 int = 0, @s_w_id1 smallint
= 0, @ol_qty1  smallint = 0,
    @i_id2 int = 0, @s_w_id2 smallint
= 0, @ol_qty2  smallint = 0,
    @i_id3 int = 0, @s_w_id3 smallint
= 0, @ol_qty3  smallint = 0,
    @i_id4 int = 0, @s_w_id4 smallint
= 0, @ol_qty4  smallint = 0,
    @i_id5 int = 0, @s_w_id5 smallint
= 0, @ol_qty5  smallint = 0,

```

```

= 0, @ol_qty6  smallint = 0,
= 0, @ol_qty7  smallint = 0,
= 0, @ol_qty8  smallint = 0,
= 0, @ol_qty9  smallint = 0,
= 0, @ol_qty10 smallint = 0,
= 0, @ol_qty11 smallint = 0,
= 0, @ol_qty12 smallint = 0,
= 0, @ol_qty13 smallint = 0,
= 0, @ol_qty14 smallint = 0,
= 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  smallint,
        @li_qty     smallint,
        @ol_number  int,
        @c_id_local int

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

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

```

```

@i_id6  int = 0, @s_w_id6  smallint
@i_id7  int = 0, @s_w_id7  smallint
@i_id8  int = 0, @s_w_id8  smallint
@i_id9  int = 0, @s_w_id9  smallint
@i_id10 int = 0, @s_w_id10 smallint
@i_id11 int = 0, @s_w_id11 smallint
@i_id12 int = 0, @s_w_id12 smallint
@i_id13 int = 0, @s_w_id13 smallint
@i_id14 int = 0, @s_w_id14 smallint
@i_id15 int = 0, @s_w_id15 smallint

```

```

-- 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 -
@s_li_qty +
               case when (s_quantity -
@s_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  smallint,
                             @d_id  tinyint,

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

as

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

begin tran o

if (@c_id = 0)
    begin

-- get customer id and info using last name

        select @cnt = (count(*)+1)/2
        from customer (repeatableread)
        where c_last = @c_last and

```

```

        c_w_id = @w_id and
        c_d_id = @d_id

        set rowcount @cnt

        select @c_id      = c_id,
               @c_balance = c_balance,
               @c_first   = c_first,
               @c_last    = c_last,
               @c_middle  = c_middle
        from customer (repeatableread)
        where c_last     = @c_last and
               c_w_id    = @w_id and
               c_d_id    = @d_id

        order by c_w_id, c_d_id, c_last, c_first

        set rowcount 0

    end

else

begin

-- get customer info if by id

        select @c_balance = c_balance,
               @c_first   = c_first,
               @c_middle  = c_middle,
               @c_last    = c_last
        from customer (repeatableread)
        where c_id       = @c_id and
               c_d_id    = @d_id and
               c_w_id    = @w_id

        select @cnt = @@rowcount

    end

-- if no such customer

    if (@cnt = 0)
        begin
            raiserror("Customer not found",18,1)
            goto custnotfound
        end

-- get order info

        select top 1 @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 desc

-- select order lines for the current order

        select ol_supply_w_id,
               ol_i_id,

```

```

        ol_quantity,
        ol_amount,
        ol_delivery_d
    from    order_line (repeatableread)
    where   ol_o_id = @o_id and
           ol_d_id = @d_id and
           ol_w_id = @w_id

```

custnotfound:

commit tran o

-- return data to client

```

select  @c_id,
        @c_last,
        @c_first,
        @c_middle,
        @o_entry_d,
        @o_carrier_id,
        @c_balance,
        @o_id

```

go

PAYMENT.SQL

```

-- File:      PAYMENT.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.21.000
--           Copyright Microsoft, 1999, 2000
-- Purpose:   Creates payment transaction stored procedure
--
--           Interface Level: 4.10.000

```

use tpcc
go

```

if exists (select name from sysobjects where name = 'tpcc_payment' )
    drop procedure tpcc_payment
go

```

```

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

```

```

as
declare  @w_street_1      char(20),
         @w_street_2      char(20),
         @w_city          char(20),
         @w_state         char(2),
         @w_zip           char(9),
         @w_name          char(10),
         @d_street_1     char(20),
         @d_street_2     char(20),

```

```

@d_city        char(20),
@d_state       char(2),
@d_zip         char(9),
@d_name        char(10),
@c_first       char(16),
@c_middle      char(2),
@c_street_1    char(20),
@c_street_2    char(20),
@c_city        char(20),
@c_state       char(2),
@c_zip         char(9),
@c_phone       char(16),
@c_since       datetime,
@c_credit      char(2),
@c_credit_lim  numeric(12,2),
@c_balance     numeric(12,2),
@c_discount    numeric(4,4),
@c_data        char(42),
@datetime     datetime,
@w_ytd         numeric(12,2),
@d_ytd         numeric(12,2),
@cnt           smallint,
@val           smallint,
@screen_data   char(200),
@d_id_local    tinyint,
@w_id_local    smallint,
@c_id_local    int

```

select @screen_data = ''

begin tran p

-- get payment date

```
select @datetime = getdate()
```

```
if (@c_id = 0)
begin

```

-- get customer id and info using last name

```

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

```

```

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

```

```

select  @c_id = c_id
from    customer (repeatableread)
where   c_last = @c_last and
        c_w_id = @c_w_id and
        c_d_id = @c_d_id
order  by c_last, c_first

```

```
set     rowcount 0
```

end

```

-- get customer info and update balances

update customer
set   @c_balance      = c_balance      - @h_amount,
      c_payment_cnt   = c_payment_cnt + 1,
      c_ytd_payment   = c_ytd_payment + @h_amount,
      @c_first        = c_first,
      @c_middle       = c_middle,
      @c_last         = c_last,
      @c_street_1     = c_street_1,
      @c_street_2     = c_street_2,
      @c_city         = c_city,
      @c_state        = c_state,
      @c_zip          = c_zip,
      @c_phone        = c_phone,
      @c_credit       = c_credit,
      @c_credit_lim   = c_credit_lim,
      @c_discount     = c_discount,
      @c_since        = c_since,
      @c_id_local     = c_id
where  c_id           = @c_id and
      c_w_id          = @c_w_id and
      c_d_id          = @c_d_id

-- if customer has bad credit get some more info

if (@c_credit = 'BC')
begin

-- compute new info

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

-- update customer info

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

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

-- end

      select @screen_data = substring (@c_data, 1, 200)

-- get district data and update year-to-date

update district
set   d_ytd      = d_ytd + @h_amount,
      @d_street_1 = d_street_1,
      @d_street_2 = d_street_2,
      @d_city     = d_city,
      @d_state    = d_state,
      @d_zip      = d_zip,
      @d_name     = d_name,

```

```

      @d_id_local = d_id
where  d_w_id     = @w_id and
      d_id        = @d_id

-- get warehouse data and update year-to-date

update warehouse
set   w_ytd      = w_ytd + @h_amount,
      @w_street_1 = w_street_1,
      @w_street_2 = w_street_2,
      @w_city     = w_city,
      @w_state    = w_state,
      @w_zip      = w_zip,
      @w_name     = w_name,
      @w_id_local = w_id
where  w_id      = @w_id

-- create history record

insert into history values ( @c_id_local,
                             @c_d_id,
                             @c_w_id,
                             @d_id_local,
                             @w_id_local,
                             @datetime,
                             @h_amount,
                             @w_name + ' ' + @d_name)

commit tran p

-- return data to client

select @c_id,
       @c_last,
       @datetime,
       @w_street_1,
       @w_street_2,
       @w_city,
       @w_state,
       @w_zip,
       @d_street_1,
       @d_street_2,
       @d_city,
       @d_state,
       @d_zip,
       @c_first,
       @c_middle,
       @c_street_1,
       @c_street_2,
       @c_city,
       @c_state,
       @c_zip,
       @c_phone,
       @c_since,
       @c_credit,
       @c_credit_lim,
       @c_discount,
       @c_balance,
       @screen_data

go

```


STOCKLEV.SQL

```
-- File:      STOCKLEV.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.21.000
--           Copyright Microsoft, 1999, 2000
-- Purpose:   Creates stock level transaction stored procedure
--
--           Interface Level: 4.10.000

use tpcc
go

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

create proc tpcc_stocklevel    @w_id          smallint,
                              @d_id          tinyint,
                              @threshold    smallint
as

declare @o_id_low int,
        @o_id_high int

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

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

go
```

VERSION.SQL

```
-- File:      VERSION.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.21.000
--           Copyright Microsoft, 1999, 2000
-- Purpose:   Returns version level of TPC-C stored procs
-- Note:     Always update the return value of this proc for
--           any interface changes or "must have" bug fixes.
--
-- The value returned by this SP defines the "interface level",
-- which must match between the stored procs and the client code.
-- The interface level may be down rev from the current kit. This
-- indicates that the interface hasn't changed since that version.

use tpcc
go

if exists ( select name from sysobjects where name = "tpcc_version" )
```

```
drop procedure tpcc_version
go

create proc tpcc_version
as
declare @version          char(8)

begin
    select @version = "4.10.000"
    select @version as "Version"
end

go
```

Loader Source

GETARGS.C

```
// File:      GETARGS.C
//           Microsoft TPC-C Kit Ver. 4.21
//           Copyright Microsoft, 1996, 1997, 1998, 1999,
2000
// Purpose:   Source file for command line processing

// Includes
#include "tpcc.h"

//=====
//
// Function name: GetArgsLoader
//
//=====

void GetArgsLoader(int argc, char **argv, TPCC_LDR_ARGS *pargs)
{
    int          i;
    char         *ptr;

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

    /* init args struct with some useful values */
    pargs->server          = SERVER;
    pargs->user            = USER;
    pargs->password        = PASSWORD;
    pargs->database        = DATABASE;
    pargs->batch           = BATCH;
    pargs->num_warehouses  = UNDEF;
    pargs->tables_all      = TRUE;
    pargs->table_item      = FALSE;
    pargs->table_warehouse = FALSE;
    pargs->table_customer  = FALSE;
    pargs->table_orders    = FALSE;
    pargs->loader_res_file = LOADER_RES_FILE;
```

```

pargs->pack_size          = DEF_LDPACKSIZE;
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)

```

```

== 0)
TRUE;
0)
0)
    pargs->table_item = TRUE;
    else if (strcmp(ptr+2,"warehouse")
        pargs->table_warehouse =
    else if (strcmp(ptr+2,"customer") ==
        pargs->table_customer = TRUE;
    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
%ld\n", (long) BATCH);
    printf("-p TDS packet size
%ld\n", (long) DEF_LD_PACKET_SIZE);
    printf("-f Loader Results Output Filename
%s\n", LOADER_RES_FILE);
    printf("-s Starting Warehouse
%ld\n", (long) DEF_STARTING_WAREHOUSE);
    printf("-i Build Option (data = 0, data and index = 1)
%ld\n", (long) BUILD_INDEX);
    printf("-o Cluster Index Build Order (before = 1, after = 0)
%ld\n", (long) INDEX_ORDER);
    printf("-c Build Scaled Database (normal = 0, tiny = 1)
%ld\n", (long) SCALE_DOWN);
    printf("-d Index Script Path
%s\n", INDEX_SCRIPT_PATH);
    printf("-t Table to Load                                all
tables \n");
    printf("    [item|warehouse|customer|orders]\n");
    printf("    Notes: \n");
    printf("    - the '-t' parameter may be included multiple times to
\n");
    printf("    specify multiple tables to be loaded \n");
    printf("    - 'item' loads ITEM table \n");
    printf("    - 'warehouse' loads WAREHOUSE, DISTRICT, and STOCK tables
\n");
    printf("    - 'customer' loads CUSTOMER and HISTORY tables \n");
    printf("    - 'orders' load NEW-ORDER, ORDERS, ORDER-LINE tables
\n");
}

```

```

printf("\nNote: Command line switches are case sensitive.\n");
exit(0);
}

```

RANDOM.C

```

// File:          RANDOM.C
//               Microsoft TPC-C Kit Ver. 4.21
//               Copyright Microsoft, 1996, 1997, 1998, 1999,
2000
// Purpose:       Random number generation routines for database
loader

// Includes
#include "tpcc.h"
#include "math.h"

// Defines
#define A          16807
#define M          2147483647
#define Q          127773      /* M div A */
#define R          2836       /* M mod A */
#define Thread     __declspec(thread)

// Globals
long  Thread Seed = 0;      /* thread local seed */

/*****
 *
 * random -
 *       Implements a GOOD pseudo random number generator.  This generator
 *       will/should? run the complete period before repeating.
 *
 * Copied from:
 *
 *       Random Numbers Generators: Good Ones Are Hard to Find.
 *
 *       Communications of the ACM - October 1988 Volume 31 Number 10
 *
 * Machine Dependencies:
 *       long must be 2 ^ 31 - 1 or greater.
 *
 *****/

/*****
 * seed - load the Seed value used in irand and drand.  Should be used
 * before *
 *       first call to irand or drand.
 *****/

void seed(long val)
{
#ifdef DEBUG
    printf("[%ld]DBG: Entering seed()...\n", (int) GetCurrentThreadId());
    printf("Old Seed %ld New Seed %ld\n",Seed, val);

```

```

#endif
    if ( val < 0 )
        val = abs(val);

    Seed = val;
}

/*****
 *
 * irand - returns a 32 bit integer pseudo random number with a period of
 * 1 to 2 ^ 32 - 1.
 *
 * parameters:
 *     none.
 *
 * returns:
 *     32 bit integer - defined as long ( see above ).
 *
 * side effects:
 *     seed get recomputed.
 *****/
long irand()
{
    register long    s;        /* copy of seed */
    register long    test;    /* test flag */
    register long    hi;      /* tmp value for speed */
    register long    lo;      /* tmp value for speed */

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

    s = Seed;
    hi = s / Q;
    lo = s % Q;

    test = A * lo - R * hi;
    if ( test > 0 )
        Seed = test;
    else
        Seed = test + M;

    return( Seed );
}

/*****
 *
 * drand - returns a double pseudo random number between 0.0 and 1.0.
 *     See irand.
 *****/
double drand()
{
#ifdef DEBUG
    printf("[%ld]DBG: Entering drand()...\n", (int) GetCurrentThreadId());
#endif

    return( (double)irand() / 2147483647.0);
}

//=====
// Function    : RandomNumber
//
// Description:
//=====
long RandomNumber(long lower, long upper)
{
    long rand_num;

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

    if ( upper == lower ) /* pgd 08-13-96 perf enhancement */
        return lower;

    upper++;

    if ( upper <= lower )
        rand_num = upper;
    else
        rand_num = lower + irand() % (upper - lower); /* pgd 08-13-
96 perf enhancement */

#ifdef DEBUG
    printf("[%ld]DBG: RandomNumber between %ld & %ld ==> %ld\n",
(int) GetCurrentThreadId(), lower, upper,
rand_num);
#endif

    return rand_num;
}

#if 0
//Original code pgd 08/13/96
long RandomNumber(long lower,
                    long upper)
{
    long rand_num;

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

    upper++;

    if ((upper <= lower))
        rand_num = upper;
    else

```

```

        rand_num = lower + irand() % ((upper > lower) ? upper -
lower : upper);

#ifdef DEBUG
    printf("[%ld]DBG: RandomNumber between %ld & %ld ==> %ld\n",
           (int) GetCurrentThreadId(), lower, upper,
rand_num);
#endif

    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[] =
"0123456789ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz";
    static int chArrayMax = 61;

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

```

```

    len= RandomNumber(x, y);
    for (i=0; i<len; i++)
    {
        cc = chArray[RandomNumber(0, chArrayMax)];
        str[i] = cc;
    }
    if ( len < z )
        memset(str+len, ' ', z - len);
    str[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 DEFLOADPACKSIZE 32768
#define LOADER_RES_FILE "logs\\load.out"
#define LOADER_NURAND_C 123
#define DEF_STARTING_WAREHOUSE 1
#define BUILD_INDEX 1 // build both
data and indexes
#define INDEX_ORDER 1 // build
indexes before load
#define SCALE_DOWN 0 // build a normal
scale database
#define INDEX_SCRIPT_PATH "scripts"
```

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



```

    long          index_order;
    long          scale_down;
    char          *index_script_path;
} 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

```

```

// Includes
#include "tpcc.h"
#include "search.h"

```

```

// Defines
#define MAXITEMS          100000
#define MAXITEMS_SCALE_DOWN 100
#define CUSTOMERS_PER_DISTRICT 3000
#define CUSTOMERS_SCALE_DOWN 30
#define DISTRICT_PER_WAREHOUSE 10
#define ORDERS_PER_DISTRICT 3000
#define ORDERS_SCALE_DOWN 30
#define MAX_CUSTOMER_THREADS 2
#define MAX_ORDER_THREADS 3
#define MAX_MAIN_THREADS 4

```

```

// Functions declarations

```

```

void HandleErrorDBC (SQLHDBC hdbc1);

```

```

void CheckSQL();
void CheckDataBase();

```

```

long NURand();
void LoadItem();
void LoadWarehouse();

```

```

void Stock();
void District();

```

```

void LoadCustomer();
void CustomerBufInit();
void CustomerBufLoad();
void LoadCustomerTable();
void LoadHistoryTable();

```

```

void LoadOrders();
void OrdersBufInit();
void OrdersBufLoad();
void LoadOrdersTable();
void LoadNewOrderTable();
void LoadOrderLineTable();
void GetPermutation();
void CheckForCommit();
void OpenConnections();

```

```

void BuildIndex();
void FormatDate ();

// Shared memory structures

typedef struct
{
    long            ol;
    long            ol_i_id;
    short           ol_supply_w_id;
    short           ol_quantity;
    double          ol_amount;
    char            ol_dist_info[DIST_INFO_LEN+1];
    char            ol_delivery_d[OL_DELIVERY_D_LEN+1];
} ORDER_LINE_STRUCT;

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

typedef struct
{
    long            c_id;
    short           c_d_id;
    short           c_w_id;
    char            c_first[FIRST_NAME_LEN+1];
    char            c_middle[MIDDLE_NAME_LEN+1];
    char            c_last[LAST_NAME_LEN+1];
    char            c_street_1[ADDRESS_LEN+1];
    char            c_street_2[ADDRESS_LEN+1];
    char            c_city[ADDRESS_LEN+1];
    char            c_state[STATE_LEN+1];
    char            c_zip[ZIP_LEN+1];
    char            c_phone[PHONE_LEN+1];
    char            c_credit[CREDIT_LEN+1];
    double          c_credit_lim;
    double          c_discount;
    // fix to avoid ODBC float to numeric conversion problem.
    // double          c_balance;
    char            c_balance[6];

    double          c_ytd_payment;
    short           c_payment_cnt;
    short           c_delivery_cnt;
    char            c_data[C_DATA_LEN+1];
    double          h_amount;
    char            h_data[H_DATA_LEN+1];
} CUSTOMER_STRUCT;

typedef struct
{
    char            c_last[LAST_NAME_LEN+1];
    char            c_first[FIRST_NAME_LEN+1];

```

```

    long            c_id;
} CUSTOMER_SORT_STRUCT;

typedef struct
{
    long            time_start;
} LOADER_TIME_STRUCT;

// Global variables

char            szLastError[300];
HENV            henv;

HDBC            v_hdbc; // for SQL Server
version verification
HDBC            i_hdbc1; // for ITEM table
HDBC            w_hdbc1; // for WAREHOUSE,
DISTRICT, STOCK
HDBC            c_hdbc1; // for CUSTOMER
HDBC            c_hdbc2; // for HISTORY
HDBC            o_hdbc1; // for ORDERS
HDBC            o_hdbc2; // for NEW-ORDER

HDBC            o_hdbc3; // for ORDER-LINE

HSTMT           v_hstmt; // for SQL Server
version verification
HSTMT           i_hstmt1;
HSTMT           w_hstmt1;
HSTMT           c_hstmt1, c_hstmt2;
HSTMT           o_hstmt1, o_hstmt2, o_hstmt3;

ORDERS_STRUCT  orders_buf[ORDERS_PER_DISTRICT];
CUSTOMER_STRUCT customer_buf[CUSTOMERS_PER_DISTRICT];
long            orders_rows_loaded;
long            new_order_rows_loaded;
long            order_line_rows_loaded;
long            history_rows_loaded;
long            customer_rows_loaded;
long            stock_rows_loaded;
long            district_rows_loaded;
long            item_rows_loaded;
long            warehouse_rows_loaded;
long            main_time_start;
long            main_time_end;
long            max_items;
long            customers_per_district;
long            orders_per_district;
long            first_new_order;
long            last_new_order;

TPCCLDR_ARGS    *aptr, args;

//=====
//
// Function name: main
//

```

```
//=====
int main(int argc, char **argv)
{
    DWORD          dwThreadID[MAX_MAIN_THREADS];
    HANDLE         hThread[MAX_MAIN_THREADS];
    FILE           *fLoader;
    char           buffer[255];
    int            i;

    for (i=0; i<MAX_MAIN_THREADS; i++)
        hThread[i] = NULL;

    printf("\n*****");
    printf("\n*                               *");
    printf("\n* Microsoft SQL Server           *");
    printf("\n*                               *");
    printf("\n* TPC-C BENCHMARK KIT: Database loader *");
    printf("\n* Version %s                      *",
TPCKIT_VER);
    printf("\n*                               *");
    printf("\n*****\n\n");
};

// process command line arguments

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

// verify database and tables exist before attempting to load
CheckDataBase();

printf("Build interface is ODBC.\n");

if (aptr->build_index == 0)
    printf("Data load only - no index creation.\n");
else
    printf("Data load and index creation.\n");

if (aptr->index_order == 0)
    printf("Clustered indexes will be created after bulk
load.\n");
else
    printf("Clustered indexes will be created before bulk
load.\n");

// set database scale values
if (aptr->scale_down == 1)
{
    printf("*** Scaled Down Database ***\n");
    max_items = MAXITEMS_SCALE_DOWN;
    customers_per_district = CUSTOMERS_SCALE_DOWN;
    orders_per_district = ORDERS_SCALE_DOWN;
    first_new_order = 0;
    last_new_order = 30;
}
else
{
    max_items = MAXITEMS;

```

```

customers_per_district = CUSTOMERS_PER_DISTRICT;
orders_per_district = ORDERS_PER_DISTRICT;
first_new_order = 2100;
last_new_order = 3000;
}

// open connections to SQL Server
OpenConnections();

// open file for loader results
fLoader = fopen(aptr->loader_res_file, "w");

if (fLoader == NULL)
{
    printf("Error, loader result file open failed.");
    exit(-1);
}

// start loading data
sprintf(buffer, "TPC-C load started for %ld warehouses.\n", aptr-
>num_warehouses);

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

main_time_start = (TimeNow() / MILLI);

// start parallel load threads

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

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

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

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

    hThread[1] = CreateThread(NULL,
                                0,

```

```

(LPTHREAD_START_ROUTINE) LoadWarehouse,
                                NULL,
                                0,
                                &dwThreadID[1]);
    if (hThread[1] == NULL)
    {
        printf("Error, failed in creating creating thread =
1.\n");
        exit(-1);
    }
    if (aptr->tables_all || aptr->table_customer)
    {
        fprintf(fLoader, "Starting loader threads for:
customer\n");
        hThread[2] = CreateThread(NULL,
                                0,
(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()
{
    short    w_id;
    char     w_name[W_NAME_LEN+1];
    char     w_street_1[ADDRESS_LEN+1];
    char     w_street_2[ADDRESS_LEN+1];
    char     w_city[ADDRESS_LEN+1];
    char     w_state[STATE_LEN+1];
    char     w_zip[ZIP_LEN+1];
    double   w_tax;
    double   w_ytd;
    char     name[20];
    long     time_start;
    RETCODE rc;
    DBINT    rcint;
    char     bcphint[128];

    // Seed with unique number
    seed(2);

    printf("Loading warehouse table...\n");

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

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

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

    rc = bcp_init(w_hdbc1, name, NULL, "logs\\whouse.err", DB_IN);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

```

```

    if ((aptr->build_index == 1) && (aptr->index_order == 1))
    {
        sprintf(bcphint, "tablock, order (w_id), ROWS_PER_BATCH =
%d", aptr->num_warehouses);
        rc = bcp_control(w_hdbc1, BCPHINTS, (void*) bcphint);
        if (rc != SUCCEED)
            HandleErrorDBC(w_hdbc1);
    }

    rc = bcp_bind(w_hdbc1, (BYTE *) &w_id, 0, SQL_VARLEN_DATA, NULL,
0, SQLINT2, 1);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    rc = bcp_bind(w_hdbc1, (BYTE *) w_name, 0, W_NAME_LEN, NULL, 0, 0,
2);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    rc = bcp_bind(w_hdbc1, (BYTE *) w_street_1, 0, ADDRESS_LEN, NULL,
0, 0, 3);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    rc = bcp_bind(w_hdbc1, (BYTE *) w_street_2, 0, ADDRESS_LEN, NULL,
0, 0, 4);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    rc = bcp_bind(w_hdbc1, (BYTE *) w_city, 0, ADDRESS_LEN, NULL, 0,
0, 5);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    rc = bcp_bind(w_hdbc1, (BYTE *) w_state, 0, STATE_LEN, NULL, 0, 0,
6);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    rc = bcp_bind(w_hdbc1, (BYTE *) w_zip, 0, ZIP_LEN, NULL, 0, 0, 7);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    rc = bcp_bind(w_hdbc1, (BYTE *) &w_tax, 0, SQL_VARLEN_DATA, NULL,
0, SQLFLT8, 8);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    rc = bcp_bind(w_hdbc1, (BYTE *) &w_ytd, 0, SQL_VARLEN_DATA, NULL,
0, SQLFLT8, 9);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    time_start = (TimeNow() / MILLI);

    warehouse_rows_loaded = 0;

    for (w_id = (short)aptr->starting_warehouse; w_id <= aptr-
>num_warehouses; w_id++)
    {
        MakeAlphaString(6,10, W_NAME_LEN, w_name);

```

```

        MakeAddress(w_street_1, w_street_2, w_city, w_state,
w_zip);

        w_tax = ((float) RandomNumber(0L,2000L))/10000.00;

        w_ytd = 300000.00;

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

        warehouse_rows_loaded++;
        CheckForCommit(w_hdbc1, i_hstmt1, warehouse_rows_loaded,
"warehouse", &time_start);
    }

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

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

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

    stock_rows_loaded = 0;
    district_rows_loaded = 0;

    District();
    Stock();
}

//=====
//
// Function   : District
//
//=====

void District()
{
    short    d_id;
    short    d_w_id;
    char     d_name[D_NAME_LEN+1];
    char     d_street_1[ADDRESS_LEN+1];
    char     d_street_2[ADDRESS_LEN+1];
    char     d_city[ADDRESS_LEN+1];
    char     d_state[STATE_LEN+1];
    char     d_zip[ZIP_LEN+1];
    double   d_tax;
    double   d_ytd;
    char     name[20];
    long     d_next_o_id;
    long     time_start;
    int      w_id;
    RETCODE rc;
    DBINT    rcint;
    char     bcphint[128];

```

```

// Seed with unique number
seed(4);

printf("Loading district table...\n");

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

InitString(d_name, D_NAME_LEN+1);
InitAddress(d_street_1, d_street_2, d_city, d_state, d_zip);
sprintf(name, "%s.%s", aptr->database, "district");

rc = bcp_init(w_hdbc1, name, NULL, "logs\\district.err", DB_IN);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

if ((aptr->build_index == 1) && (aptr->index_order == 1))
{
    sprintf(bcphint, "tablock, order (d_w_id, d_id),
ROWS_PER_BATCH = %u", (aptr->num_warehouses * 10));
    rc = bcp_control(w_hdbc1, BCPHINTS, (void*) bcphint);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);
}

rc = bcp_bind(w_hdbc1, (BYTE *) &d_id, 0, SQL_VARLEN_DATA, NULL,
0, SQLINT2, 1);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

rc = bcp_bind(w_hdbc1, (BYTE *) &d_w_id, 0, SQL_VARLEN_DATA, NULL,
0, SQLINT2, 2);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

rc = bcp_bind(w_hdbc1, (BYTE *) d_name, 0, D_NAME_LEN, NULL, 0, 0,
3);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

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

rc = bcp_bind(w_hdbc1, (BYTE *) d_street_2, 0, ADDRESS_LEN, NULL,
0, 0, 5);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

rc = bcp_bind(w_hdbc1, (BYTE *) d_city, 0, ADDRESS_LEN, NULL, 0,
0, 6);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

rc = bcp_bind(w_hdbc1, (BYTE *) d_state, 0, STATE_LEN, NULL, 0, 0,
7);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

```

```

rc = bcp_bind(w_hdbc1, (BYTE *) d_zip, 0, ZIP_LEN, NULL, 0, 0, 8);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

rc = bcp_bind(w_hdbc1, (BYTE *) &d_tax, 0, SQL_VARLEN_DATA, NULL,
0, SQLFLT8, 9);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

rc = bcp_bind(w_hdbc1, (BYTE *) &d_ytd, 0, SQL_VARLEN_DATA, NULL,
0, SQLFLT8, 10);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

rc = bcp_bind(w_hdbc1, (BYTE *) &d_next_o_id, 0, SQL_VARLEN_DATA,
NULL, 0, SQLINT4, 11);
if (rc != SUCCEED)
    HandleErrorDBC(w_hdbc1);

d_ytd = 30000.0;

d_next_o_id = orders_per_district+1;

time_start = (TimeNow() / MILLI);

for (w_id = aptr->starting_warehouse; w_id <= aptr-
>num_warehouses; w_id++)
{
    d_w_id = w_id;

    for (d_id = 1; d_id <= DISTRICT_PER_WAREHOUSE; d_id++)
    {
        MakeAlphaString(6,10,D_NAME_LEN, d_name);

        MakeAddress(d_street_1, d_street_2, d_city,
d_state, d_zip);

        d_tax = ((float) RandomNumber(0L,2000L))/10000.00;

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

        district_rows_loaded++;
        CheckForCommit(w_hdbc1, w_hstmt1,
district_rows_loaded, "district", &time_start);
    }
}

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

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

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

return;

```

```

}

//=====
//
// Function   : Stock
//
//=====

void Stock()
{
    long      s_i_id;
    short     s_w_id;
    short     s_quantity;
    char      s_dist_01[S_DIST_LEN+1];
    char      s_dist_02[S_DIST_LEN+1];
    char      s_dist_03[S_DIST_LEN+1];
    char      s_dist_04[S_DIST_LEN+1];
    char      s_dist_05[S_DIST_LEN+1];
    char      s_dist_06[S_DIST_LEN+1];
    char      s_dist_07[S_DIST_LEN+1];
    char      s_dist_08[S_DIST_LEN+1];
    char      s_dist_09[S_DIST_LEN+1];
    char      s_dist_10[S_DIST_LEN+1];
    long      s_ytd;
    short     s_order_cnt;
    short     s_remote_cnt;
    char      s_data[S_DATA_LEN+1];
    short     len;
    char      name[20];
    long      time_start;
    RETCODE rc;
    DBINT     rcint;
    char      bcphint[128];

    // Seed with unique number
    seed(3);

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

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

    rc = bcp_init(w_hdbc1, name, NULL, "logs\\stock.err", DB_IN);
    if (rc != SUCCEEDED)
        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 != SUCCEEDED)
            HandleErrorDBC(w_hdbc1);
    }

    rc = bcp_bind(w_hdbc1, (BYTE *) &s_i_id, 0, SQL_VARLEN_DATA, NULL,
0, SQLINT4, 1);
    if (rc != SUCCEEDED)
        HandleErrorDBC(w_hdbc1);

```

```

        bcp_bind(w_hdbc1, (BYTE *) &s_w_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT2, 2);
        if (rc != SUCCEEDED)
            HandleErrorDBC(w_hdbc1);

        rc = bcp_bind(w_hdbc1, (BYTE *) &s_quantity, 0, SQL_VARLEN_DATA,
NULL, 0, SQLINT2, 3);
        if (rc != SUCCEEDED)
            HandleErrorDBC(w_hdbc1);

        rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_01, 0, S_DIST_LEN, NULL, 0,
0, 4);
        if (rc != SUCCEEDED)
            HandleErrorDBC(w_hdbc1);

        rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_02, 0, S_DIST_LEN, NULL, 0,
0, 5);
        if (rc != SUCCEEDED)
            HandleErrorDBC(w_hdbc1);

        rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_03, 0, S_DIST_LEN, NULL, 0,
0, 6);
        if (rc != SUCCEEDED)
            HandleErrorDBC(w_hdbc1);

        rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_04, 0, S_DIST_LEN, NULL, 0,
0, 7);
        if (rc != SUCCEEDED)
            HandleErrorDBC(w_hdbc1);

        rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_05, 0, S_DIST_LEN, NULL, 0,
0, 8);
        if (rc != SUCCEEDED)
            HandleErrorDBC(w_hdbc1);

        rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_06, 0, S_DIST_LEN, NULL, 0,
0, 9);
        if (rc != SUCCEEDED)
            HandleErrorDBC(w_hdbc1);

        rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_07, 0, S_DIST_LEN, NULL, 0,
0, 10);
        if (rc != SUCCEEDED)
            HandleErrorDBC(w_hdbc1);

        rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_08, 0, S_DIST_LEN, NULL, 0,
0, 11);
        if (rc != SUCCEEDED)
            HandleErrorDBC(w_hdbc1);

        rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_09, 0, S_DIST_LEN, NULL, 0,
0, 12);
        if (rc != SUCCEEDED)
            HandleErrorDBC(w_hdbc1);

        rc = bcp_bind(w_hdbc1, (BYTE *) s_dist_10, 0, S_DIST_LEN, NULL, 0,
0, 13);
        if (rc != SUCCEEDED)
            HandleErrorDBC(w_hdbc1);

```



```

    rc = bcp_bind(w_hdbc1, (BYTE *) &s_ytd, 0, SQL_VARLEN_DATA, NULL,
0, SQLINT4, 14);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    rc = bcp_bind(w_hdbc1, (BYTE *) &s_order_cnt, 0, SQL_VARLEN_DATA,
NULL, 0, SQLINT2, 15);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    rc = bcp_bind(w_hdbc1, (BYTE *) &s_remote_cnt, 0, SQL_VARLEN_DATA,
NULL, 0, SQLINT2, 16);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    rc = bcp_bind(w_hdbc1, (BYTE *) s_data, 0, S_DATA_LEN, NULL, 0, 0,
17);
    if (rc != SUCCEED)
        HandleErrorDBC(w_hdbc1);

    s_ytd = s_order_cnt = s_remote_cnt = 0;

    time_start = (TimeNow() / MILLI);

    printf("...Loading stock table\n");

    for (s_i_id=1; s_i_id <= max_items; s_i_id++)
    {
        for (s_w_id = (short)aptr->starting_warehouse; s_w_id <=
aptr->num_warehouses; s_w_id++)
        {
            s_quantity = (short)RandomNumber(10L,100L);
            len = MakeAlphaString(24,24,S_DIST_LEN, s_dist_01);
            len = MakeAlphaString(24,24,S_DIST_LEN, s_dist_02);
            len = MakeAlphaString(24,24,S_DIST_LEN, s_dist_03);
            len = MakeAlphaString(24,24,S_DIST_LEN, s_dist_04);
            len = MakeAlphaString(24,24,S_DIST_LEN, s_dist_05);
            len = MakeAlphaString(24,24,S_DIST_LEN, s_dist_06);
            len = MakeAlphaString(24,24,S_DIST_LEN, s_dist_07);
            len = MakeAlphaString(24,24,S_DIST_LEN, s_dist_08);
            len = MakeAlphaString(24,24,S_DIST_LEN, s_dist_09);
            len = MakeAlphaString(24,24,S_DIST_LEN, s_dist_10);

            len = MakeOriginalAlphaString(26,50, S_DATA_LEN,
s_data,10);

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

            stock_rows_loaded++;
            CheckForCommit(w_hdbc1, w_hstmt1,
stock_rows_loaded, "stock", &time_start);
        }
    }

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

```

```

        HandleErrorDBC(w_hdbc1);

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

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

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

    return;
}

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

void LoadCustomer()
{
    LOADER_TIME_STRUCT customer_time_start;
    LOADER_TIME_STRUCT history_time_start;
    short w_id;
    short d_id;
    DWORD dwThreadID[MAX_CUSTOMER_THREADS];
    HANDLE hThread[MAX_CUSTOMER_THREADS];
    char name[20];
    RETCODE rc;
    DBINT rcint;
    char bcphint[128];
    char cmd[256];
    // SQLRETURN rc_1;
    // SQLSMALLINT recnum, MsgLen;
    // SQLCHAR SqlState[6],
    Msg[SQL_MAX_MESSAGE_LENGTH];
    // SQLINTEGER NativeError;

    // Seed with unique number
    seed(5);

    printf("Loading customer and history tables...\n");

    // if build index before load...
    if ((aptr->build_index == 1) && (aptr->index_order == 1))
    {
        BuildIndex("idxcuscl");
        BuildIndex("idxhiscl"); // added history clustered index
        // 9/10/2001
    }

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

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

```

```

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

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

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

//    sprintf(bcphint, "tablock");
//    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 != SUCCEEDED)
    HandleErrorDBC(c_hdbc2);

customer_rows_loaded    = 0;
history_rows_loaded    = 0;

CustomerBufInit();

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

for (w_id = (short)aptr->starting_warehouse; w_id <= aptr-
>num_warehouses; w_id++)
{
    for (d_id = 1; d_id <= DISTRICT_PER_WAREHOUSE; d_id++)
    {
        CustomerBufLoad(d_id, w_id);

        // Start parallel loading threads here...

        // Start customer table thread

        printf("...Loading customer table for: d_id = %d,
w_id = %d\n", d_id, w_id);

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

        if (hThread[0] == NULL)
        {

```

```

        printf("Error, failed in creating creating
thread = 0.\n");
        exit(-1);
        }
        // Start History table thread

        printf("...Loading history table for: d_id = %d,
w_id = %d\n", d_id, w_id);

        hThread[1] = CreateThread(NULL,
0,
(LPTHREAD_START_ROUTINE) LoadHistoryTable,
&history_time_start,
0,
&dwThreadID[1]);

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

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

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

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

        }

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

        rcint = bcp_done(c_hdbc2);
        if (rcint < 0)
            HandleErrorDBC(c_hdbc2);

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

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

```

```

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

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

system(cmd);

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

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

return;
}

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

void CustomerBufInit()
{
    int i;

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

        strcpy(customer_buf[i].c_first,"");
        strcpy(customer_buf[i].c_middle,"");
        strcpy(customer_buf[i].c_last,"");
        strcpy(customer_buf[i].c_street_1,"");
        strcpy(customer_buf[i].c_street_2,"");
        strcpy(customer_buf[i].c_city,"");
        strcpy(customer_buf[i].c_state,"");
        strcpy(customer_buf[i].c_zip,"");
        strcpy(customer_buf[i].c_phone,"");
        strcpy(customer_buf[i].c_credit,"");

        customer_buf[i].c_credit_lim = 0;

```

```

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

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

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

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

customer_buf[i].h_amount = 0;

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

    }
}

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

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

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

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

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

    printf("...Loading customer buffer for: d_id = %d, w_id = %d\n",
        d_id, w_id);

    for (i=0;i<customers_per_district;i++)
    {
        customer_buf[i].c_d_id = d_id;
        customer_buf[i].c_w_id = w_id;
        customer_buf[i].h_amount = 10.0;

        customer_buf[i].c_ytd_payment = 10.0;

```

```

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

// Generate CUSTOMER and HISTORY data

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

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

customer_buf[i].c_middle[0] = 'O';
customer_buf[i].c_middle[1] = 'E';

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

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

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

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

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

// customer_buf[i].c_balance = -10.0;
strcpy(customer_buf[i].c_balance, "-10.0");

MakeAlphaString(300, 500, C_DATA_LEN,
customer_buf[i].c_data);

// Generate HISTORY data
MakeAlphaString(12, 24, H_DATA_LEN,
customer_buf[i].h_data);
}

//=====
//
// Function : LoadCustomerTable
//
//=====

void LoadCustomerTable(LOADER_TIME_STRUCT *customer_time_start)
{
    int i;
    long c_id;
    short c_d_id;
    short c_w_id;
    char c_first[FIRST_NAME_LEN+1];
    char c_middle[MIDDLE_NAME_LEN+1];

```

```

char c_last[LAST_NAME_LEN+1];
char c_street_1[ADDRESS_LEN+1];
char c_street_2[ADDRESS_LEN+1];
char c_city[ADDRESS_LEN+1];
char c_state[STATE_LEN+1];
char c_zip[ZIP_LEN+1];
char c_phone[PHONE_LEN+1];
char c_credit[CREDIT_LEN+1];
double c_credit_lim;
double c_discount;

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

// double c_balance;
char c_balance[6];

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

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

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

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

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

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

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

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

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

```

```

        HandleErrorDBC(c_hdbc1);

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

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

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

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

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

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

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

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

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

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

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

    rc = bcp_bind(c_hdbc1, (BYTE *) &c_payment_cnt, 0, SQL_VARLEN_DATA,
NULL, 0, SQLINT2, 19);

```

```

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

    rc = bcp_bind(c_hdbc1, (BYTE *) &c_delivery_cnt, 0, SQL_VARLEN_DATA,
NULL, 0, SQLINT2, 20);
    if (rc != SUCCEEDED)
        HandleErrorDBC(c_hdbc1);

    rc = bcp_bind(c_hdbc1, (BYTE *) c_data, 0, 500, NULL, 0, 0, 21);
    if (rc != SUCCEEDED)
        HandleErrorDBC(c_hdbc1);

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

        strcpy(c_first, customer_buf[i].c_first);
        strcpy(c_middle, customer_buf[i].c_middle);
        strcpy(c_last, customer_buf[i].c_last);
        strcpy(c_street_1, customer_buf[i].c_street_1);
        strcpy(c_street_2, customer_buf[i].c_street_2);
        strcpy(c_city, customer_buf[i].c_city);
        strcpy(c_state, customer_buf[i].c_state);
        strcpy(c_zip, customer_buf[i].c_zip);
        strcpy(c_phone, customer_buf[i].c_phone);
        strcpy(c_credit, customer_buf[i].c_credit);

        FormatDate(&c_since);

        c_credit_lim = customer_buf[i].c_credit_lim;
        c_discount = customer_buf[i].c_discount;

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

        // c_balance = customer_buf[i].c_balance;
        strcpy(c_balance, customer_buf[i].c_balance);

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

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

        // Send data to server
        rc = bcp_sendrow(c_hdbc1);
        if (rc != SUCCEEDED)
            HandleErrorDBC(c_hdbc1);

        customer_rows_loaded++;
        CheckForCommit(c_hdbc1, c_hstmt1, customer_rows_loaded,
"customer", &customer_time_start->time_start);
    }
}

//=====
//
// Function : LoadHistoryTable

```

```

//
//=====
void LoadHistoryTable(LOADER_TIME_STRUCT *history_time_start)
{
    int            i;
    long           c_id;
    short          c_d_id;
    short          c_w_id;
    double         h_amount;
    char           h_data[H_DATA_LEN+1];
    char           h_date[H_DATE_LEN+1];
    RETCODE        rc;

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

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

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

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

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

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

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

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

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

```

```

        FormatDate(&h_date);

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

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

//=====
//
// Function   : LoadOrders
//
//=====

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

    // seed with unique number
    seed(6);

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

    // if build index before load...
    if ((aptr->build_index == 1) && (aptr->index_order == 1))
    {
        BuildIndex("idxordcl");
        BuildIndex("idxnodcl");
        BuildIndex("idxodlcl");
    }

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

    rc = bcp_init(o_hdbc1, name, NULL, "logs\\orders.err", DB_IN);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc1);

    if ((aptr->build_index == 1) && (aptr->index_order == 1))
    {
        sprintf(bcphint, "tablock, order (o_w_id, o_d_id, o_id),
ROWS_PER_BATCH = %u", (aptr->num_warehouses * 30000));
        rc = bcp_control(o_hdbc1, BCPHINTS, (void*) bcphint);
        if (rc != SUCCEED)
            HandleErrorDBC(o_hdbc1);

```

```

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

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

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

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

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

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

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

OrdersBufInit();

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

for (w_id = (short)aptr->starting_warehouse; w_id <= aptr-
>num_warehouses; w_id++)
{
    for (d_id = 1; d_id <= DISTRICT_PER_WAREHOUSE; d_id++)
    {
        OrdersBufLoad(d_id, w_id);

        // start parallel loading threads here...

        // start Orders table thread

printf("...Loading Order Table for: d_id = %d, w_id
= %d\n", d_id, w_id);

        hThread[0] = CreateThread(NULL,
0,

```

```

(LPTHREAD_START_ROUTINE) LoadOrdersTable,
&orders_time_start,
0,
&dwThreadID[0]);

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

        // start NewOrder table thread

        printf("...Loading New-Order Table for: d_id = %d,
w_id = %d\n", d_id, w_id);

        hThread[1] = CreateThread(NULL,
0,
(LPTHREAD_START_ROUTINE) LoadNewOrderTable,
&new_order_time_start,
0,
&dwThreadID[1]);

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

        // start Order-Line table thread

        printf("...Loading Order-Line Table for: d_id = %d,
w_id = %d\n", d_id, w_id);

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

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

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

```

```

        WaitForSingleObject( hThread[2], INFINITE );
        if (CloseHandle(hThread[0]) == FALSE)
        {
            printf("Error, failed in closing Orders
thread handle with errno: %d\n", GetLastError());
        }

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

        if (CloseHandle(hThread[2]) == FALSE)
        {
            printf("Error, failed in closing OrderLine
thread handle with errno: %d\n", GetLastError());
        }
    }

    printf("Finished loading orders.\n");

    return;
}

//=====
//
// Function   : OrdersBufInit
//
// Clears shared buffer for ORDERS, NEWORDER, and ORDERLINE
//
//=====
void OrdersBufInit()
{
    int    i;
    int    j;

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

        for (j=0;j<=14;j++)
        {
            orders_buf[i].o_ol[j].ol = 0;
            orders_buf[i].o_ol[j].ol_i_id = 0;
            orders_buf[i].o_ol[j].ol_supply_w_id = 0;
            orders_buf[i].o_ol[j].ol_quantity = 0;
            orders_buf[i].o_ol[j].ol_amount = 0;
            strcpy(orders_buf[i].o_ol[j].ol_dist_info,"");

```

```

    }
}

//=====
//
// Function   : OrdersBufLoad
//
// Fills shared buffer for ORDERS, NEWORDER, and ORDERLINE
//
//=====
void OrdersBufLoad(int d_id, int w_id)
{
    int    cust[ORDERS_PER_DISTRICT+1];
    long   o_id;
    short  ol;

    printf("...Loading Order Buffer for: d_id = %d, w_id = %d\n",
        d_id, w_id);

    GetPermutation(cust, orders_per_district);

    for (o_id=0;o_id<orders_per_district;o_id++)
    {
        // Generate ORDER and NEW-ORDER data

        orders_buf[o_id].o_d_id = d_id;
        orders_buf[o_id].o_w_id = w_id;
        orders_buf[o_id].o_id = o_id+1;
        orders_buf[o_id].o_c_id = cust[o_id+1];
        orders_buf[o_id].o_ol_cnt = (short)RandomNumber(5L, 15L);

        if (o_id < first_new_order)
        {
            orders_buf[o_id].o_carrier_id =
(short)RandomNumber(1L, 10L);
            orders_buf[o_id].o_all_local = 1;
        }
        else
        {
            orders_buf[o_id].o_carrier_id = 0;
            orders_buf[o_id].o_all_local = 1;
        }

        for (ol=0; ol<orders_buf[o_id].o_ol_cnt; ol++)
        {
            orders_buf[o_id].o_ol[ol].ol = ol+1;
            orders_buf[o_id].o_ol[ol].ol_i_id =
RandomNumber(1L, max_items);
            orders_buf[o_id].o_ol[ol].ol_supply_w_id = w_id;
            orders_buf[o_id].o_ol[ol].ol_quantity = 5;
            MakeAlphaString(24, 24, OL_DIST_INFO_LEN,
&orders_buf[o_id].o_ol[ol].ol_dist_info);

```



```

        // Generate ORDER-LINE data
        if (o_id < first_new_order)
        {
            orders_buf[o_id].o_ol[ol].ol_amount = 0;
            // Added to insure ol_delivery_d set
properly during load

            FormatDate(&orders_buf[o_id].o_ol[ol].ol_delivery_d);

        }
        else
        {
            orders_buf[o_id].o_ol[ol].ol_amount =
RandomNumber(1,999999)/100.0;
            // Added to insure ol_delivery_d set
properly during load

            // odbc datetime format

            strcpy(orders_buf[o_id].o_ol[ol].ol_delivery_d,"1899-12-31
00:00:00.000");
        }
    }
}

//=====
//
// Function   : LoadOrdersTable
//
//=====

void LoadOrdersTable(LOADER_TIME_STRUCT *orders_time_start)
{
    int         i;
    long        o_id;
    short       o_d_id;
    short       o_w_id;
    long        o_c_id;
    short       o_carrier_id;
    short       o_ol_cnt;
    short       o_all_local;
    char        o_entry_d[O_ENTRY_D_LEN+1];
    RETCODE     rc;
    DBINT       rcint;

    // bind ORDER data
    rc = bcp_bind(o_hdbc1, (BYTE *) &o_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT4, 1);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc1);

    rc = bcp_bind(o_hdbc1, (BYTE *) &o_d_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT2, 2);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc1);

```

```

        rc = bcp_bind(o_hdbc1, (BYTE *) &o_w_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT2, 3);
        if (rc != SUCCEED)
            HandleErrorDBC(o_hdbc1);

        rc = bcp_bind(o_hdbc1, (BYTE *) &o_c_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT4, 4);
        if (rc != SUCCEED)
            HandleErrorDBC(o_hdbc1);

        rc = bcp_bind(o_hdbc1, (BYTE *) &o_entry_d, 0, O_ENTRY_D_LEN,
NULL, 0, SQLCHARACTER, 5);
        if (rc != SUCCEED)
            HandleErrorDBC(o_hdbc1);

        rc = bcp_bind(o_hdbc1, (BYTE *) &o_carrier_id, 0, SQL_VARLEN_DATA,
NULL, 0, SQLINT2, 6);
        if (rc != SUCCEED)
            HandleErrorDBC(o_hdbc1);

        rc = bcp_bind(o_hdbc1, (BYTE *) &o_ol_cnt, 0, SQL_VARLEN_DATA, NULL,
0, SQLINT2, 7);
        if (rc != SUCCEED)
            HandleErrorDBC(o_hdbc1);

        rc = bcp_bind(o_hdbc1, (BYTE *) &o_all_local, 0, SQL_VARLEN_DATA,
NULL, 0, SQLINT2, 8);
        if (rc != SUCCEED)
            HandleErrorDBC(o_hdbc1);

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

        FormatDate(&o_entry_d);

        // send data to server
        rc = bcp_sendrow(o_hdbc1);
        if (rc != SUCCEED)
            HandleErrorDBC(o_hdbc1);

        orders_rows_loaded++;
        CheckForCommit(o_hdbc1, o_hstmt1, orders_rows_loaded,
"orders", &orders_time_start->time_start);
    }

    // rcint = bcp_batch(o_hdbc1);
    // if (rcint < 0)
    //     HandleErrorDBC(o_hdbc1);

    if ((o_w_id == aptr->num_warehouses) && (o_d_id == 10))
    {
        rcint = bcp_done(o_hdbc1);
        if (rcint < 0)
            HandleErrorDBC(o_hdbc1);
    }

```

```

SQLFreeStmt(o_hstmt1, SQL_DROP);
SQLDisconnect(o_hdbc1);
SQLFreeConnect(o_hdbc1);

// if build index after load...
if ((aptr->build_index == 1) && (aptr->index_order == 0))
    BuildIndex("idxordc1");

// build non-clustered index
if (aptr->build_index == 1)
    BuildIndex("idxordnc");
// No Non Clustered index on orders
}

}

//=====
//
// Function   : LoadNewOrderTable
//
//=====

void LoadNewOrderTable(LOADER_TIME_STRUCT *new_order_time_start)
{
    int         i;
    long        o_id;
    short       o_d_id;
    short       o_w_id;
    RETCODE     rc;
    DBINT       rcint;

    // Bind NEW-ORDER data

    rc = bcp_bind(o_hdbc2, (BYTE *) &o_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT4, 1);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc2);

    rc = bcp_bind(o_hdbc2, (BYTE *) &o_d_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT2, 2);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc2);

    rc = bcp_bind(o_hdbc2, (BYTE *) &o_w_id, 0, SQL_VARLEN_DATA, NULL, 0,
SQLINT2, 3);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc2);

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

        rc = bcp_sendrow(o_hdbc2);
        if (rc != SUCCEED)
            HandleErrorDBC(o_hdbc2);

        new_order_rows_loaded++;
    }
}

```

```

        CheckForCommit(o_hdbc2, o_hstmt2, new_order_rows_loaded,
"new_order", &new_order_time_start->time_start);
    }

    // rcint = bcp_batch(o_hdbc2);
    // if (rcint < 0)
    //     HandleErrorDBC(o_hdbc2);

    if ((o_w_id == aptr->num_warehouses) && (o_d_id == 10))
    {
        rcint = bcp_done(o_hdbc2);
        if (rcint < 0)
            HandleErrorDBC(o_hdbc2);

        SQLFreeStmt(o_hstmt2, SQL_DROP);
        SQLDisconnect(o_hdbc2);
        SQLFreeConnect(o_hdbc2);

        // if build index after load...
        if ((aptr->build_index == 1) && (aptr->index_order == 0))
            BuildIndex("idxnodc1");
    }
}

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

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

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

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

```

```

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

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

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

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

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

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

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

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

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

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

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

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

```

```

        rc = bcp_sendrow(o_hdbc3);
        if (rc != SUCCEED)
            HandleErrorDBC(o_hdbc3);

        order_line_rows_loaded++;
        CheckForCommit(o_hdbc3, o_hstmt3,
order_line_rows_loaded, "order_line", &order_line_time_start->time_start);
    }

    // rcint = bcp_batch(o_hdbc3);
    // if (rcint < 0)
    //     HandleErrorDBC(o_hdbc3);

    if ((o_w_id == aptr->num_warehouses) && (o_d_id == 10))
    {
        rcint = bcp_done(o_hdbc3);
        if (rcint < 0)
            HandleErrorDBC(o_hdbc3);

        SQLFreeStmt(o_hstmt3, SQL_DROP);
        SQLDisconnect(o_hdbc3);
        SQLFreeConnect(o_hdbc3);

        // if build index after load...
        if ((aptr->build_index == 1) && (aptr->index_order == 0))
            BuildIndex("idxodlcl1");
    }
}

//=====
//
// Function   : GetPermutation
//
//=====
void GetPermutation(int perm[], int n)
{
    int i, r, t;

    for (i=1;i<=n;i++)
        perm[i] = i;

    for (i=1;i<=n;i++)
    {
        r = RandomNumber(i,n);
        t = perm[i];
        perm[i] = perm[r];
        perm[r] = t;
    }
}

//=====
//
// Function   : CheckForCommit

```

```

//
//=====
void CheckForCommit(HDBC hdbc,
                   HSTMT hstmt,
                   int rows_loaded,
                   char *table_name,
                   long *time_start)
{
    long    time_end, time_diff;
    // DBINT    rcint;

    if ( !(rows_loaded % aptr->batch) )
    {
        // rcint = bcp_batch(hdbc);
        // if (rcint < 0)
        //     HandleErrorDBC(hdbc);

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

        printf("-> Loaded %ld rows into %s in %ld sec - Total = %d
(%0.2f rps)\n",
              aptr->batch,
              table_name,
              time_diff,
              rows_loaded,
              (float) aptr->batch / (time_diff ? time_diff
: 1L));

        *time_start = time_end;
    }

    return;
}

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

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

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

    SQLAllocHandle(SQL_HANDLE_DBC, henv , &i_hdbc1);

```

```

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

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

// Open connections to SQL Server

// Connection 1

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

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

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

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

// Connection 2

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

```

```

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

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

    // Connection 3

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

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

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

    // Connection 4

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

    rc = SQLSetConnectOption (c_hdbc2, SQL_PACKET_SIZE, aptr-
>pack_size);
    if (rc != SUCCEED)

```

```

        HandleErrorDBC(c_hdbc2);

    rc = SQLDriverConnect ( c_hdbc2,
                            NULL,
                            (SQLCHAR*)&szDriverString[0] ,
                            SQL_NTS,
                            (SQLCHAR*)&szDriverStringOut[0],
                            sizeof(szDriverStringOut),
                            &cbDriverStringOut,
                            SQL_DRIVER_NOPROMPT
    );
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc2);

    // Connection 5

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

    rc = SQLSetConnectOption (o_hdbc1, SQL_PACKET_SIZE, aptr-
>pack_size);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc1);

    rc = SQLDriverConnect ( o_hdbc1,
                            NULL,
                            (SQLCHAR*)&szDriverString[0] ,
                            SQL_NTS,
                            (SQLCHAR*)&szDriverStringOut[0],
                            sizeof(szDriverStringOut),
                            &cbDriverStringOut,
                            SQL_DRIVER_NOPROMPT
    );
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc1);

    // Connection 6

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

    rc = SQLSetConnectOption (o_hdbc2, SQL_PACKET_SIZE, aptr-
>pack_size);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc2);

    rc = SQLDriverConnect ( o_hdbc2,

```

```

        NULL,
        (SQLCHAR*)&szDriverString[0] ,
        SQL_NTS,
        (SQLCHAR*)&szDriverStringOut[0],
        sizeof(szDriverStringOut),
        &cbDriverStringOut,
        SQL_DRIVER_NOPROMPT
);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc2);

    // Connection 7

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

    rc = SQLSetConnectOption (o_hdbc3, SQL_PACKET_SIZE, aptr-
>pack_size);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc3);

    rc = SQLDriverConnect ( o_hdbc3,
        NULL,
        (SQLCHAR*)&szDriverString[0] ,
        SQL_NTS,
        (SQLCHAR*)&szDriverStringOut[0],
        sizeof(szDriverStringOut),
        &cbDriverStringOut,
        SQL_DRIVER_NOPROMPT
);
    if (rc != SUCCEED)
        HandleErrorDBC(o_hdbc3);
}

//=====
//
// Function name: BuildIndex
//
//=====

void BuildIndex(char *index_script)
{
    char cmd[256];

    printf("Starting index creation: %s\n",index_script);

    sprintf(cmd, "isql -S%s -U%s -P%s -e -i%s\\%s.sql > logs\\%s.log",
        aptr->server,
        aptr->user,
        aptr->password,

```

```

        aptr->index_script_path,
        index_script,
        index_script);

    system(cmd);

    printf("Finished index creation: %s\n",index_script);
}

void HandleErrorDBC (SQLHDBC hdbc1)
{
    SQLCHAR SqlState[6], Msg[SQL_MAX_MESSAGE_LENGTH];
    SQLINTEGER NativeError;
    SQLSMALLINT i, MsgLen;
    SQLRETURN rc2;
    char timebuf[128];
    char datebuf[128];
    FILE *fp1;

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

        printf( "[%s : %s] %s\n" , datebuf, timebuf, szLastError);

        fp1 = fopen("logs\\tpccldr.err","w");
        if (fp1 == NULL)
            printf("ERROR: Unable to open errorlog file.\n");
        else
        {
            fprintf(fp1, "[%s : %s] %s\n" , datebuf, timebuf,
szLastError);
            fclose(fp1);
        }

        i++;
    }
}

void HandleErrorSTMT (HSTMT hstmt1)
{
    SQLCHAR SqlState[6], Msg[SQL_MAX_MESSAGE_LENGTH];
    SQLINTEGER NativeError;
    SQLSMALLINT i, MsgLen;
    SQLRETURN rc2;
    char timebuf[128];
    char datebuf[128];
    FILE *fp1;

```

```

        i = 1;
        while (( rc2 = SQLGetDiagRec(SQL_HANDLE_STMT , hstmt1, i, SqlState
, &NativeError,
                                Msg, sizeof(Msg) , &MsgLen )) !=
SQL_NO_DATA )
        {
            sprintf( szLastError , "%s" , Msg );
            _strtime(timebuf);
            _strdate(datebuf);
            printf( "[%s : %s] %s\n" , datebuf, timebuf, szLastError);
            fp1 = fopen("logs\\tpccldr.err","w");
            if (fp1 == NULL)
                printf("ERROR: Unable to open errorlog file.\n");
            else
            {
                fprintf(fp1, "[%s : %s] %s\n" , datebuf, timebuf,
szLastError);
                fclose(fp1);
            }
            i++;
        }
}

```

```

void FormatDate ( char* szTimeCOutput )
{

```

```

    struct tm when;
    time_t now;

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

    mktime( &when );

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

    return;
}

```

```

//=====
//
// Function   : CheckDataBase
//
//=====

```

```

void CheckDataBase()
{

```

```

    RETCODE          rc;

    char              szDriverString[300];
    char              szDriverStringOut[1024];

```

```

char                TablesBitMap[9] = {"000000000"};
int                 i, ExitFlag;

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

ExitFlag = 0;

SQLAllocHandle(SQL_HANDLE_ENV, SQL_NULL_HANDLE, &henv );

SQLSetEnvAttr(henv, SQL_ATTR_ODBC_VERSION, (void*)SQL_OV_ODBC3, 0
);

SQLAllocHandle(SQL_HANDLE_DBC, henv , &v_hdbc);

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

// Open connection to SQL Server

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

rc = SQLSetConnectAttr( v_hdbc, SQL_ATTR_PACKET_SIZE,
(SQLPOINTER)aptr->pack_size, SQL_IS_UINTEGER );
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 which enables recovery to proceed smoothly.

