

Compaq Computer Corporation

TPC Benchmark™ C
Full Disclosure Report
for
ProLiant DL760-900-192P
using
Microsoft SQL Server 2000 Enterprise Edition
and
Windows 2000 Advanced Server

**First Edition
September 19, 2001**

COMPAQ

First Edition – September 2001

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Preface

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

TPC Benchmark C Overview

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

TPC Benchmark™ C is an On Line Transaction Processing (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 of data access and update

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

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

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

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

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

Abstract

Overview

This report documents the methodology and results of the TPC Benchmark C test conducted on 24 Compaq ProLiant DL760-900-192P as database servers, 3 ProLiant DL580R-700 as DTC servers and 48 ProLiant DL360R as clients. The operating system used for the benchmark was Windows 2000 Advanced Server for the database servers and Windows 2000 Server for the DTC servers and clients. The DBMS used was Microsoft SQL Server 2000 Enterprise Edition. The database connection queues used Microsoft COM+. All tests conducted are in compliance with version 5.0 of TPC Benchmark C Standard Specification.

TPC Benchmark C Metrics

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

567,882.56 tpmC
\$14.04 per tpmC

The availability date is October 15, 2001.

Standard and Executive Summary Statements

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

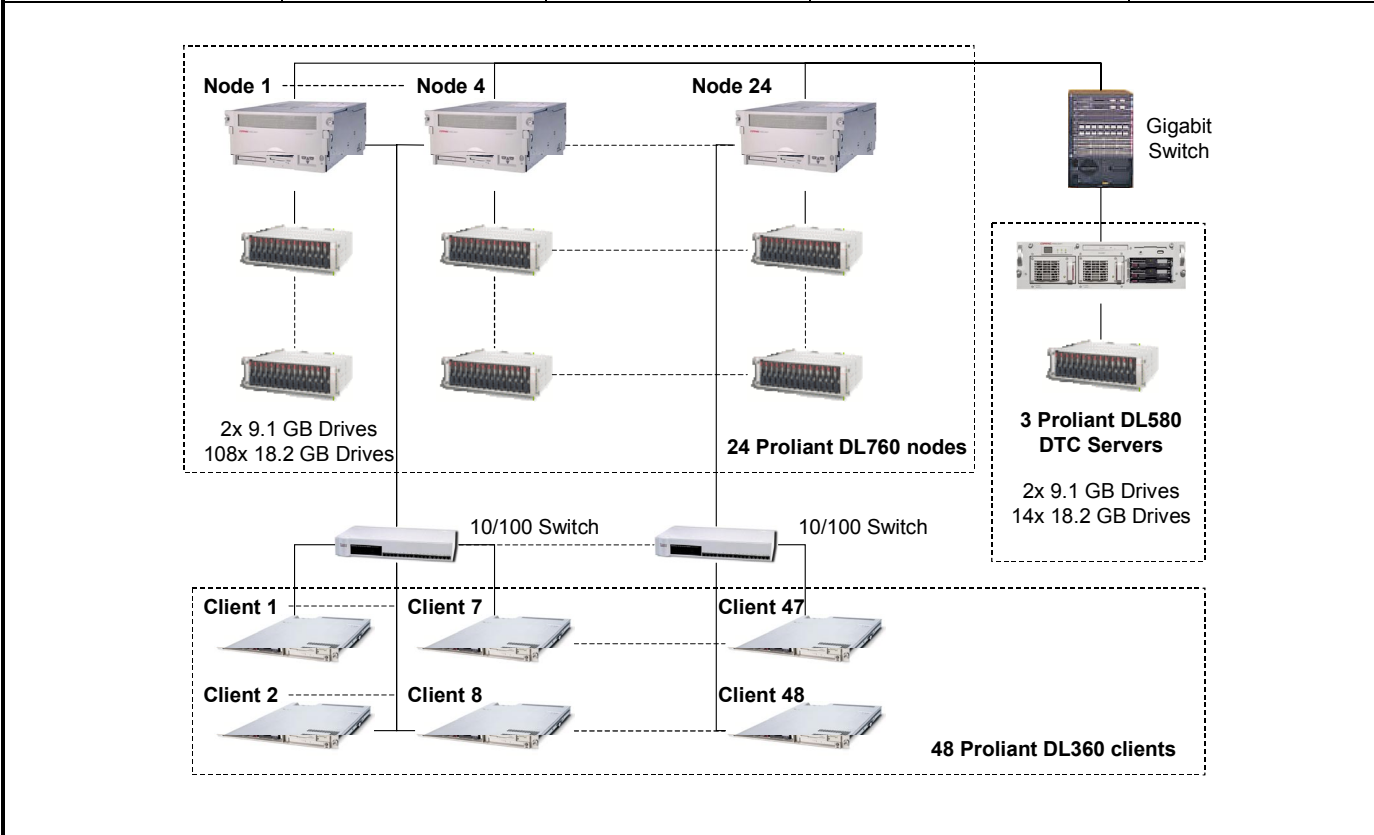
Auditor

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

Compaq Computer Corporation	ProLiant DL760-900-192P	TPC-C Rev. 5.0
	Client/Server	Report Date: Sep 19, 2001

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
\$7,972,452	567,882.56 tpmC	\$14.04	Oct 15, 2001

Processors	Database	Operating System	Other Software	Number Users
192 - Xeon 900 MHz SQL 12 - Xeon 700 MHz DTC 96 - 800 MHz Clients	Microsoft SQL Server 2000 Enterprise Edition	Windows 2000 Advanced Server	Microsoft Visual C++ Microsoft COM+	456,000



System Components	Qty	Each of 24 Database Servers	Qty	Each of 48 clients
Processor	8	900MHz Pentium III Xeon w/2MB cache	2	Pentium III 800Mhz/256K
Memory	16	512MB	4	128MB
Disk Controllers	5	Compaq SMART Array 5304 Controllers	1	Integrated SCSI RAID Controller
Disk Drives	2	9 GB 10K U2 SCSI Drives	1	9.1GB 10K Ultra2 SCSI Drive
Total Storage	108	18GB 15K U3 SCSI Drives		
Tape Drive	1	44.16 TeraBytes		
		12/24 GB DAT Drive		
System Components	Qty	Each of 3 DTC Servers		
Processor	4	700MHz Pentium III Xeon w/2MB cache		
Memory	4	128 MB		
Disk Controllers	1	Compaq SMART Array 5304 Controller		
Disk Drives	2	9 GB 10K U2 SCSI Drives		
	14	18GB 15K U3 SCSI Drives		

Compaq Computer Corporation	ProLiant DL760-900-192P		TPC-C Rev. 5.0				
	Client/Server		Report Date:		19-Sep-01		
Description	Part Number	Third Party	Unit Price	Qty	Extended Price	3 yr. Maint. Price	
Server Hardware							
DL760 4xX900 2M 2GB	212692-001	1	45,400	24	1,089,600		
- 4 Pentium III Xeon/900MHz 2MB Cache							
X900 2M Processor Option	177666-B21	1	6,600	96	633,600		
1G-Memory Kit SDRAM	328808-B21	1	2,500	144	360,000		
Compaq SMART Array Controller 5304 - 4 SCSI Chan.	158939-B21	1	2,499	123	307,377		
StorageWorks Enclosure Model 4314R	190209-001	1	2,955	171	505,305		
StorageWorks Enclosure Model 4354	190211-001	1	3,523	24	84,552		
S510 Color Monitor - Carbon - 15 inch CRT	168636-002	1	189	27	5,103		
12/24-Gigabyte DAT Drive (Internal)	295513-B22	1	682	1	682		
Compaq Rack Model 9142 (42U - Opal) - Flat Pallet	120663-B21	1	1,352	24	32,448		
Baying Kit - 9000 Series racks (36U and 42U)	120669-B21	1	85	23	1,955		
Side Panel Kit - 9142 Rack	120670-B21	1	212	1	212		
R3000 UPS	242705-001	1	1,431	27	38,637		
ProLiant DL580R X700 2MB 512	155618-001	1	11,899	3	35,697		
XN700 2M S2 Processor Kit	174449-B21	1	3,099	6	18,594		
9.1GB Pluggable Wide Ultra SCSI 3 Universal 10K Drive	142671-B22	1	319	54	17,226		
18.2 GB Hot-Plug Wide U3 15K 1"	188122-B22	1	679	2634	1,788,486		
NC6134 Gigabit NIC 64 PCI 1000 SX	174818-B21	1	625	27	16,875		
Server Keyboard	296435-006	1	14	27	378		
Compaq Scroll Mouse	170299-B21	1	23	27	621		
9.1GB Pluggable Wide SCSI 3 10K Drive (10% Spares)	142671-B22	1	319	6		1,914	
18.2 GB Hot-Plug Wide U3 15K 1" (10% Spares)	188122-B22	1	679	264		179,256	
CarePaq Service - Depart. Servers 3Yr,7x24,4hr Resp.	FM-MI724-36	1	1,795	3		5,385	
CarePaq Service - High End Servers 3Yr,7x24,4hr Resp.	FM-HE724-36	1	3,390	24		81,360	
CarePaq Service - 42xx/43xx Enclosure 3Yr,7x24,4hr Resp.	FM-4E724-36	1	157	195		30,615	
Subtotal					4,937,348	298,530	
Server Software							
Microsoft SQL Server 2000 Enterprise	810-00945	Microsoft	2	15,802	192	3,033,984	150,840
Microsoft Visual C++ 6.0	048-00317	Microsoft	2	549	1	549	Incl Above
Microsoft Windows 2000 Advance Server	C10-00475	Microsoft	2	2,399	24	57,576	Incl Above
Microsoft Windows 2000 Server	C11-00821	Microsoft	2	738	3	2,214	Incl. Above
Subtotal					3,094,323	150,840	
Client Hardware							
ProLiant DL360R P800/133 128MB M1	161080-001	1	2,273	48	109,104		
PIII 800/133-256 Processor kit	161084-B21	1	366	48	17,568		
ProLiant DL360R P933/133 128MB M1	210645-001	1	2,249	0	0		
PIII 933/133-256 Processor kit	210647-B21	1	649	0	0		
128 MB 133 DIMM	128277-B21	1	125	144	18,000		
Compaq Rack Model 9142 (42U - Opal) - Flat Pallet	120663-B21	1	1,352	2	2,704		
Baying Kit - 9000 Series racks (36U and 42U)	120669-B21	1	85	2	170		
S510 Color Monitor - Carbon - 15 inch CRT	168636-002	1	189	48	9,072		
9.1GB Pluggable Wide Ultra SCSI 3 Universal 10K Drive	142671-B22	1	319	48	15,312		
Server Keyboard	296435-006	1	14	48	672		
Compaq Scroll Mouse	170299-B21	1	23	48	1,104		
CarePaq Service - Entry Level Servers 3Yr,7x24,4hr Resp.	FM-EL724-36	1	750	48		36,000	
Subtotal					173,706	36,000	
Client Software							
Microsoft Windows 2000 Server	C11-00821	Microsoft	2	738	48	35,424	Incl. Above
Subtotal					35,424	0	
Connectivity							
LinkSys 16 Port 10/100 Switch DSSX16	387226	LinkSys	3	399	6	2,391	See Note 1
Cisco Catalyst 6500 Gigabit ethernet switch		Cisco	4	88,975	1	88,975	31,200
Subtotal					91,366	31,200	
Large Purchase and Cash discount	16.0%	1					
					(\$817,769)	(\$58,517)	
Total					\$7,514,399	\$458,053	
Prices used in TPC benchmarks reflect the actual prices a customer would pay for a one-time purchase of the stated components. Individually negotiated discounts are not permitted. Special prices based on assumptions about past or future purchases are not permitted. All discounts reflect standard pricing policies for the listed components. For complete details, see the pricing sections of the TPC benchmark pricing specifications. If you find that the stated prices are not available according to these terms, please inform the TPC at pricing@tpc.org. Thank you.					3-Year Cost of Ownership: \$7,972,452		
					tpmC Rating: 567,882.56		
					\$/tpmC: \$14.04		
Pricing: 1=Compaq Computer Corporation 2=Microsoft 3=ecost.com 4=Cisco							
Note 1 = 3 Year warranty with 10% Spares -							
Note: The benchmark results and test methodology were audited by Loma Livingtree of Performance Metrics, Inc.							

Numerical Quantities Summary

MQTH, Computed Maximum Qualified Throughput **567,882.56 tpmC**

Response Times (in seconds)	Average	90%	Maximum
New-Order	0.43	0.63	234.01
Payment	0.32	0.52	223.05
Order-Status	0.32	0.51	147.68
Delivery (interactive portion)	0.12	0.11	79.22
Delivery (deferred portion)	0.31	0.41	215.02
Stock-Level	1.28	1.64	226.55
Menu	0.12	0.11	79.25

Transaction Mix, in percent of total transaction

New-Order	44.83%
Payment	43.05%
Order-Status	4.04%
Delivery	4.04%
Stock-Level	4.04%

Emulation Delay (in seconds)

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

Keying/Think Times (in seconds)

	Min.	Average	Max.
New-Order	18.00/0.00	18.02/12.11	18.08/121.12
Payment	3.00/0.00	3.02/12.11	3.08/121.12
Order-Status	2.00/0.00	2.02/10.10	2.06/101.01
Delivery (interactive)	2.00/0.00	2.02/5.08	2.07/50.71
Stock-Level	2.00/0.00	2.02/5.07	2.06/50.71

Test Duration

Ramp-up time	120 minutes
Measurement interval	120 minutes
Transactions (all types) completed during measurement interval	151,995,158
Ramp down time	28 minutes

Checkpointing

Number of checkpoints	4
Checkpoint interval	30 minutes

General Items

Test Sponsor

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

Compaq Computer Corporation sponsored this benchmark. The benchmark was developed and engineered by Compaq Computer Corporation. Testing took place at Compaq benchmarking laboratories in Houston, Texas.

Application Code and Definition Statements

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

Appendix A contains all source code implemented in this benchmark.

The application is the Microsoft BenchCraft program that emulates a set of users entering transactions that are in compliance with TPC-C specification requirements. These users, through web browsers, communicate with the clients which are hosting the website on Microsoft IIS web server. The clients interact with the database servers via COM+ queues.

Each client IIS loads a custom ISAPI DLL application that communicates with the web browsers using HTTP protocol and with the database server using COM+ and ODBC interface. The application fills in the user's information and forwards this request to the database server via the client interface described above. The result is returned to the application where the formatting takes place before sending back to the user's browser. The Delivery transaction is handled by the application without using COM+.

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:

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

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

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

Configuration Items

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

The configuration diagrams for the tested and priced systems are the same and includes in the following pages.

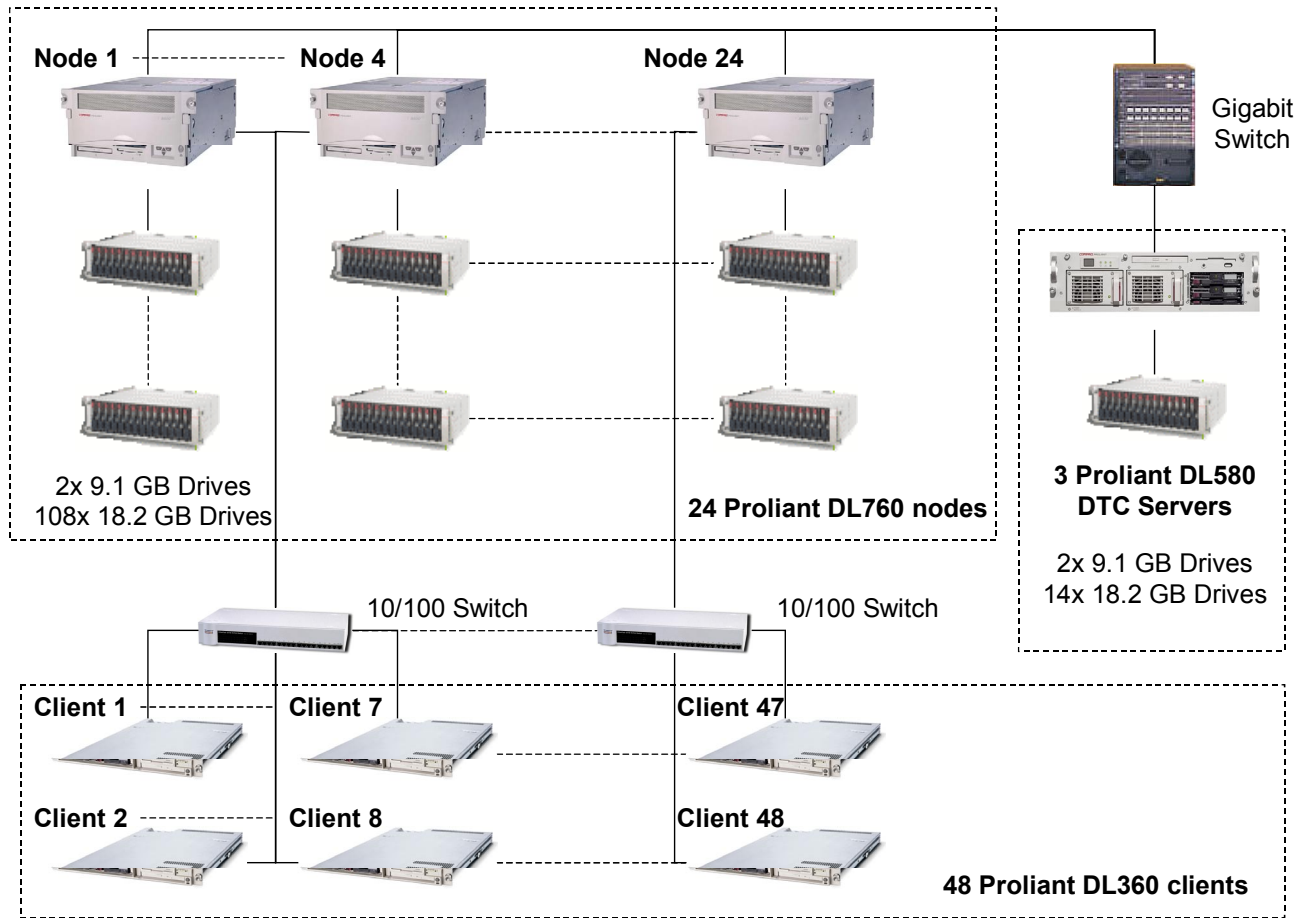


Figure 1. Benchmarked Configuration

System Configuration

The system configuration used in this benchmark includes 24 Compaq ProLiant 8500R-900 as database servers, 3 ProLiant DL580R-700 as DTC servers and 48 ProLiant DL360R as clients. The database servers and the DTC servers are connected via a Cisco Catalyst 6500 Gigabit Ethernet switch. The clients/database servers' connections use EtherFast 10/100 Linksys switches. Sixteen RTE systems using ProLiant DL-580 emulate 456,000 users. The RTE's are connected to 48 clients through 10/100 base T switches. The operating system used for the benchmark was Windows 2000 Advanced Server for the database servers and Windows 2000 Server for the DTC servers and clients. The DBMS used was Microsoft SQL Server 2000 Enterprise Edition. The database connection queues used Microsoft COM+.

The ProLiant DL760-900MHz motherboard utilizes Intel/Compaq Profusion chipset with 64-bit multi-peer PCI-X buses. It supports up to 8 processors with the latest Pentium III/900 MHz Xeon technology. The processor cache was 2 MB L2 Cache. The system has 11 64-bit PCI slots (2x 100MHz PCI-X or 66MHz PCI, 6x 50MHz PCI-X or 33 MHz PCI, 3x 33 MHz PCI). The benchmark configuration used 8GB of RAM.

The ProLiant DL760 has an Integrated Smart Array Controller supporting Ultra2 and RAID 0, 0+1 and 5. The controller connected to the Internal Hot Plug Drive Storage controls 2x 9GB (RAID 1) and is where the OS located. Each of the ProLiant DL760 is configured with 5 Compaq Smart Array Controllers 5304-4 SCSI channels. One of the Compaq Smart Array Controllers 5304 had 2 channels connected to a StorageWorks Enclosure 4354, which contained the database log. For the data drives (RAID 0), three 5304 used 2 channels connected to two StorageWorks Enclosure 4314Rs. The remaining 5304 connected to a StorageWorks Enclosure 4314R. Each StorageWorks Enclosure 4314R has 14x 18.2GB with 15k RPM except for the database log, which held 10x 18.2GB-15k RPM on RAID 0+1.

One PCI slot is used for the NC6134 Gigabit NIC 64 PCI 1000 SX.

Each ProLiant DL760 database server is driven by 2 clients using DL360R having dual Pentium III processors at 800MHz with 512MB of physical memory. The client has 2 embedded Compaq NC3163 Fast Ethernet NICs, and RAID1 2x 9GB drives for OS. On each client one NC3163 NIC is connected to the database server via EtherFast 10/100 Linksys switch. There are a total of 8 clients on each switch. The other NC3163 NIC on the client is connected to RTE via 10/100 base T switch. Each RTE is connected to 3 clients. There are a total of 456,000 emulated users evenly divided between the 48 clients.

Clause 1 Related Items

Table Definitions

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

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

Physical Organization of Database

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

The tested configuration consisted of: 48 drives at 9.1GB and 2592 drives at 18.2GB each.

Benchmarked Configuration (per node):

Embedded Smart Array Controller

(2 9.1GB drive)

<u>EISA UTILITIES PARTITION</u>	<u>Total Capacity = 36 MB</u>	
Compaq System Configuration Utilities		
<u>LOGICAL DRIVE C:</u>	<u>Total Capacity = 8.47 GB</u>	<u>RAID 0+1</u>
Microsoft Windows 2000 Advanced Server		

SMART-5304 Controller, Slot 3, Array A

(28 18,2GB drives)

(0% Read Cache, 100% Write Cache)

Port1:

<u>LOGICAL DRIVE 0:</u>	<u>Total Capacity = 18.55 GB</u>	<u>RAID 0</u> Cache Enabled
Big_fg		
<u>LOGICAL DRIVE 1:</u>	<u>Total Capacity = 12.88 GB</u>	<u>RAID 0</u> Cache Enabled
Misc_fg		
<u>LOGICAL DRIVE 2:</u>	<u>Total Capacity = 102.98 GB</u>	<u>RAID 0+1</u> Cache Enabled
TpccBackup1		

Port3:

<u>LOGICAL DRIVE 3:</u>	<u>Total Capacity = 18.55 GB</u>	<u>RAID 0</u> Cache Enabled
Big_fg		
<u>LOGICAL DRIVE 4:</u>	<u>Total Capacity = 12.88 GB</u>	<u>RAID 0</u> Cache Enabled
Misc_fg		
<u>LOGICAL DRIVE 5:</u>	<u>Total Capacity = 102.98 GB</u>	<u>RAID 0+1</u> Cache Enabled
TpccBackup2		

SMART-5304 Controller, Slot 5, Array A

(28 18,2GB drives)

(0% Read Cache, 100% Write Cache)

Port1:

<u>LOGICAL DRIVE 6:</u>	<u>Total Capacity = 18.55 GB</u>	<u>RAID 0</u> Cache Enabled
Big_fg		
<u>LOGICAL DRIVE 7:</u>	<u>Total Capacity = 12.88 GB</u>	<u>RAID 0</u> Cache Enabled
Misc_fg		
<u>LOGICAL DRIVE 8:</u>	<u>Total Capacity = 102.98 GB</u>	<u>RAID 0+1</u> Cache Enabled
TpccBackup3		

Port3:

<u>LOGICAL DRIVE 9:</u>	<u>Total Capacity = 18.55 GB</u>	<u>RAID 0</u> Cache Enabled
-------------------------	----------------------------------	-----------------------------

Big_fg LOGICAL DRIVE 10:	<u>Total Capacity = 12.88 GB</u>	<u>RAID 0</u> Cache Enabled
Misc_fg LOGICAL DRIVE 11:	<u>Total Capacity = 102.98 GB</u>	<u>RAID 0+1</u> Cache Enabled
TpccBackup4		

SMART-5304 Controller, Slot 7, Array B

(28 18,2GB drives)

(0% Read Cache, 100% Write Cache)

Port1:

LOGICAL DRIVE 12:	<u>Total Capacity = 18.55 GB</u>	<u>RAID 0</u> Cache Enabled
Big_fg		
LOGICAL DRIVE 13:	<u>Total Capacity = 12.88 GB</u>	<u>RAID 0</u> Cache Enabled
Misc_fg		
LOGICAL DRIVE 14:	<u>Total Capacity = 102.98 GB</u>	<u>RAID 0+1</u> Cache Enabled
TpccBackup5		

Port3:

LOGICAL DRIVE 15:	<u>Total Capacity = 18.55 GB</u>	<u>RAID 0</u> Cache Enabled
Big_fg		
LOGICAL DRIVE 16:	<u>Total Capacity = 12.88 GB</u>	<u>RAID 0</u> Cache Enabled
Misc_fg		
LOGICAL DRIVE 17:	<u>Total Capacity = 102.98 GB</u>	<u>RAID 0+1</u> Cache Enabled
TpccBackup6		

SMART-5304 Controller, Slot 10, Array A

(10 18.2GB drives)

LOGICAL DRIVE 18:	<u>Total Capacity = 84.79 GB</u>	<u>RAID 1</u> Cache Disabled
Tpcc log		

SMART-5304 Controller, Slot 11, Array A

(14 18,2GB drives)

(0% Read Cache, 100% Write Cache)

Port1:

LOGICAL DRIVE 19:	<u>Total Capacity = 18.55 GB</u>	<u>RAID 0</u> Cache Enabled
Big_fg		
LOGICAL DRIVE 20:	<u>Total Capacity = 12.88 GB</u>	<u>RAID 0</u> Cache Enabled
Misc_fg		
LOGICAL DRIVE 21:	<u>Total Capacity = 102.98 GB</u>	<u>RAID 0+1</u> Cache Enabled
TpccBackup7		

Priced Configuration vs. Measured Configuration:

The measured and priced configuration only differ in that the measured configuration used disk drives for database backup and the priced configuration used a DAT drive for backup.

Insert and Delete Operations

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

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

Partitioning

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

All database tables were partitioned across database server nodes by warehouse ID, 1800 warehouses per node with the exception of the item table, which was replicated across nodes.

Replication, Duplication or Additions

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

The item table was replicated across all database server nodes.

Clause 2 Related Items

Random Number Generation

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

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

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

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

Input/Output Screen Layout

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

All screen layouts followed the specifications exactly.

Priced Terminal Feature Verification

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

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

Presentation Manager or Intelligent Terminal

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

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

Transaction Statistics

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

Table 2. 1 Transaction Statistics

Statistic		Value
New Order	Home warehouse order lines	99.00%
	Remote warehouse order lines	1.00%
	Rolled back transactions	1.00%
	Average items per order	10.00
Payment	Home warehouse payments	85.00%
	Remote warehouse payments	15.00%

Statistic		Value
	Accessed by last name	60.01%
Order Status	Accessed by last name	60.06%
Transaction Mix	New Order	44.83%
	Payment	43.05%
	Order status	4.04%
	Delivery	4.04%
	Stock level	4.04%

Queuing Mechanism

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

The deferred delivery operation is queued by making an entry in an array within the application process (tpcc.dll) running on the middle tier machines. Background threads within the application process asynchronously process the queued delivery transactions.

The source code is listed in Appendix A.

Clause 3 Related Items

Transaction System Properties (ACID)

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

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

Atomicity

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

Completed Transactions

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

Aborted Transactions

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

All atomicity tests were run twice. The first set of atomicity tests were run with database accesses from just a single node. The second set of atomicity tests were run with database accesses from two nodes.

Consistency

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

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

A run was executed under full load lasting over an hour and included a checkpoint.

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

Isolation

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

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

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

For Isolation test seven, case A was followed.

All isolation tests were run twice. The first set of isolation tests were run with database accesses from just a single node. The second set of isolation tests were run with database accesses from two nodes.

Durability

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

Durable Media Failure

- Durability from media failure was demonstrated on a previous 32 node benchmark

Instantaneous Interruption and Loss of Memory

Because loss of power erases the contents of memory, the instantaneous interruption and the loss of memory tests were combined into a single test. This test was performed twice, once for a single node and second time for 24 nodes. Both tests were executed on a fully scaled database of 45,600 warehouses under a full load of 456,000 users. The following steps were executed for each test:

- The total number of New Orders was determined by the sum of D_NEXT_O_ID of all rows in the DISTRICT table on all database nodes giving the beginning count.
- The RTE was started with 456,000 users.
- The test was allowed to run for a minimum of 10 minutes.
- A checkpoint was performed.
- For the single node and 24 node tests, system crash and loss of memory were induced by switching the power off. In the single node test all nodes were executing transactions, but only one node was powered off. In the 24-node test all nodes were powered off. No battery backup or Uninterruptible Power Supply (UPS) were used to preserve the contents of memory.
- The RTE was shutdown.
- All power was restored and the system restarted.
- Microsoft SQL Server was restarted and performed an automatic recovery.
- Consistency condition #3 was executed and verified.
- Step 1 was repeated and the difference between the first and second counts was noted.
- An RTE report was generated for the entire run time giving the number of NEW-ORDERS successfully returned to the RTE.
- The counts in step 10 and 11 were compared and the results verified that all committed transactions had been successfully recovered.
- Samples were taken from the RTE files and used to query the database to demonstrate successful transactions had corresponding rows in the ORDER table.

Interconnect Loss

- Durability from media failure was demonstrated on a previous 32 node benchmark

Clause 4 Related Items

Initial Cardinality of Tables

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

Table 4.1 Number of Rows for Database

Table	Cardinality as built
Warehouse	45,600
District	456,000
Customer	1,368,000,000
History	1,368,000,000
Orders	1,368,000,000
New Order	410,400,000
Order Line	13,679,830,186
Stock	4,560,000,000
Item	100,000

Database Layout

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

The benchmarked configuration used 24 Compaq Proliant DL760 nodes each configured identically with 1900 warehouses each. Each node used 5 SMART-5304 Array controllers, each with 4 SCSI channels. Each controller is capable of accessing up to 56 disk drives per array, 14 disk drives per each channel, and supports RAID 0,1,5 per each logical volume configured. On each node, the data tables were stored on 8 logical volumes of 24 drives each (i.e. 2 logical volumes on each controller array of 24 drives). Each data volume was configured with RAID 0 and the Array Accelerator was enabled for all the volumes. On each node, one logical volume of 8 18.2GB drives was configured as RAID 0+1 and stored the transaction log. The transaction log volumes had the Array Accelerator disabled. Also on each node, one logical volume of 2 9.1GB drives was configured as RAID 1 and stored the root database files, along with logs for the Distributed Transaction Coordinator (DTC). For each node, the operating system was stored on a 9.1GB drive on the embedded Smart Array Controller. All RAID volumes used hardware RAID.

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

Type of Database

A statement must be provided that describes:

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

Microsoft SQL Server 2000 Enterprise Edition is a relational DBMS.

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

Database Mapping

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

The item table was replicated across database nodes.

60 Day Space

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

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

- The free space on the log file was queried using *dbcc sqlperf(logspace)*.
- The 'before' New Order count was measured via the sql command: `select sum(d_next_o_id) SumDNNextOId from district`
- Transactions were run against the database with a full load of users.
- The free space was again queried using *dbcc sqlperf(logspace)*.
- The 'after' New Order count was measured via the sql command: `select sum(d_next_o_id) SumDNNextOId from district`
- The space used was calculated as the difference between the first and second query.
- The number of NEW-ORDERS was calculated as the difference between the after and before `sum(d_next_o_id)` values covering the entire run.
- The space used was divided by the number of NEW-ORDERS giving a space used per NEW-ORDER transaction.
- The space used per transaction was multiplied by the measured tpmC rate times 480 minutes.

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

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

Clause 5 Related Items

Throughput

Measured tpmC must be reported

Measured tpmC 567,882.56 tpmC
Price per tpmC \$14.04 per tpmC

Response Times

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

Table 5.2: Response Times

Type	Average	90 th %	Maximum
New-Order	0.43	0.63	234.01
Payment	0.32	0.52	223.05
Order-Status	0.32	0.51	147.68
Interactive Delivery	0.12	0.11	79.22
Deferred Delivery	0.31	0.41	215.02
Stock-Level	1.28	1.64	226.55
Menu	0.12	0.11	79.25

Keying and Think Times

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

Table 5.3: Keying Times

Type	Minimum	Average	Maximum
New-Order	18.00	18.02	18.08
Payment	3.00	3.02	3.08
Order-Status	2.00	2.02	2.06
Interactive Delivery	2.00	2.02	2.07
Stock-Level	2.00	2.02	2.06

Table 5.4: Think Times

Type	Minimum	Average	Maximum
New-Order	0.00	12.11	121.12
Payment	0.00	12.11	121.12
Order-Status	0.00	10.10	101.01
Interactive Delivery	0.00	5.08	50.71
Stock-Level	0.00	5.07	50.71

Response Time Frequency Distribution Curves and Other Graphs

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

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

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

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

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

Figure 3. New Order Response Time Distribution

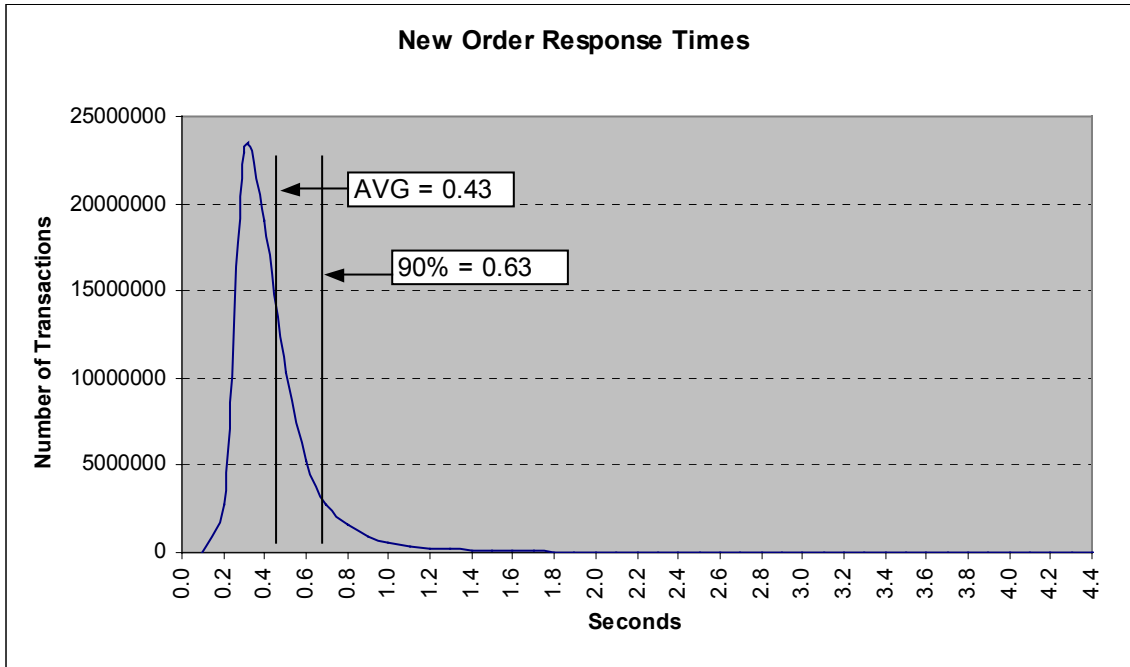


Figure 4. Payment Response Time Distribution

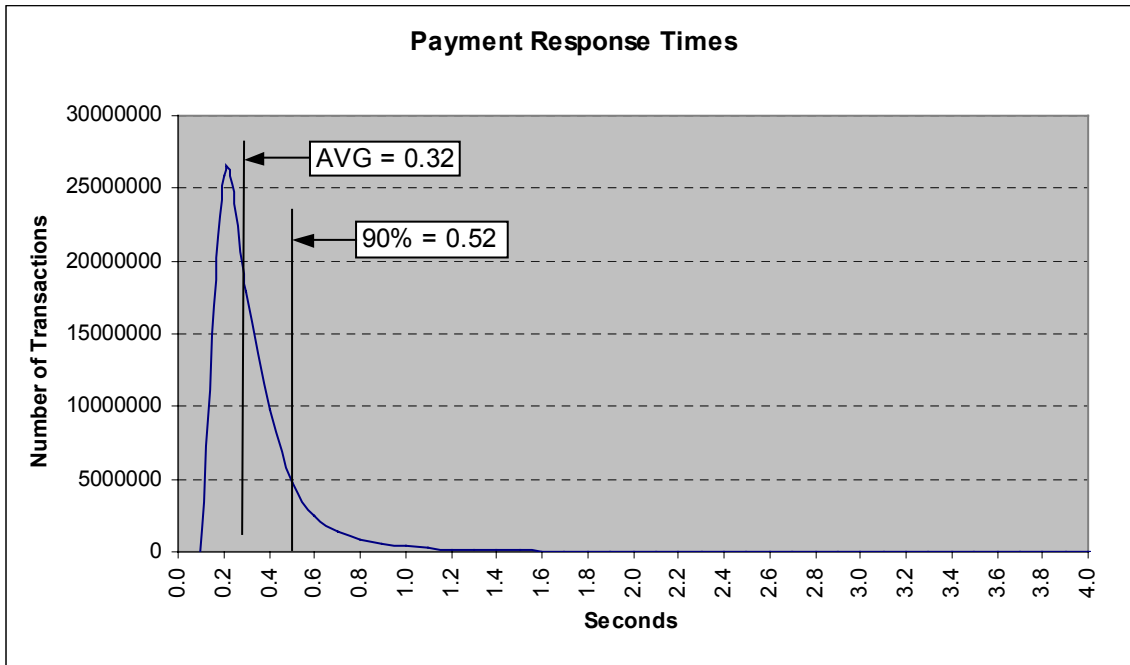


Figure 5. Order Status Response Time Distribution

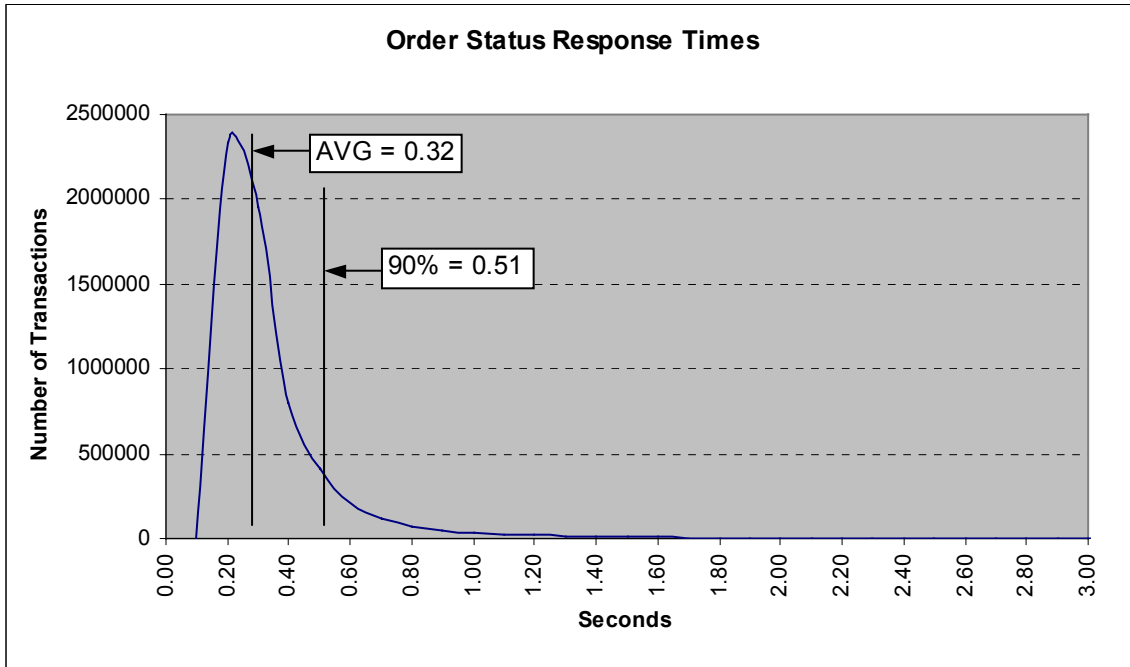


Figure 6. Delivery Response Time Distribution

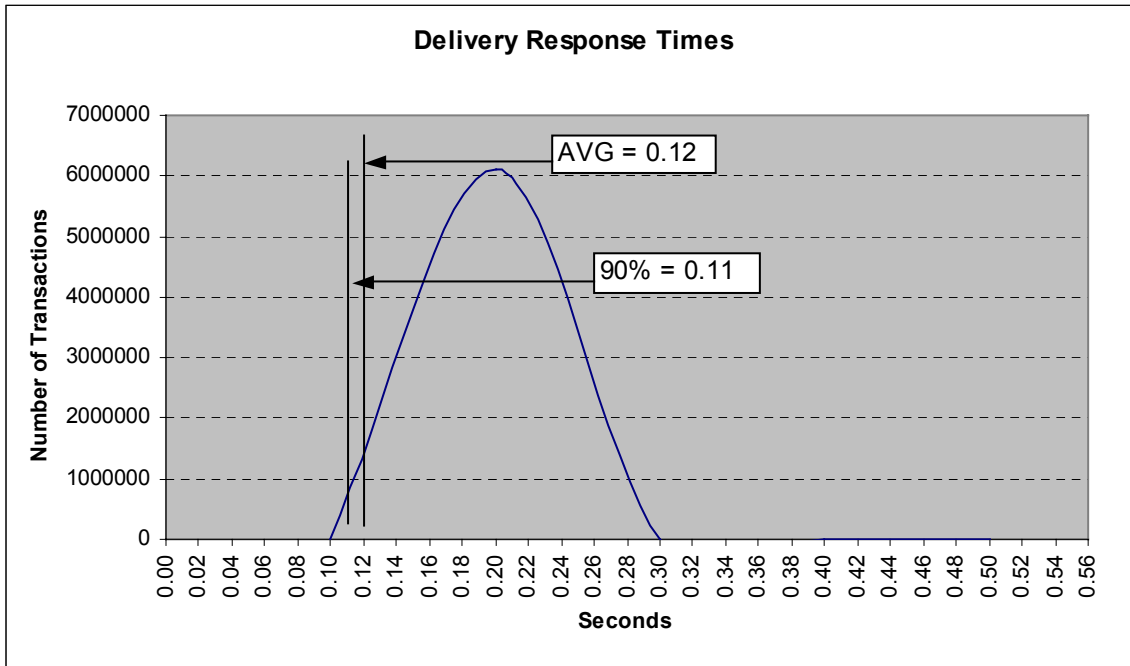


Figure 7. Stock Level Response Time Distribution

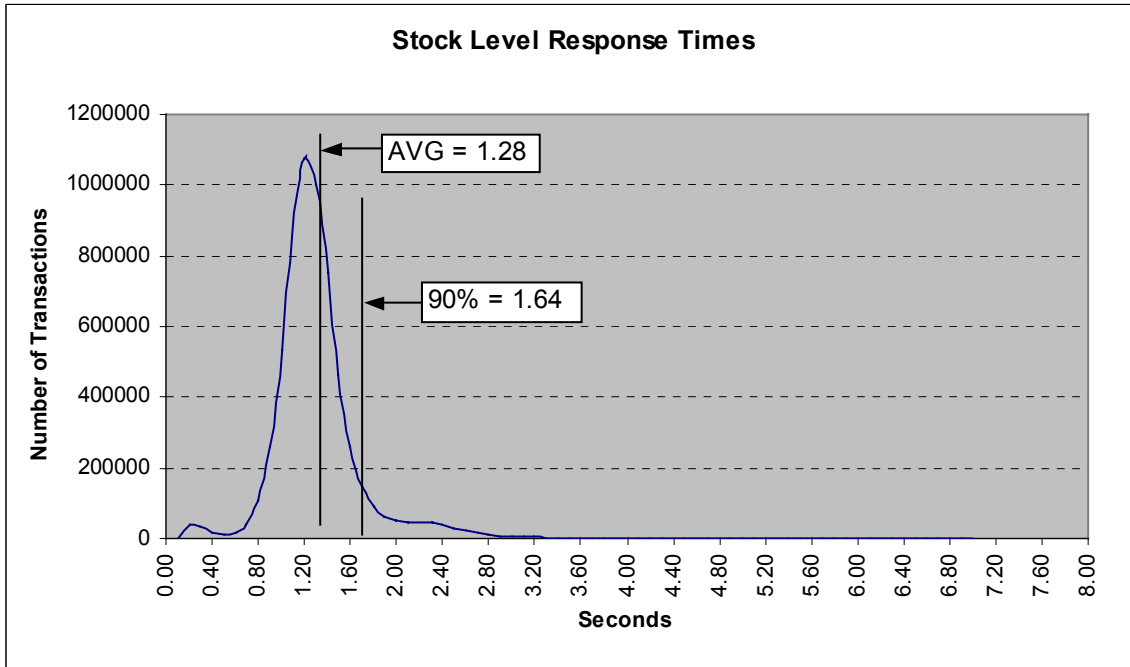


Figure 8. Response Time vs. Throughput

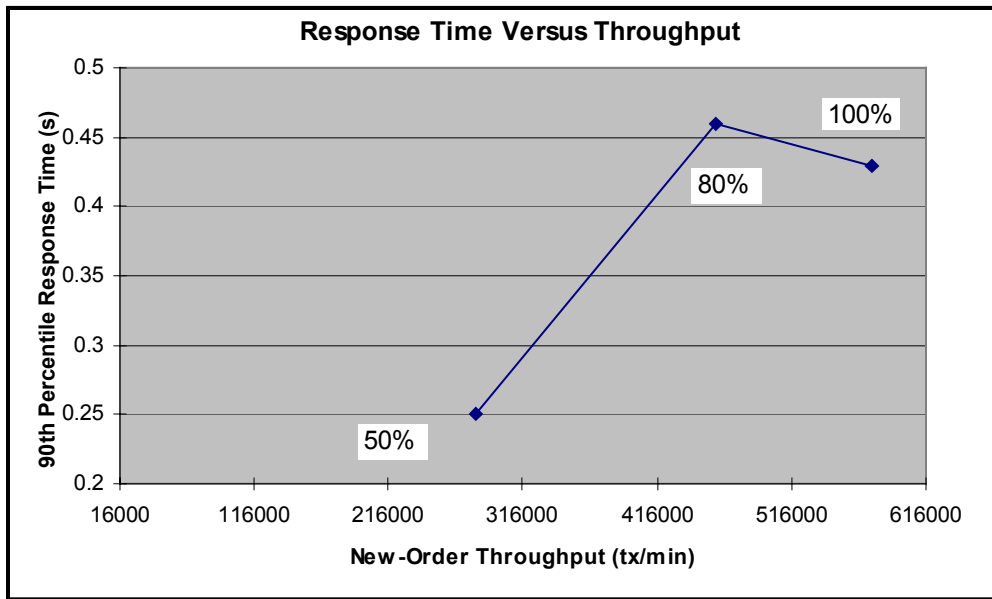


Figure 9. New Order Think Time Distribution

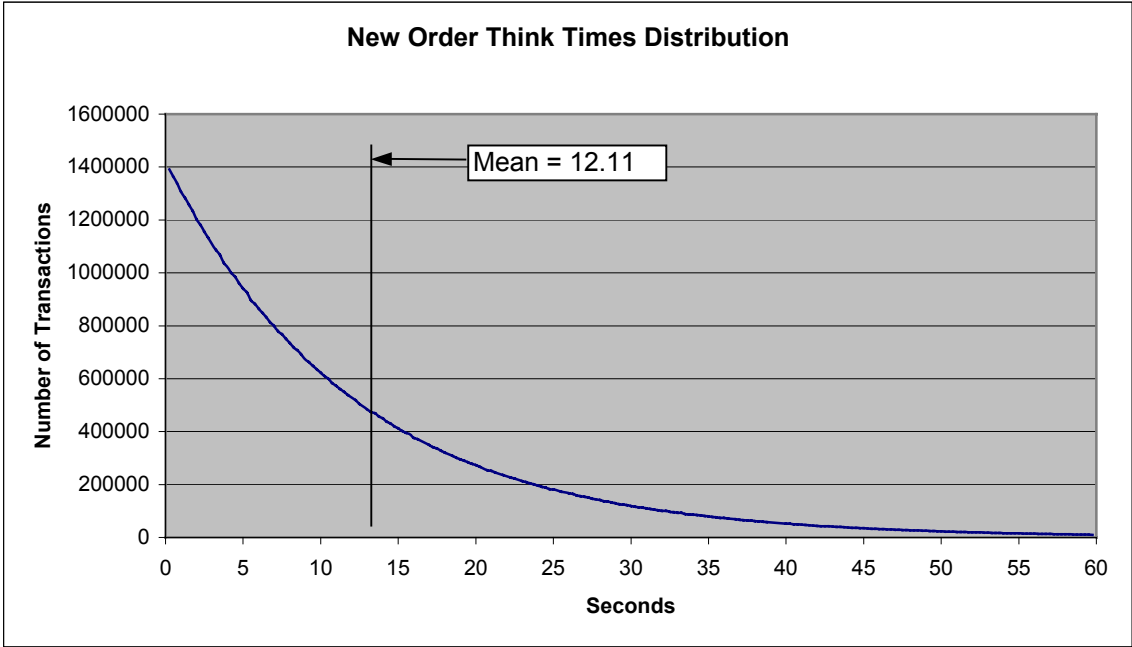
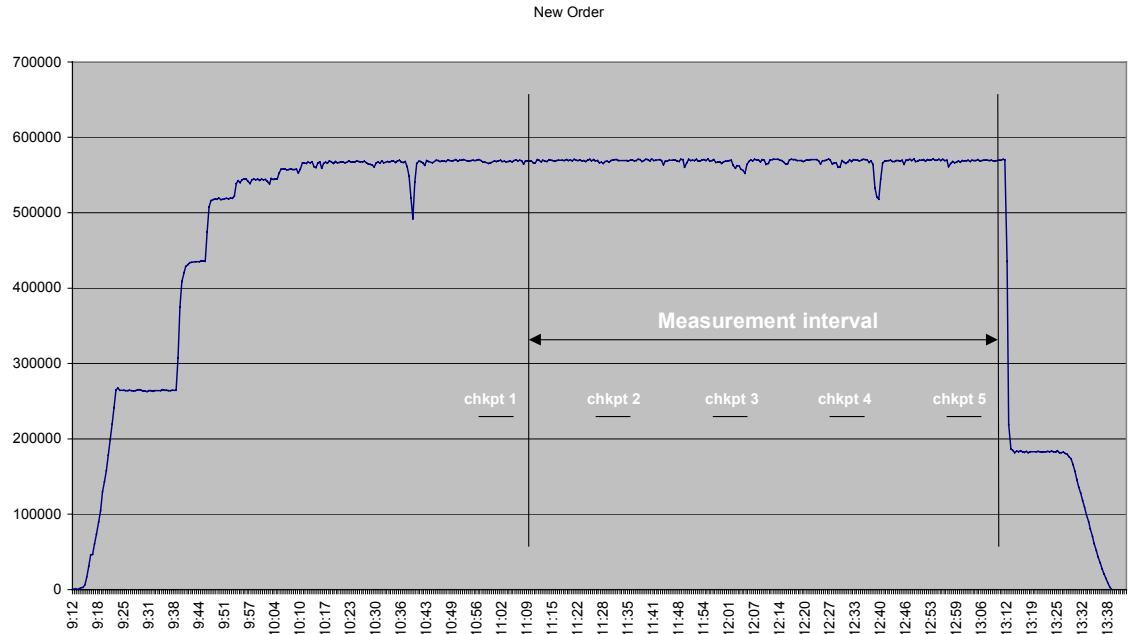


Figure 10. Throughput vs. Time Distribution



Steady State Determination

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

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

Work Performed During Steady State

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

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

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

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

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

To perform checkpoints at specific intervals, we set SQL Server *recovery interval* to 40 and wrote a script to schedule multiple checkpoints at specific intervals. The script included a wait time between each checkpoint equal to the measurement interval, which was 30 minutes. The checkpoint script was started manually after the RTE had all users logged in and sending transactions. These manual checkpoints kept SQL Server's automatic checkpoints postponed as long as the script was running.

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

Measurement Period Duration

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

The reported measured interval was exactly 120 minutes long.

Regulation of Transaction Mix

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

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

Transaction Statistics

The percentage of the total mix for each transaction type must be disclosed. The percentage of New-Order transactions rolled back as a result of invalid item number must be disclosed. The average number of order-lines entered per New-Order transaction must be disclosed. The percentage of remote order lines

per New-Order transaction must be disclosed. The percentage of remote Payment transactions must be disclosed. The percentage of customer selections by customer last name in the Payment and Order-Status transactions must be disclosed. The percentage of Delivery transactions skipped due to there being fewer than necessary orders in the New-Order table must be disclosed.

Table 5.5: Transaction Statistics

Statistic		Value
New Order	Home warehouse order lines	99.00%
	Remote warehouse order lines	1.00%
	Rolled back transactions	1.00%
	Average items per order	10.00
Payment	Home warehouse payments	85.00%
	Remote warehouse payments	15.00%
	Accessed by last name	60.01%
Order Status	Accessed by last name	60.06%
Transaction Mix	New Order	44.83%
	Payment	43.05%
	Order status	4.04%
	Delivery	4.04%
	Stock level	4.04%

Checkpoint Count and Location

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

	Start	End	Duration
Measurement Interval	11:11:39	13:11:39	7200
Checkpoint 1	11:27:29	11:35:49	500
Checkpoint 2	11:57:27	12:05:47	500
Checkpoint 3	12:27:24	12:36:55	571
Checkpoint 4	12:57:21	13:06:51	570

Clause 6 Related Items

RTE Descriptions

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

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

Emulated Components

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

The driver system consisted of 16 Compaq ProLiant servers. These driver machines were attached to the 48 Compaq ProLiant DL360R client machines through a 100Mb/s Ethernet connection to the 10/100 Dual Speed Switches. Since this configuration is the same connectivity of the priced system, no components were being emulated. Therefore, the test described in Clause 6.6.3.4 was not required.

Functional Diagrams

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

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

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

Networks

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

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

In the tested configuration, 16 driver (RTE) machines were connected through 100 Mbs switches. These 10/100 switches connect to the 48 client machines at 100Mbs; thus, providing the path from the RTEs to the client. The server (SUT) was connected to the clients via (6) 16-port switches at 100Mb/s connection. The clients are connected to this switch on a different LAN, than the user LAN.

The priced configuration is the same as the tested configuration.

In both the priced and tested configurations, the 24 ProLiant DL760 servers were interconnected using Cisco Catalyst 6500.

Operator Intervention

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

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

Clause 7 Related Items

System Pricing

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

The total 5 year price of the entire configuration must be reported, including: hardware, software, and maintenance charges. Separate component pricing is recommended. The basis of all discounts used must be disclosed.

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

Availability, Throughput, and Price Performance

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

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

- **Maximum Qualified Throughput** **567,882.56 tpmC**
- **Price per tpmC** **\$14.04 per tpmC**
- **Availability** **October 15, 2001**

Country Specific Pricing

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

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

Usage Pricing

For any usage pricing, the sponsor must disclose:

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

The component pricing based on usage is shown below:

- 24 Microsoft Windows 2000 Advanced Server
- 51 Microsoft Windows 2000 Server licenses (includes Microsoft COM+)
- 192 Microsoft SQL Server 2000 Enterprise Edition (Per-Processor Licenses)
- One Microsoft Visual C++
- Compaq Servers include 3 years of support.

Clause 9 Related Items

Auditor's Report

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

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

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

Availability of the Full Disclosure Report

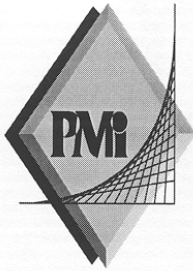
The Full Disclosure Report must be readily available to the public at a reasonable charge, similar to the charges for similar documents by the test sponsor. The report must be made available when results are made public. In order to use the phrase "TPC Benchmark™ C", the Full Disclosure Report must have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

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

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

or

Compaq Computer Corporation
Database Performance Engineering
P.O. Box 692000
Houston, TX 77269-2000



PERFORMANCE METRICS INC.
TPC Certified Auditors

September 15, 2001

Mr. Paul Cao
Mr. Daniel Pol
Compaq Computer Corporation
20555 SH 249
Houston, TX 77070

I have verified on-site and by remote the TPC Benchmark™ C client/server for a 24 node cluster with the following configuration on each node:

Platform: ProLiant DL760 X900
Database Manager: Microsoft SQL Server 2000 Enterprise Edition
Operating System: Microsoft Windows 2000 Advanced Server
Transaction Monitor: Microsoft COM+

Servers: 24 ProLiant SL760 with:				
CPU's	Memory	Disks (total)	90% Response	TpmC
8 Pentium III Xeon@900Mhz	Main: 8192 MB Cache: 2 MB	108 @ 18GB 2 @ 9.1 GB	0.63 sec	567,882.56
48 Clients: DL360R each with:				
2 Pentium III Xeon @ 800 Mhz	Main: 512 MB Cache: 256K	1 @ 9.1GB	Na	Na

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

- The transactions were correctly implemented.
- The database files were properly sized and populated.
- The database was properly scaled with 45,600 warehouses.
- All columns in the database could be updated with the same syntax.

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TPC Certified Auditors

- The ACID properties were successfully demonstrated. Both a single node and a full system failure was demonstrated.
- Input data was generated according to the specified percentages.
- Eight hours of mirrored log space was present on the tested system.
- Eight hours of growth space for the dynamic tables was present on the tested system.
- The data for the 60 day space calculation was verified.
- The controller cache was disabled on the log disk controllers.
- The steady state portion of the test was 120 minutes.
- One checkpoint was taken before the measured interval.
- Four checkpoints were taken during the measured interval.
- The system pricing was checked for major components and maintenance.
- Third party quotes were verified for compliance.

Auditor Notes: None.

Sincerely,



Lorna Livingtree
Auditor

Appendix A: Source Code

The client source code is listed below.

Methods.h

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

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

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

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

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

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

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

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

static void WriteMessageToEventLog(LPTSTR lpszMsg);

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

    CTPCC_Common();
    ~CTPCC_Common();

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

    HRESULT __stdcall CallSetComplete();

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

// IObjectConstruct
    STDMETHODIMP Construct(IDispatch * pUnk);

private:
    BOOL                m_bCanBePooled;
    CTPCC_BASE          *m_pTxn;

    struct COM_DATA
```

```

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

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

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

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

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

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

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

```

```

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

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

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

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

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

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

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

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

```

```

END_COM_MAP()

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

```

ReadRegistry.cpp

```

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

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

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

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

```

```

}

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

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

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

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

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

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

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

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

size = sizeof( pReg->szDbUser );

```



```

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

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

        RegCloseKey(hKey);

        return FALSE;
    }

```

ReadRegistry.h

```

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

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

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

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

BOOL ReadTPCCRegistrySettings( TPCCREGISTRYDATA *pReg );

```

WEBCLNT.DSP

```

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

# TARGETTYPE "Win32 (x86) Application" 0x0101

```

```

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

```

```

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

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

# PROP BASE Use_MFC 0
# PROP BASE Use_Debug_Libraries 0
# PROP BASE Output_Dir ".\Release"
# PROP BASE Intermediate_Dir ".\Release"
# PROP BASE Target_Dir ""
# PROP Use_MFC 0
# PROP Use_Debug_Libraries 0
# PROP Output_Dir ".\Release"
# PROP Intermediate_Dir ".\Release"
# PROP Target_Dir ""
# ADD BASE CPP /nologo /W3 /GX /O2 /D "WIN32" /D "NDEBUG" /D "_WINDOWS" /YX /c
# ADD CPP /nologo /W3 /GX /O2 /D "WIN32" /D "NDEBUG" /D "_WINDOWS" /YX /FD /c
# ADD BASE MTL /nologo /D "NDEBUG" /win32
# ADD MTL /nologo /D "NDEBUG" /mktyplib203 /win32
# ADD BASE RSC /1 0x409 /d "NDEBUG"
# ADD RSC /1 0x409 /d "NDEBUG"
BSC32=bscmake.exe
# ADD BASE BSC32 /nologo
# ADD BSC32 /nologo
LINK32=link.exe
# ADD BASE LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbc32.lib odbccp32.lib
/nologo /subsystem:windows /machine:I386
# ADD LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbc32.lib odbccp32.lib
/nologo /subsystem:windows /machine:I386

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

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

```

```

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

!ENDIF

# Begin Target

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

```

Webclnt.dsw

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

```

#####

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

Package=<5>
{{{
}}}

Package=<4>
{{{
}}}

#####

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

Package=<5>
{{{
}}}

Package=<4>
{{{
}}}

#####

```

```

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

Package=<5>
{{{
}}}

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

#####

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

Package=<5>
{{{
}}}

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

#####

```

```

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

Package=<5>
{{{
}}}

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

#####

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

Package=<5>
{{{
}}}

Package=<4>
{{{
}}}

#####

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

Package=<5>
{{{
}}}

Package=<4>
{{{
}}}

#####

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

Package=<5>
{{{
}}}

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

#####

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

Package=<5>
{{{
}}}

```

```

Package=<4>
{{{
}}}

#####

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

Package=<5>
{{{
}}}

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

#####

Global:

Package=<5>
{{{
}}}

Package=<3>
{{{
}}}

#####

```

com_all_resource.h

```

//{{NO_DEPENDENCIES}}
// Microsoft Developer Studio generated include file.
// Used by tpcc_com_all.rc
//
#define IDS_PROJNAME                100
#define IDR_TPCC                    101
#define IDR_NEWORDER                102
#define IDR_ORDERSTATUS             103
#define IDR_PAYMENT                 104
#define IDR_STOCKLEVEL              105

// Next default values for new objects
//
#ifdef APSTUDIO_INVOKED
#ifndef APSTUDIO_READONLY_SYMBOLS
#define _APS_NEXT_RESOURCE_VALUE    202
#define _APS_NEXT_COMMAND_VALUE    32768
#define _APS_NEXT_CONTROL_VALUE    201
#define _APS_NEXT_SYMED_VALUE      106
#endif
#endif

```

db_dblib_dll.dsp

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

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

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

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

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

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

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

# PROP BASE Use_MFC 0
# PROP BASE Use_Debug_Libraries 1
# PROP BASE Output_Dir "Debug"
# PROP BASE Intermediate_Dir "Debug"
# PROP BASE Target_Dir ""
# PROP Use_MFC 0
# PROP Use_Debug_Libraries 1
# PROP Output_Dir ".\bin"
# PROP Intermediate_Dir ".\obj"
# PROP Ignore_Export_Lib 0
# PROP Target_Dir ""
# ADD BASE CPP /nologo /MTd /W3 /Gm /GX /Zi /Od /D "WIN32" /D "_DEBUG" /D "_WINDOWS"
/YX /FD /c
# ADD CPP /nologo /MDd /W3 /Gm /GX /ZI /Od /D "WIN32" /D "_DEBUG" /D "_WINDOWS" /YX
/FD /c
# ADD BASE MTL /nologo /D "_DEBUG" /mktyplib203 /o "NUL" /win32
# ADD MTL /nologo /D "_DEBUG" /mktyplib203 /o "NUL" /win32
# ADD BASE RSC /1 0x409 /d "_DEBUG"
# ADD RSC /1 0x409 /d "_DEBUG"
BSC32=bscmake.exe
# ADD BASE BSC32 /nologo
# ADD BSC32 /nologo
LINK32=link.exe

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

# PROP BASE Use_MFC 0
# PROP BASE Use_Debug_Libraries 1
# PROP BASE Output_Dir "db_dblib"
# PROP BASE Intermediate_Dir "db_dblib"
# PROP BASE Ignore_Export_Lib 0
# PROP BASE Target_Dir ""
# PROP Use_MFC 0
# PROP Use_Debug_Libraries 1
# PROP Output_Dir ".\bin"
# PROP Intermediate_Dir ".\obj"
# PROP Ignore_Export_Lib 0
# PROP Target_Dir ""
# ADD BASE CPP /nologo /MDd /W3 /Gm /GX /Zi /Od /D "WIN32" /D "_DEBUG" /D "_WINDOWS"
/YX /FD /Gh /c
# ADD CPP /nologo /MD /W3 /Gm /GX /Zi /O2 /D "WIN32" /D "NDEBUG" /D "_WINDOWS" /D
"ICECAP" /YX /FD /Gh /c
# ADD BASE MTL /nologo /D "_DEBUG" /mktyplib203 /o "NUL" /win32
# ADD MTL /nologo /D "_DEBUG" /mktyplib203 /o "NUL" /win32
# ADD BASE RSC /1 0x409 /d "_DEBUG"
# ADD RSC /1 0x409 /d "_DEBUG"
BSC32=bscmake.exe
# ADD BASE BSC32 /nologo
# ADD BSC32 /nologo
LINK32=link.exe
```

```
# ADD LINK32 ntdbllib.lib kernel32.lib user32.lib gdi32.lib winspool.lib
comdlg32.lib advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib /nologo
/subsystem:windows /dll /machine:I386 /out:".bin\tpcc_dblib.dll"

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

# PROP BASE Use_MFC 0
# PROP BASE Use_Debug_Libraries 1
# PROP BASE Output_Dir "Debug"
# PROP BASE Intermediate_Dir "Debug"
# PROP BASE Target_Dir ""
# PROP Use_MFC 0
# PROP Use_Debug_Libraries 1
# PROP Output_Dir ".\bin"
# PROP Intermediate_Dir ".\obj"
# PROP Ignore_Export_Lib 0
# PROP Target_Dir ""
# ADD BASE CPP /nologo /MTd /W3 /Gm /GX /Zi /Od /D "WIN32" /D "_DEBUG" /D "_WINDOWS"
/YX /FD /c
# ADD CPP /nologo /MDd /W3 /Gm /GX /ZI /Od /D "WIN32" /D "_DEBUG" /D "_WINDOWS" /YX
/FD /c
# ADD BASE MTL /nologo /D "_DEBUG" /mktyplib203 /o "NUL" /win32
# ADD MTL /nologo /D "_DEBUG" /mktyplib203 /o "NUL" /win32
# ADD BASE RSC /1 0x409 /d "_DEBUG"
# ADD RSC /1 0x409 /d "_DEBUG"
BSC32=bscmake.exe
# ADD BASE BSC32 /nologo
# ADD BSC32 /nologo
LINK32=link.exe

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

# PROP BASE Use_MFC 0
# PROP BASE Use_Debug_Libraries 1
# PROP BASE Output_Dir "db_dblib"
# PROP BASE Intermediate_Dir "db_dblib"
# PROP BASE Ignore_Export_Lib 0
# PROP BASE Target_Dir ""
# PROP Use_MFC 0
# PROP Use_Debug_Libraries 1
# PROP Output_Dir ".\bin"
# PROP Intermediate_Dir ".\obj"
# PROP Ignore_Export_Lib 0
# PROP Target_Dir ""
# ADD BASE CPP /nologo /MDd /W3 /Gm /GX /Zi /Od /D "WIN32" /D "_DEBUG" /D "_WINDOWS"
/YX /FD /Gh /c
# ADD CPP /nologo /MD /W3 /Gm /GX /Zi /O2 /D "WIN32" /D "NDEBUG" /D "_WINDOWS" /D
"ICECAP" /YX /FD /Gh /c
# ADD BASE MTL /nologo /D "_DEBUG" /mktyplib203 /o "NUL" /win32
# ADD MTL /nologo /D "_DEBUG" /mktyplib203 /o "NUL" /win32
# ADD BASE RSC /1 0x409 /d "_DEBUG"
# ADD RSC /1 0x409 /d "_DEBUG"
BSC32=bscmake.exe
# ADD BASE BSC32 /nologo
# ADD BSC32 /nologo
LINK32=link.exe
```

```

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

!ENDIF

# Begin Target

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

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

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

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

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

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

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

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

```

db_odbc_dll.dsp

dlldata.c

```

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

DO NOT ALTER THIS FILE

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

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

```

```

/dlldata command line option
*****/
#include <rpcproxy.h>

#ifdef __cplusplus
extern "C" {
#endif

EXTERN_PROXY_FILE( tpcc_com_ps )

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

DLLDATA_ROUTINES( aProxyFileList, GET_DLL_CLSID )

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

/* end of generated dlldata file */

```

error.h

```

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

#pragma once

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

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

//error message structure used in ErrorText routines
typedef struct _SERRORMSG
{
    int iError; //error id of
    message

```

```

char      szMsg[256];                                //message to sent to
browser
} SERRORMSG;

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

#define ERR_TYPE_LOGIC      -1 //logic error in program; internal error
#define ERR_SUCCESS        0 //success (a non-error error)
#define ERR_BAD_ITEM_ID    1 //expected abort record in txnRecord
#define ERR_TYPE_DELIVERY_POST //expected delivery post failed
#define ERR_TYPE_WEBDLL    3 //tpcc web generated error
#define ERR_TYPE_SQL       4 //sql server generated error
#define ERR_TYPE_DBLIB     5 //dblib generated error
#define ERR_TYPE_ODBC      6 //odbc generated error
#define ERR_TYPE_SOCKET    7 //error on communication socket client rte only
#define ERR_TYPE_DEADLOCK //dblib and odbc only deadlock condition
#define ERR_TYPE_COM       9 //error from COM call
#define ERR_TYPE_TUXEDO    10 //tuxedo error
#define ERR_TYPE_OS        11 //operating system error
#define ERR_TYPE_MEMORY    12 //memory allocation error
#define ERR_TYPE_TPCC_ODBC //error from tpcc odbc txn module
#define ERR_TYPE_TPCC_DBLIB //error from tpcc dblib txn module
#define ERR_TYPE_DELISRV   //delivery server error
#define ERR_TYPE_TXNLOG    16 //txn log error
#define ERR_TYPE_BCCONN   17 //Benchcraft connection class
#define ERR_TYPE_TPCC_CONN //Benchcraft connection class
#define ERR_TYPE_ENCINA    19 //Encina error
#define ERR_TYPE_COMPONENT //error from COM component
#define ERR_TYPE_RTE       21 //Benchcraft rte
#define ERR_TYPE_AUTOMATION //Benchcraft automation errors
#define ERR_TYPE_DRIVER    23 //Driver engine errors

```

```

#define ERR_TYPE_RTE_BASE //Framework errors
// TPC-W error types
#define ERR_TYPE_TPCW_CONN //Benchcraft connection class
#define ERR_TYPE_TPCW_HTML //error from TpcwHtml dll
#define ERR_TYPE_TPCW_USER //error from TPC-W user class
#define ERR_TYPE_TPCW_ENG_BASE
#define ERR_TYPE_TPCW_ENG_OS
#define ERR_TYPE_HTML_RESP
#define ERR_TYPE_TPCW_ODBC

#define ERR_INS_MEMORY "Insufficient Memory to continue."
#define ERR_UNKNOWN    "Unknown error."
#define ERR_MSG_BUF_SIZE 512
#define INV_ERROR_CODE -1

class CBaseErr
{
public:
    CBaseErr(LPCTSTR szLoc = NULL)
    {
        m_idMsg = INV_ERROR_CODE;
        if (szLoc)
        {
            m_szLoc = new char[m_szLoc_size];
            strcpy(m_szLoc, szLoc);
        }
        else
            m_szLoc = NULL;

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

    CBaseErr(int idMsg, LPCTSTR szLoc = NULL)
    {
        m_idMsg = idMsg;
        if (szLoc)
        {
            m_szLoc = new char[m_szLoc_size];
            strcpy(m_szLoc, szLoc);
        }
        else
            m_szLoc = NULL;

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

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

```

```

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

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

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

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

char *GetApp(void) { return m_szApp; }
char *GetLocation(void) { return m_szLoc; }
virtual int ErrorNum() { return m_idMsg; }
virtual int ErrorType() = 0; // a value which distinguishes the kind of
error that occurred
virtual char *ErrorText() = 0; // a string (i.e., human readable)
representation of the error

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

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

    CSocketErr(Action eAction, LPCTSTR szLocation = NULL);

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

```

```

    Action      m_eAction;
    char        *m_szErrorText;

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

class CSystemErr : public CBaseErr
{
public:
    enum Action
    {
        eNone = 0,
        eTransactNamedPipe,
        eWaitNamedPipe,
        eSetNamedPipeHandleState,
        eCreateFile,
        eCreateProcess,
        eCallNamedPipe,
        eCreateEvent,
        eCreateThread,
        eVirtualAlloc,
        eReadFile = 10,
        eWriteFile,
        eMapViewOfFile,
        eCreateFileMapping,
        eInitializeSecurityDescriptor,
        eSetSecurityDescriptorDacl,
        eCreateNamedPipe,
        eConnectNamedPipe,
        eWaitForSingleObject,
        eRegOpenKeyEx,
        eRegQueryValueEx = 20,
        eBeginThread,
        eRegEnumValue,
        eRegSetValueEx,
        eRegCreateKeyEx,
        eWaitForMultipleObjects,
        eRegisterClassEx,
        eCreateWindow,
        eCreateSemaphore,
    };

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

    Action      m_eAction;

private:
    char m_szMsg[ERR_MSG_BUF_SIZE];
};

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

    int ErrorType() {return ERR_TYPE_MEMORY;}
};

```

```
char *ErrorText() {return ERR_INS_MEMORY;}
};
```

install.c

```

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

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

#include "resource.h"

#define WM_INITTEXT WM_USER+100

HICON hIcon;
HINSTANCE hInst;

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

// TPC-C registry settings
TPCCREGISTRYDATA Reg;

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

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

BOOL CALLBACK LicenseDlgProc(HWND hwnd, UINT uMsg, WPARAM wParam, LPARAM
lParam);
BOOL CALLBACK UpdatedDlgProc(HWND hwnd, UINT uMsg, WPARAM wParam, LPARAM
lParam);
BOOL CALLBACK MainDlgProc(HWND hwnd, UINT uMsg, WPARAM wParam, LPARAM lParam);
BOOL CALLBACK CopyDlgProc(HWND hwnd, UINT uMsg, WPARAM wParam, LPARAM lParam);
static void ProcessOK(HWND hwnd, char *szDllPath);

```

```

static void ReadRegistrySettings(void);
static void WriteRegistrySettings(char *szDllPath);
static BOOL RegisterDLL(char *szFileName);
static int CopyFiles(HWND hDlg, char *szDllPath);
static BOOL GetInstallPath(char *szDllPath);
static void GetVersionInfo(char *szDLLPath, char *szExePath);
static BOOL CheckWWWebService(void);
static BOOL StartWWWebService(void);
static BOOL StopWWWebService(void);
static void UpdateDialog(HWND hDlg);

BOOL install_com(char *szDllPath);

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

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

    hInst = hInstance;

    InitCommonControls();

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

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

    DestroyIcon(hIcon);
    return 0;
}

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

    switch(uMsg)
    {
        case WM_INITDIALOG:
            hFont = CreateFont(-12, 0, 0, 0, 400, 0, 0, 0, 0, 0,
0, 0, 0, "Arial");
            SendMessage( GetDlgItem(hwnd, IDR_LICENSE1),
WM_SETFONT, (WPARAM)hFont, MAKELPARAM(0, 0) );
            PostMessage(hwnd, WM_INITTEXT, (WPARAM)0, (LPARAM)0);
            return TRUE;

        case WM_INITTEXT:
            hResInfo = FindResource(hInst,
MAKEINTRESOURCE(IDR_LICENSE1), "LICENSE");
    }
}

```



```

        dwSize = SizeofResource(hInst, hResInfo);
        hRes = LoadResource(hInst, hResInfo);
        pSrc = (BYTE *)LockResource(hRes);
        pDst = (unsigned char *)malloc(dwSize+1);
        if ( pDst )
        {
            memcpy(pDst, pSrc, dwSize);
            pDst[dwSize] = 0;
            SetDlgItemText(hwnd, IDC_LICENSE, (const
char *)pDst);
        }
        free(pDst);
    }
    else
        SetDlgItemText(hwnd, IDC_LICENSE, (const
char *)pSrc);
    return TRUE;
case WM_DESTROY:
    DeleteObject(hFont);
    return TRUE;
case WM_COMMAND:
    if ( wParam == IDOK )
        EndDialog(hwnd, TRUE);
    if ( wParam == IDCANCEL )
        EndDialog(hwnd, FALSE);
    default:
        break;
}
return FALSE;
}

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

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

```

```

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

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

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

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

                ReadTPCCRegistrySettings( &Reg );
                ReadRegistrySettings();

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

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

                SetDlgItemText(hwnd, IDC_PATH, szDllPath);

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

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

```

```

iAcceptExOutstanding, FALSE);

SetDlgItemInt(hwnd, ED_WEB_SERVICE_BACKLOG_QUEUE_SIZE,

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

// check OS version level for COM. Must be at least
Windows 2000
VI.dwOSVersionInfoSize = sizeof(VI);
GetVersionEx( &VI );
if (VI.dwMajorVersion < 5)
{
    HWND hDlg = GetDlgItem( hwnd, IDC_TM_MTS );
    EnableWindow( hDlg, 0 );    // disable COM

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

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

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

```

```

        ProcessOK(hwnd,
        return TRUE;
        case IDCANCEL:
            EndDialog(hwnd, FALSE);
            return TRUE;
        default:
            return FALSE;
        }
    }
    default:
        break;
}
return FALSE;
}

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

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

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

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

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

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

    iPoolThreadLimit = GetDlgItemInt(hwnd, ED_IIS_MAX_THREAD_POOL_LIMIT, &d,
FALSE);
    iThreadTimeout = GetDlgItemInt(hwnd, ED_IIS_THREAD_TIMEOUT, &d, FALSE);

```

```

        iListenBackLog = GetDlgItemInt(hwnd, ED_IIS_LISTEN_BACKLOG, &d, FALSE);
        iAcceptExOutstanding = GetDlgItemInt(hwnd,
ED_WEB_SERVICE_BACKLOG_QUEUE_SIZE, &d, FALSE);

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

        // write binaries to inetpub\wwwroot
        rc = CopyFiles(hDlg, szDllPath);
        if ( !rc )
        {
            ShowWindow(hwnd, SW_SHOWNA);
            DestroyWindow(hDlg);
            strcpy( szErrTxt, "Error(s) occurred when creating " );
            strcat( szErrTxt, szLastFileName );
            MessageBox(hwnd, szErrTxt, NULL, MB_ICONSTOP | MB_OK);
            EndDialog(hwnd, 0);
            return;
        }

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

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

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

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

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

```

```

        Sleep(100);

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

        EndDialog(hwnd, rc);
        return;
    }

static void ReadRegistrySettings(void)
{
    HKEY    hKey;
    DWORD  size;
    DWORD  type;

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

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

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

        RegCloseKey(hKey);
    }

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

        RegCloseKey(hKey);
    }
}

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

```

```

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

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

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

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

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

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

        RegFlushKey(hKey);
        RegCloseKey(hKey);
    }

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

        RegFlushKey(hKey);
        RegCloseKey(hKey);
    }

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

```

```

        RegFlushKey(hKey);
        RegCloseKey(hKey);
    }

    return;
}

BOOL CALLBACK CopyDlgProc(HWND hwnd, UINT uMsg, WPARAM wParam, LPARAM lParam)
{
    if ( uMsg == WM_INITDIALOG )
    {
        SendDlgItemMessage(hwnd, IDC_PROGRESS1, PBM_SETRANGE, 0,
MAKELPARAM(0, 15));
        SendDlgItemMessage(hwnd, IDC_PROGRESS1, PBM_SETSTEP, (LPARAM)1,
0);
        return TRUE;
    }
    return FALSE;
}

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

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

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

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

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

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

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

```

```

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

    CloseHandle(hFile);

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

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

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

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

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

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

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

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

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

```

```

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

        // install tpcc_com.dll
        strcpy( szLastFileName, "tpcc_com.dll" );
        if ( !FileFromResource( "COM_DLL", IDR_COM_DLL, szDllPath, szLastFileName
))
            return 0;
        SendDlgItemMessage(hDlg, IDC_PROGRESS1, PBM_STEPIT, 0, 0);
        UpdateDialog(hDlg);

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

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

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

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

        return 1;
    }

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

    szDllPath[0] = 0;
    bRc = TRUE;
    if ( RegOpenKeyEx(HKEY_LOCAL_MACHINE,
"SYSTEM\\CurrentControlSet\\Services\\W3SVC\\Parameters\\Virtual Roots", 0,
KEY_ALL_ACCESS, &hKey) == ERROR_SUCCESS )

```

```

    {
        sv = sizeof(szData);
        iRc = RegQueryValueEx( hKey, "/", NULL, NULL, szData, &sv );
// used by IIS 3.0
        if (iRc == ERROR_FILE_NOT_FOUND)
            iRc = RegQueryValueEx( hKey, "/", NULL, NULL, szData,
&sv ); // used by IIS 4.0
        if (iRc == ERROR_SUCCESS)
        {
            bRc = FALSE;
            strcpy(szDllPath, szData);
            if ( (ptr = strchr(szDllPath, ',')) )
                *ptr = 0;

            len = strlen(szDllPath);
            if ( szDllPath[len-1] != '\\\' )
            {
                szDllPath[len] = '\\\' ;
                szDllPath[len+1] = 0;
            }
        }
        RegCloseKey(hKey);
    }

    return bRc;
}

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

    versionDllMS = 0;
    versionDllLS = 0;
    if ( _access(szDLLPath, 00) == 0 )
    {
        dwSize = GetFileVersionInfoSize(szDLLPath, &d);
        if ( dwSize )
        {
            ptr = (char *)malloc(dwSize);
            GetFileVersionInfo(szDLLPath, 0, dwSize, ptr);
            VerQueryValue(ptr, "\\",&vs, &dwBytes);
            versionDllMS = vs->dwProductVersionMS;
            versionDllLS = vs->dwProductVersionLS;
            free(ptr);
        }
    }

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

        versionExeMS = vs->dwProductVersionMS;
        versionExeLS = LOWORD(vs->dwProductVersionLS);
    }
}

```

```

        versionExeMM = HIWORD(vs->dwProductVersionLS);
        free(ptr);
    }
    return;
}

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

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

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

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

    CloseServiceHandle(schService);
    return TRUE;
}

ServiceNotRunning:
    CloseServiceHandle(schService);
    return FALSE;
}

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

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

    if (!StartService(schService, 0, NULL) )
        goto StartWWWebErr;
    //start Service pending, Check the status until the service is running.
    if (!QueryServiceStatus(schService, &ssStatus) )
        goto StartWWWebErr;
    while( ssStatus.dwCurrentState != SERVICE_RUNNING)
    {
        dwOldCheckPoint = ssStatus.dwCheckPoint;
        //Save the current checkpoint.
        Sleep(ssStatus.dwWaitHint);
        //Wait for the specified interval.
        if ( !QueryServiceStatus(schService, &ssStatus) ) //Check the
status again.
            break;
    }
}

```

```

        if (dwOldCheckPoint >= ssStatus.dwCheckPoint)
//Break if the checkpoint has not been incremented.
            break;
    }

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

    CloseServiceHandle(schService);
    return TRUE;

StartWWWebErr:
    CloseServiceHandle(schService);
    return FALSE;
}

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

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

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

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

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

    CloseServiceHandle(schService);
    return TRUE;

StopWWWebErr:
    CloseServiceHandle(schService);
    return FALSE;
}

static void UpdateDialog(HWND hDlg)

```

```

{
    MSG msg;

    UpdateWindow(hDlg);
    while( PeekMessage(&msg, hDlg, 0, 0, PM_REMOVE) )
    {
        TranslateMessage(&msg);
        DispatchMessage(&msg);
    }
    Sleep(250);
    return;
}

```

install.h

```

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

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

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

// Next default values for new objects
//

```

install.rc

```

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

#define APSTUDIO_READONLY_SYMBOLS
////////////////////////////////////
//
// Generated from the TEXTINCLUDE 2 resource.

```

```

//
#include "afxres.h"

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

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

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

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

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

```

```

LTEXT           "Web Service Backlog Queue Size:",IDC_STATIC,36,277,115,
                12
LTEXT           "IIS Thread Timeout (seconds):",IDC_STATIC,36,291,115,12
LTEXT           "IIS Listen Backlog:",IDC_STATIC,36,307,115,10
GROUPBOX        "Database Interface",IDC_STATIC,35,208,163,27,WS_GROUP
LTEXT           "Installation directory:",IDC_STATIC,35,29,71,10
GROUPBOX        "Transaction Monitor",IDC_STATIC,33,90,165,37
LTEXT           "Server Name:",IDC_STATIC,35,155,56,8
LTEXT           "User ID:",IDC_STATIC,35,168,60,8
LTEXT           "User Password:",IDC_STATIC,35,181,83,8
LTEXT           "Database Name:",IDC_STATIC,35,194,54,8
GROUPBOX        "SQL Server Connection Properties",IDC_STATIC,22,139,187,
                102
GROUPBOX        "Web Client Properties",IDC_STATIC,22,15,187,118
GROUPBOX        "IIS Settings",IDC_STATIC,22,247,187,79
LTEXT           "Max Pending Deliveries:",IDC_STATIC,35,59,115,12
END

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

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

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

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

#ifdef APSTUDIO_INVOKED
GUIDELINES DESIGNINFO DISCARDABLE
BEGIN
    IDD_DIALOG1, DIALOG
    BEGIN
        LEFTMARGIN, 22

```



```

        RIGHTMARGIN, 209
        VERTGUIDE, 35
        VERTGUIDE, 198
        TOPMARGIN, 4
        BOTTOMMARGIN, 345
    END

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

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

    IDD_DIALOG4, DIALOG
    BEGIN
        LEFTMARGIN, 7
        RIGHTMARGIN, 278
        TOPMARGIN, 7
        BOTTOMMARGIN, 195
    END
END
#endif // APSTUDIO_INVOKED

#ifdef APSTUDIO_INVOKED
////////////////////////////////////
//
// TEXTINCLUDE
//
1 TEXTINCLUDE DISCARDABLE
BEGIN
    "resource.h\0"
END

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

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

#endif // APSTUDIO_INVOKED

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

```

```

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

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

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

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

```

```

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

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

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

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

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

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

////////////////////////////////////
//
// COM_ALL_DLL
//
IDR_COMALL_DLL   COM_ALL_DLL DISCARDABLE
"..\\..\\tpcc_com_all\\bin\\tpcc_com_all.dll"
#endif // English (U.S.) resources
////////////////////////////////////

#ifndef APSTUDIO_INVOKED
////////////////////////////////////
//

```

```

// Generated from the TEXTINCLUDE 3 resource.
//

```

```

////////////////////////////////////
#endif // not APSTUDIO_INVOKED

```

install_com.cpp

```

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

#define _WIN32_WINNT 0x0500

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

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

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

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

    bstrTemp4;
    bstrTemp; bstrTemp2, bstrTemp3,
    bstrTemp4;
    bstrTemp;
    bstrTemp;
    variant_t
    long
    lCountItf, lCountMethod;
    bool
    bTmp;

    CoInitializeEx(NULL, COINIT_MULTITHREADED);

    HRESULT hr = CoCreateInstance(CLSID_COMAdminCatalog,

```

```

NULL,
CLSCTX_INPROC_SERVER,
IID_ICOMAdminCatalog,
(void**) &pCOMAdminCat);
if (!SUCCEEDED(hr)) goto Error;
bstrTemp = "Applications";
// Attempt to connect to "Applications" in the Catalog
hr = pCOMAdminCat->GetCollection(bstrTemp,
(IDispatch**) &pCatalogCollectionApp);
if (!SUCCEEDED(hr)) goto Error;
// Attempt to load the "Applications" collection
hr = pCatalogCollectionApp->Populate();
if (!SUCCEEDED(hr)) goto Error;
hr = pCatalogCollectionApp->get_Count(&lCount);
if (!SUCCEEDED(hr)) goto Error;
// iterate through applications to delete existing "TPC-C" application (if
any)
while (lCount > 0)
{
    hr = pCatalogCollectionApp->get_Item(lCount - 1, (IDispatch**)
&pCatalogObjectApp);
    if (!SUCCEEDED(hr)) goto Error;
    hr = pCatalogObjectApp->get_Name(&vTmp);
    if (!SUCCEEDED(hr)) goto Error;
    if (wcsncmp(vTmp.bstrVal, L"TPC-C"))
    {
        lCount--;
        continue;
    }
    else
    {
        hr = pCatalogCollectionApp->Remove(lCount - 1);
        if (!SUCCEEDED(hr)) goto Error;
        break;
    }
}
hr = pCatalogCollectionApp->SaveChanges(&lActProp);
if (!SUCCEEDED(hr)) goto Error;
// add the new application
hr = pCatalogCollectionApp->Add((IDispatch**) &pCatalogObjectApp);
if (!SUCCEEDED(hr)) goto Error;
// set properties
bstrTemp = "Name";
vTmp = "TPC-C";
hr = pCatalogObjectApp->put_Value(bstrTemp, vTmp);
if (!SUCCEEDED(hr)) goto Error;

```

```

// set as a library (in process) application
bstrTemp = "Activation";
lActProp = COMAdminActivationInproc;
vTmp = lActProp;
hr = pCatalogObjectApp->put_Value(bstrTemp, vTmp);
if (!SUCCEEDED(hr)) goto Error;
// set security level to process
bstrTemp = "AccessChecksLevel";
lActProp = COMAdminAccessChecksApplicationLevel;
vTmp = lActProp;
hr = pCatalogObjectApp->put_Value(bstrTemp, vTmp);
if (!SUCCEEDED(hr)) goto Error;
// save key to get the Components collection later
hr = pCatalogObjectApp->get_Key(&vKey);
if (!SUCCEEDED(hr)) goto Error;
// save changes (app creation) so component installation will work
hr = pCatalogCollectionApp->SaveChanges(&lActProp);
if (!SUCCEEDED(hr)) goto Error;
pCatalogObjectApp->Release();
pCatalogObjectApp = NULL;
bstrTemp = "TPC-C";
bstrTemp2 = bstrDllPath + "tpcc_com_all.dll"; // app name //
DLL
bstrTemp3 = "";
// type library (TLB)
bstrTemp4 = bstrDllPath + "tpcc_com_ps.dll"; //
proxy/stub dll
hr = pCOMAdminCat->InstallComponent(bstrTemp,
bstrTemp2,
bstrTemp3,
bstrTemp4);
if (!SUCCEEDED(hr)) goto Error;
bstrTemp = "Components";
hr = pCatalogCollectionApp->GetCollection(bstrTemp, vKey, (IDispatch**)
&pCatalogCollectionCo);
if (!SUCCEEDED(hr)) goto Error;
hr = pCatalogCollectionCo->Populate();
if (!SUCCEEDED(hr)) goto Error;
hr = pCatalogCollectionCo->get_Count(&lCountCo);
if (!SUCCEEDED(hr)) goto Error;
// iterate through components in application and set the properties
while (lCountCo > 0)
{
    hr = pCatalogCollectionCo->get_Item(lCountCo - 1, (IDispatch**)
&pCatalogObjectCo);
    if (!SUCCEEDED(hr)) goto Error;
    // used for debugging (view the name)
    hr = pCatalogObjectCo->get_Name(&vTmp);

```

```

        if (!SUCCEEDED(hr)) goto Error;

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

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

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

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

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

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

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

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

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

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

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

            bstrTemp = "MethodsForInterface";

```

```

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

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

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

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

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

            pCatalogObjectMethod->Release();
            pCatalogObjectMethod = NULL;

            lCountMethod--;
        }

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

        pCatalogObjectItf->Release();
        pCatalogObjectItf = NULL;

        lCountItf--;
    }

    pCatalogObjectCo->Release();
    pCatalogObjectCo = NULL;

    lCountCo--;
}

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

pCatalogCollectionApp->Release();
pCatalogCollectionApp = NULL;

pCatalogCollectionCo->Release();
pCatalogCollectionCo = NULL;

pCatalogCollectionItf->Release();
pCatalogCollectionItf = NULL;

```

```

        pCatalogCollectionMethod->Release();
        pCatalogCollectionMethod = NULL;

Error:
        CoUninitialize();

        if (!SUCCEEDED(hr))
        {
                LPTSTR lpBuf;
                DWORD dwRes = FormatMessage(FORMAT_MESSAGE_ALLOCATE_BUFFER |
FORMAT_MESSAGE_FROM_SYSTEM,
                NULL,
                hr,
                MAKELANGID(LANG_NEUTRAL,  SUBLANG_DEFAULT),
                (LPTSTR) &lpBuf,
                0,
                NULL);
        //      _tprintf(_T("Error adding components. HRESULT: 0x%x\n%s"), hr,
lpBuf);
        }
        return TRUE;
    }
    else
        return FALSE;
}

```

install_resource.h

```

//{{NO_DEPENDENCIES}}
// Microsoft Developer Studio generated include file.
// Used by install.rc
//
#define IDD_DIALOG1          101
#define IDI_ICON1           102
#define IDR_TPCCDLL         103
#define IDD_DIALOG2        105
#define IDI_ICON2           106
#define IDR_DELIVERY        107
#define IDD_DIALOG3        108
#define IDR_LICENSE1       112
#define IDD_DIALOG4        113
#define IDR_TPCCOBJ1       117
#define IDR_TPCCSTUB1      118
#define IDR_DBLIB_DLL       122
#define IDR_ODBC_DLL        123
#define IDR_TUXEDO_APP      124
#define IDR_TUXEDO_DLL      125
#define IDR_COM_DLL         126
#define IDR_COMPS_DLL       127
#define IDR_COMALL_DLL      128
#define BN_LOG               1001
#define ED_KEEP              1002
#define ED_THREADS          1003
#define ED_THREADS2         1004
#define IDC_PATH            1007
#define IDC_VERSION         1009

```

```

#define IDC_RESULTS          1010
#define IDC_PROGRESS1       1011
#define IDC_STATUS          1012
#define IDC_BUTTON1         1013
#define ED_MAXCONNECTION    1014
#define ED_IIS_MAX_THREAD_POOL_LIMIT 1015
#define ED_MAXDELIVERIES    1016
#define ED_WEB_SERVICE_BACKLOG_QUEUE_SIZE 1017
#define ED_IIS_THREAD_TIMEOUT 1018
#define ED_IIS_LISTEN_BACKLOG 1019
#define IDC_DBLIB           1021
#define IDC_LICENSE         1022
#define IDC_ODBC            1022
#define IDC_CONNECT_POOL    1023
#define ED_DB_SERVER        1023
#define ED_USER_CONNECT_DELAY_TIME 1024
#define ED_DB_USER_ID       1024
#define IDC_MTS              1025
#define IDC_TM_MTS          1025
#define IDC_TM_TUXEDO       1026
#define IDC_TM_NONE         1027
#define ED_DB_PASSWORD      1028
#define ED_DB_NAME          1029
#define IDC_TM_ENCINA       1030

```

// Next default values for new objects

```

//
#ifdef APSTUDIO_INVOKED
#ifndef APSTUDIO_READONLY_SYMBOLS
#define _APS_NEXT_RESOURCE_VALUE        129
#define _APS_NEXT_COMMAND_VALUE        40001
#define _APS_NEXT_CONTROL_VALUE        1024
#define _APS_NEXT_SYMED_VALUE          101
#endif
#endif

```

isapi_dll.dsp

```

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

```

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

```

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

```

```

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

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

# PROP BASE Use_MFC 0
# PROP BASE Use_Debug_Libraries 0
# PROP BASE Output_Dir "Release"
# PROP BASE Intermediate_Dir "Release"
# PROP BASE Target_Dir ""
# PROP Use_MFC 0
# PROP Use_Debug_Libraries 0
# PROP Output_Dir ".\bin"
# PROP Intermediate_Dir ".\obj"
# PROP Ignore_Export_Lib 0
# PROP Target_Dir ""
# ADD BASE CPP /nologo /MT /W3 /GX /O2 /D "WIN32" /D "NDEBUG" /D "_WINDOWS" /YX /FD /c
# ADD CPP /nologo /MD /W3 /GX /O2 /D "NDEBUG" /D "WIN32" /D "_WINDOWS" /YX /FD /c
# ADD BASE MTL /nologo /D "NDEBUG" /mktyplib203 /o "NUL" /win32
# ADD MTL /nologo /D "NDEBUG" /mktyplib203 /o "NUL" /win32
# ADD BASE RSC /l 0x409 /d "NDEBUG"
# ADD RSC /l 0x409 /d "NDEBUG"
BSC32=bscmake.exe
# ADD BASE BSC32 /nologo
# ADD BSC32 /nologo
LINK32=link.exe
# ADD BASE LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbcc32.lib odbccp32.lib
/nologo /subsystem:windows /dll /machine:I386
# ADD LINK32 ..\common\txnlog\lib\release\spinlock.lib ..\common\txnlog\lib\release\rtetime.lib
..\common\txnlog\lib\release\spinlock.lib ..\common\txnlog\lib\release\error.lib
..\common\txnlog\lib\release\txnlog.lib wsock32.lib kernel32.lib user32.lib
gdi32.lib winspool.lib comdlg32.lib advapi32.lib shell32.lib ole32.lib oleaut32.lib
uuid.lib odbcc32.lib odbccp32.lib /nologo /subsystem:windows /dll /machine:I386
/nodfaultlib:"LIBCMT" /out:".bin\tpcc.dll"
# SUBTRACT LINK32 /nodfaultlib

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

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

```

```

# ADD RSC /l 0x409 /d "_DEBUG"
BSC32=bscmake.exe
# ADD BASE BSC32 /nologo
# ADD BSC32 /nologo
LINK32=link.exe
# ADD BASE LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbcc32.lib odbccp32.lib
/nologo /subsystem:windows /dll /debug /machine:I386 /pdbtype:sept
# ADD LINK32 ..\common\txnlog\lib\debug\spinlock.lib ..\common\txnlog\lib\debug\error.lib
..\common\txnlog\lib\debug\txnlog.lib wsock32.lib kernel32.lib user32.lib gdi32.lib
winspool.lib comdlg32.lib advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib
odbcc32.lib odbccp32.lib /nologo /subsystem:windows /dll /debug /machine:I386
/nodfaultlib:"LIBCMT" /out:".bin\tpcc.dll" /pdbtype:sept
# SUBTRACT LINK32 /profile /pdb:none /nodfaultlib

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

# PROP BASE Use_MFC 0
# PROP BASE Use_Debug_Libraries 1
# PROP BASE Output_Dir "isapi_dll"
# PROP BASE Intermediate_Dir "isapi_dll"
# PROP BASE Ignore_Export_Lib 0
# PROP BASE Target_Dir ""
# PROP Use_MFC 0
# PROP Use_Debug_Libraries 1
# PROP Output_Dir ".\bin"
# PROP Intermediate_Dir ".\obj"
# PROP Ignore_Export_Lib 0
# PROP Target_Dir ""
# ADD BASE CPP /nologo /MDd /W3 /GX /ZI /Od /D "_DEBUG" /D "WIN32" /D "_WINDOWS" /FR
/YX /FD /Gh /c
# ADD CPP /nologo /MD /W3 /GX /ZI /O2 /D "NDEBUG" /D "ICECAP" /D "WIN32" /D
"_WINDOWS" /FR /YX /FD /Gh /c
# ADD BASE MTL /nologo /D "_DEBUG" /mktyplib203 /o "NUL" /win32
# ADD MTL /nologo /D "_DEBUG" /mktyplib203 /o "NUL" /win32
# ADD BASE RSC /l 0x409 /d "_DEBUG"
# ADD RSC /l 0x409 /d "_DEBUG"
BSC32=bscmake.exe
# ADD BASE BSC32 /nologo
# ADD BSC32 /nologo
LINK32=link.exe
# ADD BASE LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbcc32.lib odbccp32.lib
/nologo /subsystem:windows /dll /debug /machine:I386 /out:".bin\tpcc.dll"
/pdbtype:sept
# SUBTRACT BASE LINK32 /profile /pdb:none
# ADD LINK32 icap.lib ..\common\txnlog\lib\release\rtetime.lib
..\common\txnlog\lib\release\spinlock.lib ..\common\txnlog\lib\release\error.lib
..\common\txnlog\lib\release\txnlog.lib wsock32.lib kernel32.lib user32.lib
gdi32.lib winspool.lib comdlg32.lib advapi32.lib shell32.lib ole32.lib oleaut32.lib
uuid.lib odbcc32.lib odbccp32.lib /nologo /subsystem:windows /dll /debug
/machine:I386 /out:".bin\tpcc.dll" /pdbtype:sept
# SUBTRACT LINK32 /profile /pdb:none /map

!ENDIF

# Begin Target

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

```

```

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

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

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

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

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

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

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

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

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

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

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

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

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

```

isapi_resource.h

```

//{{NO_DEPENDENCIES}}
// Microsoft Developer Studio generated include file.
// Used by tpcc.rc
//
#define IDD_DIALOG1 101

```

```

// Next default values for new objects
//
#ifdef APSTUDIO_INVOKED
#ifdef APSTUDIO_READONLY_SYMBOLS
#define _APS_NEXT_RESOURCE_VALUE 102
#define _APS_NEXT_COMMAND_VALUE 40001
#define _APS_NEXT_CONTROL_VALUE 1000
#define _APS_NEXT_SYMED_VALUE 101
#endif
#endif

```

rtetime.h

```

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

//FILE: RTETIME.H

#define MAX_JULIAN_TIME 0x7FFFFFFFFFFFFFFF
#define JULIAN_TIME __int64
#define TC_TIME DWORD
extern "C"
{
    BOOL InitJulianTime(LPSYSTEMTIME lpInitTime);
    JULIAN_TIME GetJulianTime(void);
    DWORD MyTickCount(void);
    void GetJulianAndTC(JULIAN_TIME *pJulian, DWORD *pTC);
    JULIAN_TIME ConvertTo64BitTime(int iYear, int iMonth, int iDay, int iHour,
    int iMinute, int iSecond);
    JULIAN_TIME Get64BitTime(LPSYSTEMTIME lpInitTime);
    int JulianDay( int yr, int mm, int dd );
    void JulianToTime(JULIAN_TIME julianTS, int* yr, int* mm, int* dd,
    int *hh, int *mi, int *ss );
    void JulianToCalendar( int day, int* yr, int* mm, int* dd );
}

```

spinlock.h

```

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

```

```

#ifndef _INC_Spinlock

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

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

class Spinlock
{
    // Private data.
    HANDLE          Semaphore;
    volatile LONG   m_Spinlock;
    volatile LONG   Waiting;

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

public:
    // Public functions.

    Spinlock( void );

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

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

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

```

```

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

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

inline BOOL Spinlock::ClaimLock( BOOL Wait )
{
    if ( ! ClaimSpinlock( (volatile LONG*) & m_Spinlock ) )
    {
        if ( Wait )
            WaitForLock();
        return Wait;
    }
    return TRUE;
}

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

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

#define _INC_Spinlock

#endif

```

tm_com_dll.dsp

```

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

```

```

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

```

```

CFG=tm_com_dll - Win32 Debug
!MESSAGE This is not a valid makefile. To build this project using NMAKE,
!MESSAGE use the Export Makefile command and run
!MESSAGE
!MESSAGE NMAKE /f "tm_com_dll.mak".
!MESSAGE

```



```

!MESSAGE You can specify a configuration when running NMAKE
!MESSAGE by defining the macro CFG on the command line. For example:
!MESSAGE
!MESSAGE NMAKE /f "tm_com_dll.mak" CFG="tm_com_dll - Win32 Debug"
!MESSAGE
!MESSAGE Possible choices for configuration are:
!MESSAGE
!MESSAGE "tm_com_dll - Win32 Release" (based on "Win32 (x86) Dynamic-Link Library")
!MESSAGE "tm_com_dll - Win32 Debug" (based on "Win32 (x86) Dynamic-Link Library")
!MESSAGE

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

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

# PROP BASE Use_MFC 0
# PROP BASE Use_Debug_Libraries 0
# PROP BASE Output_Dir "Release"
# PROP BASE Intermediate_Dir "Release"
# PROP BASE Target_Dir ""
# PROP Use_MFC 0
# PROP Use_Debug_Libraries 0
# PROP Output_Dir ".\bin"
# PROP Intermediate_Dir ".\obj"
# PROP Ignore_Export_Lib 0
# PROP Target_Dir ""
# ADD BASE CPP /nologo /MT /W3 /GX /O2 /D "WIN32" /D "NDEBUG" /D "_WINDOWS" /YX /FD /c
# ADD CPP /nologo /MD /W3 /GX /O2 /D "WIN32" /D "NDEBUG" /D "_WINDOWS" /YX /FD /c
# ADD BASE MTL /nologo /D "NDEBUG" /mktyplib203 /o "NUL" /win32
# ADD MTL /nologo /D "NDEBUG" /mktyplib203 /o "NUL" /win32
# ADD BASE RSC /l 0x409 /d "NDEBUG"
# ADD RSC /l 0x409 /d "NDEBUG"
BSC32=bscmake.exe
# ADD BASE BSC32 /nologo
# ADD BSC32 /nologo
LINK32=link.exe
# ADD BASE LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbcc32.lib odbccp32.lib
/nologo /subsystem:windows /dll /machine:I386
# ADD LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbcc32.lib odbccp32.lib
/nologo /subsystem:windows /dll /machine:I386 /out:".bin\tpcc_com.dll"

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

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

```

```

# ADD BASE CPP /nologo /MTd /W3 /Gm /GX /ZI /Od /D "WIN32" /D "_DEBUG" /D "_WINDOWS"
/YX /FD /c
# ADD CPP /nologo /MDd /W3 /Gm /GX /ZI /Od /D "WIN32" /D "_DEBUG" /D "_WINDOWS" /YX
/FD /c
# ADD BASE MTL /nologo /D "_DEBUG" /mktyplib203 /o "NUL" /win32
# ADD MTL /nologo /D "_DEBUG" /mktyplib203 /o "NUL" /win32
# ADD BASE RSC /l 0x409 /d "_DEBUG"
# ADD RSC /l 0x409 /d "_DEBUG"
BSC32=bscmake.exe
# ADD BASE BSC32 /nologo
# ADD BSC32 /nologo
LINK32=link.exe
# ADD BASE LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbcc32.lib odbccp32.lib
/nologo /subsystem:windows /dll /debug /machine:I386 /pdbtype:sept
# ADD LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbcc32.lib odbccp32.lib
/nologo /subsystem:windows /dll /debug /machine:I386 /out:".bin\tpcc_com.dll"
/pdbtype:sept

!ENDIF

# Begin Target

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

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

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



---


tpcc.cpp


---


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

#include <windows.h>
#include <process.h>
#include <tchar.h>
#include <stdio.h>
#include <stdarg.h>
#include <malloc.h>
#include <stdlib.h>

```

```

#include <string.h>
#include <time.h>
#include <sys\timeb.h>
#include <io.h>
#include <assert.h>

#include <sqltypes.h>

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

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

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

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

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

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

#define LEN_ERR_STRING 256

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

char szMyComputerName[MAX_COMPUTERNAME_LENGTH+1];

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

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

static CRITICAL_SECTION TermCriticalSection;

```

```

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

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

// For deferred Delivery txns:

CTxnLog //used to log delivery transaction information *txnDelilog = NULL;

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

// configuration settings from registry
TPCCREGISTRYDATA Reg;

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

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

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

BOOL WINAPI DllMain(HANDLE hModule, DWORD ul_reason_for_call, LPVOID lpReserved)
{

```

```

DWORD i;
char szEvent[LEN_ERR_STRING] = "\0";
char szLogFile[128];
char szDllName[128];

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

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

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

                TermInit();

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

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

```

```

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

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

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

                    // get function pointer
                    pCTPCC_DBLIB_new =
                    (TYPE_CTPCC_DBLIB*) GetProcAddress(hLibInstanceDb, "CTPCC_DBLIB_new");
                    if (pCTPCC_DBLIB_new ==
NULL)
                        throw new
CWEBCLNT_ERR( ERR_GETPROCADDR_FAILED, szDllName, GetLastError() );
                    }
                else if (Reg.eDB_Protocol == ODBC)
                {
                    strcpy( szDllName,
Reg.szPath );
                    strcat( szDllName,
"tpcc_odbc.dll");
                }
            }

```



```

        return FALSE;
    }
    return TRUE;
}

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

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

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

    return TRUE;
}

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

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

    TermDeleteAll();
    return TRUE;
}

/* FUNCTION: HttpExtensionProc
 *
 * PURPOSE:      This function is the main entry point for the TPCC DLL. The
 * internet service
 *
 * ARGUMENTS:    EXTENSION_CONTROL_BLOCK *pECB    structure pointer to
 * passed in internet

```

```

 *
 * service information.
 *
 * RETURNS:      DWORD    HSE_STATUS_SUCCESS
 * connection can be dropped if error
 *
 * HSE_STATUS_SUCCESS_AND_KEEP_CONN    keep connect valid comment sent
 *
 * COMMENTS:      None
 */

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

    int lpbSize;
    static char szHeader[] = "200 Ok"; // initial value is
    DWORD dwSize = 6;
    strlen(szHeader) char szHeader1[4096];

#ifdef ICECAP
    StartCAP();
#endif

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

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

                throw new CWEBCLNT_ERR( ERR_INVALID_TERMID
);
            }

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

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

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

```

```

case 1:
switch( FormId )
{
    case WELCOME_FORM:
    case MAIN_MENU_FORM:
        break;
    case NEW_ORDER_FORM:
        ProcessNewOrderForm(pECB, TermId,
szBuffer);
        break;
    case PAYMENT_FORM:
        ProcessPaymentForm(pECB, TermId,
szBuffer);
        break;
    case DELIVERY_FORM:
        ProcessDeliveryForm(pECB, TermId,
szBuffer);
        break;
    case ORDER_STATUS_FORM:
        ProcessOrderStatusForm(pECB,
TermId, szBuffer);
        break;
    case STOCK_LEVEL_FORM:
        ProcessStockLevelForm(pECB,
TermId, szBuffer);
        break;
}
break;
case 2:
// new-order selected from menu; display new-order
input form
MakeNewOrderForm(TermId, NULL, INPUT_FORM, szBuffer);
break;
case 3:
// payment selected from menu; display payment input
form
MakePaymentForm(TermId, NULL, INPUT_FORM, szBuffer);
break;
case 4:
// delivery selected from menu; display delivery input
form
MakeDeliveryForm(TermId, NULL, INPUT_FORM, szBuffer);
break;
case 5:
// order-status selected from menu; display order-
status input form
szBuffer);
MakeOrderStatusForm(TermId, NULL, INPUT_FORM,
break;
case 6:
// stock-level selected from menu; display stock-level
input form
szBuffer);
MakeStockLevelForm(TermId, NULL, INPUT_FORM,
break;
case 7:
// ExitCmd
TermDelete(TermId);
WelcomeForm(pECB, szBuffer);
break;
case 8:
SubmitCmd(pECB, szBuffer);
break;

```

```

case 9:
// menu
MakeMainMenuForm(TermId,
Term.pClientData[TermId].iSyncId, szBuffer);
break;
case 10:
// CMD=Clear
// resets all connections; should only be used when no
other connections are active
TermDeleteAll();
TermInit();
WelcomeForm(pECB, szBuffer);
break;
case 11:
// CMD=Stats
StatsCmd(pECB, szBuffer);
break;
}
}
catch (CBaseErr *e)
{
    ErrorForm( pECB, e->ErrorType(), e->ErrorNum(), TermId, iSyncId,
e->ErrorText(), szBuffer );
    delete e;
}
catch (...)
{
    ErrorForm( pECB, ERR_TYPE_WEBDLL, 0, TermId, iSyncId, "Error:
Unhandled exception in Web Client.", szBuffer );
}
#endif ICECAP
StopCAP();
#endif

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

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

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

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

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

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

```

```

lpszStrings[1] = lpszMsg;

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

    (VOID) DeregisterEventSource(hEventSource);
}
}

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

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

    DELIVERY_TRANSACTION delivery;
    PDELIVERY_DATA pDeliveryData;
    TXN_RECORD_TPCC_DELIV_DEF txnDeliRec;

    DWORD index;
    HANDLE handles[2];

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

    int iRetryCnt = 0;
    static int iMaxRetries = 10;

    assert(txnDeliRec != NULL);

Reconnect:
    try
    {
        if (Reg.eDB_Protocol == ODBC)
            pTxn = pCTPCC_ODBC_new( Reg.szDbServer, Reg.szDbUser,
Reg.szDbPassword, szMyComputerName, Reg.szDbName );
        else if (Reg.eDB_Protocol == DBLIB)

```

```

            pTxn = pCTPCC_DBLIB_new( Reg.szDbServer, Reg.szDbUser,
Reg.szDbPassword, szMyComputerName, Reg.szDbName );
        }
        catch (CBaseErr *e)
        {
            char szTmp[1024];
            wsprintf( szTmp, "Error in Delivery Txn thread. Could not
connect to database. "
                    "%s. Server=%s, User=%s, Password=%s,
Database=%s",
                    e->ErrorText(), Reg.szDbServer,
Reg.szDbUser, Reg.szDbPassword, Reg.szDbName );
            WriteMessageToEventLog( szTmp );
            delete e;

            // will retry connection up to ten times
            if (iRetryCnt++ < iMaxRetries)
            {
                Sleep(5000); // delay for 5 seconds
                goto Reconnect;
            }

            wsprintf( szTmp, "Delivery Txn thread terminating after %d
retries.", iMaxRetries );
            WriteMessageToEventLog( szTmp );
            goto ErrorExit;
        }
        catch (...)
        {
            WriteMessageToEventLog(TEXT("Unhandled exception caught in
DeliveryWorkerThread. Delivery Txn thread terminating."));
            goto ErrorExit;
        }
    }

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

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

                // make a local copy of current entry from
                delivery buffer and increment buffer index
                EnterCriticalSection(&DelBuffCriticalSection);
                delivery = *(pDelBuff+dwDelBuffBusyIndex);
                dwDelBuffFreeCount++;

```

```

                dwDelBuffBusyIndex++;
                if (dwDelBuffBusyIndex == dwDelBuffSize)
// wrap-around if at end of buffer
                    dwDelBuffBusyIndex = 0;

                LeaveCriticalSection(&DelBuffCriticalSection);

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

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

                txnDeliRec.TxnStartT0 =
Get64BitTime(&delivery.queue);

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

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

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

                if (txnDelilog != NULL)
                    txnDelilog-
>WriteToLog(&txnDeliRec);
            }
            catch (CBaseErr *e)
            {
                char szTmp[1024];
                sprintf( szTmp, "Error in Delivery Txn thread. %s",
e->ErrorText() );
                WriteMessageToEventLog( szTmp );

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

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

ErrorExit:
    delete pTxn;
    _endthread();

```

```

}

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

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

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

        dwDelBuffFreeCount--;
        dwDelBuffFreeIndex++;
        if (dwDelBuffFreeIndex == dwDelBuffSize)
            dwDelBuffFreeIndex = 0; // wrap-around

        if at end of buffer
        {
        }
        else
            // No free buffers. Return an error, which indicates that the
            // delivery buffer is full.
            // Most likely, the number of delivery worker threads needs to
            // be increased to keep up
            // with the txn rate.
            bError = TRUE;
        LeaveCriticalSection(&DelBuffCriticalSection);

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

        return bError;
    }
}

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

```



```

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

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

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

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

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

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

    // see which command it matches
    for(i=0; ; i++)
    {
        if (szCmds[i][0] == 0)
            // no more; no match; return error
            throw new CWEBCLNT_ERR( ERR_COMMAND_UNDEFINED );
        if ( !strcmp(szCmds[i], szBuffer) )
        {
            *pCmd = i+1;
            break;
        }
    }
}

/* FUNCTION: void WelcomeForm
 *
 */

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

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

    "<B><BIG>Microsoft TPC-C
Web Client (ver 4.20)</BIG></B> <BR> <BR>"

    "<font face=\"Courier
New\"><PRE>"

    "Compiled: " __DATE__ ",
    "Source: " __FILE__ "
    "</PRE></font>"
    "<FORM
    "<INPUT TYPE=\"hidden\"
    "<INPUT TYPE=\"hidden\"
    "<INPUT TYPE=\"hidden\"
    "<INPUT TYPE=\"hidden\"
    "<INPUT TYPE=\"hidden\"
    "<INPUT TYPE=\"hidden\"
    );
    sprintf( szTmp, "Configuration Settings: <BR><font face=\"Courier
New\" color=\"blue\"><PRE>"
    "Txn Monitor =
    "Database protocol =
    "Max Connections =
    "# of Delivery Threads =
    "Max Pending Deliveries =
    , szTxnMonNames[Reg.eTxnMon],
    szDBNames[Reg.eDB_Protocol],
    Reg.dwMaxConnections, dwNumDeliveryThreads,
    dwDelBuffSize );
    strcat( szBuffer, szTmp);
    if (Reg.eTxnMon == COM)
    {
        sprintf( szTmp, "COM Single Pool = <B>%s</B><BR>",
            Reg.bCOM_SinglePool ? "YES" : "NO" );
        strcat( szBuffer, szTmp);
    }
    strcat( szBuffer, "</PRE></font>");
    if (Reg.eTxnMon == None)
        // connection options may be specified when not using a txn
        monitor
        sprintf( szTmp, "Please enter your database options for this
connection:<BR>"
    "<font face=\"Courier
New\" color=\"blue\"><PRE>"
    "DB Server = <INPUT
    "DB User ID = <INPUT
    "DB Password = <INPUT
    "DB Name = <INPUT
    "</PRE></font>"
    , Reg.szDbServer, Reg.szDbUser,
    Reg.szDbPassword, Reg.szDbName );
}

```

```

(" __TIMESTAMP__ ") <BR>"
"Source: " __FILE__ "
"</PRE></font>"
"<FORM
ACTION=\"tpcc.dll\" METHOD=\"GET\">"
NAME=\"STATUSID\" VALUE=\"0\">"
NAME=\"ERROR\" VALUE=\"0\">"
NAME=\"FORMID\" VALUE=\"1\">"
NAME=\"TERMIID\" VALUE=\"0\">"
NAME=\"SYNCID\" VALUE=\"0\">"
NAME=\"VERSION\" VALUE=\" " WEBCLIENT_VERSION "\">"
);
    sprintf( szTmp, "Configuration Settings: <BR><font face=\"Courier
New\" color=\"blue\"><PRE>"
    "Txn Monitor =
    "Database protocol =
    "Max Connections =
    "# of Delivery Threads =
    "Max Pending Deliveries =
    , szTxnMonNames[Reg.eTxnMon],
    szDBNames[Reg.eDB_Protocol],
    Reg.dwMaxConnections, dwNumDeliveryThreads,
    dwDelBuffSize );
    strcat( szBuffer, szTmp);
    if (Reg.eTxnMon == COM)
    {
        sprintf( szTmp, "COM Single Pool = <B>%s</B><BR>",
            Reg.bCOM_SinglePool ? "YES" : "NO" );
        strcat( szBuffer, szTmp);
    }
    strcat( szBuffer, "</PRE></font>");
    if (Reg.eTxnMon == None)
        // connection options may be specified when not using a txn
        monitor
        sprintf( szTmp, "Please enter your database options for this
connection:<BR>"
    "<font face=\"Courier
New\" color=\"blue\"><PRE>"
    "DB Server = <INPUT
    "DB User ID = <INPUT
    "DB Password = <INPUT
    "DB Name = <INPUT
    "</PRE></font>"
    , Reg.szDbServer, Reg.szDbUser,
    Reg.szDbPassword, Reg.szDbName );
}

```

```

else
    // if using a txn monitor, connection options are determined
    from registry; can't
    // set per user. show options fyi
    sprintf( szTmp, "Database options which will be used by the
transaction monitor:<BR>"
New" color=\ "blue\ "><PRE>"
                                "<font face=\ "Courier
                                "DB Server
                                "DB User ID
                                "DB Password
                                "DB Name
                                "</PRE></font>"
                                , Reg.szDbServer, Reg.szDbUser,
Reg.szDbPassword, Reg.szDbName );
    strcat( szBuffer, szTmp);

    sprintf( szTmp, "Please enter your Warehouse and District for this
session:<BR>"
                                "<font face=\ "Courier New\ "
color=\ "blue\ "><PRE>" );
    strcat( szBuffer, szTmp);
    strcat( szBuffer, "Warehouse ID = <INPUT NAME=\ "w_id\ " SIZE=6><BR>"
NAME=\ "d_id\ " SIZE=2><BR>"
                                "District ID = <INPUT
                                "</PRE></font><HR>"
                                "<INPUT TYPE=\ "submit\ "
NAME=\ "CMD\ " VALUE=\ "Submit\ ">"
                                "</FORM></BODY></HTML>");
}
/* FUNCTION: SubmitCmd
*
* PURPOSE: This function allocated a new terminal id in the Term structure
array.
*
*/
void SubmitCmd(EXTENSION_CONTROL_BLOCK *pECB, char *szBuffer)
{
    int iNewTerm;
    char *ptr = pECB->lpszQueryString;

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

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

    if (Reg.eTxnMon == None)
    {

```

```

                                // parse Server name
                                GetKeyValue(&ptr, "db_server", szServer, sizeof(szServer),
ERR_NO_SERVER_SPECIFIED);
                                // parse User name
                                GetKeyValue(&ptr, "db_user", szUser, sizeof(szUser), NO_ERR);
                                // parse Password
                                GetKeyValue(&ptr, "db_passwd", szPassword, sizeof(szPassword),
NO_ERR);
                                // parse Database name
                                GetKeyValue(&ptr, "db_name", szDatabase, sizeof(szDatabase),
NO_ERR);
                                }

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

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

                                iNewTerm = TermAdd();

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

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

                                MakeMainMenuForm(iNewTerm, Term.pClientData[iNewTerm].iSyncId, szBuffer);
}
/* FUNCTION: StatsCmd
*
* PURPOSE: This function returns to the browser the total number of active
terminal ids.
*
* This routine is for development/debugging purposes.
*
*/

```

```

void StatsCmd(EXTENSION_CONTROL_BLOCK *pECB, char *szBuffer)
{
    int i;
    int iTotal;

    EnterCriticalSection(&TermCriticalSection);

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

    LeaveCriticalSection(&TermCriticalSection);

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

char *CWEBCLNT_ERR::ErrorText()
{
    static SERRORMSG errorMsgs[] =
    {
        { ERR_COMMAND_UNDEFINED,
          "Command undefined." },
        { ERR_D_ID_INVALID,
          "Invalid District ID Must be 1 to 10." },
        { ERR_DELIVERY_CARRIER_ID_RANGE,
          "Delivery Carrier ID out of range must be 1 - 10." },
        { ERR_DELIVERY_CARRIER_INVALID,
          "Delivery Carrier ID invalid must be numeric 1 - 10." },
        { ERR_DELIVERY_MISSING_OCD_KEY,
          "Delivery missing Carrier ID key \"OCD*\"." },
        { ERR_DELIVERY_THREAD_FAILED,
          "Could not start delivery worker thread." },
        { ERR_GETPROCADDR_FAILED,
          "Could not map proc in DLL. GetProcAddr error. DLL=" },
        { ERR_HTML_ILL_FORMED,
          "Required key field is missing from HTML string." },
        { ERR_INVALID_SYNC_CONNECTION,
          "Invalid Terminal Sync ID." },
        { ERR_INVALID_TERMID,
          "Invalid Terminal ID." },
        { ERR_LOADDLL_FAILED,
          "Load of DLL failed. DLL=" },
    },
}

```

```

{
    { ERR_MAX_CONNECTIONS_EXCEEDED,
      "connections available. Max Connections is probably too low." },
    { ERR_MISSING_REGISTRY_ENTRIES,
      "Required registry entries are missing. Rerun INSTALL to correct." },
    { ERR_NEWORDER_CUSTOMER_INVALID,
      "New Order customer id invalid data type, range = 1 to 3000." },
    { ERR_NEWORDER_CUSTOMER_KEY,
      "New Order missing Customer key \"CID*\"." },
    { ERR_NEWORDER_DISTRICT_INVALID,
      "New Order District ID Invalid range 1 - 10." },
    { ERR_NEWORDER_FORM_MISSING_DID,
      "New Order missing District key \"DID*\"." },
    { ERR_NEWORDER_ITEMID_INVALID,
      "Order Item Id is wrong data type, must be numeric." },
    { ERR_NEWORDER_ITEMID_RANGE,
      "New Order Item Id is out of range. Range = 1 to 999999." },
    { ERR_NEWORDER_ITEMID_WITHOUT_SUPPW,
      "Order Item_Id field entered without a corresponding Supp_W." },
    { ERR_NEWORDER_MISSING_IID_KEY,
      "Order missing Item Id key \"IID*\"." },
    { ERR_NEWORDER_MISSING_QTY_KEY,
      "Order Missing Qty key \"Qty##*\"." },
    { ERR_NEWORDER_MISSING_SUPPW_KEY,
      "New Order missing Supp_W key \"SP##*\"." },
    { ERR_NEWORDER_NOITEMS_ENTERED,
      "Order No order lines entered." },
    { ERR_NEWORDER_QTY_INVALID,
      "New Order Qty invalid must be numeric range 1 - 99." },
    { ERR_NEWORDER_QTY_RANGE,
      "New Order Qty is out of range. Range = 1 to 99." },
    { ERR_NEWORDER_QTY_WITHOUT_SUPPW,
      "New Order Qty field entered without a corresponding Supp_W." },
    { ERR_NEWORDER_SUPPW_INVALID,
      "New Order Supp_W invalid data type must be numeric." },
    { ERR_NO_SERVER_SPECIFIED,
      "No Server name specified." },
    { ERR_ORDERSTATUS_CID_AND_CLT,
      "Order Status Only Customer ID or Last Name may be entered, not both." },
    { ERR_ORDERSTATUS_CID_INVALID,
      "Order Status Customer ID invalid, range must be numeric 1 - 3000." },
    { ERR_ORDERSTATUS_CLT_RANGE,
      "Order Status Customer last name longer than 16 characters." },
    { ERR_ORDERSTATUS_DID_INVALID,
      "Order Status District invalid, value must be numeric 1 - 10." },
}

```

```

        {
            ERR_ORDERSTATUS_MISSING_CID_CLT,
"Order Status Either Customer ID or Last Name must be entered."
        },
        {
            ERR_ORDERSTATUS_MISSING_CID_KEY,
"Order Status missing Customer key \"CID*\"."
        },
        {
            ERR_ORDERSTATUS_MISSING_CLT_KEY,
"Order Status missing Customer Last Name key \"CLT*\"."
        },
        {
            ERR_ORDERSTATUS_MISSING_DID_KEY,
"Order Status missing District key \"DID*\"."
        },
        {
            ERR_PAYMENT_CDI_INVALID,
"Payment Customer district invalid must be numeric."
        },
        {
            ERR_PAYMENT_CID_AND_CLT,
"Payment Only Customer ID or Last Name may be entered, not both."
        },
        {
            ERR_PAYMENT_CUSTOMER_INVALID,
"Payment Customer data type invalid, must be numeric."
        },
        {
            ERR_PAYMENT_CWI_INVALID,
"Payment Customer Warehouse invalid, must be numeric."
        },
        {
            ERR_PAYMENT_DISTRICT_INVALID,
"Payment District ID is invalid, must be 1 - 10."
        },
        {
            ERR_PAYMENT_HAM_INVALID,
"Payment Amount invalid data type must be numeric."
        },
        {
            ERR_PAYMENT_HAM_RANGE,
"Payment Amount out of range, 0 - 9999.99."
        },
        {
            ERR_PAYMENT_LAST_NAME_TOO_LONG,
"Payment Customer last name longer than 16 characters."
        },
        {
            ERR_PAYMENT_MISSING_CDI_KEY,
"Payment missing Customer district key \"CDI*\"."
        },
        {
            ERR_PAYMENT_MISSING_CID_CLT,
"Payment Either Customer ID or Last Name must be entered."
        },
        {
            ERR_PAYMENT_MISSING_CID_KEY,
"Payment missing Customer Key \"CID*\"."
        },
        {
            ERR_PAYMENT_MISSING_CLT_KEY,
"Payment missing Customer Last Name key \"CLT*\"."
        },
        {
            ERR_PAYMENT_MISSING_CWI_KEY,
"Payment missing Customer Warehouse key \"CWI*\"."
        },
        {
            ERR_PAYMENT_MISSING_DID_KEY,
"Payment missing District Key \"DID*\"."
        },
        {
            ERR_PAYMENT_MISSING_HAM_KEY,
"Payment missing Amount key \"HAM*\"."
        },
        {
            ERR_STOCKLEVEL_MISSING_THRESHOLD_KEY,
missing Threshold key \"TT*\".
            "Stock Level;
        },
        {
            ERR_STOCKLEVEL_THRESHOLD_INVALID,
"Stock Level; Threshold value must be in the range = 1 - 99."
        },
    },

```

```

        {
            ERR_STOCKLEVEL_THRESHOLD_RANGE,
"Stock Level Threshold out of range, range must be 1 - 99."
        },
        {
            ERR_VERSION_MISMATCH,
"Invalid version field. RTE and Web Client are probably out of
sync."
        },
        {
            ERR_W_ID_INVALID,
"Invalid Warehouse ID."
        },
    },
    {
        0,
        ""
    }
};

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

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

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

/* FUNCTION: GetKeyValue
 *
 * PURPOSE:          This function parses a http formatted string for specific key
                    values.
 *
 * ARGUMENTS:       char          *pQueryString      http string
                    from client browser
                    char          *pKey              key value to look for
                    char          *pValue           character array into which to place key's value
                    int           iMax              maximum length of key value array.
                    WEBERROR      err               error value to throw
 *
 * RETURNS:         nothing.
 *
 * ERROR:           if (the pKey value is not found) then
                    if (err == 0)

```

```

*
*                                     return (empty string)
*
*                                     else
*                                     throw CWEBCLNT_ERR(err)
*
* COMMENTS:      http keys are formatted either KEY=value& or KEY=value\0. This
DLL formats
*
*                                     TPC-C input fields in such a manner that the
keys can be extracted in the
*                                     above manner.
*/

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

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

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

    *pQueryString = ptr;
    return;

ErrorExit:
    if (err != NO_ERR)
        throw new CWEBCLNT_ERR( err );
    *pValue = 0; // return empty result string
}

/* FUNCTION: GetIntKeyValue
*
* PURPOSE:      This function parses a http formatted string for a specific key
value.
*
* ARGUMENTS:   char          *pQueryString      http string
from client browser
*
*               char          *pKey
key value to look for
*
*               WEBERROR      NoKeyErr
error value to throw if key not found
*
*               WEBERROR      NotIntErr
error value to throw if value not numeric
*
* RETURNS:     integer
*
* ERROR:       if (the pKey value is not found) then
*               if (NoKeyErr != NO_ERR)
*                   throw CWEBCLNT_ERR(err)
*               else
*                   return 0
*               else if (non-numeric char found) then
*                   if (NotIntErr != NO_ERR) then

```

```

*
*                                     throw CWEBCLNT_ERR(err)
*
*                                     else
*                                     return 0
*
* COMMENTS:      http keys are formatted either KEY=value& or KEY=value\0. This
DLL formats
*
*                                     TPC-C input fields in such a manner that the
keys can be extracted in the
*                                     above manner.
*/

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

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

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

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

    *pQueryString = ptr;
    return atoi(ptr0);

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

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

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

    Term.iMasterSyncId = 1;
    Term.iNumEntries = Reg.dwMaxConnections+1;
    Term.pClientData = NULL;
}

```

```

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

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

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

        LeaveCriticalSection(&TermCriticalSection);
    }

/* FUNCTION: TermDeleteAll
 *
 * PURPOSE: This function frees allocated resources associated with the
terminal structure.
 *
 * ARGUMENTS: none
 *
 * RETURNS: None
 *
 * COMMENTS: This function is called only when the inet service unloads the
TPCC.DLL
 *
 */
void TermDeleteAll(void)
{
    EnterCriticalSection(&TermCriticalSection);

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

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

    LeaveCriticalSection(&TermCriticalSection);
}

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

```

```

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

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

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

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

    LeaveCriticalSection(&TermCriticalSection);
    return iNewTerm;
}

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

```

```

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

        // put onto free list
        EnterCriticalSection(&TermCriticalSection);

        Term.pClientData[id].iNextFree = Term.iFreeList;
        Term.iFreeList = id;

        LeaveCriticalSection(&TermCriticalSection);
    }
}

/* FUNCTION: MakeErrorForm
*/

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

/* FUNCTION: MakeMainMenuForm
*/

void MakeMainMenuForm(int iTermId, int iSyncId, char *szForm)
{
    wsprintf(szForm,
        "<HTML><HEAD><TITLE>TPC-C Main Menu</TITLE></HEAD><BODY>"
        "Select Desired Transaction.<BR><HR>"
        "<FORM ACTION=\"tpcc.dll\" METHOD=\"GET\">"
        "<INPUT TYPE=\"hidden\" NAME=\"STATUSID\" VALUE=\"0\">"
        "<INPUT TYPE=\"hidden\" NAME=\"ERROR\" VALUE=\"0\">"
        "<INPUT TYPE=\"hidden\" NAME=\"FORMID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\" NAME=\"TERMID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\" NAME=\"SYNCID\" VALUE=\"%d\">"
        "<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..\">"
        "</FORM></BODY></HTML>"
        , MAIN_MENU_FORM, iTermId, iSyncId);
}

/* FUNCTION: MakeStockLevelForm
*
* PURPOSE: This function constructs the Stock Level HTML page.
*
* COMMENTS: The internal client buffer is created when the terminal id is
            assigned and should not
            be freed except when the client terminal id
            is no longer needed.
*/

void MakeStockLevelForm(int iTermId, STOCK_LEVEL_DATA *pStockLevelData, BOOL bInput,
char *szForm)
{
    int c;

    c = wsprintf(szForm,
        "<HTML><HEAD><TITLE>TPC-C Stock Level</TITLE></HEAD><FORM
ACTION=\"tpcc.dll\" METHOD=\"GET\">"
        "<INPUT TYPE=\"hidden\" NAME=\"STATUSID\" VALUE=\"0\">"
        "<INPUT TYPE=\"hidden\" NAME=\"ERROR\" VALUE=\"0\">"
        "<INPUT TYPE=\"hidden\" NAME=\"FORMID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\" NAME=\"TERMID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\" NAME=\"SYNCID\" VALUE=\"%d\">"
        "<PRE><font face=\"Courier\">"
        "Stock-Level<BR>"
        "Warehouse: %6.6d District: %2.2d<BR> <BR>",
        STOCK_LEVEL_FORM, iTermId, Term.pClientData[iTermId].iSyncId,
        Term.pClientData[iTermId].w_id, Term.pClientData[iTermId].d_id);

    if ( bInput )
    {
        strcpy(szForm+c,
            "Stock Level Threshold: <INPUT NAME=\"TT*\"
SIZE=2><BR> <BR>"
            "low stock: </font><BR> <BR> <BR> <BR> <BR> <BR>"
            "<BR> <BR> <BR> <BR>"
            " <BR> <BR> <BR> <BR> <BR> <BR> <BR></PRE><HR>"
            "<INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"Process\">"
            "<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"Menu\">"
            "</FORM></HTML>" );
    }
    else
    {
        wsprintf(szForm+c,
            "Stock Level Threshold: %2.2d<BR> <BR>"
            "low stock: %3.3d</font> <BR> <BR> <BR> <BR> <BR> <BR>"
            "<BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR></PRE><HR>"
            "<INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"..NewOrder..\">"
            "<INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"..Payment..\">"
            "<INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"..Delivery..\">"

```

```

Status..\>"                "<INPUT TYPE="submit" NAME="CMD" VALUE="..Order-
Level..\>"                "<INPUT TYPE="submit" NAME="CMD" VALUE="..Stock-
VALUE="..Exit..\>"        "<INPUT TYPE="submit" NAME="CMD"
                                "</FORM></HTML>"
                                , pStockLevelData->threshold, pStockLevelData-
>low_stock);
    }
}

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

void MakeNewOrderForm(int iTermId, NEW_ORDER_DATA *pNewOrderData, BOOL bInput, char
*szForm)
{
    int          i, c;
    BOOL         bValid;
    static char  szBR[] = " <BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR>
<BR> <BR> <BR> <BR> <BR> <BR>";
    if (!bInput)
        assert( pNewOrderData->exec_status_code == eOK || pNewOrderData-
>exec_status_code == eInvalidItem );
    bValid = (bInput || (pNewOrderData->exec_status_code == eOK));
    c = sprintf(szForm,
        "<HTML><HEAD><TITLE>TPC-C New Order</TITLE></HEAD><BODY>"
        "<FORM ACTION=\"tpcc.dll\" METHOD=\"GET\">"
        "<INPUT TYPE=\"hidden\" NAME=\"STATUSID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\" NAME=\"ERROR\" VALUE=\"0\">"
        "<INPUT TYPE=\"hidden\" NAME=\"FORMID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\" NAME=\"TERMINID\" VALUE=\"%d\">"
        "<INPUT TYPE=\"hidden\" NAME=\"SYNCID\" VALUE=\"%d\">"
        "<PRE><font face=\"Courier\">"
New Order<BR>"
        , bValid ? 0 : ERR_BAD_ITEM_ID, NEW_ORDER_FORM, iTermId,
Term.pClientData[iTermId].iSyncId);
    if ( bInput )
    {
        c += sprintf(szForm+c, "Warehouse: %6.6d ",
Term.pClientData[iTermId].w_id );
        strcpy( szForm+c,
        "District: <INPUT NAME=\"DID*\" SIZE=1>"
Date:<BR>"
        "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>"