SQL Server Stack Size

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

```
editbin /S: 196608 sqlservr.exe
```

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

BOOT.INI

```
[boot loader]
timeout=30
default=multi(0)disk(0)rdisk(0)partition(1)\WINDOWS
[operating systems]
multi(0)disk(0)rdisk(0)partition(1)\WINDOWS=".NET 3694, 3687 HAL, clstr"
/fastdetect /hb=0 /pae /clstr=f7f6f5f4f3f2f1e0
multi(0)disk(0)rdisk(0)partition(1)\WINDOWS="Microsoft Windows .NET Server
2003, Datacenter Edition" /fastdetect
```

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

The /clstr= f7f6f5f4f3f2f1e0 switch was added to bind interrupts from an IO module (DIB) to a specific 4-processor group.

User Rights Assignment

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

Microsoft SQL Server Configuration Parameters

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

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

Oct 27 2002 1:05:12:090AM

(1 row affected)

1> 2> 3>
select @@version

Microsoft SQL Server 2000 - 8.00.731 (Intel X86)
Oct 23 2002 16:59:47
Cop
yright (c) 1988-2002 Microsoft Corporation
Enterprise Edition on Windo
ws NT 5.2 (Build 3694:)

(1 row affected)

1> 2>
1> 2> 3> 4> 5> 6> 7> 8> 9> 10>
-- File: CONFIG.SQL
-- Microsoft TPC-C Benchmark Kit Ver. 4.21
-- Copyright Microsoft, 1999, 2000
-- Purpose: Collects SQL Server configuration parameters

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

Oct 27 2002 1:05:14:060AM

(1 row affected)

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

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

| name | minimum | maximum | config_value | run_value |
|---------------|------------|---------|--------------|-----------|
| affinity mask | | | | |
| 2147483648 | 2147483647 | | -1 | -1 |

| | | | | |
|--------------------------------|------|------------|-------|-------|
| allow updates | 0 | 1 | 0 | 0 |
| awe enabled | 0 | 1 | 1 | 1 |
| c2 audit mode | 0 | 1 | 0 | 0 |
| cost threshold for parallelism | 0 | 32767 | 5 | 5 |
| Cross DB Ownership Chaining | 0 | 1 | 0 | 0 |
| cursor threshold | -1 | 2147483647 | -1 | -1 |
| default full-text language | 0 | 2147483647 | 1033 | 1033 |
| default language | 0 | 9999 | 0 | 0 |
| fill factor (%) | 0 | 100 | 0 | 0 |
| index create memory (KB) | 704 | 2147483647 | 0 | 0 |
| lightweight pooling | 0 | 1 | 1 | 1 |
| locks | 5000 | 2147483647 | 0 | 0 |
| max degree of parallelism | 0 | 32 | 1 | 1 |
| max server memory (MB) | 4 | 2147483647 | 63300 | 63300 |
| max text repl size (B) | 0 | 2147483647 | 65536 | 65536 |
| max worker threads | 32 | 32767 | 640 | 640 |
| media retention | 0 | 365 | 0 | 0 |
| min memory per query (KB) | 512 | 2147483647 | 512 | 512 |
| min server memory (MB) | 0 | 2147483647 | 0 | 0 |
| nested triggers | 0 | 1 | 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

1>

```

ESM7900 Storage Configuration Information

Log and Database DPE-Cache Configuration

```

A:\>"c:\program files\emc\navisphere cli\navicli" -h 10.10.10.3 getcache
SP Read Cache State Disabled
SP Write Cache State Enabled
Cache Page size: 16
Write Cache Mirrored: YES
Low Watermark: 15
High Watermark: 85
SPA Cache pages: 46998
SPB Cache pages: 0
Unassigned Cache Pages: 0
Read Hit Ratio: 0
Write Hit Ratio: 0
Prct Dirty Cache Pages = 0
Prct Cache Pages Owned = 0
SPA Read Cache State Disabled
SPB Read Cache State Disabled
SPA Write Cache State Enabled
SPB Write Cache State Enabled
System Buffer (spA): 22 MB
System Buffer (spB): 22 MB
SPS Test Day: Saturday
SPS Test Time: 17:00
SPA Physical Memory Size = 904
SPB Physical Memory Size = 904
Physical memory size of Front-End = Switch not supported
Physical memory size of Back-End = Switch not supported
SPA Free Memory Size = 0
SPB Free Memory Size = 0
Free Memory Size of Front-End = Switch not supported
Free Memory Size of Back-End = Switch not supported
SPA Read Cache Size = 0
SPB Read Cache Size = 0
SPA Write Cache Size = 882

```

```

SPB Write Cache Size = 882
SPA Optimized Raid 3 Memory Size = 0
SPB Optimized Raid 3 Memory Size = 0

```

```

A:\>"c:\program files\emc\navisphere cli\navicli" -h 10.10.10.4 getcache
SP Read Cache State Disabled
SP Write Cache State Enabled
Cache Page size: 16
Write Cache Mirrored: YES
Low Watermark: 15
High Watermark: 85
SPA Cache pages: 0
SPB Cache pages: 8294
Unassigned Cache Pages: 0
Read Hit Ratio: 0
Write Hit Ratio: 0
Prct Dirty Cache Pages = 0
Prct Cache Pages Owned = 0
SPA Read Cache State Disabled
SPB Read Cache State Disabled
SPA Write Cache State Enabled
SPB Write Cache State Enabled
System Buffer (spA): 22 MB
System Buffer (spB): 22 MB
SPS Test Day: Saturday
SPS Test Time: 17:00
SPA Physical Memory Size = 904
SPB Physical Memory Size = 904
Physical memory size of Front-End = Switch not supported
Physical memory size of Back-End = Switch not supported
SPA Free Memory Size = 0
SPB Free Memory Size = 0
Free Memory Size of Front-End = Switch not supported
Free Memory Size of Back-End = Switch not supported
SPA Read Cache Size = 0
SPB Read Cache Size = 0
SPA Write Cache Size = 882
SPB Write Cache Size = 882
SPA Optimized Raid 3 Memory Size = 0
SPB Optimized Raid 3 Memory Size = 0

```

Database DPE-Cache (common to 9 DPEs)

```

A:\>"c:\program files\emc\navisphere cli\navicli" -h 10.10.10.5 getcache
SP Read Cache State Disabled
SP Write Cache State Disabled
Cache Page size: 16
Write Cache Mirrored: YES
Low Watermark: 10
High Watermark: 90
SPA Cache pages: 0
SPB Cache pages: 0
Unassigned Cache Pages: 0
Read Hit Ratio: 0
Write Hit Ratio: 0

```

```

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

```

```

A:\>"c:\program files\emc\navisphere cli\navicli" -h 10.10.10.6 getcache
SP Read Cache State Disabled
SP Write Cache State Disabled
Cache Page size: 16
Write Cache Mirrored: YES
Low Watermark: 10
High Watermark: 90
SPA Cache pages: 0
SPB Cache pages: 0
Unassigned Cache Pages: 0
Read Hit Ratio: 0
Write Hit Ratio: 0
Prct Dirty Cache Pages = 0
Prct Cache Pages Owned = 0
SPA Read Cache State Disabled
SPB Read Cache State Disabled
SPA Write Cache State Disabled
SPB Write Cache State Disabled
System Buffer (spA): 22 MB
System Buffer (spB): 22 MB
SPS Test Day: Saturday
SPS Test Time: 17:00
SPA Physical Memory Size = 904
SPB Physical Memory Size = 904
Physical memory size of Front-End = Switch not supported
Physical memory size of Back-End = Switch not supported
SPA Free Memory Size = 882
SPB Free Memory Size = 882
Free Memory Size of Front-End = Switch not supported
Free Memory Size of Back-End = Switch not supported
SPA Read Cache Size = 0
SPB Read Cache Size = 0
SPA Write Cache Size = 0

```

```

SPB Write Cache Size = 0
SPA Optimized Raid 3 Memory Size = 0
SPB Optimized Raid 3 Memory Size = 0

```

Log and Database DPE LUN Configurations

```

A:\>"c:\program files\emc\navisphere cli\navicli" -h 10.10.10.3 getlun 0
Statistics logging is disabled.
Certain fields are not printed if statistics logging is not enabled.
Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40

Prefetching: NO
Prefetched data retained YES

Read cache configured according to specified parameters.

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

RAID Type: RAID1/0
RAIDGroup ID: 0
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP A
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: ENABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP A
Rebuild Priority: ASAP
Verify Priority: ASAP
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100
Prct Bound: 100
LUN Capacity(Megabytes): 234736
LUN Capacity(Blocks): 480739840
UID:
60:06:01:60:5D:8D:00:00:11:2B:67:21:DF:D6:D6:11
Bus 0 Enclosure 0 Disk 0 Queue Length: 0
Bus 0 Enclosure 0 Disk 6 Queue Length: 0

```

```

Bus 1 Enclosure 0 Disk 1 Queue Length: 0
Bus 1 Enclosure 0 Disk 7 Queue Length: 0
Bus 0 Enclosure 0 Disk 5 Queue Length: 0
Bus 1 Enclosure 0 Disk 0 Queue Length: 0
Bus 1 Enclosure 0 Disk 6 Queue Length: 0
Bus 0 Enclosure 0 Disk 4 Queue Length: 0
Bus 0 Enclosure 0 Disk 8 Queue Length: 0
Bus 1 Enclosure 0 Disk 5 Queue Length: 0
Bus 0 Enclosure 0 Disk 1 Queue Length: 0
Bus 0 Enclosure 0 Disk 7 Queue Length: 0
Bus 1 Enclosure 0 Disk 4 Queue Length: 0
Bus 1 Enclosure 0 Disk 8 Queue Length: 0
Bus 0 Enclosure 0 Disk 0 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 6 Hard Read Errors: 0
Bus 1 Enclosure 0 Disk 1 Hard Read Errors: 0
Bus 1 Enclosure 0 Disk 7 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 5 Hard Read Errors: 0
Bus 1 Enclosure 0 Disk 0 Hard Read Errors: 0
Bus 1 Enclosure 0 Disk 6 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 4 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 8 Hard Read Errors: 0
Bus 1 Enclosure 0 Disk 5 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 1 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 7 Hard Read Errors: 0
Bus 1 Enclosure 0 Disk 4 Hard Read Errors: 0
Bus 1 Enclosure 0 Disk 8 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 0 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 6 Hard Write Errors: 0
Bus 1 Enclosure 0 Disk 1 Hard Write Errors: 0
Bus 1 Enclosure 0 Disk 7 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 5 Hard Write Errors: 0
Bus 1 Enclosure 0 Disk 0 Hard Write Errors: 0
Bus 1 Enclosure 0 Disk 6 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 4 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 8 Hard Write Errors: 0
Bus 1 Enclosure 0 Disk 5 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 1 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 7 Hard Write Errors: 0
Bus 1 Enclosure 0 Disk 4 Hard Write Errors: 0
Bus 1 Enclosure 0 Disk 8 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 0 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 6 Soft Read Errors: 0
Bus 1 Enclosure 0 Disk 1 Soft Read Errors: 0
Bus 1 Enclosure 0 Disk 7 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 5 Soft Read Errors: 0
Bus 1 Enclosure 0 Disk 0 Soft Read Errors: 0
Bus 1 Enclosure 0 Disk 6 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 4 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 8 Soft Read Errors: 0
Bus 1 Enclosure 0 Disk 5 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 1 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 7 Soft Read Errors: 0
Bus 1 Enclosure 0 Disk 4 Soft Read Errors: 0
Bus 1 Enclosure 0 Disk 8 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 0 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 6 Soft Write Errors: 0
Bus 1 Enclosure 0 Disk 1 Soft Write Errors: 0
Bus 1 Enclosure 0 Disk 7 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 5 Soft Write Errors: 0
Bus 1 Enclosure 0 Disk 0 Soft Write Errors: 0

```

```

Bus 1 Enclosure 0 Disk 0 Soft Write Errors: 0
Bus 1 Enclosure 0 Disk 6 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 4 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 8 Soft Write Errors: 0
Bus 1 Enclosure 0 Disk 5 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 1 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 7 Soft Write Errors: 0
Bus 1 Enclosure 0 Disk 4 Soft Write Errors: 0
Bus 1 Enclosure 0 Disk 8 Soft Write Errors: 0

```

```

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

```

```

A:\>"c:\program files\emc\navisphere cli\navicli" -h 10.10.10.3 getlun 1
Statistics logging is disabled.
Certain fields are not printed if statistics
logging is not enabled.
Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40

Prefetching: NO
Prefetched data retained YES

Read cache configured according to
specified parameters.

```

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

RAID Type: RAID1/0
 RAIDGroup ID: 1
 State: Bound
 Stripe Crossing: 0
 Element Size: 256
 Current owner: SP A
 Auto-trespass: DISABLED
 Auto-assign: DISABLED
 Write cache: ENABLED
 Read cache: DISABLED
 Idle Threshold: 0
 Idle Delay Time: 20
 Write Aside Size: 1023
 Default Owner: SP A
 Rebuild Priority: ASAP
 Verify Priority: ASAP
 Prct Reads Forced Flushed: 0
 Prct Writes Forced Flushed: 0
 Prct Rebuilt: 100
 Prct Bound: 100
 LUN Capacity(Megabytes): 234736
 LUN Capacity(Blocks): 480739840
 UID:

60:06:01:60:5D:8D:00:00:12:2B:67:21:DF:D6:D6:11

| | | |
|--------------------------|-------------------|---|
| Bus 0 Enclosure 1 Disk 0 | Queue Length: | 0 |
| Bus 0 Enclosure 1 Disk 6 | Queue Length: | 0 |
| Bus 1 Enclosure 1 Disk 1 | Queue Length: | 0 |
| Bus 1 Enclosure 1 Disk 7 | Queue Length: | 0 |
| Bus 0 Enclosure 1 Disk 5 | Queue Length: | 0 |
| Bus 1 Enclosure 1 Disk 0 | Queue Length: | 0 |
| Bus 1 Enclosure 1 Disk 6 | Queue Length: | 0 |
| Bus 0 Enclosure 1 Disk 4 | Queue Length: | 0 |
| Bus 0 Enclosure 1 Disk 8 | Queue Length: | 0 |
| Bus 1 Enclosure 1 Disk 5 | Queue Length: | 0 |
| Bus 0 Enclosure 1 Disk 1 | Queue Length: | 0 |
| Bus 0 Enclosure 1 Disk 7 | Queue Length: | 0 |
| Bus 1 Enclosure 1 Disk 4 | Queue Length: | 0 |
| Bus 1 Enclosure 1 Disk 8 | Queue Length: | 0 |
| Bus 0 Enclosure 1 Disk 0 | Hard Read Errors: | 0 |
| Bus 0 Enclosure 1 Disk 6 | Hard Read Errors: | 0 |
| Bus 1 Enclosure 1 Disk 1 | Hard Read Errors: | 0 |
| Bus 1 Enclosure 1 Disk 7 | Hard Read Errors: | 0 |
| Bus 0 Enclosure 1 Disk 5 | Hard Read Errors: | 0 |
| Bus 1 Enclosure 1 Disk 0 | Hard Read Errors: | 0 |
| Bus 1 Enclosure 1 Disk 6 | Hard Read Errors: | 0 |
| Bus 0 Enclosure 1 Disk 4 | Hard Read Errors: | 0 |
| Bus 0 Enclosure 1 Disk 8 | Hard Read Errors: | 0 |
| Bus 1 Enclosure 1 Disk 5 | Hard Read Errors: | 0 |
| Bus 0 Enclosure 1 Disk 1 | Hard Read Errors: | 0 |
| Bus 0 Enclosure 1 Disk 7 | Hard Read Errors: | 0 |
| Bus 1 Enclosure 1 Disk 4 | Hard Read Errors: | 0 |
| Bus 1 Enclosure 1 Disk 8 | Hard Read Errors: | 0 |

| | | |
|--------------------------|--------------------|---|
| Bus 0 Enclosure 1 Disk 0 | Hard Write Errors: | 0 |
| Bus 0 Enclosure 1 Disk 6 | Hard Write Errors: | 0 |
| Bus 1 Enclosure 1 Disk 1 | Hard Write Errors: | 0 |
| Bus 1 Enclosure 1 Disk 7 | Hard Write Errors: | 0 |
| Bus 0 Enclosure 1 Disk 5 | Hard Write Errors: | 0 |
| Bus 1 Enclosure 1 Disk 0 | Hard Write Errors: | 0 |
| Bus 1 Enclosure 1 Disk 6 | Hard Write Errors: | 0 |
| Bus 0 Enclosure 1 Disk 4 | Hard Write Errors: | 0 |
| Bus 0 Enclosure 1 Disk 8 | Hard Write Errors: | 0 |
| Bus 1 Enclosure 1 Disk 5 | Hard Write Errors: | 0 |
| Bus 0 Enclosure 1 Disk 1 | Hard Write Errors: | 0 |
| Bus 0 Enclosure 1 Disk 7 | Hard Write Errors: | 0 |
| Bus 1 Enclosure 1 Disk 4 | Hard Write Errors: | 0 |
| Bus 1 Enclosure 1 Disk 8 | Hard Write Errors: | 0 |
| Bus 0 Enclosure 1 Disk 0 | Soft Read Errors: | 0 |
| Bus 0 Enclosure 1 Disk 6 | Soft Read Errors: | 0 |
| Bus 1 Enclosure 1 Disk 1 | Soft Read Errors: | 0 |
| Bus 1 Enclosure 1 Disk 7 | Soft Read Errors: | 0 |
| Bus 0 Enclosure 1 Disk 5 | Soft Read Errors: | 0 |
| Bus 1 Enclosure 1 Disk 0 | Soft Read Errors: | 0 |
| Bus 1 Enclosure 1 Disk 6 | Soft Read Errors: | 0 |
| Bus 0 Enclosure 1 Disk 4 | Soft Read Errors: | 0 |
| Bus 0 Enclosure 1 Disk 8 | Soft Read Errors: | 0 |
| Bus 1 Enclosure 1 Disk 5 | Soft Read Errors: | 0 |
| Bus 0 Enclosure 1 Disk 1 | Soft Read Errors: | 0 |
| Bus 0 Enclosure 1 Disk 7 | Soft Read Errors: | 0 |
| Bus 1 Enclosure 1 Disk 4 | Soft Read Errors: | 0 |
| Bus 1 Enclosure 1 Disk 8 | Soft Read Errors: | 0 |
| Bus 0 Enclosure 1 Disk 0 | Soft Write Errors: | 0 |
| Bus 0 Enclosure 1 Disk 6 | Soft Write Errors: | 0 |
| Bus 1 Enclosure 1 Disk 1 | Soft Write Errors: | 0 |
| Bus 1 Enclosure 1 Disk 7 | Soft Write Errors: | 0 |
| Bus 0 Enclosure 1 Disk 5 | Soft Write Errors: | 0 |
| Bus 1 Enclosure 1 Disk 0 | Soft Write Errors: | 0 |
| Bus 1 Enclosure 1 Disk 6 | Soft Write Errors: | 0 |
| Bus 0 Enclosure 1 Disk 4 | Soft Write Errors: | 0 |
| Bus 0 Enclosure 1 Disk 8 | Soft Write Errors: | 0 |
| Bus 1 Enclosure 1 Disk 5 | Soft Write Errors: | 0 |
| Bus 0 Enclosure 1 Disk 1 | Soft Write Errors: | 0 |
| Bus 0 Enclosure 1 Disk 7 | Soft Write Errors: | 0 |
| Bus 1 Enclosure 1 Disk 4 | Soft Write Errors: | 0 |
| Bus 1 Enclosure 1 Disk 8 | Soft Write Errors: | 0 |
| Bus 0 Enclosure 1 Disk 0 | Enabled | |
| Bus 0 Enclosure 1 Disk 6 | Enabled | |
| Bus 1 Enclosure 1 Disk 1 | Enabled | |
| Bus 1 Enclosure 1 Disk 7 | Enabled | |
| Bus 0 Enclosure 1 Disk 5 | Enabled | |
| Bus 1 Enclosure 1 Disk 0 | Enabled | |
| Bus 1 Enclosure 1 Disk 6 | Enabled | |
| Bus 0 Enclosure 1 Disk 4 | Enabled | |


```

Bus 0 Enclosure 1 Disk 8 Enabled
Bus 1 Enclosure 1 Disk 5 Enabled

Bus 0 Enclosure 1 Disk 1 Enabled

Bus 0 Enclosure 1 Disk 7 Enabled

Bus 1 Enclosure 1 Disk 4 Enabled

Bus 1 Enclosure 1 Disk 8 Enabled
Is Private: NO
Snapshots List: None
MirrorView Name if any: Not Mirrored

```

```

A:\>"c:\program files\emc\navisphere cli\navicli" -h 10.10.10.3 getlun 2
Statistics logging is disabled.

```

```

Certain fields are not printed if statistics
logging is not enabled.
Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40

```

```

Prefetching: NO
Prefetched data retained YES

```

```

Read cache configured according to
specified parameters.

```

```

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

```

```

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

```

```

Prct Bound: 100
LUN Capacity(Megabytes): 83720
LUN Capacity(Blocks): 171459840
UID:
60:06:01:60:5D:8D:00:00:13:2B:67:21:DF:D6:D6:11

```

```

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

```

```

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

```

```

A:\>"c:\program files\emc\navisphere cli\navicli" -h 10.10.10.3 getlun 3
Statistics logging is disabled.

```

```

Certain fields are not printed if statistics
logging is not enabled.
Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40

```

```

Prefetching: NO
Prefetched data retained YES

```

Read cache configured according to specified parameters.

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

RAID Type: RAID0
RAIDGroup ID: 3
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP B
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: DISABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP B
Rebuild Priority: N/A
Verify Priority: N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100
Prct Bound: 100
LUN Capacity(Megabytes): 83720
LUN Capacity(Blocks): 171459840
UID:

60:06:01:60:5D:8D:00:00:14:2B:67:21:DF:D6:D6:11

| | | |
|--------------------------|--------------------|---|
| Bus 0 Enclosure 2 Disk 5 | Queue Length: | 0 |
| Bus 0 Enclosure 2 Disk 6 | Queue Length: | 0 |
| Bus 0 Enclosure 2 Disk 7 | Queue Length: | 0 |
| Bus 0 Enclosure 2 Disk 8 | Queue Length: | 0 |
| Bus 0 Enclosure 2 Disk 9 | Queue Length: | 0 |
| Bus 0 Enclosure 2 Disk 5 | Hard Read Errors: | 0 |
| Bus 0 Enclosure 2 Disk 6 | Hard Read Errors: | 0 |
| Bus 0 Enclosure 2 Disk 7 | Hard Read Errors: | 0 |
| Bus 0 Enclosure 2 Disk 8 | Hard Read Errors: | 0 |
| Bus 0 Enclosure 2 Disk 9 | Hard Read Errors: | 0 |
| Bus 0 Enclosure 2 Disk 5 | Hard Write Errors: | 0 |
| Bus 0 Enclosure 2 Disk 6 | Hard Write Errors: | 0 |
| Bus 0 Enclosure 2 Disk 7 | Hard Write Errors: | 0 |
| Bus 0 Enclosure 2 Disk 8 | Hard Write Errors: | 0 |
| Bus 0 Enclosure 2 Disk 9 | Hard Write Errors: | 0 |
| Bus 0 Enclosure 2 Disk 5 | Soft Read Errors: | 0 |
| Bus 0 Enclosure 2 Disk 6 | Soft Read Errors: | 0 |
| Bus 0 Enclosure 2 Disk 7 | Soft Read Errors: | 0 |
| Bus 0 Enclosure 2 Disk 8 | Soft Read Errors: | 0 |
| Bus 0 Enclosure 2 Disk 9 | Soft Read Errors: | 0 |
| Bus 0 Enclosure 2 Disk 5 | Soft Write Errors: | 0 |
| Bus 0 Enclosure 2 Disk 6 | Soft Write Errors: | 0 |
| Bus 0 Enclosure 2 Disk 7 | Soft Write Errors: | 0 |
| Bus 0 Enclosure 2 Disk 8 | Soft Write Errors: | 0 |
| Bus 0 Enclosure 2 Disk 9 | Soft Write Errors: | 0 |

Bus 0 Enclosure 2 Disk 5 Enabled

Bus 0 Enclosure 2 Disk 6 Enabled

Bus 0 Enclosure 2 Disk 7 Enabled

Bus 0 Enclosure 2 Disk 8 Enabled

Bus 0 Enclosure 2 Disk 9 Enabled

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

A:\>"c:\program files\emc\navisphere cli\navicli" -h 10.10.10.3 getlun 4
Statistics logging is disabled.

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

Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40

Prefetching: NO
Prefetched data retained YES

Read cache configured according to specified parameters.

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

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

LUN Capacity(Megabytes): 83720
LUN Capacity(Blocks): 171459840
UID:

60:06:01:60:5D:8D:00:00:15:2B:67:21:DF:D6:D6:11

| | | |
|--------------------------|--------------------|---|
| Bus 0 Enclosure 3 Disk 0 | Queue Length: | 0 |
| Bus 0 Enclosure 3 Disk 1 | Queue Length: | 0 |
| Bus 0 Enclosure 3 Disk 2 | Queue Length: | 0 |
| Bus 0 Enclosure 3 Disk 3 | Queue Length: | 0 |
| Bus 0 Enclosure 3 Disk 4 | Queue Length: | 0 |
| Bus 0 Enclosure 3 Disk 0 | Hard Read Errors: | 0 |
| Bus 0 Enclosure 3 Disk 1 | Hard Read Errors: | 0 |
| Bus 0 Enclosure 3 Disk 2 | Hard Read Errors: | 0 |
| Bus 0 Enclosure 3 Disk 3 | Hard Read Errors: | 0 |
| Bus 0 Enclosure 3 Disk 4 | Hard Read Errors: | 0 |
| Bus 0 Enclosure 3 Disk 0 | Hard Write Errors: | 0 |
| Bus 0 Enclosure 3 Disk 1 | Hard Write Errors: | 0 |
| Bus 0 Enclosure 3 Disk 2 | Hard Write Errors: | 0 |
| Bus 0 Enclosure 3 Disk 3 | Hard Write Errors: | 0 |
| Bus 0 Enclosure 3 Disk 4 | Hard Write Errors: | 0 |
| Bus 0 Enclosure 3 Disk 0 | Soft Read Errors: | 0 |
| Bus 0 Enclosure 3 Disk 1 | Soft Read Errors: | 0 |
| Bus 0 Enclosure 3 Disk 2 | Soft Read Errors: | 0 |
| Bus 0 Enclosure 3 Disk 3 | Soft Read Errors: | 0 |
| Bus 0 Enclosure 3 Disk 4 | Soft Read Errors: | 0 |
| Bus 0 Enclosure 3 Disk 0 | Soft Write Errors: | 0 |
| Bus 0 Enclosure 3 Disk 1 | Soft Write Errors: | 0 |
| Bus 0 Enclosure 3 Disk 2 | Soft Write Errors: | 0 |
| Bus 0 Enclosure 3 Disk 3 | Soft Write Errors: | 0 |
| Bus 0 Enclosure 3 Disk 4 | Soft Write Errors: | 0 |

Bus 0 Enclosure 3 Disk 0 Enabled

Bus 0 Enclosure 3 Disk 1 Enabled

Bus 0 Enclosure 3 Disk 2 Enabled

Bus 0 Enclosure 3 Disk 3 Enabled

Bus 0 Enclosure 3 Disk 4 Enabled

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

A:\>"c:\program files\emc\navisphere cli\navicli" -h 10.10.10.3 getlun 5
Statistics logging is disabled.

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

| | |
|----------------------------------|-----|
| Prefetch size (blocks) = | 0 |
| Prefetch multiplier = | 4 |
| Segment size (blocks) = | 0 |
| Segment multiplier = | 4 |
| Maximum prefetch (blocks) = | 512 |
| Prefetch Disable Size (blocks) = | 129 |
| Prefetch idle count = | 40 |

Prefetching: NO
Prefetched data retained YES

Read cache configured according to specified parameters.

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

| | |
|-----------------------------|-----------|
| RAID Type: | RAID0 |
| RAIDGroup ID: | 5 |
| State: | Bound |
| Stripe Crossing: | 0 |
| Element Size: | 256 |
| Current owner: | SP B |
| Auto-trespass: | DISABLED |
| Auto-assign: | DISABLED |
| Write cache: | DISABLED |
| Read cache: | DISABLED |
| Idle Threshold: | 0 |
| Idle Delay Time: | 20 |
| Write Aside Size: | 1023 |
| Default Owner: | SP B |
| Rebuild Priority: | N/A |
| Verify Priority: | N/A |
| Prct Reads Forced Flushed: | 0 |
| Prct Writes Forced Flushed: | 0 |
| Prct Rebuilt: | 100 |
| Prct Bound: | 100 |
| LUN Capacity(Megabytes): | 83720 |
| LUN Capacity(Blocks): | 171459840 |

UID:

60:06:01:60:5D:8D:00:00:16:2B:67:21:DF:D6:D6:11

| | | |
|--------------------------|--------------------|---|
| Bus 0 Enclosure 3 Disk 5 | Queue Length: | 0 |
| Bus 0 Enclosure 3 Disk 6 | Queue Length: | 0 |
| Bus 0 Enclosure 3 Disk 7 | Queue Length: | 0 |
| Bus 0 Enclosure 3 Disk 8 | Queue Length: | 0 |
| Bus 0 Enclosure 3 Disk 9 | Queue Length: | 0 |
| Bus 0 Enclosure 3 Disk 5 | Hard Read Errors: | 0 |
| Bus 0 Enclosure 3 Disk 6 | Hard Read Errors: | 0 |
| Bus 0 Enclosure 3 Disk 7 | Hard Read Errors: | 0 |
| Bus 0 Enclosure 3 Disk 8 | Hard Read Errors: | 0 |
| Bus 0 Enclosure 3 Disk 9 | Hard Read Errors: | 0 |
| Bus 0 Enclosure 3 Disk 5 | Hard Write Errors: | 0 |
| Bus 0 Enclosure 3 Disk 6 | Hard Write Errors: | 0 |
| Bus 0 Enclosure 3 Disk 7 | Hard Write Errors: | 0 |
| Bus 0 Enclosure 3 Disk 8 | Hard Write Errors: | 0 |
| Bus 0 Enclosure 3 Disk 9 | Hard Write Errors: | 0 |
| Bus 0 Enclosure 3 Disk 5 | Soft Read Errors: | 0 |
| Bus 0 Enclosure 3 Disk 6 | Soft Read Errors: | 0 |
| Bus 0 Enclosure 3 Disk 7 | Soft Read Errors: | 0 |
| Bus 0 Enclosure 3 Disk 8 | Soft Read Errors: | 0 |
| Bus 0 Enclosure 3 Disk 9 | Soft Read Errors: | 0 |
| Bus 0 Enclosure 3 Disk 5 | Soft Write Errors: | 0 |
| Bus 0 Enclosure 3 Disk 6 | Soft Write Errors: | 0 |
| Bus 0 Enclosure 3 Disk 7 | Soft Write Errors: | 0 |
| Bus 0 Enclosure 3 Disk 8 | Soft Write Errors: | 0 |
| Bus 0 Enclosure 3 Disk 9 | Soft Write Errors: | 0 |

```

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

```

```

A:\>"c:\program files\emc\navisphere cli\navicli" -h 10.10.10.3 getlun 6
Statistics logging is disabled.

```

```

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

```

```

Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40

```

```

Prefetching: NO
Prefetched data retained YES

```

```

Read cache configured according to
specified parameters.

```

```

Total Hard Errors: 0
Total Soft Errors: 0
Total Queue Length: 0
Name Flare LUN 6
Minimum latency reads N/A

```

```

RAID Type: RAID0
RAIDGroup ID: 6
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP B
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: DISABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP B
Rebuild Priority: N/A
Verify Priority: N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100
Prct Bound: 100
LUN Capacity(Megabytes): 83720

```

```

LUN Capacity(Blocks): 171459840
UID:
60:06:01:60:5D:8D:00:00:17:2B:67:21:DF:D6:D6:11

```

```

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

```

```

Bus 1 Enclosure 2 Disk 0 Enabled

```

```

Bus 1 Enclosure 2 Disk 1 Enabled

```

```

Bus 1 Enclosure 2 Disk 2 Enabled

```

```

Bus 1 Enclosure 2 Disk 3 Enabled

```

```

Bus 1 Enclosure 2 Disk 4 Enabled

```

```

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

```

```

A:\>"c:\program files\emc\navisphere cli\navicli" -h 10.10.10.3 getlun 7
Statistics logging is disabled.

```

```

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

```

```

Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40

```

```

Prefetching: NO
Prefetched data retained YES

```

```

Read cache configured according to

```

specified parameters.

Total Hard Errors: 0
Total Soft Errors: 0
Total Queue Length: 0
Name Flare LUN 7
Minimum latency reads N/A

RAID Type: RAID0
RAIDGroup ID: 7
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP B
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: DISABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP B
Rebuild Priority: N/A
Verify Priority: N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100
Prct Bound: 100
LUN Capacity(Megabytes): 83720
LUN Capacity(Blocks): 171459840
UID: 60:06:01:60:5D:8D:00:00:18:2B:67:21:DF:D6:D6:11

Bus 1 Enclosure 2 Disk 5 Queue Length: 0
Bus 1 Enclosure 2 Disk 6 Queue Length: 0
Bus 1 Enclosure 2 Disk 7 Queue Length: 0
Bus 1 Enclosure 2 Disk 8 Queue Length: 0
Bus 1 Enclosure 2 Disk 9 Queue Length: 0
Bus 1 Enclosure 2 Disk 5 Hard Read Errors: 0
Bus 1 Enclosure 2 Disk 6 Hard Read Errors: 0
Bus 1 Enclosure 2 Disk 7 Hard Read Errors: 0
Bus 1 Enclosure 2 Disk 8 Hard Read Errors: 0
Bus 1 Enclosure 2 Disk 9 Hard Read Errors: 0
Bus 1 Enclosure 2 Disk 5 Hard Write Errors: 0
Bus 1 Enclosure 2 Disk 6 Hard Write Errors: 0
Bus 1 Enclosure 2 Disk 7 Hard Write Errors: 0
Bus 1 Enclosure 2 Disk 8 Hard Write Errors: 0
Bus 1 Enclosure 2 Disk 9 Hard Write Errors: 0
Bus 1 Enclosure 2 Disk 5 Soft Read Errors: 0
Bus 1 Enclosure 2 Disk 6 Soft Read Errors: 0
Bus 1 Enclosure 2 Disk 7 Soft Read Errors: 0
Bus 1 Enclosure 2 Disk 8 Soft Read Errors: 0
Bus 1 Enclosure 2 Disk 9 Soft Read Errors: 0
Bus 1 Enclosure 2 Disk 5 Soft Write Errors: 0
Bus 1 Enclosure 2 Disk 6 Soft Write Errors: 0
Bus 1 Enclosure 2 Disk 7 Soft Write Errors: 0
Bus 1 Enclosure 2 Disk 8 Soft Write Errors: 0
Bus 1 Enclosure 2 Disk 9 Soft Write Errors: 0
Bus 1 Enclosure 2 Disk 5 Enabled

Bus 1 Enclosure 2 Disk 6 Enabled
Bus 1 Enclosure 2 Disk 7 Enabled
Bus 1 Enclosure 2 Disk 8 Enabled
Bus 1 Enclosure 2 Disk 9 Enabled
Is Private: NO
Snapshots List: None
MirrorView Name if any: Not Mirrored

A:\>"c:\program files\emc\navisphere cli\navicli" -h 10.10.10.3 getlun 8
Statistics logging is disabled.
Certain fields are not printed if statistics logging is not enabled.

Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40

Prefetching: NO
Prefetched data retained YES

Read cache configured according to specified parameters.

Total Hard Errors: 0
Total Soft Errors: 0
Total Queue Length: 0
Name Flare LUN 8
Minimum latency reads N/A

RAID Type: RAID0
RAIDGroup ID: 8
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP B
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: DISABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP B
Rebuild Priority: N/A
Verify Priority: N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100
Prct Bound: 100
LUN Capacity(Megabytes): 83720
LUN Capacity(Blocks): 171459840

```

UID:
60:06:01:60:5D:8D:00:00:19:2B:67:21:DF:D6:D6:11
Bus 1 Enclosure 3 Disk 0 Queue Length: 0
Bus 1 Enclosure 3 Disk 1 Queue Length: 0
Bus 1 Enclosure 3 Disk 2 Queue Length: 0
Bus 1 Enclosure 3 Disk 3 Queue Length: 0
Bus 1 Enclosure 3 Disk 4 Queue Length: 0
Bus 1 Enclosure 3 Disk 0 Hard Read Errors: 0
Bus 1 Enclosure 3 Disk 1 Hard Read Errors: 0
Bus 1 Enclosure 3 Disk 2 Hard Read Errors: 0
Bus 1 Enclosure 3 Disk 3 Hard Read Errors: 0
Bus 1 Enclosure 3 Disk 4 Hard Read Errors: 0
Bus 1 Enclosure 3 Disk 0 Hard Write Errors: 0
Bus 1 Enclosure 3 Disk 1 Hard Write Errors: 0
Bus 1 Enclosure 3 Disk 2 Hard Write Errors: 0
Bus 1 Enclosure 3 Disk 3 Hard Write Errors: 0
Bus 1 Enclosure 3 Disk 4 Hard Write Errors: 0
Bus 1 Enclosure 3 Disk 0 Soft Read Errors: 0
Bus 1 Enclosure 3 Disk 1 Soft Read Errors: 0
Bus 1 Enclosure 3 Disk 2 Soft Read Errors: 0
Bus 1 Enclosure 3 Disk 3 Soft Read Errors: 0
Bus 1 Enclosure 3 Disk 4 Soft Read Errors: 0
Bus 1 Enclosure 3 Disk 0 Soft Write Errors: 0
Bus 1 Enclosure 3 Disk 1 Soft Write Errors: 0
Bus 1 Enclosure 3 Disk 2 Soft Write Errors: 0
Bus 1 Enclosure 3 Disk 3 Soft Write Errors: 0
Bus 1 Enclosure 3 Disk 4 Soft Write Errors: 0

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

```

Database DPE LUN Comfigurations (common to 9 DPEs)

```

A:\>"c:\program files\emc\navisphere cli\navicli" -h 10.10.10.5 getlun 0
Statistics logging is disabled.
Certain fields are not printed if statistics
logging is not enabled.
Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40

Prefetching: NO

```

```

Prefetched data retained YES
Read cache configured according to
specified parameters.

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

RAID Type: RAID0
RAIDGroup ID: 0
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP A
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: DISABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP A
Rebuild Priority: N/A
Verify Priority: N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100
Prct Bound: 100
LUN Capacity(Megabytes): 83720
LUN Capacity(Blocks): 171459840
UID:
60:06:01:F4:E8:8B:00:00:B5:2E:07:DF:89:D4:D6:11
Bus 0 Enclosure 0 Disk 0 Queue Length: 0
Bus 0 Enclosure 0 Disk 1 Queue Length: 0
Bus 0 Enclosure 0 Disk 4 Queue Length: 0
Bus 0 Enclosure 0 Disk 5 Queue Length: 0
Bus 0 Enclosure 0 Disk 6 Queue Length: 0
Bus 0 Enclosure 0 Disk 0 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 1 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 4 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 5 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 6 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 0 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 1 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 4 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 5 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 6 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 0 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 1 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 4 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 5 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 6 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 0 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 1 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 4 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 5 Soft Write Errors: 0

```

```

Bus 0 Enclosure 0 Disk 6 Soft Write Errors:      0
Bus 0 Enclosure 0 Disk 0 Enabled
Bus 0 Enclosure 0 Disk 1 Enabled
Bus 0 Enclosure 0 Disk 4 Enabled
Bus 0 Enclosure 0 Disk 5 Enabled
Bus 0 Enclosure 0 Disk 6 Enabled
Is Private: NO
Snapshots List: None
MirrorView Name if any: Not Mirrored

```

```

A:\>"c:\program files\emc\navisphere cli\navicli" -h 10.10.10.5 getlun 1
Statistics logging is disabled.
Certain fields are not printed if statistics
logging is not enabled.
Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40

```

```

Prefetching: NO
Prefetched data retained YES

```

```

Read cache configured according to
specified parameters.

```

```

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

```

```

RAID Type: RAID0
RAIDGroup ID: 1
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP A
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: DISABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP A
Rebuild Priority: N/A
Verify Priority: N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100

```

```

Prct Bound: 100
LUN Capacity(Megabytes): 83720
LUN Capacity(Blocks): 171459840
UID:
60:06:01:F4:E8:8B:00:00:B6:2E:07:DF:89:D4:D6:11
Bus 0 Enclosure 0 Disk 7 Queue Length: 0
Bus 0 Enclosure 0 Disk 8 Queue Length: 0
Bus 0 Enclosure 0 Disk 9 Queue Length: 0
Bus 0 Enclosure 1 Disk 0 Queue Length: 0
Bus 0 Enclosure 1 Disk 1 Queue Length: 0
Bus 0 Enclosure 0 Disk 7 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 8 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 9 Hard Read Errors: 0
Bus 0 Enclosure 1 Disk 0 Hard Read Errors: 0
Bus 0 Enclosure 1 Disk 1 Hard Read Errors: 0
Bus 0 Enclosure 0 Disk 7 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 8 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 9 Hard Write Errors: 0
Bus 0 Enclosure 1 Disk 0 Hard Write Errors: 0
Bus 0 Enclosure 1 Disk 1 Hard Write Errors: 0
Bus 0 Enclosure 0 Disk 7 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 8 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 9 Soft Read Errors: 0
Bus 0 Enclosure 1 Disk 0 Soft Read Errors: 0
Bus 0 Enclosure 1 Disk 1 Soft Read Errors: 0
Bus 0 Enclosure 0 Disk 7 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 8 Soft Write Errors: 0
Bus 0 Enclosure 0 Disk 9 Soft Write Errors: 0
Bus 0 Enclosure 1 Disk 0 Soft Write Errors: 0
Bus 0 Enclosure 1 Disk 1 Soft Write Errors: 0

```

```

Bus 0 Enclosure 0 Disk 7 Enabled
Bus 0 Enclosure 0 Disk 8 Enabled
Bus 0 Enclosure 0 Disk 9 Enabled
Bus 0 Enclosure 1 Disk 0 Enabled
Bus 0 Enclosure 1 Disk 1 Enabled
Is Private: NO
Snapshots List: None
MirrorView Name if any: Not Mirrored

```

```

A:\>"c:\program files\emc\navisphere cli\navicli" -h 10.10.10.5 getlun 2
Statistics logging is disabled.
Certain fields are not printed if statistics
logging is not enabled.
Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40
Prefetching: NO
Prefetched data retained YES

```

Read cache configured according to specified parameters.

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

RAID Type: RAID0
RAIDGroup ID: 2
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP A
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: DISABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP A
Rebuild Priority: N/A
Verify Priority: N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100
Prct Bound: 100
LUN Capacity(Megabytes): 83720
LUN Capacity(Blocks): 171459840
UID:

60:06:01:F4:E8:8B:00:00:B7:2E:07:DF:89:D4:D6:11

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

Bus 0 Enclosure 1 Disk 2 Enabled

Bus 0 Enclosure 1 Disk 3 Enabled

Bus 0 Enclosure 1 Disk 4 Enabled

Bus 0 Enclosure 1 Disk 5 Enabled

Bus 0 Enclosure 1 Disk 6 Enabled

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

A:\>"c:\program files\emc\navisphere cli\navicli" -h 10.10.10.5 getlun 3
Statistics logging is disabled.

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

Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40

Prefetching: NO
Prefetched data retained YES

Read cache configured according to specified parameters.

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

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


```

LUN Capacity(Megabytes):      83720
LUN Capacity(Blocks):         171459840
UID:
60:06:01:F4:E8:8B:00:00:B8:2E:07:DF:89:D4:D6:11
Bus 0 Enclosure 1 Disk 7 Queue Length:      0
Bus 0 Enclosure 1 Disk 8 Queue Length:      0
Bus 0 Enclosure 1 Disk 9 Queue Length:      0
Bus 0 Enclosure 2 Disk 0 Queue Length:      0
Bus 0 Enclosure 2 Disk 1 Queue Length:      0
Bus 0 Enclosure 1 Disk 7 Hard Read Errors:   0
Bus 0 Enclosure 1 Disk 8 Hard Read Errors:   0
Bus 0 Enclosure 1 Disk 9 Hard Read Errors:   0
Bus 0 Enclosure 2 Disk 0 Hard Read Errors:   0
Bus 0 Enclosure 2 Disk 1 Hard Read Errors:   0
Bus 0 Enclosure 1 Disk 7 Hard Write Errors:  0
Bus 0 Enclosure 1 Disk 8 Hard Write Errors:  0
Bus 0 Enclosure 1 Disk 9 Hard Write Errors:  0
Bus 0 Enclosure 2 Disk 0 Hard Write Errors:  0
Bus 0 Enclosure 2 Disk 1 Hard Write Errors:  0
Bus 0 Enclosure 1 Disk 7 Soft Read Errors:   0
Bus 0 Enclosure 1 Disk 8 Soft Read Errors:   0
Bus 0 Enclosure 1 Disk 9 Soft Read Errors:   0
Bus 0 Enclosure 2 Disk 0 Soft Read Errors:   0
Bus 0 Enclosure 2 Disk 1 Soft Read Errors:   0
Bus 0 Enclosure 2 Disk 1 Soft Write Errors:  0
Bus 0 Enclosure 1 Disk 7 Soft Write Errors:  0
Bus 0 Enclosure 1 Disk 8 Soft Write Errors:  0
Bus 0 Enclosure 1 Disk 9 Soft Write Errors:  0
Bus 0 Enclosure 2 Disk 0 Soft Write Errors:  0
Bus 0 Enclosure 2 Disk 1 Soft Write Errors:  0

```

```

Bus 0 Enclosure 1 Disk 7 Enabled
Bus 0 Enclosure 1 Disk 8 Enabled
Bus 0 Enclosure 1 Disk 9 Enabled
Bus 0 Enclosure 2 Disk 0 Enabled
Bus 0 Enclosure 2 Disk 1 Enabled
Is Private: NO
Snapshots List: None
MirrorView Name if any: Not Mirrored

```

```

A:\>"c:\program files\emc\navisphere cli\navicli" -h 10.10.10.5 getlun 4
Statistics logging is disabled.
Certain fields are not printed if statistics
logging is not enabled.
Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40

Prefetching: NO
Prefetched data retained YES

```

Read cache configured according to specified parameters.