```

```

NAME="IID00*" SIZE=6>    "<INPUT NAME="SP00*" SIZE=4> <INPUT
SIZE=1><BR>"            <INPUT NAME="Qty00*"
NAME="IID01*" SIZE=6>    "<INPUT NAME="SP01*" SIZE=4> <INPUT
SIZE=1><BR>"            <INPUT NAME="Qty01*"
NAME="IID02*" SIZE=6>    "<INPUT NAME="SP02*" SIZE=4> <INPUT
SIZE=1><BR>"            <INPUT NAME="Qty02*"
NAME="IID03*" SIZE=6>    "<INPUT NAME="SP03*" SIZE=4> <INPUT
SIZE=1><BR>"            <INPUT NAME="Qty03*"
NAME="IID04*" SIZE=6>    "<INPUT NAME="SP04*" SIZE=4> <INPUT
SIZE=1><BR>"            <INPUT NAME="Qty04*"
NAME="IID05*" SIZE=6>    "<INPUT NAME="SP05*" SIZE=4> <INPUT
SIZE=1><BR>"            <INPUT NAME="Qty05*"
NAME="IID06*" SIZE=6>    "<INPUT NAME="SP06*" SIZE=4> <INPUT
SIZE=1><BR>"            <INPUT NAME="Qty06*"
NAME="IID07*" SIZE=6>    "<INPUT NAME="SP07*" SIZE=4> <INPUT
SIZE=1><BR>"            <INPUT NAME="Qty07*"
NAME="IID08*" SIZE=6>    "<INPUT NAME="SP08*" SIZE=4> <INPUT
SIZE=1><BR>"            <INPUT NAME="Qty08*"
NAME="IID09*" SIZE=6>    "<INPUT NAME="SP09*" SIZE=4> <INPUT
SIZE=1><BR>"            <INPUT NAME="Qty09*"
NAME="IID10*" SIZE=6>    "<INPUT NAME="SP10*" SIZE=4> <INPUT
SIZE=1><BR>"            <INPUT NAME="Qty10*"
NAME="IID11*" SIZE=6>    "<INPUT NAME="SP11*" SIZE=4> <INPUT
SIZE=1><BR>"            <INPUT NAME="Qty11*"
NAME="IID12*" SIZE=6>    "<INPUT NAME="SP12*" SIZE=4> <INPUT
SIZE=1><BR>"            <INPUT NAME="Qty12*"
NAME="IID13*" SIZE=6>    "<INPUT NAME="SP13*" SIZE=4> <INPUT
SIZE=1><BR>"            <INPUT NAME="Qty13*"
NAME="IID14*" SIZE=6>    "<INPUT NAME="SP14*" SIZE=4> <INPUT
SIZE=1><BR>"            <INPUT NAME="Qty14*"
Total:<BR>"            "Execution Status:
VALUE="Process">"        "</font></PRE><HR>"
                                "<INPUT TYPE="submit" NAME="CMD"
                                "<INPUT TYPE="submit" NAME="CMD" VALUE="Menu">"
                                "</FORM></HTML>"
                                );
                                }
                                else
                                {
                                    c += sprintf(szForm+c, "Warehouse: %6.6d District: %2.2d
Date: ",
                                        pNewOrderData->w_id,
                                        pNewOrderData->d_id);
                                if ( bValid )
                                {

```



```

                c += wsprintf(szForm+c, "%2.2d-%2.2d-%4.4d
%2.2d:%2.2d:%2.2d",
                pNewOrderData->o_entry_d.day,
                pNewOrderData->o_entry_d.month,
                pNewOrderData->o_entry_d.year,
                pNewOrderData->o_entry_d.hour,
                pNewOrderData->o_entry_d.minute,
                pNewOrderData->o_entry_d.second);
            }
        c += wsprintf(szForm+c, "<BR>Customer: %4.4d Name: %-16s
Credit: %-2s ",
        pNewOrderData->c_id, pNewOrderData->c_last,
pNewOrderData->c_credit);
        if ( bValid )
        {
            c += sprintf(szForm+c,
                "%Disc: %5.2f
<BR>"
                "Order Number: %8.8d
Number of Lines: %2.2d W_tax: %5.2f D_tax: %5.2f <BR> <BR>"
                " Supp_W Item_Id Item
Name Qty Stock B/G Price Amount<BR>",
                100.0*pNewOrderData->c_discount,
                pNewOrderData->o_id,
                pNewOrderData->o_ol_cnt,
                100.0 * pNewOrderData->w_tax,
                100.0 * pNewOrderData->d_tax);
            for(i=0; i<pNewOrderData->o_ol_cnt; i++)
            {
                c += sprintf(szForm+c, "%6.6d %6.6d %-
24s %2.2d %3.3d %1.1s %$6.2f %$7.2f <BR>",
                pNewOrderData-
                pNewOrderData->OL[i].ol_i_id,
                pNewOrderData->OL[i].ol_i_name,
                pNewOrderData->OL[i].ol_quantity,
                pNewOrderData->OL[i].ol_stock,
                pNewOrderData-
                pNewOrderData->OL[i].ol_i_price,
                pNewOrderData->OL[i].ol_amount );
            }
        }
        else
        {
            c += wsprintf(szForm+c,
                "%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>"
                , pNewOrderData->o_id);
            i = 0;
        }
        strncpy( szForm+c, szBR, (15-i)*5 );
        c += (15-i)*5;
        if ( bValid )

```

```

committed.
        c += sprintf(szForm+c, "Execution Status: Transaction
Total: %$8.2f ",
        pNewOrderData->total_amount);
    else
        c += wsprintf(szForm+c, "Execution Status: Item number
Total:");
    strcpy(szForm+c,
        "<BR></font></PRE><HR>"
        "<INPUT TYPE=\\"submit\\" NAME=\\"CMD\\"
VALUE=\\"..NewOrder..\\>"
        "<INPUT TYPE=\\"submit\\" NAME=\\"CMD\\"
VALUE=\\"..Payment..\\>"
        "<INPUT TYPE=\\"submit\\" NAME=\\"CMD\\"
VALUE=\\"..Delivery..\\>"
        "<INPUT TYPE=\\"submit\\" NAME=\\"CMD\\" VALUE=\\"..Order-
Status..\\>"
        "<INPUT TYPE=\\"submit\\" NAME=\\"CMD\\" VALUE=\\"..Stock-
Level..\\>"
        "<INPUT TYPE=\\"submit\\" NAME=\\"CMD\\"
VALUE=\\"..Exit..\\>"
        "</FORM></HTML>"
    );
}
}
/* FUNCTION: MakePaymentForm
*
* COMMENTS: The internal client buffer is created when the terminal id is
assigned and should not
* be freed except when the client terminal id
is no longer needed.
*/
void MakePaymentForm(int iTermId, PAYMENT_DATA *pPaymentData, BOOL bInput, char
*szForm)
{
    int c;
    c = wsprintf(szForm,
        "<HTML><HEAD><TITLE>TPC-C Payment</TITLE></HEAD><BODY>"
        "<FORM ACTION=\\"tpcc.dll\\" METHOD=\\"GET\\">"
        "<INPUT TYPE=\\"hidden\\" NAME=\\"STATUSID\\" VALUE=\\"0\\">"
        "<INPUT TYPE=\\"hidden\\" NAME=\\"ERROR\\" VALUE=\\"0\\">"
        "<INPUT TYPE=\\"hidden\\" NAME=\\"FORMID\\" VALUE=\\"%d\\">"
        "<INPUT TYPE=\\"hidden\\" NAME=\\"TERMINID\\" VALUE=\\"%d\\">"
        "<INPUT TYPE=\\"hidden\\" NAME=\\"SYNCID\\" VALUE=\\"%d\\">"
        "<PRE><font face=\\"Courier\\">
Payment<BR>"
        "Date: "
        , PAYMENT_FORM, iTermId, Term.pClientData[iTermId].iSyncId);
    if ( !bInput )
    {
        c += wsprintf(szForm+c, "%2.2d-%2.2d-%4.4d %2.2d:%2.2d:%2.2d",
        pPaymentData->h_date.day,
        pPaymentData->h_date.month,
        pPaymentData->h_date.year,
        pPaymentData->h_date.hour,
        pPaymentData->h_date.minute,
        pPaymentData->h_date.second);
    }
}

```

```

if ( bInput )
{
    c += sprintf(szForm+c,
        "<BR> <BR>Warehouse: %6.6d"
        " District: <INPUT
NAME=\"DID*\" SIZE=1><BR> <BR> <BR> <BR>"
        "Customer: <INPUT NAME=\"CID*\" SIZE=4>"
        "Cust-Warehouse: <INPUT NAME=\"CWI*\" SIZE=4> "
        "Cust-District: <INPUT NAME=\"CDI*\" SIZE=1><BR>"
        "Name: <INPUT NAME=\"CLT*\"
SIZE=16> Since:<BR>"
        "
Credit:<BR>"
        "
Disc:<BR>"
        "
Phone:<BR> <BR>"
        "Amount Paid: %<INPUT NAME=\"HAM*\" SIZE=7>
New Cust-Balance:<BR>"
        "Credit Limit:<BR> <BR>Cust-Data: <BR> <BR> <BR> <BR>
<BR></font></PRE><HR>"
        "<INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"Process\"><INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"Menu\">"
        "</BODY></FORM></HTML>"
        , Term.pClientData[iTermId].w_id);
    }
else
{
    c += sprintf(szForm+c,
        "<BR> <BR>Warehouse: %6.6d
District: %2.2d<BR>"
        "%-20s %-20s<BR>"
        "%-20s %-20s<BR>"
        "%-20s %-2s %5.5s-%4.4s %-20s %-2s %5.5s-
%4.4s<BR> <BR>"
        "Customer: %4.4d Cust-Warehouse: %6.6d Cust-
District: %2.2d<BR>"
        "Name: %-16s %-2s %-16s Since: %2.2d-%2.2d-
%4.4d<BR>"
        " %-20s Credit: %-2s<BR>"
        , Term.pClientData[iTermId].w_id, pPaymentData->d_id
        , pPaymentData->w_street_1, pPaymentData->d_street_1
        , pPaymentData->w_street_2, pPaymentData->d_street_2
        , pPaymentData->w_city, pPaymentData->w_state,
pPaymentData->w_zip, pPaymentData->w_zip+5
        , pPaymentData->d_city, pPaymentData->d_state,
pPaymentData->d_zip, pPaymentData->d_zip+5
        , pPaymentData->c_id, pPaymentData->c_w_id,
pPaymentData->c_d_id
        , pPaymentData->c_first, pPaymentData->c_middle,
pPaymentData->c_last
        , pPaymentData->c_since.day, pPaymentData-
>c_since.month, pPaymentData->c_since.year
        , pPaymentData->c_street_1, pPaymentData->c_credit
        );
    c += sprintf(szForm+c,
        " %-20s %%Disc:
%5.2f<BR>",
        pPaymentData->c_street_2, 100.0*pPaymentData-
>c_discount);
}
}

```

```

c += sprintf(szForm+c,
    " %-20s %-2s %5.5s-%4.4s Phone: %6.6s-
%3.3s-%3.3s-%4.4s<BR> <BR>",
    pPaymentData->c_city, pPaymentData->c_state,
pPaymentData->c_zip, pPaymentData->c_zip+5,
    pPaymentData->c_phone, pPaymentData->c_phone+6,
pPaymentData->c_phone+9, pPaymentData->c_phone+12 );
c += sprintf(szForm+c,
    "Amount Paid: %7.2f New Cust-Balance:
%14.2f<BR>"
    "Credit Limit: %13.2f<BR> <BR>"
    , pPaymentData->h_amount, pPaymentData->c_balance
    , pPaymentData->c_credit_lim
    );
if ( pPaymentData->c_credit[0] == 'B' && pPaymentData-
>c_credit[1] == 'C' )
c += sprintf(szForm+c,
    "Cust-Data: %-50.50s<BR>
%-50.50s<BR> %-50.50s<BR> %-50.50s<BR>",
    pPaymentData->c_data,
pPaymentData->c_data+50, pPaymentData->c_data+100, pPaymentData->c_data+150 );
else
    strcpy(szForm+c, "Cust-Data: <BR> <BR> <BR> <BR>");
strcat(szForm, " <BR></font></PRE><HR>"
    " <INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..NewOrder..\">"
    " <INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Payment..\">"
    " <INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Delivery..\">"
    " <INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Order-Status..\">"
    " <INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Stock-Level..\">"
    " <INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Exit..\">"
    "</BODY></FORM></HTML>");
}
/* FUNCTION: MakeOrderStatusForm
*
* COMMENTS: The internal client buffer is created when the terminal id is
assigned and should not
* be freed except when the client terminal id
is no longer needed.
*/
void MakeOrderStatusForm(int iTermId, ORDER_STATUS_DATA *pOrderStatusData, BOOL
bInput, char *szForm)
{
    int i, c;
    static char szBR[] = " <BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR>
<BR> <BR> <BR> <BR> <BR>";
    c = sprintf(szForm,
        "<HTML><HEAD><TITLE>TPC-C Order-Status</TITLE></HEAD><BODY>"
        "<FORM ACTION=\"tpcc.dll\" METHOD=\"GET\">"

```

```

" <INPUT TYPE=\ "hidden\ " NAME=\ "STATUSID\ " VALUE=\ "0\ ">
" <INPUT TYPE=\ "hidden\ " NAME=\ "ERROR\ " VALUE=\ "0\ ">
" <INPUT TYPE=\ "hidden\ " NAME=\ "FORMID\ " VALUE=\ "%d\ ">
" <INPUT TYPE=\ "hidden\ " NAME=\ "TERMID\ " VALUE=\ "%d\ ">
" <INPUT TYPE=\ "hidden\ " NAME=\ "SYNCID\ " VALUE=\ "%d\ ">
" <PRE><font face=\ "Courier\ ">
Order-Status<BR>"
    "Warehouse: %6.6d ",
    ORDER_STATUS_FORM, iTermId, Term.pClientData[iTermId].iSyncId,
Term.pClientData[iTermId].w_id);
    if ( bInput )
    {
        strcpy(szForm+c,
            "District: <INPUT NAME=\ "DID*\ " SIZE=1><BR>"
            "Customer: <INPUT NAME=\ "CID*\ " SIZE=4> Name:
<INPUT NAME=\ "CLT*\ " SIZE=23><BR>"
            "Cust-Balance:<BR> <BR>"
            "Order-Number:          Entry-Date:
Carrier-Number:<BR>"
            "Supply-W      Item-Id  Qty      Amount      Delivery-
Date<BR> <BR> <BR> <BR> <BR>"
            " <BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR>
<BR></font></PRE>"
            " <HR><INPUT TYPE=\ "submit\ " NAME=\ "CMD\ "
VALUE=\ "Process\ "><INPUT TYPE=\ "submit\ " NAME=\ "CMD\ " VALUE=\ "Menu\ ">
            " </BODY></FORM></HTML>" );
    }
    else
    {
        c += sprintf(szForm+c,
            "District: %2.2d<BR>"
            "Customer: %4.4d Name: %-16s %-2s %-16s<BR>",
            pOrderStatusData->d_id, pOrderStatusData->c_id,
            pOrderStatusData->c_first, pOrderStatusData->c_middle,
            pOrderStatusData->c_last);

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

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

        for(i=0; i< pOrderStatusData->o_ol_cnt; i++)
        {
            c += sprintf(szForm+c, " %6.6d %6.6d %2.2d
%9.2f %2.2d-%2.2d-%4.4d<BR>",
                pOrderStatusData->OL[i].ol_supply_w_id,
                pOrderStatusData->OL[i].ol_i_id,
                pOrderStatusData->OL[i].ol_quantity,
                pOrderStatusData->OL[i].ol_amount,
                pOrderStatusData->OL[i].ol_delivery_d.day,

```

```

        pOrderStatusData->OL[i].ol_delivery_d.month,
        pOrderStatusData->OL[i].ol_delivery_d.year);
    }
    strcpy( szForm+c, szBR, (15-i)*5 );
    c += (15-i)*5;

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

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

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

    c = sprintf(szForm,
        "<HTML><HEAD><TITLE>TPC-C Delivery</TITLE></HEAD><BODY>"
        "<FORM ACTION=\ "tpcc.dll\ " METHOD=\ "GET\ ">"
        "<INPUT TYPE=\ "hidden\ " NAME=\ "STATUSID\ " VALUE=\ "%d\ ">"
        "<INPUT TYPE=\ "hidden\ " NAME=\ "ERROR\ " VALUE=\ "0\ ">"
        "<INPUT TYPE=\ "hidden\ " NAME=\ "FORMID\ " VALUE=\ "%d\ ">"
        "<INPUT TYPE=\ "hidden\ " NAME=\ "TERMID\ " VALUE=\ "%d\ ">"
        "<INPUT TYPE=\ "hidden\ " NAME=\ "SYNCID\ " VALUE=\ "%d\ ">"
        "<PRE><font face=\ "Courier\ ">
Delivery<BR>"
        "Warehouse: %6.6d<BR> <BR>",
        (!bInput && (pDeliveryData->exec_status_code != eOK)) ?
ERR_TYPE_DELIVERY_POST : 0,
        DELIVERY_FORM, iTermId, Term.pClientData[iTermId].iSyncId,
Term.pClientData[iTermId].w_id);

    if ( bInput )
    {
        strcpy( szForm+c,
            "Carrier Number: <INPUT NAME=\ "OCD*\ " SIZE=1><BR>
<BR>"
            "Execution Status: <BR> <BR> <BR> <BR> <BR> <BR> <BR>
<BR>"
            " <BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR>
</font></PRE><HR>"

```

```

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

/* FUNCTION: ProcessNewOrderForm
*
* PURPOSE: This function gets and validates the input data from the new
order form
*
* filling in the required input variables. it then calls
the SQLNewOrder
*
* transaction, constructs the output form and writes it
back to client
*
* browser.
*/

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

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

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

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

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

/* FUNCTION: void ProcessPaymentForm

```

```

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

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

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

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

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

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

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

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

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

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

```

```

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

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

    PDELIVERY_DATA pDelivery;

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

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

    if (dwNumDeliveryThreads)
    {
        //post delivery info
        if ( PostDeliveryInfo(pDelivery->w_id, pDelivery->o_carrier_id)
        )
            pDelivery->exec_status_code = eDeliveryFailed;
        else
            pDelivery->exec_status_code = eOK;
    }
    else // delivery is done synchronously if no delivery threads configured
        Term.pClientData[iTermId].pTxn->Delivery();

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

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

```

```

*/

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

    PSTOCK_LEVEL_DATA pStockLevel;

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

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

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

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

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

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

void GetNewOrderData(LPSTR lpszQueryString, NEW_ORDER_DATA *pNewOrderData)
{
    char szTmp[26];
    int i;
    short items;
    int ol_i_id, ol_quantity;
    char *ptr = lpszQueryString;

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

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

```

```

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

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

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

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

                GetKeyValue(&ptr, szQty[i], szTmp, sizeof(szTmp),
ERR_NEWORDER_MISSING_QTY_KEY);
                if ( szTmp[0] )
                    throw new CWBCLNT_ERR(
ERR_NEWORDER_QTY_WITHOUT_SUPPW );
            }
        }
        if ( items == 0 )
            throw new CWBCLNT_ERR( ERR_NEWORDER_NOITEMS_ENTERED );

        pNewOrderData->o_ol_cnt = items;
    }

/* FUNCTION: GetPaymentData
 *
 * PURPOSE:      This function extracts and validates the payment form data from
an http command string.
 *
 * ARGUMENTS:   LPSTR          lpszQueryString
                client browser http command string
                PAYMENT_DATA   *pPaymentData
                pointer to payment data structure
 */

void GetPaymentData(LPSTR lpszQueryString, PAYMENT_DATA *pPaymentData)

```

```

    {
        char    szTmp[26];
        char    *ptr = lpszQueryString;
        BOOL    bCustIdBlank;

        pPaymentData->d_id = GetIntKeyValue(&ptr, "DID*",
ERR_PAYMENT_MISSING_DID_KEY, ERR_PAYMENT_DISTRICT_INVALID);

        GetKeyValue(&ptr, "CID*", szTmp, sizeof(szTmp),
ERR_PAYMENT_MISSING_CID_KEY);
        if ( szTmp[0] == 0 )
        {
            bCustIdBlank = TRUE;
            pPaymentData->c_id = 0;
        }
        else
        {
            // parse customer id and verify that last name was NOT entered
            bCustIdBlank = FALSE;
            if ( !IsNumeric(szTmp) )
                throw new CWBCLNT_ERR( ERR_PAYMENT_CUSTOMER_INVALID
);

            pPaymentData->c_id = atoi(szTmp);
        }

        pPaymentData->c_w_id = GetIntKeyValue(&ptr, "CWI*",
ERR_PAYMENT_MISSING_CWI_KEY, ERR_PAYMENT_CWI_INVALID);
        pPaymentData->c_d_id = GetIntKeyValue(&ptr, "CDI*",
ERR_PAYMENT_MISSING_CDI_KEY, ERR_PAYMENT_CDI_INVALID);

        if ( bCustIdBlank )
        {
            // customer id is blank, so last name must be entered
            GetKeyValue(&ptr, "CLT*", szTmp, sizeof(szTmp),
ERR_PAYMENT_MISSING_CLT_KEY);
            if ( szTmp[0] == 0 )
                throw new CWBCLNT_ERR( ERR_PAYMENT_MISSING_CID_CLT );

            _strupr( szTmp );
            if ( strlen(pPaymentData->c_last) > LAST_NAME_LEN )
                throw new CWBCLNT_ERR( ERR_PAYMENT_LAST_NAME_TO_LONG
);

            strcpy(pPaymentData->c_last, szTmp);
        }
        else
        {
            // parse customer id and verify that last name was NOT entered
            GetKeyValue(&ptr, "CLT*", szTmp, sizeof(szTmp),
ERR_PAYMENT_MISSING_CLT_KEY);
            if ( szTmp[0] != 0 )
                throw new CWBCLNT_ERR( ERR_PAYMENT_CID_AND_CLT );
        }

        GetKeyValue(&ptr, "HAM*", szTmp, sizeof(szTmp),
ERR_PAYMENT_MISSING_HAM_KEY);
        if ( !IsDecimal(szTmp) )
            throw new CWBCLNT_ERR( ERR_PAYMENT_HAM_INVALID );
        pPaymentData->h_amount = atoi(szTmp);
        if ( pPaymentData->h_amount >= 10000.00 || pPaymentData->h_amount < 0 )
            throw new CWBCLNT_ERR( ERR_PAYMENT_HAM_RANGE );
    }

/* FUNCTION: GetOrderStatusData
 *
 * PURPOSE:      This function extracts and validates the payment form data from
an http command string.

```

```

*
*/
void GetOrderStatusData(LPSTR lpszQueryString, ORDER_STATUS_DATA *pOrderStatusData)
{
    char    szTmp[26];
    char    *ptr = lpszQueryString;

    pOrderStatusData->d_id = GetIntKeyValue(&ptr, "DID*",
ERR_ORDERSTATUS_MISSING_DID_KEY, ERR_ORDERSTATUS_DID_INVALID);

    GetKeyValue(&ptr, "CID*", szTmp, sizeof(szTmp),
ERR_ORDERSTATUS_MISSING_CID_KEY);
    if ( szTmp[0] == 0 )
    {
        // customer id is blank, so last name must be entered
        pOrderStatusData->c_id = 0;
        GetKeyValue(&ptr, "CLT*", szTmp, sizeof(szTmp),
ERR_ORDERSTATUS_MISSING_CLT_KEY);
        if ( szTmp[0] == 0 )
            throw new CWBCLNT_ERR(
ERR_ORDERSTATUS_MISSING_CID_CLT );

        _strupr( szTmp );
        if ( strlen(pOrderStatusData->c_last) > LAST_NAME_LEN )
            throw new CWBCLNT_ERR( ERR_ORDERSTATUS_CLT_RANGE );
        strcpy(pOrderStatusData->c_last, szTmp);
    }
    else
    {
        // parse customer id and verify that last name was NOT entered
        if ( !IsNumeric(szTmp) )
            throw new CWBCLNT_ERR( ERR_ORDERSTATUS_CID_INVALID );
        pOrderStatusData->c_id = atoi(szTmp);
        GetKeyValue(&ptr, "CLT*", szTmp, sizeof(szTmp),
ERR_ORDERSTATUS_MISSING_CLT_KEY);
        if ( szTmp[0] != 0 )
            throw new CWBCLNT_ERR( ERR_ORDERSTATUS_CID_AND_CLT );
    }
}

/* FUNCTION: BOOL IsNumeric(char *ptr)
*
* PURPOSE:      This function determines if a string is numeric. It fails if any
characters other
*              than numeric and null terminator are present.
*
* ARGUMENTS:    char          *ptr      pointer to string to
check.
*
* RETURNS:      BOOL          FALSE    if string is not all numeric
*              TRUE          TRUE     if string
contains only numeric characters i.e. '0' - '9'
*/

BOOL IsNumeric(char *ptr)
{
    if ( *ptr == 0 )
        return FALSE;

    while( *ptr && isdigit(*ptr) )
        ptr++;
    return ( !*ptr );
}

```

```

/* FUNCTION: BOOL IsDecimal(char *ptr)
*
* PURPOSE:      This function determines if a string is a non-negative decimal
value.
*              It fails if any characters other than a series of numbers followed by
*              a decimal point, another series of numbers, and a null
terminator are present.
*
* ARGUMENTS:    char          *ptr      pointer to string to
check.
*
* RETURNS:      BOOL          FALSE    if string is not a valid non-
negative decimal value
*              TRUE          TRUE     if string is
OK
*/

BOOL IsDecimal(char *ptr)
{
    char *dotpstr;
    BOOL bValid;

    if ( *ptr == 0 )
        return FALSE;

    // find decimal point
    dotpstr = strchr( ptr, '.' );
    if (dotpstr == NULL)
        // no decimal point, so just check for numeric
        return IsNumeric(ptr);
    *dotpstr = 0; // temporarily replace decimal with a terminator

    if ( *ptr != 0 )
        bValid = IsNumeric(ptr);
    // string starts with decimal point
    else if (*(dotpstr+1) == 0)
        return FALSE; // nothing but a decimal point is bad
    else
        bValid = TRUE;

    if (*(dotpstr+1) != 0)
        // check text after decimal point
        bValid &= IsNumeric(dotpstr+1);

    *dotpstr = '.'; // replace decimal point
    return bValid;
}

```

tpcc.def

LIBRARY TPCC.DLL

EXPORTS

```

GetExtensionVersion @1
HttpExtensionProc @2
TerminateExtension @3

```

tpcc.h

```

/*      FILE:          TPCC.H
 *
 *      Microsoft TPC-C Kit Ver. 4.20.000
 *      Copyright Microsoft, 1999
 *
 *      All Rights Reserved
 *
 *      Version 4.10.000 audited by Richard Gimarc,
 *      Performance Metrics, 3/17/99
 *
 *      PURPOSE:  Header file for ISAPI TPCC.DLL, defines structures and functions
 *      used in the isapi tpcc.dll.
 *
 */

//VERSION RESOURCE DEFINES
#define _APS_NEXT_RESOURCE_VALUE          101
#define _APS_NEXT_COMMAND_VALUE          40001
#define _APS_NEXT_CONTROL_VALUE          1000
#define _APS_NEXT_SYMED_VALUE            101

#define TP_MAX_RETRIES                    50

//note that the welcome form must be processed first as terminal ids assigned here,
//once the
//terminal id is assigned then the forms can be processed in any order.
#define WELCOME_FORM                       1
//beginning form no term id assigned, form id
#define MAIN_MENU_FORM                     2
//term id assigned main menu form id
#define NEW_ORDER_FORM                     3
//new order form id
#define PAYMENT_FORM                       4
//payment form id
#define DELIVERY_FORM                      5
//delivery form id
#define ORDER_STATUS_FORM                  6
//order status id
#define STOCK_LEVEL_FORM                   7
//stock level form id

//This macro is used to prevent the compiler error unused formal parameter
#define UNUSEDPARAM(x) (x = x)

//This structure defines the data necessary to keep distinct for each terminal or
//client connection.
typedef struct _CLIENTDATA
{
    int          iNextFree;
    //index of next free element or -1 if this entry in use.
    int          w_id;
    //warehouse id assigned at welcome form
    int          d_id;
    //district id assigned at welcome form

    int          iSyncId;
    //synchronization id
    int          iTickCount;
    //time of last access;

    CTPCC_BASE  *pTxn;

```

```

} CLIENTDATA, *PCLIENTDATA;

//This structure is used to define the operational interface for terminal id support
typedef struct _TERM
{
    int          iNumEntries;
    //total allocated terminal array entries
    int          iFreeList;
    //next available terminal array element or -1 if none
    int          iMasterSyncId;
    //synchronization id
    CLIENTDATA  *pClientData;
    //pointer to allocated client data
} TERM;

typedef TERM *PTERM;
//pointer to terminal structure type

enum WEBERROR
{
    NO_ERR,
    ERR_COMMAND_UNDEFINED,
    ERR_D_ID_INVALID,
    ERR_DELIVERY_CARRIER_ID_RANGE,
    ERR_DELIVERY_CARRIER_INVALID,
    ERR_DELIVERY_MISSING_OCD_KEY,
    ERR_DELIVERY_THREAD_FAILED,
    ERR_GETPROCADDR_FAILED,
    ERR_HTML_ILL_FORMED,
    ERR_INVALID_SYNC_CONNECTION,
    ERR_INVALID_TERMID,
    ERR_LOADDLL_FAILED,
    ERR_MAX_CONNECTIONS_EXCEEDED,
    ERR_MEM_ALLOC_FAILED,
    ERR_MISSING_REGISTRY_ENTRIES,
    ERR_NEWORDER_CUSTOMER_INVALID,
    ERR_NEWORDER_CUSTOMER_KEY,
    ERR_NEWORDER_DISTRICT_INVALID,
    ERR_NEWORDER_FORM_MISSING_DID,
    ERR_NEWORDER_ITEMID_INVALID,
    ERR_NEWORDER_ITEMID_RANGE,
    ERR_NEWORDER_ITEMID_WITHOUT_SUPPW,
    ERR_NEWORDER_MISSING_IID_KEY,
    ERR_NEWORDER_MISSING_QTY_KEY,
    ERR_NEWORDER_MISSING_SUPPW_KEY,
    ERR_NEWORDER_NOITEMS_ENTERED,
    ERR_NEWORDER_QTY_INVALID,
    ERR_NEWORDER_QTY_RANGE,
    ERR_NEWORDER_QTY_WITHOUT_SUPPW,
    ERR_NEWORDER_SUPPW_INVALID,
    ERR_NO_SERVER_SPECIFIED,
    ERR_ORDERSTATUS_CID_AND_CLT,
    ERR_ORDERSTATUS_CID_INVALID,
    ERR_ORDERSTATUS_CLT_RANGE,
    ERR_ORDERSTATUS_DID_INVALID,
    ERR_ORDERSTATUS_MISSING_CID_CLT,
    ERR_ORDERSTATUS_MISSING_CID_KEY,
    ERR_ORDERSTATUS_MISSING_CLT_KEY,
    ERR_ORDERSTATUS_MISSING_DID_KEY,
    ERR_PAYMENT_CDI_INVALID,

```



```

ERR_PAYMENT_CID_AND_CLT,
ERR_PAYMENT_CUSTOMER_INVALID,
ERR_PAYMENT_CWI_INVALID,
ERR_PAYMENT_DISTRICT_INVALID,
ERR_PAYMENT_HAM_INVALID,
ERR_PAYMENT_HAM_RANGE,
ERR_PAYMENT_LAST_NAME_TO_LONG,
ERR_PAYMENT_MISSING_CDI_KEY,
ERR_PAYMENT_MISSING_CID_CLT,
ERR_PAYMENT_MISSING_CID_KEY,
ERR_PAYMENT_MISSING_CLT,
ERR_PAYMENT_MISSING_CLT_KEY,
ERR_PAYMENT_MISSING_CWI_KEY,
ERR_PAYMENT_MISSING_DID_KEY,
ERR_PAYMENT_MISSING_HAM_KEY,
ERR_STOCKLEVEL_MISSING_THRESHOLD_KEY,
ERR_STOCKLEVEL_THRESHOLD_INVALID,
ERR_STOCKLEVEL_THRESHOLD_RANGE,
ERR_VERSION_MISMATCH,
ERR_W_ID_INVALID
};

class CWEBCLNT_ERR : public CBaseErr
{
public:

    CWEBCLNT_ERR(WEBERROR Err)
    {
        m_Error = Err;
        m_szTextDetail = NULL;
        m_SystemErr = 0;
        m_szErrorText = NULL;
    };

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

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

    WEBERROR m_Error;
    char *m_szTextDetail; //
    char *m_szErrorText;
    DWORD m_SystemErr;

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

```

```

//These constants have already been defined in engstat.h, but since we do
//not want to include it in the delisrv executable
#define TXN_EVENT_START 2
#define TXN_EVENT_STOP 4
#define TXN_EVENT_WARNING 6 4 //used to record a warning into
the log

//function prototypes

BOOL APIENTRY DllMain(HANDLE hModule, DWORD ul_reason_for_call, LPVOID lpReserved);
void WriteMessageToEventLog(LPCTSTR lpszMsg);
void ProcessQueryString(EXTENSION_CONTROL_BLOCK *pECB, int *pCmd, int *pFormId, int
*pTermId, int *pSyncId);
void WelcomeForm(EXTENSION_CONTROL_BLOCK *pECB, char *szBuffer);
void SubmitCmd(EXTENSION_CONTROL_BLOCK *pECB, char *szBuffer);
void BeginCmd(EXTENSION_CONTROL_BLOCK *pECB, int iFormId, int iTermId);
void ProcessCmd(EXTENSION_CONTROL_BLOCK *pECB, int iFormId, int iTermId);
void StatsCmd(EXTENSION_CONTROL_BLOCK *pECB, char *szBuffer);
void ErrorMessage(EXTENSION_CONTROL_BLOCK *pECB, int iError, int iErrorType, char
*szMsg, int iTermId);
void GetKeyValue(char **pQueryString, char *pKey, char *pValue, int iMax, WEBERROR
err);
int GetIntKeyValue(char **pQueryString, char *pKey, WEBERROR NoKeyErr, WEBERROR
NotIntErr);
void TermInit(void);
void TermDeleteAll(void);
int TermAdd(void);
void TermDelete(int id);
void ErrorForm(EXTENSION_CONTROL_BLOCK *pECB, int iType, int iErrorNum, int iTermId,
int iSyncId, char *szErrorText, char *szBuffer );
void MakeMainMenuForm(int iTermId, int iSyncId, char *szForm);
void MakeStockLevelForm(int iTermId, STOCK_LEVEL_DATA *pStockLevelData, BOOL bInput,
char *szForm);
void MakeNewOrderForm(int iTermId, NEW_ORDER_DATA *pNewOrderData, BOOL bInput, char
*szForm);
void MakePaymentForm(int iTermId, PAYMENT_DATA *pPaymentData, BOOL bInput, char
*szForm);
void MakeOrderStatusForm(int iTermId, ORDER_STATUS_DATA *pOrderStatusData, BOOL
bInput, char *szForm);
void MakeDeliveryForm(int iTermId, DELIVERY_DATA *pDeliveryData, BOOL bInput, char
*szForm);
void ProcessNewOrderForm(EXTENSION_CONTROL_BLOCK *pECB, int iTermId, char
*szBuffer);
void ProcessPaymentForm(EXTENSION_CONTROL_BLOCK *pECB, int iTermId, char *szBuffer);
void ProcessOrderStatusForm(EXTENSION_CONTROL_BLOCK *pECB, int iTermId, char
*szBuffer);
void ProcessDeliveryForm(EXTENSION_CONTROL_BLOCK *pECB, int iTermId, char
*szBuffer);
void ProcessStockLevelForm(EXTENSION_CONTROL_BLOCK *pECB, int iTermId, char
*szBuffer);
void GetNewOrderData(LPSTR lpszQueryString, NEW_ORDER_DATA *pNewOrderData);
void GetPaymentData(LPSTR lpszQueryString, PAYMENT_DATA *pPaymentData);
void GetOrderStatusData(LPSTR lpszQueryString, ORDER_STATUS_DATA *pOrderStatusData);
BOOL PostDeliveryInfo(long w_id, short o_carrier_id);
BOOL IsNumeric(char *ptr);
BOOL IsDecimal(char *ptr);
void DeliveryWorkerThread(void *ptr);

tpcc.rc
//Microsoft Developer Studio generated resource script.
//

```

```

#include "resource.h"

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

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

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

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

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

VS_VERSION_INFO VERSIONINFO
FILEVERSION 0,4,0,0
PRODUCTVERSION 0,4,0,0
FILEFLAGSMASK 0x3fL
#ifdef _DEBUG
FILEFLAGS 0x1L
#else
FILEFLAGS 0x0L
#endif
FILEOS 0x40004L
FILETYPE 0x2L
FILESUBTYPE 0x0L
BEGIN
    BLOCK "StringFileInfo"
    BEGIN
        BLOCK "040904b0"
        BEGIN
            VALUE "Comments", "TPC-C HTML DLL Server (DBLIB)\0"
            VALUE "CompanyName", "Microsoft\0"
            VALUE "FileDescription", "TPC-C HTML DLL Server (DBLIB)\0"
            VALUE "FileVersion", "0, 4, 0, 0\0"
            VALUE "InternalName", "tpcc\0"
            VALUE "LegalCopyright", "Copyright © 1997\0"
            VALUE "OriginalFilename", "tpcc.dll\0"
            VALUE "ProductName", "Microsoft tpcc\0"
            VALUE "ProductVersion", "0, 4, 0, 0\0"
        END
    END
    BLOCK "VarFileInfo"
    BEGIN
        VALUE "Translation", 0x409, 1200
    END
END
#endif // !_MAC

```

```

#ifdef APSTUDIO_INVOKED
////////////////////////////////////
//
// TEXTINCLUDE
//
1 TEXTINCLUDE DISCARDABLE
BEGIN
    "resource.h\0"
END

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

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

#endif // APSTUDIO_INVOKED

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

IDD_DIALOG1 DIALOG DISCARDABLE 0, 0, 186, 95
STYLE DS_MODALFRAME | WS_POPUP | WS_CAPTION | WS_SYSMENU
CAPTION "Dialog"
FONT 8, "MS Sans Serif"
BEGIN
    DEFPUSHBUTTON "OK", IDOK, 129, 7, 50, 14
    PUSHBUTTON "Cancel", IDCANCEL, 129, 24, 50, 14
END

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

#ifdef APSTUDIO_INVOKED
GUIDELINES DESIGNINFO DISCARDABLE
BEGIN
    IDD_DIALOG1, DIALOG
    BEGIN
        LEFTMARGIN, 7
        RIGHTMARGIN, 179
        TOPMARGIN, 7
        BOTTOMMARGIN, 88
    END
END

#endif // APSTUDIO_INVOKED

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

```

```

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

```

tpcc_com.cpp

```

/* FILE: TPC_C_CPP
 * Microsoft TPC-C Kit Ver. 4.20.000
 * Copyright Microsoft, 1999
 * All Rights Reserved
 *
 * not yet audited
 *
 * PURPOSE: Source file for TPC-C COM+ class implementation.
 * Contact: Charles Levine (clevine@microsoft.com)
 *
 * Change history:
 * 4.20.000 - first version
 */

// needed for CoInitializeEx
#define WIN32_WINNT 0x0400

#include <windows.h>

// need to declare functions for export
#define DllDecl __declspec( dllexport )

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

#include "..\..\tpcc_com_ps\src\tpcc_com_ps_i.c"
#include "..\..\tpcc_com_all\src\tpcc_com_all_i.c"

// wrapper routine for class constructor
_declspec( dllexport ) CTPCC_COM* CTPCC_COM_new(BOOL bSinglePool)
{
    return new CTPCC_COM(bSinglePool);
}

CTPCC_COM::CTPCC_COM(BOOL bSinglePool)
{
    HRESULT hr = NULL;
    long lRet = 0;
    ULONG ulTmpSize = 0;

    m_pTxn = NULL;
    m_pNewOrder = NULL;
    m_pPayment = NULL;
    m_pStockLevel = NULL;

```

```

    m_pOrderStatus = NULL;
    m_bSinglePool = bSinglePool;
    ulTmpSize = (ULONG) sizeof(COM_DATA);
    VariantInit(&m_vTxn);
    m_vTxn.vt = VT_SAFEARRAY;

    m_vTxn.parray = SafeArrayCreateVector(VT_UI1, ulTmpSize, ulTmpSize);
    if (!m_vTxn.parray)
        throw new CCOMERR( E_FAIL );

    memset((void*)m_vTxn.parray->pvData, 0, ulTmpSize);
    m_pTxn = (COM_DATA*)m_vTxn.parray->pvData;

    hr = CoInitializeEx(NULL, COINIT_MULTITHREADED);
    if (FAILED(hr))
    {
        throw new CCOMERR( hr );
    }

    // create components
    if (m_bSinglePool)
    {
        hr = CoCreateInstance(CLSID_TPCC, NULL, CLSCTX_SERVER,
IID_ITPCC, (void **)&m_pNewOrder);
        if (FAILED(hr))
            throw new CCOMERR(hr);

        // all txns will use same component
        m_pPayment = m_pNewOrder;
        m_pStockLevel = m_pNewOrder;
        m_pOrderStatus = m_pNewOrder;
    }
    else
    {
        // use different components for each txn

        hr = CoCreateInstance(CLSID_NewOrder, NULL, CLSCTX_SERVER,
IID_ITPCC, (void **)&m_pNewOrder);
        if (FAILED(hr))
            throw new CCOMERR(hr);

        hr = CoCreateInstance(CLSID_Payment, NULL, CLSCTX_SERVER,
IID_ITPCC, (void **)&m_pPayment);
        if (FAILED(hr))
            throw new CCOMERR(hr);

        hr = CoCreateInstance(CLSID_StockLevel, NULL, CLSCTX_SERVER,
IID_ITPCC, (void **)&m_pStockLevel);
        if (FAILED(hr))
            throw new CCOMERR(hr);

        hr = CoCreateInstance(CLSID_OrderStatus, NULL, CLSCTX_SERVER,
IID_ITPCC, (void **)&m_pOrderStatus);
        if (FAILED(hr))
            throw new CCOMERR(hr);
    }

    // call setcomplete to release each component back into pool
    hr = m_pNewOrder->CallSetComplete();
    if (FAILED(hr))
        throw new CCOMERR(hr);

```

```

    if (!m_bSinglePool)
    {
        hr = m_pPayment->CallSetComplete();
        if (FAILED(hr))
            throw new CCOMERR(hr);

        hr = m_pStockLevel->CallSetComplete();
        if (FAILED(hr))
            throw new CCOMERR(hr);

        hr = m_pOrderStatus->CallSetComplete();
        if (FAILED(hr))
            throw new CCOMERR(hr);
    }
}

CTPCC_COM::~CTPCC_COM()
{
    if (m_pTxn)
        SafeArrayDestroy(m_vTxn.parray);

    ReleaseInterface(m_pNewOrder);
    if (!m_bSinglePool)
    {
        ReleaseInterface(m_pPayment);
        ReleaseInterface(m_pStockLevel);
        ReleaseInterface(m_pOrderStatus);
    }
    CoUninitialize();
}

void CTPCC_COM::NewOrder()
{
    VARIANT vTxn_out;

    HRESULT hr = m_pNewOrder->NewOrder(m_vTxn, &vTxn_out);
    if (FAILED(hr))
        throw new CCOMERR(hr);
    memcpy(m_pTxn, (void *)vTxn_out.parray->pvData, vTxn_out.parray->rgsabound[0].cElements);
    SafeArrayDestroy(vTxn_out.parray);

    if ( m_pTxn->ErrorType != ERR_SUCCESS )
        throw new CCOMERR( m_pTxn->ErrorType, m_pTxn->error );
}

void CTPCC_COM::Payment()
{
    VARIANT vTxn_out;

    HRESULT hr = m_pPayment->Payment(m_vTxn, &vTxn_out);
    if (FAILED(hr))
        throw new CCOMERR(hr);
    memcpy(m_pTxn, (void *)vTxn_out.parray->pvData, vTxn_out.parray->rgsabound[0].cElements);
    SafeArrayDestroy(vTxn_out.parray);

    if ( m_pTxn->ErrorType != ERR_SUCCESS )
        throw new CCOMERR( m_pTxn->ErrorType, m_pTxn->error );
}

void CTPCC_COM::StockLevel()

```

```

{
    VARIANT vTxn_out;

    HRESULT hr = m_pStockLevel->StockLevel(m_vTxn, &vTxn_out);
    if (FAILED(hr))
        throw new CCOMERR(hr);
    memcpy(m_pTxn, (void *)vTxn_out.parray->pvData, vTxn_out.parray->rgsabound[0].cElements);
    SafeArrayDestroy(vTxn_out.parray);

    if ( m_pTxn->ErrorType != ERR_SUCCESS )
        throw new CCOMERR( m_pTxn->ErrorType, m_pTxn->error );
}

void CTPCC_COM::OrderStatus()
{
    VARIANT vTxn_out;

    HRESULT hr = m_pOrderStatus->OrderStatus(m_vTxn, &vTxn_out);
    if (FAILED(hr))
        throw new CCOMERR(hr);
    memcpy(m_pTxn, (void *)vTxn_out.parray->pvData, vTxn_out.parray->rgsabound[0].cElements);
    SafeArrayDestroy(vTxn_out.parray);

    if ( m_pTxn->ErrorType != ERR_SUCCESS )
        throw new CCOMERR( m_pTxn->ErrorType, m_pTxn->error );
}

```

tpcc_com.h

```

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

#pragma once

#include <stdio.h>
#include "..\..\tpcc_com_ps\src\tpcc_com_ps.h"

// need to declare functions for import, unless define has already been created
// by the DLL's .cpp module for export.
#ifdef DllDecl
#define DllDecl __declspec( dllimport )
#endif

class CCOMERR : public CBaseErr
{
private:
    char m_szErrorText[64];

public:
    // use this interface for genuine COM errors

```

```

CCOMERR( HRESULT hr )
{
    m_hr = hr;
    m_iErrorType = 0;
    m_iError = 0;
}

// use this interface to impersonate a non-COM error type
CCOMERR( int iErrorType, int iError )
{
    m_iErrorType = iErrorType;
    m_iError = iError;
    m_hr = S_OK;
}

int m_hr;
int m_iErrorType;
int m_iError;

// A CCOMERR class can impersonate another class, which happens
// if the error was not actually a COM Services error, but was simply
// transmitted back via COM.
int ErrorType()
{
    if (m_iErrorType == 0)
        return ERR_TYPE_COM;
    else
        return m_iErrorType;
}

int ErrorNum() {return m_hr;}

char *ErrorText()
{
    if (m_hr == S_OK)
        sprintf( m_szErrorText, "Error: Class %d",
error # %d", m_iErrorType, m_iError );
    else
        sprintf( m_szErrorText, "Error: COM HRESULT
%x", m_hr );
    return m_szErrorText;
}

}

class DllDecl CTPCC_COM : public CTPCC_BASE
{
private:
    BOOL m_bSinglePool;

    // COM Interface pointers
    ITPCC* m_pNewOrder;
    ITPCC* m_pPayment;
    ITPCC* m_pStockLevel;
    ITPCC* m_pOrderStatus;

    struct COM_DATA
    {
        int ErrorType;
        int error;
        union
        {
            NEW_ORDER_DATA NewOrder;

```

```

PAYMENT_DATA Payment;
DELIVERY_DATA Delivery;
STOCK_LEVEL_DATA StockLevel;
ORDER_STATUS_DATA OrderStatus;
    } u;
    } *m_pTxn;

    VARIANT m_vTxn;

public:
    CTPCC_COM(BOOL bSinglePool);
    ~CTPCC_COM(void);

    inline PNEW_ORDER_DATA BuffAddr_NewOrder()
    { return &m_pTxn->u.NewOrder; };
    inline PPAYMENT_DATA BuffAddr_Payment()
    { return &m_pTxn->u.Payment; };
    inline PDELIVERY_DATA BuffAddr_Delivery()
    { return &m_pTxn->u.Delivery; };
    inline PSTOCK_LEVEL_DATA BuffAddr_StockLevel()
return &m_pTxn->u.StockLevel; };
    inline PORDER_STATUS_DATA BuffAddr_OrderStatus()
return &m_pTxn->u.OrderStatus; };

    void NewOrder ();
    void Payment ();
    void StockLevel ();
    void OrderStatus ();
    void Delivery () { throw new CCOMERR(E_NOTIMPL);
} // not supported
};

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

// wrapper routine for class constructor
extern "C" __declspec(dllimport) CTPCC_COM* CTPCC_COM_new(BOOL);

typedef CTPCC_COM* (TYPE_CTPCC_COM)(BOOL);

tpcc_com_all.cpp
/* FILE: TPCC_COM_ALL.CPP
 * Microsoft TPC-C Kit Ver. 4.20.000
 * Copyright Microsoft, 1999
 *
 * All Rights Reserved
 *
 * Version 4.10.000 audited by Richard Gimarc,
Performance Metrics, 3/17/99
 *
 * PURPOSE: Implementation for TPC-C Tuxedo class.
 * Contact: Charles Levine (clevine@microsoft.com)
 *
 * Change history:
 * 4.20.000 - updated rev number to match kit

```

```

*/

#define STRICT
#define _WIN32_WINNT 0x0400
#define _ATL_APARTMENT_THREADED

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

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

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

#include "tpcc_com_ps.h"
#include "..\..\common\src\trans.h"
//tpckit transaction header contains definations of structures specific to
TPC-C
#include "..\..\common\src\txn_base.h"
#include "..\..\common\src\error.h"
#include "..\..\common\src\ReadRegistry.h"
#include "..\..\db_dblib_dll\src\tpcc_dblib.h" // DBLIB implementation
of TPC-C txns
#include "..\..\db_odbc_dll\src\tpcc_odbc.h" // ODBC implementation
of TPC-C txns

#include "resource.h"
#include "tpcc_com_all.h"
#include "tpcc_com_all_i.c"
#include "Methods.h"
#include "..\..\tpcc_com_ps\src\tpcc_com_ps_i.c"
#include "..\..\common\src\ReadRegistry.cpp"

CComModule _Module;

BEGIN_OBJECT_MAP(ObjectMap)
OBJECT_ENTRY(CLSID_TPCC, CTPCC)
OBJECT_ENTRY(CLSID_NewOrder, CNewOrder)
OBJECT_ENTRY(CLSID_OrderStatus, COrderStatus)
OBJECT_ENTRY(CLSID_Payment, CPayment)
OBJECT_ENTRY(CLSID_StockLevel, CStockLevel)
END_OBJECT_MAP()

// configuration settings from registry
TPCCREGISTRYDATA Reg;
char szMyComputerName[MAX_COMPUTERNAME_LENGTH+1];

static HINSTANCE hLibInstanceDb = NULL;

TYPE_CTPCC_DBLIB *pCTPCC_DBLIB_new;
TYPE_CTPCC_ODBC *pCTPCC_ODBC_new;

```

```

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

extern "C"
BOOL WINAPI DllMain(HINSTANCE hInstance, DWORD dwReason, LPVOID /*lpReserved*/)
{
    char szDllName[128];

    try
    {
        if (dwReason == DLL_PROCESS_ATTACH)
        {
            _Module.Init(ObjectMap, hInstance);
            DisableThreadLibraryCalls(hInstance);

            DWORD dwSize = MAX_COMPUTERNAME_LENGTH+1;
            GetComputerName(szMyComputerName, &dwSize);
            szMyComputerName[dwSize] = 0;

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

            if (Reg.eDB_Protocol == DBLIB)
            {
                strcpy( szDllName, Reg.szPath );
                strcat( szDllName, "tpcc_dblib.dll");
                hLibInstanceDb = LoadLibrary( szDllName );
                if (hLibInstanceDb == NULL)
                    throw new CCOMPONENT_ERR(
ERR_LOADDLL_FAILED, szDllName, GetLastError() );

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

                // get function pointer to wrapper for class
                constructor
                pCTPCC_ODBC_new = (TYPE_CTPCC_ODBC*)
GetProcAddress(hLibInstanceDb,"CTPCC_ODBC_new");
                if (pCTPCC_ODBC_new == NULL)
                    throw new CCOMPONENT_ERR(
ERR_GETPROCADDR_FAILED, szDllName, GetLastError() );
            }
            else
                throw new CCOMPONENT_ERR(
ERR_UNKNOWN_DB_PROTOCOL );
        }
        else if (dwReason == DLL_PROCESS_DETACH)
            _Module.Term();
    }
}

```

```

    }
    catch (CBaseErr *e)
    {
        WriteMessageToEventLog(e->ErrorText());
        delete e;
        return FALSE;
    }
    catch (...)
    {
        WriteMessageToEventLog(TEXT("Unhandled exception in object
DllMain"));
        return FALSE;
    }
    return TRUE;        // OK
}

////////////////////////////////////
// Used to determine whether the DLL can be unloaded by OLE

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

////////////////////////////////////
// Returns a class factory to create an object of the requested type

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

////////////////////////////////////
// DllRegisterServer - Adds entries to the system registry

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

////////////////////////////////////
// DllUnregisterServer - Removes entries from the system registry

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

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

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

```

```

    _stprintf(szMsg, TEXT("Error in COM+ TPC-C Component: "));
    lpszStrings[0] = szMsg;
    lpszStrings[1] = lpszMsg;

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

        (VOID) DeregisterEventSource(hEventSource);
    }
}

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

/* FUNCTION: CCOMPONENT_ERR::ErrorText
 *
 */

char* CCOMPONENT_ERR::ErrorText(void)
{
    static SERRORMSG errorMsgs[] =
    {
        { ERR_MISSING_REGISTRY_ENTRIES, "Required entries
missing from registry." },
        { ERR_LOADDLL_FAILED, "Load of DLL
failed. DLL=" },
        { ERR_GETPROCADDR_FAILED, "Could not map proc in
DLL. GetProcAddress error. DLL=" },
        { ERR_UNKNOWN_DB_PROTOCOL, "Unknown database
protocol specified in registry." },
        { 0, "" }
    };

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

```

```

        break;
    }
    i++;
}

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

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

CTPCC_Common::CTPCC_Common()
{
    m_pTxn = NULL;
    m_bCanBePooled = TRUE;
}

CTPCC_Common::~CTPCC_Common()
{
    if (m_pTxn)
        delete m_pTxn;
}

HRESULT CTPCC_Common::CallSetComplete()
{
    IObjectContext* pObjectContext = NULL;

    // get our object context
    HRESULT hr = CoGetObjectContext( IID_IObjectContext, (void
**) &pObjectContext );
    pObjectContext->SetComplete();
    ReleaseInterface(pObjectContext);
    return hr;
}

//
// called by the ctor activator
//
STDMETHODIMP CTPCC_Common::Construct(IDispatch * pUnk)
{
    // Code to access construction string, if needed later...
    // if (!pUnk)
    //     return E_UNEXPECTED;
    // IObjectConstructString * pString = NULL;
    // HRESULT hr = pUnk->QueryInterface(IID_IObjectConstructString,
(void **) &pString);
    // pString->Release();

    try
    {
        if (Reg.eDB_Protocol == ODBC)
            m_pTxn = pCTPCC_ODBC_new( Reg.szDbServer,
Reg.szDbUser, Reg.szDbPassword, szMyComputerName, Reg.szDbName );
        else if (Reg.eDB_Protocol == DBLIB)
            m_pTxn = pCTPCC_DBLIB_new( Reg.szDbServer,
Reg.szDbUser, Reg.szDbPassword, szMyComputerName, Reg.szDbName );
    }
    catch (CBaseErr *e)

```

```

    {
        WriteMessageToEventLog(e->ErrorText());
        delete e;
        return E_FAIL;
    }
    catch (...)
    {
        WriteMessageToEventLog(TEXT("Unhandled exception in object
::Construct"));
        return E_FAIL;
    }

    return S_OK;
}

HRESULT CTPCC_Common::NewOrder(VARIANT txn_in, VARIANT* txn_out)
{
    PNEW_ORDER_DATA    pNewOrder;
    COM_DATA            *pData;
    try
    {
        pData = (COM_DATA*)txn_in.parray->pvData;
        pNewOrder = m_pTxn->BuffAddr_NewOrder();

        memcpy(pNewOrder, &pData->u.NewOrder, sizeof(NEW_ORDER_DATA));

        m_pTxn->NewOrder();           // do the actual txn

        VariantInit(txn_out);
        txn_out->vt = VT_SAFEARRAY;
        txn_out->parray = SafeArrayCreateVector(VT_UI1,
txn_in.parray->rgsabound->cElements,
txn_in.parray->rgsabound->cElements);
        pData = (COM_DATA*) txn_out->parray->pvData;

        memcpy( &pData->u.NewOrder, pNewOrder, sizeof(NEW_ORDER_DATA));

        pData->retval = ERR_SUCCESS;
        pData->error = 0;
        return S_OK;
    }
    catch (CBaseErr *e)
    {
        // check for lost database connection; if yes, component is
toast
10005) ||
        ((e->ErrorType() == ERR_TYPE_DBLIB) && (e->ErrorNum() ==
10005) ||
        ((e->ErrorType() == ERR_TYPE_ODBC) && (e->ErrorNum()
== 10054) ) )
            m_bCanBePooled = FALSE;

        pData->retval = e->ErrorType();
        pData->error = e->ErrorNum();
        delete e;
        return E_FAIL;
    }
    catch (...)
    {
        WriteMessageToEventLog(TEXT("Unhandled exception."));
        pData->retval = ERR_TYPE_LOGIC;
        pData->error = 0;
    }
}

```



```

        m_bCanBePooled = FALSE;
        return E_FAIL;
    }
}

HRESULT CTPCC_Common::Payment(VARIANT txn_in, VARIANT* txn_out)
{
    PPAYMENT_DATA    pPayment;
    COM_DATA          *pData;
    try
    {
        pData = (COM_DATA*)txn_in.parray->pvData;
        pPayment = m_pTxn->BuffAddr_Payment();

        memcpy(pPayment, &pData->u.Payment, sizeof(PAYMENT_DATA));

        m_pTxn->Payment();           // do the actual txn

        VariantInit(txn_out);
        txn_out->vt = VT_SAFEARRAY;
        txn_out->parray = SafeArrayCreateVector( VT_UI1,
        txn_in.parray->rgsabound->cElements,
        txn_in.parray->rgsabound->cElements);
        pData = (COM_DATA*) txn_out->parray->pvData;
        memcpy( &pData->u.Payment, pPayment, sizeof(PAYMENT_DATA));

        pData->retval = ERR_SUCCESS;
        pData->error = 0;
        return S_OK;
    }
    catch (CBaseErr *e)
    {
        // check for lost database connection; if yes, component is
        toast
        if ( ((e->ErrorType() == ERR_TYPE_DBLIB) && (e->ErrorNum() ==
        10005)) ||
        ((e->ErrorType() == ERR_TYPE_ODBC) && (e->ErrorNum()
        == 10054)) )
            m_bCanBePooled = FALSE;

        pData->retval = e->ErrorType();
        pData->error = e->ErrorNum();
        delete e;
        return E_FAIL;
    }
    catch (...)
    {
        WriteMessageToEventLog(TEXT("Unhandled exception."));
        pData->retval = ERR_TYPE_LOGIC;
        pData->error = 0;
        m_bCanBePooled = FALSE;
        return E_FAIL;
    }
}

HRESULT CTPCC_Common::StockLevel(VARIANT txn_in, VARIANT* txn_out)
{
    PSTOCK_LEVEL_DATA pStockLevel;
    COM_DATA          *pData;

```

```

    try
    {
        pData = (COM_DATA*)txn_in.parray->pvData;
        pStockLevel = m_pTxn->BuffAddr_StockLevel();

        memcpy(pStockLevel, &pData->u.StockLevel,
        sizeof(STOCK_LEVEL_DATA));

        m_pTxn->StockLevel();

        VariantInit(txn_out);
        txn_out->vt = VT_SAFEARRAY;
        txn_out->parray = SafeArrayCreateVector( VT_UI1,
        txn_in.parray->rgsabound->cElements,
        txn_in.parray->rgsabound->cElements);
        pData = (COM_DATA*)txn_out->parray->pvData;
        memcpy( &pData->u.StockLevel, pStockLevel,
        sizeof(STOCK_LEVEL_DATA));

        pData->retval = ERR_SUCCESS;
        pData->error = 0;
        return S_OK;
    }
    catch (CBaseErr *e)
    {
        // check for lost database connection; if yes, component is
        toast
        if ( ((e->ErrorType() == ERR_TYPE_DBLIB) && (e->ErrorNum() ==
        10005)) ||
        ((e->ErrorType() == ERR_TYPE_ODBC) && (e->ErrorNum()
        == 10054)) )
            m_bCanBePooled = FALSE;

        pData->retval = e->ErrorType();
        pData->error = e->ErrorNum();
        delete e;
        return E_FAIL;
    }
    catch (...)
    {
        WriteMessageToEventLog(TEXT("Unhandled exception."));
        pData->retval = ERR_TYPE_LOGIC;
        pData->error = 0;
        m_bCanBePooled = FALSE;
        return E_FAIL;
    }
}

HRESULT CTPCC_Common::OrderStatus(VARIANT txn_in, VARIANT* txn_out)
{
    PORDER_STATUS_DATA pOrderStatus;
    COM_DATA          *pData;
    try
    {
        pData = (COM_DATA*)txn_in.parray->pvData;
        pOrderStatus = m_pTxn->BuffAddr_OrderStatus();

        memcpy(pOrderStatus, &pData->u.OrderStatus,
        sizeof(ORDER_STATUS_DATA));

```

```

        m_pTxn->OrderStatus();

        VariantInit(txn_out);
        txn_out->vt = VT_SAFEARRAY;
        txn_out->parray = SafeArrayCreateVector( VT_UI1,
        txn_in.parray-
>rgsabound->cElements,
        txn_in.parray-
>rgsabound->cElements);
        pData = (COM_DATA*)txn_out->parray->pvData;
        memcpy( &pData->u.OrderStatus, pOrderStatus,
sizeof(ORDER_STATUS_DATA));

        pData->retval = ERR_SUCCESS;
        pData->error = 0;
        return S_OK;
    }
    catch (CBaseErr *e)
    {
        // check for lost database connection; if yes, component is
toast
        if ( ((e->ErrorType() == ERR_TYPE_DBLIB) && (e->ErrorNum() ==
10005)) ||
        ((e->ErrorType() == ERR_TYPE_ODBC) && (e->ErrorNum()
== 10054)) )
            m_bCanBePooled = FALSE;

        pData->retval = e->ErrorType();
        pData->error = e->ErrorNum();
        delete e;
        return E_FAIL;
    }
    catch (...)
    {
        WriteMessageToEventLog(TEXT("Unhandled exception."));
        pData->retval = ERR_TYPE_LOGIC;
        pData->error = 0;
        m_bCanBePooled = FALSE;
        return E_FAIL;
    }
}

```

tpcc_com_all.def

```
; tpcc_com_all.def : Declares the module parameters.
```

```

LIBRARY      "tpcc_com_all.dll"

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

```

tpcc_com_all.dsp

```

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

```

```

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

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

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

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

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

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

# PROP BASE Use_MFC 0

```

```

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

!ENDIF

# Begin Target

# Name "tpcc_com_all - Win32 Release"
# Name "tpcc_com_all - Win32 Debug"
# Begin Group "Source"

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

SOURCE=.\src\tpcc_com_all.cpp
# SUBTRACT CPP /YX
# End Source File
# Begin Source File

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

SOURCE=.\src\tpcc_com_all.idl

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

# PROP Ignore_Default_Tool 1
# Begin Custom Build - Performing MIDL step
InputPath=.\src\tpcc_com_all.idl

BuildCmds= \
midl /Oicf /h "tpcc_com_all.h" /iid "tpcc_com_all_i.c"
".\src\tpcc_com_all.idl" /out ".\src"

".\src\tpcc_com_all.tlb" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"

```

```

$(BuildCmds)

".\src\tpcc_com_all.h" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
$(BuildCmds)

".\src\tpcc_com_all_i.c" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
$(BuildCmds)
# End Custom Build

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

# PROP Ignore_Default_Tool 1
# Begin Custom Build - Performing MIDL step
InputPath=.\src\tpcc_com_all.idl

BuildCmds= \
midl /Oicf /h "tpcc_com_all.h" /iid "tpcc_com_all_i.c"
".\src\tpcc_com_all.idl" /out ".\src"

".\src\tpcc_com_all.tlb" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
$(BuildCmds)

".\src\tpcc_com_all.h" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
$(BuildCmds)

".\src\tpcc_com_all_i.c" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
$(BuildCmds)
# End Custom Build

!ENDIF

# End Source File
# End Group
# Begin Group "Header"

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

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

SOURCE=.\src\resource.h
# End Source File
# End Group
# Begin Source File

SOURCE=.\src\tpcc_com_all.rc
# End Source File
# End Target
# End Project

```

tpcc_com_all.h

```

#pragma warning( disable: 4049 ) /* more than 64k source lines */

/* this ALWAYS GENERATED file contains the definitions for the interfaces */

/* File created by MIDL compiler version 5.03.0280 */
/* at Fri Sep 08 11:35:09 2000

```

```

*/
/* Compiler settings for .\src\tpcc_com_all.idl:
   Oicf (OptLev=i2), Wl, Zp8, env=Win32 (32b run), ms_ext, c_ext
   error checks: allocation ref bounds_check enum stub_data
   VC __declspec() decoration level:
       __declspec(uuid()), __declspec(selectany), __declspec(novtable)
       DECLSPEC_UUID(), MIDL_INTERFACE()
*/
//@@MIDL_FILE_HEADING( )

/* verify that the <rpcndr.h> version is high enough to compile this file*/
#ifndef __REQUIRED_RPCNDR_H_VERSION__
#define __REQUIRED_RPCNDR_H_VERSION__ 440
#endif

#include "rpc.h"
#include "rpcndr.h"

#ifndef __tpcc_com_all_h__
#define __tpcc_com_all_h__

/* Forward Declarations */

#ifndef __TPCC_FWD_DEFINED__
#define __TPCC_FWD_DEFINED__

#ifdef __cplusplus
typedef class TPCC TPCC;
#else
typedef struct TPCC TPCC;
#endif /* __cplusplus */

#endif /* __TPCC_FWD_DEFINED__ */

#ifndef __NewOrder_FWD_DEFINED__
#define __NewOrder_FWD_DEFINED__

#ifdef __cplusplus
typedef class NewOrder NewOrder;
#else
typedef struct NewOrder NewOrder;
#endif /* __cplusplus */

#endif /* __NewOrder_FWD_DEFINED__ */

#ifndef __OrderStatus_FWD_DEFINED__
#define __OrderStatus_FWD_DEFINED__

#ifdef __cplusplus
typedef class OrderStatus OrderStatus;
#else
typedef struct OrderStatus OrderStatus;
#endif /* __cplusplus */

#endif /* __OrderStatus_FWD_DEFINED__ */

#ifndef __Payment_FWD_DEFINED__
#define __Payment_FWD_DEFINED__

```

```

#ifdef __cplusplus
typedef class Payment Payment;
#else
typedef struct Payment Payment;
#endif /* __cplusplus */

#endif /* __Payment_FWD_DEFINED__ */

#ifndef __StockLevel_FWD_DEFINED__
#define __StockLevel_FWD_DEFINED__

#ifdef __cplusplus
typedef class StockLevel StockLevel;
#else
typedef struct StockLevel StockLevel;
#endif /* __cplusplus */

#endif /* __StockLevel_FWD_DEFINED__ */

/* header files for imported files */
#include "oaidl.h"
#include "ocidl.h"
#include "tpcc_com_ps.h"

#ifdef __cplusplus
extern "C"{
#endif

void __RPC_FAR * __RPC_USER MIDL_user_allocate(size_t);
void __RPC_USER MIDL_user_free( void __RPC_FAR * );

/* interface __MIDL_itf_tpcc_com_all_0000 */
/* [local] */

extern RPC_IF_HANDLE __MIDL_itf_tpcc_com_all_0000_v0_0_c_ifspec;
extern RPC_IF_HANDLE __MIDL_itf_tpcc_com_all_0000_v0_0_s_ifspec;

#ifndef __TPCCLib_LIBRARY_DEFINED__
#define __TPCCLib_LIBRARY_DEFINED__

/* library TPCCLib */
/* [helpstring] [version] [uuid] */

EXTERN_C const IID LIBID_TPCCLib;

EXTERN_C const CLSID CLSID_TPCC;

#ifdef __cplusplus
class DECLSPEC_UUID("122A3128-2520-11D3-BA71-00C04FBFE08B")
TPCC;
#endif

```

```

EXTERN_C const CLSID CLSID_NewOrder;

#ifdef __cplusplus

class DECLSPEC_UUID("975BAABF-84A7-11D2-BA47-00C04FBFE08B")
NewOrder;
#endif

EXTERN_C const CLSID CLSID_OrderStatus;

#ifdef __cplusplus

class DECLSPEC_UUID("266836AD-A50D-11D2-BA4E-00C04FBFE08B")
OrderStatus;
#endif

EXTERN_C const CLSID CLSID_Payment;

#ifdef __cplusplus

class DECLSPEC_UUID("CD02F7EF-A4FA-11D2-BA4E-00C04FBFE08B")
Payment;
#endif

EXTERN_C const CLSID CLSID_StockLevel;

#ifdef __cplusplus

class DECLSPEC_UUID("2668369E-A50D-11D2-BA4E-00C04FBFE08B")
StockLevel;
#endif
#endif /* __TPCCLib_LIBRARY_DEFINED__ */

/* Additional Prototypes for ALL interfaces */

/* end of Additional Prototypes */

#ifdef __cplusplus
}
#endif
#endif

```

tpcc_com_all.idl

```

/* FILE: TPCC.IDL
 *
 * Microsoft TPC-C Kit Ver. 4.20.000
 * Copyright Microsoft, 1999
 *
 * All Rights Reserved
 *
 * not yet audited
 *
 * PURPOSE: IDL source for TPCC.dll. This file is processed by the MIDL
 * tool to produce the type library (TPCC.tlb) and
 * marshalling code.
 *
 * Change history:
 * 4.20.000 - first version

```

```

*/

interface TPCC;
interface NewOrder;
interface OrderStatus;
interface Payment;
interface StockLevel;

import "oidl.idl";
import "ocidl.idl";
import "..\tpcc_com_ps\src\tpcc_com_ps.idl";

[
    uuid(122A3117-2520-11D3-BA71-00C04FBFE08B),
    version(1.0),
    helpstring("TPC-C 1.0 Type Library")
]
library TPCCLib
{
    importlib("stdole32.tlb");
    importlib("stdole2.tlb");

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

    [
        uuid(975BAABF-84A7-11D2-BA47-00C04FBFE08B),
        helpstring("NewOrder Class")
    ]
    coclass NewOrder
    {
        [default] interface ITPCC;
    };

    [
        uuid(266836AD-A50D-11D2-BA4E-00C04FBFE08B),
        helpstring("OrderStatus Class")
    ]
    coclass OrderStatus
    {
        [default] interface ITPCC;
    };

    [
        uuid(CD02F7EF-A4FA-11D2-BA4E-00C04FBFE08B),
        helpstring("Payment Class")
    ]
    coclass Payment
    {
        [default] interface ITPCC;
    };
}

```

```

    [
        uuid(2668369E-A50D-11D2-BA4E-00C04FBFE08B),
        helpstring("StockLevel Class")
    ]
}
coclass StockLevel
{
    [default] interface ITPCC;
};
};

```

tpcc_com_all.rc

```

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

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

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

#if !defined(APX_RESOURCE_DLL) || defined(APX_TARG_ENU)
#ifndef _WIN32
LANGUAGE LANG_ENGLISH, SUBLANG_ENGLISH_US
#pragma code_page(1252)
#endif // _WIN32

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

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

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

3 TEXTINCLUDE DISCARDABLE
BEGIN
    "#include \"tpcc_com_all.tlb\"\r\n"
    "\0"
END

#endif // APSTUDIO_INVOKED

```

```

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

VS_VERSION_INFO VERSIONINFO
FILEVERSION 1,0,0,1
PRODUCTVERSION 1,0,0,1
FILEFLAGS 0x3fL
#ifdef _DEBUG
FILEFLAGS 0x1L
#else
FILEFLAGS 0x0L
#endif
FILEOS 0x4L
FILETYPE 0x2L
FILESUBTYPE 0x0L
BEGIN
    BLOCK "StringFileInfo"
    BEGIN
        BLOCK "040904B0"
        BEGIN
            VALUE "CompanyName", "\0"
            VALUE "FileDescription", "tpcc_com_all Module\0"
            VALUE "FileVersion", "1, 0, 0, 1\0"
            VALUE "InternalName", "TPCCNEWORDER\0"
            VALUE "LegalCopyright", "Copyright 1997\0"
            VALUE "OriginalFilename", "tpcc_com_all.DLL\0"
            VALUE "ProductName", "tpcc_com_all Module\0"
            VALUE "ProductVersion", "1, 0, 0, 1\0"
            VALUE "OLESelfRegister", "\0"
        END
    END
    BLOCK "VarFileInfo"
    BEGIN
        VALUE "Translation", 0x409, 1200
    END
END

#endif // !_MAC

////////////////////////////////////
//
// REGISTRY
//

IDR_TPCC                REGISTRY DISCARDABLE "tpcc_com_all.rgs"
IDR_NEWORDER            REGISTRY DISCARDABLE "tpcc_com_no.rgs"
IDR_ORDERSTATUS        REGISTRY DISCARDABLE "tpcc_com_os.rgs"
IDR_PAYMENT             REGISTRY DISCARDABLE "tpcc_com_pay.rgs"
IDR_STOCKLEVEL         REGISTRY DISCARDABLE "tpcc_com_sl.rgs"

////////////////////////////////////
//
// String Table
//

STRINGTABLE DISCARDABLE
BEGIN
    IDS_PROJNAME        "tpcc_com_all"
END

```

```

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

#ifndef APSTUDIO_INVOKED
////////////////////////////////////
//
// Generated from the TEXTINCLUDE 3 resource.
//
l TYPELIB "tpcc_com_all.tlb"
////////////////////////////////////
#endif // not APSTUDIO_INVOKED

```

tpcc_com_all.rgs

```

HKCR
{
    TPCC.AllTxns.1 = s 'All Txns Class'
    {
        CLSID = s '{122A3128-2520-11D3-BA71-00C04FBFE08B}'
    }
    TPCC.AllTxns = s 'TPCC Class'
    {
        CurVer = s 'TPCC.AllTxns.1'
    }
    NoRemove CLSID
    {
        ForceRemove {122A3128-2520-11D3-BA71-00C04FBFE08B} = s 'TPCC
Class'
        {
            ProgID = s 'TPCC.AllTxns.1'
            VersionIndependentProgID = s 'TPCC.AllTxns'
            InprocServer32 = s '%MODULE%'
            {
                val ThreadingModel = s 'Both'
            }
        }
    }
}

```

tpcc_com_all.i.c

```

#pragma warning( disable: 4049 ) /* more than 64k source lines */

/* this ALWAYS GENERATED file contains the IIDs and CLSIDs */

/* link this file in with the server and any clients */

/* File created by MIDL compiler version 5.03.0280 */
/* at Fri Sep 08 11:35:09 2000
*/
/* Compiler settings for .\src\tpcc_com_all.idl:
Oicf (OptLev=i2), Wl, Zp8, env=Win32 (32b run), ms_ext, c_ext
error checks: allocation ref bounds_check enum stub_data
VC __declspec() decoration level:

```

```

__declspec(uuid()), __declspec(selectany), __declspec(novtable)
DECLSPEC_UUID(), MIDL_INTERFACE()
*/
//@@MIDL_FILE_HEADING( )

#if !defined(_M_IA64) && !defined(_M_AXP64)

#ifdef __cplusplus
extern "C"{
#endif

#include <rpc.h>
#include <rpcndr.h>

#ifdef _MIDL_USE_GUIDDEF_

#ifndef INITGUID
#define INITGUID
#include <guiddef.h>
#undef INITGUID
#else
#include <guiddef.h>
#endif

#define MIDL_DEFINE_GUID(type,name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8) \
    DEFINE_GUID(name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8)

#else // !_MIDL_USE_GUIDDEF_

#ifndef __IID_DEFINED__
#define __IID_DEFINED__

typedef struct _IID
{
    unsigned long x;
    unsigned short s1;
    unsigned short s2;
    unsigned char c[8];
} IID;

#endif // __IID_DEFINED__

#ifndef CLSID_DEFINED
#define CLSID_DEFINED
typedef IID CLSID;
#endif // CLSID_DEFINED

#define MIDL_DEFINE_GUID(type,name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8) \
    const type name = {l,w1,w2,{b1,b2,b3,b4,b5,b6,b7,b8}}

#endif !_MIDL_USE_GUIDDEF_

MIDL_DEFINE_GUID(IID,
LIBID_TPCCLib, 0x122A3117, 0x2520, 0x11D3, 0xBA, 0x71, 0x00, 0xC0, 0x4F, 0xBF, 0xE0, 0x8B);

MIDL_DEFINE_GUID(CLSID,
CLSID_TPCC, 0x122A3128, 0x2520, 0x11D3, 0xBA, 0x71, 0x00, 0xC0, 0x4F, 0xBF, 0xE0, 0x8B);

MIDL_DEFINE_GUID(CLSID,
CLSID_NewOrder, 0x975BAABF, 0x84A7, 0x11D2, 0xBA, 0x47, 0x00, 0xC0, 0x4F, 0xBF, 0xE0, 0x8B);

```

```

MIDL_DEFINE_GUID(CLSID,
CLSID_OrderStatus,0x266836AD,0xA50D,0x11D2,0xBA,0x4E,0x00,0xC0,0x4F,0xBF,0xE0,0x8B);

MIDL_DEFINE_GUID(CLSID,
CLSID_Payment,0xCD02F7EF,0xA4FA,0x11D2,0xBA,0x4E,0x00,0xC0,0x4F,0xBF,0xE0,0x8B);

MIDL_DEFINE_GUID(CLSID,
CLSID_StockLevel,0x2668369E,0xA50D,0x11D2,0xBA,0x4E,0x00,0xC0,0x4F,0xBF,0xE0,0x8B);

#undef MIDL_DEFINE_GUID

#ifdef __cplusplus
}
#endif

#endif /* !defined(_M_IA64) && !defined(_M_AXP64) */

#pragma warning( disable: 4049 ) /* more than 64k source lines */

/* this ALWAYS GENERATED file contains the IIDs and CLSIDs */

/* link this file in with the server and any clients */

/* File created by MIDL compiler version 5.03.0280 */
/* at Fri Sep 08 11:35:09 2000 */
/*
/* Compiler settings for .\src\tpcc_com_all.idl:
Oicf (OptLev=i2), W1, Zp8, env=Win64 (32b run,appending), ms_ext, c_ext, robust
error checks: allocation ref bounds_check enum stub_data
VC __declspec(uuid()), __declspec(selectany), __declspec(novtable)
DECLSPEC_UUID(), MIDL_INTERFACE()
*/
//@@MIDL_FILE_HEADING(  )

#ifdef _M_IA64 || defined(_M_AXP64)

#ifdef __cplusplus
extern "C"{
#endif

#include <rpc.h>
#include <rpcndr.h>

#ifdef _MIDL_USE_GUIDDEF_

#ifndef INITGUID
#define INITGUID
#include <guiddef.h>
#undef INITGUID
#else
#include <guiddef.h>
#endif
#endif


```

```

#define MIDL_DEFINE_GUID(type,name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8) \
    DEFINE_GUID(name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8)

#else /* !_MIDL_USE_GUIDDEF_

#ifndef __IID_DEFINED__
#define __IID_DEFINED__

typedef struct _IID
{
    unsigned long x;
    unsigned short s1;
    unsigned short s2;
    unsigned char c[8];
} IID;

#endif /* __IID_DEFINED__

#ifndef CLSID_DEFINED
#define CLSID_DEFINED
typedef IID CLSID;
#endif /* CLSID_DEFINED

#define MIDL_DEFINE_GUID(type,name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8) \
    const type name = {l,w1,w2,{b1,b2,b3,b4,b5,b6,b7,b8}}

#endif /* !_MIDL_USE_GUIDDEF_

MIDL_DEFINE_GUID(IID,
LIBID_TPCCLib,0x122A3117,0x2520,0x11D3,0xBA,0x71,0x00,0xC0,0x4F,0xBF,0xE0,0x8B);

MIDL_DEFINE_GUID(CLSID,
CLSID_TPCC,0x122A3128,0x2520,0x11D3,0xBA,0x71,0x00,0xC0,0x4F,0xBF,0xE0,0x8B);

MIDL_DEFINE_GUID(CLSID,
CLSID_NewOrder,0x975BAABF,0x84A7,0x11D2,0xBA,0x47,0x00,0xC0,0x4F,0xBF,0xE0,0x8B);

MIDL_DEFINE_GUID(CLSID,
CLSID_OrderStatus,0x266836AD,0xA50D,0x11D2,0xBA,0x4E,0x00,0xC0,0x4F,0xBF,0xE0,0x8B);

MIDL_DEFINE_GUID(CLSID,
CLSID_Payment,0xCD02F7EF,0xA4FA,0x11D2,0xBA,0x4E,0x00,0xC0,0x4F,0xBF,0xE0,0x8B);

MIDL_DEFINE_GUID(CLSID,
CLSID_StockLevel,0x2668369E,0xA50D,0x11D2,0xBA,0x4E,0x00,0xC0,0x4F,0xBF,0xE0,0x8B);

#undef MIDL_DEFINE_GUID

#ifdef __cplusplus
}
#endif

#endif /* defined(_M_IA64) || defined(_M_AXP64) */

```


tpcc_com_no.rgs

```
HKCR
{
    TPCC.NewOrder.1 = s 'NewOrder Class'
    {
        CLSID = s '{975BAABF-84A7-11D2-BA47-00C04FBFE08B}'
    }
    TPCC.NewOrder = s 'NewOrder Class'
    {
        CurVer = s 'TPCC.NewOrder.1'
    }
    NoRemove CLSID
    {
        ForceRemove {975BAABF-84A7-11D2-BA47-00C04FBFE08B} = s 'NewOrder
Class'
        {
            ProgID = s 'TPCC.NewOrder.1'
            VersionIndependentProgID = s 'TPCC.NewOrder'
            InprocServer32 = s '%MODULE%'
            {
                val ThreadingModel = s 'Both'
            }
        }
    }
}
}
```

tpcc_com_os.rgs

```
HKCR
{
    TPCC.OrderStatus.1 = s 'OrderStatus Class'
    {
        CLSID = s '{266836AD-A50D-11D2-BA4E-00C04FBFE08B}'
    }
    TPCC.OrderStatus = s 'OrderStatus Class'
    {
        CurVer = s 'TPCC.OrderStatus.1'
    }
    NoRemove CLSID
    {
        ForceRemove {266836AD-A50D-11D2-BA4E-00C04FBFE08B} = s
'OrderStatus Class'
        {
            ProgID = s 'TPCC.OrderStatus.1'
            VersionIndependentProgID = s 'TPCC.OrderStatus'
            InprocServer32 = s '%MODULE%'
            {
                val ThreadingModel = s 'Both'
            }
        }
    }
}
}
```

tpcc_com_pay.rgs

```
HKCR
{
    TPCC.Payment.1 = s 'Payment Class'
```

```

    {
        CLSID = s '{CD02F7EF-A4FA-11D2-BA4E-00C04FBFE08B}'
    }
    TPCC.Payment = s 'Payment Class'
    {
        CurVer = s 'TPCC.Payment.1'
    }
    NoRemove CLSID
    {
        ForceRemove {CD02F7EF-A4FA-11D2-BA4E-00C04FBFE08B} = s 'Payment
Class'
        {
            ProgID = s 'TPCC.Payment.1'
            VersionIndependentProgID = s 'TPCC.Payment'
            InprocServer32 = s '%MODULE%'
            {
                val ThreadingModel = s 'Both'
            }
        }
    }
}
}
```

tpcc_com_ps.def

```
LIBRARY "tpcc_com_ps"

DESCRIPTION 'Proxy/Stub DLL'

EXPORTS
    DllGetClassObject @1 PRIVATE
    DllCanUnloadNow @2 PRIVATE
    GetProxyDllInfo @3 PRIVATE
    DllRegisterServer @4 PRIVATE
    DllUnregisterServer @5 PRIVATE
```

tpcc_com_ps.dsp

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

# TARGETTYPE "Win32 (x86) Application" 0x0101

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

```

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

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

# PROP BASE Use_MFC 0
# PROP BASE Use_Debug_Libraries 0
# PROP BASE Output_Dir "Release"
# PROP BASE Intermediate_Dir "Release"
# PROP BASE Target_Dir ""
# PROP Use_MFC 0
# PROP Use_Debug_Libraries 0
# PROP Output_Dir ".\bin"
# PROP Intermediate_Dir ".\obj"
# PROP Ignore_Export_Lib 0
# PROP Target_Dir ""
# ADD BASE CPP /nologo /W3 /GX /O2 /D "WIN32" /D "NDEBUG" /D "_WINDOWS" /YX /FD /c
# ADD CPP /nologo /W3 /GX /O2 /D "WIN32" /D "NDEBUG" /D "_WIN32_WINNT=0x0400" /D
"REGISTER_PROXY_DLL" /FD /c
# SUBTRACT CPP /YX
# ADD BASE MTL /nologo /D "NDEBUG" /mktyplib203 /o "NUL" /win32
# ADD MTL /nologo /D "NDEBUG" /mktyplib203 /o "NUL" /win32
# ADD BASE RSC /1 0x409 /d "NDEBUG"
# ADD RSC /1 0x409 /d "NDEBUG"
BSC32=bscmake.exe
# ADD BASE BSC32 /nologo
# ADD BSC32 /nologo
LINK32=link.exe
# ADD BASE LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbc32.lib odbccp32.lib
/nologo /subsystem:windows /machine:I386
# ADD LINK32 kernel32.lib rpcndr.lib rpcns4.lib rpctr4.lib oleaut32.lib uuid.lib
/nologo /entry:"DllMain" /subsystem:windows /dll /pdb:none /machine:I386
/def:".src\tpcc_com_ps.def"
# Begin Custom Build - Copying tpcc_com_ps.h
InputPath=.\bin\tpcc_com_ps.dll
SOURCE="$(InputPath)"

"..\tpcc_com_all\src\tpcc_com_ps.h" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
copy .\src\tpcc_com_ps.h ..\tpcc_com_all\src\

# End Custom Build

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

# PROP BASE Use_MFC 0
# PROP BASE Use_Debug_Libraries 1
# PROP BASE Output_Dir "Debug"
# PROP BASE Intermediate_Dir "Debug"
# PROP BASE Target_Dir ""
# PROP Use_MFC 0
# PROP Use_Debug_Libraries 1
# PROP Output_Dir ".\bin"
# PROP Intermediate_Dir ".\obj"
# PROP Ignore_Export_Lib 0
# PROP Target_Dir ""
# ADD BASE CPP /nologo /W3 /Gm /GX /Zi /Od /D "WIN32" /D "_DEBUG" /D "_WINDOWS" /YX
/ FD /c

```

```

# ADD CPP /nologo /ZI /Od /D "WIN32" /D "_DEBUG" /D "_WIN32_WINNT=0x0400" /D
"REGISTER_PROXY_DLL" /FD /c
# ADD BASE MTL /nologo /D " _DEBUG" /mktyplib203 /o "NUL" /win32
# ADD MTL /nologo /D " _DEBUG" /mktyplib203 /o "NUL" /win32
# ADD BASE RSC /1 0x409 /d " _DEBUG"
# ADD RSC /1 0x409 /d " _DEBUG"
BSC32=bscmake.exe
# ADD BASE BSC32 /nologo
# ADD BSC32 /nologo
LINK32=link.exe
# ADD BASE LINK32 kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib
advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib odbc32.lib odbccp32.lib
/nologo /subsystem:windows /debug /machine:I386 /pdbtype:sept
# ADD LINK32 kernel32.lib rpcndr.lib rpcns4.lib rpctr4.lib oleaut32.lib uuid.lib
/nologo /entry:"DllMain" /dll /debug /machine:IX86 /def:".src\tpcc_com_ps.def"
/pdbtype:sept
# SUBTRACT LINK32 /pdb:none
# Begin Custom Build - Copying tpcc_com_ps.h
InputPath=.\bin\tpcc_com_ps.dll
SOURCE="$(InputPath)"

"..\tpcc_com_all\src\tpcc_com_ps.h" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
copy .\src\tpcc_com_ps.h ..\tpcc_com_all\src\

# End Custom Build

!ENDIF

# Begin Target

# Name "tpcc_com_ps - Win32 Release"
# Name "tpcc_com_ps - Win32 Debug"
# Begin Group "Source"

# PROP Default_Filter ""
# Begin Source File

SOURCE=.\src\dlldata.c
# End Source File
# Begin Source File

SOURCE=.\src\tpcc_com_ps.def
# PROP Exclude_From_Build 1
# End Source File
# Begin Source File

SOURCE=.\src\tpcc_com_ps.idl

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

# PROP Ignore_Default_Tool 1
# Begin Custom Build
InputPath=.\src\tpcc_com_ps.idl

BuildCmds= \
midl /Oicf /h "tpcc_com_ps.h" /iid "tpcc_com_ps_i.c"
".\src\tpcc_com_ps.idl" /out ".\src"

".\src\tpcc_com_ps.h" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
$(BuildCmds)

".\src\tpcc_com_ps_i.c" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
$(BuildCmds)

```

```

.\src\dlldata.c" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
$(BuildCmds)

.\src\tpcc_com_ps_p.c" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
$(BuildCmds)
# End Custom Build

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

# PROP Ignore_Default_Tool 1
# Begin Custom Build
InputPath=.\src\tpcc_com_ps.idl

BuildCmds= \
midl /Oicf /h "tpcc_com_ps.h" /iid "tpcc_com_ps_i.c"
.\src\tpcc_com_ps.idl" /out ".\src"

.\src\tpcc_com_ps.h" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
$(BuildCmds)

.\src\tpcc_com_ps_i.c" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
$(BuildCmds)

.\src\dlldata.c" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
$(BuildCmds)

.\src\tpcc_com_ps_p.c" : $(SOURCE) "$(INTDIR)" "$(OUTDIR)"
$(BuildCmds)
# End Custom Build

!ENDIF

# End Source File
# Begin Source File

SOURCE=.\src\tpcc_com_ps_i.c
# End Source File
# Begin Source File

SOURCE=.\src\tpcc_com_ps_p.c
# End Source File
# End Group
# End Target
# End Project

```

tpcc_com_ps.h

```

#pragma warning( disable: 4049 ) /* more than 64k source lines */

/* this ALWAYS GENERATED file contains the definitions for the interfaces */

/* File created by MIDL compiler version 5.03.0280 */
/* at Fri Sep 08 11:35:01 2000
*/
/* Compiler settings for .\src\tpcc_com_ps.idl:
Oicf (OptLev=i2), Wl, Zp8, env=Win32 (32b run), ms_ext, c_ext
error checks: allocation ref bounds_check enum stub_data
VC __declspec() decoration level:
__declspec(uuid()), __declspec(selectany), __declspec(novtable)

```

```

DECLSPEC_UUID(), MIDL_INTERFACE()
*/
//@@MIDL_FILE_HEADING( )

/* verify that the <rpcndr.h> version is high enough to compile this file*/
#ifndef __REQUIRED_RPCNDR_H_VERSION__
#define __REQUIRED_RPCNDR_H_VERSION__ 440
#endif

#include "rpc.h"
#include "rpcndr.h"

#ifndef __RPCNDR_H_VERSION__
#error this stub requires an updated version of <rpcndr.h>
#endif // __RPCNDR_H_VERSION__

#ifndef COM_NO_WINDOWS_H
#include "windows.h"
#include "ole2.h"
#endif /*COM_NO_WINDOWS_H*/

#ifndef tpcc_com_ps_h_
#define tpcc_com_ps_h_

/* Forward Declarations */

#ifndef __ITPCC_FWD_DEFINED__
#define __ITPCC_FWD_DEFINED__
typedef interface ITPCC ITPCC;
#endif /* __ITPCC_FWD_DEFINED__ */

/* header files for imported files */
#include "oaidl.h"
#include "ocidl.h"

#ifdef __cplusplus
extern "C"{
#endif

void __RPC_FAR * __RPC_USER MIDL_user_allocate(size_t);
void __RPC_USER MIDL_user_free( void __RPC_FAR * );

/* interface __MIDL_itf_tpcc_com_ps_0000 */
/* [local] */

extern RPC_IF_HANDLE __MIDL_itf_tpcc_com_ps_0000_v0_0_c_ifspec;
extern RPC_IF_HANDLE __MIDL_itf_tpcc_com_ps_0000_v0_0_s_ifspec;

#ifndef ITPCC_INTERFACE_DEFINED__
#define ITPCC_INTERFACE_DEFINED__

/* interface ITPCC */
/* [unique][helpstring][uuid][oleautomation][object] */

EXTERN_C const IID IID_ITPCC;

#if defined(__cplusplus) && !defined(CINTERFACE)

```

```

MIDL_INTERFACE("FEEB6AA2-84B1-11d2-BA47-00C04FBFE08B")
ITPCC : public IUnknown
{
public:
    virtual HRESULT __stdcall NewOrder(
        /* [in] */ VARIANT txn_in,
        /* [out] */ VARIANT __RPC_FAR *txn_out) = 0;

    virtual HRESULT __stdcall Payment(
        /* [in] */ VARIANT txn_in,
        /* [out] */ VARIANT __RPC_FAR *txn_out) = 0;

    virtual HRESULT __stdcall Delivery(
        /* [in] */ VARIANT txn_in,
        /* [out] */ VARIANT __RPC_FAR *txn_out) = 0;

    virtual HRESULT __stdcall StockLevel(
        /* [in] */ VARIANT txn_in,
        /* [out] */ VARIANT __RPC_FAR *txn_out) = 0;

    virtual HRESULT __stdcall OrderStatus(
        /* [in] */ VARIANT txn_in,
        /* [out] */ VARIANT __RPC_FAR *txn_out) = 0;

    virtual HRESULT __stdcall CallSetComplete( void) = 0;

};

#else /* C style interface */

typedef struct ITPCCVtbl
{
    BEGIN_INTERFACE

    HRESULT ( STDMETHODCALLTYPE __RPC_FAR *QueryInterface )(
        ITPCC __RPC_FAR * This,
        /* [in] */ REFIID riid,
        /* [iid_is][out] */ void __RPC_FAR * __RPC_FAR *ppvObject);

    ULONG ( STDMETHODCALLTYPE __RPC_FAR *AddRef )(
        ITPCC __RPC_FAR * This);

    ULONG ( STDMETHODCALLTYPE __RPC_FAR *Release )(
        ITPCC __RPC_FAR * This);

    HRESULT ( STDMETHODCALLTYPE __RPC_FAR *NewOrder )(
        ITPCC __RPC_FAR * This,
        /* [in] */ VARIANT txn_in,
        /* [out] */ VARIANT __RPC_FAR *txn_out);

    HRESULT ( STDMETHODCALLTYPE __RPC_FAR *Payment )(
        ITPCC __RPC_FAR * This,
        /* [in] */ VARIANT txn_in,
        /* [out] */ VARIANT __RPC_FAR *txn_out);

    HRESULT ( STDMETHODCALLTYPE __RPC_FAR *Delivery )(
        ITPCC __RPC_FAR * This,
        /* [in] */ VARIANT txn_in,
        /* [out] */ VARIANT __RPC_FAR *txn_out);

    HRESULT ( STDMETHODCALLTYPE __RPC_FAR *StockLevel )(
        ITPCC __RPC_FAR * This,

```

```

        /* [in] */ VARIANT txn_in,
        /* [out] */ VARIANT __RPC_FAR *txn_out);

    HRESULT ( STDMETHODCALLTYPE __RPC_FAR *OrderStatus )(
        ITPCC __RPC_FAR * This,
        /* [in] */ VARIANT txn_in,
        /* [out] */ VARIANT __RPC_FAR *txn_out);

    HRESULT ( STDMETHODCALLTYPE __RPC_FAR *CallSetComplete )(
        ITPCC __RPC_FAR * This);

    END_INTERFACE
} ITPCCVtbl;

interface ITPCC
{
    CONST_VTBL struct ITPCCVtbl __RPC_FAR *lpVtbl;
};

#ifdef COBJMACROS

#define ITPCC_QueryInterface(This,riid,ppvObject) \
    (This->lpVtbl -> QueryInterface(This,riid,ppvObject))

#define ITPCC_AddRef(This) \
    (This->lpVtbl -> AddRef(This))

#define ITPCC_Release(This) \
    (This->lpVtbl -> Release(This))

#define ITPCC_NewOrder(This,txn_in,txn_out) \
    (This->lpVtbl -> NewOrder(This,txn_in,txn_out))

#define ITPCC_Payment(This,txn_in,txn_out) \
    (This->lpVtbl -> Payment(This,txn_in,txn_out))

#define ITPCC_Delivery(This,txn_in,txn_out) \
    (This->lpVtbl -> Delivery(This,txn_in,txn_out))

#define ITPCC_StockLevel(This,txn_in,txn_out) \
    (This->lpVtbl -> StockLevel(This,txn_in,txn_out))

#define ITPCC_OrderStatus(This,txn_in,txn_out) \
    (This->lpVtbl -> OrderStatus(This,txn_in,txn_out))

#define ITPCC_CallSetComplete(This) \
    (This->lpVtbl -> CallSetComplete(This))

#endif /* COBJMACROS */

#endif /* C style interface */

HRESULT __stdcall ITPCC_NewOrder_Proxy(
    ITPCC __RPC_FAR * This,
    /* [in] */ VARIANT txn_in,
    /* [out] */ VARIANT __RPC_FAR *txn_out);

```

```

void __RPC_STUB ITPCC_NewOrder_Stub(
    IRpcStubBuffer *This,
    IRpcChannelBuffer *pRpcChannelBuffer,
    PRPC_MESSAGE _pRpcMessage,
    DWORD *_pdwStubPhase);

HRESULT __stdcall ITPCC_Payment_Proxy(
    ITPCC __RPC_FAR * This,
    /* [in] */ VARIANT txn_in,
    /* [out] */ VARIANT __RPC_FAR *txn_out);

void __RPC_STUB ITPCC_Payment_Stub(
    IRpcStubBuffer *This,
    IRpcChannelBuffer *pRpcChannelBuffer,
    PRPC_MESSAGE _pRpcMessage,
    DWORD *_pdwStubPhase);

HRESULT __stdcall ITPCC_Delivery_Proxy(
    ITPCC __RPC_FAR * This,
    /* [in] */ VARIANT txn_in,
    /* [out] */ VARIANT __RPC_FAR *txn_out);

void __RPC_STUB ITPCC_Delivery_Stub(
    IRpcStubBuffer *This,
    IRpcChannelBuffer *pRpcChannelBuffer,
    PRPC_MESSAGE _pRpcMessage,
    DWORD *_pdwStubPhase);

HRESULT __stdcall ITPCC_StockLevel_Proxy(
    ITPCC __RPC_FAR * This,
    /* [in] */ VARIANT txn_in,
    /* [out] */ VARIANT __RPC_FAR *txn_out);

void __RPC_STUB ITPCC_StockLevel_Stub(
    IRpcStubBuffer *This,
    IRpcChannelBuffer *pRpcChannelBuffer,
    PRPC_MESSAGE _pRpcMessage,
    DWORD *_pdwStubPhase);

HRESULT __stdcall ITPCC_OrderStatus_Proxy(
    ITPCC __RPC_FAR * This,
    /* [in] */ VARIANT txn_in,
    /* [out] */ VARIANT __RPC_FAR *txn_out);

void __RPC_STUB ITPCC_OrderStatus_Stub(
    IRpcStubBuffer *This,
    IRpcChannelBuffer *pRpcChannelBuffer,
    PRPC_MESSAGE _pRpcMessage,
    DWORD *_pdwStubPhase);

HRESULT __stdcall ITPCC_CallSetComplete_Proxy(
    ITPCC __RPC_FAR * This);

```

```

void __RPC_STUB ITPCC_CallSetComplete_Stub(
    IRpcStubBuffer *This,
    IRpcChannelBuffer *pRpcChannelBuffer,
    PRPC_MESSAGE _pRpcMessage,
    DWORD *_pdwStubPhase);

#endif /* __ITPCC_INTERFACE_DEFINED__ */

/* Additional Prototypes for ALL interfaces */

unsigned long             __RPC_USER VARIANT UserSize( unsigned long __RPC_FAR
*, unsigned long         , VARIANT __RPC_FAR * );
unsigned char __RPC_FAR * __RPC_USER VARIANT UserMarshal( unsigned long __RPC_FAR
*, unsigned char __RPC_FAR *, VARIANT __RPC_FAR * );
unsigned char __RPC_FAR * __RPC_USER VARIANT UserUnmarshal( unsigned long __RPC_FAR
*, unsigned char __RPC_FAR *, VARIANT __RPC_FAR * );
void __RPC_USER VARIANT UserFree( unsigned long __RPC_FAR
*, VARIANT __RPC_FAR * );

/* end of Additional Prototypes */

#ifdef __cplusplus
}
#endif

#endif

```

tpcc_com_ps.idl

```

/* FILE: ITPCC.IDL
 * Microsoft TPC-C Kit Ver. 4.20.000
 * Copyright Microsoft, 1999
 * All Rights Reserved
 * not yet audited
 * PURPOSE: Defines the interface used by TPCC. This interface can be
 * implemented by C++ components.
 * Change history:
 * 4.20.000 - first version
 */

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

[
    object,
    oleautomation,
    uuid(FEEB6AA2-84B1-11d2-BA47-00C04FBFE08B),
    helpstring("ITPCC Interface"),
    pointer_default(unique)
]

```

```

interface ITPCC : IUnknown
{
    HRESULT STDMETHODCALLTYPE NewOrder
        (
            [in] VARIANT txn_in,
            [out] VARIANT *txn_out
        );

    HRESULT STDMETHODCALLTYPE Payment
        (
            [in] VARIANT txn_in,
            [out] VARIANT *txn_out
        );

    HRESULT STDMETHODCALLTYPE Delivery
        (
            [in] VARIANT txn_in,
            [out] VARIANT *txn_out
        );

    HRESULT STDMETHODCALLTYPE StockLevel
        (
            [in] VARIANT txn_in,
            [out] VARIANT *txn_out
        );

    HRESULT STDMETHODCALLTYPE OrderStatus
        (
            [in] VARIANT txn_in,
            [out] VARIANT *txn_out
        );

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

```

tpcc_com_ps_i.c

```

#pragma warning( disable: 4049 ) /* more than 64k source lines */

/* this ALWAYS GENERATED file contains the IIDs and CLSIDs */

/* link this file in with the server and any clients */

/* File created by MIDL compiler version 5.03.0280 */
/* at Fri Sep 08 11:35:01 2000 */
/*
 * Compiler settings for .\src\tpcc_com_ps.idl:
 * Oicf (OptLev=i2), Wl, Zp8, env=Win32 (32b run), ms_ext, c_ext
 * error checks: allocation ref bounds_check enum stub_data
 * VC __declspec() decoration level:
 * __declspec(uuid()), __declspec(selectany), __declspec(novtable)
 * DECLSPEC_UUID(), MIDL_INTERFACE()
 */
//@@MIDL_FILE_HEADING( )

```

```

#if !defined(_M_IA64) && !defined(_M_AXP64)

#ifdef __cplusplus
extern "C"{
#endif

#include <rpc.h>
#include <rpcndr.h>

#ifdef _MIDL_USE_GUIDDEF_

#ifndef INITGUID
#define INITGUID
#include <guiddef.h>
#undef INITGUID
#else
#include <guiddef.h>
#endif

#define MIDL_DEFINE_GUID(type,name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8) \
    DEFINE_GUID(name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8)

#else // !_MIDL_USE_GUIDDEF_

#ifndef __IID_DEFINED__
#define __IID_DEFINED__

typedef struct _IID
{
    unsigned long x;
    unsigned short s1;
    unsigned short s2;
    unsigned char c[8];
} IID;

#endif // __IID_DEFINED__

#ifndef CLSID_DEFINED
#define CLSID_DEFINED
typedef IID CLSID;
#endif // CLSID_DEFINED

#define MIDL_DEFINE_GUID(type,name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8) \
    const type name = {l,w1,w2,{b1,b2,b3,b4,b5,b6,b7,b8}}

#endif !_MIDL_USE_GUIDDEF_

MIDL_DEFINE_GUID(IID,
IID_ITPCC,0xFEEB6AA2,0x84B1,0x11d2,0xBA,0x47,0x00,0xC0,0x4F,0xBF,0xE0,0x8B);

#undef MIDL_DEFINE_GUID

#ifdef __cplusplus
}
#endif

#endif /* !defined(_M_IA64) && !defined(_M_AXP64) */

```

```

#pragma warning( disable: 4049 ) /* more than 64k source lines */

/* this ALWAYS GENERATED file contains the IIDs and CLSIDs */

/* link this file in with the server and any clients */

/* File created by MIDL compiler version 5.03.0280 */
/* at Fri Sep 08 11:35:01 2000 */
/*
/* Compiler settings for .\src\tpcc_com_ps.idl:
    Oicf (OptLev=i2), Wl, Zp8, env=Win64 (32b run,appending), ms_ext, c_ext, robust
    error checks: allocation ref bounds_check enum stub_data
    VC __declspec() decoration level:
        __declspec(uuid()), __declspec(selectany), __declspec(novtable)
        DECLSPEC_UUID(), MIDL_INTERFACE()
*/
//@@MIDL_FILE_HEADING(  )

#if defined(_M_IA64) || defined(_M_AXP64)

#ifdef __cplusplus
extern "C"{
#endif

#include <rpc.h>
#include <rpcndr.h>

#ifdef _MIDL_USE_GUIDDEF_

#ifndef INITGUID
#define INITGUID
#include <guiddef.h>
#undef INITGUID
#else
#include <guiddef.h>
#endif
#endif

#define MIDL_DEFINE_GUID(type,name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8) \
    DEFINE_GUID(name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8)

#else // !_MIDL_USE_GUIDDEF_

#ifndef __IID_DEFINED__
#define __IID_DEFINED__

typedef struct _IID
{
    unsigned long x;
    unsigned short s1;
    unsigned short s2;
    unsigned char c[8];
} IID;

#endif // __IID_DEFINED__

#ifndef CLSID_DEFINED
#define CLSID_DEFINED
typedef IID CLSID;
#endif // CLSID_DEFINED

#define MIDL_DEFINE_GUID(type,name,l,w1,w2,b1,b2,b3,b4,b5,b6,b7,b8) \

```

```

        const type name = {l,w1,w2,{b1,b2,b3,b4,b5,b6,b7,b8}}

#endif !_MIDL_USE_GUIDDEF_

MIDL_DEFINE_GUID(IID,
IID_ITPCC,0xFEEB6AA2,0x84B1,0x11d2,0xBA,0x47,0x00,0xC0,0x4F,0xBF,0xE0,0x8B);

#undef MIDL_DEFINE_GUID

#ifdef __cplusplus
}
#endif

#endif /* defined(_M_IA64) || defined(_M_AXP64)*/

```

tpcc_com_ps_p.c

```

#pragma warning( disable: 4049 ) /* more than 64k source lines */

/* this ALWAYS GENERATED file contains the proxy stub code */

/* File created by MIDL compiler version 5.03.0280 */
/* at Fri Sep 08 11:35:01 2000 */
/*
/* Compiler settings for .\src\tpcc_com_ps.idl:
    Oicf (OptLev=i2), Wl, Zp8, env=Win32 (32b run), ms_ext, c_ext
    error checks: allocation ref bounds_check enum stub_data
    VC __declspec() decoration level:
        __declspec(uuid()), __declspec(selectany), __declspec(novtable)
        DECLSPEC_UUID(), MIDL_INTERFACE()
*/
//@@MIDL_FILE_HEADING(  )

#if !defined(_M_IA64) && !defined(_M_AXP64)
#define USE_STUBLESS_PROXY

/* verify that the <rpcproxy.h> version is high enough to compile this file*/
#ifdef __REDQ_RPCPROXY_H_VERSION__
#define __REQUIRED_RPCPROXY_H_VERSION__ 440
#endif

#include "rpcproxy.h"
#ifdef __RPCPROXY_H_VERSION__
#error this stub requires an updated version of <rpcproxy.h>
#endif // __RPCPROXY_H_VERSION__

#include "tpcc_com_ps.h"

#define TYPE_FORMAT_STRING_SIZE 997
#define PROC_FORMAT_STRING_SIZE 193
#define TRANSMIT_AS_TABLE_SIZE 0
#define WIRE_MARSHAL_TABLE_SIZE 1

typedef struct _MIDL_TYPE_FORMAT_STRING

```

```

    {
        short        Pad;
        unsigned char Format[ TYPE_FORMAT_STRING_SIZE ];
    } MIDL_TYPE_FORMAT_STRING;

typedef struct _MIDL_PROC_FORMAT_STRING
{
    short        Pad;
    unsigned char Format[ PROC_FORMAT_STRING_SIZE ];
} MIDL_PROC_FORMAT_STRING;

extern const MIDL_TYPE_FORMAT_STRING __MIDL_TypeFormatString;
extern const MIDL_PROC_FORMAT_STRING __MIDL_ProcFormatString;

/* Standard interface: __MIDL_itf_tpcc_com_ps_0000, ver. 0.0,
   GUID={0x00000000,0x0000,0x0000,{0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00}} */

/* Object interface: IUnknown, ver. 0.0,
   GUID={0x00000000,0x0000,0x0000,{0xC0,0x00,0x00,0x00,0x00,0x00,0x00,0x46}} */

/* Object interface: ITPCC, ver. 0.0,
   GUID={0xFEE6AA2,0x84B1,0x11d2,{0xBA,0x47,0x00,0xC0,0x4F,0xBF,0xE0,0x8B}} */

extern const MIDL_STUB_DESC Object_StubDesc;

extern const MIDL_SERVER_INFO ITPCC_ServerInfo;

#pragma code_seg(".orpc")
static const unsigned short ITPCC_FormatStringOffsetTable[] =
{
    0,
    34,
    68,
    102,
    136,
    170
};

static const MIDL_SERVER_INFO ITPCC_ServerInfo =
{
    &Object_StubDesc,
    0,
    __MIDL_ProcFormatString.Format,
    &ITPCC_FormatStringOffsetTable[-3],
    0,
    0,
    0,
    0,
    0
};

static const MIDL_STUBLESS_PROXY_INFO ITPCC_ProxyInfo =
{
    &Object_StubDesc,
    __MIDL_ProcFormatString.Format,
    &ITPCC_FormatStringOffsetTable[-3],
    0,
    0,

```

```

    0
};

CINTERFACE_PROXY_VTABLE(9) _ITPCCProxyVtbl =
{
    &ITPCC_ProxyInfo,
    &IID_ITPCC,
    IUnknown_QueryInterface_Proxy,
    IUnknown_AddRef_Proxy,
    IUnknown_Release_Proxy ,
    (void *)-1 /* ITPCC::NewOrder */ ,
    (void *)-1 /* ITPCC::Payment */ ,
    (void *)-1 /* ITPCC::Delivery */ ,
    (void *)-1 /* ITPCC::StockLevel */ ,
    (void *)-1 /* ITPCC::OrderStatus */ ,
    (void *)-1 /* ITPCC::CallSetComplete */
};

const CInterfaceStubVtbl _ITPCCStubVtbl =
{
    &IID_ITPCC,
    &ITPCC_ServerInfo,
    9,
    0, /* pure interpreted */
    CStdStubBuffer_METHODS
};

extern const USER_MARSHAL_ROUTINE_QUADRUPLE UserMarshalRoutines[
WIRE_MARSHAL_TABLE_SIZE ];

static const MIDL_STUB_DESC Object_StubDesc =
{
    0,
    NdrOleAllocate,
    NdrOleFree,
    0,
    0,
    0,
    0,
    0,
    0,
    __MIDL_TypeFormatString.Format,
    1, /* -error bounds_check flag */
    0x20000, /* Ndr library version */
    0,
    0x5030118, /* MIDL Version 5.3.280 */
    0,
    UserMarshalRoutines,
    0, /* notify & notify_flag routine table */
    0x1, /* MIDL flag */
    0, /* Reserved3 */
    0, /* Reserved4 */
    0 /* Reserved5 */
};

#pragma data_seg(".rdata")

static const USER_MARSHAL_ROUTINE_QUADRUPLE UserMarshalRoutines[
WIRE_MARSHAL_TABLE_SIZE ] =
{
    {
        VARIANT_UserSize
        ,VARIANT_UserMarshal

```



```

        ,VARIANT_UserUnmarshal
        ,VARIANT_UserFree
    }
};

#if !defined(__RPC_WIN32__)
#error Invalid build platform for this stub.
#endif

#if !(TARGET_IS_NT40_OR_LATER)
#error You need a Windows NT 4.0 or later to run this stub because it uses these
features:
#error -Oif or -Oicf, [wire_marshall] or [user_marshall] attribute.
#error However, your C/C++ compilation flags indicate you intend to run this app on
earlier systems.
#error This app will die there with the RPC_X_WRONG_STUB_VERSION error.
#endif

static const MIDL_PROC_FORMAT_STRING __MIDL_ProcFormatString =
{
    0,
    {
        /* Procedure NewOrder */

                0x33,          /* FC_AUTO_HANDLE */
                0x6c,          /* Old Flags: object, Oi2 */

/* 2 */ NdrFcLong( 0x0 ), /* 0 */
/* 6 */ NdrFcShort( 0x3 ), /* 3 */
#ifdef _ALPHA_
#ifdef _PPC_
#if !defined(_MIPS_)
/* 8 */ NdrFcShort( 0x1c ), /* x86 Stack size/offset = 28 */
#else
                NdrFcShort( 0x20 ), /* MIPS Stack size/offset = 32 */
#endif
#endif
#else
                NdrFcShort( 0x20 ), /* PPC Stack size/offset = 32 */
#endif
#ifdef _ALPHA_
                NdrFcShort( 0x28 ), /* Alpha Stack size/offset = 40 */
#endif
/* 10 */ NdrFcShort( 0x0 ), /* 0 */
/* 12 */ NdrFcShort( 0x8 ), /* 8 */
/* 14 */ 0x7, /* Oi2 Flags: srv must size, clt must size, has
return, */
                0x3,          /* 3 */

        /* Parameter txn_in */

/* 16 */ NdrFcShort( 0x8b ), /* Flags: must size, must free, in, by val, */
#ifdef _ALPHA_
#ifdef _PPC_
#if !defined(_MIPS_)
/* 18 */ NdrFcShort( 0x4 ), /* x86 Stack size/offset = 4 */
#else
                NdrFcShort( 0x8 ), /* MIPS Stack size/offset = 8 */
#endif
#endif
#else
                NdrFcShort( 0x8 ), /* PPC Stack size/offset = 8 */
#endif
    }
};

```

```

#endif
#else
                NdrFcShort( 0x8 ), /* Alpha Stack size/offset = 8 */
#endif
/* 20 */ NdrFcShort( 0x3c8 ), /* Type Offset=968 */

        /* Parameter txn_out */

/* 22 */ NdrFcShort( 0x4113 ), /* Flags: must size, must free, out, simple
ref, srv alloc size=16 */
#ifdef _ALPHA_
#ifdef _PPC_
#if !defined(_MIPS_)
/* 24 */ NdrFcShort( 0x14 ), /* x86 Stack size/offset = 20 */
#else
                NdrFcShort( 0x18 ), /* MIPS Stack size/offset = 24 */
#endif
#endif
#else
                NdrFcShort( 0x18 ), /* PPC Stack size/offset = 24 */
#endif
#ifdef _ALPHA_
                NdrFcShort( 0x18 ), /* Alpha Stack size/offset = 24 */
#endif
/* 26 */ NdrFcShort( 0x3da ), /* Type Offset=986 */

        /* Return value */

/* 28 */ NdrFcShort( 0x70 ), /* Flags: out, return, base type, */
#ifdef _ALPHA_
#ifdef _PPC_
#if !defined(_MIPS_)
/* 30 */ NdrFcShort( 0x18 ), /* x86 Stack size/offset = 24 */
#else
                NdrFcShort( 0x1c ), /* MIPS Stack size/offset = 28 */
#endif
#endif
#else
                NdrFcShort( 0x1c ), /* PPC Stack size/offset = 28 */
#endif
#ifdef _ALPHA_
                NdrFcShort( 0x20 ), /* Alpha Stack size/offset = 32 */
#endif
/* 32 */ 0x8, /* FC_LONG */
                0x0, /* 0 */

        /* Procedure Payment */

/* 34 */ 0x33, /* FC_AUTO_HANDLE */
                0x6c, /* Old Flags: object, Oi2 */

/* 36 */ NdrFcLong( 0x0 ), /* 0 */
/* 40 */ NdrFcShort( 0x4 ), /* 4 */
#ifdef _ALPHA_
#ifdef _PPC_
#if !defined(_MIPS_)
/* 42 */ NdrFcShort( 0x1c ), /* x86 Stack size/offset = 28 */
#else
                NdrFcShort( 0x20 ), /* MIPS Stack size/offset = 32 */
#endif
#endif
#else
                NdrFcShort( 0x20 ), /* PPC Stack size/offset = 32 */
#endif
#ifdef _ALPHA_
                NdrFcShort( 0x28 ), /* Alpha Stack size/offset = 40 */
#endif

```

```

/* 44 */ NdrFcShort( 0x0 ), /* 0 */
/* 46 */ NdrFcShort( 0x8 ), /* 8 */
/* 48 */ 0x7, /* Oi2 Flags: srv must size, clt must size, has
return, */
0x3, /* 3 */

/* Parameter txn_in */

/* 50 */ NdrFcShort( 0x8b ), /* Flags: must size, must free, in, by val, */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 52 */ NdrFcShort( 0x4 ), /* x86 Stack size/offset = 4 */
#else
NdrFcShort( 0x8 ), /* MIPS Stack size/offset = 8 */
#endif
#else
NdrFcShort( 0x8 ), /* PPC Stack size/offset = 8 */
#endif
#else
NdrFcShort( 0x8 ), /* Alpha Stack size/offset = 8 */
#endif
/* 54 */ NdrFcShort( 0x3c8 ), /* Type Offset=968 */

/* Parameter txn_out */

/* 56 */ NdrFcShort( 0x4113 ), /* Flags: must size, must free, out, simple
ref, srv alloc size=16 */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 58 */ NdrFcShort( 0x14 ), /* x86 Stack size/offset = 20 */
#else
NdrFcShort( 0x18 ), /* MIPS Stack size/offset = 24 */
#endif
#else
NdrFcShort( 0x18 ), /* PPC Stack size/offset = 24 */
#endif
#else
NdrFcShort( 0x18 ), /* Alpha Stack size/offset = 24 */
#endif
/* 60 */ NdrFcShort( 0x3da ), /* Type Offset=986 */

/* Return value */

/* 62 */ NdrFcShort( 0x70 ), /* Flags: out, return, base type, */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 64 */ NdrFcShort( 0x18 ), /* x86 Stack size/offset = 24 */
#else
NdrFcShort( 0x1c ), /* MIPS Stack size/offset = 28 */
#endif
#else
NdrFcShort( 0x1c ), /* PPC Stack size/offset = 28 */
#endif
#else
NdrFcShort( 0x20 ), /* Alpha Stack size/offset = 32 */
#endif
/* 66 */ 0x8, /* FC_LONG */
0x0, /* 0 */

/* Procedure Delivery */

```

```

/* 68 */ 0x33, /* FC_AUTO_HANDLE */
0x6c, /* Old Flags: object, Oi2 */
/* 70 */ NdrFcLong( 0x0 ), /* 0 */
/* 74 */ NdrFcShort( 0x5 ), /* 5 */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 76 */ NdrFcShort( 0x1c ), /* x86 Stack size/offset = 28 */
#else
NdrFcShort( 0x20 ), /* MIPS Stack size/offset = 32 */
#endif
#else
NdrFcShort( 0x20 ), /* PPC Stack size/offset = 32 */
#endif
#else
NdrFcShort( 0x28 ), /* Alpha Stack size/offset = 40 */
#endif
/* 78 */ NdrFcShort( 0x0 ), /* 0 */
/* 80 */ NdrFcShort( 0x8 ), /* 8 */
/* 82 */ 0x7, /* Oi2 Flags: srv must size, clt must size, has
return, */
0x3, /* 3 */

/* Parameter txn_in */

/* 84 */ NdrFcShort( 0x8b ), /* Flags: must size, must free, in, by val, */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 86 */ NdrFcShort( 0x4 ), /* x86 Stack size/offset = 4 */
#else
NdrFcShort( 0x8 ), /* MIPS Stack size/offset = 8 */
#endif
#else
NdrFcShort( 0x8 ), /* PPC Stack size/offset = 8 */
#endif
#else
NdrFcShort( 0x8 ), /* Alpha Stack size/offset = 8 */
#endif
/* 88 */ NdrFcShort( 0x3c8 ), /* Type Offset=968 */

/* Parameter txn_out */

/* 90 */ NdrFcShort( 0x4113 ), /* Flags: must size, must free, out, simple
ref, srv alloc size=16 */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 92 */ NdrFcShort( 0x14 ), /* x86 Stack size/offset = 20 */
#else
NdrFcShort( 0x18 ), /* MIPS Stack size/offset = 24 */
#endif
#else
NdrFcShort( 0x18 ), /* PPC Stack size/offset = 24 */
#endif
#else
NdrFcShort( 0x18 ), /* Alpha Stack size/offset = 24 */
#endif
/* 94 */ NdrFcShort( 0x3da ), /* Type Offset=986 */

/* Return value */

```

```

/* 96 */ NdrFcShort( 0x70 ), /* Flags: out, return, base type, */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 98 */ NdrFcShort( 0x18 ), /* x86 Stack size/offset = 24 */
#else
NdrFcShort( 0x1c ), /* MIPS Stack size/offset = 28 */
#endif
#else
NdrFcShort( 0x1c ), /* PPC Stack size/offset = 28 */
#endif
#else
NdrFcShort( 0x20 ), /* Alpha Stack size/offset = 32 */
#endif
/* 100 */ 0x8, /* FC_LONG */
0x0, /* 0 */

/* Procedure StockLevel */

/* 102 */ 0x33, /* FC_AUTO_HANDLE */
0x6c, /* Old Flags: object, Oi2 */
/* 104 */ NdrFcLong( 0x0 ), /* 0 */
/* 108 */ NdrFcShort( 0x6 ), /* 6 */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 110 */ NdrFcShort( 0x1c ), /* x86 Stack size/offset = 28 */
#else
NdrFcShort( 0x20 ), /* MIPS Stack size/offset = 32 */
#endif
#else
NdrFcShort( 0x20 ), /* PPC Stack size/offset = 32 */
#endif
#else
NdrFcShort( 0x28 ), /* Alpha Stack size/offset = 40 */
#endif
/* 112 */ NdrFcShort( 0x0 ), /* 0 */
/* 114 */ NdrFcShort( 0x8 ), /* 8 */
/* 116 */ 0x7, /* Oi2 Flags: srv must size, clt must size, has
return, */
0x3, /* 3 */

/* Parameter txn_in */

/* 118 */ NdrFcShort( 0x8b ), /* Flags: must size, must free, in, by val, */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 120 */ NdrFcShort( 0x4 ), /* x86 Stack size/offset = 4 */
#else
NdrFcShort( 0x8 ), /* MIPS Stack size/offset = 8 */
#endif
#else
NdrFcShort( 0x8 ), /* PPC Stack size/offset = 8 */
#endif
#else
NdrFcShort( 0x8 ), /* Alpha Stack size/offset = 8 */
#endif
/* 122 */ NdrFcShort( 0x3c8 ), /* Type Offset=968 */

/* Parameter txn_out */

```

```

/* 124 */ NdrFcShort( 0x4113 ), /* Flags: must size, must free, out, simple
ref, srv alloc size=16 */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 126 */ NdrFcShort( 0x14 ), /* x86 Stack size/offset = 20 */
#else
NdrFcShort( 0x18 ), /* MIPS Stack size/offset = 24 */
#endif
#else
NdrFcShort( 0x18 ), /* PPC Stack size/offset = 24 */
#endif
#else
NdrFcShort( 0x18 ), /* Alpha Stack size/offset = 24 */
#endif
/* 128 */ NdrFcShort( 0x3da ), /* Type Offset=986 */

/* Return value */

/* 130 */ NdrFcShort( 0x70 ), /* Flags: out, return, base type, */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 132 */ NdrFcShort( 0x18 ), /* x86 Stack size/offset = 24 */
#else
NdrFcShort( 0x1c ), /* MIPS Stack size/offset = 28 */
#endif
#else
NdrFcShort( 0x1c ), /* PPC Stack size/offset = 28 */
#endif
#else
NdrFcShort( 0x20 ), /* Alpha Stack size/offset = 32 */
#endif
/* 134 */ 0x8, /* FC_LONG */
0x0, /* 0 */

/* Procedure OrderStatus */

/* 136 */ 0x33, /* FC_AUTO_HANDLE */
0x6c, /* Old Flags: object, Oi2 */
/* 138 */ NdrFcLong( 0x0 ), /* 0 */
/* 142 */ NdrFcShort( 0x7 ), /* 7 */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined(_MIPS_)
/* 144 */ NdrFcShort( 0x1c ), /* x86 Stack size/offset = 28 */
#else
NdrFcShort( 0x20 ), /* MIPS Stack size/offset = 32 */
#endif
#else
NdrFcShort( 0x20 ), /* PPC Stack size/offset = 32 */
#endif
#else
NdrFcShort( 0x28 ), /* Alpha Stack size/offset = 40 */
#endif
/* 146 */ NdrFcShort( 0x0 ), /* 0 */
/* 148 */ NdrFcShort( 0x8 ), /* 8 */
/* 150 */ 0x7, /* Oi2 Flags: srv must size, clt must size, has
return, */
0x3, /* 3 */

/* Parameter txn_in */

```

```

/* 152 */ NdrFcShort( 0x8b ), /* Flags: must size, must free, in, by val, */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined( _MIPS_ )
/* 154 */ NdrFcShort( 0x4 ), /* x86 Stack size/offset = 4 */
#else
NdrFcShort( 0x8 ), /* MIPS Stack size/offset = 8 */
#endif
#else
NdrFcShort( 0x8 ), /* PPC Stack size/offset = 8 */
#endif
#else
NdrFcShort( 0x8 ), /* Alpha Stack size/offset = 8 */
#endif
/* 156 */ NdrFcShort( 0x3c8 ), /* Type Offset=968 */

/* Parameter txn_out */

/* 158 */ NdrFcShort( 0x4113 ), /* Flags: must size, must free, out, simple
ref, srv alloc size=16 */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined( _MIPS_ )
/* 160 */ NdrFcShort( 0x14 ), /* x86 Stack size/offset = 20 */
#else
NdrFcShort( 0x18 ), /* MIPS Stack size/offset = 24 */
#endif
#else
NdrFcShort( 0x18 ), /* PPC Stack size/offset = 24 */
#endif
#else
NdrFcShort( 0x18 ), /* Alpha Stack size/offset = 24 */
#endif
/* 162 */ NdrFcShort( 0x3da ), /* Type Offset=986 */

/* Return value */

/* 164 */ NdrFcShort( 0x70 ), /* Flags: out, return, base type, */
#ifndef _ALPHA_
#ifndef _PPC_
#if !defined( _MIPS_ )
/* 166 */ NdrFcShort( 0x18 ), /* x86 Stack size/offset = 24 */
#else
NdrFcShort( 0x1c ), /* MIPS Stack size/offset = 28 */
#endif
#else
NdrFcShort( 0x1c ), /* PPC Stack size/offset = 28 */
#endif
#else
NdrFcShort( 0x20 ), /* Alpha Stack size/offset = 32 */
#endif
/* 168 */ 0x8, /* FC_LONG */
0x0, /* 0 */

/* Procedure CallSetComplete */

/* 170 */ 0x33, /* FC_AUTO_HANDLE */
0x6c, /* Old Flags: object, Oi2 */
/* 172 */ NdrFcLong( 0x0 ), /* 0 */
/* 176 */ NdrFcShort( 0x8 ), /* 8 */
#ifndef _ALPHA_
/* 178 */ NdrFcShort( 0x8 ), /* x86, MIPS, PPC Stack size/offset = 8 */
#else

```

```

NdrFcShort( 0x10 ), /* Alpha Stack size/offset = 16 */
#endif
/* 180 */ NdrFcShort( 0x0 ), /* 0 */
/* 182 */ NdrFcShort( 0x8 ), /* 8 */
/* 184 */ 0x4, /* Oi2 Flags: has return, */
0x1, /* 1 */

/* Return value */

/* 186 */ NdrFcShort( 0x70 ), /* Flags: out, return, base type, */
#ifndef _ALPHA_
/* 188 */ NdrFcShort( 0x4 ), /* x86, MIPS, PPC Stack size/offset = 4 */
#else
NdrFcShort( 0x8 ), /* Alpha Stack size/offset = 8 */
#endif
/* 190 */ 0x8, /* FC_LONG */
0x0, /* 0 */

0x0

}
};

static const MIDL_TYPE_FORMAT_STRING __MIDL_TypeFormatString =
{
0,
{
NdrFcShort( 0x0 ), /* 0 */
/* 2 */
0x12, 0x0, /* FC_UP */
/* 4 */ NdrFcShort( 0x3b0 ), /* Offset= 944 (948) */
/* 6 */
0x2b, /* FC_NON_ENCAPSULATED_UNION */
0x9, /* FC_ULONG */
/* 8 */ 0x7, /* Corr desc: FC_USHORT */
0x0, /* */
/* 10 */ NdrFcShort( 0xffff8 ), /* -8 */
/* 12 */ NdrFcShort( 0x2 ), /* Offset= 2 (14) */
/* 14 */ NdrFcShort( 0x10 ), /* 16 */
/* 16 */ NdrFcShort( 0x2b ), /* 43 */
/* 18 */ NdrFcLong( 0x3 ), /* 3 */
/* 22 */ NdrFcShort( 0x8008 ), /* Simple arm type: FC_LONG */
/* 24 */ NdrFcLong( 0x11 ), /* 17 */
/* 28 */ NdrFcShort( 0x8001 ), /* Simple arm type: FC_BYTE */
/* 30 */ NdrFcLong( 0x2 ), /* 2 */
/* 34 */ NdrFcShort( 0x8006 ), /* Simple arm type: FC_SHORT */
/* 36 */ NdrFcLong( 0x4 ), /* 4 */
/* 40 */ NdrFcShort( 0x800a ), /* Simple arm type: FC_FLOAT */
/* 42 */ NdrFcLong( 0x5 ), /* 5 */
/* 46 */ NdrFcShort( 0x800c ), /* Simple arm type: FC_DOUBLE */
/* 48 */ NdrFcLong( 0xb ), /* 11 */
/* 52 */ NdrFcShort( 0x8006 ), /* Simple arm type: FC_SHORT */
/* 54 */ NdrFcLong( 0xa ), /* 10 */
/* 58 */ NdrFcShort( 0x8008 ), /* Simple arm type: FC_LONG */
/* 60 */ NdrFcLong( 0x6 ), /* 6 */
/* 64 */ NdrFcShort( 0xd6 ), /* Offset= 214 (278) */
/* 66 */ NdrFcLong( 0x7 ), /* 7 */
/* 70 */ NdrFcShort( 0x800c ), /* Simple arm type: FC_DOUBLE */
/* 72 */ NdrFcLong( 0x8 ), /* 8 */
/* 76 */ NdrFcShort( 0xd0 ), /* Offset= 208 (284) */
/* 78 */ NdrFcLong( 0xd ), /* 13 */
/* 82 */ NdrFcShort( 0xe2 ), /* Offset= 226 (308) */
/* 84 */ NdrFcLong( 0x9 ), /* 9 */
/* 88 */ NdrFcShort( 0xee ), /* Offset= 238 (326) */

```

```

/* 90 */ NdrFcLong( 0x2000 ), /* 8192 */
/* 94 */ NdrFcShort( 0xfa ), /* Offset= 250 (344) */
/* 96 */ NdrFcLong( 0x24 ), /* 36 */
/* 100 */ NdrFcShort( 0x308 ), /* Offset= 776 (876) */
/* 102 */ NdrFcLong( 0x4024 ), /* 16420 */
/* 106 */ NdrFcShort( 0x302 ), /* Offset= 770 (876) */
/* 108 */ NdrFcLong( 0x4011 ), /* 16401 */
/* 112 */ NdrFcShort( 0x300 ), /* Offset= 768 (880) */
/* 114 */ NdrFcLong( 0x4002 ), /* 16386 */
/* 118 */ NdrFcShort( 0x2fe ), /* Offset= 766 (884) */
/* 120 */ NdrFcLong( 0x4003 ), /* 16387 */
/* 124 */ NdrFcShort( 0x2fc ), /* Offset= 764 (888) */
/* 126 */ NdrFcLong( 0x4004 ), /* 16388 */
/* 130 */ NdrFcShort( 0x2fa ), /* Offset= 762 (892) */
/* 132 */ NdrFcLong( 0x4005 ), /* 16389 */
/* 136 */ NdrFcShort( 0x2f8 ), /* Offset= 760 (896) */
/* 138 */ NdrFcLong( 0x400b ), /* 16395 */
/* 142 */ NdrFcShort( 0x2e6 ), /* Offset= 742 (884) */
/* 144 */ NdrFcLong( 0x400a ), /* 16394 */
/* 148 */ NdrFcShort( 0x2e4 ), /* Offset= 740 (888) */
/* 150 */ NdrFcLong( 0x4006 ), /* 16390 */
/* 154 */ NdrFcShort( 0x2ea ), /* Offset= 746 (900) */
/* 156 */ NdrFcLong( 0x4007 ), /* 16391 */
/* 160 */ NdrFcShort( 0x2e0 ), /* Offset= 736 (896) */
/* 162 */ NdrFcLong( 0x4008 ), /* 16392 */
/* 166 */ NdrFcShort( 0x2e2 ), /* Offset= 738 (904) */
/* 168 */ NdrFcLong( 0x400d ), /* 16397 */
/* 172 */ NdrFcShort( 0x2e0 ), /* Offset= 736 (908) */
/* 174 */ NdrFcLong( 0x4009 ), /* 16393 */
/* 178 */ NdrFcShort( 0x2de ), /* Offset= 734 (912) */
/* 180 */ NdrFcLong( 0x6000 ), /* 24576 */
/* 184 */ NdrFcShort( 0x2dc ), /* Offset= 732 (916) */
/* 186 */ NdrFcLong( 0x400c ), /* 16396 */
/* 190 */ NdrFcShort( 0x2da ), /* Offset= 730 (920) */
/* 192 */ NdrFcLong( 0x10 ), /* 16 */
/* 196 */ NdrFcShort( 0x8002 ), /* Simple arm type: FC_CHAR */
/* 198 */ NdrFcLong( 0x12 ), /* 18 */
/* 202 */ NdrFcShort( 0x8006 ), /* Simple arm type: FC_SHORT */
/* 204 */ NdrFcLong( 0x13 ), /* 19 */
/* 208 */ NdrFcShort( 0x8008 ), /* Simple arm type: FC_LONG */
/* 210 */ NdrFcLong( 0x16 ), /* 22 */
/* 214 */ NdrFcShort( 0x8008 ), /* Simple arm type: FC_LONG */
/* 216 */ NdrFcLong( 0x17 ), /* 23 */
/* 220 */ NdrFcShort( 0x8008 ), /* Simple arm type: FC_LONG */
/* 222 */ NdrFcLong( 0xe ), /* 14 */
/* 226 */ NdrFcShort( 0x2be ), /* Offset= 702 (928) */
/* 228 */ NdrFcLong( 0x400e ), /* 16398 */
/* 232 */ NdrFcShort( 0x2c4 ), /* Offset= 708 (940) */
/* 234 */ NdrFcLong( 0x4010 ), /* 16400 */
/* 238 */ NdrFcShort( 0x2c2 ), /* Offset= 706 (944) */
/* 240 */ NdrFcLong( 0x4012 ), /* 16402 */
/* 244 */ NdrFcShort( 0x280 ), /* Offset= 640 (884) */
/* 246 */ NdrFcLong( 0x4013 ), /* 16403 */
/* 250 */ NdrFcShort( 0x27e ), /* Offset= 638 (888) */
/* 252 */ NdrFcLong( 0x4016 ), /* 16406 */
/* 256 */ NdrFcShort( 0x278 ), /* Offset= 632 (888) */
/* 258 */ NdrFcLong( 0x4017 ), /* 16407 */
/* 262 */ NdrFcShort( 0x272 ), /* Offset= 626 (888) */
/* 264 */ NdrFcLong( 0x0 ), /* 0 */
/* 268 */ NdrFcShort( 0x0 ), /* Offset= 0 (268) */
/* 270 */ NdrFcLong( 0x1 ), /* 1 */
/* 274 */ NdrFcShort( 0x0 ), /* Offset= 0 (274) */
/* 276 */ NdrFcShort( 0xffffffff ), /* Offset= -1 (275) */

```

```

/* 278 */
0x15, /* FC_STRUCT */
0x7, /* 7 */
/* 280 */ NdrFcShort( 0x8 ), /* 8 */
/* 282 */ 0xb, /* FC_HYPER */
0x5b, /* FC_END */
/* 284 */
0x12, 0x0, /* FC_UP */
/* 286 */ NdrFcShort( 0xc ), /* Offset= 12 (298) */
/* 288 */
0x1b, /* FC_CARRAY */
0x1, /* 1 */
/* 290 */ NdrFcShort( 0x2 ), /* 2 */
/* 292 */ 0x9, /* Corr desc: FC_ULONG */
0x0, /* */
/* 294 */ NdrFcShort( 0xffc ), /* -4 */
/* 296 */ 0x6, /* FC_SHORT */
0x5b, /* FC_END */
/* 298 */
0x17, /* FC_CSTRUCT */
0x3, /* 3 */
/* 300 */ NdrFcShort( 0x8 ), /* 8 */
/* 302 */ NdrFcShort( 0xffffffff2 ), /* Offset= -14 (288) */
/* 304 */ 0x8, /* FC_LONG */
0x8, /* FC_LONG */
/* 306 */ 0x5c, /* FC_PAD */
0x5b, /* FC_END */
/* 308 */
0x2f, /* FC_IP */
0x5a, /* FC_CONSTANT_IID */
/* 310 */ NdrFcLong( 0x0 ), /* 0 */
/* 314 */ NdrFcShort( 0x0 ), /* 0 */
/* 316 */ NdrFcShort( 0x0 ), /* 0 */
/* 318 */ 0xc0, /* 192 */
0x0, /* 0 */
/* 320 */ 0x0, /* 0 */
0x0, /* 0 */
/* 322 */ 0x0, /* 0 */
0x0, /* 0 */
/* 324 */ 0x0, /* 0 */
0x46, /* 70 */
/* 326 */
0x2f, /* FC_IP */
0x5a, /* FC_CONSTANT_IID */
/* 328 */ NdrFcLong( 0x20400 ), /* 132096 */
/* 332 */ NdrFcShort( 0x0 ), /* 0 */
/* 334 */ NdrFcShort( 0x0 ), /* 0 */
/* 336 */ 0xc0, /* 192 */
0x0, /* 0 */
/* 338 */ 0x0, /* 0 */
0x0, /* 0 */
/* 340 */ 0x0, /* 0 */
0x0, /* 0 */
/* 342 */ 0x0, /* 0 */
0x46, /* 70 */
/* 344 */
0x12, 0x10, /* FC_UP [pointer_deref] */
/* 346 */ NdrFcShort( 0x2 ), /* Offset= 2 (348) */
/* 348 */
0x12, 0x0, /* FC_UP */
/* 350 */ NdrFcShort( 0x1fc ), /* Offset= 508 (858) */
/* 352 */
0x2a, /* FC_ENCAPSULATED_UNION */