```

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

```

```

RAID Type:              RAID0
RAIDGroup ID:           4
State:                  Bound
Stripe Crossing:        0
Element Size:           256
Current owner:          SP B
Auto-trespass:          DISABLED
Auto-assign:            DISABLED
Write cache:            DISABLED
Read cache:             DISABLED
Idle Threshold:         0
Idle Delay Time:        20
Write Aside Size:       1023
Default Owner:          SP B
Rebuild Priority:        N/A
Verify Priority:         N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt:           100
Prct Bound:             100
LUN Capacity(Megabytes): 83720
LUN Capacity(Blocks):   171459840
UID:

```

```

60:06:01:F4:E8:8B:00:00:B9:2E:07:DF:89:D4:D6:11
Bus 0 Enclosure 2 Disk 2 Queue Length:      0
Bus 0 Enclosure 2 Disk 3 Queue Length:      0
Bus 0 Enclosure 2 Disk 4 Queue Length:      0
Bus 0 Enclosure 2 Disk 5 Queue Length:      0
Bus 0 Enclosure 2 Disk 6 Queue Length:      0
Bus 0 Enclosure 2 Disk 2 Hard Read Errors:   0
Bus 0 Enclosure 2 Disk 3 Hard Read Errors:   0
Bus 0 Enclosure 2 Disk 4 Hard Read Errors:   0
Bus 0 Enclosure 2 Disk 5 Hard Read Errors:   0
Bus 0 Enclosure 2 Disk 6 Hard Read Errors:   0
Bus 0 Enclosure 2 Disk 2 Hard Write Errors:  0
Bus 0 Enclosure 2 Disk 3 Hard Write Errors:  0
Bus 0 Enclosure 2 Disk 4 Hard Write Errors:  0
Bus 0 Enclosure 2 Disk 5 Hard Write Errors:  0
Bus 0 Enclosure 2 Disk 6 Hard Write Errors:  0
Bus 0 Enclosure 2 Disk 2 Soft Read Errors:   0
Bus 0 Enclosure 2 Disk 3 Soft Read Errors:   0
Bus 0 Enclosure 2 Disk 4 Soft Read Errors:   0
Bus 0 Enclosure 2 Disk 5 Soft Read Errors:   0
Bus 0 Enclosure 2 Disk 6 Soft Read Errors:   0
Bus 0 Enclosure 2 Disk 2 Soft Write Errors:  0
Bus 0 Enclosure 2 Disk 3 Soft Write Errors:  0
Bus 0 Enclosure 2 Disk 4 Soft Write Errors:  0
Bus 0 Enclosure 2 Disk 5 Soft Write Errors:  0
Bus 0 Enclosure 2 Disk 6 Soft Write Errors:  0

```

```

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

```

```

A:\>"c:\program files\emc\navisphere cli\navicli" -h 10.10.10.5 getlun 5
Statistics logging is disabled.

```

```

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

```

```

Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40

```

```

Prefetching: NO
Prefetched data retained YES

```

```

Read cache configured according to
specified parameters.

```

```

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

```

```

RAID Type: RAID0
RAIDGroup ID: 5
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP B
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: DISABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP B
Rebuild Priority: N/A
Verify Priority: N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100
Prct Bound: 100
LUN Capacity(Megabytes): 83720

```

```

LUN Capacity(Blocks): 171459840
UID:
60:06:01:F4:E8:8B:00:00:BA:2E:07:DF:89:D4:D6:11
Bus 0 Enclosure 2 Disk 7 Queue Length: 0
Bus 0 Enclosure 2 Disk 8 Queue Length: 0
Bus 0 Enclosure 2 Disk 9 Queue Length: 0
Bus 0 Enclosure 3 Disk 0 Queue Length: 0
Bus 0 Enclosure 3 Disk 1 Queue Length: 0
Bus 0 Enclosure 2 Disk 7 Hard Read Errors: 0
Bus 0 Enclosure 2 Disk 8 Hard Read Errors: 0
Bus 0 Enclosure 2 Disk 9 Hard Read Errors: 0
Bus 0 Enclosure 3 Disk 0 Hard Read Errors: 0
Bus 0 Enclosure 3 Disk 1 Hard Read Errors: 0
Bus 0 Enclosure 2 Disk 7 Hard Write Errors: 0
Bus 0 Enclosure 2 Disk 8 Hard Write Errors: 0
Bus 0 Enclosure 2 Disk 9 Hard Write Errors: 0
Bus 0 Enclosure 3 Disk 0 Hard Write Errors: 0
Bus 0 Enclosure 3 Disk 1 Hard Write Errors: 0
Bus 0 Enclosure 2 Disk 7 Soft Read Errors: 0
Bus 0 Enclosure 2 Disk 8 Soft Read Errors: 0
Bus 0 Enclosure 2 Disk 9 Soft Read Errors: 0
Bus 0 Enclosure 3 Disk 0 Soft Read Errors: 0
Bus 0 Enclosure 3 Disk 1 Soft Read Errors: 0
Bus 0 Enclosure 2 Disk 7 Soft Write Errors: 0
Bus 0 Enclosure 2 Disk 8 Soft Write Errors: 0
Bus 0 Enclosure 2 Disk 9 Soft Write Errors: 0
Bus 0 Enclosure 3 Disk 0 Soft Write Errors: 0
Bus 0 Enclosure 3 Disk 1 Soft Write Errors: 0

```

```

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

```

```

A:\>"c:\program files\emc\navisphere cli\navicli" -h 10.10.10.5 getlun 6
Statistics logging is disabled.

```

```

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

```

```

Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40

```

```

Prefetching: NO
Prefetched data retained YES

```

```

Read cache configured according to

```

specified parameters.

Total Hard Errors: 0
Total Soft Errors: 0
Total Queue Length: 0
Name Flare LUN 6
Minimum latency reads N/A

RAID Type: RAID0
RAIDGroup ID: 6
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP B
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: DISABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP B
Rebuild Priority: N/A
Verify Priority: N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100
Prct Bound: 100
LUN Capacity(Megabytes): 83720
LUN Capacity(Blocks): 171459840
UID: 60:06:01:F4:E8:8B:00:00:BB:2E:07:DF:89:D4:D6:11

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

Bus 0 Enclosure 3 Disk 2 Enabled

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

A:\>"c:\program files\emc\navisphere cli\navicli" -h 10.10.10.5 getlun 7
Statistics logging is disabled.
Certain fields are not printed if statistics logging is not enabled.

Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40

Prefetching: NO
Prefetched data retained YES

Read cache configured according to specified parameters.

Total Hard Errors: 0
Total Soft Errors: 0
Total Queue Length: 0
Name Flare LUN 7
Minimum latency reads N/A

RAID Type: RAID0
RAIDGroup ID: 7
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP A
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: DISABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP A
Rebuild Priority: N/A
Verify Priority: N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100
Prct Bound: 100
LUN Capacity(Megabytes): 83720
LUN Capacity(Blocks): 171459840

UID:

```

60:06:01:F4:E8:8B:00:00:BC:2E:07:DF:89:D4:D6:11
Bus 0 Enclosure 3 Disk 7 Queue Length: 0
Bus 0 Enclosure 3 Disk 8 Queue Length: 0
Bus 0 Enclosure 3 Disk 9 Queue Length: 0
Bus 0 Enclosure 4 Disk 0 Queue Length: 0
Bus 0 Enclosure 4 Disk 1 Queue Length: 0
Bus 0 Enclosure 3 Disk 7 Hard Read Errors: 0
Bus 0 Enclosure 3 Disk 8 Hard Read Errors: 0
Bus 0 Enclosure 3 Disk 9 Hard Read Errors: 0
Bus 0 Enclosure 4 Disk 0 Hard Read Errors: 0
Bus 0 Enclosure 4 Disk 1 Hard Read Errors: 0
Bus 0 Enclosure 3 Disk 7 Hard Write Errors: 0
Bus 0 Enclosure 3 Disk 8 Hard Write Errors: 0
Bus 0 Enclosure 3 Disk 9 Hard Write Errors: 0
Bus 0 Enclosure 4 Disk 0 Hard Write Errors: 0
Bus 0 Enclosure 4 Disk 1 Hard Write Errors: 0
Bus 0 Enclosure 3 Disk 7 Soft Read Errors: 0
Bus 0 Enclosure 3 Disk 8 Soft Read Errors: 0
Bus 0 Enclosure 3 Disk 9 Soft Read Errors: 0
Bus 0 Enclosure 4 Disk 0 Soft Read Errors: 0
Bus 0 Enclosure 4 Disk 1 Soft Read Errors: 0
Bus 0 Enclosure 3 Disk 7 Soft Write Errors: 0
Bus 0 Enclosure 3 Disk 8 Soft Write Errors: 0
Bus 0 Enclosure 3 Disk 9 Soft Write Errors: 0
Bus 0 Enclosure 4 Disk 0 Soft Write Errors: 0
Bus 0 Enclosure 4 Disk 1 Soft Write Errors: 0

```

Bus 0 Enclosure 3 Disk 7 Enabled

Bus 0 Enclosure 3 Disk 8 Enabled

Bus 0 Enclosure 3 Disk 9 Enabled

Bus 0 Enclosure 4 Disk 0 Enabled

Bus 0 Enclosure 4 Disk 1 Enabled

Is Private: NO

Snapshots List: None

MirrorView Name if any: Not Mirrored

A:\>"c:\program files\emc\navisphere cli\navicli" -h 10.10.10.5 getlun 8

Statistics logging is disabled.

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

```

Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40

```

Prefetching: NO

Prefetched data retained YES

Read cache configured according to specified parameters.

```

Total Hard Errors: 0
Total Soft Errors: 0
Total Queue Length: 0
Name Flare LUN 8
Minimum latency reads N/A

```

```

RAID Type: RAID0
RAIDGroup ID: 9
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP A
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: DISABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP A
Rebuild Priority: N/A
Verify Priority: N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100
Prct Bound: 100
LUN Capacity(Megabytes): 83720
LUN Capacity(Blocks): 171459840

```

UID:

```

60:06:01:F4:E8:8B:00:00:BD:2E:07:DF:89:D4:D6:11
Bus 1 Enclosure 1 Disk 0 Queue Length: 0
Bus 1 Enclosure 1 Disk 1 Queue Length: 0
Bus 1 Enclosure 1 Disk 2 Queue Length: 0
Bus 1 Enclosure 1 Disk 3 Queue Length: 0
Bus 1 Enclosure 1 Disk 4 Queue Length: 0
Bus 1 Enclosure 1 Disk 0 Hard Read Errors: 0
Bus 1 Enclosure 1 Disk 1 Hard Read Errors: 0
Bus 1 Enclosure 1 Disk 2 Hard Read Errors: 0
Bus 1 Enclosure 1 Disk 3 Hard Read Errors: 0
Bus 1 Enclosure 1 Disk 4 Hard Read Errors: 0
Bus 1 Enclosure 1 Disk 0 Hard Write Errors: 0
Bus 1 Enclosure 1 Disk 1 Hard Write Errors: 0
Bus 1 Enclosure 1 Disk 2 Hard Write Errors: 0
Bus 1 Enclosure 1 Disk 3 Hard Write Errors: 0
Bus 1 Enclosure 1 Disk 4 Hard Write Errors: 0
Bus 1 Enclosure 1 Disk 0 Soft Read Errors: 0
Bus 1 Enclosure 1 Disk 1 Soft Read Errors: 0
Bus 1 Enclosure 1 Disk 2 Soft Read Errors: 0
Bus 1 Enclosure 1 Disk 3 Soft Read Errors: 0
Bus 1 Enclosure 1 Disk 4 Soft Read Errors: 0
Bus 1 Enclosure 1 Disk 0 Soft Write Errors: 0
Bus 1 Enclosure 1 Disk 1 Soft Write Errors: 0
Bus 1 Enclosure 1 Disk 2 Soft Write Errors: 0
Bus 1 Enclosure 1 Disk 3 Soft Write Errors: 0
Bus 1 Enclosure 1 Disk 4 Soft Write Errors: 0
Bus 1 Enclosure 1 Disk 0 Enabled

```

```

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

```

```

A:\>"c:\program files\emc\navisphere cli\navicli" -h 10.10.10.5 getlun 9
Statistics logging is disabled.

```

```

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

```

```

Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40

```

```

Prefetching: NO
Prefetched data retained YES

```

```

Read cache configured according to
specified parameters.

```

```

Total Hard Errors: 0
Total Soft Errors: 0
Total Queue Length: 0
Name Flare LUN 9
Minimum latency reads N/A

```

```

RAID Type: RAID0
RAIDGroup ID: 10
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP A
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: DISABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP A
Rebuild Priority: N/A
Verify Priority: N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100
Prct Bound: 100
LUN Capacity(Megabytes): 83720
LUN Capacity(Blocks): 171459840

```

```

UID:

```

```

60:06:01:F4:E8:8B:00:00:BE:2E:07:DF:89:D4:D6:11
Bus 1 Enclosure 1 Disk 5 Queue Length: 0
Bus 1 Enclosure 1 Disk 6 Queue Length: 0
Bus 1 Enclosure 1 Disk 7 Queue Length: 0
Bus 1 Enclosure 1 Disk 8 Queue Length: 0
Bus 1 Enclosure 1 Disk 9 Queue Length: 0
Bus 1 Enclosure 1 Disk 5 Hard Read Errors: 0
Bus 1 Enclosure 1 Disk 6 Hard Read Errors: 0
Bus 1 Enclosure 1 Disk 7 Hard Read Errors: 0
Bus 1 Enclosure 1 Disk 8 Hard Read Errors: 0
Bus 1 Enclosure 1 Disk 9 Hard Read Errors: 0
Bus 1 Enclosure 1 Disk 5 Hard Write Errors: 0
Bus 1 Enclosure 1 Disk 6 Hard Write Errors: 0
Bus 1 Enclosure 1 Disk 7 Hard Write Errors: 0
Bus 1 Enclosure 1 Disk 8 Hard Write Errors: 0
Bus 1 Enclosure 1 Disk 9 Hard Write Errors: 0
Bus 1 Enclosure 1 Disk 5 Soft Read Errors: 0
Bus 1 Enclosure 1 Disk 6 Soft Read Errors: 0
Bus 1 Enclosure 1 Disk 7 Soft Read Errors: 0
Bus 1 Enclosure 1 Disk 8 Soft Read Errors: 0
Bus 1 Enclosure 1 Disk 9 Soft Read Errors: 0
Bus 1 Enclosure 1 Disk 5 Soft Write Errors: 0
Bus 1 Enclosure 1 Disk 6 Soft Write Errors: 0
Bus 1 Enclosure 1 Disk 7 Soft Write Errors: 0
Bus 1 Enclosure 1 Disk 8 Soft Write Errors: 0
Bus 1 Enclosure 1 Disk 9 Soft Write Errors: 0

```

```

Bus 1 Enclosure 1 Disk 5 Enabled

```

```

Bus 1 Enclosure 1 Disk 6 Enabled

```

```

Bus 1 Enclosure 1 Disk 7 Enabled

```

```

Bus 1 Enclosure 1 Disk 8 Enabled

```

```

Bus 1 Enclosure 1 Disk 9 Enabled

```

```

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

```

```

A:\>"c:\program files\emc\navisphere cli\navicli" -h 10.10.10.5 getlun 10
Statistics logging is disabled.

```

```

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

```

```

Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40

```

```

Prefetching: NO
Prefetched data retained YES

```

```

Read cache configured according to
specified parameters.

```

Total Hard Errors: 0
Total Soft Errors: 0
Total Queue Length: 0
Name Flare LUN 10
Minimum latency reads N/A

RAID Type: RAID0
RAIDGroup ID: 11
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP B
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: DISABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP B
Rebuild Priority: N/A
Verify Priority: N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100
Prct Bound: 100
LUN Capacity(Megabytes): 83720
LUN Capacity(Blocks): 171459840
UID:

60:06:01:F4:E8:8B:00:00:BF:2E:07:DF:89:D4:D6:11

| | | |
|--------------------------|--------------------|---|
| Bus 1 Enclosure 2 Disk 0 | Queue Length: | 0 |
| Bus 1 Enclosure 2 Disk 1 | Queue Length: | 0 |
| Bus 1 Enclosure 2 Disk 2 | Queue Length: | 0 |
| Bus 1 Enclosure 2 Disk 3 | Queue Length: | 0 |
| Bus 1 Enclosure 2 Disk 4 | Queue Length: | 0 |
| Bus 1 Enclosure 2 Disk 0 | Hard Read Errors: | 0 |
| Bus 1 Enclosure 2 Disk 1 | Hard Read Errors: | 0 |
| Bus 1 Enclosure 2 Disk 2 | Hard Read Errors: | 0 |
| Bus 1 Enclosure 2 Disk 3 | Hard Read Errors: | 0 |
| Bus 1 Enclosure 2 Disk 4 | Hard Read Errors: | 0 |
| Bus 1 Enclosure 2 Disk 0 | Hard Write Errors: | 0 |
| Bus 1 Enclosure 2 Disk 1 | Hard Write Errors: | 0 |
| Bus 1 Enclosure 2 Disk 2 | Hard Write Errors: | 0 |
| Bus 1 Enclosure 2 Disk 3 | Hard Write Errors: | 0 |
| Bus 1 Enclosure 2 Disk 4 | Hard Write Errors: | 0 |
| Bus 1 Enclosure 2 Disk 0 | Soft Read Errors: | 0 |
| Bus 1 Enclosure 2 Disk 1 | Soft Read Errors: | 0 |
| Bus 1 Enclosure 2 Disk 2 | Soft Read Errors: | 0 |
| Bus 1 Enclosure 2 Disk 3 | Soft Read Errors: | 0 |
| Bus 1 Enclosure 2 Disk 4 | Soft Read Errors: | 0 |
| Bus 1 Enclosure 2 Disk 0 | Soft Write Errors: | 0 |
| Bus 1 Enclosure 2 Disk 1 | Soft Write Errors: | 0 |
| Bus 1 Enclosure 2 Disk 2 | Soft Write Errors: | 0 |
| Bus 1 Enclosure 2 Disk 3 | Soft Write Errors: | 0 |
| Bus 1 Enclosure 2 Disk 4 | Soft Write Errors: | 0 |

Bus 1 Enclosure 2 Disk 0 Enabled

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

A:\>"c:\program files\emc\navisphere cli\navicli" -h 10.10.10.5 getlun 11
Statistics logging is disabled.

Certain fields are not printed if statistics

logging is not enabled.

| | |
|----------------------------------|-----|
| Prefetch size (blocks) = | 0 |
| Prefetch multiplier = | 4 |
| Segment size (blocks) = | 0 |
| Segment multiplier = | 4 |
| Maximum prefetch (blocks) = | 512 |
| Prefetch Disable Size (blocks) = | 129 |
| Prefetch idle count = | 40 |

Prefetching: NO
Prefetched data retained YES

Read cache configured according to
specified parameters.

Total Hard Errors: 0
Total Soft Errors: 0
Total Queue Length: 0
Name Flare LUN 11
Minimum latency reads N/A

RAID Type: RAID0
RAIDGroup ID: 12
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP B
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: DISABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP B
Rebuild Priority: N/A
Verify Priority: N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100
Prct Bound: 100
LUN Capacity(Megabytes): 83720
LUN Capacity(Blocks): 171459840

UID:

```
60:06:01:61:88:8E:00:00:1E:23:FC:C3:CE:DE:D6:11
Bus 1 Enclosure 2 Disk 5 Queue Length: 0
Bus 1 Enclosure 2 Disk 6 Queue Length: 0
Bus 1 Enclosure 2 Disk 7 Queue Length: 0
Bus 1 Enclosure 2 Disk 8 Queue Length: 0
Bus 1 Enclosure 2 Disk 9 Queue Length: 0
Bus 1 Enclosure 2 Disk 5 Hard Read Errors: 0
Bus 1 Enclosure 2 Disk 6 Hard Read Errors: 0
Bus 1 Enclosure 2 Disk 7 Hard Read Errors: 0
Bus 1 Enclosure 2 Disk 8 Hard Read Errors: 0
Bus 1 Enclosure 2 Disk 9 Hard Read Errors: 0
Bus 1 Enclosure 2 Disk 5 Hard Write Errors: 0
Bus 1 Enclosure 2 Disk 6 Hard Write Errors: 0
Bus 1 Enclosure 2 Disk 7 Hard Write Errors: 0
Bus 1 Enclosure 2 Disk 8 Hard Write Errors: 0
Bus 1 Enclosure 2 Disk 9 Hard Write Errors: 0
Bus 1 Enclosure 2 Disk 5 Soft Read Errors: 0
Bus 1 Enclosure 2 Disk 6 Soft Read Errors: 0
Bus 1 Enclosure 2 Disk 7 Soft Read Errors: 0
Bus 1 Enclosure 2 Disk 8 Soft Read Errors: 0
Bus 1 Enclosure 2 Disk 9 Soft Read Errors: 0
Bus 1 Enclosure 2 Disk 5 Soft Write Errors: 0
Bus 1 Enclosure 2 Disk 6 Soft Write Errors: 0
Bus 1 Enclosure 2 Disk 7 Soft Write Errors: 0
Bus 1 Enclosure 2 Disk 8 Soft Write Errors: 0
Bus 1 Enclosure 2 Disk 9 Soft Write Errors: 0
```

Bus 1 Enclosure 2 Disk 5 Enabled

Bus 1 Enclosure 2 Disk 6 Enabled

Bus 1 Enclosure 2 Disk 7 Enabled

Bus 1 Enclosure 2 Disk 8 Enabled

Bus 1 Enclosure 2 Disk 9 Enabled

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

A:\>"c:\program files\emc\navisphere cli\navicli" -h 10.10.10.5 getlun 12

Statistics logging is disabled.

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

```
Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40
```

```
Prefetching: NO
Prefetched data retained YES
```

Read cache configured according to specified parameters.

```
Total Hard Errors: 0
Total Soft Errors: 0
Total Queue Length: 0
Name Flare LUN 12
Minimum latency reads N/A
```

```
RAID Type: RAID0
RAIDGroup ID: 13
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP B
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: DISABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP B
Rebuild Priority: N/A
Verify Priority: N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100
Prct Bound: 100
LUN Capacity(Megabytes): 83720
LUN Capacity(Blocks): 171459840
```

UID:

```
60:06:01:F4:E8:8B:00:00:C1:2E:07:DF:89:D4:D6:11
Bus 1 Enclosure 3 Disk 0 Queue Length: 0
Bus 1 Enclosure 3 Disk 1 Queue Length: 0
Bus 1 Enclosure 3 Disk 2 Queue Length: 0
Bus 1 Enclosure 3 Disk 3 Queue Length: 0
Bus 1 Enclosure 3 Disk 4 Queue Length: 0
Bus 1 Enclosure 3 Disk 0 Hard Read Errors: 0
Bus 1 Enclosure 3 Disk 1 Hard Read Errors: 0
Bus 1 Enclosure 3 Disk 2 Hard Read Errors: 0
Bus 1 Enclosure 3 Disk 3 Hard Read Errors: 0
Bus 1 Enclosure 3 Disk 4 Hard Read Errors: 0
Bus 1 Enclosure 3 Disk 0 Hard Write Errors: 0
Bus 1 Enclosure 3 Disk 1 Hard Write Errors: 0
Bus 1 Enclosure 3 Disk 2 Hard Write Errors: 0
Bus 1 Enclosure 3 Disk 3 Hard Write Errors: 0
Bus 1 Enclosure 3 Disk 4 Hard Write Errors: 0
Bus 1 Enclosure 3 Disk 0 Soft Read Errors: 0
Bus 1 Enclosure 3 Disk 1 Soft Read Errors: 0
Bus 1 Enclosure 3 Disk 2 Soft Read Errors: 0
Bus 1 Enclosure 3 Disk 3 Soft Read Errors: 0
Bus 1 Enclosure 3 Disk 4 Soft Read Errors: 0
Bus 1 Enclosure 3 Disk 0 Soft Write Errors: 0
Bus 1 Enclosure 3 Disk 1 Soft Write Errors: 0
Bus 1 Enclosure 3 Disk 2 Soft Write Errors: 0
Bus 1 Enclosure 3 Disk 3 Soft Write Errors: 0
Bus 1 Enclosure 3 Disk 4 Soft Write Errors: 0
```

Bus 1 Enclosure 3 Disk 0 Enabled

```

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

```

```

A:\>"c:\program files\emc\navisphere cli\navicli" -h 10.10.10.5 getlun 13
Statistics logging is disabled.

```

```

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

```

```

Prefetch size (blocks) = 0
Prefetch multiplier = 4
Segment size (blocks) = 0
Segment multiplier = 4
Maximum prefetch (blocks) = 512
Prefetch Disable Size (blocks) = 129
Prefetch idle count = 40

```

```

Prefetching: NO
Prefetched data retained YES

```

```

Read cache configured according to
specified parameters.

```

```

Total Hard Errors: 0
Total Soft Errors: 0
Total Queue Length: 0
Name Flare LUN 13
Minimum latency reads N/A

```

```

RAID Type: RAID0
RAIDGroup ID: 14
State: Bound
Stripe Crossing: 0
Element Size: 256
Current owner: SP B
Auto-trespass: DISABLED
Auto-assign: DISABLED
Write cache: DISABLED
Read cache: DISABLED
Idle Threshold: 0
Idle Delay Time: 20
Write Aside Size: 1023
Default Owner: SP B
Rebuild Priority: N/A
Verify Priority: N/A
Prct Reads Forced Flushed: 0
Prct Writes Forced Flushed: 0
Prct Rebuilt: 100
Prct Bound: 100
LUN Capacity(Megabytes): 83720
LUN Capacity(Blocks): 171459840

```

```

UID:
60:06:01:F4:E8:8B:00:00:C2:2E:07:DF:89:D4:D6:11
Bus 1 Enclosure 3 Disk 5 Queue Length: 0
Bus 1 Enclosure 3 Disk 6 Queue Length: 0
Bus 1 Enclosure 3 Disk 7 Queue Length: 0
Bus 1 Enclosure 3 Disk 8 Queue Length: 0
Bus 1 Enclosure 3 Disk 9 Queue Length: 0
Bus 1 Enclosure 3 Disk 5 Hard Read Errors: 0
Bus 1 Enclosure 3 Disk 6 Hard Read Errors: 0
Bus 1 Enclosure 3 Disk 7 Hard Read Errors: 0
Bus 1 Enclosure 3 Disk 8 Hard Read Errors: 0
Bus 1 Enclosure 3 Disk 9 Hard Read Errors: 0
Bus 1 Enclosure 3 Disk 5 Hard Write Errors: 0
Bus 1 Enclosure 3 Disk 6 Hard Write Errors: 0
Bus 1 Enclosure 3 Disk 7 Hard Write Errors: 0
Bus 1 Enclosure 3 Disk 8 Hard Write Errors: 0
Bus 1 Enclosure 3 Disk 9 Hard Write Errors: 0
Bus 1 Enclosure 3 Disk 5 Soft Read Errors: 0
Bus 1 Enclosure 3 Disk 6 Soft Read Errors: 0
Bus 1 Enclosure 3 Disk 7 Soft Read Errors: 0
Bus 1 Enclosure 3 Disk 8 Soft Read Errors: 0
Bus 1 Enclosure 3 Disk 9 Soft Read Errors: 0
Bus 1 Enclosure 3 Disk 5 Soft Write Errors: 0
Bus 1 Enclosure 3 Disk 6 Soft Write Errors: 0
Bus 1 Enclosure 3 Disk 7 Soft Write Errors: 0
Bus 1 Enclosure 3 Disk 8 Soft Write Errors: 0
Bus 1 Enclosure 3 Disk 9 Soft Write Errors: 0

```

```

Bus 1 Enclosure 3 Disk 5 Enabled

```

```

Bus 1 Enclosure 3 Disk 6 Enabled

```

```

Bus 1 Enclosure 3 Disk 7 Enabled

```

```

Bus 1 Enclosure 3 Disk 8 Enabled

```

```

Bus 1 Enclosure 3 Disk 9 Enabled

```

```

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

```

Windows Datacenter Server Configuration Information

```

System Information report written at: 10/29/02 09:05:41
System Name: MV-LE030P1
[System Summary]

```

```

Item Value
OS Name Microsoft(R) Windows(R) .NET Server 2003, Datacenter Edition
Version 5.2.3694 Build 3694
OS Manufacturer Microsoft Corporation
Activation Status Activation Pending (49 days remaining)
System Name MV-LE030P1
System Manufacturer UNISYS
System Model Horizon

```



```

Memory Address 0xE7200000-0xE83FFFFFF PCI bus
Memory Address 0xE7200000-0xE83FFFFFF Adaptec SCSI Card 39160 - Ultra160 SCSI
IRQ 8 System CMOS/real time clock
IRQ 8 Intel(r) 82371AB/EB PCI to USB Universal Host Controller
Memory Address 0xF8200000-0xF9FFFFFF PCI bus
Memory Address 0xF8200000-0xF9FFFFFF cLAN Host Adapter #6
Memory Address 0xF2200000-0xF3FFFFFF PCI bus
Memory Address 0xF2200000-0xF3FFFFFF cLAN Host Adapter #8
Memory Address 0xEF200000-0xF0FFFFFF PCI bus
Memory Address 0xEF200000-0xF0FFFFFF cLAN Host Adapter
Memory Address 0xFA100000-0xFB1FFFFFF PCI bus
Memory Address 0xFA100000-0xFB1FFFFFF PCI standard PCI-to-PCI bridge
Memory Address 0xFA100000-0xFB1FFFFFF Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)
Memory Address 0xE4000000-0xE5FFFFFF DEC 21152 PCI to PCI bridge
Memory Address 0xE4000000-0xE5FFFFFF Console Manager control device
Memory Address 0xE0000000-0xE20FFFFFF DEC 21152 PCI to PCI bridge
Memory Address 0xE0000000-0xE20FFFFFF Console Manager Video Driver
Memory Address 0xDE000000-0xE5FFFFFF PCI bus
Memory Address 0xDE000000-0xE5FFFFFF cLAN Host Adapter #3
Memory Address 0xE6000000-0xE71FFFFFF PCI bus
Memory Address 0xE6000000-0xE71FFFFFF PCI standard PCI-to-PCI bridge
Memory Address 0xE6000000-0xE71FFFFFF Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)
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 0xFB200000-0xFDFFFFFF PCI bus
Memory Address 0xFB200000-0xFDFFFFFF cLAN Host Adapter #2
Memory Address 0xF7100000-0xF81FFFFFF PCI bus
Memory Address 0xF7100000-0xF81FFFFFF PCI standard PCI-to-PCI bridge
Memory Address 0xF7100000-0xF81FFFFFF Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)
Memory Address 0xF4100000-0xF51FFFFFF PCI bus
Memory Address 0xF4100000-0xF51FFFFFF PCI standard PCI-to-PCI bridge
Memory Address 0xF4100000-0xF51FFFFFF Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)
I/O Port 0x000003B0-0x000003BB DEC 21152 PCI to PCI bridge
I/O Port 0x000003B0-0x000003BB Console Manager Video Driver

```

```

Memory Address 0xE9200000-0xEAFFFFFFFF PCI bus
Memory Address 0xE9200000-0xEAFFFFFFFF Intel(R) PRO/100+ Server Adapter (PILA8470B) #2
IRQ 0 Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)
IRQ 0 System timer
Memory Address 0xEE100000-0xEF1FFFFFF PCI bus
Memory Address 0xEE100000-0xEF1FFFFFF PCI standard PCI-to-PCI bridge
Memory Address 0xEE100000-0xEF1FFFFFF Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)
Memory Address 0xE8500000-0xE91FFFFFF PCI bus
Memory Address 0xE8500000-0xE91FFFFFF PCI standard PCI-to-PCI bridge
Memory Address 0xE8500000-0xE91FFFFFF Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)
Memory Address 0xE7300000-0xE7FFFFFF PCI standard PCI-to-PCI bridge
Memory Address 0xE7300000-0xE7FFFFFF Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)
[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
0x00001030-0x0000103F PCI bus OK
0x00001040-0x000013FF PCI bus OK
0x00001100-0x000011FF Adaptec SCSI Card 39160 - Ultra160 SCSI OK
0x00001200-0x000012FF Adaptec SCSI Card 39160 - Ultra160 SCSI OK
0x00000000-0x0000102F PCI bus OK
0x00000000-0x0000102F Direct memory access controller OK
0x00000A79-0x00000A79 ISAPNP Read Data Port OK
0x00000279-0x00000279 ISAPNP Read Data Port OK
0x00000274-0x00000277 ISAPNP Read Data Port OK
0x00000081-0x0000008F Direct memory access controller OK
0x000000C0-0x000000DF Direct memory access controller OK
0x00000020-0x00000021 Programmable interrupt controller OK
0x000000A0-0x000000A1 Programmable interrupt controller OK
0x00000070-0x00000071 System CMOS/real time clock OK
0x00000040-0x00000043 System timer OK
0x00000061-0x00000061 System speaker OK
0x00000101-0x0000016F System speaker OK

```

0x00000178-0x000001CD System speaker OK
 0x000001D0-0x000001EF System speaker OK
 0x000001F8-0x00000273 System speaker OK
 0x00000280-0x000002E7 System speaker OK
 0x000002F0-0x000002F7 System speaker OK
 0x00000300-0x00000377 System speaker OK
 0x00000380-0x000003AF System speaker OK
 0x000003BC-0x000003BF System speaker OK
 0x000003E0-0x000003E7 System speaker OK
 0x000003F6-0x000003F6 System speaker OK
 0x00000501-0x0000056F System speaker OK
 0x00000578-0x000005CD System speaker OK
 0x000005D0-0x000005EF System speaker OK
 0x000005F8-0x00000677 System speaker OK
 0x00000680-0x000006E7 System speaker OK
 0x000006F0-0x000006F7 System speaker OK
 0x00000700-0x00000777 System speaker OK
 0x00000780-0x000007AF System speaker OK
 0x000007BC-0x000007BF System speaker OK
 0x000007E0-0x000007E7 System speaker OK
 0x000007F6-0x000007F6 System speaker OK
 0x00000901-0x0000096F System speaker OK
 0x00000978-0x000009CD System speaker OK
 0x000009D0-0x000009EF System speaker OK
 0x000009F8-0x00000A77 System speaker OK
 0x00000A80-0x00000AE7 System speaker OK
 0x00000AF0-0x00000AF7 System speaker OK
 0x00000B00-0x00000B77 System speaker OK
 0x00000B80-0x00000BAF System speaker OK
 0x00000BBC-0x00000BBF System speaker OK
 0x00000BE0-0x00000BE7 System speaker OK
 0x00000BF6-0x00000BF6 System speaker OK
 0x00000D01-0x00000D6F System speaker OK
 0x00000D78-0x00000D78 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
 0x000002F8-0x000002FF Communications Port (COM2) 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
 0x00001020-0x0000102F Intel(r) 82371AB/EB PCI Bus Master IDE Controller OK
 0x00001000-0x0000101F Intel(r) 82371AB/EB PCI to USB Universal Host Controller OK
 0x000003B0-0x000003BB DEC 21152 PCI to PCI bridge OK
 0x000003B0-0x000003BB Console Manager Video Driver OK
 0x000003C0-0x000003DF DEC 21152 PCI to PCI bridge OK
 0x000003C0-0x000003DF Console Manager Video Driver OK
 0x00001400-0x0000140F PCI bus OK
 0x00001410-0x0000141F PCI bus OK
 0x00001420-0x000017FF PCI bus OK
 0x00001440-0x0000147F Intel(R) PRO/100+ Server Adapter (PILA8470B) #2 OK
 0x00001800-0x0000180F PCI bus OK
 0x00001810-0x0000181F PCI bus OK
 0x00001820-0x00001BFF PCI bus OK
 0x00001C00-0x00001C0F PCI bus OK
 0x00001C10-0x00001C1F PCI bus OK
 0x00001C20-0x00001FFF PCI bus OK
 0x00002000-0x0000200F PCI bus OK
 0x00002010-0x0000201F PCI bus OK
 0x00002020-0x000023FF PCI bus OK

```

0x00002400-0x0000240F PCI bus OK
0x00002410-0x0000241F PCI bus OK
0x00002420-0x000027FF PCI bus OK
0x00002800-0x0000280F PCI bus OK
0x00002810-0x0000281F PCI bus OK
0x00002820-0x00002BFF PCI bus OK
0x00002C00-0x00002C0F PCI bus OK
0x00002C10-0x00002C1F PCI bus OK
0x00002C20-0x0000FFFF PCI bus OK

```

[IRQs]

```

Resource      Device Status
IRQ 23  Microsoft ACPI-Compliant System      OK
IRQ 0   Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)      OK

IRQ 0   System timer      OK
IRQ 4   Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)      OK

IRQ 5   Adaptec SCSI Card 39160 - Ultral60 SCSI      OK
IRQ 6   Adaptec SCSI Card 39160 - Ultral60 SCSI      OK
IRQ 6   Standard floppy disk controller      OK
IRQ 8   System CMOS/real time clock      OK
IRQ 8   Intel(r) 82371AB/EB PCI to USB Universal Host Controller      OK

IRQ 3   Communications Port (COM2)      OK
IRQ 12  PS/2 Compatible Mouse      OK
IRQ 1   Standard 101/102-Key or Microsoft Natural PS/2 Keyboard      OK

IRQ 10  Console Manager control device      OK
IRQ 11  cLAN Host Adapter #3      OK
IRQ 28  Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)      OK

IRQ 32  Intel(R) PRO/100+ Server Adapter (PILA8470B) #2      OK
IRQ 35  cLAN Host Adapter #4      OK
IRQ 52  Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)      OK

IRQ 59  cLAN Host Adapter #5      OK
IRQ 76  Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)      OK

IRQ 83  cLAN Host Adapter      OK
IRQ 100 Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)      OK

IRQ 107 cLAN Host Adapter #8      OK
IRQ 124 Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)      OK

IRQ 131 cLAN Host Adapter #7      OK
IRQ 148 Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)      OK

IRQ 155 cLAN Host Adapter #6      OK
IRQ 172 Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)      OK

IRQ 179 cLAN Host Adapter #2      OK

```

[Memory]

```

Resource      Device Status
0xE6000000-0xE71FFFFFFF PCI bus OK
0xE6000000-0xE71FFFFFFF PCI standard PCI-to-PCI bridge      OK

```

```

0xE6000000-0xE71FFFFFFF Unisys IntelliFibre Fibre Channel Adapter
Driver(ifXp)      OK
0xE6800000-0xE6FFFFFFF Unisys IntelliFibre Fibre Channel Adapter
Driver(ifXp)      OK
0xE7200000-0xE83FFFFFFF PCI bus OK
0xE7200000-0xE83FFFFFFF Adaptec SCSI Card 39160 - Ultral60 SCSI      OK

0xE7300000-0xE7FFFFFFF PCI standard PCI-to-PCI bridge      OK
0xE7300000-0xE7FFFFFFF Unisys IntelliFibre Fibre Channel Adapter
Driver(ifXp)      OK
0xE7800000-0xE7FFFFFFF Unisys IntelliFibre Fibre Channel Adapter
Driver(ifXp)      OK
0xE7201000-0xE7201FFF Adaptec SCSI Card 39160 - Ultral60 SCSI      OK

0xA0000-0xBFFFFF      PCI bus OK
0xA0000-0xBFFFFF      DEC 21152 PCI to PCI bridge      OK
0xA0000-0xBFFFFF      Console Manager Video Driver      OK
0xC0000-0xDFFFFF      PCI bus OK
0xE0000-0xFFFFF      PCI bus OK
0xDE000000-0xE5FFFFFFF PCI bus OK
0xDE000000-0xE5FFFFFFF cLAN Host Adapter #3      OK
0xE0000000-0xE20FFFFFFF DEC 21152 PCI to PCI bridge      OK
0xE0000000-0xE20FFFFFFF Console Manager Video Driver      OK
0xE4000000-0xE5FFFFFFF DEC 21152 PCI to PCI bridge      OK
0xE4000000-0xE5FFFFFFF Console Manager control device      OK
0xE2000000-0xE20FFFFFFF Console Manager Video Driver      OK
0xDE020000-0xDE03FFFFF cLAN Host Adapter #3      OK
0xDE200000-0xDE3FFFFFFF cLAN Host Adapter #3      OK
0xDF000000-0xDFFFFFFFFF cLAN Host Adapter #3      OK
0xE8400000-0xE84FFFFFFF PCI bus OK
0xE8500000-0xE91FFFFFFF PCI bus OK
0xE8500000-0xE91FFFFFFF PCI standard PCI-to-PCI bridge      OK
0xE8500000-0xE91FFFFFFF Unisys IntelliFibre Fibre Channel Adapter
Driver(ifXp)      OK
0xE8800000-0xE8FFFFFFF Unisys IntelliFibre Fibre Channel Adapter
Driver(ifXp)      OK
0xE9200000-0xEAFFFFFFFF PCI bus OK
0xE9200000-0xEAFFFFFFFF Intel(R) PRO/100+ Server Adapter (PILA8470B) #2
OK
0xE9300000-0xE9300FFF Intel(R) PRO/100+ Server Adapter (PILA8470B) #2
OK
0xE9320000-0xE933FFFF cLAN Host Adapter #4      OK
0xE9400000-0xE95FFFFFFF cLAN Host Adapter #4      OK
0xEA000000-0xEAFFFFFFFF cLAN Host Adapter #4      OK
0xE9310000-0xE931FFFFF cLAN Host Adapter #4      OK
0xEB000000-0xEB0FFFFFFF PCI bus OK
0xEB100000-0xEC1FFFFFFF PCI bus OK
0xEB100000-0xEC1FFFFFFF PCI standard PCI-to-PCI bridge      OK
0xEB100000-0xEC1FFFFFFF Unisys IntelliFibre Fibre Channel Adapter
Driver(ifXp)      OK
0xEB800000-0xEBFFFFFFF Unisys IntelliFibre Fibre Channel Adapter
Driver(ifXp)      OK
0xEC200000-0xEDFFFFFFF PCI bus OK
0xEC200000-0xEDFFFFFFF cLAN Host Adapter #5      OK
0xEC220000-0xEC23FFFFF cLAN Host Adapter #5      OK
0xEC400000-0xEC5FFFFFFF cLAN Host Adapter #5      OK
0xED000000-0xEDFFFFFFF cLAN Host Adapter #5      OK
0xEE000000-0xEE0FFFFFFF PCI bus OK
0xEE100000-0xEF1FFFFFFF PCI bus OK

```

```

0xEE100000-0xEF1FFFFFF PCI standard PCI-to-PCI bridge OK
0xEE100000-0xEF1FFFFFF Unisys IntelliFibre Fibre Channel Adapter
Driver(ifXp) OK
0xEE800000-0xEEFFFFFF Unisys IntelliFibre Fibre Channel Adapter
Driver(ifXp) OK
0xEF200000-0xF0FFFFFF PCI bus OK
0xEF200000-0xF0FFFFFF cLAN Host Adapter OK
0xEF220000-0xEF23FFFF cLAN Host Adapter OK
0xEF400000-0xEF5FFFFFF cLAN Host Adapter OK
0xF0000000-0xF0FFFFFF cLAN Host Adapter OK
0xF1000000-0xF10FFFFFF PCI bus OK
0xF1100000-0xF21FFFFFF PCI bus OK
0xF1100000-0xF21FFFFFF PCI standard PCI-to-PCI bridge OK
0xF1100000-0xF21FFFFFF Unisys IntelliFibre Fibre Channel Adapter
Driver(ifXp) OK
0xF1800000-0xF1FFFFFF Unisys IntelliFibre Fibre Channel Adapter
Driver(ifXp) OK
0xF2200000-0xF3FFFFFF PCI bus OK
0xF2200000-0xF3FFFFFF cLAN Host Adapter #8 OK
0xF2220000-0xF223FFFF cLAN Host Adapter #8 OK
0xF2400000-0xF25FFFFFF cLAN Host Adapter #8 OK
0xF3000000-0xF3FFFFFF cLAN Host Adapter #8 OK
0xF4000000-0xF40FFFFFF PCI bus OK
0xF4100000-0xF51FFFFFF PCI bus OK
0xF4100000-0xF51FFFFFF PCI standard PCI-to-PCI bridge OK
0xF4100000-0xF51FFFFFF Unisys IntelliFibre Fibre Channel Adapter
Driver(ifXp) OK
0xF4800000-0xF4FFFFFF Unisys IntelliFibre Fibre Channel Adapter
Driver(ifXp) OK
0xF5200000-0xF6FFFFFF PCI bus OK
0xF5200000-0xF6FFFFFF cLAN Host Adapter #7 OK
0xF5220000-0xF523FFFF cLAN Host Adapter #7 OK
0xF5400000-0xF55FFFFFF cLAN Host Adapter #7 OK
0xF6000000-0xF6FFFFFF cLAN Host Adapter #7 OK
0xF7000000-0xF70FFFFFF PCI bus OK
0xF7100000-0xF81FFFFFF PCI bus OK
0xF7100000-0xF81FFFFFF PCI standard PCI-to-PCI bridge OK
0xF7100000-0xF81FFFFFF Unisys IntelliFibre Fibre Channel Adapter
Driver(ifXp) OK
0xF7800000-0xF7FFFFFF Unisys IntelliFibre Fibre Channel Adapter
Driver(ifXp) OK
0xF8200000-0xF9FFFFFF PCI bus OK
0xF8200000-0xF9FFFFFF cLAN Host Adapter #6 OK
0xF8220000-0xF823FFFF cLAN Host Adapter #6 OK
0xF8400000-0xF85FFFFFF cLAN Host Adapter #6 OK
0xF9000000-0xF9FFFFFF cLAN Host Adapter #6 OK
0xFA000000-0xFA0FFFFFF PCI bus OK
0xFA100000-0xFB1FFFFFF PCI bus OK
0xFA100000-0xFB1FFFFFF PCI standard PCI-to-PCI bridge OK
0xFA100000-0xFB1FFFFFF Unisys IntelliFibre Fibre Channel Adapter
Driver(ifXp) OK
0xFA800000-0xFAFFFFFF Unisys IntelliFibre Fibre Channel Adapter
Driver(ifXp) OK
0xFB200000-0xFDFFFFFF PCI bus OK
0xFB200000-0xFDFFFFFF cLAN Host Adapter #2 OK
0xFB220000-0xFB23FFFF cLAN Host Adapter #2 OK
0xFB400000-0xFB5FFFFFF cLAN Host Adapter #2 OK
0xFC000000-0xFCFFFFFF cLAN Host Adapter #2 OK

```

[Components]

[Multimedia]

[Audio Codecs]

| CODEC | Manufacturer | Description | Status | File | Version | Size |
|----------------------------------|------------------------|--------------------------------|--------|---------------------------|--------------------|------|
| | | Creation Date | | | | |
| c:\windows\system32\msadp32.acm | Microsoft Corporation | | OK | | | |
| C:\WINDOWS\system32\MSADP32.ACM | | 5.2.3694.0 (dnsrv.021010-1930) | | 14.50 KB (14,848 bytes) | 10/11/2002 5:00 AM | |
| c:\windows\system32\tssoft32.acm | DSP GROUP, INC. | | OK | | | |
| C:\WINDOWS\system32\TSSOFT32.ACM | | 1.01 | | 9.50 KB (9,728 bytes) | 10/11/2002 5:00 AM | |
| c:\windows\system32\imaadp32.acm | Microsoft Corporation | | OK | | | |
| C:\WINDOWS\system32\IMAADP32.ACM | | 5.2.3694.0 (dnsrv.021010-1930) | | 15.50 KB (15,872 bytes) | 10/11/2002 5:00 AM | |
| c:\windows\system32\msg711.acm | Microsoft Corporation | | OK | | | |
| C:\WINDOWS\system32\MSG711.ACM | | 5.2.3694.0 (dnsrv.021010-1930) | | 10.00 KB (10,240 bytes) | 10/11/2002 5:00 AM | |
| c:\windows\system32\msg723.acm | Microsoft Corporation | | OK | | | |
| C:\WINDOWS\system32\MSG723.ACM | | 4.4.4000 | | 116.00 KB (118,784 bytes) | 10/17/2002 2:28 PM | |
| c:\windows\system32\msaud32.acm | Microsoft Corporation | Windows Media Audio Codec | OK | | | |
| C:\WINDOWS\system32\MSAUD32.ACM | | 8.00.00.4487 | | 288.00 KB (294,912 bytes) | 10/11/2002 5:00 AM | |
| c:\windows\system32\msgsm32.acm | Microsoft Corporation | | OK | | | |
| C:\WINDOWS\system32\MSGSM32.ACM | | 5.2.3694.0 (dnsrv.021010-1930) | | 20.50 KB (20,992 bytes) | 10/11/2002 5:00 AM | |
| c:\windows\system32\sl_anet.acm | Sipro Lab Telecom Inc. | Sipro Lab Telecom Audio Codec | OK | | | |
| C:\WINDOWS\system32\SL_ANET.ACM | | 3.02 | | 84.00 KB (86,016 bytes) | 10/11/2002 5:00 AM | |

[Video Codecs]

| CODEC | Manufacturer | Description | Status | File | Version | Size |
|----------------------------------|-----------------------|--------------------------------|--------|---------------------------|--------------------|------|
| | | Creation Date | | | | |
| c:\windows\system32\msvidc32.dll | Microsoft Corporation | | OK | | | |
| C:\WINDOWS\system32\MSVIDC32.DLL | | 5.2.3694.0 (dnsrv.021010-1930) | | 26.50 KB (27,136 bytes) | 10/11/2002 5:00 AM | |
| c:\windows\system32\msrle32.dll | Microsoft Corporation | | OK | | | |
| C:\WINDOWS\system32\MSRLE32.DLL | | 5.2.3694.0 (dnsrv.021010-1930) | | 10.50 KB (10,752 bytes) | 10/11/2002 5:00 AM | |
| c:\windows\system32\ir32_32.dll | | Not Available | OK | | | |
| C:\WINDOWS\system32\IR32_32.DLL | | Not Available | | 194.50 KB (199,168 bytes) | 10/11/2002 5:00 AM | |
| c:\windows\system32\msh263.driv | Microsoft Corporation | | OK | | | |
| C:\WINDOWS\system32\MSH263.DRV | | 4.4.4000 | | 284.00 KB (290,816 bytes) | 10/10/2002 3:45 PM | |
| c:\windows\system32\tsbyuv.dll | Microsoft Corporation | | OK | | | |
| C:\WINDOWS\system32\TSBYUV.DLL | | 5.2.3694.0 (dnsrv.021010-1930) | | 8.00 KB (8,192 bytes) | 10/10/2002 3:48 PM | |
| c:\windows\system32\iccvd.dll | Radius Inc. | | OK | | | |
| C:\WINDOWS\system32\ICCVID.DLL | | 1.10.0.6 | | 108.00 KB (110,592 bytes) | 10/11/2002 5:00 AM | |

```

c:\windows\system32\msyuv.dll Microsoft Corporation OK
C:\WINDOWS\system32\MSYUV.DLL 5.2.3694.0 (dnssrv.021010-1930)
16.50 KB (16,896 bytes) 10/10/2002 3:48 PM
c:\windows\system32\msh261.driv Microsoft Corporation OK
C:\WINDOWS\system32\MSH261.DRV 4.4.4000 180.00 KB
(184,320 bytes) 10/17/2002 2:28 PM
c:\windows\system32\iyuv_32.dll Microsoft Corporation OK
C:\WINDOWS\system32\IYUV_32.DLL 5.2.3694.0 (dnssrv.021010-1930)
45.00 KB (46,080 bytes) 10/10/2002 3:47 PM

```

[CD-ROM]

```

Item Value
Drive E:
Description CD-ROM Drive
Media Loaded No
Media Type CD-ROM
Name TOSHIBA CD-ROM XM-6401TA SCSI CdRom Device
Manufacturer (Standard CD-ROM drives)
Status OK
Transfer Rate Not Available
SCSI Target ID 5
PNP Device ID SCSI\CDROM&VEN_TOSHIBA&PROD_CD-ROM_XM-6401TA&REV_1001\4&B87A6AC&0&050

```

[Sound Device]

```
Item Value
```

[Display]

```

Item Value
Name Console Manager Video Driver
PNP Device ID
PCI\VEN_1013&DEV_00D6&SUBSYS_80D61018&REV_03\4&13B26DF1&0&1010

```

```

Adapter Type Cirrus Logic 5465, Unisys Corporation compatible
Adapter Description Console Manager Video Driver
Adapter RAM 2.00 MB (2,097,152 bytes)
Installed Drivers unesconf.dll
Driver Version 6.0.3.25
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 0xE0000000-0xE20FFFFF
Memory Address 0xE2000000-0xE200FFFF
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] Intel(R) PRO/100+ Server Adapter (PILA8470B)
Adapter Type Not Available
Product Type Intel(R) PRO/100+ Server Adapter (PILA8470B)
Installed Yes
PNP Device ID Not Available
Last Reset 10/28/2002 10:33 AM
Index 1
Service Name E100B
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] RAS Async Adapter
Adapter Type Not Available
Product Type RAS Async Adapter
Installed Yes
PNP Device ID Not Available

```

Last Reset 10/28/2002 10:33 AM
Index 2
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 [00000003] WAN Miniport (L2TP)
Adapter Type Not Available
Product Type WAN Miniport (L2TP)
Installed Yes
PNP Device ID ROOT\MS_L2TPMINIPORT\0000
Last Reset 10/28/2002 10:33 AM
Index 3
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 [00000004] WAN Miniport (PPTP)
Adapter Type Wide Area Network (WAN)
Product Type WAN Miniport (PPTP)
Installed Yes
PNP Device ID ROOT\MS_PPTPMINIPORT\0000
Last Reset 10/28/2002 10:33 AM
Index 4
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 [00000005] WAN Miniport (PPPOE)
Adapter Type Wide Area Network (WAN)
Product Type WAN Miniport (PPPOE)
Installed Yes
PNP Device ID ROOT\MS_PPPOEMINIPORT\0000
Last Reset 10/28/2002 10:33 AM
Index 5
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 [00000006] Direct Parallel
Adapter Type Not Available
Product Type Direct Parallel
Installed Yes
PNP Device ID ROOT\MS_PTMINIPORT\0000
Last Reset 10/28/2002 10:33 AM
Index 6
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 [00000007] WAN Miniport (IP)
Adapter Type Not Available
Product Type WAN Miniport (IP)
Installed Yes
PNP Device ID ROOT\MS_NDISWANIP\0000
Last Reset 10/28/2002 10:33 AM
Index 7
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 [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&146CA173&0&18

Last Reset 10/28/2002 10:33 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:0F
Memory Address 0xEF220000-0xEF23FFFF
Memory Address 0xEF400000-0xEF5FFFFF
Memory Address 0xF0000000-0xF0FFFFFF

Memory Address 0xEF200000-0xF0FFFFFF
IRQ Channel IRQ 83

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&1145A0B8&0&18

Last Reset 10/28/2002 10:33 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:8C
Memory Address 0xFB220000-0xFB23FFFF
Memory Address 0xFB400000-0xFB5FFFFF
Memory Address 0xFC000000-0xFCFFFFFF
Memory Address 0xFB200000-0xFDFFFFFFFF
IRQ Channel IRQ 179

Name [00000010] Intel(R) PRO/100+ Server Adapter (PILA8470B)
Adapter Type Ethernet 802.3
Product Type Intel(R) PRO/100+ Server Adapter (PILA8470B)
Installed Yes
PNP Device ID
PCI\VEN_8086&DEV_1229&SUBSYS_100C8086&REV_08\3&20FEA912&0&00

Last Reset 10/28/2002 10:33 AM
Index 10
Service Name E100B
IP Address 192.59.13.213
IP Subnet 255.255.255.0
Default IP Gateway 192.59.13.250
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:D0:B7:BF:FF:2E
Memory Address 0xE9300000-0xE9300FFF
I/O Port 0x00001440-0x0000147F
Memory Address 0xE9200000-0xEAFFFFFF
IRQ Channel IRQ 32

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&172E68DD&0&18

Last Reset 10/28/2002 10:33 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:5D
Memory Address 0xDE020000-0xDE03FFFF
Memory Address 0xDE200000-0xDE3FFFFF
Memory Address 0xDF000000-0xDFFFFFFF
Memory Address 0xDE000000-0xE5FFFFFF
IRQ Channel IRQ 11

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&20FEA912&0&18

Last Reset 10/28/2002 10:33 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:34
Memory Address 0xE9320000-0xE933FFFF
Memory Address 0xE9400000-0xE95FFFFF
Memory Address 0xEA000000-0xEAFFFFFF
Memory Address 0xE9310000-0xE931FFFF
IRQ Channel IRQ 35

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&23C0707C&0&18

Last Reset 10/28/2002 10:33 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 0xEC220000-0xEC23FFFF
Memory Address 0xEC400000-0xEC5FFFFF

Memory Address 0xED000000-0xEDFFFFFF
Memory Address 0xEC200000-0xEDFFFFFF
IRQ Channel IRQ 59

Name [0000014] 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&3BCEF44&0&18

Last Reset 10/28/2002 10:33 AM
Index 14
Service Name GNINDIS
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled Yes
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:90:FA:00:15:9A
Memory Address 0xF8220000-0xF823FFFF
Memory Address 0xF8400000-0xF85FFFFF
Memory Address 0xF9000000-0xF9FFFFFF
Memory Address 0xF8200000-0xF9FFFFFF
IRQ Channel IRQ 155

Name [0000015] 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&72AA75C&0&18

Last Reset 10/28/2002 10:33 AM
Index 15
Service Name GNINDIS
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled Yes
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:90:FA:00:1C:45
Memory Address 0xF5220000-0xF523FFFF
Memory Address 0xF5400000-0xF55FFFFF
Memory Address 0xF6000000-0xF6FFFFFF
Memory Address 0xF5200000-0xF6FFFFFF
IRQ Channel IRQ 131

Name [0000016] cLAN Host Adapter
Adapter Type Ethernet 802.3
Product Type cLAN Host Adapter
Installed Yes
PNP Device ID PCI\VEN_135B&DEV_0001&SUBSYS_00000000&REV_00\3&A985F74&0&18

Last Reset 10/28/2002 10:33 AM
Index 16
Service Name GNINDIS

IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled Yes
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:90:FA:00:14:BC
Memory Address 0xF2220000-0xF223FFFF
Memory Address 0xF2400000-0xF25FFFFF
Memory Address 0xF3000000-0xF3FFFFFF
Memory Address 0xF2200000-0xF3FFFFFF
IRQ Channel IRQ 107

[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_{E6982201-E063-4664-9629-65830C1FE189}] SEQPACKET 11
Connectionless Service No
Guarantees Delivery Yes
Guarantees Sequencing Yes
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting No
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\\Device\NetBT_Tcpip_{E6982201-E063-4664-9629-65830C1FE189}] DATAGRAM 11
Connectionless Service Yes
Guarantees Delivery No
Guarantees Sequencing No
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No

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

Name MSAFD NetBIOS [\\Device\NetBT_Tcpip_{D6CF8266-4BFD-464C-8A43-2857F3528707}] 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_{D6CF8266-4BFD-464C-8A43-2857F3528707}] 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_{4FE859D0-6823-499A-AAA6-1378490A8118}] 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_{4FE859D0-6823-499A-AAA6-1378490A8118}] 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_{262C0B9B-D9ED-473C-A17B-F58BEA1C5710}] SEQPACKET 8
Connectionless Service No
Guarantees Delivery Yes
Guarantees Sequencing Yes
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting No
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{262C0B9B-D9ED-473C-A17B-F58BEA1C5710}] 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_{F9ED0207-E12C-4AA2-94D7-99BF895450C9}] SEQPACKET 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_{F9ED0207-E12C-4AA2-94D7-99BF895450C9}] 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_{E2014DE1-5401-4196-98BB-E783296415BE}] SEQPACKET 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_{E2014DE1-5401-4196-98BB-E783296415BE}] 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_{BFFCBB33-6E21-44E7-87D7-10D58C47BF85}] 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_{BFFCBB33-6E21-44E7-87D7-10D58C47BF85}] 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_{2B2DA02A-360A-4DBF-965D-8827680AA89C}] 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_{2B2DA02A-360A-4DBF-965D-8827680AA89C}] 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_{94C12779-3CD2-4DC7-914C-66C23F96CE3F}] 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_{94C12779-3CD2-4DC7-914C-66C23F96CE3F}] 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_{B344931C-A78F-4656-8B8A-395E25DB5274}] SEQPACKET 0
Connectionless Service No
Guarantees Delivery Yes
Guarantees Sequencing Yes
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting No
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{B344931C-A78F-4656-8B8A-395E25DB5274}] 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_{EF8425FA-6CEA-482D-82EC-C6F2E51A322D}] SEQPACKET 1

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

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{EF8425FA-6CEA-482D-82EC-C6F2E51A322D}] 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_{F7D97AB6-2D68-4B27-AD0F-631251AAC9E3}] SEQPACKET 2
Connectionless Service No
Guarantees Delivery Yes
Guarantees Sequencing Yes
Maximum Address Size 20 bytes
Maximum Message Size 62.50 KB (64,000 bytes)
Message Oriented Yes
Minimum Address Size 20 bytes
Pseudo Stream Oriented No
Supports Broadcasting No
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{F7D97AB6-2D68-4B27-AD0F-631251AAC9E3}] 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 21.50 KB (22,016 bytes)
 Version 5.2.3694.0 (dnsvr.021010-1930)

[Ports]

[Serial]

Item Value
 Name Communications Port (COM2)
 Status OK
 PNP Device ID ACPI\PNP0501\12
 Maximum Input Buffer Size 0
 Maximum Output Buffer Size No
 Settable Baud Rate Yes
 Settable Data Bits Yes
 Settable Flow Control Yes
 Settable Parity Yes
 Settable Parity Check Yes
 Settable Stop Bits Yes
 Settable RLSD Yes
 Supports RLSD Yes
 Supports 16 Bit Mode No
 Supports Special Characters No
 Baud Rate 9600
 Bits/Byte 8
 Stop Bits 1
 Parity None
 Busy No
 Abort Read/Write on Error No
 Binary Mode Enabled Yes
 Continue Xmit on XOff No
 CTS Outflow Control No
 Discard NULL Bytes No
 DSR Outflow Control 0

DSR Sensitivity 0
 DTR Flow Control Type Enable
 EOF Character 0
 Error Replace Character 0
 Error Replacement Enabled No
 Event Character 0
 Parity Check Enabled No
 RTS Flow Control Type Enable
 XOff Character 19
 XOffXmit Threshold 512
 XOn Character 17
 XOnXmit Threshold 2048
 XOnXOff InFlow Control 0
 XOnXOff OutFlow Control 0
 I/O Port 0x000002F8-0x000002FF
 IRQ Channel IRQ 3

[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 17.01 GB (18,268,311,552 bytes)
 Free Space 9.82 GB (10,539,372,544 bytes)
 Volume Name
 Volume Serial Number 4C3852A0

 Drive D:
 Description Local Fixed Disk
 Compressed No
 File System NTFS
 Size 17.01 GB (18,260,086,784 bytes)
 Free Space 13.03 GB (13,989,806,080 bytes)
 Volume Name
 Volume Serial Number 4CF03F92

 Drive E:
 Description CD-ROM Disc

[Disks]

Item Value
Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 5
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #17, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #17, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #17, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #17, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 5
SCSI Logical Unit 1
SCSI Port 0
SCSI Target ID 0
Sectors/Track 63
Size 81.75 GB (87,780,188,160 bytes)
Total Cylinders 10,672
Total Sectors 171,445,680
Total Tracks 2,721,360
Tracks/Cylinder 255
Partition Disk #16, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #16, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #16, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #16, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)

Partition Starting Offset 10,838,081,536 bytes
Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 5
SCSI Logical Unit 2
SCSI Port 0
SCSI Target ID 0
Sectors/Track 63
Size 81.75 GB (87,780,188,160 bytes)
Total Cylinders 10,672
Total Sectors 171,445,680
Total Tracks 2,721,360
Tracks/Cylinder 255
Partition Disk #15, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #15, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #15, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #15, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 5
SCSI Logical Unit 3
SCSI Port 0
SCSI Target ID 0
Sectors/Track 63
Size 81.75 GB (87,780,188,160 bytes)
Total Cylinders 10,672
Total Sectors 171,445,680
Total Tracks 2,721,360
Tracks/Cylinder 255
Partition Disk #14, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #14, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #14, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #14, Partition #3

Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 5
SCSI Logical Unit 7
SCSI Port 0
SCSI Target ID 0
Sectors/Track 63
Size 81.75 GB (87,780,188,160 bytes)
Total Cylinders 10,672
Total Sectors 171,445,680
Total Tracks 2,721,360
Tracks/Cylinder 255
Partition Disk #10, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #10, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #10, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #10, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 5
SCSI Logical Unit 8
SCSI Port 0
SCSI Target ID 0
Sectors/Track 63
Size 81.75 GB (87,780,188,160 bytes)
Total Cylinders 10,672
Total Sectors 171,445,680
Total Tracks 2,721,360
Tracks/Cylinder 255
Partition Disk #8, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #8, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #8, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes

Partition Disk #8, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 5
SCSI Logical Unit 9
SCSI Port 0
SCSI Target ID 0
Sectors/Track 63
Size 81.75 GB (87,780,188,160 bytes)
Total Cylinders 10,672
Total Sectors 171,445,680
Total Tracks 2,721,360
Tracks/Cylinder 255
Partition Disk #7, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #7, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #7, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #7, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 6
SCSI Logical Unit 4
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #126, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #126, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #126, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)

Partition Starting Offset 7,739,539,456 bytes
Partition Disk #126, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 6
SCSI Logical Unit 5
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #121, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #121, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #121, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #121, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 6
SCSI Logical Unit 6
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #118, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #118, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #118, Partition #2

Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #118, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 6
SCSI Logical Unit 10
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #105, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #105, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #105, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #105, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 6
SCSI Logical Unit 11
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #101, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #101, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes

Partition Disk #101, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #101, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 6
SCSI Logical Unit 12
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #99, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #99, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #99, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #99, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 6
SCSI Logical Unit 13
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #97, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #97, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)

Partition Starting Offset 2,648,702,976 bytes
Partition Disk #97, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #97, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 5
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #64, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #64, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #64, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #64, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 5
SCSI Logical Unit 1
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #59, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #59, Partition #1

Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #59, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #59, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 5
SCSI Logical Unit 2
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #55, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #55, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #55, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #55, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 5
SCSI Logical Unit 3
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #50, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes

Partition Disk #50, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #50, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #50, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 5
SCSI Logical Unit 7
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #33, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #33, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #33, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #33, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 5
SCSI Logical Unit 8
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #30, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)

Partition Starting Offset 32,768 bytes
Partition Disk #30, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #30, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #30, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 5
SCSI Logical Unit 9
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #27, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #27, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #27, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #27, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 4
SCSI Logical Unit 4
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #92, Partition #0

Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #92, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #92, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #92, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 4
SCSI Logical Unit 5
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #91, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #91, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #91, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #91, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 4
SCSI Logical Unit 6
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32

Partition Disk #89, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #89, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #89, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #89, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 4
SCSI Logical Unit 10
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #87, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #87, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #87, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #87, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 4
SCSI Logical Unit 11
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040

Tracks/Cylinder 32
Partition Disk #85, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #85, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #85, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #85, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 4
SCSI Logical Unit 12
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #83, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #83, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #83, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #83, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 4
SCSI Logical Unit 13
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560

Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #81, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #81, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #81, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #81, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 5
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #134, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #134, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #134, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #134, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 5
SCSI Logical Unit 1
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720

Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #131, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #131, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #131, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #131, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 5
SCSI Logical Unit 2
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #127, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #127, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #127, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #127, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 5
SCSI Logical Unit 3
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)

Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #122, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #122, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #122, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #122, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 5
 SCSI Logical Unit 7
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64

Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #110, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #110, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #110, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #110, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 5
 SCSI Logical Unit 8
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64

Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #106, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #106, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #106, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #106, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 5
 SCSI Logical Unit 9
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64

Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #102, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #102, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #102, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #102, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 7
 SCSI Logical Unit 4
 SCSI Port 0
 SCSI Target ID 0

Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #76, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #76, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #76, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #76, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 7
SCSI Logical Unit 5
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #75, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #75, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #75, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #75, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 7
SCSI Logical Unit 6
SCSI Port 0

SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #74, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #74, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #74, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #74, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 7
SCSI Logical Unit 10
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #62, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #62, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #62, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #62, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 7
SCSI Logical Unit 11

SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #58, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #58, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #58, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #58, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 7
SCSI Logical Unit 12
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #54, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #54, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #54, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #54, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 7

SCSI Logical Unit 13
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #49, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #49, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #49, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #49, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 6
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #135, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #135, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #135, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #135, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4

```

SCSI Bus      6
SCSI Logical Unit  1
SCSI Port     0
SCSI Target ID 0
Sectors/Track 64
Size      81.76 GB (87,786,782,720 bytes)
Total Cylinders  83,720
Total Sectors  171,458,560
Total Tracks   2,679,040
Tracks/Cylinder 32
Partition      Disk #132, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition      Disk #132, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition      Disk #132, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition      Disk #132, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

```

```

Description      IntelliFibre Fabric Disk Driver (dasd)
Manufacturer      Unisys Corporation
Model      DGC      RAID 0      0841
Bytes/Sector  512
Media Loaded  Yes
Media Type     Fixed hard disk
Partitions     4
SCSI Bus       6
SCSI Logical Unit  2
SCSI Port      0
SCSI Target ID 0
Sectors/Track  64
Size      81.76 GB (87,786,782,720 bytes)
Total Cylinders  83,720
Total Sectors  171,458,560
Total Tracks   2,679,040
Tracks/Cylinder 32
Partition      Disk #128, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition      Disk #128, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition      Disk #128, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition      Disk #128, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

```

```

Description      IntelliFibre Fabric Disk Driver (dasd)
Manufacturer      Unisys Corporation
Model      DGC      RAID 0      0841
Bytes/Sector  512
Media Loaded  Yes
Media Type     Fixed hard disk

```

```

Partitions      4
SCSI Bus       6
SCSI Logical Unit  3
SCSI Port      0
SCSI Target ID 0
Sectors/Track  64
Size      81.76 GB (87,786,782,720 bytes)
Total Cylinders  83,720
Total Sectors  171,458,560
Total Tracks   2,679,040
Tracks/Cylinder 32
Partition      Disk #123, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition      Disk #123, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition      Disk #123, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition      Disk #123, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

```

```

Description      IntelliFibre Fabric Disk Driver (dasd)
Manufacturer      Unisys Corporation
Model      DGC      RAID 0      0841
Bytes/Sector  512
Media Loaded  Yes
Media Type     Fixed hard disk
Partitions     4
SCSI Bus       6
SCSI Logical Unit  7
SCSI Port      0
SCSI Target ID 0
Sectors/Track  64
Size      81.76 GB (87,786,782,720 bytes)
Total Cylinders  83,720
Total Sectors  171,458,560
Total Tracks   2,679,040
Tracks/Cylinder 32
Partition      Disk #111, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition      Disk #111, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition      Disk #111, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition      Disk #111, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

```

```

Description      IntelliFibre Fabric Disk Driver (dasd)
Manufacturer      Unisys Corporation
Model      DGC      RAID 0      0841
Bytes/Sector  512
Media Loaded  Yes

```

Media Type Fixed hard disk
Partitions 4
SCSI Bus 6
SCSI Logical Unit 8
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #107, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #107, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #107, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #107, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 6
SCSI Logical Unit 9
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #103, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #103, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #103, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #103, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512

Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 7
SCSI Logical Unit 4
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #73, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #73, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #73, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #73, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 7
SCSI Logical Unit 5
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #72, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #72, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #72, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #72, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841

Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 7
 SCSI Logical Unit 6
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #69, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #69, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #69, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #69, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 7
 SCSI Logical Unit 10
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #53, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #53, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #53, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #53, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation

Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 7
 SCSI Logical Unit 11
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #48, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #48, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #48, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #48, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 7
 SCSI Logical Unit 12
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #46, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #46, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #46, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #46, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)

Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 7
 SCSI Logical Unit 13
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #42, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #42, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #42, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #42, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 250
 SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #13, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #13, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #13, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #13, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 250
 SCSI Logical Unit 1
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 63
 Size 81.75 GB (87,780,188,160 bytes)
 Total Cylinders 10,672
 Total Sectors 171,445,680
 Total Tracks 2,721,360
 Tracks/Cylinder 255
 Partition Disk #12, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #12, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #12, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #12, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 250
 SCSI Logical Unit 2
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 63
 Size 81.75 GB (87,780,188,160 bytes)
 Total Cylinders 10,672
 Total Sectors 171,445,680
 Total Tracks 2,721,360
 Tracks/Cylinder 255
 Partition Disk #11, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #11, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #11, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #11, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 250
 SCSI Logical Unit 3
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 63
 Size 81.75 GB (87,780,188,160 bytes)
 Total Cylinders 10,672
 Total Sectors 171,445,680
 Total Tracks 2,721,360
 Tracks/Cylinder 255
 Partition Disk #9, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #9, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #9, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #9, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 250
 SCSI Logical Unit 7
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 63
 Size 81.75 GB (87,780,188,160 bytes)
 Total Cylinders 10,672
 Total Sectors 171,445,680
 Total Tracks 2,721,360
 Tracks/Cylinder 255
 Partition Disk #6, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #6, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #6, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #6, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)

Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 250
 SCSI Logical Unit 8
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 63
 Size 81.75 GB (87,780,188,160 bytes)
 Total Cylinders 10,672
 Total Sectors 171,445,680
 Total Tracks 2,721,360
 Tracks/Cylinder 255
 Partition Disk #5, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #5, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #5, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #5, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 250
 SCSI Logical Unit 9
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 63
 Size 81.75 GB (87,780,188,160 bytes)
 Total Cylinders 10,672
 Total Sectors 171,445,680
 Total Tracks 2,721,360
 Tracks/Cylinder 255
 Partition Disk #4, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #4, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #4, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #4, Partition #3

Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 248
SCSI Logical Unit 4
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #45, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #45, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #45, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #45, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 248
SCSI Logical Unit 5
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #41, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #41, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #41, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes

Partition Disk #41, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 248
SCSI Logical Unit 6
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #38, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #38, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #38, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #38, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 248
SCSI Logical Unit 10
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #25, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #25, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #25, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)

Partition Starting Offset 7,739,539,456 bytes
Partition Disk #25, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 248
SCSI Logical Unit 11
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #23, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #23, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #23, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #23, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 248
SCSI Logical Unit 12
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #21, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #21, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #21, Partition #2

Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #21, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 248
SCSI Logical Unit 13
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #19, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #19, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #19, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #19, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 251
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #80, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #80, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes

Partition Disk #80, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #80, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 251
SCSI Logical Unit 1
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #79, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #79, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #79, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #79, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 251
SCSI Logical Unit 2
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #78, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #78, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)

Partition Starting Offset 2,648,702,976 bytes
Partition Disk #78, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #78, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 251
SCSI Logical Unit 3
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #77, Partition #0
Partition Size 2.47 GB (2,648,507,904 bytes)
Partition Starting Offset 32,256 bytes
Partition Disk #77, Partition #1
Partition Size 4.74 GB (5,091,448,320 bytes)
Partition Starting Offset 2,648,540,160 bytes
Partition Disk #77, Partition #2
Partition Size 2.89 GB (3,100,930,560 bytes)
Partition Starting Offset 7,739,988,480 bytes
Partition Disk #77, Partition #3
Partition Size 71.66 GB (76,939,269,120 bytes)
Partition Starting Offset 10,840,919,040 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 251
SCSI Logical Unit 7
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #70, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #70, Partition #1

Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #70, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #70, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 251
SCSI Logical Unit 8
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #67, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #67, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #67, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #67, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 251
SCSI Logical Unit 9
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #63, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes

Partition Disk #63, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #63, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #63, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 247
SCSI Logical Unit 4
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #71, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #71, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #71, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #71, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 247
SCSI Logical Unit 5
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #68, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)

Partition Starting Offset 32,768 bytes
 Partition Disk #68, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #68, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #68, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 247
 SCSI Logical Unit 6
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #66, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #66, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #66, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #66, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 247
 SCSI Logical Unit 10
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #47, Partition #0

Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #47, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #47, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #47, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 247
 SCSI Logical Unit 11
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #43, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #43, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #43, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #43, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 247
 SCSI Logical Unit 12
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32

Partition Disk #39, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #39, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #39, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #39, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 247
SCSI Logical Unit 13
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #36, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #36, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #36, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #36, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 249
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040

Tracks/Cylinder 32
Partition Disk #136, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #136, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #136, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #136, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 249
SCSI Logical Unit 1
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #133, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #133, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #133, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #133, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 249
SCSI Logical Unit 2
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560

Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #129, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #129, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #129, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #129, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 249
 SCSI Logical Unit 3
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #124, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #124, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #124, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #124, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 249
 SCSI Logical Unit 7
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720

Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #112, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #112, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #112, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #112, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 249
 SCSI Logical Unit 8
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #108, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #108, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #108, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #108, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 249
 SCSI Logical Unit 9
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)

Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #104, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #104, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #104, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #104, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 251
 SCSI Logical Unit 4
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64

Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #119, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #119, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #119, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #119, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 251
 SCSI Logical Unit 5
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64

Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #116, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #116, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #116, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #116, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 251
 SCSI Logical Unit 6
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64

Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #114, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #114, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #114, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #114, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 251
 SCSI Logical Unit 10
 SCSI Port 0
 SCSI Target ID 0

Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #100, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #100, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #100, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #100, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 251
 SCSI Logical Unit 11
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #98, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #98, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #98, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #98, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 251
 SCSI Logical Unit 12
 SCSI Port 0

SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #96, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #96, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #96, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #96, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 251
 SCSI Logical Unit 13
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #95, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #95, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #95, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #95, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 249
 SCSI Logical Unit 2

```

SCSI Port      0
SCSI Target ID 0
Sectors/Track 64
Size      81.76 GB (87,786,782,720 bytes)
Total Cylinders      83,720
Total Sectors 171,458,560
Total Tracks  2,679,040
Tracks/Cylinder      32
Partition      Disk #130, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset      32,768 bytes
Partition      Disk #130, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset      2,648,702,976 bytes
Partition      Disk #130, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset      7,739,539,456 bytes
Partition      Disk #130, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset      10,838,081,536 bytes

```

```

Description      IntelliFibre Fabric Disk Driver (dasd)
Manufacturer      Unisys Corporation
Model      DGC      RAID 0      0841
Bytes/Sector      512
Media Loaded      Yes
Media Type      Fixed hard disk
Partitions      4
SCSI Bus      249
SCSI Logical Unit      3
SCSI Port      0
SCSI Target ID      0
Sectors/Track      64
Size      81.76 GB (87,786,782,720 bytes)
Total Cylinders      83,720
Total Sectors 171,458,560
Total Tracks  2,679,040
Tracks/Cylinder      32
Partition      Disk #125, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset      32,768 bytes
Partition      Disk #125, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset      2,648,702,976 bytes
Partition      Disk #125, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset      7,739,539,456 bytes
Partition      Disk #125, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset      10,838,081,536 bytes

```

```

Description      IntelliFibre Fabric Disk Driver (dasd)
Manufacturer      Unisys Corporation
Model      DGC      RAID 0      0841
Bytes/Sector      512
Media Loaded      Yes
Media Type      Fixed hard disk
Partitions      4
SCSI Bus      249

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```

SCSI Logical Unit      4
SCSI Port      0
SCSI Target ID      0
Sectors/Track      64
Size      81.76 GB (87,786,782,720 bytes)
Total Cylinders      83,720
Total Sectors 171,458,560
Total Tracks  2,679,040
Tracks/Cylinder      32
Partition      Disk #120, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset      32,768 bytes
Partition      Disk #120, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset      2,648,702,976 bytes
Partition      Disk #120, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset      7,739,539,456 bytes
Partition      Disk #120, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset      10,838,081,536 bytes

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```

Description      IntelliFibre Fabric Disk Driver (dasd)
Manufacturer      Unisys Corporation
Model      DGC      RAID 0      0841
Bytes/Sector      512
Media Loaded      Yes
Media Type      Fixed hard disk
Partitions      4
SCSI Bus      249
SCSI Logical Unit      5
SCSI Port      0
SCSI Target ID      0
Sectors/Track      64
Size      81.76 GB (87,786,782,720 bytes)
Total Cylinders      83,720
Total Sectors 171,458,560
Total Tracks  2,679,040
Tracks/Cylinder      32
Partition      Disk #117, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset      32,768 bytes
Partition      Disk #117, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset      2,648,702,976 bytes
Partition      Disk #117, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset      7,739,539,456 bytes
Partition      Disk #117, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset      10,838,081,536 bytes

```

```

Description      IntelliFibre Fabric Disk Driver (dasd)
Manufacturer      Unisys Corporation
Model      DGC      RAID 0      0841
Bytes/Sector      512
Media Loaded      Yes
Media Type      Fixed hard disk
Partitions      4

```



```

SCSI Bus      249
SCSI Logical Unit  6
SCSI Port     0
SCSI Target ID 0
Sectors/Track 64
Size      81.76 GB (87,786,782,720 bytes)
Total Cylinders  83,720
Total Sectors  171,458,560
Total Tracks   2,679,040
Tracks/Cylinder 32
Partition      Disk #115, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition      Disk #115, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition      Disk #115, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition      Disk #115, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

```

```

Description      IntelliFibre Fabric Disk Driver (dasd)
Manufacturer      Unisys Corporation
Model DGC         RAID 0          0841
Bytes/Sector      512
Media Loaded      Yes
Media Type        Fixed hard disk
Partitions        4
SCSI Bus          249
SCSI Logical Unit 7
SCSI Port         0
SCSI Target ID   0
Sectors/Track    64
Size      81.76 GB (87,786,782,720 bytes)
Total Cylinders  83,720
Total Sectors  171,458,560
Total Tracks   2,679,040
Tracks/Cylinder 32
Partition      Disk #113, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition      Disk #113, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition      Disk #113, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition      Disk #113, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

```

```

Description      IntelliFibre Fabric Disk Driver (dasd)
Manufacturer      Unisys Corporation
Model DGC         RAID 0          0841
Bytes/Sector      512
Media Loaded      Yes
Media Type        Fixed hard disk

```

```

Partitions      4
SCSI Bus      249
SCSI Logical Unit  8
SCSI Port     0
SCSI Target ID 0
Sectors/Track 64
Size      81.76 GB (87,786,782,720 bytes)
Total Cylinders  83,720
Total Sectors  171,458,560
Total Tracks   2,679,040
Tracks/Cylinder 32
Partition      Disk #109, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition      Disk #109, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition      Disk #109, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition      Disk #109, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

```

```

Description      IntelliFibre Fabric Disk Driver (dasd)
Manufacturer      Unisys Corporation
Model DGC         RAID 0          0841
Bytes/Sector      512
Media Loaded      Yes
Media Type        Fixed hard disk
Partitions        4
SCSI Bus          249
SCSI Logical Unit 0
SCSI Port         0
SCSI Target ID   0
Sectors/Track    64
Size      81.76 GB (87,786,782,720 bytes)
Total Cylinders  83,720
Total Sectors  171,458,560
Total Tracks   2,679,040
Tracks/Cylinder 32
Partition      Disk #65, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition      Disk #65, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition      Disk #65, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition      Disk #65, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

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Description      IntelliFibre Fabric Disk Driver (dasd)
Manufacturer      Unisys Corporation
Model DGC         RAID 0          0841
Bytes/Sector      512
Media Loaded      Yes

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Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 249
 SCSI Logical Unit 1
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #61, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #61, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #61, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #61, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 249
 SCSI Logical Unit 2
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #57, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #57, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #57, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #57, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512

Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 249
 SCSI Logical Unit 3
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #52, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #52, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #52, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #52, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 249
 SCSI Logical Unit 7
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #35, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #35, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #35, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #35, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841

Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 249
 SCSI Logical Unit 8
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #32, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #32, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #32, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #32, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 249
 SCSI Logical Unit 9
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #29, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #29, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #29, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #29, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation

Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 247
 SCSI Logical Unit 4
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #44, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #44, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #44, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #44, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 247
 SCSI Logical Unit 5
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #40, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #40, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #40, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #40, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)

Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 247
 SCSI Logical Unit 6
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #37, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #37, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #37, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #37, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 247
 SCSI Logical Unit 10
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #24, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #24, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #24, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #24, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 247
 SCSI Logical Unit 11
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #22, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #22, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #22, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #22, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 247
 SCSI Logical Unit 12
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #20, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #20, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #20, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #20, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 247
 SCSI Logical Unit 13
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #18, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #18, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #18, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #18, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 247
 SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #94, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #94, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #94, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #94, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)

Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 247
 SCSI Logical Unit 1
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #93, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #93, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #93, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #93, Partition #3
 Partition Size 71.66 GB (76,947,652,608 bytes)
 Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 0 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 4
 SCSI Bus 247
 SCSI Logical Unit 2
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 81.76 GB (87,786,782,720 bytes)
 Total Cylinders 83,720
 Total Sectors 171,458,560
 Total Tracks 2,679,040
 Tracks/Cylinder 32
 Partition Disk #90, Partition #0
 Partition Size 2.47 GB (2,648,670,208 bytes)
 Partition Starting Offset 32,768 bytes
 Partition Disk #90, Partition #1
 Partition Size 4.74 GB (5,090,836,480 bytes)
 Partition Starting Offset 2,648,702,976 bytes
 Partition Disk #90, Partition #2
 Partition Size 2.89 GB (3,098,542,080 bytes)
 Partition Starting Offset 7,739,539,456 bytes
 Partition Disk #90, Partition #3

Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 247
SCSI Logical Unit 3
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #88, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #88, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #88, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #88, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 247
SCSI Logical Unit 7
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #86, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #86, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #86, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes

Partition Disk #86, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 247
SCSI Logical Unit 8
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #84, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #84, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #84, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #84, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 247
SCSI Logical Unit 9
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #82, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #82, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #82, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)

Partition Starting Offset 7,739,539,456 bytes
Partition Disk #82, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 248
SCSI Logical Unit 4
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #60, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #60, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #60, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #60, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 248
SCSI Logical Unit 5
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #56, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #56, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #56, Partition #2

Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #56, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 248
SCSI Logical Unit 6
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #51, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #51, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #51, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #51, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 248
SCSI Logical Unit 10
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #34, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #34, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes

Partition Disk #34, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #34, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 248
SCSI Logical Unit 11
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #31, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #31, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #31, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #31, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 248
SCSI Logical Unit 12
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #28, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #28, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)

Partition Starting Offset 2,648,702,976 bytes
Partition Disk #28, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #28, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 0 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 4
SCSI Bus 248
SCSI Logical Unit 13
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 81.76 GB (87,786,782,720 bytes)
Total Cylinders 83,720
Total Sectors 171,458,560
Total Tracks 2,679,040
Tracks/Cylinder 32
Partition Disk #26, Partition #0
Partition Size 2.47 GB (2,648,670,208 bytes)
Partition Starting Offset 32,768 bytes
Partition Disk #26, Partition #1
Partition Size 4.74 GB (5,090,836,480 bytes)
Partition Starting Offset 2,648,702,976 bytes
Partition Disk #26, Partition #2
Partition Size 2.89 GB (3,098,542,080 bytes)
Partition Starting Offset 7,739,539,456 bytes
Partition Disk #26, Partition #3
Partition Size 71.66 GB (76,947,652,608 bytes)
Partition Starting Offset 10,838,081,536 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
Manufacturer Unisys Corporation
Model DGC RAID 10 0841
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 245
SCSI Logical Unit 0
SCSI Port 0
SCSI Target ID 0
Sectors/Track 64
Size 229.23 GB (246,138,535,936 bytes)
Total Cylinders 234,736
Total Sectors 480,739,328
Total Tracks 7,511,552
Tracks/Cylinder 32
Partition Disk #3, Partition #0
Partition Size 229.23 GB (246,133,246,464 bytes)
Partition Starting Offset 32,256 bytes

Description IntelliFibre Fabric Disk Driver (dasd)
 Manufacturer Unisys Corporation
 Model DGC RAID 10 0841
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 245
 SCSI Logical Unit 1
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 64
 Size 229.23 GB (246,138,535,936 bytes)
 Total Cylinders 234,736
 Total Sectors 480,739,328
 Total Tracks 7,511,552
 Tracks/Cylinder 32
 Partition Disk #2, Partition #0
 Partition Size 229.23 GB (246,133,246,464 bytes)
 Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model UNISYS 018404ST318404LC SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 0
 Sectors/Track 63
 Size 17.01 GB (18,268,346,880 bytes)
 Total Cylinders 2,221
 Total Sectors 35,680,365
 Total Tracks 566,355
 Tracks/Cylinder 255
 Partition Disk #0, Partition #0
 Partition Size 17.01 GB (18,268,314,624 bytes)
 Partition Starting Offset 32,256 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model UNISYS 018404ST318404LC SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 0
 SCSI Target ID 1
 Sectors/Track 63
 Size 17.01 GB (18,268,346,880 bytes)
 Total Cylinders 2,221
 Total Sectors 35,680,365
 Total Tracks 566,355
 Tracks/Cylinder 255

Partition Disk #1, Partition #0
 Partition Size 17.01 GB (18,260,089,344 bytes)
 Partition Starting Offset 32,256 bytes

[SCSI]

Item Value
 Name Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)
 Manufacturer Unisys Corporation
 Status OK
 PNP Device ID
 PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&25EA3EC6&0&0000

Memory Address 0xE6800000-0xE6FFFFFF
 Memory Address 0xE6000000-0xE71FFFFFF
 IRQ Channel IRQ 0

Name Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)
 Manufacturer Unisys Corporation
 Status OK
 PNP Device ID
 PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&2CF6F8ED&0&0000

Memory Address 0xE7800000-0xE7FFFFFF
 Memory Address 0xE7300000-0xE7FFFFFF
 IRQ Channel IRQ 4

Name Adaptec SCSI Card 39160 - Ultra160 SCSI
 Manufacturer Adaptec
 Status OK
 PNP Device ID
 PCI\VEN_9005&DEV_00C0&SUBSYS_F6209005&REV_01\3&29E81982&0&08

I/O Port 0x00001100-0x000011FF
 Memory Address 0xE7200000-0xE83FFFFFF
 IRQ Channel IRQ 5

Name Adaptec SCSI Card 39160 - Ultra160 SCSI
 Manufacturer Adaptec
 Status OK
 PNP Device ID
 PCI\VEN_9005&DEV_00C0&SUBSYS_F6209005&REV_01\3&29E81982&0&09

I/O Port 0x00001200-0x000012FF
 Memory Address 0xE7201000-0xE7201FFF
 IRQ Channel IRQ 6

Name Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)
 Manufacturer Unisys Corporation
 Status OK
 PNP Device ID
 PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&145AF944&0&0000

Memory Address 0xE8800000-0xE8FFFFFF
 Memory Address 0xE8500000-0xE91FFFFFF
 IRQ Channel IRQ 28

Name Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)
 Manufacturer Unisys Corporation

```

Status OK
PNP Device ID
    PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&101F93C3&0&0000

Memory Address 0xEB800000-0xEBFFFFFF
Memory Address 0xEB100000-0xEC1FFFFFF
IRQ Channel    IRQ 52

Name    Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)
Manufacturer    Unisys Corporation
Status OK
PNP Device ID
    PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&39122BAF&0&0000

Memory Address 0xEE800000-0xEEFFFFFF
Memory Address 0xEE100000-0xEF1FFFFFF
IRQ Channel    IRQ 76

Name    Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)
Manufacturer    Unisys Corporation
Status OK
PNP Device ID
    PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&32DC1527&0&0000

Memory Address 0xF1800000-0xF1FFFFFF
Memory Address 0xF1100000-0xF21FFFFFF
IRQ Channel    IRQ 100

Name    Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)
Manufacturer    Unisys Corporation
Status OK
PNP Device ID
    PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&3798F592&0&0000

Memory Address 0xF4800000-0xF4FFFFFF
Memory Address 0xF4100000-0xF51FFFFFF
IRQ Channel    IRQ 124

Name    Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)
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 0xF7100000-0xF81FFFFFF
IRQ Channel    IRQ 148

Name    Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)
Manufacturer    Unisys Corporation
Status OK
PNP Device ID
    PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&297B89&0&0000

Memory Address 0xFA800000-0xFAFFFFFF
Memory Address 0xFA100000-0xFB1FFFFFF
IRQ Channel    IRQ 172

```

[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&09

```

I/O Port 0x00001020-0x0000102F

[Printing]

| Name | Driver | Port Name | Server Name |
|------|--------|-----------|-------------|
|------|--------|-----------|-------------|

[Problem Devices]

| Device | PNP Device ID | Error Code |
|--------|---------------|------------|
|--------|---------------|------------|

[USB]