```

```

Ox49, /* 73 */
/* 354 */ NdrFcShort( 0x18 ), /* 24 */
/* 356 */ NdrFcShort( 0xa ), /* 10 */
/* 358 */ NdrFcLong( 0x8 ), /* 8 */
/* 362 */ NdrFcShort( 0x58 ), /* Offset= 88 (450) */
/* 364 */ NdrFcLong( 0xd ), /* 13 */
/* 368 */ NdrFcShort( 0x78 ), /* Offset= 120 (488) */
/* 370 */ NdrFcLong( 0x9 ), /* 9 */
/* 374 */ NdrFcShort( 0x94 ), /* Offset= 148 (522) */
/* 376 */ NdrFcLong( 0xc ), /* 12 */
/* 380 */ NdrFcShort( 0xbc ), /* Offset= 188 (568) */
/* 382 */ NdrFcLong( 0x24 ), /* 36 */
/* 386 */ NdrFcShort( 0x114 ), /* Offset= 276 (662) */
/* 388 */ NdrFcLong( 0x800d ), /* 32781 */
/* 392 */ NdrFcShort( 0x130 ), /* Offset= 304 (696) */
/* 394 */ NdrFcLong( 0x10 ), /* 16 */
/* 398 */ NdrFcShort( 0x148 ), /* Offset= 328 (726) */
/* 400 */ NdrFcLong( 0x2 ), /* 2 */
/* 404 */ NdrFcShort( 0x160 ), /* Offset= 352 (756) */
/* 406 */ NdrFcLong( 0x3 ), /* 3 */
/* 410 */ NdrFcShort( 0x178 ), /* Offset= 376 (786) */
/* 412 */ NdrFcLong( 0x14 ), /* 20 */
/* 416 */ NdrFcShort( 0x190 ), /* Offset= 400 (816) */
/* 418 */ NdrFcShort( 0xffffffff ), /* Offset= -1 (417) */
/* 420 */

Ox1b, /* FC_CARRAY */
Ox3, /* 3 */
/* 422 */ NdrFcShort( 0x4 ), /* 4 */
/* 424 */ 0x19, /* Corr desc: field pointer, FC_ULONG */
Ox0, /* */
/* 426 */ NdrFcShort( 0x0 ), /* 0 */
/* 428 */

Ox4b, /* FC_PP */
Ox5c, /* FC_PAD */

/* 430 */

Ox48, /* FC_VARIABLE_REPEAT */
Ox49, /* FC_FIXED_OFFSET */

/* 432 */ NdrFcShort( 0x4 ), /* 4 */
/* 434 */ NdrFcShort( 0x0 ), /* 0 */
/* 436 */ NdrFcShort( 0x1 ), /* 1 */
/* 438 */ NdrFcShort( 0x0 ), /* 0 */
/* 440 */ NdrFcShort( 0x0 ), /* 0 */
/* 442 */ 0x12, 0x0, /* FC_UP */
/* 444 */ NdrFcShort( 0xfffff6e ), /* Offset= -146 (298) */
/* 446 */

Ox5b, /* FC_END */

Ox8, /* FC_LONG */
/* 448 */ 0x5c, /* FC_PAD */
Ox5b, /* FC_END */

/* 450 */

Ox16, /* FC_PSTRUCT */
Ox3, /* 3 */
/* 452 */ NdrFcShort( 0x8 ), /* 8 */
/* 454 */

Ox4b, /* FC_PP */
Ox5c, /* FC_PAD */

/* 456 */

Ox46, /* FC_NO_REPEAT */
Ox5c, /* FC_PAD */

/* 458 */ NdrFcShort( 0x4 ), /* 4 */
/* 460 */ NdrFcShort( 0x4 ), /* 4 */
/* 462 */ 0x11, 0x0, /* FC_RP */

```

```

/* 464 */ NdrFcShort( 0xffffffffd ), /* Offset= -44 (420) */
/* 466 */

Ox5b, /* FC_END */

Ox8, /* FC_LONG */
/* 468 */ 0x8, /* FC_LONG */
Ox5b, /* FC_END */

/* 470 */

Ox21, /* FC_BOGUS_ARRAY */
Ox3, /* 3 */

/* 472 */ NdrFcShort( 0x0 ), /* 0 */
/* 474 */ 0x19, /* Corr desc: field pointer, FC_ULONG */
Ox0, /* */

/* 476 */ NdrFcShort( 0x0 ), /* 0 */
/* 478 */ NdrFcLong( 0xffffffff ), /* -1 */
/* 482 */ 0x4c, /* FC_EMBEDDED_COMPLEX */
Ox0, /* 0 */

/* 484 */ NdrFcShort( 0xffffffff50 ), /* Offset= -176 (308) */
/* 486 */ 0x5c, /* FC_PAD */
Ox5b, /* FC_END */

/* 488 */

Ox1a, /* FC_BOGUS_STRUCT */
Ox3, /* 3 */

/* 490 */ NdrFcShort( 0x8 ), /* 8 */
/* 492 */ NdrFcShort( 0x0 ), /* 0 */
/* 494 */ NdrFcShort( 0x6 ), /* Offset= 6 (500) */
/* 496 */ 0x8, /* FC_LONG */

Ox36, /* FC_POINTER */
/* 498 */ 0x5c, /* FC_PAD */
Ox5b, /* FC_END */

/* 500 */

Ox11, 0x0, /* FC_RP */
/* 502 */ NdrFcShort( 0xffffffe0 ), /* Offset= -32 (470) */
/* 504 */

Ox21, /* FC_BOGUS_ARRAY */
Ox3, /* 3 */

/* 506 */ NdrFcShort( 0x0 ), /* 0 */
/* 508 */ 0x19, /* Corr desc: field pointer, FC_ULONG */
Ox0, /* */

/* 510 */ NdrFcShort( 0x0 ), /* 0 */
/* 512 */ NdrFcLong( 0xffffffff ), /* -1 */
/* 516 */ 0x4c, /* FC_EMBEDDED_COMPLEX */
Ox0, /* 0 */

/* 518 */ NdrFcShort( 0xffffffff40 ), /* Offset= -192 (326) */
/* 520 */ 0x5c, /* FC_PAD */
Ox5b, /* FC_END */

/* 522 */

Ox1a, /* FC_BOGUS_STRUCT */
Ox3, /* 3 */

/* 524 */ NdrFcShort( 0x8 ), /* 8 */
/* 526 */ NdrFcShort( 0x0 ), /* 0 */
/* 528 */ NdrFcShort( 0x6 ), /* Offset= 6 (534) */
/* 530 */ 0x8, /* FC_LONG */

Ox36, /* FC_POINTER */
/* 532 */ 0x5c, /* FC_PAD */
Ox5b, /* FC_END */

/* 534 */

Ox11, 0x0, /* FC_RP */
/* 536 */ NdrFcShort( 0xffffffe0 ), /* Offset= -32 (504) */
/* 538 */

Ox1b, /* FC_CARRAY */
Ox3, /* 3 */

/* 540 */ NdrFcShort( 0x4 ), /* 4 */

```

```

/* 542 */ 0x19,          /* Corr desc: field pointer, FC_ULONG */
/* 544 */ NdrFcShort( 0x0 ), /* 0 */
/* 546 */
/* 548 */
/* 550 */ NdrFcShort( 0x4 ), /* 4 */
/* 552 */ NdrFcShort( 0x0 ), /* 0 */
/* 554 */ NdrFcShort( 0x1 ), /* 1 */
/* 556 */ NdrFcShort( 0x0 ), /* 0 */
/* 558 */ NdrFcShort( 0x0 ), /* 0 */
/* 560 */ 0x12, 0x0,      /* FC_UP */
/* 562 */ NdrFcShort( 0x182 ), /* Offset= 386 (948) */
/* 564 */
/* 566 */ 0x5c,          /* FC_LONG */
/* 568 */
/* 570 */ NdrFcShort( 0x8 ), /* 8 */
/* 572 */ NdrFcShort( 0x0 ), /* 0 */
/* 574 */ NdrFcShort( 0x6 ), /* Offset= 6 (580) */
/* 576 */ 0x8,          /* FC_LONG */
/* 578 */ 0x5c,          /* FC_POINTER */
/* 580 */
/* 582 */ NdrFcShort( 0xfffffd4 ), /* Offset= -44 (538) */
/* 584 */
/* 586 */ NdrFcLong( 0x2f ), /* 47 */
/* 590 */ NdrFcShort( 0x0 ), /* 0 */
/* 592 */ NdrFcShort( 0x0 ), /* 0 */
/* 594 */ 0xc0,          /* 192 */
/* 596 */ 0x0,          /* 0 */
/* 598 */ 0x0,          /* 0 */
/* 600 */ 0x0,          /* 0 */
/* 602 */
/* 604 */ NdrFcShort( 0x1 ), /* 1 */
/* 606 */ 0x19,          /* Corr desc: field pointer, FC_ULONG */
/* 608 */ NdrFcShort( 0x4 ), /* 4 */
/* 610 */ 0x1,          /* FC_BYTE */
/* 612 */
/* 614 */ NdrFcShort( 0x10 ), /* 16 */
/* 616 */ NdrFcShort( 0x0 ), /* 0 */

```

```

/* 618 */ NdrFcShort( 0xa ), /* Offset= 10 (628) */
/* 620 */ 0x8,          /* FC_LONG */
/* 622 */ 0x4c,          /* FC_EMBEDDED_COMPLEX */
/* 624 */ NdrFcShort( 0xfffffd8 ), /* Offset= -40 (584) */
/* 626 */ 0x36,          /* FC_POINTER */
/* 628 */
/* 630 */ NdrFcShort( 0xfffffe4 ), /* Offset= -28 (602) */
/* 632 */
/* 634 */ NdrFcShort( 0x4 ), /* 4 */
/* 636 */ 0x19,          /* Corr desc: field pointer, FC_ULONG */
/* 638 */ NdrFcShort( 0x0 ), /* 0 */
/* 640 */
/* 642 */
/* 644 */ NdrFcShort( 0x4 ), /* 4 */
/* 646 */ NdrFcShort( 0x0 ), /* 0 */
/* 648 */ NdrFcShort( 0x1 ), /* 1 */
/* 650 */ NdrFcShort( 0x0 ), /* 0 */
/* 652 */ NdrFcShort( 0x0 ), /* 0 */
/* 654 */ 0x12, 0x0,      /* FC_UP */
/* 656 */ NdrFcShort( 0xfffffd4 ), /* Offset= -44 (612) */
/* 658 */
/* 660 */ 0x5c,          /* FC_LONG */
/* 662 */
/* 664 */ NdrFcShort( 0x8 ), /* 8 */
/* 666 */ NdrFcShort( 0x0 ), /* 0 */
/* 668 */ NdrFcShort( 0x6 ), /* Offset= 6 (674) */
/* 670 */ 0x8,          /* FC_LONG */
/* 672 */ 0x5c,          /* FC_POINTER */
/* 674 */
/* 676 */ NdrFcShort( 0xfffffd4 ), /* Offset= -44 (632) */
/* 678 */
/* 680 */ NdrFcShort( 0x8 ), /* 8 */
/* 682 */ 0x2,          /* FC_CHAR */
/* 684 */
/* 686 */ NdrFcShort( 0x10 ), /* 16 */
/* 688 */ 0x8,          /* FC_LONG */
/* 690 */ 0x6,          /* FC_SHORT */

```

```

0x4c,          /* FC_EMBEDDED_COMPLEX */
/* 692 */ 0x0,
NdrFcShort( 0xffffffffl ), /* Offset= -15 (678) */
0x5b,          /* FC_END */

/* 696 */
0x1a,          /* FC_BOGUS_STRUCT */
0x3,          /* 3 */

/* 698 */ NdrFcShort( 0x18 ), /* 24 */
/* 700 */ NdrFcShort( 0x0 ), /* 0 */
/* 702 */ NdrFcShort( 0xa ), /* Offset= 10 (712) */
/* 704 */ 0x8,          /* FC_LONG */
0x36,          /* FC_POINTER */
/* 706 */ 0x4c,          /* FC_EMBEDDED_COMPLEX */
0x0,          /* 0 */
/* 708 */ NdrFcShort( 0xffffffffe8 ), /* Offset= -24 (684) */
/* 710 */ 0x5c,          /* FC_PAD */
0x5b,          /* FC_END */

/* 712 */
0x11, 0x0,     /* FC_RP */
/* 714 */ NdrFcShort( 0xffffffff0c ), /* Offset= -244 (470) */
/* 716 */
0x1b,          /* FC_CARRAY */
0x0,          /* 0 */
/* 718 */ NdrFcShort( 0x1 ), /* 1 */
/* 720 */ 0x19,     /* Corr desc: field pointer, FC_ULONG */
0x0,          /* */
/* 722 */ NdrFcShort( 0x0 ), /* 0 */
/* 724 */ 0x1,     /* FC_BYTE */
0x5b,          /* FC_END */

/* 726 */
0x16,          /* FC_PSTRUCT */
0x3,          /* 3 */

/* 728 */ NdrFcShort( 0x8 ), /* 8 */
/* 730 */
0x4b,          /* FC_PP */
0x5c,          /* FC_PAD */

/* 732 */
0x46,          /* FC_NO_REPEAT */
0x5c,          /* FC_PAD */

/* 734 */ NdrFcShort( 0x4 ), /* 4 */
/* 736 */ NdrFcShort( 0x4 ), /* 4 */
/* 738 */ 0x12, 0x0,     /* FC_UP */
/* 740 */ NdrFcShort( 0xffffffffe8 ), /* Offset= -24 (716) */
/* 742 */
0x5b,          /* FC_END */

0x8,          /* FC_LONG */
/* 744 */ 0x8,     /* FC_LONG */
0x5b,          /* FC_END */

/* 746 */
0x1b,          /* FC_CARRAY */
0x1,          /* 1 */
/* 748 */ NdrFcShort( 0x2 ), /* 2 */
/* 750 */ 0x19,     /* Corr desc: field pointer, FC_ULONG */
0x0,          /* */
/* 752 */ NdrFcShort( 0x0 ), /* 0 */
/* 754 */ 0x6,     /* FC_SHORT */
0x5b,          /* FC_END */

/* 756 */
0x16,          /* FC_PSTRUCT */
0x3,          /* 3 */

/* 758 */ NdrFcShort( 0x8 ), /* 8 */
/* 760 */

```

```

0x4b,          /* FC_PP */
0x5c,          /* FC_PAD */

/* 762 */
0x46,          /* FC_NO_REPEAT */
0x5c,          /* FC_PAD */

/* 764 */ NdrFcShort( 0x4 ), /* 4 */
/* 766 */ NdrFcShort( 0x4 ), /* 4 */
/* 768 */ 0x12, 0x0,     /* FC_UP */
/* 770 */ NdrFcShort( 0xffffffffe8 ), /* Offset= -24 (746) */
/* 772 */
0x5b,          /* FC_END */

0x8,          /* FC_LONG */
/* 774 */ 0x8,     /* FC_LONG */
0x5b,          /* FC_END */

/* 776 */
0x1b,          /* FC_CARRAY */
0x3,          /* 3 */
/* 778 */ NdrFcShort( 0x4 ), /* 4 */
/* 780 */ 0x19,     /* Corr desc: field pointer, FC_ULONG */
0x0,          /* */
/* 782 */ NdrFcShort( 0x0 ), /* 0 */
/* 784 */ 0x8,     /* FC_LONG */
0x5b,          /* FC_END */

/* 786 */
0x16,          /* FC_PSTRUCT */
0x3,          /* 3 */
/* 788 */ NdrFcShort( 0x8 ), /* 8 */
/* 790 */
0x4b,          /* FC_PP */
0x5c,          /* FC_PAD */

/* 792 */
0x46,          /* FC_NO_REPEAT */
0x5c,          /* FC_PAD */

/* 794 */ NdrFcShort( 0x4 ), /* 4 */
/* 796 */ NdrFcShort( 0x4 ), /* 4 */
/* 798 */ 0x12, 0x0,     /* FC_UP */
/* 800 */ NdrFcShort( 0xffffffffe8 ), /* Offset= -24 (776) */
/* 802 */
0x5b,          /* FC_END */

0x8,          /* FC_LONG */
/* 804 */ 0x8,     /* FC_LONG */
0x5b,          /* FC_END */

/* 806 */
0x1b,          /* FC_CARRAY */
0x7,          /* 7 */
/* 808 */ NdrFcShort( 0x8 ), /* 8 */
/* 810 */ 0x19,     /* Corr desc: field pointer, FC_ULONG */
0x0,          /* */
/* 812 */ NdrFcShort( 0x0 ), /* 0 */
/* 814 */ 0xb,     /* FC_HYPER */
0x5b,          /* FC_END */

/* 816 */
0x16,          /* FC_PSTRUCT */
0x3,          /* 3 */
/* 818 */ NdrFcShort( 0x8 ), /* 8 */
/* 820 */
0x4b,          /* FC_PP */
0x5c,          /* FC_PAD */

/* 822 */
0x46,          /* FC_NO_REPEAT */
0x5c,          /* FC_PAD */

```



```

/* 824 */ NdrFcShort( 0x4 ), /* 4 */
/* 826 */ NdrFcShort( 0x4 ), /* 4 */
/* 828 */ 0x12, 0x0, /* FC_UP */
/* 830 */ NdrFcShort( 0xffffffe8 ), /* Offset= -24 (806) */
/* 832 */
                                0x5b, /* FC_END */

                                0x8, /* FC_LONG */
/* 834 */ 0x8, /* FC_LONG */
                                0x5b, /* FC_END */
/* 836 */
                                0x15, /* FC_STRUCT */
                                0x3, /* 3 */
/* 838 */ NdrFcShort( 0x8 ), /* 8 */
/* 840 */ 0x8, /* FC_LONG */
                                0x8, /* FC_LONG */
/* 842 */ 0x5c, /* FC_PAD */
                                0x5b, /* FC_END */
/* 844 */
                                0x1b, /* FC_CARRY */
                                0x3, /* 3 */
/* 846 */ NdrFcShort( 0x8 ), /* 8 */
/* 848 */ 0x7, /* Corr desc: FC_USHORT */
                                0x0, /* */
/* 850 */ NdrFcShort( 0xffd8 ), /* -40 */
/* 852 */ 0x4c, /* FC_EMBEDDED_COMPLEX */
                                0x0, /* 0 */
/* 854 */ NdrFcShort( 0xfffffee ), /* Offset= -18 (836) */
/* 856 */ 0x5c, /* FC_PAD */
                                0x5b, /* FC_END */
/* 858 */
                                0x1a, /* FC_BOGUS_STRUCT */
                                0x3, /* 3 */
/* 860 */ NdrFcShort( 0x28 ), /* 40 */
/* 862 */ NdrFcShort( 0xfffffee ), /* Offset= -18 (844) */
/* 864 */ NdrFcShort( 0x0 ), /* Offset= 0 (864) */
/* 866 */ 0x6, /* FC_SHORT */
                                0x6, /* FC_SHORT */
/* 868 */ 0x38, /* FC_ALIGNM4 */
                                0x8, /* FC_LONG */
/* 870 */ 0x8, /* FC_LONG */
                                0x4c, /* FC_EMBEDDED_COMPLEX */
/* 872 */ 0x0, /* 0 */
                                NdrFcShort( 0xfffffd7 ), /* Offset= -521 (352) */
                                0x5b, /* FC_END */
/* 876 */
                                0x12, 0x0, /* FC_UP */
/* 878 */ NdrFcShort( 0xfffffef6 ), /* Offset= -266 (612) */
/* 880 */
                                0x12, 0x8, /* FC_UP [simple_pointer] */
/* 882 */ 0x1, /* FC_BYTE */
                                0x5c, /* FC_PAD */
/* 884 */
                                0x12, 0x8, /* FC_UP [simple_pointer] */
/* 886 */ 0x6, /* FC_SHORT */
                                0x5c, /* FC_PAD */
/* 888 */
                                0x12, 0x8, /* FC_UP [simple_pointer] */
/* 890 */ 0x8, /* FC_LONG */
                                0x5c, /* FC_PAD */
/* 892 */
                                0x12, 0x8, /* FC_UP [simple_pointer] */
/* 894 */ 0xa, /* FC_FLOAT */

```

```

                                0x5c, /* FC_PAD */
/* 896 */
                                0x12, 0x8, /* FC_UP [simple_pointer] */
/* 898 */ 0xc, /* FC_DOUBLE */
                                0x5c, /* FC_PAD */
/* 900 */
                                0x12, 0x0, /* FC_UP */
/* 902 */ NdrFcShort( 0xfffffd90 ), /* Offset= -624 (278) */
/* 904 */
                                0x12, 0x10, /* FC_UP [pointer_deref] */
/* 906 */ NdrFcShort( 0xfffffd92 ), /* Offset= -622 (284) */
/* 908 */
                                0x12, 0x10, /* FC_UP [pointer_deref] */
/* 910 */ NdrFcShort( 0xffffda6 ), /* Offset= -602 (308) */
/* 912 */
                                0x12, 0x10, /* FC_UP [pointer_deref] */
/* 914 */ NdrFcShort( 0xffffdb4 ), /* Offset= -588 (326) */
/* 916 */
                                0x12, 0x10, /* FC_UP [pointer_deref] */
/* 918 */ NdrFcShort( 0xffffdc2 ), /* Offset= -574 (344) */
/* 920 */
                                0x12, 0x10, /* FC_UP [pointer_deref] */
/* 922 */ NdrFcShort( 0x2 ), /* Offset= 2 (924) */
/* 924 */
                                0x12, 0x0, /* FC_UP */
/* 926 */ NdrFcShort( 0x16 ), /* Offset= 22 (948) */
/* 928 */
                                0x15, /* FC_STRUCT */
                                0x7, /* 7 */
/* 930 */ NdrFcShort( 0x10 ), /* 16 */
/* 932 */ 0x6, /* FC_SHORT */
                                0x1, /* FC_BYTE */
/* 934 */ 0x1, /* FC_BYTE */
                                0x38, /* FC_ALIGNM4 */
/* 936 */ 0x8, /* FC_LONG */
                                0x39, /* FC_ALIGNM8 */
/* 938 */ 0xb, /* FC_HYPER */
                                0x5b, /* FC_END */
/* 940 */
                                0x12, 0x0, /* FC_UP */
/* 942 */ NdrFcShort( 0xfffffff2 ), /* Offset= -14 (928) */
/* 944 */
                                0x12, 0x8, /* FC_UP [simple_pointer] */
/* 946 */ 0x2, /* FC_CHAR */
                                0x5c, /* FC_PAD */
/* 948 */
                                0x1a, /* FC_BOGUS_STRUCT */
                                0x7, /* 7 */
/* 950 */ NdrFcShort( 0x20 ), /* 32 */
/* 952 */ NdrFcShort( 0x0 ), /* 0 */
/* 954 */ NdrFcShort( 0x0 ), /* Offset= 0 (954) */
/* 956 */ 0x8, /* FC_LONG */
                                0x8, /* FC_LONG */
/* 958 */ 0x6, /* FC_SHORT */
                                0x6, /* FC_SHORT */
/* 960 */ 0x6, /* FC_SHORT */
                                0x6, /* FC_SHORT */
/* 962 */ 0x4c, /* FC_EMBEDDED_COMPLEX */
                                0x0, /* 0 */
/* 964 */ NdrFcShort( 0xfffffc42 ), /* Offset= -958 (6) */
/* 966 */ 0x5c, /* FC_PAD */
                                0x5b, /* FC_END */
/* 968 */ 0xb4, /* FC_USER_MARSHAL */

```

```

        0x83,                /* 131 */
/* 970 */ NdrFcShort( 0x0 ), /* 0 */
/* 972 */ NdrFcShort( 0x10 ), /* 16 */
/* 974 */ NdrFcShort( 0x0 ), /* 0 */
/* 976 */ NdrFcShort( 0xfffffc32 ), /* Offset= -974 (2) */
/* 978 */
        0x11, 0x4,          /* FC_RP [allocated_on_stack] */
/* 980 */ NdrFcShort( 0x6 ), /* Offset= 6 (986) */
/* 982 */
        0x13, 0x0,          /* FC_OP */
/* 984 */ NdrFcShort( 0xfffffcdc ), /* Offset= -36 (948) */
/* 986 */ 0xb4,             /* FC_USER_MARSHAL */
        0x83,                /* 131 */
/* 988 */ NdrFcShort( 0x0 ), /* 0 */
/* 990 */ NdrFcShort( 0x10 ), /* 16 */
/* 992 */ NdrFcShort( 0x0 ), /* 0 */
/* 994 */ NdrFcShort( 0xfffffff4 ), /* Offset= -12 (982) */

        0x0
    }
};

const CInterfaceProxyVtbl * _tpcc_com_ps_ProxyVtblList[] =
{
    ( CInterfaceProxyVtbl *) &ITPCCProxyVtbl,
    0
};

const CInterfaceStubVtbl * _tpcc_com_ps_StubVtblList[] =
{
    ( CInterfaceStubVtbl *) &ITPCCStubVtbl,
    0
};

PCInterfaceName const _tpcc_com_ps_InterfaceNamesList[] =
{
    "ITPCC",
    0
};

#define _tpcc_com_ps_CHECK_IID(n) IID_GENERIC_CHECK_IID( _tpcc_com_ps, pIID,
n)

int __stdcall _tpcc_com_ps_IID_Lookup( const IID * pIID, int * pIndex )
{
    if(! _tpcc_com_ps_CHECK_IID(0))
    {
        *pIndex = 0;
        return 1;
    }

    return 0;
}

const ExtendedProxyFileInfo tpcc_com_ps_ProxyFileInfo =
{
    (PCInterfaceProxyVtblList *) &_tpcc_com_ps_ProxyVtblList,
    (PCInterfaceStubVtblList *) &_tpcc_com_ps_StubVtblList,
    (const PCInterfaceName *) &_tpcc_com_ps_InterfaceNamesList,
    0, // no delegation
    &_tpcc_com_ps_IID_Lookup,

```

```

    1,
    2,
    0, /* table of [async_uuid] interfaces */
    0, /* Filler1 */
    0, /* Filler2 */
    0 /* Filler3 */
};

#endif /* !defined(_M_IA64) && !defined(_M_AXP64)*/

#pragma warning( disable: 4049 ) /* more than 64k source lines */

/* this ALWAYS GENERATED file contains the proxy stub code */

/* File created by MIDL compiler version 5.03.0280 */
/* at Fri Sep 08 11:35:01 2000
*/
/* Compiler settings for .\src\tpcc_com_ps.idl:
    Oicf (OptLev=i2), Wl, Zp8, env=Win64 (32b run,appending), ms_ext, c_ext, robust
    error checks: allocation ref bounds_check enum stub_data
    VC __declspec() decoration level:
        __declspec(uuid()), __declspec(selectany), __declspec(novtable)
        DECLSPEC_UUID(), MIDL_INTERFACE()
*/
/@@MIDL_FILE_HEADING( )

#ifdef _M_IA64 || defined(_M_AXP64)
#define USE_STUBLESS_PROXY

/* verify that the <rpcproxy.h> version is high enough to compile this file*/
#ifndef __REQD_RPCPROXY_H_VERSION__
#define __REQUIRED_RPCPROXY_H_VERSION__ 475
#endif

#include "rpcproxy.h"
#ifdef __RPCPROXY_H_VERSION__
#error this stub requires an updated version of <rpcproxy.h>
#endif // __RPCPROXY_H_VERSION__

#include "tpcc_com_ps.h"

#define TYPE_FORMAT_STRING_SIZE 979
#define PROC_FORMAT_STRING_SIZE 253
#define TRANSMIT_AS_TABLE_SIZE 0
#define WIRE_MARSHAL_TABLE_SIZE 1

typedef struct _MIDL_TYPE_FORMAT_STRING
{
    short Pad;
    unsigned char Format[ TYPE_FORMAT_STRING_SIZE ];
} MIDL_TYPE_FORMAT_STRING;

typedef struct _MIDL_PROC_FORMAT_STRING
{
    short Pad;
    unsigned char Format[ PROC_FORMAT_STRING_SIZE ];
} MIDL_PROC_FORMAT_STRING;

```

```

extern const MIDL_TYPE_FORMAT_STRING __MIDL_TypeFormatString;
extern const MIDL_PROC_FORMAT_STRING __MIDL_ProcFormatString;

/* Standard interface: __MIDL_itf_tpcc_com_ps_0000, ver. 0.0,
   GUID={0x00000000,0x0000,0x0000,{0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00}} */

/* Object interface: IUnknown, ver. 0.0,
   GUID={0x00000000,0x0000,0x0000,{0xC0,0x00,0x00,0x00,0x00,0x00,0x00,0x46}} */

/* Object interface: ITPCC, ver. 0.0,
   GUID={0xFEEE6AA2,0x84B1,0x11d2,{0xBA,0x47,0x00,0xC0,0x4F,0xBF,0xE0,0x8B}} */

extern const MIDL_STUB_DESC Object_StubDesc;

extern const MIDL_SERVER_INFO ITPCC_ServerInfo;

#pragma code_seg(".orpc")
static const unsigned short ITPCC_FormatStringOffsetTable[] =
{
    0,
    44,
    88,
    132,
    176,
    220
};

static const MIDL_SERVER_INFO ITPCC_ServerInfo =
{
    &Object_StubDesc,
    0,
    __MIDL_ProcFormatString.Format,
    &ITPCC_FormatStringOffsetTable[-3],
    0,
    0,
    0,
    0,
    0
};

static const MIDL_STUBLESS_PROXY_INFO ITPCC_ProxyInfo =
{
    &Object_StubDesc,
    __MIDL_ProcFormatString.Format,
    &ITPCC_FormatStringOffsetTable[-3],
    0,
    0,
    0
};

CINTERFACE_PROXY_VTABLE(9) _ITPCCProxyVtbl =
{
    &ITPCC_ProxyInfo,
    &IID_ITPCC,
    IUnknown_QueryInterface_Proxy,
    IUnknown_AddRef_Proxy,
    IUnknown_Release_Proxy ,

```

```

(void *)-1 /* ITPCC::NewOrder */ ,
(void *)-1 /* ITPCC::Payment */ ,
(void *)-1 /* ITPCC::Delivery */ ,
(void *)-1 /* ITPCC::StockLevel */ ,
(void *)-1 /* ITPCC::OrderStatus */ ,
(void *)-1 /* ITPCC::CallSetComplete */
};

const CInterfaceStubVtbl _ITPCCStubVtbl =
{
    &IID_ITPCC,
    &ITPCC_ServerInfo,
    9,
    0, /* pure interpreted */
    CStdStubBuffer_METHODS
};

extern const USER_MARSHAL_ROUTINE_QUADRUPLE UserMarshalRoutines[
WIRE_MARSHAL_TABLE_SIZE ];

static const MIDL_STUB_DESC Object_StubDesc =
{
    0,
    NdrOleAllocate,
    NdrOleFree,
    0,
    0,
    0,
    0,
    0,
    __MIDL_TypeFormatString.Format,
    1, /* -error bounds_check flag */
    0x50002, /* Ndr library version */
    0,
    0x5030118, /* MIDL Version 5.3.280 */
    0,
    UserMarshalRoutines,
    0, /* notify & notify_flag routine table */
    0x1, /* MIDL flag */
    0, /* Reserved3 */
    0, /* Reserved4 */
    0 /* Reserved5 */
};

#pragma data_seg(".rdata")

static const USER_MARSHAL_ROUTINE_QUADRUPLE UserMarshalRoutines[
WIRE_MARSHAL_TABLE_SIZE ] =
{
    {
        VARIANT_UserSize,
        VARIANT_UserMarshal,
        VARIANT_UserUnmarshal,
        VARIANT_UserFree
    }
};

#ifdef __RPC_WIN64__
#error Invalid build platform for this stub.
#endif

```

```

static const MIDL_PROC_FORMAT_STRING __MIDL_ProcFormatString =
{
    0,
    {
        /* Procedure NewOrder */

                0x33,          /* FC_AUTO_HANDLE */
                0x6c,          /* Old Flags: object, Oi2 */

/* 2 */ NdrPcLong( 0x0 ), /* 0 */
/* 6 */ NdrPcShort( 0x3 ), /* 3 */
#ifdef ALPHA
/* 8 */ NdrPcShort( 0x38 ), /* ia64 Stack size/offset = 56 */
#else
                NdrPcShort( 0x30 ), /* axp64 Stack size/offset = 48 */
#endif
/* 10 */ NdrPcShort( 0x0 ), /* 0 */
/* 12 */ NdrPcShort( 0x8 ), /* 8 */
/* 14 */ 0x47, /* Oi2 Flags: srv must size, clt must size, has
return, has ext, */

                0x3,          /* 3 */
/* 16 */ 0xa, /* 10 */
                0x7,          /* Ext Flags: new corr desc, clt
corr check, srv corr check, */
/* 18 */ NdrPcShort( 0x20 ), /* 32 */
/* 20 */ NdrPcShort( 0x20 ), /* 32 */
/* 22 */ NdrPcShort( 0x0 ), /* 0 */
/* 24 */ NdrPcShort( 0x0 ), /* 0 */

        /* Parameter txn_in */

/* 26 */ NdrPcShort( 0x8b ), /* Flags: must size, must free, in, by val, */
#ifdef ALPHA
/* 28 */ NdrPcShort( 0x10 ), /* ia64 Stack size/offset = 16 */
#else
                NdrPcShort( 0x8 ), /* axp64 Stack size/offset = 8 */
#endif
/* 30 */ NdrPcShort( 0x3b6 ), /* Type Offset=950 */

        /* Parameter txn_out */

/* 32 */ NdrPcShort( 0x6113 ), /* Flags: must size, must free, out, simple
ref, srv alloc size=24 */
#ifdef ALPHA
/* 34 */ NdrPcShort( 0x28 ), /* ia64 Stack size/offset = 40 */
#else
                NdrPcShort( 0x20 ), /* axp64 Stack size/offset = 32 */
#endif
/* 36 */ NdrPcShort( 0x3c8 ), /* Type Offset=968 */

        /* Return value */

/* 38 */ NdrPcShort( 0x70 ), /* Flags: out, return, base type, */
#ifdef ALPHA
/* 40 */ NdrPcShort( 0x30 ), /* ia64 Stack size/offset = 48 */
#else
                NdrPcShort( 0x28 ), /* axp64 Stack size/offset = 40 */
#endif
/* 42 */ 0x8, /* FC_LONG */
                0x0, /* 0 */

        /* Procedure Payment */

```

```

/* 44 */ 0x33, /* FC_AUTO_HANDLE */
                0x6c, /* Old Flags: object, Oi2 */

/* 46 */ NdrPcLong( 0x0 ), /* 0 */
/* 50 */ NdrPcShort( 0x4 ), /* 4 */
#ifdef ALPHA
/* 52 */ NdrPcShort( 0x38 ), /* ia64 Stack size/offset = 56 */
#else
                NdrPcShort( 0x30 ), /* axp64 Stack size/offset = 48 */
#endif
/* 54 */ NdrPcShort( 0x0 ), /* 0 */
/* 56 */ NdrPcShort( 0x8 ), /* 8 */
/* 58 */ 0x47, /* Oi2 Flags: srv must size, clt must size, has
return, has ext, */

                0x3,          /* 3 */
/* 60 */ 0xa, /* 10 */
                0x7,          /* Ext Flags: new corr desc, clt
corr check, srv corr check, */
/* 62 */ NdrPcShort( 0x20 ), /* 32 */
/* 64 */ NdrPcShort( 0x20 ), /* 32 */
/* 66 */ NdrPcShort( 0x0 ), /* 0 */
/* 68 */ NdrPcShort( 0x0 ), /* 0 */

        /* Parameter txn_in */

/* 70 */ NdrPcShort( 0x8b ), /* Flags: must size, must free, in, by val, */
#ifdef ALPHA
/* 72 */ NdrPcShort( 0x10 ), /* ia64 Stack size/offset = 16 */
#else
                NdrPcShort( 0x8 ), /* axp64 Stack size/offset = 8 */
#endif
/* 74 */ NdrPcShort( 0x3b6 ), /* Type Offset=950 */

        /* Parameter txn_out */

/* 76 */ NdrPcShort( 0x6113 ), /* Flags: must size, must free, out, simple
ref, srv alloc size=24 */
#ifdef ALPHA
/* 78 */ NdrPcShort( 0x28 ), /* ia64 Stack size/offset = 40 */
#else
                NdrPcShort( 0x20 ), /* axp64 Stack size/offset = 32 */
#endif
/* 80 */ NdrPcShort( 0x3c8 ), /* Type Offset=968 */

        /* Return value */

/* 82 */ NdrPcShort( 0x70 ), /* Flags: out, return, base type, */
#ifdef ALPHA
/* 84 */ NdrPcShort( 0x30 ), /* ia64 Stack size/offset = 48 */
#else
                NdrPcShort( 0x28 ), /* axp64 Stack size/offset = 40 */
#endif
/* 86 */ 0x8, /* FC_LONG */
                0x0, /* 0 */

        /* Procedure Delivery */

/* 88 */ 0x33, /* FC_AUTO_HANDLE */
                0x6c, /* Old Flags: object, Oi2 */

/* 90 */ NdrPcLong( 0x0 ), /* 0 */
/* 94 */ NdrPcShort( 0x5 ), /* 5 */
#ifdef ALPHA
/* 96 */ NdrPcShort( 0x38 ), /* ia64 Stack size/offset = 56 */

```

```

#else
    NdrFcShort( 0x30 ), /* axp64 Stack size/offset = 48 */
#endif
/* 98 */ NdrFcShort( 0x0 ), /* 0 */
/* 100 */ NdrFcShort( 0x8 ), /* 8 */
/* 102 */ 0x47, /* Oi2 Flags:  srv must size, clt must size, has
return, has ext, */
/* 104 */ 0xa, /* 10 */
/* 106 */ 0x7, /* Ext Flags:  new corr desc, clt
corr check, srv corr check, */
/* 106 */ NdrFcShort( 0x20 ), /* 32 */
/* 108 */ NdrFcShort( 0x20 ), /* 32 */
/* 110 */ NdrFcShort( 0x0 ), /* 0 */
/* 112 */ NdrFcShort( 0x0 ), /* 0 */

/* Parameter txn_in */

/* 114 */ NdrFcShort( 0x8b ), /* Flags:  must size, must free, in, by val, */
#ifndef ALPHA
/* 116 */ NdrFcShort( 0x10 ), /* ia64 Stack size/offset = 16 */
#else
    NdrFcShort( 0x8 ), /* axp64 Stack size/offset = 8 */
#endif
/* 118 */ NdrFcShort( 0x3b6 ), /* Type Offset=950 */

/* Parameter txn_out */

/* 120 */ NdrFcShort( 0x6113 ), /* Flags:  must size, must free, out, simple
ref, srv alloc size=24 */
#ifndef ALPHA
/* 122 */ NdrFcShort( 0x28 ), /* ia64 Stack size/offset = 40 */
#else
    NdrFcShort( 0x20 ), /* axp64 Stack size/offset = 32 */
#endif
/* 124 */ NdrFcShort( 0x3c8 ), /* Type Offset=968 */

/* Return value */

/* 126 */ NdrFcShort( 0x70 ), /* Flags:  out, return, base type, */
#ifndef ALPHA
/* 128 */ NdrFcShort( 0x30 ), /* ia64 Stack size/offset = 48 */
#else
    NdrFcShort( 0x28 ), /* axp64 Stack size/offset = 40 */
#endif
/* 130 */ 0x8, /* FC_LONG */
/* 132 */ 0x0, /* 0 */

/* Procedure StockLevel */

/* 132 */ 0x33, /* FC_AUTO_HANDLE */
/* 134 */ 0x6c, /* Old Flags:  object, Oi2 */
/* 134 */ NdrFcLong( 0x0 ), /* 0 */
/* 138 */ NdrFcShort( 0x6 ), /* 6 */
#ifndef ALPHA
/* 140 */ NdrFcShort( 0x38 ), /* ia64 Stack size/offset = 56 */
#else
    NdrFcShort( 0x30 ), /* axp64 Stack size/offset = 48 */
#endif
/* 142 */ NdrFcShort( 0x0 ), /* 0 */
/* 144 */ NdrFcShort( 0x8 ), /* 8 */
/* 146 */ 0x47, /* Oi2 Flags:  srv must size, clt must size, has
return, has ext, */

```

```

/* 148 */ 0xa, /* 10 */
/* 150 */ 0x7, /* Ext Flags:  new corr desc, clt
corr check, srv corr check, */
/* 150 */ NdrFcShort( 0x20 ), /* 32 */
/* 152 */ NdrFcShort( 0x20 ), /* 32 */
/* 154 */ NdrFcShort( 0x0 ), /* 0 */
/* 156 */ NdrFcShort( 0x0 ), /* 0 */

/* Parameter txn_in */

/* 158 */ NdrFcShort( 0x8b ), /* Flags:  must size, must free, in, by val, */
#ifndef ALPHA
/* 160 */ NdrFcShort( 0x10 ), /* ia64 Stack size/offset = 16 */
#else
    NdrFcShort( 0x8 ), /* axp64 Stack size/offset = 8 */
#endif
/* 162 */ NdrFcShort( 0x3b6 ), /* Type Offset=950 */

/* Parameter txn_out */

/* 164 */ NdrFcShort( 0x6113 ), /* Flags:  must size, must free, out, simple
ref, srv alloc size=24 */
#ifndef ALPHA
/* 166 */ NdrFcShort( 0x28 ), /* ia64 Stack size/offset = 40 */
#else
    NdrFcShort( 0x20 ), /* axp64 Stack size/offset = 32 */
#endif
/* 168 */ NdrFcShort( 0x3c8 ), /* Type Offset=968 */

/* Return value */

/* 170 */ NdrFcShort( 0x70 ), /* Flags:  out, return, base type, */
#ifndef ALPHA
/* 172 */ NdrFcShort( 0x30 ), /* ia64 Stack size/offset = 48 */
#else
    NdrFcShort( 0x28 ), /* axp64 Stack size/offset = 40 */
#endif
/* 174 */ 0x8, /* FC_LONG */
/* 176 */ 0x0, /* 0 */

/* Procedure OrderStatus */

/* 176 */ 0x33, /* FC_AUTO_HANDLE */
/* 178 */ 0x6c, /* Old Flags:  object, Oi2 */
/* 178 */ NdrFcLong( 0x0 ), /* 0 */
/* 182 */ NdrFcShort( 0x7 ), /* 7 */
#ifndef ALPHA
/* 184 */ NdrFcShort( 0x38 ), /* ia64 Stack size/offset = 56 */
#else
    NdrFcShort( 0x30 ), /* axp64 Stack size/offset = 48 */
#endif
/* 186 */ NdrFcShort( 0x0 ), /* 0 */
/* 188 */ NdrFcShort( 0x8 ), /* 8 */
/* 190 */ 0x47, /* Oi2 Flags:  srv must size, clt must size, has
return, has ext, */
/* 192 */ 0xa, /* 10 */
/* 194 */ 0x7, /* Ext Flags:  new corr desc, clt
corr check, srv corr check, */
/* 194 */ NdrFcShort( 0x20 ), /* 32 */
/* 196 */ NdrFcShort( 0x20 ), /* 32 */
/* 198 */ NdrFcShort( 0x0 ), /* 0 */

```

```

/* 200 */ NdrFcShort( 0x0 ), /* 0 */
        /* Parameter txn_in */

/* 202 */ NdrFcShort( 0x8b ), /* Flags: must size, must free, in, by val, */
#ifdef _ALPHA_
/* 204 */ NdrFcShort( 0x10 ), /* ia64 Stack size/offset = 16 */
#else
        NdrFcShort( 0x8 ), /* axp64 Stack size/offset = 8 */
#endif
/* 206 */ NdrFcShort( 0x3b6 ), /* Type Offset=950 */
        /* Parameter txn_out */

/* 208 */ NdrFcShort( 0x6113 ), /* Flags: must size, must free, out, simple
ref, srv alloc size=24 */
#ifdef _ALPHA_
/* 210 */ NdrFcShort( 0x28 ), /* ia64 Stack size/offset = 40 */
#else
        NdrFcShort( 0x20 ), /* axp64 Stack size/offset = 32 */
#endif
/* 212 */ NdrFcShort( 0x3c8 ), /* Type Offset=968 */
        /* Return value */

/* 214 */ NdrFcShort( 0x70 ), /* Flags: out, return, base type, */
#ifdef _ALPHA_
/* 216 */ NdrFcShort( 0x30 ), /* ia64 Stack size/offset = 48 */
#else
        NdrFcShort( 0x28 ), /* axp64 Stack size/offset = 40 */
#endif
/* 218 */ 0x8, /* FC_LONG */
        0x0, /* 0 */
        /* Procedure CallSetComplete */

/* 220 */ 0x33, /* FC_AUTO_HANDLE */
        0x6c, /* Old Flags: object, Oi2 */

/* 222 */ NdrFcLong( 0x0 ), /* 0 */
/* 226 */ NdrFcShort( 0x8 ), /* 8 */
/* 228 */ NdrFcShort( 0x10 ), /* ia64, axp64 Stack size/offset = 16 */
/* 230 */ NdrFcShort( 0x0 ), /* 0 */
/* 232 */ NdrFcShort( 0x8 ), /* 8 */
/* 234 */ 0x44, /* Oi2 Flags: has return, has ext, */
        0x1, /* 1 */

/* 236 */ 0xa, /* 10 */
        0x1, /* Ext Flags: new corr desc, */

/* 238 */ NdrFcShort( 0x0 ), /* 0 */
/* 240 */ NdrFcShort( 0x0 ), /* 0 */
/* 242 */ NdrFcShort( 0x0 ), /* 0 */
/* 244 */ NdrFcShort( 0x0 ), /* 0 */
        /* Return value */

/* 246 */ NdrFcShort( 0x70 ), /* Flags: out, return, base type, */
/* 248 */ NdrFcShort( 0x8 ), /* ia64, axp64 Stack size/offset = 8 */
/* 250 */ 0x8, /* FC_LONG */
        0x0, /* 0 */
        0x0
};

```

```

static const MIDL_TYPE_FORMAT_STRING __MIDL_TypeFormatString =
{
    0,
    {
        /* 2 */
            NdrFcShort( 0x0 ), /* 0 */
        /* 4 */ NdrFcShort( 0x39e ), /* FC_UP */
        /* 6 */ /* Offset= 926 (930) */
            0x2b, /* FC_NON_ENCAPSULATED_UNION */
            0x9, /* FC_ULONG */
        /* 8 */ 0x7, /* Corr desc: FC_USHORT */
            0x0, /* */
        /* 10 */ NdrFcShort( 0xffff8 ), /* -8 */
        /* 12 */ NdrFcShort( 0x1 ), /* Corr flags: early, */
        /* 14 */ NdrFcShort( 0x2 ), /* Offset= 2 (16) */
        /* 16 */ NdrFcShort( 0x10 ), /* 16 */
        /* 18 */ NdrFcShort( 0x2b ), /* 43 */
        /* 20 */ NdrFcLong( 0x3 ), /* 3 */
        /* 24 */ NdrFcShort( 0x8008 ), /* Simple arm type: FC_LONG */
        /* 26 */ NdrFcLong( 0x11 ), /* 17 */
        /* 30 */ NdrFcShort( 0x8001 ), /* Simple arm type: FC_BYTE */
        /* 32 */ NdrFcLong( 0x2 ), /* 2 */
        /* 36 */ NdrFcShort( 0x8006 ), /* Simple arm type: FC_SHORT */
        /* 38 */ NdrFcLong( 0x4 ), /* 4 */
        /* 42 */ NdrFcShort( 0x800a ), /* Simple arm type: FC_FLOAT */
        /* 44 */ NdrFcLong( 0x5 ), /* 5 */
        /* 48 */ NdrFcShort( 0x800c ), /* Simple arm type: FC_DOUBLE */
        /* 50 */ NdrFcLong( 0xb ), /* 11 */
        /* 54 */ NdrFcShort( 0x8006 ), /* Simple arm type: FC_SHORT */
        /* 56 */ NdrFcLong( 0xa ), /* 10 */
        /* 60 */ NdrFcShort( 0x8008 ), /* Simple arm type: FC_LONG */
        /* 62 */ NdrFcLong( 0x6 ), /* 6 */
        /* 66 */ NdrFcShort( 0xd6 ), /* Offset= 214 (280) */
        /* 68 */ NdrFcLong( 0x7 ), /* 7 */
        /* 72 */ NdrFcShort( 0x800c ), /* Simple arm type: FC_DOUBLE */
        /* 74 */ NdrFcLong( 0x8 ), /* 8 */
        /* 78 */ NdrFcShort( 0xd0 ), /* Offset= 208 (286) */
        /* 80 */ NdrFcLong( 0xd ), /* 13 */
        /* 84 */ NdrFcShort( 0xe4 ), /* Offset= 228 (312) */
        /* 86 */ NdrFcLong( 0x9 ), /* 9 */
        /* 90 */ NdrFcShort( 0xf0 ), /* Offset= 240 (330) */
        /* 92 */ NdrFcLong( 0x2000 ), /* 8192 */
        /* 96 */ NdrFcShort( 0xfc ), /* Offset= 252 (348) */
        /* 98 */ NdrFcLong( 0x24 ), /* 36 */
        /* 102 */ NdrFcShort( 0x2f4 ), /* Offset= 756 (858) */
        /* 104 */ NdrFcLong( 0x4024 ), /* 16420 */
        /* 108 */ NdrFcShort( 0x2ee ), /* Offset= 750 (858) */
        /* 110 */ NdrFcLong( 0x4011 ), /* 16401 */
        /* 114 */ NdrFcShort( 0x2ec ), /* Offset= 748 (862) */
        /* 116 */ NdrFcLong( 0x4002 ), /* 16386 */
        /* 120 */ NdrFcShort( 0x2ea ), /* Offset= 746 (866) */
        /* 122 */ NdrFcLong( 0x4003 ), /* 16387 */
        /* 126 */ NdrFcShort( 0x2e8 ), /* Offset= 744 (870) */
        /* 128 */ NdrFcLong( 0x4004 ), /* 16388 */
        /* 132 */ NdrFcShort( 0x2e6 ), /* Offset= 742 (874) */
        /* 134 */ NdrFcLong( 0x4005 ), /* 16389 */
        /* 138 */ NdrFcShort( 0x2e4 ), /* Offset= 740 (878) */
        /* 140 */ NdrFcLong( 0x400b ), /* 16395 */
        /* 144 */ NdrFcShort( 0x2d2 ), /* Offset= 722 (866) */
        /* 146 */ NdrFcLong( 0x400a ), /* 16394 */
        /* 150 */ NdrFcShort( 0x2d0 ), /* Offset= 720 (870) */
        /* 152 */ NdrFcLong( 0x4006 ), /* 16390 */
    }
}

```

```

/* 156 */ NdrFcShort( 0x2d6 ), /* Offset= 726 (882) */
/* 158 */ NdrFcLong( 0x4007 ), /* 16391 */
/* 162 */ NdrFcShort( 0x2cc ), /* Offset= 716 (878) */
/* 164 */ NdrFcLong( 0x4008 ), /* 16392 */
/* 168 */ NdrFcShort( 0x2ce ), /* Offset= 718 (886) */
/* 170 */ NdrFcLong( 0x400d ), /* 16397 */
/* 174 */ NdrFcShort( 0x2cc ), /* Offset= 716 (890) */
/* 176 */ NdrFcLong( 0x4009 ), /* 16393 */
/* 180 */ NdrFcShort( 0x2ca ), /* Offset= 714 (894) */
/* 182 */ NdrFcLong( 0x6000 ), /* 24576 */
/* 186 */ NdrFcShort( 0x2c8 ), /* Offset= 712 (898) */
/* 188 */ NdrFcLong( 0x400c ), /* 16396 */
/* 192 */ NdrFcShort( 0x2c6 ), /* Offset= 710 (902) */
/* 194 */ NdrFcLong( 0x10 ), /* 16 */
/* 198 */ NdrFcShort( 0x8002 ), /* Simple arm type: FC_CHAR */
/* 200 */ NdrFcLong( 0x12 ), /* 18 */
/* 204 */ NdrFcShort( 0x8006 ), /* Simple arm type: FC_SHORT */
/* 206 */ NdrFcLong( 0x13 ), /* 19 */
/* 210 */ NdrFcShort( 0x8008 ), /* Simple arm type: FC_LONG */
/* 212 */ NdrFcLong( 0x16 ), /* 22 */
/* 216 */ NdrFcShort( 0x8008 ), /* Simple arm type: FC_LONG */
/* 218 */ NdrFcLong( 0x17 ), /* 23 */
/* 222 */ NdrFcShort( 0x8008 ), /* Simple arm type: FC_LONG */
/* 224 */ NdrFcLong( 0xe ), /* 14 */
/* 228 */ NdrFcShort( 0x2aa ), /* Offset= 682 (910) */
/* 230 */ NdrFcLong( 0x400e ), /* 16398 */
/* 234 */ NdrFcShort( 0x2b0 ), /* Offset= 688 (922) */
/* 236 */ NdrFcLong( 0x4010 ), /* 16400 */
/* 240 */ NdrFcShort( 0x2ae ), /* Offset= 686 (926) */
/* 242 */ NdrFcLong( 0x4012 ), /* 16402 */
/* 246 */ NdrFcShort( 0x26c ), /* Offset= 620 (866) */
/* 248 */ NdrFcLong( 0x4013 ), /* 16403 */
/* 252 */ NdrFcShort( 0x26a ), /* Offset= 618 (870) */
/* 254 */ NdrFcLong( 0x4016 ), /* 16406 */
/* 258 */ NdrFcShort( 0x264 ), /* Offset= 612 (870) */
/* 260 */ NdrFcLong( 0x4017 ), /* 16407 */
/* 264 */ NdrFcShort( 0x25e ), /* Offset= 606 (870) */
/* 266 */ NdrFcLong( 0x0 ), /* 0 */
/* 270 */ NdrFcShort( 0x0 ), /* Offset= 0 (270) */
/* 272 */ NdrFcLong( 0x1 ), /* 1 */
/* 276 */ NdrFcShort( 0x0 ), /* Offset= 0 (276) */
/* 278 */ NdrFcShort( 0xffffffff ), /* Offset= -1 (277) */
/* 280 */
0x15, /* FC_STRUCT */
0x7, /* 7 */
/* 282 */ NdrFcShort( 0x8 ), /* 8 */
/* 284 */ 0xb, /* FC_HYPER */
0x5b, /* FC_END */
/* 286 */
0x12, 0x0, /* FC_UP */
/* 288 */ NdrFcShort( 0xe ), /* Offset= 14 (302) */
/* 290 */
0x1b, /* FC_CARRAY */
0x1, /* 1 */
/* 292 */ NdrFcShort( 0x2 ), /* 2 */
/* 294 */ 0x9, /* Corr desc: FC_ULONG */
0x0, /* */
/* 296 */ NdrFcShort( 0xffffc ), /* -4 */
/* 298 */ NdrFcShort( 0x1 ), /* Corr flags: early, */
/* 300 */ 0x6, /* FC_SHORT */
0x5b, /* FC_END */
/* 302 */
0x17, /* FC_CSTRUCT */

```

```

0x3, /* 3 */
/* 304 */ NdrFcShort( 0x8 ), /* 8 */
/* 306 */ NdrFcShort( 0xffffffff0 ), /* Offset= -16 (290) */
/* 308 */ 0x8, /* FC_LONG */
0x8, /* FC_LONG */
/* 310 */ 0x5c, /* FC_PAD */
0x5b, /* FC_END */
/* 312 */
0x2E, /* FC_IP */
0x5a, /* FC_CONSTANT_IID */
/* 314 */ NdrFcLong( 0x0 ), /* 0 */
/* 318 */ NdrFcShort( 0x0 ), /* 0 */
/* 320 */ NdrFcShort( 0x0 ), /* 0 */
/* 322 */ 0xc0, /* 192 */
0x0, /* 0 */
/* 324 */ 0x0, /* 0 */
0x0, /* 0 */
/* 326 */ 0x0, /* 0 */
0x0, /* 0 */
/* 328 */ 0x0, /* 0 */
0x46, /* 70 */
/* 330 */
0x2E, /* FC_IP */
0x5a, /* FC_CONSTANT_IID */
/* 332 */ NdrFcLong( 0x20400 ), /* 132096 */
/* 336 */ NdrFcShort( 0x0 ), /* 0 */
/* 338 */ NdrFcShort( 0x0 ), /* 0 */
/* 340 */ 0xc0, /* 192 */
0x0, /* 0 */
/* 342 */ 0x0, /* 0 */
0x0, /* 0 */
/* 344 */ 0x0, /* 0 */
0x0, /* 0 */
/* 346 */ 0x0, /* 0 */
0x46, /* 70 */
/* 348 */
0x12, 0x10, /* FC_UP [pointer_deref] */
/* 350 */ NdrFcShort( 0x2 ), /* Offset= 2 (352) */
/* 352 */
0x12, 0x0, /* FC_UP */
/* 354 */ NdrFcShort( 0x1e6 ), /* Offset= 486 (840) */
/* 356 */
0x2a, /* FC_ENCAPSULATED_UNION */
0x89, /* 137 */
/* 358 */ NdrFcShort( 0x20 ), /* 32 */
/* 360 */ NdrFcShort( 0xa ), /* 10 */
/* 362 */ NdrFcLong( 0x8 ), /* 8 */
/* 366 */ NdrFcShort( 0x50 ), /* Offset= 80 (446) */
/* 368 */ NdrFcLong( 0xd ), /* 13 */
/* 372 */ NdrFcShort( 0x70 ), /* Offset= 112 (484) */
/* 374 */ NdrFcLong( 0x9 ), /* 9 */
/* 378 */ NdrFcShort( 0x90 ), /* Offset= 144 (522) */
/* 380 */ NdrFcLong( 0xc ), /* 12 */
/* 384 */ NdrFcShort( 0xb0 ), /* Offset= 176 (560) */
/* 386 */ NdrFcLong( 0x24 ), /* 36 */
/* 390 */ NdrFcShort( 0x104 ), /* Offset= 260 (650) */
/* 392 */ NdrFcLong( 0x800d ), /* 32781 */
/* 396 */ NdrFcShort( 0x120 ), /* Offset= 288 (684) */
/* 398 */ NdrFcLong( 0x10 ), /* 16 */
/* 402 */ NdrFcShort( 0x13a ), /* Offset= 314 (716) */
/* 404 */ NdrFcLong( 0x2 ), /* 2 */
/* 408 */ NdrFcShort( 0x150 ), /* Offset= 336 (744) */
/* 410 */ NdrFcLong( 0x3 ), /* 3 */

```

```

/* 414 */ NdrFcShort( 0x166 ), /* Offset= 358 (772) */
/* 416 */ NdrFcLong( 0x14 ), /* 20 */
/* 420 */ NdrFcShort( 0x17c ), /* Offset= 380 (800) */
/* 422 */ NdrFcShort( 0xffffffff ), /* Offset= -1 (421) */
/* 424 */
                                0x21, /* FC_BOGUS_ARRAY */
                                0x3, /* 3 */
/* 426 */ NdrFcShort( 0x0 ), /* 0 */
/* 428 */ 0x19, /* Corr desc: field pointer, FC_ULONG */
                                0x0, /* */
/* 430 */ NdrFcShort( 0x0 ), /* 0 */
/* 432 */ NdrFcShort( 0x1 ), /* Corr flags: early, */
/* 434 */ NdrFcLong( 0xffffffff ), /* -1 */
/* 438 */ NdrFcShort( 0x0 ), /* Corr flags: */
/* 440 */
                                0x12, 0x0, /* FC_UP */
/* 442 */ NdrFcShort( 0xffffffff74 ), /* Offset= -140 (302) */
/* 444 */ 0x5c, /* FC_PAD */
/* 446 */
                                0x5b, /* FC_END */
                                0x1a, /* FC_BOGUS_STRUCT */
                                0x3, /* 3 */
/* 448 */ NdrFcShort( 0x10 ), /* 16 */
/* 450 */ NdrFcShort( 0x0 ), /* 0 */
/* 452 */ NdrFcShort( 0x6 ), /* Offset= 6 (458) */
/* 454 */ 0x8, /* FC_LONG */
/* 456 */ 0x36, /* FC_ALIGNM8 */
                                0x39, /* FC_ALIGNM8 */
                                0x5b, /* FC_POINTER */
                                0x5b, /* FC_END */
/* 458 */
                                0x11, 0x0, /* FC_RP */
/* 460 */ NdrFcShort( 0xffffffffdc ), /* Offset= -36 (424) */
/* 462 */
                                0x21, /* FC_BOGUS_ARRAY */
                                0x3, /* 3 */
/* 464 */ NdrFcShort( 0x0 ), /* 0 */
/* 466 */ 0x19, /* Corr desc: field pointer, FC_ULONG */
                                0x0, /* */
/* 468 */ NdrFcShort( 0x0 ), /* 0 */
/* 470 */ NdrFcShort( 0x1 ), /* Corr flags: early, */
/* 472 */ NdrFcLong( 0xffffffff ), /* -1 */
/* 476 */ NdrFcShort( 0x0 ), /* Corr flags: */
/* 478 */ 0x4c, /* FC_EMBEDDED_COMPLEX */
                                0x0, /* 0 */
/* 480 */ NdrFcShort( 0xffffffff58 ), /* Offset= -168 (312) */
/* 482 */ 0x5c, /* FC_PAD */
/* 484 */
                                0x5b, /* FC_END */
                                0x1a, /* FC_BOGUS_STRUCT */
                                0x3, /* 3 */
/* 486 */ NdrFcShort( 0x10 ), /* 16 */
/* 488 */ NdrFcShort( 0x0 ), /* 0 */
/* 490 */ NdrFcShort( 0x6 ), /* Offset= 6 (496) */
/* 492 */ 0x8, /* FC_LONG */
/* 494 */ 0x36, /* FC_ALIGNM8 */
                                0x39, /* FC_ALIGNM8 */
                                0x5b, /* FC_POINTER */
                                0x5b, /* FC_END */
/* 496 */
                                0x11, 0x0, /* FC_RP */
/* 498 */ NdrFcShort( 0xffffffffdc ), /* Offset= -36 (462) */
/* 500 */
                                0x21, /* FC_BOGUS_ARRAY */
                                0x3, /* 3 */

```

```

/* 502 */ NdrFcShort( 0x0 ), /* 0 */
/* 504 */ 0x19, /* Corr desc: field pointer, FC_ULONG */
                                0x0, /* */
/* 506 */ NdrFcShort( 0x0 ), /* 0 */
/* 508 */ NdrFcShort( 0x1 ), /* Corr flags: early, */
/* 510 */ NdrFcLong( 0xffffffff ), /* -1 */
/* 514 */ NdrFcShort( 0x0 ), /* Corr flags: */
/* 516 */ 0x4c, /* FC_EMBEDDED_COMPLEX */
                                0x0, /* 0 */
/* 518 */ NdrFcShort( 0xffffffff44 ), /* Offset= -188 (330) */
/* 520 */ 0x5c, /* FC_PAD */
/* 522 */
                                0x5b, /* FC_END */
                                0x1a, /* FC_BOGUS_STRUCT */
                                0x3, /* 3 */
/* 524 */ NdrFcShort( 0x10 ), /* 16 */
/* 526 */ NdrFcShort( 0x0 ), /* 0 */
/* 528 */ NdrFcShort( 0x6 ), /* Offset= 6 (534) */
/* 530 */ 0x8, /* FC_LONG */
/* 532 */ 0x36, /* FC_ALIGNM8 */
                                0x39, /* FC_ALIGNM8 */
                                0x5b, /* FC_POINTER */
                                0x5b, /* FC_END */
/* 534 */
                                0x11, 0x0, /* FC_RP */
/* 536 */ NdrFcShort( 0xffffffffdc ), /* Offset= -36 (500) */
/* 538 */
                                0x21, /* FC_BOGUS_ARRAY */
                                0x3, /* 3 */
/* 540 */ NdrFcShort( 0x0 ), /* 0 */
/* 542 */ 0x19, /* Corr desc: field pointer, FC_ULONG */
                                0x0, /* */
/* 544 */ NdrFcShort( 0x0 ), /* 0 */
/* 546 */ NdrFcShort( 0x1 ), /* Corr flags: early, */
/* 548 */ NdrFcLong( 0xffffffff ), /* -1 */
/* 552 */ NdrFcShort( 0x0 ), /* Corr flags: */
/* 554 */
                                0x12, 0x0, /* FC_UP */
/* 556 */ NdrFcShort( 0x176 ), /* Offset= 374 (930) */
/* 558 */ 0x5c, /* FC_PAD */
/* 560 */
                                0x5b, /* FC_END */
                                0x1a, /* FC_BOGUS_STRUCT */
                                0x3, /* 3 */
/* 562 */ NdrFcShort( 0x10 ), /* 16 */
/* 564 */ NdrFcShort( 0x0 ), /* 0 */
/* 566 */ NdrFcShort( 0x6 ), /* Offset= 6 (572) */
/* 568 */ 0x8, /* FC_LONG */
/* 570 */ 0x36, /* FC_ALIGNM8 */
                                0x39, /* FC_ALIGNM8 */
                                0x5b, /* FC_POINTER */
                                0x5b, /* FC_END */
/* 572 */
                                0x11, 0x0, /* FC_RP */
/* 574 */ NdrFcShort( 0xffffffffdc ), /* Offset= -36 (538) */
/* 576 */
                                0x2f, /* FC_IP */
                                0x5a, /* FC_CONSTANT_IID */
/* 578 */ NdrFcLong( 0x2f ), /* 47 */
/* 582 */ NdrFcShort( 0x0 ), /* 0 */
/* 584 */ NdrFcShort( 0x0 ), /* 0 */
/* 586 */ 0xc0, /* 192 */
                                0x0, /* 0 */
/* 588 */ 0x0, /* 0 */
                                0x0, /* 0 */

```



```

/* 590 */ 0x0,          /* 0 */
/* 592 */ 0x0,          /* 0 */
/* 594 */ 0x46,         /* 70 */
/* 596 */ NdrFcShort( 0x1 ), /* 1 */
/* 598 */ 0x19,         /* Corr desc: field pointer, FC_ULONG */
/* 600 */ NdrFcShort( 0x4 ), /* 4 */
/* 602 */ NdrFcShort( 0x1 ), /* Corr flags: early, */
/* 604 */ 0x1,          /* FC_BYTE */
/* 606 */ 0x5b,         /* FC_END */
/* 608 */ NdrFcShort( 0x18 ), /* 24 */
/* 610 */ NdrFcShort( 0x0 ), /* 0 */
/* 612 */ NdrFcShort( 0xc ), /* Offset= 12 (624) */
/* 614 */ 0x8,          /* FC_LONG */
/* 616 */ 0x4c,         /* FC_EMBEDDED_COMPLEX */
/* 618 */ NdrFcShort( 0xfffffd6 ), /* Offset= -42 (576) */
/* 620 */ 0x39,         /* FC_ALIGNM8 */
/* 622 */ 0x5c,         /* FC_PAD */
/* 624 */ 0x12, 0x0,    /* FC_UP */
/* 626 */ NdrFcShort( 0xfffffe0 ), /* Offset= -32 (594) */
/* 628 */ 0x21,         /* FC_BOGUS_ARRAY */
/* 630 */ NdrFcShort( 0x0 ), /* 0 */
/* 632 */ 0x19,         /* Corr desc: field pointer, FC_ULONG */
/* 634 */ NdrFcShort( 0x0 ), /* 0 */
/* 636 */ NdrFcShort( 0x1 ), /* Corr flags: early, */
/* 638 */ NdrFcLong( 0xffffffff ), /* -1 */
/* 642 */ NdrFcShort( 0x0 ), /* Corr flags: */
/* 644 */ 0x12, 0x0,    /* FC_UP */
/* 646 */ NdrFcShort( 0xfffffd8 ), /* Offset= -40 (606) */
/* 648 */ 0x5c,         /* FC_PAD */
/* 650 */ 0x5b,         /* FC_END */
/* 652 */ NdrFcShort( 0x10 ), /* 16 */
/* 654 */ NdrFcShort( 0x0 ), /* 0 */
/* 656 */ NdrFcShort( 0x6 ), /* Offset= 6 (662) */
/* 658 */ 0x8,          /* FC_LONG */
/* 660 */ 0x36,         /* FC_ALIGNM8 */
/* 662 */ 0x5b,         /* FC_POINTER */
/* 664 */ NdrFcShort( 0xfffffdc ), /* Offset= -36 (628) */
/* 666 */ 0x1d,         /* FC_SMFARRAY */
          0x0,          /* 0 */

```

```

/* 668 */ NdrFcShort( 0x8 ), /* 8 */
/* 670 */ 0x2,          /* FC_CHAR */
/* 672 */ 0x5b,         /* FC_END */
/* 674 */ NdrFcShort( 0x10 ), /* 16 */
/* 676 */ 0x8,          /* FC_LONG */
/* 678 */ 0x6,          /* FC_SHORT */
/* 680 */ 0x0,          /* FC_EMBEDDED_COMPLEX */
/* 684 */ NdrFcShort( 0xfffff1 ), /* Offset= -15 (666) */
          0x5b,         /* FC_END */
          0x1a,         /* FC_BOGUS_STRUCT */
          0x3,          /* 3 */
/* 686 */ NdrFcShort( 0x20 ), /* 32 */
/* 688 */ NdrFcShort( 0x0 ), /* 0 */
/* 690 */ NdrFcShort( 0xa ), /* Offset= 10 (700) */
/* 692 */ 0x8,          /* FC_LONG */
/* 694 */ 0x36,         /* FC_POINTER */
/* 696 */ 0x0,          /* FC_EMBEDDED_COMPLEX */
/* 700 */ NdrFcShort( 0xfffffe7 ), /* Offset= -25 (672) */
          0x5b,         /* FC_END */
          0x11, 0x0,    /* FC_UP */
/* 702 */ NdrFcShort( 0xfffff10 ), /* Offset= -240 (462) */
/* 704 */ 0x1b,         /* FC_CARRAY */
          0x0,          /* 0 */
/* 706 */ NdrFcShort( 0x1 ), /* 1 */
/* 708 */ 0x19,         /* Corr desc: field pointer, FC_ULONG */
/* 710 */ NdrFcShort( 0x0 ), /* 0 */
/* 712 */ NdrFcShort( 0x1 ), /* Corr flags: early, */
/* 714 */ 0x1,          /* FC_BYTE */
/* 716 */ 0x5b,         /* FC_END */
          0x1a,         /* FC_BOGUS_STRUCT */
          0x3,          /* 3 */
/* 718 */ NdrFcShort( 0x10 ), /* 16 */
/* 720 */ NdrFcShort( 0x0 ), /* 0 */
/* 722 */ NdrFcShort( 0x6 ), /* Offset= 6 (728) */
/* 724 */ 0x8,          /* FC_LONG */
/* 726 */ 0x36,         /* FC_ALIGNM8 */
/* 728 */ 0x5b,         /* FC_POINTER */
          0x12, 0x0,    /* FC_UP */
/* 730 */ NdrFcShort( 0xfffffe6 ), /* Offset= -26 (704) */
/* 732 */ 0x1b,         /* FC_CARRAY */
          0x1,          /* 1 */
/* 734 */ NdrFcShort( 0x2 ), /* 2 */
/* 736 */ 0x19,         /* Corr desc: field pointer, FC_ULONG */
          0x0,          /* 0 */
/* 738 */ NdrFcShort( 0x0 ), /* 0 */
/* 740 */ NdrFcShort( 0x1 ), /* Corr flags: early, */
/* 742 */ 0x6,          /* FC_SHORT */
          0x5b,         /* FC_END */

```

```

/* 744 */
                                0x1a,          /* FC_BOGUS_STRUCT */
                                0x3,           /* 3 */
/* 746 */ NdrFcShort( 0x10 ), /* 16 */
/* 748 */ NdrFcShort( 0x0 ), /* 0 */
/* 750 */ NdrFcShort( 0x6 ), /* Offset= 6 (756) */
/* 752 */ 0x8,                /* FC_LONG */
                                0x39,         /* FC_ALIGNM8 */
/* 754 */ 0x36,               /* FC_POINTER */
                                0x5b,         /* FC_END */
/* 756 */
                                0x12, 0x0,     /* FC_UP */
/* 758 */ NdrFcShort( 0xffffffe6 ), /* Offset= -26 (732) */
/* 760 */
                                0x1b,         /* FC_CARRAY */
                                0x3,           /* 3 */
/* 762 */ NdrFcShort( 0x4 ), /* 4 */
/* 764 */ 0x19,               /* Corr desc: field pointer, FC_ULONG */
                                0x0,          /* */
/* 766 */ NdrFcShort( 0x0 ), /* 0 */
/* 768 */ NdrFcShort( 0x1 ), /* Corr flags: early, */
/* 770 */ 0x8,                /* FC_LONG */
                                0x5b,         /* FC_END */
/* 772 */
                                0x1a,          /* FC_BOGUS_STRUCT */
                                0x3,           /* 3 */
/* 774 */ NdrFcShort( 0x10 ), /* 16 */
/* 776 */ NdrFcShort( 0x0 ), /* 0 */
/* 778 */ NdrFcShort( 0x6 ), /* Offset= 6 (784) */
/* 780 */ 0x8,                /* FC_LONG */
                                0x39,         /* FC_ALIGNM8 */
/* 782 */ 0x36,               /* FC_POINTER */
                                0x5b,         /* FC_END */
/* 784 */
                                0x12, 0x0,     /* FC_UP */
/* 786 */ NdrFcShort( 0xffffffe6 ), /* Offset= -26 (760) */
/* 788 */
                                0x1b,         /* FC_CARRAY */
                                0x7,           /* 7 */
/* 790 */ NdrFcShort( 0x8 ), /* 8 */
/* 792 */ 0x19,               /* Corr desc: field pointer, FC_ULONG */
                                0x0,          /* */
/* 794 */ NdrFcShort( 0x0 ), /* 0 */
/* 796 */ NdrFcShort( 0x1 ), /* Corr flags: early, */
/* 798 */ 0xb,                /* FC_HYPER */
                                0x5b,         /* FC_END */
/* 800 */
                                0x1a,          /* FC_BOGUS_STRUCT */
                                0x3,           /* 3 */
/* 802 */ NdrFcShort( 0x10 ), /* 16 */
/* 804 */ NdrFcShort( 0x0 ), /* 0 */
/* 806 */ NdrFcShort( 0x6 ), /* Offset= 6 (812) */
/* 808 */ 0x8,                /* FC_LONG */
                                0x39,         /* FC_ALIGNM8 */
/* 810 */ 0x36,               /* FC_POINTER */
                                0x5b,         /* FC_END */
/* 812 */
                                0x12, 0x0,     /* FC_UP */
/* 814 */ NdrFcShort( 0xffffffe6 ), /* Offset= -26 (788) */
/* 816 */
                                0x15,         /* FC_STRUCT */
                                0x3,           /* 3 */
/* 818 */ NdrFcShort( 0x8 ), /* 8 */

```

```

/* 820 */ 0x8,                /* FC_LONG */
                                0x8,          /* FC_LONG */
/* 822 */ 0x5c,               /* FC_PAD */
                                0x5b,         /* FC_END */
/* 824 */
                                0x1b,         /* FC_CARRAY */
                                0x3,           /* 3 */
/* 826 */ NdrFcShort( 0x8 ), /* 8 */
/* 828 */ 0x7,               /* Corr desc: FC_USHORT */
                                0x0,          /* */
/* 830 */ NdrFcShort( 0xffc8 ), /* -56 */
/* 832 */ NdrFcShort( 0x1 ), /* Corr flags: early, */
/* 834 */ 0x4c,               /* FC_EMBEDDED_COMPLEX */
                                0x0,          /* 0 */
/* 836 */ NdrFcShort( 0xfffffec ), /* Offset= -20 (816) */
/* 838 */ 0x5c,               /* FC_PAD */
                                0x5b,         /* FC_END */
/* 840 */
                                0x1a,          /* FC_BOGUS_STRUCT */
                                0x3,           /* 3 */
/* 842 */ NdrFcShort( 0x38 ), /* 56 */
/* 844 */ NdrFcShort( 0xfffffec ), /* Offset= -20 (824) */
/* 846 */ NdrFcShort( 0x0 ), /* Offset= 0 (846) */
/* 848 */ 0x6,                /* FC_SHORT */
                                0x6,          /* FC_SHORT */
/* 850 */ 0x38,               /* FC_ALIGNM4 */
                                0x8,          /* FC_LONG */
/* 852 */ 0x8,                /* FC_LONG */
                                0x4c,         /* FC_EMBEDDED_COMPLEX */
/* 854 */ 0x4,                /* 4 */
                                NdrFcShort( 0xffffe0d ), /* Offset= -499 (356) */
                                0x5b,         /* FC_END */
/* 858 */
                                0x12, 0x0,     /* FC_UP */
/* 860 */ NdrFcShort( 0xfffff02 ), /* Offset= -254 (606) */
/* 862 */
                                0x12, 0x8,     /* FC_UP [simple_pointer] */
                                /* FC_BYTE */
                                0x5c,         /* FC_PAD */
/* 866 */
                                0x12, 0x8,     /* FC_UP [simple_pointer] */
                                /* FC_SHORT */
                                0x5c,         /* FC_PAD */
/* 870 */
                                0x12, 0x8,     /* FC_UP [simple_pointer] */
                                /* FC_LONG */
                                0x5c,         /* FC_PAD */
/* 874 */
                                0x12, 0x8,     /* FC_UP [simple_pointer] */
                                /* FC_FLOAT */
                                0x5c,         /* FC_PAD */
/* 876 */ 0xa,
/* 878 */
                                0x12, 0x8,     /* FC_UP [simple_pointer] */
                                /* FC_DOUBLE */
                                0x5c,         /* FC_PAD */
/* 880 */ 0xc,
/* 882 */
                                0x12, 0x0,     /* FC_UP */
/* 884 */ NdrFcShort( 0xffffda4 ), /* Offset= -604 (280) */
/* 886 */
                                0x12, 0x10,    /* FC_UP [pointer_deref] */
                                /* Offset= -602 (286) */
/* 888 */ NdrFcShort( 0xffffda6 ),
/* 890 */
                                0x12, 0x10,    /* FC_UP [pointer_deref] */

```

```

/* 892 */ NdrFcShort( 0xfffffdbc ), /* Offset= -580 (312) */
/* 894 */
/* 896 */ NdrFcShort( 0xfffffdca ), /* Offset= -566 (330) */
/* 898 */
/* 900 */ NdrFcShort( 0xfffffdd8 ), /* Offset= -552 (348) */
/* 902 */
/* 904 */ NdrFcShort( 0x2 ), /* Offset= 2 (906) */
/* 906 */
/* 908 */ NdrFcShort( 0x16 ), /* Offset= 22 (930) */
/* 910 */
/* 912 */ NdrFcShort( 0x10 ), /* FC_UP [pointer_deref] */
/* 914 */ 0x12, 0x10, /* FC_UP [pointer_deref] */
/* 916 */ 0x12, 0x10, /* FC_UP [pointer_deref] */
/* 918 */ 0x12, 0x0, /* FC_UP */
/* 920 */ 0x15, /* FC_STRUCT */
/* 922 */ 0x7, /* FC_UP */
/* 924 */ NdrFcShort( 0xffffff2 ), /* Offset= -14 (910) */
/* 926 */
/* 928 */ 0x2, /* FC_CHAR */
/* 930 */ 0x5c, /* FC_PAD */
/* 932 */ NdrFcShort( 0x20 ), /* FC_BOGUS_STRUCT */
/* 934 */ NdrFcShort( 0x0 ), /* FC_UP */
/* 936 */ NdrFcShort( 0x0 ), /* Offset= 0 (936) */
/* 938 */ 0x8, /* FC_LONG */
/* 940 */ 0x6, /* FC_SHORT */
/* 942 */ 0x6, /* FC_SHORT */
/* 944 */ 0x4c, /* FC_EMBEDDED_COMPLEX */
/* 946 */ NdrFcShort( 0xfffffc54 ), /* Offset= -940 (6) */
/* 948 */ 0x5c, /* FC_PAD */
/* 950 */ 0xb4, /* FC_USER_MARSHAL */
/* 952 */ NdrFcShort( 0x0 ), /* FC_END */
/* 954 */ NdrFcShort( 0x18 ), /* FC_END */
/* 956 */ NdrFcShort( 0x0 ), /* FC_END */
/* 958 */ NdrFcShort( 0xfffffc44 ), /* Offset= -956 (2) */
/* 960 */
/* 962 */ NdrFcShort( 0x6 ), /* FC_RP [allocated_on_stack] */
/* 964 */
/* 966 */ NdrFcShort( 0xfffffddc ), /* Offset= -36 (930) */
/* 968 */ 0xb4, /* FC_USER_MARSHAL */
0x83, /* FC_END */

```

```

/* 970 */ NdrFcShort( 0x0 ), /* 0 */
/* 972 */ NdrFcShort( 0x18 ), /* 24 */
/* 974 */ NdrFcShort( 0x0 ), /* 0 */
/* 976 */ NdrFcShort( 0xfffffff4 ), /* Offset= -12 (964) */
0x0
};
const CInterfaceProxyVtbl * _tpcc_com_ps_ProxyVtblList[] =
{
( CInterfaceProxyVtbl *) &_ITPCCProxyVtbl,
0
};
const CInterfaceStubVtbl * _tpcc_com_ps_StubVtblList[] =
{
( CInterfaceStubVtbl *) &_ITPCCStubVtbl,
0
};
PCInterfaceName const _tpcc_com_ps_InterfaceNamesList[] =
{
"ITPCC",
0
};
#define _tpcc_com_ps_CHECK_IID(n) IID_GENERIC_CHECK_IID( _tpcc_com_ps, pIID, n)
int __stdcall _tpcc_com_ps_IID_Lookup( const IID * pIID, int * pIndex )
{
if(! _tpcc_com_ps_CHECK_IID(0))
{
*pIndex = 0;
return 1;
}
return 0;
}
const ExtendedProxyFileInfo tpcc_com_ps_ProxyFileInfo =
{
(PCInterfaceProxyVtblList *) &_tpcc_com_ps_ProxyVtblList,
(PCInterfaceStubVtblList *) &_tpcc_com_ps_StubVtblList,
(const PCInterfaceName *) &_tpcc_com_ps_InterfaceNamesList,
0, // no delegation
&_tpcc_com_ps_IID_Lookup,
1,
2,
0, /* table of [async_uuid] interfaces */
0, /* Filler1 */
0, /* Filler2 */
0 /* Filler3 */
};
#endif /* defined(_M_IA64) || defined(_M_AXP64) */

```

tpcc_com_sl.rgs

```
HKCR
{
    TPCC.StockLevel.1 = s 'StockLevel Class'
    {
        CLSID = s '{2668369E-A50D-11D2-BA4E-00C04FBFE08B}'
    }
    TPCC.StockLevel = s 'StockLevel Class'
    {
        CurVer = s 'TPCC.StockLevel.1'
    }
    NoRemove CLSID
    {
        ForceRemove {2668369E-A50D-11D2-BA4E-00C04FBFE08B} = s
'StockLevel Class'
        {
            ProgID = s 'TPCC.StockLevel.1'
            VersionIndependentProgID = s 'TPCC.StockLevel'
            InprocServer32 = s '%MODULE%'
            {
                val ThreadingModel = s 'Both'
            }
        }
    }
}
```

tpcc_dblib.cpp

```
/* FILE: TPCC_DBLIB.CPP
 * Microsoft TPC-C Kit Ver. 4.20.000
 * Copyright Microsoft, 1999
 *
 * All Rights Reserved
 *
 * Version 4.10.000 audited by Richard Gimarc,
Performance Metrics, 3/17/99
 *
 * PURPOSE: Implements dblib calls for TPC-C txns.
 * Contact: Charles Levine (clevine@microsoft.com)
 *
 * Change history:
 * 4.20.000 - updated rev number to match kit
 * 4.10.001 - not deleting error class in catch handler on deadlock
retry;
 *
 * not a functional bug, but a memory leak
 * - had to tweak some declarations to compile
with latest SDK; no functional change
 */

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

#define DBNTWIN32
#include <sqlfront.h>
#include <sqldb.h>

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

```
// need to declare functions for export
#define DllDecl __declspec( dllexport )

#include "..\..\common\src\error.h"
#include "..\..\common\src\trans.h"
#include "..\..\common\src\txn_base.h"
#include "tpcc_dblib.h"

#define DEFCLPACKSIZE 4096

// version string; must match return value from tpcc_version stored proc
const char sVersion[] = "4.10.000";

const iMaxRetries = 10; // how many retries on
deadlock
static long iConnectionCount = 0; // number of current dblib connections

const int iErrOleDbProvider = 7312;
const char sErrTimeoutExpired[] = "Timeout expired";

BOOL WINAPIENTRY DllMain(HMODULE hModule, DWORD ul_reason_for_call, LPVOID lpReserved)
{
    switch( ul_reason_for_call )
    {
        case DLL_PROCESS_ATTACH:
            DisableThreadLibraryCalls(hModule);
            dbinit(); // initialize dblib
            break;

        case DLL_PROCESS_DETACH:
            dbexit(); // close all dblib
            structures/connections
            break;

        default:
            /* nothing */;
    }
    return TRUE;
}

int err_handler(DBPROCESS *dbproc, int severity, int dberr, int oserr, LPCSTR
dberrstr, LPCSTR oserrstr)
{
    CTPCC_DBLIB *pConn;

    assert(dbproc != NULL);
    pConn = (CTPCC_DBLIB*) dbgetuserdata(dbproc);

    if (pConn != NULL)
    {
        pConn->SetDbLibError( severity, dberr, oserr, dberrstr, oserrstr
);
    }
    return INT_CANCEL;
}

/* FUNCTION: int msg_handler(DBPROCESS *dbproc, DBINT msgno, int msgstate, int
severity, char *msgtext)
 *
 * PURPOSE: This function handles DB-Library SQL Server error messages
 *
```

```

* ARGUMENTS:      DBPROCESS      *dbproc      DBPROCESS id
pointer
*
*                  message number      DBINT      msgno
*
*                  int
*      msgstate      message state
*                  int
*      severity      message severity
*                  char
*                  *msgtext
*      printable message description
*
* RETURNS:        int      INT_CONTINUE
*      continue if error is SQLETIME else INT_CANCEL action
*
*      INT_CANCEL      cancel operation
*
* COMMENTS:       This function also sets the dead lock dbproc variable if
necessary.
*
*/

// typedefs INT (SQLAPI *DBMSGHANDLE_PROC) (DBPROCESS, DBINT, INT, INT, LPCSTR,
LPCSTR, LPCSTR, DBUSMALLINT);

int msg_handler(DBPROCESS *dbproc, DBINT msgno, int msgstate, int severity,
LPCSTR msgtext, LPCSTR srvname, LPCSTR
procname, DBUSMALLINT line)
{
    CTPCC_DBLIB      *pConn;

    assert(dbproc != NULL);
    pConn = (CTPCC_DBLIB*)dbgetuserdata(dbproc);

    if (pConn != NULL)
    {
        pConn->SetSqlError( msgno, msgstate, severity, msgtext );
    }

    return 0;
}

/* FUNCTION: void UtilStrCpy(char * pDest, char * pSrc, int n)
*
* PURPOSE:        This function copies n characters from string pSrc to pDst and
places a
*                  null character at the end of the destination string.
*
* ARGUMENTS:      char      *pDest      destination string
pointer
*                  char      *pSrc
*                  source string pointer
*                  int      n
*                  number of characters to copy
*
* RETURNS:        None
*
* COMMENTS:       Unlike strncpy this function ensures that the result string is
always null terminated.
*
*/

inline static void UtilStrCpy(char * pDest, const BYTE * pSrc, int n)
{

```

```

    strncpy(pDest, (char *)pSrc, n);
    pDest[n] = '\0';

    return;
}

/* FUNCTION: CTPCC_DBLIB_ERR::ErrorText
*
*/

char* CTPCC_DBLIB_ERR::ErrorText(void)
{
    int i;

    static SERRORMSG errorMsgs[] =
    {
        { ERR_WRONG_SP_VERSION,      "Wrong version of stored
procs on database server" },
        { ERR_INVALID_CUST,          "Invalid Customer
id,name." },
        { ERR_NO_SUCH_ORDER,         "No orders found for
customer." },
        { ERR_RETRIED_TRANS,         "Retries before
transaction succeeded." },
        { 0,                          },
    };

    static char szNotFound[] = "Unknown error number.";

    for(i=0; errorMsgs[i].szMsg[0]; i++)
    {
        if ( m_errno == errorMsgs[i].iError )
            break;
    }
    if ( !errorMsgs[i].szMsg[0] )
        return szNotFound;
    else
        return errorMsgs[i].szMsg;
}

// wrapper routine for class constructor
__declspec(dllexport) CTPCC_DBLIB* CTPCC_DBLIB_new(
LPCSTR szServer,      // name of SQL server
LPCSTR szUser,       // user name for login
LPCSTR szPassword,   // password for login
LPCSTR szHost,       // workstation name; shows up in
sp_who; max 30 chars, only first 10 kept by SQL Server
LPCSTR szDatabase ) // name of database to use
{
    return new CTPCC_DBLIB( szServer, szUser, szPassword, szHost, szDatabase
);
}

CTPCC_DBLIB::CTPCC_DBLIB (
LPCSTR szServer,     // name of SQL server
LPCSTR szUser,      // user name for login
LPCSTR szPassword,  // password for login
LPCSTR szHost,      // workstation name; shows up in
sp_who; max 30 chars, only first 10 kept by SQL Server
LPCSTR szDatabase ) // name of database to use

```

```

{
    LOGINREC *login;
    const BYTE *pData;

    // initialization
    m_dbproc = NULL;
    m_DbLibErr = (CDBLIBERR*)NULL;
    m_SqlErr = (CSQLERR*)NULL;

    m_MaxRetries = 10; // how many retries on deadlock

    // increase max number of connections if getting close
    if ( dbgetmaxprocs() < (iConnectionCount+5) )
    {
        if ( dbsetmaxprocs(iConnectionCount+10) == FAIL )
            ThrowError(CDBLIBERR::eDbSetMaxProcs);
    }

    // allocate a login structure
    login = dblogin();
    if (login == NULL)
        ThrowError(CDBLIBERR::eLogin);
    InterlockedIncrement( &iConnectionCount );

    // register error and message handler functions
    if (dbprocerrhandle(login, err_handler) == NULL)
        ThrowError(CDBLIBERR::eDbProcHandler);

    if (dbprocmsghandle(login, msg_handler) == NULL)
        ThrowError(CDBLIBERR::eDbProcHandler);

    DBSETLUSER(login, szUser);
    DBSETLPWD(login, szPassword);
    DBSETLHOST(login, szHost);
    DBSETLPACKET(login, (unsigned short)DEFCLPACKSIZE);
    DBSETLVERSION(login, DEVER60); // use dblib ver 6.0
client behavior

    // set time to wait for login
    if (dbsetlogintime(60) == FAIL)
        ThrowError(CDBLIBERR::eDbSet);

    // set time to wait for statement execution
    if (dbsettime(180) == FAIL)
        ThrowError(CDBLIBERR::eDbSet);

    m_dbproc = dbopen(login, szServer);

    // deallocate login structure before checking for success
    dbfreelogin( login );

    if (m_dbproc == NULL)
        ThrowError(CDBLIBERR::eDbOpen);

    // save address of class instance so that the message and error handler
    // can get to data.
    dbsetuserdata(m_dbproc, (LPVOID)this);

    // Use the the right database
    if (dbuse(m_dbproc, szDatabase) == FAIL)
        ThrowError(CDBLIBERR::eDbUse);

```

```

    // set connection properties to match those used by ODBC
    dbcmd(m_dbproc, "set ANSI_DEFAULTS ON ");
    dbcmd(m_dbproc, "set CURSOR_CLOSE_ON_COMMIT OFF ");
    dbcmd(m_dbproc, "set IMPLICIT_TRANSACTIONS OFF ");
    dbcmd(m_dbproc, "set NOCOUNT ON "); // do not
return row counts
    dbcmd(m_dbproc, "set XACT_ABORT ON "); // rollback transaction
on abort

    // for coyote
    dbcmd(m_dbproc, "set ansi_warnings on "); //
    dbcmd(m_dbproc, "set ansi_nulls on "); //

    if (dbsqlexec(m_dbproc) == FAIL)
        ThrowError(CDBLIBERR::eDbSqlExec);

    // This value must match the number of commands above.
    DiscardNextResults(2);
    DiscardNextResults(5); // coyote

    // verify that version of stored procs on server is correct
    dbrpcinit(m_dbproc, "tpcc_version", 0);

    if (dbrpcexec(m_dbproc) == FAIL)
        ThrowError(CDBLIBERR::eDbRpcExec);

    if (dbresults(m_dbproc) != SUCCEEDED)
        ThrowError(CDBLIBERR::eDbResults);

    if (dbnextrow(m_dbproc) != REG_ROW)
        ThrowError(CDBLIBERR::eDbNextRow);

    char szSrvVersion[16];
    pData=dbdata(m_dbproc, 1);
    if (pData)
        UtilStrCpy(szSrvVersion, pData, dbdatlen(m_dbproc, 1));
    else
        szSrvVersion[0]=0;
    if (strcmp(szSrvVersion,sVersion))
        throw new CTPCC_DBLIB_ERR( CTPCC_DBLIB_ERR::ERR_WRONG_SP_VERSION
);

    DiscardNextRows(0);
    DiscardNextResults(0);
}

CTPCC_DBLIB::~CTPCC_DBLIB( void )
{
    // close db connection and deallocate resources
    dbclose(m_dbproc);
    InterlockedDecrement( &iConnectionCount );
    if (m_DbLibErr != NULL)
        delete m_DbLibErr;
    if (m_SqlErr != NULL)
        delete m_SqlErr;
}

void CTPCC_DBLIB::SetDbLibError(int severity, int dberr, int oserr, LPCSTR dberrstr,
LPCSTR oserrstr)
{
    delete m_DbLibErr;

```

```

    m_DbLibErr = new CDBLIBERR(CDBLIBERR::eUnknown, severity, dberr, oserr);

    if (dberrstr != NULL)
    {
        m_DbLibErr->m_dberrstr = new char[ strlen(dberrstr)+1 ];
        strcpy( m_DbLibErr->m_dberrstr, dberrstr );
    }

    if (oserrstr != NULL)
    {
        m_DbLibErr->m_oserrstr = new char[ strlen(oserrstr)+1 ];
        strcpy( m_DbLibErr->m_oserrstr, oserrstr );
    }
}

void CTPCC_DBLIB::SetSqlError( int /*DBINT*/ msgno, int msgstate, int severity,
LPCSTR msgtext )
{
    if (m_SqlErr == NULL)
        m_SqlErr = new CSQLERR();

    m_SqlErr->m_msgno = msgno;
    m_SqlErr->m_msgstate = msgstate;
    m_SqlErr->m_severity = severity;

    delete [] m_SqlErr->m_msgtext;
    if (msgtext != NULL)
    {
        m_SqlErr->m_msgtext = new char[ strlen(msgtext)+1 ];
        strcpy( m_SqlErr->m_msgtext, msgtext );
    }
}

void CTPCC_DBLIB::ThrowError( CDBLIBERR::ACTION eAction )
{
    // discard anything still in return buffer
    DiscardNextRows(-1);
    DiscardNextResults(-1);

    // check for SQL Server error first; if yes, throw it and ignore any
    DBLib error.
    if (m_SqlErr != NULL)
    {
        CSQLERR *pSqlErr;
        pSqlErr = m_SqlErr;
        m_SqlErr = NULL; // clear our pointer to instance; catch
        handler will delete
        throw pSqlErr;
    }

    CDBLIBERR *pDbLibErr;
    if (m_DbLibErr == NULL)
        // this case isn't expected to happen, since it means that an
        error was returned
        // but the error handlers were not called.
        pDbLibErr = new CDBLIBERR(eAction);

    else
    {
        pDbLibErr = m_DbLibErr;
        pDbLibErr->m_eAction = eAction;
        m_DbLibErr = NULL; // clear our pointer to instance;
        catch handler will delete
    }
}

```

```

    }
    throw pDbLibErr;
}

// Read and discard rows until no more. Throw an exception if number of rows read
doesn't
// match number of rows expected. The row count will be ignored if the expected
count value
// passed in is negative. A typical use of this routine is to verify that there are
no more
// rows to be read.
void CTPCC_DBLIB::DiscardNextRows(int iExpectedCount)
{
    int iRowsRead = 0;
    RETCODE rc;

    while (TRUE)
    {
        rc = dbnextrow(m_dbproc);
        if (rc == NO_MORE_ROWS)
            break;
        if (rc == FAIL)
        {
            if (iExpectedCount >= 0)
                ThrowError(CDBLIBERR::eDbNextRow);
            else
                break;
        }
        iRowsRead++;
    }

    if ((iExpectedCount >= 0) &&
        (iExpectedCount != iRowsRead))
        ThrowError(CDBLIBERR::eWrongRowCount);
}

// Read and discard results until no more. Throw an exception if number of result
sets read doesn't
// match number expected. The result set count will be ignored if the expected
count value
// passed in is negative. A typical use of this routine is to verify that there are
no more
// result sets to be read.
void CTPCC_DBLIB::DiscardNextResults(int iExpectedCount)
{
    int iResultsRead = 0;
    RETCODE rc;

    while (TRUE)
    {
        rc = dbresults(m_dbproc);
        if (rc == NO_MORE_RESULTS)
            break;
        if (rc == FAIL)
        {
            if (iExpectedCount >= 0)
                ThrowError(CDBLIBERR::eDbResults);
            else
                break;
        }
    }

    DiscardNextRows(-1);
}

```

```

        iResultsRead++;
    }
    if ((iExpectedCount >= 0) &&
        (iExpectedCount != iResultsRead))
        ThrowError(CDBLIBERR::eWrongRowCount);
}

void CTPCC_DBLIB::StockLevel()
{
    int                iTryCount = 0;
    const BYTE        *pData;

    ResetError();

    while (TRUE)
    {
        try
        {
            dbrpcinit(m_dbproc, "tpcc_stocklevel", 0);

            dbrpcparam(m_dbproc, NULL, 0, SQLINT4, -1, -1, (BYTE
*) &m_txn.StockLevel.w_id); // @w_id smallint
            dbrpcparam(m_dbproc, NULL, 0, SQLINT1, -1, -1, (BYTE
*) &m_txn.StockLevel.d_id); // @d_id tinyint
            dbrpcparam(m_dbproc, NULL, 0, SQLINT2, -1, -1, (BYTE
*) &m_txn.StockLevel.threshold); // @threshold smallint

            if (dbrpcexec(m_dbproc) == FAIL)
                ThrowError(CDBLIBERR::eDbRpcExec);

            if (dbresults(m_dbproc) != SUCCEED)
                ThrowError(CDBLIBERR::eDbResults);

            if (dbnextrow(m_dbproc) != REG_ROW)
                ThrowError(CDBLIBERR::eDbNextRow);

            if (pData=dbdata(m_dbproc, 1))
                m_txn.StockLevel.low_stock = *((long *)
pData);

            DiscardNextRows(0);
            DiscardNextResults(0);

            m_txn.StockLevel.exec_status_code = eOK;
            return;
        }
        catch (CSQLERR *e)
        {
            if ((e->m_msgno == 1205 ||
                (e->m_msgno == iErrOleDbProvider &&
                 strstr(e->m_msgtext, sErrTimeoutExpired) !=
NULL)) &&
                (++iTryCount <= iMaxRetries))
            {
                // hit deadlock; backoff for increasingly
                longer period
                delete e;
                Sleep(10 * iTryCount);
            }
            else
                throw;
        }
    }
}

```

```

    } // while (TRUE)
    //if (iTryCount)
    //    throw new CTPCC_DBLIB_ERR(CTPCC_DBLIB_ERR::ERR_RETRIED_TRANS,
iTryCount);
}

void CTPCC_DBLIB::NewOrder()
{
    int                i;
    DBINT              commit_flag;
    DEDATETIME         datetime;
    DBDATEREC          daterec;

    int                iTryCount = 0;
    const BYTE        *pData;

    ResetError();

    while (TRUE)
    {
        try
        {
            dbrpcinit(m_dbproc, "tpcc_neworder", 0);

            dbrpcparam(m_dbproc, NULL, 0, SQLINT4, -1, -1, (BYTE
*) &m_txn.NewOrder.w_id);
            dbrpcparam(m_dbproc, NULL, 0, SQLINT1, -1, -1, (BYTE
*) &m_txn.NewOrder.d_id);
            dbrpcparam(m_dbproc, NULL, 0, SQLINT4, -1, -1, (BYTE
*) &m_txn.NewOrder.c_id);
            dbrpcparam(m_dbproc, NULL, 0, SQLINT1, -1, -1, (BYTE
*) &m_txn.NewOrder.o_ol_cnt);

            // check whether any order lines are for a remote
            warehouse
            m_txn.NewOrder.o_all_local = 1;
            for (i = 0; i < m_txn.NewOrder.o_ol_cnt; i++)
            {
                if (m_txn.NewOrder.OL[i].ol_supply_w_id !=
m_txn.NewOrder.w_id)
                {
                    m_txn.NewOrder.o_all_local = 0;
                    break;
                }
            }
            dbrpcparam(m_dbproc, NULL, 0, SQLINT1, -1, -1, (BYTE
*) &m_txn.NewOrder.o_all_local);

            for (i = 0; i < m_txn.NewOrder.o_ol_cnt; i++)
            {
                dbrpcparam(m_dbproc, NULL, 0, SQLINT4, -1, -
1, (BYTE *) &m_txn.NewOrder.OL[i].ol_i_id);
                dbrpcparam(m_dbproc, NULL, 0, SQLINT4, -1, -
1, (BYTE *) &m_txn.NewOrder.OL[i].ol_supply_w_id);
                dbrpcparam(m_dbproc, NULL, 0, SQLINT2, -1, -
1, (BYTE *) &m_txn.NewOrder.OL[i].ol_quantity);
            }

            if (dbrpcexec(m_dbproc) == FAIL)
                ThrowError(CDBLIBERR::eDbRpcExec);
        }
    }
}

```



```

// Get order line results
m_txn.NewOrder.total_amount = 0;
for (i = 0; i < m_txn.NewOrder.o_ol_cnt; i++)
{
    if (dbresults(m_dbproc) != SUCCEEDED)
        ThrowError(CDBLIBERR::eDbResults);

    if (dbnumcols(m_dbproc) != 5)
        ThrowError(CDBLIBERR::eWrongNumCols);

    if (dbnextrow(m_dbproc) != REG_ROW)
        ThrowError(CDBLIBERR::eDbNextRow);

    if (pData=dbdata(m_dbproc, 1))
        UtilStrCpy(m_txn.NewOrder.OL[i].ol_i_name, pData, dbdatlen(m_dbproc, 1));
    if (pData=dbdata(m_dbproc, 2))
        m_txn.NewOrder.OL[i].ol_stock =
        (*DBSMALLINT *) pData;

    if (pData=dbdata(m_dbproc, 3))
        UtilStrCpy(m_txn.NewOrder.OL[i].ol_brand_generic, pData,
        dbdatlen(m_dbproc, 3));

    if (pData=dbdata(m_dbproc, 4))
        dbconvert(m_dbproc, SQLNUMERIC,
        (LPCBYTE)pData, dbdatlen(m_dbproc, 4),
        *)&m_txn.NewOrder.OL[i].ol_i_price, 8);

    if (pData=dbdata(m_dbproc, 5))
        dbconvert(m_dbproc, SQLNUMERIC,
        (LPCBYTE)pData, dbdatlen(m_dbproc, 5),
        *)&m_txn.NewOrder.OL[i].ol_amount, 8);

    m_txn.NewOrder.total_amount + m_txn.NewOrder.OL[i].ol_amount;

    DiscardNextRows(0);
}

// get remaining values for w_tax, d_tax, o_id,
c_last, c_discount, c_credit, o_entry_d, commit_flag
if (dbresults(m_dbproc) != SUCCEEDED)
    ThrowError(CDBLIBERR::eDbResults);

if (dbnextrow(m_dbproc) != REG_ROW)
    ThrowError(CDBLIBERR::eDbNextRow);

if (dbnumcols(m_dbproc) != 8)
    ThrowError(CDBLIBERR::eWrongNumCols);

if (pData=dbdata(m_dbproc, 1))
    dbconvert(m_dbproc, SQLNUMERIC,
    (LPCBYTE)pData, dbdatlen(m_dbproc, 1), SQLFLT8, (BYTE *)&m_txn.NewOrder.w_tax, 8);
if (pData=dbdata(m_dbproc, 2))

```

```

        dbconvert(m_dbproc, SQLNUMERIC,
        (LPCBYTE)pData, dbdatlen(m_dbproc, 2), SQLFLT8, (BYTE *)&m_txn.NewOrder.d_tax, 8);
    if (pData=dbdata(m_dbproc, 3))
        m_txn.NewOrder.o_id = (*DBINT *) pData;
    if (pData=dbdata(m_dbproc, 4))
        UtilStrCpy(m_txn.NewOrder.c_last, pData,
        dbdatlen(m_dbproc, 4));

    if (pData=dbdata(m_dbproc, 5))
        dbconvert(m_dbproc, SQLNUMERIC,
        (LPCBYTE)pData, dbdatlen(m_dbproc, 5), SQLFLT8, (BYTE *)&m_txn.NewOrder.c_discount,
        8);

    if (pData=dbdata(m_dbproc, 6))
        UtilStrCpy(m_txn.NewOrder.c_credit, pData,
        dbdatlen(m_dbproc, 6));

    if (pData=dbdata(m_dbproc, 7))
    {
        datetime = *((DBDATETIME *) pData);
        dbdatecrack(m_dbproc, &daterec, &datetime);
        m_txn.NewOrder.o_entry_d.year =
        m_txn.NewOrder.o_entry_d.month =
        m_txn.NewOrder.o_entry_d.day =
        m_txn.NewOrder.o_entry_d.hour =
        m_txn.NewOrder.o_entry_d.minute =
        m_txn.NewOrder.o_entry_d.second =
    }

    if (pData=dbdata(m_dbproc, 8))
        commit_flag = (*DBTINYINT *) pData);

    DiscardNextRows(0);
    DiscardNextResults(0);

    if (commit_flag == 1)
    {
        m_txn.NewOrder.total_amount *= ((1 +
        m_txn.NewOrder.w_tax + m_txn.NewOrder.d_tax) * (1 - m_txn.NewOrder.c_discount));
        m_txn.NewOrder.exec_status_code = eOK;
    }
    else
        m_txn.NewOrder.exec_status_code =
        eInvalidItem;

    return;
}
catch (CSQLERR *e)
{
    if ((e->m_msgno == 1205 ||
    (e->m_msgno == iErrOleDbProvider &&
    strstr(e->m_msgtext, sErrTimeoutExpired) !=
    NULL)) &&
    (++iTryCount <= iMaxRetries))
    {
        // hit deadlock; backoff for increasingly
        longer period
        delete e;
        Sleep(10 * iTryCount);
    }
}

```

```

        else
            throw;
    }
    // while (TRUE)
}
// if (iTryCount)
// throw new CTPCC_DBLIB_ERR(CTPCC_DBLIB_ERR::ERR_RETRIED_TRANS,
iTryCount);
}

void CTPCC_DBLIB::Payment()
{
    DBDATETIME      datetime;
    DBDATERECC      daterec;

    int              iTryCount = 0;
    const BYTE      *pData;

    ResetError();

    while (TRUE)
    {
        try
        {
            dbrpcinit(m_dbproc, "tpcc_payment", 0);

            dbrpcparam(m_dbproc, NULL, 0, SQLINT4, -1, -1, (BYTE
*) &m_txn.Payment.w_id);
            dbrpcparam(m_dbproc, NULL, 0, SQLINT4, -1, -1, (BYTE
*) &m_txn.Payment.c_w_id);
            dbrpcparam(m_dbproc, NULL, 0, SQLFLT8, -1, -1, (BYTE
*) &m_txn.Payment.h_amount);
            dbrpcparam(m_dbproc, NULL, 0, SQLINT1, -1, -1, (BYTE
*) &m_txn.Payment.d_id);
            dbrpcparam(m_dbproc, NULL, 0, SQLINT1, -1, -1, (BYTE
*) &m_txn.Payment.c_d_id);
            dbrpcparam(m_dbproc, NULL, 0, SQLINT4, -1, -1, (BYTE
*) &m_txn.Payment.c_id);

            // if customer id is zero, then payment is by name
            if (m_txn.Payment.c_id == 0)
                dbrpcparam(m_dbproc, NULL, 0, SQLCHAR, -1,
strlen(m_txn.Payment.c_last), (unsigned char *)m_txn.Payment.c_last);

            if (dbrpcexec(m_dbproc) == FAIL)
                ThrowError(CDBLIBERR::eDbRpcExec);

            if (dbresults(m_dbproc) != SUCCEED)
                ThrowError(CDBLIBERR::eDbResults);

            if (dbnextrow(m_dbproc) != REG_ROW)
                ThrowError(CDBLIBERR::eDbNextRow);

            if (dbnumcols(m_dbproc) != 27)
                ThrowError(CDBLIBERR::eWrongNumCols);

            if (pData=dbdata(m_dbproc, 1))
                m_txn.Payment.c_id = *((DBINT *) pData);
            if (pData=dbdata(m_dbproc, 2))
                UtilStrCpy(m_txn.Payment.c_last, pData,
dbdatlen(m_dbproc, 2));
            if (pData=dbdata(m_dbproc, 3))

```

```

        {
            datetime = *((DBDATETIME *) pData);
            dbdatecrack(m_dbproc, &daterec, &datetime);
            m_txn.Payment.h_date.year = daterec.year;
            m_txn.Payment.h_date.month = daterec.month;
            m_txn.Payment.h_date.day = daterec.day;
            m_txn.Payment.h_date.hour = daterec.hour;
            m_txn.Payment.h_date.minute =

            m_txn.Payment.h_date.second =

        }
        if (pData=dbdata(m_dbproc, 4))
            UtilStrCpy(m_txn.Payment.w_street_1, pData,
dbdatlen(m_dbproc, 4));
        if (pData=dbdata(m_dbproc, 5))
            UtilStrCpy(m_txn.Payment.w_street_2, pData,
dbdatlen(m_dbproc, 5));
        if (pData=dbdata(m_dbproc, 6))
            UtilStrCpy(m_txn.Payment.w_city, pData,
dbdatlen(m_dbproc, 6));
        if (pData=dbdata(m_dbproc, 7))
            UtilStrCpy(m_txn.Payment.w_state, pData,
dbdatlen(m_dbproc, 7));
        if (pData=dbdata(m_dbproc, 8))
            UtilStrCpy(m_txn.Payment.w_zip, pData,
dbdatlen(m_dbproc, 8));
        if (pData=dbdata(m_dbproc, 9))
            UtilStrCpy(m_txn.Payment.d_street_1, pData,
dbdatlen(m_dbproc, 9));
        if (pData=dbdata(m_dbproc, 10))
            UtilStrCpy(m_txn.Payment.d_street_2, pData,
dbdatlen(m_dbproc, 10));
        if (pData=dbdata(m_dbproc, 11))
            UtilStrCpy(m_txn.Payment.d_city, pData,
dbdatlen(m_dbproc, 11));
        if (pData=dbdata(m_dbproc, 12))
            UtilStrCpy(m_txn.Payment.d_state, pData,
dbdatlen(m_dbproc, 12));
        if (pData=dbdata(m_dbproc, 13))
            UtilStrCpy(m_txn.Payment.d_zip, pData,
dbdatlen(m_dbproc, 13));
        if (pData=dbdata(m_dbproc, 14))
            UtilStrCpy(m_txn.Payment.c_first, pData,
dbdatlen(m_dbproc, 14));
        if (pData=dbdata(m_dbproc, 15))
            UtilStrCpy(m_txn.Payment.c_middle, pData,
dbdatlen(m_dbproc, 15));
        if (pData=dbdata(m_dbproc, 16))
            UtilStrCpy(m_txn.Payment.c_street_1, pData,
dbdatlen(m_dbproc, 16));
        if (pData=dbdata(m_dbproc, 17))
            UtilStrCpy(m_txn.Payment.c_street_2, pData,
dbdatlen(m_dbproc, 17));
        if (pData=dbdata(m_dbproc, 18))
            UtilStrCpy(m_txn.Payment.c_city, pData,
dbdatlen(m_dbproc, 18));
        if (pData=dbdata(m_dbproc, 19))
            UtilStrCpy(m_txn.Payment.c_state, pData,
dbdatlen(m_dbproc, 19));
        if (pData=dbdata(m_dbproc, 20))
            UtilStrCpy(m_txn.Payment.c_zip, pData,
dbdatlen(m_dbproc, 20));

```

```

        if (pData=dbdata(m_dbproc, 21))
            UtilStrCpy(m_txn.Payment.c_phone, pData,
dbdatlen(m_dbproc, 21));
        if (pData=dbdata(m_dbproc, 22))
        {
            datetime = *((DBDATETIME *) pData);
            dbdatecrack(m_dbproc, &daterec, &datetime);
            m_txn.Payment.c_since.year = daterec.year;
            m_txn.Payment.c_since.month =
daterec.month;
            m_txn.Payment.c_since.day = daterec.day;
            m_txn.Payment.c_since.hour = daterec.hour;
            m_txn.Payment.c_since.minute =
daterec.minute;
            m_txn.Payment.c_since.second =
daterec.second;
        }
        if (pData=dbdata(m_dbproc, 23))
            UtilStrCpy(m_txn.Payment.c_credit, pData,
dbdatlen(m_dbproc, 23));
        if (pData=dbdata(m_dbproc, 24))
            dbconvert(m_dbproc, SQLNUMERIC,
(LPCBYTE)pData, dbdatlen(m_dbproc,24), SQLFLT8, (BYTE *)&m_txn.Payment.c_credit_lim,
8);
        if (pData=dbdata(m_dbproc, 25))
            dbconvert(m_dbproc, SQLNUMERIC,
(LPCBYTE)pData, dbdatlen(m_dbproc,25), SQLFLT8, (BYTE *)&m_txn.Payment.c_discount,
8);
        if (pData=dbdata(m_dbproc, 26))
            dbconvert(m_dbproc, SQLNUMERIC,
(LPCBYTE)pData, dbdatlen(m_dbproc,26), SQLFLT8, (BYTE *)&m_txn.Payment.c_balance,
8);
        if (pData=dbdata(m_dbproc, 27))
            UtilStrCpy(m_txn.Payment.c_data, pData,
dbdatlen(m_dbproc, 27));

        DiscardNextRows(0);
        DiscardNextResults(0);

        if (m_txn.Payment.c_id == 0)
            throw new CTPCC_DBLIB_ERR(
CTPCC_DBLIB_ERR::ERR_INVALID_CUST );
        else
            m_txn.Payment.exec_status_code = eOK;

        return;
    }
    catch (CSQLERR *e)
    {
        if ((e->m_msgno == 1205 ||
(e->m_msgno == iErrOleDbProvider &&
strstr(e->m_msgtext, sErrTimeoutExpired) !=
NULL)) &&
(++iTryCount <= iMaxRetries))
        {
            // hit deadlock; backoff for increasingly
            longer period
            delete e;
            Sleep(10 * iTryCount);
        }
        else
            throw;
    }

```

```

    }
    // while (TRUE)
    // if (iTryCount)
    // throw new CTPCC_DBLIB_ERR(CTPCC_DBLIB_ERR::ERR_RETRIED_TRANS,
iTryCount);
}

void CTPCC_DBLIB::OrderStatus()
{
    int i;
    DBDATETIME datetime;
    DBDATEREC daterec;

    int iTryCount = 0;
    RETCODE rc;
    const BYTE *pData;

    ResetError();

    while (TRUE)
    {
        try
        {
            dbrpcinit(m_dbproc, "tpcc_orderstatus", 0);
            dbrpcparam(m_dbproc, NULL, 0, SQLINT4, -1, -1, (BYTE
*) &m_txn.OrderStatus.w_id);
            dbrpcparam(m_dbproc, NULL, 0, SQLINT1, -1, -1, (BYTE
*) &m_txn.OrderStatus.d_id);
            dbrpcparam(m_dbproc, NULL, 0, SQLINT4, -1, -1, (BYTE
*) &m_txn.OrderStatus.c_id);

            // if customer id is zero, then order status is by
            name
            if (m_txn.OrderStatus.c_id == 0)
                dbrpcparam(m_dbproc, NULL, 0, SQLCHAR, -1,
strlen(m_txn.OrderStatus.c_last), (unsigned char *)m_txn.OrderStatus.c_last);

            if (dbrpcexec(m_dbproc) == FAIL)
                ThrowError(CDBLIBERR::eDbRpcExec);

            // Get order lines
            if (dbresults(m_dbproc) != SUCCEED)
            {
                if ((m_DbLibErr == NULL) && (m_SqlErr ==
NULL))
                    throw new CTPCC_DBLIB_ERR(
CTPCC_DBLIB_ERR::ERR_NO_SUCH_ORDER );
                else
                    ThrowError(CDBLIBERR::eDbResults);
            }

            if (dbnumcols(m_dbproc) != 5)
                ThrowError(CDBLIBERR::eWrongNumCols);

            i = 0;
            while (TRUE)
            {
                rc = dbnextrow(m_dbproc);

```

```

                if (rc == NO_MORE_ROWS)
                    break;
                if (rc != REG_ROW)
                    ThrowError(CDBLIBERR::eDbNextRow);

                if (pData=dbdata(m_dbproc, 1))
                    m_txn.OrderStatus.OL[i].ol_supply_w_id = (*DBSMALLINT *) pData);
                if (pData=dbdata(m_dbproc, 2))
                    m_txn.OrderStatus.OL[i].ol_i_id =
(*DBINT *) pData);
                if (pData=dbdata(m_dbproc, 3))
                    m_txn.OrderStatus.OL[i].ol_quantity = (*DBSMALLINT *) pData);
                if (pData=dbdata(m_dbproc, 4))
                    dbconvert(m_dbproc, SQLNUMERIC,
(LPCBYTE)pData, dbdatlen(m_dbproc,4),
                                SQLFLT8,
(BYTE *)&m_txn.OrderStatus.OL[i].ol_amount, 8);
                if (pData=dbdata(m_dbproc, 5))
                {
                    datetime = *((DBDATETIME *)
                                &datetime);
                    dbdatecrack(m_dbproc, &daterec,
                                &datetime);

                    m_txn.OrderStatus.OL[i].ol_delivery_d.year = daterec.year;
                    m_txn.OrderStatus.OL[i].ol_delivery_d.month = daterec.month;
                    m_txn.OrderStatus.OL[i].ol_delivery_d.day = daterec.day;
                    m_txn.OrderStatus.OL[i].ol_delivery_d.hour = daterec.hour;
                    m_txn.OrderStatus.OL[i].ol_delivery_d.minute = daterec.minute;
                    m_txn.OrderStatus.OL[i].ol_delivery_d.second = daterec.second;
                }
                i++;
                m_txn.OrderStatus.o_ol_cnt = i;

                if (dbresults(m_dbproc) != SUCCEEDED)
                    ThrowError(CDBLIBERR::eDbResults);

                if (dbnextrow(m_dbproc) != REG_ROW)
                    ThrowError(CDBLIBERR::eDbNextRow);

                if (dbnumcols(m_dbproc) != 8)
                    ThrowError(CDBLIBERR::eWrongNumCols);

                if (pData=dbdata(m_dbproc, 1))
                    m_txn.OrderStatus.c_id = (*DBINT *) pData);
                if (pData=dbdata(m_dbproc, 2))
                    UtilStrCpy(m_txn.OrderStatus.c_last, pData,
dbdatlen(m_dbproc,2));
                if (pData=dbdata(m_dbproc, 3))
                    UtilStrCpy(m_txn.OrderStatus.c_first, pData,
dbdatlen(m_dbproc,3));
                if (pData=dbdata(m_dbproc, 4))
                    UtilStrCpy(m_txn.OrderStatus.c_middle,
pData, dbdatlen(m_dbproc, 4));

```

```

                if (pData=dbdata(m_dbproc, 5))
                {
                    datetime = *((DBDATETIME *) pData);
                    dbdatecrack(m_dbproc, &daterec, &datetime);
                    m_txn.OrderStatus.o_entry_d.year =
                    m_txn.OrderStatus.o_entry_d.month =
                    m_txn.OrderStatus.o_entry_d.day =
                    m_txn.OrderStatus.o_entry_d.hour =
                    m_txn.OrderStatus.o_entry_d.minute =
                    m_txn.OrderStatus.o_entry_d.second =
                }
                if (pData=dbdata(m_dbproc, 6))
                    m_txn.OrderStatus.o_carrier_id =
(*DBSMALLINT *) pData);
                if (pData=dbdata(m_dbproc, 7))
                    dbconvert(m_dbproc, SQLNUMERIC,
(LPCBYTE)pData, dbdatlen(m_dbproc,7),
                                SQLFLT8, (BYTE
*)&m_txn.OrderStatus.c_balance, 8);
                if (pData=dbdata(m_dbproc, 8))
                    m_txn.OrderStatus.o_id = (*DBINT *) pData);

                DiscardNextRows(0);
                DiscardNextResults(0);

                if (m_txn.OrderStatus.o_ol_cnt == 0)
                    throw new CTPCC_DBLIB_ERR(
CTPCC_DBLIB_ERR::ERR_NO_SUCH_ORDER );
                else if (m_txn.OrderStatus.c_id == 0 &&
m_txn.OrderStatus.c_last[0] == 0)
                    throw new CTPCC_DBLIB_ERR(
CTPCC_DBLIB_ERR::ERR_INVALID_CUST );
                else
                    m_txn.OrderStatus.exec_status_code = eOK;

                return;
            }
            catch (CSQLERR *e)
            {
                if ((e->m_msgno == 1205 ||
(e->m_msgno == iErrOleDbProvider &&
strstr(e->m_msgtext, sErrTimeoutExpired) !=
NULL)) &&
                    (++iTryCount <= iMaxRetries))
                {
                    // hit deadlock; backoff for increasingly
                    delete e;
                    Sleep(10 * iTryCount);
                }
                else
                    throw;
            }
        } // while (TRUE)
    // if (iTryCount)

```

```

//          throw new CTPCC_DBLIB_ERR(CTPCC_DBLIB_ERR::ERR_RETRIED_TRANS,
iTryCount);
}

void CTPCC_DBLIB::Delivery()
{
    int          i;
    int          iTryCount = 0;
    const BYTE  *pData;

    ResetError();

    while (TRUE)
    {
        try
        {
            dbrpcinit(m_dbproc, "tpcc_delivery", 0);

            dbrpcparam(m_dbproc, NULL, 0, SQLINT4, -1, -1, (BYTE
*) &m_txn.Delivery.w_id);
            dbrpcparam(m_dbproc, NULL, 0, SQLINT1, -1, -1, (BYTE
*) &m_txn.Delivery.o_carrier_id);

            if (dbrpcexec(m_dbproc) == FAIL)
                ThrowError(CDBLIBERR::eDbRpcExec);

            if (dbresults(m_dbproc) != SUCCEED)
                ThrowError(CDBLIBERR::eDbResults);

            if (dbnextrow(m_dbproc) != REG_ROW)
                ThrowError(CDBLIBERR::eDbNextRow);

            if (dbnumcols(m_dbproc) != 10)
                ThrowError(CDBLIBERR::eWrongNumCols);

            for (i=0; i<10; i++)
            {
                if (pData = dbdata(m_dbproc, i+1))
                    m_txn.Delivery.o_id[i] = *(DBINT
*)pData);
            }

            DiscardNextRows(0);
            DiscardNextResults(0);

            m_txn.Delivery.exec_status_code = eOK;
            return;
        } catch (CSQLERR *e)
        {
            if ((e->m_msgno == 1205 ||
(e->m_msgno == iErrOleDbProvider &&
strstr(e->m_msgtext, sErrTimeoutExpired) !=
NULL)) &&
                (++iTryCount <= iMaxRetries))
            {
                // hit deadlock; backoff for increasingly
                longer period

                delete e;
                sleep(10 * iTryCount);
            }
            else

```

```

        }
        } // while (TRUE)

//          if (iTryCount)
//          throw new CTPCC_DBLIB_ERR(CTPCC_DBLIB_ERR::ERR_RETRIED_TRANS,
iTryCount);
}

void CTPCC_DBLIB::ResetError()
{
    if (m_DbLibErr != NULL)
    {
        delete m_DbLibErr;
        m_DbLibErr = (CDBLIBERR*)NULL;
    }

    if (m_SqlErr != NULL)
    {
        delete m_SqlErr;
        m_SqlErr = (CSQLERR*)NULL;
    }

    return;
}

```

tpcc_dblib.h

```

/*          FILE:          TPC_C_DBLIB.H
*
*          Microsoft TPC-C Kit Ver. 4.20.000
*          Copyright Microsoft, 1999
*
*          All Rights Reserved
*
*          Version 4.10.000 audited by Richard Gimarc,
Performance Metrics, 3/17/99
*
*          PURPOSE:  Header file for TPC-C txn class implementation.
*
*          Change history:
*          4.20.000 - updated rev number to match kit
*/
#pragma once

#ifndef PDBPROCESS
#define DBPROCESS void // dbprocess structure type
typedef DBPROCESS * PDBPROCESS;
#endif

// need to declare functions for import, unless define has already been created
// by the DLL's .cpp module for export.
#ifndef DllDecl
#define DllDecl __declspec( dllimport )
#endif

class CSQLERR : public CBaseErr
{
public:
    CSQLERR(void)
    {
        m_msgno = 0;
        m_msgstate = 0;
        m_severity = 0;
    }

```

```

        m_msgtext = NULL;
    };

~CSQLERR()
{
    delete [] m_msgtext;
};

int          m_msgno;
int          m_msgstate;
int          m_severity;
char        *m_msgtext;

int ErrorType() {return ERR_TYPE_SQL;};
int ErrorNum() {return m_msgno;};
char *ErrorText() {return m_msgtext;};

};

class CDBLIBERR : public CBaseErr
{
public:
    enum ACTION
    {
        eNone,
        eUnknown,
        eLogin, // error from
dblogin
        eDbOpen, // error from dbopen
        eDbUse, // error from
dbuse
        eDbSqlExec, // error from
dbsqlxec
        eDbSet, // error from
one of the dbset* routines
        eDbNextRow, // error from
dbnextrow
        eWrongRowCount, // more or less rows
returned than expected
        eWrongNumCols, // more or less columns
returned than expected
        eDbResults, // error from
dbresults
        eDbRpcExec, // error from
dbrpcxec
        eDbSetMaxProcs, // error from
dbsetmaxprocs
        eDbProcHandler // error from either
dbprocerrhandle or dbprocmsghandle
    };

    CDBLIBERR(ACTION eAction, int severity = 0, int dberror = 0, int
oserr = 0)
    {
        m_eAction = eAction;
        m_severity = severity;
        m_dberror = dberror;
        m_oserr = oserr;

        m_dberrstr = NULL;
        m_oserrstr = NULL;
    };
};

```

```

~CDBLIBERR()
{
    delete [] m_dberrstr;
    delete [] m_oserrstr;
};

ACTION      m_eAction;
int          m_severity;
int          m_dberror;
int          m_oserr;
char        *m_dberrstr;
char        *m_oserrstr;

int ErrorType() {return ERR_TYPE_DBLIB;};
int ErrorNum() {return m_dberror;};
char *ErrorText() {return m_dberrstr;};

};

class CTPCC_DBLIB_ERR : public CBaseErr
{
public:
    enum CTPCC_DBLIB_ERRS
    {
        ERR_WRONG_SP_VERSION = 1, // "Wrong version of
stored procs on database server"
        ERR_INVALID_CUST, // "Invalid
Customer id,name."
        ERR_NO_SUCH_ORDER, // "No orders
found for customer."
        ERR_RETRIED_TRANS, // "Retries
before transaction succeeded."
    };

    CTPCC_DBLIB_ERR( int iErr ) { m_errno = iErr; m_iTryCount = 0;
};

    CTPCC_DBLIB_ERR( int iErr, int iTryCount ) { m_errno = iErr;
m_iTryCount = iTryCount; };

    int          m_errno;
    int          m_iTryCount;

    int ErrorType() {return ERR_TYPE_TPCC_DBLIB;};
    int ErrorNum() {return m_errno;};

    char *ErrorText();

};

classDllDecl CTPCC_DBLIB : public CTPCC_BASE
{
private:
    // declare variables and private functions here...
    PDBPROCESS      m_dbproc;
    CDBLIBERR *m_DbLibErr; // not allocated until
needed (maybe never)
    CSQLERR          *m_SqlErr; //
not allocated until needed (maybe never)
    int              m_MaxRetries; //
retry count on deadlock

    void DiscardNextRows(int iExpectedCount);
    void DiscardNextResults(int iExpectedCount);
};

```

```

void ThrowError( CDBLIBERR::ACTION eAction );
void ResetError();

union
{
    NEW_ORDER_DATA          NewOrder;
    PAYMENT_DATA            Payment;
    DELIVERY_DATA           Delivery;
    STOCK_LEVEL_DATA        StockLevel;
    ORDER_STATUS_DATA       OrderStatus;
    m_txn;
}

public:
    CTPCC_DBLIB(LPCSTR szServer, LPCSTR szUser, LPCSTR szPassword,
LPCSTR szHost, LPCSTR szDatabase );
    ~CTPCC_DBLIB(void);

    inline PNEW_ORDER_DATA      BuffAddr_NewOrder()
    { return &m_txn.NewOrder; };
    inline PPAYMENT_DATA        BuffAddr_Payment()
    { return &m_txn.Payment; };
    inline PDELIVERY_DATA       BuffAddr_Delivery()
    { return &m_txn.Delivery; };
    inline PSTOCK_LEVEL_DATA     BuffAddr_StockLevel() {
return &m_txn.StockLevel; };
    inline PORORDER_STATUS_DATA BuffAddr_OrderStatus() {
return &m_txn.OrderStatus; };

    void NewOrder          ();
    void Payment           ();
    void Delivery          ();
    void StockLevel        ();
    void OrderStatus      ();

    // these are public because they must be called from the dblib
err_handler and msg_handler
    // outside of the class
    void SetDbLibError(int severity, int dberr, int oserr, LPCSTR
dberrstr, LPCSTR oserrstr);
    void SetSqlError( int msgno, int msgstate, int severity, LPCSTR
msgtext );
};

```

```

extern "C" DllDecl CTPCC_DBLIB* CTPCC_DBLIB_new
( LPCSTR szServer, LPCSTR szUser, LPCSTR szPassword, LPCSTR szHost, LPCSTR
szDatabase );

```

```

typedef CTPCC_DBLIB* (TYPE_CTPCC_DBLIB)(LPCSTR, LPCSTR, LPCSTR, LPCSTR, LPCSTR);

```

tpcc_odbc.cpp

```

/* FILE: TPCC_ODBC.CPP
 * Microsoft TPC-C Kit Ver. 4.20.000
 * Copyright Microsoft, 1999
 * All Rights Reserved
 * Version 4.10.000 audited by Richard Gimarc,
Performance Metrics, 3/17/99
 * PURPOSE: Implements ODBC calls for TPC-C txns.

```

```

 * Contact: Charles Levine (clevine@microsoft.com)
 *
 * Change history:
 * 4.20.000 - updated rev number to match kit
 * 4.10.001 - not deleting error class in catch handler on deadlock
retry;
 * not a functional bug, but a memory leak
 */

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

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

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

// need to declare functions for export
#define DllDecl __declspec( dllexport )

#include "..\..\common\src\error.h"
#include "..\..\common\src\trans.h"
#include "..\..\common\src\txn_base.h"
#include "tpcc_odbc.h"

// version string; must match return value from tpcc_version stored proc
const char sVersion[] = "4.10.000";

const iMaxRetries = 10; // how many retries on deadlock

const int iErrOleDbProvider = 7312;
const char sErrTimeoutExpired[] = "Timeout expired";

static SQLHENV henv = SQL_NULL_HENV; // ODBC
environment handle

BOOL WINAPI DllMain(HMODULE hModule, DWORD ul_reason_for_call, LPVOID lpReserved)
{
    switch( ul_reason_for_call )
    {
        case DLL_PROCESS_ATTACH:
            DisableThreadLibraryCalls(hModule);
            if ( SQLAllocHandleStd(SQL_HANDLE_ENV,
SQL_NULL_HANDLE, &henv) != SQL_SUCCESS )
                return FALSE;
            break;

        case DLL_PROCESS_DETACH:
            if (henv != NULL)
                SQLFreeEnv(henv);
            break;

        default:
            /* nothing */;
    }
    return TRUE;
}

```

```

/* FUNCTION: CTPCC_ODBC_ERR::ErrorText
 *
 */
char* CTPCC_ODBC_ERR::ErrorText(void)
{
    int i;

    static SERRORMSG errorMsgs[] =
    {
        { ERR_WRONG_SP_VERSION,          "Wrong version of stored
procs on database server" },
        { ERR_INVALID_CUST,              "Invalid Customer
id,name." },
        { ERR_NO_SUCH_ORDER,            "No orders found for
customer." },
        { ERR_RETRIED_TRANS,            "Retries before
transaction succeeded." },
        { 0,                             ""
    }
    };

    static char szNotFound[] = "Unknown error number.";

    for(i=0; errorMsgs[i].szMsg[0]; i++)
    {
        if ( m_errno == errorMsgs[i].iError )
            break;
    }
    if ( !errorMsgs[i].szMsg[0] )
        return szNotFound;
    else
        return errorMsgs[i].szMsg;
}

// wrapper routine for class constructor
__declspec(dllexport) CTPCC_ODBC* CTPCC_ODBC_new(
    LPCSTR szServer,          // name of SQL server
    LPCSTR szUser,           // user name for login
    LPCSTR szPassword,       // password for login
    LPCSTR szHost,          // not used
    LPCSTR szDatabase )     // name of database to use
{
    return new CTPCC_ODBC( szServer, szUser, szPassword, szHost, szDatabase );
}

CTPCC_ODBC::CTPCC_ODBC (
    LPCSTR szServer,          // name of SQL server
    LPCSTR szUser,           // user name
    LPCSTR szPassword,       // password for login
    LPCSTR szHost,          // not used
    LPCSTR szDatabase )     // name of database to
use
{
    RETCODE          rc;

    // initialization
    m_hdbc = SQL_NULL_HDBC;

```

```

m_hstmt = SQL_NULL_HSTMT;

m_hstmtNewOrder = SQL_NULL_HSTMT;
m_hstmtPayment = SQL_NULL_HSTMT;
m_hstmtDelivery = SQL_NULL_HSTMT;
m_hstmtOrderStatus = SQL_NULL_HSTMT;
m_hstmtStockLevel = SQL_NULL_HSTMT;

m_descNewOrderCols1 = SQL_NULL_HDESC;
m_descNewOrderCols2 = SQL_NULL_HDESC;
m_descOrderStatusCols1 = SQL_NULL_HDESC;
m_descOrderStatusCols2 = SQL_NULL_HDESC;

if ( SQLAllocHandle(SQL_HANDLE_DBC, henv, &m_hdbc) != SQL_SUCCESS )
    ThrowError(COBCERR::eAllocHandle);

if ( SQLSetConnectOption(m_hdbc, SQL_PACKET_SIZE, 4096) != SQL_SUCCESS )
    ThrowError(COBCERR::eConnOption);

{
    char          szConnectStr[256];
    char          szOutStr[1024];
    SQLSMALLINT  iOutStrLen;

    sprintf( szConnectStr, "DRIVER=SQL
Server;SERVER=%s;UID=%s;PWD=%s;DATABASE=%s",
            szServer, szUser, szPassword, szDatabase );

    rc = SQLDriverConnect(m_hdbc, NULL, (SQLCHAR*)szConnectStr,
sizeof(szConnectStr), (SQLCHAR*)szOutStr, sizeof(szOutStr), &iOutStrLen,
SQL_DRIVER_NOPROMPT );

    if (rc != SQL_SUCCESS && rc != SQL_SUCCESS_WITH_INFO)
        ThrowError(COBCERR::eConnect);
}

if (SQLAllocHandle(SQL_HANDLE_STMT, m_hdbc, &m_hstmt) != SQL_SUCCESS)
    ThrowError(COBCERR::eAllocHandle);

{
    char          buffer[128];

    // set some options affecting connection behavior
    strcpy(buffer, "set nocount on ");
    strcat(buffer, "set XACT_ABORT ON " );

    // for coyote
    strcat(buffer, "set ansi_warnings on " );
    strcat(buffer, "set ansi_nulls on " );

    rc = SQLExecDirect(m_hstmt, (unsigned char *)buffer, SQL_NTS);
    if (rc != SQL_SUCCESS && rc != SQL_SUCCESS_WITH_INFO)
        ThrowError(COBCERR::eExecDirect);

    // verify that version of stored procs on server is correct
    char db_sp_version[10];
    strcpy(buffer, "{call tpcc_version}");
    rc = SQLExecDirect(m_hstmt, (unsigned char *)buffer, SQL_NTS);
    if (rc != SQL_SUCCESS && rc != SQL_SUCCESS_WITH_INFO)
        ThrowError(COBCERR::eExecDirect);
}

```



```

        if ( SQLBindCol(m_hstmt, 1, SQL_C_CHAR, &db_sp_version,
sizeof(db_sp_version), NULL) != SQL_SUCCESS )
            ThrowError(CODBCERR::eBindCol);
        if ( SQLFetch(m_hstmt) == SQL_ERROR )
            ThrowError(CODBCERR::eFetch);
        if ( strcmp(db_sp_version,sVersion))
            throw new CTPCC_ODBC_ERR(
CTPCC_ODBC_ERR::ERR_WRONG_SP_VERSION );

        SQLFreeHandle(SQL_HANDLE_STMT, m_hstmt);
    }

    // Bind parameters for each of the transactions
    InitNewOrderParams();
    InitPaymentParams();
    InitOrderStatusParams();
    InitDeliveryParams();
    InitStockLevelParams();
}

CTPCC_ODBC::~CTPCC_ODBC( void )
{
    // note: descriptors are automatically released when the connection is
dropped
    SQLFreeHandle(SQL_HANDLE_STMT, m_hstmtNewOrder);
    SQLFreeHandle(SQL_HANDLE_STMT, m_hstmtPayment);
    SQLFreeHandle(SQL_HANDLE_STMT, m_hstmtDelivery);
    SQLFreeHandle(SQL_HANDLE_STMT, m_hstmtOrderStatus);
    SQLFreeHandle(SQL_HANDLE_STMT, m_hstmtStockLevel);

    SQLDisconnect(m_hdbc);
    SQLFreeHandle(SQL_HANDLE_DBC, m_hdbc);
}

void CTPCC_ODBC::ThrowError( CODBCERR::ACTION eAction )
{
    RETCODE          rc;
    SDWORD           lNativeError;
    char             szState[6];
    char             szMsg[SQL_MAX_MESSAGE_LENGTH];
    char             szTmp[6*SQL_MAX_MESSAGE_LENGTH];
    CODBCERR         *pODBCErr; // not allocated until
needed (maybe never)

    pODBCErr = new CODBCERR();

    pODBCErr->m_NativeError = 0;
    pODBCErr->m_eAction = eAction;
    pODBCErr->m_bDeadLock = FALSE;

    szTmp[0] = 0;
    while (TRUE)
    {
        rc = SQLError(henv, m_hdbc, m_hstmt, (BYTE *)&szState,
&lNativeError,
                                (BYTE *)&szMsg, sizeof(szMsg),
NULL);

        if (rc == SQL_NO_DATA)
            break;

        // check for deadlock
        if (lNativeError == 1205 || (lNativeError == iErrOleDbProvider
&&

```

```

        strstr(szMsg, sErrTimeoutExpired) != NULL))
        pODBCErr->m_bDeadLock = TRUE;

        // capture the (first) database error
        if (pODBCErr->m_NativeError == 0 && lNativeError != 0)
            pODBCErr->m_NativeError = lNativeError;

        // quit if there isn't enough room to concatenate error text
        if ( (strlen(szMsg) + 2) > (sizeof(szTmp) - strlen(szTmp)) )
            break;

        // include line break after first error msg
        if (szTmp[0] != 0)
            strcat( szTmp, "\n");
        strcat( szTmp, szMsg );
    }

    if (pODBCErr->m_odbcerrstr != NULL)
    {
        delete [] pODBCErr->m_odbcerrstr;
        pODBCErr->m_odbcerrstr = NULL;
    }

    if (strlen(szTmp) > 0)
    {
        pODBCErr->m_odbcerrstr = new char[ strlen(szTmp)+1 ];
        strcpy( pODBCErr->m_odbcerrstr, szTmp );
    }

    SQLFreeStmt(m_hstmt, SQL_CLOSE);
    throw pODBCErr;
}

void CTPCC_ODBC::InitStockLevelParams()
{
    if ( SQLAllocHandle(SQL_HANDLE_STMT, m_hdbc, &m_hstmtStockLevel) !=
SQL_SUCCESS )
        ThrowError(CODBCERR::eAllocHandle);

    m_hstmt = m_hstmtStockLevel;

    int i = 0;
    if ( SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SLONG,
SQL_INTEGER, 0, 0, &m_txn.StockLevel.w_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT,
SQL_C_UTINYINT, SQL_TINYINT, 0, 0, &m_txn.StockLevel.d_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SSHORT,
SQL_SMALLINT, 0, 0, &m_txn.StockLevel.threshold, 0, NULL) != SQL_SUCCESS
        )
        ThrowError(CODBCERR::eBindParam);

    if ( SQLBindCol(m_hstmt, 1, SQL_C_SLONG, &m_txn.StockLevel.low_stock, 0,
NULL) != SQL_SUCCESS )
        ThrowError(CODBCERR::eBindCol);
}

void CTPCC_ODBC::StockLevel()
{
    RETCODE          rc;
    int              iTryCount = 0;

    m_hstmt = m_hstmtStockLevel;

```

```

while (TRUE)
{
    try
    {
        rc = SQLExecDirectW(m_hstmt, (SQLWCHAR*)L"call
tpcc_stocklevel(?,?,?)", SQL_NTS);
        if (rc != SQL_SUCCESS && rc != SQL_SUCCESS_WITH_INFO)
            ThrowError(CODBCERR::eExecDirect);

        if ( SQLFetch(m_hstmt) == SQL_ERROR )
            ThrowError(CODBCERR::eFetch);

        SQLFreeStmt(m_hstmt, SQL_CLOSE);

        m_txn.StockLevel.exec_status_code = eOK;
        break;
    }
    catch (CODBCERR *e)
    {
        if (!!(e->m_bDeadLock) || (++iTryCount > iMaxRetries))
            throw;

        // hit deadlock; backoff for increasingly longer
        delete e;
        Sleep(10 * iTryCount);
    }
}

//
// if (iTryCount)
//     throw new CTPCC_ODBC_ERR(CTPCC_ODBC_ERR::ERR_RETRIED_TRANS,
iTryCount);
}

void CTPCC_ODBC::InitNewOrderParams()
{
    if ( SQLAllocHandle(SQL_HANDLE_STMT, m_hdbc, &m_hstmtNewOrder) !=
SQL_SUCCESS
        || SQLAllocHandle(SQL_HANDLE_DESC, m_hdbc, &m_descNewOrderCols1)
!= SQL_SUCCESS
        || SQLAllocHandle(SQL_HANDLE_DESC, m_hdbc, &m_descNewOrderCols2)
!= SQL_SUCCESS
    )
        ThrowError(CODBCERR::eAllocHandle);

    m_hstmt = m_hstmtNewOrder;

    if ( SQLSetStmtAttrW(m_hstmt, SQL_ATTR_APP_ROW_DESC, m_descNewOrderCols1,
SQL_IS_POINTER ) != SQL_SUCCESS )
        ThrowError(CODBCERR::eSetStmtAttr);

    int i = 0;
    if ( SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SLONG,
SQL_INTEGER, 0, 0, &m_txn.NewOrder.w_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT,
SQL_C_UTINYINT, SQL_TINYINT, 0, 0, &m_txn.NewOrder.d_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SLONG,
SQL_INTEGER, 0, 0, &m_txn.NewOrder.c_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT,
SQL_C_UTINYINT, SQL_TINYINT, 0, 0, &m_txn.NewOrder.o_ol_cnt, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT,
SQL_C_UTINYINT, SQL_TINYINT, 0, 0, &m_txn.NewOrder.o_all_local, 0, NULL) !=
SQL_SUCCESS
    )

```

```

)
    ThrowError(CODBCERR::eBindParam);

    for (int j=0; j<MAX_OL_NEW_ORDER_ITEMS; j++)
    {
        if ( SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT,
SQL_C_SLONG, SQL_INTEGER, 0, 0, &m_txn.NewOrder.OL[j].ol_i_id, 0, NULL) !=
SQL_SUCCESS
            || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT,
SQL_C_SLONG, SQL_INTEGER, 0, 0, &m_txn.NewOrder.OL[j].ol_supply_w_id, 0, NULL) !=
SQL_SUCCESS
            || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT,
SQL_C_SSHORT, SQL_SMALLINT, 0, 0, &m_txn.NewOrder.OL[j].ol_quantity, 0, NULL) !=
SQL_SUCCESS
        )
            ThrowError(CODBCERR::eBindParam);
    }

#ifdef new_order_strstr
    // set the bind offset pointer
    if ( SQLSetStmtAttrW(m_hstmt, SQL_ATTR_ROW_BIND_OFFSET_PTR,
&m_BindOffset, SQL_IS_POINTER ) != SQL_SUCCESS )
        ThrowError(CODBCERR::eSetStmtAttr);

    i = 0;
    if ( SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.NewOrder.OL[0].ol_i_name, sizeof(m_txn.NewOrder.OL[0].ol_i_name), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_SSHORT,
&m_txn.NewOrder.OL[0].ol_stock, 0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.NewOrder.OL[0].ol_brand_generic,
sizeof(m_txn.NewOrder.OL[0].ol_brand_generic), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE,
&m_txn.NewOrder.OL[0].ol_i_price, 0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE,
&m_txn.NewOrder.OL[0].ol_amount, 0, NULL) != SQL_SUCCESS
    )
        ThrowError(CODBCERR::eBindCol);
#else
    // prototype to eliminate patindex in server; shift work to client
    i = 0;
    if ( SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_ol_i_name,
sizeof(m_ol_i_name), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_SSHORT, &m_ol_stock, 0, NULL)
!= SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_i_data,
sizeof(m_i_data), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR, &m_s_data,
sizeof(m_s_data), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE, &m_ol_i_price, 0,
NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE, &m_ol_amount, 0, NULL)
!= SQL_SUCCESS
    )
        ThrowError(CODBCERR::eBindCol);
#endif

    // associate the column bindings for the second result set
    if ( SQLSetStmtAttrW(m_hstmt, SQL_ATTR_APP_ROW_DESC, m_descNewOrderCols2,
SQL_IS_POINTER ) != SQL_SUCCESS )
        ThrowError(CODBCERR::eSetStmtAttr);

```

```

        i = 0;
        if ( SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE, &m_txn.NewOrder.w_tax, 0,
NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE,
&m_txn.NewOrder.d_tax, 0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_SLONG,
&m_txn.NewOrder.o_id, 0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.NewOrder.c_last, sizeof(m_txn.NewOrder.c_last), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE,
&m_txn.NewOrder.c_discount, 0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.NewOrder.c_credit, sizeof(m_txn.NewOrder.c_credit), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_TYPE_TIMESTAMP,
&m_txn.NewOrder.o_entry_d, 0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_SLONG, &m_no_commit_flag,
0, NULL) != SQL_SUCCESS
        )
            ThrowError(CODBCERR::eBindCol);
    }

void CTPCC_ODBC::NewOrder()
{
    int          i;
    RETCODE      rc;
    int          iTryCount = 0;

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

    m_hstmt = m_hstmtNewOrder;

    // associate the parameter and column bindings for this transaction
    if ( SQLSetStmtAttrW( m_hstmt, SQL_ATTR_APP_ROW_DESC, m_descNewOrderCols1,
SQL_IS_POINTER ) != SQL_SUCCESS )
        ThrowError(CODBCERR::eSetStmtAttr);

    // clip statement buffer based on number of parameters
    // fixed part is 29 chars and variable part is 6 chars per line item
    i = 29 + m_txn.NewOrder.o_ol_cnt*6;
    wcsncpy( &szSqlTemplate[i], L" ) );

    // check whether any order lines are for a remote warehouse
    m_txn.NewOrder.o_all_local = 1;
    for ( i = 0; i < m_txn.NewOrder.o_ol_cnt; i++)
    {
        if (m_txn.NewOrder.OL[i].ol_supply_w_id != m_txn.NewOrder.w_id)
        {
            m_txn.NewOrder.o_all_local = 0; // at least one
            break;
        }
    }

    remote warehouse
}

```

```

while (TRUE)
{
    try
    {
        m_BindOffset = 0;
        rc = SQLExecDirectW(m_hstmt, (SQLWCHAR*)szSqlTemplate,
SQL_NTS);

        if (rc != SQL_SUCCESS && rc != SQL_SUCCESS_WITH_INFO)
            ThrowError(CODBCERR::eExecDirect);

        // Get order line results
        m_txn.NewOrder.total_amount = 0;
        for ( i = 0; i < m_txn.NewOrder.o_ol_cnt; i++)
        {
            // set the bind offset value...
            m_BindOffset = i *
sizeof(m_txn.NewOrder.OL[0]);

            if ( SQLFetch(m_hstmt) == SQL_ERROR)
                ThrowError(CODBCERR::eFetch);
            #else
            if ( SQLFetch(m_hstmt) == SQL_ERROR)
                ThrowError(CODBCERR::eFetch);

            strcpy( m_txn.NewOrder.OL[i].ol_i_name,
m_ol_i_name );

            if ( strstr(m_i_data, "ORIGINAL") != NULL &&
strstr(m_s_data, "ORIGINAL") != NULL )
                m_txn.NewOrder.OL[i].ol_brand_generic[0] = 'B';
            else
                m_txn.NewOrder.OL[i].ol_brand_generic[0] = 'G';
            m_txn.NewOrder.OL[i].ol_brand_generic[1] =
0;

            m_txn.NewOrder.OL[i].ol_stock
= m_ol_stock;
            m_txn.NewOrder.OL[i].ol_i_price
= m_ol_i_price;
            m_txn.NewOrder.OL[i].ol_amount
= m_ol_amount;
            #endif

            // move to the next resultset
            if ( SQLMoreResults(m_hstmt) == SQL_ERROR )
                ThrowError(CODBCERR::eMoreResults);

            m_txn.NewOrder.total_amount +=
m_txn.NewOrder.OL[i].ol_amount;
        }

        // associate the column bindings for the second result
set
        if ( SQLSetStmtAttrW( m_hstmt, SQL_ATTR_APP_ROW_DESC,
m_descNewOrderCols2, SQL_IS_POINTER ) != SQL_SUCCESS )
            ThrowError(CODBCERR::eSetStmtAttr);

        if ( SQLFetch(m_hstmt) == SQL_ERROR)
            ThrowError(CODBCERR::eFetch);
    }
}

```

```

        SQLFreeStmt(m_hstmt, SQL_CLOSE);

        if (m_no_commit_flag == 1)
        {
            m_txn.NewOrder.total_amount *= ((1 +
m_txn.NewOrder.w_tax + m_txn.NewOrder.d_tax) * (1 - m_txn.NewOrder.c_discount));
            m_txn.NewOrder.exec_status_code = eOK;
        }
        else
            m_txn.NewOrder.exec_status_code =
eInvalidItem;

        break;
    }
    catch (COBDCERR *e)
    {
        if (!(e->m_bDeadLock) || (++iTryCount > iMaxRetries))
            throw;

        // hit deadlock; backoff for increasingly longer
        period
            delete e;
            Sleep(10 * iTryCount);
    }
}

// if (iTryCount)
// throw new CTPCC_ODBC_ERR(CTPCC_ODBC_ERR::ERR_RETRIED_TRANS,
iTryCount);
}

void CTPCC_ODBC::InitPaymentParams()
{
    if ( SQLAllocHandle(SQL_HANDLE_STMT, m_hdbc, &m_hstmtPayment) !=
SQL_SUCCESS )
        ThrowError(COBDCERR::eAllocHandle);

    m_hstmt = m_hstmtPayment;

    int i = 0;
    if ( SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SLONG,
SQL_INTEGER, 0, 0, &m_txn.Payment.w_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SLONG,
SQL_INTEGER, 0, 0, &m_txn.Payment.c_w_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_DOUBLE,
SQL_NUMERIC, 6, 2, &m_txn.Payment.h_amount, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT,
SQL_C_UTINYINT, SQL_TINYINT, 0, 0, &m_txn.Payment.d_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT,
SQL_C_UTINYINT, SQL_TINYINT, 0, 0, &m_txn.Payment.c_d_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SLONG,
SQL_INTEGER, 0, 0, &m_txn.Payment.c_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_CHAR,
SQL_CHAR, sizeof(m_txn.Payment.c_last), 0, &m_txn.Payment.c_last,
sizeof(m_txn.Payment.c_last), NULL) != SQL_SUCCESS
        )
        ThrowError(COBDCERR::eBindParam);

    i = 0;
    if ( SQLBindCol(m_hstmt, ++i, SQL_C_SLONG, &m_txn.Payment.c_id,
0, NULL) != SQL_SUCCESS

```

```

        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.c_last,
sizeof(m_txn.Payment.c_last), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_TYPE_TIMESTAMP,
&m_txn.Payment.h_date,
0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.w_street_1,
sizeof(m_txn.Payment.w_street_1), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.w_street_2,
sizeof(m_txn.Payment.w_street_2), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.w_city,
sizeof(m_txn.Payment.w_city), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.w_state,
sizeof(m_txn.Payment.w_state), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.w_zip,
sizeof(m_txn.Payment.w_zip), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.d_street_1,
sizeof(m_txn.Payment.d_street_1), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.d_street_2,
sizeof(m_txn.Payment.d_street_2), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.d_city,
sizeof(m_txn.Payment.d_city), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.d_state,
sizeof(m_txn.Payment.d_state), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.d_zip,
sizeof(m_txn.Payment.d_zip), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.c_first,
sizeof(m_txn.Payment.c_first), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.c_middle,
sizeof(m_txn.Payment.c_middle), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.c_street_1,
sizeof(m_txn.Payment.c_street_1), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.c_street_2,
sizeof(m_txn.Payment.c_street_2), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.c_city,
sizeof(m_txn.Payment.c_city), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.c_state,
sizeof(m_txn.Payment.c_state), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.c_zip,
sizeof(m_txn.Payment.c_zip), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.c_phone,
sizeof(m_txn.Payment.c_phone), NULL) !=
SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_TYPE_TIMESTAMP,
&m_txn.Payment.c_since,
0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.c_credit,
sizeof(m_txn.Payment.c_credit), NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE,
&m_txn.Payment.c_credit_lim, 0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE,
&m_txn.Payment.c_discount, 0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE,
&m_txn.Payment.c_balance, 0, NULL) != SQL_SUCCESS

```

```

        || SQLBindCol(m_hstmt, ++i, SQL_C_CHAR,
&m_txn.Payment.c_data,
        sizeof(m_txn.Payment.c_data), NULL) !=
SQL_SUCCESS
    )
        ThrowError(CODBCERR::eBindCol);
}

void CTPCC_ODBC::Payment()
{
    RETCODE        rc;
    int             iTryCount = 0;

    m_hstmt = m_hstmtPayment;

    if (m_txn.Payment.c_id != 0)
        m_txn.Payment.c_last[0] = 0;

    while (TRUE)
    {
        try
        {
            rc = SQLExecDirectW(m_hstmt, (SQLWCHAR*)L"call
tpcc_payment(?,?,?,?,,?)", SQL_NTS);
            if (rc != SQL_SUCCESS && rc != SQL_SUCCESS_WITH_INFO)
                ThrowError(CODBCERR::eExecDirect);

            if (SQLFetch(m_hstmt) == SQL_ERROR)
                ThrowError(CODBCERR::eFetch);

            SQLFreeStmt(m_hstmt, SQL_CLOSE);

            if (m_txn.Payment.c_id == 0)
                throw new CTPCC_ODBC_ERR(
CTPCC_ODBC_ERR::ERR_INVALID_CUST );
            else
                m_txn.Payment.exec_status_code = eOK;

            break;
        }
        catch (CODBCERR *e)
        {
            if (!(e->m_bDeadLock) || (++iTryCount > iMaxRetries))
                throw;

            // hit deadlock; backoff for increasingly longer
            delete e;
            Sleep(10 * iTryCount);
        }
    }

    // if (iTryCount)
    //     throw new CTPCC_ODBC_ERR(CTPCC_ODBC_ERR::ERR_RETRIED_TRANS,
iTryCount);
}

void CTPCC_ODBC::InitOrderStatusParams()
{
    if (SQLAllocHandle(SQL_HANDLE_STMT, m_hdbc, &m_hstmtOrderStatus) !=
SQL_SUCCESS
        || SQLAllocHandle(SQL_HANDLE_DESC, m_hdbc,
&m_descOrderStatusCols1) != SQL_SUCCESS
    )

```

```

        || SQLAllocHandle(SQL_HANDLE_DESC, m_hdbc,
&m_descOrderStatusCols2) != SQL_SUCCESS
    )
        ThrowError(CODBCERR::eAllocHandle);

    m_hstmt = m_hstmtOrderStatus;

    if (SQLSetStmtAttrW(m_hstmt, SQL_ATTR_APP_ROW_DESC,
m_descOrderStatusCols1, SQL_IS_POINTER) != SQL_SUCCESS)
        ThrowError(CODBCERR::eSetStmtAttr);

    int i = 0;
    if (SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SLONG,
SQL_INTEGER, 0, 0, &m_txn.OrderStatus.w_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT,
SQL_C_UTINYINT, SQL_TINYINT, 0, 0, &m_txn.OrderStatus.d_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SLONG,
SQL_INTEGER, 0, 0, &m_txn.OrderStatus.c_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_CHAR,
SQL_CHAR, sizeof(m_txn.OrderStatus.c_last), 0, &m_txn.OrderStatus.c_last,
sizeof(m_txn.OrderStatus.c_last), NULL) != SQL_SUCCESS
    )
        ThrowError(CODBCERR::eBindParam);

    // configure block cursor
    if (SQLSetStmtAttrW(m_hstmt, SQL_ATTR_ROW_BIND_TYPE,
(SQLPOINTER)sizeof(m_txn.OrderStatus.OL[0]), 0) != SQL_SUCCESS
        || SQLSetStmtAttrW(m_hstmt, SQL_ATTR_ROWS_FETCHED_PTR,
&m_RowsFetched, 0) != SQL_SUCCESS
    )
        ThrowError(CODBCERR::eSetStmtAttr);

    i = 0;
    if (SQLBindCol(m_hstmt, ++i, SQL_C_SLONG,
&m_txn.OrderStatus.OL[0].ol_supply_w_id, 0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_SLONG,
&m_txn.OrderStatus.OL[0].ol_i_id, 0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_SSHORT,
&m_txn.OrderStatus.OL[0].ol_quantity, 0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE,
&m_txn.OrderStatus.OL[0].ol_amount, 0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_TYPE_TIMESTAMP,
&m_txn.OrderStatus.OL[0].ol_delivery_d, 0, NULL) != SQL_SUCCESS
    )
        ThrowError(CODBCERR::eBindCol);

    if (SQLSetStmtAttrW(m_hstmt, SQL_ATTR_APP_ROW_DESC,
m_descOrderStatusCols2, SQL_IS_POINTER) != SQL_SUCCESS)
        ThrowError(CODBCERR::eSetStmtAttr);

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

```

```

        || SQLBindCol(m_hstmt, ++i, SQL_C_SSHORT,
&m_txn.OrderStatus.o_carrier_id, 0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_DOUBLE,
&m_txn.OrderStatus.c_balance, 0, NULL) != SQL_SUCCESS
        || SQLBindCol(m_hstmt, ++i, SQL_C_SLONG,
&m_txn.OrderStatus.o_id, 0, NULL) != SQL_SUCCESS
    )
        ThrowError(CODBCERR::eBindCol);
}

void CTPCC_ODBC::OrderStatus()
{
    int                                     rc;          iTryCount = 0;
    RETCODE

    m_hstmt = m_hstmtOrderStatus;

    if ( SQLSetStmtAttrW( m_hstmt, SQL_ATTR_APP_ROW_DESC,
m_descOrderStatusCols1, SQL_IS_POINTER ) != SQL_SUCCESS )
        ThrowError(CODBCERR::eSetStmtAttr);

    if (m_txn.OrderStatus.c_id != 0)
        m_txn.OrderStatus.c_last[0] = 0;

    while (TRUE)
    {
        try
        {
            // configure block cursor
            if ( SQLSetStmtAttrW(m_hstmt, SQL_ATTR_ROW_ARRAY_SIZE,
(SQLPOINTER)1, 0) != SQL_SUCCESS )
                ThrowError(CODBCERR::eSetStmtAttr);

            rc = SQLExecDirectW(m_hstmt, (SQLWCHAR*)L"call
tpcc_orderstatus(?,?,?,?)", SQL_NTS);
            if ( ((rc == SQL_SUCCESS_WITH_INFO) && (m_RowsFetched
!= 0)) || (rc == SQL_ERROR) )
                ThrowError(CODBCERR::eExecDirect);

            // configure block cursor
            if ( SQLSetStmtAttrW(m_hstmt, SQL_ATTR_ROW_ARRAY_SIZE,
(SQLPOINTER)MAX_OL_ORDER_STATUS_ITEMS, 0) != SQL_SUCCESS )
                ThrowError(CODBCERR::eSetStmtAttr);

            rc = SQLFetchScroll( m_hstmt, SQL_FETCH_NEXT, 0 );
            if ( ((rc == SQL_SUCCESS_WITH_INFO) && (m_RowsFetched
!= 0)) || (rc == SQL_ERROR) )
                ThrowError(CODBCERR::eFetchScroll);

            m_txn.OrderStatus.o_ol_cnt = (short)m_RowsFetched;

            if (m_txn.OrderStatus.o_ol_cnt != 0)
            {
                if ( SQLSetStmtAttrW( m_hstmt,
SQL_ATTR_APP_ROW_DESC, m_descOrderStatusCols2, SQL_IS_POINTER ) != SQL_SUCCESS )
                    ThrowError(CODBCERR::eSetStmtAttr);

                if ( SQLMoreResults(m_hstmt) == SQL_ERROR )
                    ThrowError(CODBCERR::eMoreResults);

                if ( (rc = SQLFetch(m_hstmt)) == SQL_ERROR)

```

```

                ThrowError(CODBCERR::eFetch);
            }
        }
        SQLFreeStmt(m_hstmt, SQL_CLOSE);

        if (m_txn.OrderStatus.o_ol_cnt == 0)
            throw new CTPCC_ODBC_ERR(
CTPCC_ODBC_ERR::ERR_NO_SUCH_ORDER );
        else if (m_txn.OrderStatus.c_id == 0 &&
m_txn.OrderStatus.c_last[0] == 0)
            throw new CTPCC_ODBC_ERR(
CTPCC_ODBC_ERR::ERR_INVALID_CUST );
        else
            m_txn.OrderStatus.exec_status_code = eOK;

        break;
    }
    catch (CODBCERR *e)
    {
        if (!(e->m_bDeadLock) || (++iTryCount > iMaxRetries))
            throw;

        // hit deadlock; backoff for increasingly longer
        delete e;
        Sleep(10 * iTryCount);
    }
}

// if (iTryCount)
// throw new CTPCC_ODBC_ERR(CTPCC_ODBC_ERR::ERR_RETRIED_TRANS,
iTryCount);
}

void CTPCC_ODBC::InitDeliveryParams()
{
    if ( SQLAllocHandle(SQL_HANDLE_STMT, m_hdbc, &m_hstmtDelivery) !=
SQL_SUCCESS )
        ThrowError(CODBCERR::eAllocHandle);

    m_hstmt = m_hstmtDelivery;

    int i = 0;
    if ( SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SLONG,
SQL_INTEGER, 0, 0, &m_txn.Delivery.w_id, 0, NULL) != SQL_SUCCESS
        || SQLBindParameter(m_hstmt, ++i, SQL_PARAM_INPUT, SQL_C_SSHORT,
SQL_SMALLINT, 0, 0, &m_txn.Delivery.o_carrier_id, 0, NULL) != SQL_SUCCESS
    )
        ThrowError(CODBCERR::eBindParam);

    for (i=0;i<10;i++)
    {
        if ( SQLBindCol(m_hstmt, (UWORD)(i+1), SQL_C_SLONG,
&m_txn.Delivery.o_id[i], 0, NULL) != SQL_SUCCESS )
            ThrowError(CODBCERR::eBindCol);
    }
}

void CTPCC_ODBC::Delivery()
{
    RETCODE                                     rc;
    int                                         iTryCount = 0;

```

```

        m_hstmt = m_hstmtDelivery;

        while (TRUE)
        {
            try
            {
                rc = SQLExecDirectW(m_hstmt, (SQLWCHAR*)L"call
tpcc_delivery(?,?)", SQL_NTS);
                if (rc != SQL_SUCCESS && rc != SQL_SUCCESS_WITH_INFO)
                    ThrowError(CODBCERR::eExecDirect);

                if ( SQLFetch(m_hstmt) == SQL_ERROR )
                    ThrowError(CODBCERR::eFetch);

                SQLFreeStmt(m_hstmt, SQL_CLOSE);
                m_txn.Delivery.exec_status_code = eOK;
                break;
            }
            catch (CODBCERR *e)
            {
                if (!(e->m_bDeadLock) || (++iTryCount > iMaxRetries))
                    throw;

                // hit deadlock; backoff for increasingly longer
                delete e;
                Sleep(10 * iTryCount);
            }
        }

        // if (iTryCount)
        //     throw new CTPCC_ODBC_ERR(CTPCC_ODBC_ERR::ERR_RETRIED_TRANS,
iTryCount);
    }
}

```

tpcc_odbc.h

```

/* FILE: TPCC_ODBC.H
 * Microsoft TPC-C Kit Ver. 4.20.000
 * Copyright Microsoft, 1999
 * All Rights Reserved
 * Version 4.10.000 audited by Richard Gimarc,
Performance Metrics, 3/17/99
 * PURPOSE: Header file for TPC-C txn class implementation.
 * Change history:
 * 4.20.000 - updated rev number to match kit
 */
#pragma once

// need to declare functions for import, unless define has already been created
// by the DLL's .cpp module for export.
#ifdef DllDecl
#define DllDecl __declspec( dllimport )
#endif

class CODBCERR : public CBaseErr
{
public:
    enum ACTION

```

```

    {
        eNone,
        eUnknown,
        eAllocConn, // error from
SQLAllocConnect
        eAllocHandle, // error from
SQLAllocHandle
        eConnOption, // error from
SQLSetConnectOption
        eConnect, // error from SQLConnect
        eAllocStmt, // error from
SQLAllocStmt
        eExecDirect, // error from
SQLExecDirect
        eBindParam, // error from
SQLBindParameter
        eBindCol, // error from SQLBindCol
        eFetch, // error from
SQLFetch
        eFetchScroll, // error from
SQLFetchScroll
        eMoreResults, // error from
SQLMoreResults
        ePrepare, // error from SQLPrepare
        eExecute, // error from SQLExecute
        eSetEnvAttr, // error from
SQLSetEnvAttr
        eSetStmtAttr // error from
SQLSetStmtAttr
    };

CODBCERR(void)
{
    m_eAction = eNone;
    m_NativeError = 0;
    m_bDeadLock = FALSE;
    m_odbcerrstr = NULL;
};

~CODBCERR()
{
    if (m_odbcerrstr != NULL)
        delete [] m_odbcerrstr;
};

ACTION m_eAction;
int m_NativeError;
BOOL m_bDeadLock;
char *m_odbcerrstr;

int ErrorType() {return ERR_TYPE_ODBC;};
int ErrorNum() {return m_NativeError;};
char *ErrorText() {return m_odbcerrstr;};
};

class CTPCC_ODBC_ERR : public CBaseErr
{
public:
    enum TPCC_ODBC_ERRS
    {
        ERR_WRONG_SP_VERSION = 1, // "Wrong version of
stored procs on database server"

```

```

        ERR_INVALID_CUST,          // "Invalid
Customer id,name."
        ERR_NO_SUCH_ORDER,        // "No orders
found for customer."
        ERR_RETRIED_TRANS,        // "Retries
before transaction succeeded."
    };

    CTPCC_ODBC_ERR( int iErr ) { m_errno = iErr; m_iTryCount = 0; };

    CTPCC_ODBC_ERR( int iErr, int iTryCount ) { m_errno = iErr;
m_iTryCount = iTryCount; };

    int          m_errno;
    int          m_iTryCount;

    int ErrorType() {return ERR_TYPE_TPCC_ODBC;};
    int ErrorNum() {return m_errno;};

    char *ErrorText();
};

class DllDecl CTPCC_ODBC : public CTPCC_BASE
{
private:
    // declare variables and private functions here...
    BOOL          m_bDeadlock;      // transaction
was selected as deadlock victim
    int          m_MaxRetries;      //
retry count on deadlock

    SQLHENV      m_henv;           //
ODBC environment handle
    SQLHDBC      m_hdbc;
    SQLHSTMT     m_hstmt;          // the current hstmt

    SQLHSTMT     m_hstmtNewOrder;
    SQLHSTMT     m_hstmtPayment;
    SQLHSTMT     m_hstmtDelivery;
    SQLHSTMT     m_hstmtOrderStatus;
    SQLHSTMT     m_hstmtStockLevel;

    SQLHDESC     m_descNewOrderCols1;
    SQLHDESC     m_descNewOrderCols2;
    SQLHDESC     m_descOrderStatusCols1;
    SQLHDESC     m_descOrderStatusCols2;

    // new-order specific fields
    SQLINTEGER   m_BindOffset;
    SQLINTEGER   m_RowsFetched;
    int          m_no_commit_flag;

#ifdef new_order_strstr
    // for new-order txn;
    // output params
    char          m_ol_i_name[I_NAME_LEN+1];
    double        m_ol_i_price;
    double        m_ol_amount;
    short         m_ol_stock;
    // used locally, but not returned to caller
    char          m_i_data[I_DATA_LEN];
    char          m_s_data[S_DATA_LEN];
#endif
#endif

```

```

void ThrowError( CODBCERR::ACTION eAction );

void InitNewOrderParams();
void InitPaymentParams();
void InitDeliveryParams();
void InitStockLevelParams();
void InitOrderStatusParams();

union
{
    NEW_ORDER_DATA          NewOrder;
    PAYMENT_DATA            Payment;
    DELIVERY_DATA           Delivery;
    STOCK_LEVEL_DATA        StockLevel;
    ORDER_STATUS_DATA        OrderStatus;
    m_txn;
}

public:
    CTPCC_ODBC(LPCSTR szServer, LPCSTR szUser, LPCSTR szPassword,
LPCSTR szHost, LPCSTR szDatabase);
    ~CTPCC_ODBC(void);

    inline PNEW_ORDER_DATA          BuffAddr_NewOrder()
    { return &m_txn.NewOrder; };
    inline PPAYMENT_DATA            BuffAddr_Payment()
    { return &m_txn.Payment; };
    inline PDELIVERY_DATA           BuffAddr_Delivery()
    { return &m_txn.Delivery; };
    inline PSTOCK_LEVEL_DATA        BuffAddr_StockLevel()
    { return &m_txn.StockLevel; };
    inline PORDER_STATUS_DATA       BuffAddr_OrderStatus()
    { return &m_txn.OrderStatus; };

    void NewOrder          ();
    void Payment           ();
    void Delivery          ();
    void StockLevel        ();
    void OrderStatus       ();
};

// wrapper routine for class constructor
extern "C" DllDecl CTPCC_ODBC* CTPCC_ODBC_new
( LPCSTR szServer, LPCSTR szUser, LPCSTR szPassword, LPCSTR szHost, LPCSTR
szDatabase );

typedef CTPCC_ODBC* (TYPE_CTPCC_ODBC)(LPCSTR, LPCSTR, LPCSTR, LPCSTR, LPCSTR);

trans.h


---


/* FILE: TRANS.H
* Microsoft TPC-C Kit Ver. 4.30.002
* Copyright Microsoft, 1999
* All Rights Reserved
* Version 4.10.000 audited by Richard Gimarc,
Performance Metrics, 3/17/99
* PURPOSE: Header file for TPC-C structure templates.
*

```



```

* Change history:
*         4.30.002 - changed w_id from short to long to support warehouses
above 32,767
*         4.20.000 - updated rev number to match kit
*/
#pragma once

// String length constants
#define SERVER_NAME_LEN      20
#define DATABASE_NAME_LEN   20
#define USER_NAME_LEN       20
#define PASSWORD_LEN        20
#define TABLE_NAME_LEN     20
#define I_DATA_LEN          50
#define I_NAME_LEN          24
#define BRAND_LEN           1
#define LAST_NAME_LEN       16
#define W_NAME_LEN          10
#define ADDRESS_LEN         20
#define STATE_LEN           2
#define ZIP_LEN              9
#define S_DIST_LEN          24
#define S_DATA_LEN          50
#define D_NAME_LEN          10
#define FIRST_NAME_LEN      16
#define MIDDLE_NAME_LEN     2
#define PHONE_LEN           16
#define DATETIME_LEN        30
#define CREDIT_LEN          2
#define C_DATA_LEN          250
#define H_DATA_LEN          24
#define DIST_INFO_LEN       24
#define MAX_OL_NEW_ORDER_ITEMS 15
#define MAX_OL_ORDER_STATUS_ITEMS 15
#define STATUS_LEN          25
#define OL_DIST_INFO_LEN    24

// TIMESTAMP_STRUCT is provided by the ODBC header file sqltypes.h, but is not
available
// when compiling with dblib, so redefined here. Note: we are using the symbol
" _SQLTYPES"
// (declared in sqltypes.h) as a way to determine if TIMESTAMP_STRUCT has been
declared.
#ifndef __SQLTYPES
typedef struct
{
    short                /* SQLSMALLINT */
    year;
    unsigned short       /* SQLUSMALLINT */ month;
    unsigned short       /* SQLUSMALLINT */ day;
    unsigned short       /* SQLUSMALLINT */ hour;
    unsigned short       /* SQLUSMALLINT */ minute;
    unsigned short       /* SQLUSMALLINT */ second;
    unsigned long        /* SQLVINTEGER */ fraction;
} TIMESTAMP_STRUCT;
#endif

// possible values for exec_status_code after transaction completes
enum EXEC_STATUS
{
    eOK,                // 0    "Transaction committed."
    eInvalidItem,       // 1    "Item number is not valid."
    eDeliveryFailed     // 2    "Delivery Post Failed."
}

```

```

};

// transaction structures
typedef struct
{
    // input params
    long                ol_supply_w_id;
    long                ol_i_id;
    short               ol_quantity;

    // output params
    char                ol_i_name[I_NAME_LEN+1];
    char                ol_brand_generic[BRAND_LEN+1];
    double              ol_i_price;
    double              ol_amount;
    short               ol_stock;
} OL_NEW_ORDER_DATA;

typedef struct
{
    // input params
    long                w_id;
    short               d_id;
    long                c_id;
    short               o_ol_cnt;

    // output params
    EXEC_STATUS         exec_status_code;
    char                c_last[LAST_NAME_LEN+1];
    char                c_credit[CREDIT_LEN+1];
    double              c_discount;
    double              w_tax;
    double              d_tax;
    long                o_id;
    short               o_commit_flag;
    TIMESTAMP_STRUCT    o_entry_d;
    short               o_all_local;
    double              total_amount;
    OL_NEW_ORDER_DATA   OL[MAX_OL_NEW_ORDER_ITEMS];
} NEW_ORDER_DATA, *PNEW_ORDER_DATA;

typedef struct
{
    // input params
    long                w_id;
    short               d_id;
    long                c_id;
    short               c_d_id;
    long                c_w_id;
    double              h_amount;
    char                c_last[LAST_NAME_LEN+1];

    // output params
    EXEC_STATUS         exec_status_code;
    TIMESTAMP_STRUCT    h_date;
    char                w_street_1[ADDRESS_LEN+1];
    char                w_street_2[ADDRESS_LEN+1];
    char                w_city[ADDRESS_LEN+1];
    char                w_state[STATE_LEN+1];
    char                w_zip[ZIP_LEN+1];
    char                d_street_1[ADDRESS_LEN+1];
    char                d_street_2[ADDRESS_LEN+1];
    char                d_city[ADDRESS_LEN+1];
    char                d_state[STATE_LEN+1];
}

```

```

char                d_zip[ZIP_LEN+1];
char                c_first[FIRST_NAME_LEN+1];
char                c_middle[MIDDLE_NAME_LEN + 1];
char                c_street_1[ADDRESS_LEN+1];
char                c_street_2[ADDRESS_LEN+1];
char                c_city[ADDRESS_LEN+1];
char                c_state[STATE_LEN+1];
char                c_zip[ZIP_LEN+1];
char                c_phone[PHONE_LEN+1];
TIMESTAMP_STRUCT   c_since;
char                c_credit[CREDIT_LEN+1];
double              c_credit_lim;
double              c_discount;
double              c_balance;
char                c_data[200+1];
} PAYMENT_DATA, *PPAYMENT_DATA;

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

typedef struct
{
    // input params
    long                w_id;
    short               d_id;
    long                c_id;
    char                c_last[LAST_NAME_LEN+1];

    // output params
    EXEC_STATUS         exec_status_code;
    char                c_first[FIRST_NAME_LEN+1];
    char                c_middle[MIDDLE_NAME_LEN+1];
    double              c_balance;
    long                o_id;
    TIMESTAMP_STRUCT   o_entry_d;
    short               o_carrier_id;
    OL_ORDER_STATUS_DATA ol[MAX_OL_ORDER_STATUS_ITEMS];
    short               o_ol_cnt;
} ORDER_STATUS_DATA, *PORDER_STATUS_DATA;

typedef struct
{
    // input params
    long                w_id;
    short               o_carrier_id;

    // output params
    EXEC_STATUS         exec_status_code;
    SYSTEMTIME         queue_time;
    long                o_id[10];        // id's of
delivered orders for districts 1 to 10
} DELIVERY_DATA, *PDELIVERY_DATA;

//This structure is used for posting delivery transactions and for writing them to
the delivery server.
typedef struct _DELIVERY_TRANSACTION
{

```

```

SYSTEMTIME         queue;                //time delivery
transaction queued
    long                w_id;            //delivery warehouse
    short               o_carrier_id;    //carrier id
} DELIVERY_TRANSACTION;

typedef struct
{
    // input params
    long                w_id;
    short               d_id;
    short               threshold;

    // output params
    EXEC_STATUS         exec_status_code;
    long                low_stock;
} STOCK_LEVEL_DATA, *PSTOCK_LEVEL_DATA;

```

txn_base.h

```

/* FILE: TXN_BASE.H
 * Microsoft TPC-C Kit Ver. 4.20.000
 * Copyright Microsoft, 1999
 * All Rights Reserved
 * Version 4.10.000 audited by Richard Gimarc,
 * Performance Metrics, 3/17/99
 * PURPOSE: Header file for TPC-C txn class implementation.
 * Change history:
 * 4.20.000 - updated rev number to match kit
 */

#pragma once

// need to declare functions for import, unless define has already been created
// by the DLL's .cpp module for export.
#ifndef DllDecl
#define DllDecl __declspec( dllimport )
#endif

class DllDecl CTPCC_BASE
{
public:
    CTPCC_BASE(void) {};
    virtual ~CTPCC_BASE(void) {};

    = 0; virtual PNEW_ORDER_DATA BuffAddr_NewOrder()
    = 0; virtual PPAYMENT_DATA BuffAddr_Payment()
    = 0; virtual PDELIVERY_DATA BuffAddr_Delivery()

    virtual PSTOCK_LEVEL_DATA BuffAddr_StockLevel() = 0;
    virtual PORDER_STATUS_DATA BuffAddr_OrderStatus() = 0;

    virtual void NewOrder() = 0;
    virtual void Payment() = 0;
    virtual void Delivery() = 0;
    virtual void StockLevel() = 0;
    virtual void OrderStatus() = 0;
};

```

txnlog.h

```
/* FILE: TXNLOG.H
 * Microsoft TPC-C Kit Ver. 4.10.000
 * not yet audited
 *
 * PURPOSE: Header file for txn log class
 * Copyright Microsoft, 1999
 * All Rights Reserved
 */

#pragma once

typedef struct _TXN_NEWORDER
{
    BYTE OL_Count; //range 0 to 31
    BYTE OL_Remote_Count; //range 0 to 31
    WORD c_id;
    int o_id;
} TXN_NEWORDER;

typedef struct _TXN_PAYMENT
{
    BYTE CustByName;
    BYTE IsRemote;
} TXN_PAYMENT;

typedef struct _TXN_ORDERSTATUS
{
    BYTE CustByName;
} TXN_ORDERSTATUS;

typedef union _TXN_DETAILS
{
    TXN_NEWORDER NewOrder;
    TXN_PAYMENT Payment;
    TXN_ORDERSTATUS OrderStatus;
} TXN_DETAILS;

// Common header for all records in txn log. The TxnType field is
// a switch which identifies the particular variant.
#define TXN_REC_TYPE_CONTROL 1 //
#define TXN_REC_TYPE_TPCC 2 // replaces
TRANSACTION_TYPE_TPCC
#define TXN_REC_TYPE_TPCC_DELIV_DEF 3

typedef struct _TXN_RECORD_HEADER
{
    JULIAN_TIME TxnStartT0; // start of
    TxnType TxnType; // one of TXN_REC_TYPE_*
    TxnType TxnSubType; // depends on
} TXN_RECORD_HEADER, *PTXN_RECORD_HEADER;

typedef struct _TXN_RECORD_CONTROL
{
    // common header; must exactly match TXN_RECORD_HEADER
```

```
    JULIAN_TIME TxnStartT0; // start of
    TxnType TxnType; // =
    TXN_REC_TYPE_CONTROL TxnSubType; // depends on
} TXN_RECORD_CONTROL, *PTXN_RECORD_CONTROL;

// TPC-C Txn Record Layout:
//
// 'TxnStartT0' is a Julian timestamp corresponding to the moment the
// txn is sent to the SUT, i.e., beginning of response time. Deltas
// are in milliseconds. Note that if RTDelay > 0, then the txn was
// delayed by this amount. The delay occurs at the beginning of the
// response time. So if RTDelay > 0, then the txn was actually sent
// at TxnStartT0 + RTDelay.
//
// Graphically:
//
// time -->
//
// |--- Menu ---|-- Keying --|-- Response --|--- Think ---|
// <- DeltaT1 -> <- DeltaT2 -> ^ <- DeltaT4 -> <- DeltaT3 ->
//
// ^ TxnStartT0
//
// RTDelay is the amount of response time delay included in DeltaT4.
// RTDelay is recorded per txn because this value can be changed on
// the fly, and so may vary from txn to txn.
//
// TxnStatus is the txn completion code. It is used to indicate errors.
// For example, in the New Order txn, 1% of txns abort. TxnStatus will
// reflect this.

typedef struct _TXN_RECORD_TPCC
{
    // common header; must exactly match TXN_RECORD_HEADER
    JULIAN_TIME TxnStartT0; // start of
    TxnType TxnType; // = TXN_REC_TYPE_TPCC
    TxnType TxnSubType; // depends on
} TXN_RECORD_TPCC, *PTXN_RECORD_TPCC;

int DeltaT1; // menu time (ms)
int DeltaT2; // keying time (ms)
int DeltaT3; // think time (ms)
int DeltaT4; // response time (ms)
int RTDelay; // response time delay (ms)
int TxnError; // error code providing
more detail for TxnStatus
int w_id; // warehouse
ID d_id; // assigned district ID
for this thread
BYTE d_id_ThisTxn; // district ID chosen for this
particular
```

```

        BYTE      TxnStatus;                // completion status for
txn to indicate errors
        BYTE      reserved;                // for word alignment
        TXN_DETAILS TxnDetails;          //
    } TXN_RECORD_TPCC, *PTXN_RECORD_TPCC;

    // TPC-C Deferred Delivery Txn Record Layout:
    //
    //Incorporating delivery transaction information into the above
    //structure would increase the size of TXN_DETAILS from 8 to 42 bytes.
    //Hence, we store delivery transaction details in a separate structure.
    //
    typedef struct _TXN_RECORD_TPCC_DELIV_DEF
    {
        // common header; must exactly match TXN_RECORD_HEADER
        JULIAN_TIME TxnStartT0;            // start of
txn
        BYTE      TxnType;                // =
TXN_REC_TYPE_TPCC_DELIV_DEF
        BYTE      TxnSubType;            // = 0
        // end of common header

        int      DeltaT4;                // response time (ms)
        int      DeltaTxnExec;          // execution time (ms)
        int      w_id;                  // warehouse
ID
        BYTE      TxnStatus;            // completion status for
txn to indicate errors
        BYTE      reserved;            // for word alignment
        short    o_carrier_id;          // carrier id
        long     o_id[10];              // returned delivery transaction
ids
    } TXN_RECORD_TPCC_DELIV_DEF, *PTXN_RECORD_TPCC_DELIV_DEF;

#define TXN_LOG_VERSION 2
#define TXN_DATA_START 4096 // offset in log file
where log records start
#define TXN_LOG_EYE_CATCHER "BC" // signature bytes at the start of
log file

    ////////////////////////////////////////////////////////////////////
    //
    // The transaction log has a header as the first 4K block.
    //
    typedef struct _TXN_LOG_HEADER
    {
        char      EyeCatcher[2];        // signature
bytes; should always be "BC"
        int      LogVersion;
        // set to TXN_LOG_VERSION
        JULIAN_TIME BeginTxnTS;        //
timestamp of first (lowest) txn start
        JULIAN_TIME EndTxnTS;        // timestamp
of last (highest) txn completion time
        int      iRecCount;
        // number of records in log file
        BOOL     bLogSorted;
        int      iFileSize;
        // file size in bytes

```

```

        // the record map provides a fast way to get close to a
particular timestamp in a sorted log file.
        //
        // struct
        // {
        //     JULIAN_TIME TS;
        //     timestamp of record
        //     int iPos;
        //     byte position in file
        //     RecMap[RecMapSize];
    } TXN_LOG_HEADER, *PTXN_LOG_HEADER;
#define RecMapSize 200

#define READ_BUFFER_SIZE 64*1024
#define WRITE_BUFFER_SIZE 8*1024

#define NUM_READ_BUFFERS 1
#define NUM_WRITE_BUFFERS 2
#define MAX_NUM_BUFFERS 2

// flags passed in to the constructor
#define TXN_LOG_WRITE 0x01
#define TXN_LOG_READ 0x02
#define TXN_LOG_SORTED 0x04
#define TXN_LOG_CRASHOPEN 0x08 // if set, invalid headers will be
tolerated; used for recovery

#define TXN_LOG_OS_ERROR 1
#define TXN_LOG_NOT_SORTED 2

#define SKIP_CTRL_RECS 1

class CTxnLog
{
private:
    DWORD iBufferSize;
    //buffer allocated size
    DWORD iBytesFreeInBuffer; //total bytes
available for use in buffer
    int iNumBuffers;
    //buffers in use
    int iActiveBuffer;
    //indicates which buffer is active: 0 or 1
    int iIoBuffer;
    //buffer for any pending IO operation
    int iFilePointer;
    //position in file.
    LARGE_INTEGER lFilePointer; //position in
file.
    int iNextRec;
    //when reading, ordinal value of next record

    // A "save point" is remembered each time GetNextRecord is
called with a start time specified.
    // The next time it is called, if start time is after the save
point, we start scanning from the
    // save point. This is particularly useful in FindBestInterval,
where the log is scanned repeatedly.
    JULIAN_TIME SavePtTime;
    int iSavePtFilePointer;

```

```

        LARGE_INTEGER    lSavePtFilePointer;
        int              iSavePtNextRec;

        JULIAN_TIME      lastTS;
//when writing sorted output, used to verify records are sorted
        BOOL            bWrite;
//writing log file
        BOOL            bCrashOpen;
// tolerate bad headers and consistency checks

        BOOL            bLogSorted;
// is log file sorted? applies to both input and output
        JULIAN_TIME     BeginTxnTS;
// timestamp of first (lowest) txn start
        JULIAN_TIME     EndTxnTS;
// timestamp of last (highest) txn completion time
        int             iRecCount;
// number of records in log file

        BYTE            *pCurrent;
//ptr to current buffer
        BYTE            *pBuffer[MAX_NUM_BUFFERS];

        PTXN_RECORD_HEADER *TxnArray;
//transaction
record pointer array for sort

        DWORD           dwError;
        HANDLE          hTxnFile;
//handle to log file
        HANDLE          hMapFile;
//map file used when sorting the log
        HANDLE          hIoComplete;
//event to signify that there are no pending IOs
        HANDLE          hLogFileIo;
//event to signal the IO thread to write the inactive buffer

        Spinlock        Spin;
//spin lock to protect the txn log file buffers

        int Write(BYTE *ptr, DWORD Size);
        static void LogFileIO(CTxnLog *);

public:
        CTxnLog::CTxnLog(LPCTSTR szFileName, DWORD dwOpts);
        ~CTxnLog(void);

        int WriteToLog(PTXN_RECORD_TPCC pTxnRcrd);
        int WriteToLog(PTXN_RECORD_TPCC_DELIV_DEF pTxnRcrd);
        int WriteToLog(PTXN_RECORD_CONTROL pCtrlRec);
        int WriteToLog(PTXN_RECORD_HEADER pCtrlRec);

        int WriteCtrlRecToLog(BYTE SubType, LPTSTR lpStr, DWORD dwLen);

        void CloseTransactionLogFile(void);

        PTXN_RECORD_HEADER GetNextRecord(BOOL bSkipCtrlRecs = FALSE);
        PTXN_RECORD_HEADER GetNextRecord(JULIAN_TIME SeekTimeT0, BOOL
bSkipCtrlRecs = FALSE);

        int Sort(void);
        PTXN_RECORD_HEADER GetSortedRecord(int index);

        inline BOOL IsSorted(void) { return bLogSorted; };

```

```

        inline JULIAN_TIME BeginTS(void) { return BeginTxnTS; };
        inline JULIAN_TIME EndTS(void) { return EndTxnTS; };
        inline int RecordCount(void) { return iRecCount; };
};

class CTXNLOG_ERR : public CBaseErr
{
public:
    enum CTXNLOG_ERRS
    {
        ERR_BAD_FILE_FORMAT, // "File
format is invalid."
        ERR_UNKNOWN_LOG_VERSION, // "Log file version is
unknown."
        ERR_BROKEN_LOG_FILE, // "Log file
is broken."
        ERR_LOG_NOT_SORTED, // "Log file
is not sorted"
        ERR_INVALID_TIME_SEQ, // "Internal
Error: Record Time Sequence invalid."
    };

    CTXNLOG_ERR(int iErr) : CBaseErr(iErr) {};

    int ErrorType() {return ERR_TYPE_TXNLOG;};

    char *ErrorText()
    {
        static char *szMsgs[] = {
            "File format is invalid.",
            "Log file version is unknown.",
            "Log file is broken.",
            "Log file is not sorted",
            "Internal Error: Record Time Sequence
invalid.",
            ""
        };

        for(int i = 0; szMsgs[i][0]; i++)
        {
            if ( m_idMsg == i )
                break;
        }

        return(szMsgs[i][0] ? szMsgs[i] : ERR_UNKNOWN);
    };
};

```

Appendix B: Database Design

The TPC-C database was created with the following Transact-SQL scripts:

BACKUP.SQL

```
-- File:      BACKUP.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.20
--           Copyright Microsoft, 1999
-- Purpose:   Creates backup of tpcc database
```

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

```
dump database tpcc to tpccback1_2, tpccback2_2,
tpccback3_2, tpccback4_2, tpccback5_2, tpccback6_2,
tpccback7_2 with init, stats = 1, blocksize=4096
```

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

go

CREATEDB.SQ L

```
-- File:      CREATEDB.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.20
--           Copyright Microsoft, 1999
-- Purpose:   Creates tpcc database and backup files
```

```
use master
go
```

```
--           Create temporary table for timing
```

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

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

insert into tpcc_timer values (0,0)
go

--           Store starting time

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

-- create main database files

CREATE DATABASE tpcc
ON PRIMARY
(
    NAME = MSSQL80_tpcc_root,
    FILENAME = "T:\MSSQL80_tpcc_root.mdf",
    SIZE = 8MB,
    FILEGROWTH =0),
FILEGROUP misc_fg
(
    NAME = misc1,
    FILENAME = "M:",
    SIZE = 12800MB,
    FILEGROWTH = 0),
(
    NAME = "N:",
    SIZE = 12800MB,
    FILEGROWTH = 0),
(
    NAME = misc3,
    FILENAME = "O:",
    SIZE = 12800MB,
    FILEGROWTH = 0),
(
    NAME = misc4,
    FILENAME = "P:",
    SIZE = 12800MB,
    FILEGROWTH = 0),
(
    NAME = misc5,
    FILENAME = "Q:",
    SIZE = 12800MB,
    FILEGROWTH = 0),
(
    NAME = misc6,
    FILENAME = "R:",
    SIZE = 12800MB,
    FILEGROWTH = 0),
(
    NAME = misc7,
    FILENAME = "S:",
    SIZE = 12800MB,
    FILEGROWTH = 0),
FILEGROUP big_fg
(
    NAME = big1,
    FILENAME = "F:",
```

```
SIZE = 18500MB,
FILEGROWTH = 0),
NAME = big2,
FILENAME = "G:",
SIZE = 18500MB,
FILEGROWTH = 0),
NAME = big3,
FILENAME = "H:",
SIZE = 18500MB,
FILEGROWTH = 0),
NAME = big4,
FILENAME = "I:",
SIZE = 18500MB,
FILEGROWTH = 0),
NAME = big5,
FILENAME = "J:",
SIZE = 18500MB,
FILEGROWTH = 0),
NAME = big6,
FILENAME = "K:",
SIZE = 18500MB,
FILEGROWTH = 0),
NAME = big7,
FILENAME = "L:",
SIZE = 18500MB,
FILEGROWTH = 0)
LOG ON
(
    NAME =MSSQL70_tpcc_log,
    FILENAME = "E:",
    SIZE =86000MB,
    FILEGROWTH =0)
go
```

```
-- Store ending time
update tpcc_timer
set end_date = (select convert(char(30),
getdate(),9))
go
```

```
select "Elapsed time (in seconds): ",
datediff(second,(select start_date from
tpcc_timer),(select end_date from tpcc_timer))
```

```
-- remove temporary table
```

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

add_remote_servers.sql

```
--file add_remote_servers.sql
--add remote servers for all the partitions
--
-- partition 1 is on host G1
--
```

```

exec sp_dropserver rmt1, droplogins
exec sp_addlinkedserver 'rmt1'
exec sp_setnetname 'rmt1', 'G1'
exec sp_serveroption 'rmt1', 'lazy schema
validation', 'true'
exec sp_droplinkedsrvlogin rmt1, NULL
exec sp_addlinkedsrvlogin rmt1, 'false', 'sa', 'sa'

--
-- partition 2 is on host G2
--

exec sp_dropserver rmt2, droplogins
exec sp_addlinkedserver 'rmt2'
exec sp_setnetname 'rmt2', 'G2'
exec sp_serveroption 'rmt2', 'lazy schema
validation', 'true'
exec sp_droplinkedsrvlogin rmt2, NULL
exec sp_addlinkedsrvlogin rmt2, 'false', 'sa', 'sa'

--
-- partition 3 is on host G3
--

exec sp_dropserver rmt3, droplogins
exec sp_addlinkedserver 'rmt3'
exec sp_setnetname 'rmt3', 'G3'
exec sp_serveroption 'rmt3', 'lazy schema
validation', 'true'
exec sp_droplinkedsrvlogin rmt3, NULL
exec sp_addlinkedsrvlogin rmt3, 'false', 'sa', 'sa'

--
-- partition 4 is on host G4
--

exec sp_dropserver rmt4, droplogins
exec sp_addlinkedserver 'rmt4'
exec sp_setnetname 'rmt4', 'G4'
exec sp_serveroption 'rmt4', 'lazy schema
validation', 'true'
exec sp_droplinkedsrvlogin rmt4, NULL
exec sp_addlinkedsrvlogin rmt4, 'false', 'sa', 'sa'

--
-- partition 5 is on host G5
--

exec sp_dropserver rmt5, droplogins
exec sp_addlinkedserver 'rmt5'
exec sp_setnetname 'rmt5', 'G5'
exec sp_serveroption 'rmt5', 'lazy schema
validation', 'true'
exec sp_droplinkedsrvlogin rmt5, NULL
exec sp_addlinkedsrvlogin rmt5, 'false', 'sa', 'sa'

--
-- partition 6 is on host G6
--

exec sp_dropserver rmt6, droplogins
exec sp_addlinkedserver 'rmt6'
exec sp_setnetname 'rmt6', 'G6'

```

```

exec sp_serveroption 'rmt6', 'lazy schema
validation', 'true'
exec sp_droplinkedsrvlogin rmt6, NULL
exec sp_addlinkedsrvlogin rmt6, 'false', 'sa', 'sa'

--
-- partition 7 is on host G7
--

exec sp_dropserver rmt7, droplogins
exec sp_addlinkedserver 'rmt7'
exec sp_setnetname 'rmt7', 'G7'
exec sp_serveroption 'rmt7', 'lazy schema
validation', 'true'
exec sp_droplinkedsrvlogin rmt7, NULL
exec sp_addlinkedsrvlogin rmt7, 'false', 'sa', 'sa'

--
-- partition 8 is on host G8
--

exec sp_dropserver rmt8, droplogins
exec sp_addlinkedserver 'rmt8'
exec sp_setnetname 'rmt8', 'G8'
exec sp_serveroption 'rmt8', 'lazy schema
validation', 'true'
exec sp_droplinkedsrvlogin rmt8, NULL
exec sp_addlinkedsrvlogin rmt8, 'false', 'sa', 'sa'

--
-- partition 9 is on host G9
--

exec sp_dropserver rmt9, droplogins
exec sp_addlinkedserver 'rmt9'
exec sp_setnetname 'rmt9', 'G9'
exec sp_serveroption 'rmt9', 'lazy schema
validation', 'true'
exec sp_droplinkedsrvlogin rmt9, NULL
exec sp_addlinkedsrvlogin rmt9, 'false', 'sa', 'sa'

--
-- partition 10 is on host G10
--

exec sp_dropserver rmt10, droplogins
exec sp_addlinkedserver 'rmt10'
exec sp_setnetname 'rmt10', 'G10'
exec sp_serveroption 'rmt10', 'lazy schema
validation', 'true'
exec sp_droplinkedsrvlogin rmt10, NULL
exec sp_addlinkedsrvlogin rmt10, 'false', 'sa', 'sa'

--
-- partition 11 is on host G11
--

exec sp_dropserver rmt11, droplogins
exec sp_addlinkedserver 'rmt11'
exec sp_setnetname 'rmt11', 'G11'
exec sp_serveroption 'rmt11', 'lazy schema
validation', 'true'
exec sp_droplinkedsrvlogin rmt11, NULL

```

```

exec sp_addlinkedsrvlogin rmt11, 'false', 'sa', 'sa'

--
-- partition 12 is on host G12
--

exec sp_dropserver rmt12, droplogins
exec sp_addlinkedserver 'rmt12'
exec sp_setnetname 'rmt12', 'G12'
exec sp_serveroption 'rmt12', 'lazy schema
validation', 'true'
exec sp_droplinkedsrvlogin rmt12, NULL
exec sp_addlinkedsrvlogin rmt12, 'false', 'sa', 'sa'

--
-- partition 13 is on host G13
--

exec sp_dropserver rmt13, droplogins
exec sp_addlinkedserver 'rmt13'
exec sp_setnetname 'rmt13', 'G13'
exec sp_serveroption 'rmt13', 'lazy schema
validation', 'true'
exec sp_droplinkedsrvlogin rmt13, NULL
exec sp_addlinkedsrvlogin rmt13, 'false', 'sa', 'sa'

--
-- partition 14 is on host G14
--

exec sp_dropserver rmt14, droplogins
exec sp_addlinkedserver 'rmt14'
exec sp_setnetname 'rmt14', 'G14'
exec sp_serveroption 'rmt14', 'lazy schema
validation', 'true'
exec sp_droplinkedsrvlogin rmt14, NULL
exec sp_addlinkedsrvlogin rmt14, 'false', 'sa', 'sa'

--
-- partition 15 is on host G15
--

exec sp_dropserver rmt15, droplogins
exec sp_addlinkedserver 'rmt15'
exec sp_setnetname 'rmt15', 'G15'
exec sp_serveroption 'rmt15', 'lazy schema
validation', 'true'
exec sp_droplinkedsrvlogin rmt15, NULL
exec sp_addlinkedsrvlogin rmt15, 'false', 'sa', 'sa'

--
-- partition 16 is on host G16
--

exec sp_dropserver rmt16, droplogins
exec sp_addlinkedserver 'rmt16'
exec sp_setnetname 'rmt16', 'G16'
exec sp_serveroption 'rmt16', 'lazy schema
validation', 'true'
exec sp_droplinkedsrvlogin rmt16, NULL
exec sp_addlinkedsrvlogin rmt16, 'false', 'sa', 'sa'

--

```

```

-- partition 17 is on host G17
--
exec sp_dropserver rmt17, droplogins
exec sp_addlinkedserver 'rmt17'
exec sp_setnetname 'rmt17', 'G17'
exec sp_serveroption 'rmt17', 'lazy schema
validation', 'true'
exec sp_droplinkedsrvlogin rmt17, NULL
exec sp_addlinkedsrvlogin rmt17, 'false', 'sa', 'sa'
--
-- partition 18 is on host G18
--
exec sp_dropserver rmt18, droplogins
exec sp_addlinkedserver 'rmt18'
exec sp_setnetname 'rmt18', 'G18'
exec sp_serveroption 'rmt18', 'lazy schema
validation', 'true'
exec sp_droplinkedsrvlogin rmt18, NULL
exec sp_addlinkedsrvlogin rmt18, 'false', 'sa', 'sa'
--
-- partition 19 is on host G19
--
exec sp_dropserver rmt19, droplogins
exec sp_addlinkedserver 'rmt19'
exec sp_setnetname 'rmt19', 'G19'
exec sp_serveroption 'rmt19', 'lazy schema
validation', 'true'
exec sp_droplinkedsrvlogin rmt19, NULL
exec sp_addlinkedsrvlogin rmt19, 'false', 'sa', 'sa'
--
-- partition 20 is on host G20
--
exec sp_dropserver rmt20, droplogins
exec sp_addlinkedserver 'rmt20'
exec sp_setnetname 'rmt20', 'G20'
exec sp_serveroption 'rmt20', 'lazy schema
validation', 'true'
exec sp_droplinkedsrvlogin rmt20, NULL
exec sp_addlinkedsrvlogin rmt20, 'false', 'sa', 'sa'
--
-- partition 21 is on host G21
--
exec sp_dropserver rmt21, droplogins
exec sp_addlinkedserver 'rmt21'
exec sp_setnetname 'rmt21', 'G21'
exec sp_serveroption 'rmt21', 'lazy schema
validation', 'true'
exec sp_droplinkedsrvlogin rmt21, NULL
exec sp_addlinkedsrvlogin rmt21, 'false', 'sa', 'sa'
--
-- partition 22 is on host G22
--

```

```

exec sp_dropserver rmt22, droplogins
exec sp_addlinkedserver 'rmt22'
exec sp_setnetname 'rmt22', 'G22'
exec sp_serveroption 'rmt22', 'lazy schema
validation', 'true'
exec sp_droplinkedsrvlogin rmt22, NULL
exec sp_addlinkedsrvlogin rmt22, 'false', 'sa', 'sa'
--
-- partition 23 is on host G23
--
exec sp_dropserver rmt23, droplogins
exec sp_addlinkedserver 'rmt23'
exec sp_setnetname 'rmt23', 'G23'
exec sp_serveroption 'rmt23', 'lazy schema
validation', 'true'
exec sp_droplinkedsrvlogin rmt23, NULL
exec sp_addlinkedsrvlogin rmt23, 'false', 'sa', 'sa'
--
-- partition 24 is on host G24
--
exec sp_dropserver rmt24, droplogins
exec sp_addlinkedserver 'rmt24'
exec sp_setnetname 'rmt24', 'G24'
exec sp_serveroption 'rmt24', 'lazy schema
validation', 'true'
exec sp_droplinkedsrvlogin rmt24, NULL
exec sp_addlinkedsrvlogin rmt24, 'false', 'sa', 'sa'

```

**add_constraint
s_t_1.sql**

```

--file 1_to_1800\add_constraints_t.sql

set ansi_warnings on
set ansi_nulls on
go

use tpcc
go

-- Drop any existing partitioning constraints
--
alter table t_warehouse drop constraint cnst_w_id
go

alter table t_district drop constraint cnst_d_w_id
go

alter table t_customer drop constraint cnst_c_w_id
go

alter table t_history drop constraint cnst_h_w_id
go

alter table t_stock drop constraint cnst_s_w_id

```

```

go

alter table t_orders drop constraint cnst_o_w_id
go

alter table t_order_line drop constraint cnst_ol_w_id
go

alter table t_new_order drop constraint cnst_no_w_id
go

-- Add partitioning constraints between 1 and 1800
--
alter table t_warehouse add constraint cnst_w_id
check (w_id <= convert(int,1800))
go

alter table t_district add constraint cnst_d_w_id
check (d_w_id <= convert(int,1800))
go

alter table t_customer add constraint cnst_c_w_id
check (c_w_id <= convert(int,1800))
go

alter table t_history add constraint cnst_h_w_id
check (h_w_id <= convert(int,1800))
go

alter table t_stock add constraint cnst_s_w_id check
(s_w_id <= convert(int,1800))
go

alter table t_orders add constraint cnst_o_w_id check
(o_w_id <= convert(int,1800))
go

alter table t_order_line add constraint cnst_ol_w_id
check (ol_w_id <= convert(int,1800))
go

alter table t_new_order add constraint cnst_no_w_id
check (no_w_id <= convert(int,1800))
go

```

**add_constraint
s_t_2.sql**

```

--file 1801_to_3600\add_constraints_t.sql

set ansi_warnings on
set ansi_nulls on
go

use tpcc
go

-- Drop any existing partitioning constraints

```



```

--
alter table t_warehouse drop constraint cnst_w_id
go

alter table t_district drop constraint cnst_d_w_id
go

alter table t_customer drop constraint cnst_c_w_id
go

alter table t_history drop constraint cnst_h_w_id
go

alter table t_stock drop constraint cnst_s_w_id
go

alter table t_orders drop constraint cnst_o_w_id
go

alter table t_order_line drop constraint cnst_ol_w_id
go

alter table t_new_order drop constraint cnst_no_w_id
go

-- Add partitioning constraints between 1801 and 3600
--

alter table t_warehouse add constraint cnst_w_id
check (w_id between convert(int,1801) and
convert(int,3600))
go

alter table t_district add constraint cnst_d_w_id
check (d_w_id between convert(int,1801) and
convert(int,3600))
go

alter table t_customer add constraint cnst_c_w_id
check (c_w_id between convert(int,1801) and
convert(int,3600))
go

alter table t_history add constraint cnst_h_w_id
check (h_w_id between convert(int,1801) and
convert(int,3600))
go

alter table t_stock add constraint cnst_s_w_id check
(s_w_id between convert(int,1801) and
convert(int,3600))
go

alter table t_orders add constraint cnst_o_w_id check
(o_w_id between convert(int,1801) and
convert(int,3600))
go

alter table t_order_line add constraint cnst_ol_w_id
check (ol_w_id between convert(int,1801) and
convert(int,3600))
go

```

```

alter table t_new_order add constraint cnst_no_w_id
check (no_w_id between convert(int,1801) and
convert(int,3600))
go

```

add_constraint s_t_3.sql

```

--file 3601_to_5400\add_constraints_t.sql

set ansi_warnings on
set ansi_nulls on
go

use tpcc
go

-- Drop any existing partitioning constraints
--

alter table t_warehouse drop constraint cnst_w_id
go

alter table t_district drop constraint cnst_d_w_id
go

alter table t_customer drop constraint cnst_c_w_id
go

alter table t_history drop constraint cnst_h_w_id
go

alter table t_stock drop constraint cnst_s_w_id
go

alter table t_orders drop constraint cnst_o_w_id
go

alter table t_order_line drop constraint cnst_ol_w_id
go

alter table t_new_order drop constraint cnst_no_w_id
go

-- Add partitioning constraints between 3601 and 5400
--

alter table t_warehouse add constraint cnst_w_id
check (w_id between convert(int,3601) and
convert(int,5400))
go

alter table t_district add constraint cnst_d_w_id
check (d_w_id between convert(int,3601) and
convert(int,5400))
go

```

```

alter table t_customer add constraint cnst_c_w_id
check (c_w_id between convert(int,3601) and
convert(int,5400))
go

```

```

alter table t_history add constraint cnst_h_w_id
check (h_w_id between convert(int,3601) and
convert(int,5400))
go

```

```

alter table t_stock add constraint cnst_s_w_id check
(s_w_id between convert(int,3601) and
convert(int,5400))
go

```

```

alter table t_orders add constraint cnst_o_w_id check
(o_w_id between convert(int,3601) and
convert(int,5400))
go

```

```

alter table t_order_line add constraint cnst_ol_w_id
check (ol_w_id between convert(int,3601) and
convert(int,5400))
go

```

```

alter table t_new_order add constraint cnst_no_w_id
check (no_w_id between convert(int,3601) and
convert(int,5400))
go

```

add_constraint s_t_4.sql

```

--file 5401_to_7200\add_constraints_t.sql

set ansi_warnings on
set ansi_nulls on
go

use tpcc
go

-- Drop any existing partitioning constraints
--

alter table t_warehouse drop constraint cnst_w_id
go

alter table t_district drop constraint cnst_d_w_id
go

alter table t_customer drop constraint cnst_c_w_id
go

alter table t_history drop constraint cnst_h_w_id
go

alter table t_stock drop constraint cnst_s_w_id
go

```

```

alter table t_orders drop constraint cnst_o_w_id
go

alter table t_order_line drop constraint cnst_ol_w_id
go

alter table t_new_order drop constraint cnst_no_w_id
go

-- Add partitioning constraints between 5401 and 7200
--

alter table t_warehouse add constraint cnst_w_id
check (w_id between convert(int,5401) and
convert(int,7200))
go

alter table t_district add constraint cnst_d_w_id
check (d_w_id between convert(int,5401) and
convert(int,7200))
go

alter table t_customer add constraint cnst_c_w_id
check (c_w_id between convert(int,5401) and
convert(int,7200))
go

alter table t_history add constraint cnst_h_w_id
check (h_w_id between convert(int,5401) and
convert(int,7200))
go

alter table t_stock add constraint cnst_s_w_id check
(s_w_id between convert(int,5401) and
convert(int,7200))
go

alter table t_orders add constraint cnst_o_w_id check
(o_w_id between convert(int,5401) and
convert(int,7200))
go

alter table t_order_line add constraint cnst_ol_w_id
check (ol_w_id between convert(int,5401) and
convert(int,7200))
go

alter table t_new_order add constraint cnst_no_w_id
check (no_w_id between convert(int,5401) and
convert(int,7200))
go

```

add_constraint s_t_5.sql

```
--file 7201_to_9000\add_constraints_t.sql
```

```
set ansi_warnings on
```

```

set ansi_nulls on
go

use tpcc
go

-- Drop any existing partitioning constraints
--

alter table t_warehouse drop constraint cnst_w_id
go

alter table t_district drop constraint cnst_d_w_id
go

alter table t_customer drop constraint cnst_c_w_id
go

alter table t_history drop constraint cnst_h_w_id
go

alter table t_stock drop constraint cnst_s_w_id
go

alter table t_orders drop constraint cnst_o_w_id
go

alter table t_order_line drop constraint cnst_ol_w_id
go

alter table t_new_order drop constraint cnst_no_w_id
go

-- Add partitioning constraints between 7201 and 9000
--

alter table t_warehouse add constraint cnst_w_id
check (w_id between convert(int,7201) and
convert(int,9000))
go

alter table t_district add constraint cnst_d_w_id
check (d_w_id between convert(int,7201) and
convert(int,9000))
go

alter table t_customer add constraint cnst_c_w_id
check (c_w_id between convert(int,7201) and
convert(int,9000))
go

alter table t_history add constraint cnst_h_w_id
check (h_w_id between convert(int,7201) and
convert(int,9000))
go

alter table t_stock add constraint cnst_s_w_id check
(s_w_id between convert(int,7201) and
convert(int,9000))
go

```

```

alter table t_orders add constraint cnst_o_w_id check
(o_w_id between convert(int,7201) and
convert(int,9000))
go

alter table t_order_line add constraint cnst_ol_w_id
check (ol_w_id between convert(int,7201) and
convert(int,9000))
go

alter table t_new_order add constraint cnst_no_w_id
check (no_w_id between convert(int,7201) and
convert(int,9000))
go

```

add_constraint s_t_6.sql

```
--file 9001_to_10800\add_constraints_t.sql
```

```

set ansi_warnings on
set ansi_nulls on
go

use tpcc
go

-- Drop any existing partitioning constraints
--

alter table t_warehouse drop constraint cnst_w_id
go

alter table t_district drop constraint cnst_d_w_id
go

alter table t_customer drop constraint cnst_c_w_id
go

alter table t_history drop constraint cnst_h_w_id
go

alter table t_stock drop constraint cnst_s_w_id
go

alter table t_orders drop constraint cnst_o_w_id
go

alter table t_order_line drop constraint cnst_ol_w_id
go

alter table t_new_order drop constraint cnst_no_w_id
go

-- Add partitioning constraints between 9001 and
10800
--

```

```

alter table t_warehouse add constraint cnst_w_id
check (w_id between convert(int,9001) and
convert(int,10800))
go

alter table t_district add constraint cnst_d_w_id
check (d_w_id between convert(int,9001) and
convert(int,10800))
go

alter table t_customer add constraint cnst_c_w_id
check (c_w_id between convert(int,9001) and
convert(int,10800))
go

alter table t_history add constraint cnst_h_w_id
check (h_w_id between convert(int,9001) and
convert(int,10800))
go

alter table t_stock add constraint cnst_s_w_id check
(s_w_id between convert(int,9001) and
convert(int,10800))
go

alter table t_orders add constraint cnst_o_w_id check
(o_w_id between convert(int,9001) and
convert(int,10800))
go

alter table t_order_line add constraint cnst_ol_w_id
check (ol_w_id between convert(int,9001) and
convert(int,10800))
go

alter table t_new_order add constraint cnst_no_w_id
check (no_w_id between convert(int,9001) and
convert(int,10800))
go

```

add_constraint s_t_7.sql

```

--file 10801_to_12600\add_constraints_t.sql

set ansi_warnings on
set ansi_nulls on
go

use tpcc
go

-- Drop any existing partitioning constraints
--

alter table t_warehouse drop constraint cnst_w_id
go

alter table t_district drop constraint cnst_d_w_id

```

```

go

alter table t_customer drop constraint cnst_c_w_id
go

alter table t_history drop constraint cnst_h_w_id
go

alter table t_stock drop constraint cnst_s_w_id
go

alter table t_orders drop constraint cnst_o_w_id
go

alter table t_order_line drop constraint cnst_ol_w_id
go

alter table t_new_order drop constraint cnst_no_w_id
go

-- Add partitioning constraints between 10801 and
12600
--

alter table t_warehouse add constraint cnst_w_id
check (w_id between convert(int,10801) and
convert(int,12600))
go

alter table t_district add constraint cnst_d_w_id
check (d_w_id between convert(int,10801) and
convert(int,12600))
go

alter table t_customer add constraint cnst_c_w_id
check (c_w_id between convert(int,10801) and
convert(int,12600))
go

alter table t_history add constraint cnst_h_w_id
check (h_w_id between convert(int,10801) and
convert(int,12600))
go

alter table t_stock add constraint cnst_s_w_id check
(s_w_id between convert(int,10801) and
convert(int,12600))
go

alter table t_orders add constraint cnst_o_w_id check
(o_w_id between convert(int,10801) and
convert(int,12600))
go

alter table t_order_line add constraint cnst_ol_w_id
check (ol_w_id between convert(int,10801) and
convert(int,12600))
go

alter table t_new_order add constraint cnst_no_w_id
check (no_w_id between convert(int,10801) and
convert(int,12600))
go

```

add_constraint s_t_8.sql

```

--file 12601_to_14400\add_constraints_t.sql

set ansi_warnings on
set ansi_nulls on
go

use tpcc
go

-- Drop any existing partitioning constraints
--

alter table t_warehouse drop constraint cnst_w_id
go

alter table t_district drop constraint cnst_d_w_id
go

alter table t_customer drop constraint cnst_c_w_id
go

alter table t_history drop constraint cnst_h_w_id
go

alter table t_stock drop constraint cnst_s_w_id
go

alter table t_orders drop constraint cnst_o_w_id
go

alter table t_order_line drop constraint cnst_ol_w_id
go

alter table t_new_order drop constraint cnst_no_w_id
go

-- Add partitioning constraints between 12601 and
14400
--

alter table t_warehouse add constraint cnst_w_id
check (w_id between convert(int,12601) and
convert(int,14400))
go

alter table t_district add constraint cnst_d_w_id
check (d_w_id between convert(int,12601) and
convert(int,14400))
go

alter table t_customer add constraint cnst_c_w_id
check (c_w_id between convert(int,12601) and
convert(int,14400))
go

```

```

alter table t_history add constraint cnst_h_w_id
check (h_w_id between convert(int,12601) and
convert(int,14400))
go

alter table t_stock add constraint cnst_s_w_id check
(s_w_id between convert(int,12601) and
convert(int,14400))
go

alter table t_orders add constraint cnst_o_w_id check
(o_w_id between convert(int,12601) and
convert(int,14400))
go

alter table t_order_line add constraint cnst_ol_w_id
check (ol_w_id between convert(int,12601) and
convert(int,14400))
go

alter table t_new_order add constraint cnst_no_w_id
check (no_w_id between convert(int,12601) and
convert(int,14400))
go

```

add_constraint s_t_9.sql

```

--file 14401_to_16200\add_constraints_t.sql

set ansi_warnings on
set ansi_nulls on
go

use tpcc
go

-- Drop any existing partitioning constraints
--

alter table t_warehouse drop constraint cnst_w_id
go

alter table t_district drop constraint cnst_d_w_id
go

alter table t_customer drop constraint cnst_c_w_id
go

alter table t_history drop constraint cnst_h_w_id
go

alter table t_stock drop constraint cnst_s_w_id
go

alter table t_orders drop constraint cnst_o_w_id
go

alter table t_order_line drop constraint cnst_ol_w_id

```

```

go

alter table t_new_order drop constraint cnst_no_w_id
go

-- Add partitioning constraints between 14401 and
16200
--

alter table t_warehouse add constraint cnst_w_id
check (w_id between convert(int,14401) and
convert(int,16200))
go

alter table t_district add constraint cnst_d_w_id
check (d_w_id between convert(int,14401) and
convert(int,16200))
go

alter table t_customer add constraint cnst_c_w_id
check (c_w_id between convert(int,14401) and
convert(int,16200))
go

alter table t_history add constraint cnst_h_w_id
check (h_w_id between convert(int,14401) and
convert(int,16200))
go

alter table t_stock add constraint cnst_s_w_id check
(s_w_id between convert(int,14401) and
convert(int,16200))
go

alter table t_orders add constraint cnst_o_w_id check
(o_w_id between convert(int,14401) and
convert(int,16200))
go

alter table t_order_line add constraint cnst_ol_w_id
check (ol_w_id between convert(int,14401) and
convert(int,16200))
go

alter table t_new_order add constraint cnst_no_w_id
check (no_w_id between convert(int,14401) and
convert(int,16200))
go

```

add_constraint s_t_10.sql

```

--file 16201_to_18000\add_constraints_t.sql

set ansi_warnings on
set ansi_nulls on
go

use tpcc

```

```

go

-- Drop any existing partitioning constraints
--

alter table t_warehouse drop constraint cnst_w_id
go

alter table t_district drop constraint cnst_d_w_id
go

alter table t_customer drop constraint cnst_c_w_id
go

alter table t_history drop constraint cnst_h_w_id
go

alter table t_stock drop constraint cnst_s_w_id
go

alter table t_orders drop constraint cnst_o_w_id
go

alter table t_order_line drop constraint cnst_ol_w_id
go

alter table t_new_order drop constraint cnst_no_w_id
go

-- Add partitioning constraints between 16201 and
18000
--

alter table t_warehouse add constraint cnst_w_id
check (w_id between convert(int,16201) and
convert(int,18000))
go

alter table t_district add constraint cnst_d_w_id
check (d_w_id between convert(int,16201) and
convert(int,18000))
go

alter table t_customer add constraint cnst_c_w_id
check (c_w_id between convert(int,16201) and
convert(int,18000))
go

alter table t_history add constraint cnst_h_w_id
check (h_w_id between convert(int,16201) and
convert(int,18000))
go

alter table t_stock add constraint cnst_s_w_id check
(s_w_id between convert(int,16201) and
convert(int,18000))
go

alter table t_orders add constraint cnst_o_w_id check
(o_w_id between convert(int,16201) and
convert(int,18000))
go

```

```
alter table t_order_line add constraint cnst_ol_w_id
check (ol_w_id between convert(int,16201) and
convert(int,18000))
go
```

```
alter table t_new_order add constraint cnst_no_w_id
check (no_w_id between convert(int,16201) and
convert(int,18000))
go
```

add_constraint s_t_11.sql

```
--file 18001_to_19800\add_constraints_t.sql
```

```
set ansi_warnings on
set ansi_nulls on
go
```

```
use tpcc
go
```

```
-- Drop any existing partitioning constraints
--
```

```
alter table t_warehouse drop constraint cnst_w_id
go
```

```
alter table t_district drop constraint cnst_d_w_id
go
```

```
alter table t_customer drop constraint cnst_c_w_id
go
```

```
alter table t_history drop constraint cnst_h_w_id
go
```

```
alter table t_stock drop constraint cnst_s_w_id
go
```

```
alter table t_orders drop constraint cnst_o_w_id
go
```

```
alter table t_order_line drop constraint cnst_ol_w_id
go
```

```
alter table t_new_order drop constraint cnst_no_w_id
go
```

```
-- Add partitioning constraints between 18001 and
19800
--
```

```
alter table t_warehouse add constraint cnst_w_id
check (w_id between convert(int,18001) and
convert(int,19800))
go
```

```
alter table t_district add constraint cnst_d_w_id
check (d_w_id between convert(int,18001) and
convert(int,19800))
go
```

```
alter table t_customer add constraint cnst_c_w_id
check (c_w_id between convert(int,18001) and
convert(int,19800))
go
```

```
alter table t_history add constraint cnst_h_w_id
check (h_w_id between convert(int,18001) and
convert(int,19800))
go
```

```
alter table t_stock add constraint cnst_s_w_id check
(s_w_id between convert(int,18001) and
convert(int,19800))
go
```

```
alter table t_orders add constraint cnst_o_w_id check
(o_w_id between convert(int,18001) and
convert(int,19800))
go
```

```
alter table t_order_line add constraint cnst_ol_w_id
check (ol_w_id between convert(int,18001) and
convert(int,19800))
go
```

```
alter table t_new_order add constraint cnst_no_w_id
check (no_w_id between convert(int,18001) and
convert(int,19800))
go
```

add_constraint s_t_12.sql

```
--file 19801_to_21600\add_constraints_t.sql
```

```
set ansi_warnings on
set ansi_nulls on
go
```

```
use tpcc
go
```

```
-- Drop any existing partitioning constraints
--
```

```
alter table t_warehouse drop constraint cnst_w_id
go
```

```
alter table t_district drop constraint cnst_d_w_id
go
```

```
alter table t_customer drop constraint cnst_c_w_id
go
```

```
alter table t_history drop constraint cnst_h_w_id
go
```

```
alter table t_stock drop constraint cnst_s_w_id
go
```

```
alter table t_orders drop constraint cnst_o_w_id
go
```

```
alter table t_order_line drop constraint cnst_ol_w_id
go
```

```
alter table t_new_order drop constraint cnst_no_w_id
go
```

```
-- Add partitioning constraints between 19801 and
21600
--
```

```
alter table t_warehouse add constraint cnst_w_id
check (w_id between convert(int,19801) and
convert(int,21600))
go
```

```
alter table t_district add constraint cnst_d_w_id
check (d_w_id between convert(int,19801) and
convert(int,21600))
go
```

```
alter table t_customer add constraint cnst_c_w_id
check (c_w_id between convert(int,19801) and
convert(int,21600))
go
```

```
alter table t_history add constraint cnst_h_w_id
check (h_w_id between convert(int,19801) and
convert(int,21600))
go
```

```
alter table t_stock add constraint cnst_s_w_id check
(s_w_id between convert(int,19801) and
convert(int,21600))
go
```

```
alter table t_orders add constraint cnst_o_w_id check
(o_w_id between convert(int,19801) and
convert(int,21600))
go
```

```
alter table t_order_line add constraint cnst_ol_w_id
check (ol_w_id between convert(int,19801) and
convert(int,21600))
go
```

```
alter table t_new_order add constraint cnst_no_w_id
check (no_w_id between convert(int,19801) and
convert(int,21600))
go
```

add_constraint s_t_13.sql

```
--file 21601_to_23400\add_constraints_t.sql

set ansi_warnings on
set ansi_nulls on
go

use tpcc
go

-- Drop any existing partitioning constraints
--

alter table t_warehouse drop constraint cnst_w_id
go

alter table t_district drop constraint cnst_d_w_id
go

alter table t_customer drop constraint cnst_c_w_id
go

alter table t_history drop constraint cnst_h_w_id
go

alter table t_stock drop constraint cnst_s_w_id
go

alter table t_orders drop constraint cnst_o_w_id
go

alter table t_order_line drop constraint cnst_ol_w_id
go

alter table t_new_order drop constraint cnst_no_w_id
go

-- Add partitioning constraints between 21601 and
23400
--

alter table t_warehouse add constraint cnst_w_id
check (w_id between convert(int,21601) and
convert(int,23400))
go

alter table t_district add constraint cnst_d_w_id
check (d_w_id between convert(int,21601) and
convert(int,23400))
go

alter table t_customer add constraint cnst_c_w_id
check (c_w_id between convert(int,21601) and
convert(int,23400))
go
```

```
alter table t_history add constraint cnst_h_w_id
check (h_w_id between convert(int,21601) and
convert(int,23400))
go

alter table t_stock add constraint cnst_s_w_id check
(s_w_id between convert(int,21601) and
convert(int,23400))
go

alter table t_orders add constraint cnst_o_w_id check
(o_w_id between convert(int,21601) and
convert(int,23400))
go

alter table t_order_line add constraint cnst_ol_w_id
check (ol_w_id between convert(int,21601) and
convert(int,23400))
go

alter table t_new_order add constraint cnst_no_w_id
check (no_w_id between convert(int,21601) and
convert(int,23400))
go
```

add_constraint s_t_14.sql

```
--file 23401_to_25200\add_constraints_t.sql

set ansi_warnings on
set ansi_nulls on
go

use tpcc
go

-- Drop any existing partitioning constraints
--

alter table t_warehouse drop constraint cnst_w_id
go

alter table t_district drop constraint cnst_d_w_id
go

alter table t_customer drop constraint cnst_c_w_id
go

alter table t_history drop constraint cnst_h_w_id
go

alter table t_stock drop constraint cnst_s_w_id
go

alter table t_orders drop constraint cnst_o_w_id
go

alter table t_order_line drop constraint cnst_ol_w_id
```

```
go

alter table t_new_order drop constraint cnst_no_w_id
go

-- Add partitioning constraints between 23401 and
25200
--

alter table t_warehouse add constraint cnst_w_id
check (w_id between convert(int,23401) and
convert(int,25200))
go

alter table t_district add constraint cnst_d_w_id
check (d_w_id between convert(int,23401) and
convert(int,25200))
go

alter table t_customer add constraint cnst_c_w_id
check (c_w_id between convert(int,23401) and
convert(int,25200))
go

alter table t_history add constraint cnst_h_w_id
check (h_w_id between convert(int,23401) and
convert(int,25200))
go

alter table t_stock add constraint cnst_s_w_id check
(s_w_id between convert(int,23401) and
convert(int,25200))
go

alter table t_orders add constraint cnst_o_w_id check
(o_w_id between convert(int,23401) and
convert(int,25200))
go

alter table t_order_line add constraint cnst_ol_w_id
check (ol_w_id between convert(int,23401) and
convert(int,25200))
go

alter table t_new_order add constraint cnst_no_w_id
check (no_w_id between convert(int,23401) and
convert(int,25200))
go
```

add_constraint s_t_15.sql

```
--file 25201_to_27000\add_constraints_t.sql

set ansi_warnings on
set ansi_nulls on
go

use tpcc
```

```

go

-- Drop any existing partitioning constraints
--

alter table t_warehouse drop constraint cnst_w_id
go

alter table t_district drop constraint cnst_d_w_id
go

alter table t_customer drop constraint cnst_c_w_id
go

alter table t_history drop constraint cnst_h_w_id
go

alter table t_stock drop constraint cnst_s_w_id
go

alter table t_orders drop constraint cnst_o_w_id
go

alter table t_order_line drop constraint cnst_ol_w_id
go

alter table t_new_order drop constraint cnst_no_w_id
go

-- Add partitioning constraints between 25201 and
27000
--

alter table t_warehouse add constraint cnst_w_id
check (w_id between convert(int,25201) and
convert(int,27000))
go

alter table t_district add constraint cnst_d_w_id
check (d_w_id between convert(int,25201) and
convert(int,27000))
go

alter table t_customer add constraint cnst_c_w_id
check (c_w_id between convert(int,25201) and
convert(int,27000))
go

alter table t_history add constraint cnst_h_w_id
check (h_w_id between convert(int,25201) and
convert(int,27000))
go

alter table t_stock add constraint cnst_s_w_id check
(s_w_id between convert(int,25201) and
convert(int,27000))
go

alter table t_orders add constraint cnst_o_w_id check
(o_w_id between convert(int,25201) and
convert(int,27000))
go

```

```

alter table t_order_line add constraint cnst_ol_w_id
check (ol_w_id between convert(int,25201) and
convert(int,27000))
go

```

```

alter table t_new_order add constraint cnst_no_w_id
check (no_w_id between convert(int,25201) and
convert(int,27000))
go

```

add_constraint s_t_16.sql

```
--file 27001_to_28800\add_constraints_t.sql
```

```

set ansi_warnings on
set ansi_nulls on
go

```

```

use tpcc
go

```

```

-- Drop any existing partitioning constraints
--

```

```

alter table t_warehouse drop constraint cnst_w_id
go

```

```

alter table t_district drop constraint cnst_d_w_id
go

```

```

alter table t_customer drop constraint cnst_c_w_id
go

```

```

alter table t_history drop constraint cnst_h_w_id
go

```

```

alter table t_stock drop constraint cnst_s_w_id
go

```

```

alter table t_orders drop constraint cnst_o_w_id
go

```

```

alter table t_order_line drop constraint cnst_ol_w_id
go

```

```

alter table t_new_order drop constraint cnst_no_w_id
go

```

```

-- Add partitioning constraints between 27001 and
28800
--

```

```

alter table t_warehouse add constraint cnst_w_id
check (w_id between convert(int,27001) and
convert(int,28800))
go

```

```

alter table t_district add constraint cnst_d_w_id
check (d_w_id between convert(int,27001) and
convert(int,28800))
go

```

```

alter table t_customer add constraint cnst_c_w_id
check (c_w_id between convert(int,27001) and
convert(int,28800))
go

```

```

alter table t_history add constraint cnst_h_w_id
check (h_w_id between convert(int,27001) and
convert(int,28800))
go

```

```

alter table t_stock add constraint cnst_s_w_id check
(s_w_id between convert(int,27001) and
convert(int,28800))
go

```

```

alter table t_orders add constraint cnst_o_w_id check
(o_w_id between convert(int,27001) and
convert(int,28800))
go

```

```

alter table t_order_line add constraint cnst_ol_w_id
check (ol_w_id between convert(int,27001) and
convert(int,28800))
go

```

```

alter table t_new_order add constraint cnst_no_w_id
check (no_w_id between convert(int,27001) and
convert(int,28800))
go

```

add_constraint s_t_17.sql

```
--file 28801_to_30600\add_constraints_t.sql
```

```

set ansi_warnings on
set ansi_nulls on
go

```

```

use tpcc
go

```

```

-- Drop any existing partitioning constraints
--

```

```

alter table t_warehouse drop constraint cnst_w_id
go

```

```

alter table t_district drop constraint cnst_d_w_id
go

```

```

alter table t_customer drop constraint cnst_c_w_id
go

```

```

alter table t_history drop constraint cnst_h_w_id
go

alter table t_stock drop constraint cnst_s_w_id
go

alter table t_orders drop constraint cnst_o_w_id
go

alter table t_order_line drop constraint cnst_ol_w_id
go

alter table t_new_order drop constraint cnst_no_w_id
go

-- Add partitioning constraints between 28801 and
30600
--
alter table t_warehouse add constraint cnst_w_id
check (w_id between convert(int,28801) and
convert(int,30600))
go

alter table t_district add constraint cnst_d_w_id
check (d_w_id between convert(int,28801) and
convert(int,30600))
go

alter table t_customer add constraint cnst_c_w_id
check (c_w_id between convert(int,28801) and
convert(int,30600))
go

alter table t_history add constraint cnst_h_w_id
check (h_w_id between convert(int,28801) and
convert(int,30600))
go

alter table t_stock add constraint cnst_s_w_id check
(s_w_id between convert(int,28801) and
convert(int,30600))
go

alter table t_orders add constraint cnst_o_w_id check
(o_w_id between convert(int,28801) and
convert(int,30600))
go

alter table t_order_line add constraint cnst_ol_w_id
check (ol_w_id between convert(int,28801) and
convert(int,30600))
go

alter table t_new_order add constraint cnst_no_w_id
check (no_w_id between convert(int,28801) and
convert(int,30600))
go

```

add_constraint s_t_18.sql

```

--file 30601_to_32400\add_constraints_t.sql

set ansi_warnings on
set ansi_nulls on
go

use tpcc
go

-- Drop any existing partitioning constraints
--
alter table t_warehouse drop constraint cnst_w_id
go

alter table t_district drop constraint cnst_d_w_id
go

alter table t_customer drop constraint cnst_c_w_id
go

alter table t_history drop constraint cnst_h_w_id
go

alter table t_stock drop constraint cnst_s_w_id
go

alter table t_orders drop constraint cnst_o_w_id
go

alter table t_order_line drop constraint cnst_ol_w_id
go

alter table t_new_order drop constraint cnst_no_w_id
go

-- Add partitioning constraints between 30601 and
32400
--
alter table t_warehouse add constraint cnst_w_id
check (w_id between convert(int,30601) and
convert(int,32400))
go

alter table t_district add constraint cnst_d_w_id
check (d_w_id between convert(int,30601) and
convert(int,32400))
go

alter table t_customer add constraint cnst_c_w_id
check (c_w_id between convert(int,30601) and
convert(int,32400))
go

```

```

alter table t_history add constraint cnst_h_w_id
check (h_w_id between convert(int,30601) and
convert(int,32400))
go

alter table t_stock add constraint cnst_s_w_id check
(s_w_id between convert(int,30601) and
convert(int,32400))
go

alter table t_orders add constraint cnst_o_w_id check
(o_w_id between convert(int,30601) and
convert(int,32400))
go

alter table t_order_line add constraint cnst_ol_w_id
check (ol_w_id between convert(int,30601) and
convert(int,32400))
go

alter table t_new_order add constraint cnst_no_w_id
check (no_w_id between convert(int,30601) and
convert(int,32400))
go

```

add_constraint s_t_19.sql

```

--file 32401_to_34200\add_constraints_t.sql

set ansi_warnings on
set ansi_nulls on
go

use tpcc
go

-- Drop any existing partitioning constraints
--
alter table t_warehouse drop constraint cnst_w_id
go

alter table t_district drop constraint cnst_d_w_id
go

alter table t_customer drop constraint cnst_c_w_id
go

alter table t_history drop constraint cnst_h_w_id
go

alter table t_stock drop constraint cnst_s_w_id
go

alter table t_orders drop constraint cnst_o_w_id
go

alter table t_order_line drop constraint cnst_ol_w_id
go

```



```

go

alter table t_new_order drop constraint cnst_no_w_id
go

-- Add partitioning constraints between 32401 and
34200
--

alter table t_warehouse add constraint cnst_w_id
check (w_id between convert(int,32401) and
convert(int,34200))
go

alter table t_district add constraint cnst_d_w_id
check (d_w_id between convert(int,32401) and
convert(int,34200))
go

alter table t_customer add constraint cnst_c_w_id
check (c_w_id between convert(int,32401) and
convert(int,34200))
go

alter table t_history add constraint cnst_h_w_id
check (h_w_id between convert(int,32401) and
convert(int,34200))
go

alter table t_stock add constraint cnst_s_w_id check
(s_w_id between convert(int,32401) and
convert(int,34200))
go

alter table t_orders add constraint cnst_o_w_id check
(o_w_id between convert(int,32401) and
convert(int,34200))
go

alter table t_order_line add constraint cnst_ol_w_id
check (ol_w_id between convert(int,32401) and
convert(int,34200))
go

alter table t_new_order add constraint cnst_no_w_id
check (no_w_id between convert(int,32401) and
convert(int,34200))
go

```

add_constraint s_t_20.sql

```
--file 34201_to_36000\add_constraints_t.sql
```

```

set ansi_warnings on
set ansi_nulls on
go

use tpcc

```

```

go

-- Drop any existing partitioning constraints
--

alter table t_warehouse drop constraint cnst_w_id
go

alter table t_district drop constraint cnst_d_w_id
go

alter table t_customer drop constraint cnst_c_w_id
go

alter table t_history drop constraint cnst_h_w_id
go

alter table t_stock drop constraint cnst_s_w_id
go

alter table t_orders drop constraint cnst_o_w_id
go

alter table t_order_line drop constraint cnst_ol_w_id
go

alter table t_new_order drop constraint cnst_no_w_id
go

-- Add partitioning constraints between 34201 and
36000
--

alter table t_warehouse add constraint cnst_w_id
check (w_id between convert(int,34201) and
convert(int,36000))
go

alter table t_district add constraint cnst_d_w_id
check (d_w_id between convert(int,34201) and
convert(int,36000))
go

alter table t_customer add constraint cnst_c_w_id
check (c_w_id between convert(int,34201) and
convert(int,36000))
go

alter table t_history add constraint cnst_h_w_id
check (h_w_id between convert(int,34201) and
convert(int,36000))
go

alter table t_stock add constraint cnst_s_w_id check
(s_w_id between convert(int,34201) and
convert(int,36000))
go

alter table t_orders add constraint cnst_o_w_id check
(o_w_id between convert(int,34201) and
convert(int,36000))
go

```

```

alter table t_order_line add constraint cnst_ol_w_id
check (ol_w_id between convert(int,34201) and
convert(int,36000))
go

```

```

alter table t_new_order add constraint cnst_no_w_id
check (no_w_id between convert(int,34201) and
convert(int,36000))
go

```

add_constraint s_t_21.sql

```
--file 36001_to_37800\add_constraints_t.sql
```

```

set ansi_warnings on
set ansi_nulls on
go

```

```

use tpcc
go

```

```

-- Drop any existing partitioning constraints
--

```

```

alter table t_warehouse drop constraint cnst_w_id
go

```

```

alter table t_district drop constraint cnst_d_w_id
go

```

```

alter table t_customer drop constraint cnst_c_w_id
go

```

```

alter table t_history drop constraint cnst_h_w_id
go

```

```

alter table t_stock drop constraint cnst_s_w_id
go

```

```

alter table t_orders drop constraint cnst_o_w_id
go

```

```

alter table t_order_line drop constraint cnst_ol_w_id
go

```

```

alter table t_new_order drop constraint cnst_no_w_id
go

```

```

-- Add partitioning constraints between 36001 and
37800
--

```

```

alter table t_warehouse add constraint cnst_w_id
check (w_id between convert(int,36001) and
convert(int,37800))
go

```

```

alter table t_district add constraint cnst_d_w_id
check (d_w_id between convert(int,36001) and
convert(int,37800))
go

alter table t_customer add constraint cnst_c_w_id
check (c_w_id between convert(int,36001) and
convert(int,37800))
go

alter table t_history add constraint cnst_h_w_id
check (h_w_id between convert(int,36001) and
convert(int,37800))
go

alter table t_stock add constraint cnst_s_w_id check
(s_w_id between convert(int,36001) and
convert(int,37800))
go

alter table t_orders add constraint cnst_o_w_id check
(o_w_id between convert(int,36001) and
convert(int,37800))
go

alter table t_order_line add constraint cnst_ol_w_id
check (ol_w_id between convert(int,36001) and
convert(int,37800))
go

alter table t_new_order add constraint cnst_no_w_id
check (no_w_id between convert(int,36001) and
convert(int,37800))
go

```

add_constraint s_t_22.sql

```

--file 37801_to_39600\add_constraints_t.sql

set ansi_warnings on
set ansi_nulls on
go

use tpcc
go

-- Drop any existing partitioning constraints
--

alter table t_warehouse drop constraint cnst_w_id
go

alter table t_district drop constraint cnst_d_w_id
go

alter table t_customer drop constraint cnst_c_w_id
go

```

```

alter table t_history drop constraint cnst_h_w_id
go

alter table t_stock drop constraint cnst_s_w_id
go

alter table t_orders drop constraint cnst_o_w_id
go

alter table t_order_line drop constraint cnst_ol_w_id
go

alter table t_new_order drop constraint cnst_no_w_id
go

-- Add partitioning constraints between 37801 and
39600
--

alter table t_warehouse add constraint cnst_w_id
check (w_id between convert(int,37801) and
convert(int,39600))
go

alter table t_district add constraint cnst_d_w_id
check (d_w_id between convert(int,37801) and
convert(int,39600))
go

alter table t_customer add constraint cnst_c_w_id
check (c_w_id between convert(int,37801) and
convert(int,39600))
go

alter table t_history add constraint cnst_h_w_id
check (h_w_id between convert(int,37801) and
convert(int,39600))
go

alter table t_stock add constraint cnst_s_w_id check
(s_w_id between convert(int,37801) and
convert(int,39600))
go

alter table t_orders add constraint cnst_o_w_id check
(o_w_id between convert(int,37801) and
convert(int,39600))
go

alter table t_order_line add constraint cnst_ol_w_id
check (ol_w_id between convert(int,37801) and
convert(int,39600))
go

alter table t_new_order add constraint cnst_no_w_id
check (no_w_id between convert(int,37801) and
convert(int,39600))
go

```

add_constraint s_t_23.sql

```

--file 39601_to_41400\add_constraints_t.sql

set ansi_warnings on
set ansi_nulls on
go

use tpcc
go

-- Drop any existing partitioning constraints
--

alter table t_warehouse drop constraint cnst_w_id
go

alter table t_district drop constraint cnst_d_w_id
go

alter table t_customer drop constraint cnst_c_w_id
go

alter table t_history drop constraint cnst_h_w_id
go

alter table t_stock drop constraint cnst_s_w_id
go

alter table t_orders drop constraint cnst_o_w_id
go

alter table t_order_line drop constraint cnst_ol_w_id
go

alter table t_new_order drop constraint cnst_no_w_id
go

-- Add partitioning constraints between 39601 and
41400
--

alter table t_warehouse add constraint cnst_w_id
check (w_id between convert(int,39601) and
convert(int,41400))
go

alter table t_district add constraint cnst_d_w_id
check (d_w_id between convert(int,39601) and
convert(int,41400))
go

alter table t_customer add constraint cnst_c_w_id
check (c_w_id between convert(int,39601) and
convert(int,41400))
go

```

```

alter table t_history add constraint cnst_h_w_id
check (h_w_id between convert(int,39601) and
convert(int,41400))
go

alter table t_stock add constraint cnst_s_w_id check
(s_w_id between convert(int,39601) and
convert(int,41400))
go

alter table t_orders add constraint cnst_o_w_id check
(o_w_id between convert(int,39601) and
convert(int,41400))
go

alter table t_order_line add constraint cnst_ol_w_id
check (ol_w_id between convert(int,39601) and
convert(int,41400))
go

alter table t_new_order add constraint cnst_no_w_id
check (no_w_id between convert(int,39601) and
convert(int,41400))
go

```

add_constraint s_t_24.sql

```

--file 41401_to_43200\add_constraints_t.sql

set ansi_warnings on
set ansi_nulls on
go

use tpcc
go

-- Drop any existing partitioning constraints
--

alter table t_warehouse drop constraint cnst_w_id
go

alter table t_district drop constraint cnst_d_w_id
go

alter table t_customer drop constraint cnst_c_w_id
go

alter table t_history drop constraint cnst_h_w_id
go

alter table t_stock drop constraint cnst_s_w_id
go

alter table t_orders drop constraint cnst_o_w_id
go

alter table t_order_line drop constraint cnst_ol_w_id

```

```

go

alter table t_new_order drop constraint cnst_no_w_id
go

-- Add partitioning constraints between 41401 and
43200
--

alter table t_warehouse add constraint cnst_w_id
check (w_id between convert(int,41401) and
convert(int,43200))
go

alter table t_district add constraint cnst_d_w_id
check (d_w_id between convert(int,41401) and
convert(int,43200))
go

alter table t_customer add constraint cnst_c_w_id
check (c_w_id between convert(int,41401) and
convert(int,43200))
go

alter table t_history add constraint cnst_h_w_id
check (h_w_id between convert(int,41401) and
convert(int,43200))
go

alter table t_stock add constraint cnst_s_w_id check
(s_w_id between convert(int,41401) and
convert(int,43200))
go

alter table t_orders add constraint cnst_o_w_id check
(o_w_id between convert(int,41401) and
convert(int,43200))
go

alter table t_order_line add constraint cnst_ol_w_id
check (ol_w_id between convert(int,41401) and
convert(int,43200))
go

alter table t_new_order add constraint cnst_no_w_id
check (no_w_id between convert(int,41401) and
convert(int,43200))
go

```

add_views_1.s ql

```

-- file 1_to_1800\add_views.sql

set ansi_warnings on
set ansi_nulls on
go

use tpcc

```

```

go

-- drop any existing views
if object_id('warehouse') is not null drop view
warehouse
if object_id('district') is not null drop view
district
if object_id('customer') is not null drop view
customer
if object_id('history') is not null drop view history
if object_id('stock') is not null drop view stock
if object_id('orders') is not null drop view orders
if object_id('order_line') is not null drop view
order_line
if object_id('new_order') is not null drop view
new_order
if object_id('item') is not null drop view item
go

--add views for partition 1
create view warehouse as
select * from /*rmt1.tpcc.dbo.*/t_warehouse
union all
select * from rmt2.tpcc.dbo.t_warehouse
union all
select * from rmt3.tpcc.dbo.t_warehouse
union all
select * from rmt4.tpcc.dbo.t_warehouse
union all
select * from rmt5.tpcc.dbo.t_warehouse
union all
select * from rmt6.tpcc.dbo.t_warehouse
union all
select * from rmt7.tpcc.dbo.t_warehouse
union all
select * from rmt8.tpcc.dbo.t_warehouse
union all
select * from rmt9.tpcc.dbo.t_warehouse
union all
select * from rmt10.tpcc.dbo.t_warehouse
union all
select * from rmt11.tpcc.dbo.t_warehouse
union all
select * from rmt12.tpcc.dbo.t_warehouse
union all
select * from rmt13.tpcc.dbo.t_warehouse
union all
select * from rmt14.tpcc.dbo.t_warehouse
union all
select * from rmt15.tpcc.dbo.t_warehouse
union all
select * from rmt16.tpcc.dbo.t_warehouse
union all
select * from rmt17.tpcc.dbo.t_warehouse
union all
select * from rmt18.tpcc.dbo.t_warehouse
union all
select * from rmt19.tpcc.dbo.t_warehouse
union all
select * from rmt20.tpcc.dbo.t_warehouse
union all
select * from rmt21.tpcc.dbo.t_warehouse
union all

```



```

select * from rmt13.tpcc.dbo.t_order_line
union all
select * from rmt14.tpcc.dbo.t_order_line
union all
select * from rmt15.tpcc.dbo.t_order_line
union all
select * from rmt16.tpcc.dbo.t_order_line
union all
select * from rmt17.tpcc.dbo.t_order_line
union all
select * from rmt18.tpcc.dbo.t_order_line
union all
select * from rmt19.tpcc.dbo.t_order_line
union all
select * from rmt20.tpcc.dbo.t_order_line
union all
select * from rmt21.tpcc.dbo.t_order_line
union all
select * from rmt22.tpcc.dbo.t_order_line
union all
select * from rmt23.tpcc.dbo.t_order_line
union all
select * from rmt24.tpcc.dbo.t_order_line
union all
select * from rmt25.tpcc.dbo.t_order_line
union all
select * from rmt26.tpcc.dbo.t_order_line
union all
select * from rmt27.tpcc.dbo.t_order_line
union all
select * from rmt28.tpcc.dbo.t_order_line
union all
select * from rmt29.tpcc.dbo.t_order_line
union all
select * from rmt30.tpcc.dbo.t_order_line
union all
select * from rmt31.tpcc.dbo.t_order_line
union all
select * from rmt32.tpcc.dbo.t_order_line
go

create view new_order as
select * from /*rmt1.tpcc.dbo.*/t_new_order
union all
select * from rmt2.tpcc.dbo.t_new_order
union all
select * from rmt3.tpcc.dbo.t_new_order
union all
select * from rmt4.tpcc.dbo.t_new_order
union all
select * from rmt5.tpcc.dbo.t_new_order
union all
select * from rmt6.tpcc.dbo.t_new_order
union all
select * from rmt7.tpcc.dbo.t_new_order
union all
select * from rmt8.tpcc.dbo.t_new_order
union all
select * from rmt9.tpcc.dbo.t_new_order
union all
select * from rmt10.tpcc.dbo.t_new_order
union all
select * from rmt11.tpcc.dbo.t_new_order

```

```

union all
select * from rmt12.tpcc.dbo.t_new_order
union all
select * from rmt13.tpcc.dbo.t_new_order
union all
select * from rmt14.tpcc.dbo.t_new_order
union all
select * from rmt15.tpcc.dbo.t_new_order
union all
select * from rmt16.tpcc.dbo.t_new_order
union all
select * from rmt17.tpcc.dbo.t_new_order
union all
select * from rmt18.tpcc.dbo.t_new_order
union all
select * from rmt19.tpcc.dbo.t_new_order
union all
select * from rmt20.tpcc.dbo.t_new_order
union all
select * from rmt21.tpcc.dbo.t_new_order
union all
select * from rmt22.tpcc.dbo.t_new_order
union all
select * from rmt23.tpcc.dbo.t_new_order
union all
select * from rmt24.tpcc.dbo.t_new_order
union all
select * from rmt25.tpcc.dbo.t_new_order
union all
select * from rmt26.tpcc.dbo.t_new_order
union all
select * from rmt27.tpcc.dbo.t_new_order
union all
select * from rmt28.tpcc.dbo.t_new_order
union all
select * from rmt29.tpcc.dbo.t_new_order
union all
select * from rmt30.tpcc.dbo.t_new_order
union all
select * from rmt31.tpcc.dbo.t_new_order
union all
select * from rmt32.tpcc.dbo.t_new_order
go

```

```

create view item as
select * from t_item
go

```

add_views_2.s ql

```
-- file 1801_to_3600\add_views.sql
```

```

set ansi_warnings on
set ansi_nulls on
go

```

```

use tpcc
go

```

```

-- drop any existing views
if object_id('warehouse') is not null drop view
warehouse
if object_id('district') is not null drop view
district
if object_id('customer') is not null drop view
customer
if object_id('history') is not null drop view history
if object_id('stock') is not null drop view stock
if object_id('orders') is not null drop view orders
if object_id('order_line') is not null drop view
order_line
if object_id('new_order') is not null drop view
new_order
if object_id('item') is not null drop view item
go

```

```

--add views for partition 2
create view warehouse as
select * from /*rmt2.tpcc.dbo.*/t_warehouse
union all
select * from rmt1.tpcc.dbo.t_warehouse
union all
select * from rmt3.tpcc.dbo.t_warehouse
union all
select * from rmt4.tpcc.dbo.t_warehouse
union all
select * from rmt5.tpcc.dbo.t_warehouse
union all
select * from rmt6.tpcc.dbo.t_warehouse
union all
select * from rmt7.tpcc.dbo.t_warehouse
union all
select * from rmt8.tpcc.dbo.t_warehouse
union all
select * from rmt9.tpcc.dbo.t_warehouse
union all
select * from rmt10.tpcc.dbo.t_warehouse
union all
select * from rmt11.tpcc.dbo.t_warehouse
union all
select * from rmt12.tpcc.dbo.t_warehouse
union all
select * from rmt13.tpcc.dbo.t_warehouse
union all
select * from rmt14.tpcc.dbo.t_warehouse
union all
select * from rmt15.tpcc.dbo.t_warehouse
union all
select * from rmt16.tpcc.dbo.t_warehouse
union all
select * from rmt17.tpcc.dbo.t_warehouse
union all
select * from rmt18.tpcc.dbo.t_warehouse
union all
select * from rmt19.tpcc.dbo.t_warehouse
union all
select * from rmt20.tpcc.dbo.t_warehouse
union all
select * from rmt21.tpcc.dbo.t_warehouse
union all
select * from rmt22.tpcc.dbo.t_warehouse
union all

```



```

select * from rmt14.tpcc.dbo.t_order_line
union all
select * from rmt15.tpcc.dbo.t_order_line
union all
select * from rmt16.tpcc.dbo.t_order_line
union all
select * from rmt17.tpcc.dbo.t_order_line
union all
select * from rmt18.tpcc.dbo.t_order_line
union all
select * from rmt19.tpcc.dbo.t_order_line
union all
select * from rmt20.tpcc.dbo.t_order_line
union all
select * from rmt21.tpcc.dbo.t_order_line
union all
select * from rmt22.tpcc.dbo.t_order_line
union all
select * from rmt23.tpcc.dbo.t_order_line
union all
select * from rmt24.tpcc.dbo.t_order_line
union all
select * from rmt25.tpcc.dbo.t_order_line
union all
select * from rmt26.tpcc.dbo.t_order_line
union all
select * from rmt27.tpcc.dbo.t_order_line
union all
select * from rmt28.tpcc.dbo.t_order_line
union all
select * from rmt29.tpcc.dbo.t_order_line
union all
select * from rmt30.tpcc.dbo.t_order_line
union all
select * from rmt31.tpcc.dbo.t_order_line
union all
select * from rmt32.tpcc.dbo.t_order_line
go

create view new_order as
select * from /*rmt2.tpcc.dbo.*/t_new_order
union all
select * from rmt1.tpcc.dbo.t_new_order
union all
select * from rmt3.tpcc.dbo.t_new_order
union all
select * from rmt4.tpcc.dbo.t_new_order
union all
select * from rmt5.tpcc.dbo.t_new_order
union all
select * from rmt6.tpcc.dbo.t_new_order
union all
select * from rmt7.tpcc.dbo.t_new_order
union all
select * from rmt8.tpcc.dbo.t_new_order
union all
select * from rmt9.tpcc.dbo.t_new_order
union all
select * from rmt10.tpcc.dbo.t_new_order
union all
select * from rmt11.tpcc.dbo.t_new_order
union all
select * from rmt12.tpcc.dbo.t_new_order

```

```

union all
select * from rmt13.tpcc.dbo.t_new_order
union all
select * from rmt14.tpcc.dbo.t_new_order
union all
select * from rmt15.tpcc.dbo.t_new_order
union all
select * from rmt16.tpcc.dbo.t_new_order
union all
select * from rmt17.tpcc.dbo.t_new_order
union all
select * from rmt18.tpcc.dbo.t_new_order
union all
select * from rmt19.tpcc.dbo.t_new_order
union all
select * from rmt20.tpcc.dbo.t_new_order
union all
select * from rmt21.tpcc.dbo.t_new_order
union all
select * from rmt22.tpcc.dbo.t_new_order
union all
select * from rmt23.tpcc.dbo.t_new_order
union all
select * from rmt24.tpcc.dbo.t_new_order
union all
select * from rmt25.tpcc.dbo.t_new_order
union all
select * from rmt26.tpcc.dbo.t_new_order
union all
select * from rmt27.tpcc.dbo.t_new_order
union all
select * from rmt28.tpcc.dbo.t_new_order
union all
select * from rmt29.tpcc.dbo.t_new_order
union all
select * from rmt30.tpcc.dbo.t_new_order
union all
select * from rmt31.tpcc.dbo.t_new_order
union all
select * from rmt32.tpcc.dbo.t_new_order
go

create view item as
select * from t_item
go

add_views_3.s
ql
-- file 3601_to_5400\add_views.sql

set ansi_warnings on
set ansi_nulls on
go

use tpcc
go

-- drop any existing views

```

```

if object_id('warehouse') is not null drop view
warehouse
if object_id('district') is not null drop view
district
if object_id('customer') is not null drop view
customer
if object_id('history') is not null drop view history
if object_id('stock') is not null drop view stock
if object_id('orders') is not null drop view orders
if object_id('order_line') is not null drop view
order_line
if object_id('new_order') is not null drop view
new_order
if object_id('item') is not null drop view item
go

--add views for partition 3
create view warehouse as
select * from /*rmt3.tpcc.dbo.*/t_warehouse
union all
select * from rmt1.tpcc.dbo.t_warehouse
union all
select * from rmt2.tpcc.dbo.t_warehouse
union all
select * from rmt4.tpcc.dbo.t_warehouse
union all
select * from rmt5.tpcc.dbo.t_warehouse
union all
select * from rmt6.tpcc.dbo.t_warehouse
union all
select * from rmt7.tpcc.dbo.t_warehouse
union all
select * from rmt8.tpcc.dbo.t_warehouse
union all
select * from rmt9.tpcc.dbo.t_warehouse
union all
select * from rmt10.tpcc.dbo.t_warehouse
union all
select * from rmt11.tpcc.dbo.t_warehouse
union all
select * from rmt12.tpcc.dbo.t_warehouse
union all
select * from rmt13.tpcc.dbo.t_warehouse
union all
select * from rmt14.tpcc.dbo.t_warehouse
union all
select * from rmt15.tpcc.dbo.t_warehouse
union all
select * from rmt16.tpcc.dbo.t_warehouse
union all
select * from rmt17.tpcc.dbo.t_warehouse
union all
select * from rmt18.tpcc.dbo.t_warehouse
union all
select * from rmt19.tpcc.dbo.t_warehouse
union all
select * from rmt20.tpcc.dbo.t_warehouse
union all
select * from rmt21.tpcc.dbo.t_warehouse
union all
select * from rmt22.tpcc.dbo.t_warehouse
union all
select * from rmt23.tpcc.dbo.t_warehouse

```



```

union all
select * from rmt15.tpcc.dbo.t_order_line
union all
select * from rmt16.tpcc.dbo.t_order_line
union all
select * from rmt17.tpcc.dbo.t_order_line
union all
select * from rmt18.tpcc.dbo.t_order_line
union all
select * from rmt19.tpcc.dbo.t_order_line
union all
select * from rmt20.tpcc.dbo.t_order_line
union all
select * from rmt21.tpcc.dbo.t_order_line
union all
select * from rmt22.tpcc.dbo.t_order_line
union all
select * from rmt23.tpcc.dbo.t_order_line
union all
select * from rmt24.tpcc.dbo.t_order_line
union all
select * from rmt25.tpcc.dbo.t_order_line
union all
select * from rmt26.tpcc.dbo.t_order_line
union all
select * from rmt27.tpcc.dbo.t_order_line
union all
select * from rmt28.tpcc.dbo.t_order_line
union all
select * from rmt29.tpcc.dbo.t_order_line
union all
select * from rmt30.tpcc.dbo.t_order_line
union all
select * from rmt31.tpcc.dbo.t_order_line
union all
select * from rmt32.tpcc.dbo.t_order_line
go

create view new_order as
select * from /*rmt3.tpcc.dbo.*/t_new_order
union all
select * from rmt1.tpcc.dbo.t_new_order
union all
select * from rmt2.tpcc.dbo.t_new_order
union all
select * from rmt4.tpcc.dbo.t_new_order
union all
select * from rmt5.tpcc.dbo.t_new_order
union all
select * from rmt6.tpcc.dbo.t_new_order
union all
select * from rmt7.tpcc.dbo.t_new_order
union all
select * from rmt8.tpcc.dbo.t_new_order
union all
select * from rmt9.tpcc.dbo.t_new_order
union all
select * from rmt10.tpcc.dbo.t_new_order
union all
select * from rmt11.tpcc.dbo.t_new_order
union all
select * from rmt12.tpcc.dbo.t_new_order
union all

```

```

select * from rmt13.tpcc.dbo.t_new_order
union all
select * from rmt14.tpcc.dbo.t_new_order
union all
select * from rmt15.tpcc.dbo.t_new_order
union all
select * from rmt16.tpcc.dbo.t_new_order
union all
select * from rmt17.tpcc.dbo.t_new_order
union all
select * from rmt18.tpcc.dbo.t_new_order
union all
select * from rmt19.tpcc.dbo.t_new_order
union all
select * from rmt20.tpcc.dbo.t_new_order
union all
select * from rmt21.tpcc.dbo.t_new_order
union all
select * from rmt22.tpcc.dbo.t_new_order
union all
select * from rmt23.tpcc.dbo.t_new_order
union all
select * from rmt24.tpcc.dbo.t_new_order
union all
select * from rmt25.tpcc.dbo.t_new_order
union all
select * from rmt26.tpcc.dbo.t_new_order
union all
select * from rmt27.tpcc.dbo.t_new_order
union all
select * from rmt28.tpcc.dbo.t_new_order
union all
select * from rmt29.tpcc.dbo.t_new_order
union all
select * from rmt30.tpcc.dbo.t_new_order
union all
select * from rmt31.tpcc.dbo.t_new_order
union all
select * from rmt32.tpcc.dbo.t_new_order
go

create view item as
select * from t_item
go

add_views_4.s
ql
-- file 5401_to_7200\add_views.sql

set ansi_warnings on
set ansi_nulls on
go

use tpcc
go

-- drop any existing views
if object_id('warehouse') is not null drop view
warehouse

```

```

if object_id('district') is not null drop view
district
if object_id('customer') is not null drop view
customer
if object_id('history') is not null drop view history
if object_id('stock') is not null drop view stock
if object_id('orders') is not null drop view orders
if object_id('order_line') is not null drop view
order_line
if object_id('new_order') is not null drop view
new_order
if object_id('item') is not null drop view item
go

--add views for partition 4
create view warehouse as
select * from /*rmt4.tpcc.dbo.*/t_warehouse
union all
select * from rmt1.tpcc.dbo.t_warehouse
union all
select * from rmt2.tpcc.dbo.t_warehouse
union all
select * from rmt3.tpcc.dbo.t_warehouse
union all
select * from rmt5.tpcc.dbo.t_warehouse
union all
select * from rmt6.tpcc.dbo.t_warehouse
union all
select * from rmt7.tpcc.dbo.t_warehouse
union all
select * from rmt8.tpcc.dbo.t_warehouse
union all
select * from rmt9.tpcc.dbo.t_warehouse
union all
select * from rmt10.tpcc.dbo.t_warehouse
union all
select * from rmt11.tpcc.dbo.t_warehouse
union all
select * from rmt12.tpcc.dbo.t_warehouse
union all
select * from rmt13.tpcc.dbo.t_warehouse
union all
select * from rmt14.tpcc.dbo.t_warehouse
union all
select * from rmt15.tpcc.dbo.t_warehouse
union all
select * from rmt16.tpcc.dbo.t_warehouse
union all
select * from rmt17.tpcc.dbo.t_warehouse
union all
select * from rmt18.tpcc.dbo.t_warehouse
union all
select * from rmt19.tpcc.dbo.t_warehouse
union all
select * from rmt20.tpcc.dbo.t_warehouse
union all
select * from rmt21.tpcc.dbo.t_warehouse
union all
select * from rmt22.tpcc.dbo.t_warehouse
union all
select * from rmt23.tpcc.dbo.t_warehouse
union all
select * from rmt24.tpcc.dbo.t_warehouse

```



```

union all
select * from rmt16.tpcc.dbo.t_order_line
union all
select * from rmt17.tpcc.dbo.t_order_line
union all
select * from rmt18.tpcc.dbo.t_order_line
union all
select * from rmt19.tpcc.dbo.t_order_line
union all
select * from rmt20.tpcc.dbo.t_order_line
union all
select * from rmt21.tpcc.dbo.t_order_line
union all
select * from rmt22.tpcc.dbo.t_order_line
union all
select * from rmt23.tpcc.dbo.t_order_line
union all
select * from rmt24.tpcc.dbo.t_order_line
union all
select * from rmt25.tpcc.dbo.t_order_line
union all
select * from rmt26.tpcc.dbo.t_order_line
union all
select * from rmt27.tpcc.dbo.t_order_line
union all
select * from rmt28.tpcc.dbo.t_order_line
union all
select * from rmt29.tpcc.dbo.t_order_line
union all
select * from rmt30.tpcc.dbo.t_order_line
union all
select * from rmt31.tpcc.dbo.t_order_line
union all
select * from rmt32.tpcc.dbo.t_order_line
go

create view new_order as
select * from /*rmt4.tpcc.dbo.*/t_new_order
union all
select * from rmt1.tpcc.dbo.t_new_order
union all
select * from rmt2.tpcc.dbo.t_new_order
union all
select * from rmt3.tpcc.dbo.t_new_order
union all
select * from rmt5.tpcc.dbo.t_new_order
union all
select * from rmt6.tpcc.dbo.t_new_order
union all
select * from rmt7.tpcc.dbo.t_new_order
union all
select * from rmt8.tpcc.dbo.t_new_order
union all
select * from rmt9.tpcc.dbo.t_new_order
union all
select * from rmt10.tpcc.dbo.t_new_order
union all
select * from rmt11.tpcc.dbo.t_new_order
union all
select * from rmt12.tpcc.dbo.t_new_order
union all
select * from rmt13.tpcc.dbo.t_new_order
union all

```

```

select * from rmt14.tpcc.dbo.t_new_order
union all
select * from rmt15.tpcc.dbo.t_new_order
union all
select * from rmt16.tpcc.dbo.t_new_order
union all
select * from rmt17.tpcc.dbo.t_new_order
union all
select * from rmt18.tpcc.dbo.t_new_order
union all
select * from rmt19.tpcc.dbo.t_new_order
union all
select * from rmt20.tpcc.dbo.t_new_order
union all
select * from rmt21.tpcc.dbo.t_new_order
union all
select * from rmt22.tpcc.dbo.t_new_order
union all
select * from rmt23.tpcc.dbo.t_new_order
union all
select * from rmt24.tpcc.dbo.t_new_order
union all
select * from rmt25.tpcc.dbo.t_new_order
union all
select * from rmt26.tpcc.dbo.t_new_order
union all
select * from rmt27.tpcc.dbo.t_new_order
union all
select * from rmt28.tpcc.dbo.t_new_order
union all
select * from rmt29.tpcc.dbo.t_new_order
union all
select * from rmt30.tpcc.dbo.t_new_order
union all
select * from rmt31.tpcc.dbo.t_new_order
union all
select * from rmt32.tpcc.dbo.t_new_order
go

create view item as
select * from t_item
go



---


add_views_5.s
ql


---


-- file 7201_to_9000\add_views.sql

set ansi_warnings on
set ansi_nulls on
go

use tpcc
go

-- drop any existing views
if object_id('warehouse') is not null drop view
warehouse
if object_id('district') is not null drop view
district

```

```

if object_id('customer') is not null drop view
customer
if object_id('history') is not null drop view history
if object_id('stock') is not null drop view stock
if object_id('orders') is not null drop view orders
if object_id('order_line') is not null drop view
order_line
if object_id('new_order') is not null drop view
new_order
if object_id('item') is not null drop view item
go

--add views for partition 5
create view warehouse as
select * from /*rmt5.tpcc.dbo.*/t_warehouse
union all
select * from rmt1.tpcc.dbo.t_warehouse
union all
select * from rmt2.tpcc.dbo.t_warehouse
union all
select * from rmt3.tpcc.dbo.t_warehouse
union all
select * from rmt4.tpcc.dbo.t_warehouse
union all
select * from rmt6.tpcc.dbo.t_warehouse
union all
select * from rmt7.tpcc.dbo.t_warehouse
union all
select * from rmt8.tpcc.dbo.t_warehouse
union all
select * from rmt9.tpcc.dbo.t_warehouse
union all
select * from rmt10.tpcc.dbo.t_warehouse
union all
select * from rmt11.tpcc.dbo.t_warehouse
union all
select * from rmt12.tpcc.dbo.t_warehouse
union all
select * from rmt13.tpcc.dbo.t_warehouse
union all
select * from rmt14.tpcc.dbo.t_warehouse
union all
select * from rmt15.tpcc.dbo.t_warehouse
union all
select * from rmt16.tpcc.dbo.t_warehouse
union all
select * from rmt17.tpcc.dbo.t_warehouse
union all
select * from rmt18.tpcc.dbo.t_warehouse
union all
select * from rmt19.tpcc.dbo.t_warehouse
union all
select * from rmt20.tpcc.dbo.t_warehouse
union all
select * from rmt21.tpcc.dbo.t_warehouse
union all
select * from rmt22.tpcc.dbo.t_warehouse
union all
select * from rmt23.tpcc.dbo.t_warehouse
union all
select * from rmt24.tpcc.dbo.t_warehouse
union all
select * from rmt25.tpcc.dbo.t_warehouse

```



```

union all
select * from rmt17.tpcc.dbo.t_order_line
union all
select * from rmt18.tpcc.dbo.t_order_line
union all
select * from rmt19.tpcc.dbo.t_order_line
union all
select * from rmt20.tpcc.dbo.t_order_line
union all
select * from rmt21.tpcc.dbo.t_order_line
union all
select * from rmt22.tpcc.dbo.t_order_line
union all
select * from rmt23.tpcc.dbo.t_order_line
union all
select * from rmt24.tpcc.dbo.t_order_line
union all
select * from rmt25.tpcc.dbo.t_order_line
union all
select * from rmt26.tpcc.dbo.t_order_line
union all
select * from rmt27.tpcc.dbo.t_order_line
union all
select * from rmt28.tpcc.dbo.t_order_line
union all
select * from rmt29.tpcc.dbo.t_order_line
union all
select * from rmt30.tpcc.dbo.t_order_line
union all
select * from rmt31.tpcc.dbo.t_order_line
union all
select * from rmt32.tpcc.dbo.t_order_line
go

create view new_order as
select * from /*rmt5.tpcc.dbo.*/t_new_order
union all
select * from rmt1.tpcc.dbo.t_new_order
union all
select * from rmt2.tpcc.dbo.t_new_order
union all
select * from rmt3.tpcc.dbo.t_new_order
union all
select * from rmt4.tpcc.dbo.t_new_order
union all
select * from rmt6.tpcc.dbo.t_new_order
union all
select * from rmt7.tpcc.dbo.t_new_order
union all
select * from rmt8.tpcc.dbo.t_new_order
union all
select * from rmt9.tpcc.dbo.t_new_order
union all
select * from rmt10.tpcc.dbo.t_new_order
union all
select * from rmt11.tpcc.dbo.t_new_order
union all
select * from rmt12.tpcc.dbo.t_new_order
union all
select * from rmt13.tpcc.dbo.t_new_order
union all
select * from rmt14.tpcc.dbo.t_new_order
union all

```

```

select * from rmt15.tpcc.dbo.t_new_order
union all
select * from rmt16.tpcc.dbo.t_new_order
union all
select * from rmt17.tpcc.dbo.t_new_order
union all
select * from rmt18.tpcc.dbo.t_new_order
union all
select * from rmt19.tpcc.dbo.t_new_order
union all
select * from rmt20.tpcc.dbo.t_new_order
union all
select * from rmt21.tpcc.dbo.t_new_order
union all
select * from rmt22.tpcc.dbo.t_new_order
union all
select * from rmt23.tpcc.dbo.t_new_order
union all
select * from rmt24.tpcc.dbo.t_new_order
union all
select * from rmt25.tpcc.dbo.t_new_order
union all
select * from rmt26.tpcc.dbo.t_new_order
union all
select * from rmt27.tpcc.dbo.t_new_order
union all
select * from rmt28.tpcc.dbo.t_new_order
union all
select * from rmt29.tpcc.dbo.t_new_order
union all
select * from rmt30.tpcc.dbo.t_new_order
union all
select * from rmt31.tpcc.dbo.t_new_order
union all
select * from rmt32.tpcc.dbo.t_new_order
go

create view item as
select * from t_item
go



---


add_views_6.s
ql


---


-- file 9001_to_10800\add_views.sql

set ansi_warnings on
set ansi_nulls on
go

use tpcc
go

-- drop any existing views
if object_id('warehouse') is not null drop view
warehouse
if object_id('district') is not null drop view
district
if object_id('customer') is not null drop view
customer

```

```

if object_id('history') is not null drop view history
if object_id('stock') is not null drop view stock
if object_id('orders') is not null drop view orders
if object_id('order_line') is not null drop view
order_line
if object_id('new_order') is not null drop view
new_order
if object_id('item') is not null drop view item
go

--add views for partition 6
create view warehouse as
select * from /*rmt6.tpcc.dbo.*/t_warehouse
union all
select * from rmt1.tpcc.dbo.t_warehouse
union all
select * from rmt2.tpcc.dbo.t_warehouse
union all
select * from rmt3.tpcc.dbo.t_warehouse
union all
select * from rmt4.tpcc.dbo.t_warehouse
union all
select * from rmt5.tpcc.dbo.t_warehouse
union all
select * from rmt7.tpcc.dbo.t_warehouse
union all
select * from rmt8.tpcc.dbo.t_warehouse
union all
select * from rmt9.tpcc.dbo.t_warehouse
union all
select * from rmt10.tpcc.dbo.t_warehouse
union all
select * from rmt11.tpcc.dbo.t_warehouse
union all
select * from rmt12.tpcc.dbo.t_warehouse
union all
select * from rmt13.tpcc.dbo.t_warehouse
union all
select * from rmt14.tpcc.dbo.t_warehouse
union all
select * from rmt15.tpcc.dbo.t_warehouse
union all
select * from rmt16.tpcc.dbo.t_warehouse
union all
select * from rmt17.tpcc.dbo.t_warehouse
union all
select * from rmt18.tpcc.dbo.t_warehouse
union all
select * from rmt19.tpcc.dbo.t_warehouse
union all
select * from rmt20.tpcc.dbo.t_warehouse
union all
select * from rmt21.tpcc.dbo.t_warehouse
union all
select * from rmt22.tpcc.dbo.t_warehouse
union all
select * from rmt23.tpcc.dbo.t_warehouse
union all
select * from rmt24.tpcc.dbo.t_warehouse
union all
select * from rmt25.tpcc.dbo.t_warehouse
union all
select * from rmt26.tpcc.dbo.t_warehouse