```

Device PNP Device ID
Intel(r) 82371AB/EB PCI to USB Universal Host Controller
    PCI\VEN_8086&DEV_7112&SUBSYS_00000000&REV_01\3&172E68DD&0&0A

```

USB Root Hub USB\ROOT_HUB\4&4F87EEF&0

[Software Environment]

[System Drivers]

| Name | Description | File | Type | Started | Start Mode | State | Status |
|----------|------------------------------------|--|---------------|---------------|------------|---------------|---------------|
| abiosdsk | Abiosdsk | | Not Available | Kernel Driver | No | | |
| | Disabled | Stopped OK | Ignore | No | No | | |
| acpi | Microsoft ACPI Driver | c:\windows\system32\drivers\acpi.sys | Kernel Driver | Yes | Boot | Running OK | Normal No Yes |
| acpiec | ACPIEC | c:\windows\system32\drivers\acpiec.sys | Kernel Driver | No | Disabled | Stopped OK | Normal No No |
| adpu160m | adpu160m | c:\windows\system32\drivers\adpu160m.sys | Kernel Driver | Yes | Boot | Running OK | Normal No Yes |
| adpu320 | adpu320 | Not Available | Kernel Driver | No | Disabled | Stopped OK | Normal No No |
| afcnt | afcnt | Not Available | Kernel Driver | No | Disabled | Stopped OK | Normal No No |
| afd | AFD Networking Support Environment | c:\windows\system32\drivers\afd.sys | Kernel Driver | Yes | Running OK | Normal No Yes | Auto |
| aha154x | Aha154x | Not Available | Kernel Driver | No | Disabled | Stopped OK | Normal No No |
| aic78u2 | aic78u2 | Not Available | Kernel Driver | No | Disabled | Stopped OK | Normal No No |
| aic78xx | aic78xx | Not Available | Kernel Driver | No | Disabled | Stopped OK | Normal No No |
| aliide | AliIde | Not Available | Kernel Driver | No | Disabled | Stopped OK | Normal No No |

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asyncmac      RAS Asynchronous Media Driver
c:\windows\system32\drivers\asyncmac.sys Kernel Driver No
Manual Stopped OK Normal No No
atapi atapi c:\windows\system32\drivers\atapi.sys Kernel Driver No
Disabled Stopped OK Normal No No
atdisk AtDisk Not Available Kernel Driver No Disabled
Stopped OK Ignore No No
atmarpc ATM ARP Client Protocol
c:\windows\system32\drivers\atmarpc.sys Kernel Driver No
Manual Stopped OK Normal No No
audstub Audio Stub Driver c:\windows\system32\drivers\audstub.sys
Kernel Driver Yes Manual Running OK 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
cpqarray2 cpqarray2 Not Available Kernel Driver No
Disabled Stopped OK Normal No No
cpqcissm cpqcissm Not Available Kernel Driver No
Disabled Stopped OK Normal No No
cpqfcalm cpqfcalm Not Available Kernel Driver No
Disabled Stopped OK Normal No No
crcdisk CRC Disk Filter Driver c:\windows\system32\drivers\crcdisk.sys
Kernel Driver Yes Boot Running OK Normal No Yes
dac960nt dac960nt Not Available Kernel Driver No
Disabled Stopped OK Normal No No
dasd IntelliFibre Fabric Disk Driver (dasd)
c:\windows\system32\drivers\dasd.sys Kernel Driver Yes Boot
Running OK Normal No Yes
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

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e100b Intel(R) PRO Adapter Driver
c:\windows\system32\drivers\e100b325.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
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 Yes Disabled Running OK Normal No Yes
fdc Floppy Disk Controller Driver c:\windows\system32\drivers\fdc.sys
Kernel Driver Yes Manual Running OK Normal No Yes
fips Fips c:\windows\system32\drivers\fips.sys Kernel Driver Yes
System Running OK Normal No Yes
flpydisk 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
gnindis cLAN NDIS Driver c:\windows\system32\drivers\gnindis.sys
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
gpc Generic Packet Classifier
c:\windows\system32\drivers\msgpc.sys Kernel Driver Yes Manual
Running OK Normal No Yes
hpn hpn Not Available Kernel Driver No Disabled
Stopped OK Normal No No
hpt3xx hpt3xx Not Available Kernel Driver No Disabled
Stopped OK Normal No No
http HTTP c:\windows\system32\drivers\http.sys Kernel Driver No
Manual Stopped OK Normal No No
i2omgmt i2omgmt Not Available Kernel Driver No System Stopped OK
Normal No No
i2omp i2omp Not Available Kernel Driver No Disabled
Stopped OK Normal No No
i8042prt i8042 Keyboard and PS/2 Mouse Port Driver
c:\windows\system32\drivers\i8042prt.sys Kernel Driver Yes
System Running OK Normal No Yes
ifip IntelliFibre Fabric Bus Enumerator (ifIp)
c:\windows\system32\drivers\ifip.sys Kernel Driver Yes Boot
Running OK Normal No Yes
ifxp Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)
c:\windows\system32\drivers\ifxp.sys Kernel Driver Yes Boot
Running OK Normal No Yes
iirsp iirsp Not Available Kernel Driver No Disabled
Stopped OK Normal No No
imapi CD-Burning Filter Driver
c:\windows\system32\drivers\imapi.sys Kernel Driver No System
Stopped OK Normal No No

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intelide IntelIde c:\windows\system32\drivers\intelide.sys
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
ipnat IP Network Address Translator
c:\windows\system32\drivers\ipnat.sys Kernel Driver No Manual
Stopped OK Normal No No
ipsec IPSEC driver c:\windows\system32\drivers\ipsec.sys Kernel Driver
Yes System Running OK Normal No Yes
ipsraidn ipsraidn Not Available Kernel Driver No
Disabled Stopped OK Normal No No
isapnp PnP ISA/EISA Bus Driver
c:\windows\system32\drivers\isapnp.sys Kernel Driver Yes
Boot Running OK Critical No Yes
kbdclass Keyboard Class Driver
c:\windows\system32\drivers\kbdclass.sys Kernel Driver Yes
System Running OK Normal No Yes
ksecdd KSecDD c:\windows\system32\drivers\ksecdd.sys Kernel Driver
Yes Boot Running OK Normal No Yes
lp6nds35 lp6nds35 Not Available Kernel Driver No
Disabled Stopped OK Normal No No
mnmdd mnmdd c:\windows\system32\drivers\mnmdd.sys Kernel Driver Yes
System Running OK Ignore No Yes
modem Modem c:\windows\system32\drivers\modem.sys Kernel Driver No
Manual Stopped OK Ignore No No
mouclass Mouse Class Driver
c:\windows\system32\drivers\mouclass.sys Kernel Driver Yes
System Running OK Normal No Yes
mountmgr Mount Point Manager
c:\windows\system32\drivers\mountmgr.sys Kernel Driver Yes
Boot Running OK Normal No Yes
mraid35x mraid35x Not Available Kernel Driver No
Disabled Stopped OK Normal No No
mrxdav WebDav Client Redirector
c:\windows\system32\drivers\mrxdav.sys File System Driver
No Manual Stopped OK Normal No No
mrxsmb MRXSMB c:\windows\system32\drivers\mrxsmb.sys File System
Driver Yes System Running OK Normal No Yes
msfs Msfs c:\windows\system32\drivers\msfs.sys File System Driver
Yes System Running OK Normal No Yes
mup Mup c:\windows\system32\drivers\mup.sys File System Driver
Yes Boot Running OK Normal No Yes
ndis NDIS System Driver c:\windows\system32\drivers\ndis.sys Kernel
Driver Yes Boot Running OK Normal No Yes
ndistapi Remote Access NDIS TAPI Driver
c:\windows\system32\drivers\ndistapi.sys Kernel Driver Yes
Manual Running OK Normal No Yes
ndisuio NDIS Usermode I/O Protocol
c:\windows\system32\drivers\ndisuio.sys Kernel Driver No
Manual Stopped OK Normal No No
ndiswan Remote Access NDIS WAN Driver
c:\windows\system32\drivers\ndiswan.sys Kernel Driver Yes
Manual Running OK Normal No Yes

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ndproxy NDIS Proxy c:\windows\system32\drivers\ndproxy.sys Kernel
Driver Yes Manual Running OK Normal No Yes
netbios NetBIOS Interface c:\windows\system32\drivers\netbios.sys
File System Driver Yes System Running OK Normal No
Yes
netbt NetBios over Tcpip c:\windows\system32\drivers\netbt.sys Kernel
Driver Yes System Running OK Normal No Yes
nfrd960 nfrd960 Not Available Kernel Driver No Disabled
Stopped OK Normal No No
npfs Npfs c:\windows\system32\drivers\npfs.sys File System Driver
Yes System Running OK Normal No Yes
ntfs Ntfs c:\windows\system32\drivers\ntfs.sys File System Driver
Yes Disabled Running OK Normal No Yes
null Null c:\windows\system32\drivers\null.sys Kernel Driver Yes
System Running OK Normal No Yes
parport Parallel port driver c:\windows\system32\drivers\parport.sys
Kernel Driver Yes Manual Running OK Normal No Yes
partmgr Partition Manager c:\windows\system32\drivers\partmgr.sys
Kernel Driver Yes Boot Running OK Normal No Yes
parvdm ParVdm c:\windows\system32\drivers\parvdm.sys Kernel Driver
Yes Auto Running OK Ignore No Yes
pci PCI Bus Driver c:\windows\system32\drivers\pci.sys Kernel Driver
Yes Boot Running OK Critical No Yes
pciide PCIIde Not Available Kernel Driver No Disabled
Stopped OK Normal No No
pcmcia Pcmcia c:\windows\system32\drivers\pcmcia.sys Kernel Driver
No Disabled Stopped OK Normal No No
pdcomp PDCOMP Not Available Kernel Driver No Manual Stopped OK
Ignore No No
pdframe PDFRAME Not Available Kernel Driver No Manual Stopped OK
Ignore No No
pdreli PDRELI Not Available Kernel Driver No Manual Stopped OK
Ignore No No
pdrframe PDRFRAME Not Available Kernel Driver No Manual
Stopped OK Ignore No No
perc2 perc2 Not Available Kernel Driver No Disabled
Stopped OK Normal No No
perc2hib perc2hib Not Available Kernel Driver No
Disabled Stopped OK Normal No No
pptpminiport WAN Miniport (PPTP)
c:\windows\system32\drivers\rasppptp.sys Kernel Driver Yes
Manual Running OK Normal No Yes
processor Processor Driver
c:\windows\system32\drivers\processr.sys Kernel Driver No
Manual Stopped OK Normal No No
ptilink Direct Parallel Link Driver
c:\windows\system32\drivers\ptilink.sys Kernel Driver Yes
Manual Running OK Normal No Yes
ql1080 ql1080 Not Available Kernel Driver No Disabled
Stopped OK Normal No No
ql10wnt Ql10wnt Not Available Kernel Driver No Disabled
Stopped OK Normal No No
ql12160 ql12160 Not Available Kernel Driver No Disabled
Stopped OK Normal No No
ql1240 ql1240 Not Available Kernel Driver No Disabled
Stopped OK Normal No No

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ql1280 ql1280 Not Available Kernel Driver No Disabled
Stopped OK Normal No No
ql2100 ql2100 Not Available Kernel Driver No Disabled
Stopped OK Normal No No
ql2200 ql2200 c:\windows\system32\drivers\ql2200.sys Kernel Driver
Yes Boot Running OK Normal No Yes
ql2300 ql2300 Not Available Kernel Driver No Disabled
Stopped OK Normal No No
rasacd Remote Access Auto Connection Driver
c:\windows\system32\drivers\rasacd.sys Kernel Driver Yes
System Running OK Normal No Yes
rasl2tp WAN Miniport (L2TP) c:\windows\system32\drivers\rasl2tp.sys
Kernel Driver Yes Manual Running OK Normal No Yes
rasppoe Remote Access PPPOE Driver
c:\windows\system32\drivers\rasppoe.sys Kernel Driver Yes
Manual Running OK Normal No Yes
raspti Direct Parallel c:\windows\system32\drivers\raspti.sys
Kernel Driver Yes Manual Running OK Normal No Yes
rdbss Rdbss c:\windows\system32\drivers\rdbss.sys File System Driver
Yes System Running OK Normal No Yes
rdpcdd RDPCCDD c:\windows\system32\drivers\rdpcdd.sys Kernel Driver
Yes System Running OK Ignore No Yes
rdpdr Terminal Server Device Redirector Driver
c:\windows\system32\drivers\rdpdr.sys Kernel Driver Yes Manual
Running OK Normal No Yes
rdpwd RDPWD c:\windows\system32\drivers\rdpwd.sys Kernel Driver Yes
Manual Running OK Ignore No Yes
redbook Digital CD Audio Playback Filter Driver
c:\windows\system32\drivers\redbook.sys Kernel Driver No
System Stopped OK Normal No No
secdrv Secdrv c:\windows\system32\drivers\secdrv.sys Kernel Driver
No Manual Stopped OK Normal No No
serenum Serenum Filter Driver c:\windows\system32\drivers\serenum.sys
Kernel Driver Yes Manual Running OK Normal No Yes
serial Serial port driver c:\windows\system32\drivers\serial.sys
Kernel Driver Yes System Running OK Ignore No Yes
sfloppy Sfloppy c:\windows\system32\drivers\sfloppy.sys Kernel Driver
No System Stopped OK Ignore No No
simbad Simbad Not Available Kernel Driver No Disabled
Stopped OK Normal No No
sparrow Sparrow Not Available Kernel Driver No Disabled
Stopped OK Normal No No
srv Srv c:\windows\system32\drivers\srv.sys File System Driver
Yes Manual Running OK Normal No Yes
swenum Software Bus Driver c:\windows\system32\drivers\swenum.sys
Kernel Driver Yes Manual Running OK Normal No Yes
symc810 symc810 Not Available Kernel Driver No Disabled
Stopped OK Normal No No
symc8xx symc8xx Not Available Kernel Driver No Disabled
Stopped OK Normal No No
symmpi symmpi 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

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sym_u3 sym_u3 Not Available Kernel Driver No Disabled
Stopped OK Normal No No
tcpip TCP/IP Protocol Driver c:\windows\system32\drivers\tcpip.sys Kernel
Driver Yes System Running OK Normal No Yes
tdpipe TDPIPE c:\windows\system32\drivers\tdpipe.sys Kernel Driver
No Manual Stopped OK Ignore No No
tdtcp TDTCP c:\windows\system32\drivers\tdtcp.sys Kernel Driver Yes
Manual Running OK Ignore No Yes
termdd Terminal Device Driver c:\windows\system32\drivers\termdd.sys
Kernel Driver Yes System Running OK Normal No Yes
toside TosIde Not Available Kernel Driver No Disabled
Stopped OK Normal No No
udfs Udfs c:\windows\system32\drivers\udfs.sys File System Driver
No Disabled Stopped OK Normal No No
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 5.3562.8.301 10/23/2001
Unisys oem0.inf Not Available ROOT\ACPI_HAL\0000
Microsoft ACPI-Compliant System No SYSTEM 5.2.3694.0
10/1/2002 Microsoft acpi.inf Not Available
ACPI_HAL\PNP0C08\0
PCI bus No SYSTEM 5.2.3694.0 10/1/2002 (Standard system
devices) machine.inf Not Available ACPI\PNP0A03\2

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PCI standard PCI-to-PCI bridge No SYSTEM 5.2.3694.0 10/1/2002 (Standard system devices) machine.inf Not Available PCI\VEN_8086&DEV_0309&SUBSYS_00000000&REV_01\3&1070020&0&00

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Adaptec SCSI Card 39160 - Ultra160 SCSI No SCISIADAPTER 5.2.3694.0 10/1/2002 Adaptec pnpscsi.inf Not Available PCI\VEN_9005&DEV_00C0&SUBSYS_F6209005&REV_01\3&29E81982&0&08

Disk drive No DISKDRIVE 5.2.3694.0 10/1/2002 (Standard disk drives) disk.inf Not Available SCSI\DISK&VEN_UNISYS&PROD_018404ST318404LC&REV_3237\4&B87A6AC&0&000

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CD-ROM Drive No CDROM 5.2.3694.0 10/1/2002 (Standard CD-ROM drives) cdrom.inf Not Available SCSI\CDROM&VEN_TOSHIBA&PROD_CD-ROM_XM-6401TA&REV_1001\4&B87A6AC&0&050

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ISAPNP Read Data Port No SYSTEM 5.2.3694.0 10/1/2002 (Standard system devices) machine.inf Not Available ISAPNP\READDATAPORT\0

Direct memory access controller No SYSTEM 5.2.3694.0 10/1/2002 (Standard system devices) machine.inf Not Available ACPI\PNP0200\D

Programmable interrupt controller No SYSTEM 5.2.3694.0 10/1/2002 (Standard system devices) machine.inf Not Available ACPI\PNP0000\D

System CMOS/real time clock No SYSTEM 5.2.3694.0 10/1/2002 (Standard system devices) machine.inf Not Available ACPI\PNP0B00\D

System timer No SYSTEM 5.2.3694.0 10/1/2002 (Standard system devices) machine.inf Not Available ACPI\PNP0100\D

System speaker No SYSTEM 5.2.3694.0 10/1/2002 (Standard system devices) machine.inf Not Available ACPI\PNP0800\D

Generic Bus No SYSTEM 5.2.3694.0 10/1/2002 (Standard system devices) machine.inf Not Available ACPI\PNP0A05\D

Communications Port No PORTS 5.2.3694.0 10/1/2002 (Standard port types) msports.inf Not Available ACPI\PNP0501\12

ECP Printer Port No PORTS 5.2.3694.0 10/1/2002 (Standard port types) msports.inf Not Available ACPI\PNP0401\D

Printer Port Logical Interface No SYSTEM 5.2.3694.0 10/1/2002 (Standard system devices) machine.inf Not Available LPTENUM\MICROSOFTRAWPORT\6&2DCCF168&0&LPT1

PS/2 Compatible Mouse No MOUSE 5.2.3694.0 10/1/2002 Microsoft msmouse.inf Not Available ACPI\PNP0F13\D

Standard 101/102-Key or Microsoft Natural PS/2 Keyboard No KEYBOARD 5.2.3694.0 10/1/2002 (Standard keyboards) keyboard.inf Not Available ACPI\PNP0303\D

Standard floppy disk controller No FDC 5.2.3694.0 10/1/2002 (Standard floppy disk controllers) fdc.inf Not Available ACPI\PNP0700\D

Floppy disk drive No FLOPPYDISK 5.2.3694.0 10/1/2002 (Standard floppy disk drives) flypdisk.inf Not Available FDC\GENERIC_FLOPPY_DRIVE\6&1E621CEF&0&0

Intel(r) 82371AB/EB PCI Bus Master IDE Controller No HDC 5.2.3694.0 10/1/2002 Intel mshdc.inf Not Available PCI\VEN_8086&DEV_7111&SUBSYS_00000000&REV_01\3&172E68DD&0&09

Intel(r) 82371AB/EB PCI to USB Universal Host Controller No USB 5.2.3694.0 10/1/2002 Intel usbport.inf Not Available PCI\VEN_8086&DEV_7112&SUBSYS_00000000&REV_01\3&172E68DD&0&0A

USB Root Hub No USB 5.2.3694.0 10/1/2002 (Standard USB Host Controller) usbport.inf Not Available USB\ROOT_HUB\4&4F87EEF&0

DEC 21152 PCI to PCI bridge No SYSTEM 5.2.3694.0 10/1/2002 DEC machine.inf Not Available PCI\VEN_1011&DEV_0024&SUBSYS_00000000&REV_03\3&172E68DD&0&10

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Console Manager control device No SYSTEM 6.0.3.25 2/27/2002 Unisys Corporation oem1.inf Not Available PCI\VEN_8086&DEV_1960&SUBSYS_C2001018&REV_05\4&13B26DF1&0&0110

Console Manager Video Driver No DISPLAY 6.0.3.25 2/27/2002 Unisys Corporation oem2.inf Not Available PCI\VEN_1013&DEV_00D6&SUBSYS_80D61018&REV_03\4&13B26DF1&0&1010

Default Monitor No MONITOR 5.1.2001.0 6/6/2001 (Standard monitor types) monitor.inf Not Available DISPLAY\DEFAULT_MONITOR\5&18DCA6E6&0&11223344&02&02

cLAN Host Adapter No NET 4.2.0.75 10/5/2000 Gigaset oem7.inf Not Available

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SCSIADAPTER 2.20.0.12 9/11/2002 Unisys Corporation
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 Logical Disk Manager No SYSTEM 5.2.3694.0 10/1/2002
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 Generic Packet Classifier Not Available LEGACYDRIVER Not Available
 Not Available Not Available Not Available Not Available
 ROOT\LEGACY_GPC\0000
 IPSEC driver Not Available LEGACYDRIVER Not Available Not Available
 Not Available Not Available Not Available Not Available
 ROOT\LEGACY_IPSEC\0000
 ksecdd Not Available LEGACYDRIVER Not Available Not Available Not
 Available Not Available Not Available ROOT\LEGACY_KSECDD\0000
 mnmdm Not Available LEGACYDRIVER Not Available Not Available Not
 Available Not Available Not Available ROOT\LEGACY_MNMDM\0000

mountmgr Not Available LEGACYDRIVER Not Available Not Available
 Not Available Not Available Not Available
 ROOT\LEGACY_MOUNTMGR\0000

NDIS System Driver Not Available LEGACYDRIVER Not Available Not Available
 Available Not Available Not Available Not Available
 ROOT\LEGACY_NDIS\0000

Remote Access NDIS TAPI Driver Not Available LEGACYDRIVER Not Available
 Available Not Available Not Available Not Available Not Available
 ROOT\LEGACY_NDIS\TAPI\0000

NDIS Usermode I/O Protocol Not Available LEGACYDRIVER Not Available
 Not Available Not Available Not Available Not Available
 ROOT\LEGACY_NDISUIO\0000

NDProxy Not Available LEGACYDRIVER Not Available Not Available Not Available
 Available Not Available Not Available ROOT\LEGACY_NDPROXY\0000

NetBios over Tcpip Not Available LEGACYDRIVER Not Available Not Available
 Available Not Available Not Available Not Available
 ROOT\LEGACY_NETBT\0000

Null Not Available LEGACYDRIVER Not Available Not Available Not Available
 Available Not Available Not Available ROOT\LEGACY_NULL\0000

Partition Manager Not Available LEGACYDRIVER Not Available Not Available
 Available Not Available Not Available Not Available
 ROOT\LEGACY_PARTMGR\0000

ParVdm Not Available LEGACYDRIVER Not Available Not Available Not Available
 Available Not Available Not Available ROOT\LEGACY_PARVDM\0000

ql2200 Not Available LEGACYDRIVER Not Available Not Available Not Available
 Available Not Available Not Available ROOT\LEGACY_QL2200\0000

Remote Access Auto Connection Driver Not Available LEGACYDRIVER Not Available
 Available Not Available Not Available Not Available Not Available
 ROOT\LEGACY_RASACD\0000

RDPCCD Not Available LEGACYDRIVER Not Available Not Available Not Available
 Available Not Available Not Available ROOT\LEGACY_RDPCCD\0000

RDPWD Not Available LEGACYDRIVER Not Available Not Available Not Available
 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
 ROOT\LEGACY_TCPIP\0000

TDTCP Not Available LEGACYDRIVER Not Available Not Available Not Available
 Available Not Available Not Available ROOT\LEGACY_TDTCP\0000

VGA Display Controller. Not Available LEGACYDRIVER Not Available
 Not Available Not Available Not Available Not Available
 ROOT\LEGACY_VGASAVE\0000

volsnap Not Available LEGACYDRIVER Not Available Not Available Not Available
 Available Not Available Not Available ROOT\LEGACY_VOLSNAP\0000

Remote Access IP ARP Driver Not Available LEGACYDRIVER Not Available
 Not Available Not Available Not Available Not Available
 ROOT\LEGACY_WANARP\0000

Audio Codecs No MEDIA 5.2.3694.0 10/1/2002 (Standard system devices)
 wave.inf Not Available ROOT\MEDIA\MS_MMCM

Legacy Audio Drivers No MEDIA 5.2.3694.0 10/1/2002
 (Standard system devices) wave.inf Not Available
 ROOT\MEDIA\MS_MMDRV

Media Control Devices No MEDIA 5.2.3694.0 10/1/2002
 (Standard system devices) wave.inf Not Available
 ROOT\MEDIA\MS_MMMCI

Legacy Video Capture Devices No MEDIA 5.2.3694.0 10/1/2002
 (Standard system devices) wave.inf Not Available
 ROOT\MEDIA\MS_MMVCD

Video Codecs No MEDIA 5.2.3694.0 10/1/2002 (Standard system devices)
 wave.inf Not Available ROOT\MEDIA\MS_MMVID

WAN Miniport (L2TP) No NET 5.2.3694.0 10/1/2002
 Microsoft netrasa.inf Not Available
 ROOT\MS_L2TPMINIPORT\0000

WAN Miniport (IP) No NET 5.2.3694.0 10/1/2002
 Microsoft netrasa.inf Not Available
 ROOT\MS_NDISWANIP\0000

WAN Miniport (PPPOE) No NET 5.2.3694.0 10/1/2002
 Microsoft netrasa.inf Not Available
 ROOT\MS_PPPOEMINIPORT\0000

WAN Miniport (PPTP) No NET 5.2.3694.0 10/1/2002
 Microsoft netrasa.inf Not Available
 ROOT\MS_PPTPMINIPORT\0000

Direct Parallel No NET 5.2.3694.0 10/1/2002
 Microsoft netrasa.inf Not Available
 ROOT\MS_PTMINIPORT\0000

Terminal Server Device Redirector No SYSTEM 5.2.3694.0
 10/1/2002 (Standard system devices) machine.inf Not Available
 ROOT\RDPDR\0000

Terminal Server Keyboard Driver No SYSTEM 5.2.3694.0
 10/1/2002 (Standard system devices) machine.inf Not Available
 ROOT\RDP_KBD\0000

Terminal Server Mouse Driver No SYSTEM 5.2.3694.0 10/1/2002
 (Standard system devices) machine.inf Not Available
 ROOT\RDP_MOU\0000

Plug and Play Software Device Enumerator No SYSTEM 5.2.3694.0
 10/1/2002 (Standard system devices) machine.inf Not Available
 ROOT\SYSTEM\0000

Microcode Update Device No SYSTEM 5.2.3694.0 10/1/2002
 (Standard system devices) machine.inf Not Available
 ROOT\SYSTEM\0001

IntelliFibre Fabric Bus Enumerator (ifIp) No SYSTEM 2.20.0.21
 10/9/2002 Unisys Corporation oem4.inf Not Available
 ROOT\SYSTEM\0002

IntelliFibre Fabric Disk Driver (dasd) No DISKDRIVE
 2.20.0.3 9/11/2002 Unisys Corporation oem5.inf
 Not Available
 SCSI\DISK&VEN_DGC_____RAID_10_____0841\1&1A590E2C&0&C353024060
 010650000000000000000000

IntelliFibre Fabric Disk Driver (dasd) No DISKDRIVE
 2.20.0.3 9/11/2002 Unisys Corporation oem5.inf
 Not Available
 SCSI\DISK&VEN_DGC_____RAID_10_____0841\1&1A590E2C&0&C353024060
 010650000000000000000000

IntelliFibre Fabric Disk Driver (dasd) No DISKDRIVE
 2.20.0.3 9/11/2002 Unisys Corporation oem5.inf
 Not Available
 SCSI\DISK&VEN_DGC_____RAID_0_____0841\1&1A590E2C&0&8042034060
 010650000000000000000000

IntelliFibre Fabric Disk Driver (dasd) No DISKDRIVE
 2.20.0.3 9/11/2002 Unisys Corporation oem5.inf

Parameters Driver Print Processor Host Print Queue
Data Type Name

[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 | Not Available | 4 | 8 | 0 | 1413120 | Not Available | Not Available | Not Available |
| Available | Not Available | Not Available | Not Available | Not Available | Not Available | Not Available | Not Available | Not Available |
| smss.exe | c:\windows\system32\smss.exe | 484 | 11 | 204800 | 1413120 | 10/28/2002 10:48 AM | 5.2.3694.0 | (dnsvr.021010-1930) |
| | | | | | | 46.50 KB (47,616 bytes) | 10/11/2002 5:00 AM | |
| csrss.exe | Not Available | 532 | 13 | Not Available | Not Available | 10/28/2002 10:52 AM | Not Available | Not Available |
| | | | | | | 10/28/2002 10:52 AM | Not Available | Not Available |
| winlogon.exe | c:\windows\system32\winlogon.exe | 556 | 13 | 204800 | 1413120 | 10/28/2002 10:52 AM | 5.2.3694.0 | (dnsvr.021010-1930) |
| | | | | | | 505.50 KB (517,632 bytes) | 10/11/2002 5:00 AM | |
| services.exe | c:\windows\system32\services.exe | 600 | 9 | 204800 | 1413120 | 10/28/2002 10:52 AM | 5.2.3694.0 | (dnsvr.021010-1930) |
| | | | | | | 97.00 KB (99,328 bytes) | 10/11/2002 5:00 AM | |
| lsass.exe | c:\windows\system32\lsass.exe | 612 | 9 | 204800 | 1413120 | 10/28/2002 10:52 AM | 5.2.3694.0 | (dnsvr.021010-1930) |
| | | | | | | 13.00 KB (13,312 bytes) | 10/11/2002 5:00 AM | |
| svchost.exe | c:\windows\system32\svchost.exe | 804 | 8 | 204800 | 1413120 | 10/28/2002 10:52 AM | 5.2.3694.0 | (dnsvr.021010-1930) |
| | | | | | | 12.00 KB (12,288 bytes) | 10/11/2002 5:00 AM | |
| svchost.exe | c:\windows\system32\svchost.exe | 840 | 8 | 204800 | 1413120 | 10/28/2002 10:52 AM | 5.2.3694.0 | (dnsvr.021010-1930) |
| | | | | | | 12.00 KB (12,288 bytes) | 10/11/2002 5:00 AM | |
| gnconmgr.exe | c:\windows\system32\gnconmgr.exe | 996 | 8 | 204800 | 1413120 | 10/28/2002 10:52 AM | 4.2.0.75 | 168.05 KB (172,079 bytes) |
| | | | | | | 10/18/2002 8:48 PM | | |
| svchost.exe | Not Available | 1260 | 8 | Not Available | Not Available | 10/28/2002 10:54 AM | Not Available | Not Available |
| | | | | | | 10/28/2002 10:54 AM | Not Available | Not Available |
| svchost.exe | c:\windows\system32\svchost.exe | 1292 | 8 | 204800 | 1413120 | 10/28/2002 10:54 AM | 5.2.3694.0 | (dnsvr.021010-1930) |
| | | | | | | 12.00 KB (12,288 bytes) | 10/11/2002 5:00 AM | |
| msdtc.exe | Not Available | 1348 | 8 | Not Available | Not Available | 10/28/2002 10:54 AM | Not Available | Not Available |
| | | | | | | 10/28/2002 10:54 AM | Not Available | Not Available |
| svchost.exe | c:\windows\system32\svchost.exe | 1808 | 8 | 204800 | 1413120 | 10/28/2002 10:54 AM | 5.2.3694.0 | (dnsvr.021010-1930) |
| | | | | | | 12.00 KB (12,288 bytes) | 10/11/2002 5:00 AM | |
| esconmgr.exe | c:\windows\system32\esconmgr.exe | 1820 | 24 | 204800 | 1413120 | 10/28/2002 10:54 AM | 6.0.3.25 | 265.05 KB (271,412 bytes) |
| | | | | | | 8/19/2002 5:53 PM | | |
| svchost.exe | Not Available | 1844 | 8 | Not Available | Not Available | 10/28/2002 10:54 AM | Not Available | Not Available |
| | | | | | | 10/28/2002 10:54 AM | Not Available | Not Available |

| | | | | | | | | |
|--------------|---|------|----|---------------|---------------|-----------------------------|--------------------|---------------------------|
| explorer.exe | c:\windows\explorer.exe | 1000 | 8 | 204800 | 1413120 | 10/28/2002 10:54 AM | 6.00.3694.0 | (dnsvr.021010-1930) |
| | | | | | | 994.00 KB (1,017,856 bytes) | 10/11/2002 5:00 AM | |
| sqlmangr.exe | c:\program files\microsoft sql server\80\tools\bin\sqlmangr.exe | 644 | 8 | 204800 | 1413120 | 10/28/2002 10:54 AM | 2000.080.0731.00 | 72.57 KB (74,308 bytes) |
| | | | | | | 10/24/2002 6:53 PM | | |
| wmiprvse.exe | Not Available | 2120 | 8 | Not Available | Not Available | 10/28/2002 10:54 AM | Not Available | Not Available |
| | | | | | | 10/28/2002 10:54 AM | Not Available | Not Available |
| wpabaln.exe | c:\windows\system32\wpabaln.exe | 2508 | 8 | 204800 | 1413120 | 10/28/2002 10:56 AM | 5.2.3694.0 | (dnsvr.021010-1930) |
| | | | | | | 31.00 KB (31,744 bytes) | 10/11/2002 5:00 AM | |
| cmd.exe | c:\windows\system32\cmd.exe | 1240 | 8 | 204800 | 1413120 | 10/29/2002 8:29 AM | 5.2.3694.0 | (dnsvr.021010-1930) |
| | | | | | | KB (259,072 bytes) | 10/11/2002 5:00 AM | 253.00 |
| sqlservr.exe | c:\sql80\sqlbuilds\10_25_02_selectiveunmap4bbs\sqlservr.exe | 988 | 13 | 204800 | 1413120 | 10/29/2002 8:29 AM | 2000.080.0731.00 | 7.09 MB (7,430,184 bytes) |
| | | | | | | 6:34 PM | | 10/25/2002 |
| helpctr.exe | c:\windows\pchealth\helpctr\binaries\helpctr.exe | 3608 | 8 | 204800 | 1413120 | 10/29/2002 8:52 AM | 5.2.3694.0 | (dnsvr.021010-1930) |
| | | | | | | 721.00 KB (738,304 bytes) | 10/17/2002 2:29 PM | |
| helpsvc.exe | c:\windows\pchealth\helpctr\binaries\helpsvc.exe | 3720 | 8 | 204800 | 1413120 | 10/29/2002 8:52 AM | 5.2.3694.0 | (dnsvr.021010-1930) |
| | | | | | | 686.50 KB (702,976 bytes) | 10/17/2002 2:29 PM | |
| wmiprvse.exe | Not Available | 3636 | 8 | Not Available | Not Available | 10/29/2002 8:52 AM | Not Available | Not Available |
| | | | | | | 10/29/2002 8:52 AM | Not Available | Not Available |

[Loaded Modules]

| Name | Version | Size | File Date | Manufacturer | Path |
|----------|------------|---------------------|---------------------------|-----------------------|----------------------------------|
| smss | 5.2.3694.0 | (dnsvr.021010-1930) | 46.50 KB (47,616 bytes) | Microsoft Corporation | c:\windows\system32\smss.exe |
| ntdll | 5.2.3694.0 | (dnsvr.021010-1930) | 688.00 KB (704,512 bytes) | Microsoft Corporation | c:\windows\system32\ntdll.dll |
| winlogon | 5.2.3694.0 | (dnsvr.021010-1930) | 505.50 KB (517,632 bytes) | Microsoft Corporation | c:\windows\system32\winlogon.exe |
| kernel32 | 5.2.3694.0 | (dnsvr.021010-1930) | 931.50 KB (953,856 bytes) | Microsoft Corporation | c:\windows\system32\kernel32.dll |
| msvcrt | 7.0.3694.0 | (dnsvr.021010-1930) | 319.50 KB (327,168 bytes) | Microsoft Corporation | c:\windows\system32\msvcrt.dll |
| advapi32 | 5.2.3694.0 | (dnsvr.021010-1930) | 552.00 KB (565,248 bytes) | Microsoft Corporation | c:\windows\system32\advapi32.dll |
| rpcrt4 | 5.2.3694.0 | (dnsvr.021010-1930) | 547.00 KB (560,128 bytes) | Microsoft Corporation | c:\windows\system32\rpcrt4.dll |
| user32 | 5.2.3694.0 | (dnsvr.021010-1930) | 525.50 KB (538,112 bytes) | Microsoft Corporation | c:\windows\system32\user32.dll |

gdi32 5.2.3694.0 (dnsrv.021010-1930) 241.00 KB (246,784 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\gdi32.dll

userenv 5.2.3694.0 (dnsrv.021010-1930) 720.00 KB (737,280 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\userenv.dll

nddeapi 5.2.3694.0 (dnsrv.021010-1930) 15.50 KB (15,872 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\nddeapi.dll

crypt32 5.131.3694.0 (dnsrv.021010-1930) 534.50 KB (547,328 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\crypt32.dll

msasn1 5.2.3694.0 (dnsrv.021010-1930) 50.50 KB (51,712 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\msasn1.dll

secur32 5.2.3694.0 (dnsrv.021010-1930) 57.00 KB (58,368 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\secur32.dll

winsta 5.2.3694.0 (dnsrv.021010-1930) 49.00 KB (50,176 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\winsta.dll

netapi32 5.2.3694.0 (dnsrv.021010-1930) 307.50 KB (314,880 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\netapi32.dll

profmap 5.2.3694.0 (dnsrv.021010-1930) 21.50 KB (22,016 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\profmap.dll

regapi 5.2.3694.0 (dnsrv.021010-1930) 47.00 KB (48,128 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\regapi.dll

ws2_32 5.2.3694.0 (dnsrv.021010-1930) 73.00 KB (74,752 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\ws2_32.dll

ws2help 5.2.3694.0 (dnsrv.021010-1930) 19.00 KB (19,456 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\ws2help.dll

psapi 5.2.3694.0 (dnsrv.021010-1930) 18.50 KB (18,944 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\psapi.dll

version 5.2.3694.0 (dnsrv.021010-1930) 16.50 KB (16,896 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\version.dll

setupapi 5.2.3694.0 (dnsrv.021010-1930) 1,000.00 KB (1,024,000 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\setupapi.dll

msgina 5.2.3694.0 (dnsrv.021010-1930) 1.13 MB (1,187,328 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\msgina.dll

shsvcs 6.00.3694.0 (dnsrv.021010-1930) 121.50 KB (124,416 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\shsvcs.dll

shlwapi 6.00.3694.0 (dnsrv.021010-1930) 267.00 KB (273,408 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\shlwapi.dll

sfc 5.2.3694.0 (dnsrv.021010-1930) 4.50 KB (4,608 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\sfc.dll

sfc_os 5.2.3694.0 (dnsrv.021010-1930) 133.00 KB (136,192 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\sfc_os.dll

wintrust 5.131.3694.0 (dnsrv.021010-1930) 156.50 KB (160,256 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\wintrust.dll

ole32 5.2.3694.0 (dnsrv.021010-1930) 1.04 MB (1,087,488 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\ole32.dll

imagehlp 5.2.3694.0 (dnsrv.021010-1930) 137.50 KB (140,800 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\imagehlp.dll

comctl32 6.0 (dnsrv.021010-1930) 907.00 KB (928,768 bytes)
10/17/2002 7:07 AM Microsoft Corporation
c:\windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_6.0.100.0_x-ww_8417450b\comctl32.dll

sxs 5.2.3694.0 (dnsrv.021010-1930) 719.00 KB (736,256 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\sxs.dll

winscard 5.2.3694.0 (dnsrv.021010-1930) 94.00 KB (96,256 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\wincard.dll

wtsapi32 5.2.3694.0 (dnsrv.021010-1930) 17.00 KB (17,408 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\wtsapi32.dll

winmm 5.2.3694.0 (dnsrv.021010-1930) 162.00 KB (165,888 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\winmm.dll

shell32 6.00.3694.0 (dnsrv.021010-1930) 7.70 MB (8,072,192 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\shell32.dll

wldap32 5.2.3694.0 (dnsrv.021010-1930) 167.00 KB (171,008 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\wldap32.dll

rsaenh 5.2.3694.0 (dnsrv.021010-1930) 178.13 KB (182,400 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\rsaenh.dll

cscdll 5.2.3694.0 (dnsrv.021010-1930) 92.00 KB (94,208 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\cscdll.dll

wlnotify 5.2.3694.0 (dnsrv.021010-1930) 85.50 KB (87,552 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\wlnotify.dll

winspool 5.2.3694.0 (dnsrv.021010-1930) 134.50 KB (137,728 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\winspool.drv

mpr 5.2.3694.0 (dnsrv.021010-1930) 53.50 KB (54,784 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\mpr.dll

comctl32 5.82 (dnsrv.021010-1930) 561.00 KB (574,464 bytes)
10/17/2002 7:07 AM Microsoft Corporation
c:\windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_5.82.0.0_x-ww_8a69ba05\comctl32.dll

uxtheme 6.00.3694.0 (dnsrv.021010-1930) 190.50 KB (195,072 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\uxtheme.dll

mprapi 5.2.3694.0 (dnsrv.021010-1930) 79.50 KB (81,408 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\mprapi.dll

activeds 5.2.3694.0 (dnsrv.021010-1930) 185.50 KB (189,952 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\activeds.dll
 adslrpc 5.2.3694.0 (dnsrv.021010-1930) 138.50 KB (141,824 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\adslrpc.dll
 credui 5.2.3694.0 (dnsrv.021010-1930) 158.50 KB (162,304 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\credui.dll
 atl 3.05.2224 100.50 KB (102,912 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\atl.dll
 oleaut32 5.2.3694.0 485.00 KB (496,640 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\oleaut32.dll
 rtutils 5.2.3694.0 (dnsrv.021010-1930) 31.00 KB (31,744 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\rtutils.dll
 samlib 5.2.3694.0 (dnsrv.021010-1930) 41.50 KB (42,496 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\samlib.dll
 cscui 5.2.3694.0 (dnsrv.021010-1930) 305.00 KB (312,320 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\cscui.dll
 drprov 5.2.3694.0 (dnsrv.021010-1930) 12.00 KB (12,288 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\drprov.dll
 ntlanman 5.2.3694.0 (dnsrv.021010-1930) 39.00 KB (39,936 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\ntlanman.dll
 netui0 5.2.3694.0 (dnsrv.021010-1930) 73.50 KB (75,264 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\netui0.dll
 netui1 5.2.3694.0 (dnsrv.021010-1930) 177.00 KB (181,248 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\netui1.dll
 davclnt 5.2.3694.0 (dnsrv.021010-1930) 23.50 KB (24,064 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\davclnt.dll
 mprui 5.2.3694.0 (dnsrv.021010-1930) 47.00 KB (48,128 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\mprui.dll
 netui2 5.2.3694.0 (dnsrv.021010-1930) 301.50 KB (308,736 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\netui2.dll
 comdlg32 6.00.3694.0 (dnsrv.021010-1930) 257.00 KB (263,168 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\comdlg32.dll
 netmsg 5.2.3694.0 (dnsrv.021010-1930) 178.00 KB (182,272 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\netmsg.dll
 clbcatq 2001.12.4624.0 (dnsrv.021010-1930) 490.50 KB (502,272 bytes) 10/17/2002 2:25 PM Microsoft Corporation
 c:\windows\system32\clbcatq.dll
 comres 2001.12.4624.0 (dnsrv.021010-1930) 778.00 KB (796,672 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\comres.dll
 ntmarta 5.2.3694.0 (dnsrv.021010-1930) 108.50 KB (111,104 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\ntmarta.dll

wbemprox 5.2.3694.0 (dnsrv.021010-1930) 18.50 KB (18,944 bytes) 10/17/2002 2:24 PM Microsoft Corporation
 c:\windows\system32\wbem\wbemprox.dll
 wbemcomn 5.2.3694.0 (dnsrv.021010-1930) 195.00 KB (199,680 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\wbem\wbemcomn.dll
 wbemsvc 5.2.3694.0 (dnsrv.021010-1930) 42.00 KB (43,008 bytes) 10/17/2002 2:24 PM Microsoft Corporation
 c:\windows\system32\wbem\wbemsvc.dll
 fastprox 5.2.3694.0 (dnsrv.021010-1930) 442.00 KB (452,608 bytes) 10/17/2002 2:24 PM Microsoft Corporation
 c:\windows\system32\wbem\fastprox.dll
 msvcp60 6.05.2144.0 388.00 KB (397,312 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\msvcp60.dll
 ntdsapi 5.2.3694.0 (dnsrv.021010-1930) 67.00 KB (68,608 bytes) 10/17/2002 5:54 PM Microsoft Corporation
 c:\windows\system32\ntdsapi.dll
 dnsapi 5.2.3694.0 (dnsrv.021010-1930) 145.00 KB (148,480 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\dnsapi.dll
 services 5.2.3694.0 (dnsrv.021010-1930) 97.00 KB (99,328 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\services.exe
 scesrv 5.2.3694.0 (dnsrv.021010-1930) 318.50 KB (326,144 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\scesrv.dll
 authz 5.2.3694.0 (dnsrv.021010-1930) 61.00 KB (62,464 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\authz.dll
 umpnpgmr 5.2.3694.0 (dnsrv.021010-1930) 117.00 KB (119,808 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\umpnpgmr.dll
 ncobjapi 5.2.3694.0 (dnsrv.021010-1930) 32.00 KB (32,768 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\ncobjapi.dll
 eventlog 5.2.3694.0 (dnsrv.021010-1930) 56.50 KB (57,856 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\eventlog.dll
 lsass 5.2.3694.0 (dnsrv.021010-1930) 13.00 KB (13,312 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\lsass.exe
 lsasrv 5.2.3694.0 (dnsrv.021010-1930) 722.00 KB (739,328 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\lsasrv.dll
 samsrv 5.2.3694.0 (dnsrv.021010-1930) 412.50 KB (422,400 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\samsrv.dll
 cryptdll 5.2.3694.0 (dnsrv.021010-1930) 31.00 KB (31,744 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\cryptdll.dll
 msprivs 5.2.3694.0 (dnsrv.021010-1930) 45.50 KB (46,592 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\msprivs.dll
 kerberos 5.2.3694.0 (dnsrv.021010-1930) 305.00 KB (312,320 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\kerberos.dll
 msv1_0 5.2.3694.0 (dnsrv.021010-1930) 115.00 KB (117,760 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\msv1_0.dll

```

netlogon 5.2.3694.0 (dnsrv.021010-1930) 392.50 KB (401,920
bytes) 10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\netlogon.dll
w32time 5.2.3694.0 (dnsrv.021010-1930) 203.50 KB (208,384 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\w32time.dll
iphlpapi 5.2.3694.0 (dnsrv.021010-1930) 77.00 KB (78,848
bytes) 10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\iphlpapi.dll
schannel 5.2.3694.0 (dnsrv.021010-1930) 146.50 KB (150,016
bytes) 10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\schannel.dll
wdigest 5.2.3694.0 (dnsrv.021010-1930) 61.00 KB (62,464 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\wdigest.dll
rassfm 5.2.3694.0 (dnsrv.021010-1930) 20.50 KB (20,992 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\rassfm.dll
kdcsvc 5.2.3694.0 (dnsrv.021010-1930) 202.50 KB (207,360 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\kdcsvc.dll
ntdsa 5.2.3694.0 (dnsrv.021010-1930) 1.43 MB (1,501,696 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\ntdsa.dll
ntdsatq 5.2.3694.0 (dnsrv.021010-1930) 28.00 KB (28,672 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\ntdsatq.dll
mswsock 5.2.3694.0 (dnsrv.021010-1930) 227.50 KB (232,960 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\mswsock.dll
esent 5.2.3694.0 (dnsrv.021010-1930) 926.00 KB (948,224 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\esent.dll
scecli 5.2.3694.0 (dnsrv.021010-1930) 181.00 KB (185,344 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\scecli.dll
wshtcpip 5.2.3694.0 (dnsrv.021010-1930) 18.00 KB (18,432
bytes) 10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\wshtcpip.dll
pstorsvc 5.2.3694.0 (dnsrv.021010-1930) 24.50 KB (25,088
bytes) 10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\pstorsvc.dll
psbase 5.2.3694.0 (dnsrv.021010-1930) 83.00 KB (84,992 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\psbase.dll
dssenh 5.2.3694.0 (dnsrv.021010-1930) 132.13 KB (135,296 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\dssenh.dll
svchost 5.2.3694.0 (dnsrv.021010-1930) 12.00 KB (12,288 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\svchost.exe
rpcss 5.2.3694.0 (dnsrv.021010-1930) 211.50 KB (216,576 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\rpcss.dll
termsrv 5.2.3694.0 (dnsrv.021010-1930) 220.00 KB (225,280 bytes)
10/17/2002 2:25 PM Microsoft Corporation
c:\windows\system32\termsrv.dll

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icaapi 5.2.3694.0 (dnsrv.021010-1930) 10.00 KB (10,240 bytes)
10/17/2002 2:25 PM Microsoft Corporation
c:\windows\system32\icaapi.dll
mstlsapi 5.2.3694.0 (dnsrv.021010-1930) 104.00 KB (106,496
bytes) 10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\mstlsapi.dll
rdpwsx 5.2.3694.0 (dnsrv.021010-1930) 80.13 KB (82,056 bytes)
10/17/2002 2:25 PM Microsoft Corporation
c:\windows\system32\rdpwsx.dll
gnconmgr 4.2.0.75 168.05 KB (172,079 bytes) 10/18/2002
8:48 PM Giganet Incorporated c:\windows\system32\gnconmgr.exe
vipl 4.2.0.75 80.00 KB (81,920 bytes) 10/19/2002 8:58 AM
Giganet Incorporated c:\windows\system32\vipl.dll
wkssvc 5.2.3694.0 (dnsrv.021010-1930) 121.00 KB (123,904 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\wkssvc.dll
dmserver 5.2.3694.0 (dnsrv.021010-1930) 24.00 KB (24,576
bytes) 10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\dmserver.dll
es 2001.12.4624.0 (dnsrv.021010-1930) 220.00 KB (225,280 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\es.dll
srvsvc 5.2.3694.0 (dnsrv.021010-1930) 78.00 KB (79,872 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\srvsvc.dll
seclogon 5.2.3694.0 (dnsrv.021010-1930) 16.00 KB (16,384
bytes) 10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\seclogon.dll
sens 5.2.3694.0 (dnsrv.021010-1930) 34.00 KB (34,816 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\sens.dll
wmisvc 5.2.3694.0 (dnsrv.021010-1930) 129.00 KB (132,096 bytes)
10/17/2002 2:24 PM Microsoft Corporation
c:\windows\system32\wbem\wmisvc.dll
vssapi 5.2.3694.0 (dnsrv.021010-1930) 520.00 KB (532,480 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\vssapi.dll
comsvcs 2001.12.4624.0 (dnsrv.021010-1930) 1.11 MB (1,163,776 bytes)
10/17/2002 2:25 PM Microsoft Corporation
c:\windows\system32\comsvcs.dll
wiarpc 5.2.3694.0 (dnsrv.021010-1930) 30.00 KB (30,720 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\wiarpc.dll
netman 5.2.3694.0 (dnsrv.021010-1930) 195.00 KB (199,680 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\netman.dll
rasapi32 5.2.3694.0 (dnsrv.021010-1930) 222.00 KB (227,328
bytes) 10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\rasapi32.dll
rasman 5.2.3694.0 (dnsrv.021010-1930) 57.00 KB (58,368 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\rasman.dll
tapi32 5.2.3694.0 (dnsrv.021010-1930) 173.00 KB (177,152 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\tapi32.dll
wzcsvc 5.2.3694.0 (dnsrv.021010-1930) 272.50 KB (279,040 bytes)
10/10/2002 3:48 PM Microsoft Corporation
c:\windows\system32\wzcsvc.dll

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wmi 5.2.3694.0 (dnsvr.021010-1930) 6.50 KB (6,656 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\wmi.dll
dhcpcsvc 5.2.3694.0 (dnsvr.021010-1930) 96.50 KB (98,816
bytes) 10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\dhcpcsvc.dll
wzcsapi 5.2.3694.0 (dnsvr.021010-1930) 24.00 KB (24,576 bytes)
10/10/2002 3:48 PM Microsoft Corporation
c:\windows\system32\wzcsapi.dll
netshell 5.2.3694.0 (dnsvr.021010-1930) 1.65 MB (1,726,976
bytes) 10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\netshell.dll
clusapi 5.2.3694.0 (dnsvr.021010-1930) 56.50 KB (57,856 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\clusapi.dll
hnetcfg 5.2.3694.0 (dnsvr.021010-1930) 243.50 KB (249,344 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\hnetcfg.dll
wininet 6.00.3694.0 (dnsvr.021010-1930) 570.00 KB (583,680 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\wininet.dll
wbemcore 5.2.3694.0 (dnsvr.021010-1930) 453.50 KB (464,384
bytes) 10/17/2002 2:24 PM Microsoft Corporation
c:\windows\system32\wbem\wbemcore.dll
esscli 5.2.3694.0 (dnsvr.021010-1930) 232.50 KB (238,080 bytes)
10/17/2002 2:24 PM Microsoft Corporation
c:\windows\system32\wbem\esscli.dll
wmiutils 5.2.3694.0 (dnsvr.021010-1930) 89.50 KB (91,648
bytes) 10/17/2002 2:24 PM Microsoft Corporation
c:\windows\system32\wbem\wmiutils.dll
repdrvfs 5.2.3694.0 (dnsvr.021010-1930) 165.00 KB (168,960
bytes) 10/17/2002 2:24 PM Microsoft Corporation
c:\windows\system32\wbem\repdrvfs.dll
wmiprvsd 5.2.3694.0 (dnsvr.021010-1930) 405.50 KB (415,232
bytes) 10/17/2002 2:24 PM Microsoft Corporation
c:\windows\system32\wbem\wmiprvsd.dll
wbemess 5.2.3694.0 (dnsvr.021010-1930) 255.00 KB (261,120 bytes)
10/17/2002 2:24 PM Microsoft Corporation
c:\windows\system32\wbem\wbemess.dll
ncprov 5.2.3694.0 (dnsvr.021010-1930) 43.00 KB (44,032 bytes)
10/17/2002 2:24 PM Microsoft Corporation
c:\windows\system32\wbem\ncprov.dll
rasdlg 5.2.3694.0 (dnsvr.021010-1930) 640.50 KB (655,872 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\rasdlg.dll
rasadhlp 5.2.3694.0 (dnsvr.021010-1930) 6.50 KB (6,656 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\rasadhlp.dll
ntlsapi 5.2.3694.0 (dnsvr.021010-1930) 7.50 KB (7,680 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\ntlsapi.dll
pchsvc 5.2.3694.0 (dnsvr.021010-1930) 33.50 KB (34,304 bytes)
10/17/2002 2:29 PM Microsoft Corporation
c:\windows\pchealth\helpctr\binaries\pchsvc.dll
ersvc 5.2.3694.0 (dnsvr.021010-1930) 22.00 KB (22,528 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\ersvc.dll
esconmgr 6.0.3.25 265.05 KB (271,412 bytes) 8/19/2002 5:53
PM Unisys Corporation c:\windows\system32\esconmgr.exe

```

```

explorer 6.00.3694.0 (dnsvr.021010-1930) 994.00 KB (1,017,856
bytes) 10/11/2002 5:00 AM Microsoft Corporation
c:\windows\explorer.exe
browseui 6.00.3694.0 (dnsvr.021010-1930) 1,004.50 KB
(1,028,608 bytes) 10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\browseui.dll
shdocvw 6.00.3694.0 (dnsvr.021010-1930) 1.29 MB (1,350,144 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\shdocvw.dll
apphelp 5.2.3694.0 (dnsvr.021010-1930) 116.50 KB (119,296 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\apphelp.dll
themeui 6.00.3694.0 (dnsvr.021010-1930) 360.50 KB (369,152 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\themeui.dll
msimg32 5.2.3694.0 (dnsvr.021010-1930) 4.50 KB (4,608 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\msimg32.dll
linkinfo 5.2.3694.0 (dnsvr.021010-1930) 16.00 KB (16,384
bytes) 10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\linkinfo.dll
ntshruil 6.00.3694.0 (dnsvr.021010-1930) 138.00 KB (141,312 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\ntshruil.dll
urlmon 6.00.3694.0 (dnsvr.021010-1930) 449.00 KB (459,776 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\urlmon.dll
webcheck 6.00.3694.0 (dnsvr.021010-1930) 258.00 KB (264,192
bytes) 10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\webcheck.dll
wsock32 5.2.3694.0 (dnsvr.021010-1930) 21.50 KB (22,016 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\wsock32.dll
stobject 5.2.3694.0 (dnsvr.021010-1930) 118.50 KB (121,344
bytes) 10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\stobject.dll
batmeter 6.00.3694.0 (dnsvr.021010-1930) 29.50 KB (30,208
bytes) 10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\batmeter.dll
powrprof 6.00.3694.0 (dnsvr.021010-1930) 14.00 KB (14,336
bytes) 10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\powrprof.dll
printui 5.2.3694.0 (dnsvr.021010-1930) 529.50 KB (542,208 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\printui.dll
cfgmgr32 5.2.3694.0 (dnsvr.021010-1930) 17.00 KB (17,408
bytes) 10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\cfgmgr32.dll
browseui 6.00.3694.0 (dnsvr.021010-1930) 61.50 KB (62,976
bytes) 10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\browseui.dll
shdoclc 6.00.3694.0 (dnsvr.021010-1930) 521.00 KB (533,504 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\shdoclc.dll
zipfldr 6.00.3694.0 (dnsvr.021010-1930) 315.50 KB (323,072 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\zipfldr.dll

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sqlmangr 2000.080.0731.00 72.57 KB (74,308 bytes)
 10/24/2002 6:53 PM Microsoft Corporation c:\program
 files\microsoft sql server\80\tools\bin\sqlmangr.exe
 sqlunirl 2000.080.0728.00 176.56 KB (180,800 bytes)
 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\sqlunirl.dll
 w95scm 2000.080.0731.00 48.56 KB (49,728 bytes) 10/24/2002
 6:53 PM Microsoft Corporation c:\program files\microsoft sql
 server\80\tools\bin\w95scm.dll
 odbc32 3.525.1014.0 212.00 KB (217,088 bytes) 10/11/2002 5:00 AM
 Microsoft Corporation c:\windows\system32\odbc32.dll
 sqlsvc 2000.080.0731.00 92.56 KB (94,784 bytes) 10/24/2002
 6:53 PM Microsoft Corporation c:\program files\microsoft sql
 server\80\tools\bin\sqlsvc.dll
 odbcbc 2000.085.1014.0 24.00 KB (24,576 bytes) 10/11/2002
 5:00 AM Microsoft Corporation c:\windows\system32\odbcbc.dll
 sqlresld 2000.080.0382.00 28.56 KB (29,248 bytes)
 10/24/2002 6:53 PM Microsoft Corporation c:\program
 files\microsoft sql server\80\tools\bin\sqlresld.dll
 odbccint 3.525.1014.0 92.00 KB (94,208 bytes) 10/11/2002 5:00 AM
 Microsoft Corporation c:\windows\system32\odbccint.dll
 resutils 5.2.3694.0 (dnsvr.021010-1930) 60.00 KB (61,440
 bytes) 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\resutils.dll
 mfc42u 6.05.2224.0 960.00 KB (983,040 bytes) 10/11/2002 5:00 AM
 Microsoft Corporation c:\windows\system32\mfc42u.dll
 sqlsvc 2000.080.0194.00 24.00 KB (24,576 bytes) 10/24/2002
 6:53 PM Microsoft Corporation c:\program files\microsoft sql
 server\80\tools\bin\resources\1033\sqlsvc.rll
 sqlmangr 2000.080.0194.00 96.00 KB (98,304 bytes)
 10/24/2002 6:53 PM Microsoft Corporation c:\program
 files\microsoft sql server\80\tools\bin\resources\1033\sqlmangr.rll

 netrap 5.2.3694.0 (dnsvr.021010-1930) 11.00 KB (11,264 bytes)
 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\netrap.dll
 wpabaln 5.2.3694.0 (dnsvr.021010-1930) 31.00 KB (31,744 bytes)
 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\wpabaln.exe
 cmd 5.2.3694.0 (dnsvr.021010-1930) 253.00 KB (259,072 bytes)
 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\cmd.exe
 sqlservr 2000.080.0731.00 7.09 MB (7,430,184 bytes)
 10/25/2002 6:34 PM Microsoft Corporation
 c:\sql80\sqlbuilds\10_25_02_selectiveunmap4bbt\sqlservr.exe
 opens60 2000.080.0194.00 24.06 KB (24,639 bytes)
 10/24/2002 6:52 PM Microsoft Corporation
 c:\sql80\mssql\bin\opens60.dll
 ums 2000.080.0731.00 52.55 KB (53,808 bytes) 10/24/2002
 6:52 PM Microsoft Corporation c:\sql80\mssql\bin\ums.dll
 sqlsort 2000.080.0731.00 576.56 KB (590,396 bytes) 10/24/2002
 6:52 PM Microsoft Corporation c:\sql80\mssql\bin\sqlsort.dll
 msvcirt 7.0.3694.0 (dnsvr.021010-1930) 50.00 KB (51,200 bytes)
 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\msvcirt.dll
 sqllevn70 2000.080.0731.00 28.00 KB (28,672 bytes)
 10/24/2002 6:52 PM Microsoft Corporation
 c:\sql80\mssql\bin\resources\1033\sqllevn70.rll

xolehlp 2001.12.4624.0 (dnsvr.021010-1930) 10.00 KB (10,240 bytes)
 10/17/2002 2:25 PM Microsoft Corporation
 c:\windows\system32\xolehlp.dll
 msdtcprx 2001.12.4624.0 (dnsvr.021010-1930) 402.00 KB (411,648
 bytes) 10/17/2002 2:25 PM Microsoft Corporation
 c:\windows\system32\msdtcprx.dll
 mtxclu 2001.12.4624.0 (dnsvr.021010-1930) 76.00 KB (77,824 bytes)
 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\mtxclu.dll
 winrnr 5.2.3694.0 (dnsvr.021010-1930) 15.00 KB (15,360 bytes)
 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\winrnr.dll
 ssnetlib 2000.080.0731.00 80.56 KB (82,492 bytes)
 10/24/2002 6:52 PM Microsoft Corporation
 c:\sql80\mssql\bin\ssnetlib.dll
 ssnmpn70 2000.080.0534.00 24.56 KB (25,148 bytes)
 10/24/2002 6:52 PM Microsoft Corporation
 c:\sql80\mssql\bin\ssnmpn70.dll
 security 5.2.3694.0 (dnsvr.021010-1930) 5.00 KB (5,120 bytes)
 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\security.dll
 ssmslpcn 2000.080.0731.00 28.56 KB (29,244 bytes)
 10/24/2002 6:52 PM Microsoft Corporation
 c:\sql80\mssql\bin\ssmslpcn.dll
 ssmsgnet 2000.080.0382.00 32.56 KB (33,340 bytes)
 10/24/2002 6:53 PM Microsoft Corporation
 c:\sql80\mssql\bin\ssmsgnet.dll
 helpctr 5.2.3694.0 (dnsvr.021010-1930) 721.00 KB (738,304 bytes)
 10/17/2002 2:29 PM Microsoft Corporation
 c:\windows\pchealth\helpctr\binaries\helpctr.exe
 hcappres 5.2.3694.0 (dnsvr.021010-1930) 6.50 KB (6,656 bytes)
 10/17/2002 2:29 PM Microsoft Corporation
 c:\windows\pchealth\helpctr\binaries\hcappres.dll
 itss 5.2.3694.0 (dnsvr.021010-1930) 119.50 KB (122,368 bytes)
 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\itss.dll
 msxml3 8.40.9127.0 1.06 MB (1,107,456 bytes) 10/11/2002 5:00 AM
 Microsoft Corporation c:\windows\system32\msxml3.dll
 pchshell 5.2.3694.0 (dnsvr.021010-1930) 94.50 KB (96,768
 bytes) 10/17/2002 2:29 PM Microsoft Corporation
 c:\windows\pchealth\helpctr\binaries\pchshell.dll
 mlang 6.00.3694.0 (dnsvr.021010-1930) 568.50 KB (582,144 bytes)
 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\mlang.dll
 mshtml 6.00.3694.0 (dnsvr.021010-1930) 2.58 MB (2,707,968 bytes)
 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\mshtml.dll
 msimtf 5.2.3694.0 (dnsvr.021010-1930) 146.50 KB (150,016 bytes)
 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\msimtf.dll
 msctf 5.2.3694.0 (dnsvr.021010-1930) 276.50 KB (283,136 bytes)
 10/11/2002 5:00 AM Microsoft Corporation
 c:\windows\system32\msctf.dll
 jscript 5.6.0.8028 412.00 KB (421,888 bytes) 10/11/2002 5:00 AM
 Microsoft Corporation c:\windows\system32\jscript.dll
 msls31 3.10.349.0 136.50 KB (139,776 bytes) 10/11/2002 5:00 AM
 Microsoft Corporation c:\windows\system32\msls31.dll

```

imm32 5.2.3694.0 (dnsvr.021010-1930) 105.00 KB (107,520 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\imm32.dll
mshtml 6.00.3694.0 (dnsvr.021010-1930) 428.00 KB (438,272
bytes) 10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\mshtml.dll
vbscript 5.6.0.8028 384.00 KB (393,216 bytes) 10/11/2002
5:00 AM Microsoft Corporation c:\windows\system32\vbscript.dll
mfc42 6.05.2224.0 960.00 KB (983,040 bytes) 10/11/2002 5:00 AM
Microsoft Corporation c:\windows\system32\mfc42.dll
msinfo 5.2.3694.0 (dnsvr.021010-1930) 358.50 KB (367,104 bytes)
10/17/2002 2:29 PM Microsoft Corporation
c:\windows\pchealth\helpctr\binaries\msinfo.dll
riched32 5.2.3694.0 (dnsvr.021010-1930) 3.00 KB (3,072 bytes)
10/11/2002 5:00 AM Microsoft Corporation
c:\windows\system32\riched32.dll
riched20 5.31.23.1218 396.50 KB (406,016 bytes) 10/11/2002
5:00 AM Microsoft Corporation c:\windows\system32\riched20.dll
helpsvc 5.2.3694.0 (dnsvr.021010-1930) 686.50 KB (702,976 bytes)
10/17/2002 2:29 PM Microsoft Corporation
c:\windows\pchealth\helpctr\binaries\helpsvc.exe

```

[Services]

| Display Name | Name | State | Start Mode | Service Type | Path | Error |
|---|---|------------------|------------|------------------------|------|-------|
| Control Start | Name Tag ID | | | | | |
| Alerter | Alerter | Stopped Disabled | | Share Process | | |
| | c:\windows\system32\svchost.exe -k local service | | | 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 Manual | | 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 dmadmin Stopped Manual Share
Process c:\windows\system32\dmadmin.exe /com Normal LocalSystem 0
Logical Disk Manager dmserver Running Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem
0
DNS Client Dnscache Stopped Manual Share Process
c:\windows\system32\svchost.exe -k networkservice Normal NT
AUTHORITY\NetworkService 0
Error Reporting Service ERSvc Running Auto Share Process
c:\windows\system32\svchost.exe -k winerr Ignore LocalSystem
0
Console Manager Network Connection Co-Installer ESCOINST
Stopped Disabled 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\ismserv.exe Normal LocalSystem 0
Kerberos Key Distribution Center kdc Stopped Disabled Share
Process c:\windows\system32\lsass.exe Normal LocalSystem 0
Server lanmanserver Running Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem
0
Workstation lanmanworkstation Running Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem
0
License Logging LicenseService Stopped Manual Own Process
c:\windows\system32\llssrv.exe Normal NT
AUTHORITY\NetworkService 0
TCP/IP NetBIOS Helper LmHosts Running Auto Share Process
c:\windows\system32\svchost.exe -k local service 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 | nmmsrvc | Stopped | Disabled |
| Process c:\windows\system32\nmmsrvc.exe Normal LocalSystem 0 | | | | |
| Distributed Transaction Coordinator | MSDTC | Running | Auto | Own Process |
| c:\windows\system32\msdtc.exe Normal NT AUTHORITY\NetworkService 0 | | | | |
| Windows Installer | MSIServer | Stopped | Manual | Share Process |
| c:\windows\system32\msiexec.exe /v Normal LocalSystem 0 | | | | |
| 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 |
| Process c:\windows\system32\sessmgr.exe Normal LocalSystem 0 | | | | |
| Routing and Remote Access | RemoteAccess | Stopped | Disabled | Share Process |
| c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0 | | | | |

| | | | | |
|--|------------------|---------|----------|---------------|
| Remote Registry | RemoteRegistry | Running | Auto | Share Process |
| c:\windows\system32\svchost.exe -k regsvc Normal NT AUTHORITY\LocalService 0 | | | | |
| Remote Procedure Call (RPC) Locator | RpcLocator | Stopped | Manual | Own Process |
| c:\windows\system32\locator.exe Normal NT AUTHORITY\NetworkService 0 | | | | |
| Remote Procedure Call (RPC) | RpcSs | Running | Auto | Share Process |
| c:\windows\system32\svchost -k rpcss Normal LocalSystem 0 | | | | |
| Resultant Set of Policy Provider | RSOPProv | Stopped | Manual | Share Process |
| Process c:\windows\system32\rsopprov.exe Normal LocalSystem 0 | | | | |
| Special Administration Console Helper | sacsrv | Stopped | Manual | Share Process |
| c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0 | | | | |
| Security Accounts Manager | SamSs | Running | Auto | Share Process |
| c:\windows\system32\lsass.exe Normal LocalSystem 0 | | | | |
| Smart Card | SCardSvr | Stopped | Manual | Share Process |
| c:\windows\system32\scardsvr.exe Ignore NT AUTHORITY\LocalService 0 | | | | |
| Task Scheduler | Schedule | Stopped | Manual | Share Process |
| c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0 | | | | |
| Secondary Logon | seclogon | Running | Auto | Share Process |
| c:\windows\system32\svchost.exe -k netsvcs Ignore LocalSystem 0 | | | | |
| System Event Notification | SENS | Running | Auto | Share Process |
| c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0 | | | | |
| Shell Hardware Detection | ShellHWDetection | Running | Auto | Share Process |
| 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 |
| Process c:\windows\system32\svchost.exe -k imgsvc Normal NT AUTHORITY\LocalService 0 | | | | |
| Microsoft Software Shadow Copy Provider | swprv | Stopped | Manual | Own Process |
| 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 | Running | Manual | Share Process |
| c:\windows\system32\svchost.exe -k termsvcs Normal LocalSystem 0 | | | | |
| Themes | Themes | Stopped | Disabled | Share Process |
| c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0 | | | | |
| Telnet | TlntSvr | Stopped | Disabled | Own Process |
| c:\windows\system32\tlntsvr.exe Normal NT AUTHORITY\LocalService 0 | | | | |

```

Distributed Link Tracking Server TrkSvr Stopped Disabled Share
Process c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem
0
Distributed Link Tracking Client TrkWks Stopped 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 Manual 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 WmdmPmSp 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\wmiapshr.exe Normal LocalSystem 0

Automatic Updates wuauclt Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem
0
Wireless Configuration WZCSVC Stopped Disabled Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem
0

```

[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

Debugging Tools for Windows All Users:Debugging Tools for Windows 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-LE030P1\Administrator:Accessories MV-
LE030P1\Administrator
Accessories\Accessibility MV-
LE030P1\Administrator:Accessories\Accessibility MV-
LE030P1\Administrator
Accessories\Entertainment MV-
LE030P1\Administrator:Accessories\Entertainment MV-
LE030P1\Administrator
Administrative Tools MV-LE030P1\Administrator:Administrative Tools
MV-LE030P1\Administrator
Startup MV-LE030P1\Administrator:Startup MV-LE030P1\Administrator

[Startup Programs]

Program Command User Name Location
desktop desktop.ini NT AUTHORITY\SYSTEM Startup
desktop desktop.ini MV-LE030P1\Administrator Startup
desktop desktop.ini .DEFAULT Startup
desktop desktop.ini All Users Common Startup
IDW Logging Tool c:\windows\system32\idwlog.exe -3 All Users
Common Startup
Service Manager c:\progra~1\microso~1\80\tools\bin\sqlmangr.exe /n
All Users Common Startup

```

[OLE Registration]

```

Object Local Server
Sound (OLE2) sndrec32.exe
Media Clip mplay32.exe
Video Clip mplay32.exe /avi
MIDI Sequence mplay32.exe /mid
Sound Not Available
Media Clip Not Available
Windows Media Player 7 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 |
|---------------------|------------------|--|
| 10/23/2002 11:49 AM | MsiInstaller | Product: Windows Installer -- Installation operation completed successfully.
 |
| 10/25/2002 11:45 AM | Application Hang | Hanging application isqlw.exe, version 2000.80.731.0, hang module hungapp, version 0.0.0.0, hang address 0x00000000.
 |
| 10/20/2002 9:53 PM | Application Hang | Hanging application PERFMON.EXE, version 4.0.1381.46, hang module hungapp, version 0.0.0.0, hang address 0x00000000.
 |
| 10/18/2002 8:01 PM | Application Hang | Hanging application rundll32.exe, version 5.2.3694.0, hang module hungapp, version 0.0.0.0, hang address 0x00000000.
 |
| 10/18/2002 7:58 PM | Application Hang | Hanging application rundll32.exe, version 5.2.3694.0, hang module hungapp, version 0.0.0.0, hang address 0x00000000.
 |

[Internet Settings]

[Internet Explorer]