```



```

union all
select * from rmt18.tpcc.dbo.t_order_line
union all
select * from rmt19.tpcc.dbo.t_order_line
union all
select * from rmt20.tpcc.dbo.t_order_line
union all
select * from rmt21.tpcc.dbo.t_order_line
union all
select * from rmt22.tpcc.dbo.t_order_line
union all
select * from rmt23.tpcc.dbo.t_order_line
union all
select * from rmt24.tpcc.dbo.t_order_line
union all
select * from rmt25.tpcc.dbo.t_order_line
union all
select * from rmt26.tpcc.dbo.t_order_line
union all
select * from rmt27.tpcc.dbo.t_order_line
union all
select * from rmt28.tpcc.dbo.t_order_line
union all
select * from rmt29.tpcc.dbo.t_order_line
union all
select * from rmt30.tpcc.dbo.t_order_line
union all
select * from rmt31.tpcc.dbo.t_order_line
union all
select * from rmt32.tpcc.dbo.t_order_line
go

```

```

create view new_order as
select * from /*rmt6.tpcc.dbo.*/t_new_order
union all
select * from rmt1.tpcc.dbo.t_new_order
union all
select * from rmt2.tpcc.dbo.t_new_order
union all
select * from rmt3.tpcc.dbo.t_new_order
union all
select * from rmt4.tpcc.dbo.t_new_order
union all
select * from rmt5.tpcc.dbo.t_new_order
union all
select * from rmt7.tpcc.dbo.t_new_order
union all
select * from rmt8.tpcc.dbo.t_new_order
union all
select * from rmt9.tpcc.dbo.t_new_order
union all
select * from rmt10.tpcc.dbo.t_new_order
union all
select * from rmt11.tpcc.dbo.t_new_order
union all
select * from rmt12.tpcc.dbo.t_new_order
union all
select * from rmt13.tpcc.dbo.t_new_order
union all
select * from rmt14.tpcc.dbo.t_new_order
union all
select * from rmt15.tpcc.dbo.t_new_order
union all

```

```

select * from rmt16.tpcc.dbo.t_new_order
union all
select * from rmt17.tpcc.dbo.t_new_order
union all
select * from rmt18.tpcc.dbo.t_new_order
union all
select * from rmt19.tpcc.dbo.t_new_order
union all
select * from rmt20.tpcc.dbo.t_new_order
union all
select * from rmt21.tpcc.dbo.t_new_order
union all
select * from rmt22.tpcc.dbo.t_new_order
union all
select * from rmt23.tpcc.dbo.t_new_order
union all
select * from rmt24.tpcc.dbo.t_new_order
union all
select * from rmt25.tpcc.dbo.t_new_order
union all
select * from rmt26.tpcc.dbo.t_new_order
union all
select * from rmt27.tpcc.dbo.t_new_order
union all
select * from rmt28.tpcc.dbo.t_new_order
union all
select * from rmt29.tpcc.dbo.t_new_order
union all
select * from rmt30.tpcc.dbo.t_new_order
union all
select * from rmt31.tpcc.dbo.t_new_order
union all
select * from rmt32.tpcc.dbo.t_new_order
go

```

```

create view item as
select * from t_item
go

```

add_views_7.s ql

```
-- file 10801_to_12600\add_views.sql
```

```

set ansi_warnings on
set ansi_nulls on
go

```

```

use tpcc
go

```

```

-- drop any existing views
if object_id('warehouse') is not null drop view
warehouse
if object_id('district') is not null drop view
district
if object_id('customer') is not null drop view
customer
if object_id('history') is not null drop view history
if object_id('stock') is not null drop view stock

```

```

if object_id('orders') is not null drop view orders
if object_id('order_line') is not null drop view
order_line
if object_id('new_order') is not null drop view
new_order
if object_id('item') is not null drop view item
go

```

```

--add views for partition 7
create view warehouse as
select * from /*rmt7.tpcc.dbo.*/t_warehouse
union all
select * from rmt1.tpcc.dbo.t_warehouse
union all
select * from rmt2.tpcc.dbo.t_warehouse
union all
select * from rmt3.tpcc.dbo.t_warehouse
union all
select * from rmt4.tpcc.dbo.t_warehouse
union all
select * from rmt5.tpcc.dbo.t_warehouse
union all
select * from rmt6.tpcc.dbo.t_warehouse
union all
select * from rmt8.tpcc.dbo.t_warehouse
union all
select * from rmt9.tpcc.dbo.t_warehouse
union all
select * from rmt10.tpcc.dbo.t_warehouse
union all
select * from rmt11.tpcc.dbo.t_warehouse
union all
select * from rmt12.tpcc.dbo.t_warehouse
union all
select * from rmt13.tpcc.dbo.t_warehouse
union all
select * from rmt14.tpcc.dbo.t_warehouse
union all
select * from rmt15.tpcc.dbo.t_warehouse
union all
select * from rmt16.tpcc.dbo.t_warehouse
union all
select * from rmt17.tpcc.dbo.t_warehouse
union all
select * from rmt18.tpcc.dbo.t_warehouse
union all
select * from rmt19.tpcc.dbo.t_warehouse
union all
select * from rmt20.tpcc.dbo.t_warehouse
union all
select * from rmt21.tpcc.dbo.t_warehouse
union all
select * from rmt22.tpcc.dbo.t_warehouse
union all
select * from rmt23.tpcc.dbo.t_warehouse
union all
select * from rmt24.tpcc.dbo.t_warehouse
union all
select * from rmt25.tpcc.dbo.t_warehouse
union all
select * from rmt26.tpcc.dbo.t_warehouse
union all
select * from rmt27.tpcc.dbo.t_warehouse

```



```

union all
select * from rmt19.tpcc.dbo.t_order_line
union all
select * from rmt20.tpcc.dbo.t_order_line
union all
select * from rmt21.tpcc.dbo.t_order_line
union all
select * from rmt22.tpcc.dbo.t_order_line
union all
select * from rmt23.tpcc.dbo.t_order_line
union all
select * from rmt24.tpcc.dbo.t_order_line
union all
select * from rmt25.tpcc.dbo.t_order_line
union all
select * from rmt26.tpcc.dbo.t_order_line
union all
select * from rmt27.tpcc.dbo.t_order_line
union all
select * from rmt28.tpcc.dbo.t_order_line
union all
select * from rmt29.tpcc.dbo.t_order_line
union all
select * from rmt30.tpcc.dbo.t_order_line
union all
select * from rmt31.tpcc.dbo.t_order_line
union all
select * from rmt32.tpcc.dbo.t_order_line
go

```

```

create view new_order as
select * from /*rmt7.tpcc.dbo.*/t_new_order
union all
select * from rmt1.tpcc.dbo.t_new_order
union all
select * from rmt2.tpcc.dbo.t_new_order
union all
select * from rmt3.tpcc.dbo.t_new_order
union all
select * from rmt4.tpcc.dbo.t_new_order
union all
select * from rmt5.tpcc.dbo.t_new_order
union all
select * from rmt6.tpcc.dbo.t_new_order
union all
select * from rmt8.tpcc.dbo.t_new_order
union all
select * from rmt9.tpcc.dbo.t_new_order
union all
select * from rmt10.tpcc.dbo.t_new_order
union all
select * from rmt11.tpcc.dbo.t_new_order
union all
select * from rmt12.tpcc.dbo.t_new_order
union all
select * from rmt13.tpcc.dbo.t_new_order
union all
select * from rmt14.tpcc.dbo.t_new_order
union all
select * from rmt15.tpcc.dbo.t_new_order
union all
select * from rmt16.tpcc.dbo.t_new_order
union all

```

```

select * from rmt17.tpcc.dbo.t_new_order
union all
select * from rmt18.tpcc.dbo.t_new_order
union all
select * from rmt19.tpcc.dbo.t_new_order
union all
select * from rmt20.tpcc.dbo.t_new_order
union all
select * from rmt21.tpcc.dbo.t_new_order
union all
select * from rmt22.tpcc.dbo.t_new_order
union all
select * from rmt23.tpcc.dbo.t_new_order
union all
select * from rmt24.tpcc.dbo.t_new_order
union all
select * from rmt25.tpcc.dbo.t_new_order
union all
select * from rmt26.tpcc.dbo.t_new_order
union all
select * from rmt27.tpcc.dbo.t_new_order
union all
select * from rmt28.tpcc.dbo.t_new_order
union all
select * from rmt29.tpcc.dbo.t_new_order
union all
select * from rmt30.tpcc.dbo.t_new_order
union all
select * from rmt31.tpcc.dbo.t_new_order
union all
select * from rmt32.tpcc.dbo.t_new_order
go

```

```

create view item as
select * from t_item
go

```

add_views_8.s ql

```
-- file 12601_to_14400\add_views.sql
```

```

set ansi_warnings on
set ansi_nulls on
go

```

```

use tpcc
go

```

```

-- drop any existing views
if object_id('warehouse') is not null drop view
warehouse
if object_id('district') is not null drop view
district
if object_id('customer') is not null drop view
customer
if object_id('history') is not null drop view history
if object_id('stock') is not null drop view stock
if object_id('orders') is not null drop view orders

```

```

if object_id('order_line') is not null drop view
order_line
if object_id('new_order') is not null drop view
new_order
if object_id('item') is not null drop view item
go

```

```

--add views for partition 8
create view warehouse as
select * from /*rmt8.tpcc.dbo.*/t_warehouse
union all
select * from rmt1.tpcc.dbo.t_warehouse
union all
select * from rmt2.tpcc.dbo.t_warehouse
union all
select * from rmt3.tpcc.dbo.t_warehouse
union all
select * from rmt4.tpcc.dbo.t_warehouse
union all
select * from rmt5.tpcc.dbo.t_warehouse
union all
select * from rmt6.tpcc.dbo.t_warehouse
union all
select * from rmt7.tpcc.dbo.t_warehouse
union all
select * from rmt9.tpcc.dbo.t_warehouse
union all
select * from rmt10.tpcc.dbo.t_warehouse
union all
select * from rmt11.tpcc.dbo.t_warehouse
union all
select * from rmt12.tpcc.dbo.t_warehouse
union all
select * from rmt13.tpcc.dbo.t_warehouse
union all
select * from rmt14.tpcc.dbo.t_warehouse
union all
select * from rmt15.tpcc.dbo.t_warehouse
union all
select * from rmt16.tpcc.dbo.t_warehouse
union all
select * from rmt17.tpcc.dbo.t_warehouse
union all
select * from rmt18.tpcc.dbo.t_warehouse
union all
select * from rmt19.tpcc.dbo.t_warehouse
union all
select * from rmt20.tpcc.dbo.t_warehouse
union all
select * from rmt21.tpcc.dbo.t_warehouse
union all
select * from rmt22.tpcc.dbo.t_warehouse
union all
select * from rmt23.tpcc.dbo.t_warehouse
union all
select * from rmt24.tpcc.dbo.t_warehouse
union all
select * from rmt25.tpcc.dbo.t_warehouse
union all
select * from rmt26.tpcc.dbo.t_warehouse
union all
select * from rmt27.tpcc.dbo.t_warehouse
union all

```



```

select * from rmt19.tpcc.dbo.t_order_line
union all
select * from rmt20.tpcc.dbo.t_order_line
union all
select * from rmt21.tpcc.dbo.t_order_line
union all
select * from rmt22.tpcc.dbo.t_order_line
union all
select * from rmt23.tpcc.dbo.t_order_line
union all
select * from rmt24.tpcc.dbo.t_order_line
union all
select * from rmt25.tpcc.dbo.t_order_line
union all
select * from rmt26.tpcc.dbo.t_order_line
union all
select * from rmt27.tpcc.dbo.t_order_line
union all
select * from rmt28.tpcc.dbo.t_order_line
union all
select * from rmt29.tpcc.dbo.t_order_line
union all
select * from rmt30.tpcc.dbo.t_order_line
union all
select * from rmt31.tpcc.dbo.t_order_line
union all
select * from rmt32.tpcc.dbo.t_order_line
go

create view new_order as
select * from /*rmt8.tpcc.dbo.*/t_new_order
union all
select * from rmt1.tpcc.dbo.t_new_order
union all
select * from rmt2.tpcc.dbo.t_new_order
union all
select * from rmt3.tpcc.dbo.t_new_order
union all
select * from rmt4.tpcc.dbo.t_new_order
union all
select * from rmt5.tpcc.dbo.t_new_order
union all
select * from rmt6.tpcc.dbo.t_new_order
union all
select * from rmt7.tpcc.dbo.t_new_order
union all
select * from rmt9.tpcc.dbo.t_new_order
union all
select * from rmt10.tpcc.dbo.t_new_order
union all
select * from rmt11.tpcc.dbo.t_new_order
union all
select * from rmt12.tpcc.dbo.t_new_order
union all
select * from rmt13.tpcc.dbo.t_new_order
union all
select * from rmt14.tpcc.dbo.t_new_order
union all
select * from rmt15.tpcc.dbo.t_new_order
union all
select * from rmt16.tpcc.dbo.t_new_order
union all
select * from rmt17.tpcc.dbo.t_new_order

```

```

union all
select * from rmt18.tpcc.dbo.t_new_order
union all
select * from rmt19.tpcc.dbo.t_new_order
union all
select * from rmt20.tpcc.dbo.t_new_order
union all
select * from rmt21.tpcc.dbo.t_new_order
union all
select * from rmt22.tpcc.dbo.t_new_order
union all
select * from rmt23.tpcc.dbo.t_new_order
union all
select * from rmt24.tpcc.dbo.t_new_order
union all
select * from rmt25.tpcc.dbo.t_new_order
union all
select * from rmt26.tpcc.dbo.t_new_order
union all
select * from rmt27.tpcc.dbo.t_new_order
union all
select * from rmt28.tpcc.dbo.t_new_order
union all
select * from rmt29.tpcc.dbo.t_new_order
union all
select * from rmt30.tpcc.dbo.t_new_order
union all
select * from rmt31.tpcc.dbo.t_new_order
union all
select * from rmt32.tpcc.dbo.t_new_order
go

```

```

create view item as
select * from t_item
go

```

add_views_9.s ql

```
-- file 14401_to_16200\add_views.sql
```

```

set ansi_warnings on
set ansi_nulls on
go

```

```

use tpcc
go

```

```

-- drop any existing views
if object_id('warehouse') is not null drop view
warehouse
if object_id('district') is not null drop view
district
if object_id('customer') is not null drop view
customer
if object_id('history') is not null drop view history
if object_id('stock') is not null drop view stock
if object_id('orders') is not null drop view orders
if object_id('order_line') is not null drop view
order_line

```

```

if object_id('new_order') is not null drop view
new_order
if object_id('item') is not null drop view item
go

```

```

--add views for partition 9
create view warehouse as
select * from /*rmt9.tpcc.dbo.*/t_warehouse
union all
select * from rmt1.tpcc.dbo.t_warehouse
union all
select * from rmt2.tpcc.dbo.t_warehouse
union all
select * from rmt3.tpcc.dbo.t_warehouse
union all
select * from rmt4.tpcc.dbo.t_warehouse
union all
select * from rmt5.tpcc.dbo.t_warehouse
union all
select * from rmt6.tpcc.dbo.t_warehouse
union all
select * from rmt7.tpcc.dbo.t_warehouse
union all
select * from rmt8.tpcc.dbo.t_warehouse
union all
select * from rmt10.tpcc.dbo.t_warehouse
union all
select * from rmt11.tpcc.dbo.t_warehouse
union all
select * from rmt12.tpcc.dbo.t_warehouse
union all
select * from rmt13.tpcc.dbo.t_warehouse
union all
select * from rmt14.tpcc.dbo.t_warehouse
union all
select * from rmt15.tpcc.dbo.t_warehouse
union all
select * from rmt16.tpcc.dbo.t_warehouse
union all
select * from rmt17.tpcc.dbo.t_warehouse
union all
select * from rmt18.tpcc.dbo.t_warehouse
union all
select * from rmt19.tpcc.dbo.t_warehouse
union all
select * from rmt20.tpcc.dbo.t_warehouse
union all
select * from rmt21.tpcc.dbo.t_warehouse
union all
select * from rmt22.tpcc.dbo.t_warehouse
union all
select * from rmt23.tpcc.dbo.t_warehouse
union all
select * from rmt24.tpcc.dbo.t_warehouse
union all
select * from rmt25.tpcc.dbo.t_warehouse
union all
select * from rmt26.tpcc.dbo.t_warehouse
union all
select * from rmt27.tpcc.dbo.t_warehouse
union all
select * from rmt28.tpcc.dbo.t_warehouse
union all

```



```

select * from rmt20.tpcc.dbo.t_order_line
union all
select * from rmt21.tpcc.dbo.t_order_line
union all
select * from rmt22.tpcc.dbo.t_order_line
union all
select * from rmt23.tpcc.dbo.t_order_line
union all
select * from rmt24.tpcc.dbo.t_order_line
union all
select * from rmt25.tpcc.dbo.t_order_line
union all
select * from rmt26.tpcc.dbo.t_order_line
union all
select * from rmt27.tpcc.dbo.t_order_line
union all
select * from rmt28.tpcc.dbo.t_order_line
union all
select * from rmt29.tpcc.dbo.t_order_line
union all
select * from rmt30.tpcc.dbo.t_order_line
union all
select * from rmt31.tpcc.dbo.t_order_line
union all
select * from rmt32.tpcc.dbo.t_order_line
go

create view new_order as
select * from /*rmt9.tpcc.dbo.*/t_new_order
union all
select * from rmt1.tpcc.dbo.t_new_order
union all
select * from rmt2.tpcc.dbo.t_new_order
union all
select * from rmt3.tpcc.dbo.t_new_order
union all
select * from rmt4.tpcc.dbo.t_new_order
union all
select * from rmt5.tpcc.dbo.t_new_order
union all
select * from rmt6.tpcc.dbo.t_new_order
union all
select * from rmt7.tpcc.dbo.t_new_order
union all
select * from rmt8.tpcc.dbo.t_new_order
union all
select * from rmt10.tpcc.dbo.t_new_order
union all
select * from rmt11.tpcc.dbo.t_new_order
union all
select * from rmt12.tpcc.dbo.t_new_order
union all
select * from rmt13.tpcc.dbo.t_new_order
union all
select * from rmt14.tpcc.dbo.t_new_order
union all
select * from rmt15.tpcc.dbo.t_new_order
union all
select * from rmt16.tpcc.dbo.t_new_order
union all
select * from rmt17.tpcc.dbo.t_new_order
union all
select * from rmt18.tpcc.dbo.t_new_order

```

```

union all
select * from rmt19.tpcc.dbo.t_new_order
union all
select * from rmt20.tpcc.dbo.t_new_order
union all
select * from rmt21.tpcc.dbo.t_new_order
union all
select * from rmt22.tpcc.dbo.t_new_order
union all
select * from rmt23.tpcc.dbo.t_new_order
union all
select * from rmt24.tpcc.dbo.t_new_order
union all
select * from rmt25.tpcc.dbo.t_new_order
union all
select * from rmt26.tpcc.dbo.t_new_order
union all
select * from rmt27.tpcc.dbo.t_new_order
union all
select * from rmt28.tpcc.dbo.t_new_order
union all
select * from rmt29.tpcc.dbo.t_new_order
union all
select * from rmt30.tpcc.dbo.t_new_order
union all
select * from rmt31.tpcc.dbo.t_new_order
union all
select * from rmt32.tpcc.dbo.t_new_order
go

create view item as
select * from t_item
go

```

add_views_10. sql

```

-- file 16201_to_18000\add_views.sql

set ansi_warnings on
set ansi_nulls on
go

use tpcc
go

-- drop any existing views
if object_id('warehouse') is not null drop view
warehouse
if object_id('district') is not null drop view
district
if object_id('customer') is not null drop view
customer
if object_id('history') is not null drop view history
if object_id('stock') is not null drop view stock
if object_id('orders') is not null drop view orders
if object_id('order_line') is not null drop view
order_line
if object_id('new_order') is not null drop view
new_order

```

```

if object_id('item') is not null drop view item
go

--add views for partition 10
create view warehouse as
select * from /*rmt10.tpcc.dbo.*/t_warehouse
union all
select * from rmt1.tpcc.dbo.t_warehouse
union all
select * from rmt2.tpcc.dbo.t_warehouse
union all
select * from rmt3.tpcc.dbo.t_warehouse
union all
select * from rmt4.tpcc.dbo.t_warehouse
union all
select * from rmt5.tpcc.dbo.t_warehouse
union all
select * from rmt6.tpcc.dbo.t_warehouse
union all
select * from rmt7.tpcc.dbo.t_warehouse
union all
select * from rmt8.tpcc.dbo.t_warehouse
union all
select * from rmt9.tpcc.dbo.t_warehouse
union all
select * from rmt11.tpcc.dbo.t_warehouse
union all
select * from rmt12.tpcc.dbo.t_warehouse
union all
select * from rmt13.tpcc.dbo.t_warehouse
union all
select * from rmt14.tpcc.dbo.t_warehouse
union all
select * from rmt15.tpcc.dbo.t_warehouse
union all
select * from rmt16.tpcc.dbo.t_warehouse
union all
select * from rmt17.tpcc.dbo.t_warehouse
union all
select * from rmt18.tpcc.dbo.t_warehouse
union all
select * from rmt19.tpcc.dbo.t_warehouse
union all
select * from rmt20.tpcc.dbo.t_warehouse
union all
select * from rmt21.tpcc.dbo.t_warehouse
union all
select * from rmt22.tpcc.dbo.t_warehouse
union all
select * from rmt23.tpcc.dbo.t_warehouse
union all
select * from rmt24.tpcc.dbo.t_warehouse
union all
select * from rmt25.tpcc.dbo.t_warehouse
union all
select * from rmt26.tpcc.dbo.t_warehouse
union all
select * from rmt27.tpcc.dbo.t_warehouse
union all
select * from rmt28.tpcc.dbo.t_warehouse
union all
select * from rmt29.tpcc.dbo.t_warehouse
union all

```



```

select * from rmt21.tpcc.dbo.t_order_line
union all
select * from rmt22.tpcc.dbo.t_order_line
union all
select * from rmt23.tpcc.dbo.t_order_line
union all
select * from rmt24.tpcc.dbo.t_order_line
union all
select * from rmt25.tpcc.dbo.t_order_line
union all
select * from rmt26.tpcc.dbo.t_order_line
union all
select * from rmt27.tpcc.dbo.t_order_line
union all
select * from rmt28.tpcc.dbo.t_order_line
union all
select * from rmt29.tpcc.dbo.t_order_line
union all
select * from rmt30.tpcc.dbo.t_order_line
union all
select * from rmt31.tpcc.dbo.t_order_line
union all
select * from rmt32.tpcc.dbo.t_order_line
go

create view new_order as
select * from /*rmt10.tpcc.dbo.*/t_new_order
union all
select * from rmt1.tpcc.dbo.t_new_order
union all
select * from rmt2.tpcc.dbo.t_new_order
union all
select * from rmt3.tpcc.dbo.t_new_order
union all
select * from rmt4.tpcc.dbo.t_new_order
union all
select * from rmt5.tpcc.dbo.t_new_order
union all
select * from rmt6.tpcc.dbo.t_new_order
union all
select * from rmt7.tpcc.dbo.t_new_order
union all
select * from rmt8.tpcc.dbo.t_new_order
union all
select * from rmt9.tpcc.dbo.t_new_order
union all
select * from rmt11.tpcc.dbo.t_new_order
union all
select * from rmt12.tpcc.dbo.t_new_order
union all
select * from rmt13.tpcc.dbo.t_new_order
union all
select * from rmt14.tpcc.dbo.t_new_order
union all
select * from rmt15.tpcc.dbo.t_new_order
union all
select * from rmt16.tpcc.dbo.t_new_order
union all
select * from rmt17.tpcc.dbo.t_new_order
union all
select * from rmt18.tpcc.dbo.t_new_order
union all
select * from rmt19.tpcc.dbo.t_new_order

```

```

union all
select * from rmt20.tpcc.dbo.t_new_order
union all
select * from rmt21.tpcc.dbo.t_new_order
union all
select * from rmt22.tpcc.dbo.t_new_order
union all
select * from rmt23.tpcc.dbo.t_new_order
union all
select * from rmt24.tpcc.dbo.t_new_order
union all
select * from rmt25.tpcc.dbo.t_new_order
union all
select * from rmt26.tpcc.dbo.t_new_order
union all
select * from rmt27.tpcc.dbo.t_new_order
union all
select * from rmt28.tpcc.dbo.t_new_order
union all
select * from rmt29.tpcc.dbo.t_new_order
union all
select * from rmt30.tpcc.dbo.t_new_order
union all
select * from rmt31.tpcc.dbo.t_new_order
union all
select * from rmt32.tpcc.dbo.t_new_order
go

create view item as
select * from t_item
go

```

add_views_11. sql

```
-- file 18001_to_19800\add_views.sql
```

```

set ansi_warnings on
set ansi_nulls on
go

```

```

use tpcc
go

```

```

-- drop any existing views
if object_id('warehouse') is not null drop view
warehouse
if object_id('district') is not null drop view
district
if object_id('customer') is not null drop view
customer
if object_id('history') is not null drop view history
if object_id('stock') is not null drop view stock
if object_id('orders') is not null drop view orders
if object_id('order_line') is not null drop view
order_line
if object_id('new_order') is not null drop view
new_order
if object_id('item') is not null drop view item
go

```

```

--add views for partition 11
create view warehouse as
select * from /*rmt11.tpcc.dbo.*/t_warehouse
union all
select * from rmt1.tpcc.dbo.t_warehouse
union all
select * from rmt2.tpcc.dbo.t_warehouse
union all
select * from rmt3.tpcc.dbo.t_warehouse
union all
select * from rmt4.tpcc.dbo.t_warehouse
union all
select * from rmt5.tpcc.dbo.t_warehouse
union all
select * from rmt6.tpcc.dbo.t_warehouse
union all
select * from rmt7.tpcc.dbo.t_warehouse
union all
select * from rmt8.tpcc.dbo.t_warehouse
union all
select * from rmt9.tpcc.dbo.t_warehouse
union all
select * from rmt10.tpcc.dbo.t_warehouse
union all
select * from rmt12.tpcc.dbo.t_warehouse
union all
select * from rmt13.tpcc.dbo.t_warehouse
union all
select * from rmt14.tpcc.dbo.t_warehouse
union all
select * from rmt15.tpcc.dbo.t_warehouse
union all
select * from rmt16.tpcc.dbo.t_warehouse
union all
select * from rmt17.tpcc.dbo.t_warehouse
union all
select * from rmt18.tpcc.dbo.t_warehouse
union all
select * from rmt19.tpcc.dbo.t_warehouse
union all
select * from rmt20.tpcc.dbo.t_warehouse
union all
select * from rmt21.tpcc.dbo.t_warehouse
union all
select * from rmt22.tpcc.dbo.t_warehouse
union all
select * from rmt23.tpcc.dbo.t_warehouse
union all
select * from rmt24.tpcc.dbo.t_warehouse
union all
select * from rmt25.tpcc.dbo.t_warehouse
union all
select * from rmt26.tpcc.dbo.t_warehouse
union all
select * from rmt27.tpcc.dbo.t_warehouse
union all
select * from rmt28.tpcc.dbo.t_warehouse
union all
select * from rmt29.tpcc.dbo.t_warehouse
union all
select * from rmt30.tpcc.dbo.t_warehouse
union all

```



```

select * from rmt22.tpcc.dbo.t_order_line
union all
select * from rmt23.tpcc.dbo.t_order_line
union all
select * from rmt24.tpcc.dbo.t_order_line
union all
select * from rmt25.tpcc.dbo.t_order_line
union all
select * from rmt26.tpcc.dbo.t_order_line
union all
select * from rmt27.tpcc.dbo.t_order_line
union all
select * from rmt28.tpcc.dbo.t_order_line
union all
select * from rmt29.tpcc.dbo.t_order_line
union all
select * from rmt30.tpcc.dbo.t_order_line
union all
select * from rmt31.tpcc.dbo.t_order_line
union all
select * from rmt32.tpcc.dbo.t_order_line
go

create view new_order as
select * from /*rmt11.tpcc.dbo.*/t_new_order
union all
select * from rmt1.tpcc.dbo.t_new_order
union all
select * from rmt2.tpcc.dbo.t_new_order
union all
select * from rmt3.tpcc.dbo.t_new_order
union all
select * from rmt4.tpcc.dbo.t_new_order
union all
select * from rmt5.tpcc.dbo.t_new_order
union all
select * from rmt6.tpcc.dbo.t_new_order
union all
select * from rmt7.tpcc.dbo.t_new_order
union all
select * from rmt8.tpcc.dbo.t_new_order
union all
select * from rmt9.tpcc.dbo.t_new_order
union all
select * from rmt10.tpcc.dbo.t_new_order
union all
select * from rmt12.tpcc.dbo.t_new_order
union all
select * from rmt13.tpcc.dbo.t_new_order
union all
select * from rmt14.tpcc.dbo.t_new_order
union all
select * from rmt15.tpcc.dbo.t_new_order
union all
select * from rmt16.tpcc.dbo.t_new_order
union all
select * from rmt17.tpcc.dbo.t_new_order
union all
select * from rmt18.tpcc.dbo.t_new_order
union all
select * from rmt19.tpcc.dbo.t_new_order
union all
select * from rmt20.tpcc.dbo.t_new_order

```

```

union all
select * from rmt21.tpcc.dbo.t_new_order
union all
select * from rmt22.tpcc.dbo.t_new_order
union all
select * from rmt23.tpcc.dbo.t_new_order
union all
select * from rmt24.tpcc.dbo.t_new_order
union all
select * from rmt25.tpcc.dbo.t_new_order
union all
select * from rmt26.tpcc.dbo.t_new_order
union all
select * from rmt27.tpcc.dbo.t_new_order
union all
select * from rmt28.tpcc.dbo.t_new_order
union all
select * from rmt29.tpcc.dbo.t_new_order
union all
select * from rmt30.tpcc.dbo.t_new_order
union all
select * from rmt31.tpcc.dbo.t_new_order
union all
select * from rmt32.tpcc.dbo.t_new_order
go

```

```

create view item as
select * from t_item
go

```

add_views_12. sql

```
-- file 19801_to_21600\add_views.sql
```

```

set ansi_warnings on
set ansi_nulls on
go

```

```

use tpcc
go

```

```

-- drop any existing views
if object_id('warehouse') is not null drop view
warehouse
if object_id('district') is not null drop view
district
if object_id('customer') is not null drop view
customer
if object_id('history') is not null drop view history
if object_id('stock') is not null drop view stock
if object_id('orders') is not null drop view orders
if object_id('order_line') is not null drop view
order_line
if object_id('new_order') is not null drop view
new_order
if object_id('item') is not null drop view item
go

```

```
--add views for partition 12
```

```

create view warehouse as
select * from /*rmt12.tpcc.dbo.*/t_warehouse
union all
select * from rmt1.tpcc.dbo.t_warehouse
union all
select * from rmt2.tpcc.dbo.t_warehouse
union all
select * from rmt3.tpcc.dbo.t_warehouse
union all
select * from rmt4.tpcc.dbo.t_warehouse
union all
select * from rmt5.tpcc.dbo.t_warehouse
union all
select * from rmt6.tpcc.dbo.t_warehouse
union all
select * from rmt7.tpcc.dbo.t_warehouse
union all
select * from rmt8.tpcc.dbo.t_warehouse
union all
select * from rmt9.tpcc.dbo.t_warehouse
union all
select * from rmt10.tpcc.dbo.t_warehouse
union all
select * from rmt11.tpcc.dbo.t_warehouse
union all
select * from rmt13.tpcc.dbo.t_warehouse
union all
select * from rmt14.tpcc.dbo.t_warehouse
union all
select * from rmt15.tpcc.dbo.t_warehouse
union all
select * from rmt16.tpcc.dbo.t_warehouse
union all
select * from rmt17.tpcc.dbo.t_warehouse
union all
select * from rmt18.tpcc.dbo.t_warehouse
union all
select * from rmt19.tpcc.dbo.t_warehouse
union all
select * from rmt20.tpcc.dbo.t_warehouse
union all
select * from rmt21.tpcc.dbo.t_warehouse
union all
select * from rmt22.tpcc.dbo.t_warehouse
union all
select * from rmt23.tpcc.dbo.t_warehouse
union all
select * from rmt24.tpcc.dbo.t_warehouse
union all
select * from rmt25.tpcc.dbo.t_warehouse
union all
select * from rmt26.tpcc.dbo.t_warehouse
union all
select * from rmt27.tpcc.dbo.t_warehouse
union all
select * from rmt28.tpcc.dbo.t_warehouse
union all
select * from rmt29.tpcc.dbo.t_warehouse
union all
select * from rmt30.tpcc.dbo.t_warehouse
union all
select * from rmt31.tpcc.dbo.t_warehouse
union all

```



```

select * from rmt23.tpcc.dbo.t_order_line
union all
select * from rmt24.tpcc.dbo.t_order_line
union all
select * from rmt25.tpcc.dbo.t_order_line
union all
select * from rmt26.tpcc.dbo.t_order_line
union all
select * from rmt27.tpcc.dbo.t_order_line
union all
select * from rmt28.tpcc.dbo.t_order_line
union all
select * from rmt29.tpcc.dbo.t_order_line
union all
select * from rmt30.tpcc.dbo.t_order_line
union all
select * from rmt31.tpcc.dbo.t_order_line
union all
select * from rmt32.tpcc.dbo.t_order_line
go

create view new_order as
select * from /*rmt12.tpcc.dbo.*/t_new_order
union all
select * from rmt1.tpcc.dbo.t_new_order
union all
select * from rmt2.tpcc.dbo.t_new_order
union all
select * from rmt3.tpcc.dbo.t_new_order
union all
select * from rmt4.tpcc.dbo.t_new_order
union all
select * from rmt5.tpcc.dbo.t_new_order
union all
select * from rmt6.tpcc.dbo.t_new_order
union all
select * from rmt7.tpcc.dbo.t_new_order
union all
select * from rmt8.tpcc.dbo.t_new_order
union all
select * from rmt9.tpcc.dbo.t_new_order
union all
select * from rmt10.tpcc.dbo.t_new_order
union all
select * from rmt11.tpcc.dbo.t_new_order
union all
select * from rmt13.tpcc.dbo.t_new_order
union all
select * from rmt14.tpcc.dbo.t_new_order
union all
select * from rmt15.tpcc.dbo.t_new_order
union all
select * from rmt16.tpcc.dbo.t_new_order
union all
select * from rmt17.tpcc.dbo.t_new_order
union all
select * from rmt18.tpcc.dbo.t_new_order
union all
select * from rmt19.tpcc.dbo.t_new_order
union all
select * from rmt20.tpcc.dbo.t_new_order
union all
select * from rmt21.tpcc.dbo.t_new_order

```

```

union all
select * from rmt22.tpcc.dbo.t_new_order
union all
select * from rmt23.tpcc.dbo.t_new_order
union all
select * from rmt24.tpcc.dbo.t_new_order
union all
select * from rmt25.tpcc.dbo.t_new_order
union all
select * from rmt26.tpcc.dbo.t_new_order
union all
select * from rmt27.tpcc.dbo.t_new_order
union all
select * from rmt28.tpcc.dbo.t_new_order
union all
select * from rmt29.tpcc.dbo.t_new_order
union all
select * from rmt30.tpcc.dbo.t_new_order
union all
select * from rmt31.tpcc.dbo.t_new_order
union all
select * from rmt32.tpcc.dbo.t_new_order
go

create view item as
select * from t_item
go

```

add_views_13. sql

```

-- file 21601_to_23400\add_views.sql

set ansi_warnings on
set ansi_nulls on
go

use tpcc
go

-- drop any existing views
if object_id('warehouse') is not null drop view
warehouse
if object_id('district') is not null drop view
district
if object_id('customer') is not null drop view
customer
if object_id('history') is not null drop view history
if object_id('stock') is not null drop view stock
if object_id('orders') is not null drop view orders
if object_id('order_line') is not null drop view
order_line
if object_id('new_order') is not null drop view
new_order
if object_id('item') is not null drop view item
go

--add views for partition 13
create view warehouse as
select * from /*rmt13.tpcc.dbo.*/t_warehouse

```

```

union all
select * from rmt1.tpcc.dbo.t_warehouse
union all
select * from rmt2.tpcc.dbo.t_warehouse
union all
select * from rmt3.tpcc.dbo.t_warehouse
union all
select * from rmt4.tpcc.dbo.t_warehouse
union all
select * from rmt5.tpcc.dbo.t_warehouse
union all
select * from rmt6.tpcc.dbo.t_warehouse
union all
select * from rmt7.tpcc.dbo.t_warehouse
union all
select * from rmt8.tpcc.dbo.t_warehouse
union all
select * from rmt9.tpcc.dbo.t_warehouse
union all
select * from rmt10.tpcc.dbo.t_warehouse
union all
select * from rmt11.tpcc.dbo.t_warehouse
union all
select * from rmt12.tpcc.dbo.t_warehouse
union all
select * from rmt14.tpcc.dbo.t_warehouse
union all
select * from rmt15.tpcc.dbo.t_warehouse
union all
select * from rmt16.tpcc.dbo.t_warehouse
union all
select * from rmt17.tpcc.dbo.t_warehouse
union all
select * from rmt18.tpcc.dbo.t_warehouse
union all
select * from rmt19.tpcc.dbo.t_warehouse
union all
select * from rmt20.tpcc.dbo.t_warehouse
union all
select * from rmt21.tpcc.dbo.t_warehouse
union all
select * from rmt22.tpcc.dbo.t_warehouse
union all
select * from rmt23.tpcc.dbo.t_warehouse
union all
select * from rmt24.tpcc.dbo.t_warehouse
union all
select * from rmt25.tpcc.dbo.t_warehouse
union all
select * from rmt26.tpcc.dbo.t_warehouse
union all
select * from rmt27.tpcc.dbo.t_warehouse
union all
select * from rmt28.tpcc.dbo.t_warehouse
union all
select * from rmt29.tpcc.dbo.t_warehouse
union all
select * from rmt30.tpcc.dbo.t_warehouse
union all
select * from rmt31.tpcc.dbo.t_warehouse
union all
select * from rmt32.tpcc.dbo.t_warehouse
go

```



```

select * from rmt24.tpcc.dbo.t_order_line
union all
select * from rmt25.tpcc.dbo.t_order_line
union all
select * from rmt26.tpcc.dbo.t_order_line
union all
select * from rmt27.tpcc.dbo.t_order_line
union all
select * from rmt28.tpcc.dbo.t_order_line
union all
select * from rmt29.tpcc.dbo.t_order_line
union all
select * from rmt30.tpcc.dbo.t_order_line
union all
select * from rmt31.tpcc.dbo.t_order_line
union all
select * from rmt32.tpcc.dbo.t_order_line
go

create view new_order as
select * from /*rmt13.tpcc.dbo.*/t_new_order
union all
select * from rmt1.tpcc.dbo.t_new_order
union all
select * from rmt2.tpcc.dbo.t_new_order
union all
select * from rmt3.tpcc.dbo.t_new_order
union all
select * from rmt4.tpcc.dbo.t_new_order
union all
select * from rmt5.tpcc.dbo.t_new_order
union all
select * from rmt6.tpcc.dbo.t_new_order
union all
select * from rmt7.tpcc.dbo.t_new_order
union all
select * from rmt8.tpcc.dbo.t_new_order
union all
select * from rmt9.tpcc.dbo.t_new_order
union all
select * from rmt10.tpcc.dbo.t_new_order
union all
select * from rmt11.tpcc.dbo.t_new_order
union all
select * from rmt12.tpcc.dbo.t_new_order
union all
select * from rmt14.tpcc.dbo.t_new_order
union all
select * from rmt15.tpcc.dbo.t_new_order
union all
select * from rmt16.tpcc.dbo.t_new_order
union all
select * from rmt17.tpcc.dbo.t_new_order
union all
select * from rmt18.tpcc.dbo.t_new_order
union all
select * from rmt19.tpcc.dbo.t_new_order
union all
select * from rmt20.tpcc.dbo.t_new_order
union all
select * from rmt21.tpcc.dbo.t_new_order
union all
select * from rmt22.tpcc.dbo.t_new_order

```

```

union all
select * from rmt23.tpcc.dbo.t_new_order
union all
select * from rmt24.tpcc.dbo.t_new_order
union all
select * from rmt25.tpcc.dbo.t_new_order
union all
select * from rmt26.tpcc.dbo.t_new_order
union all
select * from rmt27.tpcc.dbo.t_new_order
union all
select * from rmt28.tpcc.dbo.t_new_order
union all
select * from rmt29.tpcc.dbo.t_new_order
union all
select * from rmt30.tpcc.dbo.t_new_order
union all
select * from rmt31.tpcc.dbo.t_new_order
union all
select * from rmt32.tpcc.dbo.t_new_order
go

create view item as
select * from t_item
go

```

add_views_14. sql

```

-- file 23401_to_25200\add_views.sql

set ansi_warnings on
set ansi_nulls on
go

use tpcc
go

-- drop any existing views
if object_id('warehouse') is not null drop view
warehouse
if object_id('district') is not null drop view
district
if object_id('customer') is not null drop view
customer
if object_id('history') is not null drop view history
if object_id('stock') is not null drop view stock
if object_id('orders') is not null drop view orders
if object_id('order_line') is not null drop view
order_line
if object_id('new_order') is not null drop view
new_order
if object_id('item') is not null drop view item
go

--add views for partition 14
create view warehouse as
select * from /*rmt14.tpcc.dbo.*/t_warehouse
union all
select * from rmt1.tpcc.dbo.t_warehouse

```

```

union all
select * from rmt2.tpcc.dbo.t_warehouse
union all
select * from rmt3.tpcc.dbo.t_warehouse
union all
select * from rmt4.tpcc.dbo.t_warehouse
union all
select * from rmt5.tpcc.dbo.t_warehouse
union all
select * from rmt6.tpcc.dbo.t_warehouse
union all
select * from rmt7.tpcc.dbo.t_warehouse
union all
select * from rmt8.tpcc.dbo.t_warehouse
union all
select * from rmt9.tpcc.dbo.t_warehouse
union all
select * from rmt10.tpcc.dbo.t_warehouse
union all
select * from rmt11.tpcc.dbo.t_warehouse
union all
select * from rmt12.tpcc.dbo.t_warehouse
union all
select * from rmt13.tpcc.dbo.t_warehouse
union all
select * from rmt15.tpcc.dbo.t_warehouse
union all
select * from rmt16.tpcc.dbo.t_warehouse
union all
select * from rmt17.tpcc.dbo.t_warehouse
union all
select * from rmt18.tpcc.dbo.t_warehouse
union all
select * from rmt19.tpcc.dbo.t_warehouse
union all
select * from rmt20.tpcc.dbo.t_warehouse
union all
select * from rmt21.tpcc.dbo.t_warehouse
union all
select * from rmt22.tpcc.dbo.t_warehouse
union all
select * from rmt23.tpcc.dbo.t_warehouse
union all
select * from rmt24.tpcc.dbo.t_warehouse
union all
select * from rmt25.tpcc.dbo.t_warehouse
union all
select * from rmt26.tpcc.dbo.t_warehouse
union all
select * from rmt27.tpcc.dbo.t_warehouse
union all
select * from rmt28.tpcc.dbo.t_warehouse
union all
select * from rmt29.tpcc.dbo.t_warehouse
union all
select * from rmt30.tpcc.dbo.t_warehouse
union all
select * from rmt31.tpcc.dbo.t_warehouse
union all
select * from rmt32.tpcc.dbo.t_warehouse
go

create view district as

```



```

union all
select * from rmt30.tpcc.dbo.t_history
union all
select * from rmt31.tpcc.dbo.t_history
union all
select * from rmt32.tpcc.dbo.t_history
go

```

```

create view stock as
select * from /*rmt14.tpcc.dbo.*/t_stock
union all
select * from rmt1.tpcc.dbo.t_stock
union all
select * from rmt2.tpcc.dbo.t_stock
union all
select * from rmt3.tpcc.dbo.t_stock
union all
select * from rmt4.tpcc.dbo.t_stock
union all
select * from rmt5.tpcc.dbo.t_stock
union all
select * from rmt6.tpcc.dbo.t_stock
union all
select * from rmt7.tpcc.dbo.t_stock
union all
select * from rmt8.tpcc.dbo.t_stock
union all
select * from rmt9.tpcc.dbo.t_stock
union all
select * from rmt10.tpcc.dbo.t_stock
union all
select * from rmt11.tpcc.dbo.t_stock
union all
select * from rmt12.tpcc.dbo.t_stock
union all
select * from rmt13.tpcc.dbo.t_stock
union all
select * from rmt15.tpcc.dbo.t_stock
union all
select * from rmt16.tpcc.dbo.t_stock
union all
select * from rmt17.tpcc.dbo.t_stock
union all
select * from rmt18.tpcc.dbo.t_stock
union all
select * from rmt19.tpcc.dbo.t_stock
union all
select * from rmt20.tpcc.dbo.t_stock
union all
select * from rmt21.tpcc.dbo.t_stock
union all
select * from rmt22.tpcc.dbo.t_stock
union all
select * from rmt23.tpcc.dbo.t_stock
union all
select * from rmt24.tpcc.dbo.t_stock
union all
select * from rmt25.tpcc.dbo.t_stock
union all
select * from rmt26.tpcc.dbo.t_stock
union all
select * from rmt27.tpcc.dbo.t_stock
union all

```

```

select * from rmt28.tpcc.dbo.t_stock
union all
select * from rmt29.tpcc.dbo.t_stock
union all
select * from rmt30.tpcc.dbo.t_stock
union all
select * from rmt31.tpcc.dbo.t_stock
union all
select * from rmt32.tpcc.dbo.t_stock
go

```

```

create view orders as
select * from /*rmt14.tpcc.dbo.*/t_orders
union all
select * from rmt1.tpcc.dbo.t_orders
union all
select * from rmt2.tpcc.dbo.t_orders
union all
select * from rmt3.tpcc.dbo.t_orders
union all
select * from rmt4.tpcc.dbo.t_orders
union all
select * from rmt5.tpcc.dbo.t_orders
union all
select * from rmt6.tpcc.dbo.t_orders
union all
select * from rmt7.tpcc.dbo.t_orders
union all
select * from rmt8.tpcc.dbo.t_orders
union all
select * from rmt9.tpcc.dbo.t_orders
union all
select * from rmt10.tpcc.dbo.t_orders
union all
select * from rmt11.tpcc.dbo.t_orders
union all
select * from rmt12.tpcc.dbo.t_orders
union all
select * from rmt13.tpcc.dbo.t_orders
union all
select * from rmt15.tpcc.dbo.t_orders
union all
select * from rmt16.tpcc.dbo.t_orders
union all
select * from rmt17.tpcc.dbo.t_orders
union all
select * from rmt18.tpcc.dbo.t_orders
union all
select * from rmt19.tpcc.dbo.t_orders
union all
select * from rmt20.tpcc.dbo.t_orders
union all
select * from rmt21.tpcc.dbo.t_orders
union all
select * from rmt22.tpcc.dbo.t_orders
union all
select * from rmt23.tpcc.dbo.t_orders
union all
select * from rmt24.tpcc.dbo.t_orders
union all
select * from rmt25.tpcc.dbo.t_orders
union all
select * from rmt26.tpcc.dbo.t_orders

```

```

union all
select * from rmt27.tpcc.dbo.t_orders
union all
select * from rmt28.tpcc.dbo.t_orders
union all
select * from rmt29.tpcc.dbo.t_orders
union all
select * from rmt30.tpcc.dbo.t_orders
union all
select * from rmt31.tpcc.dbo.t_orders
union all
select * from rmt32.tpcc.dbo.t_orders
go

```

```

create view order_line as
select * from /*rmt14.tpcc.dbo.*/t_order_line
union all
select * from rmt1.tpcc.dbo.t_order_line
union all
select * from rmt2.tpcc.dbo.t_order_line
union all
select * from rmt3.tpcc.dbo.t_order_line
union all
select * from rmt4.tpcc.dbo.t_order_line
union all
select * from rmt5.tpcc.dbo.t_order_line
union all
select * from rmt6.tpcc.dbo.t_order_line
union all
select * from rmt7.tpcc.dbo.t_order_line
union all
select * from rmt8.tpcc.dbo.t_order_line
union all
select * from rmt9.tpcc.dbo.t_order_line
union all
select * from rmt10.tpcc.dbo.t_order_line
union all
select * from rmt11.tpcc.dbo.t_order_line
union all
select * from rmt12.tpcc.dbo.t_order_line
union all
select * from rmt13.tpcc.dbo.t_order_line
union all
select * from rmt15.tpcc.dbo.t_order_line
union all
select * from rmt16.tpcc.dbo.t_order_line
union all
select * from rmt17.tpcc.dbo.t_order_line
union all
select * from rmt18.tpcc.dbo.t_order_line
union all
select * from rmt19.tpcc.dbo.t_order_line
union all
select * from rmt20.tpcc.dbo.t_order_line
union all
select * from rmt21.tpcc.dbo.t_order_line
union all
select * from rmt22.tpcc.dbo.t_order_line
union all
select * from rmt23.tpcc.dbo.t_order_line
union all
select * from rmt24.tpcc.dbo.t_order_line
union all

```

```

select * from rmt25.tpcc.dbo.t_order_line
union all
select * from rmt26.tpcc.dbo.t_order_line
union all
select * from rmt27.tpcc.dbo.t_order_line
union all
select * from rmt28.tpcc.dbo.t_order_line
union all
select * from rmt29.tpcc.dbo.t_order_line
union all
select * from rmt30.tpcc.dbo.t_order_line
union all
select * from rmt31.tpcc.dbo.t_order_line
union all
select * from rmt32.tpcc.dbo.t_order_line
go

create view new_order as
select * from /*rmt14.tpcc.dbo.*/t_new_order
union all
select * from rmt1.tpcc.dbo.t_new_order
union all
select * from rmt2.tpcc.dbo.t_new_order
union all
select * from rmt3.tpcc.dbo.t_new_order
union all
select * from rmt4.tpcc.dbo.t_new_order
union all
select * from rmt5.tpcc.dbo.t_new_order
union all
select * from rmt6.tpcc.dbo.t_new_order
union all
select * from rmt7.tpcc.dbo.t_new_order
union all
select * from rmt8.tpcc.dbo.t_new_order
union all
select * from rmt9.tpcc.dbo.t_new_order
union all
select * from rmt10.tpcc.dbo.t_new_order
union all
select * from rmt11.tpcc.dbo.t_new_order
union all
select * from rmt12.tpcc.dbo.t_new_order
union all
select * from rmt13.tpcc.dbo.t_new_order
union all
select * from rmt15.tpcc.dbo.t_new_order
union all
select * from rmt16.tpcc.dbo.t_new_order
union all
select * from rmt17.tpcc.dbo.t_new_order
union all
select * from rmt18.tpcc.dbo.t_new_order
union all
select * from rmt19.tpcc.dbo.t_new_order
union all
select * from rmt20.tpcc.dbo.t_new_order
union all
select * from rmt21.tpcc.dbo.t_new_order
union all
select * from rmt22.tpcc.dbo.t_new_order
union all
select * from rmt23.tpcc.dbo.t_new_order

```

```

union all
select * from rmt24.tpcc.dbo.t_new_order
union all
select * from rmt25.tpcc.dbo.t_new_order
union all
select * from rmt26.tpcc.dbo.t_new_order
union all
select * from rmt27.tpcc.dbo.t_new_order
union all
select * from rmt28.tpcc.dbo.t_new_order
union all
select * from rmt29.tpcc.dbo.t_new_order
union all
select * from rmt30.tpcc.dbo.t_new_order
union all
select * from rmt31.tpcc.dbo.t_new_order
union all
select * from rmt32.tpcc.dbo.t_new_order
go

```

```

create view item as
select * from t_item
go

```

add_views_15. sql

```
-- file 25201_to_27000\add_views.sql
```

```

set ansi_warnings on
set ansi_nulls on
go

```

```

use tpcc
go

```

```

-- drop any existing views
if object_id('warehouse') is not null drop view
warehouse
if object_id('district') is not null drop view
district
if object_id('customer') is not null drop view
customer
if object_id('history') is not null drop view history
if object_id('stock') is not null drop view stock
if object_id('orders') is not null drop view orders
if object_id('order_line') is not null drop view
order_line
if object_id('new_order') is not null drop view
new_order
if object_id('item') is not null drop view item
go

```

```

--add views for partition 15
create view warehouse as
select * from /*rmt15.tpcc.dbo.*/t_warehouse
union all
select * from rmt1.tpcc.dbo.t_warehouse
union all
select * from rmt2.tpcc.dbo.t_warehouse

```

```

union all
select * from rmt3.tpcc.dbo.t_warehouse
union all
select * from rmt4.tpcc.dbo.t_warehouse
union all
select * from rmt5.tpcc.dbo.t_warehouse
union all
select * from rmt6.tpcc.dbo.t_warehouse
union all
select * from rmt7.tpcc.dbo.t_warehouse
union all
select * from rmt8.tpcc.dbo.t_warehouse
union all
select * from rmt9.tpcc.dbo.t_warehouse
union all
select * from rmt10.tpcc.dbo.t_warehouse
union all
select * from rmt11.tpcc.dbo.t_warehouse
union all
select * from rmt12.tpcc.dbo.t_warehouse
union all
select * from rmt13.tpcc.dbo.t_warehouse
union all
select * from rmt14.tpcc.dbo.t_warehouse
union all
select * from rmt16.tpcc.dbo.t_warehouse
union all
select * from rmt17.tpcc.dbo.t_warehouse
union all
select * from rmt18.tpcc.dbo.t_warehouse
union all
select * from rmt19.tpcc.dbo.t_warehouse
union all
select * from rmt20.tpcc.dbo.t_warehouse
union all
select * from rmt21.tpcc.dbo.t_warehouse
union all
select * from rmt22.tpcc.dbo.t_warehouse
union all
select * from rmt23.tpcc.dbo.t_warehouse
union all
select * from rmt24.tpcc.dbo.t_warehouse
union all
select * from rmt25.tpcc.dbo.t_warehouse
union all
select * from rmt26.tpcc.dbo.t_warehouse
union all
select * from rmt27.tpcc.dbo.t_warehouse
union all
select * from rmt28.tpcc.dbo.t_warehouse
union all
select * from rmt29.tpcc.dbo.t_warehouse
union all
select * from rmt30.tpcc.dbo.t_warehouse
union all
select * from rmt31.tpcc.dbo.t_warehouse
union all
select * from rmt32.tpcc.dbo.t_warehouse
go

create view district as
select * from /*rmt15.tpcc.dbo.*/t_district
union all

```



```

union all
select * from rmt31.tpcc.dbo.t_history
union all
select * from rmt32.tpcc.dbo.t_history
go

create view stock as
select * from /*rmt15.tpcc.dbo.*/t_stock
union all
select * from rmt1.tpcc.dbo.t_stock
union all
select * from rmt2.tpcc.dbo.t_stock
union all
select * from rmt3.tpcc.dbo.t_stock
union all
select * from rmt4.tpcc.dbo.t_stock
union all
select * from rmt5.tpcc.dbo.t_stock
union all
select * from rmt6.tpcc.dbo.t_stock
union all
select * from rmt7.tpcc.dbo.t_stock
union all
select * from rmt8.tpcc.dbo.t_stock
union all
select * from rmt9.tpcc.dbo.t_stock
union all
select * from rmt10.tpcc.dbo.t_stock
union all
select * from rmt11.tpcc.dbo.t_stock
union all
select * from rmt12.tpcc.dbo.t_stock
union all
select * from rmt13.tpcc.dbo.t_stock
union all
select * from rmt14.tpcc.dbo.t_stock
union all
select * from rmt16.tpcc.dbo.t_stock
union all
select * from rmt17.tpcc.dbo.t_stock
union all
select * from rmt18.tpcc.dbo.t_stock
union all
select * from rmt19.tpcc.dbo.t_stock
union all
select * from rmt20.tpcc.dbo.t_stock
union all
select * from rmt21.tpcc.dbo.t_stock
union all
select * from rmt22.tpcc.dbo.t_stock
union all
select * from rmt23.tpcc.dbo.t_stock
union all
select * from rmt24.tpcc.dbo.t_stock
union all
select * from rmt25.tpcc.dbo.t_stock
union all
select * from rmt26.tpcc.dbo.t_stock
union all
select * from rmt27.tpcc.dbo.t_stock
union all
select * from rmt28.tpcc.dbo.t_stock
union all

```

```

select * from rmt29.tpcc.dbo.t_stock
union all
select * from rmt30.tpcc.dbo.t_stock
union all
select * from rmt31.tpcc.dbo.t_stock
union all
select * from rmt32.tpcc.dbo.t_stock
go

create view orders as
select * from /*rmt15.tpcc.dbo.*/t_orders
union all
select * from rmt1.tpcc.dbo.t_orders
union all
select * from rmt2.tpcc.dbo.t_orders
union all
select * from rmt3.tpcc.dbo.t_orders
union all
select * from rmt4.tpcc.dbo.t_orders
union all
select * from rmt5.tpcc.dbo.t_orders
union all
select * from rmt6.tpcc.dbo.t_orders
union all
select * from rmt7.tpcc.dbo.t_orders
union all
select * from rmt8.tpcc.dbo.t_orders
union all
select * from rmt9.tpcc.dbo.t_orders
union all
select * from rmt10.tpcc.dbo.t_orders
union all
select * from rmt11.tpcc.dbo.t_orders
union all
select * from rmt12.tpcc.dbo.t_orders
union all
select * from rmt13.tpcc.dbo.t_orders
union all
select * from rmt14.tpcc.dbo.t_orders
union all
select * from rmt16.tpcc.dbo.t_orders
union all
select * from rmt17.tpcc.dbo.t_orders
union all
select * from rmt18.tpcc.dbo.t_orders
union all
select * from rmt19.tpcc.dbo.t_orders
union all
select * from rmt20.tpcc.dbo.t_orders
union all
select * from rmt21.tpcc.dbo.t_orders
union all
select * from rmt22.tpcc.dbo.t_orders
union all
select * from rmt23.tpcc.dbo.t_orders
union all
select * from rmt24.tpcc.dbo.t_orders
union all
select * from rmt25.tpcc.dbo.t_orders
union all
select * from rmt26.tpcc.dbo.t_orders
union all
select * from rmt27.tpcc.dbo.t_orders

```

```

union all
select * from rmt28.tpcc.dbo.t_orders
union all
select * from rmt29.tpcc.dbo.t_orders
union all
select * from rmt30.tpcc.dbo.t_orders
union all
select * from rmt31.tpcc.dbo.t_orders
union all
select * from rmt32.tpcc.dbo.t_orders
go

create view order_line as
select * from /*rmt15.tpcc.dbo.*/t_order_line
union all
select * from rmt1.tpcc.dbo.t_order_line
union all
select * from rmt2.tpcc.dbo.t_order_line
union all
select * from rmt3.tpcc.dbo.t_order_line
union all
select * from rmt4.tpcc.dbo.t_order_line
union all
select * from rmt5.tpcc.dbo.t_order_line
union all
select * from rmt6.tpcc.dbo.t_order_line
union all
select * from rmt7.tpcc.dbo.t_order_line
union all
select * from rmt8.tpcc.dbo.t_order_line
union all
select * from rmt9.tpcc.dbo.t_order_line
union all
select * from rmt10.tpcc.dbo.t_order_line
union all
select * from rmt11.tpcc.dbo.t_order_line
union all
select * from rmt12.tpcc.dbo.t_order_line
union all
select * from rmt13.tpcc.dbo.t_order_line
union all
select * from rmt14.tpcc.dbo.t_order_line
union all
select * from rmt16.tpcc.dbo.t_order_line
union all
select * from rmt17.tpcc.dbo.t_order_line
union all
select * from rmt18.tpcc.dbo.t_order_line
union all
select * from rmt19.tpcc.dbo.t_order_line
union all
select * from rmt20.tpcc.dbo.t_order_line
union all
select * from rmt21.tpcc.dbo.t_order_line
union all
select * from rmt22.tpcc.dbo.t_order_line
union all
select * from rmt23.tpcc.dbo.t_order_line
union all
select * from rmt24.tpcc.dbo.t_order_line
union all
select * from rmt25.tpcc.dbo.t_order_line
union all

```

```

select * from rmt26.tpcc.dbo.t_order_line
union all
select * from rmt27.tpcc.dbo.t_order_line
union all
select * from rmt28.tpcc.dbo.t_order_line
union all
select * from rmt29.tpcc.dbo.t_order_line
union all
select * from rmt30.tpcc.dbo.t_order_line
union all
select * from rmt31.tpcc.dbo.t_order_line
union all
select * from rmt32.tpcc.dbo.t_order_line
go

create view new_order as
select * from /*rmt15.tpcc.dbo.*/t_new_order
union all
select * from rmt1.tpcc.dbo.t_new_order
union all
select * from rmt2.tpcc.dbo.t_new_order
union all
select * from rmt3.tpcc.dbo.t_new_order
union all
select * from rmt4.tpcc.dbo.t_new_order
union all
select * from rmt5.tpcc.dbo.t_new_order
union all
select * from rmt6.tpcc.dbo.t_new_order
union all
select * from rmt7.tpcc.dbo.t_new_order
union all
select * from rmt8.tpcc.dbo.t_new_order
union all
select * from rmt9.tpcc.dbo.t_new_order
union all
select * from rmt10.tpcc.dbo.t_new_order
union all
select * from rmt11.tpcc.dbo.t_new_order
union all
select * from rmt12.tpcc.dbo.t_new_order
union all
select * from rmt13.tpcc.dbo.t_new_order
union all
select * from rmt14.tpcc.dbo.t_new_order
union all
select * from rmt16.tpcc.dbo.t_new_order
union all
select * from rmt17.tpcc.dbo.t_new_order
union all
select * from rmt18.tpcc.dbo.t_new_order
union all
select * from rmt19.tpcc.dbo.t_new_order
union all
select * from rmt20.tpcc.dbo.t_new_order
union all
select * from rmt21.tpcc.dbo.t_new_order
union all
select * from rmt22.tpcc.dbo.t_new_order
union all
select * from rmt23.tpcc.dbo.t_new_order
union all
select * from rmt24.tpcc.dbo.t_new_order

```

```

union all
select * from rmt25.tpcc.dbo.t_new_order
union all
select * from rmt26.tpcc.dbo.t_new_order
union all
select * from rmt27.tpcc.dbo.t_new_order
union all
select * from rmt28.tpcc.dbo.t_new_order
union all
select * from rmt29.tpcc.dbo.t_new_order
union all
select * from rmt30.tpcc.dbo.t_new_order
union all
select * from rmt31.tpcc.dbo.t_new_order
union all
select * from rmt32.tpcc.dbo.t_new_order
go

```

```

create view item as
select * from t_item
go

```

add_views_16. sql

```
-- file 27001_to_28800\add_views.sql
```

```

set ansi_warnings on
set ansi_nulls on
go

```

```

use tpcc
go

```

```

-- drop any existing views
if object_id('warehouse') is not null drop view
warehouse
if object_id('district') is not null drop view
district
if object_id('customer') is not null drop view
customer
if object_id('history') is not null drop view history
if object_id('stock') is not null drop view stock
if object_id('orders') is not null drop view orders
if object_id('order_line') is not null drop view
order_line
if object_id('new_order') is not null drop view
new_order
if object_id('item') is not null drop view item
go

```

```

--add views for partition 16
create view warehouse as
select * from /*rmt16.tpcc.dbo.*/t_warehouse
union all
select * from rmt1.tpcc.dbo.t_warehouse
union all
select * from rmt2.tpcc.dbo.t_warehouse
union all
select * from rmt3.tpcc.dbo.t_warehouse

```

```

union all
select * from rmt4.tpcc.dbo.t_warehouse
union all
select * from rmt5.tpcc.dbo.t_warehouse
union all
select * from rmt6.tpcc.dbo.t_warehouse
union all
select * from rmt7.tpcc.dbo.t_warehouse
union all
select * from rmt8.tpcc.dbo.t_warehouse
union all
select * from rmt9.tpcc.dbo.t_warehouse
union all
select * from rmt10.tpcc.dbo.t_warehouse
union all
select * from rmt11.tpcc.dbo.t_warehouse
union all
select * from rmt12.tpcc.dbo.t_warehouse
union all
select * from rmt13.tpcc.dbo.t_warehouse
union all
select * from rmt14.tpcc.dbo.t_warehouse
union all
select * from rmt15.tpcc.dbo.t_warehouse
union all
select * from rmt17.tpcc.dbo.t_warehouse
union all
select * from rmt18.tpcc.dbo.t_warehouse
union all
select * from rmt19.tpcc.dbo.t_warehouse
union all
select * from rmt20.tpcc.dbo.t_warehouse
union all
select * from rmt21.tpcc.dbo.t_warehouse
union all
select * from rmt22.tpcc.dbo.t_warehouse
union all
select * from rmt23.tpcc.dbo.t_warehouse
union all
select * from rmt24.tpcc.dbo.t_warehouse
union all
select * from rmt25.tpcc.dbo.t_warehouse
union all
select * from rmt26.tpcc.dbo.t_warehouse
union all
select * from rmt27.tpcc.dbo.t_warehouse
union all
select * from rmt28.tpcc.dbo.t_warehouse
union all
select * from rmt29.tpcc.dbo.t_warehouse
union all
select * from rmt30.tpcc.dbo.t_warehouse
union all
select * from rmt31.tpcc.dbo.t_warehouse
union all
select * from rmt32.tpcc.dbo.t_warehouse
go

```

```

create view district as
select * from /*rmt16.tpcc.dbo.*/t_district
union all
select * from rmt1.tpcc.dbo.t_district
union all

```



```

select * from rmt27.tpcc.dbo.t_order_line
union all
select * from rmt28.tpcc.dbo.t_order_line
union all
select * from rmt29.tpcc.dbo.t_order_line
union all
select * from rmt30.tpcc.dbo.t_order_line
union all
select * from rmt31.tpcc.dbo.t_order_line
union all
select * from rmt32.tpcc.dbo.t_order_line
go

create view new_order as
select * from /*rmt16.tpcc.dbo.*/t_new_order
union all
select * from rmt1.tpcc.dbo.t_new_order
union all
select * from rmt2.tpcc.dbo.t_new_order
union all
select * from rmt3.tpcc.dbo.t_new_order
union all
select * from rmt4.tpcc.dbo.t_new_order
union all
select * from rmt5.tpcc.dbo.t_new_order
union all
select * from rmt6.tpcc.dbo.t_new_order
union all
select * from rmt7.tpcc.dbo.t_new_order
union all
select * from rmt8.tpcc.dbo.t_new_order
union all
select * from rmt9.tpcc.dbo.t_new_order
union all
select * from rmt10.tpcc.dbo.t_new_order
union all
select * from rmt11.tpcc.dbo.t_new_order
union all
select * from rmt12.tpcc.dbo.t_new_order
union all
select * from rmt13.tpcc.dbo.t_new_order
union all
select * from rmt14.tpcc.dbo.t_new_order
union all
select * from rmt15.tpcc.dbo.t_new_order
union all
select * from rmt17.tpcc.dbo.t_new_order
union all
select * from rmt18.tpcc.dbo.t_new_order
union all
select * from rmt19.tpcc.dbo.t_new_order
union all
select * from rmt20.tpcc.dbo.t_new_order
union all
select * from rmt21.tpcc.dbo.t_new_order
union all
select * from rmt22.tpcc.dbo.t_new_order
union all
select * from rmt23.tpcc.dbo.t_new_order
union all
select * from rmt24.tpcc.dbo.t_new_order
union all
select * from rmt25.tpcc.dbo.t_new_order

```

```

union all
select * from rmt26.tpcc.dbo.t_new_order
union all
select * from rmt27.tpcc.dbo.t_new_order
union all
select * from rmt28.tpcc.dbo.t_new_order
union all
select * from rmt29.tpcc.dbo.t_new_order
union all
select * from rmt30.tpcc.dbo.t_new_order
union all
select * from rmt31.tpcc.dbo.t_new_order
union all
select * from rmt32.tpcc.dbo.t_new_order
go

create view item as
select * from t_item
go

```

add_views_17. sql

-- file 28801_to_30600\add_views.sql

```

set ansi_warnings on
set ansi_nulls on
go

```

```

use tpcc
go

```

```

-- drop any existing views
if object_id('warehouse') is not null drop view
warehouse
if object_id('district') is not null drop view
district
if object_id('customer') is not null drop view
customer
if object_id('history') is not null drop view history
if object_id('stock') is not null drop view stock
if object_id('orders') is not null drop view orders
if object_id('order_line') is not null drop view
order_line
if object_id('new_order') is not null drop view
new_order
if object_id('item') is not null drop view item
go

```

```

--add views for partition 17
create view warehouse as
select * from /*rmt17.tpcc.dbo.*/t_warehouse
union all
select * from rmt1.tpcc.dbo.t_warehouse
union all
select * from rmt2.tpcc.dbo.t_warehouse
union all
select * from rmt3.tpcc.dbo.t_warehouse
union all
select * from rmt4.tpcc.dbo.t_warehouse

```

```

union all
select * from rmt5.tpcc.dbo.t_warehouse
union all
select * from rmt6.tpcc.dbo.t_warehouse
union all
select * from rmt7.tpcc.dbo.t_warehouse
union all
select * from rmt8.tpcc.dbo.t_warehouse
union all
select * from rmt9.tpcc.dbo.t_warehouse
union all
select * from rmt10.tpcc.dbo.t_warehouse
union all
select * from rmt11.tpcc.dbo.t_warehouse
union all
select * from rmt12.tpcc.dbo.t_warehouse
union all
select * from rmt13.tpcc.dbo.t_warehouse
union all
select * from rmt14.tpcc.dbo.t_warehouse
union all
select * from rmt15.tpcc.dbo.t_warehouse
union all
select * from rmt16.tpcc.dbo.t_warehouse
union all
select * from rmt18.tpcc.dbo.t_warehouse
union all
select * from rmt19.tpcc.dbo.t_warehouse
union all
select * from rmt20.tpcc.dbo.t_warehouse
union all
select * from rmt21.tpcc.dbo.t_warehouse
union all
select * from rmt22.tpcc.dbo.t_warehouse
union all
select * from rmt23.tpcc.dbo.t_warehouse
union all
select * from rmt24.tpcc.dbo.t_warehouse
union all
select * from rmt25.tpcc.dbo.t_warehouse
union all
select * from rmt26.tpcc.dbo.t_warehouse
union all
select * from rmt27.tpcc.dbo.t_warehouse
union all
select * from rmt28.tpcc.dbo.t_warehouse
union all
select * from rmt29.tpcc.dbo.t_warehouse
union all
select * from rmt30.tpcc.dbo.t_warehouse
union all
select * from rmt31.tpcc.dbo.t_warehouse
union all
select * from rmt32.tpcc.dbo.t_warehouse
go

create view district as
select * from /*rmt17.tpcc.dbo.*/t_district
union all
select * from rmt1.tpcc.dbo.t_district
union all
select * from rmt2.tpcc.dbo.t_district
union all

```



```

select * from rmt28.tpcc.dbo.t_order_line
union all
select * from rmt29.tpcc.dbo.t_order_line
union all
select * from rmt30.tpcc.dbo.t_order_line
union all
select * from rmt31.tpcc.dbo.t_order_line
union all
select * from rmt32.tpcc.dbo.t_order_line
go

create view new_order as
select * from /*rmt17.tpcc.dbo.*/t_new_order
union all
select * from rmt1.tpcc.dbo.t_new_order
union all
select * from rmt2.tpcc.dbo.t_new_order
union all
select * from rmt3.tpcc.dbo.t_new_order
union all
select * from rmt4.tpcc.dbo.t_new_order
union all
select * from rmt5.tpcc.dbo.t_new_order
union all
select * from rmt6.tpcc.dbo.t_new_order
union all
select * from rmt7.tpcc.dbo.t_new_order
union all
select * from rmt8.tpcc.dbo.t_new_order
union all
select * from rmt9.tpcc.dbo.t_new_order
union all
select * from rmt10.tpcc.dbo.t_new_order
union all
select * from rmt11.tpcc.dbo.t_new_order
union all
select * from rmt12.tpcc.dbo.t_new_order
union all
select * from rmt13.tpcc.dbo.t_new_order
union all
select * from rmt14.tpcc.dbo.t_new_order
union all
select * from rmt15.tpcc.dbo.t_new_order
union all
select * from rmt16.tpcc.dbo.t_new_order
union all
select * from rmt18.tpcc.dbo.t_new_order
union all
select * from rmt19.tpcc.dbo.t_new_order
union all
select * from rmt20.tpcc.dbo.t_new_order
union all
select * from rmt21.tpcc.dbo.t_new_order
union all
select * from rmt22.tpcc.dbo.t_new_order
union all
select * from rmt23.tpcc.dbo.t_new_order
union all
select * from rmt24.tpcc.dbo.t_new_order
union all
select * from rmt25.tpcc.dbo.t_new_order
union all
select * from rmt26.tpcc.dbo.t_new_order

```

```

union all
select * from rmt27.tpcc.dbo.t_new_order
union all
select * from rmt28.tpcc.dbo.t_new_order
union all
select * from rmt29.tpcc.dbo.t_new_order
union all
select * from rmt30.tpcc.dbo.t_new_order
union all
select * from rmt31.tpcc.dbo.t_new_order
union all
select * from rmt32.tpcc.dbo.t_new_order
go

create view item as
select * from t_item
go

```

add_views_18. sql

```
-- file 30601_to_32400\add_views.sql
```

```
set ansi_warnings on
set ansi_nulls on
go
```

```
use tpcc
go
```

```
-- drop any existing views
if object_id('warehouse') is not null drop view
warehouse
if object_id('district') is not null drop view
district
if object_id('customer') is not null drop view
customer
if object_id('history') is not null drop view history
if object_id('stock') is not null drop view stock
if object_id('orders') is not null drop view orders
if object_id('order_line') is not null drop view
order_line
if object_id('new_order') is not null drop view
new_order
if object_id('item') is not null drop view item
go
```

```
--add views for partition 18
create view warehouse as
select * from /*rmt18.tpcc.dbo.*/t_warehouse
union all
select * from rmt1.tpcc.dbo.t_warehouse
union all
select * from rmt2.tpcc.dbo.t_warehouse
union all
select * from rmt3.tpcc.dbo.t_warehouse
union all
select * from rmt4.tpcc.dbo.t_warehouse
union all
select * from rmt5.tpcc.dbo.t_warehouse

```

```

union all
select * from rmt6.tpcc.dbo.t_warehouse
union all
select * from rmt7.tpcc.dbo.t_warehouse
union all
select * from rmt8.tpcc.dbo.t_warehouse
union all
select * from rmt9.tpcc.dbo.t_warehouse
union all
select * from rmt10.tpcc.dbo.t_warehouse
union all
select * from rmt11.tpcc.dbo.t_warehouse
union all
select * from rmt12.tpcc.dbo.t_warehouse
union all
select * from rmt13.tpcc.dbo.t_warehouse
union all
select * from rmt14.tpcc.dbo.t_warehouse
union all
select * from rmt15.tpcc.dbo.t_warehouse
union all
select * from rmt16.tpcc.dbo.t_warehouse
union all
select * from rmt17.tpcc.dbo.t_warehouse
union all
select * from rmt19.tpcc.dbo.t_warehouse
union all
select * from rmt20.tpcc.dbo.t_warehouse
union all
select * from rmt21.tpcc.dbo.t_warehouse
union all
select * from rmt22.tpcc.dbo.t_warehouse
union all
select * from rmt23.tpcc.dbo.t_warehouse
union all
select * from rmt24.tpcc.dbo.t_warehouse
union all
select * from rmt25.tpcc.dbo.t_warehouse
union all
select * from rmt26.tpcc.dbo.t_warehouse
union all
select * from rmt27.tpcc.dbo.t_warehouse
union all
select * from rmt28.tpcc.dbo.t_warehouse
union all
select * from rmt29.tpcc.dbo.t_warehouse
union all
select * from rmt30.tpcc.dbo.t_warehouse
union all
select * from rmt31.tpcc.dbo.t_warehouse
union all
select * from rmt32.tpcc.dbo.t_warehouse
go

create view district as
select * from /*rmt18.tpcc.dbo.*/t_district
union all
select * from rmt1.tpcc.dbo.t_district
union all
select * from rmt2.tpcc.dbo.t_district
union all
select * from rmt3.tpcc.dbo.t_district
union all

```



```

select * from rmt29.tpcc.dbo.t_order_line
union all
select * from rmt30.tpcc.dbo.t_order_line
union all
select * from rmt31.tpcc.dbo.t_order_line
union all
select * from rmt32.tpcc.dbo.t_order_line
go

create view new_order as
select * from /*rmt18.tpcc.dbo.*/t_new_order
union all
select * from rmt1.tpcc.dbo.t_new_order
union all
select * from rmt2.tpcc.dbo.t_new_order
union all
select * from rmt3.tpcc.dbo.t_new_order
union all
select * from rmt4.tpcc.dbo.t_new_order
union all
select * from rmt5.tpcc.dbo.t_new_order
union all
select * from rmt6.tpcc.dbo.t_new_order
union all
select * from rmt7.tpcc.dbo.t_new_order
union all
select * from rmt8.tpcc.dbo.t_new_order
union all
select * from rmt9.tpcc.dbo.t_new_order
union all
select * from rmt10.tpcc.dbo.t_new_order
union all
select * from rmt11.tpcc.dbo.t_new_order
union all
select * from rmt12.tpcc.dbo.t_new_order
union all
select * from rmt13.tpcc.dbo.t_new_order
union all
select * from rmt14.tpcc.dbo.t_new_order
union all
select * from rmt15.tpcc.dbo.t_new_order
union all
select * from rmt16.tpcc.dbo.t_new_order
union all
select * from rmt17.tpcc.dbo.t_new_order
union all
select * from rmt19.tpcc.dbo.t_new_order
union all
select * from rmt20.tpcc.dbo.t_new_order
union all
select * from rmt21.tpcc.dbo.t_new_order
union all
select * from rmt22.tpcc.dbo.t_new_order
union all
select * from rmt23.tpcc.dbo.t_new_order
union all
select * from rmt24.tpcc.dbo.t_new_order
union all
select * from rmt25.tpcc.dbo.t_new_order
union all
select * from rmt26.tpcc.dbo.t_new_order
union all
select * from rmt27.tpcc.dbo.t_new_order

```

```

union all
select * from rmt28.tpcc.dbo.t_new_order
union all
select * from rmt29.tpcc.dbo.t_new_order
union all
select * from rmt30.tpcc.dbo.t_new_order
union all
select * from rmt31.tpcc.dbo.t_new_order
union all
select * from rmt32.tpcc.dbo.t_new_order
go

create view item as
select * from t_item
go



---


add_views_19.
sql


---


-- file 32401_to_34200\add_views.sql

set ansi_warnings on
set ansi_nulls on
go

use tpcc
go

-- drop any existing views
if object_id('warehouse') is not null drop view
warehouse
if object_id('district') is not null drop view
district
if object_id('customer') is not null drop view
customer
if object_id('history') is not null drop view history
if object_id('stock') is not null drop view stock
if object_id('orders') is not null drop view orders
if object_id('order_line') is not null drop view
order_line
if object_id('new_order') is not null drop view
new_order
if object_id('item') is not null drop view item
go

--add views for partition 19
create view warehouse as
select * from /*rmt19.tpcc.dbo.*/t_warehouse
union all
select * from rmt1.tpcc.dbo.t_warehouse
union all
select * from rmt2.tpcc.dbo.t_warehouse
union all
select * from rmt3.tpcc.dbo.t_warehouse
union all
select * from rmt4.tpcc.dbo.t_warehouse
union all
select * from rmt5.tpcc.dbo.t_warehouse
union all
select * from rmt6.tpcc.dbo.t_warehouse

```

```

union all
select * from rmt7.tpcc.dbo.t_warehouse
union all
select * from rmt8.tpcc.dbo.t_warehouse
union all
select * from rmt9.tpcc.dbo.t_warehouse
union all
select * from rmt10.tpcc.dbo.t_warehouse
union all
select * from rmt11.tpcc.dbo.t_warehouse
union all
select * from rmt12.tpcc.dbo.t_warehouse
union all
select * from rmt13.tpcc.dbo.t_warehouse
union all
select * from rmt14.tpcc.dbo.t_warehouse
union all
select * from rmt15.tpcc.dbo.t_warehouse
union all
select * from rmt16.tpcc.dbo.t_warehouse
union all
select * from rmt17.tpcc.dbo.t_warehouse
union all
select * from rmt18.tpcc.dbo.t_warehouse
union all
select * from rmt20.tpcc.dbo.t_warehouse
union all
select * from rmt21.tpcc.dbo.t_warehouse
union all
select * from rmt22.tpcc.dbo.t_warehouse
union all
select * from rmt23.tpcc.dbo.t_warehouse
union all
select * from rmt24.tpcc.dbo.t_warehouse
union all
select * from rmt25.tpcc.dbo.t_warehouse
union all
select * from rmt26.tpcc.dbo.t_warehouse
union all
select * from rmt27.tpcc.dbo.t_warehouse
union all
select * from rmt28.tpcc.dbo.t_warehouse
union all
select * from rmt29.tpcc.dbo.t_warehouse
union all
select * from rmt30.tpcc.dbo.t_warehouse
union all
select * from rmt31.tpcc.dbo.t_warehouse
union all
select * from rmt32.tpcc.dbo.t_warehouse
go

create view district as
select * from /*rmt19.tpcc.dbo.*/t_district
union all
select * from rmt1.tpcc.dbo.t_district
union all
select * from rmt2.tpcc.dbo.t_district
union all
select * from rmt3.tpcc.dbo.t_district
union all
select * from rmt4.tpcc.dbo.t_district
union all

```



```

select * from rmt30.tpcc.dbo.t_order_line
union all
select * from rmt31.tpcc.dbo.t_order_line
union all
select * from rmt32.tpcc.dbo.t_order_line
go

create view new_order as
select * from /*rmt19.tpcc.dbo.*/t_new_order
union all
select * from rmt1.tpcc.dbo.t_new_order
union all
select * from rmt2.tpcc.dbo.t_new_order
union all
select * from rmt3.tpcc.dbo.t_new_order
union all
select * from rmt4.tpcc.dbo.t_new_order
union all
select * from rmt5.tpcc.dbo.t_new_order
union all
select * from rmt6.tpcc.dbo.t_new_order
union all
select * from rmt7.tpcc.dbo.t_new_order
union all
select * from rmt8.tpcc.dbo.t_new_order
union all
select * from rmt9.tpcc.dbo.t_new_order
union all
select * from rmt10.tpcc.dbo.t_new_order
union all
select * from rmt11.tpcc.dbo.t_new_order
union all
select * from rmt12.tpcc.dbo.t_new_order
union all
select * from rmt13.tpcc.dbo.t_new_order
union all
select * from rmt14.tpcc.dbo.t_new_order
union all
select * from rmt15.tpcc.dbo.t_new_order
union all
select * from rmt16.tpcc.dbo.t_new_order
union all
select * from rmt17.tpcc.dbo.t_new_order
union all
select * from rmt18.tpcc.dbo.t_new_order
union all
select * from rmt20.tpcc.dbo.t_new_order
union all
select * from rmt21.tpcc.dbo.t_new_order
union all
select * from rmt22.tpcc.dbo.t_new_order
union all
select * from rmt23.tpcc.dbo.t_new_order
union all
select * from rmt24.tpcc.dbo.t_new_order
union all
select * from rmt25.tpcc.dbo.t_new_order
union all
select * from rmt26.tpcc.dbo.t_new_order
union all
select * from rmt27.tpcc.dbo.t_new_order
union all
select * from rmt28.tpcc.dbo.t_new_order

```

```

union all
select * from rmt29.tpcc.dbo.t_new_order
union all
select * from rmt30.tpcc.dbo.t_new_order
union all
select * from rmt31.tpcc.dbo.t_new_order
union all
select * from rmt32.tpcc.dbo.t_new_order
go

```

```

create view item as
select * from t_item
go

```

add_views_20. sql

```
-- file 34201_to_36000\add_views.sql
```

```

set ansi_warnings on
set ansi_nulls on
go

```

```

use tpcc
go

```

```

-- drop any existing views
if object_id('warehouse') is not null drop view
warehouse
if object_id('district') is not null drop view
district
if object_id('customer') is not null drop view
customer
if object_id('history') is not null drop view history
if object_id('stock') is not null drop view stock
if object_id('orders') is not null drop view orders
if object_id('order_line') is not null drop view
order_line
if object_id('new_order') is not null drop view
new_order
if object_id('item') is not null drop view item
go

```

```

--add views for partition 20
create view warehouse as
select * from /*rmt20.tpcc.dbo.*/t_warehouse
union all
select * from rmt1.tpcc.dbo.t_warehouse
union all
select * from rmt2.tpcc.dbo.t_warehouse
union all
select * from rmt3.tpcc.dbo.t_warehouse
union all
select * from rmt4.tpcc.dbo.t_warehouse
union all
select * from rmt5.tpcc.dbo.t_warehouse
union all
select * from rmt6.tpcc.dbo.t_warehouse
union all
select * from rmt7.tpcc.dbo.t_warehouse

```

```

union all
select * from rmt8.tpcc.dbo.t_warehouse
union all
select * from rmt9.tpcc.dbo.t_warehouse
union all
select * from rmt10.tpcc.dbo.t_warehouse
union all
select * from rmt11.tpcc.dbo.t_warehouse
union all
select * from rmt12.tpcc.dbo.t_warehouse
union all
select * from rmt13.tpcc.dbo.t_warehouse
union all
select * from rmt14.tpcc.dbo.t_warehouse
union all
select * from rmt15.tpcc.dbo.t_warehouse
union all
select * from rmt16.tpcc.dbo.t_warehouse
union all
select * from rmt17.tpcc.dbo.t_warehouse
union all
select * from rmt18.tpcc.dbo.t_warehouse
union all
select * from rmt19.tpcc.dbo.t_warehouse
union all
select * from rmt21.tpcc.dbo.t_warehouse
union all
select * from rmt22.tpcc.dbo.t_warehouse
union all
select * from rmt23.tpcc.dbo.t_warehouse
union all
select * from rmt24.tpcc.dbo.t_warehouse
union all
select * from rmt25.tpcc.dbo.t_warehouse
union all
select * from rmt26.tpcc.dbo.t_warehouse
union all
select * from rmt27.tpcc.dbo.t_warehouse
union all
select * from rmt28.tpcc.dbo.t_warehouse
union all
select * from rmt29.tpcc.dbo.t_warehouse
union all
select * from rmt30.tpcc.dbo.t_warehouse
union all
select * from rmt31.tpcc.dbo.t_warehouse
union all
select * from rmt32.tpcc.dbo.t_warehouse
go

```

```

create view district as
select * from /*rmt20.tpcc.dbo.*/t_district
union all
select * from rmt1.tpcc.dbo.t_district
union all
select * from rmt2.tpcc.dbo.t_district
union all
select * from rmt3.tpcc.dbo.t_district
union all
select * from rmt4.tpcc.dbo.t_district
union all
select * from rmt5.tpcc.dbo.t_district
union all

```



```

select * from rmt31.tpcc.dbo.t_order_line
union all
select * from rmt32.tpcc.dbo.t_order_line
go

create view new_order as
select * from /*rmt20.tpcc.dbo.*/t_new_order
union all
select * from rmt1.tpcc.dbo.t_new_order
union all
select * from rmt2.tpcc.dbo.t_new_order
union all
select * from rmt3.tpcc.dbo.t_new_order
union all
select * from rmt4.tpcc.dbo.t_new_order
union all
select * from rmt5.tpcc.dbo.t_new_order
union all
select * from rmt6.tpcc.dbo.t_new_order
union all
select * from rmt7.tpcc.dbo.t_new_order
union all
select * from rmt8.tpcc.dbo.t_new_order
union all
select * from rmt9.tpcc.dbo.t_new_order
union all
select * from rmt10.tpcc.dbo.t_new_order
union all
select * from rmt11.tpcc.dbo.t_new_order
union all
select * from rmt12.tpcc.dbo.t_new_order
union all
select * from rmt13.tpcc.dbo.t_new_order
union all
select * from rmt14.tpcc.dbo.t_new_order
union all
select * from rmt15.tpcc.dbo.t_new_order
union all
select * from rmt16.tpcc.dbo.t_new_order
union all
select * from rmt17.tpcc.dbo.t_new_order
union all
select * from rmt18.tpcc.dbo.t_new_order
union all
select * from rmt19.tpcc.dbo.t_new_order
union all
select * from rmt21.tpcc.dbo.t_new_order
union all
select * from rmt22.tpcc.dbo.t_new_order
union all
select * from rmt23.tpcc.dbo.t_new_order
union all
select * from rmt24.tpcc.dbo.t_new_order
union all
select * from rmt25.tpcc.dbo.t_new_order
union all
select * from rmt26.tpcc.dbo.t_new_order
union all
select * from rmt27.tpcc.dbo.t_new_order
union all
select * from rmt28.tpcc.dbo.t_new_order
union all
select * from rmt29.tpcc.dbo.t_new_order

```

```

union all
select * from rmt30.tpcc.dbo.t_new_order
union all
select * from rmt31.tpcc.dbo.t_new_order
union all
select * from rmt32.tpcc.dbo.t_new_order
go

create view item as
select * from t_item
go

```

add_views_21. sql

```
-- file 36001_to_37800\add_views.sql
```

```

set ansi_warnings on
set ansi_nulls on
go

use tpcc
go

-- drop any existing views
if object_id('warehouse') is not null drop view
warehouse
if object_id('district') is not null drop view
district
if object_id('customer') is not null drop view
customer
if object_id('history') is not null drop view history
if object_id('stock') is not null drop view stock
if object_id('orders') is not null drop view orders
if object_id('order_line') is not null drop view
order_line
if object_id('new_order') is not null drop view
new_order
if object_id('item') is not null drop view item
go

--add views for partition 21
create view warehouse as
select * from /*rmt21.tpcc.dbo.*/t_warehouse
union all
select * from rmt1.tpcc.dbo.t_warehouse
union all
select * from rmt2.tpcc.dbo.t_warehouse
union all
select * from rmt3.tpcc.dbo.t_warehouse
union all
select * from rmt4.tpcc.dbo.t_warehouse
union all
select * from rmt5.tpcc.dbo.t_warehouse
union all
select * from rmt6.tpcc.dbo.t_warehouse
union all
select * from rmt7.tpcc.dbo.t_warehouse
union all
select * from rmt8.tpcc.dbo.t_warehouse

```

```

union all
select * from rmt9.tpcc.dbo.t_warehouse
union all
select * from rmt10.tpcc.dbo.t_warehouse
union all
select * from rmt11.tpcc.dbo.t_warehouse
union all
select * from rmt12.tpcc.dbo.t_warehouse
union all
select * from rmt13.tpcc.dbo.t_warehouse
union all
select * from rmt14.tpcc.dbo.t_warehouse
union all
select * from rmt15.tpcc.dbo.t_warehouse
union all
select * from rmt16.tpcc.dbo.t_warehouse
union all
select * from rmt17.tpcc.dbo.t_warehouse
union all
select * from rmt18.tpcc.dbo.t_warehouse
union all
select * from rmt19.tpcc.dbo.t_warehouse
union all
select * from rmt20.tpcc.dbo.t_warehouse
union all
select * from rmt22.tpcc.dbo.t_warehouse
union all
select * from rmt23.tpcc.dbo.t_warehouse
union all
select * from rmt24.tpcc.dbo.t_warehouse
union all
select * from rmt25.tpcc.dbo.t_warehouse
union all
select * from rmt26.tpcc.dbo.t_warehouse
union all
select * from rmt27.tpcc.dbo.t_warehouse
union all
select * from rmt28.tpcc.dbo.t_warehouse
union all
select * from rmt29.tpcc.dbo.t_warehouse
union all
select * from rmt30.tpcc.dbo.t_warehouse
union all
select * from rmt31.tpcc.dbo.t_warehouse
union all
select * from rmt32.tpcc.dbo.t_warehouse
go

create view district as
select * from /*rmt21.tpcc.dbo.*/t_district
union all
select * from rmt1.tpcc.dbo.t_district
union all
select * from rmt2.tpcc.dbo.t_district
union all
select * from rmt3.tpcc.dbo.t_district
union all
select * from rmt4.tpcc.dbo.t_district
union all
select * from rmt5.tpcc.dbo.t_district
union all
select * from rmt6.tpcc.dbo.t_district
union all

```



```

select * from rmt32.tpcc.dbo.t_order_line
go

create view new_order as
select * from /*rmt21.tpcc.dbo.*/t_new_order
union all
select * from rmt1.tpcc.dbo.t_new_order
union all
select * from rmt2.tpcc.dbo.t_new_order
union all
select * from rmt3.tpcc.dbo.t_new_order
union all
select * from rmt4.tpcc.dbo.t_new_order
union all
select * from rmt5.tpcc.dbo.t_new_order
union all
select * from rmt6.tpcc.dbo.t_new_order
union all
select * from rmt7.tpcc.dbo.t_new_order
union all
select * from rmt8.tpcc.dbo.t_new_order
union all
select * from rmt9.tpcc.dbo.t_new_order
union all
select * from rmt10.tpcc.dbo.t_new_order
union all
select * from rmt11.tpcc.dbo.t_new_order
union all
select * from rmt12.tpcc.dbo.t_new_order
union all
select * from rmt13.tpcc.dbo.t_new_order
union all
select * from rmt14.tpcc.dbo.t_new_order
union all
select * from rmt15.tpcc.dbo.t_new_order
union all
select * from rmt16.tpcc.dbo.t_new_order
union all
select * from rmt17.tpcc.dbo.t_new_order
union all
select * from rmt18.tpcc.dbo.t_new_order
union all
select * from rmt19.tpcc.dbo.t_new_order
union all
select * from rmt20.tpcc.dbo.t_new_order
union all
select * from rmt22.tpcc.dbo.t_new_order
union all
select * from rmt23.tpcc.dbo.t_new_order
union all
select * from rmt24.tpcc.dbo.t_new_order
union all
select * from rmt25.tpcc.dbo.t_new_order
union all
select * from rmt26.tpcc.dbo.t_new_order
union all
select * from rmt27.tpcc.dbo.t_new_order
union all
select * from rmt28.tpcc.dbo.t_new_order
union all
select * from rmt29.tpcc.dbo.t_new_order
union all
select * from rmt30.tpcc.dbo.t_new_order

```

```

union all
select * from rmt31.tpcc.dbo.t_new_order
union all
select * from rmt32.tpcc.dbo.t_new_order
go

create view item as
select * from t_item
go

```

add_views_22. sql

```
-- file 37801_to_39600\add_views.sql
```

```

set ansi_warnings on
set ansi_nulls on
go

```

```

use tpcc
go

```

```

-- drop any existing views
if object_id('warehouse') is not null drop view
warehouse
if object_id('district') is not null drop view
district
if object_id('customer') is not null drop view
customer
if object_id('history') is not null drop view history
if object_id('stock') is not null drop view stock
if object_id('orders') is not null drop view orders
if object_id('order_line') is not null drop view
order_line
if object_id('new_order') is not null drop view
new_order
if object_id('item') is not null drop view item
go

```

```

--add views for partition 22
create view warehouse as
select * from /*rmt22.tpcc.dbo.*/t_warehouse
union all
select * from rmt1.tpcc.dbo.t_warehouse
union all
select * from rmt2.tpcc.dbo.t_warehouse
union all
select * from rmt3.tpcc.dbo.t_warehouse
union all
select * from rmt4.tpcc.dbo.t_warehouse
union all
select * from rmt5.tpcc.dbo.t_warehouse
union all
select * from rmt6.tpcc.dbo.t_warehouse
union all
select * from rmt7.tpcc.dbo.t_warehouse
union all
select * from rmt8.tpcc.dbo.t_warehouse
union all
select * from rmt9.tpcc.dbo.t_warehouse

```

```

union all
select * from rmt10.tpcc.dbo.t_warehouse
union all
select * from rmt11.tpcc.dbo.t_warehouse
union all
select * from rmt12.tpcc.dbo.t_warehouse
union all
select * from rmt13.tpcc.dbo.t_warehouse
union all
select * from rmt14.tpcc.dbo.t_warehouse
union all
select * from rmt15.tpcc.dbo.t_warehouse
union all
select * from rmt16.tpcc.dbo.t_warehouse
union all
select * from rmt17.tpcc.dbo.t_warehouse
union all
select * from rmt18.tpcc.dbo.t_warehouse
union all
select * from rmt19.tpcc.dbo.t_warehouse
union all
select * from rmt20.tpcc.dbo.t_warehouse
union all
select * from rmt21.tpcc.dbo.t_warehouse
union all
select * from rmt23.tpcc.dbo.t_warehouse
union all
select * from rmt24.tpcc.dbo.t_warehouse
union all
select * from rmt25.tpcc.dbo.t_warehouse
union all
select * from rmt26.tpcc.dbo.t_warehouse
union all
select * from rmt27.tpcc.dbo.t_warehouse
union all
select * from rmt28.tpcc.dbo.t_warehouse
union all
select * from rmt29.tpcc.dbo.t_warehouse
union all
select * from rmt30.tpcc.dbo.t_warehouse
union all
select * from rmt31.tpcc.dbo.t_warehouse
union all
select * from rmt32.tpcc.dbo.t_warehouse
go

```

```

create view district as
select * from /*rmt22.tpcc.dbo.*/t_district
union all
select * from rmt1.tpcc.dbo.t_district
union all
select * from rmt2.tpcc.dbo.t_district
union all
select * from rmt3.tpcc.dbo.t_district
union all
select * from rmt4.tpcc.dbo.t_district
union all
select * from rmt5.tpcc.dbo.t_district
union all
select * from rmt6.tpcc.dbo.t_district
union all
select * from rmt7.tpcc.dbo.t_district
union all

```



```

create view new_order as
select * from /rmt22.tpcc.dbo.*/t_new_order
union all
select * from rmt1.tpcc.dbo.t_new_order
union all
select * from rmt2.tpcc.dbo.t_new_order
union all
select * from rmt3.tpcc.dbo.t_new_order
union all
select * from rmt4.tpcc.dbo.t_new_order
union all
select * from rmt5.tpcc.dbo.t_new_order
union all
select * from rmt6.tpcc.dbo.t_new_order
union all
select * from rmt7.tpcc.dbo.t_new_order
union all
select * from rmt8.tpcc.dbo.t_new_order
union all
select * from rmt9.tpcc.dbo.t_new_order
union all
select * from rmt10.tpcc.dbo.t_new_order
union all
select * from rmt11.tpcc.dbo.t_new_order
union all
select * from rmt12.tpcc.dbo.t_new_order
union all
select * from rmt13.tpcc.dbo.t_new_order
union all
select * from rmt14.tpcc.dbo.t_new_order
union all
select * from rmt15.tpcc.dbo.t_new_order
union all
select * from rmt16.tpcc.dbo.t_new_order
union all
select * from rmt17.tpcc.dbo.t_new_order
union all
select * from rmt18.tpcc.dbo.t_new_order
union all
select * from rmt19.tpcc.dbo.t_new_order
union all
select * from rmt20.tpcc.dbo.t_new_order
union all
select * from rmt21.tpcc.dbo.t_new_order
union all
select * from rmt23.tpcc.dbo.t_new_order
union all
select * from rmt24.tpcc.dbo.t_new_order
union all
select * from rmt25.tpcc.dbo.t_new_order
union all
select * from rmt26.tpcc.dbo.t_new_order
union all
select * from rmt27.tpcc.dbo.t_new_order
union all
select * from rmt28.tpcc.dbo.t_new_order
union all
select * from rmt29.tpcc.dbo.t_new_order
union all
select * from rmt30.tpcc.dbo.t_new_order
union all
select * from rmt31.tpcc.dbo.t_new_order

```

```

union all
select * from rmt32.tpcc.dbo.t_new_order
go

create view item as
select * from t_item
go

```

add_views_23. sql

```
-- file 39601_to_41400\add_views.sql
```

```

set ansi_warnings on
set ansi_nulls on
go

```

```

use tpcc
go

```

```

-- drop any existing views
if object_id('warehouse') is not null drop view
warehouse
if object_id('district') is not null drop view
district
if object_id('customer') is not null drop view
customer
if object_id('history') is not null drop view history
if object_id('stock') is not null drop view stock
if object_id('orders') is not null drop view orders
if object_id('order_line') is not null drop view
order_line
if object_id('new_order') is not null drop view
new_order
if object_id('item') is not null drop view item
go

```

```

--add views for partition 23
create view warehouse as
select * from /rmt23.tpcc.dbo.*/t_warehouse
union all
select * from rmt1.tpcc.dbo.t_warehouse
union all
select * from rmt2.tpcc.dbo.t_warehouse
union all
select * from rmt3.tpcc.dbo.t_warehouse
union all
select * from rmt4.tpcc.dbo.t_warehouse
union all
select * from rmt5.tpcc.dbo.t_warehouse
union all
select * from rmt6.tpcc.dbo.t_warehouse
union all
select * from rmt7.tpcc.dbo.t_warehouse
union all
select * from rmt8.tpcc.dbo.t_warehouse
union all
select * from rmt9.tpcc.dbo.t_warehouse
union all
select * from rmt10.tpcc.dbo.t_warehouse

```

```

union all
select * from rmt11.tpcc.dbo.t_warehouse
union all
select * from rmt12.tpcc.dbo.t_warehouse
union all
select * from rmt13.tpcc.dbo.t_warehouse
union all
select * from rmt14.tpcc.dbo.t_warehouse
union all
select * from rmt15.tpcc.dbo.t_warehouse
union all
select * from rmt16.tpcc.dbo.t_warehouse
union all
select * from rmt17.tpcc.dbo.t_warehouse
union all
select * from rmt18.tpcc.dbo.t_warehouse
union all
select * from rmt19.tpcc.dbo.t_warehouse
union all
select * from rmt20.tpcc.dbo.t_warehouse
union all
select * from rmt21.tpcc.dbo.t_warehouse
union all
select * from rmt22.tpcc.dbo.t_warehouse
union all
select * from rmt24.tpcc.dbo.t_warehouse
union all
select * from rmt25.tpcc.dbo.t_warehouse
union all
select * from rmt26.tpcc.dbo.t_warehouse
union all
select * from rmt27.tpcc.dbo.t_warehouse
union all
select * from rmt28.tpcc.dbo.t_warehouse
union all
select * from rmt29.tpcc.dbo.t_warehouse
union all
select * from rmt30.tpcc.dbo.t_warehouse
union all
select * from rmt31.tpcc.dbo.t_warehouse
union all
select * from rmt32.tpcc.dbo.t_warehouse
go

```

```

create view district as
select * from /rmt23.tpcc.dbo.*/t_district
union all
select * from rmt1.tpcc.dbo.t_district
union all
select * from rmt2.tpcc.dbo.t_district
union all
select * from rmt3.tpcc.dbo.t_district
union all
select * from rmt4.tpcc.dbo.t_district
union all
select * from rmt5.tpcc.dbo.t_district
union all
select * from rmt6.tpcc.dbo.t_district
union all
select * from rmt7.tpcc.dbo.t_district
union all
select * from rmt8.tpcc.dbo.t_district
union all

```



```

select * from /*rmt23.tpcc.dbo.*/t_new_order
union all
select * from rmt1.tpcc.dbo.t_new_order
union all
select * from rmt2.tpcc.dbo.t_new_order
union all
select * from rmt3.tpcc.dbo.t_new_order
union all
select * from rmt4.tpcc.dbo.t_new_order
union all
select * from rmt5.tpcc.dbo.t_new_order
union all
select * from rmt6.tpcc.dbo.t_new_order
union all
select * from rmt7.tpcc.dbo.t_new_order
union all
select * from rmt8.tpcc.dbo.t_new_order
union all
select * from rmt9.tpcc.dbo.t_new_order
union all
select * from rmt10.tpcc.dbo.t_new_order
union all
select * from rmt11.tpcc.dbo.t_new_order
union all
select * from rmt12.tpcc.dbo.t_new_order
union all
select * from rmt13.tpcc.dbo.t_new_order
union all
select * from rmt14.tpcc.dbo.t_new_order
union all
select * from rmt15.tpcc.dbo.t_new_order
union all
select * from rmt16.tpcc.dbo.t_new_order
union all
select * from rmt17.tpcc.dbo.t_new_order
union all
select * from rmt18.tpcc.dbo.t_new_order
union all
select * from rmt19.tpcc.dbo.t_new_order
union all
select * from rmt20.tpcc.dbo.t_new_order
union all
select * from rmt21.tpcc.dbo.t_new_order
union all
select * from rmt22.tpcc.dbo.t_new_order
union all
select * from rmt24.tpcc.dbo.t_new_order
union all
select * from rmt25.tpcc.dbo.t_new_order
union all
select * from rmt26.tpcc.dbo.t_new_order
union all
select * from rmt27.tpcc.dbo.t_new_order
union all
select * from rmt28.tpcc.dbo.t_new_order
union all
select * from rmt29.tpcc.dbo.t_new_order
union all
select * from rmt30.tpcc.dbo.t_new_order
union all
select * from rmt31.tpcc.dbo.t_new_order
union all
select * from rmt32.tpcc.dbo.t_new_order

```

```

go

create view item as
select * from t_item
go

```

add_views_24. sql

```
-- file 41401_to_43200\add_views.sql
```

```

set ansi_warnings on
set ansi_nulls on
go

```

```

use tpcc
go

```

```

-- drop any existing views
if object_id('warehouse') is not null drop view
warehouse
if object_id('district') is not null drop view
district
if object_id('customer') is not null drop view
customer
if object_id('history') is not null drop view history
if object_id('stock') is not null drop view stock
if object_id('orders') is not null drop view orders
if object_id('order_line') is not null drop view
order_line
if object_id('new_order') is not null drop view
new_order
if object_id('item') is not null drop view item
go

```

```

--add views for partition 24
create view warehouse as
select * from /*rmt24.tpcc.dbo.*/t_warehouse
union all
select * from rmt1.tpcc.dbo.t_warehouse
union all
select * from rmt2.tpcc.dbo.t_warehouse
union all
select * from rmt3.tpcc.dbo.t_warehouse
union all
select * from rmt4.tpcc.dbo.t_warehouse
union all
select * from rmt5.tpcc.dbo.t_warehouse
union all
select * from rmt6.tpcc.dbo.t_warehouse
union all
select * from rmt7.tpcc.dbo.t_warehouse
union all
select * from rmt8.tpcc.dbo.t_warehouse
union all
select * from rmt9.tpcc.dbo.t_warehouse
union all
select * from rmt10.tpcc.dbo.t_warehouse
union all
select * from rmt11.tpcc.dbo.t_warehouse

```

```

union all
select * from rmt12.tpcc.dbo.t_warehouse
union all
select * from rmt13.tpcc.dbo.t_warehouse
union all
select * from rmt14.tpcc.dbo.t_warehouse
union all
select * from rmt15.tpcc.dbo.t_warehouse
union all
select * from rmt16.tpcc.dbo.t_warehouse
union all
select * from rmt17.tpcc.dbo.t_warehouse
union all
select * from rmt18.tpcc.dbo.t_warehouse
union all
select * from rmt19.tpcc.dbo.t_warehouse
union all
select * from rmt20.tpcc.dbo.t_warehouse
union all
select * from rmt21.tpcc.dbo.t_warehouse
union all
select * from rmt22.tpcc.dbo.t_warehouse
union all
select * from rmt23.tpcc.dbo.t_warehouse
union all
select * from rmt25.tpcc.dbo.t_warehouse
union all
select * from rmt26.tpcc.dbo.t_warehouse
union all
select * from rmt27.tpcc.dbo.t_warehouse
union all
select * from rmt28.tpcc.dbo.t_warehouse
union all
select * from rmt29.tpcc.dbo.t_warehouse
union all
select * from rmt30.tpcc.dbo.t_warehouse
union all
select * from rmt31.tpcc.dbo.t_warehouse
union all
select * from rmt32.tpcc.dbo.t_warehouse
go

```

```

create view district as
select * from /*rmt24.tpcc.dbo.*/t_district
union all
select * from rmt1.tpcc.dbo.t_district
union all
select * from rmt2.tpcc.dbo.t_district
union all
select * from rmt3.tpcc.dbo.t_district
union all
select * from rmt4.tpcc.dbo.t_district
union all
select * from rmt5.tpcc.dbo.t_district
union all
select * from rmt6.tpcc.dbo.t_district
union all
select * from rmt7.tpcc.dbo.t_district
union all
select * from rmt8.tpcc.dbo.t_district
union all
select * from rmt9.tpcc.dbo.t_district
union all

```



```

select * from rmt1.tpcc.dbo.t_new_order
union all
select * from rmt2.tpcc.dbo.t_new_order
union all
select * from rmt3.tpcc.dbo.t_new_order
union all
select * from rmt4.tpcc.dbo.t_new_order
union all
select * from rmt5.tpcc.dbo.t_new_order
union all
select * from rmt6.tpcc.dbo.t_new_order
union all
select * from rmt7.tpcc.dbo.t_new_order
union all
select * from rmt8.tpcc.dbo.t_new_order
union all
select * from rmt9.tpcc.dbo.t_new_order
union all
select * from rmt10.tpcc.dbo.t_new_order
union all
select * from rmt11.tpcc.dbo.t_new_order
union all
select * from rmt12.tpcc.dbo.t_new_order
union all
select * from rmt13.tpcc.dbo.t_new_order
union all
select * from rmt14.tpcc.dbo.t_new_order
union all
select * from rmt15.tpcc.dbo.t_new_order
union all
select * from rmt16.tpcc.dbo.t_new_order
union all
select * from rmt17.tpcc.dbo.t_new_order
union all
select * from rmt18.tpcc.dbo.t_new_order
union all
select * from rmt19.tpcc.dbo.t_new_order
union all
select * from rmt20.tpcc.dbo.t_new_order
union all
select * from rmt21.tpcc.dbo.t_new_order
union all
select * from rmt22.tpcc.dbo.t_new_order
union all
select * from rmt23.tpcc.dbo.t_new_order
union all
select * from rmt25.tpcc.dbo.t_new_order
union all
select * from rmt26.tpcc.dbo.t_new_order
union all
select * from rmt27.tpcc.dbo.t_new_order
union all
select * from rmt28.tpcc.dbo.t_new_order
union all
select * from rmt29.tpcc.dbo.t_new_order
union all
select * from rmt30.tpcc.dbo.t_new_order
union all
select * from rmt31.tpcc.dbo.t_new_order
union all
select * from rmt32.tpcc.dbo.t_new_order
go

```

```

create view item as
select * from t_item
go

```

item_iot_1.sql

```

-- file 1_to_1800\item_iot.sql

--add item instead-of-trigger for partition 1

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

use tpcc
go

drop trigger iot_item
go

create trigger iot_item on item instead of update,
insert, delete as
begin

--
-- local node (partition 1)
DELETE A FROM t_item A, DELETED D WHERE A.i_id =
D.i_id
INSERT t_item SELECT * FROM INSERTED

--
-- remote node, partition 2
DELETE A FROM rmt2.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt2.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 3
DELETE A FROM rmt3.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt3.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 4
DELETE A FROM rmt4.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt4.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 5
DELETE A FROM rmt5.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt5.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 6
DELETE A FROM rmt6.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt6.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 7

```

```

DELETE A FROM rmt7.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt7.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 8
DELETE A FROM rmt8.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt8.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 9
DELETE A FROM rmt9.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt9.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 10
DELETE A FROM rmt10.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt10.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 11
DELETE A FROM rmt11.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt11.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 12
DELETE A FROM rmt12.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt12.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 13
DELETE A FROM rmt13.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt13.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 14
DELETE A FROM rmt14.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt14.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 15
DELETE A FROM rmt15.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt15.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 16
DELETE A FROM rmt16.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt16.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 17
DELETE A FROM rmt17.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt17.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 18
DELETE A FROM rmt18.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt18.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 19
DELETE A FROM rmt19.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt19.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 20
DELETE A FROM rmt20.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt20.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 21
DELETE A FROM rmt21.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt21.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 22
DELETE A FROM rmt22.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt22.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 23
DELETE A FROM rmt23.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt23.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 24
DELETE A FROM rmt24.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt24.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 25
DELETE A FROM rmt25.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt25.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 26
DELETE A FROM rmt26.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt26.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 27
DELETE A FROM rmt27.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt27.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 28

```

```

DELETE A FROM rmt28.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt28.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 29
DELETE A FROM rmt29.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt29.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 30
DELETE A FROM rmt30.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt30.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 31
DELETE A FROM rmt31.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt31.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 32
DELETE A FROM rmt32.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt32.tpcc.dbo.t_item SELECT * FROM INSERTED

end

```

item_iot_2.sql

```

-- file 1801_to_3600\item_iot.sql

--add item instead-of-trigger for partition 2

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

use tpcc
go

drop trigger iot_item
go

create trigger iot_item on item instead of update,
insert, delete as
begin

--
-- remote node, partition 1
DELETE A FROM rmt1.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt1.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- local node (partition 2)
DELETE A FROM t_item A, DELETED D WHERE A.i_id =
D.i_id
INSERT t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 3
DELETE A FROM rmt3.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt3.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 4
DELETE A FROM rmt4.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt4.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 5
DELETE A FROM rmt5.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt5.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 6
DELETE A FROM rmt6.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt6.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 7
DELETE A FROM rmt7.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt7.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 8
DELETE A FROM rmt8.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt8.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 9
DELETE A FROM rmt9.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt9.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 10
DELETE A FROM rmt10.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt10.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 11
DELETE A FROM rmt11.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt11.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 12
DELETE A FROM rmt12.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt12.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 13

```

```

DELETE A FROM rmt13.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt13.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 14
DELETE A FROM rmt14.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt14.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 15
DELETE A FROM rmt15.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt15.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 16
DELETE A FROM rmt16.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt16.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 17
DELETE A FROM rmt17.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt17.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 18
DELETE A FROM rmt18.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt18.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 19
DELETE A FROM rmt19.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt19.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 20
DELETE A FROM rmt20.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt20.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 21
DELETE A FROM rmt21.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt21.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 22
DELETE A FROM rmt22.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt22.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 23
DELETE A FROM rmt23.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt23.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 24
DELETE A FROM rmt24.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt24.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 25
DELETE A FROM rmt25.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt25.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 26
DELETE A FROM rmt26.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt26.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 27
DELETE A FROM rmt27.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt27.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 28
DELETE A FROM rmt28.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt28.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 29
DELETE A FROM rmt29.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt29.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 30
DELETE A FROM rmt30.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt30.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 31
DELETE A FROM rmt31.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt31.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 32
DELETE A FROM rmt32.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt32.tpcc.dbo.t_item SELECT * FROM INSERTED

end

```

item_iot_3.sql

```

-- file 3601_to_5400\item_iot.sql
--add item instead-of-trigger for partition 3

```

```

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

use tpcc
go

drop trigger iot_item
go

create trigger iot_item on item instead of update,
insert, delete as
begin

--
-- remote node, partition 1
DELETE A FROM rmt1.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt1.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 2
DELETE A FROM rmt2.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt2.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- local node (partition 3)
DELETE A FROM t_item A, DELETED D WHERE A.i_id =
D.i_id
INSERT t_item SELECT * FROM INSERTED

--
-- remote node, partition 4
DELETE A FROM rmt4.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt4.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 5
DELETE A FROM rmt5.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt5.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 6
DELETE A FROM rmt6.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt6.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 7
DELETE A FROM rmt7.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt7.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 8
DELETE A FROM rmt8.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt8.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 9
DELETE A FROM rmt9.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt9.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 10
DELETE A FROM rmt10.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt10.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 11
DELETE A FROM rmt11.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt11.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 12
DELETE A FROM rmt12.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt12.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 13
DELETE A FROM rmt13.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt13.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 14
DELETE A FROM rmt14.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt14.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 15
DELETE A FROM rmt15.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt15.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 16
DELETE A FROM rmt16.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt16.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 17
DELETE A FROM rmt17.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt17.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 18
DELETE A FROM rmt18.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt18.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 19

```

```

DELETE A FROM rmt19.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt19.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 20
DELETE A FROM rmt20.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt20.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 21
DELETE A FROM rmt21.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt21.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 22
DELETE A FROM rmt22.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt22.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 23
DELETE A FROM rmt23.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt23.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 24
DELETE A FROM rmt24.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt24.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 25
DELETE A FROM rmt25.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt25.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 26
DELETE A FROM rmt26.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt26.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 27
DELETE A FROM rmt27.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt27.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 28
DELETE A FROM rmt28.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt28.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 29
DELETE A FROM rmt29.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt29.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 30
DELETE A FROM rmt30.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt30.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 31
DELETE A FROM rmt31.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt31.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 32
DELETE A FROM rmt32.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt32.tpcc.dbo.t_item SELECT * FROM INSERTED

end

```

item_iot_4.sql

```

-- file 5401_to_7200\item_iot.sql

--add item instead-of-trigger for partition 4

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

use tpcc
go

drop trigger iot_item
go

create trigger iot_item on item instead of update,
insert, delete as
begin

--
-- remote node, partition 1
DELETE A FROM rmt1.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt1.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 2
DELETE A FROM rmt2.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt2.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 3
DELETE A FROM rmt3.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt3.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- local node (partition 4)

```

```

DELETE A FROM t_item A, DELETED D WHERE A.i_id =
D.i_id
INSERT t_item SELECT * FROM INSERTED

--
-- remote node, partition 5
DELETE A FROM rmt5.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt5.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 6
DELETE A FROM rmt6.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt6.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 7
DELETE A FROM rmt7.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt7.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 8
DELETE A FROM rmt8.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt8.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 9
DELETE A FROM rmt9.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt9.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 10
DELETE A FROM rmt10.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt10.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 11
DELETE A FROM rmt11.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt11.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 12
DELETE A FROM rmt12.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt12.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 13
DELETE A FROM rmt13.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt13.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 14
DELETE A FROM rmt14.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt14.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 15
DELETE A FROM rmt15.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt15.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 16
DELETE A FROM rmt16.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt16.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 17
DELETE A FROM rmt17.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt17.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 18
DELETE A FROM rmt18.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt18.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 19
DELETE A FROM rmt19.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt19.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 20
DELETE A FROM rmt20.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt20.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 21
DELETE A FROM rmt21.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt21.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 22
DELETE A FROM rmt22.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt22.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 23
DELETE A FROM rmt23.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt23.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 24
DELETE A FROM rmt24.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt24.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 25

```

```

DELETE A FROM rmt25.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt25.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 26
DELETE A FROM rmt26.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt26.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 27
DELETE A FROM rmt27.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt27.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 28
DELETE A FROM rmt28.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt28.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 29
DELETE A FROM rmt29.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt29.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 30
DELETE A FROM rmt30.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt30.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 31
DELETE A FROM rmt31.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt31.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 32
DELETE A FROM rmt32.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt32.tpcc.dbo.t_item SELECT * FROM INSERTED

end

```

item_iot_5.sql

```

-- file 7201_to_9000\item_iot_5.sql

--add item instead-of-trigger for partition 5

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

use tpcc
go

drop trigger iot_item

```

```

go

create trigger iot_item on item instead of update,
insert, delete as
begin

--
-- remote node, partition 1
DELETE A FROM rmt1.tpc.c.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt1.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 2
DELETE A FROM rmt2.tpc.c.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt2.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 3
DELETE A FROM rmt3.tpc.c.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt3.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 4
DELETE A FROM rmt4.tpc.c.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt4.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- local node (partition 5)
DELETE A FROM t_item A, DELETED D WHERE A.i_id =
D.i_id
INSERT t_item SELECT * FROM INSERTED

--
-- remote node, partition 6
DELETE A FROM rmt6.tpc.c.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt6.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 7
DELETE A FROM rmt7.tpc.c.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt7.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 8
DELETE A FROM rmt8.tpc.c.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt8.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 9
DELETE A FROM rmt9.tpc.c.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt9.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 10

```

```

DELETE A FROM rmt10.tpc.c.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt10.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 11
DELETE A FROM rmt11.tpc.c.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt11.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 12
DELETE A FROM rmt12.tpc.c.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt12.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 13
DELETE A FROM rmt13.tpc.c.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt13.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 14
DELETE A FROM rmt14.tpc.c.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt14.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 15
DELETE A FROM rmt15.tpc.c.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt15.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 16
DELETE A FROM rmt16.tpc.c.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt16.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 17
DELETE A FROM rmt17.tpc.c.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt17.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 18
DELETE A FROM rmt18.tpc.c.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt18.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 19
DELETE A FROM rmt19.tpc.c.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt19.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 20
DELETE A FROM rmt20.tpc.c.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt20.tpc.c.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 21
DELETE A FROM rmt21.tpc.c.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt21.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 22
DELETE A FROM rmt22.tpc.c.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt22.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 23
DELETE A FROM rmt23.tpc.c.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt23.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 24
DELETE A FROM rmt24.tpc.c.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt24.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 25
DELETE A FROM rmt25.tpc.c.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt25.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 26
DELETE A FROM rmt26.tpc.c.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt26.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 27
DELETE A FROM rmt27.tpc.c.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt27.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 28
DELETE A FROM rmt28.tpc.c.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt28.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 29
DELETE A FROM rmt29.tpc.c.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt29.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 30
DELETE A FROM rmt30.tpc.c.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt30.tpc.c.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 31

```



```

DELETE A FROM rmt31.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt31.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 32
DELETE A FROM rmt32.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt32.tpcc.dbo.t_item SELECT * FROM INSERTED

end

```

item_iot_6.sql

```

-- file 9001_to_10800\item_iot.sql

--add item instead-of-trigger for partition 6

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

use tpcc
go

drop trigger iot_item
go

create trigger iot_item on item instead of update,
insert, delete as
begin

--
-- remote node, partition 1
DELETE A FROM rmt1.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt1.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 2
DELETE A FROM rmt2.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt2.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 3
DELETE A FROM rmt3.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt3.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 4
DELETE A FROM rmt4.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt4.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 5
DELETE A FROM rmt5.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt5.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- local node (partition 6)
DELETE A FROM t_item A, DELETED D WHERE A.i_id =
D.i_id
INSERT t_item SELECT * FROM INSERTED

--
-- remote node, partition 7
DELETE A FROM rmt7.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt7.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 8
DELETE A FROM rmt8.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt8.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 9
DELETE A FROM rmt9.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt9.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 10
DELETE A FROM rmt10.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt10.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 11
DELETE A FROM rmt11.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt11.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 12
DELETE A FROM rmt12.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt12.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 13
DELETE A FROM rmt13.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt13.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 14
DELETE A FROM rmt14.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt14.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 15
DELETE A FROM rmt15.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt15.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 16

```

```

DELETE A FROM rmt16.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt16.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 17
DELETE A FROM rmt17.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt17.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 18
DELETE A FROM rmt18.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt18.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 19
DELETE A FROM rmt19.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt19.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 20
DELETE A FROM rmt20.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt20.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 21
DELETE A FROM rmt21.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt21.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 22
DELETE A FROM rmt22.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt22.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 23
DELETE A FROM rmt23.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt23.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 24
DELETE A FROM rmt24.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt24.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 25
DELETE A FROM rmt25.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt25.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 26
DELETE A FROM rmt26.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt26.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 27
DELETE A FROM rmt27.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt27.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 28
DELETE A FROM rmt28.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt28.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 29
DELETE A FROM rmt29.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt29.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 30
DELETE A FROM rmt30.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt30.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 31
DELETE A FROM rmt31.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt31.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 32
DELETE A FROM rmt32.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt32.tpcc.dbo.t_item SELECT * FROM INSERTED

end

```

item_iot_7.sql

```

-- file 10801_to_12600\item_iot.sql

--add item instead-of-trigger for partition 7

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

use tpcc
go

drop trigger iot_item
go

create trigger iot_item on item instead of update,
insert, delete as
begin

--
-- remote node, partition 1

```

```

DELETE A FROM rmt1.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt1.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 2
DELETE A FROM rmt2.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt2.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 3
DELETE A FROM rmt3.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt3.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 4
DELETE A FROM rmt4.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt4.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 5
DELETE A FROM rmt5.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt5.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 6
DELETE A FROM rmt6.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt6.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- local node (parition 7)
DELETE A FROM t_item A, DELETED D WHERE A.i_id =
D.i_id
INSERT t_item SELECT * FROM INSERTED

--
-- remote node, partition 8
DELETE A FROM rmt8.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt8.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 9
DELETE A FROM rmt9.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt9.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 10
DELETE A FROM rmt10.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt10.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 11
DELETE A FROM rmt11.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt11.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 12
DELETE A FROM rmt12.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt12.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 13
DELETE A FROM rmt13.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt13.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 14
DELETE A FROM rmt14.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt14.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 15
DELETE A FROM rmt15.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt15.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 16
DELETE A FROM rmt16.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt16.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 17
DELETE A FROM rmt17.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt17.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 18
DELETE A FROM rmt18.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt18.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 19
DELETE A FROM rmt19.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt19.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 20
DELETE A FROM rmt20.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt20.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 21
DELETE A FROM rmt21.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt21.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 22

```

```

DELETE A FROM rmt22.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt22.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 23
DELETE A FROM rmt23.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt23.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 24
DELETE A FROM rmt24.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt24.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 25
DELETE A FROM rmt25.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt25.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 26
DELETE A FROM rmt26.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt26.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 27
DELETE A FROM rmt27.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt27.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 28
DELETE A FROM rmt28.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt28.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 29
DELETE A FROM rmt29.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt29.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 30
DELETE A FROM rmt30.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt30.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 31
DELETE A FROM rmt31.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt31.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 32
DELETE A FROM rmt32.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt32.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```
end
```

item_iot_8.sql

```

-- file 12601_to_14400\item_iot.sql

--add item instead-of-trigger for partition 8

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

use tpcc
go

drop trigger iot_item
go

create trigger iot_item on item instead of update,
insert, delete as
begin

--
-- remote node, partition 1
DELETE A FROM rmt1.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt1.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 2
DELETE A FROM rmt2.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt2.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 3
DELETE A FROM rmt3.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt3.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 4
DELETE A FROM rmt4.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt4.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 5
DELETE A FROM rmt5.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt5.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 6
DELETE A FROM rmt6.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt6.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 7

```

```

DELETE A FROM rmt7.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt7.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- local node (partition 8)
DELETE A FROM t_item A, DELETED D WHERE A.i_id =
D.i_id
INSERT t_item SELECT * FROM INSERTED

--
-- remote node, partition 9
DELETE A FROM rmt9.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt9.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 10
DELETE A FROM rmt10.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt10.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 11
DELETE A FROM rmt11.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt11.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 12
DELETE A FROM rmt12.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt12.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 13
DELETE A FROM rmt13.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt13.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 14
DELETE A FROM rmt14.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt14.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 15
DELETE A FROM rmt15.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt15.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 16
DELETE A FROM rmt16.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt16.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 17
DELETE A FROM rmt17.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt17.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 18
DELETE A FROM rmt18.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt18.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 19
DELETE A FROM rmt19.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt19.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 20
DELETE A FROM rmt20.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt20.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 21
DELETE A FROM rmt21.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt21.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 22
DELETE A FROM rmt22.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt22.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 23
DELETE A FROM rmt23.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt23.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 24
DELETE A FROM rmt24.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt24.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 25
DELETE A FROM rmt25.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt25.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 26
DELETE A FROM rmt26.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt26.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 27
DELETE A FROM rmt27.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt27.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 28

```

```

DELETE A FROM rmt28.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt28.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 29
DELETE A FROM rmt29.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt29.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 30
DELETE A FROM rmt30.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt30.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 31
DELETE A FROM rmt31.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt31.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 32
DELETE A FROM rmt32.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt32.tpcc.dbo.t_item SELECT * FROM INSERTED

end

```

item_iot_9.sql

```

-- file 14401_to_16200\item_iot.sql

--add item instead-of-trigger for partition 9

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

use tpcc
go

drop trigger iot_item
go

create trigger iot_item on item instead of update,
insert, delete as
begin

--
-- remote node, partition 1
DELETE A FROM rmt1.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt1.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 2
DELETE A FROM rmt2.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt2.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 3
DELETE A FROM rmt3.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt3.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 4
DELETE A FROM rmt4.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt4.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 5
DELETE A FROM rmt5.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt5.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 6
DELETE A FROM rmt6.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt6.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 7
DELETE A FROM rmt7.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt7.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 8
DELETE A FROM rmt8.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt8.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- local node (partition 9)
DELETE A FROM t_item A, DELETED D WHERE A.i_id =
D.i_id
INSERT t_item SELECT * FROM INSERTED

--
-- remote node, partition 10
DELETE A FROM rmt10.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt10.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 11
DELETE A FROM rmt11.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt11.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 12
DELETE A FROM rmt12.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt12.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 13

```

```

DELETE A FROM rmt13.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt13.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 14
DELETE A FROM rmt14.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt14.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 15
DELETE A FROM rmt15.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt15.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 16
DELETE A FROM rmt16.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt16.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 17
DELETE A FROM rmt17.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt17.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 18
DELETE A FROM rmt18.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt18.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 19
DELETE A FROM rmt19.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt19.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 20
DELETE A FROM rmt20.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt20.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 21
DELETE A FROM rmt21.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt21.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 22
DELETE A FROM rmt22.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt22.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 23
DELETE A FROM rmt23.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt23.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 24
DELETE A FROM rmt24.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt24.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 25
DELETE A FROM rmt25.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt25.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 26
DELETE A FROM rmt26.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt26.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 27
DELETE A FROM rmt27.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt27.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 28
DELETE A FROM rmt28.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt28.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 29
DELETE A FROM rmt29.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt29.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 30
DELETE A FROM rmt30.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt30.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 31
DELETE A FROM rmt31.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt31.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 32
DELETE A FROM rmt32.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt32.tpcc.dbo.t_item SELECT * FROM INSERTED

end

```

item_10.sql

```

-- file 16201_to_18000\item_10.sql
--add item instead-of-trigger for partition 10

```

```

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

use tpcc
go

drop trigger iot_item
go

create trigger iot_item on item instead of update,
insert, delete as
begin

--
-- remote node, partition 1
DELETE A FROM rmt1.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt1.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 2
DELETE A FROM rmt2.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt2.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 3
DELETE A FROM rmt3.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt3.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 4
DELETE A FROM rmt4.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt4.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 5
DELETE A FROM rmt5.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt5.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 6
DELETE A FROM rmt6.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt6.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 7
DELETE A FROM rmt7.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt7.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 8
DELETE A FROM rmt8.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt8.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 9
DELETE A FROM rmt9.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt9.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- local node (partition 10)
DELETE A FROM t_item A, DELETED D WHERE A.i_id =
D.i_id
INSERT t_item SELECT * FROM INSERTED

--
-- remote node, partition 11
DELETE A FROM rmt11.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt11.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 12
DELETE A FROM rmt12.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt12.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 13
DELETE A FROM rmt13.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt13.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 14
DELETE A FROM rmt14.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt14.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 15
DELETE A FROM rmt15.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt15.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 16
DELETE A FROM rmt16.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt16.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 17
DELETE A FROM rmt17.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt17.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 18
DELETE A FROM rmt18.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt18.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 19

```

```

DELETE A FROM rmt19.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt19.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 20
DELETE A FROM rmt20.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt20.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 21
DELETE A FROM rmt21.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt21.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 22
DELETE A FROM rmt22.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt22.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 23
DELETE A FROM rmt23.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt23.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 24
DELETE A FROM rmt24.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt24.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 25
DELETE A FROM rmt25.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt25.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 26
DELETE A FROM rmt26.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt26.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 27
DELETE A FROM rmt27.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt27.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 28
DELETE A FROM rmt28.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt28.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 29
DELETE A FROM rmt29.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt29.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 30
DELETE A FROM rmt30.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt30.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 31
DELETE A FROM rmt31.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt31.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 32
DELETE A FROM rmt32.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt32.tpcc.dbo.t_item SELECT * FROM INSERTED

end

```

item_iot_11.sql

```

-- file 18001_to_19800\item_iot.sql

--add item instead-of-trigger for partition 11

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

use tpcc
go

drop trigger iot_item
go

create trigger iot_item on item instead of update,
insert, delete as
begin

--
-- remote node, partition 1
DELETE A FROM rmt1.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt1.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 2
DELETE A FROM rmt2.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt2.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 3
DELETE A FROM rmt3.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt3.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 4

```

```

DELETE A FROM rmt4.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt4.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 5
DELETE A FROM rmt5.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt5.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 6
DELETE A FROM rmt6.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt6.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 7
DELETE A FROM rmt7.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt7.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 8
DELETE A FROM rmt8.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt8.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 9
DELETE A FROM rmt9.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt9.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 10
DELETE A FROM rmt10.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt10.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- local node (partition 11)
DELETE A FROM t_item A, DELETED D WHERE A.i_id =
D.i_id
INSERT t_item SELECT * FROM INSERTED

--
-- remote node, partition 12
DELETE A FROM rmt12.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt12.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 13
DELETE A FROM rmt13.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt13.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 14
DELETE A FROM rmt14.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt14.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 15
DELETE A FROM rmt15.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt15.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 16
DELETE A FROM rmt16.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt16.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 17
DELETE A FROM rmt17.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt17.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 18
DELETE A FROM rmt18.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt18.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 19
DELETE A FROM rmt19.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt19.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 20
DELETE A FROM rmt20.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt20.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 21
DELETE A FROM rmt21.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt21.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 22
DELETE A FROM rmt22.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt22.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 23
DELETE A FROM rmt23.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt23.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 24
DELETE A FROM rmt24.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt24.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 25

```

```

DELETE A FROM rmt25.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt25.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 26
DELETE A FROM rmt26.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt26.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 27
DELETE A FROM rmt27.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt27.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 28
DELETE A FROM rmt28.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt28.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 29
DELETE A FROM rmt29.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt29.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 30
DELETE A FROM rmt30.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt30.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 31
DELETE A FROM rmt31.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt31.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 32
DELETE A FROM rmt32.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt32.tpcc.dbo.t_item SELECT * FROM INSERTED

end

item_iot_12.sql
-- file 19801_to_21600\item_iot.sql

--add item instead-of-trigger for partition 12

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

use tpcc
go

drop trigger iot_item

```

```

go

create trigger iot_item on item instead of update,
insert, delete as
begin

--
-- remote node, partition 1
DELETE A FROM rmt1.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt1.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 2
DELETE A FROM rmt2.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt2.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 3
DELETE A FROM rmt3.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt3.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 4
DELETE A FROM rmt4.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt4.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 5
DELETE A FROM rmt5.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt5.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 6
DELETE A FROM rmt6.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt6.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 7
DELETE A FROM rmt7.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt7.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 8
DELETE A FROM rmt8.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt8.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 9
DELETE A FROM rmt9.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt9.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 10

```

```

DELETE A FROM rmt10.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt10.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 11
DELETE A FROM rmt11.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt11.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- local node (partition 12)
DELETE A FROM t_item A, DELETED D WHERE A.i_id =
D.i_id
INSERT t_item SELECT * FROM INSERTED

--
-- remote node, partition 13
DELETE A FROM rmt13.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt13.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 14
DELETE A FROM rmt14.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt14.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 15
DELETE A FROM rmt15.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt15.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 16
DELETE A FROM rmt16.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt16.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 17
DELETE A FROM rmt17.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt17.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 18
DELETE A FROM rmt18.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt18.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 19
DELETE A FROM rmt19.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt19.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 20
DELETE A FROM rmt20.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt20.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 21
DELETE A FROM rmt21.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt21.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 22
DELETE A FROM rmt22.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt22.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 23
DELETE A FROM rmt23.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt23.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 24
DELETE A FROM rmt24.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt24.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 25
DELETE A FROM rmt25.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt25.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 26
DELETE A FROM rmt26.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt26.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 27
DELETE A FROM rmt27.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt27.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 28
DELETE A FROM rmt28.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt28.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 29
DELETE A FROM rmt29.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt29.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 30
DELETE A FROM rmt30.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt30.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 31

```



```

DELETE A FROM rmt31.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt31.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 32
DELETE A FROM rmt32.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt32.tpcc.dbo.t_item SELECT * FROM INSERTED

end

```

item_iot_13.sql

```

-- file 21601_to_23400\item_iot.sql

--add item instead-of-trigger for partition 13

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

use tpcc
go

drop trigger iot_item
go

create trigger iot_item on item instead of update,
insert, delete as
begin

--
-- remote node, partition 1
DELETE A FROM rmt1.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt1.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 2
DELETE A FROM rmt2.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt2.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 3
DELETE A FROM rmt3.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt3.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 4
DELETE A FROM rmt4.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt4.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 5
DELETE A FROM rmt5.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt5.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 6
DELETE A FROM rmt6.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt6.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 7
DELETE A FROM rmt7.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt7.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 8
DELETE A FROM rmt8.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt8.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 9
DELETE A FROM rmt9.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt9.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 10
DELETE A FROM rmt10.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt10.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 11
DELETE A FROM rmt11.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt11.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 12
DELETE A FROM rmt12.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt12.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- local node (partition 13)
DELETE A FROM t_item A, DELETED D WHERE A.i_id =
D.i_id
INSERT t_item SELECT * FROM INSERTED

--
-- remote node, partition 14
DELETE A FROM rmt14.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt14.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 15
DELETE A FROM rmt15.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt15.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 16

```

```

DELETE A FROM rmt16.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt16.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 17
DELETE A FROM rmt17.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt17.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 18
DELETE A FROM rmt18.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt18.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 19
DELETE A FROM rmt19.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt19.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 20
DELETE A FROM rmt20.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt20.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 21
DELETE A FROM rmt21.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt21.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 22
DELETE A FROM rmt22.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt22.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 23
DELETE A FROM rmt23.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt23.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 24
DELETE A FROM rmt24.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt24.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 25
DELETE A FROM rmt25.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt25.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 26
DELETE A FROM rmt26.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt26.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 27
DELETE A FROM rmt27.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt27.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 28
DELETE A FROM rmt28.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt28.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 29
DELETE A FROM rmt29.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt29.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 30
DELETE A FROM rmt30.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt30.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 31
DELETE A FROM rmt31.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt31.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 32
DELETE A FROM rmt32.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt32.tpcc.dbo.t_item SELECT * FROM INSERTED

end

```

item_iot_14.sql

```

-- file 23401_to_25200\item_iot.sql

--add item instead-of-trigger for partition 14

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

use tpcc
go

drop trigger iot_item
go

create trigger iot_item on item instead of update,
insert, delete as
begin

--
-- remote node, partition 1

```

```

DELETE A FROM rmt1.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt1.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 2
DELETE A FROM rmt2.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt2.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 3
DELETE A FROM rmt3.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt3.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 4
DELETE A FROM rmt4.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt4.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 5
DELETE A FROM rmt5.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt5.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 6
DELETE A FROM rmt6.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt6.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 7
DELETE A FROM rmt7.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt7.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 8
DELETE A FROM rmt8.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt8.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 9
DELETE A FROM rmt9.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt9.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 10
DELETE A FROM rmt10.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt10.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 11
DELETE A FROM rmt11.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt11.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 12
DELETE A FROM rmt12.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt12.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 13
DELETE A FROM rmt13.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt13.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- local node (partition 14)
DELETE A FROM t_item A, DELETED D WHERE A.i_id =
D.i_id
INSERT t_item SELECT * FROM INSERTED

--
-- remote node, partition 15
DELETE A FROM rmt15.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt15.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 16
DELETE A FROM rmt16.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt16.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 17
DELETE A FROM rmt17.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt17.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 18
DELETE A FROM rmt18.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt18.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 19
DELETE A FROM rmt19.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt19.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 20
DELETE A FROM rmt20.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt20.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 21
DELETE A FROM rmt21.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt21.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 22

```

```

DELETE A FROM rmt22.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt22.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 23
DELETE A FROM rmt23.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt23.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 24
DELETE A FROM rmt24.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt24.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 25
DELETE A FROM rmt25.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt25.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 26
DELETE A FROM rmt26.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt26.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 27
DELETE A FROM rmt27.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt27.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 28
DELETE A FROM rmt28.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt28.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 29
DELETE A FROM rmt29.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt29.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 30
DELETE A FROM rmt30.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt30.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 31
DELETE A FROM rmt31.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt31.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 32
DELETE A FROM rmt32.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt32.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```
end
```

item_iot_15.sql

```

-- file 25201_to_27000\item_iot.sql

--add item instead-of-trigger for partition 15

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

use tpcc
go

drop trigger iot_item
go

create trigger iot_item on item instead of update,
insert, delete as
begin

--
-- remote node, partition 1
DELETE A FROM rmt1.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt1.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 2
DELETE A FROM rmt2.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt2.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 3
DELETE A FROM rmt3.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt3.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 4
DELETE A FROM rmt4.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt4.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 5
DELETE A FROM rmt5.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt5.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 6
DELETE A FROM rmt6.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt6.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 7

```

```

DELETE A FROM rmt7.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt7.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 8
DELETE A FROM rmt8.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt8.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 9
DELETE A FROM rmt9.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt9.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 10
DELETE A FROM rmt10.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt10.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 11
DELETE A FROM rmt11.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt11.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 12
DELETE A FROM rmt12.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt12.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 13
DELETE A FROM rmt13.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt13.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 14
DELETE A FROM rmt14.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt14.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- local node (partition 15)
DELETE A FROM t_item A, DELETED D WHERE A.i_id =
D.i_id
INSERT t_item SELECT * FROM INSERTED

--
-- remote node, partition 16
DELETE A FROM rmt16.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt16.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 17
DELETE A FROM rmt17.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt17.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 18
DELETE A FROM rmt18.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt18.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 19
DELETE A FROM rmt19.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt19.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 20
DELETE A FROM rmt20.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt20.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 21
DELETE A FROM rmt21.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt21.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 22
DELETE A FROM rmt22.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt22.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 23
DELETE A FROM rmt23.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt23.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 24
DELETE A FROM rmt24.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt24.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 25
DELETE A FROM rmt25.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt25.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 26
DELETE A FROM rmt26.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt26.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 27
DELETE A FROM rmt27.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt27.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 28

```

```

DELETE A FROM rmt28.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt28.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 29
DELETE A FROM rmt29.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt29.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 30
DELETE A FROM rmt30.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt30.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 31
DELETE A FROM rmt31.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt31.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 32
DELETE A FROM rmt32.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt32.tpcc.dbo.t_item SELECT * FROM INSERTED

end

```

item_iot_16.sql

```
-- file 27001_to_28800\item_iot.sql
```

```
--add item instead-of-trigger for partition 16
```

```
set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go
```

```
use tpcc
go
```

```
drop trigger iot_item
go
```

```
create trigger iot_item on item instead of update,
insert, delete as
begin
```

```
--
-- remote node, partition 1
DELETE A FROM rmt1.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt1.tpcc.dbo.t_item SELECT * FROM INSERTED
```

```
--
-- remote node, partition 2
DELETE A FROM rmt2.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt2.tpcc.dbo.t_item SELECT * FROM INSERTED
```

```
--
-- remote node, partition 3
DELETE A FROM rmt3.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt3.tpcc.dbo.t_item SELECT * FROM INSERTED
```

```
--
-- remote node, partition 4
DELETE A FROM rmt4.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt4.tpcc.dbo.t_item SELECT * FROM INSERTED
```

```
--
-- remote node, partition 5
DELETE A FROM rmt5.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt5.tpcc.dbo.t_item SELECT * FROM INSERTED
```

```
--
-- remote node, partition 6
DELETE A FROM rmt6.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt6.tpcc.dbo.t_item SELECT * FROM INSERTED
```

```
--
-- remote node, partition 7
DELETE A FROM rmt7.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt7.tpcc.dbo.t_item SELECT * FROM INSERTED
```

```
--
-- remote node, partition 8
DELETE A FROM rmt8.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt8.tpcc.dbo.t_item SELECT * FROM INSERTED
```

```
--
-- remote node, partition 9
DELETE A FROM rmt9.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt9.tpcc.dbo.t_item SELECT * FROM INSERTED
```

```
--
-- remote node, partition 10
DELETE A FROM rmt10.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt10.tpcc.dbo.t_item SELECT * FROM INSERTED
```

```
--
-- remote node, partition 11
DELETE A FROM rmt11.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt11.tpcc.dbo.t_item SELECT * FROM INSERTED
```

```
--
-- remote node, partition 12
DELETE A FROM rmt12.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt12.tpcc.dbo.t_item SELECT * FROM INSERTED
```

```
--
-- remote node, partition 13
```

```

DELETE A FROM rmt13.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt13.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 14
DELETE A FROM rmt14.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt14.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 15
DELETE A FROM rmt15.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt15.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- local node (partition 16)
DELETE A FROM t_item A, DELETED D WHERE A.i_id =
D.i_id
INSERT t_item SELECT * FROM INSERTED

--
-- remote node, partition 17
DELETE A FROM rmt17.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt17.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 18
DELETE A FROM rmt18.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt18.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 19
DELETE A FROM rmt19.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt19.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 20
DELETE A FROM rmt20.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt20.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 21
DELETE A FROM rmt21.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt21.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 22
DELETE A FROM rmt22.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt22.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 23
DELETE A FROM rmt23.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt23.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 24
DELETE A FROM rmt24.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt24.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 25
DELETE A FROM rmt25.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt25.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 26
DELETE A FROM rmt26.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt26.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 27
DELETE A FROM rmt27.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt27.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 28
DELETE A FROM rmt28.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt28.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 29
DELETE A FROM rmt29.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt29.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 30
DELETE A FROM rmt30.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt30.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 31
DELETE A FROM rmt31.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt31.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 32
DELETE A FROM rmt32.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt32.tpcc.dbo.t_item SELECT * FROM INSERTED

end

```

item_iot_17.sql

```

-- file 28801_to_30600\item_iot.sql
--add item instead-of-trigger for partition 17

```

```

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

use tpcc
go

drop trigger iot_item
go

create trigger iot_item on item instead of update,
insert, delete as
begin

--
-- remote node, partition 1
DELETE A FROM rmt1.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt1.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 2
DELETE A FROM rmt2.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt2.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 3
DELETE A FROM rmt3.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt3.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 4
DELETE A FROM rmt4.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt4.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 5
DELETE A FROM rmt5.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt5.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 6
DELETE A FROM rmt6.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt6.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 7
DELETE A FROM rmt7.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt7.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 8
DELETE A FROM rmt8.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt8.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 9
DELETE A FROM rmt9.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt9.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 10
DELETE A FROM rmt10.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt10.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 11
DELETE A FROM rmt11.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt11.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 12
DELETE A FROM rmt12.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt12.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 13
DELETE A FROM rmt13.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt13.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 14
DELETE A FROM rmt14.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt14.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 15
DELETE A FROM rmt15.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt15.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 16
DELETE A FROM rmt16.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt16.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- local node (partition 17)
DELETE A FROM t_item A, DELETED D WHERE A.i_id =
D.i_id
INSERT t_item SELECT * FROM INSERTED

--
-- remote node, partition 18
DELETE A FROM rmt18.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt18.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 19

```

```

DELETE A FROM rmt19.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt19.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 20
DELETE A FROM rmt20.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt20.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 21
DELETE A FROM rmt21.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt21.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 22
DELETE A FROM rmt22.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt22.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 23
DELETE A FROM rmt23.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt23.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 24
DELETE A FROM rmt24.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt24.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 25
DELETE A FROM rmt25.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt25.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 26
DELETE A FROM rmt26.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt26.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 27
DELETE A FROM rmt27.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt27.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 28
DELETE A FROM rmt28.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt28.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 29
DELETE A FROM rmt29.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt29.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 30
DELETE A FROM rmt30.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt30.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 31
DELETE A FROM rmt31.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt31.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 32
DELETE A FROM rmt32.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt32.tpcc.dbo.t_item SELECT * FROM INSERTED

end

item_iot_18.sql
-- file 30601_to_32400\item_iot.sql

--add item instead-of-trigger for partition 18

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

use tpcc
go

drop trigger iot_item
go

create trigger iot_item on item instead of update,
insert, delete as
begin

--
-- remote node, partition 1
DELETE A FROM rmt1.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt1.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 2
DELETE A FROM rmt2.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt2.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 3
DELETE A FROM rmt3.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt3.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 4

```

```

DELETE A FROM rmt4.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt4.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 5
DELETE A FROM rmt5.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt5.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 6
DELETE A FROM rmt6.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt6.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 7
DELETE A FROM rmt7.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt7.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 8
DELETE A FROM rmt8.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt8.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 9
DELETE A FROM rmt9.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt9.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 10
DELETE A FROM rmt10.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt10.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 11
DELETE A FROM rmt11.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt11.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 12
DELETE A FROM rmt12.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt12.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 13
DELETE A FROM rmt13.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt13.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 14
DELETE A FROM rmt14.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt14.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 15
DELETE A FROM rmt15.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt15.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 16
DELETE A FROM rmt16.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt16.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 17
DELETE A FROM rmt17.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt17.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- local node (partition 18)
DELETE A FROM t_item A, DELETED D WHERE A.i_id =
D.i_id
INSERT t_item SELECT * FROM INSERTED

--
-- remote node, partition 19
DELETE A FROM rmt19.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt19.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 20
DELETE A FROM rmt20.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt20.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 21
DELETE A FROM rmt21.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt21.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 22
DELETE A FROM rmt22.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt22.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 23
DELETE A FROM rmt23.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt23.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 24
DELETE A FROM rmt24.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt24.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 25

```

```

DELETE A FROM rmt25.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt25.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 26
DELETE A FROM rmt26.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt26.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 27
DELETE A FROM rmt27.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt27.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 28
DELETE A FROM rmt28.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt28.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 29
DELETE A FROM rmt29.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt29.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 30
DELETE A FROM rmt30.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt30.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 31
DELETE A FROM rmt31.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt31.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 32
DELETE A FROM rmt32.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt32.tpcc.dbo.t_item SELECT * FROM INSERTED

end

item_iot_19.sql
-- file 32401_to_34200\item_iot.sql

--add item instead-of-trigger for partition 19

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

use tpcc
go

drop trigger iot_item

```

```

go

create trigger iot_item on item instead of update,
insert, delete as
begin

--
-- remote node, partition 1
DELETE A FROM rmt1.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt1.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 2
DELETE A FROM rmt2.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt2.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 3
DELETE A FROM rmt3.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt3.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 4
DELETE A FROM rmt4.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt4.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 5
DELETE A FROM rmt5.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt5.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 6
DELETE A FROM rmt6.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt6.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 7
DELETE A FROM rmt7.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt7.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 8
DELETE A FROM rmt8.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt8.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 9
DELETE A FROM rmt9.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt9.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 10

```

```

DELETE A FROM rmt10.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt10.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 11
DELETE A FROM rmt11.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt11.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 12
DELETE A FROM rmt12.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt12.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 13
DELETE A FROM rmt13.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt13.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 14
DELETE A FROM rmt14.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt14.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 15
DELETE A FROM rmt15.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt15.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 16
DELETE A FROM rmt16.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt16.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 17
DELETE A FROM rmt17.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt17.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 18
DELETE A FROM rmt18.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt18.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- local node (partition 19)
DELETE A FROM t_item A, DELETED D WHERE A.i_id =
D.i_id
INSERT t_item SELECT * FROM INSERTED

--
-- remote node, partition 20
DELETE A FROM rmt20.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt20.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 21
DELETE A FROM rmt21.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt21.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 22
DELETE A FROM rmt22.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt22.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 23
DELETE A FROM rmt23.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt23.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 24
DELETE A FROM rmt24.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt24.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 25
DELETE A FROM rmt25.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt25.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 26
DELETE A FROM rmt26.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt26.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 27
DELETE A FROM rmt27.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt27.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 28
DELETE A FROM rmt28.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt28.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 29
DELETE A FROM rmt29.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt29.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 30
DELETE A FROM rmt30.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt30.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 31

```



```

DELETE A FROM rmt31.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt31.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 32
DELETE A FROM rmt32.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt32.tpcc.dbo.t_item SELECT * FROM INSERTED

end

```

item_iot_20.sql

```

-- file 34201_to_36000\item_iot.sql

--add item instead-of-trigger for partition 20

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

use tpcc
go

drop trigger iot_item
go

create trigger iot_item on item instead of update,
insert, delete as
begin

--
-- remote node, partition 1
DELETE A FROM rmt1.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt1.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 2
DELETE A FROM rmt2.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt2.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 3
DELETE A FROM rmt3.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt3.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 4
DELETE A FROM rmt4.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt4.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 5
DELETE A FROM rmt5.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt5.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 6
DELETE A FROM rmt6.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt6.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 7
DELETE A FROM rmt7.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt7.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 8
DELETE A FROM rmt8.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt8.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 9
DELETE A FROM rmt9.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt9.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 10
DELETE A FROM rmt10.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt10.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 11
DELETE A FROM rmt11.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt11.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 12
DELETE A FROM rmt12.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt12.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 13
DELETE A FROM rmt13.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt13.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 14
DELETE A FROM rmt14.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt14.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 15
DELETE A FROM rmt15.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt15.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 16

```

```

DELETE A FROM rmt16.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt16.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 17
DELETE A FROM rmt17.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt17.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 18
DELETE A FROM rmt18.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt18.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 19
DELETE A FROM rmt19.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt19.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- local node (partition 20)
DELETE A FROM t_item A, DELETED D WHERE A.i_id =
D.i_id
INSERT t_item SELECT * FROM INSERTED

--
-- remote node, partition 21
DELETE A FROM rmt21.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt21.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 22
DELETE A FROM rmt22.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt22.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 23
DELETE A FROM rmt23.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt23.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 24
DELETE A FROM rmt24.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt24.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 25
DELETE A FROM rmt25.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt25.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 26
DELETE A FROM rmt26.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt26.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 27
DELETE A FROM rmt27.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt27.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 28
DELETE A FROM rmt28.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt28.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 29
DELETE A FROM rmt29.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt29.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 30
DELETE A FROM rmt30.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt30.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 31
DELETE A FROM rmt31.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt31.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 32
DELETE A FROM rmt32.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt32.tpcc.dbo.t_item SELECT * FROM INSERTED

end

```

item_iot_21.sql

```

-- file 36001_to_37800\item_iot.sql

--add item instead-of-trigger for partition 21

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

use tpcc
go

drop trigger iot_item
go

create trigger iot_item on item instead of update,
insert, delete as
begin

--
-- remote node, partition 1

```

```

DELETE A FROM rmt1.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt1.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 2
DELETE A FROM rmt2.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt2.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 3
DELETE A FROM rmt3.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt3.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 4
DELETE A FROM rmt4.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt4.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 5
DELETE A FROM rmt5.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt5.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 6
DELETE A FROM rmt6.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt6.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 7
DELETE A FROM rmt7.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt7.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 8
DELETE A FROM rmt8.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt8.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 9
DELETE A FROM rmt9.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt9.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 10
DELETE A FROM rmt10.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt10.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 11
DELETE A FROM rmt11.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt11.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 12
DELETE A FROM rmt12.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt12.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 13
DELETE A FROM rmt13.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt13.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 14
DELETE A FROM rmt14.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt14.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 15
DELETE A FROM rmt15.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt15.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 16
DELETE A FROM rmt16.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt16.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 17
DELETE A FROM rmt17.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt17.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 18
DELETE A FROM rmt18.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt18.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 19
DELETE A FROM rmt19.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt19.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 20
DELETE A FROM rmt20.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt20.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- local node (partition 21)
DELETE A FROM t_item A, DELETED D WHERE A.i_id =
D.i_id
INSERT t_item SELECT * FROM INSERTED

--
-- remote node, partition 22

```

```

DELETE A FROM rmt22.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt22.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 23
DELETE A FROM rmt23.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt23.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 24
DELETE A FROM rmt24.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt24.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 25
DELETE A FROM rmt25.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt25.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 26
DELETE A FROM rmt26.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt26.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 27
DELETE A FROM rmt27.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt27.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 28
DELETE A FROM rmt28.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt28.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 29
DELETE A FROM rmt29.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt29.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 30
DELETE A FROM rmt30.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt30.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 31
DELETE A FROM rmt31.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt31.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 32
DELETE A FROM rmt32.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt32.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```
end
```

item_iot_22.sql

```

-- file 37801_to_39600\item_iot.sql

--add item instead-of-trigger for partition 22

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

use tpcc
go

drop trigger iot_item
go

create trigger iot_item on item instead of update,
insert, delete as
begin

--
-- remote node, partition 1
DELETE A FROM rmt1.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt1.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 2
DELETE A FROM rmt2.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt2.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 3
DELETE A FROM rmt3.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt3.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 4
DELETE A FROM rmt4.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt4.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 5
DELETE A FROM rmt5.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt5.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 6
DELETE A FROM rmt6.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt6.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 7

```

```

DELETE A FROM rmt7.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt7.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 8
DELETE A FROM rmt8.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt8.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 9
DELETE A FROM rmt9.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt9.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 10
DELETE A FROM rmt10.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt10.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 11
DELETE A FROM rmt11.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt11.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 12
DELETE A FROM rmt12.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt12.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 13
DELETE A FROM rmt13.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt13.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 14
DELETE A FROM rmt14.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt14.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 15
DELETE A FROM rmt15.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt15.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 16
DELETE A FROM rmt16.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt16.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 17
DELETE A FROM rmt17.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt17.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 18
DELETE A FROM rmt18.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt18.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 19
DELETE A FROM rmt19.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt19.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 20
DELETE A FROM rmt20.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt20.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 21
DELETE A FROM rmt21.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt21.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- local node (partition 22)
DELETE A FROM t_item A, DELETED D WHERE A.i_id =
D.i_id
INSERT t_item SELECT * FROM INSERTED

--
-- remote node, partition 23
DELETE A FROM rmt23.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt23.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 24
DELETE A FROM rmt24.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt24.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 25
DELETE A FROM rmt25.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt25.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 26
DELETE A FROM rmt26.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt26.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 27
DELETE A FROM rmt27.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt27.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 28

```

```

DELETE A FROM rmt28.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt28.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 29
DELETE A FROM rmt29.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt29.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 30
DELETE A FROM rmt30.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt30.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 31
DELETE A FROM rmt31.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt31.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 32
DELETE A FROM rmt32.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt32.tpcc.dbo.t_item SELECT * FROM INSERTED

end

```

item_iot_23.sql

-- file 39601_to_41400\item_iot.sql

--add item instead-of-trigger for partition 23

```

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

```

```

use tpcc
go

```

```

drop trigger iot_item
go

```

```

create trigger iot_item on item instead of update,
insert, delete as
begin

```

```

--
-- remote node, partition 1
DELETE A FROM rmt1.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt1.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 2
DELETE A FROM rmt2.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt2.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 3
DELETE A FROM rmt3.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt3.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 4
DELETE A FROM rmt4.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt4.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 5
DELETE A FROM rmt5.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt5.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 6
DELETE A FROM rmt6.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt6.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 7
DELETE A FROM rmt7.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt7.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 8
DELETE A FROM rmt8.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt8.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 9
DELETE A FROM rmt9.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt9.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 10
DELETE A FROM rmt10.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt10.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 11
DELETE A FROM rmt11.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt11.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 12
DELETE A FROM rmt12.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt12.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 13

```

```

DELETE A FROM rmt13.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt13.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 14
DELETE A FROM rmt14.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt14.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 15
DELETE A FROM rmt15.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt15.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 16
DELETE A FROM rmt16.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt16.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 17
DELETE A FROM rmt17.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt17.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 18
DELETE A FROM rmt18.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt18.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 19
DELETE A FROM rmt19.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt19.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 20
DELETE A FROM rmt20.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt20.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 21
DELETE A FROM rmt21.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt21.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 22
DELETE A FROM rmt22.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt22.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- local node (partition 23)
DELETE A FROM t_item A, DELETED D WHERE A.i_id =
D.i_id
INSERT t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 24
DELETE A FROM rmt24.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt24.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 25
DELETE A FROM rmt25.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt25.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 26
DELETE A FROM rmt26.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt26.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 27
DELETE A FROM rmt27.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt27.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 28
DELETE A FROM rmt28.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt28.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 29
DELETE A FROM rmt29.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt29.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 30
DELETE A FROM rmt30.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt30.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 31
DELETE A FROM rmt31.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt31.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 32
DELETE A FROM rmt32.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt32.tpcc.dbo.t_item SELECT * FROM INSERTED

end

```

item_iot_24.sql

```

-- file 41401_to_43200\item_iot.sql
--add item instead-of-trigger for partition 24

```

```

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

use tpcc
go

drop trigger iot_item
go

create trigger iot_item on item instead of update,
insert, delete as
begin

--
-- remote node, partition 1
DELETE A FROM rmt1.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt1.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 2
DELETE A FROM rmt2.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt2.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 3
DELETE A FROM rmt3.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt3.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 4
DELETE A FROM rmt4.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt4.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 5
DELETE A FROM rmt5.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt5.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 6
DELETE A FROM rmt6.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt6.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 7
DELETE A FROM rmt7.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt7.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 8
DELETE A FROM rmt8.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt8.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 9
DELETE A FROM rmt9.tpcc.dbo.t_item A, DELETED D WHERE
A.i_id = D.i_id
INSERT rmt9.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 10
DELETE A FROM rmt10.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt10.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 11
DELETE A FROM rmt11.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt11.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 12
DELETE A FROM rmt12.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt12.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 13
DELETE A FROM rmt13.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt13.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 14
DELETE A FROM rmt14.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt14.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 15
DELETE A FROM rmt15.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt15.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 16
DELETE A FROM rmt16.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt16.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 17
DELETE A FROM rmt17.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt17.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 18
DELETE A FROM rmt18.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt18.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 19

```

```

DELETE A FROM rmt19.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt19.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 20
DELETE A FROM rmt20.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt20.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 21
DELETE A FROM rmt21.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt21.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 22
DELETE A FROM rmt22.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt22.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 23
DELETE A FROM rmt23.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt23.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- local node (partition 24)
DELETE A FROM t_item A, DELETED D WHERE A.i_id =
D.i_id
INSERT t_item SELECT * FROM INSERTED

--
-- remote node, partition 25
DELETE A FROM rmt25.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt25.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 26
DELETE A FROM rmt26.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt26.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 27
DELETE A FROM rmt27.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt27.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 28
DELETE A FROM rmt28.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt28.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 29
DELETE A FROM rmt29.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt29.tpcc.dbo.t_item SELECT * FROM INSERTED

```

```

--
-- remote node, partition 30
DELETE A FROM rmt30.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt30.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 31
DELETE A FROM rmt31.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt31.tpcc.dbo.t_item SELECT * FROM INSERTED

--
-- remote node, partition 32
DELETE A FROM rmt32.tpcc.dbo.t_item A, DELETED D
WHERE A.i_id = D.i_id
INSERT rmt32.tpcc.dbo.t_item SELECT * FROM INSERTED

end

```

backupdev.sql

```

-- File:      BACKUPDEV.BSQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.20
--           Copyright Microsoft, 1999
-- Purpose:   Creates tpcc database Backup Devices

```

```

use master
go

```

```

-- create backup devices

```

```

exec sp_addumpdevice
'disk','tpccback1_2','T:\tpccback1_2.dmp'
exec sp_addumpdevice
'disk','tpccback2_2','U:\tpccback2_2.dmp'
exec sp_addumpdevice
'disk','tpccback3_2','V:\tpccback3_2.dmp'
exec sp_addumpdevice
'disk','tpccback4_2','W:\tpccback4_2.dmp'
exec sp_addumpdevice
'disk','tpccback5_2','X:\tpccback5_2.dmp'
exec sp_addumpdevice
'disk','tpccback6_2','Y:\tpccback6_2.dmp'
exec sp_addumpdevice
'disk','tpccback7_2','Z:\tpccback7_2.dmp'
go

```

dbopt1.sql

```

-- File:      DBOPT1.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.10
--           Copyright Microsoft, 1999
-- 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_SHILOH.SQL
--           Microsoft TPC-C Benchmark Kit Ver.
4.10a
--           Copyright Microsoft, 1999
-- Purpose:  Resets database options after data load
(For Shiloh)
```

```
use master
go
```

```
sp_dboption tpcc,'select ',false
go
```

```
sp_dboption tpcc,'trunc. ',false
go
```

```
use tpcc
go
```

```
checkpoint
go
```

```
sp_configure allow,1
go
```

```
reconfigure with override
go
```

```
/*                               */
/* Set option values for user-defined indexes */
/*                               */
```

```
sp_indexoption 't_customer',
'DisAllowPageLocks', TRUE
go
sp_indexoption 't_district',
'DisAllowPageLocks', TRUE
go
sp_indexoption 't_warehouse',
'DisAllowPageLocks', TRUE
go
sp_indexoption 't_stock',
'DisAllowPageLocks', TRUE
go
```

```
sp_indexoption 't_order_line',
'DisAllowRowLocks', TRUE
go
sp_indexoption 't_orders',
'DisAllowRowLocks', TRUE
go
sp_indexoption 't_new_order',
'DisAllowRowLocks', TRUE
go
sp_indexoption 't_item',
'DisAllowRowLocks', TRUE
go
sp_indexoption 't_item',
'DisAllowPageLocks', TRUE
go
```

```
Print ' '
Print '*****'
Print 'Pre-specified Locking Hierarchy:'
Print ' Lockflag = 0 ==> No pre-specified
hierarchy'
Print ' Lockflag = 1 ==> Lock at Page-level then
Table-level'
Print ' Lockflag = 2 ==> Lock at Row-level then
Table-level'
Print ' Lockflag = 3 ==> Lock at Table-level'
Print ' '
```

```
select name,lockflags
from sysindexes
where object_id("t_warehouse") = id or
object_id("t_district") = id or
object_id("t_customer") = id or
object_id("t_stock") = id or
object_id("t_orders") = id or
object_id("t_order_line") = id or
object_id("t_history") = id or
object_id("t_new_order") = id or
object_id("t_item") = id
order by lockflags asc
go
```

```
sp_configure allow,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 "t_district",
"pintable",true
exec sp_tableoption "t_warehouse",
"pintable",true
```

```
exec sp_tableoption "t_new_order",
"pintable",true
exec sp_tableoption "t_item", "pintable",true
go
```

idxcuscl.sql

```
-- File:      IDXCUSCL.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.10
--           Copyright Microsoft, 1999
-- Purpose:  Creates clustered index on customer
table
```

```
set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
set QUOTED_IDENTIFIER off
go
```

```
use tpcc
go
```

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

```
if exists (select o.name from sysconstraints c,
sysobjects o
where c.id = object_id('t_customer') and c.constid =
o.id and o.name = 'customer_clPK' )
alter table t_customer drop constraint
customer_clPK
```

```
alter table t_customer add constraint customer_clPK
primary key clustered (c_w_id, c_d_id, c_id)
on big_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. 4.10
--           Copyright Microsoft, 1999
-- Purpose:  Creates non-clustered index on customer
table
```

```
set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
set QUOTED_IDENTIFIER off
go
```

```
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 t_customer.customer_nc1

create unique nonclustered index customer_nc1 on
t_customer(c_w_id, c_d_id, c_last, c_first, c_id)
on big_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. 4.10
--           Copyright Microsoft, 1999
-- Purpose:   Creates clustered index on district
table

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
set QUOTED_IDENTIFIER off
go

use tpcc
go

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

if exists (select o.name from sysconstraints c,
sysobjects o
where c.id = object_id('t_district') and c.constid =
o.id and o.name = 'district_c1PK' )
alter table t_district drop constraint
district_c1PK

alter table t_district add constraint district_c1PK
primary key clustered (d_w_id, d_id)
with fillfactor=100
on misc_fg

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

```

```
go
```

idxitmcl.sql

```

-- File:      IDXITMCL.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.10
--           Copyright Microsoft, 1999
-- Purpose:   Creates clustered index on item table

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
set QUOTED_IDENTIFIER off
go

use tpcc
go

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

if exists ( select name from sysindexes where name =
'item_c1' )
drop index t_item.item_c1

create unique clustered index item_c1 on t_item(i_id)
on misc_fg

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

go

```

idxnodcl.sql

```

-- File:      IDXNODCL.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.10
--           Copyright Microsoft, 1999
-- Purpose:   Creates clustered index on new_order
table

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
set QUOTED_IDENTIFIER off
go

use tpcc
go

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

```

```

if exists (select o.name from sysconstraints c,
sysobjects o
where c.id = object_id('t_new_order') and c.constid =
o.id and o.name = 't_new_order_c1PK' )
alter table t_new_order drop constraint
new_order_c1PK

```

```

alter table t_new_order add constraint new_order_c1PK
primary key clustered (no_w_id, no_d_id, no_o_id)
on misc_fg

```

```

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

```

```
go
```

idxodlcl.sql

```

-- File:      IDXODLCL.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.10
--           Copyright Microsoft, 1999
-- Purpose:   Creates clustered index on order_line
table

```

```

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
set QUOTED_IDENTIFIER off
go

```

```

use tpcc
go

```

```

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

```

```

if exists (select o.name from sysconstraints c,
sysobjects o
where c.id = object_id('t_order_line') and c.constid
= o.id and o.name = 'order_line_c1PK' )
alter table t_order_line drop constraint
order_line_c1PK

```

```

alter table t_order_line add constraint
order_line_c1PK primary key clustered (ol_w_id,
ol_d_id, ol_o_id, ol_number)
on misc_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. 4.10
--              Copyright Microsoft, 1999
-- Purpose:      Creates clustered index on orders table

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
set QUOTED_IDENTIFIER off
go

use tpcc
go

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

if exists (select o.name from sysconstraints c,
sysobjects o
where c.id = object_id('t_orders') and c.constid =
o.id and o.name = 'orders_c1PK' )
    alter table t_orders drop constraint orders_c1PK

alter table t_orders add constraint orders_c1PK
primary key clustered (o_w_id, o_d_id, o_id)
on misc_fg

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

go
```

idxordnc.sql

```
-- File:          IDXORDNC.SQL
--              Microsoft TPC-C Benchmark Kit Ver. 4.10
--              Copyright Microsoft, 1999
-- Purpose:      Creates non-clustered index on orders
table

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
set QUOTED_IDENTIFIER off
go

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 t_orders.orders_ncl

create index orders_ncl on t_orders(o_w_id, o_d_id,
o_c_id, o_id)
on misc_fg

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

go
```

idxstkcl.sql

```
-- File:          IDXSTKCL.SQL
--              Microsoft TPC-C Benchmark Kit Ver. 4.10
--              Copyright Microsoft, 1999
-- Purpose:      Creates clustered index on stock table

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
set QUOTED_IDENTIFIER off
go

use tpcc
go

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

```
if exists (select o.name from sysconstraints c,
sysobjects o
where c.id = object_id('t_stock') and c.constid =
o.id and o.name = 'stock_c1PK' )
    alter table t_stock drop constraint stock_c1PK

alter table t_stock add constraint stock_c1PK primary
key clustered (s_i_id, s_w_id)
on big_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. 4.10
```

```
--              Copyright Microsoft, 1999
-- Purpose:      Creates clustered index on warehouse
table

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
set QUOTED_IDENTIFIER off
go

use tpcc
go

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

if exists (select o.name from sysconstraints c,
sysobjects o
where c.id = object_id('t_warehouse') and c.constid =
o.id and o.name = 'warehouse_c1PK' )
    alter table t_warehouse drop constraint
warehouse_c1PK

alter table t_warehouse add constraint warehouse_c1PK
primary key clustered (w_id)
with fillfactor=100
on misc_fg

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

go
```

neword.sql

```
-- File:          NEWORD.SQL
--              Microsoft TPC-C Benchmark Kit Ver.
4.30.000
--              Copyright Microsoft, 1999
-- Purpose:      Creates new order transaction stored
procedure
--              Interface Level: 4.10.000

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

use tpcc
go

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

go
```

```

create proc tpcc_neworder

    @w_id      int,
    @d_id      tinyint,
    @c_id      int,
    @o_ol_cnt  tinyint,
    @o_all_local tinyint,

    @i_id1 int = 0, @s_w_id1 int = 0,
@ol_qty1    smallint = 0,
    @i_id2 int = 0, @s_w_id2 int = 0,
@ol_qty2    smallint = 0,
    @i_id3 int = 0, @s_w_id3 int = 0,
@ol_qty3    smallint = 0,
    @i_id4 int = 0, @s_w_id4 int = 0,
@ol_qty4    smallint = 0,
    @i_id5 int = 0, @s_w_id5 int = 0,
@ol_qty5    smallint = 0,
    @i_id6 int = 0, @s_w_id6 int = 0,
@ol_qty6    smallint = 0,
    @i_id7 int = 0, @s_w_id7 int = 0,
@ol_qty7    smallint = 0,
    @i_id8 int = 0, @s_w_id8 int = 0,
@ol_qty8    smallint = 0,
    @i_id9 int = 0, @s_w_id9 int = 0,
@ol_qty9    smallint = 0,
    @i_id10 int = 0, @s_w_id10 int = 0,
@ol_qty10   smallint = 0,
    @i_id11 int = 0, @s_w_id11 int = 0,
@ol_qty11   smallint = 0,
    @i_id12 int = 0, @s_w_id12 int = 0,
@ol_qty12   smallint = 0,
    @i_id13 int = 0, @s_w_id13 int = 0,
@ol_qty13   smallint = 0,
    @i_id14 int = 0, @s_w_id14 int = 0,
@ol_qty14   smallint = 0,
    @i_id15 int = 0, @s_w_id15 int = 0,
@ol_qty15   smallint = 0

as
declare  @w_tax      numeric(4,4),
         @d_tax      numeric(4,4),
         @c_last     char(16),

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

begin
begin transaction n
-- get district tax and next available order id and
update
-- plus initialize local variables
    update district
    set     @d_tax      = d_tax,
           @o_id       = d_next_o_id,
           d_next_o_id = d_next_o_id + 1,
           @li_no      = 0,
           @commit_flag = 1
    where  d_w_id      = @w_id and
           d_id        = @d_id

-- process orderlines
    while (@li_no < @o_ol_cnt)
    begin
        select @li_no = @li_no + 1

-- set i_id, s_w_id, and qty for this lineitem
        select  @li_id = case @li_no
                    when 1 then
@i_id1
                    when 2 then
@i_id2
                    when 3 then
@i_id3
                    when 4 then
@i_id4
                    when 5 then
@i_id5
                    when 6 then
@i_id6
                    when 7 then
@i_id7
                    when 8 then
@i_id8
                    when 9 then
@i_id9
                    when 10 then
@i_id10
                    when 11 then
@i_id11
                    when 12 then
@i_id12
                    when 13 then
@i_id13
                    when 14 then
@i_id14
                    when 15 then
@i_id15
                end,
           @li_s_w_id = case
@li_no
                    when 1
then @s_w_id1
                    when 2
then @s_w_id2
                    when 3
then @s_w_id3
                    when 4
then @s_w_id4
                    when 5
then @s_w_id5
                    when 6
then @s_w_id6
                    when 7
then @s_w_id7
                    when 8
then @s_w_id8
                    when 9
then @s_w_id9
                    when 10
then @s_w_id10
                    when 11
then @s_w_id11
                    when 12
then @s_w_id12
                    when 13
then @s_w_id13
                    when 14
then @s_w_id14
                    when 15
then @s_w_id15
                end,
           @li_qty = case @li_no
                    when 1 then
@ol_qty1
                    when 2 then
@ol_qty2
                    when 3 then
@ol_qty3
                    when 4 then
@ol_qty4
                    when 5 then
@ol_qty5
                    when 6 then
@ol_qty6
            end,
           @c_id_local = @c_id_local
    end
end
end

```

```

when 7 then
@ol_qty7
when 8 then
@ol_qty8
when 9 then
@ol_qty9
when 10
then @ol_qty10
when 11
then @ol_qty11
when 12
then @ol_qty12
when 13
then @ol_qty13
when 14
then @ol_qty14
when 15
then @ol_qty15
end

-- get item data (no one updates item)
select @i_price = i_price,
       @i_name = i_name,
       @i_data = i_data
from item (tablock
repeatableread)
where i_id = @li_id

-- update stock values
update stock
set s_ytd =
s_ytd + @li_qty,
@s_quantity =
s_quantity - @li_qty +
case when (s_quantity - @li_qty < 10)
then 91 else 0 end,
s_order_cnt =
s_order_cnt + 1,
s_remote_cnt =
s_remote_cnt + case when (@li_s_w_id = @w_id) then 0
else 1 end,
@s_data =
s_data,
@s_dist =
case @d_id
when 1 then s_dist_01
when 2 then s_dist_02
when 3 then s_dist_03
when 4 then s_dist_04
when 5 then s_dist_05
when 6 then s_dist_06
when 7 then s_dist_07
when 8 then s_dist_08
when 9 then s_dist_09
when 10 then s_dist_10
end
where s_i_id =
@li_id and
s_w_id =
@li_s_w_id
-- if there actually is a stock (and item) with
these ids, go to work
if (@@rowcount > 0)
begin
-- insert order_line data (using data from item and
stock)
insert into order_line
values(@o_id,
@d_id,
@w_id,
@li_no,
@li_id,
@li_s_w_id,
'dec 31, 1899',
@li_qty,
@i_price * @li_qty,
@s_dist)
-- send line-item data to client
select @i_name,
@s_quantity,
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 '',0,0,0,0
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,
@c_entry_d = getdate()
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
rollback transaction n
-- 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. 4.10
--           Copyright Microsoft, 1999
-- Purpose:   Creates order status transaction stored
--           procedure

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

use tpcc
go

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

create proc tpcc_orderstatus @w_id      int,
                             @d_id      tinyint,
                             @c_id      int,
                             @c_last    char(16) = ''
as

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

begin tran o

if (@c_id = 0)
    begin

-- get customer id and info using last name

        select  @cnt      =
(count(*)+1)/2

```

```

    from        customer
(repeatableread)
    where       c_last    = @c_last and
               c_w_id    = @w_id and
               c_d_id    = @d_id

    set         rowcount @cnt

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

    select      @cnt      = @@rowcount

    end

-- if no such customer

        if (@cnt = 0)
            begin
                raiserror('Customer not
found',18,1)

```

```

    end        goto custnotfound

-- get order info

        select  @o_id      = o_id,
               @o_entry_d = o_entry_d,
               @o_carrier_id =
o_carrier_id
    from        orders (serializable)
    where       o_c_id    = @c_id and
               o_d_id    = @d_id and
               o_w_id    = @w_id

    order       by o_id asc

-- select order lines for the current order

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

custnotfound:

commit tran o

-- return data to client

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

```

payment.sql

```

-- File:      PAYMENT.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.10
--           Copyright Microsoft, 1999
-- Purpose:   Creates payment transaction stored
--           procedure

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

use tpcc
go

```

```

if exists (select name from sysobjects where name =
'tpcc_payment' )
    drop procedure tpcc_payment
go
create proc tpcc_payment    @w_id        int,
                           @c_w_id      int,
                           @h_amount    numeric(6,2),
                           @d_id        tinyint,
                           @c_d_id      tinyint,
                           @c_id        int,
                           @c_last     char(16) = ''

as
declare @w_street_1 char(20),
        @w_street_2 char(20),
        @w_city     char(20),
        @w_state    char(2),
        @w_zip      char(9),
        @w_name     char(10),
        @d_street_1 char(20),
        @d_street_2 char(20),
        @d_city     char(20),
        @d_state    char(2),
        @d_zip      char(9),
        @d_name     char(10),
        @c_first   char(16),
        @c_middle  char(2),
        @c_street_1 char(20),
        @c_street_2 char(20),
        @c_city    char(20),
        @c_state   char(2),
        @c_zip     char(9),
        @c_phone   char(16),
        @c_since   datetime,
        @c_credit  char(2),
        @c_credit_lim numeric(12,2),
        @c_balance numeric(12,2),
        @c_discount numeric(4,4),
        @data      char(500),
        @c_data    char(500),
        @datetime  datetime,
        @w_ytd    numeric(12,2),
        @d_ytd    numeric(12,2),
        @cnt      smallint,
        @val      smallint,
        @screen_data char(200),
        @d_id_local tinyint,
        @w_id_local int,
        @c_id_local int

select @screen_data = ''

begin tran p

```

```

-- get payment date
select @datetime = getdate()

if (@c_id = 0)
begin
-- get customer id and info using last name
select top 1 @c_id = c_id
from (
select top 50 percent
c_id, c_first
from customer
(repeatable read)
where c_last =
@c_last and
c_w_id =
@c_w_id and
c_d_id =
@c_d_id
order by c_first
) top_fifty
order by c_first desc
end

-- get customer info and update balances
update customer
set @c_balance = c_balance =
c_balance - @h_amount,
c_payment_cnt + 1, c_payment_cnt =
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,
@data = c_data,
@c_id_local = c_id
where c_id = @c_id and
c_w_id = @c_w_id and
c_d_id = @c_d_id

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

```

```

select @c_data =
convert(char(5),@c_id) +
convert(char(4),@c_d_id) +
convert(char(5),@c_w_id) +
convert(char(4),@d_id) +
convert(char(5),@w_id) +
convert(char(19),@h_amount) +
substring(@data, 1, 458)

-- update customer info
update customer
set c_data = @c_data
where c_id = @c_id and
c_w_id = @c_w_id and
c_d_id = @c_d_id

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

-- get district data and update year-to-date
update district
set d_ytd = d_ytd +
@h_amount,
@d_street_1 = d_street_1,
@d_street_2 = d_street_2,
@d_city = d_city,
@d_state = d_state,
@d_zip = d_zip,
@d_name = d_name,
@d_id_local = d_id
where d_w_id = @w_id and
d_id = @d_id

-- get warehouse data and update year-to-date
update warehouse
set w_ytd = w_ytd +
@h_amount,
@w_street_1 = w_street_1,
@w_street_2 = w_street_2,
@w_city = w_city,
@w_state = w_state,
@w_zip = w_zip,
@w_name = w_name,
@w_id_local = w_id
where w_id = @w_id

-- create history record
insert into history values ( @c_id_local,
@c_d_id,

```

```

@c_w_id,

@d_id_local,

@w_id_local,

@datetime,

@h_amount,

@w_name + ' ' + @d_name)
commit tran p

-- return data to client

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

go

```

stocklev.sql

```

-- File:      STOCKLEV.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.10
--           Copyright Microsoft, 1999
-- Purpose:   Creates stock level transaction stored
--           procedure

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

use tpcc
go

```

```

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

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

as

declare @o_id_low int,
        @o_id_high int

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

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

option (order group)

go

```

version.sql

```

-- File:      VERSION.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.10
--           Copyright Microsoft, 1999
-- 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.

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

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

```

tables.sql

```

-- File:      TABLES.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.10
--           Copyright Microsoft, 1999
-- Purpose:   Creates TPC-C tables

set ANSI_DEFAULTS on
SET ANSI_NULL_DFLT_ON OFF
set IMPLICIT_TRANSACTIONS off
set QUOTED_IDENTIFIER off
go

use tpcc
go

--
-- Remove all existing TPC-C tables, views, etc.
--

if objectproperty(object_id('warehouse'), 'IsView')
is not null
drop view warehouse

go
if objectproperty(object_id('district'), 'IsView') is
not null
drop view district

go
if objectproperty(object_id('customer'), 'IsView') is
not null
drop view customer

go
if objectproperty(object_id('history'), 'IsView') is
not null
drop view history

go
if objectproperty(object_id('stock'), 'IsView') is
not null
drop view stock

go
if objectproperty(object_id('orders'), 'IsView') is
not null
drop view orders

go
if objectproperty(object_id('order_line'), 'IsView')
is not null
drop view order_line

go
if objectproperty(object_id('new_order'), 'IsView')
is not null

```

```

drop view new_order
go
if objectproperty(object_id('item'), 'IsView') is not
null
drop view item
go

if objectproperty(object_id('t_warehouse'),
'IsTable') is not null
drop table t_warehouse
go
if objectproperty(object_id('t_district'), 'IsTable')
is not null
drop table t_district
go
if objectproperty(object_id('t_customer'), 'IsTable')
is not null
drop table t_customer
go
if objectproperty(object_id('t_history'), 'IsTable')
is not null
drop table t_history
go
if objectproperty(object_id('t_new_order'),
'IsTable') is not null
drop table t_new_order
go
if objectproperty(object_id('t_orders'), 'IsTable')
is not null
drop table t_orders
go
if objectproperty(object_id('t_order_line'),
'IsTable') is not null
drop table t_order_line
go
if objectproperty(object_id('t_item'), 'IsTable') is
not null
drop table t_item
go
if objectproperty(object_id('t_stock'), 'IsTable') is
not null
drop table t_stock
go

--
-- Create new tables
--

create table t_warehouse
(
w_id
int,
w_name
char(10),
w_street_1
char(20),
w_street_2
char(20),
w_city
char(20),

```

```

w_state
char(2),
w_zip
char(9),
w_tax
numeric(4,4),
w_ytd
numeric(12,2)
) on misc_fg
go

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

create table t_customer
(
c_id
int,
c_d_id
tinyint,
c_w_id
int,
c_first
char(16),
c_middle
char(2),
c_last
char(16),
c_street_1
char(20),
c_street_2
char(20),
c_city
char(20),
c_state
char(2),
c_zip
char(9),
c_phone
char(16),

```

```

c_since
datetime,
c_credit
char(2),
c_credit_lim
numeric(12,2),
c_discount
numeric(4,4),
c_balance
numeric(12,2),
c_ytd_payment
numeric(12,2),
c_payment_cnt
smallint,
c_delivery_cnt
smallint,
c_data
char(500)
) on big_fg
go

create table t_history
(
h_c_id
int,
h_c_d_id
tinyint,
h_c_w_id
int,
h_d_id
int,
h_w_id
int,
h_date
datetime,
h_amount
numeric(6,2),
h_data
char(24),
constraint history_clPK primary key
clustered (h_w_id, h_d_id, h_c_id, h_date)
) on misc_fg
go

create table t_new_order
(
no_o_id
int,
no_d_id
int,
no_w_id
int,
) on misc_fg
go

create table t_orders
(
o_id
int,
o_d_id
tinyint,
o_w_id
int,
o_c_id
int,
o_entry_d
datetime,
o_carrier_id
tinyint,

```

```

        o_ol_cnt          tinyint,
        o_all_local      tinyint
    ) on misc_fg
go

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

create table t_item
(
    i_id                int,
    i_im_id             int,
    i_name               char(24),
    i_price              numeric(5,2),
    i_data               char(50)
) on misc_fg
go

create table t_stock
(
    s_i_id              int,
    s_w_id              int,
    s_quantity          smallint,
    s_dist_01           char(24),
    s_dist_02           char(24),
    s_dist_03           char(24),
    s_dist_04           char(24),
    s_dist_05           char(24),
    s_dist_06           char(24),
    s_dist_07           char(24),
    s_dist_08           char(24),
    s_dist_09           char(24),
    s_dist_10           char(24),

```

```

        s_ytd           int,
        s_order_cnt     smallint,
        s_remote_cnt    smallint,
        s_data           char(50)
    ) on big_fg
go

delivery.sql

-- File:      DELIVERY.SQL
--           Microsoft TPC-C Benchmark Kit Ver. 4.10
--           Copyright Microsoft, 1999
-- Purpose:   Creates delivery transaction stored
--           procedure

set ANSI_DEFAULTS on
set IMPLICIT_TRANSACTIONS off
go

use tpcc
go

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

create proc tpcc_delivery    @w_id          int,
                             @o_carrier_id  smallint
as

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

begin tran d

    select    @d_id = 0,
             @time = getdate()

    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)

            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
                                = @time,
                                @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
@_oid else @oid1 end,
        @oid2 = case @d_id when 2 then @_oid
else @oid2 end,
        @oid3 = case @d_id when 3 then @_oid
else @oid3 end,
        @oid4 = case @d_id when 4 then @_oid
else @oid4 end,
        @oid5 = case @d_id when 5 then @_oid
else @oid5 end,
        @oid6 = case @d_id when 6 then @_oid
else @oid6 end,
        @oid7 = case @d_id when 7 then @_oid
else @oid7 end,
        @oid8 = case @d_id when 8 then @_oid
else @oid8 end,
        @oid9 = case @d_id when 9 then @_oid
else @oid9 end,
        @oid10 = case @d_id when 10 then @_oid
else @oid10 end
    end
commit tran d
-- return delivery data to client
select @oid1,
        @oid2,
        @oid3,
        @oid4,
        @oid5,
        @oid6,
        @oid7,
        @oid8,
        @oid9,
        @oid10

```

go

time.c

```

// File: TIME.C
// Microsoft
TPC-C Kit Ver. 4.30
// Copyright
Microsoft, 1996, 1997, 1998, 1999,2000
// Purpose: Source file for time functions

```

```

// Includes
#include "tpcc.h"

// Globals
static long start_sec;

//=====
//
// Function name: TimeNow
//
//=====
long TimeNow()
{
    long      time_now;
    struct _timeb el_time;

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

    _ftime(&el_time);

    time_now = ((el_time.time - start_sec) * 1000) +
el_time.millitm;

    return time_now;
}


```

tpcc.h

```

// File: TPC.C.H
// Microsoft
TPC-C Kit Ver. 4.30
// Copyright
Microsoft, 1996, 1997, 1998, 1999, 2000
// Purpose: Header file for TPC-C database
loader

// Build number of TPC Benchmark Kit
#define TPCKIT_VER "4.30"

// 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 <odbc.h>

// General constants
#define MILLI 1000
#define FALSE 0
#define TRUE 1
#define UNDEF -1
#define MINPRINTASCII 32
#define MAXPRINTASCII 126

// Default environment constants
#define SERVER ""
#define DATABASE "tpcc"
#define USER "sa"
#define PASSWORD ""

// Default loader arguments
#define BATCH 10000
#define DEFLDPACKSIZE 32768
#define LOADER_RES_FILE "logs\\load.out"
#define LOADER_NURAND_C 123
#define DEF_STARTING_WAREHOUSE 1
#define BUILD_INDEX 1 // build both data and indexes
#define INDEX_ORDER 1 // build indexes before load
#define SCALE_DOWN 0 // build a normal scale database
#define INDEX_SCRIPT_PATH "scripts"

typedef struct
{
    char *server;
    char *database;
    char *user;
    char *password;
    BOOL tables_all; //
    set if loading all tables //
    BOOL table_item; //
    set if loading ITEM table specifically //
    BOOL table_warehouse; // set if loading
    WAREHOUSE, DISTRICT, and STOCK
    BOOL table_customer; // set if
    loading CUSTOMER and HISTORY

```

```

        BOOL
        table_orders; // set if
loading NEW-ORDER, ORDERS, ORDER-LINE
    long
        num_warehouses;
    long
        batch;
    long
        verbose;
    long
        pack_size;
    char
        *loader_res_file;
    char
        *synch_servername;
    long
        case_sensitivity;
    long
        starting_warehouse;
    long
        build_index;
    long
        index_order;
    long
        scale_down;
    char
        *index_script_path;
} TPCCLDR_ARGS;

// String length constants
#define SERVER_NAME_LEN 20
#define DATABASE_NAME_LEN 20
#define USER_NAME_LEN 20
#define PASSWORD_LEN 20
#define TABLE_NAME_LEN 20
#define I_DATA_LEN 50
#define I_NAME_LEN 24
#define BRAND_LEN 1
#define LAST_NAME_LEN 16
#define W_NAME_LEN 10
#define ADDRESS_LEN 20
#define STATE_LEN 2
#define ZIP_LEN 9
#define S_DIST_LEN 24
#define S_DATA_LEN 50
#define D_NAME_LEN 10
#define FIRST_NAME_LEN 16
#define MIDDLE_NAME_LEN 2
#define PHONE_LEN 16
#define CREDIT_LEN 2
#define C_DATA_LEN 500
#define H_DATA_LEN 24
#define DIST_INFO_LEN 24
#define MAX_OL_NEW_ORDER_ITEMS 15
#define MAX_OL_ORDER_STATUS_ITEMS 15
#define STATUS_LEN 25
#define OL_DIST_INFO_LEN 24

#define C_SINCE_LEN 23
#define H_DATE_LEN 23

```

```

23 #define OL_DELIVERY_D_LEN
    #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. 4.30
// 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;
    long ol_supply_w_id;
    short ol_quantity;
    double ol_amount;
    char
    ol_dist_info[DIST_INFO_LEN+1];
    char
    ol_delivery_d[OL_DELIVERY_D_LEN+1];
} ORDER_LINE_STRUCT;

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

typedef struct
{
    long c_id;
    short c_d_id;
    long c_w_id;
    char
    c_first[FIRST_NAME_LEN+1];

```

```

char
    c_middle[MIDDLE_NAME_LEN+1];
char
    c_last[LAST_NAME_LEN+1];
char
    c_street_1[ADDRESS_LEN+1];
char
    c_street_2[ADDRESS_LEN+1];
char
    c_city[ADDRESS_LEN+1];
char
    c_state[STATE_LEN+1];
char
    c_zip[ZIP_LEN+1];
char
    c_phone[PHONE_LEN+1];
char
    c_credit[CREDIT_LEN+1];
double
    c_credit_lim;
double
    c_discount;
// fix to avoid ODBC float to numeric conversion
// problem.
// double
    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;

TPCCCLR_ARGS
    *aptr, args;

// support for log directory determined by
// environment
#define
    LOGBASE_MAXLEN
    128
int
    UseAltLogDir
    = 0;
char
    LogBase[LOGBASE_MAXLEN];
char
    LogFile[2*LOGBASE_MAXLEN];
#define
    LOGFILE_CREATE(name)
    \
    strcpy(LogFile, LogBase); \

```

```

    strcat(LogFile, name);

//=====
//
// 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*****\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);

    // process environment variables
    if ( GetEnvironmentVariable("LOGBASE",
LogBase, LOGBASE_MAXLEN))
    {
        UseAltLogDir = 1;
        strcat(LogBase, "\\logs");
        printf("Will use %s for log
files\n", LogBase);
    }
    else
        strcpy(LogBase, "logs");

    // 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        bcpint[128];

    // Seed with unique number
    seed(1);

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

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

    InitString(i_name, I_NAME_LEN+1);
    InitString(i_data, I_DATA_LEN+1);

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

    LOGFILE_CREATE("\\item.err")
    rc = bcp_init(i_hdbc1, name, NULL, LogFile,
DB_IN);

    if (rc != SUCCEED)

```

```

        HandleErrorDBC(i_hdbc1);

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

                HandleErrorDBC(i_hdbc1);
        }

        rc = bcp_bind(i_hdbc1, (BYTE *) &i_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT4, 1);
        if (rc != SUCCEED)
            HandleErrorDBC(i_hdbc1);

        rc = bcp_bind(i_hdbc1, (BYTE *) &i_im_id,
0, SQL_VARLEN_DATA, NULL, 0, SQLINT4, 2);
        if (rc != SUCCEED)
            HandleErrorDBC(i_hdbc1);

        rc = bcp_bind(i_hdbc1, (BYTE *) i_name, 0,
I_NAME_LEN, NULL, 0, 0, 3);
        if (rc != SUCCEED)
            HandleErrorDBC(i_hdbc1);

        rc = bcp_bind(i_hdbc1, (BYTE *) &i_price,
0, SQL_VARLEN_DATA, NULL, 0, SQLFLT8, 4);
        if (rc != SUCCEED)
            HandleErrorDBC(i_hdbc1);

        rc = bcp_bind(i_hdbc1, (BYTE *) i_data, 0,
I_DATA_LEN, NULL, 0, 0, 5);
        if (rc != SUCCEED)
            HandleErrorDBC(i_hdbc1);

        time_start = (TimeNow() / MILLI);
        item_rows_loaded = 0;

        for (i_id = 1; i_id <= max_items; i_id++)
        {
            i_im_id = RandomNumber(1L,
10000L);

            MakeAlphaString(14, 24,
I_NAME_LEN, i_name);

            i_price = ((float)
RandomNumber(100L, 10000L)/100.0);

            MakeOriginalAlphaString(26, 50,
I_DATA_LEN, i_data, 10);

            rc = bcp_sendrow(i_hdbc1);

            if (rc != SUCCEED)

                HandleErrorDBC(i_hdbc1);

```

```

            item_rows_loaded++;
            CheckForCommit(i_hdbc1, i_hstmt1,
item_rows_loaded, "item", &time_start);
        }

        rcint = bcp_done(i_hdbc1);
        if (rcint < 0)
            HandleErrorDBC(i_hdbc1);

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

        SQLFreeStmt(i_hstmt1, SQL_DROP);
        SQLDisconnect(i_hdbc1);
        SQLFreeConnect(i_hdbc1);

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

//=====
//
// Function : LoadWarehouse
//
// Loads WAREHOUSE table and loads Stock and District
as Warehouses are created
//
//=====
void LoadWarehouse()
{
    long        w_id;
    char        w_name[W_NAME_LEN+1];
    char        w_street_1[ADDRESS_LEN+1];
    char        w_street_2[ADDRESS_LEN+1];
    char        w_city[ADDRESS_LEN+1];
    char        w_state[STATE_LEN+1];
    char        w_zip[ZIP_LEN+1];
    double      w_tax;
    double      w_ytd;
    char        name[20];
    long        time_start;
    RETCODE     rc;
    DBINT       rcint;
    char        bcpint[128];

    // Seed with unique number
    seed(aptr->starting_warehouse + 1);

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

    // if build index before load...
    if ((aptr->build_index == 1) && (aptr-
>index_order == 1))
        BuildIndex("idxwarc1");

```

```

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

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

LOGFILE_CREATE("\\house.err")
rc = bcp_init(w_hdbc1, name, NULL, LogFile,
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, CHECK_CONSTRAINTS",
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, SQLINT4, 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 = (long)aptr->starting_warehouse;
w_id <= aptr->num_warehouses; w_id++)
{
MakeAlphaString(6,10, W_NAME_LEN,
w_name);

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

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

w_ytd = 300000.00;

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

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

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

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

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

stock_rows_loaded = 0;
district_rows_loaded = 0;

District();
Stock();
}

//=====
//

```

```

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

// Seed with unique number
seed(aptr->starting_warehouse + 2);

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,
"t_district");

LOGFILE_CREATE("\\district.err")
rc = bcp_init(w_hdbc1, name, NULL, LogFile,
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,
CHECK_CONSTRAINTS", (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 != SUCCEEDED)
    HandleErrorDBC(w_hdbc1);

rc = bcp_bind(w_hdbc1, (BYTE *) &d_w_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT4, 2);
if (rc != SUCCEEDED)
    HandleErrorDBC(w_hdbc1);

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

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

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

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

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

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

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

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

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

d_ytd = 30000.0;
d_next_o_id = orders_per_district+1;

time_start = (TimeNow() / MILLI);

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

```

```

    d_w_id = w_id;

    for (d_id = 1; d_id <=
DISTRICT_PER_WAREHOUSE; d_id++)
    {
        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 != SUCCEEDED)
            HandleErrorDBC(w_hdbc1);

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

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

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

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

    return;
}

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

void Stock()
{
    long s_i_id;
    long s_w_id;
    short s_quantity;
    char s_dist_01[S_DIST_LEN+1];
    char s_dist_02[S_DIST_LEN+1];
    char s_dist_03[S_DIST_LEN+1];
    char s_dist_04[S_DIST_LEN+1];
    char s_dist_05[S_DIST_LEN+1];
    char s_dist_06[S_DIST_LEN+1];

```

```

    char s_dist_07[S_DIST_LEN+1];
    char s_dist_08[S_DIST_LEN+1];
    char s_dist_09[S_DIST_LEN+1];
    char s_dist_10[S_DIST_LEN+1];
    long s_ytd;
    short s_order_cnt;
    short s_remote_cnt;
    char s_data[S_DATA_LEN+1];
    short len;
    char name[20];
    long time_start;
    RETCODE rc;
    DBINT rcint;
    char bcphint[128];

    // Seed with unique number
    seed(aptr->starting_warehouse + 3);

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

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

    LOGFILE_CREATE("\\stock.err")
    rc = bcp_init(w_hdbc1, name, NULL, LogFile,
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,
CHECK_CONSTRAINTS", (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, SQLINT4, 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 != SUCCEEDED)
            HandleErrorDBC(w_hdbc1);

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

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

```

```

        HandleErrorDBC(w_hdbc1);

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

        s_ytd = s_order_cnt = s_remote_cnt = 0;

        time_start = (TimeNow() / MILLI);
        printf("...Loading stock table\n");

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

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

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

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

        rcint = bcp_done(w_hdbc1);

```

```

        if (rcint < 0)
            HandleErrorDBC(w_hdbc1);

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

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

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

        return;
    }

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

        // Seed with unique number
seed(aptr->starting_warehouse + 4);

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

```



```

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

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

LOGFILE_CREATE("\\customer.err")
rc = bcp_init(c_hdbc1, name, NULL, LogFile,
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,
CHECK_CONSTRAINTS", (aptr->num_warehouses * 30000));
    rc = bcp_control(c_hdbc1,
BCPHINTS, (void*) bcphint);
    if (rc != SUCCEED)
        HandleErrorDBC(c_hdbc1);
}

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

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

sprintf(bcphint, "tablock, order (h_w_id,
h_d_id, h_c_id, h_date), ROWS_PER_BATCH = %u,
CHECK_CONSTRAINTS", (aptr->num_warehouses * 30000));
rc = bcp_control(c_hdbc2, BCPHINTS, (void*)
bcphint);
if (rc != SUCCEED)
    HandleErrorDBC(c_hdbc2);

customer_rows_loaded    = 0;
history_rows_loaded    = 0;

CustomerBufInit();

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

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

```

```

CustomerBufLoad(d_id,
w_id);

// Start parallel
loading threads here...

// Start customer table
thread

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

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

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

// Start History table
thread

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

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

if (hThread[1] == NULL)
{

```

```

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

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

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

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

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

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

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

// 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 t_customer set c_first = 'C_LOAD = %d'
where c_id = 1 and c_w_id = 1 and c_d_id = 1\ " >
%s\nurand_load.log",
aptr->server,

```

```

aptr->user,
aptr-
>password,
aptr-
>database,
aptr-
        LOADER_NURAND_C,
        LogBase);

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;

        data // Generate CUSTOMER and HISTORY

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

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

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

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

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

```

```

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

        // fix to avoid ODBC float to
numeric conversion problem.
        // customer_buf[i].c_balance = -
10.0;

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

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

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

//=====
//
// Function : LoadCustomerTable
//
//=====
void LoadCustomerTable(LOADER_TIME_STRUCT
*customer_time_start)
{
    int i;
    long c_id;
    short c_d_id;
    long c_w_id;
    char c_first[FIRST_NAME_LEN+1];
    char c_middle[MIDDLE_NAME_LEN+1];
    char c_last[LAST_NAME_LEN+1];
    char c_street_1[ADDRESS_LEN+1];
    char c_street_2[ADDRESS_LEN+1];
    char c_city[ADDRESS_LEN+1];
    char c_state[STATE_LEN+1];
    char c_zip[ZIP_LEN+1];
    char c_phone[PHONE_LEN+1];
    char c_credit[CREDIT_LEN+1];
    double c_credit_lim;
    double c_discount;

    // fix to avoid ODBC float to numeric
conversion problem.
    // double c_balance;
    char c_balance[6];

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

    RETCODE rc;

```

```

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

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

        rc = bcp_bind(c_hdbc1, (BYTE *) &c_w_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT4, 3);
        if (rc != SUCCEEDED)
            HandleErrorDBC(c_hdbc1);

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

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

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

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

        rc = bcp_bind(c_hdbc1, (BYTE *) c_street_2, 0,
ADDRESS_LEN, NULL, 0, 0, 8);
        if (rc != SUCCEEDED)
            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;
    long c_w_id;
    double h_amount;
    char h_data[H_DATA_LEN+1];
    char h_date[H_DATE_LEN+1];

    RETCODE rc;

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

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

    rc = bcp_bind(c_hdbc2, (BYTE *) &c_w_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT4, 3);
    if (rc != SUCCEEDED)
        HandleErrorDBC(c_hdbc2);

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

    rc = bcp_bind(c_hdbc2, (BYTE *) &c_w_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT4, 5);
    if (rc != SUCCEEDED)
        HandleErrorDBC(c_hdbc2);

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

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

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

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

```

```

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

        FormatDate(&h_date);

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

        HandleErrorDBC(c_hdbc2);

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

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

    // seed with unique number
seed(aptr->starting_warehouse + 5);

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

    // if build index before load...
if ((aptr->build_index == 1) && (aptr-
>index_order == 1))
    {
        BuildIndex("idxordc1");
        BuildIndex("idxmodc1");
        BuildIndex("idxodc1");
    }
}

```

```

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

LOGFILE_CREATE("\\orders.err")
rc = bcp_init(o_hdbc1, name, NULL, LogFile,
DB_IN);
if (rc != SUCCEEDED)
    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,
CHECK_CONSTRAINTS", (aptr->num_warehouses * 30000));
    rc = bcp_control(o_hdbc1,
BCPHINTS, (void*) bcphint);
    if (rc != SUCCEEDED)

        HandleErrorDBC(o_hdbc1);
}

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

LOGFILE_CREATE("\\neword.err")
rc = bcp_init(o_hdbc2, name, NULL, LogFile,
DB_IN);
if (rc != SUCCEEDED)
    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,
CHECK_CONSTRAINTS", (aptr->num_warehouses * 9000));
    rc = bcp_control(o_hdbc2,
BCPHINTS, (void*) bcphint);
    if (rc != SUCCEEDED)

        HandleErrorDBC(o_hdbc2);
}

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

LOGFILE_CREATE("\\ordline.err")
rc = bcp_init(o_hdbc3, name, NULL, LogFile,
DB_IN);
if (rc != SUCCEEDED)
    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, CHECK_CONSTRAINTS", (aptr-
>num_warehouses * 300000));

```

```

rc = bcp_control(o_hdbc3,
BCPHINTS, (void*) bcphint);
if (rc != SUCCEEDED)

    HandleErrorDBC(o_hdbc3);
}

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

OrdersBufInit();

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

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

// start parallel
loading threads here...

// start Orders table
thread

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

hThread[0] =
CreateThread(NULL,

0,

(LPTHREAD_START_ROUTINE) LoadOrdersTable,
&orders_time_start,

0,

&dwThreadID[0]);

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

```

```

// start NewOrder table
thread

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

hThread[1] =
CreateThread(NULL,

0,

(LPTHREAD_START_ROUTINE) LoadNewOrderTable,
&new_order_time_start,

0,

&dwThreadID[1]);

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

// start Order-Line
table thread

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

hThread[2] =
CreateThread(NULL,

0,

(LPTHREAD_START_ROUTINE) LoadOrderLineTable,
&order_line_time_start,

0,

&dwThreadID[2]);

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

```

```

        WaitForSingleObject(
hThread[0], INFINITE );
        WaitForSingleObject(
hThread[1], INFINITE );
        WaitForSingleObject(
hThread[2], INFINITE );

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

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

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

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

return;
}

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

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

```

```

        orders_buf[i].o_carrier_id = 0;
        orders_buf[i].o_ol_cnt = 0;
        orders_buf[i].o_all_local = 0;

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

//=====
//
// Function : OrdersBufLoad
//
// Fills shared buffer for ORDERS, NEWORDER, and
ORDERLINE
//
//=====
void OrdersBufLoad(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_de
livery_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_deliver
y_d,"1899-12-31 00:00:00.000");
    }
}

//=====
//
// Function   : LoadOrdersTable
//=====
void LoadOrdersTable(LOADER_TIME_STRUCT
*orders_time_start)
{
    int     i;
    long    o_id;
    short   o_d_id;
    long    o_w_id;

    long    o_c_id;
    short   o_carrier_id;
    short   o_ol_cnt;
    short   o_all_local;

    char    o_entry_d[O_ENTRY_D_LEN+1];
    RETCODE rc;
    DBINT   rcint;

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

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

    rc = bcp_bind(o_hdbc1, (BYTE *) &o_w_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT4, 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++)
    {
        orders_buf[i].o_id      =
        orders_buf[i].o_d_id    =
        orders_buf[i].o_w_id    =
        orders_buf[i].o_c_id    =
        orders_buf[i].o_carrier_id =
        orders_buf[i].o_ol_cnt  =
        orders_buf[i].o_all_local =

        FormatDate(&o_entry_d);

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

            HandleErrorDBC(o_hdbc1);

        orders_rows_loaded++;

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

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

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

        if (rcint < 0)

            HandleErrorDBC(o_hdbc1);

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

```

```

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

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

//=====
//
// Function   : LoadNewOrderTable
//=====
void LoadNewOrderTable(LOADER_TIME_STRUCT
*new_order_time_start)
{
    int     i;
    long    o_id;
    short   o_d_id;
    long    o_w_id;

    RETCODE rc;
    DBINT   rcint;

    // Bind NEW-ORDER data

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

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

    rc = bcp_bind(o_hdbc2, (BYTE *) &o_w_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT4, 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("idxnodcl");
    }
}

//=====
//
// Function   : LoadOrderLineTable
//
//=====
void LoadOrderLineTable(LOADER_TIME_STRUCT
*order_line_time_start)
{
    int         i,j;
    long        o_id;
    short       o_d_id;
    long        o_w_id;

    long        ol;
    long        ol_i_id;
    long        ol_supply_w_id;
    short       ol_quantity;
    double      ol_amount;
    char        ol_dist_info[DIST_INFO_LEN+1];
    char        ol_delivery_d[OL_DELIVERY_D_LEN+1];
    RETCODE     rc;
    DBINT       rcint;

    // bind ORDER-LINE data

```

```

        rc = bcp_bind(o_hdbc3, (BYTE *) &o_id, 0,
SQL_VARLEN_DATA, NULL, 0, SQLINT4, 1);
        if (rc != 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, SQLINT4, 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, SQLINT4, 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].o
l_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("idxnodcl");
    }
}

//=====
//=====

```



```

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

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

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

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

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

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

        printf("-> Loaded %ld rows into
%s in %ld sec - Total = %d (%.2f rps)\n",
aptr->batch,
table_name,
time_diff,

```

```

rows_loaded,
(float) aptr-
>batch / (time_diff ? time_diff : 1L));

        *time_start = time_end;
    }
    return;
}

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

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

    SQLAllocHandle(SQL_HANDLE_ENV,
SQL_NULL_HANDLE, &henv );

    SQLSetEnvAttr(henv, SQL_ATTR_ODBC_VERSION,
(void*)SQL_OV_ODBC3, 0 );

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

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

```

```

SQLSetConnectAttr(o_hdbc2, SQL_COPT_SS_BCP,
(void *)SQL_BCP_ON, SQL_IS_INTEGER );
SQLSetConnectAttr(o_hdbc3, SQL_COPT_SS_BCP,
(void *)SQL_BCP_ON, SQL_IS_INTEGER );

    // Open connections to SQL Server
    // Connection 1

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

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

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

    rc = SQLDriverConnect ( i_hdbc1,
NULL,

(SQLCHAR*)&szDriverString[0] ,
SQL_NTS,
(SQLCHAR*)&szDriverStringOut[0],
sizeof(szDriverStringOut),
&cbDriverStringOut,
SQL_DRIVER_NOPROMPT );
if (rc != SUCCEED)
    HandleErrorDBC(i_hdbc1);

    // Connection 2

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

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

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

    rc = SQLDriverConnect ( w_hdbc1,

```

```

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

    rc = SQLDriverConnect ( c_hdbc1,

        NULL,
        (SQLCHAR*)&szDriverString[0] ,
        SQL_NTS,
        (SQLCHAR*)&szDriverStringOut[0],
        sizeof(szDriverStringOut),
        &cbDriverStringOut,
        SQL_DRIVER_NOPROMPT );
    if (rc != SUCCEEDED)
        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 != SUCCEEDED)
        HandleErrorDBC(c_hdbc2);

    rc = SQLDriverConnect ( c_hdbc2,

        NULL,
        (SQLCHAR*)&szDriverString[0] ,
        SQL_NTS,
        (SQLCHAR*)&szDriverStringOut[0],
        sizeof(szDriverStringOut),
        &cbDriverStringOut,
        SQL_DRIVER_NOPROMPT );
    if (rc != SUCCEEDED)
        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 != SUCCEEDED)
        HandleErrorDBC(o_hdbc1);

    rc = SQLDriverConnect ( o_hdbc1,

        NULL,
        (SQLCHAR*)&szDriverString[0] ,
        SQL_NTS,
        (SQLCHAR*)&szDriverStringOut[0],
        sizeof(szDriverStringOut),
        &cbDriverStringOut,
        SQL_DRIVER_NOPROMPT );
    if (rc != SUCCEEDED)
        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 != SUCCEEDED)
        HandleErrorDBC(o_hdbc2);

    rc = SQLDriverConnect ( o_hdbc2,

        NULL,
        (SQLCHAR*)&szDriverString[0] ,
        SQL_NTS,
        (SQLCHAR*)&szDriverStringOut[0],
        sizeof(szDriverStringOut),
        &cbDriverStringOut,
        SQL_DRIVER_NOPROMPT );
    if (rc != SUCCEEDED)
        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 != SUCCEEDED)
        HandleErrorDBC(o_hdbc3);

    rc = SQLDriverConnect ( o_hdbc3,

        NULL,
        (SQLCHAR*)&szDriverString[0] ,
        SQL_NTS,
        (SQLCHAR*)&szDriverStringOut[0],

```

```

        sizeof(szDriverStringOut),
        &cbDriverStringOut,
        SQL_DRIVER_NOPROMPT );
    if (rc != SUCCEEDED)
        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 > %s\\%s.log",
            aptr->server,
            aptr->user,
            aptr->
            >password,
            aptr->
            >index_script_path,
            index_script,
            LogBase,

            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        *fpl;

    i = 1;
    while (( rc2 = SQLGetDiagRec(SQL_HANDLE_DBC
    , hdbc1, i, SqlState , &NativeError,
    sizeof(Msg) , &MsgLen ) != SQL_NO_DATA )

```

```

    {
        Msg );
        sprintf( szLastError , "%s" ,
                _strtime(timebuf);
                _strdate(datebuf);

                printf( "[%s : %s] %s\n" ,
                datebuf, timebuf, szLastError);

                LOGFILE_CREATE("\\tpccldr.err")
                fpl = fopen(LogFile,"w");
                if (fpl == NULL)
                    printf("ERROR: Unable
                    to open errorlog file.\n");
                else
                    {
                        fprintf(fpl, "[%s : %s]
                        %s\n" , datebuf, timebuf, szLastError);
                        fclose(fpl);
                    }
                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        *fpl;

        i = 1;
        while (( rc2 =
        SQLGetDiagRec(SQL_HANDLE_STMT , hstmt1, i, SqlState ,
        &NativeError,
        sizeof(Msg) , &MsgLen ) != SQL_NO_DATA )
        {
            Msg );
            sprintf( szLastError , "%s" ,
                    _strtime(timebuf);
                    _strdate(datebuf);

                    printf( "[%s : %s] %s\n" ,
                    datebuf, timebuf, szLastError);

                    LOGFILE_CREATE("\\tpccldr.err")
                    fpl = fopen(LogFile,"w");
                    if (fpl == NULL)
                        printf("ERROR: Unable
                        to open errorlog file.\n");
                    else

```

```

        {
            fprintf(fpl, "[%s : %s]
            %s\n" , datebuf, timebuf, szLastError);
            fclose(fpl);
        }
        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
    SQLINTEGER
    TabName[10];
    TabCount, TabCountInd;

    ExitFlag = 0;

```

```

        SQLAllocHandle(SQL_HANDLE_ENV,
SQL_NULL_HANDLE, &henv );

        SQLSetEnvAttr(henv, SQL_ATTR_ODBC_VERSION,
(void*)SQL_OV_ODBC3, 0 );

        SQLAllocHandle(SQL_HANDLE_DBC, henv ,
&v_hdbc);

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

        // Open connection to SQL Server

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

        aptr->server,

        aptr->user,

        aptr->password,

        aptr->database );

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

        rc = SQLDriverConnect ( v_hdbc,

NULL,

(SQLCHAR*)&szDriverString[0] ,

SQL_NTS,

(SQLCHAR*)&szDriverStringOut[0],

sizeof(szDriverStringOut),

&cbDriverStringOut,

SQL_DRIVER_NOPROMPT );

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

            // 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':
                    break;
                TablesBitMap[1] = '1';
                    break;
                case 'c':
                    break;
                TablesBitMap[2] = '1';
                    break;
                case 'h':
                    break;
                TablesBitMap[3] = '1';
                    break;
                case 'n':
                    break;
                TablesBitMap[4] = '1';
                    break;
                case 'o':
                    if
(TabName[5] = 's')
                    TablesBitMap[5] = '1';
                    if
(TabName[5] = '_')
                    TablesBitMap[6] = '1';
                    break;
                case 'i':
                    break;
                TablesBitMap[7] = '1';
                    break;
                case 's':
                    break;
                TablesBitMap[8] = '1';
                    break;
            }

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

            // interate through the bitmap to
display which table(s) is actually missing
            for (i = 0; i <= 8; i++)
            {
                switch(i)
                {
                    case 0:
                        if
(TablesBitMap[i] == '0')
                        {
                            printf("The Warehouse table is missing or
damaged.\n");

                            ExitFlag = 1;
                        }
                    break;
                }
            }
            case 1:

```



```

#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. 4.30
// 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[] =
"0123456789ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnop
qrstuvwxyz";
    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;
}

```


getargs.c

```
// File: GETARGS.C Microsoft
// TPC-C Kit Ver. 4.30 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,
TPCCCLR_ARGS *pargs)
{
    int i;
    char *ptr;

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

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

```
    pargs->scale_down =
SCALE_DOWN;

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

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

        ptr = argv[i];
        switch (ptr[1])
        {
            case 'h': /* Fall through */
            case 'H':
                GetArgsLoaderUsage();
                break;

            case 'D':
                >database = ptr+2;
                break;

            case 'P':
                >password = ptr+2;
                break;

            case 'S':
                pargs->server = ptr+2;
                break;

            case 'U':
                pargs->user = ptr+2;
                break;

            case 'b':
                pargs->batch = atol(ptr+2);
                break;

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

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

            case 't':
```

```
                {
                    pargs->tables_all = FALSE;
                    if
(strcmp(ptr+2,"item") == 0)
                    pargs->table_item = TRUE;
                    else if (strcmp(ptr+2,"warehouse") == 0)
                    pargs->table_warehouse = TRUE;
                    else if (strcmp(ptr+2,"customer") == 0)
                    pargs->table_customer = TRUE;
                    else if (strcmp(ptr+2,"orders") == 0)
                    pargs->table_orders = TRUE;
                    else
                    {
                        printf("\nUnrecognized command");
                        GetArgsLoaderUsage();
                        exit(1);
                    }
                }

            case 'f':
                >loader_res_file = ptr+2;
                break;

            case 'p':
                >pack_size = atol(ptr+2);
                break;

            case 'i':
                >build_index = atol(ptr+2);
                break;

            case 'o':
                >index_order = atol(ptr+2);
                break;

            case 'c':
                >scale_down = atol(ptr+2);
                break;

            case 'd':
                >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("TPCCCLR:\n\n");
    printf("Parameter
Default\n");
    printf("-----\n");
    printf("-W Number of Warehouses to Load
Required \n");
    printf("-S Server
%s\n", SERVER);
    printf("-U Username
%s\n", USER);
    printf("-P Password
%s\n", PASSWORD);
    printf("-D Database
%s\n", DATABASE);
    printf("-b Batch Size
%ld\n", (long) BATCH);
    printf("-p TDS packet size
%ld\n", (long) DEFLDPACKSIZE);
    printf("-f Loader Results Output Filename
%s\n", LOADER_RES_FILE);
    printf("-s Starting Warehouse
%ld\n", (long) DEF_STARTING_WAREHOUSE);
    printf("-i Build Option (data = 0, data and
index = 1)
%ld\n", (long) BUILD_INDEX);

```

```

        printf("-o Cluster Index Build Order
(before = 1, after = 0) %ld\n", (long) INDEX_ORDER);
        printf("-c Build Scaled Database (normal =
0, tiny = 1)
%ld\n", (long) SCALE_DOWN);
        printf("-d Index Script Path
%s\n", INDEX_SCRIPT_PATH);
        printf("-t Table to Load
all tables \n");
        printf(" [item|warehouse|customer|orders]\n");
        printf(" Notes: \n");
        printf(" - the '-t' parameter may be included
multiple times to \n");
        printf(" specify multiple tables to be
loaded \n");
        printf(" - 'item' loads ITEM table \n");
        printf(" - 'warehouse' loads WAREHOUSE,
DISTRICT, and STOCK tables \n");
        printf(" - 'customer' loads CUSTOMER and
HISTORY tables \n");
        printf(" - 'orders' load NEW-ORDER, ORDERS,
ORDER-LINE tables \n");

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

        exit(0);
}

```

Appendix C: Tunable Parameters

Microsoft SQL Server 2000 EE Startup Parameters

```
C:\SQL2K\MSSQL\BINN\SQLSERVR
-eC:\MSSQL7\LOG\ERRORLOG -x -c -t3502
-g1024
```

Where:

-c Start SQL Server independently of the Windows NT Service Control Manager

-x Disables the keeping of CPU time and cache-hit ratio statistics

-t3502 Prints a message to the SQL Server log at the start and end of each checkpoint

-g1024 Specify the amount of virtual address space in MB, SQL Server will leave available for memory allocations, excluding the buffer pool and threads stack, such as dynamically-loaded DLLs, extended procedure calls, etc. Incorrect use of this option can lead to conditions under which SQL Server may not start or may encounter runtime errors.

Boot.ini Parameters

8GB Tuning was enabled for Windows 2000 Advanced Server by setting the "/PAE" switch in the boot.ini .

Microsoft SQL Server 2000 Enterprise Version

```
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	maximum	config_value	run_value	minimum
affinity mask				0
2147483647	255	255		
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		
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	0	0		
locks				5000
2147483647	0	0		
max degree of parallelism				0
32	0	0		
max server memory (MB)				4
2147483647	2147483647	2147483647		
max text repl size (B)				0
2147483647	65536	65536		
max worker threads				32
32767	450	450		
media retention				0
365	0	0		

```
min memory per query (KB) 512
2147483647 1024 1024
min server memory (MB) 0
2147483647 0 0
nested triggers 0
1 1 1
network packet size (B) 512
65536 4096 4096
open objects 0
2147483647 0 0
priority boost 0
1 1 1
query governor cost limit 0
2147483647 0 0
query wait (s) -1
2147483647 -1 -1
recovery interval (min) 0
32767 40 40
remote access 0
1 1 1
remote login timeout (s) 0
2147483647 0 0
remote proc trans 0
1 0 0
remote query timeout (s) 0
2147483647 0 0
scan for startup procs 0
1 0 0
set working set size 0
1 0 0
show advanced options 0
1 1 1
two digit year cutoff 1753
9999 2049 2049
user connections 0
32767 0 0
user options 0
32767 0 0

1>
```

Benchcraft Profile

```
Profile: 24-nodesx1900_3D_RTE
File Path: C:\BenchCraft\24-
nodesx1900_3D_RTE.pro
Version: 3
```

Number of Engines: 48

```
Name: CL01
Description:
Directory: c:\temp\CL01.log
Machine: N1
Parameter Set: 3.2
Index: 0
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER185943500
```

Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 0

Name: CL02
Description:
Directory: c:\temp\CL02.log
Machine: N1
Parameter Set: 3.2
Index: 50000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER286005718
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 1

Name: CL03
Description:
Directory: c:\temp\CL03.log
Machine: N1
Parameter Set: 3.2
Index: 100000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER486111687
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 2

Name: CL04
Description:
Directory: c:\temp\CL04.log
Machine: N2
Parameter Set: 3.2
Index: 150000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER61351046
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 0

Name: CL05
Description:
Directory: c:\temp\CL05.log
Machine: N2
Parameter Set: 3.2
Index: 200000000
Seed: 18546
Configured Users: 9500

Pipe Name: DRIVER51445656
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 1

Name: CL06
Description:
Directory: c:\temp\CL06.log
Machine: N2
Parameter Set: 3.2
Index: 250000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER61470359
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 2

Name: CL07
Description:
Directory: c:\temp\CL07.log
Machine: N3
Parameter Set: 3.2
Index: 300000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER71530812
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 0

Name: CL08
Description:
Directory: c:\temp\CL08.log
Machine: N3
Parameter Set: 3.2
Index: 350000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER81559609
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 1

Name: CL09
Description:
Directory: c:\temp\CL09.log
Machine: N3
Parameter Set: 3.2
Index: 400000000
Seed: 18546

Configured Users: 9500
Pipe Name: DRIVER91581734
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 2

Name: CL10
Description:
Directory: c:\temp\CL10.log
Machine: N4
Parameter Set: 3.2
Index: 450000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER101796593
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 0

Name: CL11
Description:
Directory: c:\temp\CL11.log
Machine: N4
Parameter Set: 3.2
Index: 500000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER111815125
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 1

Name: CL12
Description:
Directory: c:\temp\CL12.log
Machine: N4
Parameter Set: 3.2
Index: 550000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER121847578
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 2

Name: CL13
Description:
Directory: c:\temp\CL13.log
Machine: N5
Parameter Set: 3.2
Index: 600000000

Seed: 18546
 Configured Users: 9500
 Pipe Name: DRIVER131948703
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 233
 CPU: 0

Name: CL14
 Description:
 Directory: c:\temp\CL14.log
 Machine: N5
 Parameter Set: 3.2
 Index: 650000000
 Seed: 18546
 Configured Users: 9500
 Pipe Name: DRIVER141987734
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 233
 CPU: 1

Name: CL15
 Description:
 Directory: c:\temp\CL15.log
 Machine: N5
 Parameter Set: 3.2
 Index: 700000000
 Seed: 18546
 Configured Users: 9500
 Pipe Name: DRIVER152008625
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 233
 CPU: 2

Name: CL16
 Description:
 Directory: c:\temp\CL16.log
 Machine: N6
 Parameter Set: 3.2
 Index: 750000000
 Seed: 18546
 Configured Users: 9500
 Pipe Name: DRIVER162045765
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 233
 CPU: 0

Name: CL17
 Description:
 Directory: c:\temp\CL17.log
 Machine: N6
 Parameter Set: 3.2

Index: 800000000
 Seed: 18546
 Configured Users: 9500
 Pipe Name: DRIVER172074875
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 233
 CPU: 1

Name: CL18
 Description:
 Directory: c:\temp\CL18.log
 Machine: N6
 Parameter Set: 3.2
 Index: 850000000
 Seed: 18546
 Configured Users: 9500
 Pipe Name: DRIVER182096734
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 233
 CPU: 2

Name: CL33
 Description:
 Directory: c:\temp\CL33.log
 Machine: N11
 Parameter Set: 3.2
 Index: 1600000000
 Seed: 18546
 Configured Users: 9500
 Pipe Name: DRIVER194163625
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 233
 CPU: 2

Name: CL19
 Description:
 Directory: c:\temp\CL19.log
 Machine: N7
 Parameter Set: 3.2
 Index: 900000000
 Seed: 18546
 Configured Users: 9500
 Pipe Name: DRIVER208165921
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 233
 CPU: 0

Name: CL20
 Description:
 Directory: c:\temp\CL20.log
 Machine: N7

Parameter Set: 3.2
 Index: 950000000
 Seed: 18546
 Configured Users: 9500
 Pipe Name: DRIVER218309125
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 233
 CPU: 1

Name: CL21
 Description:
 Directory: c:\temp\CL21.log
 Machine: N7
 Parameter Set: 3.2
 Index: 1000000000
 Seed: 18546
 Configured Users: 9500
 Pipe Name: DRIVER228369562
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 233
 CPU: 2

Name: CL22
 Description:
 Directory: c:\temp\CL22.log
 Machine: N8
 Parameter Set: 3.2
 Index: 1050000000
 Seed: 18546
 Configured Users: 9500
 Pipe Name: DRIVER238477187
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 233
 CPU: 0

Name: CL23
 Description:
 Directory: c:\temp\CL23.log
 Machine: N8
 Parameter Set: 3.2
 Index: 1100000000
 Seed: 18546
 Configured Users: 9500
 Pipe Name: DRIVER248583203
 Connect Rate: 10
 Start Rate: 0
 Max. Concurrency: 0
 Concurrency Rate: 0
 CLIENT_NURAND: 233
 CPU: 1

Name: CL24
 Description:
 Directory: c:\temp\CL24.log

Machine: N8
Parameter Set: 3.2
Index: 1150000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER258632218
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 2

Name: CL25
Description:
Directory: c:\temp\CL25.log
Machine: N9
Parameter Set: 3.2
Index: 1200000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER268712812
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 0

Name: CL26
Description:
Directory: c:\temp\CL26.log
Machine: N9
Parameter Set: 3.2
Index: 1250000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER278790828
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 1

Name: CL27
Description:
Directory: c:\temp\CL27.log
Machine: N9
Parameter Set: 3.2
Index: 1300000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER288846796
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 2

Name: CL28
Description:

Directory: c:\temp\CL28.log
Machine: N10
Parameter Set: 3.2
Index: 1350000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER298908937
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 0

Name: CL29
Description:
Directory: c:\temp\CL29.log
Machine: N10
Parameter Set: 3.2
Index: 1400000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER308985281
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 1

Name: CL30
Description:
Directory: c:\temp\CL30.log
Machine: N10
Parameter Set: 3.2
Index: 1450000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER319079562
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 2

Name: CL31
Description:
Directory: c:\temp\CL31.log
Machine: N11
Parameter Set: 3.2
Index: 1500000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER329129281
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 0

Name: CL32

Description:
Directory: c:\temp\CL32.log
Machine: N11
Parameter Set: 3.2
Index: 1550000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER339195046
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 1

Name: CL34
Description:
Directory: c:\temp\CL34.log
Machine: N12
Parameter Set: 3.2
Index: 1650000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER349230843
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 0

Name: CL35
Description:
Directory: c:\temp\CL35.log
Machine: N12
Parameter Set: 3.2
Index: 1700000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER359267828
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 1

Name: CL36
Description:
Directory: c:\temp\CL36.log
Machine: N12
Parameter Set: 3.2
Index: 1750000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER369315421
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 2

Name: CL37
Description:
Directory: c:\temp\CL37.log
Machine: N13
Parameter Set: 3.2
Index: 1800000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER372511687
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 0

Name: CL38
Description:
Directory: c:\temp\CL38.log
Machine: N13
Parameter Set: 3.2
Index: 1850000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER382588593
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 1

Name: CL39
Description:
Directory: c:\temp\CL39.log
Machine: N13
Parameter Set: 3.2
Index: 1900000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER392626609
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 2

Name: CL40
Description:
Directory: c:\temp\CL40.log
Machine: N14
Parameter Set: 3.2
Index: 1950000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER402670906
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 0

Name: CL41
Description:
Directory: c:\temp\CL41.log
Machine: N14
Parameter Set: 3.2
Index: 2000000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER412713250
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 1

Name: CL42
Description:
Directory: c:\temp\CL42.log
Machine: N14
Parameter Set: 3.2
Index: 2050000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER422750812
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 2

Name: CL43
Description:
Directory: c:\temp\CL43.log
Machine: N15
Parameter Set: 3.2
Index: 2100000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER432792562
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 0

Name: CL44
Description:
Directory: c:\temp\CL44.log
Machine: N15
Parameter Set: 3.2
Index: 25000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER442826906
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233

CPU: 1
Name: CL45
Description:
Directory: c:\temp\CL45.log
Machine: N15
Parameter Set: 3.2
Index: 75000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER452890578
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 2

Name: CL46
Description:
Directory: c:\temp\CL46.log
Machine: N16
Parameter Set: 3.2
Index: 125000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER462923718
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 0

Name: CL47
Description:
Directory: c:\temp\CL47.log
Machine: N16
Parameter Set: 3.2
Index: 175000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER472955578
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0
CLIENT_NURAND: 233
CPU: 1

Name: CL48
Description:
Directory: c:\temp\CL48.log
Machine: N16
Parameter Set: 3.2
Index: 225000000
Seed: 18546
Configured Users: 9500
Pipe Name: DRIVER482992765
Connect Rate: 10
Start Rate: 0
Max. Concurrency: 0
Concurrency Rate: 0

CLIENT_NURAND: 233
 CPU: 2

Number of User groups: 48

Driver Engine: CL01
 IIS Server: CL1C
 SQL Server: bigfoot_ip
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 1 - 950
 w_id Min Warehouse: 1
 w_id Max Warehouse: 45600
 Scale: Normal
 User Count: 9500
 District id: 1
 Scale Down: No

Driver Engine: CL02
 IIS Server: CL2C
 SQL Server: bigfoot_ip
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 951 - 1900
 w_id Min Warehouse: 1
 w_id Max Warehouse: 45600
 Scale: Normal
 User Count: 9500
 District id: 1
 Scale Down: No

Driver Engine: CL03
 IIS Server: CL3C
 SQL Server: bigfoot_ip
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 1901 - 2850
 w_id Min Warehouse: 1
 w_id Max Warehouse: 45600
 Scale: Normal
 User Count: 9500
 District id: 1
 Scale Down: No

Driver Engine: CL04
 IIS Server: CL4C
 SQL Server: bigfoot_ip
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 2851 - 3800
 w_id Min Warehouse: 1
 w_id Max Warehouse: 45600
 Scale: Normal
 User Count: 9500
 District id: 1
 Scale Down: No

Driver Engine: CL05
 IIS Server: CL5C

SQL Server: bigfoot_ip
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 3801 - 4750
 w_id Min Warehouse: 1
 w_id Max Warehouse: 45600
 Scale: Normal
 User Count: 9500
 District id: 1
 Scale Down: No

Driver Engine: CL06
 IIS Server: CL6C
 SQL Server: bigfoot_ip
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 4751 - 5700
 w_id Min Warehouse: 1
 w_id Max Warehouse: 45600
 Scale: Normal
 User Count: 9500
 District id: 1
 Scale Down: No

Driver Engine: CL07
 IIS Server: CL7C
 SQL Server: bigfoot_ip
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 5701 - 6650
 w_id Min Warehouse: 1
 w_id Max Warehouse: 45600
 Scale: Normal
 User Count: 9500
 District id: 1
 Scale Down: No

Driver Engine: CL08
 IIS Server: CL8C
 SQL Server: bigfoot_ip
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 6651 - 7600
 w_id Min Warehouse: 1
 w_id Max Warehouse: 45600
 Scale: Normal
 User Count: 9500
 District id: 1
 Scale Down: No

Driver Engine: CL09
 IIS Server: CL9C
 SQL Server: bigfoot_ip
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 7601 - 8550
 w_id Min Warehouse: 1
 w_id Max Warehouse: 45600

Scale: Normal
 User Count: 9500
 District id: 1
 Scale Down: No

Driver Engine: CL10
 IIS Server: CL10C
 SQL Server: bigfoot_ip
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 8551 - 9500
 w_id Min Warehouse: 1
 w_id Max Warehouse: 45600
 Scale: Normal
 User Count: 9500
 District id: 1
 Scale Down: No

Driver Engine: CL11
 IIS Server: CL11C
 SQL Server: bigfoot_ip
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 9501 - 10450
 w_id Min Warehouse: 1
 w_id Max Warehouse: 45600
 Scale: Normal
 User Count: 9500
 District id: 1
 Scale Down: No

Driver Engine: CL12
 IIS Server: CL12C
 SQL Server: bigfoot_ip
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 10451 - 11400
 w_id Min Warehouse: 1
 w_id Max Warehouse: 45600
 Scale: Normal
 User Count: 9500
 District id: 1
 Scale Down: No

Driver Engine: CL13
 IIS Server: CL13C
 SQL Server: bigfoot_ip
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 11401 - 12350
 w_id Min Warehouse: 1
 w_id Max Warehouse: 45600
 Scale: Normal
 User Count: 9500
 District id: 1
 Scale Down: No

Driver Engine: CL14
 IIS Server: CL14C

SQL Server: bigfoot_ip
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 12351 - 13300
w_id Min Warehouse: 1
w_id Max Warehouse: 45600
Scale: Normal
User Count: 9500
District id: 1
Scale Down: No

Driver Engine: CL15
IIS Server: CL15C
SQL Server: bigfoot_ip
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 13301 - 14250
w_id Min Warehouse: 1
w_id Max Warehouse: 45600
Scale: Normal
User Count: 9500
District id: 1
Scale Down: No

Driver Engine: CL16
IIS Server: CL16C
SQL Server: bigfoot_ip
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 14251 - 15200
w_id Min Warehouse: 1
w_id Max Warehouse: 45600
Scale: Normal
User Count: 9500
District id: 1
Scale Down: No

Driver Engine: CL17
IIS Server: CL17C
SQL Server: bigfoot_ip
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 15201 - 16150
w_id Min Warehouse: 1
w_id Max Warehouse: 45600
Scale: Normal
User Count: 9500
District id: 1
Scale Down: No

Driver Engine: CL18
IIS Server: CL18C
SQL Server: bigfoot_ip
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 16151 - 17100
w_id Min Warehouse: 1
w_id Max Warehouse: 45600

Scale: Normal
User Count: 9500
District id: 1
Scale Down: No

Driver Engine: CL19
IIS Server: CL19C
SQL Server: bigfoot_ip
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 17101 - 18050
w_id Min Warehouse: 1
w_id Max Warehouse: 45600
Scale: Normal
User Count: 9500
District id: 1
Scale Down: No

Driver Engine: CL20
IIS Server: CL20C
SQL Server: bigfoot_ip
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 18051 - 19000
w_id Min Warehouse: 1
w_id Max Warehouse: 45600
Scale: Normal
User Count: 9500
District id: 1
Scale Down: No

Driver Engine: CL21
IIS Server: CL21C
SQL Server: bigfoot_ip
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 19001 - 19950
w_id Min Warehouse: 1
w_id Max Warehouse: 45600
Scale: Normal
User Count: 9500
District id: 1
Scale Down: No

Driver Engine: CL22
IIS Server: CL22C
SQL Server: bigfoot_ip
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 19951 - 20900
w_id Min Warehouse: 1
w_id Max Warehouse: 45600
Scale: Normal
User Count: 9500
District id: 1
Scale Down: No

Driver Engine: CL23
IIS Server: CL23C

SQL Server: bigfoot_ip
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 20901 - 21850
w_id Min Warehouse: 1
w_id Max Warehouse: 45600
Scale: Normal
User Count: 9500
District id: 1
Scale Down: No

Driver Engine: CL24
IIS Server: CL24C
SQL Server: bigfoot_ip
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 21851 - 22800
w_id Min Warehouse: 1
w_id Max Warehouse: 45600
Scale: Normal
User Count: 9500
District id: 1
Scale Down: No

Driver Engine: CL25
IIS Server: CL25C
SQL Server: bigfoot_ip
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 22801 - 23750
w_id Min Warehouse: 1
w_id Max Warehouse: 45600
Scale: Normal
User Count: 9500
District id: 1
Scale Down: No

Driver Engine: CL26
IIS Server: CL26C
SQL Server: bigfoot_ip
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 23751 - 24700
w_id Min Warehouse: 1
w_id Max Warehouse: 45600
Scale: Normal
User Count: 9500
District id: 1
Scale Down: No

Driver Engine: CL27
IIS Server: CL27C
SQL Server: bigfoot_ip
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 24701 - 25650
w_id Min Warehouse: 1
w_id Max Warehouse: 45600

Scale: Normal
User Count: 9500
District id: 1
Scale Down: No

Driver Engine: CL28
IIS Server: CL28C
SQL Server: bigfoot_ip
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 25651 - 26600
w_id Min Warehouse: 1
w_id Max Warehouse: 45600
Scale: Normal
User Count: 9500
District id: 1
Scale Down: No

Driver Engine: CL29
IIS Server: CL29C
SQL Server: bigfoot_ip
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 26601 - 27550
w_id Min Warehouse: 1
w_id Max Warehouse: 45600
Scale: Normal
User Count: 9500
District id: 1
Scale Down: No

Driver Engine: CL30
IIS Server: CL30C
SQL Server: bigfoot_ip
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 27551 - 28500
w_id Min Warehouse: 1
w_id Max Warehouse: 45600
Scale: Normal
User Count: 9500
District id: 1
Scale Down: No

Driver Engine: CL31
IIS Server: CL31C
SQL Server: bigfoot_ip
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 28501 - 29450
w_id Min Warehouse: 1
w_id Max Warehouse: 45600
Scale: Normal
User Count: 9500
District id: 1
Scale Down: No

Driver Engine: CL32
IIS Server: CL32C

SQL Server: bigfoot_ip
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 29451 - 30400
w_id Min Warehouse: 1
w_id Max Warehouse: 45600
Scale: Normal
User Count: 9500
District id: 1
Scale Down: No

Driver Engine: CL33
IIS Server: CL33C
SQL Server: bigfoot_ip
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 30401 - 31350
w_id Min Warehouse: 1
w_id Max Warehouse: 45600
Scale: Normal
User Count: 9500
District id: 1
Scale Down: No

Driver Engine: CL34
IIS Server: CL34C
SQL Server: bigfoot_ip
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 31351 - 32300
w_id Min Warehouse: 1
w_id Max Warehouse: 45600
Scale: Normal
User Count: 9500
District id: 1
Scale Down: No

Driver Engine: CL35
IIS Server: CL35C
SQL Server: bigfoot_ip
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 32301 - 33250
w_id Min Warehouse: 1
w_id Max Warehouse: 45600
Scale: Normal
User Count: 9500
District id: 1
Scale Down: No

Driver Engine: CL36
IIS Server: CL36C
SQL Server: bigfoot_ip
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 33251 - 34200
w_id Min Warehouse: 1
w_id Max Warehouse: 45600

Scale: Normal
User Count: 9500
District id: 1
Scale Down: No

Driver Engine: CL37
IIS Server: CL37C
SQL Server: bigfoot_ip
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 34201 - 35150
w_id Min Warehouse: 1
w_id Max Warehouse: 45600
Scale: Normal
User Count: 9500
District id: 1
Scale Down: No

Driver Engine: CL38
IIS Server: CL38C
SQL Server: bigfoot_ip
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 35151 - 36100
w_id Min Warehouse: 1
w_id Max Warehouse: 45600
Scale: Normal
User Count: 9500
District id: 1
Scale Down: No

Driver Engine: CL39
IIS Server: CL39C
SQL Server: bigfoot_ip
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 36101 - 37050
w_id Min Warehouse: 1
w_id Max Warehouse: 45600
Scale: Normal
User Count: 9500
District id: 1
Scale Down: No

Driver Engine: CL40
IIS Server: CL40C
SQL Server: bigfoot_ip
Database: tpcc
User: sa
Protocol: HTML
w_id Range: 37051 - 38000
w_id Min Warehouse: 1
w_id Max Warehouse: 45600
Scale: Normal
User Count: 9500
District id: 1
Scale Down: No

Driver Engine: CL41
IIS Server: CL41C

SQL Server: bigfoot_ip
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 38001 - 38950
 w_id Min Warehouse: 1
 w_id Max Warehouse: 45600
 Scale: Normal
 User Count: 9500
 District id: 1
 Scale Down: No

Driver Engine: CL42
 IIS Server: CL42C
 SQL Server: bigfoot_ip
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 38951 - 39900
 w_id Min Warehouse: 1
 w_id Max Warehouse: 45600
 Scale: Normal
 User Count: 9500
 District id: 1
 Scale Down: No

Driver Engine: CL43
 IIS Server: CL43C
 SQL Server: bigfoot_ip
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 39901 - 40850
 w_id Min Warehouse: 1
 w_id Max Warehouse: 45600
 Scale: Normal
 User Count: 9500
 District id: 1
 Scale Down: No

Driver Engine: CL44
 IIS Server: CL44C
 SQL Server: bigfoot_ip
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 40851 - 41800
 w_id Min Warehouse: 1
 w_id Max Warehouse: 45600
 Scale: Normal
 User Count: 9500
 District id: 1
 Scale Down: No

Driver Engine: CL45
 IIS Server: CL45C
 SQL Server: bigfoot_ip
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 41801 - 42750
 w_id Min Warehouse: 1
 w_id Max Warehouse: 45600

Scale: Normal
 User Count: 9500
 District id: 1
 Scale Down: No

Driver Engine: CL46
 IIS Server: CL46C
 SQL Server: bigfoot_ip
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 42751 - 43700
 w_id Min Warehouse: 1
 w_id Max Warehouse: 45600
 Scale: Normal
 User Count: 9500
 District id: 1
 Scale Down: No

Driver Engine: CL47
 IIS Server: CL47C
 SQL Server: bigfoot_ip
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 43701 - 44650
 w_id Min Warehouse: 1
 w_id Max Warehouse: 45600
 Scale: Normal
 User Count: 9500
 District id: 1
 Scale Down: No

Driver Engine: CL48
 IIS Server: CL48C
 SQL Server: bigfoot_ip
 Database: tpcc
 User: sa
 Protocol: HTML
 w_id Range: 44651 - 45600
 w_id Min Warehouse: 1
 w_id Max Warehouse: 45600
 Scale: Normal
 User Count: 9500
 District id: 1
 Scale Down: No

Number of Parameter Sets: 45

-Default
 Default Parameter Set

Key	RT	RT	Menu	Txn	Think
				Weight	Time
12.05	18.01		New Order	10.00	
12.05	3.01		Payment	10.00	
5.05	2.01		Delivery	1.00	

5.05	2.01		Stock Level	1.00	
			0.10	20.00	0.10
10.05	2.01		Order Status	1.00	
			0.10	5.00	0.10

Tuned Distribution

Key	RT	RT	Menu	Txn	Think
				Weight	Time
12.05	18.01		New Order	44.75	
			0.10	5.00	0.10
12.05	3.01		Payment	43.10	
			0.10	5.00	0.10
5.05	2.01		Delivery	4.05	
			0.10	5.00	0.10
5.05	2.01		Stock Level	4.05	
			0.10	20.00	0.10
10.05	2.01		Order Status	4.05	
			0.10	5.00	0.10

No Think

Key	RT	RT	Menu	Txn	Think
				Weight	Time
0.00		0.00	New Order	10.00	
			0.00	5.00	0.00
0.00		0.00	Payment	10.00	
			0.00	5.00	0.00
0.00		0.00	Delivery	1.00	
			0.00	5.00	0.00
0.00		0.00	Stock Level	1.00	
			0.00	20.00	0.00
0.00		0.00	Order Status	1.00	
			0.00	5.00	0.00

95%

Key	RT	RT	Menu	Txn	Think
				Weight	Time
13.00	18.01		New Order	44.75	
			0.10	5.00	0.10
13.00	3.01		Payment	43.10	
			0.10	5.00	0.10
6.00	2.01		Delivery	4.05	
			0.10	5.00	0.10
6.00	2.01		Stock Level	4.05	
			0.10	20.00	0.10
11.00	2.01		Order Status	4.05	
			0.10	5.00	0.10

90%

Key	RT	RT	Menu	Txn	Think
				Weight	Time

16.00	18.01		New Order	44.83		
			0.10	5.00	0.10	
16.00	3.01		Payment	43.05		
			0.10	5.00	0.10	
9.00	2.01		Delivery	4.04		
			0.10	5.00	0.10	
9.00	2.01		Stock Level	4.04		
			0.10	20.00	0.10	
14.00	2.01		Order Status	4.04		
			0.10	5.00	0.10	
			3.0			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
			New Order	44.75		
36.15	0.00		0.10	5.00	0.10	
			Payment	43.10		
36.15	0.00		0.10	5.00	0.10	
			Delivery	4.05		
15.15	0.00		0.10	5.00	0.10	
			Stock Level	4.05		
15.15	0.00		0.10	20.00	0.10	
			Order Status	4.05		
30.15	0.00		0.10	5.00	0.10	
			4.0			
			4.0 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
			New Order	44.75		
48.20	18.01		0.10	5.00	0.10	
			Payment	43.10		
48.20	3.01		0.10	5.00	0.10	
			Delivery	4.05		
20.20	2.01		0.10	5.00	0.10	
			Stock Level	4.05		
20.20	2.01		0.10	20.00	0.10	
			Order Status	4.05		
40.20	2.01		0.10	5.00	0.10	
			3.8			
			3.8 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
			New Order	44.75		
45.70	18.01		0.10	5.00	0.10	
			Payment	43.10		
45.70	3.01		0.10	5.00	0.10	
			Delivery	4.05		
19.10	2.01		0.10	5.00	0.10	
			Stock Level	4.05		
19.10	2.01		0.10	20.00	0.10	
			Order Status	4.05		
38.10	2.01		0.10	5.00	0.10	
			3.6			

			3.6 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
			New Order	44.75		
43.30	18.01		0.10	5.00	0.10	
			Payment	43.10		
43.30	3.01		0.10	5.00	0.10	
			Delivery	4.05		
18.10	2.01		0.10	5.00	0.10	
			Stock Level	4.05		
18.10	2.01		0.10	20.00	0.10	
			Order Status	4.05		
36.18	2.01		0.10	5.00	0.10	
			3.4			
			3.4 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
			New Order	44.75		
40.90	18.01		0.10	5.00	0.10	
			Payment	43.10		
40.90	3.01		0.10	5.00	0.10	
			Delivery	4.05		
17.10	2.01		0.10	5.00	0.10	
			Stock Level	4.05		
17.10	2.01		0.10	20.00	0.10	
			Order Status	4.05		
17.10	2.01		0.10	5.00	0.10	
			3.2			
			3.2 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
			New Order	44.75		
38.50	18.01		0.10	5.00	0.10	
			Payment	43.10		
38.50	3.01		0.10	5.00	0.10	
			Delivery	4.05		
16.10	2.01		0.10	5.00	0.10	
			Stock Level	4.05		
16.10	2.01		0.10	20.00	0.10	
			Order Status	4.05		
32.10	2.01		0.10	5.00	0.10	
			2.8			
			2.8 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
			New Order	44.75		
33.74	18.01		0.10	5.00	0.10	
			Payment	43.10		
33.74	3.01		0.10	5.00	0.10	
			Delivery	4.05		
14.14	2.01		0.10	5.00	0.10	

			Stock Level	4.05		
14.14	2.01		0.10	20.00	0.10	
			Order Status	4.05		
28.14	2.01		0.10	5.00	0.10	
			2.6			
			2.6 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
			New Order	44.75		
31.30	18.01		0.10	5.00	0.10	
			Payment	43.10		
31.30	3.01		0.10	5.00	0.10	
			Delivery	4.05		
13.10	2.01		0.10	5.00	0.10	
			Stock Level	4.05		
13.10	2.01		0.10	20.00	0.10	
			Order Status	4.05		
26.10	2.01		0.10	5.00	0.10	
			2.4			
			2.4 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
			New Order	44.75		
28.90	18.01		0.10	5.00	0.10	
			Payment	43.10		
28.90	3.01		0.10	5.00	0.10	
			Delivery	4.05		
12.10	2.01		0.10	5.00	0.10	
			Stock Level	4.05		
12.10	2.01		0.10	20.00	0.10	
			Order Status	4.05		
24.10	2.01		0.10	5.00	0.10	
			2.2			
			2.2 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
			New Order	44.75		
28.90	18.01		0.10	5.00	0.10	
			Payment	43.10		
28.90	3.01		0.10	5.00	0.10	
			Delivery	4.05		
12.10	2.01		0.10	5.00	0.10	
			Stock Level	4.05		
12.10	2.01		0.10	20.00	0.10	
			Order Status	4.05		
24.12	2.01		0.10	5.00	0.10	
			2.0			
			2.0 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			

24.10	18.01		New Order	44.75		
			0.10	5.00	0.10	
24.10	3.01		Payment	43.10		
			0.10	5.00	0.10	
10.10	2.01		Delivery	4.05		
			0.10	5.00	0.10	
10.10	2.01		Stock Level	4.05		
			0.10	20.00	0.10	
20.10	2.01		Order Status	4.05		
			0.10	5.00	0.10	
			5.0			
			5.0 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
60.25	18.01		New Order	44.75		
			0.10	5.00	0.10	
60.25	3.01		Payment	43.10		
			0.10	5.00	0.10	
25.25	2.01		Delivery	4.05		
			0.10	5.00	0.10	
25.25	2.01		Stock Level	4.05		
			0.10	20.00	0.10	
50.25	2.01		Order Status	4.05		
			0.10	5.00	0.10	
			4.5			
			4.5 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
54.20	18.01		New Order	44.75		
			0.10	5.00	0.10	
54.20	3.01		Payment	43.10		
			0.10	5.00	0.10	
22.70	2.01		Delivery	4.05		
			0.10	5.00	0.10	
22.70	2.01		Stock Level	4.05		
			0.10	20.00	0.10	
45.20	2.01		Order Status	4.05		
			0.10	5.00	0.10	
			3.5			
			3.5 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
42.10	18.01		New Order	44.75		
			0.10	5.00	0.10	
42.10	3.01		Payment	43.10		
			0.10	5.00	0.10	
17.60	2.01		Delivery	4.05		
			0.10	5.00	0.10	
17.60	2.01		Stock Level	4.05		
			0.10	20.00	0.10	
35.10	2.01		Order Status	4.05		
			0.10	5.00	0.10	
			1.8			

			1.8 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
21.60	18.01		New Order	44.75		
			0.10	5.00	0.10	
21.60	3.01		Payment	43.10		
			0.10	5.00	0.10	
9.09	2.01		Delivery	4.05		
			0.10	5.00	0.10	
9.09	2.01		Stock Level	4.05		
			0.10	20.00	0.10	
18.09	2.01		Order Status	4.05		
			0.10	5.00	0.10	
			4.2			
			4.2 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
54.20	18.01		New Order	44.75		
			0.10	5.00	0.10	
54.20	3.01		Payment	43.10		
			0.10	5.00	0.10	
22.70	2.01		Delivery	4.05		
			0.10	5.00	0.10	
22.70	2.01		Stock Level	4.05		
			0.10	20.00	0.10	
45.20	2.01		Order Status	4.05		
			0.10	5.00	0.10	
			1.6			
			1.6 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
19.20	18.01		New Order	44.75		
			0.10	5.00	0.10	
19.20	3.01		Payment	43.10		
			0.10	5.00	0.10	
8.08	2.01		Delivery	4.05		
			0.10	5.00	0.10	
8.08	2.01		Stock Level	4.05		
			0.10	20.00	0.10	
16.08	2.01		Order Status	4.05		
			0.10	5.00	0.10	
			1.4			
			1.4 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
16.87	18.01		New Order	44.75		
			0.10	5.00	0.10	
16.87	3.01		Payment	43.10		
			0.10	5.00	0.10	
7.07	2.01		Delivery	4.05		
			0.10	5.00	0.10	

7.07	2.01		Stock Level	4.05		
			0.10	20.00	0.10	
14.07	2.01		Order Status	4.05		
			0.10	5.00	0.10	
			1.2			
			1.2 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
14.46	18.01		New Order	44.83		
			0.10	5.00	0.10	
14.46	3.01		Payment	43.05		
			0.10	5.00	0.10	
6.06	2.01		Delivery	4.04		
			0.10	5.00	0.10	
6.06	2.01		Stock Level	4.04		
			0.10	20.00	0.10	
12.06	2.01		Order Status	4.04		
			0.10	5.00	0.10	
			3.5			
			3.5 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
42.10	18.01		New Order	44.75		
			0.10	5.00	0.10	
42.10	3.01		Payment	43.10		
			0.10	5.00	0.10	
17.60	2.01		Delivery	4.05		
			0.10	5.00	0.10	
17.60	2.01		Stock Level	4.05		
			0.10	20.00	0.10	
35.10	2.01		Order Status	4.05		
			0.10	5.00	0.10	
			1.9			
			1.9 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
22.89	18.01		New Order	44.75		
			0.10	5.00	0.10	
22.89	3.01		Payment	43.10		
			0.10	5.00	0.10	
9.59	2.01		Delivery	4.05		
			0.10	5.00	0.10	
9.59	2.01		Stock Level	4.05		
			0.10	20.00	0.10	
19.09	2.01		Order Status	4.05		
			0.10	5.00	0.10	
			1.1			
			1.1 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			

13.25	18.01		New Order	44.83		
			0.10	5.00	0.10	
13.25	3.01		Payment	43.05		
			0.10	5.00	0.10	
5.55	2.01		Delivery	4.04		
			0.10	5.00	0.10	
5.55	2.01		Stock Level	4.04		
			0.10	20.00	0.10	
11.05	2.01		Order Status	4.04		
			0.10	5.00	0.10	
			1.05			
			1.05 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
			New Order	44.83		
12.65	18.01		0.10	5.00	0.10	
			Payment	43.05		
12.65	3.01		0.10	5.00	0.10	
			Delivery	4.04		
5.30	2.01		0.10	5.00	0.10	
			Stock Level	4.04		
5.30	2.01		0.10	20.00	0.10	
			Order Status	4.04		
10.55	2.01		0.10	5.00	0.10	
			1.09			
			1.09 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
			New Order	44.83		
13.13	18.01		0.10	5.00	0.10	
			Payment	43.05		
13.13	3.01		0.10	5.00	0.10	
			Delivery	4.04		
5.50	2.01		0.10	5.00	0.10	
			Stock Level	4.04		
5.50	2.01		0.10	20.00	0.10	
			Order Status	4.04		
10.95	2.01		0.10	5.00	0.10	
			1.08			
			1.08 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
			New Order	44.83		
13.01	18.01		0.10	5.00	0.10	
			Payment	43.05		
13.01	3.01		0.10	5.00	0.10	
			Delivery	4.04		
5.45	2.01		0.10	5.00	0.10	
			Stock Level	4.04		
5.45	2.01		0.10	20.00	0.10	
			Order Status	4.04		
10.85	2.01		0.10	5.00	0.10	
			1.07			

				1.07 tt		
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
			New Order	44.83		
12.89	18.01		0.10	5.00	0.10	
			Payment	43.05		
12.89	3.01		0.10	5.00	0.10	
			Delivery	4.04		
5.40	2.01		0.10	5.00	0.10	
			Stock Level	4.04		
5.40	2.01		0.10	20.00	0.10	
			Order Status	4.04		
10.75	2.01		0.10	5.00	0.10	
			1.06			
			1.06 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
			New Order	44.83		
12.77	18.01		0.10	5.00	0.10	
			Payment	43.05		
12.77	3.01		0.10	5.00	0.10	
			Delivery	4.04		
5.35	2.01		0.10	5.00	0.10	
			Stock Level	4.04		
5.35	2.01		0.10	20.00	0.10	
			Order Status	4.04		
10.65	2.01		0.10	5.00	0.10	
			1.15			
			1.15 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
			New Order	44.75		
13.85	18.01		0.10	5.00	0.10	
			Payment	43.10		
13.85	3.01		0.10	5.00	0.10	
			Delivery	4.05		
5.80	2.01		0.10	5.00	0.10	
			Stock Level	4.05		
5.80	2.01		0.10	20.00	0.10	
			Order Status	4.05		
11.55	2.01		0.10	5.00	0.10	
			1.25			
			1.25 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
			New Order	44.83		
15.06	18.01		0.10	5.00	0.10	
			Payment	43.05		
15.06	3.01		0.10	5.00	0.10	
			Delivery	4.04		
6.31	2.01		0.10	5.00	0.10	

				Stock Level	4.04	
6.31	2.01		0.10	20.00	0.10	
			Order Status	4.04		
12.56	2.01		0.10	5.00	0.10	
			1.3			
			1.3 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
			New Order	44.83		
15.66	18.01		0.10	5.00	0.10	
			Payment	43.05		
15.66	3.01		0.10	5.00	0.10	
			Delivery	4.04		
6.56	2.01		0.10	5.00	0.10	
			Stock Level	4.04		
6.56	2.01		0.10	20.00	0.10	
			Order Status	4.04		
13.06	2.01		0.10	5.00	0.10	
			1.12			
			1.12 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
			New Order	44.75		
13.49	18.01		0.10	5.00	0.10	
			Payment	43.10		
13.49	3.01		0.10	5.00	0.10	
			Delivery	4.05		
5.65	2.01		0.10	5.00	0.10	
			Stock Level	4.05		
5.65	2.01		0.10	20.00	0.10	
			Order Status	4.05		
11.25	2.01		0.10	5.00	0.10	
			1.18			
			1.18 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			
			New Order	44.75		
14.21	18.01		0.10	5.00	0.10	
			Payment	43.10		
14.21	3.01		0.10	5.00	0.10	
			Delivery	4.05		
5.95	2.01		0.10	5.00	0.10	
			Stock Level	4.05		
5.95	2.01		0.10	20.00	0.10	
			Order Status	4.05		
11.85	2.01		0.10	5.00	0.10	
			1.22			
			1.22 tt			
Key	RT	RT	Menu	Txn	Think	
				Weight	Time	
Time	Delay	Fence	Delay			

14.70	18.01	New Order	44.75		
		0.10	5.00	0.10	
14.70	3.01	Payment	43.10		
		0.10	5.00	0.10	
6.16	2.01	Delivery	4.05		
		0.10	5.00	0.10	
6.16	2.01	Stock Level	4.05		
		0.10	20.00	0.10	
12.26	2.01	Order Status	4.05		
		0.10	5.00	0.10	

1.28
1.28 tt

Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
15.42	18.01	New Order	44.75		
		0.10	5.00	0.10	
15.42	3.01	Payment	43.10		
		0.10	5.00	0.10	
6.46	2.01	Delivery	4.05		
		0.10	5.00	0.10	
6.46	2.01	Stock Level	4.05		
		0.10	20.00	0.10	
12.86	2.01	Order Status	4.05		
		0.10	5.00	0.10	

1.04
1.04 tt

Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
12.53	18.01	New Order	44.83		
		0.10	5.00	0.10	
12.53	3.01	Payment	43.05		
		0.10	5.00	0.10	
5.25	2.01	Delivery	4.04		
		0.10	5.00	0.10	
5.25	2.01	Stock Level	4.04		
		0.10	20.00	0.10	
10.45	2.01	Order Status	4.04		
		0.10	5.00	0.10	

1.03
1.03 tt

Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
12.41	18.01	New Order	44.83		
		0.10	5.00	0.10	
12.41	3.01	Payment	43.05		
		0.10	5.00	0.10	
5.20	2.01	Delivery	4.04		
		0.10	5.00	0.10	
5.20	2.01	Stock Level	4.04		
		0.10	20.00	0.10	
10.35	2.01	Order Status	4.04		
		0.10	5.00	0.10	

1.02

Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
12.29	18.01	New Order	44.83		
		0.10	5.00	0.10	
12.29	3.01	Payment	43.05		
		0.10	5.00	0.10	
5.15	2.01	Delivery	4.04		
		0.10	5.00	0.10	
5.15	2.01	Stock Level	4.04		
		0.10	20.00	0.10	
10.25	2.01	Order Status	4.04		
		0.10	5.00	0.10	

1.01
1.01 tt

Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
12.17	18.01	New Order	44.83		
		0.10	5.00	0.10	
12.17	3.01	Payment	43.05		
		0.10	5.00	0.10	
5.10	2.01	Delivery	4.04		
		0.10	5.00	0.10	
5.10	2.01	Stock Level	4.04		
		0.10	20.00	0.10	
10.15	2.01	Order Status	4.04		
		0.10	5.00	0.10	

1.005
1.005 tt

Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
12.11	18.01	New Order	44.83		
		0.10	5.00	0.10	
12.11	3.01	Payment	43.05		
		0.10	5.00	0.10	
5.07	2.01	Delivery	4.04		
		0.10	5.00	0.10	
5.07	2.01	Stock Level	4.04		
		0.10	20.00	0.10	
10.10	2.01	Order Status	4.04		
		0.10	5.00	0.10	

1.001
1.001 tt

Key	RT	RT	Menu	Txn	Think
Time	Delay	Fence	Delay	Weight	Time
12.06	18.01	New Order	44.88		
		0.10	5.00	0.10	
12.06	3.01	Payment	43.03		
		0.10	5.00	0.10	
5.06	2.01	Delivery	4.03		
		0.10	5.00	0.10	

5.06	2.01	Stock Level	4.03		
		0.10	20.00	0.10	
10.06	2.01	Order Status	4.03		
		0.10	5.00	0.10	

Internet Information Server Registry Parameters

Windows Registry Editor Version 5.00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\InetInfo]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\InetInfo\Parameters]
 "ListenBackLog"=dword:00002710
 "DispatchEntries"=hex(7):4c,00,44,00,41,00,50,00,53,00,56,00,43,00,00,00,00,00
 "PoolThreadLimit"=dword:00000258
 "ThreadTimeout"=dword:00015180

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\InetInfo\Performance]
 "Library"="infoctrs.dll"
 "Open"="OpenINFOPerformanceData"
 "Close"="CloseINFOPerformanceData"
 "Collect"="CollectINFOPerformanceData"
 "Last Counter"=dword:00000842
 "Last Help"=dword:00000843
 "First Counter"=dword:00000802
 "First Help"=dword:00000803
 "Library Validation Code"=hex:a6,d3,a6,6e,3b,6f,bf,01,10,25,00,00,00,00,00,00
 "WbemAdapFileTime"=hex:00,a8,84,48,24,af,bf,01
 "WbemAdapFileSize"=dword:00002510
 "WbemAdapStatus"=dword:00000000

World Wide Web Service Registry Parameters

Windows Registry Editor Version 5.00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC]

```

"Type"=dword:00000020
"Start"=dword:00000002
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):43,00,3a,00,5c,00,57,00,49,00,4e,0
0,4e,00,54,00,5c,00,53,00,\
79,00,73,00,74,00,65,00,6d,00,33,00,32,00,5c,00,69,00
,6e,00,65,00,74,00,73,\
00,72,00,76,00,5c,00,69,00,6e,00,65,00,74,00,69,00,6e
,00,66,00,6f,00,2e,00,\
65,00,78,00,65,00,00,00
"DisplayName"="World Wide Web Publishing Service"
"DependOnService"=hex(7):49,00,49,00,53,00,41,00,44,0
0,4d,00,49,00,4e,00,00,00,\
00,00
"DependOnGroup"=hex(7):00,00
"ObjectName"="LocalSystem"
"Description"="Provides Web connectivity and
administration through the Internet Information
Services snap-in."

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\W3SVC\ASP]
"NOTE"="This is for backward compatibility only."

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\W3SVC\ASP\Parameters]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\W3SVC\Parameters]
"MajorVersion"=dword:00000005
"MinorVersion"=dword:00000000
"InstallPath"="C:\\WINNT\\System32\\inetsrv"
"CertMapList"="C:\\WINNT\\System32\\inetsrv\\iisrmap
.dll"
"AccessDeniedMessage"="Error: Access is Denied."
"Filter DLLs"=""
"LogFileDirectory"="C:\\WINNT\\System32\\LogFiles"
"AcceptExOutstanding"=dword:00000028

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\W3SVC\Parameters\ADCLaunch]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\W3SVC\Parameters\ADCLaunch\AdvancedDataFactory]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\W3SVC\Parameters\ADCLaunch\RDSServer.DataFactory]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\W3SVC\Parameters\Script Map]

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\W3SVC\Parameters\Virtual Roots]
"/"="c:\\inetpub\\wwwroot,,207"
"/Scripts"="c:\\inetpub\\scripts,,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"

```

```

"/Printers"="C:\\WINNT\\web\\printers,,201"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\W3SVC\Performance]
"Library"="w3ctrs.dll"
"Open"="OpenW3PerformanceData"
"Close"="CloseW3PerformanceData"
"Collect"="CollectW3PerformanceData"
"Last Counter"=dword:000008e6
"Last Help"=dword:000008e7
"First Counter"=dword:00000844
"First Help"=dword:00000845
"Library Validation
Code"=hex:8c,fa,76,93,33,e8,bf,01,10,3d,00,00,00,00,0
0,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\W3SVC\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,02,\
00,1c,00,01,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00
,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,\
05,12,00,00,00,74,00,0f,00,00,00,1c,00,ff,01,0f,00,01
,02,00,00,00,00,05,\
20,00,00,00,20,02,00,00,72,00,73,00,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\
00,05,20,00,00,00,23,02,00,00,72,00,73,00,01,01,00,00
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\W3SVC\Enum]
"0"="Root\\LEGACY_W3SVC\\0000"
"Count"=dword:00000001
"Next Instance"=dword:00000001

Server Registry Parameters

Windows Registry Editor Version 5.00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\cpqcissb]
"Type"=dword:00000001
"Start"=dword:00000000
"ErrorControl"=dword:00000001
"Tag"=dword:00000102
"ImagePath"=hex(2):53,00,79,00,73,00,74,00,65,00,6d,0
0,33,00,32,00,5c,00,44,00,\

```

```

52,00,49,00,56,00,45,00,52,00,53,00,5c,00,63,00,70,00
,71,00,63,00,69,00,73,\
00,73,00,62,00,2e,00,73,00,79,00,73,00,00,00
"DisplayName"="Compaq CISS Controllers Device Driver"
"Group"="port"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\cpqcissb\Parameters]
"CompletionMode"=dword:00000002
"CosTimerRate"=dword:0000000f

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\cpqcissb\Parameters\Controller0]
"CompletionMode"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\cpqcissb\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,02,\
00,1c,00,01,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00
,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,\
05,12,00,00,00,50,00,5f,00,00,00,1c,00,ff,01,0f,00,01
,02,00,00,00,00,05,\
20,00,00,00,20,02,00,00,33,00,30,00,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\
00,05,20,00,00,00,23,02,00,00,33,00,30,00,01,01,00,00
,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
\cpqcissd]
"Type"=dword:00000001
"Start"=dword:00000000
"ErrorControl"=dword:00000001
"Tag"=dword:00000102
"ImagePath"=hex(2):53,00,79,00,73,00,74,00,65,00,6d,0
0,33,00,32,00,5c,00,44,00,\
52,00,49,00,56,00,45,00,52,00,53,00,5c,00,63,00,70,00
,71,00,63,00,69,00,73,\
00,73,00,64,00,2e,00,73,00,79,00,73,00,00,00
"DisplayName"="Compaq CISS Controllers Disk Driver"
"Group"="Primary Disk"

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services
\cpqcissd\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14
,00,00,00,30,00,00,02,\
00,1c,00,01,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00
,00,00,00,01,00,00,\

```



```

00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,00,\
05,12,00,00,00,50,00,5f,00,00,00,1c,00,ff,01,0f,00,01
,02,00,00,00,00,00,\
20,00,00,00,20,02,00,00,34,00,66,00,00,00,18,00,8d,01
,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,\
00,05,20,00,00,00,23,02,00,00,34,00,66,00,01,01,00,00
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,05,12,00,00,00

```

TPCC Application Registry Parameters

Windows Registry Editor Version 5.00

```

[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\TPCC]
"Path"="c:\inetpub\wwwroot\"
"NumberOfDeliveryThreads"=dword:00000009
"MaxConnections"=dword:00002710
"MaxPendingDeliveries"=dword:000003e8
"DB_Protocol"="ODBC"
"TxnMonitor"="COM"
"DbServer"="gl"
"DbName"="tpcc"
"DbUser"="sa"
"DbPassword"=""
"COM_SinglePool"="YES"
72 COM+ queues were used.

```

Client Systems Configuration

```

Date . . . . . 08/23/2001
Time . . . . . 18:22:35

Product . . . . . ProLiant DL360

Machine ID
  From System Board . . . . . CPQ0685

Processor . . . . . Pentium III(R) at
800 MHz
  Slot . . . . . 2
  Secondary Cache . . . . . 256K

```

```

CPU ID . . . . . 0683

Processor . . . . . Pentium III(R) at
800 MHz
  Slot . . . . . 1
  Secondary Cache . . . . . 256K
  CPU ID . . . . . 0683

Processor(s) Mapped Out . . . . . None

Numeric Coprocessor . . . . . Integrated 387-
Compatible

Expansion Bus . . . . . ISA, PCI

System Identification Number . . . . . 6J07FCX2C0J2

CPU Mode . . . . . Real Mode

System ROM
  Revision . . . . . 12/26/1999
  Family . . . . . P21
  Flashable . . . . . Yes
  Supports F10 partition . . . . . Yes

Video Controller ROM
  Revision . . . . . 3.96

Option ROMs
  Address Range . . . . . C0000 - C7FFF
  Data Dump . . . . . (1999/03/24 23:56)

  Address Range . . . . . C8000 - CBFFF
  Data Dump . . . . . (04/22/98 ROC
Smart Array Option ROM/BIOS (C)Co...)

  Address Range . . . . . E8000 - EDFFF
  Data Dump . . . . . ( CPQSCSI d)

Bootblock ROM . . . . . 01/25/2000

Standby Recovery Server
  Status . . . . . Disabled
  COM Port . . . . . COM1
  Server Configuration . . . . . Recovery
  Timeout Value . . . . . 1 minutes

```

Memory Boards Identified:

```

System Board
  DIMM Slot 1 (SDRAM) . . . . . 128 Megabytes
  DIMM Slot 2 (SDRAM) . . . . . 128 Megabytes
  DIMM Slot 3 (SDRAM) . . . . . 128 Megabytes
  DIMM Slot 4 (SDRAM) . . . . . 128 Megabytes
  Total Compaq Memory . . . . . 512 Megabytes

Keyboard . . . . . Enhanced

LPT Ports . . . . . Not Installed

COM Ports . . . . . COM1 (Address 3F8)
Compaq NC3163 Fast Ethernet NIC

```

```

Device Type . . . . . Ethernet Controller
PCI Bus Number . . . . . 3
Device Number . . . . . 4
Function Number . . . . . 00h
Slot Number . . . . . 0
Vendor ID . . . . . 0E11h
Device ID . . . . . 1229h
Subsystem Vendor ID . . . . . 0E11h
Subsystem ID . . . . . B134h
Revision ID . . . . . 08h
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . FFF00000h
IRQ Line . . . . . 5
IRQ Pin . . . . . INTA#
Memory Address Base . . . . . C6FFF000h
Memory Address Length . . . . . 1000h
IO Address Base . . . . . 3000h
IO Address Length . . . . . 40h
Memory Address Base . . . . . C6E00000h
Memory Address Length . . . . . 100000h

```

Compaq NC3163 Fast Ethernet NIC

```

Device Type . . . . . Ethernet Controller
PCI Bus Number . . . . . 3
Device Number . . . . . 5
Function Number . . . . . 00h
Slot Number . . . . . 0
Vendor ID . . . . . 0E11h
Device ID . . . . . 1229h
Subsystem Vendor ID . . . . . 0E11h
Subsystem ID . . . . . B134h
Revision ID . . . . . 08h
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . FFF00000h
IRQ Line . . . . . 7
IRQ Pin . . . . . INTA#
Memory Address Base . . . . . C6DFF000h
Memory Address Length . . . . . 1000h
IO Address Base . . . . . 3040h
IO Address Length . . . . . 40h
Memory Address Base . . . . . C6C00000h
Memory Address Length . . . . . 100000h

```

Diskette Drive A 1.44 Megabyte (3.5 inch)

Drive Controller 1, Compaq Integrated Smart Array Controller

```

IDA Firmware Revision . . . . . 1.42
Array Accelerator Memory . . . . . 8188 Kbytes
Accelerator Status . . . . . Not Configured
  Battery count . . . . . 0
  Batteries charged . . . . . 0
  Batteries failed . . . . . 0
  Internal ProLiant . . . . . Bus 2, Rev. JB21

Logical Drive 1 . . . . . 9095 Megabyte
Fault Tolerance . . . . . Mirroring
OS Format . . . . . Multi-Sector
Distribution

```

```

Drive geometry (Cyl, Hds, Sec) 2177, 255, 32
Array Accelerator . . . . . Disabled
Logical drive in interim recovery mode.