[Following are sub-categories of this main category]
 [Summary]

| Item | Value |
|------------------|------------------------------------|
| Version | 6.0.3694.0 |
| Build | 63694 |
| 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 | 6.0.3694.0 | 92 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |
| advpack.dll | 6.0.3694.0 | 94 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |
| asctrls.ocx | 6.0.3694.0 | 90 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |
| browseic.dll | 6.0.3694.0 | 62 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |
| browseui.dll | 6.0.3694.0 | 1,005 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |
| cdfview.dll | 6.0.3694.0 | 142 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |

| | | | | | |
|---------------|----------------|---------------|-----------------------|-------------------------|-----------------------|
| comctl32.dll | 5.82.3694.0 | 561 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |
| dxtrans.dll | 6.3.3694.0 | 185 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |
| dxtmsft.dll | 6.3.3694.0 | 347 KB | 10/11/2002 4:00:00 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 | 16.0.3694.0 | 296 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |
| iepeers.dll | 6.0.3694.0 | 230 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |
| iesetup.dll | 6.0.3694.0 | 57 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |
| ieuinit.inf | Not Available | 19 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Not Available |
| ieexplore.exe | 6.0.3694.0 | 90 KB | 10/11/2002 4:00:00 AM | Files\Internet Explorer | Microsoft Corporation |
| imgutil.dll | 6.0.3694.0 | 31 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |
| inetcpl.cpl | 6.0.3694.0 | 294 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |
| inetcplc.dll | 6.0.3694.0 | 108 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |
| inseng.dll | 6.0.3694.0 | 71 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |
| mlang.dll | 6.0.3694.0 | 569 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |
| msencode.dll | 2000.7.25.0 | 92 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Not Available |
| mshta.exe | 6.0.3694.0 | 27 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |
| mshtml.dll | 6.0.3694.0 | 2,645 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |
| mshtml.tlb | 6.0.3694.0 | 1,319 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |
| mshtml.ed.dll | 6.0.3694.0 | 428 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |
| mshtmlr.dll | 6.0.3694.0 | 55 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |
| msident.dll | 6.0.3694.0 | 47 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |
| msidntld.dll | 6.0.3694.0 | 15 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |
| msieftpl.dll | 6.0.3694.0 | 230 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |
| msrating.dll | 6.0.3694.0 | 132 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |
| mstime.dll | 6.0.3694.0 | 491 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |
| occache.dll | 6.0.3694.0 | 89 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |
| proctexe.ocx | 6.3.3694.0 | 78 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Intel Corporation |
| sendmail.dll | 6.0.3694.0 | 52 KB | 10/11/2002 4:00:00 AM | C:\WINDOWS\system32 | Microsoft Corporation |

```

shdoclc.dll 6.0.3694.0 521 KB 10/11/2002 4:00:00 AM
C:\WINDOWS\system32 Microsoft Corporation
shdocvw.dll 6.0.3694.0 1,319 KB 10/11/2002 4:00:00 AM
C:\WINDOWS\system32 Microsoft Corporation
shfolder.dll 6.0.3694.0 24 KB 10/11/2002 4:00:00 AM
C:\WINDOWS\system32 Microsoft Corporation
shlwapi.dll 6.0.3694.0 267 KB 10/11/2002 4:00:00 AM
C:\WINDOWS\system32 Microsoft Corporation
tdc.ocx 1.3.0.3130 57 KB 10/11/2002 4:00:00 AM C:\WINDOWS\system32
Microsoft Corporation
url.dll 6.0.3694.0 36 KB 10/11/2002 4:00:00 AM C:\WINDOWS\system32
Microsoft Corporation
urlmon.dll 6.0.3694.0 449 KB 10/11/2002 4:00:00 AM
C:\WINDOWS\system32 Microsoft Corporation
webcheck.dll 6.0.3694.0 258 KB 10/11/2002 4:00:00 AM
C:\WINDOWS\system32 Microsoft Corporation
wininet.dll 6.0.3694.0 570 KB 10/11/2002 4:00:00 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\NetworkService\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

Windows Registry Editor Version 5.00

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet]

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\cLAN Management Console]

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\cLAN Management Console\1.00.000]

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2]

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\0]

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\0\BeginModify]
@="21:37:32"

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\0\Fabric]

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\0\LastModified]
@="21:37:32"

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\0\NodeList]

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\0\NodeList\Node0]

```

>Name"="MV-LE030P1"
>NICName"="gnivia0"
>Address"="0090FA001C0F"
>MediaType"=" "
>State"=dword:00000001
>SwitchPort"="n2"
>NodeNumber"=dword:00000001

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\0\NodeList\Node2]
>Name"="CLIENT4"
>NICName"="nic0"
>Address"="0090FA001D14"
>MediaType"=" "
>State"=dword:00000001
>SwitchPort"="n1"
>NodeNumber"=dword:00000002

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\1]

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\1\BeginModify]
@="21:37:32"

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\1\Fabric]

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\1\LastModified]
@="21:37:32"

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\1\NodeList]

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\1\NodeList\Node0]
>Name"="MV-LE030P1"
>NICName"="gnivial"
>Address"="0090FA001C8C"
>MediaType"=" "
>State"=dword:00000001
>SwitchPort"="n2"
>NodeNumber"=dword:00000001

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\1\NodeList\Node2]
>Name"="CLIENT8"
>NICName"="nic0"
>Address"="0090FA001D12"
>MediaType"=" "
>State"=dword:00000001
>SwitchPort"="n1"
>NodeNumber"=dword:00000002

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\2]

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\2\BeginModify]
@="21:37:32"

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\2\Fabric]

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\2\LastModified]
@="21:37:32"

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\2\NodeList]

```

```

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\2\NodeList\Node0]
>Name"="MV-LE030P1"
>NICName"="gnivia2"
>Address"="0090FA001C5D"
>MediaType"=" "
>State"=dword:00000001
>SwitchPort"="n1"
>NodeNumber"=dword:00000002

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\2\NodeList\Node1]
>Name"="CLIENT1"
>NICName"="nic0"
>Address"="0090FA00136E"
>MediaType"=" "
>State"=dword:00000001
>SwitchPort"="n2"
>NodeNumber"=dword:00000001

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\3]

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\3\BeginModify]
@="21:37:32"

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\3\Fabric]

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\3\LastModified]
@="21:37:32"

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\3\NodeList]

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\3\NodeList\Node0]
>Name"="MV-LE030P1"
>NICName"="gnivia3"
>Address"="0090FA001C34"
>MediaType"=" "
>State"=dword:00000001
>SwitchPort"="n2"
>NodeNumber"=dword:00000001

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\3\NodeList\Node2]
>Name"="CLIENT2"
>NICName"="nic0"
>Address"="0090FA001CBB"
>MediaType"=" "
>State"=dword:00000001
>SwitchPort"="n1"
>NodeNumber"=dword:00000002

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\4]

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\4\BeginModify]
@="21:37:32"

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\4\Fabric]

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\4\LastModified]
@="21:37:32"

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\4\NodeList]

```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\4\NodeList\Node0]
"Name"="MV-LE030P1"
"NICName"="gnivia4"
"Address"="0090FA001C15"
"MediaType"=""
"State"=dword:00000001
"SwitchPort"="n2"
"NodeNumber"=dword:00000001

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\4\NodeList\Node2]
"Name"="CLIENT3"
"NICName"="nic0"
"Address"="0090FA001CB5"
"MediaType"=""
"State"=dword:00000001
"SwitchPort"="n1"
"NodeNumber"=dword:00000002

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\5]

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\5\BeginModify]
@="21:37:32"

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\5\Fabric]

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\5\LastModified]
@="21:37:32"

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\5\NodeList]

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\5\NodeList\Node0]
"Name"="MV-LE030P1"
"NICName"="gnivia5"
"Address"="0090FA00159A"
"MediaType"=""
"State"=dword:00000001
"SwitchPort"="n2"
"NodeNumber"=dword:00000001

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\5\NodeList\Node2]
"Name"="CLIENT7"
"NICName"="nic0"
"Address"="0090FA001D1D"
"MediaType"=""
"State"=dword:00000001
"SwitchPort"="n1"
"NodeNumber"=dword:00000002

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\6]

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\6\BeginModify]
@="21:37:31"

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\6\Fabric]

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\6\LastModified]
@="21:37:31"
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\6\NodeList]

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\6\NodeList\Node0]
"Name"="MV-LE030P1"
"NICName"="gnivia6"
"Address"="0090FA001C45"
"MediaType"=""
"State"=dword:00000001
"SwitchPort"="n2"
"NodeNumber"=dword:00000001

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\6\NodeList\Node2]
"Name"="CLIENT6"
"NICName"="nic0"
"Address"="0090FA001CD7"
"MediaType"=""
"State"=dword:00000001
"SwitchPort"="n1"
"NodeNumber"=dword:00000002

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\7]

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\7\BeginModify]
@="21:37:32"

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\7\Fabric]

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\7\LastModified]
@="21:37:32"

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\7\NodeList]

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\7\NodeList\Node0]
"Name"="MV-LE030P1"
"NICName"="gnivia7"
"Address"="0090FA0014BC"
"MediaType"=""
"State"=dword:00000001
"SwitchPort"="n2"
"NodeNumber"=dword:00000001

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\7\NodeList\Node2]
"Name"="CLIENT5"
"NICName"="nic0"
"Address"="0090FA001D11"
"MediaType"=""
"State"=dword:00000001
"SwitchPort"="n1"
"NodeNumber"=dword:00000002

[HKEY_LOCAL_MACHINE\SOFTWARE\GigaNet\GniConMgrMgmt2\LastModified]
@="18:33:01"
```

Software\Microsoft\MSSQLServer

Windows Registry Editor Version 5.00

```

[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer]
[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client]
"SharedMemoryOn"=dword:00000001

[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\ConnectTo]
"DSQUERY"="DBNETLIB"

[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\DB-Lib]
"AutoAnsiToOem"="ON"
"UseIntlSettings"="ON"

[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\SuperSocketNetLib]
"ProtocolOrder"=hex(7):74,00,63,00,70,00,00,00,6e,00,70,00,00,00,00,00
"Encrypt"=dword:00000000

[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\SuperSocketNetLib\LastConnect]
"MV-LE030P1"="-1040187384:lpc:MV-LE030P1"

[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\SuperSocketNetLib\Np]
"DefaultPipe"="sql\query"

[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\SuperSocketNetLib\rpc]
"RPCProtocols"=hex(7):6e,00,6c,00,72,00,70,00,63,00,00,00,6e,00,61,00,63,00,6e,00,6e,00,70,00,00,00,6e,00,61,00,63,00,6e,00,5f,00,69,00,70,00,5f,00,74,00,63,00,70,00,00,00,6e,00,61,00,63,00,6e,00,5f,00,73,00,70,00,78,00,00,00,00,00
"DefaultPipe"="sql\query"

[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\SuperSocketNetLib\Tcp]
"DefaultPort"=dword:00000599

[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\SuperSocketNetLib\VIA]

[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\MSSQLServer]
"ListenOn"=hex(7):53,00,53,00,4d,00,53,00,53,00,48,00,37,00,30,00,00,00,53,00,53,00,4e,00,45,00,54,00,4c,00,49,00,42,00,00,00,00,00,00
"ResourceMgrID"="{1BDD8E80-91D5-41A5-9E10-EE1B83916AD1}"
"SetHostName"=dword:00000000
"AuditLevel"=dword:00000000
>LoginMode"=dword:00000002
"Tapeloadwaittime"=dword:ffffffff
"DefaultLogin"="guest"
"Map_"=""
"Map#"=""
"Map$"=""
"BackupDirectory"="c:\sql80\MSSQL\BACKUP"

"DefaultDomain"="MV-LE030P1"
"DefaultCollationName"="Latin1_General_BIN"
"uptime_pid"=dword:00000c38
"uptime_time_utc"=hex:7c,52,a8,0c,aa,7c,c2,01

[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\MSSQLServer\CurrentVersion]
"checksum"=hex:37,39,32,32,63,31,35,38,61,65,37,64,34,63,64,37,35,30,64,61,30,\
33,34,62,37,64,63,33,37,61,31,64,30,66,38,33,63,38,61,63,65,32,39,63,38,62,\
30,30,38,31,36,64,32,38,32,63,61,34,38,31,33,34,36,32,39,38,66,33,38,65,31,\
33,63,34,39,39,63,32,34,63,30,64,34,64,37,66,65,31,37,31,63,32,61,37,66,30,\
34,39,34,30,31,65,66,61,36,33,65,34,33,34,36,39,38,37,36,65,32,65,64,34,33,\
37,36,34,32,65,61,36,35,65,64,33,30,35,62,34,39,30,61,63,37,38,64,37,63,30,\
61,38,38,30,65,32,32,38,62,39,63,61,64,39,00
"RegisteredOwner"="TRACKS"
"SerialNumber"=dword:81fd0040
"CurrentVersion"="8.00.194"
"Language"=dword:00000409
"CSDVersionNumber"=dword:00000300
"CSDVersion"="8.00.731"

[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\MSSQLServer\Parameters]
"SQLArg0"="-dc:\\sql80\MSSQL\data\master.mdf"
"SQLArg1"="-ec:\\sql80\MSSQL\log\ERRORLOG"
"SQLArg2"="-lc:\\sql80\MSSQL\data\mastlog.ldf"

[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\MSSQLServer\RPCNetLib]
"Security"=""

[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\MSSQLServer\SuperSocketNetLib]
"ProtocolList"=hex(7):6e,00,70,00,00,00,76,00,69,00,61,00,00,00,00,00
"Encrypt"=dword:00000000

[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\MSSQLServer\SuperSocketNetLib\Np]
"PipeName"="\\\\.\\pipe\sql\query"

[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\MSSQLServer\SuperSocketNetLib\Tcp]
"TcpHideFlag"=dword:00000000
"TcpPort"="1433"
"TcpDynamicPorts"=""

[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\MSSQLServer\SuperSocketNetLib\VIA]
"Vendor"="Giganet"

```

| | |
|--|--|
| "ListenInfo"="0:1424[0x0000f000],1:1428[0xf0000000],2:1421[0x0000000f],3:1422[0x000000f0],4:1423[0x00000f00],5:1427[0x0f000000],6:1426[0x00f00000],7:1425[0x000f0000]" | 00,6c,00,63,00,6f,00,6d,00,2e,00,73,00,71,00,6c,00,00,00,72,00,65,00,70,00,\ |
| "RecognizedVendors"=hex(7):47,00,69,00,67,00,61,00,6e,00,65,00,74,00,00,00,53,\ | 6c,00,74,00,72,00,61,00,6e,00,2e,00,73,00,71,00,6c,00,00,00,72,00,65,00,70,\ |
| 00,65,00,72,00,76,00,65,00,72,00,4e,00,65,00,74,00,20,00,49,00,49,00,00,00,\ | 00,6c,00,6d,00,65,00,72,00,67,00,2e,00,73,00,71,00,6c,00,00,00,72,00,65,00,\ |
| 51,00,4c,00,6f,00,67,00,69,00,63,00,00,00,00,00 | 51,00,4c,00,6f,00,67,00,69,00,63,00,00,00,00,00 |
| [HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Providers] | 6d,00,6f,00,76,00,65,00,5f,00,6f,00,6c,00,64,00,5f,00,6d,00,73,00,78,00,5f,\ |
| "AllowInProcess"=dword:00000001 | ,"AllowInProcess"=dword:00000001 |
| [HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Providers\ADSDSOObject] | 00,61,00,63,00,63,00,6f,00,75,00,6e,00,74,00,73,00,2e,00,73,00,71,00,6c,00,\ |
| "AllowInProcess"=dword:00000001 | ,"AllowInProcess"=dword:00000001 |
| [HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Providers\DB2OLEDB] | 00,00,73,00,70,00,5f,00,76,00,75,00,70,00,67,00,72,00,61,00,64,00,65,00,5f,\ |
| "AllowInProcess"=dword:00000001 | ,"AllowInProcess"=dword:00000001 |
| [HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Providers\Microsoft.Jet.OLEDB.4.0] | 00,72,00,65,00,70,00,6c,00,69,00,63,00,61,00,74,00,69,00,6f,00,6e,00,3a,00,\ |
| "AllowInProcess"=dword:00000001 | ,"AllowInProcess"=dword:00000001 |
| [HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Providers\MSDAORA] | 40,00,6c,00,6f,00,67,00,69,00,6e,00,3d,00,4e,00,27,00,73,00,61,00,27,00,2c,\ |
| "AllowInProcess"=dword:00000001 | ,"AllowInProcess"=dword:00000001 |
| [HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Providers\MSDASQL] | 00,40,00,70,00,61,00,73,00,73,00,77,00,6f,00,72,00,64,00,3d,00,4e,00,27,00,\ |
| "AllowInProcess"=dword:00000001 | ,"AllowInProcess"=dword:00000001 |
| [HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Providers\MSIDXS] | 27,00,2c,00,40,00,76,00,65,00,72,00,5f,00,6f,00,6c,00,64,00,3d,00,31,00,39,\ |
| "AllowInProcess"=dword:00000001 | ,"AllowInProcess"=dword:00000001 |
| [HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Providers\MSQLImpProv] | 00,34,00,00,00,00,00,00,00 |
| "AllowInProcess"=dword:00000001 | "EnableErrorReporting"=dword:00000000 |
| [HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Providers\MSSEARCHSQL] | [HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\SQLServerAgent] |
| "AllowInProcess"=dword:00000001 | "JobHistoryMaxRowsPerJob"=dword:00000064 |
| [HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Providers\SQLOLEDB] | "RestartServer"=dword:00000001 |
| "AllowInProcess"=dword:00000001 | "DownloadedMaxRows"=dword:00000064 |
| "DisallowAdhocAccess"=dword:00000000 | "JobHistoryMaxRows"=dword:000003e8 |
| [HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Setup] | "ErrorLoggingLevel"=dword:00000003 |
| "SQLPath"="c:\\sql80\\MSSQL" | "NonAlertableErrors"="1204,4002" |
| "SQLDataRoot"="c:\\sql80\\MSSQL" | "MSXServerName"="" |
| "SourcePath"="C:\\SQL80\\SQLbuilds\\SQL_731_02\\SP3" | "ServerHost"="" |
| "firststart"=dword:00000000 | "WorkingDirectory"="c:\\sql80\\MSSQL\\JOBS" |
| "Scripts"=hex(7):73,00,70,00,33,00,5f,00,73,00,65,00,72,00,76,00,5f,00,75,00,\ | "ErrorLogFile"="c:\\sql80\\MSSQL\\LOG\\SQLAGENT.OUT" |
| 6e,00,69,00,2e,00,73,00,71,00,6c,00,00,00,38,00,30,00,73,00,70,00,33,00,2d,\ | "SysAdminOnly"=dword:00000001 |
| 00,74,00,6f,00,6f,00,6c,00,73,00,2e,00,73,00,71,00,6c,00,00,00,72,00,65,00,\ | [HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\SQLServerAgent\Subsystems] |
| 70,00,6c,00,73,00,79,00,73,00,2e,00,73,00,71,00,6c,00,00,00,72,00,65,00,70,\ | "CmdExec"="c:\\sql80\\MSSQL\\BINN\\SQLCMDSS.DLL,NULL,CmdExecStart,CmdEvent,CmdExecStop,10" |
| | "Snapshot"="c:\\sql80\\MSSQL\\BINN\\SQLREPSS.DLL,C:\\Program Files\\Microsoft SQL Server\\80\\COM\\SNAPSHOT.EXE,ReplStart,ReplEvent,ReplStop,100" |
| | "Distribution"="c:\\sql80\\MSSQL\\BINN\\SQLREPSS.DLL,C:\\Program Files\\Microsoft SQL Server\\80\\COM\\DISTRIB.EXE,ReplStart,ReplEvent,ReplStop,100" |
| | "Merge"="c:\\sql80\\MSSQL\\BINN\\SQLREPSS.DLL,C:\\Program Files\\Microsoft SQL Server\\80\\COM\\REPLMERG.EXE,ReplStart,ReplEvent,ReplStop,100" |


```
"ActiveScripting"="c:\\sql80\\MSSQL\\BINN\\SQLATXSS.DLL,NULL,ActiveScriptS
tart,ActiveScriptEvent,ActiveScriptStop,10"
"QueueReader"="c:\\sql80\\MSSQL\\BINN\\SQLREPSS.DLL,C:\\Program
Files\\Microsoft SQL
Server\\80\\COM\\QRDRSVC.EXE,ReplStart,ReplEvent,ReplStop,100"
"LogReader"="c:\\sql80\\MSSQL\\BINN\\SQLREPSS.DLL,C:\\Program
Files\\Microsoft SQL
Server\\80\\COM\\LOGREAD.EXE,ReplStart,ReplEvent,ReplStop,25"
```

```
[HKEY_LOCAL_MACHINE\\SOFTWARE\\Microsoft\\MSSQLServer\\Tracking]
"{E07FDDA4-5A21-11d2-9DAD-00C04F79D434}"=""
"{E07FDDA5-5A21-11d2-9DAD-00C04F79D434}"=""
"{6DC86044-0C71-11d3-9E18-00C04F79D434}"=""
"{E07FDDA8-5A21-11d2-9DAD-00C04F79D434}"=""
"{E07FDDA9-5A21-11d2-9DAD-00C04F79D434}"=""
"{E07FDDAA-5A21-11d2-9DAD-00C04F79D434}"=""
"{E07FDDAC-5A21-11d2-9DAD-00C04F79D434}"=""
"{E07FDDAD-5A21-11d2-9DAD-00C04F79D434}"=""
"{E07FDDAF-5A21-11d2-9DAD-00C04F79D434}"=""
"{E07FDDB2-5A21-11d2-9DAD-00C04F79D434}"=""
"{E07FDDBE-5A21-11d2-9DAD-00C04F79D434}"=""
"{E07FDDC0-5A21-11d2-9DAD-00C04F79D434}"=""
"{E07FDDBF-5A21-11d2-9DAD-00C04F79D434}"=""
```

```
[HKEY_LOCAL_MACHINE\\SOFTWARE\\Microsoft\\MSSQLServer\\Tracking\\Shortcuts]
"Enterprise Manager"=""
"Query Analyzer"=""
"Profiler"=""
"Client Network Utility"=""
"Configure SQL XML Support in IIS"=""
"Import and Export Data"=""
"Service Manager"=""
"Server Network Utility"=""
"Books Online"=""
```

CurrentControlSet\\Control\\Session Manager\\I/O System

Windows Registry Editor Version 5.00

```
[HKEY_LOCAL_MACHINE\\SYSTEM\\CurrentControlSet\\Control\\Session Manager\\I/O
System]
"CountOperations"=dword:00000000
```

CurrentControlSet\\Services\\Dasd

Windows Registry Editor Version 5.00

```
[HKEY_LOCAL_MACHINE\\SYSTEM\\CurrentControlSet\\Services\\Dasd]
"Type"=dword:00000001
"Start"=dword:00000000
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):73,00,79,00,73,00,74,00,65,00,6d,00,33,00,32,00,5c,00,4
4,00,\\
```

```
52,00,49,00,56,00,45,00,52,00,53,00,5c,00,64,00,61,00,73,00,64,00,2e,00,73
,\\
00,79,00,73,00,00,00
"DisplayName"="IntelliFibre Fabric Disk Driver (dasd)"

[HKEY_LOCAL_MACHINE\\SYSTEM\\CurrentControlSet\\Services\\Dasd\\Security]
"Security"=hex:01,00,14,80,90,00,00,00,9c,00,00,00,14,00,00,00,30,00,00,00
,02,\\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,00,01,00,00
,\\
00,00,02,00,60,00,04,00,00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,00
,\\
05,12,00,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00
,\\
20,02,00,00,00,00,14,00,8d,01,02,00,01,01,00,00,00,00,05,0b,00,00,00,00
,\\
00,18,00,fd,01,02,00,01,02,00,00,00,00,00,05,20,00,00,00,23,02,00,00,01,01
,\\
00,00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,00,05,12,00,00,00
```

```
[HKEY_LOCAL_MACHINE\\SYSTEM\\CurrentControlSet\\Services\\Dasd\\Enum]
"0"="Root\\LEGACY_DASD\\0000"
"Count"=dword:00000088
"NextInstance"=dword:00000088
"1"="SCSI\\Disk&Ven_DGC RAID_10 0841\\1&1a590e2c&0&C3530240600
10650000000000000000"
"2"="SCSI\\Disk&Ven_DGC RAID_10 0841\\1&1a590e2c&0&C3530240600
10650000000000000000"
"3"="SCSI\\Disk&Ven_DGC RAID_0 0841\\1&1a590e2c&0&DB140340680
10650000000000000000"
"4"="SCSI\\Disk&Ven_DGC RAID_0 0841\\1&1a590e2c&0&80420340680
10650000000000000000"
"5"="SCSI\\Disk&Ven_DGC RAID_0 0841\\1&1a590e2c&0&DB140340680
10650000000000000000"
"6"="SCSI\\Disk&Ven_DGC RAID_0 0841\\1&1a590e2c&0&80420340680
10650000000000000000"
"7"="SCSI\\Disk&Ven_DGC RAID_0 0841\\1&1a590e2c&0&DB140340680
10650000000000000000"
"8"="SCSI\\Disk&Ven_DGC RAID_0 0841\\1&1a590e2c&0&80420340680
10650000000000000000"
"9"="SCSI\\Disk&Ven_DGC RAID_0 0841\\1&1a590e2c&0&DB140340680
10650000000000000000"
"10"="SCSI\\Disk&Ven_DGC RAID_0 0841\\1&1a590e2c&0&8042034068
01065000000000000000"
"11"="SCSI\\Disk&Ven_DGC RAID_0 0841\\1&1a590e2c&0&F3F0014068
01065000000000000000"
"12"="SCSI\\Disk&Ven_DGC RAID_0 0841\\1&1a590e2c&0&5243FB4060
01065000000000000000"
"13"="SCSI\\Disk&Ven_DGC RAID_0 0841\\1&1a590e2c&0&F3F0014068
01065000000000000000"
"14"="SCSI\\Disk&Ven_DGC RAID_0 0841\\1&1a590e2c&0&DB14034060
01065000000000000000"
```


CurrentControlSet\Services\GniVIA

Windows Registry Editor Version 5.00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\GniVIA]

"Type"=dword:00000001

"Start"=dword:00000002

"ErrorControl"=dword:00000001

"Tag"=dword:00000008

"ImagePath"=hex(2):73,00,79,00,73,00,74,00,65,00,6d,00,33,00,32,00,5c,00,44,00,\

52,00,49,00,56,00,45,00,52,00,53,00,5c,00,47,00,6e,00,69,00,56,00,49,00,41

,\00,2e,00,73,00,79,00,73,00,00,00

"DisplayName"="cLAN VIA Driver"

"Group"="PNP_TDI"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\GniVIA\Linkage]

"Bind"=hex(7):5c,00,44,00,65,00,76,00,69,00,63,00,65,00,5c,00,7b,00,45,00,36,\

00,39,00,38,00,32,00,32,00,30,00,31,00,2d,00,45,00,30,00,36,00,33,00,2d,00,\

34,00,36,00,36,00,34,00,2d,00,39,00,36,00,32,00,39,00,2d,00,36,00,35,00,38

,\00,33,00,30,00,43,00,31,00,46,00,45,00,31,00,38,00,39,00,7d,00,00,00,5c,00,\

44,00,65,00,76,00,69,00,63,00,65,00,5c,00,7b,00,44,00,36,00,43,00,46,00,38

,\00,32,00,36,00,36,00,2d,00,34,00,42,00,46,00,44,00,2d,00,34,00,36,00,34,00,\

43,00,2d,00,38,00,41,00,34,00,33,00,2d,00,32,00,38,00,35,00,37,00,46,00,33

,\00,35,00,32,00,38,00,37,00,30,00,37,00,7d,00,00,00,5c,00,44,00,65,00,76,00,\

69,00,63,00,65,00,5c,00,7b,00,34,00,46,00,45,00,38,00,35,00,39,00,44,00,30

,\00,2d,00,36,00,38,00,32,00,33,00,2d,00,34,00,39,00,39,00,41,00,2d,00,41,00,\

41,00,41,00,36,00,2d,00,31,00,33,00,37,00,38,00,34,00,39,00,30,00,41,00,38

,\00,31,00,31,00,38,00,7d,00,00,00,5c,00,44,00,65,00,76,00,69,00,63,00,65,00,\

5c,00,7b,00,32,00,36,00,32,00,43,00,30,00,42,00,39,00,42,00,2d,00,44,00,39

,\

00,45,00,44,00,2d,00,34,00,37,00,33,00,43,00,2d,00,41,00,31,00,37,00,42,00,\

2d,00,46,00,35,00,38,00,42,00,45,00,41,00,31,00,43,00,35,00,37,00,31,00,30

,\00,7d,00,00,00,5c,00,44,00,65,00,76,00,69,00,63,00,65,00,5c,00,7b,00,46,00,\

39,00,45,00,44,00,30,00,32,00,30,00,37,00,2d,00,45,00,31,00,32,00,43,00,2d

,\00,34,00,41,00,41,00,32,00,2d,00,39,00,34,00,44,00,37,00,2d,00,39,00,39,00

,\42,00,46,00,38,00,39,00,35,00,34,00,35,00,30,00,43,00,39,00,7d,00,00,00,5c

,\00,44,00,65,00,76,00,69,00,63,00,65,00,5c,00,7b,00,45,00,32,00,30,00,31,00

,\34,00,44,00,45,00,31,00,2d,00,35,00,34,00,30,00,31,00,2d,00,34,00,31,00,39

,\00,36,00,2d,00,39,00,38,00,42,00,42,00,2d,00,45,00,37,00,38,00,33,00,32,00

,\39,00,36,00,34,00,31,00,35,00,42,00,45,00,7d,00,00,00,5c,00,44,00,65,00,76

,\00,69,00,63,00,65,00,5c,00,7b,00,42,00,46,00,46,00,43,00,42,00,42,00,33,00

,\33,00,2d,00,36,00,45,00,32,00,31,00,2d,00,34,00,34,00,45,00,37,00,2d,00,38

,\00,37,00,44,00,37,00,2d,00,31,00,30,00,44,00,35,00,38,00,43,00,34,00,37,00

,\42,00,46,00,38,00,35,00,7d,00,00,00,5c,00,44,00,65,00,76,00,69,00,63,00,65

,\00,5c,00,7b,00,32,00,42,00,32,00,44,00,41,00,30,00,32,00,41,00,2d,00,33,00

,\36,00,30,00,41,00,2d,00,34,00,44,00,42,00,46,00,2d,00,39,00,36,00,35,00,44

,\00,2d,00,38,00,38,00,32,00,37,00,36,00,38,00,30,00,41,00,41,00,38,00,39,00

,\43,00,7d,00,00,00,00,00
"Route"=hex(7):22,00,7b,00,45,00,36,00,39,00,38,00,32,00,32,00,30,00,31,00

,2d,\00,45,00,30,00,36,00,33,00,2d,00,34,00,36,00,36,00,34,00,2d,00,39,00,36,00

,\

| | |
|---|--|
| 32,00,39,00,2d,00,36,00,35,00,38,00,33,00,30,00,43,00,31,00,46,00,45,00,31, ,\ | 00,2d,00,34,00,34,00,45,00,37,00,2d,00,38,00,37,00,44,00,37,00,2d,00,31,00, ,\ |
| 00,38,00,39,00,7d,00,22,00,00,00,22,00,7b,00,44,00,36,00,43,00,46,00,38,00, ,\ | 30,00,44,00,35,00,38,00,43,00,34,00,37,00,42,00,46,00,38,00,35,00,7d,00,22, ,\ |
| 32,00,36,00,36,00,2d,00,34,00,42,00,46,00,44,00,2d,00,34,00,36,00,34,00,43, ,\ | 00,00,00,22,00,7b,00,32,00,42,00,32,00,44,00,41,00,30,00,32,00,41,00,2d,00, ,\ |
| 00,2d,00,38,00,41,00,34,00,33,00,2d,00,32,00,38,00,35,00,37,00,46,00,33,00, ,\ | 33,00,36,00,30,00,41,00,2d,00,34,00,44,00,42,00,46,00,2d,00,39,00,36,00,35, ,\ |
| 35,00,32,00,38,00,37,00,30,00,37,00,7d,00,22,00,00,00,22,00,7b,00,34,00,46, ,\ | 00,44,00,2d,00,38,00,38,00,32,00,37,00,36,00,38,00,30,00,41,00,41,00,38,00, ,\ |
| 00,45,00,38,00,35,00,39,00,44,00,30,00,2d,00,36,00,38,00,32,00,33,00,2d,00, ,\ | 39,00,43,00,7d,00,22,00,00,00,00,00 "Export "=hex(7):5c,00,44,00,65,00,76,00,69,00,63,00,65,00,5c,00,47,00,6e,0 0,69,\ |
| 34,00,39,00,39,00,41,00,2d,00,41,00,41,00,41,00,36,00,2d,00,31,00,33,00,37, ,\ | 00,56,00,49,00,41,00,5f,00,7b,00,45,00,36,00,39,00,38,00,32,00,32,00,30,00, ,\ |
| 00,38,00,34,00,39,00,30,00,41,00,38,00,31,00,31,00,38,00,7d,00,22,00,00,00, ,\ | 31,00,2d,00,45,00,30,00,36,00,33,00,2d,00,34,00,36,00,36,00,34,00,2d,00,39, ,\ |
| 22,00,7b,00,32,00,36,00,32,00,43,00,30,00,42,00,39,00,42,00,2d,00,44,00,39, ,\ | 00,36,00,32,00,39,00,2d,00,36,00,35,00,38,00,33,00,30,00,43,00,31,00,46,00, ,\ |
| 00,45,00,44,00,2d,00,34,00,37,00,33,00,43,00,2d,00,41,00,31,00,37,00,42,00, ,\ | 45,00,31,00,38,00,39,00,7d,00,00,00,5c,00,44,00,65,00,76,00,69,00,63,00,65, ,\ |
| 2d,00,46,00,35,00,38,00,42,00,45,00,41,00,31,00,43,00,35,00,37,00,31,00,30, ,\ | 00,5c,00,47,00,6e,00,69,00,56,00,49,00,41,00,5f,00,7b,00,44,00,36,00,43,00, ,\ |
| 00,7d,00,22,00,00,00,22,00,7b,00,46,00,39,00,45,00,44,00,30,00,32,00,30,00, ,\ | 46,00,38,00,32,00,36,00,36,00,2d,00,34,00,42,00,46,00,44,00,2d,00,34,00,36, ,\ |
| 37,00,2d,00,45,00,31,00,32,00,43,00,2d,00,34,00,41,00,41,00,32,00,2d,00,39, ,\ | 00,34,00,43,00,2d,00,38,00,41,00,34,00,33,00,2d,00,32,00,38,00,35,00,37,00, ,\ |
| 00,34,00,44,00,37,00,2d,00,39,00,39,00,42,00,46,00,38,00,39,00,35,00,34,00, ,\ | 46,00,33,00,35,00,32,00,38,00,37,00,30,00,37,00,7d,00,00,00,5c,00,44,00,65, ,\ |
| 35,00,30,00,43,00,39,00,7d,00,22,00,00,00,22,00,7b,00,45,00,32,00,30,00,31, ,\ | 00,76,00,69,00,63,00,65,00,5c,00,47,00,6e,00,69,00,56,00,49,00,41,00,5f,00, ,\ |
| 00,34,00,44,00,45,00,31,00,2d,00,35,00,34,00,30,00,31,00,2d,00,34,00,31,00, ,\ | 7b,00,34,00,46,00,45,00,38,00,35,00,39,00,44,00,30,00,2d,00,36,00,38,00,32, ,\ |
| 39,00,36,00,2d,00,39,00,38,00,42,00,42,00,2d,00,45,00,37,00,38,00,33,00,32, ,\ | 00,33,00,2d,00,34,00,39,00,39,00,41,00,2d,00,41,00,41,00,41,00,36,00,2d,00, ,\ |
| 00,39,00,36,00,34,00,31,00,35,00,42,00,45,00,7d,00,22,00,00,00,22,00,7b,00, ,\ | 31,00,33,00,37,00,38,00,34,00,39,00,30,00,41,00,38,00,31,00,31,00,38,00,7d, ,\ |
| 42,00,46,00,46,00,43,00,42,00,42,00,33,00,33,00,2d,00,36,00,45,00,32,00,31, ,\ | 00,00,00,5c,00,44,00,65,00,76,00,69,00,63,00,65,00,5c,00,47,00,6e,00,69,00, ,\ |

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56,00,49,00,41,00,5f,00,7b,00,32,00,36,00,32,00,43,00,30,00,42,00,39,00,42,00,46,00,2d,00,39,00,36,00,35,00,44,00,2d,00,38,00,38,00,32,00,37,00,36,00,
,\
00,2d,00,44,00,39,00,45,00,44,00,2d,00,34,00,37,00,33,00,43,00,2d,00,41,00,
,\
31,00,37,00,42,00,2d,00,46,00,35,00,38,00,42,00,45,00,41,00,31,00,43,00,35
,\
00,37,00,31,00,30,00,7d,00,00,00,5c,00,44,00,65,00,76,00,69,00,63,00,65,00
,\
5c,00,47,00,6e,00,69,00,56,00,49,00,41,00,5f,00,7b,00,46,00,39,00,45,00,44
,\
00,30,00,32,00,30,00,37,00,2d,00,45,00,31,00,32,00,43,00,2d,00,34,00,41,00
,\
41,00,32,00,2d,00,39,00,34,00,44,00,37,00,2d,00,39,00,39,00,42,00,46,00,38
,\
00,39,00,35,00,34,00,35,00,30,00,43,00,39,00,7d,00,00,00,5c,00,44,00,65,00
,\
76,00,69,00,63,00,65,00,5c,00,47,00,6e,00,69,00,56,00,49,00,41,00,5f,00,7b
,\
00,45,00,32,00,30,00,31,00,34,00,44,00,45,00,31,00,2d,00,35,00,34,00,30,00
,\
31,00,2d,00,34,00,31,00,39,00,36,00,2d,00,39,00,38,00,42,00,42,00,2d,00,45
,\
00,37,00,38,00,33,00,32,00,39,00,36,00,34,00,31,00,35,00,42,00,45,00,7d,00
,\
00,00,5c,00,44,00,65,00,76,00,69,00,63,00,65,00,5c,00,47,00,6e,00,69,00,56
,\
00,49,00,41,00,5f,00,7b,00,42,00,46,00,46,00,43,00,42,00,42,00,33,00,33,00
,\
2d,00,36,00,45,00,32,00,31,00,2d,00,34,00,34,00,45,00,37,00,2d,00,38,00,37
,\
00,44,00,37,00,2d,00,31,00,30,00,44,00,35,00,38,00,43,00,34,00,37,00,42,00
,\
46,00,38,00,35,00,7d,00,00,00,5c,00,44,00,65,00,76,00,69,00,63,00,65,00,5c
,\
00,47,00,6e,00,69,00,56,00,49,00,41,00,5f,00,7b,00,32,00,42,00,32,00,44,00
,\
41,00,30,00,32,00,41,00,2d,00,33,00,36,00,30,00,41,00,2d,00,34,00,44,00,42
,\

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00,46,00,2d,00,39,00,36,00,35,00,44,00,2d,00,38,00,38,00,32,00,37,00,36,00
,\
38,00,30,00,41,00,41,00,38,00,39,00,43,00,7d,00,00,00,00,00
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\GniVIA\Parameters]
@=""
"MaxNumberNics"=dword:00000008
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\GniVIA\Performance]
"Open"="OpenNicPerformanceData"
"Close"="CloseNicPerformanceData"
"Collect"="CollectNicPerformanceData"
"Library"="gni_perf.dll"
"PerfIniFile"="gni_perf.ini"
"Last Counter"=dword:00000ac0
"Last Help"=dword:00000ac1
"First Counter"=dword:00000a82
"First Help"=dword:00000a83
"WbemAdapFileSignature"=hex:72,b9,f5,07,e0,89,b7,ad,6b,a0,4e,41,53,fb,b4,b
a
"WbemAdapFileTime"=hex:fa,88,34,87,4f,76,c2,01
"WbemAdapFileSize"=dword:0000c000
"WbemAdapStatus"=dword:00000000
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\GniVIA\Security]
"Security"=hex:01,00,14,80,90,00,00,00,9c,00,00,00,14,00,00,00,30,00,00,00
,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00
,\
00,00,02,00,60,00,04,00,00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,00
,\
05,12,00,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00
,\
20,02,00,00,00,00,14,00,8d,01,02,00,01,01,00,00,00,00,00,05,0b,00,00,00,00
,\
00,18,00,fd,01,02,00,01,02,00,00,00,00,00,05,20,00,00,00,23,02,00,00,01,01
,\
00,00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,00,05,12,00,00,00
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\GniVIA\Enum]
"0"="Root\LEGACY_GNIVIA\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001

```

CurrentControlSet\Services\IfIp

```

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\IfIp
Class Name: <NO CLASS>
Last Write Time: 10/25/2002 - 6:14 PM

```

```

Value 0
  Name:      Type
  Type:     REG_DWORD
  Data:     0x1

Value 1
  Name:      Start
  Type:     REG_DWORD
  Data:     0

Value 2
  Name:      ErrorControl
  Type:     REG_DWORD
  Data:     0x1

Value 3
  Name:      Tag
  Type:     REG_DWORD
  Data:     0x6

Value 4
  Name:      ImagePath
  Type:     REG_EXPAND_SZ
  Data:     system32\DRIVERS\IfIp.sys

Value 5
  Name:      DisplayName
  Type:     REG_SZ
  Data:     IntelliFibre Fabric Bus Enumerator (ifIp)

Value 6
  Name:      Group
  Type:     REG_SZ
  Data:     Boot Bus Extender

Key Name:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\IfIp\Security
Class Name: <NO CLASS>
Last Write Time: 10/18/2002 - 8:39 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
  .....
  00000060 20 02 00 00 00 00 14 00 - 8d 01 02 00 01 01 00 00
  .....

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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: 10/25/2002 - 6:14 PM
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

Windows Registry Editor Version 5.00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ifxp]
"Type"=dword:00000001
"Start"=dword:00000000
"ErrorControl"=dword:00000001
"Tag"=dword:00000021
"ImagePath"=hex(2):73,00,79,00,73,00,74,00,65,00,6d,00,33,00,32,00,5c,00,4
4,00,\
52,00,49,00,56,00,45,00,52,00,53,00,5c,00,69,00,66,00,78,00,70,00,2e,00,73
,\
00,79,00,73,00,00,00
"DisplayName"="Unisys IntelliFibre Fibre Channel Adapter Driver(ifXp)"
"Group"="SCSI Miniport"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ifxp\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ifxp\Parameters\PnpI
nterface]
"5"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ifxp\Security]
"Security"=hex:01,00,14,80,90,00,00,00,9c,00,00,00,14,00,00,00,30,00,00,00
,02,\

```



```
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00
,\
00,00,02,00,60,00,04,00,00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,00
,\
05,12,00,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00
,\
20,02,00,00,00,00,14,00,8d,01,02,00,01,01,00,00,00,00,05,0b,00,00,00,00
,\
00,18,00,fd,01,02,00,01,02,00,00,00,00,05,20,00,00,00,23,02,00,00,01,01
,\
00,00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,00,05,12,00,00,00
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ifxp\Enum]
"0"="PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&25ea3ec6&0&0000"
"Count"=dword:00000009
"NextInstance"=dword:00000009
"1"="PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&2cf6f8ed&0&0000"
"2"="PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&145af944&0&0000"
"3"="PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&101f93c3&0&0000"
"4"="PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&39122baf&0&0000"
"5"="PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&32dc1527&0&0000"
"6"="PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&3798f592&0&0000"
"7"="PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&102fa53&0&0000"
"8"="PCI\VEN_11AB&DEV_4620&SUBSYS_C0FC1018&REV_12\4&297b89&0&0000"
```

CurrentControlSet\Services\MSSQLSERVER

Windows Registry Editor Version 5.00

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSSQLSERVER]
"Type"=dword:00000010
"Start"=dword:00000003
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):63,00,3a,00,5c,00,73,00,71,00,6c,00,38,00,30,00,5c,00,4
d,00,\
```

```
53,00,53,00,51,00,4c,00,5c,00,62,00,69,00,6e,00,6e,00,5c,00,73,00,71,00,6c
,\
00,73,00,65,00,72,00,76,00,72,00,2e,00,65,00,78,00,65,00,00,00
"DisplayName"="MSSQLSERVER"
"ObjectName"="LocalSystem"
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSSQLSERVER\Linkage]
"Export"=hex(7):4d,00,53,00,53,00,51,00,4c,00,53,00,45,00,52,00,56,00,45,0
0,52,\
00,00,00,00,00
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSSQLSERVER\Performa
nce]
"Library"="c:\sql80\MSSQL\BINN\SQLCTR80.DLL"
"Collect"="CollectSQLPerformanceData"
```

```
"Open"="OpenSQLPerformanceData"
"Close"="CloseSQLPerformanceData"
"PerfIniFile"="sqlctr.ini"
"Last Counter"=dword:00000bdc
"Last Help"=dword:00000bdd
"First Counter"=dword:00000ac8
"First Help"=dword:00000ac9
"WbemAdapFileSignature"=hex:d6,a0,b9,c1,d1,85,78,63,4f,31,8b,f2,18,51,1a,5
d
"WbemAdapFileTime"=hex:36,aa,14,39,c9,7b,c2,01
"WbemAdapFileSize"=dword:0000803b
"WbemAdapStatus"=dword:00000000
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSSQLSERVER\Security
]
"Security"=hex:01,00,14,80,90,00,00,00,9c,00,00,00,14,00,00,00,30,00,00,00
,02,\
00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,00,01,00,00
,\
00,00,02,00,60,00,04,00,00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,00
,\
05,12,00,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00
,\
20,02,00,00,00,00,14,00,8d,01,02,00,01,01,00,00,00,00,05,0b,00,00,00,00
,\
00,18,00,fd,01,02,00,01,02,00,00,00,00,05,20,00,00,00,23,02,00,00,01,01
,\
00,00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,00,05,12,00,00,00
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSSQLSERVER\Enum]
"0"="Root\LEGACY_MSSQLSERVER\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001
```

CurrentControlSet\Services\PartMgr

Windows Registry Editor Version 5.00

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PartMgr]
"DisplayName"="Partition Manager"
"ErrorControl"=dword:00000001
"Group"="System Bus Extender"
"Start"=dword:00000000
"Tag"=dword:00000005
"Type"=dword:00000001
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PartMgr\Enum]
"0"="Root\LEGACY_PARTMGR\0000"
"Count"=dword:0000008a
"NextInstance"=dword:0000008a
```


| | | |
|-----------------|---|----|
| 0x00C0-0x00DF | Direct memory access controller | OK |
| 0x00F0-0x00FF | Numeric data processor | OK |
| 0x0020-0x003F | Programmable interrupt controller | OK |
| 0x00A0-0x00BF | Programmable interrupt controller | OK |
| 0x004D0-0x004D1 | 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 |
| 0x0814-0x085B | System board | OK |
| 0x0820-0x083F | System board | OK |
| 0x08A0-0x08AF | System board | OK |
| 0x0C00-0x0CD7 | System board | OK |
| 0x0F50-0x0F58 | 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 |
| 0xCC00-0xCFFF | 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 Function 0 |
| 23 | RAC Virtual UART Port |
| 7 | PCI Function 2 |
| 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 |
| 29 | Broadcom NetXtreme Gigabit Ethernet #2 |
| 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 |
| 0xFD000000-0xFEBFFFFF | PCI bus | OK |
| 0xFD000000-0xFEBFFFFF | ATI Technologies Inc. RAGE XL PCI | OK |
| 0xFEB80000-0xFEB80FFF | PCI Function 0 | OK |
| 0xFE102000-0xFE102FFF | RAC Virtual UART Port | OK |
| 0xFEBE0000-0xFEB7FFFF | RAC Virtual UART Port | 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 Ultral60/m PCI SCSI Card | OK |
| 0xFACFE000-0xFACFEFFF | Adaptec AIC-7899 Ultral60/m PCI SCSI Card | OK |
| 0xFAE00000-0xFAEFFFFF | PCI bus | OK |
| 0xFAF10000-0xFAF1FFFF | Broadcom NetXtreme Gigabit Ethernet | OK |
| 0xFAF00000-0xFAF0FFFF | Broadcom NetXtreme Gigabit Ethernet #2 | 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) | 12/7/1999 4:00:00 AM |
| c:\winnt\system32\msg723.acm | Microsoft Corporation | | OK | | | |
| | | C:\WINNT\System32\MSG723.ACM | 4.4.3385 | 106.77 KB | (109,328 bytes) | 9/30/2002 6:41:27 PM |
| c:\winnt\system32\lhacm.acm | Microsoft Corporation | | OK | | | |
| | | C:\WINNT\System32\LHACM.ACM | 4.4.3385 | 33.27 KB | (34,064 bytes) | 9/30/2002 6:41:28 PM |
| c:\winnt\system32\msg711.acm | Microsoft Corporation | | OK | | | |
| | | C:\WINNT\System32\MSG711.ACM | 5.00.2134.1 | 10.27 KB | (10,512 bytes) | 12/7/1999 4:00:00 AM |
| c:\winnt\system32\msgsm32.acm | Microsoft Corporation | | OK | | | |
| | | C:\WINNT\System32\MSGSM32.ACM | 5.00.2134.1 | 22.27 KB | (22,800 bytes) | 12/7/1999 4:00:00 AM |

```

c:\winnt\system32\tsssoft32.acm      DSP GROUP, INC.          OK
C:\WINNT\System32\tsssoft32.acm     1.01  9.27 KB (9,488 bytes)
12/7/1999 4:00:00 AM
c:\winnt\system32\imaadp32.acm      Microsoft Corporation    OK
C:\WINNT\System32\IMAADP32.ACМ     5.00.2134.1  16.27 KB
(16,656 bytes) 12/7/1999 4:00:00 AM
c:\winnt\system32\msadp32.acm      Microsoft Corporation    OK
C:\WINNT\System32\MSADP32.ACМ     5.00.2134.1  14.77 KB (15,120
bytes) 12/7/1999 4:00:00 AM

```

[Video Codecs]

| Codec | Manufacturer | Description | Status | File | Version | Size |
|--------------------------------|-----------------------|--------------------------------|---------------|-------------------|-----------------|----------------------|
| | | Creation Date | | | | |
| c:\winnt\system32\ir50_32.dll | Intel Corporation | | OK | Indeo® video 5.10 | | |
| | | C:\WINNT\System32\IR50_32.DLL | R.5.10 | 15.2.55 | 737.50 KB | (755,200 bytes) |
| | | 12/7/1999 4:00:00 AM | | | | |
| c:\winnt\system32\msh261.drv | Microsoft Corporation | | OK | | | |
| | | C:\WINNT\System32\MSH261.DRV | 4.4.3385 | 163.77 KB | (167,696 bytes) | 9/30/2002 6:41:27 PM |
| c:\winnt\system32\msh263.drv | Microsoft Corporation | | OK | | | |
| | | C:\WINNT\System32\MSH263.DRV | 4.4.3385 | 252.27 KB | (258,320 bytes) | 9/30/2002 6:41:02 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\msvidc32.dll | Microsoft Corporation | | OK | | | |
| | | C:\WINNT\System32\MSVIDC32.DLL | 5.00.2134.1 | 27.27 KB | (27,920 bytes) | 12/7/1999 4:00:00 AM |
| c:\winnt\system32\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 |

[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 10/24/2002 8:01:47 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_L2TPMINIPORT\0000
Last Reset 10/24/2002 8:01:47 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_PPTPMINIPORT\0000
Last Reset 10/24/2002 8:01:47 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\rasppt.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_PTMINIPORT\0000
Last Reset 10/24/2002 8:01:47 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 10/24/2002 8:01:47 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&30
Last Reset 10/24/2002 8:01:47 AM
Index 5
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 (71416, 2.43.0.0)

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&40
Last Reset    10/24/2002 8:01:47 AM
Index        6
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 (71416, 2.43.0.0)

```

```

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  10/24/2002 8:01:47 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_{D35C9C4C-7770-4883-BFB9-0E3164946DBD}] SEQPACKET 4
ConnectionlessService False
GuaranteesDelivery True

```


GuaranteesSequencing True
MaximumAddressSize 20 bytes
MaximumMessageSize 64000 bytes
MessageOriented True
MinimumAddressSize 20 bytes
PseudoStreamOriented False
SupportsBroadcasting False
SupportsConnectData False
SupportsDisconnectData False
SupportsEncryption False
SupportsExpeditedData False
SupportsGracefulClosing False
SupportsGuaranteedBandwidth False
SupportsMulticasting False

Name MSAFD NetBIOS [\Device\NetBT_Tcpip_{D35C9C4C-7770-4883-BFB9-0E3164946DBD}] 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_{378FF0B2-9F23-4C03-88CC-E5A43A927BBE}] 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_{378FF0B2-9F23-4C03-88CC-E5A43A927BBE}] 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_{8A660EC2-215F-4693-89A5-974BA72A0A52}] 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_{8A660EC2-215F-4693-89A5-974BA72A0A52}] 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_{421F13CE-D982-4AE0-B8DF-9B1C9B213FF3}] SEQUENCE 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_{421F13CE-D982-4AE0-B8DF-
9B1C9B213FF3}] 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_{E2CC727F-1F22-48AB-BA46-
9CD233B0E8DB}] 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_{E2CC727F-1F22-48AB-BA46-
9CD233B0E8DB}] 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\sock32.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        16.94 GB (18,194,284,544 bytes)
Free Space   13.80 GB (14,814,146,560 bytes)
Volume Name
Volume Serial Number  C0E2039E
Partition            Disk #0, Partition #0
Partition Size       16.94 GB (18,194,287,104 bytes)
Starting Offset      32256 bytes
Drive Description    Disk drive
Drive Manufacturer   (Standard disk drives)
Drive Model          FUJITSU MAN3184MC SCSI Disk Device
Drive BytesPerSector 512
Drive MediaLoaded    True
Drive MediaType      Fixed hard disk media
Drive Partitions     1
Drive SCSIbus        0
Drive SCSILogicalUnit 0
Drive SCSIPort       2
Drive SCsITargetId   0
Drive SectorsPerTrack 63
Drive Size           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    adpul60m
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
 No Problem Devices