Hard Drive 1
  SCSI Bus . . . . . 2
  SCSI ID . . . . . 0
  Serial Number . . . . .
LS7566760000102118FW
  Firmware Revision 1 . . . . . 3B07
  Model Number . . . . . COMPAQ BD009122BA
  Initialized for Monitoring . Yes
  Reference time . . . . . 742812
  Sectors read . . . . . *1450311984
  Hard read errors . . . . . 0
  Read errors retry . . . . . 0
  ECC read errors . . . . . 0
  Sectors written . . . . . 544034249
  Hard write errors . . . . . 0
  Write errors retry . . . . . 0
  Seek count . . . . . 2501015
  Seek errors . . . . . 0
  Spin cycles . . . . . 1
  Spin up time . . . . . 0
  Seek time track . . . . . 47%
  Seek time third . . . . . 69%
  Seek time full . . . . . 72%
  Reallocated sectors . . . . . 686
  Recovers read failed . . . . . 0
  Bus faults . . . . . 0

Hard Drive 2
  SCSI Bus . . . . . 2
  SCSI ID . . . . . 1
  Serial Number . . . . . Undetermined
  Model Number . . . . . Undetermined
  Initialized for Monitoring . No

Graphics Mode . . . . . 03 (80-Column Text)

Primary Monitor attached to . . ATI RAGE IIC PCI
Graphics Controller
with Video Graphics Color Monitor

Base Memory
  System Total . . . . . 638 Kbytes
  Amount Free . . . . . 555 Kbytes
(568384 Bytes)

Extended Memory
  System Total . . . . . 523264 Kbytes

Expanded Memory
  LIM Driver Support . . . . . LIM driver not
loaded

Operating System . . . . . MS-DOS version 7.10
(from diskette)

Environment variables
  PATH=
  PROMPT=$P$G

```

```

COMSPEC=A:\COMMAND.COM
CMDLINE=inspect /u
End of environment

Revisions Table
Previous Revisions
Current Revisions
System serial number . . . . . 6J07PCX2C0J2

Memory Allocation (including INSPECT)
PSP SIZE NAME TRAPPED INTERRUPTS
-----
12F7 007200 COMMAND.COM 2Fh 2Eh 24h 23h 22h
14C2 218144 INSPECT.EXE F9h F4h F3h F2h EEh
E5h D4h 3Ph
00h

System Configuration Memory
00 - 0F : 42 00 22 00 18 00 04 23 08 01 26
82 50 80 00 00
10 - 1F : 40 00 00 00 03 80 02 00 3C 00 00
00 00 00 00 02
20 - 2F : 00 00 00 00 7F 20 20 40 00 7A 00
00 00 18 02 94
30 - 3F : 00 3C 20 80 00 00 XX XX XX XX XX XX
XX XX XX XX XX

BIOS Data Area
40:0000 : F8 03 00 00 00 00 00 00
00 00 00 80 9F
40:0010 : 27 02 00 7E 02 00 00 00 00 00 1E
00 1E 00 00 00
40:0020 : 00 00 00 00 00 00 00 00 00 00 00
00 00 00 01 01
40:0030 : 00 00 00 00 00 00 00 00 00 00 00
00 00 00 01 01
40:0040 : 25 00 00 00 00 2A 00 11 02 03 50
00 00 10 00 00
40:0050 : 00 18 00 00 00 00 00 00 00 00 00
00 00 00 00 00
40:0060 : 0E 0D 00 D4 03 29 30 A4 17 FD 74
00 DF 60 12 00
40:0070 : 00 00 00 12 00 01 00 00 14 14 14
14 01 01 01 01
40:0080 : 1E 00 3E 00 18 10 00 60 F9 11 0B
01 00 00 00 05
40:0090 : 17 00 00 00 2A 00 10 00 00 00 00
00 00 00 00 00
40:00A0 : 00 00 00 00 00 00 00 00 7C 14 00
C0 00 00 00 00
40:00B0 : 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00
40:00C0 : 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00
40:00D0 : 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00
40:00E0 : 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00

```

```

40:00F0 : 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00

Interrupt Vector Table (including INSPECT)
00 - 03 : 14D2:0555 0070:0465
122E:0016 0070:0465
04 - 07 : 0070:0465 F000:FF54
F000:93CC F000:9BD0
08 - 0B : 122E:001F 122E:0028
F000:9BD0 122E:0052 F000:9BD0
0C - 0F : F000:9BD0 F000:9BD0
122E:009A 0070:0465
10 - 13 : C000:13FE F000:F84D
F000:F841 0070:03EE
14 - 17 : F000:D0B5 0207:0240
0070:042D F000:EPD2
18 - 1B : F000:F06D 12EF:002F
F000:FE6E 0070:045F
1C - 1F : F000:FF53 F000:0000
0000:0522 C000:2143
20 - 23 : 00C9:0FA8 00C9:0FB2
12F7:0314 12F7:016D
24 - 27 : 12F7:0178 00C9:0FBC
00C9:0FC6 00C9:0FD0
28 - 2B : 00C9:106C 0070:0466
00C9:106C 00C9:106C
2C - 2F : 00C9:106C 00C9:106C
12F7:0162 12F8:01CC
30 - 33 : C90F:E4EA F000:9B00
00C9:106C 00C9:106C
34 - 37 : 00C9:106C 00C9:106C
00C9:106C 00C9:106C
38 - 3B : 00C9:106C 00C9:106C
00C9:106C 00C9:106C
3C - 3F : 00C9:106C 00C9:106C
00C9:106C 258E:04F3
40 - 43 : F000:EC59 C81F:01C6
F000:F065 C000:2556
44 - 47 : F000:9BD0 F000:9BD0
0000:0000 F000:9BD0
48 - 4B : F000:9BD0 F000:9BD0
F000:9BD0 F000:9BD0
4C - 4F : F000:9BD0 F000:9BD0
F000:9BD0 0070:04FC
50 - 53 : F000:9BD0 F000:9BD0
F000:9BD0 F000:9BD0
54 - 57 : F000:9BD0 F000:9BD0
F000:9BD0 F000:9BD0
58 - 5B : F000:9BD0 F000:9BD0
F000:9BD0 F000:9BD0
5C - 5F : F000:9BD0 F000:9BD0
F000:9BD0 F000:9BD0
60 - 63 : 0000:0000 0000:0000
0000:0000 0000:0000
64 - 67 : 0000:0000 0000:0000
0000:0000 0000:0000
68 - 6B : F000:9BD0 F000:9BD0
F000:9BD0 F000:9BD0
6C - 6F : F000:9BD0 C000:13FE
F000:9BD0 F000:9BD0
70 - 73 : 122E:0035 F000:9C1F
F000:9BD0 F000:9BD0

```

```

74 - 77 : 122E:00E2 F000:9C28
F000:9BD0 122E:0112
78 - 7B : 0000:0000 0000:0000
0000:0000 0000:0000
7C - 7F : 0000:0000 0000:0000
0000:0000 0000:0000
80 - 83 : 0000:0000 0000:0000
0000:0000 0000:0000
84 - 87 : 0000:0000 0000:0000
0000:0000 0000:0000
88 - 8B : 0000:0000 0000:0000
0000:0000 0000:0000
8C - 8F : 0000:0000 0000:0000
0000:0000 0000:0000
90 - 93 : 0000:0000 0000:0000
0000:0000 0000:0000
94 - 97 : 0000:0000 0000:0000
0000:0000 0000:0000
98 - 9B : 0000:0000 0000:0000
0000:0000 0000:0000
9C - 9F : 0000:0000 0000:0000
0000:0000 0000:0000
A0 - A3 : 0000:0000 0000:0000
0000:0000 0000:0000
A4 - A7 : 0000:0000 0000:0000
0000:0000 0000:0000
A8 - AB : 0000:0000 0000:0000
0000:0000 0000:0000
AC - AF : 0000:0000 0000:0000
0000:0000 0000:0000
B0 - B3 : 0000:0000 0000:0000
0000:0000 0000:0000
B4 - B7 : 0000:0000 0000:0000
0000:0000 0000:0000
B8 - BB : 0000:0000 0000:0000
0000:0000 0000:0000
BC - BF : 0000:0000 0000:0000
0000:0000 0000:0000
C0 - C3 : 0000:0000 0000:0000
0000:0000 0000:0000
C4 - C7 : 0000:0000 0000:0000
0000:0000 0000:0000
C8 - CB : 0000:0000 0000:0000
0000:0000 0000:0000
CC - CF : 0000:0000 0000:0000
0000:0000 0035:0035
D0 - D3 : 0007:0000 CD35:0000
0087:0000 0087:0000
D4 - D7 : 35CD:0000 0035:0000
0000:0000 0000:0002
D8 - DB : 01D9:0000 0000:0000
0000:200B 0000:0BD6
DC - DF : 01D9:0000 0000:0000
0000:200B 0000:0100
E0 - E3 : 0000:0BF0 0000:200A
0000:0000 0000:031E
E4 - E7 : 0000:01D8 2000:00D0
0001:A460 F000:9618
E8 - EB : 0000:0083 0000:0000
0083:0020 0006:1EA2
EC - EF : 0006:1EA0 0046:1400
1400:1F76 0046:0087

```

```

F0 - F3 : 0010:13C1 DC08:1DB7
1DB7:13C1 1400:DA65
F4 - F7 : 1CDA:0246 0101:7387
0000:0000 0000:613D
F8 - FB : 613D:0020 15B7:6443
00C6:0003 0000:09F6
FC - FF : 0246:0900 0900:0000
E15F:0049 0003:09F6

PCI Devices Information
Signature . . . . . PCI
Config Mechanism #1 . . . . . Supported
Config Mechanism #2 . . . . . Not Supported
Spec Cycle for Config #1 . . . . . Supported
Spec Cycle for Config #2 . . . . . Not Supported
BIOS Interface Version . . . . . 2.10
Last PCI Bus Number . . . . . 3
Number of PCI Devices . . . . . 4

PCI Bus Number . . . . . 0
Device Number . . . . . 1
Function Number . . . . . 00h
Slot Number . . . . . 0
Vendor ID . . . . . 0E11h
Device ID . . . . . 0010h
Revision ID . . . . . 02h
Device Type . . . . . RAID Controller
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . FFF80000h
IRQ Line . . . . . 3
IRQ Pin . . . . . INTA#
IO Address Base . . . . . 2000h
IO Address Length . . . . . 100h
Memory Address Base . . . . . C5000000h
Memory Address Length . . . . . 1000000h
Memory Address Base . . . . . C4000000h
Memory Address Length . . . . . 1000000h

PCI Bus Number . . . . . 0
Device Number . . . . . 3
Function Number . . . . . 00h
Slot Number . . . . . 0
Vendor ID . . . . . 1002h
Device ID . . . . . 4756h
Revision ID . . . . . 7Ah
Device Type . . . . . VGA Compatible
Controller
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . FFFE0000h
IRQ Line . . . . . 255
IRQ Pin . . . . . Not Used
Memory Address Base . . . . . C2000000h
Memory Address Length . . . . . 1000000h
IO Address Base . . . . . 2400h
IO Address Length . . . . . 100h
Memory Address Base . . . . . C3FFF000h
Memory Address Length . . . . . 1000h

PCI Bus Number . . . . . 3
Device Number . . . . . 4
Function Number . . . . . 00h
Slot Number . . . . . 0
Vendor ID . . . . . 0E11h

```

```

Device ID . . . . . 1229h
Revision ID . . . . . 08h
Device Type . . . . . Ethernet Controller
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . FFF00000h
IRQ Line . . . . . 5
IRQ Pin . . . . . INTA#
Memory Address Base . . . . . C6FFF000h
Memory Address Length . . . . . 1000h
IO Address Base . . . . . 3000h
IO Address Length . . . . . 40h
Memory Address Base . . . . . C6E00000h
Memory Address Length . . . . . 100000h

PCI Bus Number . . . . . 3
Device Number . . . . . 5
Function Number . . . . . 00h
Slot Number . . . . . 0
Vendor ID . . . . . 0E11h
Device ID . . . . . 1229h
Revision ID . . . . . 08h
Device Type . . . . . Ethernet Controller
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . FFF00000h
IRQ Line . . . . . 7
IRQ Pin . . . . . INTA#
Memory Address Base . . . . . C6DFF000h
Memory Address Length . . . . . 1000h
IO Address Base . . . . . 3040h
IO Address Length . . . . . 40h
Memory Address Base . . . . . C6C00000h
Memory Address Length . . . . . 100000h

```

ProLiant DL360 is a trademark of Compaq Computer Corporation.

Date 08/23/2001
Time 18:23:07

Product ProLiant DL360

Machine ID
From System Board CPQ0685

Processor Pentium III(R) at 933 MHz
Slot 2
Secondary Cache 256K
CPU ID 0686

Processor Pentium III(R) at 933 MHz
Slot 1
Secondary Cache 256K
CPU ID 0686

Processor(s) Mapped Out None

```

Numeric Coprocessor . . . . . Integrated 387-
Compatible

Expansion Bus . . . . . ISA, PCI

System Identification Number . . . 6J14FXS1V00E

CPU Mode . . . . . Real Mode

System ROM
Revision . . . . . 01/11/2001
Family . . . . . P21
Flashable . . . . . Yes
Supports F10 partition . . . . . Yes

Video Controller ROM
Revision . . . . . 3.96

Option ROMs
Address Range . . . . . C0000 - C7FFF
Data Dump . . . . . (1999/03/24 23:56)

Address Range . . . . . C8000 - CBFFF
Data Dump . . . . . (04/22/98 ROC
Smart Array Option ROM/BIOS (C)Co...

Address Range . . . . . E8000 - EDFFF
Data Dump . . . . . ( CPQSCSI d)

Bootblock ROM . . . . . 01/25/2000

Standby Recovery Server
Status . . . . . Disabled
COM Port . . . . . COM1
Server Configuration . . . . . Recovery
Timeout Value . . . . . 1 minutes

Memory Boards Identified:
System Board
DIMM Slot 1 (SDRAM) . . . . . 128 Megabytes
DIMM Slot 2 (SDRAM) . . . . . 128 Megabytes
DIMM Slot 3 (SDRAM) . . . . . 128 Megabytes
DIMM Slot 4 (SDRAM) . . . . . 128 Megabytes
Total Compaq Memory . . . . . 512 Megabytes

Keyboard . . . . . Enhanced

LPT Ports . . . . . Not Installed

COM Ports . . . . . COM1 (Address 3F8)
Compaq NC3163 Fast Ethernet NIC
Device Type . . . . . Ethernet Controller
PCI Bus Number . . . . . 3
Device Number . . . . . 4
Function Number . . . . . 00h
Slot Number . . . . . 0
Vendor ID . . . . . 0E11h
Device ID . . . . . 1229h
Subsystem Vendor ID . . . . . 0E11h
Subsystem ID . . . . . B134h
Revision ID . . . . . 08h

```

```

Programming Interface . . . . . 00h
Expansion ROM Base Address . . . FFF00000h
IRQ Line . . . . . 5
IRQ Pin . . . . . INTA#
Memory Address Base . . . . . C6FFF000h
Memory Address Length . . . . . 1000h
IO Address Base . . . . . 3000h
IO Address Length . . . . . 40h
Memory Address Base . . . . . C6E00000h
Memory Address Length . . . . . 100000h

Compaq NC3163 Fast Ethernet NIC
Device Type . . . . . Ethernet Controller
PCI Bus Number . . . . . 3
Device Number . . . . . 5
Function Number . . . . . 00h
Slot Number . . . . . 0
Vendor ID . . . . . 0E11h
Device ID . . . . . 1229h
Subsystem Vendor ID . . . . . 0E11h
Subsystem ID . . . . . B134h
Revision ID . . . . . 08h
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . FFF00000h
IRQ Line . . . . . 7
IRQ Pin . . . . . INTA#
Memory Address Base . . . . . C6DFF000h
Memory Address Length . . . . . 1000h
IO Address Base . . . . . 3040h
IO Address Length . . . . . 40h
Memory Address Base . . . . . C6C00000h
Memory Address Length . . . . . 100000h

Diskette Drive A . . . . . 1.44 Megabyte (3.5
inch)

Drive Controller 1, Compaq Integrated Smart Array
Controller
IDA Firmware Revision . . . . . 1.42
Array Accelerator Memory . . . . 8188 Kbytes
Accelerator Status . . . . . Not Configured
Battery count . . . . . 0
Batteries charged . . . . . 0
Batteries failed . . . . . 0
Internal ProLiant . . . . . Bus 2, Rev. JB21

Logical Drive 1 . . . . . 9095 Megabyte
Fault Tolerance . . . . . Mirroring
OS Format . . . . . Multi-Sector
Distribution
Drive geometry (Cyl, Hds, Sec) 2177, 255, 32
Array Accelerator . . . . . Disabled
Logical drive in interim recovery mode.
Physical drive 8 has failed.

Hard Drive 1
SCSI Bus . . . . . 2
SCSI ID . . . . . 0
Serial Number . . . . . Undetermined
Model Number . . . . . Undetermined

```

```

Initialized for Monitoring . No

Hard Drive 2
SCSI Bus . . . . . 2
SCSI ID . . . . . 1
Serial Number . . . . . B3125195
Firmware Revision 1 . . . . . B016
Model Number . . . . . COMPAQ BD009122C6
Initialized for Monitoring . Yes
Reference time . . . . . 516730
Sectors read . . . . . *3060907457
Hard read errors . . . . . 0
Read errors retry . . . . . 0
ECC read errors . . . . . 0
Sectors written . . . . . 463766229
Hard write errors . . . . . 0
Write errors retry . . . . . 0
Seek count . . . . . 1925402
Seek errors . . . . . 0
Spin cycles . . . . . 2
Spin up time . . . . . 0
Seek time track . . . . . 36%
Seek time third . . . . . 71%
Seek time full . . . . . 72%
Reallocated sectors . . . . . 146
Recovers read failed . . . . . 0
Bus faults . . . . . 0

Graphics Mode . . . . . 03 (80-Column Text)

Primary Monitor attached to . . ATI RAGE IIC PCI
Graphics Controller
with Video Graphics Color Monitor

Base Memory
System Total . . . . . 638 Kbytes
Amount Free . . . . . 555 Kbytes
(568384 Bytes)

Extended Memory
System Total . . . . . 523264 Kbytes

Expanded Memory
LIM Driver Support . . . . . LIM driver not
loaded

Operating System . . . . . MS-DOS version 7.10
(from diskette)

Environment variables
PATH=
PROMPT=$P$G
COMSPEC=A:\COMMAND.COM
CMDLINE=inspect /u
End of environment

Revisions Table
Previous Revisions
Current Revisions

```

System serial number 6J14FXS1V00E

Memory Allocation (including INSPECT)

PSP	SIZE	NAME	TRAPPED	INTERRUPTS
12F7	007200	COMMAND.COM	2Fh	2Eh 24h 23h 22h
14C2	218144	INSPECT.EXE	F9h	F3h F2h EEh E5h
D4h	D1h	3Fh		

System Configuration Memory

00 - 0F :	14 00 23 00	18 00 04 23	08 01 26
82	50 80 00 00		
10 - 1F :	40 00 00 00	03 80 02 00	3C 00 00
00	00 00 00 02		
20 - 2F :	00 00 00 00	7F 20 20 40	00 7A 00
00	00 18 02 94		
30 - 3F :	00 3C 20 80	00 00 XX XX	XX XX XX
XX	XX XX XX XX		

BIOS Data Area

40:0000 :	F8 03 00 00	00 00 00 00	00 00 00
00	00 00 80 9F		
40:0010 :	27 02 00 7E	02 00 00 00	00 00 1E
00	1E 00 00 00		
40:0020 :	00 00 00 00	00 00 00 00	00 00 00
00	00 00 00 00		
40:0030 :	00 00 00 00	00 00 00 00	00 00 00
00	00 00 01 01		
40:0040 :	25 00 00 00	00 2A 00 11	02 03 50
00	00 10 00 00		
40:0050 :	00 18 00 00	00 00 00 00	00 00 00
00	00 00 00 00		
40:0060 :	0E 0D 00 D4	03 29 30 A4	17 FD 74
00	27 63 12 00		
40:0070 :	00 00 00 12	00 01 00 00	14 14 14
14	01 01 01 01		
40:0080 :	1E 00 3E 00	18 10 00 60	F9 11 0B
01	00 00 00 05		
40:0090 :	17 00 00 00	2A 00 10 00	00 00 00
00	00 00 00 00		
40:00A0 :	00 00 00 00	00 00 00 00	7C 14 00
C0	00 00 00 00		
40:00B0 :	00 00 00 00	00 00 00 00	00 00 00
00	00 00 00 00		
40:00C0 :	00 00 00 00	00 00 00 00	00 00 00
00	00 00 00 00		
40:00D0 :	00 00 00 00	00 00 00 00	00 00 00
00	00 00 00 00		
40:00E0 :	00 00 00 00	00 00 00 00	00 00 00
00	00 00 00 00		
40:00F0 :	00 00 00 00	00 00 00 00	00 00 00
00	00 00 00 00		

Interrupt Vector Table (including INSPECT)

00 - 03 :	14D2:0555	0070:0465
122E:0016	0070:0465	
04 - 07 :	0070:0465	F000:FF54
F000:93CC	F000:9BD0	
08 - 0B :	122E:001F	122E:0028
F000:9BD0	122E:0052	

0C - 0F :	F000:9BD0	F000:9BD0
122E:009A	0070:0465	
10 - 13 :	C000:13FE	F000:F84D
F000:F841	0070:03EE	
14 - 17 :	F000:DOE5	0207:0240
0070:042D	F000:EFD2	
18 - 1B :	F000:F06D	12EF:002F
F000:FE6E	0070:045F	
1C - 1F :	F000:FF53	F000:0000
0000:0522	C000:2143	
20 - 23 :	00C9:0FA8	00C9:0FB2
12F7:0314	12F7:016D	
24 - 27 :	12F7:0178	00C9:0FBC
00C9:0FC6	00C9:0FD0	
28 - 2B :	00C9:106C	0070:0466
00C9:106C	00C9:106C	
2C - 2F :	00C9:106C	00C9:106C
12F7:0162	12F8:01CC	
30 - 33 :	C90F:E4EA	F000:9B00
00C9:106C	00C9:106C	
34 - 37 :	00C9:106C	00C9:106C
00C9:106C	00C9:106C	
38 - 3B :	00C9:106C	00C9:106C
00C9:106C	00C9:106C	
3C - 3F :	00C9:106C	00C9:106C
00C9:106C	258E:04F3	
40 - 43 :	F000:EC59	C81F:01C6
F000:F065	C000:2556	
44 - 47 :	F000:9BD0	F000:9BD0
0000:0000	F000:9BD0	
48 - 4B :	F000:9BD0	F000:9BD0
F000:9BD0	F000:9BD0	
4C - 4F :	F000:9BD0	F000:9BD0
F000:9BD0	0070:04FC	
50 - 53 :	F000:9BD0	F000:9BD0
F000:9BD0	F000:9BD0	
54 - 57 :	F000:9BD0	F000:9BD0
F000:9BD0	F000:9BD0	
58 - 5B :	F000:9BD0	F000:9BD0
F000:9BD0	F000:9BD0	
5C - 5F :	F000:9BD0	F000:9BD0
F000:9BD0	F000:9BD0	
60 - 63 :	0000:0000	0000:0000
0000:0000	0000:0000	
64 - 67 :	0000:0000	0000:0000
0000:0000	0000:0000	
68 - 6B :	F000:9BD0	F000:9BD0
F000:9BD0	F000:9BD0	
6C - 6F :	F000:9BD0	C000:13FE
F000:9BD0	F000:9BD0	
70 - 73 :	122E:0035	F000:9C1F
F000:9BD0	F000:9BD0	
74 - 77 :	122E:00E2	F000:9C28
F000:9BD0	122E:0112	
78 - 7B :	0000:0000	0000:0000
0000:0000	0000:0000	
7C - 7F :	0000:0000	0000:0000
0000:0000	0000:0000	
80 - 83 :	0000:0000	0000:0000
0000:0000	0000:0000	
84 - 87 :	0000:0000	0000:0000
0000:0000	0000:0000	

88 - 8B :	0000:0000	0000:0000
0000:0000	0000:0000	
8C - 8F :	0000:0000	0000:0000
0000:0000	0000:0000	
90 - 93 :	0000:0000	0000:0000
0000:0000	0000:0000	
94 - 97 :	0000:0000	0000:0000
0000:0000	0000:0000	
98 - 9B :	0000:0000	0000:0000
0000:0000	0000:0000	
9C - 9F :	0000:0000	0000:0000
0000:0000	0000:0000	
A0 - A3 :	0000:0000	0000:0000
0000:0000	0000:0000	
A4 - A7 :	0000:0000	0000:0000
0000:0000	0000:0000	
A8 - AB :	0000:0000	0000:0000
0000:0000	0000:0000	
AC - AF :	0000:0000	0000:0000
0000:0000	0000:0000	
B0 - B3 :	0000:0000	0000:0000
0000:0000	0000:0000	
B4 - B7 :	0000:0000	0000:0000
0000:0000	0000:0000	
B8 - BB :	0000:0000	0000:0000
0000:0000	0000:0000	
BC - BF :	0000:0000	0000:0000
0000:0000	0000:0000	
C0 - C3 :	0000:0000	0000:0000
0000:0000	0000:0000	
C4 - C7 :	0000:0000	0000:0000
0000:0000	0000:0000	
C8 - CB :	0000:0000	0000:0000
0000:0000	0000:0000	
CC - CF :	0000:0000	0000:0000
0000:0000	0031:0031	
D0 - D3 :	0006:0000	1D31:0000
0087:0000	0087:0000	
D4 - D7 :	311D:0000	0031:0000
0000:0000	0000:0002	
D8 - DB :	0100:0000	0000:0000
0000:200B	0000:0BD6	
DC - DF :	0100:0000	0000:0000
0000:200B	0000:0100	
E0 - E3 :	0000:0BF0	0000:200A
0000:0000	0000:031E	
E4 - E7 :	0000:00FF	2000:00D0
0001:A610	F000:9618	
E8 - EB :	0000:0083	0000:0000
0083:0020	0006:1EA2	
EC - EF :	0006:1EA0	0046:1B00
1B00:1F76	0046:0087	
F0 - F3 :	0010:13C1	DC38:1DB7
1DB7:13C1	1400:DA95	
F4 - F7 :	F000:9618	03CE:0007
0000:0720	0000:613D	
F8 - FB :	613D:0020	15B7:6443
0082:0003	0000:09F6	
FC - FF :	0246:0900	0900:0000
E15F:0049	0003:09F6	

PCI Devices Information

Signature PCI

```

Config Mechanism #1 . . . . . Supported
Config Mechanism #2 . . . . . Not Supported
Spec Cycle for Config #1 . . . . . Supported
Spec Cycle for Config #2 . . . . . Not Supported
BIOS Interface Version . . . . . 2.10
Last PCI Bus Number . . . . . 3
Number of PCI Devices . . . . . 4

PCI Bus Number . . . . . 0
Device Number . . . . . 1
Function Number . . . . . 00h
Slot Number . . . . . 0
Vendor ID . . . . . 0E11h
Device ID . . . . . 0010h
Revision ID . . . . . 02h
Device Type . . . . . RAID Controller
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . FFF80000h
IRQ Line . . . . . 3
IRQ Pin . . . . . INTA#
IO Address Base . . . . . 2000h
IO Address Length . . . . . 100h
Memory Address Base . . . . . C5000000h
Memory Address Length . . . . . 1000000h
Memory Address Base . . . . . C4000000h
Memory Address Length . . . . . 1000000h

PCI Bus Number . . . . . 0
Device Number . . . . . 3
Function Number . . . . . 00h
Slot Number . . . . . 0
Vendor ID . . . . . 1002h
Device ID . . . . . 4756h
Revision ID . . . . . 7Ah
Device Type . . . . . VGA Compatible
Controller
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . FFFE0000h
IRQ Line . . . . . 255
IRQ Pin . . . . . Not Used
Memory Address Base . . . . . C2000000h
Memory Address Length . . . . . 1000000h
IO Address Base . . . . . 2400h
IO Address Length . . . . . 100h
Memory Address Base . . . . . C3FFF000h
Memory Address Length . . . . . 1000h

PCI Bus Number . . . . . 3
Device Number . . . . . 4
Function Number . . . . . 00h
Slot Number . . . . . 0
Vendor ID . . . . . 0E11h
Device ID . . . . . 1229h
Revision ID . . . . . 08h
Device Type . . . . . Ethernet Controller
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . FFF00000h
IRQ Line . . . . . 5
IRQ Pin . . . . . INTA#
Memory Address Base . . . . . C6FFF000h
Memory Address Length . . . . . 1000h
IO Address Base . . . . . 3000h
IO Address Length . . . . . 40h

```

```

Memory Address Base . . . . . C6E00000h
Memory Address Length . . . . . 100000h

PCI Bus Number . . . . . 3
Device Number . . . . . 5
Function Number . . . . . 00h
Slot Number . . . . . 0
Vendor ID . . . . . 0E11h
Device ID . . . . . 1229h
Revision ID . . . . . 08h
Device Type . . . . . Ethernet Controller
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . FFF00000h
IRQ Line . . . . . 7
IRQ Pin . . . . . INTA#
Memory Address Base . . . . . C6DFF000h
Memory Address Length . . . . . 1000h
IO Address Base . . . . . 3040h
IO Address Length . . . . . 40h
Memory Address Base . . . . . C6C00000h
Memory Address Length . . . . . 100000h

```

ProLiant DL360 is a trademark of Compaq Computer Corporation.

SUT System Configuration

```

Date . . . . . 08/23/2001
Time . . . . . 18:02:46

```

Product ProLiant

```

Machine ID
From System Board . . . . . CPQ1608

```

```

Processor . . . . . Pentium III(R) Xeon
at 900 MHz
Slot . . . . . 8
Secondary Cache . . . . . 2048K
CPU ID . . . . . 06A4

```

```

Processor . . . . . Pentium III(R) Xeon
at 900 MHz
Slot . . . . . 7
Secondary Cache . . . . . 2048K
CPU ID . . . . . 06A4

```

```

Processor . . . . . Pentium III(R) Xeon
at 900 MHz
Slot . . . . . 6
Secondary Cache . . . . . 2048K
CPU ID . . . . . 06A4

```

```

Processor . . . . . Pentium III(R) Xeon
at 900 MHz
Slot . . . . . 5
Secondary Cache . . . . . 2048K
CPU ID . . . . . 06A4

```

```

Processor . . . . . Pentium III(R) Xeon
at 900 MHz
Slot . . . . . 4
Secondary Cache . . . . . 2048K
CPU ID . . . . . 06A4

```

```

Processor . . . . . Pentium III(R) Xeon
at 900 MHz
Slot . . . . . 3
Secondary Cache . . . . . 2048K
CPU ID . . . . . 06A4

```

```

Processor . . . . . Pentium III(R) Xeon
at 900 MHz
Slot . . . . . 2
Secondary Cache . . . . . 2048K
CPU ID . . . . . 06A4

```

```

Processor . . . . . Pentium III(R) Xeon
at 900 MHz
Slot . . . . . 1
Secondary Cache . . . . . 2048K
CPU ID . . . . . 06A4

```

Processor(s) Mapped Out None

Numeric Coprocessor Integrated 387-
Compatible

Expansion Bus ISA, PCI

System Identification Number D948EX71K013

CPU Mode Real Mode

```

System ROM
Revision . . . . . 02/16/2001
Family . . . . . P42
Flashable . . . . . Yes
Supports F10 partition . . . . . Yes

```

```

Video Controller ROM
Revision . . . . . 3.96

```

```

Option ROMs
Address Range . . . . . C0000 - C7FFF
Data Dump . . . . . (1998/10/08 15:41)

```

```

Address Range . . . . . C8000 - CBFFF
Data Dump . . . . . (07/07/00 Maxwell
Smart Array Option ROM/BIOS (C)Co...)

```

```

Address Range . . . . . CC000 - CFFFF
Data Dump . . . . . (04/22/98 ROC
ROC-LCR Option ROM/BIOS (C)Copyri...)

```

Address Range E8000 - EDFFF

```

Data Dump . . . . . ( CPQSCSI d)
Bootblock ROM . . . . . 04/17/2000

Standby Recovery Server
Status . . . . . Disabled
COM Port . . . . . COM1
Server Configuration . . . . . Recovery
Timeout Value . . . . . 1 minutes

Memory Boards Identified:
System Board
DIMM Slot 1 (SDRAM) . . . . . 512 Megabytes
DIMM Slot 2 (SDRAM) . . . . . 512 Megabytes
DIMM Slot 3 (SDRAM) . . . . . 512 Megabytes
DIMM Slot 4 (SDRAM) . . . . . 512 Megabytes
DIMM Slot 5 (SDRAM) . . . . . 512 Megabytes
DIMM Slot 6 (SDRAM) . . . . . 512 Megabytes
DIMM Slot 7 (SDRAM) . . . . . 512 Megabytes
DIMM Slot 8 (SDRAM) . . . . . 512 Megabytes
DIMM Slot 9 (SDRAM) . . . . . 512 Megabytes
DIMM Slot 10 (SDRAM) . . . . . 512 Megabytes
DIMM Slot 11 (SDRAM) . . . . . 512 Megabytes
DIMM Slot 12 (SDRAM) . . . . . 512 Megabytes
DIMM Slot 13 (SDRAM) . . . . . 512 Megabytes
DIMM Slot 14 (SDRAM) . . . . . 512 Megabytes
DIMM Slot 15 (SDRAM) . . . . . 512 Megabytes
DIMM Slot 16 (SDRAM) . . . . . 512 Megabytes
Total Compaq Memory . . . . . 8192 Megabytes

Keyboard . . . . . Standard 11-Bit

LPT Ports . . . . . Not Installed

COM Ports . . . . . COM1 (Address 3F8)
COM2 (Address 2F8)

Compaq NC6134 Gigabit NIC
Device Type . . . . . Ethernet Controller
PCI Bus Number . . . . . 0
Device Number . . . . . 3
Function Number . . . . . 00h
Slot Number . . . . . 9
Vendor ID . . . . . 0E11h
Device ID . . . . . 1000h
Subsystem Vendor ID . . . . . 0E11h
Subsystem ID . . . . . B123h
Revision ID . . . . . 03h
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . 0h
IRQ Line . . . . . 15
IRQ Pin . . . . . INTA#
Memory Address Base . . . . . F70E0000h
Memory Address Length . . . . . 20000h

Compaq NC3131 Fast Ethernet NIC
Device Type . . . . . Ethernet Controller
PCI Bus Number . . . . . 6
Device Number . . . . . 4
Function Number . . . . . 00h
Slot Number . . . . . 1

```

```

Vendor ID . . . . . 0E11h
Device ID . . . . . 1229h
Subsystem Vendor ID . . . . . 0E11h
Subsystem ID . . . . . B0DDh
Revision ID . . . . . 05h
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . 0h
IRQ Line . . . . . 15
IRQ Pin . . . . . INTA#
Memory Address Base . . . . . F73F0000h
Memory Address Length . . . . . 1000h
IO Address Base . . . . . 4000h
IO Address Length . . . . . 20h
Memory Address Base . . . . . F7A00000h
Memory Address Length . . . . . 100000h

Compaq NC3131 Fast Ethernet NIC
Device Type . . . . . Ethernet Controller
PCI Bus Number . . . . . 6
Device Number . . . . . 5
Function Number . . . . . 00h
Slot Number . . . . . 1
Vendor ID . . . . . 0E11h
Device ID . . . . . 1229h
Subsystem Vendor ID . . . . . 0E11h
Subsystem ID . . . . . B0DDh
Revision ID . . . . . 05h
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . 0h
IRQ Line . . . . . 15
IRQ Pin . . . . . INTA#
Memory Address Base . . . . . F73E0000h
Memory Address Length . . . . . 1000h
IO Address Base . . . . . 4020h
IO Address Length . . . . . 20h
Memory Address Base . . . . . F7900000h
Memory Address Length . . . . . 100000h

Diskette Drive A . . . . . 1.44 Megabyte (3.5
inch)

Drive Controller 1, Compaq Integrated Smart Array
Controller
IDA Firmware Revision . . . . . 1.34
Array Accelerator Memory . . . . . 8188 Kbytes
Reserved for reads . . . . . 8188 Kbytes
Accelerator Status . . . . . Enabled
Battery count . . . . . 0
Batteries charged . . . . . 0
Batteries failed . . . . . 0
Internal ProLiant . . . . . Bus 2, Rev. JB21

Logical Drive 1 . . . . . 9091 Megabyte
Fault Tolerance . . . . . Mirroring
OS Format . . . . . Multi-Sector
Distribution
Drive geometry (Cyl, Hds, Sec) 2176, 255, 32
Array Accelerator . . . . . Enabled
Logical drive in interim recovery mode.

```

```

Hard Drive 1
SCSI Bus . . . . . 2
SCSI ID . . . . . 0
Serial Number . . . . .
1HD03428000010431AJL
Firmware Revision 1 . . . . . 3B00
Model Number . . . . . COMPAQ BF00963643
Initialized for Monitoring . . . . . Yes
Reference time . . . . . 514763
Sectors read . . . . . *86138151
Hard read errors . . . . . 0
Read errors retry . . . . . 0
ECC read errors . . . . . 0
Sectors written . . . . . 313646162
Hard write errors . . . . . 0
Write errors retry . . . . . 0
Seek count . . . . . 1616447
Seek errors . . . . . 0
Spin cycles . . . . . 1
Spin up time . . . . . 0
Seek time track . . . . . 0%
Seek time third . . . . . 0%
Seek time full . . . . . 0%
Reallocated sectors . . . . . 851
Recovers read failed . . . . . 0
Bus faults . . . . . 0

Hard Drive 2
SCSI Bus . . . . . 2
SCSI ID . . . . . 1
Serial Number . . . . . Undetermined
Model Number . . . . . Undetermined
Initialized for Monitoring . . . . . No

Graphics Mode . . . . . 03 (80-Column Text)

Primary Monitor attached to . . . . . ATI RAGE IIC PCI
Graphics Controller
with Video Graphics Color Monitor

Base Memory
System Total . . . . . 636 Kbytes
Amount Free . . . . . 553 Kbytes
(566336 Bytes)

Extended Memory
System Total . . . . . 8387584 Kbytes

Expanded Memory
LIM Driver Support . . . . . LIM driver not
loaded

Operating System . . . . . MS-DOS version 7.10
(from diskette)

Environment variables
PATH=
PROMPT=$P$G
COMSPEC=A:\COMMAND.COM
CMDLINE=inspect /u
End of environment

```

Revisions Table

Previous Revisions

I/O Board Revision 01
 Assembly Version 1
 Functional Revision Level . A
 Memory Board 1 Revision 01
 Assembly Version 1
 Functional Revision Level . A

Current Revisions

I/O Board Revision 01
 Assembly Version 1
 Functional Revision Level . A
 Memory Board 1 Revision 01
 Assembly Version 1
 Functional Revision Level . A

System serial number D948BX71K013

Memory Allocation (including INSPECT)

PSP	SIZE	NAME	TRAPPED	INTERRUPTS
----	-----	-----	-----	-----
12F7	007200	COMMAND.COM	F0h	2Fh 2Eh 24h 23h 22h
14C2	218144	INSPECT.EXE	F9h	F4h F3h F2h Flh Eeh 3Fh 00h

System Configuration Memory

00 - 0F :	58 00 02 00	18 00 04 23	08 01 26
82	50 80 00 00		
10 - 1F :	40 00 00 00	03 80 02 00	3C 00 00
00	00 00 00 02		
20 - 2F :	00 00 00 00	7F 20 00 40	00 92 00
00	00 18 02 8C		
30 - 3F :	00 3C 20 80	00 00 XX XX	XX XX XX
XX	XX XX XX XX		

BIOS Data Area

40:0000 :	F8 03 F8 02	00 00 00 00	00 00 00
00	00 00 00 9F		
40:0010 :	27 04 00 7C	02 00 00 00	00 00 1E
00	1E 00 00 00		
40:0020 :	00 00 00 00	00 00 00 00	00 00 00
00	00 00 00 00		
40:0030 :	00 00 00 00	00 00 00 00	00 00 00
00	00 00 01 01		
40:0040 :	25 00 00 00	00 2A 00 11	02 03 50
00	00 10 00 00		
40:0050 :	00 18 00 00	00 00 00 00	00 00 00
00	00 00 00 00		
40:0060 :	0E 0D 00 D4	03 29 30 A4	17 7D 74
00	4F 0C 12 00		
40:0070 :	00 00 00 12	00 01 00 00	14 14 14
14	01 01 01 01		
40:0080 :	1E 00 3E 00	18 10 00 60	F9 11 0E
01	00 00 00 05		
40:0090 :	17 00 00 00	2A 00 00 00	00 00 00
00	00 00 00 00		
40:00A0 :	00 00 00 00	00 00 00 00	5C 13 00
C0	00 00 00 00		

40:00B0 :	00 00 00 00	00 00 00 00	00 00 00
00	00 00 00 00		
40:00C0 :	00 00 00 00	00 00 00 00	00 00 00
00	00 00 00 00		
40:00D0 :	00 00 00 00	00 00 00 00	00 00 00
00	00 00 00 00		
40:00E0 :	00 00 00 00	00 00 00 00	00 00 00
00	00 00 00 00		
40:00F0 :	00 00 00 00	00 00 00 00	00 00 00
00	00 00 00 00		

Interrupt Vector Table (including INSPECT)

00 - 03 :	14D2:0555	0070:0465
122E:0016	0070:0465	
04 - 07 :	0070:0465	F000:FF54
F000:4D9A	F000:9BD0	
08 - 0B :	122E:001F	122E:0028
F000:9BD0	F000:9BD0	
0C - 0F :	F000:9BD0	122E:0082
122E:009A	0070:0465	
10 - 13 :	C000:12DE	F000:F84D
F000:F841	0070:03EE	
14 - 17 :	F000:EA2E	0207:0240
0070:042D	F000:EF83	
18 - 1B :	F000:8C2B	12EF:002F
F000:FE6E	0070:045F	
1C - 1F :	F000:FF53	F000:0000
0000:0522	C000:2019	
20 - 23 :	00C9:0FA8	00C9:0FB2
12F7:0314	12F7:016D	
24 - 27 :	12F7:0178	00C9:0FBC
00C9:0FC6	00C9:0FD0	
28 - 2B :	00C9:106C	0070:0466
00C9:106C	00C9:106C	
2C - 2F :	00C9:106C	00C9:106C
12F7:0162	12F8:01CC	
30 - 33 :	C90F:E4EA	F000:9B00
00C9:106C	00C9:106C	
34 - 37 :	00C9:106C	00C9:106C
00C9:106C	00C9:106C	
38 - 3B :	00C9:106C	00C9:106C
00C9:106C	00C9:106C	
3C - 3F :	00C9:106C	00C9:106C
00C9:106C	258E:04F3	
40 - 43 :	F000:EC59	CC1F:01C6
F000:F065	C000:242C	
44 - 47 :	F000:9BD0	F000:9BD0
0000:0000	F000:9BD0	
48 - 4B :	F000:9BD0	F000:9BD0
F000:9BD0	F000:9BD0	
4C - 4F :	F000:9BD0	F000:9BD0
F000:9BD0	0070:04FC	
50 - 53 :	F000:9BD0	F000:9BD0
F000:9BD0	F000:9BD0	
54 - 57 :	F000:9BD0	F000:9BD0
F000:9BD0	F000:9BD0	
58 - 5B :	F000:9BD0	F000:9BD0
F000:9BD0	F000:9BD0	
5C - 5F :	F000:9BD0	F000:9BD0
F000:9BD0	F000:9BD0	
60 - 63 :	0000:0000	0000:0000
0000:0000	0000:0000	

64 - 67 :	0000:0000	0000:0000
0000:0000	0000:0000	
68 - 6B :	F000:9BD0	F000:9BD0
F000:9BD0	F000:9BD0	
6C - 6F :	F000:9BD0	C000:12DE
F000:9BD0	F000:9BD0	
70 - 73 :	122E:0035	F000:9C1F
F000:9BD0	F000:9BD0	
74 - 77 :	122E:00E2	F000:9C21
122E:00FA	F000:9BD0	
78 - 7B :	0000:0000	0000:0000
0000:0000	0000:0000	
7C - 7F :	0000:0000	0000:0000
0000:0000	0000:0000	
80 - 83 :	0000:0000	0000:0000
0000:0000	0000:0000	
84 - 87 :	0000:0000	0000:0000
0000:0000	0000:0000	
88 - 8B :	0000:0000	0000:0000
0000:0000	0000:0000	
8C - 8F :	0000:0000	0000:0000
0000:0000	0000:0000	
90 - 93 :	0000:0000	0000:0000
0000:0000	0000:0000	
94 - 97 :	0000:0000	0000:0000
0000:0000	0000:0000	
98 - 9B :	0000:0000	0000:0000
0000:0000	0000:0000	
9C - 9F :	0000:0000	0000:0000
0000:0000	0000:0000	
A0 - A3 :	0000:0000	0000:0000
0000:0000	0000:0000	
A4 - A7 :	0000:0000	0000:0000
0000:0000	0000:0000	
A8 - AB :	0000:0000	0000:0000
0000:0000	0000:0000	
AC - AF :	0000:0000	0000:0000
0000:0000	0000:0000	
B0 - B3 :	0000:0000	0000:0000
0000:0000	0000:0000	
B4 - B7 :	0000:0000	0000:0000
0000:0000	0000:0000	
B8 - BB :	0000:0000	0000:0000
0000:0000	0000:0000	
BC - BF :	0000:0000	0000:0000
0000:0000	0000:0000	
C0 - C3 :	0000:0000	0000:0000
0000:0000	0000:0000	
C4 - C7 :	0000:0000	0000:0000
0000:0000	0000:0000	
C8 - CB :	0000:0000	0000:0000
0000:0000	0000:0000	
CC - CF :	0000:0000	0000:0000
0000:0000	0000:0000	
D0 - D3 :	0000:0000	0000:0000
0000:0000	0000:0000	
D4 - D7 :	0000:0000	0000:0000
0000:0000	0000:0000	
D8 - DB :	0000:0000	0000:0000
0000:0000	0000:0000	
DC - DF :	0000:0000	0000:0000
0000:0000	0000:0000	


```

E0 - E3 : 0000:0000 0000:0000
0000:0000 0000:0000
E4 - E7 : 0000:0000 0000:0000
0000:0000 0020:0080
E8 - EB : 00D8:0000 00C8:00C8
0078:0CFD 0CFC:0078
EC - EF : 0000:1F07 7800:0006
1F85:0046 0087:7800
F0 - F3 : 13C1:0046 1D23:0001
13C1:8AF4 1400:1D23
F4 - F7 : 1B00:0246 0101:7248
0000:0000 0000:5FFE
F8 - FB : 5FFE:0020 1497:6304
00A0:0003 0000:0962
FC - FF : 510F:00FC 0000:00F6
EFE2:0000 0246:F000

PCI Devices Information
Signature . . . . . PCI
Config Mechanism #1 . . . . . Supported
Config Mechanism #2 . . . . . Not Supported
Spec Cycle for Config #1 . . . . . Supported
Spec Cycle for Config #2 . . . . . Not Supported
BIOS Interface Version . . . . . 2.10
Last PCI Bus Number . . . . . 16
Number of PCI Devices . . . . . 10

PCI Bus Number . . . . . 0
Device Number . . . . . 1
Function Number . . . . . 00h
Slot Number . . . . . 7
Vendor ID . . . . . 0E11h
Device ID . . . . . B060h
Revision ID . . . . . 02h
Device Type . . . . . RAID Controller
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . FFF00000h
IRQ Line . . . . . 10
IRQ Pin . . . . . INTA#
Memory Address Base . . . . . F72C0000h
Memory Address Length . . . . . 40000h
Memory Address Base . . . . . F7100000h
Memory Address Length . . . . . 100000h
IO Address Base . . . . . 2000h
IO Address Length . . . . . 100h

PCI Bus Number . . . . . 0
Device Number . . . . . 3
Function Number . . . . . 00h
Slot Number . . . . . 9
Vendor ID . . . . . 0E11h
Device ID . . . . . 1000h
Revision ID . . . . . 03h
Device Type . . . . . Ethernet Controller
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . 0h
IRQ Line . . . . . 15
IRQ Pin . . . . . INTA#
Memory Address Base . . . . . F70E0000h
Memory Address Length . . . . . 20000h

PCI Bus Number . . . . . 0
Device Number . . . . . 13

```

```

Function Number . . . . . 00h
Slot Number . . . . . 0
Vendor ID . . . . . 1002h
Device ID . . . . . 4756h
Revision ID . . . . . 7Ah
Device Type . . . . . VGA Compatible
Controller
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . FFFE0000h
IRQ Line . . . . . 255
IRQ Pin . . . . . Not Used
Memory Address Base . . . . . F4000000h
Memory Address Length . . . . . 1000000h
IO Address Base . . . . . 2400h
IO Address Length . . . . . 100h
Memory Address Base . . . . . F70B0000h
Memory Address Length . . . . . 1000h

PCI Bus Number . . . . . 0
Device Number . . . . . 14
Function Number . . . . . 00h
Slot Number . . . . . 0
Vendor ID . . . . . 0E11h
Device ID . . . . . 0010h
Revision ID . . . . . 01h
Device Type . . . . . RAID Controller
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . FFF80000h
IRQ Line . . . . . 5
IRQ Pin . . . . . INTA#
IO Address Base . . . . . 2800h
IO Address Length . . . . . 100h
Memory Address Base . . . . . F6000000h
Memory Address Length . . . . . 1000000h
Memory Address Base . . . . . F5000000h
Memory Address Length . . . . . 1000000h

PCI Bus Number . . . . . 5
Device Number . . . . . 3
Function Number . . . . . 00h
Slot Number . . . . . 3
Vendor ID . . . . . 0E11h
Device ID . . . . . B060h
Revision ID . . . . . 02h
Device Type . . . . . RAID Controller
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . FFF00000h
IRQ Line . . . . . 5
IRQ Pin . . . . . INTA#
Memory Address Base . . . . . F78C0000h
Memory Address Length . . . . . 40000h
Memory Address Base . . . . . F7700000h
Memory Address Length . . . . . 100000h
IO Address Base . . . . . 3000h
IO Address Length . . . . . 100h

PCI Bus Number . . . . . 5
Device Number . . . . . 5
Function Number . . . . . 00h
Slot Number . . . . . 5
Vendor ID . . . . . 0E11h
Device ID . . . . . B060h
Revision ID . . . . . 02h

```

```

Device Type . . . . . RAID Controller
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . FFF00000h
IRQ Line . . . . . 10
IRQ Pin . . . . . INTA#
Memory Address Base . . . . . F76C0000h
Memory Address Length . . . . . 40000h
Memory Address Base . . . . . F7500000h
Memory Address Length . . . . . 100000h
IO Address Base . . . . . 3400h
IO Address Length . . . . . 100h

PCI Bus Number . . . . . 6
Device Number . . . . . 4
Function Number . . . . . 00h
Slot Number . . . . . 1
Vendor ID . . . . . 0E11h
Device ID . . . . . 1229h
Revision ID . . . . . 05h
Device Type . . . . . Ethernet Controller
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . 0h
IRQ Line . . . . . 15
IRQ Pin . . . . . INTA#
Memory Address Base . . . . . F73F0000h
Memory Address Length . . . . . 1000h
IO Address Base . . . . . 4000h
IO Address Length . . . . . 20h
Memory Address Base . . . . . F7A00000h
Memory Address Length . . . . . 100000h

PCI Bus Number . . . . . 6
Device Number . . . . . 5
Function Number . . . . . 00h
Slot Number . . . . . 1
Vendor ID . . . . . 0E11h
Device ID . . . . . 1229h
Revision ID . . . . . 05h
Device Type . . . . . Ethernet Controller
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . 0h
IRQ Line . . . . . 15
IRQ Pin . . . . . INTA#
Memory Address Base . . . . . F73E0000h
Memory Address Length . . . . . 1000h
IO Address Base . . . . . 4020h
IO Address Length . . . . . 20h
Memory Address Base . . . . . F7900000h
Memory Address Length . . . . . 100000h

PCI Bus Number . . . . . 13
Device Number . . . . . 1
Function Number . . . . . 00h
Slot Number . . . . . 10
Vendor ID . . . . . 0E11h
Device ID . . . . . B060h
Revision ID . . . . . 02h
Device Type . . . . . RAID Controller
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . FFF00000h
IRQ Line . . . . . 5
IRQ Pin . . . . . INTA#
Memory Address Base . . . . . F7FC0000h

```

```

Memory Address Length . . . . . 40000h
Memory Address Base . . . . . F7E00000h
Memory Address Length . . . . . 100000h
IO Address Base . . . . . 5000h
IO Address Length . . . . . 100h

PCI Bus Number . . . . . 13
Device Number . . . . . 2
Function Number . . . . . 00h
Slot Number . . . . . 11
Vendor ID . . . . . 0E11h
Device ID . . . . . B060h
Revision ID . . . . . 02h
Device Type . . . . . RAID Controller
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . FFF00000h
IRQ Line . . . . . 5
IRQ Pin . . . . . INTA#
Memory Address Base . . . . . F7DC0000h
Memory Address Length . . . . . 40000h
Memory Address Base . . . . . F7C00000h
Memory Address Length . . . . . 100000h
IO Address Base . . . . . 5400h
IO Address Length . . . . . 100h

```

Array Diagnostic Utility Inspection Report Version 1.40 Revision A

USER ENTERED INFORMATION:

controller7

```

Date/Time:      Tuesday, August 21, 2001 5:33PM
Computer Model: PROLIANT 8500
System ROM Version: 02/16/2001

```

SLOT SUMMARY:

```

Slot Num Slot Type Array Controllers and Host Adapters Detected
-----
Slot 0 PCI Integrated Smart Array Controller
Slot 3 PCI Smart Array 5300 Controller
Slot 5 PCI Smart Array 5300 Controller
Slot 7 PCI Smart Array 5300 Controller
Slot 10 PCI Smart Array 5300 Controller
Slot 11 PCI Smart Array 5300 Controller

```

SLOT 7 SMART ARRAY 5300 CONTROLLER ERROR REPORT:

No problems detected

SUBSYSTEM INFORMATION:

```

Chassis Serial Num: D032DR51K074
This Controller
  Array Serial Number: Not Available
  Cache Serial Number: Not Available
Other Controller
  Array Serial Number: Not Available
  Cache Serial Number: Not Available

```

CONTROLLER IDENTIFICATION:

```

Configured Logical Drives: 6
Configuration Signature: 0xaf4729af
Adapter Firmware Revision: '1.28'
Adapter ROM Revision: '1.28'
Adapter Hardware Revision: 0x00
Boot Block Version: '1.28'
Drive Present Map: 0x000fc03f
External Drive Map: 0x000fc03f
Board ID: 0x40700e11
Cable or Config Error: 0x00 (No)
Non-disk map: 0x00000000
Invalid Host RAM Address: No
CPU Revision: 0x00
CPU to PCI ASIC Rev: 0x02
Cache Controller ASIC Rev: 0x02
PCI to Host ASIC Rev: 0x02
Marketing Revision: 0x41 (Rev A)
Expand Disable Code: 0x01
SCSI Chip Count: 4
Max SCSI ID's per Bus: 16
Big Drive Map: 0xff3f 0x0000 0xff3f
0x0000 0x0000 0x0000 0x0000 0x0000
Big Ext Drive Map: 0xff3f 0x0000 0xff3f
0x0000 0x0000 0x0000 0x0000 0x0000
Big Non-Disk Drive Map: 0x0080 0x0000 0x0080
0x0000 0x0000 0x0000 0x0000 0x0000

```

LOGICAL DRIVE IDENTIFICATION:

```

Logical Drive 1:
Sector Size: 512
Sectors Available: 38906880
Fault Tolerance Mode: None
Logical Param Table: cyl=4768 heads=255
sec/track=32 xlate sig=0x0
BIOS Disabled: No

Logical Drive 2:
Sector Size: 512
Sectors Available: 27034080
Fault Tolerance Mode: None
Logical Param Table: cyl=3313 heads=255
sec/track=32 xlate sig=0x0
BIOS Disabled: No

Logical Drive 3:
Sector Size: 512
Sectors Available: 215970720
Fault Tolerance Mode: Mirroring
Logical Param Table: cyl=26467 heads=255
sec/track=32 xlate sig=0x0
BIOS Disabled: No

Logical Drive 4:
Sector Size: 512
Sectors Available: 38906880
Fault Tolerance Mode: None
Logical Param Table: cyl=4768 heads=255
sec/track=32 xlate sig=0x0
BIOS Disabled: No

```

```

Logical Drive 5:
Sector Size: 512
Sectors Available: 27034080
Fault Tolerance Mode: None
Logical Param Table: cyl=3313 heads=255
sec/track=32 xlate sig=0x0
BIOS Disabled: No

```

```

Logical Drive 6:
Sector Size: 512
Sectors Available: 215970720
Fault Tolerance Mode: Mirroring
Logical Param Table: cyl=26467 heads=255
sec/track=32 xlate sig=0x0
BIOS Disabled: No

```

LOGICAL DRIVE CONFIGURATION:

```

Logical Drive 1:
Configuration Signature: 0xa3c77979
Mapping Scheme: Multiple Block
Physical Drives: 28 (number not valid after drive movement)
This Logical Drive: 14 (excluding spare drives)
Fault Tolerance Mode: None
Logical Param Table: cyl=4768 heads=255
sec/track=32 xlate sig=0x0
Drive Assignment Map: 0x0000003f
Distribution Factor: 256
Spare Assignment Map: 0x00000000
Operating System: 64768
Controller Order: 0
Additional Information: 0
Offset to Data: 0
Int 13h Support Enabled: Yes
Sectors on Volume: 38906880
Sectors per Drive: 2779136
Big Drive Assignment Map: 0xff3f 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
Big Spare Assignment Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
Array Accelerator is enabled for this logical drive.

```

```

Logical Drive 2:
Configuration Signature: 0xa5276981
Mapping Scheme: Multiple Block
Physical Drives: 28 (number not valid after drive movement)
This Logical Drive: 14 (excluding spare drives)
Fault Tolerance Mode: None
Logical Param Table: cyl=3313 heads=255
sec/track=32 xlate sig=0x0
Drive Assignment Map: 0x0000003f
Distribution Factor: 256
Spare Assignment Map: 0x00000000
Operating System: 64768
Controller Order: 0
Additional Information: 0
Offset to Data: 2779136
Int 13h Support Enabled: Yes

```

Sectors on Volume: 27034080
Sectors per Drive: 1931008
Big Drive Assignment Map: 0xff3f 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
Big Spare Assignment Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
Array Accelerator is enabled for this logical drive.

Logical Drive 3:
Configuration Signature: 0xa8275985
Mapping Scheme: Multiple Block
Physical Drives: 28 (number not valid
after drive movement)
This Logical Drive: 14 (excluding spare drives)

Fault Tolerance Mode: Mirroring
Logical Param Table: cyl=26467 heads=255
sec/track=32 xlate sig=0x0
Drive Assignment Map: 0x0000003f
Distribution Factor: 256
Spare Assignment Map: 0x00000000
Operating System: 64768
Controller Order: 0
Additional Information: 0
Offset to Data: 4710144
Int 13h Support Enabled: Yes
Sectors on Volume: 215970720
Sectors per Drive: 30853120
Big Drive Assignment Map: 0xff3f 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
Big Spare Assignment Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
Array Accelerator is enabled for this logical drive.

Logical Drive 4:
Configuration Signature: 0xa16749a2
Mapping Scheme: Multiple Block
Physical Drives: 28 (number not valid
after drive movement)
This Logical Drive: 14 (excluding spare drives)

Fault Tolerance Mode: None
Logical Param Table: cyl=4768 heads=255
sec/track=32 xlate sig=0x0
Drive Assignment Map: 0x000fc000
Distribution Factor: 256
Spare Assignment Map: 0x00000000
Operating System: 64768
Controller Order: 0
Additional Information: 0
Offset to Data: 0
Int 13h Support Enabled: Yes
Sectors on Volume: 38906880
Sectors per Drive: 2779136
Big Drive Assignment Map: 0x0000 0x0000 0xff3f
0x0000 0x0000 0x0000 0x0000 0x0000
Big Spare Assignment Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
Array Accelerator is enabled for this logical drive.

Logical Drive 5:
Configuration Signature: 0xa44739aa
Mapping Scheme: Multiple Block
Physical Drives: 28 (number not valid
after drive movement)

This Logical Drive: 14 (excluding spare drives)
Fault Tolerance Mode: None
Logical Param Table: cyl=3313 heads=255
sec/track=32 xlate sig=0x0
Drive Assignment Map: 0x000fc000
Distribution Factor: 256
Spare Assignment Map: 0x00000000
Operating System: 64768
Controller Order: 0
Additional Information: 0
Offset to Data: 2779136
Int 13h Support Enabled: Yes
Sectors on Volume: 27034080
Sectors per Drive: 1931008
Big Drive Assignment Map: 0x0000 0x0000 0xff3f
0x0000 0x0000 0x0000 0x0000 0x0000
Big Spare Assignment Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
Array Accelerator is enabled for this logical drive.

Logical Drive 6:
Configuration Signature: 0xaf4729af
Mapping Scheme: Multiple Block
Physical Drives: 28 (number not valid
after drive movement)

This Logical Drive: 14 (excluding spare drives)
Fault Tolerance Mode: Mirroring
Logical Param Table: cyl=26467 heads=255
sec/track=32 xlate sig=0x0
Drive Assignment Map: 0x000fc000
Distribution Factor: 256
Spare Assignment Map: 0x00000000
Operating System: 64768
Controller Order: 0
Additional Information: 0
Offset to Data: 4710144
Int 13h Support Enabled: Yes
Sectors on Volume: 215970720
Sectors per Drive: 30853120
Big Drive Assignment Map: 0x0000 0x0000 0xff3f
0x0000 0x0000 0x0000 0x0000 0x0000
Big Spare Assignment Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
Array Accelerator is enabled for this logical drive.

LOGICAL DRIVE STATUS:

Logical Drive 1:
Drive Status: OK
Drive Failure Map: 0x00000000
Blocks to Rebuild: 0
Blocks Re-mapped: 0000 0000 0000 0000
0000 0000 0000

0000 0000 0000 0000
0000 0000 0000
Replaced Drive Map: 0x00000000
Active Spare Map: 0x00000000
Spare Status Flags: 0x00
Spare to Replaced Map: See Big Spare to
Replace Map:
Replaced Marked OK Map: 0x00000000
Media Was Exchanged: No
Cache Failure: No
Expand Failure: 0x00
Unit Flags: 0x00
Big Remap Count: All Counts Zero
Big Drive Failure Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000
Big Replacement Drive Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000
Big Active Spare Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000
Big Spare to Replace Map: No spares have
replaced any drives
Big Spare Marked OK Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000

Logical Drive 2:
Drive Status: OK
Drive Failure Map: 0x00000000
Blocks to Rebuild: 0
Blocks Re-mapped: 0000 0000 0000 0000
0000 0000 0000
0000 0000 0000
Replaced Drive Map: 0x00000000
Active Spare Map: 0x00000000
Spare Status Flags: 0x00
Spare to Replaced Map: See Big Spare to
Replace Map:
Replaced Marked OK Map: 0x00000000
Media Was Exchanged: No
Cache Failure: No
Expand Failure: 0x00
Unit Flags: 0x00
Big Remap Count: All Counts Zero
Big Drive Failure Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000
Big Replacement Drive Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000
Big Active Spare Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000
Big Spare to Replace Map: No spares have
replaced any drives
Big Spare Marked OK Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000

Logical Drive 3:
Drive Status: OK
Drive Failure Map: 0x00000000
Blocks to Rebuild: 0
Blocks Re-mapped: 0000 0000 0000 0000
0000 0000 0000
0000 0000 0000
Replaced Drive Map: 0x00000000

```

Active Spare Map:      0x00000000
Spare Status Flags:   0x00
Spare to Replaced Map: See Big Spare to
Replace Map:
  Replaced Marked OK Map: 0x00000000
  Media Was Exchanged:   No
  Cache Failure:        No
  Expand Failure:       0x00
  Unit Flags:           0x00
  Big Remap Count:      All Counts Zero
  Big Drive Failure Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
  Big Replacement Drive Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
  Big Active Spare Map:  0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
  Big Spare to Replace Map: No spares have
replaced any drives
  Big Spare Marked OK Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000

```

```

Logical Drive 4:
  Drive Status:      OK
  Drive Failure Map: 0x00000000
  Blocks to Rebuild: 0
  Blocks Re-mapped: 0000 0000 0000 0000
0000 0000 0000
0000 0000 0000
  Replaced Drive Map: 0x00000000
  Active Spare Map:   0x00000000
  Spare Status Flags: 0x00
  Spare to Replaced Map: See Big Spare to
Replace Map:
  Replaced Marked OK Map: 0x00000000
  Media Was Exchanged: No
  Cache Failure:      No
  Expand Failure:     0x00
  Unit Flags:         0x00
  Big Remap Count:    All Counts Zero
  Big Drive Failure Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
  Big Replacement Drive Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
  Big Active Spare Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
  Big Spare to Replace Map: No spares have
replaced any drives
  Big Spare Marked OK Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000

```

```

Logical Drive 5:
  Drive Status:      OK
  Drive Failure Map: 0x00000000
  Blocks to Rebuild: 0
  Blocks Re-mapped: 0000 0000 0000 0000
0000 0000 0000
0000 0000 0000
  Replaced Drive Map: 0x00000000
  Active Spare Map:   0x00000000
  Spare Status Flags: 0x00

```

```

Spare to Replaced Map: See Big Spare to
Replace Map:
  Replaced Marked OK Map: 0x00000000
  Media Was Exchanged:   No
  Cache Failure:        No
  Expand Failure:       0x00
  Unit Flags:           0x00
  Big Remap Count:      All Counts Zero
  Big Drive Failure Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
  Big Replacement Drive Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
  Big Active Spare Map:  0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
  Big Spare to Replace Map: No spares have
replaced any drives
  Big Spare Marked OK Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000

```

```

Logical Drive 6:
  Drive Status:      OK
  Drive Failure Map: 0x00000000
  Blocks to Rebuild: 0
  Blocks Re-mapped: 0000 0000 0000 0000
0000 0000 0000
0000 0000 0000
  Replaced Drive Map: 0x00000000
  Active Spare Map:   0x00000000
  Spare Status Flags: 0x00
  Spare to Replaced Map: See Big Spare to
Replace Map:
  Replaced Marked OK Map: 0x00000000
  Media Was Exchanged: No
  Cache Failure:      No
  Expand Failure:     0x00
  Unit Flags:         0x00
  Big Remap Count:    All Counts Zero
  Big Drive Failure Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
  Big Replacement Drive Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
  Big Active Spare Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
  Big Spare to Replace Map: No spares have
replaced any drives
  Big Spare Marked OK Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000

```

MONITOR AND PERFORMANCE DATA:

```

SCSI Port 1, Drive ID 0
Factory:      Serial #, Firmware Rev, and
Mfg/Model #:
  33 43 43 30 38 50 43 4a 30 30 30 30 37 31 32
34 3CC08PCJ00007124
  43 4b 4a 4b 33 42 30 35 00 00 00 00 43 4f 4d
50 CKJK3B05....COMP
  41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
  20 20 20 20 00 00 00 00 00 00 00 00 00 00
00 .....

```

```

00 00 00 00
....
  Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
  33 43 43 30 38 50 43 4a 30 30 30 30 37 31 32
34 3CC08PCJ00007124
  43 4b 4a 4b 33 42 30 35 00 00 00 00 43 4f 4d
50 CKJK3B05....COMP
  41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
  20 20 20 20 00 00 00 00 00 00 00 00 00 00
00 .....
  00 00 00 00
....
  Threshold Flags:      0x0001
  Serial Number Control: 0x8054
  Firmware Revision Control: 0x8248
  Mfg/Model Number Control: 0x8268

```

Threshold	Factory Control	Since Power
ffffffffff	Serv. Time 0002ac44	00000002
8184	8184	
8108	Read Blks 00000009429a594e	00000000001cbb18
8108	Hrd Read 00000000	00000000
8184	8184	
8108	Rtry Read 00000000	00000000
8184	8184	
8108	ECC Read 0000000000000000	0000000000000000
8188	8188	
8108	Write Blks 00000000283de4e8	0000000000000036
8108	Hrd Write 00000000	00000000
8184	8184	
8108	Rtry Write 00000000	00000000
8184	8184	
8108	Seeks 0000000000000000	0000000000000000
8188	8188	
8108	Seek Errs 0000000000000000	0000000000000000
8184	8184	
ffff	Spin Cyls 00000000	00000000
ffff	8184	
ffff	Spin Time ffff	ffff
ffff	8a82	
ffff	Test 1 ffff	ffff
ffff	0a82	
ffff	Test 2 ffff	ffff
ffff	8a82	
ffff	Test 3 ffff	ffff
ffff	8a82	
ffff	Test 4 ffff	ffff
ffff	8a82	
ffff	Spare Blks ffffffff	fffffff
0a04	Re-mapped ffffffff	fffffff
ffff	8d84	
ffff	DRQ Tmots ffff	ffff
ffff	0982	
ffff	Timeouts 0000	0000
ffff	0182	
ffff	Rebuilds 0000	0000
ffff	0182	

```

Spn Retrs ffff ffff
ffff 0982
ffff Fl Rd Recv 0000 0000
ffff 8182
ffff Fl Wt Recv 0000 0000
ffff 0182
ffff Format Err 0000 0000
ffff 0182
ffff POST Err ffff ffff
ffff 0982
ffff Drv Nt Ry 00000000 00000000
ffff 0184
ffff Reallc Abt ffffffff ffffffff
ffff 0984
ffff IRQ Gltchs ffffffff ffffffff
ffff 0984
ffff Bus Flts 00000000 00000000
ffff 8184
ffff Hot Plgs 00000000 00000000
ffff 0184
ffff Tk Rwt Err ffff ffff
ffff 0982
ffff Rmp Wt Err ffff ffff
ffff 0982
0a48 Bg Fw Rev 0000000000000000 0000000000000000
ffff Med Flrs 0000 0000
ffff 0182
ffff Hrdw Errs 0000 0000
ffff 0182
ffff Abt Cmd Fl 0000 0000
ffff 0182
ffff Spn Up Fl 0000 0000
ffff 0182
ffff Bd Tgt Cnt 0000 0000
ffff 0182
00000000 Pred Fails 00000000 00000000
2184

DRIVE ERROR LOG:
No errors logged.

SCSI Port 1, Drive ID 1
Factory: Serial #, Firmware Rev, and
Mfg/Model #:
34 33 43 43 30 38 54 4a 57 30 30 30 30 37 31 32
3CC08TJW00007124
50 42 47 31 39 33 42 30 35 00 00 00 00 43 4f 4d
BG193B05...COMP
20 41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
AQ BF01863644
00 20 20 20 20 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00

....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
34 33 43 43 30 38 54 4a 57 30 30 30 30 37 31 32
3CC08TJW00007124
50 42 47 31 39 33 42 30 35 00 00 00 00 43 4f 4d
BG193B05...COMP
20 41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
AQ BF01863644

```

```

00 20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
....
Threshold Flags: 0x0001
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold Factory Since Power
Control
Serv. Time 0002a801 00000002
ffff 8184
8108 Read Blks 0000000943854c42 00000000001cbb17
ffff Hrd Read 00000000 00000000
ffff 8184
ffff Rtry Read 00000000 00000000
ffff 8184
ffff ECC Read 0000000000000000 0000000000000000
ffff 8188
8108 Write Blks 000000002860fa46 0000000000000036
ffff Hrd Write 00000000 00000000
ffff 8184
ffff Rtry Write 00000000 00000000
ffff 8184
8108 Seeks 0000000000000000 0000000000000000
ffff Seek Errs 0000000000000000 0000000000000000
ffff 8188
ffff Spin Cyls 00000000 00000000
ffff 8184
ffff Spin Time ffff ffff
ffff 8a82
ffff Test 1 ffff ffff
ffff 0a82
ffff Test 2 ffff ffff
ffff 8a82
ffff Test 3 ffff ffff
ffff 8a82
ffff Test 4 ffff ffff
ffff 8a82
0a04 Spare Blks ffffffff ffffffff
ffff Re-mapped ffffffff ffffffff
ffff 8d84
ffff DRQ Tmots ffff ffff
ffff 0982
ffff Timeouts 0000 0000
ffff 0182
ffff Rebuilds 0000 0000
ffff 0182
ffff Spn Retrs ffff ffff
ffff 0982
ffff Fl Rd Recv 0000 0000
ffff 8182
ffff Fl Wt Recv 0000 0000
ffff 0182
ffff Format Err 0000 0000
ffff 0182
ffff POST Err ffff ffff
ffff 0982

```

```

Drv Nt Ry 00000001 00000000
ffff 0184
ffff Reallc Abt ffffffff ffffffff
ffff 0984
ffff IRQ Gltchs ffffffff ffffffff
ffff 0984
ffff Bus Flts 00000000 00000000
ffff 8184
ffff Hot Plgs 00000000 00000000
ffff 0184
ffff Tk Rwt Err ffff ffff
ffff 0982
ffff Rmp Wt Err ffff ffff
ffff 0982
ffff Bg Fw Rev 0000000000000000 0000000000000000
0a48 Med Flrs 0000 0000
ffff 0182
ffff Hrdw Errs 0000 0000
ffff 0182
ffff Abt Cmd Fl 0000 0000
ffff 0182
ffff Spn Up Fl 0000 0000
ffff 0182
ffff Bd Tgt Cnt 0000 0000
ffff 0182
00000000 Pred Fails 00000000 00000000
2184

DRIVE ERROR LOG:
No errors logged.

SCSI Port 1, Drive ID 2
Factory: Serial #, Firmware Rev, and
Mfg/Model #:
34 33 43 43 30 38 54 41 53 30 30 30 30 37 31 32
3CC08TAS00007124
50 51 57 32 38 33 42 30 35 00 00 00 00 43 4f 4d
QW283B05...COMP
20 41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
AQ BF01863644
00 20 20 20 20 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00

....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
34 33 43 43 30 38 54 41 53 30 30 30 30 37 31 32
3CC08TAS00007124
50 51 57 32 38 33 42 30 35 00 00 00 00 43 4f 4d
QW283B05...COMP
20 41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
AQ BF01863644
00 20 20 20 20 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00

....
Threshold Flags: 0x0001
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

```

```

Factory      Since Power
Threshold    Control
Serv. Time  0002a801  00000002
ffffffffff  8184
Read Blks   0000000943663828 00000000001cbb17
8108
Hrd Read    00000000  00000000
ffffffffff  8184
Rtry Read   00000000  00000000
ffffffffff  8184
ECC Read    0000000000000000 0000000000000000
ffffffffff  8188
Write Blks  000000002856f64a 0000000000000036
8108
Hrd Write   00000000  00000000
ffffffffff  8184
Rtry Write  00000000  00000000
ffffffffff  8184
Seeks       0000000000000000 0000000000000000
8108
Seek Errs   0000000000000000 0000000000000000
ffffffffff  8188
Spin Cyls   00000000  00000000
ffffffffff  8184
Spin Time   ffff          ffff
ffff        8a82
Test 1      ffff          ffff
ffff        0a82
Test 2      ffff          ffff
ffff        8a82
Test 3      ffff          ffff
ffff        8a82
Test 4      ffff          ffff
ffff        8a82
Spare Blks ffffffff      ffffffff
0a04
Re-mapped   ffffffff      ffffffff
ffffffffff  8d84
DRQ Tmots   ffff          ffff
ffff        0982
Timeouts    0000          0000
ffff        0182
Rebuilds    0000          0000
ffff        0182
Spn Retrs   ffff          ffff
ffff        0982
Fl Rd Recv  0000          0000
ffff        8182
Fl Wt Recv  0000          0000
ffff        0182
Format Err  0000          0000
ffff        0182
POST Err    ffff          ffff
ffff        0982
Drv Nt Ry   00000001  00000000
ffffffffff  0184
Reallc Abt ffffffff      ffffffff
ffffffffff  0984
IRQ Gltchs ffffffff      ffffffff
ffffffffff  0984
Bus Flts    00000000  00000000
ffffffffff  8184

```

```

Hot Plgs    00000000  00000000
ffffffffff  0184
Tk Rwt Err  ffff          ffff
ffff        0982
Rmp Wt Err  ffff          ffff
ffff        0982
Bg Fw Rev   0000000000000000 0000000000000000
0a48
Med Flrs    0000          0000
ffff        0182
Hrdw Errs   0000          0000
ffff        0182
Abt Cmd Fl  0000          0000
ffff        0182
Spn Up Fl    0000          0000
ffff        0182
Bd Tgt Cnt  0000          0000
ffff        0182
Pred Fails  00000000  00000000
00000000  2184

DRIVE ERROR LOG:
No errors logged.

SCSI Port 1, Drive ID 3
Factory:      Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 38 33 34 4b 30 30 30 30 37 31 32
34 3CC0834K00007124
43 4a 58 43 33 42 30 35 00 00 00 00 43 4f 4d
50 CJXC3B05....COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
00 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 38 33 34 4b 30 30 30 30 37 31 32
34 3CC0834K00007124
43 4a 58 43 33 42 30 35 00 00 00 00 43 4f 4d
50 CJXC3B05....COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
00 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Threshold Flags:      0x0001
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Factory      Since Power
Threshold    Control
Serv. Time  0002a801  00000002
ffffffffff  8184
Read Blks   0000000943dd185a 00000000001cbb17
8108
Hrd Read    00000000  00000000
ffffffffff  8184

```

```

Rtry Read   00000000  00000000
ffffffffff  8184
ECC Read    0000000000000000 0000000000000000
ffffffffff  8188
Write Blks  0000000028b69047 0000000000000036
8108
Hrd Write   00000000  00000000
ffffffffff  8184
Rtry Write  00000000  00000000
ffffffffff  8184
Seeks       0000000000000000 0000000000000000
8108
Seek Errs   0000000000000000 0000000000000000
ffffffffff  8188
Spin Cyls   00000000  00000000
ffffffffff  8184
Spin Time   ffff          ffff
ffff        8a82
Test 1      ffff          ffff
ffff        0a82
Test 2      ffff          ffff
ffff        8a82
Test 3      ffff          ffff
ffff        8a82
Test 4      ffff          ffff
ffff        8a82
Spare Blks ffffffff      ffffffff
0a04
Re-mapped   ffffffff      ffffffff
ffffffffff  8d84
DRQ Tmots   ffff          ffff
ffff        0982
Timeouts    0000          0000
ffff        0182
Rebuilds    0000          0000
ffff        0182
Spn Retrs   ffff          ffff
ffff        0982
Fl Rd Recv  0000          0000
ffff        8182
Fl Wt Recv  0000          0000
ffff        0182
Format Err  0000          0000
ffff        0182
POST Err    ffff          ffff
ffff        0982
Drv Nt Ry   00000001  00000000
ffffffffff  0184
Reallc Abt ffffffff      ffffffff
ffffffffff  0984
IRQ Gltchs ffffffff      ffffffff
ffffffffff  0984
Bus Flts    00000000  00000000
ffffffffff  8184
Hot Plgs    00000000  00000000
ffffffffff  0184
Tk Rwt Err  ffff          ffff
ffff        0982
Rmp Wt Err  ffff          ffff
ffff        0982
Bg Fw Rev   0000000000000000 0000000000000000
0a48

```

```

Med Flrs 0000 0000
ffff 0182
Hrdw Errs 0000 0000
ffff 0182
Abt Cmd Fl 0000 0000
ffff 0182
Spn Up Fl 0000 0000
ffff 0182
Bd Tgt Cnt 0000 0000
ffff 0182
Pred Fails 00000000 00000000
00000000 2184

DRIVE ERROR LOG:
No errors logged.

SCSI Port 1, Drive ID 4
Factory: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 38 54 5a 39 30 30 30 30 37 31 32
34 3CC08TZ900007124
42 46 53 4e 33 42 30 35 00 00 00 00 43 4f 4d
50 BFSN3B05...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 38 54 5a 39 30 30 30 30 37 31 32
34 3CC08TZ900007124
42 46 53 4e 33 42 30 35 00 00 00 00 43 4f 4d
50 BFSN3B05...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Threshold Flags: 0x0001
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold Factory Since Power
Control
Serv. Time 0002a801 00000002
ffffffffff 8184
8108 Read Blks 0000000942e9157b 00000000001cbb17
8108 Hrd Read 00000000 00000000
ffffffffff 8184
ffffffffff Rtry Read 00000000 00000000
ffffffffff 8184
ffffffffff ECC Read 0000000000000000 0000000000000000
ffffffffff 8188
8108 Write Blks 0000000028954ab0 0000000000000036
8108 Hrd Write 00000000 00000000
ffffffffff 8184

```

```

Rtry Write 00000000 00000000
ffffffffff 8184
Seeks 0000000000000000 0000000000000000
8108
Seek Errs 0000000000000000 0000000000000000
ffffffffff 8188
Spin Cyls 00000000 00000000
ffffffffff 8184
Spin Time ffff ffff
ffff 8a82
ffff Test 1 ffff ffff
ffff 0a82
ffff Test 2 fff ffff
ffff 8a82
ffff Test 3 ffff ffff
ffff 8a82
ffff Test 4 ffff ffff
ffff 8a82
Spare Blks ffffffff ffffffff
0a04
Re-mapped ffffffff ffffffff
ffffffffff 8d84
DRQ Tmots ffff ffff
ffff 0982
Timeouts 0000 0000
ffff 0182
Rebuilds 0000 0000
ffff 0182
Spn Retrs ffff ffff
ffff 0982
Fl Rd Recv 0000 0000
ffff 8182
Fl Wt Recv 0000 0000
ffff 0182
Format Err 0000 0000
ffff 0182
POST Err ffff ffff
ffff 0982
Drv Nt Ry 00000001 00000000
ffffffffff 0184
Reallc Abt ffffffff ffffffff
ffffffffff 0984
IRQ Glchs ffffffff ffffffff
ffffffffff 0984
Bus Flts 00000000 00000000
ffffffffff 8184
Hot Plgs 00000000 00000000
ffffffffff 0184
ffff Tk Rwt Err ffff ffff
ffff 0982
ffff Rmp Wt Err ffff ffff
ffff 0982
0a48 Bg Fw Rev 0000000000000000 0000000000000000
ffff Med Flrs 0000 0000
ffff 0182
ffff Hrdw Errs 0000 0000
ffff 0182
ffff Abt Cmd Fl 0000 0000
ffff 0182
ffff Spn Up Fl 0000 0000
ffff 0182

```

```

Bd Tgt Cnt 0000 0000
ffff 0182
Pred Fails 00000000 00000000
00000000 2184

DRIVE ERROR LOG:
No errors logged.

SCSI Port 1, Drive ID 5
Factory: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 38 53 38 56 30 30 30 30 37 31 32
34 3CC08S8V00007124
43 48 59 4a 33 42 30 35 00 00 00 00 43 4f 4d
50 CHYJ3B05...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 38 53 38 56 30 30 30 30 37 31 32
34 3CC08S8V00007124
43 48 59 4a 33 42 30 35 00 00 00 00 43 4f 4d
50 CHYJ3B05...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Threshold Flags: 0x0001
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold Factory Since Power
Control
Serv. Time 0002a801 00000002
ffffffffff 8184
8108 Read Blks 0000000942c5c71d 00000000001cbb17
8108 Hrd Read 00000000 00000000
ffffffffff 8184
ffffffffff Rtry Read 00000000 00000000
ffffffffff 8184
ffffffffff ECC Read 0000000000000000 0000000000000000
ffffffffff 8188
8108 Write Blks 000000002827d847 0000000000000036
8108 Hrd Write 00000000 00000000
ffffffffff 8184
ffffffffff Rtry Write 00000000 00000000
ffffffffff 8184
ffffffffff Seeks 0000000000000000 0000000000000000
8108 Seek Errs 0000000000000000 0000000000000000
ffffffffff 8188
ffffffffff Spin Cyls 00000000 00000000
ffffffffff 8184

```

```

Spin Time ffff ffff
ffff 8a82
ffff Test 1 ffff ffff
ffff 0a82
ffff Test 2 ffff ffff
ffff 8a82
ffff Test 3 ffff ffff
ffff 8a82
ffff Test 4 ffff ffff
ffff 8a82
ffff Spare Blks ffffffff ffffffff
0a04
ffff Re-mapped ffffffff ffffffff
ffff 8d84
ffff DRQ Tmots ffff ffff
ffff 0982
ffff Timeouts 0000 0000
ffff 0182
ffff Rebuilds 0000 0000
ffff 0182
ffff Spn Retrs ffff ffff
ffff 0982
ffff Fl Rd Recv 0000 0000
ffff 8182
ffff Fl Wt Recv 0000 0000
ffff 0182
ffff Format Err 0000 0000
ffff 0182
ffff POST Err ffff ffff
ffff 0982
ffff Drv Nt Ry 00000001 00000000
ffff 0184
ffff Reallc Abt ffffffff ffffffff
ffff 0984
ffff IRQ Gltchs ffffffff ffffffff
ffff 0984
ffff Bus Flts 00000000 00000000
ffff 8184
ffff Hot Plgs 00000000 00000000
ffff 0184
ffff Tk Rwt Err ffff ffff
ffff 0982
ffff Rmp Wt Err ffff ffff
ffff 0982
ffff Bg Fw Rev 0000000000000000 0000000000000000
0a48
ffff Med Flrs 0000 0000
ffff 0182
ffff Hrdw Errs 0000 0000
ffff 0182
ffff Abt Cmd Fl 0000 0000
ffff 0182
ffff Spn Up Fl 0000 0000
ffff 0182
ffff Bd Tgt Cnt 0000 0000
ffff 0182
ffff Pred Fails 00000000 00000000
00000000 2184

DRIVE ERROR LOG:
No errors logged.

SCSI Port 1, Drive ID 6

```

```

Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 1, Drive ID 7
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 1, Drive ID 8
Factory: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 38 56 38 4a 30 30 30 30 37 31 32
34 3CC08V8J00007124
51 56 42 55 33 42 30 35 00 00 00 00 43 4f 4d
50 QVBU3B05....COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 38 56 38 4a 30 30 30 30 37 31 32
34 3CC08V8J00007124
51 56 42 55 33 42 30 35 00 00 00 00 43 4f 4d
50 QVBU3B05....COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Threshold Flags: 0x0001
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold Factory Since Power
Control
Serv. Time 0002a7d0 00000002
ffff 8184
Read Blks 000000094320bbb3 00000000001cbb17
8108
Hrd Read 00000000 00000000
ffff 8184
Rtry Read 00000000 00000000
ffff 8184
ECC Read 0000000000000000 0000000000000000
ffff 8188
Write Blks 000000002840f8fb 0000000000000036
8108
Hrd Write 00000000 00000000
ffff 8184
Rtry Write 00000000 00000000
ffff 8184
Seeks 0000000000000000 0000000000000000
8108
Seek Errs 0000000000000000 0000000000000000
ffff 8188

```

```

Spin Cyls 00000000 00000000
ffff 8184
ffff Spin Time ffff ffff
ffff 8a82
ffff Test 1 ffff ffff
ffff 0a82
ffff Test 2 ffff ffff
ffff 8a82
ffff Test 3 ffff ffff
ffff 8a82
ffff Test 4 ffff ffff
ffff 8a82
ffff Spare Blks ffffffff ffffffff
0a04
ffff Re-mapped ffffffff ffffffff
ffff 8d84
ffff DRQ Tmots ffff ffff
ffff 0982
ffff Timeouts 0000 0000
ffff 0182
ffff Rebuilds 0000 0000
ffff 0182
ffff Spn Retrs ffff ffff
ffff 0982
ffff Fl Rd Recv 0000 0000
ffff 8182
ffff Fl Wt Recv 0000 0000
ffff 0182
ffff Format Err 0000 0000
ffff 0182
ffff POST Err ffff ffff
ffff 0982
ffff Drv Nt Ry 00000000 00000000
ffff 0184
ffff Reallc Abt ffffffff ffffffff
ffff 0984
ffff IRQ Gltchs ffffffff ffffffff
ffff 0984
ffff Bus Flts 00000000 00000000
ffff 8184
ffff Hot Plgs 00000000 00000000
ffff 0184
ffff Tk Rwt Err ffff ffff
ffff 0982
ffff Rmp Wt Err ffff ffff
ffff 0982
ffff Bg Fw Rev 0000000000000000 0000000000000000
0a48
ffff Med Flrs 0000 0000
ffff 0182
ffff Hrdw Errs 0000 0000
ffff 0182
ffff Abt Cmd Fl 0000 0000
ffff 0182
ffff Spn Up Fl 0000 0000
ffff 0182
ffff Bd Tgt Cnt 0000 0000
ffff 0182
ffff Pred Fails 00000000 00000000
00000000 2184

DRIVE ERROR LOG:
No errors logged.

```



```

SCSI Port 1, Drive ID 9
Factory:      Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 38 47 5a 44 30 30 30 30 37 31 32
34 3CC08GZD00007124
43 4a 43 43 33 42 30 35 00 00 00 00 43 4f 4d
50 CJCC3B05...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
00 20 20 20 20 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 38 47 5a 44 30 30 30 30 37 31 32
34 3CC08GZD00007124
43 4a 43 43 33 42 30 35 00 00 00 00 43 4f 4d
50 CJCC3B05...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
00 20 20 20 20 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Threshold Flags:      0x0001
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold      Factory      Since Power
Control
Serv. Time 0002a7d0      00000002
ffffffffff 8184
ffffffffff Read Blks 000000093b3ba5f7 0000000001cbb17
8108
ffffffffff Hrd Read 00000000      00000000
ffffffffff 8184
ffffffffff Rtry Read 00000000      00000000
ffffffffff 8184
ffffffffff ECC Read 0000000000000000 0000000000000000
ffffffffff 8188
ffffffffff Write Blks 000000002a270ce8 0000000000000036
8108
ffffffffff Hrd Write 00000000      00000000
ffffffffff 8184
ffffffffff Rtry Write 00000000      00000000
ffffffffff 8184
ffffffffff Seeks 0000000000000000 0000000000000000
8108
ffffffffff Seek Errs 0000000000000000 0000000000000000
ffffffffff 8188
ffffffffff Spin Cyls 00000000      00000000
ffffffffff 8184
ffffffffff Spin Time ffff      ffff
ffff 8a82
ffff Test 1 ffff      ffff
ffff 0a82
ffff Test 2 ffff      ffff
ffff 8a82
ffff Test 3 ffff      ffff
ffff 8a82

```

```

Test 4      ffff      ffff
ffff 8a82
ffff Spare Blks ffffffff      ffffffff
0a04
ffff Re-mapped ffffffff      ffffffff
ffff 8d84
ffff DRQ Tmots ffff      ffff
ffff 0982
ffff Timeouts 0000      0000
ffff 0182
ffff Rebuilds 0000      0000
ffff 0182
ffff Spn Retrs ffff      ffff
ffff 0982
ffff Fl Rd Recv 0000      0000
ffff 8182
ffff Fl Wt Recv 0000      0000
ffff 0182
ffff Format Err 0000      0000
ffff 0182
ffff POST Err ffff      ffff
ffff 0982
ffff Drv Nt Ry 00000000      00000000
ffff 0184
ffff Reallc Abt ffffffff      ffffffff
ffff 0984
ffff IRQ Gltns ffffffff      ffffffff
ffff 0984
ffff Bus Flts 00000000      00000000
ffff 8184
ffff Hot Plgs 00000000      00000000
ffff 0184
ffff Tk Rwt Err ffff      ffff
ffff 0982
ffff Rmp Wt Err ffff      ffff
ffff 0982
0a48 Bg Fw Rev 0000000000000000 0000000000000000
ffff Med Flrs 0000      0000
ffff 0182
ffff Hrdw Errs 0000      0000
ffff 0182
ffff Abt Cmd Fl 0000      0000
ffff 0182
ffff Spn Up Fl 0000      0000
ffff 0182
ffff Bd Tgt Cnt 0000      0000
ffff 0182
ffff Pred Fails 00000000      00000000
00000000 2184

DRIVE ERROR LOG:
No errors logged.

SCSI Port 1, Drive ID 10
Factory:      Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 38 41 56 54 30 30 30 30 37 31 32
34 3CC08AVT00007124
4e 36 56 45 33 42 30 35 00 00 00 00 43 4f 4d
50 N6VE3B05...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644

```

```

20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 38 41 56 54 30 30 30 30 37 31 32
34 3CC08AVT00007124
4e 36 56 45 33 42 30 35 00 00 00 00 43 4f 4d
50 N6VE3B05...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
00 20 20 20 20 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Threshold Flags:      0x0001
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold      Factory      Since Power
Control
Serv. Time 0002a7d0      00000002
ffffffffff 8184
ffffffffff Read Blks 000000093b36ed4b 0000000001cbb17
8108
ffffffffff Hrd Read 00000000      00000000
ffffffffff 8184
ffffffffff Rtry Read 00000000      00000000
ffffffffff 8184
ffffffffff ECC Read 0000000000000000 0000000000000000
ffffffffff 8188
ffffffffff Write Blks 000000002a169e2c 0000000000000036
8108
ffffffffff Hrd Write 00000000      00000000
ffffffffff 8184
ffffffffff Rtry Write 00000000      00000000
ffffffffff 8184
ffffffffff Seeks 0000000000000000 0000000000000000
8108
ffffffffff Seek Errs 0000000000000000 0000000000000000
ffffffffff 8188
ffffffffff Spin Cyls 00000000      00000000
ffffffffff 8184
ffffffffff Spin Time ffff      ffff
ffff 8a82
ffff Test 1 ffff      ffff
ffff 0a82
ffff Test 2 ffff      ffff
ffff 8a82
ffff Test 3 ffff      ffff
ffff 8a82
ffff Test 4 ffff      ffff
ffff 8a82
ffff Spare Blks ffffffff      ffffffff
0a04
ffff Re-mapped ffffffff      ffffffff
ffff 8d84
ffff DRQ Tmots ffff      ffff
ffff 0982
ffff Timeouts 0000      0000
ffff 0182

```

```

Rebuilds 0000 0000
ffff 0182
ffff Spn Retrs ffff ffff
ffff 0982
ffff Fl Rd Recv 0000 0000
ffff 8182
ffff Fl Wt Recv 0000 0000
ffff 0182
ffff Format Err 0000 0000
ffff 0182
ffff POST Err ffff ffff
ffff 0982
ffff Drv Nt Ry 00000000 00000000
ffff 0184
ffff Reallc Abt ffffffff ffffffff
ffff 0984
ffff IRQ Gltchs ffffffff ffffffff
ffff 0984
ffff Bus Flts 00000000 00000000
ffff 8184
ffff Hot Plgs 00000000 00000000
ffff 0184
ffff Tk Rwt Err ffff ffff
ffff 0982
ffff Rmp Wt Err ffff ffff
ffff 0982
ffff Bg Fw Rev 0000000000000000 0000000000000000
0a48
ffff Med Flrs 0000 0000
ffff 0182
ffff Hrdw Errs 0000 0000
ffff 0182
ffff Abt Cmd Fl 0000 0000
ffff 0182
ffff Spn Up Fl 0000 0000
ffff 0182
ffff Bd Tgt Cnt 0000 0000
ffff 0182
ffff Pred Fails 00000000 00000000
00000000 2184

DRIVE ERROR LOG:
No errors logged.

SCSI Port 1, Drive ID 11
Factory: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 38 4c 44 56 30 30 30 30 37 31 32
34 3CC08LDV00007124
43 4a 48 47 33 42 30 35 00 00 00 00 43 4f 4d
50 CJHG3B05....COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00 00
00 .....
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 38 4c 44 56 30 30 30 30 37 31 32
34 3CC08LDV00007124
43 4a 48 47 33 42 30 35 00 00 00 00 43 4f 4d
50 CJHG3B05....COMP

```

```

41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
00 20 20 20 00 00 00 00 00 00 00 00 00 00
00 .....
....
Threshold Flags: 0x0001
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Factory Since Power
Threshold Control
Serv. Time 0002a7d0 00000002
ffff 8184
8108 Read Blks 000000093b319d47 00000000001cbb17
ffff Hrd Read 00000000 00000000
ffff 8184
ffff Rtry Read 00000000 00000000
ffff 8184
ffff ECC Read 0000000000000000 0000000000000000
ffff 8188
ffff Write Blks 000000002a124a0e 0000000000000036
8108
ffff Hrd Write 00000000 00000000
ffff 8184
ffff Rtry Write 00000000 00000000
ffff 8184
8108 Seeks 0000000000000000 0000000000000000
ffff Seek Errs 0000000000000000 0000000000000000
ffff 8188
ffff Spin Cyls 00000000 00000000
ffff 8184
ffff Spin Time ffff ffff
ffff 8a82
ffff Test 1 ffff ffff
ffff 0a82
ffff Test 2 ffff ffff
ffff 8a82
ffff Test 3 ffff ffff
ffff 8a82
ffff Test 4 ffff ffff
ffff 8a82
0a04 Spare Blks ffffffff ffffffff
ffff Re-mapped ffffffff ffffffff
ffff 8d84
ffff DRQ Tmots ffff ffff
ffff 0982
ffff Timeouts 0000 0000
ffff 0182
ffff Rebuilds 0000 0000
ffff 0182
ffff Spn Retrs ffff ffff
ffff 0982
ffff Fl Rd Recv 0000 0000
ffff 8182
ffff Fl Wt Recv 0000 0000
ffff 0182
ffff Format Err 0000 0000
ffff 0182

```

```

POST Err ffff ffff
ffff 0982
ffff Drv Nt Ry 00000000 00000000
ffff 0184
ffff Reallc Abt ffffffff ffffffff
ffff 0984
ffff IRQ Gltchs ffffffff ffffffff
ffff 0984
ffff Bus Flts 00000000 00000000
ffff 8184
ffff Hot Plgs 00000000 00000000
ffff 0184
ffff Tk Rwt Err ffff ffff
ffff 0982
ffff Rmp Wt Err ffff ffff
ffff 0982
ffff Bg Fw Rev 0000000000000000 0000000000000000
0a48
ffff Med Flrs 0000 0000
ffff 0182
ffff Hrdw Errs 0000 0000
ffff 0182
ffff Abt Cmd Fl 0000 0000
ffff 0182
ffff Spn Up Fl 0000 0000
ffff 0182
ffff Bd Tgt Cnt 0000 0000
ffff 0182
ffff Pred Fails 00000000 00000000
00000000 2184

DRIVE ERROR LOG:
No errors logged.

SCSI Port 1, Drive ID 12
Factory: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 38 42 33 31 30 30 30 30 37 31 32
33 3CC08B3100007123
31 5a 47 33 33 42 30 35 00 00 00 00 43 4f 4d
50 LZG33B05....COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
00 20 20 20 00 00 00 00 00 00 00 00 00 00
00 .....
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 38 42 33 31 30 30 30 30 37 31 32
33 3CC08B3100007123
31 5a 47 33 33 42 30 35 00 00 00 00 43 4f 4d
50 LZG33B05....COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
00 20 20 20 00 00 00 00 00 00 00 00 00 00
00 .....
....
Threshold Flags: 0x0001
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

```

```

Threshold      Factory      Since Power
Control
Serv. Time 0002a7d0    00000002
ffffff      8184
Read Blks 000000093b0fa86a 00000000001cbb17
8108
Hrd Read 00000000    00000000
ffffff      8184
Rtry Read 00000000    00000000
ffffff      8184
ECC Read 0000000000000000 0000000000000000
ffffff      8188
Write Blks 000000002a88503e 00000000000000036
8108
Hrd Write 00000000    00000000
ffffff      8184
Rtry Write 00000000    00000000
ffffff      8184
Seeks 0000000000000000 0000000000000000
8108
Seek Errs 0000000000000000 0000000000000000
ffffff      8188
Spin Cyls 00000000    00000000
ffffff      8184
Spin Time ffff      ffff
ffff      8a82
Test 1 ffff      ffff
ffff      0a82
Test 2 ffff      ffff
ffff      8a82
Test 3 ffff      ffff
ffff      8a82
Test 4 ffff      ffff
ffff      8a82
Spare Blks ffffffff      ffffffff
0a04
Re-mapped ffffffff      ffffffff
ffffff      8d84
DRQ Tmots ffff      ffff
ffff      0982
Timeouts 0000    0000
ffff      0182
Rebuilds 0000    0000
ffff      0182
Spn Retrs ffff      ffff
ffff      0982
Fl Rd Recv 0000    0000
ffff      8182
Fl Wt Recv 0000    0000
ffff      0182
Format Err 0000    0000
ffff      0182
POST Err ffff      ffff
ffff      0982
Drv Nt Ry 00000000    00000000
ffffff      0184
Reallc Abt ffffffff      ffffffff
ffffff      0984
IRQ Gltchs ffffffff      ffffffff
ffffff      0984
Bus Flts 00000000    00000000
ffffff      8184

```

```

Hot Plgs 00000000    00000000
ffffff      0184
Tk Rwt Err ffff      ffff
ffff      0982
Rmp Wt Err ffff      ffff
ffff      0982
Bg Fw Rev 0000000000000000 0000000000000000
0a48
Med Flrs 0000    0000
ffff      0182
Hrdw Errs 0000    0000
ffff      0182
Abt Cmd Fl 0000    0000
ffff      0182
Spn Up Fl 0000    0000
ffff      0182
Bd Tgt Cnt 0000    0000
ffff      0182
Pred Fails 00000000    00000000
00000000    2184

DRIVE ERROR LOG:
No errors logged.

SCSI Port 1, Drive ID 13
Factory: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 38 56 32 43 30 30 30 30 37 31 32
34 3CC08V2C00007124
43 48 5a 52 33 42 30 35 00 00 00 00 43 4f 4d
50 CHZR3B05....COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
00 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 38 56 32 43 30 30 30 30 37 31 32
34 3CC08V2C00007124
43 48 5a 52 33 42 30 35 00 00 00 00 43 4f 4d
50 CHZR3B05....COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
00 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Threshold Flags: 0x0001
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold      Factory      Since Power
Control
Serv. Time 0002a7d0    00000002
ffffff      8184
Read Blks 000000093b419e0e 00000000001cbb17
8108
Hrd Read 00000000    00000000
ffffff      8184

```

```

Rtry Read 00000000    00000000
ffffff      8184
ECC Read 0000000000000000 0000000000000000
ffffff      8188
Write Blks 000000002a59537f 00000000000000036
8108
Hrd Write 00000000    00000000
ffffff      8184
Rtry Write 00000000    00000000
ffffff      8184
Seeks 0000000000000000 0000000000000000
8108
Seek Errs 0000000000000000 0000000000000000
ffffff      8188
Spin Cyls 00000000    00000000
ffffff      8184
Spin Time ffff      ffff
ffff      8a82
Test 1 ffff      ffff
ffff      0a82
Test 2 ffff      ffff
ffff      8a82
Test 3 ffff      ffff
ffff      8a82
Test 4 ffff      ffff
ffff      8a82
Spare Blks ffffffff      ffffffff
0a04
Re-mapped ffffffff      ffffffff
ffffff      8d84
DRQ Tmots ffff      ffff
ffff      0982
Timeouts 0000    0000
ffff      0182
Rebuilds 0000    0000
ffff      0182
Spn Retrs ffff      ffff
ffff      0982
Fl Rd Recv 0000    0000
ffff      8182
Fl Wt Recv 0000    0000
ffff      0182
Format Err 0000    0000
ffff      0182
POST Err ffff      ffff
ffff      0982
Drv Nt Ry 00000000    00000000
ffffff      0184
Reallc Abt ffffffff      ffffffff
ffffff      0984
IRQ Gltchs ffffffff      ffffffff
ffffff      0984
Bus Flts 00000000    00000000
ffffff      8184
Hot Plgs 00000000    00000000
ffffff      0184
Tk Rwt Err ffff      ffff
ffff      0982
Rmp Wt Err ffff      ffff
ffff      0982
Bg Fw Rev 0000000000000000 0000000000000000
0a48

```

```

Med Flrs 0000 0000
ffff 0182
ffff Hrdw Errs 0000 0000
ffff 0182
ffff Abt Cmd Fl 0000 0000
ffff 0182
ffff Spn Up Fl 0000 0000
ffff 0182
ffff Bd Tgt Cnt 0000 0000
ffff 0182
Pred Fails 00000000 00000000
00000000 2184

```

DRIVE ERROR LOG:

```

Error Log Header:
Parameter Length = 0x14
Entry Size = 0x0014
Current Entry = 0x01
Total Errors Logged = 0x00000001
Error Log Data:

```

SCSI Time	CAM Op	Sense Key	Sense Code	Qual	Block(V1)
02	04	01	1f	00	00000000(0)
00000001	37	0000			

SCSI Port 1, Drive ID 14

```

Factory: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 30 54 46 4b 30 30 30 30 37 30 35
32 3CC00TFK00007052
48 41 4b 42 33 42 30 32 00 00 00 00 43 4f 4d
50 HAKB3B02...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
00 20 20 20 20 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....

```

Since Power: Serial #, Firmware Rev, and

```

Mfg/Model #:
33 43 43 30 30 54 46 4b 30 30 30 30 37 30 35
32 3CC00TFK00007052
48 41 4b 42 33 42 30 32 00 00 00 00 43 4f 4d
50 HAKB3B02...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
00 20 20 20 20 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....

```

```

Threshold Flags: 0x0001
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

```

Threshold	Factory Control	Since Power
ffffffffff	8184	

```

Read Blks 000000100dac14f2 00000000001cbb17
8108
Hrd Read 00000000 00000000
ffffff 8184
Rtry Read 00000000 00000000
ffffff 8184
ECC Read 0000000000000000 0000000000000000
ffffff 8188
Write Blks 000000003ecdc5b4 0000000000000036
8108
Hrd Write 00000000 00000000
ffffff 8184
Rtry Write 00000000 00000000
ffffff 8184
Seeks 00000000000f8901 00000000000000b0
8108
Seek Errs 0000000000000000 0000000000000000
ffffff 8188
Spin Cyls 00000000 00000000
ffffff 8184
Spin Time 0000 0000
01c2 a282
Test 1 ffff ffff
ffff 0a82
Test 2 0006 0005
0028 a282
Test 3 002b 002b
0096 a282
Test 4 0047 0047
012c a282
Spare Blks fffffff ffffff
0a04
Re-mapped 0000163e 00000000
0000e666 a584
DRQ Tmots ffff ffff
ffff 0982
Timeouts 0000 0000
ffff 0182
Rebuilds 0000 0000
ffff 0182
Spn Retrs ffff ffff
ffff 0982
Fl Rd Recv 0000 0000
ffff 8182
Fl Wt Recv 0000 0000
ffff 0182
Format Err 0000 0000
ffff 0182
POST Err ffff ffff
ffff 0982
Drv Nt Ry 00000000 00000000
ffffff 0184
Reallc Abt fffffff fffffff
ffffff 0984
IRQ Gltns fffffff fffffff
ffffff 0984
Bus Flts 00000000 00000000
ffffff 8184
Hot Plgs 00000000 00000000
ffffff 0184
Tk Rwt Err ffff ffff
ffff 0982

```

```

Rmp Wt Err ffff ffff
ffff 0982
Bg Fw Rev 0000000000000000 0000000000000000
0a48
Med Flrs 0000 0000
ffff 0182
ffff Hrdw Errs 0000 0000
ffff 0182
ffff Abt Cmd Fl 0000 0000
ffff 0182
ffff Spn Up Fl 0000 0000
ffff 0182
ffff Bd Tgt Cnt 0000 0000
ffff 0182
Pred Fails 00000000 00000000
00000000 2184

```

DRIVE ERROR LOG:

```

Error Log Header:
Parameter Length = 0x14
Entry Size = 0x0014
Current Entry = 0x03
Total Errors Logged = 0x00000003
Error Log Data:

```

SCSI Time	CAM Op	Sense Key	Sense Code	Qual	Block(V1)
00	22	00	00	00	00000000(0)
00012769	12	0000			
00	22	00	00	00	00000000(0)
0001276a	12	0000			
00	22	00	00	00	00000000(0)
000127a6	12	0000			

SCSI Port 1, Drive ID 15

```

Factory: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 31 30 38 41 30 30 30 30 37 30 35
31 3CC0108A00007051
4d 52 4d 4d 33 42 30 32 00 00 00 00 43 4f 4d
50 MRMM3B02...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
00 20 20 20 20 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....

```

Since Power: Serial #, Firmware Rev, and

```

Mfg/Model #:
33 43 43 30 31 30 38 41 30 30 30 30 37 30 35
31 3CC0108A00007051
4d 52 4d 4d 33 42 30 32 00 00 00 00 43 4f 4d
50 MRMM3B02...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
00 20 20 20 20 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....

```

```

Threshold Flags: 0x0001

```

```

Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold      Factory      Since Power
Control
Serv. Time 0004b44d 00000002
8108 Read Blks 000000101823daal 00000000001cbb17
Hrd Read 00000000 00000000
8108 Rtry Read 00000000 00000000
ECC Read 00000000000000000 00000000000000000
8108 Write Blks 000000003f017ff6 00000000000000036
Hrd Write 00000000 00000000
8108 Rtry Write 00000000 00000000
Seeks 000000000000f5627 000000000000000b0
Seek Errs 00000000000000000 00000000000000000
Spin Cyls 00000000 00000000
Spin Time 0000
01c2 Test 1 ffff
ffff Test 2 0005 0006
0028 Test 3 002b 002a
0096 Test 4 0047 0046
012c Spare Blks ffffffff ffffffff
0a04 Re-mapped 00001da6 00000000
0000e666 DRQ Tmots ffff ffff
ffff Timeouts 0000 0000
ffff Rebuilds 0000 0000
ffff Spn Retrs ffff ffff
ffff Fl Rd Recv 0000 0000
ffff Fl Wt Recv 0000 0000
ffff Format Err 0000 0000
ffff POST Err ffff ffff
ffff Drv Nt Ry 00000000 00000000
ffff Reallc Abt ffffffff ffffffff
ffff 0984

```

```

IRQ Gltchs ffffffff ffffffff
0984
Bus Flts 00000000 00000000
8184
Hot Plgs 00000000 00000000
0184
Tk Rwt Err ffff ffff
0982
Rmp Wt Err ffff ffff
0982
Bg Fw Rev 00000000000000000 00000000000000000
0a48 Med Flrs 0000 0000
0182
Hrdw Errs 0000 0000
0182
Abt Cmd Fl 0000 0000
0182
Spn Up Fl 0000 0000
0182
Bd Tgt Cnt 0000 0000
0182
Pred Fails 00000000 00000000
00000000 2184

DRIVE ERROR LOG:
Error Log Header:
Parameter Length = 0x14
Entry Size = 0x0014
Current Entry = 0x03
Total Errors Logged = 0x00000003
Error Log Data:

SCSI CAM Sense Sense
Stat Stat Key Code Qual Block(VL)
Time Op Info
---- - - - - - - - - - - - - - - - - -
00 22 00 00 00 00000000(0)
000124f4 12 0000
00 22 00 00 00 00000000(0)
000124f5 12 0000
00 22 00 00 00 00000000(0)
00012531 12 0000

SCSI Port 2, Drive ID 0
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 1
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 2
Not Available

DRIVE ERROR LOG:
Not Available

```

```

SCSI Port 2, Drive ID 3
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 4
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 5
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 6
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 7
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 8
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 9
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 10
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 11
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 12
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 13
Not Available

```

```

DRIVE ERROR LOG:
  Not Available

SCSI Port 2, Drive ID 14
  Not Available

DRIVE ERROR LOG:
  Not Available

SCSI Port 2, Drive ID 15
  Not Available

DRIVE ERROR LOG:
  Not Available

SCSI Port 3, Drive ID 0
  Factory:      Serial #, Firmware Rev, and
Mfg/Model #:
  33 43 43 30 30 4a 59 4c 30 30 30 30 37 30 35
31  3CC00JYL00007051
  48 45 38 51 33 42 30 32 00 00 00 00 43 4f 4d
50  HE8Q3B02....COMP
  41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20  AQ BF01863644
  20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00  .....
  00 00 00 00
....
  Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
  33 43 43 30 30 4a 59 4c 30 30 30 30 37 30 35
31  3CC00JYL00007051
  48 45 38 51 33 42 30 32 00 00 00 00 43 4f 4d
50  HE8Q3B02....COMP
  41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20  AQ BF01863644
  20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00  .....
  00 00 00 00
....
  Threshold Flags:      0x0001
  Serial Number Control: 0x8054
  Firmware Revision Control: 0x8248
  Mfg/Model Number Control: 0x8268

Threshold      Factory      Since Power
Control
  Serv. Time 00049f3c      00000002
ffffffffff 8184
  Read Blks 0000000d7233e513 0000000000000117
8108
  Hrd Read 00000000      00000000
ffffffffff 8184
  Rtry Read 00000000      00000000
ffffffffff 8184
  ECC Read 0000000000000000 0000000000000000
ffffffffff 8188
  Write Blks 000000003b243ffe 0000000000000036
8108
  Hrd Write 00000000      00000000
ffffffffff 8184
  Rtry Write 00000000      00000000
ffffffffff 8184

```

```

Seeks      00000000000ff2fb 00000000000000b0
8108
  Seek Errs 0000000000000000 0000000000000000
ffffffffff 8188
  Spin Cyls 00000000      00000000
ffffffffff 8184
  Spin Time 0000      0000
01c2
  Test 1     ffff      ffff
ffff      0a82
  Test 2     0006      0005
0028
  Test 3     a282      002b
0096
  Test 4     a282      0046
012c
  Spare Blks ffffffff      ffffffff
0a04
  Re-mapped 00001fff      00000000
0000e666
  DRQ Tmots ffff      ffff
ffff      0982
  Timeouts 0000      0000
ffff      0182
  Rebuilds 0000      0000
ffff      0182
  Spn Retrs ffff      ffff
ffff      0982
  Fl Rd Recv 0000      0000
ffff      8182
  Fl Wt Recv 0000      0000
ffff      0182
  Format Err 0000      0000
ffff      0182
  POST Err  ffff      ffff
ffff      0982
  Drv Nt Ry 00000000      00000000
ffffffffff 0184
  Reallc Abt ffffffff      ffffffff
ffffffffff 0984
  IRQ Gltns ffffffff      ffffffff
ffffffffff 0984
  Bus Flts  00000000      00000000
ffffffffff 8184
  Hot Plgs  00000000      00000000
ffffffffff 0184
  Tk Rwt Err ffff      ffff
ffff      0982
  Rmp Wt Err ffff      ffff
ffff      0982
  Bg Fw Rev 0000000000000000 0000000000000000
0a48
  Med Flrs 0000      0000
ffff      0182
  Hrdw Errs 0000      0000
ffff      0182
  Abt Cmd Fl 0000      0000
ffff      0182
  Spn Up Fl 0000      0000
ffff      0182
  Bd Tgt Cnt 0000      0000
ffff      0182

```

```

Pred Fails 00000000      00000000
00000000      2184

DRIVE ERROR LOG:
  Error Log Header:
    Parameter Length = 0x14
    Entry Size       = 0x0014
    Current Entry    = 0x01
    Total Errors Logged = 0x00000001
  Error Log Data:

SCSI CAM Sense Sense
Stat Stat Key Code Qual Block (V1)
Time Op Info
---- -
02 04 01 1f 00 00000000(0)
00000000 37 0000

SCSI Port 3, Drive ID 1
  Factory:      Serial #, Firmware Rev, and
Mfg/Model #:
  33 43 43 30 30 4b 50 34 30 30 30 30 37 30 35
30  3CC00KP400007050
  4b 47 53 31 33 42 30 32 00 00 00 00 43 4f 4d
50  KGS13B02....COMP
  41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20  AQ BF01863644
  20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00  .....
  00 00 00 00
....
  Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
  33 43 43 30 30 4b 50 34 30 30 30 30 37 30 35
30  3CC00KP400007050
  4b 47 53 31 33 42 30 32 00 00 00 00 43 4f 4d
50  KGS13B02....COMP
  41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20  AQ BF01863644
  20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00  .....
  00 00 00 00
....
  Threshold Flags:      0x0001
  Serial Number Control: 0x8054
  Firmware Revision Control: 0x8248
  Mfg/Model Number Control: 0x8268

Threshold      Factory      Since Power
Control
  Serv. Time 00049f3c      00000002
ffffffffff 8184
  Read Blks 0000000d70850dbc 0000000000000117
8108
  Hrd Read 00000000      00000000
ffffffffff 8184
  Rtry Read 00000000      00000000
ffffffffff 8184
  ECC Read 0000000000000000 0000000000000000
ffffffffff 8188
  Write Blks 000000003add436 0000000000000036
8108

```

```

Hrd Write 00000000 00000000
ffffff 8184
Rtry Write 00000000 00000000
ffffff 8184
Seeks 000000000000fcbac 00000000000000b0
8108
Seek Errs 0000000000000000 0000000000000000
ffffff 8188
Spin Cyls 00000000 00000000
ffffff 8184
Spin Time 0000 0000
01c2 a282
Test 1 ffff ffff
ffff 0a82
Test 2 0005 0005
0028 a282
Test 3 002b 002b
0096 a282
Test 4 0047 0046
012c a282
Spare Blks ffffffff ffffffff
0a04
Re-mapped 0000097f 00000000
0000e666 a584
DRQ Tmots ffff ffff
ffff 0982
Timeouts 0000 0000
ffff 0182
Rebuilds 0000 0000
ffff 0182
Spn Retrs ffff ffff
ffff 0982
Fl Rd Recv 0000 0000
ffff 8182
Fl Wt Recv 0000 0000
ffff 0182
Format Err 0000 0000
ffff 0182
POST Err ffff ffff
ffff 0982
Drv Nt Ry 00000000 00000000
fffffff 0184
Reallc Abt ffffffff ffffffff
fffffff 0984
IRQ Gltchs ffffffff ffffffff
fffffff 0984
Bus Flts 00000000 00000000
fffffff 8184
Hot Plgs 00000000 00000000
fffffff 0184
Tk Rwt Err ffff ffff
ffff 0982
Rmp Wt Err ffff ffff
ffff 0982
Bg Fw Rev 0000000000000000 0000000000000000
0a48
Med Flrs 0000 0000
ffff 0182
Hrdw Errs 0000 0000
ffff 0182
Abt Cmd Fl 0000 0000
ffff 0182

```

```

Spn Up Fl 0000 0000
ffff 0182
Bd Tgt Cnt 0000 0000
ffff 0182
Pred Fails 00000000 00000000
00000000 2184

DRIVE ERROR LOG:
No errors logged.

SCSI Port 3, Drive ID 2
Factory: Serial #, Firmware Rev, and
Mfg/Model #:
31 1CC1022500001041
30 43 4a 41 33 42 30 30 00 00 00 43 4f 4d
50 0CJA3B00...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 20
20 AQ BF01863644
00 20 20 20 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
31 1CC1022500001041
30 43 4a 41 33 42 30 30 00 00 00 43 4f 4d
50 0CJA3B00...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 20
20 AQ BF01863644
00 20 20 20 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Threshold Flags: 0x0003
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold Factory Since Power
Serv. Time 000545fa 00000002
fffffff 8184
Read Blks 0000000f23be196d 0000000000000117
8108
Hrd Read 00000000 00000000
fffffff 8184
Rtry Read 00000000 00000000
fffffff 8184
ECC Read 0000000000000000 0000000000000000
fffffff 8188
Write Blks 000000004906ed1c 0000000000000036
8108
Hrd Write 00000000 00000000
fffffff 8184
Rtry Write 00000000 00000000
fffffff 8184
Seeks 00000000001290ca 00000000000000b0
8108
Seek Errs 0000000000000000 0000000000000000
fffffff 8188

```

```

Spin Cyls 00000000 00000000
fffffff 8184
Spin Time 0000 0000
ffff 8282
Test 1 ffff ffff
ffff 0a82
Test 2 0006 0006
ffff 8282
Test 3 002b 002a
ffff 8282
Test 4 0046 0046
ffff 8282
Spare Blks ffffffff ffffffff
0a04
Re-mapped 000007c4 00000000
fffffff 8584
DRQ Tmots ffff ffff
ffff 0982
Timeouts 0000 0000
ffff 0182
Rebuilds 0000 0000
ffff 0182
Spn Retrs ffff ffff
ffff 0982
Fl Rd Recv 0000 0000
ffff 8182
Fl Wt Recv 0000 0000
ffff 0182
Format Err 0000 0000
ffff 0182
POST Err ffff ffff
ffff 0982
Drv Nt Ry 00000000 00000000
fffffff 0184
Reallc Abt ffffffff ffffffff
fffffff 0984
IRQ Gltchs ffffffff ffffffff
fffffff 0984
Bus Flts 00000000 00000000
fffffff 8184
Hot Plgs 00000000 00000000
fffffff 0184
Tk Rwt Err ffff ffff
ffff 0982
Rmp Wt Err 0000 0000
ffff 0182
Bg Fw Rev 0000000000000000 0000000000000000
0a48
Med Flrs 0000 0000
ffff 0182
Hrdw Errs 0000 0000
ffff 0182
Abt Cmd Fl 0000 0000
ffff 0182
Spin Up Fl 0000 0000
ffff 0182
Bd Tgt Cnt 0000 0000
ffff 0182
Pred Fails 00000000 00000000
00000000 2184

DRIVE ERROR LOG:
No errors logged.

```

```

SCSI Port 3, Drive ID 3
Factory:      Serial #, Firmware Rev, and
Mfg/Model #:
31 43 43 30 37 36 33 38 30 30 30 30 31 30 34
31 1CC0763800001041
30 4e 34 43 33 42 30 30 00 00 00 00 43 4f 4d
50 ON4C3B00...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
31 43 43 30 37 36 33 38 30 30 30 30 31 30 34
31 1CC0763800001041
30 4e 34 43 33 42 30 30 00 00 00 00 43 4f 4d
50 ON4C3B00...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Threshold Flags:      0x0003
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold      Factory      Since Power
Control
Serv. Time 0005506a      00000002
8184
ffffffffff Read Blks 0000000f3d41d1a3 00000000000000117
8108
Hrd Read 00000000      00000000
ffffffffff 8184
Rtry Read 00000000      00000000
ffffffffff 8184
ECC Read 0000000000000000 0000000000000000
ffffffffff 8184
Write Blks 000000005011766c 00000000000000036
8108
Hrd Write 00000000      00000000
ffffffffff 8184
Rtry Write 00000000      00000000
ffffffffff 8184
Seeks 000000000012e550 000000000000000b0
8108
Seek Errs 0000000000000000 0000000000000000
ffffffffff 8184
Spin Cyls 00000000      00000000
ffffffffff 8184
Spin Time 0000      0000
ffff 8282
Test 1 ffff      ffff
ffff 0a82
Test 2 0006      0005
ffff 8282
Test 3 002b      002b
ffff 8282

```

```

Test 4      0047      0047
ffff 8282
Spare Blks ffffffff      ffffffff
0a04
Re-mapped 00001fff      00000000
ffffffffff 8584
DRQ Tmots ffff      ffff
ffff 0982
Timeouts 0000      0000
ffff 0182
Rebuilds 0000      0000
ffff 0182
Spn Retrs ffff      ffff
ffff 0982
Fl Rd Recv 0000      0000
ffff 8182
Fl Wt Recv 0000      0000
ffff 0182
Format Err 0000      0000
ffff 0182
POST Err ffff      ffff
ffff 0982
Drv Nt Ry 00000000      00000000
ffffffffff 0184
Reallc Abt ffffffff      ffffffff
ffffffffff 0984
IRQ Gltns ffffffff      ffffffff
ffffffffff 0984
Bus Flts 00000000      00000000
ffffffffff 8184
Hot Plgs 00000000      00000000
ffffffffff 0184
Tk Rwt Err ffff      ffff
ffff 0982
Rmp Wt Err 0000      0000
ffff 0182
Bg Fw Rev 0000000000000000 00000000000000000
0a48
Med Flrs 0000      0000
ffff 0182
Hrdw Errs 0000      0000
ffff 0182
Abt Cmd Fl 0000      0000
ffff 0182
Spn Up Fl 0000      0000
ffff 0182
Bd Tgt Cnt 0000      0000
ffff 0182
Pred Fails 00000000      00000000
00000000 2184

DRIVE ERROR LOG:
Error Log Header:
Parameter Length = 0x14
Entry Size = 0x0014
Current Entry = 0x01
Total Errors Logged = 0x00000001
Error Log Data:

SCSI CAM Sense Sense
Stat Stat Key Code Qual Block(VL)
Time Op Info

```

```

-----
02 04 01 1f 00 0000000(0)
00000000 37 0000

SCSI Port 3, Drive ID 4
Factory:      Serial #, Firmware Rev, and
Mfg/Model #:
31 43 43 31 32 31 36 33 30 30 30 30 31 30 33
34 1CC1216300001034
30 59 34 4a 33 42 30 30 00 00 00 00 43 4f 4d
50 0Y4J3B00...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
31 43 43 31 32 31 36 33 30 30 30 30 31 30 33
34 1CC1216300001034
30 59 34 4a 33 42 30 30 00 00 00 00 43 4f 4d
50 0Y4J3B00...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Threshold Flags:      0x0003
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold      Factory      Since Power
Control
Serv. Time 000545fa      00000002
8184
ffffffffff Read Blks 0000000f26b4e20a 00000000000000117
8108
Hrd Read 00000000      00000000
ffffffffff 8184
Rtry Read 00000000      00000000
ffffffffff 8184
ECC Read 0000000000000000 0000000000000000
ffffffffff 8184
Write Blks 000000004901e310 00000000000000036
8108
Hrd Write 00000000      00000000
ffffffffff 8184
Rtry Write 00000000      00000000
ffffffffff 8184
Seeks 0000000000126d04 000000000000000b0
8108
Seek Errs 0000000000000000 0000000000000000
ffffffffff 8184
Spin Cyls 00000000      00000000
ffffffffff 8184
Spin Time 0000      0000
ffff 8282
Test 1 ffff      ffff
ffff 0a82

```



```

Test 2      0006      0005
ffff      8282
Test 3      002b      002a
ffff      8282
Test 4      0047      0046
ffff      8282
Spare Blks ffffffff ffffffff
0a04
Re-mapped  0000279    00000000
fffffff    8584
DRQ Tmots  ffff      ffff
ffff      0982
Timeouts   0000      0000
ffff      0182
Rebuilds   0000      0000
ffff      0182
Spn Retrs  ffff      ffff
ffff      0982
Fl Rd Recv 0000      0000
ffff      8182
Fl Wt Recv 0000      0000
ffff      0182
Format Err 0000      0000
ffff      0182
POST Err   ffff      ffff
ffff      0982
Drv Nt Ry  00000000   00000000
fffffff    0184
Reallc Abt ffffffff ffffffff
fffffff    0984
IRQ Gltchs ffffffff ffffffff
fffffff    0984
Bus Flts   00000000   00000000
fffffff    8184
Hot Plgs   00000000   00000000
fffffff    0184
Tk Rwt Err ffff      ffff
ffff      0982
Rmp Wt Err 0000      0000
ffff      0182
Bg Fw Rev  0000000000000000 0000000000000000
0a48
Med Flrs   0000      0000
ffff      0182
Hrdw Errs 0000      0000
ffff      0182
Abt Cmd Fl 0000      0000
ffff      0182
Spn Up Fl  0000      0000
ffff      0182
Bd Tgt Cnt 0000      0000
ffff      0182
Pred Fails 00000000   00000000
00000000   2184

DRIVE ERROR LOG:
No errors logged.

SCSI Port 3, Drive ID 5
Factory:      Serial #, Firmware Rev, and
Mfg/Model #:
31 31 43 43 31 35 35 34 38 30 30 30 30 31 30 34
1CC155480001041

```

```

30 51 32 41 33 42 30 30 00 00 00 00 43 4f 4d
50 0Q2A3B00...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
00 20 20 20 20 00 00 00 00 00 00 00 00 00 00
.....
00 00 00 00
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
31 43 43 31 35 35 34 38 30 30 30 30 31 30 34
1CC155480001041
30 51 32 41 33 42 30 30 00 00 00 00 43 4f 4d
50 0Q2A3B00...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
00 20 20 20 20 00 00 00 00 00 00 00 00 00 00
.....
00 00 00 00
....
Threshold Flags:      0x0003
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Factory      Since Power
Threshold Control
Serv. Time  0005506d 00000002
fffffff    8184
Read Blks  0000000f3a265a81 0000000000000117
8108
Hrd Read   00000000   00000000
fffffff    8184
Rtry Read  00000000   00000000
fffffff    8184
ECC Read   0000000000000000 0000000000000000
fffffff    8188
Write Blks 000000004d06b946 0000000000000036
8108
Hrd Write  00000000   00000000
fffffff    8184
Rtry Write 00000000   00000000
fffffff    8184
Seeks      000000000012adea 00000000000000b0
8108
Seek Errs  0000000000000000 0000000000000000
fffffff    8188
Spin Cyls  00000000   00000000
fffffff    8184
Spin Time  0000      0000
ffff      8282
Test 1     ffff      ffff
ffff      0a82
Test 2     0006      0005
ffff      8282
Test 3     002a      002a
ffff      8282
Test 4     0047      0046
ffff      8282
Spare Blks ffffffff ffffffff
0a04
Re-mapped  000013bc 00000000
fffffff    8584

```

```

DRQ Tmots  ffff      ffff
ffff      0982
Timeouts   0000      0000
ffff      0182
Rebuilds   0000      0000
ffff      0182
Spn Retrs  ffff      ffff
ffff      0982
Fl Rd Recv 0000      0000
ffff      8182
Fl Wt Recv 0000      0000
ffff      0182
Format Err 0000      0000
ffff      0182
POST Err   ffff      ffff
ffff      0982
Drv Nt Ry  00000000   00000000
fffffff    0184
Reallc Abt ffffffff ffffffff
fffffff    0984
IRQ Gltchs ffffffff ffffffff
fffffff    0984
Bus Flts   00000000   00000000
fffffff    8184
Hot Plgs   00000000   00000000
fffffff    0184
Tk Rwt Err ffff      ffff
ffff      0982
Rmp Wt Err 0000      0000
ffff      0182
Bg Fw Rev  0000000000000000 0000000000000000
0a48
Med Flrs   0000      0000
ffff      0182
Hrdw Errs 0000      0000
ffff      0182
Abt Cmd Fl 0000      0000
ffff      0182
Spn Up Fl  0000      0000
ffff      0182
Bd Tgt Cnt 0000      0000
ffff      0182
Pred Fails 00000000   00000000
00000000   2184

DRIVE ERROR LOG:
No errors logged.

SCSI Port 3, Drive ID 6
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 3, Drive ID 7
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 3, Drive ID 8
Factory:      Serial #, Firmware Rev, and
Mfg/Model #:

```

```

31 31 43 43 31 30 32 35 30 30 30 30 31 30 34
1CC1025000001041
30 51 50 4e 33 42 30 30 00 00 00 43 4f 4d
50 QPN3B00....COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
31 31 43 43 31 30 32 35 30 30 30 30 31 30 34
1CC1025000001041
30 51 50 4e 33 42 30 30 00 00 00 43 4f 4d
50 QPN3B00....COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Threshold Flags: 0x0003
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold Factory Since Power
Control
Serv. Time 0005502c 00000002
8184
Read Blks 0000000f3c96f10f 0000000000000117
8108
Hrd Read 00000000 00000000
8184
Rtry Read 00000000 00000000
8184
ECC Read 0000000000000000 0000000000000000
8188
Write Blks 000000004e4f3ab0 0000000000000036
8108
Hrd Write 00000000 00000000
8184
Rtry Write 00000000 00000000
8184
Seeks 0000000000012b15c 00000000000000b0
8108
Seek Errs 0000000000000000 0000000000000000
8188
Spin Cyls 00000000 00000000
8184
Spin Time 0000 0000
8282
Test 1 ffff ffff
0a82
Test 2 0006 0005
8282
Test 3 002b 002a
8282
Test 4 0046 0046
8282
Spare Blks ffffffff ffffffff
0a04

```

```

Re-mapped 00000362 00000000
8584
DRQ Tmots ffff ffff
0982
Timeouts 0000 0000
0182
Rebuilds 0000 0000
0182
Spn Retrs ffff ffff
0982
Fl Rd Recv 0000 0000
8182
Fl Wt Recv 0000 0000
0182
Format Err 0000 0000
0182
POST Err ffff ffff
0982
Drv Nt Ry 00000000 00000000
0184
Reallc Abt ffffffff ffffffff
0984
IRQ Gltchs ffffffff ffffffff
0984
Bus Flts 00000000 00000000
8184
Hot Plgs 00000000 00000000
0184
Tk Rwt Err ffff ffff
0982
Rmp Wt Err 0000 0000
0182
Bg Fw Rev 0000000000000000 0000000000000000
0a48
Med Flrs 0000 0000
0182
Hrdw Errs 0000 0000
0182
Abt Cmd Fl 0000 0000
0182
Spn Up Fl 0000 0000
0182
Bd Tgt Cnt 0000 0000
0182
Pred Fails 00000000 00000000
00000000 2184

DRIVE ERROR LOG:
No errors logged.

SCSI Port 3, Drive ID 9
Factory: Serial #, Firmware Rev, and
Mfg/Model #:
31 31 43 43 30 38 30 34 39 30 30 30 31 30 34
1CC0804900001041
30 4c 47 4c 33 42 30 30 00 00 00 43 4f 4d
50 0LGL3B00....COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....

```

```

Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
31 31 43 43 30 38 30 34 39 30 30 30 31 30 34
1CC0804900001041
30 4c 47 4c 33 42 30 30 00 00 00 43 4f 4d
50 0LGL3B00....COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Threshold Flags: 0x0003
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold Factory Since Power
Control
Serv. Time 0005509d 00000002
8184
Read Blks 0000000f33b0d36e 0000000000000117
8108
Hrd Read 00000000 00000000
8184
Rtry Read 00000000 00000000
8184
ECC Read 0000000000000000 0000000000000000
8188
Write Blks 000000004f5b5621 0000000000000036
8108
Hrd Write 00000000 00000000
8184
Rtry Write 00000000 00000000
8184
Seeks 0000000000012aa2e 00000000000000b0
8108
Seek Errs 0000000000000000 0000000000000000
8188
Spin Cyls 00000000 00000000
8184
Spin Time 0000 0000
8282
Test 1 ffff ffff
0a82
Test 2 0006 0005
8282
Test 3 002a 002a
8282
Test 4 0046 0046
8282
Spare Blks ffffffff ffffffff
0a04
Re-mapped 00001fff 00000000
8584
DRQ Tmots ffff ffff
0982
Timeouts 0000 0000
0182
Rebuilds 0000 0000
0182
Spn Retrs ffff ffff
0982

```

```

Fl Rd Recv 0000      0000
ffff          8182
Fl Wt Recv 0000      0000
ffff          0182
Format Err 0000      0000
ffff          0182
POST Err   ffff      ffff
ffff          0982
Drv Nt Ry  00000001  00000000
ffffffffff  0184
Reallc Abt ffffffff  ffffffff
ffffffffff  0984
IRQ Gltchs ffffffff  ffffffff
ffffffffff  0984
Bus Flts   00000000  00000000
ffffffffff  8184
Hot Plgs   00000000  00000000
ffffffffff  0184
Tk Rwt Err ffff      ffff
ffff          0982
Rmp Wt Err 0000      0000
ffff          0182
Bg Fw Rev  0000000000000000 0000000000000000
0a48
Med Flrs   0000      0000
ffff          0182
Hrdw Errs  0000      0000
ffff          0182
Abt Cmd Fl 0000      0000
ffff          0182
Spn Up Fl  0000      0000
ffff          0182
Bd Tgt Cnt 0000      0000
ffff          0182
Pred Fails 00000000  00000000
00000000    2184

```

DRIVE ERROR LOG:

```

Error Log Header:
Parameter Length = 0x14
Entry Size       = 0x0014
Current Entry    = 0x01
Total Errors Logged = 0x00000001
Error Log Data:

```

SCSI Stat	CAM Stat	Sense Key	Sense Code	Qual	Block(VL)
Time	Op	Info			
02	04	01	1f	00	00000000(0)
00000000	37	0000			

```

SCSI Port 3, Drive ID 10
Factory:      Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 30 50 59 58 30 30 30 30 37 30 35
30 3CC00PYX00007050
4b 48 42 46 33 42 30 32 00 00 00 00 43 4f 4d
50 KHBFB02....COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644

```

```

00 20 20 20 20 00 00 00 00 00 00 00 00 00 00
00 .....
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
30 33 43 43 30 30 50 59 58 30 30 30 30 37 30 35
3CC00PYX00007050
4b 48 42 46 33 42 30 32 00 00 00 00 43 4f 4d
50 KHBFB02....COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
00 20 20 20 20 00 00 00 00 00 00 00 00 00 00
00 .....
....

```

```

Threshold Flags:      0x0001
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

```

Threshold	Factory Control	Since Power
Serv. Time	00049f6d	00000002
ffffffffff	8184	
8108	Read Blks	0000000d66e12416 0000000000000117
ffffffffff	Hrd Read	00000000 00000000
ffffffffff	Rtry Read	00000000 00000000
ffffffffff	ECC Read	000000000000000000 0000000000000000
ffffffffff	Write Blks	000000003ce75155 0000000000000036
8108	Hrd Write	00000000 00000000
ffffffffff	Rtry Write	00000000 00000000
ffffffffff	Seeks	000000000000fb633 0000000000000210
8108	Seek Errs	0000000000000000 0000000000000000
ffffffffff	Spin Cyls	00000000 00000000
ffffffffff	Spin Time	0000 0000
01c2	Test 1	ffff ffff
ffff	Test 2	0a82 0006
0028	Test 3	a282 002b
0096	Test 4	a282 0046
012c	Spare Blks	ffffffffff ffffffff
0a04	Re-mapped	000011bf 00000000
0000e666	DRQ Tmots	a584 ffff
ffff	Timeouts	0982 0000
ffff		0182 0000

```

Rebuilds 0000      0000
ffff          0182
Spn Retrs ffff      ffff
ffff          0982
Fl Rd Recv 0000      0000
ffff          8182
Fl Wt Recv 0000      0000
ffff          0182
Format Err 0000      0000
ffff          0182
POST Err   ffff      ffff
ffff          0982
Drv Nt Ry  00000001  00000000
ffffffffff  0184
Reallc Abt ffffffff  ffffffff
ffffffffff  0984
IRQ Gltchs ffffffff  ffffffff
ffffffffff  0984
Bus Flts   00000000  00000000
ffffffffff  8184
Hot Plgs   00000000  00000000
ffffffffff  0184
Tk Rwt Err ffff      ffff
ffff          0982
Rmp Wt Err ffff      ffff
ffff          0982
Bg Fw Rev  0000000000000000 0000000000000000
0a48
Med Flrs   0000      0000
ffff          0182
Hrdw Errs  0000      0000
ffff          0182
Abt Cmd Fl 0000      0000
ffff          0182
Spn Up Fl  0000      0000
ffff          0182
Bd Tgt Cnt 0000      0000
ffff          0182
Pred Fails 00000000  00000000
00000000    2184

```

DRIVE ERROR LOG:
No errors logged.