[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 | Disabled | Stopped OK | Ignore | False | False | False | |
| acpi | Microsoft ACPI Driver | c:\winnt\system32\drivers\acpi.sys | Kernel Driver | True | Boot | Running OK | Normal |
| acpiec | ACPIEC | c:\winnt\system32\drivers\acpiec.sys | Kernel Driver | False | Disabled | Stopped OK | Normal |
| adpu160m | Kernel Driver | True | Boot | Running OK | Normal | False | True |
| afd | AFD Networking Support Environment | c:\winnt\system32\drivers\afd.sys | Kernel Driver | True | Auto | Running OK | Normal |

| | | | | | | | |
|----------|--|--|--------------------|-------|----------|------------|------------|
| aha154x | Aha154x | Not Available | Kernel Driver | False | Disabled | Stopped OK | Normal |
| aic116x | aic116x | Not Available | Kernel Driver | False | Disabled | Stopped OK | Normal |
| aic78u2 | aic78u2 | Not Available | Kernel Driver | False | Disabled | Stopped OK | Normal |
| aic78xx | aic78xx | Not Available | Kernel Driver | False | Disabled | Stopped OK | Normal |
| ami0nt | ami0nt | Not Available | Kernel Driver | False | Disabled | Stopped OK | Normal |
| amsint | amsint | Not Available | Kernel Driver | False | Disabled | Stopped OK | Normal |
| asc | asc | Not Available | Kernel Driver | False | Disabled | Stopped OK | Normal |
| asc3350p | asc3350p | Not Available | Kernel Driver | False | Disabled | Disabled | Stopped OK |
| asc3550 | asc3550 | Not Available | Kernel Driver | False | Disabled | Stopped OK | Normal |
| asynctac | RAS Asynchronous Media Driver | c:\winnt\system32\drivers\asynctac.sys | Kernel Driver | False | Manual | Stopped OK | Normal |
| atapi | Standard IDE/ESDI Hard Disk Controller | c:\winnt\system32\drivers\atapi.sys | Kernel Driver | True | Boot | Running OK | Normal |
| atdisk | Atdisk | Not Available | Kernel Driver | False | Disabled | Stopped OK | Ignore |
| atirage3 | atirage3 | c:\winnt\system32\drivers\atimpab.sys | Kernel Driver | True | Manual | Running OK | Ignore |
| atmarpc | ATM ARP Client Protocol | c:\winnt\system32\drivers\atmarpc.sys | Kernel Driver | False | Manual | Stopped OK | Normal |
| audstub | Audio Stub Driver | c:\winnt\system32\drivers\audstub.sys | Kernel Driver | True | Manual | Running OK | Normal |
| b57w2k | Broadcom NetXtreme Gigabit Ethernet | c:\winnt\system32\drivers\b57w2k.sys | Kernel Driver | True | Manual | Running OK | Normal |
| beep | Beep | c:\winnt\system32\drivers\beep.sys | Kernel Driver | True | System | Running OK | Normal |
| buslogic | BusLogic | Not Available | Kernel Driver | False | Disabled | Stopped OK | Normal |
| cd20xrnt | cd20xrnt | Not Available | Kernel Driver | False | Disabled | Stopped OK | Normal |
| cdaudio | Cdaudio | c:\winnt\system32\drivers\cdaudio.sys | Kernel Driver | False | System | Stopped OK | Ignore |
| cdfs | Cdfs | c:\winnt\system32\drivers\cdfs.sys | File System Driver | True | Disabled | Running OK | Normal |
| cdrom | CD-ROM Driver | c:\winnt\system32\drivers\cdrom.sys | Kernel Driver | True | System | Running OK | Normal |
| changer | Changer | Not Available | Kernel Driver | False | System | Stopped OK | Ignore |
| cpqarray | Cpqarray | Not Available | Kernel Driver | False | Disabled | Stopped OK | Normal |
| cpqarry2 | cpqarry2 | Not Available | Kernel Driver | False | Disabled | Stopped OK | Normal |
| cpqfcalm | cpqfcalm | Not Available | Kernel Driver | False | Disabled | Stopped OK | Normal |
| cpqfws2e | cpqfws2e | Not Available | Kernel Driver | False | Disabled | Stopped OK | Normal |

| | | | | | |
|----------------|---|--|--------------------|------------|--------------------|
| dac960nt | dac960nt | Not Available | Kernel Driver | False | |
| | Disabled | Stopped OK | Normal | False | False |
| deckzpsx | deckzpsx | Not Available | Kernel Driver | False | |
| | Disabled | Stopped OK | Normal | False | False |
| dfsdriver | DfsDriver | c:\winnt\system32\drivers\dfs.sys | File | | |
| System Driver | True | Boot | Running OK | Normal | False True |
| disk | Disk Driver | c:\winnt\system32\drivers\disk.sys | Kernel Driver | | |
| | True | Boot | Running OK | Normal | 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 Disk 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 |
| fdl6_700 | Fdl6_700 | Not Available | Kernel Driver | False | |
| | Disabled | Stopped OK | Normal | False | False |
| fdc | Floppy Disk Controller Driver | c:\winnt\system32\drivers\fdc.sys | | | |
| | Kernel Driver | True | Manual | Running OK | Normal 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 | Stopped OK | Normal | False | False |
| flashpnt | flashpnt | Not Available | Kernel Driver | False | |
| | Disabled | Stopped OK | Normal | False | False |
| flpydisk | Floppy Disk Driver | | | | |
| | c:\winnt\system32\drivers\flpydisk.sys | | Kernel Driver | True | |
| | Manual | Running OK | Normal | False | True |
| 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 | 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 | 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 |
| mnmdd | mnmdd | c:\winnt\system32\drivers\mnmdd.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 |
| mrx smb | MRXSMB | c:\winnt\system32\drivers\mrx smb.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\netdetect.sys | | | |
| | Kernel Driver | False | Manual | Stopped OK | Normal False False |


```

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;
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 2 <SYSTEM>
PATHEXT .COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH <SYSTEM>
TEMP %SystemRoot%\TEMP <SYSTEM>
TMP %SystemRoot%\TEMP <SYSTEM>
TEMP %USERPROFILE%\Local Settings\Temp 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 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      0      1413120 Not Available
Unknown Unknown Unknown
smss.exe  c:\winnt\system32\smss.exe  180  11  204800
1413120 10/24/2002 2:58:34 PM 5.00.2195.5382 44.77 KB (45,840
bytes) 12/7/1999 4:00:00 AM
csrss.exe Not Available  208  13  Not Available  Not Available
10/24/2002 2:58:39 PM Unknown Unknown Unknown
winlogon.exe c:\winnt\system32\winlogon.exe  204  13  204800
1413120 10/24/2002 2:58:40 PM 5.00.2195.5386 174.77 KB (178,960
bytes) 10/1/2002 12:00:20 PM
services.exe c:\winnt\system32\services.exe  260  9  204800
1413120 10/24/2002 2:58:41 PM 5.00.2195.3940 86.77 KB (88,848
bytes) 12/7/1999 4:00:00 AM
lsass.exe  c:\winnt\system32\lsass.exe  272  9  204800
1413120 10/24/2002 2:58:41 PM 5.00.2195.5430 32.77 KB (33,552
bytes) 12/7/1999 4:00:00 AM
termsrv.exe c:\winnt\system32\termsrv.exe  380  10  204800
1413120 10/24/2002 2:58:42 PM 5.00.2195.5276 138.77 KB (142,096
bytes) 10/1/2002 11:59:53 AM
gnconmgr.exe c:\winnt\system32\gnconmgr.exe  444  8  204800
1413120 10/24/2002 2:58:44 PM 4.2.0.75 168.05 KB (172,079
bytes) 10/10/2002 12:27:34 PM
svchost.exe c:\winnt\system32\svchost.exe  484  8  204800
1413120 10/24/2002 2:58:44 PM 5.00.2134.1 7.77 KB (7,952 bytes)
12/7/1999 4:00:00 AM
msdtc.exe  c:\winnt\system32\msdtc.exe  516  8  204800
1413120 10/24/2002 2:58:45 PM 1999.9.3421.3 6.77 KB (6,928 bytes)
9/30/2002 11:36:51 AM
cisvc.exe  c:\winnt\system32\cisvc.exe  640  8  204800
1413120 10/24/2002 2:58:46 PM 5.00.2134.1 5.27 KB (5,392 bytes)
12/7/1999 4:00:00 AM
svchost.exe c:\winnt\system32\svchost.exe  656  8  204800
1413120 10/24/2002 2:58:47 PM 5.00.2134.1 7.77 KB (7,952 bytes)
12/7/1999 4:00:00 AM
mnmsrvc.exe c:\winnt\system32\mnmsrvc.exe  676  8  204800
1413120 10/24/2002 2:58:47 PM 4.4.3385 21.27 KB (21,776
bytes) 9/30/2002 6:41:27 PM
regsvc.exe c:\winnt\system32\regsvc.exe  696  8  204800
1413120 10/24/2002 2:58:47 PM 5.00.2195.3649 65.27 KB (66,832
bytes) 10/1/2002 11:59:34 AM
mstask.exe c:\winnt\system32\mstask.exe  712  8  204800
1413120 10/24/2002 2:58:48 PM 4.71.2195.1 115.77 KB (118,544
bytes) 10/1/2002 11:58:54 AM
winmgmt.exe c:\winnt\system32\wbem\winmgmt.exe  784  8  204800
1413120 10/24/2002 2:58:48 PM 1.50.1085.0070 192.08 KB (196,685
bytes) 10/1/2002 12:00:20 PM
explorer.exe c:\winnt\explorer.exe  932  8  204800 1413120
10/24/2002 2:58:55 PM 5.00.3502.5321 237.27 KB (242,960 bytes)
10/1/2002 11:57:34 AM
rhostsvr.exe c:\rhost\rhostsvr.exe  1012  8  204800 1413120
10/24/2002 2:58:57 PM Not Available 54.50 KB (55,808 bytes)
10/8/2002 4:29:32 PM

```

```

svchost.exe c:\winnt\system32\svchost.exe 1128 8 204800
1413120 10/24/2002 2:59:02 PM 5.00.2134.1 7.77 KB (7,952 bytes)
12/7/1999 4:00:00 AM
cidaemon.exe c:\winnt\system32\cidaemon.exe 952 4 204800
1413120 10/24/2002 3:06:06 PM 5.00.2134.1 9.27 KB (9,488 bytes)
12/7/1999 4:00:00 AM
cidaemon.exe c:\winnt\system32\cidaemon.exe 144 4 204800
1413120 10/24/2002 3:06:07 PM 5.00.2134.1 9.27 KB (9,488 bytes)
12/7/1999 4:00:00 AM
dllhost.exe Not Available 1204 8 Not Available Not Available
10/24/2002 4:59:36 PM Unknown Unknown Unknown
rsrvp.exe c:\winnt\system32\rsrvp.exe 1840 8 204800
1413120 10/25/2002 1:13:43 PM 5.00.2167.1 172.77 KB (176,912
bytes) 12/7/1999 4:00:00 AM
inetinfo.exe c:\winnt\system32\inetinfo.exe 1716 8
204800 1413120 10/27/2002 9:26:25 PM 5.00.0984 14.27 KB
(14,608 bytes) 10/1/2002 11:57:45 AM
csrss.exe Not Available 2516 13 Not Available Not Available
10/27/2002 11:16:08 PM Unknown Unknown Unknown
winlogon.exe c:\winnt\system32\winlogon.exe 2244 13 204800
1413120 10/27/2002 11:16:08 PM 5.00.2195.5386 174.77 KB (178,960
bytes) 10/1/2002 12:00:20 PM
rdpclip.exe c:\winnt\system32\rdpclip.exe 2128 8 204800
1413120 10/27/2002 11:16:19 PM 5.00.2174.1 39.77 KB (40,720
bytes) 9/30/2002 11:36:53 AM
explorer.exe c:\winnt\explorer.exe 2288 8 204800 1413120
10/27/2002 11:16:19 PM 5.00.3502.5321 237.27 KB (242,960 bytes)
10/1/2002 11:57:34 AM
mmc.exe c:\winnt\system32\mmc.exe 2280 8 204800 1413120
10/27/2002 11:28:02 PM 5.00.2195.4933 589.27 KB (603,408 bytes)
10/1/2002 11:58:30 AM
cmd.exe c:\winnt\system32\cmd.exe 816 8 204800 1413120
10/27/2002 11:28:38 PM 5.00.2195.4803 230.77 KB (236,304 bytes)
12/7/1999 4:00:00 AM

```

[Loaded Modules]

| Name | Version | Size | File Date | Manufacturer | Path |
|--------------|----------------|---------------------------|-----------------------|-----------------------|--|
| cmd.exe | 5.00.2195.4803 | 230.77 KB (236,304 bytes) | 12/7/1999 4:00:00 AM | Microsoft Corporation | c:\winnt\system32\cmd.exe |
| wbemprox.dll | 1.50.1085.0045 | 40.08 KB (41,040 bytes) | 10/1/2002 12:00:06 PM | Microsoft Corporation | c:\winnt\system32\wbem\wbemprox.dll |
| mlang.dll | 6.00.2800.1106 | 561.50 KB (574,976 bytes) | 8/29/2002 7:14:40 AM | Microsoft Corporation | c:\winnt\system32\mlang.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) | 10/1/2002 11:58:45 AM | Microsoft Corporation | c:\program files\common files\microsoft shared\msinfo\msinfo32.dll |
| mmcndmgr.dll | 5.00.2195.5352 | 816.27 KB (835,856 bytes) | 10/1/2002 11:58:30 AM | Microsoft Corporation | c:\winnt\system32\mmcndmgr.dll |
| mmc.exe | 5.00.2195.4933 | 589.27 KB (603,408 bytes) | 10/1/2002 11:58:30 AM | Microsoft Corporation | c:\winnt\system32\mmc.exe |
| hhsetup.dll | 4.74.8702 | 66.27 KB (67,856 bytes) | 12/7/1999 4:00:00 AM | Microsoft Corporation | c:\winnt\system32\hhsetup.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 |
| mmcshext.dll | 5.00.2153.1 | 24.27 KB (24,848 bytes) | 12/7/1999 4:00:00 AM | Microsoft Corporation | c:\winnt\system32\mmcshext.dll |

```

actxprxy.dll 6.00.2800.1106 96.50 KB (98,816 bytes) 8/29/2002
7:14:40 AM Microsoft Corporation c:\winnt\system32\actxprxy.dll
wininet.dll 6.00.2800.1106 572.00 KB (585,728 bytes) 8/29/2002
7:14:40 AM Microsoft Corporation c:\winnt\system32\wininet.dll
shdoclc.dll 6.00.2800.1106 521.00 KB (533,504 bytes) 8/29/2002
7:14:40 AM Microsoft Corporation c:\winnt\system32\shdoclc.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
mstask.dll 4.71.2195.1 214.27 KB (219,408 bytes) 10/1/2002
11:58:54 AM Microsoft Corporation c:\winnt\system32\mstask.dll
comdlg32.dll 5.00.3315.3727 221.27 KB (226,576 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\comdlg32.dll
msxml3.dll 8.30.9926.0 1.07 MB (1,122,304 bytes) 8/29/2002
7:14:40 AM Microsoft Corporation c:\winnt\system32\msxml3.dll
urlmon.dll 6.00.2800.1106 471.50 KB (482,816 bytes) 8/29/2002
7:14:40 AM Microsoft Corporation c:\winnt\system32\urlmon.dll
browserc.dll 6.00.2800.1106 61.50 KB (62,976 bytes) 8/29/2002
7:14:40 AM Microsoft Corporation c:\winnt\system32\browserc.dll
rdpclip.exe 5.00.2174.1 39.77 KB (40,720 bytes) 9/30/2002
11:36:53 AM Microsoft Corporation c:\winnt\system32\rdpclip.exe
security.dll 5.00.2154.1 5.77 KB (5,904 bytes) 12/7/1999 4:00:00 AM
Microsoft Corporation c:\winnt\system32\security.dll
svcxext.dll 5.00.0984 39.77 KB (40,720 bytes) 10/1/2002
11:59:51 AM Microsoft Corporation c:\winnt\system32\inet\svcxext.dll
admexs.dll 5.00.0984 27.77 KB (28,432 bytes) 10/1/2002
11:56:12 AM Microsoft Corporation c:\winnt\system32\inet\admexs.dll
wamreg.dll 5.00.0984 45.77 KB (46,864 bytes) 10/1/2002
12:00:03 PM Microsoft Corporation c:\winnt\system32\inet\wamreg.dll
metadata.dll 5.00.0984 68.77 KB (70,416 bytes) 10/1/2002
11:58:29 AM Microsoft Corporation
c:\winnt\system32\inet\metadata.dll
iismap.dll 5.00.0984 55.77 KB (57,104 bytes) 10/1/2002
11:57:44 AM Microsoft Corporation c:\winnt\system32\iismap.dll
nsepm.dll 5.00.0984 43.27 KB (44,304 bytes) 10/1/2002
11:59:10 AM Microsoft Corporation c:\winnt\system32\inet\rsrv\nsepm.dll
coadmin.dll 5.00.0984 39.77 KB (40,720 bytes) 10/1/2002
11:57:14 AM Microsoft Corporation
c:\winnt\system32\inet\rsrv\coadmin.dll
iisadmin.dll 5.00.0984 15.27 KB (15,632 bytes) 10/1/2002
11:57:43 AM Microsoft Corporation
c:\winnt\system32\inet\rsrv\iisadmin.dll
rpcpref.dll 5.00.0984 4.27 KB (4,368 bytes) 10/1/2002 11:59:35 AM
Microsoft Corporation c:\winnt\system32\inet\rsrv\rpcpref.dll
iisrtl.dll 5.00.0984 119.77 KB (122,640 bytes) 10/1/2002
11:57:44 AM Microsoft Corporation c:\winnt\system32\iisrtl.dll
inetinfo.exe 5.00.0984 14.27 KB (14,608 bytes) 10/1/2002
11:57:45 AM Microsoft Corporation
c:\winnt\system32\inet\rsrv\inetinfo.exe
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
rsrvp.exe 5.00.2167.1 172.77 KB (176,912 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\rsrvp.exe
cidaemon.exe 5.00.2134.1 9.27 KB (9,488 bytes) 12/7/1999 4:00:00 AM
Microsoft Corporation c:\winnt\system32\cidaemon.exe
tapisrv.dll 5.00.2195.5227 169.27 KB (173,328 bytes) 10/1/2002
11:59:52 AM Microsoft Corporation c:\winnt\system32\tapisrv.dll
rhostsvr.exe Not Available 54.50 KB (55,808 bytes) 10/8/2002
4:29:32 PM Not Available c:\rhost\rhostsvr.exe

```


| | | | | | | | |
|---|---------------------------------------|------------------------------|-----------------------|--|--|---------------------------|-----------------------|
| msi.dll | 2.0.2600.1 | 1.90 MB (1,991,168 bytes) | 10/1/2002 11:58:44 AM | rapilib.dll | 5.00.2195.4874 | 24.77 KB (25,360 bytes) | 10/1/2002 |
| Microsoft Corporation c:\winnt\system32\msi.dll | | | | Microsoft Corporation c:\winnt\system32\rapilib.dll | | | |
| powrprof.dll | 5.00.3502.5305 | 13.27 KB (13,584 bytes) | 10/1/2002 | rsvpsp.dll | 5.00.2195.4874 | 75.27 KB (77,072 bytes) | 10/1/2002 |
| Microsoft Corporation c:\winnt\system32\powrprof.dll | | | | Microsoft Corporation c:\winnt\system32\rsvpsp.dll | | | |
| batmeter.dll | 5.00.3502.5305 | 20.27 KB (20,752 bytes) | 10/1/2002 | ntmarta.dll | 5.00.2195.4836 | 99.77 KB (102,160 bytes) | 10/1/2002 |
| Microsoft Corporation c:\winnt\system32\batmeter.dll | | | | Microsoft Corporation c:\winnt\system32\ntmarta.dll | | | |
| stobject.dll | 5.00.2195.4455 | 79.27 KB (81,168 bytes) | 10/1/2002 | fastprox.dll | 1.50.1085.0056 | 144.08 KB (147,536 bytes) | 10/1/2002 |
| Microsoft Corporation c:\winnt\system32\stobject.dll | | | | Microsoft Corporation c:\winnt\system32\wbem\fastprox.dll | | | |
| webcheck.dll | 6.00.2800.1106 | 252.00 KB (258,048 bytes) | 8/29/2002 | wbemcomn.dll | 1.50.1085.0077 | 692.07 KB (708,675 bytes) | 10/1/2002 |
| Microsoft Corporation c:\winnt\system32\webcheck.dll | | | | Microsoft Corporation c:\winnt\system32\wbem\wbemcomn.dll | | | |
| ntshrui.dll | 5.00.2134.1 | 46.77 KB (47,888 bytes) | 12/7/1999 | winmgmt.exe | 1.50.1085.0070 | 192.08 KB (196,685 bytes) | 10/1/2002 |
| Microsoft Corporation c:\winnt\system32\ntshrui.dll | | | | Microsoft Corporation c:\winnt\system32\wbem\winmgmt.exe | | | |
| mydocs.dll | 5.00.3315.4065 | 55.27 KB (56,592 bytes) | 10/1/2002 | msidle.dll | 5.00.2920.0000 | 6.27 KB (6,416 bytes) | 12/7/1999 4:00:00 AM |
| Microsoft Corporation c:\winnt\system32\mydocs.dll | | | | Microsoft Corporation c:\winnt\system32\msidle.dll | | | |
| browseui.dll | 6.00.2800.1106 | 1002.00 KB (1,026,048 bytes) | 8/29/2002 | mstask.exe | 4.71.2195.1 | 115.77 KB (118,544 bytes) | 10/1/2002 |
| Microsoft Corporation c:\winnt\system32\browseui.dll | | | | Microsoft Corporation c:\winnt\system32\mstask.exe | | | |
| shdocvw.dll | 6.00.2800.1106 | 1.28 MB (1,338,368 bytes) | 8/29/2002 | regsvc.exe | 5.00.2195.3649 | 65.27 KB (66,832 bytes) | 10/1/2002 |
| Microsoft Corporation c:\winnt\system32\shdocvw.dll | | | | Microsoft Corporation c:\winnt\system32\regsvc.exe | | | |
| explorer.exe | 5.00.3502.5321 | 237.27 KB (242,960 bytes) | 10/1/2002 | dcap32.dll | 4.4.3385 | 35.77 KB (36,624 bytes) | 9/30/2002 |
| Microsoft Corporation c:\winnt\explorer.exe | | | | Microsoft Corporation c:\program | | | |
| netui1.dll | 5.00.2134.1 | 210.27 KB (215,312 bytes) | 12/7/1999 | files\netmeeting\dcap32.dll | | | |
| Microsoft Corporation c:\winnt\system32\netui1.dll | | | | msvfw32.dll | | | |
| netui0.dll | 5.00.2195.4874 | 70.77 KB (72,464 bytes) | 10/1/2002 | 4:00:00 AM | Microsoft Corporation c:\winnt\system32\msvfw32.dll | | 12/7/1999 |
| Microsoft Corporation c:\winnt\system32\netui0.dll | | | | msacm32.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\msacm32.dll | | 12/7/1999 |
| Microsoft Corporation c:\winnt\system32\ntlanman.dll | | | | nac.dll | | | |
| perfos.dll | 5.00.2155.1 | 21.27 KB (21,776 bytes) | 12/7/1999 | 4:00:00 AM | Microsoft Corporation c:\program files\netmeeting\nac.dll | | 9/30/2002 6:41:26 PM |
| Microsoft Corporation c:\winnt\system32\perfos.dll | | | | callcont.dll | | | |
| msvcirt.dll | 6.10.8637.0 | 76.05 KB (77,878 bytes) | 12/7/1999 | 11:57:05 AM | Microsoft Corporation c:\program | | 10/1/2002 |
| Microsoft Corporation c:\winnt\system32\msvcirt.dll | | | | files\netmeeting\callcont.dll | | | |
| msvcrt40.dll | 4.20 - OS use only. DO NOT DISTRIBUTE | 63.50 KB (65,024 bytes) | 12/7/1999 4:00:00 AM | h323cc.dll | 4.4.3385 | 39.27 KB (40,208 bytes) | 9/30/2002 |
| Microsoft Corporation c:\winnt\system32\msvcrt40.dll | | | | 6:41:26 PM | | | |
| mfc40.dll | 4.1.6140 | 902.77 KB (924,432 bytes) | 12/7/1999 | files\netmeeting\h323cc.dll | | | |
| Microsoft Corporation c:\winnt\system32\mfc40.dll | | | | nmasnt.dll | | | |
| ieinfo5.ocx | 5.50.4807.2300 | 100.77 KB (103,184 bytes) | 8/29/2002 | 4:4.3385 | 8.77 KB (8,976 bytes) | 9/30/2002 6:41:27 PM | |
| Microsoft Corporation c:\program~1\common~1\micros~1\msinfo\ieinfo5.ocx | | | | Microsoft Corporation c:\program files\netmeeting\nmasnt.dll | | | |
| psapi.dll | 5.00.2134.1 | 28.27 KB (28,944 bytes) | 12/7/1999 | 6:41:27 PM | Microsoft Corporation c:\program files\netmeeting\nmas.dll | | 9/30/2002 |
| Microsoft Corporation c:\winnt\system32\psapi.dll | | | | mst120.dll | | | |
| provthrd.dll | 1.50.1085.0000 | 68.07 KB (69,708 bytes) | 9/30/2002 | 11:58:54 AM | Microsoft Corporation c:\program | | 10/1/2002 |
| Microsoft Corporation c:\winnt\system32\wbem\provthrd.dll | | | | files\netmeeting\mst120.dll | | | |
| ntevt.dll | 1.50.1085.0072 | 192.06 KB (196,671 bytes) | 10/1/2002 | nmcom.dll | 4.4.3385 | 60.77 KB (62,224 bytes) | 10/1/2002 |
| Microsoft Corporation c:\winnt\system32\wbem\ntevt.dll | | | | 11:59:07 AM | | | |
| framedyn.dll | 1.50.1085.0076 | 164.07 KB (168,009 bytes) | 10/1/2002 | files\netmeeting\nmcom.dll | | | |
| Microsoft Corporation c:\winnt\system32\wbem\framedyn.dll | | | | mnmsrvc.exe | | | |
| cimwin32.dll | 1.50.1085.0073 | 1.04 MB (1,085,520 bytes) | 10/1/2002 | 6:41:27 PM | Microsoft Corporation c:\winnt\system32\mnmsrvc.exe | | 9/30/2002 |
| Microsoft Corporation c:\winnt\system32\wbem\cimwin32.dll | | | | rasdlg.dll | | | |
| wbemsvc.dll | 1.50.1085.0007 | 40.07 KB (41,036 bytes) | 10/1/2002 | 4:00:00 AM | Microsoft Corporation c:\winnt\system32\rasdlg.dll | | 12/7/1999 |
| Microsoft Corporation c:\winnt\system32\wbem\wbemsvc.dll | | | | netcfgx.dll | | | |
| wbemess.dll | 1.50.1085.0074 | 364.07 KB (372,804 bytes) | 10/1/2002 | 11:58:59 AM | Microsoft Corporation c:\winnt\system32\netcfgx.dll | | 10/1/2002 |
| Microsoft Corporation c:\winnt\system32\wbem\wbemess.dll | | | | rasmans.dll | | | |
| wbemcore.dll | 1.50.1085.0085 | 628.07 KB (643,146 bytes) | 10/1/2002 | 11:59:33 AM | Microsoft Corporation c:\winnt\system32\rasmans.dll | | 10/1/2002 |
| Microsoft Corporation c:\winnt\system32\wbem\wbemcore.dll | | | | netshell.dll | | | |
| msratelc.dll | 6.00.2800.1106 | 58.50 KB (59,904 bytes) | 8/29/2002 | 11:59:01 AM | Microsoft Corporation c:\winnt\system32\netshell.dll | | 10/1/2002 |
| Microsoft Corporation c:\winnt\system32\msratelc.dll | | | | netman.dll | | | |
| wshnetbs.dll | 5.00.2134.1 | 7.77 KB (7,952 bytes) | 12/7/1999 4:00:00 AM | 5:41:36 PM | Microsoft Corporation c:\winnt\system32\netman.dll | | 7/24/2002 |
| Microsoft Corporation c:\winnt\system32\wshnetbs.dll | | | | sens.dll | | | |
| | | | | 4:00:00 AM | Microsoft Corporation c:\winnt\system32\sens.dll | | 12/7/1999 |
| | | | | es.dll | 2000.2.3497.0 | 225.27 KB (230,672 bytes) | 10/1/2002 11:57:32 AM |
| | | | | Microsoft Corporation c:\winnt\system32\es.dll | | | |

infosoft.dll 5.00.2195.4091 201.27 KB (206,096 bytes) 10/1/2002
 11:57:45 AM Microsoft Corporation c:\winnt\system32\infosoft.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
 admwprox.dll 5.00.0984 31.77 KB (32,528 bytes) 9/30/2002
 11:37:29 AM Microsoft Corporation c:\winnt\system32\admwprox.dll
 query.dll 5.00.2195.4966 1.36 MB (1,424,144 bytes) 10/1/2002
 11:59:32 AM Microsoft Corporation c:\winnt\system32\query.dll
 cisvc.exe 5.00.2134.1 5.27 KB (5,392 bytes) 12/7/1999 4:00:00 AM
 Microsoft Corporation c:\winnt\system32\cisvc.exe
 mtxoci.dll 2000.2.3497.0 103.77 KB (106,256 bytes) 10/1/2002
 11:58:58 AM Microsoft Corporation c:\winnt\system32\mtxoci.dll
 resutils.dll 5.00.2195.5339 39.77 KB (40,720 bytes) 10/1/2002
 11:59:34 AM Microsoft Corporation c:\winnt\system32\resutils.dll
 clusapi.dll 5.00.2195.4678 54.27 KB (55,568 bytes) 10/1/2002
 11:57:12 AM 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) 9/30/2002
 11:36:51 AM Microsoft Corporation c:\winnt\system32\xolehlp.dll
 msdtclog.dll 2000.2.3497.0 86.77 KB (88,848 bytes) 10/1/2002
 11:58:35 AM Microsoft Corporation c:\winnt\system32\msdtclog.dll
 mtxclu.dll 2000.2.3497.0 51.27 KB (52,496 bytes) 10/1/2002
 11:58:58 AM Microsoft Corporation c:\winnt\system32\mtxclu.dll
 msdtcprx.dll 2000.2.3497.0 683.77 KB (700,176 bytes) 10/1/2002
 11:58:35 AM Microsoft Corporation c:\winnt\system32\msdtcprx.dll
 txfaux.dll 2000.2.3497.0 383.27 KB (392,464 bytes) 10/1/2002
 11:59:55 AM Microsoft Corporation c:\winnt\system32\txfaux.dll
 msdtctm.dll 2000.2.3497.0 1.08 MB (1,128,208 bytes) 10/1/2002
 11:58:36 AM Microsoft Corporation c:\winnt\system32\msdtctm.dll
 msdtc.exe 1999.9.3421.3 6.77 KB (6,928 bytes) 9/30/2002 11:36:51 AM
 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
 iphlapi.dll 5.00.2195.2 68.27 KB (69,904 bytes) 10/1/2002
 11:57:52 AM Microsoft Corporation c:\winnt\system32\iphlpapi.dll
 rnr20.dll 5.00.2195.4874 35.77 KB (36,624 bytes) 10/1/2002
 11:59:35 AM Microsoft Corporation c:\winnt\system32\rnr20.dll
 wshtcpip.dll 5.00.2195.4874 17.27 KB (17,680 bytes) 10/1/2002
 12:00:21 PM Microsoft Corporation c:\winnt\system32\wshtcpip.dll
 msafd.dll 5.00.2195.4874 103.27 KB (105,744 bytes) 10/1/2002
 11:58:33 AM Microsoft Corporation c:\winnt\system32\msafd.dll
 rpcss.dll 5.00.2195.5429 231.27 KB (236,816 bytes) 10/1/2002
 11:59:35 AM Microsoft Corporation c:\winnt\system32\rpcss.dll
 svchost.exe 5.00.2134.1 7.77 KB (7,952 bytes) 12/7/1999 4:00:00 AM
 Microsoft Corporation c:\winnt\system32\svchost.exe

vipl.dll 4.2.0.75 80.00 KB (81,920 bytes) 10/10/2002
 12:27:34 PM Gigaset Incorporated c:\winnt\system32\vipl.dll
 gnconmgr.exe 4.2.0.75 168.05 KB (172,079 bytes) 10/10/2002
 12:27:34 PM Gigaset Incorporated c:\winnt\system32\gnconmgr.exe
 rdpwsx.dll 5.00.2195.5243 97.90 KB (100,248 bytes) 10/1/2002
 11:59:34 AM Microsoft Corporation c:\winnt\system32\rdpwsx.dll
 mstlsapi.dll 5.00.2195.3895 25.77 KB (26,384 bytes) 10/1/2002
 11:58:54 AM Microsoft Corporation c:\winnt\system32\mstlsapi.dll
 icaapi.dll 5.00.2195.3895 122.77 KB (125,712 bytes) 10/1/2002
 11:57:43 AM Microsoft Corporation c:\winnt\system32\icaapi.dll
 regapi.dll 5.00.2195.5201 35.27 KB (36,112 bytes) 10/1/2002
 11:59:34 AM Microsoft Corporation c:\winnt\system32\regapi.dll
 termsrv.exe 5.00.2195.5276 138.77 KB (142,096 bytes) 10/1/2002
 11:59:53 AM Microsoft Corporation c:\winnt\system32\termsrv.exe
 iissuba.dll 5.00.0984 9.77 KB (10,000 bytes) 12/7/1999 4:00:00 AM
 Microsoft Corporation c:\winnt\system32\iissuba.dll
 cryptnet.dll 5.131.2195.3992 41.77 KB (42,768 bytes)
 10/1/2002 11:57:18 AM Microsoft Corporation
 c:\winnt\system32\cryptnet.dll
 dssenh.dll 5.00.2195.3665 142.77 KB (146,192 bytes) 10/1/2002
 11:59:02 AM Microsoft Corporation c:\winnt\system32\dssenh.dll
 scecli.dll 5.00.2195.4874 109.27 KB (111,888 bytes) 10/1/2002
 11:59:38 AM Microsoft Corporation c:\winnt\system32\scecli.dll
 atl.dll 3.00.9435 73.06 KB (74,810 bytes) 10/1/2002 11:57:01 AM
 Microsoft Corporation c:\winnt\system32\atl.dll
 certcli.dll 5.00.2195.3649 130.27 KB (133,392 bytes) 10/1/2002
 11:57:06 AM Microsoft Corporation c:\winnt\system32\certcli.dll
 esent.dll 6.0.3940.25 1.09 MB (1,137,936 bytes) 10/1/2002
 11:57:32 AM Microsoft Corporation c:\winnt\system32\esent.dll
 mswsock.dll 5.00.2195.4874 62.77 KB (64,272 bytes) 10/1/2002
 11:58:56 AM Microsoft Corporation c:\winnt\system32\mswsock.dll
 ntdsatq.dll 5.00.2195.5246 31.27 KB (32,016 bytes) 10/1/2002
 11:59:17 AM Microsoft Corporation c:\winnt\system32\ntdsatq.dll
 ntdsa.dll 5.00.2195.5438 1002.27 KB (1,026,320 bytes) 10/1/2002
 11:59:16 AM Microsoft Corporation c:\winnt\system32\ntdsa.dll
 kdcsvc.dll 5.00.2195.5246 141.77 KB (145,168 bytes) 10/1/2002
 11:57:55 AM Microsoft Corporation c:\winnt\system32\kdcsvc.dll
 sfmapi.dll 5.00.2134.1 38.77 KB (39,696 bytes) 12/7/1999
 4:00:00 AM Microsoft Corporation c:\winnt\system32\sfmapi.dll
 rtutils.dll 5.00.2168.1 43.77 KB (44,816 bytes) 12/7/1999
 4:00:00 AM Microsoft Corporation c:\winnt\system32\rtutils.dll
 adslrpc.dll 5.00.2195.5400 127.77 KB (130,832 bytes) 10/1/2002
 11:56:59 AM Microsoft Corporation c:\winnt\system32\adslrpc.dll
 activeds.dll 5.00.2195.5312 175.27 KB (179,472 bytes) 10/1/2002
 11:56:12 AM Microsoft Corporation c:\winnt\system32\activeds.dll
 mprapi.dll 5.00.2181.1 79.27 KB (81,168 bytes) 12/7/1999
 4:00:00 AM Microsoft Corporation c:\winnt\system32\mprapi.dll
 rassfm.dll 5.00.2195.4874 21.27 KB (21,776 bytes) 10/1/2002
 11:59:34 AM Microsoft Corporation c:\winnt\system32\rassfm.dll
 rsabase.dll 5.00.2195.3839 128.27 KB (131,344 bytes) 10/1/2002
 11:59:35 AM Microsoft Corporation c:\winnt\system32\rsabase.dll
 schannel.dll 5.00.2195.5284 139.27 KB (142,608 bytes) 12/7/1999
 4:00:00 AM Microsoft Corporation c:\winnt\system32\schannel.dll
 netlogon.dll 5.00.2195.5400 362.77 KB (371,472 bytes) 10/1/2002
 11:59:00 AM Microsoft Corporation c:\winnt\system32\netlogon.dll
 kerberos.dll 5.00.2195.5246 202.77 KB (207,632 bytes) 10/1/2002
 11:57:55 AM Microsoft Corporation c:\winnt\system32\kerberos.dll
 msprivs.dll 5.00.2154.1 41.50 KB (42,496 bytes) 12/7/1999
 4:00:00 AM Microsoft Corporation c:\winnt\system32\msprivs.dll

samsrv.dll 5.00.2195.5201 374.27 KB (383,248 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\samsrv.dll
lsasrv.dll 5.00.2195.5430 500.27 KB (512,272 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\lsasrv.dll
lsass.exe 5.00.2195.5430 32.77 KB (33,552 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\lsass.exe
ntlsapi.dll 5.00.2195.4907 6.77 KB (6,928 bytes) 12/7/1999 4:00:00 AM
Microsoft Corporation c:\winnt\system32\ntlsapi.dll
wmicore.dll 5.00.2195.3649 72.27 KB (74,000 bytes) 10/1/2002
12:00:21 PM Microsoft Corporation c:\winnt\system32\wmicore.dll
browser.dll 5.00.2195.4874 48.77 KB (49,936 bytes) 10/1/2002
11:57:05 AM Microsoft Corporation c:\winnt\system32\browser.dll
seclogon.dll 5.00.2195.5201 17.27 KB (17,680 bytes) 10/1/2002
11:59:39 AM Microsoft Corporation c:\winnt\system32\seclogon.dll
psbase.dll 5.00.2195.4822 111.77 KB (114,448 bytes) 10/1/2002
11:59:28 AM Microsoft Corporation c:\winnt\system32\psbase.dll
cryptsvc.dll 5.00.2195.4368 73.27 KB (75,024 bytes) 10/1/2002
11:57:18 AM Microsoft Corporation c:\winnt\system32\cryptsvc.dll
cryptdll.dll 5.00.2135.1 41.27 KB (42,256 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\cryptdll.dll
wkssvc.dll 5.00.2195.4874 95.27 KB (97,552 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\wkssvc.dll
srvsvc.dll 5.00.2195.5400 81.77 KB (83,728 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\srvsvc.dll
cfgmgr32.dll 5.00.2134.1 16.77 KB (17,168 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\cfgmgr32.dll
dmserver.dll 2195.3649.297.3 12.27 KB (12,560 bytes)
10/1/2002 11:57:21 AM VERITAS Software Corp.
c:\winnt\system32\dmserver.dll
eventlog.dll 5.00.2195.5336 44.27 KB (45,328 bytes) 10/1/2002
11:57:32 AM Microsoft Corporation c:\winnt\system32\eventlog.dll
ntdsapi.dll 5.00.2195.4827 56.27 KB (57,616 bytes) 10/1/2002
11:59:17 AM Microsoft Corporation c:\winnt\system32\ntdsapi.dll
scesrv.dll 5.00.2195.5316 242.77 KB (248,592 bytes) 10/1/2002
11:59:38 AM Microsoft Corporation c:\winnt\system32\scesrv.dll
umpnpgmr.dll 5.00.2182.1 86.27 KB (88,336 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\umpnpgmr.dll
services.exe 5.00.2195.3940 86.77 KB (88,848 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\services.exe
msvl_0.dll 5.00.2195.4745 112.27 KB (114,960 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\msvl_0.dll
clbcatq.dll 2000.2.3497.0 497.77 KB (509,712 bytes) 10/1/2002
11:57:12 AM Microsoft Corporation c:\winnt\system32\clbcatq.dll
oleaut32.dll 2.40.4518 612.27 KB (626,960 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\oleaut32.dll
cscui.dll 5.00.2195.4104 233.77 KB (239,376 bytes) 10/1/2002
11:57:18 AM Microsoft Corporation c:\winnt\system32\cscui.dll
lz32.dll 5.00.2134.1 9.77 KB (10,000 bytes) 12/7/1999 4:00:00 AM
Microsoft Corporation c:\winnt\system32\lz32.dll
version.dll 5.00.2134.1 15.77 KB (16,144 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\version.dll
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
winscard.dll 5.00.2134.1 77.27 KB (79,120 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\winscard.dll
wlnotify.dll 5.00.2195.5377 54.27 KB (55,568 bytes) 10/1/2002
12:00:21 PM Microsoft Corporation c:\winnt\system32\wlnotify.dll
csdll.dll 5.00.2195.5434 98.77 KB (101,136 bytes) 10/1/2002
11:57:18 AM Microsoft Corporation c:\winnt\system32\csdll.dll

rsaenh.dll 5.00.2195.3839 130.77 KB (133,904 bytes) 10/1/2002
11:59:05 AM Microsoft Corporation c:\winnt\system32\rsaenh.dll
mcat32.dll 5.131.2134.1 7.77 KB (7,952 bytes) 12/7/1999 4:00:00 AM
Microsoft Corporation c:\winnt\system32\mcat32.dll
ole32.dll 5.00.2195.5400 968.27 KB (991,504 bytes) 10/1/2002
11:59:25 AM Microsoft Corporation c:\winnt\system32\ole32.dll
imagehlp.dll 5.00.2195.5242 125.77 KB (128,784 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\imagehlp.dll
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)
10/1/2002 11:57:18 AM Microsoft Corporation
c:\winnt\system32\crypt32.dll
wintrust.dll 5.131.2195.3775 162.27 KB (166,160 bytes)
10/1/2002 12:00:20 PM Microsoft Corporation
c:\winnt\system32\wintrust.dll
mpr.dll 5.00.2195.3649 53.77 KB (55,056 bytes) 10/1/2002 11:58:30 AM
Microsoft Corporation c:\winnt\system32\mpr.dll
shlwapi.dll 6.00.2800.1106 386.00 KB (395,264 bytes) 8/29/2002
7:14:40 AM Microsoft Corporation c:\winnt\system32\shlwapi.dll
shell32.dll 5.00.3502.5436 2.26 MB (2,374,416 bytes) 10/1/2002
11:59:44 AM 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 5.81 517.27 KB (529,680 bytes) 8/29/2002 7:14:40 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) 10/1/2002
12:00:20 PM Microsoft Corporation c:\winnt\system32\winsta.dll
wsock32.dll 5.00.2195.4874 21.27 KB (21,776 bytes) 10/1/2002
12:00:21 PM Microsoft Corporation c:\winnt\system32\wsock32.dll
dnsapi.dll 5.00.2195.5354 131.27 KB (134,416 bytes) 10/1/2002
11:57:21 AM Microsoft Corporation c:\winnt\system32\dnsapi.dll
ldap32.dll 5.00.2195.5400 158.77 KB (162,576 bytes) 10/1/2002
12:00:20 PM Microsoft Corporation c:\winnt\system32\ldap32.dll
ws2help.dll 5.00.2134.1 17.77 KB (18,192 bytes) 12/7/1999
4:00:00 AM Microsoft Corporation c:\winnt\system32\ws2help.dll
ws2_32.dll 5.00.2195.4874 66.77 KB (68,368 bytes) 10/1/2002
12:00:21 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) 10/1/2002
11:58:59 AM 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) 10/1/2002
11:59:39 AM Microsoft Corporation c:\winnt\system32\secur32.dll
sfc.dll 5.00.2195.3649 92.11 KB (94,320 bytes) 10/1/2002 11:59:42 AM
Microsoft Corporation c:\winnt\system32\sfc.dll
nddeapi.dll 5.00.2195.4509 15.77 KB (16,144 bytes) 10/1/2002
11:58:59 AM 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) | 10/1/2002 |
| 11:59:35 AM | 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) | 10/1/2002 |
| 11:58:56 AM | Microsoft Corporation | c:\winnt\system32\msvcrt.dll | | |
| winlogon.exe | 5.00.2195.5386 | 174.77 | KB (178,960 bytes) | 10/1/2002 |
| 12:00:20 PM | Microsoft Corporation | c:\winnt\system32\winlogon.exe | | |
| sfcfiles.dll | 5.00.2195.5426 | 951.27 | KB (974,096 bytes) | 10/1/2002 |
| 11:59:42 AM | Microsoft Corporation | c:\winnt\system32\sfcfiles.dll | | |
| ntdll.dll | 5.00.2195.5400 | 479.27 | KB (490,768 bytes) | 12/7/1999 |
| 4:00:00 AM | 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 | Running | Auto | Share Process | | |
| | c:\winnt\system32\cisvc.exe | | | Normal LocalSystem | | 0 |
| ClipBook | ClipSrv | Stopped | Manual | Own Process | | |
| | c:\winnt\system32\clipsrv.exe | | | Normal LocalSystem | | 0 |
| Distributed File System | Dfs | Stopped | Disabled | Own Process | | |
| | c:\winnt\system32\dfssvc.exe | | | Normal LocalSystem | | 0 |
| DHCP Client | Dhcp | Stopped | Disabled | Share Process | | |
| | c:\winnt\system32\services.exe | | | Normal LocalSystem | | 0 |
| Logical Disk Manager Administrative | Service | | | dmadmin | Stopped Manual Share | |
| Process | c:\winnt\system32\dmadmin.exe /com | | | Normal LocalSystem | | 0 |
| Logical Disk Manager | dmserver | Running | Auto | Share Process | | |
| | c:\winnt\system32\services.exe | | | Normal LocalSystem | | 0 |
| DNS Client | Dnscache | Stopped | Disabled | Share Process | | |
| | c:\winnt\system32\services.exe | | | Normal LocalSystem | | 0 |
| Event Log | Eventlog | Running | Auto | Share Process | | |
| | c:\winnt\system32\services.exe | | | Normal LocalSystem | | 0 |
| COM+ Event System | EventSystem | Running | Manual | Share Process | | |
| | c:\winnt\system32\svchost.exe -k netsvcs | | | Normal LocalSystem | | 0 |
| Fax Service | Fax | Stopped | Manual | Own Process | | |
| | c:\winnt\system32\faxsvc.exe | | | Normal LocalSystem | | 0 |
| cLAN Connection Manager | GniConMgr | Running | Auto | Own Process | | |
| | c:\winnt\system32\gnconmgr.exe | | | Normal LocalSystem | | 0 |

| | | | | | | |
|---------------------------------------|--|---------|----------|--------------------|--|---|
| IIS Admin Service | IISADMIN | Running | Auto | Share Process | | |
| | c:\winnt\system32\inetnsrv\inetinfo.exe | | | Normal LocalSystem | | 0 |
| Intersite Messaging | IsmServ | Stopped | Disabled | Own Process | | |
| | c:\winnt\system32\ismserv.exe | | | Normal LocalSystem | | 0 |
| Kerberos Key Distribution Center | kdc | Stopped | Disabled | Share | | |
| Process | c:\winnt\system32\lsass.exe | | | Normal LocalSystem | | 0 |
| Server | lanmanserver | Running | Auto | Share Process | | |
| | c:\winnt\system32\services.exe | | | Normal LocalSystem | | 0 |
| Workstation | lanmanworkstation | Running | Auto | Share Process | | |
| | c:\winnt\system32\services.exe | | | Normal LocalSystem | | 0 |
| License Logging Service | LicenseService | Stopped | Disabled | Own | | |
| Process | c:\winnt\system32\llssrv.exe | | | Normal LocalSystem | | 0 |
| TCP/IP NetBIOS Helper Service | LmHosts | Stopped | Disabled | Share Process | | |
| | c:\winnt\system32\services.exe | | | Normal LocalSystem | | 0 |
| Messenger | Messenger | Stopped | Disabled | Share Process | | |
| | c:\winnt\system32\services.exe | | | Normal LocalSystem | | 0 |
| NetMeeting Remote Desktop Sharing | mnmsrvc | 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 | Disabled | Share Process | | |
| | c:\winnt\system32\svchost.exe -k netsvcs | | | Normal LocalSystem | | 0 |
| Plug and Play | PlugPlay | Running | Auto | Share Process | | |
| | c:\winnt\system32\services.exe | | | Normal LocalSystem | | 0 |
| IPSEC Policy Agent | PolicyAgent | Stopped | Disabled | Share Process | | |
| | c:\winnt\system32\lsass.exe | | | Normal LocalSystem | | 0 |
| Protected Storage | ProtectedStorage | Running | Auto | Share Process | | |
| | c:\winnt\system32\services.exe | | | Normal LocalSystem | | 0 |
| Remote Access Auto Connection Manager | RasAuto | Stopped | Manual | Share Process | | |
| | c:\winnt\system32\svchost.exe -k netsvcs | | | Normal LocalSystem | | 0 |
| Remote Access Connection Manager | RasMan | Stopped | Manual | Share Process | | |
| | c:\winnt\system32\svchost.exe -k netsvcs | | | Normal LocalSystem | | 0 |
| Routing and Remote Access | RemoteAccess | Stopped | Disabled | Share Process | | |
| | c:\winnt\system32\svchost.exe -k netsvcs | | | Normal LocalSystem | | 0 |
| Remote Registry Service | RemoteRegistry | Running | Auto | Own Process | | |
| | c:\winnt\system32\regsvc.exe | | | Normal LocalSystem | | 0 |
| Remote Procedure Call (RPC) Locator | 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 RSVSP 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 seclgon 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 Running Manual 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 Disabled Share
Process c:\winnt\system32\services.exe Normal LocalSystem 0
Uninterruptible Power Supply UPS Stopped Manual Own Process
c:\winnt\system32\ups.exe Normal LocalSystem 0
Utility Manager UtilMan Stopped Manual Own Process
c:\winnt\system32\utilman.exe Normal LocalSystem 0
Windows Time W32Time Stopped Manual Share Process
c:\winnt\system32\services.exe Normal LocalSystem 0
World Wide Web Publishing Service W3SVC Stopped Manual Share Process
c:\winnt\system32\inet_srv\inetinfo.exe Normal LocalSystem
0
Windows Management Instrumentation WinMgmt Running Auto Own Process
c:\winnt\system32\wbem\winmgmt.exe Ignore LocalSystem 0
Windows Management Instrumentation Driver Extensions Wmi Running Manual
Share Process c:\winnt\system32\services.exe Normal
LocalSystem 0
Automatic Updates wuauclt Stopped Disabled 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\Accessibility All Users:Accessories\Accessibility All
Users
Accessories\Communications All Users:Accessories\Communications All
Users
Accessories\Entertainment All Users:Accessories\Entertainment All
Users
Accessories\Games All Users:Accessories\Games All Users
Accessories\Microsoft Script Debugger All Users:Accessories\Microsoft
Script Debugger 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
Startup All Users:Startup All Users
Accessories CLIENT1\Administrator:Accessories CLIENT1\Administrator
Accessories\Accessibility
CLIENT1\Administrator:Accessories\Accessibility
CLIENT1\Administrator
Accessories\Entertainment
CLIENT1\Administrator:Accessories\Entertainment
CLIENT1\Administrator
Accessories\System Tools CLIENT1\Administrator:Accessories\System
Tools CLIENT1\Administrator
Administrative Tools CLIENT1\Administrator:Administrative Tools
CLIENT1\Administrator
Startup CLIENT1\Administrator:Startup CLIENT1\Administrator
[Startup Programs]
Program Command User Name Location
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 mspaint.exe

```

[Internet Explorer]

[Following are sub-categories of this main category]

[Summary]

Item Value
 Version 6.0.2800.1106
 Build 62800.1106
 Product ID 55736-283-4729544-04993
 Application Path C:\Program Files\Internet Explorer
 Language English (United States)
 Active Printer Not Available

Cipher Strength 128-bit
 Content Advisor Disabled
 Update Versions ;SP1;
 Java VM Version 5.0.3805.0
 IEAK Install No

[File Versions]

| File | Version | Size | Date | Path | Company |
|---------------|------------------|----------------------|-----------------------|------------------------------------|-----------------------|
| advapi32.dll | 5.0.2195.5385 | 359 KB | 7/22/2002 11:05:04 AM | C:\WINNT\system32 | Microsoft Corporation |
| advpack.dll | 6.0.2800.1106 | 89 KB | 8/29/2002 6:14:40 AM | C:\WINNT\system32 | Microsoft Corporation |
| browsei.c.dll | 6.0.2800.1106 | 62 KB | 8/29/2002 6:14:40 AM | C:\WINNT\system32 | Microsoft Corporation |
| browseui.dll | 6.0.2800.1106 | 1002 KB | 8/29/2002 6:14:40 AM | C:\WINNT\system32 | Microsoft Corporation |
| ckcnv.exe | 5.0.2189.1 | 9 KB | 12/7/1999 4:00:00 AM | C:\WINNT\system32 | Microsoft Corporation |
| comctl32.dll | 5.81.4916.400 | 517 KB | 8/29/2002 6:14:40 AM | C:\WINNT\system32 | Microsoft Corporation |
| crypt32.dll | 5.131.2195.4558 | 464 KB | 7/22/2002 11:05:04 AM | C:\WINNT\system32 | Microsoft Corporation |
| enhsg.dll | File not present | Not Available | Not Available | Not Available | Not Available |
| iemigrat.dll | File not present | Not Available | Not Available | Not Available | Not Available |
| iesetup.dll | 6.0.2800.1106 | 57 KB | 8/29/2002 6:14:40 AM | C:\WINNT\system32 | Microsoft Corporation |
| iexplore.exe | 6.0.2800.1106 | 89 KB | 8/29/2002 6:14:40 AM | C:\Program Files\Internet Explorer | Microsoft Corporation |
| imagehlp.dll | 5.0.2195.5242 | 126 KB | 7/22/2002 11:05:04 AM | C:\WINNT\system32 | Microsoft Corporation |
| inseng.dll | 6.0.2800.1106 | 68 KB | 8/29/2002 6:14:40 AM | C:\WINNT\system32 | Microsoft Corporation |
| jobexec.dll | 5.0.0.1 47 KB | 12/7/1999 4:00:00 AM | | C:\WINNT\system32 | Microsoft Corporation |
| jscript.dll | 5.6.0.6626 | 576 KB | 6/26/2001 3:36:02 PM | C:\WINNT\system32 | Microsoft Corporation |
| jsproxy.dll | 6.0.2800.1106 | 12 KB | 8/29/2002 6:14:40 AM | C:\WINNT\system32 | Microsoft Corporation |
| mshtml.dll | 6.0.2800.1106 | 2722 KB | 8/29/2002 6:14:40 AM | C:\WINNT\system32 | Microsoft Corporation |
| msjava.dll | 5.0.3805.0 | 924 KB | 7/22/2002 11:05:04 AM | C:\WINNT\system32 | Microsoft Corporation |
| msoss.dll | File not present | Not Available | Not Available | Not Available | Not Available |
| msxml.dll | 8.0.6730.0 | 494 KB | 7/22/2002 11:05:04 AM | C:\WINNT\system32 | Microsoft Corporation |

| | | | | | |
|--------------|------------------|---------------|-----------------------|-------------------|-----------------------|
| occache.dll | 6.0.2800.1106 | 86 KB | 8/29/2002 6:14:40 AM | C:\WINNT\system32 | Microsoft Corporation |
| ole32.dll | 5.0.2195.5400 | 968 KB | 7/22/2002 11:05:04 AM | C:\WINNT\system32 | Microsoft Corporation |
| oleaut32.dll | 2.40.4518.0 | 612 KB | 7/22/2002 11:05:04 AM | C:\WINNT\system32 | Microsoft Corporation |
| olepro32.dll | 5.0.4518.0 | 160 KB | 7/22/2002 11:05:04 AM | C:\WINNT\system32 | Microsoft Corporation |
| rsabase.dll | 5.0.2195.3839 | 128 KB | 7/22/2002 11:05:04 AM | C:\WINNT\system32 | Microsoft Corporation |
| rsaenh.dll | 5.0.2195.3839 | 131 KB | 7/22/2002 11:05:04 AM | C:\WINNT\system32 | Microsoft Corporation |
| rasapi32.dll | 5.0.2195.5438 | 192 KB | 7/22/2002 11:05:04 AM | C:\WINNT\system32 | Microsoft Corporation |
| rsasig.dll | File not present | Not Available | Not Available | Not Available | Not Available |
| schannel.dll | 5.1.2195.0 | 139 KB | 7/22/2002 11:05:04 AM | C:\WINNT\system32 | Microsoft Corporation |
| shdoc401.dll | File not present | Not Available | Not Available | Not Available | Not Available |
| shdocvw.dll | 6.0.2800.1106 | 1307 KB | 8/29/2002 6:14:40 AM | C:\WINNT\system32 | Microsoft Corporation |
| shell32.dll | 5.0.3502.5436 | 2319 KB | 7/22/2002 11:05:04 AM | C:\WINNT\system32 | Microsoft Corporation |
| shlwapi.dll | 6.0.2800.1106 | 386 KB | 8/29/2002 6:14:40 AM | C:\WINNT\system32 | Microsoft Corporation |
| url.dll | 6.0.2800.1106 | 104 KB | 8/29/2002 6:14:40 AM | C:\WINNT\system32 | Microsoft Corporation |
| urlmon.dll | 6.0.2800.1106 | 472 KB | 8/29/2002 6:14:40 AM | C:\WINNT\system32 | Microsoft Corporation |
| vbscript.dll | 5.6.0.7426 | 452 KB | 2/26/2002 2:58:06 PM | C:\WINNT\system32 | Microsoft Corporation |
| webcheck.dll | 6.0.2800.1106 | 252 KB | 8/29/2002 6:14:40 AM | C:\WINNT\system32 | Microsoft Corporation |
| win.com | 5.0.2134.1 | 24 KB | 12/7/1999 4:00:00 AM | C:\WINNT\system32 | Microsoft Corporation |
| wininet.dll | 6.0.2800.1106 | 572 KB | 8/29/2002 6:14:40 AM | C:\WINNT\system32 | Microsoft Corporation |
| winsoc.dll | 3.10.0.103 | 3 KB | 12/7/1999 4:00:00 AM | C:\WINNT\system32 | Microsoft Corporation |
| wintrust.dll | 5.131.2195.3775 | 162 KB | 7/22/2002 11:05:04 AM | C:\WINNT\system32 | Microsoft Corporation |
| wsock.vxd | File not present | Not Available | Not Available | Not Available | Not Available |
| wsock32.dll | 5.0.2195.4874 | 21 KB | 7/22/2002 11:05:04 AM | C:\WINNT\system32 | Microsoft Corporation |
| wsock32n.dll | File not present | 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 Disabled
AutoConfigURL
Proxy Disabled
ProxyServer
ProxyOverride

[Cache]

[Following are sub-categories of this main category]

[Summary]

| Item | Value |
|---------------------------------|---|
| Page Refresh Type | Automatic |
| Temporary Internet Files Folder | C:\Documents and Settings\Administrator\Local Settings\Temporary Internet Files |
| Total Disk Space | 17351 MB |
| Available Disk Space | 14127 MB |
| Maximum Cache Size | 542 MB |
| Available Cache Size | 537 MB |

[List of Objects]

| Program File | Status | Version | CodeBase |
|--------------|-----------|-------------|--|
| Update Class | Installed | 5,4,3630,11 | http://v4.windowsupdate.microsoft.com/CAB/x86/unicode/iuct1.CAB?37530.4073958333 |

[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 | 10/1/2002 to 9/7/2102 | 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 | Custom |
| Trusted sites | Custom |
| Internet | Custom |
| Restricted sites | Custom |

Windows 2000 IP Configuration Information

(common to 8 clients except for Host and Physical Address)

Windows 2000 IP Configuration

Host Name : client1
Primary DNS Suffix :
Node Type : Broadcast

IP Routing Enabled. : No

WINS Proxy Enabled. : No

Ethernet adapter RTE:

Connection-specific DNS Suffix . :
Description : Broadcom NetXtreme Gigabit Ethernet #2
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

Ethernet adapter Admin:

Connection-specific DNS Suffix . :
Description : Broadcom NetXtreme Gigabit Ethernet
Physical Address. : 00-06-5B-8C-9B-80

DHCP Enabled. : No

IP Address. : 192.168.91.1

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

```
10/17/2000 12:17p          101,376 tpcc.dll
             1 File(s)      101,376 bytes
             0 Dir(s)      14,814,384,128 bytes free
Volume in drive C has no label.
Volume Serial Number is C0E2-039E
```

Directory of C:\inetpub\wwwroot

```
10/17/2000 12:15p          92,672 tpcc_com_all.dll
             1 File(s)      92,672 bytes
             0 Dir(s)      14,814,384,128 bytes free
Volume in drive C has no label.
Volume Serial Number is C0E2-039E
```

Directory of C:\inetpub\wwwroot

```
10/17/2000 12:14p          4,608 tpcc_com_ps.dll
             1 File(s)      4,608 bytes
             0 Dir(s)      14,814,384,128 bytes free
```

Component Services Configuration

Component Services Configuration

COM+ Component TPCC.AllTxns Settings:

```
Transactions not supported
Enable object pooling
Minimum pool size 82
Maximum pool size 82
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"
BandwidthLevel = REG_DWORD 0xffffffff
ThreadTimeout = REG_DWORD 0x00015180
DisableMemoryCache = REG_DWORD 0x00000001
MemoryCacheSize = REG_DWORD 0x00000000
PoolThreadLimit = REG_DWORD 0x000000c8
ObjectCacheTTL = REG_DWORD 0xffffffff
Performance
Library = infoctrs.dll
Open = OpenINFOPerformanceData
Close = CloseINFOPerformanceData
Collect = CollectINFOPerformanceData
```

```
WbemAdapFileTime = REG_BINARY 0x00000008 0xaf9c7000 0x01c231b2
WbemAdapFileSize = REG_DWORD 0x00002510
WbemAdapStatus = REG_DWORD 0x00000000
Last Counter = REG_DWORD 0x00000d86
Last Help = REG_DWORD 0x00000d87
First Counter = REG_DWORD 0x00000d46
First Help = REG_DWORD 0x00000d47
Library Validation Code = REG_BINARY 0x00000010 0x6da39636
0x01c2697c 0x00002510 0x00000000
```

MSSQL Server Registry Parameters

```
\registry\machine\software\microsoft\mssqlserver\client\connectto
DBSERVER = DBNETLIB, via: MV-LE030P1, 1421, 0
DSQUERY = DBMSSOCN

\registry\machine\software\microsoft\mssqlserver\client\connectto
DBSERVER = DBNETLIB, via: MV-LE030P1, 1422, 0
DSQUERY = DBMSSOCN

\registry\machine\software\microsoft\mssqlserver\client\connectto
DBSERVER = DBNETLIB, via: MV-LE030P1, 1423, 0
DSQUERY = DBMSSOCN

\registry\machine\software\microsoft\mssqlserver\client\connectto
DBSERVER = DBNETLIB, via: MV-LE030P1, 1424, 0
DSQUERY = DBMSSOCN

\registry\machine\software\microsoft\mssqlserver\client\connectto
DBSERVER = DBNETLIB, via: MV-LE030P1, 1425, 0
DSQUERY = DBMSSOCN

\registry\machine\software\microsoft\mssqlserver\client\connectto
DBSERVER = DBNETLIB, via: MV-LE030P1, 1426, 0
DSQUERY = DBMSSOCN

\registry\machine\software\microsoft\mssqlserver\client\connectto
DBSERVER = DBNETLIB, via: MV-LE030P1, 1427, 0
DSQUERY = DBMSSOCN

\registry\machine\software\microsoft\mssqlserver\client\connectto
DBSERVER = DBNETLIB, via: MV-LE030P1, 1428, 0
DSQUERY = DBMSSOCN
```

Start World Wide Web Server Registry Parameters

```
\registry\machine\system\currentcontrolset\services\w3svc
Type = REG_DWORD 0x00000020
Start = REG_DWORD 0x00000003
ErrorControl = REG_DWORD 0x00000001
ImagePath = REG_EXPAND_SZ C:\WINNT\System32\inet\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

RDSServer.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

/IISSamples = c:\inetpub\iissamples,,201

/MSADC = c:\program files\common files\system\msadc,,205

Server Extensions\40\isapi,,205

/Printers = C:\WINNT\web\printers,,201

Performance

Library = w3ctrs.dll

Open = OpenW3PerformanceData

Close = CloseW3PerformanceData

Collect = CollectW3PerformanceData

WbemAdapFileTime = REG_BINARY 0x00000008 0xaf9c7000 0x01c231b2

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 Application Settings

\registry\machine\software\unisys

TPCC

MAXTERMS = 60000

DELIVERYTHREADS = 10

SERVERNAME = DBSERVER

DATABASE = tpcc

Appendix D - RTE Code

Admin Environment

```
if '%1'==' ' goto usage
if '%2'==' ' goto usage
if '%3'==' ' goto usage

:paramok

set WEBCHECKWIDS=1
set WEBDIAGLEVEL=4
set WEBEVENTLOG=0
set WEBEVENTHOST=
set WEBCHECKLEVEL=2

c:\webdriver\webadmin.exe -cweb%1.cfg -m%2 -d%3 -s160
if %ERRORLEVEL% NEQ 0 pause

goto end

:usage
@ECHO You must supply the following parameters:
@ECHO "webnnn.cmd <cfg file suffix> <min driver #> <max driver #>"
pause

:end
```

Profiles used for Performance Run

Web16383.cfg

```
//
// Common Driver Configuration
//
INITBASEPORT 4300
INITSYNCMAX 4
INITPAUSE 1
INITRSCALE 1200
INITTSCALE 100
INITRWID 1,16383
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 1020
2 INITMYWID 103,204
//
//Configuration Driver 3
//
3 INITIPADDR 192.168.93.1
3 INITIISADDR 192.1.1.1
3 INITIISPORT 80
3 INITBROWSERS 1030
3 INITMYWID 205,307
//
//Configuration Driver 4
//
4 INITIPADDR 192.168.93.1
4 INITIISADDR 192.1.1.1
4 INITIISPORT 80
4 INITBROWSERS 1020
4 INITMYWID 308,409
//
//Configuration Driver 5
//
5 INITIPADDR 192.168.93.1
5 INITIISADDR 192.1.1.1
5 INITIISPORT 80
5 INITBROWSERS 1020
5 INITMYWID 410,511
//
//Configuration Driver 6
//
6 INITIPADDR 192.168.93.1
6 INITIISADDR 192.1.1.1
6 INITIISPORT 80
6 INITBROWSERS 1030
6 INITMYWID 512,614
//
//Configuration Driver 7
//
7 INITIPADDR 192.168.93.1
7 INITIISADDR 192.1.1.1
7 INITIISPORT 80
7 INITBROWSERS 1020
7 INITMYWID 615,716
//
//Configuration Driver 8
//
```

```

8 INITIPADDR 192.168.93.1
8 INITIISADDR 192.1.1.1
8 INITIISPORT 80
8 INITBROWSERS 1020
8 INITMYWID 717,818
//
//Configuration Driver 9
//
9 INITIPADDR 192.168.93.1
9 INITIISADDR 192.1.1.1
9 INITIISPORT 80
9 INITBROWSERS 1030
9 INITMYWID 819,921
//
//Configuration Driver 10
//
10 INITIPADDR 192.168.93.1
10 INITIISADDR 192.1.1.1
10 INITIISPORT 80
10 INITBROWSERS 1020
10 INITMYWID 922,1023
//
//Configuration Driver 11
//
11 INITIPADDR 192.168.93.1
11 INITIISADDR 192.1.1.1
11 INITIISPORT 80
11 INITBROWSERS 1020
11 INITMYWID 1024,1125
//
//Configuration Driver 12
//
12 INITIPADDR 192.168.93.1
12 INITIISADDR 192.1.1.1
12 INITIISPORT 80
12 INITBROWSERS 1030
12 INITMYWID 1126,1228
//
//Configuration Driver 13
//
13 INITIPADDR 192.168.93.1
13 INITIISADDR 192.1.1.1
13 INITIISPORT 80
13 INITBROWSERS 1020
13 INITMYWID 1229,1330
//
//Configuration Driver 14
//
14 INITIPADDR 192.168.93.1
14 INITIISADDR 192.1.1.1
14 INITIISPORT 80
14 INITBROWSERS 1020
14 INITMYWID 1331,1432
//
//Configuration Driver 15
//
15 INITIPADDR 192.168.93.1
15 INITIISADDR 192.1.1.1
15 INITIISPORT 80

```

```

15 INITBROWSERS 1030
15 INITMYWID 1433,1535
//
//Configuration Driver 16
//
16 INITIPADDR 192.168.93.1
16 INITIISADDR 192.1.1.1
16 INITIISPORT 80
16 INITBROWSERS 1020
16 INITMYWID 1536,1637
//
//Configuration Driver 17
//
17 INITIPADDR 192.168.93.1
17 INITIISADDR 192.1.1.1
17 INITIISPORT 80
17 INITBROWSERS 1020
17 INITMYWID 1638,1739
//
//Configuration Driver 18
//
18 INITIPADDR 192.168.93.1
18 INITIISADDR 192.1.1.1
18 INITIISPORT 80
18 INITBROWSERS 1030
18 INITMYWID 1740,1842
//
//Configuration Driver 19
//
19 INITIPADDR 192.168.93.1
19 INITIISADDR 192.1.1.1
19 INITIISPORT 80
19 INITBROWSERS 1020
19 INITMYWID 1843,1944
//
//Configuration Driver 20
//
20 INITIPADDR 192.168.93.1
20 INITIISADDR 192.1.1.1
20 INITIISPORT 80
20 INITBROWSERS 1020
20 INITMYWID 1945,2046
//
//Configuration Driver 21
//
21 INITIPADDR 192.168.93.2
21 INITIISADDR 192.2.1.1
21 INITIISPORT 80
21 INITBROWSERS 1030
21 INITMYWID 2047,2149
//
//Configuration Driver 22
//
22 INITIPADDR 192.168.93.2
22 INITIISADDR 192.2.1.1
22 INITIISPORT 80
22 INITBROWSERS 1020
22 INITMYWID 2150,2251
//

```

```

//Configuration Driver 23
//
23 INITIPADDR 192.168.93.2
23 INITIISADDR 192.2.1.1
23 INITIISPORT 80
23 INITBROWSERS 1020
23 INITMYWID 2252,2353
//
//Configuration Driver 24
//
24 INITIPADDR 192.168.93.2
24 INITIISADDR 192.2.1.1
24 INITIISPORT 80
24 INITBROWSERS 1030
24 INITMYWID 2354,2456
//
//Configuration Driver 25
//
25 INITIPADDR 192.168.93.2
25 INITIISADDR 192.2.1.1
25 INITIISPORT 80
25 INITBROWSERS 1020
25 INITMYWID 2457,2558
//
//Configuration Driver 26
//
26 INITIPADDR 192.168.93.2
26 INITIISADDR 192.2.1.1
26 INITIISPORT 80
26 INITBROWSERS 1020
26 INITMYWID 2559,2660
//
//Configuration Driver 27
//
27 INITIPADDR 192.168.93.2
27 INITIISADDR 192.2.1.1
27 INITIISPORT 80
27 INITBROWSERS 1030
27 INITMYWID 2661,2763
//
//Configuration Driver 28
//
28 INITIPADDR 192.168.93.2
28 INITIISADDR 192.2.1.1
28 INITIISPORT 80
28 INITBROWSERS 1020
28 INITMYWID 2764,2865
//
//Configuration Driver 29
//
29 INITIPADDR 192.168.93.2
29 INITIISADDR 192.2.1.1
29 INITIISPORT 80
29 INITBROWSERS 1020
29 INITMYWID 2866,2967
//
//Configuration Driver 30
//
30 INITIPADDR 192.168.93.2

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```

30 INITIISADDR 192.2.1.1
30 INITIISPORT 80
30 INITBROWSERS 1030
30 INITMYWID 2968,3070
//
//Configuration Driver 31
//
31 INITIPADDR 192.168.93.2
31 INITIISADDR 192.2.1.1
31 INITIISPORT 80
31 INITBROWSERS 1020
31 INITMYWID 3071,3172
//
//Configuration Driver 32
//
32 INITIPADDR 192.168.93.2
32 INITIISADDR 192.2.1.1
32 INITIISPORT 80
32 INITBROWSERS 1020
32 INITMYWID 3173,3274
//
//Configuration Driver 33
//
33 INITIPADDR 192.168.93.2
33 INITIISADDR 192.2.1.1
33 INITIISPORT 80
33 INITBROWSERS 1030
33 INITMYWID 3275,3377
//
//Configuration Driver 34
//
34 INITIPADDR 192.168.93.2
34 INITIISADDR 192.2.1.1
34 INITIISPORT 80
34 INITBROWSERS 1020
34 INITMYWID 3378,3479
//
//Configuration Driver 35
//
35 INITIPADDR 192.168.93.2
35 INITIISADDR 192.2.1.1
35 INITIISPORT 80
35 INITBROWSERS 1020
35 INITMYWID 3480,3581
//
//Configuration Driver 36
//
36 INITIPADDR 192.168.93.2
36 INITIISADDR 192.2.1.1
36 INITIISPORT 80
36 INITBROWSERS 1030
36 INITMYWID 3582,3684
//
//Configuration Driver 37
//
37 INITIPADDR 192.168.93.2
37 INITIISADDR 192.2.1.1
37 INITIISPORT 80
37 INITBROWSERS 1020

```

```
37 INITMYWID 3685,3786
//
//Configuration Driver 38
//
38 INITIPADDR 192.168.93.2
38 INITIISADDR 192.2.1.1
38 INITIISPORT 80
38 INITBROWSERS 1020
38 INITMYWID 3787,3888
//
//Configuration Driver 39
//
39 INITIPADDR 192.168.93.2
39 INITIISADDR 192.2.1.1
39 INITIISPORT 80
39 INITBROWSERS 1030
39 INITMYWID 3889,3991
//
//Configuration Driver 40
//
40 INITIPADDR 192.168.93.2
40 INITIISADDR 192.2.1.1
40 INITIISPORT 80
40 INITBROWSERS 1020
40 INITMYWID 3992,4093
//
//Configuration Driver 41
//
41 INITIPADDR 192.168.93.3
41 INITIISADDR 192.3.1.1
41 INITIISPORT 80
41 INITBROWSERS 1020
41 INITMYWID 4094,4195
//
//Configuration Driver 42
//
42 INITIPADDR 192.168.93.3
42 INITIISADDR 192.3.1.1
42 INITIISPORT 80
42 INITBROWSERS 1030
42 INITMYWID 4196,4298
//
//Configuration Driver 43
//
43 INITIPADDR 192.168.93.3
43 INITIISADDR 192.3.1.1
43 INITIISPORT 80
43 INITBROWSERS 1020
43 INITMYWID 4299,4400
//
//Configuration Driver 44
//
44 INITIPADDR 192.168.93.3
44 INITIISADDR 192.3.1.1
44 INITIISPORT 80
44 INITBROWSERS 1020
44 INITMYWID 4401,4502
//
//Configuration Driver 45
```

```
//
45 INITIPADDR 192.168.93.3
45 INITIISADDR 192.3.1.1
45 INITIISPORT 80
45 INITBROWSERS 1030
45 INITMYWID 4503,4605
//
//Configuration Driver 46
//
46 INITIPADDR 192.168.93.3
46 INITIISADDR 192.3.1.1
46 INITIISPORT 80
46 INITBROWSERS 1020
46 INITMYWID 4606,4707
//
//Configuration Driver 47
//
47 INITIPADDR 192.168.93.3
47 INITIISADDR 192.3.1.1
47 INITIISPORT 80
47 INITBROWSERS 1020
47 INITMYWID 4708,4809
//
//Configuration Driver 48
//
48 INITIPADDR 192.168.93.3
48 INITIISADDR 192.3.1.1
48 INITIISPORT 80
48 INITBROWSERS 1030
48 INITMYWID 4810,4912
//
//Configuration Driver 49
//
49 INITIPADDR 192.168.93.3
49 INITIISADDR 192.3.1.1
49 INITIISPORT 80
49 INITBROWSERS 1020
49 INITMYWID 4913,5014
//
//Configuration Driver 50
//
50 INITIPADDR 192.168.93.3
50 INITIISADDR 192.3.1.1
50 INITIISPORT 80
50 INITBROWSERS 1020
50 INITMYWID 5015,5116
//
//Configuration Driver 51
//
51 INITIPADDR 192.168.93.3
51 INITIISADDR 192.3.1.1
51 INITIISPORT 80
51 INITBROWSERS 1030
51 INITMYWID 5117,5219
//
//Configuration Driver 52
//
52 INITIPADDR 192.168.93.3
52 INITIISADDR 192.3.1.1
```

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52 INITIISPORT 80
52 INITBROWSERS 1020
52 INITMYWID 5220,5321
//
//Configuration Driver 53
//
53 INITIPADDR 192.168.93.3
53 INITIISADDR 192.3.1.1
53 INITIISPORT 80
53 INITBROWSERS 1020
53 INITMYWID 5322,5423
//
//Configuration Driver 54
//
54 INITIPADDR 192.168.93.3
54 INITIISADDR 192.3.1.1
54 INITIISPORT 80
54 INITBROWSERS 1030
54 INITMYWID 5424,5526
//
//Configuration Driver 55
//
55 INITIPADDR 192.168.93.3
55 INITIISADDR 192.3.1.1
55 INITIISPORT 80
55 INITBROWSERS 1020
55 INITMYWID 5527,5628
//
//Configuration Driver 56
//
56 INITIPADDR 192.168.93.3
56 INITIISADDR 192.3.1.1
56 INITIISPORT 80
56 INITBROWSERS 1020
56 INITMYWID 5629,5730
//
//Configuration Driver 57
//
57 INITIPADDR 192.168.93.3
57 INITIISADDR 192.3.1.1
57 INITIISPORT 80
57 INITBROWSERS 1030
57 INITMYWID 5731,5833
//
//Configuration Driver 58
//
58 INITIPADDR 192.168.93.3
58 INITIISADDR 192.3.1.1
58 INITIISPORT 80
58 INITBROWSERS 1020
58 INITMYWID 5834,5935
//
//Configuration Driver 59
//
59 INITIPADDR 192.168.93.3
59 INITIISADDR 192.3.1.1
59 INITIISPORT 80
59 INITBROWSERS 1020
59 INITMYWID 5936,6037

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//
//Configuration Driver 60
//
60 INITIPADDR 192.168.93.3
60 INITIISADDR 192.3.1.1
60 INITIISPORT 80
60 INITBROWSERS 1030
60 INITMYWID 6038,6140
//
//Configuration Driver 61
//
61 INITIPADDR 192.168.93.4
61 INITIISADDR 192.4.1.1
61 INITIISPORT 80
61 INITBROWSERS 1020
61 INITMYWID 6141,6242
//
//Configuration Driver 62
//
62 INITIPADDR 192.168.93.4
62 INITIISADDR 192.4.1.1
62 INITIISPORT 80
62 INITBROWSERS 1020
62 INITMYWID 6243,6344
//
//Configuration Driver 63
//
63 INITIPADDR 192.168.93.4
63 INITIISADDR 192.4.1.1
63 INITIISPORT 80
63 INITBROWSERS 1030
63 INITMYWID 6345,6447
//
//Configuration Driver 64
//
64 INITIPADDR 192.168.93.4
64 INITIISADDR 192.4.1.1
64 INITIISPORT 80
64 INITBROWSERS 1020
64 INITMYWID 6448,6549
//
//Configuration Driver 65
//
65 INITIPADDR 192.168.93.4
65 INITIISADDR 192.4.1.1
65 INITIISPORT 80
65 INITBROWSERS 1020
65 INITMYWID 6550,6651
//
//Configuration Driver 66
//
66 INITIPADDR 192.168.93.4
66 INITIISADDR 192.4.1.1
66 INITIISPORT 80
66 INITBROWSERS 1030
66 INITMYWID 6652,6754
//
//Configuration Driver 67
//

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67 INITIPADDR 192.168.93.4
67 INITIISADDR 192.4.1.1
67 INITIISPORT 80
67 INITBROWSERS 1020
67 INITMYWID 6755,6856
//
//Configuration Driver 68
//
68 INITIPADDR 192.168.93.4
68 INITIISADDR 192.4.1.1
68 INITIISPORT 80
68 INITBROWSERS 1020
68 INITMYWID 6857,6958
//
//Configuration Driver 69
//
69 INITIPADDR 192.168.93.4
69 INITIISADDR 192.4.1.1
69 INITIISPORT 80
69 INITBROWSERS 1030
69 INITMYWID 6959,7061
//
//Configuration Driver 70
//
70 INITIPADDR 192.168.93.4
70 INITIISADDR 192.4.1.1
70 INITIISPORT 80
70 INITBROWSERS 1020
70 INITMYWID 7062,7163
//
//Configuration Driver 71
//
71 INITIPADDR 192.168.93.4
71 INITIISADDR 192.4.1.1
71 INITIISPORT 80
71 INITBROWSERS 1020
71 INITMYWID 7164,7265
//
//Configuration Driver 72
//
72 INITIPADDR 192.168.93.4
72 INITIISADDR 192.4.1.1
72 INITIISPORT 80
72 INITBROWSERS 1030
72 INITMYWID 7266,7368
//
//Configuration Driver 73
//
73 INITIPADDR 192.168.93.4
73 INITIISADDR 192.4.1.1
73 INITIISPORT 80
73 INITBROWSERS 1020
73 INITMYWID 7369,7470
//
//Configuration Driver 74
//
74 INITIPADDR 192.168.93.4
74 INITIISADDR 192.4.1.1
74 INITIISPORT 80

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74 INITBROWSERS 1020
74 INITMYWID 7471,7572
//
//Configuration Driver 75
//
75 INITIPADDR 192.168.93.4
75 INITIISADDR 192.4.1.1
75 INITIISPORT 80
75 INITBROWSERS 1030
75 INITMYWID 7573,7675
//
//Configuration Driver 76
//
76 INITIPADDR 192.168.93.4
76 INITIISADDR 192.4.1.1
76 INITIISPORT 80
76 INITBROWSERS 1020
76 INITMYWID 7676,7777
//
//Configuration Driver 77
//
77 INITIPADDR 192.168.93.4
77 INITIISADDR 192.4.1.1
77 INITIISPORT 80
77 INITBROWSERS 1020
77 INITMYWID 7778,7879
//
//Configuration Driver 78
//
78 INITIPADDR 192.168.93.4
78 INITIISADDR 192.4.1.1
78 INITIISPORT 80
78 INITBROWSERS 1030
78 INITMYWID 7880,7982
//
//Configuration Driver 79
//
79 INITIPADDR 192.168.93.4
79 INITIISADDR 192.4.1.1
79 INITIISPORT 80
79 INITBROWSERS 1020
79 INITMYWID 7983,8084
//
//Configuration Driver 80
//
80 INITIPADDR 192.168.93.4
80 INITIISADDR 192.4.1.1
80 INITIISPORT 80
80 INITBROWSERS 1020
80 INITMYWID 8085,8186
//
//Configuration Driver 81
//
81 INITIPADDR 192.168.93.5
81 INITIISADDR 192.5.1.1
81 INITIISPORT 80
81 INITBROWSERS 1030
81 INITMYWID 8187,8289
//

```



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//Configuration Driver 82
//
82 INITIPADDR 192.168.93.5
82 INITIISADDR 192.5.1.1
82 INITIISPORT 80
82 INITBROWSERS 1020
82 INITMYWID 8290,8391
//
//Configuration Driver 83
//
83 INITIPADDR 192.168.93.5
83 INITIISADDR 192.5.1.1
83 INITIISPORT 80
83 INITBROWSERS 1020
83 INITMYWID 8392,8493
//
//Configuration Driver 84
//
84 INITIPADDR 192.168.93.5
84 INITIISADDR 192.5.1.1
84 INITIISPORT 80
84 INITBROWSERS 1030
84 INITMYWID 8494,8596
//
//Configuration Driver 85
//
85 INITIPADDR 192.168.93.5
85 INITIISADDR 192.5.1.1
85 INITIISPORT 80
85 INITBROWSERS 1020
85 INITMYWID 8597,8698
//
//Configuration Driver 86
//
86 INITIPADDR 192.168.93.5
86 INITIISADDR 192.5.1.1
86 INITIISPORT 80
86 INITBROWSERS 1020
86 INITMYWID 8699,8800
//
//Configuration Driver 87
//
87 INITIPADDR 192.168.93.5
87 INITIISADDR 192.5.1.1
87 INITIISPORT 80
87 INITBROWSERS 1030
87 INITMYWID 8801,8903
//
//Configuration Driver 88
//
88 INITIPADDR 192.168.93.5
88 INITIISADDR 192.5.1.1
88 INITIISPORT 80
88 INITBROWSERS 1020
88 INITMYWID 8904,9005
//
//Configuration Driver 89
//
89 INITIPADDR 192.168.93.5

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89 INITIISADDR 192.5.1.1
89 INITIISPORT 80
89 INITBROWSERS 1020
89 INITMYWID 9006,9107
//
//Configuration Driver 90
//
90 INITIPADDR 192.168.93.5
90 INITIISADDR 192.5.1.1
90 INITIISPORT 80
90 INITBROWSERS 1030
90 INITMYWID 9108,9210
//
//Configuration Driver 91
//
91 INITIPADDR 192.168.93.5
91 INITIISADDR 192.5.1.1
91 INITIISPORT 80
91 INITBROWSERS 1020
91 INITMYWID 9211,9312
//
//Configuration Driver 92
//
92 INITIPADDR 192.168.93.5
92 INITIISADDR 192.5.1.1
92 INITIISPORT 80
92 INITBROWSERS 1020
92 INITMYWID 9313,9414
//
//Configuration Driver 93
//
93 INITIPADDR 192.168.93.5
93 INITIISADDR 192.5.1.1
93 INITIISPORT 80
93 INITBROWSERS 1030
93 INITMYWID 9415,9517
//
//Configuration Driver 94
//
94 INITIPADDR 192.168.93.5
94 INITIISADDR 192.5.1.1
94 INITIISPORT 80
94 INITBROWSERS 1020
94 INITMYWID 9518,9619
//
//Configuration Driver 95
//
95 INITIPADDR 192.168.93.5
95 INITIISADDR 192.5.1.1
95 INITIISPORT 80
95 INITBROWSERS 1020
95 INITMYWID 9620,9721
//
//Configuration Driver 96
//
96 INITIPADDR 192.168.93.5
96 INITIISADDR 192.5.1.1
96 INITIISPORT 80
96 INITBROWSERS 1030

```

```
96 INITMYWID 9722,9824
//
//Configuration Driver 97
//
97 INITIPADDR 192.168.93.5
97 INITIISADDR 192.5.1.1
97 INITIISPORT 80
97 INITBROWSERS 1020
97 INITMYWID 9825,9926
//
//Configuration Driver 98
//
98 INITIPADDR 192.168.93.5
98 INITIISADDR 192.5.1.1
98 INITIISPORT 80
98 INITBROWSERS 1020
98 INITMYWID 9927,10028
//
//Configuration Driver 99
//
99 INITIPADDR 192.168.93.5
99 INITIISADDR 192.5.1.1
99 INITIISPORT 80
99 INITBROWSERS 1030
99 INITMYWID 10029,10131
//
//Configuration Driver 100
//
100 INITIPADDR 192.168.93.5
100 INITIISADDR 192.5.1.1
100 INITIISPORT 80
100 INITBROWSERS 1020
100 INITMYWID 10132,10233
//
//Configuration Driver 101
//
101 INITIPADDR 192.168.93.6
101 INITIISADDR 192.6.1.1
101 INITIISPORT 80
101 INITBROWSERS 1020
101 INITMYWID 10234,10335
//
//Configuration Driver 102
//
102 INITIPADDR 192.168.93.6
102 INITIISADDR 192.6.1.1
102 INITIISPORT 80
102 INITBROWSERS 1030
102 INITMYWID 10336,10438
//
//Configuration Driver 103
//
103 INITIPADDR 192.168.93.6
103 INITIISADDR 192.6.1.1
103 INITIISPORT 80
103 INITBROWSERS 1020
103 INITMYWID 10439,10540
//
//Configuration Driver 104
```

```
//
104 INITIPADDR 192.168.93.6
104 INITIISADDR 192.6.1.1
104 INITIISPORT 80
104 INITBROWSERS 1020
104 INITMYWID 10541,10642
//
//Configuration Driver 105
//
105 INITIPADDR 192.168.93.6
105 INITIISADDR 192.6.1.1
105 INITIISPORT 80
105 INITBROWSERS 1030
105 INITMYWID 10643,10745
//
//Configuration Driver 106
//
106 INITIPADDR 192.168.93.6
106 INITIISADDR 192.6.1.1
106 INITIISPORT 80
106 INITBROWSERS 1020
106 INITMYWID 10746,10847
//
//Configuration Driver 107
//
107 INITIPADDR 192.168.93.6
107 INITIISADDR 192.6.1.1
107 INITIISPORT 80
107 INITBROWSERS 1020
107 INITMYWID 10848,10949
//
//Configuration Driver 108
//
108 INITIPADDR 192.168.93.6
108 INITIISADDR 192.6.1.1
108 INITIISPORT 80
108 INITBROWSERS 1030
108 INITMYWID 10950,11052
//
//Configuration Driver 109
//
109 INITIPADDR 192.168.93.6
109 INITIISADDR 192.6.1.1
109 INITIISPORT 80
109 INITBROWSERS 1020
109 INITMYWID 11053,11154
//
//Configuration Driver 110
//
110 INITIPADDR 192.168.93.6
110 INITIISADDR 192.6.1.1
110 INITIISPORT 80
110 INITBROWSERS 1020
110 INITMYWID 11155,11256
//
//Configuration Driver 111
//
111 INITIPADDR 192.168.93.6
111 INITIISADDR 192.6.1.1
```

```
111 INITIISPORT 80
111 INITBROWSERS 1030
111 INITMYWID 11257,11359
//
//Configuration Driver 112
//
112 INITIPADDR 192.168.93.6
112 INITIISADDR 192.6.1.1
112 INITIISPORT 80
112 INITBROWSERS 1020
112 INITMYWID 11360,11461
//
//Configuration Driver 113
//
113 INITIPADDR 192.168.93.6
113 INITIISADDR 192.6.1.1
113 INITIISPORT 80
113 INITBROWSERS 1020
113 INITMYWID 11462,11563
//
//Configuration Driver 114
//
114 INITIPADDR 192.168.93.6
114 INITIISADDR 192.6.1.1
114 INITIISPORT 80
114 INITBROWSERS 1030
114 INITMYWID 11564,11666
//
//Configuration Driver 115
//
115 INITIPADDR 192.168.93.6
115 INITIISADDR 192.6.1.1
115 INITIISPORT 80
115 INITBROWSERS 1020
115 INITMYWID 11667,11768
//
//Configuration Driver 116
//
116 INITIPADDR 192.168.93.6
116 INITIISADDR 192.6.1.1
116 INITIISPORT 80
116 INITBROWSERS 1020
116 INITMYWID 11769,11870
//
//Configuration Driver 117
//
117 INITIPADDR 192.168.93.6
117 INITIISADDR 192.6.1.1
117 INITIISPORT 80
117 INITBROWSERS 1030
117 INITMYWID 11871,11973
//
//Configuration Driver 118
//
118 INITIPADDR 192.168.93.6
118 INITIISADDR 192.6.1.1
118 INITIISPORT 80
118 INITBROWSERS 1020
118 INITMYWID 11974,12075
```

```
//
//Configuration Driver 119
//
119 INITIPADDR 192.168.93.6
119 INITIISADDR 192.6.1.1
119 INITIISPORT 80
119 INITBROWSERS 1020
119 INITMYWID 12076,12177
//
//Configuration Driver 120
//
120 INITIPADDR 192.168.93.6
120 INITIISADDR 192.6.1.1
120 INITIISPORT 80
120 INITBROWSERS 1030
120 INITMYWID 12178,12280
//
//Configuration Driver 121
//
121 INITIPADDR 192.168.93.7
121 INITIISADDR 192.7.1.1
121 INITIISPORT 80
121 INITBROWSERS 1020
121 INITMYWID 12281,12382
//
//Configuration Driver 122
//
122 INITIPADDR 192.168.93.7
122 INITIISADDR 192.7.1.1
122 INITIISPORT 80
122 INITBROWSERS 1020
122 INITMYWID 12383,12484
//
//Configuration Driver 123
//
123 INITIPADDR 192.168.93.7
123 INITIISADDR 192.7.1.1
123 INITIISPORT 80
123 INITBROWSERS 1030
123 INITMYWID 12485,12587
//
//Configuration Driver 124
//
124 INITIPADDR 192.168.93.7
124 INITIISADDR 192.7.1.1
124 INITIISPORT 80
124 INITBROWSERS 1020
124 INITMYWID 12588,12689
//
//Configuration Driver 125
//
125 INITIPADDR 192.168.93.7
125 INITIISADDR 192.7.1.1
125 INITIISPORT 80
125 INITBROWSERS 1020
125 INITMYWID 12690,12791
//
//Configuration Driver 126
//
```

```
126 INITIPADDR 192.168.93.7
126 INITIISADDR 192.7.1.1
126 INITIISPORT 80
126 INITBROWSERS 1030
126 INITMYWID 12792,12894
//
//Configuration Driver 127
//
127 INITIPADDR 192.168.93.7
127 INITIISADDR 192.7.1.1
127 INITIISPORT 80
127 INITBROWSERS 1020
127 INITMYWID 12895,12996
//
//Configuration Driver 128
//
128 INITIPADDR 192.168.93.7
128 INITIISADDR 192.7.1.1
128 INITIISPORT 80
128 INITBROWSERS 1020
128 INITMYWID 12997,13098
//
//Configuration Driver 129
//
129 INITIPADDR 192.168.93.7
129 INITIISADDR 192.7.1.1
129 INITIISPORT 80
129 INITBROWSERS 1030
129 INITMYWID 13099,13201
//
//Configuration Driver 130
//
130 INITIPADDR 192.168.93.7
130 INITIISADDR 192.7.1.1
130 INITIISPORT 80
130 INITBROWSERS 1020
130 INITMYWID 13202,13303
//
//Configuration Driver 131
//
131 INITIPADDR 192.168.93.7
131 INITIISADDR 192.7.1.1
131 INITIISPORT 80
131 INITBROWSERS 1020
131 INITMYWID 13304,13405
//
//Configuration Driver 132
//
132 INITIPADDR 192.168.93.7
132 INITIISADDR 192.7.1.1
132 INITIISPORT 80
132 INITBROWSERS 1030
132 INITMYWID 13406,13508
//
//Configuration Driver 133
//
133 INITIPADDR 192.168.93.7
133 INITIISADDR 192.7.1.1
133 INITIISPORT 80
```

```
133 INITBROWSERS 1020
133 INITMYWID 13509,13610
//
//Configuration Driver 134
//
134 INITIPADDR 192.168.93.7
134 INITIISADDR 192.7.1.1
134 INITIISPORT 80
134 INITBROWSERS 1020
134 INITMYWID 13611,13712
//
//Configuration Driver 135
//
135 INITIPADDR 192.168.93.7
135 INITIISADDR 192.7.1.1
135 INITIISPORT 80
135 INITBROWSERS 1030
135 INITMYWID 13713,13815
//
//Configuration Driver 136
//
136 INITIPADDR 192.168.93.7
136 INITIISADDR 192.7.1.1
136 INITIISPORT 80
136 INITBROWSERS 1020
136 INITMYWID 13816,13917
//
//Configuration Driver 137
//
137 INITIPADDR 192.168.93.7
137 INITIISADDR 192.7.1.1
137 INITIISPORT 80
137 INITBROWSERS 1020
137 INITMYWID 13918,14019
//
//Configuration Driver 138
//
138 INITIPADDR 192.168.93.7
138 INITIISADDR 192.7.1.1
138 INITIISPORT 80
138 INITBROWSERS 1030
138 INITMYWID 14020,14122
//
//Configuration Driver 139
//
139 INITIPADDR 192.168.93.7
139 INITIISADDR 192.7.1.1
139 INITIISPORT 80
139 INITBROWSERS 1020
139 INITMYWID 14123,14224
//
//Configuration Driver 140
//
140 INITIPADDR 192.168.93.7
140 INITIISADDR 192.7.1.1
140 INITIISPORT 80
140 INITBROWSERS 1020
140 INITMYWID 14225,14326
//
```

```

//Configuration Driver 141
//
141 INITIPADDR 192.168.93.8
141 INITIISADDR 192.8.1.1
141 INITIISPORT 80
141 INITBROWSERS 1030
141 INITMYWID 14327,14429
//
//Configuration Driver 142
//
142 INITIPADDR 192.168.93.8
142 INITIISADDR 192.8.1.1
142 INITIISPORT 80
142 INITBROWSERS 1020
142 INITMYWID 14430,14531
//
//Configuration Driver 143
//
143 INITIPADDR 192.168.93.8
143 INITIISADDR 192.8.1.1
143 INITIISPORT 80
143 INITBROWSERS 1020
143 INITMYWID 14532,14633
//
//Configuration Driver 144
//
144 INITIPADDR 192.168.93.8
144 INITIISADDR 192.8.1.1
144 INITIISPORT 80
144 INITBROWSERS 1030
144 INITMYWID 14634,14736
//
//Configuration Driver 145
//
145 INITIPADDR 192.168.93.8
145 INITIISADDR 192.8.1.1
145 INITIISPORT 80
145 INITBROWSERS 1020
145 INITMYWID 14737,14838
//
//Configuration Driver 146
//
146 INITIPADDR 192.168.93.8
146 INITIISADDR 192.8.1.1
146 INITIISPORT 80
146 INITBROWSERS 1020
146 INITMYWID 14839,14940
//
//Configuration Driver 147
//
147 INITIPADDR 192.168.93.8
147 INITIISADDR 192.8.1.1
147 INITIISPORT 80
147 INITBROWSERS 1030
147 INITMYWID 14941,15043
//
//Configuration Driver 148
//
148 INITIPADDR 192.168.93.8

```

```

148 INITIISADDR 192.8.1.1
148 INITIISPORT 80
148 INITBROWSERS 1020
148 INITMYWID 15044,15145
//
//Configuration Driver 149
//
149 INITIPADDR 192.168.93.8
149 INITIISADDR 192.8.1.1
149 INITIISPORT 80
149 INITBROWSERS 1020
149 INITMYWID 15146,15247
//
//Configuration Driver 150
//
150 INITIPADDR 192.168.93.8
150 INITIISADDR 192.8.1.1
150 INITIISPORT 80
150 INITBROWSERS 1030
150 INITMYWID 15248,15350
//
//Configuration Driver 151
//
151 INITIPADDR 192.168.93.8
151 INITIISADDR 192.8.1.1
151 INITIISPORT 80
151 INITBROWSERS 1020
151 INITMYWID 15351,15452
//
//Configuration Driver 152
//
152 INITIPADDR 192.168.93.8
152 INITIISADDR 192.8.1.1
152 INITIISPORT 80
152 INITBROWSERS 1020
152 INITMYWID 15453,15554
//
//Configuration Driver 153
//
153 INITIPADDR 192.168.93.8
153 INITIISADDR 192.8.1.1
153 INITIISPORT 80
153 INITBROWSERS 1030
153 INITMYWID 15555,15657
//
//Configuration Driver 154
//
154 INITIPADDR 192.168.93.8
154 INITIISADDR 192.8.1.1
154 INITIISPORT 80
154 INITBROWSERS 1020
154 INITMYWID 15658,15759
//
//Configuration Driver 155
//
155 INITIPADDR 192.168.93.8
155 INITIISADDR 192.8.1.1
155 INITIISPORT 80
155 INITBROWSERS 1020

```

```

155 INITMYWID 15760,15861
//
//Configuration Driver 156
//
156 INITIPADDR 192.168.93.8
156 INITIISADDR 192.8.1.1
156 INITIISPORT 80
156 INITBROWSERS 1030
156 INITMYWID 15862,15964
//
//Configuration Driver 157
//
157 INITIPADDR 192.168.93.8
157 INITIISADDR 192.8.1.1
157 INITIISPORT 80
157 INITBROWSERS 1020
157 INITMYWID 15965,16066
//
//Configuration Driver 158
//
158 INITIPADDR 192.168.93.8
158 INITIISADDR 192.8.1.1
158 INITIISPORT 80
158 INITBROWSERS 1020
158 INITMYWID 16067,16168
//
//Configuration Driver 159
//
159 INITIPADDR 192.168.93.8
159 INITIISADDR 192.8.1.1
159 INITIISPORT 80
159 INITBROWSERS 1030
159 INITMYWID 16169,16271
//
//Configuration Driver 160
//
160 INITIPADDR 192.168.93.8
160 INITIISADDR 192.8.1.1
160 INITIISPORT 80
160 INITBROWSERS 1120
160 INITMYWID 16272,16383

```

```

set WEBRTFUDGETM=110
set WEBNEWORDERPROB=4489
set WEBPAYMENTPROB=4305
set WEBORDERSTATUSPROB=402
set WEBDELIVERYPROB=402
set WEBSTOCKLEVELPROB=402
set WEBTTNEWORDER=12030
set WEBTTPAYMENT=12030
set WEBTTDELIVERY=5060
set WEBTTORDERSTATUS=10070
set WEBTTSTOCKLEVEL=5060

```

webdriver.exe

goto end

:usage

@ECHO You must supply the following parameters:

@ECHO "webdriver.cmd <driver number>"

pause

:end

exit

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

```

Appendix E - Disk Storage

| TPC-C 60-Day Disk Space Requirements | | | | | |
|--------------------------------------|---------------------|--|---------------------|----------------------|-------------------------|
| Warehouses | 16,383 | tpmC | 203,518.03 | tpmC/W | 12.42 |
| Table | Initial Rows | Data KB | Index KB | Extra 5% KB | Total With 5% KB |
| Warehouse | 16,383 | 1,752 | 320 | 104 | 2,176 |
| District | 163,830 | 18,208 | 1,064 | 964 | 20,236 |
| Customer | 491,490,000 | 100,818,464 | 20,805,864 | 6,081,216 | 127,705,544 |
| Customer.Text | 491,490,000 | 293,976,400 | | 14,698,820 | 308,675,220 |
| History (D) | 491,490,000 | 27,305,000 | 100,008 | | 27,405,008 |
| Order (D) | 491,490,000 | 15,064,832 | 31,032 | | 15,095,864 |
| New-Order | 147,447,000 | 2,331,184 | 5,720 | 116,845 | 2,453,749 |
| Order-Line (D) | 4,914,891,039 | 307,180,696 | 650,504 | | 307,831,200 |
| Stock | 1,638,300,000 | 504,961,808 | 943,168 | 25,295,249 | 531,200,225 |
| Item | 100,000 | 8,744 | 928 | 484 | 10,156 |
| Totals KB | | 1,251,667,088 | 22,538,608 | 46,193,681 | 1,320,399,377 |
| Db/Filegroup | Count | Size MB | MB Allocated | MB Loaded +5% | MB for 8 Hours |
| master, model & msdb | | 22 | 22 | 22 | 22 |
| tempdb | | 10 | 10 | 10 | 10 |
| mssql70_tpcc_root | 1 | 10 | 10 | 10 | 10 |
| mssql70_misc_fg | 133 | 2,520 | 335,160 | 328,235 | 333,394 |
| mssql70_cs_fg | 133 | 4,850 | 645,050 | 643,463 | 643,463 |
| mssql70_ord_fg | 133 | 2,950 | 392,350 | 317,755 | 383,551 |
| Total Allocated MB | | | 1,372,602 | 1,289,495 | 1,360,450 |
| MB | | | | | |
| Dynamic Space MB | 341,358 | Sum of data for orders, order_line & history | | | |
| Static Space | 948,095 | Sum of data+index+5% - Dynamic Space | | | |
| Free Space | 83,149 | Total allocated space - (Dynamic & Static Spaces) | | | |
| Daily Growth | 67,848 | (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 | 5,018,997 | Static Space + 60 * (Daily Growth + Daily Spread) | | | |
| 60 Day Space GB | 4,901.36 | | | | |
| 8 hr log GB | 425.20 | (need double for mirroring) | | | |
| Disk Capacity MB | 33,533 | 32.747 GB Capacity of 36GB disks (10,000 RPM) | | | |
| | 16,744 | 16.351 GB Capacity of 18GB disks (15,000 RPM) | | | |
| Space Usage | GB Needed | Disks Priced | GB Priced | | |
| 60-day space DB | 4901.36 GB | 665 | 10873.66 GB | 18GB drives | |
| | | 0 | 0.00 GB | 36GB drives | |
| Total DB | | 665 | 10873.66 GB | | |
| 8-hr log+mirror | 850.39 GB | 28 | 916.92 GB | 36GB drives | |
| OS, SQL Server | 3.10 GB | 1 | 16.35 GB | 18GB drive | |
| Total space | 5754.86 GB | 694 | 11806.93 GB | 11.53 TB | |

| TPC-C Dynamic Table Growth Rates for 8 Hours | | | | | | 203,518.03 tpmC |
|--|--------------------|--------------------|-------------------|---------------|----------------|-----------------------|
| Tables | Initial (KB) | Final (KB) | Change(KB) | Unused (KB) | KB / New-Order | 8-Hr MB |
| History | 27,990,976 | 30,329,688 | 2,338,712 | 39,016 | 0.0541 | 32,494.15 |
| Orders | 16,436,552 | 19,045,248 | 2,608,696 | (1,976) | 0.0603 | 21,806.12 |
| Order_line | 314,138,288 | 341,183,416 | 27,045,128 | 6,712 | 0.6254 | 366,437.41 |
| Dynamic | 358,565,816 | 390,558,352 | 31,992,536 | 43,752 | 0.7398 | 420,737.69 |
| New_order | 3,530,200 | 3,754,248 | 224,048 | 170,768 | 0.0052 | 3,941.71 |
| Static | | | | | | |
| Log | 4,009,981 | 199,605,450 | 195,595,469 | | 4.5229 | 435,400.96 425.196 GB |
| SUM(d_next_o_id) | 497,085,237 | 540,330,376 | 43,245,139 | | | |

Appendix F - Third-Party Price Quotations

Microsoft Corporation
One Microsoft Way
Redmond, WA 98052-6399

Tel 425 882 8080
Fax 425 936 7329
<http://www.microsoft.com/>

Microsoft

October 29, 2002

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 |
|--------------------|---|-------------------|-----------------|--------------|
| C10-00475 | Windows 2000 Advanced Server 32-bit <i>Server license only - No CALS</i> <i>Discount Schedule: Open Program - No Level</i> <i>Unit Price reflects a 20% discount from the</i> <i>retail unit price of \$2,999.</i> | \$2,399 | 8 | \$19,192 |
| 048-00317 | Visual C++ Professional 6.0 Win32 <i>No discounts applied</i> | \$549 | 1 | \$549 |
| 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: PCglwe0229105687

Please include this Reference ID in any correspondence regarding this price quote.



Advanced Systems Division

Quote # DM021010-UN010

Oct 29, 2002

To: Unisys Corporation TPC-C

| Qty | Prod # | Description | Unit Price | Net Price |
|------------------------|----------------|---|----------------|-----------------------|
| ES7000 Server | | | | |
| 1 | ES7321231-GD | SYS: ES7000 Orion 230, 32x1.6GHz Procs, 16 GB Mem. | \$489,600.00 | \$489,600.00 |
| 3 | RAM7-16G | MEM: 16GB, 1 GB DIMMs | \$23,573.00 | \$70,719.00 |
| 9 | FC76222-P64 | CTRL: Fibre Channel HBA, 2-Port, 64-bit PCI | \$2,720.00 | \$24,480.00 |
| 8 | PCI10001-CXG | CTRL: cLAN, PCI Host Adapter & Cable | \$721.00 | \$5,768.00 |
| 2 | ES70001-UIF | I/F: Monitor, 15-inch Color, Kybrd, Mse & Cable | \$544.00 | \$1,088.00 |
| 1 | WNQ323232-LIT | O/S: Microsoft Windows .NET Datacenter & SQL Package | \$476,907.00 | \$476,907.00 |
| ESM7900 Storage | | | | |
| 752 | ESM18304-F94 | DISK: 18GB Drive, 15K FC, SCA + 10% spares | \$864.00 | \$649,728.00 |
| 33 | ESM36202-F94 | DISK: 36GB Drive, 10K FC, SCA + 10% spares | \$928.00 | \$30,624.00 |
| 70 | ESM7200-DAE | DAE: Expansion Enclsr, w/ 0 Disk | \$4,087.00 | \$286,090.00 |
| 10 | ESM7900-DPE | DPE: 2 RAID Cntrl, 1GB Cache ea., 0 Disk | \$44,200.00 | \$442,000.00 |
| 1 | ESM7700-W2K | SYS MGT: Storage Agent, Monitor, Call Home & ATF | \$1,661.00 | \$1,661.00 |
| 3 | HSC30438-S16 | SWTCH: Switch & Software, 16-port FC, 2Gbit/s | \$18,936.00 | \$56,808.00 |
| 39 | HSC50400-SFS | ACC: SFP, 2Gb/s Shortwave | \$125.00 | \$4,875.00 |
| 20 | CBL170-10 | CBL: FC, 50um Dupx, LC->SC Conn's, 10m | \$277.00 | \$5,540.00 |
| 14 | CBL171-10 | CBL: FC, 50um Dupx, LC->LC Conn's, 10m | \$279.00 | \$3,906.00 |
| 20 | SFR9-PWR | PWR: Distribution Strip, 9-Plug, 220V | \$295.00 | \$5,900.00 |
| 20 | USE1936-LC6 | CBL: Power, U.S. (Domestic), C20 - L6-20P | \$126.00 | \$2,520.00 |
| 10 | HRT361934-OFT | CAB: 36U x 19" x 34" Open Front Cabinet | \$1,473.00 | \$14,730.00 |
| 10 | HRT3619-RDR | DOOR: 36U x 19", Rear | \$368.00 | \$3,680.00 |
| 10 | HRT3634-SDS | PNL: 36U x 34" Side Skins, L&R HRT | \$589.00 | \$5,890.00 |
| 10 | RM1936-FOT | INSTL: Stabilizer Foot | \$126.00 | \$1,260.00 |
| ES3020L Servers | | | | |
| 8 | ESL30201-240 | SYS: ES3020L w/ 1x 2.4GHz Proc., 0MB Mem | \$1,800.00 | \$14,400.00 |
| 8 | CPL3020241-512 | PROC:1x 2.4GHz Intel Xeon/512KB Cache | \$1,240.00 | \$9,920.00 |
| 8 | DIM3000022-1GB | MEM: 1GB, 2x512MB DDR DRAM PC133ECC | \$929.00 | \$7,432.00 |
| 8 | HBP3020101-51 | RCK: ESL2026 Disk Backpanel, 1x4 | \$205.00 | \$1,640.00 |
| 8 | HDM18110-DC4 | DISK: 18GB 10Krpm 3.5 Internal | \$258.00 | \$2,064.00 |
| 8 | PCI10001-CXG | CTRL: cLAN, PCI Host Adapter & Cable | \$721.00 | \$5,768.00 |
| 8 | ESL3020-VRL | RCK: ES3020L Universal Rack Kit | \$258.00 | \$2,064.00 |
| 1 | SWC81-SXR | SWTCH: Switch, 8-port KVM | \$1,179.00 | \$1,179.00 |
| 8 | CBL121-SWC | CBL: Cable, KVM, 12 foot | \$111.00 | \$888.00 |
| 1 | KBR28301-SXR | KBD: Keyboard & Drawer, Rackmount | \$258.00 | \$258.00 |
| 1 | MON2145-LCD | MON: Display, Rackmount LCD | \$1,989.00 | \$1,989.00 |
| 2 | SFR9-PWR | PWR: Distribution Strip, 9-Plug, 220V | \$295.00 | \$590.00 |
| 2 | USE1936-LC6 | CBL: Power, U.S. (Domestic), C20 - L6-20P | \$126.00 | \$252.00 |
| 1 | HRT361934-OFT | CAB: 36U x 19" x 34" Open Front Cabinet | \$1,473.00 | \$1,473.00 |
| 1 | HRT3619-RDR | DOOR: 36U x 19", Rear | \$368.00 | \$368.00 |
| 1 | HRT3634-SDS | PNL: 36U x 34" Side Skins, L&R HRT | \$589.00 | \$589.00 |
| 1 | RM1936-FOT | INSTL: Stabilizer Foot | \$126.00 | \$126.00 |
| 1 | | Large Volume Cash Discount Prices may vary when items are purchased separately. Disks come with a 3 year return-to-factory warranty, 7 day replenishment. Quote valid for 90 days. | (\$263,477.00) | (\$263,477.00) |
| TOTAL | | | | \$2,371,297.00 |