```

SCSI Port 3, Drive ID 11
Factory:      Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 30 52 54 47 30 30 30 30 37 30 35
30 3CC00RTG00007050
4b 56 4d 32 33 42 30 32 00 00 00 00 43 4f 4d
50 KVM23B02....COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
00 20 20 20 20 00 00 00 00 00 00 00 00 00 00
00 .....
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
30 33 43 43 30 30 52 54 47 30 30 30 30 37 30 35
3CC00RTG00007050
4b 56 4d 32 33 42 30 32 00 00 00 00 43 4f 4d
50 KVM23B02....COMP

```

```

41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
00 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Threshold Flags: 0x0001
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold Factory Since Power
Control
Serv. Time 00049f6d 00000002
8184
Read Blks 0000000d66c13973 0000000000000117
8108
Hrd Read 00000000 00000000
8184
Rtry Read 00000000 00000000
8184
ECC Read 000000000000000000 0000000000000000
8188
Write Blks 000000003c4e3d30 00000000000000036
8108
Hrd Write 00000000 00000000
8184
Rtry Write 00000000 00000000
8184
Seeks 00000000000fbc4e 00000000000000b0
8108
Seek Errs 000000000000000000 0000000000000000
8188
Spin Cyls 00000000 00000000
8184
Spin Time 0000 0000
01c2 a282
ffff Test 1 ffff
ffff Test 2 0006
0028 a282
0096 Test 3 002a 002a
a282
012c Test 4 0046 0046
a282
0a04 Spare Blks ffffffff
Re-mapped 00001fff
0000e666 a584
DRQ Tmots ffff
ffff 0982
0000 Timeouts 0000
ffff 0182
0000 Rebuilds 0000
ffff 0182
ffff Spn Retrs ffff
ffff 0982
ffff Fl Rd Recv 0000
ffff 8182
ffff Fl Wt Recv 0000
ffff 0182
ffff Format Err 0000
ffff 0182

```

```

POST Err ffff ffff
ffff 0982
Drv Nt Ry 00000001 00000000
ffffffffff 0184
Reallc Abt ffffffff ffffffff
ffffffffff 0984
IRQ Gltchs ffffffff ffffffff
ffffffffff 0984
Bus Flts 00000000 00000000
ffffffffff 8184
Hot Plgs 00000000 00000000
ffffffffff 0184
Tk Rwt Err ffff ffff
ffff 0982
Rmp Wt Err ffff ffff
ffff 0982
Bg Fw Rev 0000000000000000 0000000000000000
0a48
Med Flrs 0000 0000
ffff 0182
Hrdw Errs 0000 0000
ffff 0182
Abt Cmd Fl 0000 0000
ffff 0182
Spn Up Fl 0000 0000
ffff 0182
Bd Tgt Cnt 0000 0000
ffff 0182
Pred Fails 00000000 00000000
00000000 2184

DRIVE ERROR LOG:
Error Log Header:
Parameter Length = 0x14
Entry Size = 0x0014
Current Entry = 0x01
Total Errors Logged = 0x00000001
Error Log Data:

SCSI CAM Sense Sense
Stat Stat Key Code Qual Block(VL)
Time Op Info
-----
02 04 01 1f 00 00000000(0)
00000001 37 0000

SCSI Port 3, Drive ID 12
Factory: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 30 4e 42 31 30 30 30 30 37 30 35
30 3CC00NB100007050
36 34 48 4c 33 42 30 32 00 00 00 00 43 4f 4d
50 64HL3B02....COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
00 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:

```

```

33 43 43 30 30 4e 42 31 30 30 30 30 37 30 35
30 3CC00NB100007050
36 34 48 4c 33 42 30 32 00 00 00 00 43 4f 4d
50 64HL3B02....COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
00 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Threshold Flags: 0x0001
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold Factory Since Power
Control
Serv. Time 00049f6d 00000002
8184
Read Blks 0000000d6881619e 0000000000000117
8108
Hrd Read 00000000 00000000
8184
Rtry Read 00000000 00000000
8184
ECC Read 000000000000000000 0000000000000000
8188
Write Blks 000000003d6ba140 00000000000000036
8108
Hrd Write 00000000 00000000
8184
Rtry Write 00000000 00000000
8184
Seeks 00000000000fceb2 00000000000000b0
8108
Seek Errs 000000000000000000 0000000000000000
8188
Spin Cyls 00000000 00000000
8184
Spin Time 0000 0000
01c2 a282
ffff Test 1 ffff
ffff Test 2 0006
0028 a282
0096 Test 3 002b 002a
a282
012c Test 4 0046 0046
a282
0a04 Spare Blks ffffffff
Re-mapped 00001fd3
0000e666 a584
DRQ Tmots ffff
ffff 0982
0000 Timeouts 0000
ffff 0182
ffff Rebuilds 0000
ffff Spn Retrs ffff
ffff 0982
ffff Fl Rd Recv 0000
ffff 8182

```

```

Fl Wt Recv 0000      0000
ffff      0182
ffff Format Err 0000      0000
ffff      0182
ffff POST Err   ffff      ffff
ffff      0982
ffff Drv Nt Ry  00000001  00000000
ffff      0184
ffff Reallc Abt ffffffff  ffffffff
ffff      0984
ffff IRQ Gltns ffffffff  ffffffff
ffff      0984
ffff Bus Flts  00000000  00000000
ffff      8184
ffff Hot Plgs  00000000  00000000
ffff      0184
ffff Tk Rwt Err ffff      ffff
ffff      0982
ffff Rmp Wt Err ffff      ffff
ffff      0982
0a48 Bg Fw Rev  0000000000000000 0000000000000000
ffff      0182
ffff Med Flrs  0000      0000
ffff      0182
ffff Hrdw Errs 0000      0000
ffff      0182
ffff Abt Cmd Fl 0000      0000
ffff      0182
ffff Spn Up Fl  0000      0000
ffff      0182
ffff Bd Tgt Cnt 0000      0000
ffff      0182
ffff Pred Fails 00000000  00000000
00000000  2184

```

DRIVE ERROR LOG:
No errors logged.

```

SCSI Port 3, Drive ID 13
Factory:      Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 50 33 37 30 30 30 37 30 35
30 3CC00P3700007050
36 34 44 44 33 42 30 32 00 00 00 43 4f 4d
50 64DD3B02...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 50 33 37 30 30 30 37 30 35
30 3CC00P3700007050
36 34 44 44 33 42 30 32 00 00 00 43 4f 4d
50 64DD3B02...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....

```

```

Threshold Flags:      0x0001
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold      Factory      Since Power
Control
Serv. Time 00046c3e  00000002
8184
Read Blks 000000125874b0e8 0000000000000117
8108
Hrd Read 00000000  00000000
ffff      8184
Rtry Read 00000000  00000000
ffff      8184
ECC Read 0000000000000000 0000000000000000
ffff      8188
Write Blks 000000068776bd7 0000000000000036
8108
Hrd Write 00000000  00000000
ffff      8184
Rtry Write 00000000  00000000
ffff      8184
Seeks 00000000000f5c42 00000000000000b0
8108
Seek Errs 0000000000000000 0000000000000000
ffff      8188
Spin Cyls 00000000  00000000
ffff      8184
Spin Time 0000      0000
01c2 a282
Test 1 ffff      ffff
ffff      0a82
Test 2 0006      0005
0028 a282
Test 3 002a      002a
0096 a282
Test 4 0046      0045
012c a282
Spare Blks ffffffff  ffffffff
0a04
Re-mapped 00001b25  00000000
0000e666 a584
ffff DRQ Tmots ffff      ffff
ffff      0982
Timeouts 0000      0000
ffff      0182
Rebuilds 0000      0000
ffff      0182
Spn Retrs ffff      ffff
ffff      0982
Fl Rd Recv 0000      0000
ffff      8182
Fl Wt Recv 0000      0000
ffff      0182
Format Err 0000      0000
ffff      0182
POST Err   ffff      ffff
ffff      0982
Drv Nt Ry  00000001  00000000
ffff      0184
Reallc Abt ffffffff  ffffffff
ffff      0984

```

```

IRQ Gltns ffffffff  ffffffff
ffff      0984
ffff Bus Flts  00000000  00000000
ffff      8184
ffff Hot Plgs  00000000  00000000
ffff      0184
ffff Tk Rwt Err ffff      ffff
ffff      0982
ffff Rmp Wt Err ffff      ffff
ffff      0982
0a48 Bg Fw Rev  0000000000000000 0000000000000000
ffff      0182
Med Flrs  0000      0000
ffff      0182
ffff Hrdw Errs 0000      0000
ffff      0182
ffff Abt Cmd Fl 0000      0000
ffff      0182
ffff Spn Up Fl  0000      0000
ffff      0182
ffff Bd Tgt Cnt 0000      0000
ffff      0182
ffff Pred Fails 00000000  00000000
00000000  2184

```

DRIVE ERROR LOG:
No errors logged.

```

SCSI Port 3, Drive ID 14
Factory:      Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 31 34 39 39 30 30 30 37 30 35
31 3CC0149900007051
4c 57 53 38 33 42 30 32 00 00 00 43 4f 4d
50 LWS83B02...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 31 34 39 39 30 30 30 37 30 35
31 3CC0149900007051
4c 57 53 38 33 42 30 32 00 00 00 43 4f 4d
50 LWS83B02...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....

```

```

Threshold Flags:      0x0001
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold      Factory      Since Power
Control
Serv. Time 0004b696  00000002
ffff      8184

```

```

Read Blks 0000001643a05dcd 0000000000000117
8108 Hrd Read 00000000 00000000
ffffff 8184
Rtry Read 00000000 00000000
ffffff 8184
ECC Read 0000000000000000 0000000000000000
ffffff 8188
Write Blks 000000006b305e95 0000000000000036
8108 Hrd Write 00000000 00000000
ffffff 8184
Rtry Write 00000000 00000000
ffffff 8184
Seeks 0000000000f798a 00000000000000b0
8108 Seek Errs 0000000000000000 0000000000000000
ffffff 8188
Spin Cyls 00000000 00000000
ffffff 8184
Spin Time 0000 0000
01c2 a282
ffff Test 1 ffff ffff
0a82
0028 Test 2 0005 0005
a282
0096 Test 3 002a 002a
a282
012c Test 4 0046 0046
a282
Spare Blks ffffffff ffffffff
0a04 Re-mapped 0000052e 00000000
0000e666 a584
ffff DRQ Tmots ffff ffff
0982
ffff Timeouts 0000 0000
0182
ffff Rebuilds 0001 0000
0182
ffff Spn Retrs ffff ffff
0982
ffff Fl Rd Recv 0000 0000
8182
ffff Fl Wt Recv 0000 0000
0182
ffff Format Err 0000 0000
ffff POST Err ffff ffff
0982
ffff Drv Nt Ry 00000000 00000000
ffffff 0184
Reallc Abt ffffffff ffffffff
ffffff 0984
IRQ Glths ffffffff ffffffff
ffffff 0984
Bus Flts 00000000 00000000
ffffff 8184
Hot Plgs 00000000 00000000
ffffff 0184
Tk Rwt Err ffff ffff
ffff 0982

```

```

Rmp Wt Err ffff ffff
ffff 0982
Bg Fw Rev 0000000000000000 0000000000000000
0a48
Med Flrs 0000 0000
ffff 0182
Hrd Errs 0000 0000
ffff 0182
Abt Cmd Fl 0000 0000
ffff 0182
Spn Up Fl 0000 0000
ffff 0182
Bd Tgt Cnt 0000 0000
ffff 0182
Pred Fails 00000000 00000000
00000000 2184

DRIVE ERROR LOG:
Error Log Header:
Parameter Length = 0x14
Entry Size = 0x0014
Current Entry = 0x03
Total Errors Logged = 0x00000003
Error Log Data:

SCSI CAM Sense Sense
Stat Stat Key Code Qual Block(VL)
Time Op Info
-----
00 22 00 00 00 00000000(0)
0001273c 12 0000
00 22 00 00 00 00000000(0)
0001273d 12 0000
00 22 00 00 00 00000000(0)
00012779 12 0000

SCSI Port 3, Drive ID 15
Factory: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 31 34 53 53 30 30 30 37 30 35
31 3CC014SS00007051
4d 52 51 42 33 42 30 32 00 00 00 43 4f 4d
50 MRQB3B02...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 31 34 53 53 30 30 30 37 30 35
31 3CC014SS00007051
4d 52 51 42 33 42 30 32 00 00 00 43 4f 4d
50 MRQB3B02...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Threshold Flags: 0x0001

```

```

Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold Factory Since Power
Control Control
Serv. Time 0004b44e 00000002
ffffff 8184
Read Blks 000000f90b4f666 0000000000000117
8108 Hrd Read 00000000 00000000
ffffff 8184
Rtry Read 00000000 00000000
ffffff 8184
ECC Read 0000000000000000 0000000000000000
ffffff 8188
Write Blks 000000003eabe76c 0000000000000036
8108 Hrd Write 00000000 00000000
ffffff 8184
Rtry Write 00000000 00000000
ffffff 8184
Seeks 0000000000f56ae 00000000000000b0
8108 Seek Errs 0000000000000000 0000000000000000
ffffff 8188
Spin Cyls 00000000 00000000
ffffff 8184
Spin Time 0000 0000
01c2 a282
ffff Test 1 ffff ffff
0a82
0028 Test 2 0006 0005
a282
0096 Test 3 002a 002a
a282
012c Test 4 0046 0046
a282
Spare Blks ffffffff ffffffff
0a04 Re-mapped 000002a6 00000000
0000e666 a584
ffff DRQ Tmots ffff ffff
0982
ffff Timeouts 0000 0000
0182
ffff Rebuilds 0000 0000
ffff 0182
ffff Spn Retrs ffff ffff
0982
ffff Fl Rd Recv 0000 0000
8182
ffff Fl Wt Recv 0000 0000
0182
ffff Format Err 0000 0000
ffff 0182
ffff POST Err ffff ffff
0982
ffff Drv Nt Ry 00000000 00000000
ffffff 0184
Reallc Abt ffffffff ffffffff
ffffff 0984

```

```

      IRQ Gltchs ffffffff      ffffffff
ffffffffff      0984
      Bus Flts  00000000      00000000
ffffffffff      8184
      Hot Plgs  00000000      00000000
ffffffffff      0184
      Tk Rwt Err ffff         ffff
ffff          0982
      Rmp Wt Err ffff         ffff
ffff          0982
      Bg Fw Rev 0000000000000000 0000000000000000
0a48
      Med Flrs  0000          0000
ffff          0182
      Hrdw Errs 0000          0000
ffff          0182
      Abt Cmd Fl 0000          0000
ffff          0182
      Spn Up Fl  0000          0000
ffff          0182
      Bd Tgt Cnt 0000          0000
ffff          0182
      Pred Fails 00000000      00000000
00000000      2184

```

```

DRIVE ERROR LOG:
Error Log Header:
Parameter Length = 0x14
Entry Size       = 0x0014
Current Entry    = 0x03
Total Errors Logged = 0x00000003
Error Log Data:

```

SCSI Time	CAM Stat	Sense Key	Sense Code	Qual	Block (V1)
00	22	00	00	00	00000000(0)
000124f4	12	0000			
00	22	00	00	00	00000000(0)
000124f5	12	0000			
00	22	00	00	00	00000000(0)
00012531	12	0000			

SCSI Port 4, Drive ID 0
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 1
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 2
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 3
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 4
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 5
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 6
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 7
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 8
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 9
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 10
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 11
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 12
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 13
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 14
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 15
Not Available

DRIVE ERROR LOG:
Not Available

SURFACE ANALYSIS STATUS:

Time remaining to start: 14 secs.
Surface analysis delay: 15 secs.

SCSI Port 1:

Drive ID	Big Current Block
00	0x00ab4040
01	0x00ab4040
02	0x00ab4040
03	0x00ab4040
04	0x00ab4040
05	0x00ab4040
06	0x00000000
07	0x00000000
08	0x00ab4040
09	0x00ab4040
10	0x00ab4040
11	0x00ab4040
12	0x00ab4040
13	0x00ab4040
14	0x00ab4040
15	0x00ab4040

SCSI Port 2:

Drive ID	Big Current Block
00	0x00000000
01	0x00000000
02	0x00000000
03	0x00000000
04	0x00000000
05	0x00000000
06	0x00000000
07	0x00000000
08	0x00000000
09	0x00000000
10	0x00000000
11	0x00000000
12	0x00000000
13	0x00000000
14	0x00000000
15	0x00000000

SCSI Port 3:

```

Big
Drive ID Current Block
-----
00 0x00000000
01 0x00000000
02 0x00000000
03 0x00000000
04 0x00000000
05 0x00000000
06 0x00000000
07 0x00000000
08 0x00000000
09 0x00000000
10 0x00000000
11 0x00000000
12 0x00000000
13 0x00000000
14 0x00000000
15 0x00000000

```

SCSI Port 4:

```

Big
Drive ID Current Block
-----
00 0x00000000
01 0x00000000
02 0x00000000
03 0x00000000
04 0x00000000
05 0x00000000
06 0x00000000
07 0x00000000
08 0x00000000
09 0x00000000
10 0x00000000
11 0x00000000
12 0x00000000
13 0x00000000
14 0x00000000
15 0x00000000

```

```

Surface Surface Big
Logical Big Inconsistent Blocks
Controller Analysis Analysis
Drive Status Block Reassigned Resets
Passes Pass Time
-----
1 0x00 0x00000000 0 1
0 0
0 2 0x00 0x00000000 0 0
0 0
487 3 0x01 0x00000000 0 2
7957
0 4 0x00 0x00000000 0 0
0 0
0 5 0x00 0x00000000 0 0
0 0
427 6 0x01 0x00000000 0 0
2807
0 7 0x00 0x00000000 0 0
0 0

```

```

0 8 0x00 0x00000000 0 0
0 0
0 9 0x00 0x00000000 0 0
0 0
0 10 0x00 0x00000000 0 0
0 0
0 11 0x00 0x00000000 0 0
0 0
0 12 0x00 0x00000000 0 0
0 0
0 13 0x00 0x00000000 0 0
0 0
0 14 0x00 0x00000000 0 0
0 0
0 15 0x00 0x00000000 0 0
0 0
0 16 0x00 0x00000000 0 0
0 0
0 17 0x00 0x00000000 0 0
0 0
0 18 0x00 0x00000000 0 0
0 0
0 19 0x00 0x00000000 0 0
0 0
0 20 0x00 0x00000000 0 0
0 0
0 21 0x00 0x00000000 0 0
0 0
0 22 0x00 0x00000000 0 0
0 0
0 23 0x00 0x00000000 0 0
0 0
0 24 0x00 0x00000000 0 0
0 0
0 25 0x00 0x00000000 0 0
0 0
0 26 0x00 0x00000000 0 0
0 0
0 27 0x00 0x00000000 0 0
0 0
0 28 0x00 0x00000000 0 0
0 0
0 29 0x00 0x00000000 0 0
0 0
0 30 0x00 0x00000000 0 0
0 0
0 31 0x00 0x00000000 0 0
0 0
0 32 0x00 0x00000000 0 0
0 0

ACCELERATOR STATUS:
Logical Drive Disable Map: 0xffffffff
Read Cache Size: 0 MBytes
Posted Write Size: 112 MBytes
Disable Flag: 0x00
Status: 0x00000001
Disable Code: 0x0000
Total Memory Size: 112 MBytes
Battery Count: 2
Battery Status: 0x0003
Parity Read Errors: 0000
Parity Write Errors: 0000

```

```

Error Log: N/A
Failed Batteries: 0x0000
Board Present: Yes
Accelerator Failure Map: 0x00000000
Max Error Log Entries: 16
NVRAM Load Status: 0x00
Memory Size Shift Factor: 0x0a
Non Battery Backed Memory: 0 MBytes
Memory State: 0x00

```

PHYSICAL DRIVE IDENTIFICATION:

```

SCSI Port 1, Drive ID 0
Vendor Id: COMPAQ
Product Id: BF01863644
Product Rev: 3B05
Vendor Specific: 3CC08PCJ
Serial Number: 3CC08PCJ00007124CKJK
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports: Tagged Command Queuing
Linked Commands
Synchronous Data Transfer
16-bit Wide Data Transfer
Block Size: 512 bytes/sector
Total Blocks: 35565080 sectors/disk
Reserved Blocks: 1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P: yes
Last Failure Reason: 0x00 (Drive has not
failed)
Phys Drive Flags: 0xcd 0x35 0x05
operational Drive present and
Enabled Wide SCSI transfers
Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external
SCSI connector Configured as part of
Logical Drive
SCSI LUN: 0
Spi Speed Rules: 0x00000000
Physical Connector: P1 (controller connector
attached to drive)
Physical Bay in Box: 0 (number of the physical
drive bay in the enclosure)

```

```

MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 02
00
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00 00
Page 03: 83 16 02 b8 00 00 00 04 00 00 00
fe 02 00 00 01
Page 04: 00 4c 00 50 40 00 00 00
00 00 00 00 00 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00 00 00 00 00 00 3a a7 00 00

```



```

Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00
Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 04 0a 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87
Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
04
Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01
Page 33: b3 16 02 b8 00 00 00 04 00 00 01
5a 02 00 00 01
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00
Page 00: 80 06 00 00 0f 00 00 00

SCSI Port 1, Drive ID 1
Vendor Id: COMPAQ
Product Id: BF01863644
Product Rev: 3B05
Vendor Specific: 3CC08TJW
Serial Number: 3CC08TJW00007124BG19
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports: Tagged Command Queueing
Linked Commands
Synchronous Data Transfer
16-bit Wide Data Transfer
Block Size: 512 bytes/sector
Total Blocks: 35565080 sectors/disk
Reserved Blocks: 1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P: yes
Last Failure Reason: 0x20 (Unknown)
Phys Drive Flags: 0xcd 0x35 0x05
Drive present and
operational
Wide SCSI transfers
Enabled
Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external
SCSI connector
Configured as part of
Logical Drive
SCSI LUN: 0
Spi Speed Rules: 0x00000000
Physical Connector: P1 (controller connector
attached to drive)
Physical Bay in Box: 1 (number of the physical
drive bay in the enclosure)
MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 02
00

```

```

Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00 00 00
Page 03: 83 16 02 b8 00 00 00 04 00 00 00
fe 02 00 00 01
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00 00
Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00
Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 04 0a 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87
Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
04
Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01
Page 33: b3 16 02 b8 00 00 00 04 00 00 01
5a 02 00 00 01
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00
Page 00: 80 06 00 00 0f 00 00 00

SCSI Port 1, Drive ID 2
Vendor Id: COMPAQ
Product Id: BF01863644
Product Rev: 3B05
Vendor Specific: 3CC08TAS
Serial Number: 3CC08TAS00007124QW28
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports: Tagged Command Queueing
Linked Commands
Synchronous Data Transfer
16-bit Wide Data Transfer
Block Size: 512 bytes/sector
Total Blocks: 35565080 sectors/disk
Reserved Blocks: 1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P: yes
Last Failure Reason: 0x20 (Unknown)
Phys Drive Flags: 0xcd 0x35 0x05
Drive present and
operational
Wide SCSI transfers
Enabled
Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external
SCSI connector
Configured as part of
Logical Drive

```

```

SCSI LUN: 0
Spi Speed Rules: 0x00000000
Physical Connector: P1 (controller connector
attached to drive)
Physical Bay in Box: 2 (number of the physical
drive bay in the enclosure)
MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 02
00
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00 00 00
Page 03: 83 16 02 b8 00 00 00 04 00 00 00
fe 02 00 00 01
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00 00
Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00
Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 04 0a 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87
Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
04
Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01
Page 33: b3 16 02 b8 00 00 00 04 00 00 01
5a 02 00 00 01
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00
Page 00: 80 06 00 00 0f 00 00 00

SCSI Port 1, Drive ID 3
Vendor Id: COMPAQ
Product Id: BF01863644
Product Rev: 3B05
Vendor Specific: 3CC0834K
Serial Number: 3CC0834K00007124CJXC
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports: Tagged Command Queueing
Linked Commands
Synchronous Data Transfer
16-bit Wide Data Transfer
Block Size: 512 bytes/sector
Total Blocks: 35565080 sectors/disk
Reserved Blocks: 1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P: yes
Last Failure Reason: 0x20 (Unknown)
Phys Drive Flags: 0xcd 0x35 0x05

```

```

operational          Drive present and
Enabled              Wide SCSI transfers

Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external

SCSI connector      Configured as part of

Logical Drive
  SCSI LUN:          0
  Spi Speed Rules:   0x00000000
  Physical Connector: P1 (controller connector
attached to drive)
  Physical Bay in Box: 3 (number of the physical
drive bay in the enclosure)

MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 00 02
00
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00 00
Page 03: 83 16 02 b8 00 00 00 04 00 00 00
fe 02 00 00 01
00 4c 00 50 40 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00 00
00 00 00 00 3a a7 00 00
Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00
00 00 00 00
Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 04 0a 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87
Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
00 08 00 00 00 00 10 08
Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
04
Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01
Page 33: b3 16 02 b8 00 00 00 04 00 00 01
5a 02 00 00 01
00 4c 00 50 40 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00
00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00

SCSI Port 1, Drive ID 4
Vendor Id:          COMPAQ
Product Id:         BF01863644
Product Rev:        3B05
Vendor Specific:    3CC08TZ9
Serial Number:      3CC08TZ900007124BFSN
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports:    Tagged Command Queueing

```

```

Linked Commands
Synchronous Data Transfer
16-bit Wide Data Transfer
Block Size:         512 bytes/sector
Total Blocks:       35565080 sectors/disk
Reserved Blocks:    1088 reserved sectors/disk
SCSI Inquiry Bits:  0x3E
Stamped for M&P:    yes
Last Failure Reason: 0x20 (Unknown)
Phys Drive Flags:   0xcd 0x35 0x05
Drive present and

operational          Wide SCSI transfers
Enabled              Ultra2 SCSI Enabled
                    S.M.A.R.T. Supported
                    S.M.A.R.T. Enabled
                    Drive attached to external

SCSI connector      Configured as part of

Logical Drive
  SCSI LUN:          0
  Spi Speed Rules:   0x00000000
  Physical Connector: P1 (controller connector
attached to drive)
  Physical Bay in Box: 4 (number of the physical
drive bay in the enclosure)

MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 00 02
00
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00 00
Page 03: 83 16 02 b8 00 00 00 04 00 00 00
fe 02 00 00 01
00 4c 00 50 40 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00 00
00 00 00 00 3a a7 00 00
Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00
00 00 00 00
Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 04 0a 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87
Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
00 08 00 00 00 00 10 08
Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
04
Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01
Page 33: b3 16 02 b8 00 00 00 04 00 00 01
5a 02 00 00 01
00 4c 00 50 40 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00
00 00 00 00 3a a7 00 00

```

```

Page 00: 80 06 00 00 0f 00 00 00

SCSI Port 1, Drive ID 5
Vendor Id:          COMPAQ
Product Id:         BF01863644
Product Rev:        3B05
Vendor Specific:    3CC08S8V
Serial Number:      3CC08S8V00007124CHYJ
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports:    Tagged Command Queueing
                    Linked Commands
                    Synchronous Data Transfer
                    16-bit Wide Data Transfer
Block Size:         512 bytes/sector
Total Blocks:       35565080 sectors/disk
Reserved Blocks:    1088 reserved sectors/disk
SCSI Inquiry Bits:  0x3E
Stamped for M&P:    yes
Last Failure Reason: 0x20 (Unknown)
Phys Drive Flags:   0xcd 0x35 0x05
Drive present and

operational          Wide SCSI transfers
Enabled              Ultra2 SCSI Enabled
                    S.M.A.R.T. Supported
                    S.M.A.R.T. Enabled
                    Drive attached to external

SCSI connector      Configured as part of

Logical Drive
  SCSI LUN:          0
  Spi Speed Rules:   0x00000000
  Physical Connector: P1 (controller connector
attached to drive)
  Physical Bay in Box: 5 (number of the physical
drive bay in the enclosure)

MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 00 02
00
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00 00
Page 03: 83 16 02 b8 00 00 00 04 00 00 00
fe 02 00 00 01
00 4c 00 50 40 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00 00
00 00 00 00 3a a7 00 00
Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00
00 00 00 00
Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 04 0a 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87
Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
00 08 00 00 00 00 10 08

```

```

04      Page 1a: 9a 0a 00 00 00 00 01 00 00 00
01      Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
5a 02 00 00 01      Page 33: b3 16 02 b8 00 00 00 04 00 00 01
00 00 00 00 00      00 4c 00 50 40 00 00 00
00 00 00 00 00      Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00      00 00 00 00 3a a7 00 00
00 00 00 00 00      Page 00: 80 06 00 00 0f 00 00 00

SCSI Port 1, Drive ID 6 ---> Not available
SCSI Port 1, Drive ID 7 ---> Not available
SCSI Port 1, Drive ID 8
Vendor Id:          COMPAQ
Product Id:         BF01863644
Product Rev:       3B05
Vendor Specific:   3CC08V8J
Serial Number:     3CC08V8J00007124QVBU
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports:   Tagged Command Queueing
                  Linked Commands
                  Synchronous Data Transfer
                  16-bit Wide Data Transfer
                  512 bytes/sector
Block Size:        35565080 sectors/disk
Total Blocks:     1088 reserved sectors/disk
Reserved Blocks:  0x3E
SCSI Inquiry Bits: 0x3E
Stamped for M&P:  yes
Last Failure Reason: 0x20 (Unknown)
Phys Drive Flags: 0xcd 0x35 0x05
                  Drive present and
operational
Enabled           Wide SCSI transfers
                  Ultra2 SCSI Enabled
                  S.M.A.R.T. Supported
                  S.M.A.R.T. Enabled
                  Drive attached to external
SCSI connector    Configured as part of
Logical Drive
SCSI LUN:         0
Spi Speed Rules:  0x00000000
Physical Connector: P1 (controller connector
attached to drive)
Physical Bay in Box: 8 (number of the physical
drive bay in the enclosure)
MODE SENSE:
Header:          fb 00 10 08 00 00 00 00 00 02
00
ff      Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
00 00 00 00 00      Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00 00 00      Page 03: 83 16 02 b8 00 00 00 04 00 00 00
fe 02 00 00 01      00 4c 00 50 40 00 00 00
00 00 00 00 00      Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00 00      00 00 00 00 3a a7 00 00
00 00 00 00 00

```

```

ff      Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff 80 40 00 00      Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
00 00 00 00      00 00 00 00
00 00 04 0a 00      Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 00 00      Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87
00 00 28 88 09      Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 00 00 00      00 08 00 00 00 00 10 08
04      Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
01      Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
5a 02 00 00 01      Page 33: b3 16 02 b8 00 00 00 04 00 00 01
00 00 00 00 00      00 4c 00 50 40 00 00 00
00 00 00 00 00      Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00      00 00 00 00 3a a7 00 00
00 00 00 00 00      Page 00: 80 06 00 00 0f 00 00 00

SCSI Port 1, Drive ID 9
Vendor Id:          COMPAQ
Product Id:         BF01863644
Product Rev:       3B05
Vendor Specific:   3CC08GZD
Serial Number:     3CC08GZD00007124CJCC
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports:   Tagged Command Queueing
                  Linked Commands
                  Synchronous Data Transfer
                  16-bit Wide Data Transfer
                  512 bytes/sector
Block Size:        35565080 sectors/disk
Total Blocks:     1088 reserved sectors/disk
Reserved Blocks:  0x3E
SCSI Inquiry Bits: 0x3E
Stamped for M&P:  yes
Last Failure Reason: 0x20 (Unknown)
Phys Drive Flags: 0xcd 0x35 0x05
                  Drive present and
operational
Enabled           Wide SCSI transfers
                  Ultra2 SCSI Enabled
                  S.M.A.R.T. Supported
                  S.M.A.R.T. Enabled
                  Drive attached to external
SCSI connector    Configured as part of
Logical Drive
SCSI LUN:         0
Spi Speed Rules:  0x00000000
Physical Connector: P1 (controller connector
attached to drive)
Physical Bay in Box: 9 (number of the physical
drive bay in the enclosure)
MODE SENSE:
Header:          fb 00 10 08 00 00 00 00 00 02
00

```

```

ff      Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff      Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00 00 00      Page 03: 83 16 02 b8 00 00 00 04 00 00 00
fe 02 00 00 01      00 4c 00 50 40 00 00 00
00 00 00 00 00      Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00 00      00 00 00 00 3a a7 00 00
ff      Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff 80 40 00 00      Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
00 00 04 0a 00      Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 04 0a 00      Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87
00 00 28 88 09      Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 00 00 00      00 08 00 00 00 00 10 08
04      Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
01      Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
5a 02 00 00 01      Page 33: b3 16 02 b8 00 00 00 04 00 00 01
00 00 00 00 00      00 4c 00 50 40 00 00 00
00 00 00 00 00      Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00      00 00 00 00 3a a7 00 00
00 00 00 00 00      Page 00: 80 06 00 00 0f 00 00 00

SCSI Port 1, Drive ID 10
Vendor Id:          COMPAQ
Product Id:         BF01863644
Product Rev:       3B05
Vendor Specific:   3CC08AVT
Serial Number:     3CC08AVT00007124N6VE
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports:   Tagged Command Queueing
                  Linked Commands
                  Synchronous Data Transfer
                  16-bit Wide Data Transfer
                  512 bytes/sector
Block Size:        35565080 sectors/disk
Total Blocks:     1088 reserved sectors/disk
Reserved Blocks:  0x3E
SCSI Inquiry Bits: 0x3E
Stamped for M&P:  yes
Last Failure Reason: 0x20 (Unknown)
Phys Drive Flags: 0xcd 0x35 0x05
                  Drive present and
operational
Enabled           Wide SCSI transfers
                  Ultra2 SCSI Enabled
                  S.M.A.R.T. Supported
                  S.M.A.R.T. Enabled
                  Drive attached to external
SCSI connector    Configured as part of
Logical Drive

```

SCSI LUN: 0
Spi Speed Rules: 0x00000000
Physical Connector: P1 (controller connector attached to drive)
Physical Bay in Box: 10 (number of the physical drive bay in the enclosure)

MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 00 02
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
Page 03: 83 16 02 b8 00 00 00 04 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
Page 09: 89 0e 00 00 00 00 00 00 00 00 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
Page 33: b3 16 02 b8 00 00 00 04 00 00 01
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
Page 00: 80 06 00 00 3a a7 00 00

SCSI Port 1, Drive ID 11

Vendor Id: COMPAQ
Product Id: BF01863644
Product Rev: 3B05
Vendor Specific: 3CC08LDV
Serial Number: 3CC08LDV00007124CJHG
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports: Tagged Command Queuing
Linked Commands
Synchronous Data Transfer
16-bit Wide Data Transfer
512 bytes/sector
Block Size: 512 bytes/sector
Total Blocks: 35565080 sectors/disk
Reserved Blocks: 1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P: yes
Last Failure Reason: 0x20 (Unknown)
Phys Drive Flags: 0xcd 0x35 0x05

operational Drive present and
Enabled Wide SCSI transfers
Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external

SCSI connector Configured as part of
Logical Drive
SCSI LUN: 0
Spi Speed Rules: 0x00000000
Physical Connector: P1 (controller connector attached to drive)
Physical Bay in Box: 11 (number of the physical drive bay in the enclosure)

MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 00 02
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
Page 03: 83 16 02 b8 00 00 00 04 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
Page 09: 89 0e 00 00 00 00 00 00 00 00 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
Page 33: b3 16 02 b8 00 00 00 04 00 00 01
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
Page 00: 80 06 00 00 3a a7 00 00

SCSI Port 1, Drive ID 12

Vendor Id: COMPAQ
Product Id: BF01863644
Product Rev: 3B05
Vendor Specific: 3CC08B31
Serial Number: 3CC08B31000071231ZG3
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports: Tagged Command Queuing

Linked Commands
Synchronous Data Transfer
16-bit Wide Data Transfer
512 bytes/sector
Total Blocks: 35565080 sectors/disk
Reserved Blocks: 1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P: yes
Last Failure Reason: 0x20 (Unknown)
Phys Drive Flags: 0xcd 0x35 0x05
Drive present and

operational Wide SCSI transfers
Enabled Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external

SCSI connector Configured as part of
Logical Drive
SCSI LUN: 0
Spi Speed Rules: 0x00000000
Physical Connector: P1 (controller connector attached to drive)
Physical Bay in Box: 12 (number of the physical drive bay in the enclosure)

MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 00 02
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
Page 03: 83 16 02 b8 00 00 00 04 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
Page 09: 89 0e 00 00 00 00 00 00 00 00 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
Page 33: b3 16 02 b8 00 00 00 04 00 00 01
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
Page 00: 80 06 00 00 3a a7 00 00

```

Page 00: 80 06 00 00 0f 00 00 00
SCSI Port 1, Drive ID 13
Vendor Id:          COMPAQ
Product Id:         BF01863644
Product Rev:        3B05
Vendor Specific:    3CC08V2C
Serial Number:      3CC08V2C00007124CHZR
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports:    Tagged Command Queueing
                   Linked Commands
                   Synchronous Data Transfer
                   16-bit Wide Data Transfer
Block Size:         512 bytes/sector
Total Blocks:       35565080 sectors/disk
Reserved Blocks:    1088 reserved sectors/disk
SCSI Inquiry Bits:  0x3E
Stamped for M&P:    yes
Last Failure Reason: 0x20 (Unknown)
Phys Drive Flags:   0xcd 0x35 0x05
                   Drive present and
operational
Enabled
SCSI connector
Logical Drive
SCSI LUN:           0
Spi Speed Rules:    0x00000000
Physical Connector: P1 (controller connector
attached to drive)
Physical Bay in Box: 13 (number of the physical
drive bay in the enclosure)
MODE SENSE:
Header:             fb 00 10 08 00 00 00 00 00 02
Page 01:            81 0a e4 0b f0 00 00 00 05 00 ff
Page 02:            82 0e 80 80 00 0a 00 00 00 00 00
Page 03:            83 16 02 b8 00 00 00 04 00 00 00
                   00 4c 00 50 40 00 00 00
Page 04:            84 16 00 1b 59 14 00 00 00 00 00
                   00 00 00 00 3a a7 00 00
Page 07:            87 0a 04 0b f0 00 00 00 00 00 ff
Page 08:            88 12 00 00 ff ff 00 00 ff ff ff
Page 09:            89 0e 00 00 00 00 00 00 00 00 00
Page 0a:            8a 0a 00 10 00 00 00 00 00 00 02
Page 0c:            8c 16 80 00 00 16 00 00 00 00 00
                   00 08 00 00 00 00 10 08

```

```

Page 1a: 9a 0a 00 00 00 00 01 00 00 00
04
Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01
Page 33: b3 16 02 b8 00 00 00 04 00 00 01
5a 02 00 00 01
                   00 4c 00 50 40 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00
                   00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00
SCSI Port 1, Drive ID 14
Vendor Id:          COMPAQ
Product Id:         BF01863644
Product Rev:        3B02
Vendor Specific:    3CC00TFK
Serial Number:      3CC00TFK00007052HAKB
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports:    Tagged Command Queueing
                   Linked Commands
                   Synchronous Data Transfer
                   16-bit Wide Data Transfer
Block Size:         512 bytes/sector
Total Blocks:       35565080 sectors/disk
Reserved Blocks:    1088 reserved sectors/disk
SCSI Inquiry Bits:  0x3E
Stamped for M&P:    yes
Last Failure Reason: 0x00 (Drive has not
failed)
Phys Drive Flags:   0xcd 0x35 0x05
                   Drive present and
operational
Enabled
SCSI connector
Logical Drive
SCSI LUN:           0
Spi Speed Rules:    0x00000000
Physical Connector: P1 (controller connector
attached to drive)
Physical Bay in Box: 14 (number of the physical
drive bay in the enclosure)
MODE SENSE:
Header:             fb 00 10 08 00 00 00 00 00 02
Page 01:            81 0a e4 0b f0 00 00 00 05 00 ff
Page 02:            82 0e 80 80 00 0a 00 00 00 00 00
Page 03:            83 16 02 b8 00 00 00 04 00 00 00
                   00 4c 00 50 40 00 00 00
Page 04:            84 16 00 1b 59 14 00 00 00 00 00
                   00 00 00 00 3a a7 00 00

```

```

Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00
                   00 00 00 00
Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 04 0a 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87
Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
                   00 08 00 00 00 00 10 08
Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
04
Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01
Page 33: b3 16 02 b8 00 00 00 04 00 00 01
5a 02 00 00 01
                   00 4c 00 50 40 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00
                   00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00
SCSI Port 1, Drive ID 15
Vendor Id:          COMPAQ
Product Id:         BF01863644
Product Rev:        3B02
Vendor Specific:    3CC0108A
Serial Number:      3CC0108A00007051MRMM
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports:    Tagged Command Queueing
                   Linked Commands
                   Synchronous Data Transfer
                   16-bit Wide Data Transfer
Block Size:         512 bytes/sector
Total Blocks:       35565080 sectors/disk
Reserved Blocks:    1088 reserved sectors/disk
SCSI Inquiry Bits:  0x3E
Stamped for M&P:    yes
Last Failure Reason: 0x00 (Drive has not
failed)
Phys Drive Flags:   0xcd 0x35 0x05
                   Drive present and
operational
Enabled
SCSI connector
Logical Drive
SCSI LUN:           0
Spi Speed Rules:    0x00000000
Physical Connector: P1 (controller connector
attached to drive)
Physical Bay in Box: 15 (number of the physical
drive bay in the enclosure)
MODE SENSE:

```

```

00      Header:  fb 00 10 08 00 00 00 00 00 02
ff      Page 01:  81 0a e4 0b f0 00 00 00 05 00 ff
00 00 00 Page 02:  82 0e 80 80 00 0a 00 00 00 00 00
fe 02 00 00 01 Page 03:  83 16 02 b8 00 00 00 04 00 00 00
                00 4c 00 50 40 00 00 00
00 00 00 00 00 Page 04:  84 16 00 1b 59 14 00 00 00 00 00
                00 00 00 00 3a a7 00 00
ff      Page 07:  87 0a 04 0b f0 00 00 00 00 00 ff
ff 80 40 00 00 Page 08:  88 12 00 00 ff ff 00 00 ff ff ff
                00 00 00 00
00 00 04 0a 00 Page 09:  89 0e 00 00 00 00 00 00 00 00 00
                00 00 00 00
87      Page 0a:  8a 0a 00 10 00 00 00 00 00 00 02
00 00 28 88 09 Page 0c:  8c 16 80 00 00 16 00 00 00 00 00
                00 08 00 00 00 00 10 08
04      Page 1a:  9a 0a 00 00 00 00 00 01 00 00 00
01      Page 1c:  9c 0a 11 04 00 00 00 01 00 00 00
5a 02 00 00 01 Page 33:  b3 16 02 b8 00 00 00 04 00 00 01
                00 4c 00 50 40 00 00 00
00 00 00 00 00 Page 34:  b4 16 00 28 89 0a 00 00 00 00 00
                00 00 00 00 3a a7 00 00
                Page 00:  80 06 00 00 0f 00 00 00

```

```

SCSI Port 2, Drive ID 0 ---> Not available
SCSI Port 2, Drive ID 1 ---> Not available
SCSI Port 2, Drive ID 2 ---> Not available
SCSI Port 2, Drive ID 3 ---> Not available
SCSI Port 2, Drive ID 4 ---> Not available
SCSI Port 2, Drive ID 5 ---> Not available
SCSI Port 2, Drive ID 6 ---> Not available
SCSI Port 2, Drive ID 7 ---> Not available
SCSI Port 2, Drive ID 8 ---> Not available
SCSI Port 2, Drive ID 9 ---> Not available
SCSI Port 2, Drive ID 10 ---> Not available
SCSI Port 2, Drive ID 11 ---> Not available
SCSI Port 2, Drive ID 12 ---> Not available
SCSI Port 2, Drive ID 13 ---> Not available
SCSI Port 2, Drive ID 14 ---> Not available
SCSI Port 2, Drive ID 15 ---> Not available
SCSI Port 3, Drive ID 0

```

```

Vendor Id:          COMPAQ
Product Id:         BF01863644
Product Rev:        3B02
Vendor Specific:    3CC00JYL
Serial Number:      3CC00JYL00007051HE8Q
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports:    Tagged Command Queuing
                   Linked Commands
                   Synchronous Data Transfer
                   16-bit Wide Data Transfer

```

```

Block Size:         512 bytes/sector
Total Blocks:       35565080 sectors/disk
Reserved Blocks:    1088 reserved sectors/disk
SCSI Inquiry Bits:  0x3E
Stamped for M&P:    yes
Last Failure Reason: 0x30 (Performance Test 1)
Phys Drive Flags:   0xcd 0x35 0x05
                   Drive present and

```

operational

Wide SCSI transfers

Enabled

```

Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external

```

SCSI connector

Configured as part of

Logical Drive

```

SCSI LUN:          0
Spi Speed Rules:   0x00000000
Physical Connector: P3 (controller connector
attached to drive)
Physical Bay in Box: 0 (number of the physical
drive bay in the enclosure)

```

MODE SENSE:

```

00      Header:  fb 00 10 08 00 00 00 00 00 02
ff      Page 01:  81 0a e4 0b f0 00 00 00 05 00 ff
00 00 00 00 00 Page 02:  82 0e 80 80 00 0a 00 00 00 00 00
fe 02 00 00 01 Page 03:  83 16 02 b8 00 00 00 04 00 00 00
                00 4c 00 50 40 00 00 00
00 00 00 00 00 Page 04:  84 16 00 1b 59 14 00 00 00 00 00
                00 00 00 00 3a a7 00 00
ff      Page 07:  87 0a 04 0b f0 00 00 00 00 00 ff
ff 80 40 00 00 Page 08:  88 12 00 00 ff ff 00 00 ff ff ff
                00 00 00 00
00 00 04 0a 00 Page 09:  89 0e 00 00 00 00 00 00 00 00 00
                00 00 00 00
87      Page 0a:  8a 0a 00 10 00 00 00 00 00 00 02
00 00 28 88 09 Page 0c:  8c 16 80 00 00 16 00 00 00 00 00
                00 08 00 00 00 00 10 08
04      Page 1a:  9a 0a 00 00 00 00 00 01 00 00 00
01      Page 1c:  9c 0a 11 04 00 00 00 01 00 00 00
5a 02 00 00 01 Page 33:  b3 16 02 b8 00 00 00 04 00 00 01
                00 4c 00 50 40 00 00 00
00 00 00 00 00 Page 34:  b4 16 00 28 89 0a 00 00 00 00 00
                00 00 00 00 3a a7 00 00
                Page 00:  80 06 00 00 0f 00 00 00

```

SCSI Port 3, Drive ID 1

```

Vendor Id:          COMPAQ
Product Id:         BF01863644
Product Rev:        3B02
Vendor Specific:    3CC00KP4
Serial Number:      3CC00KP400007050KGS1
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports:    Tagged Command Queuing
                   Linked Commands
                   Synchronous Data Transfer
                   16-bit Wide Data Transfer

```

```

Block Size:         512 bytes/sector
Total Blocks:       35565080 sectors/disk
Reserved Blocks:    1088 reserved sectors/disk
SCSI Inquiry Bits:  0x3E
Stamped for M&P:    yes
Last Failure Reason: 0x30 (Performance Test 1)
Phys Drive Flags:   0xcd 0x35 0x05
                   Drive present and

```

operational

Wide SCSI transfers

Enabled

```

Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external

```

SCSI connector

Configured as part of

Logical Drive

```

SCSI LUN:          0
Spi Speed Rules:   0x00000000
Physical Connector: P3 (controller connector
attached to drive)
Physical Bay in Box: 1 (number of the physical
drive bay in the enclosure)

```

MODE SENSE:

```

00      Header:  fb 00 10 08 00 00 00 00 00 02
ff      Page 01:  81 0a e4 0b f0 00 00 00 05 00 ff
00 00 00 00 00 Page 02:  82 0e 80 80 00 0a 00 00 00 00 00
fe 02 00 00 01 Page 03:  83 16 02 b8 00 00 00 04 00 00 00
                00 4c 00 50 40 00 00 00
00 00 00 00 00 Page 04:  84 16 00 1b 59 14 00 00 00 00 00
                00 00 00 00 3a a7 00 00
ff      Page 07:  87 0a 04 0b f0 00 00 00 00 00 ff
ff 80 40 00 00 Page 08:  88 12 00 00 ff ff 00 00 ff ff ff
                00 00 00 00
00 00 04 0a 00 Page 09:  89 0e 00 00 00 00 00 00 00 00 00
                00 00 00 00
87      Page 0a:  8a 0a 00 10 00 00 00 00 00 00 02
00 00 28 88 09 Page 0c:  8c 16 80 00 00 16 00 00 00 00 00
                00 08 00 00 00 00 10 08
04      Page 1a:  9a 0a 00 00 00 00 00 01 00 00 00
                00 00 00 00
01      Page 09:  89 0e 00 00 00 00 00 00 00 00 00
5a 02 00 00 01 Page 0a:  8a 0a 00 10 00 00 00 00 00 00 02
                00 4c 00 50 40 00 00 00
87      Page 0c:  8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09 Page 0e:  8e 16 00 28 89 0a 00 00 00 00 00
                00 00 00 00 3a a7 00 00
                Page 00:  80 06 00 00 0f 00 00 00

```

04

```

Page 1c: 9c 0a 11 04 00 00 01 00 00 00
01
Page 33: b3 16 02 b8 00 00 04 00 00 01
5a 02 00 00 01
00 4c 00 50 40 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00
00 00 00 00 00
00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00

SCSI Port 3, Drive ID 2
Vendor Id:          COMPAQ
Product Id:         BF01863644
Product Rev:        3B00
Vendor Specific:    1CC10225
Serial Number:      1CC10225000010410CJA
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports:    Tagged Command Queueing
                   Linked Commands
                   Synchronous Data Transfer
                   16-bit Wide Data Transfer
Block Size:         512 bytes/sector
Total Blocks:       35565080 sectors/disk
Reserved Blocks:    1088 reserved sectors/disk
SCSI Inquiry Bits:  0x3E
Stamped for M&P:    yes
Last Failure Reason: 0x30 (Performance Test 1)
Phys Drive Flags:   0xcd 0x35 0x05
Drive present and
operational
Enabled
Wide SCSI transfers
Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external
SCSI connector
Configured as part of
Logical Drive
SCSI LUN:          0
Spi Speed Rules:   0x00000000
Physical Connector: P3 (controller connector
attached to drive)
Physical Bay in Box: 2 (number of the physical
drive bay in the enclosure)
MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 02
00
Page 01: 81 0a e4 0b f0 00 00 05 00 ff
ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00
00 00 00 00 00
Page 03: 83 16 02 b8 00 00 04 00 00 00
fe 02 00 00 01
00 4c 00 50 40 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00
00 00 00 00 00
00 00 00 00 3a a7 00 00
Page 07: 87 0a 04 0b f0 00 00 00 00 ff
ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00

```

```

00 00 00 00
Page 09: 89 0e 00 00 00 00 00 00 00 00
00 00 00 0a 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 02
87
Page 0c: 8c 16 80 00 00 16 00 00 00 00
00 00 28 88 09
00 08 00 00 00 10 08
Page 1a: 9a 0a 00 00 00 00 01 00 00 00
04
Page 1c: 9c 0a 11 04 00 00 01 00 00 00
01
Page 33: b3 16 02 b8 00 00 04 00 00 01
5a 02 00 00 01
00 4c 00 50 40 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00
00 00 00 00 00
00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00

SCSI Port 3, Drive ID 3
Vendor Id:          COMPAQ
Product Id:         BF01863644
Product Rev:        3B00
Vendor Specific:    1CC07638
Serial Number:      1CC07638000010410N4C
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports:    Tagged Command Queueing
                   Linked Commands
                   Synchronous Data Transfer
                   16-bit Wide Data Transfer
Block Size:         512 bytes/sector
Total Blocks:       35565080 sectors/disk
Reserved Blocks:    1088 reserved sectors/disk
SCSI Inquiry Bits:  0x3E
Stamped for M&P:    yes
Last Failure Reason: 0x30 (Performance Test 1)
Phys Drive Flags:   0xcd 0x35 0x05
Drive present and
operational
Enabled
Wide SCSI transfers
Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external
SCSI connector
Configured as part of
Logical Drive
SCSI LUN:          0
Spi Speed Rules:   0x00000000
Physical Connector: P3 (controller connector
attached to drive)
Physical Bay in Box: 3 (number of the physical
drive bay in the enclosure)
MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 02
00
Page 01: 81 0a e4 0b f0 00 00 05 00 ff
ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00
00 00 00 00 00

```

```

Page 03: 83 16 02 b8 00 00 04 00 00 00
fe 02 00 00 01
00 4c 00 50 40 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00
00 00 00 00 00
00 00 00 00 3a a7 00 00
Page 07: 87 0a 04 0b f0 00 00 00 00 ff
ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00
00 00 00 00
Page 09: 89 0e 00 00 00 00 00 00 00 00
00 00 00 0a 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 02
87
Page 0c: 8c 16 80 00 00 16 00 00 00 00
00 00 28 88 09
00 08 00 00 00 10 08
Page 1a: 9a 0a 00 00 00 00 01 00 00 00
04
Page 1c: 9c 0a 11 04 00 00 01 00 00 00
01
Page 33: b3 16 02 b8 00 00 04 00 00 01
5a 02 00 00 01
00 4c 00 50 40 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00
00 00 00 00 00
00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00

SCSI Port 3, Drive ID 4
Vendor Id:          COMPAQ
Product Id:         BF01863644
Product Rev:        3B00
Vendor Specific:    1CC12163
Serial Number:      1CC12163000010340Y4J
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports:    Tagged Command Queueing
                   Linked Commands
                   Synchronous Data Transfer
                   16-bit Wide Data Transfer
Block Size:         512 bytes/sector
Total Blocks:       35565080 sectors/disk
Reserved Blocks:    1088 reserved sectors/disk
SCSI Inquiry Bits:  0x3E
Stamped for M&P:    yes
Last Failure Reason: 0x30 (Performance Test 1)
Phys Drive Flags:   0xcd 0x35 0x05
Drive present and
operational
Enabled
Wide SCSI transfers
Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external
SCSI connector
Configured as part of
Logical Drive
SCSI LUN:          0
Spi Speed Rules:   0x00000000
Physical Connector: P3 (controller connector
attached to drive)

```

Physical Bay in Box: 4 (number of the physical drive bay in the enclosure)

MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 02
00
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00
00 00 00 00
Page 03: 83 16 02 b8 00 00 00 04 00 00 00
fe 02 00 00 01
00 4c 00 50 40 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00
Page 07: 00 00 00 00 3a a7 00 00
ff
Page 08: 87 0a 04 0b f0 00 00 00 00 00 ff
ff 80 40 00 00
Page 09: 00 00 00 00
00 0e 00 00 00 00 00 00 00 00 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87
Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
00 08 00 00 00 00 10 08
Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
04
Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01
Page 33: b3 16 02 b8 00 00 00 04 00 00 01
5a 02 00 00 01
00 4c 00 50 40 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00
00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00

SCSI Port 3, Drive ID 5

Vendor Id: COMPAQ
Product Id: BF01863644
Product Rev: 3B00
Vendor Specific: 1CC15548
Serial Number: 1CC15548000010410Q2A
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports: Tagged Command Queuing
Linked Commands
Synchronous Data Transfer
16-bit Wide Data Transfer
Block Size: 512 bytes/sector
Total Blocks: 35565080 sectors/disk
Reserved Blocks: 1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P: yes
Last Failure Reason: 0x30 (Performance Test 1)
Phys Drive Flags: 0xcd 0x35 0x05
Drive present and
operational Wide SCSI transfers
Enabled Ultra2 SCSI Enabled

SCSI connector S.M.A.R.T. Supported
Logical Drive S.M.A.R.T. Enabled
SCSI LUN: 0 Drive attached to external
Spi Speed Rules: 0x00000000 Configured as part of
Physical Connector: P3 (controller connector attached to drive)
Physical Bay in Box: 5 (number of the physical drive bay in the enclosure)

MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 02
00
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00 00
Page 03: 83 16 02 b8 00 00 00 04 00 00 00
fe 02 00 00 01
00 4c 00 50 40 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00
Page 07: 00 00 00 00 3a a7 00 00
ff
Page 08: 87 0a 04 0b f0 00 00 00 00 00 ff
ff 80 40 00 00
Page 09: 00 00 00 00
89 0e 00 00 00 00 00 00 00 00 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87
Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
00 08 00 00 00 00 10 08
Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
04
Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01
Page 33: b3 16 02 b8 00 00 00 04 00 00 01
5a 02 00 00 01
00 4c 00 50 40 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00
00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00

SCSI Port 3, Drive ID 6 ---> Not available
SCSI Port 3, Drive ID 7 ---> Not available
SCSI Port 3, Drive ID 8

Vendor Id: COMPAQ
Product Id: BF01863644
Product Rev: 3B00
Vendor Specific: 1CC10250
Serial Number: 1CC10250000010410QPN
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports: Tagged Command Queuing
Linked Commands
Synchronous Data Transfer
16-bit Wide Data Transfer

Block Size: 512 bytes/sector
Total Blocks: 35565080 sectors/disk
Reserved Blocks: 1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P: yes
Last Failure Reason: 0x20 (Unknown)
Phys Drive Flags: 0xcd 0x35 0x05
Drive present and

operational Wide SCSI transfers
Enabled Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external

SCSI connector Configured as part of
Logical Drive
SCSI LUN: 0
Spi Speed Rules: 0x00000000
Physical Connector: P3 (controller connector attached to drive)
Physical Bay in Box: 8 (number of the physical drive bay in the enclosure)

MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 02
00
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00 00
Page 03: 83 16 02 b8 00 00 00 04 00 00 00
fe 02 00 00 01
00 4c 00 50 40 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00
Page 07: 00 00 00 00 3a a7 00 00
ff
Page 08: 87 0a 04 0b f0 00 00 00 00 00 ff
ff 80 40 00 00
Page 09: 00 00 00 00
89 0e 00 00 00 00 00 00 00 00 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87
Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
00 08 00 00 00 00 10 08
Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
04
Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01
Page 33: b3 16 02 b8 00 00 00 04 00 00 01
5a 02 00 00 01
00 4c 00 50 40 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00
00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00

SCSI Port 3, Drive ID 9


```

Vendor Id:          COMPAQ
Product Id:        BF01863644
Product Rev:       3B00
Vendor Specific:   1CC08049
Serial Number:     ICC08049000010410LGL
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports:   Tagged Command Queueing
                  Linked Commands
                  Synchronous Data Transfer
                  16-bit Wide Data Transfer

Block Size:        512 bytes/sector
Total Blocks:      35565080 sectors/disk
Reserved Blocks:   1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P:   yes
Last Failure Reason: 0x20 (Unknown)
Phys Drive Flags: 0xcd 0x35 0x05
                  Drive present and
operational
                  Wide SCSI transfers
Enabled
                  Ultra2 SCSI Enabled
                  S.M.A.R.T. Supported
                  S.M.A.R.T. Enabled
                  Drive attached to external
SCSI connector
                  Configured as part of
Logical Drive
  SCSI LUN:        0
  Spi Speed Rules: 0x00000000
  Physical Connector: P3 (controller connector
attached to drive)
  Physical Bay in Box: 9 (number of the physical
drive bay in the enclosure)

MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 02
00
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00
00 00 00 00
Page 03: 83 16 02 b8 00 00 00 04 00 00 00
fe 02 00 00 01
          00 4c 00 50 40 00 00 00
00 00 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00
          00 00 00 00 3a a7 00 00
ff
Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff 80 40 00 00
          00 00 00 00
00 00 00 00
Page 09: 89 0e 00 00 00 00 00 00 00 00
00 00 00 0a 0a
Page 0a: 8a 0a 00 10 00 00 00 00 00 02
87
Page 0c: 8c 16 80 00 00 16 00 00 00 00
00 00 28 88 09
          00 08 00 00 00 00 10 08
04
Page 1a: 9a 0a 00 00 00 00 01 00 00 00

```

```

Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01
Page 33: b3 16 02 b8 00 00 00 04 00 00 01
5a 02 00 00 01
          00 4c 00 50 40 00 00 00
00 00 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00
          00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00

SCSI Port 3, Drive ID 10
Vendor Id:          COMPAQ
Product Id:        BF01863644
Product Rev:       3B02
Vendor Specific:   3CC00PYX
Serial Number:     3CC00PYX00007050KHBF
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports:   Tagged Command Queueing
                  Linked Commands
                  Synchronous Data Transfer
                  16-bit Wide Data Transfer

Block Size:        512 bytes/sector
Total Blocks:      35565080 sectors/disk
Reserved Blocks:   1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P:   yes
Last Failure Reason: 0x20 (Unknown)
Phys Drive Flags: 0xcd 0x35 0x05
                  Drive present and
operational
                  Wide SCSI transfers
Enabled
                  Ultra2 SCSI Enabled
                  S.M.A.R.T. Supported
                  S.M.A.R.T. Enabled
                  Drive attached to external
SCSI connector
                  Configured as part of
Logical Drive
  SCSI LUN:        0
  Spi Speed Rules: 0x00000000
  Physical Connector: P3 (controller connector
attached to drive)
  Physical Bay in Box: 10 (number of the physical
drive bay in the enclosure)

MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 02
00
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00 00
Page 03: 83 16 02 b8 00 00 00 04 00 00 00
fe 02 00 00 01
          00 4c 00 50 40 00 00 00
00 00 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00
          00 00 00 00 3a a7 00 00
ff
Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff 80 40 00 00
          00 00 00 00
00 00 00 00
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00

```

```

Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 04 0a 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87
Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
          00 08 00 00 00 00 10 08
04
Page 1a: 9a 0a 00 00 00 00 01 00 00 00
01
Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
5a 02 00 00 01
          00 4c 00 50 40 00 00 00
00 00 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00
          00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00

SCSI Port 3, Drive ID 11
Vendor Id:          COMPAQ
Product Id:        BF01863644
Product Rev:       3B02
Vendor Specific:   3CC00RTG
Serial Number:     3CC00RTG00007050KVM2
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports:   Tagged Command Queueing
                  Linked Commands
                  Synchronous Data Transfer
                  16-bit Wide Data Transfer

Block Size:        512 bytes/sector
Total Blocks:      35565080 sectors/disk
Reserved Blocks:   1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P:   yes
Last Failure Reason: 0x20 (Unknown)
Phys Drive Flags: 0xcd 0x35 0x05
                  Drive present and
operational
                  Wide SCSI transfers
Enabled
                  Ultra2 SCSI Enabled
                  S.M.A.R.T. Supported
                  S.M.A.R.T. Enabled
                  Drive attached to external
SCSI connector
                  Configured as part of
Logical Drive
  SCSI LUN:        0
  Spi Speed Rules: 0x00000000
  Physical Connector: P3 (controller connector
attached to drive)
  Physical Bay in Box: 11 (number of the physical
drive bay in the enclosure)

MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 02
00
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00 00

```

```

Page 03: 83 16 02 b8 00 00 04 00 00 00
fe 02 00 00 01
          00 4c 00 50 40 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00
00 00 00 00 00
          00 00 00 00 3a a7 00 00
ff      Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff 80 40 00 00
          00 00 00 00
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
00 00 04 0a 00
          89 0e 00 00 00 00 00 00 00 00 00
Page 09: 89 0e 00 00 00 00 00 00 00 00 00
87      Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
00 00 28 88 09
          00 08 00 00 00 00 10 08
Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
04      Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01      Page 33: b3 16 02 b8 00 00 04 00 00 01
5a 02 00 00 01
          00 4c 00 50 40 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00
          00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00

```

SCSI Port 3, Drive ID 12

```

Vendor Id:          COMPAQ
Product Id:         BF01863644
Product Rev:       3B02
Vendor Specific:   3CC00NB1
Serial Number:     3CC00NB10000705064HL
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports:   Tagged Command Queueing
                  Linked Commands
                  Synchronous Data Transfer
                  16-bit Wide Data Transfer
Block Size:        512 bytes/sector
Total Blocks:      35565080 sectors/disk
Reserved Blocks:   1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P:   yes
Last Failure Reason: 0x20 (Unknown)
Phys Drive Flags:  0xcd 0x35 0x05
                  Drive present and

```

operational

Enabled

Wide SCSI transfers

```

Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external

```

SCSI connector

Configured as part of

Logical Drive

```

SCSI LUN:          0
Spi Speed Rules:   0x00000000
Physical Connector: P3 (controller connector
attached to drive)

```

Physical Bay in Box: 12 (number of the physical drive bay in the enclosure)

MODE SENSE:

```

Header: fb 00 10 08 00 00 00 00 00 00 02
00
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00 00 00
Page 03: 83 16 02 b8 00 00 04 00 00 00
fe 02 00 00 01
          00 4c 00 50 40 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00 00
          00 00 00 00 3a a7 00 00
Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00
          00 00 00 00
Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 04 0a 00
          8a 0a 00 10 00 00 00 00 00 00 02
87      Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
          00 08 00 00 00 00 10 08
Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
04      Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01      Page 33: b3 16 02 b8 00 00 04 00 00 01
5a 02 00 00 01
          00 4c 00 50 40 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00
          00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00

```

SCSI Port 3, Drive ID 13

```

Vendor Id:          COMPAQ
Product Id:         BF01863644
Product Rev:       3B02
Vendor Specific:   3CC00P37
Serial Number:     3CC00P370000705064DD
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports:   Tagged Command Queueing
                  Linked Commands
                  Synchronous Data Transfer
                  16-bit Wide Data Transfer
Block Size:        512 bytes/sector
Total Blocks:      35565080 sectors/disk
Reserved Blocks:   1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P:   yes
Last Failure Reason: 0x20 (Unknown)
Phys Drive Flags:  0xcd 0x35 0x05
                  Drive present and

```

operational

Enabled

Wide SCSI transfers

Ultra2 SCSI Enabled

```

S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external

```

SCSI connector

Configured as part of

Logical Drive

```

SCSI LUN:          0
Spi Speed Rules:   0x00000000
Physical Connector: P3 (controller connector
attached to drive)
Physical Bay in Box: 13 (number of the physical
drive bay in the enclosure)

```

MODE SENSE:

```

Header: fb 00 10 08 00 00 00 00 00 00 02
00
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00 00 00
Page 03: 83 16 02 b8 00 00 04 00 00 00
fe 02 00 00 01
          00 4c 00 50 40 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00 00
          00 00 00 00 3a a7 00 00
Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00
          00 00 00 00
Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 04 0a 00
          8a 0a 00 10 00 00 00 00 00 00 02
87      Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
          00 08 00 00 00 00 10 08
Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
04      Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01      Page 33: b3 16 02 b8 00 00 04 00 00 01
5a 02 00 00 01
          00 4c 00 50 40 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00
          00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00

```

SCSI Port 3, Drive ID 14

```

Vendor Id:          COMPAQ
Product Id:         BF01863644
Product Rev:       3B02
Vendor Specific:   3CC01499
Serial Number:     3CC0149900007051LWS8
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports:   Tagged Command Queueing
                  Linked Commands
                  Synchronous Data Transfer
                  16-bit Wide Data Transfer
Block Size:        512 bytes/sector
Total Blocks:      35565080 sectors/disk

```

```

Reserved Blocks: 1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P: yes
Last Failure Reason: 0x00 (Drive has not
failed)
Phys Drive Flags: 0xcd 0x35 0x05
operational
Enabled
Wide SCSI transfers
Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external
SCSI connector
Configured as part of
Logical Drive
SCSI LUN: 0
Spi Speed Rules: 0x00000000
Physical Connector: P3 (controller connector
attached to drive)
Physical Bay in Box: 14 (number of the physical
drive bay in the enclosure)
MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 02
00
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00 00
Page 03: 83 16 02 b8 00 00 00 04 00 00 00
fe 02 00 00 01
00 4c 00 50 40 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00
00 00 00 00 3a a7 00 00
Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00
00 00 00 00
Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 04 0a 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87
Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
00 08 00 00 00 00 10 08
Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
04
Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01
Page 33: b3 16 02 b8 00 00 00 04 00 00 01
5a 02 00 00 01
00 4c 00 50 40 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00
00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00
SCSI Port 3, Drive ID 15
Vendor Id: COMPAQ

```

```

Product Id: BF01863644
Product Rev: 3B02
Vendor Specific: 3CC014SS
Serial Number: 3CC014SS00007051MRQB
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports: Tagged Command Queueing
Linked Commands
Synchronous Data Transfer
16-bit Wide Data Transfer
512 bytes/sector
Block Size:
Total Blocks: 35565080 sectors/disk
Reserved Blocks: 1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P: yes
Last Failure Reason: 0x00 (Drive has not
failed)
Phys Drive Flags: 0xcd 0x35 0x05
operational
Enabled
Wide SCSI transfers
Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external
SCSI connector
Configured as part of
Logical Drive
SCSI LUN: 0
Spi Speed Rules: 0x00000000
Physical Connector: P3 (controller connector
attached to drive)
Physical Bay in Box: 15 (number of the physical
drive bay in the enclosure)
MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 02
00
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00 00
Page 03: 83 16 02 b8 00 00 00 04 00 00 00
fe 02 00 00 01
00 4c 00 50 40 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00
00 00 00 00 3a a7 00 00
Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00
00 00 00 00
Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 04 0a 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87
Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
00 08 00 00 00 00 10 08
Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
04
Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01
Page 33: b3 16 02 b8 00 00 00 04 00 00 01
5a 02 00 00 01
00 4c 00 50 40 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00
00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00
SCSI Port 3, Drive ID 15
Vendor Id: COMPAQ

```

```

Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01
Page 33: b3 16 02 b8 00 00 00 04 00 00 01
5a 02 00 00 01
00 4c 00 50 40 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00
00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00
SCSI Port 4, Drive ID 0 ---> Not available
SCSI Port 4, Drive ID 1 ---> Not available
SCSI Port 4, Drive ID 2 ---> Not available
SCSI Port 4, Drive ID 3 ---> Not available
SCSI Port 4, Drive ID 4 ---> Not available
SCSI Port 4, Drive ID 5 ---> Not available
SCSI Port 4, Drive ID 6 ---> Not available
SCSI Port 4, Drive ID 7 ---> Not available
SCSI Port 4, Drive ID 8 ---> Not available
SCSI Port 4, Drive ID 9 ---> Not available
SCSI Port 4, Drive ID 10 ---> Not available
SCSI Port 4, Drive ID 11 ---> Not available
SCSI Port 4, Drive ID 12 ---> Not available
SCSI Port 4, Drive ID 13 ---> Not available
SCSI Port 4, Drive ID 14 ---> Not available
SCSI Port 4, Drive ID 15 ---> Not available
CONTROLLER PARAMETERS:
LED Control: 0x00
Command List Verification: On
Backed-out Write drives: 0
Stripes for Parity: 0
Distribution Mode: 0x00
Maximum Driver Requests: 0x0000
Elevator Trend Count: 0x0000
Disable Elevator: 0x00
Force Scan Complete: 0x00
Synch/Asynch Mode: Auto Detect
Force Narrow: No
Rebuild Priority: 0
Expand Priority: 0
SDB ASIC Fix: 0x00
PDIP Burst Disable: 0x00
Software Name:
Hardware Name:
SCSI BUS 1 PARAMETERS:
Inquiry Data Valid: Yes
Inquiry Header: 03 00 02 02 21 00 00 00
Vendor Id: COMPAQ
Product Id: PROLIANT 4LEE
Product Rev: JB49
Installed Drive Map: 0x0000003f
Hot Plug Counts:
All counts are zero
Fan Alert Count: 0x0000
Alarm Status: 0x00 (No Alarms)
Temperature Status: 0x00
Valid Alarm Bits: 0x03
Alarm Count: 0000
Specific Counts: 00000 00000 00000 00000
00000 00000 00000 00000

```

```

Connection Info:      0x2809
SCSI Device Rev:    0x01
Fan Status:         0x2809
More Inquiry Data:
00 02 20 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
SCSI Device Type:    0x00cf9005 (AIC-7899)
Bus Bitmap:         0x0000007f
Interrupt Count:    00000000
Ultra Bus Faults:   0x00000000
SCSI Initiator ID:  7
SCSI Target ID:    7
Physical Connector:  P1 (controller connector
attached to drive)
Big Inst Drive Map: 0xff3f 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
Big Bus Map:       0xffff 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000
More Connection Info: 0x01 (LVD SCSI bus enabled)

SCSI BUS 2 PARAMETERS:
Inquiry Data Valid: No
Installed Drive Map: 0x00000000
Hot Plug Counts:
All counts are zero
Fan Alert Count:    0x0000
Alarm Status:      0x00 (No Alarms)
Temperature Status: 0x00
Valid Alarm Bits:  0x00
Alarm Count:       0000
Specific Counts:   00000 00000 00000 00000
00000 00000 00000 00000
Connection Info:   0x2000
SCSI Device Rev:   0x01
Fan Status:        0x2000
More Inquiry Data:
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
SCSI Device Type:    0x00cf9005 (AIC-7899)
Bus Bitmap:         0x00003f80
Interrupt Count:    00000000
Ultra Bus Faults:   0x00000000
SCSI Initiator ID:  7
SCSI Target ID:    7
Physical Connector:  P2 (controller connector
attached to drive)
Big Inst Drive Map: 0x0000 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000
Big Bus Map:       0x0000 0xffff 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000
More Connection Info: 0x01 (LVD SCSI bus enabled)

```

```

SCSI BUS 3 PARAMETERS:
Inquiry Data Valid: Yes
Inquiry Header:    03 00 02 02 21 00 00 00
Vendor Id:         COMPAQ
Product Id:        PROLIANT 4LEE
Product Rev:       JB49
Installed Drive Map: 0x00000000
Hot Plug Counts:
All counts are zero
Fan Alert Count:    0x0000
Alarm Status:      0x00 (No Alarms)
Temperature Status: 0x00
Valid Alarm Bits:  0x03
Alarm Count:       0000
Specific Counts:   00000 00000 00000 00000
00000 00000 00000 00000
Connection Info:   0x2809
SCSI Device Rev:   0x01
Fan Status:        0x2809
More Inquiry Data:
00 02 20 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
SCSI Device Type:    0x00cf9005 (AIC-7899)
Bus Bitmap:         0x001fc000
Interrupt Count:    00000000
Ultra Bus Faults:   0x00000000
SCSI Initiator ID:  7
SCSI Target ID:    7
Physical Connector:  P3 (controller connector
attached to drive)
Big Inst Drive Map: 0x0000 0x0000 0xff3f 0x0000
0x0000 0x0000 0x0000 0x0000
Big Bus Map:       0x0000 0x0000 0xffff 0x0000
0x0000 0x0000 0x0000 0x0000
More Connection Info: 0x01 (LVD SCSI bus enabled)

SCSI BUS 4 PARAMETERS:
Inquiry Data Valid: No
Installed Drive Map: 0x00000000
Hot Plug Counts:
All counts are zero
Fan Alert Count:    0x0000
Alarm Status:      0x00 (No Alarms)
Temperature Status: 0x00
Valid Alarm Bits:  0x00
Alarm Count:       0000
Specific Counts:   00000 00000 00000 00000
00000 00000 00000 00000
Connection Info:   0x2000
SCSI Device Rev:   0x01
Fan Status:        0x2000
More Inquiry Data:
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....

```

```

00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
SCSI Device Type:    0x00cf9005 (AIC-7899)
Bus Bitmap:         0x0fe00000
Interrupt Count:    00000000
Ultra Bus Faults:   0x00000000
SCSI Initiator ID:  7
SCSI Target ID:    7
Physical Connector:  P4 (controller connector
attached to drive)
Big Inst Drive Map: 0x0000 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000
Big Bus Map:       0x0000 0x0000 0x0000 0xffff
0x0000 0x0000 0x0000 0x0000
More Connection Info: 0x01 (LVD SCSI bus enabled)

MASTER BOOT RECORD (LOGICAL DRIVE 1)

Logical Drive 1 (SCSI Port 1, Drive ID 0):
Master Boot Record hex dump:
33 c0 8e d0 bc 00 7c fb 50 07 50 1f fc be
1b 7c
bf 1b 06 50 57 b9 e5 01 f3 a4 cb bd be 07
b1 04
38 6e 00 7c 09 75 13 83 c5 10 e2 f4 cd 18
8b f5
83 c6 10 49 74 19 38 2c 74 f6 a0 b5 07 b4
07 8b
f0 ac 3c 00 74 fc bb 07 00 b4 0e cd 10 eb
f2 88
4e 10 e8 46 00 73 2a fe 46 10 80 7e 04 0b
74 0b
80 7e 04 0c 74 05 a0 b6 07 75 d2 80 46 02
06 83
46 08 06 83 56 0a 00 e8 21 00 73 05 a0 b6
07 eb
bc 81 3e fe 7d 55 aa 74 0b 80 7e 10 00 74
c8 a0
b7 07 eb a9 8b fc 1e 57 8b f5 cb bf 05 00
8a 56
00 b4 08 cd 13 72 23 8a c1 24 3f 98 8a de
8a fc
43 f7 e3 8b d1 86 d6 b1 06 d2 ee 42 f7 e2
39 56
0a 77 23 72 05 39 46 08 73 1c b8 01 02 bb
00 7c
8b 4e 02 8b 56 00 cd 13 73 51 4f 74 4e 32
e4 8a
56 00 cd 13 eb e4 8a 56 00 60 bb aa 55 b4
41 cd
13 72 36 81 fb 55 aa 75 30 f6 c1 01 74 2b
61 60
6a 00 6a 00 ff 76 0a ff 76 08 6a 00 68 00
7c 6a
01 6a 10 b4 42 8b f4 cd 13 61 61 73 0e 4f
74 0b
32 e4 8a 56 00 cd 13 eb d6 61 f9 c3 49 6e
76 61
6c 69 64 20 70 61 72 74 69 74 69 6f 6e 20
74 61

```

```
69 6e      62 6c 65 00 45 72 72 6f 72 20 6c 6f 61 64
67 20 6f 70 65 72 61 74 69 6e 67 20 73 79
73 74      65 6d 00 4d 69 73 73 69 6e 67 20 6f 70 65
72 61      74 69 6e 67 20 73 79 73 74 65 6d 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 2c 44 63 da 20 d0 fd 00 00
00 01      01 00 06 fe ff ff 3f 00 00 00 f6 76 51 02
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
55 aa      00 00 00 00 00 00 00 00 00 00 00 00 00 00
```

PARTITION TABLES:

```
SCSI Port 1, Drive ID 0:
00 01 01 00 06 fe ff ff 3f 00 00 00 f6 76
51 02      (Start C/H/S 0000/001/01, End
1023/254/63)
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
SCSI Port 3, Drive ID 0: ---> Same as above.
```

RIS DATA AREA:

```
SCSI Port 1, Drive ID 0:
RIS drive: 0x0
RIS Copy 0:
Drive id: 0
RIS signature: ASTROS
Physical Drives: 28
Logical Drives: 6
Physical Drive State: (00=OK, 01=bad or not
present, 02=replacement)
00 00 00 00 00 00 01 01 00 00 00 00 00 00
00 00      01 01 01 01 01 01 01 01 01 01 01 01 01 01
01 01      00 00 00 00 00 00 01 01 00 00 00 00 00 00
00 00      01 01 01 01 01 01 01 01 01 01 01 01 01 01
01 01      Signature: 0xaf4729af
RIS version: 1500
Logical Drive State: (00=OK, 01=failed,
02=unused)
```

```
02 02      00 00 00 00 00 00 02 02 02 02 02 02 02 02
02 02      02 02 02 02 02 02 02 02 02 02 02 02 02 02
02 02      RIS updates: 856
Remap interrupted: 0
Surface delay: 150
Overheat delay: 0
M&P delay: 60
RIS hex dump:
00 41 53 54 52 4f 53 20 af 47 29 af 00 00
03 58      05 dc 1c 06 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 01      01 00 00 00 00 00 00 00 00 01 01 01 01 01
01 01      01 01 01 01 01 01 01 01 01 00 00 00 00 00
00 01      01 00 00 00 00 00 00 00 00 01 01 01 01 01
01 01      01 01 01 01 01 01 01 01 01 01 00 00 00 00
00 00      00 00 00 00 00 00 00 3c 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
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00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 96 00 00 00 00 00 00 00 00 00 00
```

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00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
fa b6      00 00 00 00 00 00 00 00 00 07 d1 06 19 00 00
20 20      00 00 00 00 00 20 20 20 20 20 00 18 20 20
00 00      20 20 00 00 00 00 00 00 00 00 00 18 00 00
00 00      00 00 00 00 30 30 30 30 30 30 00 18 20 20
20 20      20 20 00 00 00 00 00 00 00 00 00 18 00 00
00 00      00 00 00 00 04 04 04 04 04 04 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
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```


f8 d7 00 00 00 00 00 00 00 0c 07 d1 04 19 00 00
00 04 00 00 00 00 00 00 00 00 00 3d 00 00
00 00 00 01 00 00 00 00 00 00 00 0d 07 d1
04 19 00 00 f8 d7 00 05 00 00 00 00 00 00 00
00 00 00 00 01 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 05 00 00 00
00 00 00 01 00 00 00 01 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 05
00 00 00 00 00 00 00 02 00 00 00 01 00 00
00 04 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 05 00 00 00 00 00 00 02 00 00
00 04 00 00 00 05 00 00 00 00 00 00 07 d1
04 1a 00 00 cc 9c 00 05 00 00 00 00 00 00 00
00 02 00 00 00 04 00 00 00 05 00 00 00 00
00 00 00 00 00 00 00 00 00 05 00 00 00 00
00 00 00 00 02 00 00 00 05 00 00 02 00 00
00 00 00 00 00 07 d1 04 1a 00 00 ce fe 00 05
00 00 00 00 00 00 00 02 00 00 00 02 00 00
00 00 00 00 00 00 00 00 07 d1 04 1a 00 00
cf 05 00 05 00 02 00 00 00 00 00 00 02 00 00
00 00 00 00 00 00 00 00 00 00 00 07 d1
04 1a 00 01 4a 42 00 05 00 00 00 00 00 00 00
00 00 00 00 00 00 00 02 00 00 00 00 00 00
00 00 07 d1 06 19 00 00 fa b2 20 0a 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00
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00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00
d5 7d 00 00 00 00 00 00 00 00 00 00 00 00 00
RIS Copy 1: Same as above.
SCSI Port 1, Drive ID 1:
RIS drive: 0x1
RIS Copy 0: Same as above.
RIS Copy 1: Same as above.
SCSI Port 1, Drive ID 2:
RIS drive: 0x2
RIS Copy 0: Same as above.
RIS Copy 1: Same as above.
SCSI Port 1, Drive ID 3:
RIS drive: 0x3
RIS Copy 0: Same as above.
RIS Copy 1: Same as above.
SCSI Port 1, Drive ID 4:
RIS drive: 0x4
RIS Copy 0: Same as above.
RIS Copy 1: Same as above.
SCSI Port 1, Drive ID 5:
RIS drive: 0x5
RIS Copy 0: Same as above.
RIS Copy 1: Same as above.
SCSI Port 1, Drive ID 6: Physical drive not
connected.
SCSI Port 1, Drive ID 7: Physical drive not
connected.
SCSI Port 1, Drive ID 8:
RIS drive: 0x8
RIS Copy 0: Same as above.
RIS Copy 1: Same as above.
SCSI Port 1, Drive ID 9:
RIS drive: 0x9
RIS Copy 0: Same as above.
RIS Copy 1: Same as above.
SCSI Port 1, Drive ID 10:
RIS drive: 0xa
RIS Copy 0: Same as above.
RIS Copy 1: Same as above.
SCSI Port 1, Drive ID 11:
RIS drive: 0xb
RIS Copy 0: Same as above.
RIS Copy 1: Same as above.
SCSI Port 1, Drive ID 12:
RIS drive: 0xc
RIS Copy 0: Same as above.
RIS Copy 1: Same as above.
SCSI Port 1, Drive ID 13:
RIS drive: 0xd
RIS Copy 0: Same as above.
RIS Copy 1: Same as above.
SCSI Port 1, Drive ID 14:
RIS drive: 0xe
RIS Copy 0: Same as above.
RIS Copy 1: Same as above.

```

SCSI Port 1, Drive ID 15:
  RIS drive: 0xf
  RIS Copy 0: Same as above.
  RIS Copy 1: Same as above.
SCSI Port 2, Drive ID 0: Physical drive not
connected.
SCSI Port 2, Drive ID 1: Physical drive not
connected.
SCSI Port 2, Drive ID 2: Physical drive not
connected.
SCSI Port 2, Drive ID 3: Physical drive not
connected.
SCSI Port 2, Drive ID 4: Physical drive not
connected.
SCSI Port 2, Drive ID 5: Physical drive not
connected.
SCSI Port 2, Drive ID 6: Physical drive not
connected.
SCSI Port 2, Drive ID 7: Physical drive not
connected.
SCSI Port 2, Drive ID 8: Physical drive not
connected.
SCSI Port 2, Drive ID 9: Physical drive not
connected.
SCSI Port 2, Drive ID 10: Physical drive not
connected.
SCSI Port 2, Drive ID 11: Physical drive not
connected.
SCSI Port 2, Drive ID 12: Physical drive not
connected.
SCSI Port 2, Drive ID 13: Physical drive not
connected.
SCSI Port 2, Drive ID 14: Physical drive not
connected.
SCSI Port 2, Drive ID 15: Physical drive not
connected.
SCSI Port 3, Drive ID 0:
  RIS drive: 0x20
  RIS Copy 0: Same as above.
  RIS Copy 1: Same as above.
SCSI Port 3, Drive ID 1:
  RIS drive: 0x21
  RIS Copy 0: Same as above.
  RIS Copy 1: Same as above.
SCSI Port 3, Drive ID 2:
  RIS drive: 0x22
  RIS Copy 0: Same as above.
  RIS Copy 1: Same as above.
SCSI Port 3, Drive ID 3:
  RIS drive: 0x23
  RIS Copy 0: Same as above.
  RIS Copy 1: Same as above.
SCSI Port 3, Drive ID 4:
  RIS drive: 0x24
  RIS Copy 0: Same as above.
  RIS Copy 1: Same as above.
SCSI Port 3, Drive ID 5:
  RIS drive: 0x25
  RIS Copy 0: Same as above.
  RIS Copy 1: Same as above.
SCSI Port 3, Drive ID 6: Physical drive not
connected.

```

```

SCSI Port 3, Drive ID 7: Physical drive not
connected.
SCSI Port 3, Drive ID 8:
  RIS drive: 0x28
  RIS Copy 0: Same as above.
  RIS Copy 1: Same as above.
SCSI Port 3, Drive ID 9:
  RIS drive: 0x29
  RIS Copy 0: Same as above.
  RIS Copy 1: Same as above.
SCSI Port 3, Drive ID 10:
  RIS drive: 0x2a
  RIS Copy 0: Same as above.
  RIS Copy 1: Same as above.
SCSI Port 3, Drive ID 11:
  RIS drive: 0x2b
  RIS Copy 0: Same as above.
  RIS Copy 1: Same as above.
SCSI Port 3, Drive ID 12:
  RIS drive: 0x2c
  RIS Copy 0: Same as above.
  RIS Copy 1: Same as above.
SCSI Port 3, Drive ID 13:
  RIS drive: 0x2d
  RIS Copy 0: Same as above.
  RIS Copy 1: Same as above.
SCSI Port 3, Drive ID 14:
  RIS drive: 0x2e
  RIS Copy 0: Same as above.
  RIS Copy 1: Same as above.
SCSI Port 3, Drive ID 15:
  RIS drive: 0x2f
  RIS Copy 0: Same as above.
  RIS Copy 1: Same as above.
SCSI Port 4, Drive ID 0: Physical drive not
connected.
SCSI Port 4, Drive ID 1: Physical drive not
connected.
SCSI Port 4, Drive ID 2: Physical drive not
connected.
SCSI Port 4, Drive ID 3: Physical drive not
connected.
SCSI Port 4, Drive ID 4: Physical drive not
connected.
SCSI Port 4, Drive ID 5: Physical drive not
connected.
SCSI Port 4, Drive ID 6: Physical drive not
connected.
SCSI Port 4, Drive ID 7: Physical drive not
connected.
SCSI Port 4, Drive ID 8: Physical drive not
connected.
SCSI Port 4, Drive ID 9: Physical drive not
connected.
SCSI Port 4, Drive ID 10: Physical drive not
connected.
SCSI Port 4, Drive ID 11: Physical drive not
connected.
SCSI Port 4, Drive ID 12: Physical drive not
connected.
SCSI Port 4, Drive ID 13: Physical drive not
connected.

```

```

SCSI Port 4, Drive ID 14: Physical drive not
connected.
SCSI Port 4, Drive ID 15: Physical drive not
connected.

```

ProLiant is a trademark of Compaq Computer Corporation.

DTC System Configuration

```

Date . . . . . 08/23/2001
Time . . . . . 18:41:13

Product . . . . . ProLiant DL580

Machine ID
  From System Board . . . . . CPQ0715

Processor . . . . . Pentium III(R) Xeon
at 700 MHz
  Slot . . . . . 4
  Secondary Cache . . . . . 2048K
  CPU ID . . . . . 06A1

Processor . . . . . Pentium III(R) Xeon
at 700 MHz
  Slot . . . . . 3
  Secondary Cache . . . . . 2048K
  CPU ID . . . . . 06A1

Processor . . . . . Pentium III(R) Xeon
at 700 MHz
  Slot . . . . . 2
  Secondary Cache . . . . . 2048K
  CPU ID . . . . . 06A1

Processor . . . . . Pentium III(R) Xeon
at 700 MHz
  Slot . . . . . 1
  Secondary Cache . . . . . 2048K
  CPU ID . . . . . 06A1

Processor(s) Mapped Out . . . . . None

Numeric Coprocessor . . . . . Integrated 387-
Compatible

Expansion Bus . . . . . ISA, PCI

System Identification Number . . . . . D050DYV1K065

CPU Mode . . . . . Real Mode

System ROM
  Revision . . . . . 04/05/2001
  Family . . . . . P20
  Flashable . . . . . Yes

```

```

Supports F10 partition . . . Yes

Video Controller ROM
Revision . . . . . 3.96

Option ROMs
Address Range . . . . . C0000 - C7FFF
Data Dump . . . . . (1999/03/24 23:56)

Address Range . . . . . C8000 - CBFFF
Data Dump . . . . . (04/22/98 ROC
Smart Array Option ROM/BIOS (C)Co...)

Address Range . . . . . CC000 - CFFFF
Data Dump . . . . . (07/07/00 Maxwell
Smart Array Option ROM/BIOS (C)Co...)

Address Range . . . . . E8000 - EDFFF
Data Dump . . . . . ( CPQSCSI d)

Bootblock ROM . . . . . 02/28/2000
Memory Boards Identified:
System Board
DIMM Slot 1 (SDRAM) . . . . . 128 Megabytes
DIMM Slot 2 (SDRAM) . . . . . 128 Megabytes
DIMM Slot 3 (SDRAM) . . . . . 128 Megabytes
DIMM Slot 4 (SDRAM) . . . . . 128 Megabytes
DIMM Slot 5 . . . . . 0 Megabytes
DIMM Slot 6 . . . . . 0 Megabytes
DIMM Slot 7 . . . . . 0 Megabytes
DIMM Slot 8 . . . . . 0 Megabytes
DIMM Slot 9 . . . . . 0 Megabytes
DIMM Slot 10 . . . . . 0 Megabytes
DIMM Slot 11 . . . . . 0 Megabytes
DIMM Slot 12 . . . . . 0 Megabytes
DIMM Slot 13 . . . . . 0 Megabytes
DIMM Slot 14 . . . . . 0 Megabytes
DIMM Slot 15 . . . . . 0 Megabytes
DIMM Slot 16 . . . . . 0 Megabytes
Total Compaq Memory . . . . . 512 Megabytes

Keyboard . . . . . Standard 11-Bit

LPT Ports . . . . . LPT1 (Address 378)

COM Ports . . . . . COM1 (Address 3F8)
Compaq NC6134 Gigabit NIC
Device Type . . . . . Ethernet Controller
PCI Bus Number . . . . . 2
Device Number . . . . . 8
Function Number . . . . . 00h
Slot Number . . . . . 2
Vendor ID . . . . . 0E11h
Device ID . . . . . 1000h
Subsystem Vendor ID . . . . . 0E11h
Subsystem ID . . . . . B123h
Revision ID . . . . . 03h
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . 0h
IRQ Line . . . . . 5
IRQ Pin . . . . . INTA#
Memory Address Base . . . . . F7DC0000h
Memory Address Length . . . . . 20000h

```

```

Diskette Drive A . . . . . 1.44 Megabyte (3.5
inch)

Drive Controller 1, Compaq Integrated Smart Array
Controller
IDA Firmware Revision . . . . . 1.42
Array Accelerator Memory . . . . . 8188 Kbytes
Reserved for reads . . . . . 8188 Kbytes
Accelerator Status . . . . . Enabled
Battery count . . . . . 0
Batteries charged . . . . . 0
Batteries failed . . . . . 0
Internal ProLiant . . . . . Bus 1, Rev. JB21

Logical Drive 1 . . . . . 9091 Megabyte
Fault Tolerance . . . . . Mirroring
OS Format . . . . . Multi-Sector
Distribution
Drive geometry (Cyl, Hds, Sec) 2176, 255, 32
Array Accelerator . . . . . Enabled

Hard Drive 1
SCSI Bus . . . . . 1
SCSI ID . . . . . 0
Serial Number . . . . . B3095482
Firmware Revision 1 . . . . . B016
Model Number . . . . . COMPAQ BD009122C6
Initialized for Monitoring . . . . . Yes
Reference time . . . . . 681267
Sectors read . . . . . *2957785257
Hard read errors . . . . . 0
Read errors retry . . . . . 0
ECC read errors . . . . . 0
Sectors written . . . . . 565563886
Hard write errors . . . . . 0
Write errors retry . . . . . 0
Seek count . . . . . 2162166
Seek errors . . . . . 0
Spin cycles . . . . . 1
Spin up time . . . . . 0
Seek time track . . . . . 36%
Seek time third . . . . . 68%
Seek time full . . . . . 70%
Reallocated sectors . . . . . 38
Recovers read failed . . . . . 0
Bus faults . . . . . 0

Hard Drive 2
SCSI Bus . . . . . 1
SCSI ID . . . . . 1
Serial Number . . . . .
LJC1846200001933HQ6R
Firmware Revision 1 . . . . . 3208
Model Number . . . . . COMPAQ HD0093172C
Initialized for Monitoring . . . . . Yes
Reference time . . . . . 451808
Sectors read . . . . . *1298530190
Hard read errors . . . . . 0
Read errors retry . . . . . 0
ECC read errors . . . . . 0

```

```

Sectors written . . . . . 317143999
Hard write errors . . . . . 0
Write errors retry . . . . . 0
Seek count . . . . . 1481833
Seek errors . . . . . 0
Spin cycles . . . . . 2
Spin up time . . . . . 0
Seek time track . . . . . 0%
Seek time third . . . . . 0%
Seek time full . . . . . 0%
Reallocated sectors . . . . . 201
Recovers read failed . . . . . 0
Bus faults . . . . . 0

Graphics Mode . . . . . 03 (80-Column Text)

Primary Monitor attached to . . ATI RAGE IIC PCI
Graphics Controller
with Video Graphics Color Monitor

Base Memory
System Total . . . . . 636 Kbytes
Amount Free . . . . . 553 Kbytes
(566336 Bytes)

Extended Memory
System Total . . . . . 523264 Kbytes

Expanded Memory
LIM Driver Support . . . . . LIM driver not
loaded

Operating System . . . . . MS-DOS version 7.10
(from diskette)

Environment variables
PATH=
PROMPT=$P$G
COMSPEC=A:\COMMAND.COM
CMDLINE=inspect /u
End of environment

System serial number . . . . . D050DYV1K065

Memory Allocation (including INSPECT)
PSP SIZE NAME TRAPPED INTERRUPTS
-----
-----
-----
12F7 007200 COMMAND.COM EFh 2Fh 2Eh 24h 23h
22h
14C2 218144 INSPECT.EXE F9h F4h F3h F2h EDh
3Fh 00h

System Configuration Memory
00 - 0F : 19 00 41 00 18 00 04 23 08 01 26
82 50 80 00 00
10 - 1F : 40 00 00 00 03 80 02 00 3C 00 00
00 00 00 00 02
20 - 2F : 00 00 00 00 7F 20 20 40 00 9A 00
00 00 18 02 B4
30 - 3F : 00 3C 20 80 00 00 XX XX XX XX XX
XX XX XX XX XX

```

```

BIOS Data Area
40:0000 : F8 03 00 00 00 00 00 00 78 03 00
00 00 00 00 9F
40:0010 : 27 42 00 7C 02 00 00 00 00 00 1E
00 1E 00 00 00
40:0020 : 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00
40:0030 : 00 00 00 00 00 00 00 00 00 00 00
00 00 00 01 01
40:0040 : 25 00 00 00 00 2A 00 11 02 03 50
00 00 10 00 00
40:0050 : 00 18 00 00 00 00 00 00 00 00 00
00 00 00 00 00
40:0060 : 0E 0D 00 D4 03 29 30 A4 17 7D 74
00 60 B0 12 00
40:0070 : 00 00 00 12 00 01 00 00 14 14 14
14 01 01 01 01
40:0080 : 1E 00 3E 00 18 10 00 60 F9 11 0B
01 00 00 00 05
40:0090 : 17 00 00 00 2A 00 00 00 00 00 00
00 00 00 00 00
40:00A0 : 00 00 00 00 00 00 00 00 7C 14 00
C0 00 00 00 00
40:00B0 : 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00
40:00C0 : 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00
40:00D0 : 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00
40:00E0 : 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00
40:00F0 : 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00

```

Interrupt Vector Table (including INSPECT)

```

00 - 03 : 14D2:0555 0070:0465
122E:0016 0070:0465
04 - 07 : 0070:0465 F000:FF54
F000:93CC F000:9BD0
08 - 0B : 122E:001F 122E:0028
F000:9BD0 122E:0052
0C - 0F : F000:9BD0 F000:9BD0
122E:009A 0070:0465
10 - 13 : C000:13FE F000:F84D
F000:F841 0070:03EE
14 - 17 : F000:F66C 0207:0240
0070:042D F000:EPD2
18 - 1B : F000:24FA 12EF:002F
F000:FE6E 0070:045F
1C - 1F : F000:FF53 F000:0000
0000:0522 C000:2143
20 - 23 : 00C9:0FA8 00C9:0FB2
12F7:0314 12F7:016D
24 - 27 : 12F7:0178 00C9:0FBC
00C9:0FC6 00C9:0FD0
28 - 2B : 00C9:106C 0070:0466
00C9:106C 00C9:106C
2C - 2F : 00C9:106C 00C9:106C
12F7:0162 12F8:01CC
30 - 33 : C90F:E4EA F000:9B00
00C9:106C 00C9:106C

```

```

34 - 37 : 00C9:106C 00C9:106C
00C9:106C 00C9:106C
38 - 3B : 00C9:106C 00C9:106C
00C9:106C 00C9:106C
3C - 3F : 00C9:106C 00C9:106C
00C9:106C 258E:04F3
40 - 43 : F000:EC59 C81F:01C6
F000:F065 C000:2556
44 - 47 : F000:9BD0 F000:9BD0
0000:0000 F000:9BD0
48 - 4B : F000:9BD0 F000:9BD0
F000:9BD0 F000:9BD0
4C - 4F : F000:9BD0 F000:9BD0
F000:9BD0 0070:04FC
50 - 53 : F000:9BD0 F000:9BD0
F000:9BD0 F000:9BD0
54 - 57 : F000:9BD0 F000:9BD0
F000:9BD0 F000:9BD0
58 - 5B : F000:9BD0 F000:9BD0
F000:9BD0 F000:9BD0
5C - 5F : F000:9BD0 F000:9BD0
F000:9BD0 F000:9BD0
60 - 63 : 0000:0000 0000:0000
0000:0000 0000:0000
64 - 67 : 0000:0000 0000:0000
0000:0000 0000:0000
68 - 6B : F000:9BD0 F000:9BD0
F000:9BD0 F000:9BD0
6C - 6F : F000:9BD0 C000:13FE
F000:9BD0 F000:9BD0
70 - 73 : 122E:0035 F000:9C1F
F000:9BD0 F000:9BD0
74 - 77 : 122E:00E2 F000:9C28
122E:00FA F000:9BD0
78 - 7E : 0000:0000 0000:0000
0000:0000 0000:0000
7C - 7F : 0000:0000 0000:0000
0000:0000 0000:0000
80 - 83 : 0000:0000 0000:0000
0000:0000 0000:0000
84 - 87 : 0000:0000 0000:0000
0000:0000 0000:0000
88 - 8E : 0000:0000 0000:0000
0000:0000 0000:0000
8C - 8F : 0000:0000 0000:0000
0000:0000 0000:0000
90 - 93 : 0000:0000 0000:0000
0000:0000 0000:0000
94 - 97 : 0000:0000 0000:0000
0000:0000 0000:0000
98 - 9B : 0000:0000 0000:0000
0000:0000 0000:0000
9C - 9F : 0000:0000 0000:0000
0000:0000 0000:0000
A0 - A3 : 0000:0000 0000:0000
0000:0000 0000:0000
A4 - A7 : 0000:0000 0000:0000
0000:0000 0000:0000
A8 - AB : 0000:0000 0000:0000
0000:0000 0000:0000
AC - AF : 0000:0000 0000:0000
0000:0000 0000:0000

```

```

B0 - B3 : 0000:0000 0000:0000
0000:0000 0000:0000
B4 - B7 : 0000:0000 0000:0000
0000:0000 0000:0000
B8 - BB : 0000:0000 0000:0000
0000:0000 0000:0000
BC - BF : 0000:0000 0000:0000
0000:0000 0000:0000
C0 - C3 : 0000:0000 0001:0000
0000:0000 0000:0000
C4 - C7 : 0000:0000 0000:0000
0000:0000 0000:0000
C8 - CE : 0000:0000 0000:0000
0000:0000 0000:0000
CC - CF : 0000:0000 0000:0000
0000:0000 0000:0000
D0 - D3 : 0000:0000 0000:0000
0000:0000 0000:0000
D4 - D7 : 0000:0000 0000:0000
0000:0000 0000:0000
D8 - DE : 0000:0000 0000:0000
0000:0000 0000:0000
DC - DF : 0000:0000 0000:0000
0000:0000 0000:0000
E0 - E3 : 0000:0000 0000:0000
0000:0000 0000:0000
E4 - E7 : 0000:0000 0000:0000
0000:0000 0083:0000
E8 - EB : 0002:00D0 0083:0018
0006:00D8 0006:00D8
EC - EF : 0046:2800 1FA5:00F6
0046:0087 13C1:00F4
F0 - F3 : 7C00:0001 7016:1D82
1D82:13C1 1400:6E73
F4 - F7 : 1CDA:0246 0101:7387
0000:0000 0000:613D
F8 - FB : 613D:0020 15E7:6443
0000:0003 0246:0900
FC - FF : 0000:00F4 0000:0900
E15C:0049 0003:09C1

```

```

PCI Devices Information
Signature . . . . . PCI
Config Mechanism #1 . . . . . Supported
Config Mechanism #2 . . . . . Not Supported
Spec Cycle for Config #1 . . . . . Supported
Spec Cycle for Config #2 . . . . . Not Supported
BIOS Interface Version . . . . . 2.10
Last PCI Bus Number . . . . . 10
Number of PCI Devices . . . . . 4

PCI Bus Number . . . . . 0
Device Number . . . . . 4
Function Number . . . . . 00h
Slot Number . . . . . 0
Vendor ID . . . . . 0E11h
Device ID . . . . . 0010h
Revision ID . . . . . 02h
Device Type . . . . . RAID Controller
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . FFF80000h
IRQ Line . . . . . 3
IRQ Pin . . . . . INTA#

```

```

IO Address Base . . . . . 2000h
IO Address Length . . . . . 100h
Memory Address Base . . . . . F6000000h
Memory Address Length . . . . . 1000000h
Memory Address Base . . . . . F5000000h
Memory Address Length . . . . . 1000000h

PCI Bus Number . . . . . 0
Device Number . . . . . 5
Function Number . . . . . 00h
Slot Number . . . . . 0
Vendor ID . . . . . 1002h
Device ID . . . . . 4756h
Revision ID . . . . . 7Ah
Device Type . . . . . VGA Compatible
Controller
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . FFFE0000h
IRQ Line . . . . . 255
IRQ Pin . . . . . Not Used
Memory Address Base . . . . . F3000000h
Memory Address Length . . . . . 1000000h
IO Address Base . . . . . 2400h
IO Address Length . . . . . 100h
Memory Address Base . . . . . F4FF0000h
Memory Address Length . . . . . 1000h

PCI Bus Number . . . . . 2
Device Number . . . . . 8
Function Number . . . . . 00h
Slot Number . . . . . 2
Vendor ID . . . . . 0E11h
Device ID . . . . . 1000h
Revision ID . . . . . 03h
Device Type . . . . . Ethernet Controller
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . 0h
IRQ Line . . . . . 5
IRQ Pin . . . . . INTA#
Memory Address Base . . . . . F7DC0000h
Memory Address Length . . . . . 20000h

PCI Bus Number . . . . . 7
Device Number . . . . . 7
Function Number . . . . . 00h
Slot Number . . . . . 5
Vendor ID . . . . . 0E11h
Device ID . . . . . B060h
Revision ID . . . . . 02h
Device Type . . . . . RAID Controller
Programming Interface . . . . . 00h
Expansion ROM Base Address . . . . . FFF00000h
IRQ Line . . . . . 11
IRQ Pin . . . . . INTA#
Memory Address Base . . . . . F7F80000h
Memory Address Length . . . . . 40000h
Memory Address Base . . . . . F7E00000h
Memory Address Length . . . . . 100000h
IO Address Base . . . . . 3000h
IO Address Length . . . . . 100h

```

```

Array Diagnostic Utility Inspection Report Version
1.40 Revision A

USER ENTERED INFORMATION:

dctl

Date/Time: Thursday, August 23, 2001 8:07PM
Computer Model: ProLiant DL580
System ROM Version: 04/05/2001

SLOT SUMMARY:
Slot Num Slot Type Array Controllers and Host
Adapters Detected
-----
Slot 0 PCI Integrated Smart Array
Controller
Slot 5 PCI Smart Array 5300 Controller

SLOT 0 INTEGRATED SMART ARRAY CONTROLLER ERROR
REPORT:

No problems detected

SUBSYSTEM INFORMATION:

Chassis Serial Num: D050DYV1K065
This Controller
Array Serial Number: Not Available
Cache Serial Number: Not Available
Other Controller
Array Serial Number: Not Available
Cache Serial Number: Not Available

CONTROLLER IDENTIFICATION:
Configured Logical Drives: 1
Configuration Signature: 0xab6a32dc
Adapter Firmware Revision: '1.42'
Adapter ROM Revision: '1.42'
Adapter Hardware Revision: 0x02
Boot Block Version: '1.42'
Drive Present Map: 0x00000003
External Drive Map: 0x00000000
Board ID: 0x40400e11
Cable or Config Error: 0x00 (No)
Non-disk map: 0x00000000
Invalid Host RAM Address: No
CPU Revision: 0x00
CPU to PCI ASIC Rev: 0x00
Cache Controller ASIC Rev: 0x00
PCI to Host ASIC Rev: 0x00
Marketing Revision: 0x41 (Rev A)
Expand Disable Code: 0x01
SCSI Chip Count: 2
Max SCSI ID's per Bus: 16
Big Drive Map: 0x0003 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
Big Ext Drive Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
Big Non-Disk Drive Map: 0x0080 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000

```

```

LOGICAL DRIVE IDENTIFICATION:

Logical Drive 1:
Sector Size: 512
Sectors Available: 17756160
Fault Tolerance Mode: Mirroring
Logical Param Table: cyl=2176 heads=255
sec/track=32 xlate sig=0x0
BIOS Disabled: No

LOGICAL DRIVE CONFIGURATION:

Logical Drive 1:
Configuration Signature: 0xa4192719
Mapping Scheme: Multiple Block
Physical Drives: 64 (number not valid
after drive movement)
This Logical Drive: 2 (excluding spare
drives)
Fault Tolerance Mode: Mirroring
Logical Param Table: cyl=2176 heads=255
sec/track=32 xlate sig=0x0
Drive Assignment Map: 0x00000003
Distribution Factor: 256
Spare Assignment Map: 0x00000000
Operating System: 64768
Controller Order: 0
Additional Information: 0
Offset to Data: 0
Int 13h Support Enabled: Yes
Sectors on Volume: 17756160
Sectors per Drive: 17756160
Big Drive Assignment Map: 0x0003 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
Big Spare Assignment Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
Array Accelerator is enabled for this logical
drive.

LOGICAL DRIVE STATUS:

Logical Drive 1:
Drive Status: OK
Drive Failure Map: 0x00000000
Blocks to Rebuild: 0
Blocks Re-mapped: 0000 0000 0000 0000
0000 0000 0000

0000 0000 0000
Replaced Drive Map: 0x00000000
Active Spare Map: 0x00000000
Spare Status Flags: 0x00
Spare to Replaced Map: See Big Spare to
Replace Map:
Replaced Marked OK Map: 0x00000000
Media Was Exchanged: No
Cache Failure: No
Expand Failure: 0x00
Unit Flags: 0x00
Big Remap Count: All Counts Zero
Big Drive Failure Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000

```

Big Replacement Drive Map: 0x0000 0x0000 0x0000
 0x0000 0x0000 0x0000 0x0000 0x0000
 Big Active Spare Map: 0x0000 0x0000 0x0000
 0x0000 0x0000 0x0000 0x0000 0x0000
 Big Spare to Replace Map: No spares have
 replaced any drives
 Big Spare Marked OK Map: 0x0000 0x0000 0x0000
 0x0000 0x0000 0x0000 0x0000 0x0000

MONITOR AND PERFORMANCE DATA:

SCSI Port 1, Drive ID 0
 Factory: Serial #, Firmware Rev, and
 Mfg/Model #:
 42 33 30 39 35 34 38 32 20 20 20 20 39 39 34
 36 B3095482 9946
 00 00 00 00 42 30 31 36 00 00 00 00 43 4f 4d
B016....COMP
 41 51 20 20 42 44 30 30 39 31 32 32 43 36 20
 20 AQ BD009122C6
 20 20 20 20 00 00 00 00 00 00 00 00 00 00
 00
 00 00 00 00

Since Power: Serial #, Firmware Rev, and
 Mfg/Model #:
 42 33 30 39 35 34 38 32 20 20 20 20 39 39 34
 36 B3095482 9946
 00 00 00 00 00 00 00 00 00 00 00 00 43 4f 4d
COMP
 41 51 20 20 42 44 30 30 39 31 32 32 43 36 20
 20 AQ BD009122C6
 20 20 20 20 00 00 00 00 00 00 00 00 00 00
 00
 00 00 00 00

Threshold Flags: 0x0001
 Serial Number Control: 0x8054
 Firmware Revision Control: 0x8248
 Mfg/Model Number Control: 0x8268

Threshold	Factory Control	Since Power
8108	Serv. Time 000a653c 8184	0000000a
8108	Read Blks 00000012b04c3929	000000000000000de
8108	Hrd Read 00000000 8184	00000000
8108	Rtry Read 00000000 8184	00000000
8108	ECC Read 0000000000000000 8188	00000000000000000
8108	Write Blks 0000000021b5d1ee	00000000000000019
8108	Hrd Write 00000000 8184	00000000
8108	Rtry Write 00000000 8184	00000000
8108	Seeks 000000000020fd6	00000000000000000
8108	Seek Errs 0000000000000000 8188	00000000000000000

00000001	Spin Cyls	00000001	00000000
ffffffffff	8184		
0000	Spin Time	0000	0000
016e	a282		
ffff	Test 1	ffff	ffff
	0a82		
0019	0009		0000
	a282		
004c	0034		0000
	a282		
0087	005f		0000
	a282		
0a04	Spare Blks	ffffffffff	ffffffffff
	00000026		00000000
00001964	a584		
ffff	DRQ Tmots	ffff	ffff
	0982		
ffff	Timeouts	0000	0000
	0182		
ffff	Rebuilds	0002	0000
	0182		
ffff	Spn Retrs	ffff	ffff
	0982		
ffff	Fl Rd Recv	0000	0000
	8182		
ffff	Fl Wt Recv	0000	0000
	0182		
ffff	Format Err	0000	0000
	0182		
ffff	POST Err	ffff	ffff
	0982		
ffff	Drv Nt Ry	00000000	00000000
	0184		
ffffffffff	Reallc Abt	ffffffffff	ffffffffff
	0984		
ffffffffff	IRQ Gltchs	ffffffffff	ffffffffff
	0984		
ffffffffff	Bus Flts	00000000	00000000
	8184		
ffffffffff	Hot Plgs	00000000	00000000
	0184		
ffff	Tk Rwt Err	ffff	ffff
	0982		
ffff	Rmp Wt Err	ffff	ffff
	0982		
0a48	Bg Fw Rev	0000000000000000	0000000000000000
ffff	Med Flrs	0000	0000
	0182		
ffff	Hrdw Errs	0000	0000
	0182		
ffff	Abt Cmd Fl	0000	0000
	0182		
ffff	Spn Up Fl	0000	0000
	0182		
ffff	Bd Tgt Cnt	0000	0000
	0182		
00000000	Pred Fails	00000000	00000000
	2184		

DRIVE ERROR LOG:
 Error Log Header:

Parameter Length = 0x14
 Entry Size = 0x0014
 Current Entry = 0x02
 Total Errors Logged = 0x00000002
 Error Log Data:

SCSI Stat	CAM Stat	Sense Key	Sense Code	Qual	Block(V1)
Time	Op	Info			
00	0a	00	00	00	00000000(0)
00029da0	00	0000			
00	0a	00	00	00	00000000(0)
00029da1	00	0000			

SCSI Port 1, Drive ID 1
 Factory: Serial #, Firmware Rev, and
 Mfg/Model #:
 4c 4a 43 31 38 34 36 32 30 30 30 31 39 33
 33 LJJC1846200001933
 48 51 36 52 33 32 30 38 00 00 00 00 43 4f 4d
 50 HQ6R3208....COMP
 41 51 20 20 48 44 30 30 39 33 31 37 32 43 20
 20 AQ HD0093172C
 20 20 20 20 00 00 00 00 00 00 00 00 00 00
 00
 00 00 00 00

Since Power: Serial #, Firmware Rev, and
 Mfg/Model #:
 4c 4a 43 31 38 34 36 32 30 30 30 31 39 33
 33 LJJC1846200001933
 48 51 36 52 00 00 00 00 00 00 00 00 43 4f 4d
 50 HQ6R.....COMP
 41 51 20 20 48 44 30 30 39 33 31 37 32 43 20
 20 AQ HD0093172C
 20 20 20 20 00 00 00 00 00 00 00 00 00 00
 00
 00 00 00 00

Threshold Flags: 0x0003
 Serial Number Control: 0x8054
 Firmware Revision Control: 0x8248
 Mfg/Model Number Control: 0x8268

Threshold	Factory Control	Since Power
8108	Serv. Time 0006e4e9 8184	0000000a
8108	Read Blks 0000003f4d66000b	000000000000000d8
8108	Hrd Read 00000000 8184	00000000
8108	Rtry Read 00000000 8184	00000000
8108	ECC Read 0000000000000000 8188	00000000000000000
8108	Write Blks 0000000012e73bbf	00000000000000019
8108	Hrd Write 00000000 8184	00000000

```

Rtry Write 00000000      00000000
ffffff      8184
Seeks      0000000000169c69 00000000000000000
8108
Seek Errs  0000000000000000 00000000000000000
ffffff      8188
Spin Cyls  00000002      00000000
ffffff      8184
Spin Time  0000          0000
ffff      8282
Test 1     ffff          ffff
ffff      0a82
Test 2     0002          0000
ffff      8282
Test 3     0036          0000
ffff      8282
Test 4     0067          0000
ffff      8282
Spare Blks ffffffff      ffffffff
0a04
Re-mapped 000000c9      00000000
ffffff      8584
DRQ Tmots ffff          ffff
ffff      0982
Timeouts  0000          0000
ffff      0182
Rebuilds  0001          0000
ffff      0182
Spn Retrs ffff          ffff
ffff      0982
Fl Rd Recv 0000          0000
ffff      8182
Fl Wt Recv 0000          0000
ffff      0182
Format Err 0000          0000
ffff      0182
POST Err   ffff          ffff
ffff      0982
Drv Nt Ry  00000000      00000000
ffffff      0184
Reallc Abt ffffffff      ffffffff
ffffff      0984
IRQ Gltchs ffffffff      ffffffff
ffffff      0984
Bus Flts  00000000      00000000
ffffff      8184
Hot Plgs  00000000      00000000
ffffff      0184
Tk Rwt Err ffff          ffff
ffff      0982
Rmp Wt Err 0000          0000
ffff      0182
Bg Fw Rev 0000000000000000 00000000000000000
0a48
Med Flrs  0000          0000
ffff      0182
Hrdw Errs 0000          0000
ffff      0182
Abt Cmd Fl 0000          0000
ffff      0182
Spn Up Fl  0000          0000
ffff      0182

```

```

Bd Tgt Cnt 0000      0000
ffff      0182
Pred Fails 00000000      00000000
00000000      2184
DRIVE ERROR LOG:
No errors logged.
SCSI Port 1, Drive ID 2
Not Available
DRIVE ERROR LOG:
Not Available
SCSI Port 1, Drive ID 3
Not Available
DRIVE ERROR LOG:
Not Available
SCSI Port 1, Drive ID 4
Not Available
DRIVE ERROR LOG:
Not Available
SCSI Port 1, Drive ID 5
Not Available
DRIVE ERROR LOG:
Not Available
SCSI Port 1, Drive ID 6
Not Available
DRIVE ERROR LOG:
Not Available
SCSI Port 1, Drive ID 7
Not Available
DRIVE ERROR LOG:
Not Available
SCSI Port 1, Drive ID 8
Not Available
DRIVE ERROR LOG:
Not Available
SCSI Port 1, Drive ID 9
Not Available
DRIVE ERROR LOG:
Not Available
SCSI Port 1, Drive ID 10
Not Available
DRIVE ERROR LOG:
Not Available
SCSI Port 1, Drive ID 11

```

```

Not Available
DRIVE ERROR LOG:
Not Available
SCSI Port 1, Drive ID 12
Not Available
DRIVE ERROR LOG:
Not Available
SCSI Port 1, Drive ID 13
Not Available
DRIVE ERROR LOG:
Not Available
SCSI Port 1, Drive ID 14
Not Available
DRIVE ERROR LOG:
Not Available
SCSI Port 1, Drive ID 15
Not Available
DRIVE ERROR LOG:
Not Available
SCSI Port 2, Drive ID 0
Not Available
DRIVE ERROR LOG:
Not Available
SCSI Port 2, Drive ID 1
Not Available
DRIVE ERROR LOG:
Not Available
SCSI Port 2, Drive ID 2
Not Available
DRIVE ERROR LOG:
Not Available
SCSI Port 2, Drive ID 3
Not Available
DRIVE ERROR LOG:
Not Available
SCSI Port 2, Drive ID 4
Not Available
DRIVE ERROR LOG:
Not Available
SCSI Port 2, Drive ID 5
Not Available
DRIVE ERROR LOG:

```



```

Not Available
SCSI Port 2, Drive ID 6
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 7
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 8
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 9
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 10
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 11
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 12
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 13
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 14
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 15
Not Available

DRIVE ERROR LOG:
Not Available

SURFACE ANALYSIS STATUS:

```

```

Time remaining to start: 14 secs.
Surface analysis delay: 15 secs.

SCSI Port 1:
      Big
  Drive ID  Current Block
  -----
    00  0x00000000
    01  0x00000000
    02  0x00000000
    03  0x00000000
    04  0x00000000
    05  0x00000000
    06  0x00000000
    07  0x00000000
    08  0x00000000
    09  0x00000000
    10  0x00000000
    11  0x00000000
    12  0x00000000
    13  0x00000000
    14  0x00000000
    15  0x00000000

SCSI Port 2:
      Big
  Drive ID  Current Block
  -----
    00  0x00000000
    01  0x00000000
    02  0x00000000
    03  0x00000000
    04  0x00000000
    05  0x00000000
    06  0x00000000
    07  0x00000000
    08  0x00000000
    09  0x00000000
    10  0x00000000
    11  0x00000000
    12  0x00000000
    13  0x00000000
    14  0x00000000
    15  0x00000000

      Big
Surface  Surface  Inconsistent  Blocks
Logical  Big      Analysis      Analysis
Controller
Drive    Status  Block      Reassigned  Resets
Passes  Pass Time
-----
1128    1  0x01  0x00000000      0      0
      1771
0        2  0x00  0x00000000      0      0
0        3  0x00  0x00000000      0      0
0        4  0x00  0x00000000      0      0
0        0

```

```

0  5  0x00  0x00000000  0  0
0  6  0x00  0x00000000  0  0
0  7  0x00  0x00000000  0  0
0  8  0x00  0x00000000  0  0
0  9  0x00  0x00000000  0  0
0  10 0x00  0x00000000  0  0
0  11 0x00  0x00000000  0  0
0  12 0x00  0x00000000  0  0
0  13 0x00  0x00000000  0  0
0  14 0x00  0x00000000  0  0
0  15 0x00  0x00000000  0  0
0  16 0x00  0x00000000  0  0
0  17 0x00  0x00000000  0  0
0  18 0x00  0x00000000  0  0
0  19 0x00  0x00000000  0  0
0  20 0x00  0x00000000  0  0
0  21 0x00  0x00000000  0  0
0  22 0x00  0x00000000  0  0
0  23 0x00  0x00000000  0  0
0  24 0x00  0x00000000  0  0
0  25 0x00  0x00000000  0  0
0  26 0x00  0x00000000  0  0
0  27 0x00  0x00000000  0  0
0  28 0x00  0x00000000  0  0
0  29 0x00  0x00000000  0  0
0  30 0x00  0x00000000  0  0
0  31 0x00  0x00000000  0  0
0  32 0x00  0x00000000  0  0
0  0

ACCELERATOR STATUS:
Logical Drive Disable Map: 0xffffffffe
Read Cache Size: 8188 KBytes
Posted Write Size: 0 KBytes
Disable Flag: 0x00
Status: 0x00000001

```

Disable Code: 0x0000
 Total Memory Size: 8188 KBytes
 Battery Count: 0
 Battery Status: 0x0000
 Parity Read Errors: 0000
 Parity Write Errors: 0000
 Error Log: N/A
 Failed Batteries: 0x0000
 Board Present: Yes
 Accelerator Failure Map: 0x00000000
 Max Error Log Entries: 16
 NVRAM Load Status: 0x00
 Memory Size Shift Factor: 0x00
 Non Battery Backed Memory: 8188 KBytes
 Memory State: 0x00

PHYSICAL DRIVE IDENTIFICATION:

SCSI Port 1, Drive ID 0
 Vendor Id: COMPAQ
 Product Id: BD009122C6
 Product Rev: B016
 Vendor Specific: B3095482
 Serial Number: B3095482 9946
 SCSI Inquiry Header: 00 00 02 42 2b 00 01 3a
 Device Supports: Tagged Command Queuing
 Linked Commands
 Synchronous Data Transfer
 16-bit Wide Data Transfer
 Block Size: 512 bytes/sector
 Total Blocks: 17773524 sectors/disk
 Reserved Blocks: 1088 reserved sectors/disk
 SCSI Inquiry Bits: 0x3A
 Stamped for M&P: yes
 Last Failure Reason: 0x14 (Drive removed from hot plug)
 Phys Drive Flags: 0x05 0x25 0x80
 Drive present and operational
 Enabled
 Asynchronous SCSI Enabled
 S.M.A.R.T. Supported
 S.M.A.R.T. Enabled
 Configured as part of Logical Drive
 Drive write cache setting
 is changeable and safe
 SCSI LUN: 0
 Spi Speed Rules: 0x00000000
 Physical Connector: 2J (controller connector attached to drive)
 Physical Bay in Box: 0 (number of the physical drive bay in the enclosure)
 MODE SENSE:
 Header: af 00 10 08 00 00 00 00 00 02
 00
 Page 01: 81 0a e4 3f 99 00 00 00 0f 00 75
 30
 Page 02: 82 0e 20 20 00 01 00 00 00 00 00
 00 00 00 00 00

Page 03: 83 16 00 05 00 0c 00 00 00 05 00
 a8 02 00 00 01
 00 47 00 6a 40 00 00 00
 Page 04: 84 16 00 14 99 14 00 00 00 00 00
 00 00 00 00 00
 00 00 00 00 27 29 00 00
 Page 07: 87 0a 04 3f 99 00 00 00 00 00 75
 30
 Page 08: 88 0a 00 00 ff ff 00 00 01 f5 ff
 ff
 Page 09: 89 0e 00 00 00 00 00 00 00 00 00
 00 00 00 0a 00
 Page 0a: 8a 06 00 10 00 00 00 00
 Page 0c: 0c 16 80 00 00 0e 00 00 00 00 00
 00 00 00 00 00
 00 00 00 00 00 00 00 00
 Page 1c: 9c 0a 11 04 00 00 00 00 00 00 00
 01
 Page 21: a1 02 8f 00
 SCSI Port 1, Drive ID 1
 Vendor Id: COMPAQ
 Product Id: HD0093172C
 Product Rev: 3208
 Vendor Specific: LJCL18462
 Serial Number: LJCL1846200001933HQ6R
 SCSI Inquiry Header: 00 00 02 02 8b 00 01 3e
 Device Supports: Tagged Command Queuing
 Linked Commands
 Synchronous Data Transfer
 16-bit Wide Data Transfer
 Block Size: 512 bytes/sector
 Total Blocks: 17773500 sectors/disk
 Reserved Blocks: 1088 reserved sectors/disk
 SCSI Inquiry Bits: 0x3E
 Stamped for M&P: yes
 Last Failure Reason: 0x00 (Drive has not failed)
 Phys Drive Flags: 0x05 0x25 0x80
 Drive present and operational
 Enabled
 Asynchronous SCSI Enabled
 S.M.A.R.T. Supported
 S.M.A.R.T. Enabled
 Configured as part of Logical Drive
 Drive write cache setting
 is changeable and safe
 SCSI LUN: 0
 Spi Speed Rules: 0x00000000
 Physical Connector: 2J (controller connector attached to drive)
 Physical Bay in Box: 1 (number of the physical drive bay in the enclosure)
 MODE SENSE:
 Header: c7 00 10 08 00 00 00 00 00 02
 00
 Page 01: 81 0a c4 0c e8 00 00 00 05 00 ff
 ff

Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
 00 00 00 00 00
 Page 03: 83 16 14 d0 00 00 00 0a 00 00 00
 d6 02 00 00 01
 00 24 00 2c 40 00 00 00
 Page 04: 84 16 00 1b 32 0c 00 00 00 00 00
 00 00 00 00 00
 00 00 00 00 27 3d 00 00
 Page 07: 87 0a 04 0c e8 00 00 00 00 00 ff
 ff
 Page 08: 88 12 10 00 ff ff 00 00 ff ff ff
 ff 80 03 00 00
 00 00 00 00
 Page 09: 89 0e 00 00 00 00 00 00 00 00 00
 0a 00
 Page 0a: 8a 0a 02 10 00 00 00 00 00 00 00
 00
 Page 0c: 8c 16 80 00 00 0b 00 00 00 00 00
 00 00 1b 31 0b
 00 00 00 00 00 00 10 00
 Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
 04
 Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
 01
 Page 00: 80 02 40 00
 SCSI Port 1, Drive ID 2 ---> Not available
 SCSI Port 1, Drive ID 3 ---> Not available
 SCSI Port 1, Drive ID 4 ---> Not available
 SCSI Port 1, Drive ID 5 ---> Not available
 SCSI Port 1, Drive ID 6 ---> Not available
 SCSI Port 1, Drive ID 7 ---> Not available
 SCSI Port 1, Drive ID 8 ---> Not available
 SCSI Port 1, Drive ID 9 ---> Not available
 SCSI Port 1, Drive ID 10 ---> Not available
 SCSI Port 1, Drive ID 11 ---> Not available
 SCSI Port 1, Drive ID 12 ---> Not available
 SCSI Port 1, Drive ID 13 ---> Not available
 SCSI Port 1, Drive ID 14 ---> Not available
 SCSI Port 1, Drive ID 15 ---> Not available
 SCSI Port 2, Drive ID 0 ---> Not available
 SCSI Port 2, Drive ID 1 ---> Not available
 SCSI Port 2, Drive ID 2 ---> Not available
 SCSI Port 2, Drive ID 3 ---> Not available
 SCSI Port 2, Drive ID 4 ---> Not available
 SCSI Port 2, Drive ID 5 ---> Not available
 SCSI Port 2, Drive ID 6 ---> Not available
 SCSI Port 2, Drive ID 7 ---> Not available
 SCSI Port 2, Drive ID 8 ---> Not available
 SCSI Port 2, Drive ID 9 ---> Not available
 SCSI Port 2, Drive ID 10 ---> Not available
 SCSI Port 2, Drive ID 11 ---> Not available
 SCSI Port 2, Drive ID 12 ---> Not available
 SCSI Port 2, Drive ID 13 ---> Not available
 SCSI Port 2, Drive ID 14 ---> Not available
 SCSI Port 2, Drive ID 15 ---> Not available
 CONTROLLER PARAMETERS:
 LED Control: 0x00
 Command List Verification: On
 Backed-out Write drives: 0
 Stripes for Parity: 0

```

Distribution Mode:      0x00
Maximum Driver Requests: 0x0000
Elevator Trend Count:  0x0000
Disable Elevator:     0x00
Force Scan Complete:  0x00
Synch/Asynch Mode:    Auto Detect
Force Narrow:         No
Rebuild Priority:      0
Expand Priority:       0
SDB ASIC Fix:         0x00
PDIP Burst Disable:   0x00
Software Name:
Hardware Name:

SCSI BUS 1 PARAMETERS:
Inquiry Data Valid:   Yes
Inquiry Header:      03 00 02 02 21 00 00 00
Vendor Id:           COMPAQ
Product Id:          PROLIANT 4L4I
Product Rev:         JB21
Installed Drive Map:  0x00000003
Hot Plug Counts:
  All counts are zero
Fan Alert Count:     0x0000
Alarm Status:        0x00 (No Alarms)
Temperature Status:  0x00
Valid Alarm Bits:    0x02
Alarm Count:         0000
Specific Counts:     00000 00000 00000 00000
00000 00000 00000 00000
Connection Info:     0x110a
SCSI Device Rev:     0x02
Fan Status:          0x110a
More Inquiry Data:
  00 02 00 00 00 00 00 00 00 00 00 00 00 00
  00 .....
  00 00 00 00 00 00 00 00 00 00 00 00 00 00
  00 .....
  00 00 00 00 00 00 00 00 00 00 00 00 00 00
  00 .....
  00 00 00 00 00 00 00 00 00 00 00 00 00 00
  00 .....
  SCSCI Device Type:  0x00101000 (unknown)
  Bus Bitmap:         0x0000007f
  Interrupt Count:    00000000
  Ultra Bus Faults:   0x00000000
  SCSI Initiator ID:  7
  SCSI Target ID:    7
  Physical Connector: 2J (controller connector
attached to drive)
  Big Inst Drive Map: 0x0003 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
  Big Bus Map:       0xffff 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000
  More Connection Info: 0x01 (LVD SCSI bus enabled)

SCSI BUS 2 PARAMETERS:
Inquiry Data Valid:   No
Installed Drive Map:  0x00000000
Hot Plug Counts:
  All counts are zero
Fan Alert Count:     0x0000
Alarm Status:        0x00 (No Alarms)

```

```

Temperature Status:  0x00
Valid Alarm Bits:   0x00
Alarm Count:        0000
Specific Counts:    00000 00000 00000 00000
00000 00000 00000 00000
Connection Info:     0x1000
SCSI Device Rev:     0x02
Fan Status:          0x1000
More Inquiry Data:
  00 00 00 00 00 00 00 00 00 00 00 00 00 00
  00 .....
  00 00 00 00 00 00 00 00 00 00 00 00 00 00
  00 .....
  00 00 00 00 00 00 00 00 00 00 00 00 00 00
  00 .....
  00 00 00 00 00 00 00 00 00 00 00 00 00 00
  00 .....
  SCSCI Device Type:  0x00101000 (unknown)
  Bus Bitmap:         0x00003f80
  Interrupt Count:    00000000
  Ultra Bus Faults:   0x00000000
  SCSI Initiator ID:  7
  SCSI Target ID:    7
  Physical Connector: 0x0000 (controller
connector attached to drive)
  Big Inst Drive Map: 0x0000 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000
  Big Bus Map:       0x0000 0xffff 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000
  More Connection Info: 0x01 (LVD SCSI bus enabled)

MASTER BOOT RECORD (LOGICAL DRIVE 1)

Logical Drive 1 (SCSI Port 1, Drive ID 0):
Master Boot Record hex dump:
 33 c0 8e d0 bc 00 7c fb 50 07 50 1f fc be
1b 7c
bf 1b 06 50 57 b9 e5 01 f3 a4 cb bd be 07
b1 04
38 6e 00 7c 09 75 13 83 c5 10 e2 f4 cd 18
8b f5
83 c6 10 49 74 19 38 2c 74 f6 a0 b5 07 b4
07 8b
f0 ac 3c 00 74 fc bb 07 00 b4 0e cd 10 eb
f2 88
4e 10 e8 46 00 73 2a fe 46 10 80 7e 04 0b
74 0b
80 7e 04 0c 74 05 a0 b6 07 75 d2 80 46 02
06 83
46 08 06 83 56 0a 00 e8 21 00 73 05 a0 b6
07 eb
bc 81 3e fe 7d 55 aa 74 0b 80 7e 10 00 74
c8 a0
b7 07 eb a9 8b fc 1e 57 8b f5 cb bf 05 00
8a 56
00 b4 08 cd 13 72 23 8a c1 24 3f 98 8a de
8a fc
43 f7 e3 8b d1 86 d6 b1 06 d2 ee 42 f7 e2
39 56
0a 77 23 72 05 39 46 08 73 1c b8 01 02 bb
00 7c
8b 4e 02 8b 56 00 cd 13 73 51 4f 74 4e 32
e4 8a

```

```

56 00 cd 13 eb e4 8a 56 00 60 bb aa 55 b4
41 cd
13 72 36 81 fb 55 aa 75 30 f6 c1 01 74 2b
61 60
6a 00 6a 00 ff 76 0a ff 76 08 6a 00 68 00
7c 6a
01 6a 10 b4 42 8b f4 cd 13 61 61 73 0e 4f
74 0b
32 e4 8a 56 00 cd 13 eb d6 61 f9 c3 49 6e
76 61
6c 69 64 20 70 61 72 74 69 74 69 6f 6e 20
74 61
62 6c 65 00 45 72 72 6f 72 20 6c 6f 61 64
69 6e
67 20 6f 70 65 72 61 74 69 6e 67 20 73 79
73 74
65 6d 00 4d 69 73 73 69 6e 67 20 6f 70 65
72 61
74 69 6e 67 20 73 79 73 74 65 6d 00 00 00
00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00
00 00 00 00 00 2c 44 63 6c 55 55 77 00 00
00 01
01 00 12 fe 20 08 20 00 00 00 c0 1e 01 00
80 00
01 09 07 fe e0 ff e0 1e 01 00 40 b1 0d 01
00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00
55 aa

PARTITION TABLES:

SCSI Port 1, Drive ID 0:
00 01 01 00 12 fe 20 08 20 00 00 00 c0 1e
01 00
(Start C/H/S 0000/001/01, End
0008/254/32)
80 00 01 09 07 fe e0 ff e0 1e 01 00 40 b1
0d 01
(Start C/H/S 0009/000/01, End
1023/254/32)
00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00
SCSI Port 1, Drive ID 1: ---> Same as above.

RIS DATA AREA:

SCSI Port 1, Drive ID 0:
RIS drive: 0x0
RIS Copy 0:
Drive id: 0
RIS signature: ASTROS
Physical Drives: 64
Logical Drives: 1

```



```

Big Ext Drive Map:      0xff3f 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
Big Non-Disk Drive Map: 0x0080 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000

```

LOGICAL DRIVE IDENTIFICATION:

```

Logical Drive 1:
Sector Size:          512
Sectors Available:    4194240
Fault Tolerance Mode: Mirroring
Logical Param Table:  cyl=514 heads=255
sec/track=32 xlate sig=0x0
BIOS Disabled:       No

```

LOGICAL DRIVE CONFIGURATION:

```

Logical Drive 1:
Configuration Signature: 0xa7387484
Mapping Scheme:          Multiple Block
Physical Drives:         14 (number not valid
after drive movement)
This Logical Drive:      14 (excluding spare
drives)
Fault Tolerance Mode:    Mirroring
Logical Param Table:     cyl=514 heads=255
sec/track=32 xlate sig=0x0
Drive Assignment Map:    0x0000003f
Distribution Factor:     32
Spare Assignment Map:    0x00000000
Operating System:        64768
Controller Order:        0
Additional Information:  0
Offset to Data:          0
Int 13h Support Enabled: Yes
Sectors on Volume:       4194240
Sectors per Drive:       599200
Big Drive Assignment Map: 0xff3f 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
Big Spare Assignment Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
Array Accelerator is enabled for this logical
drive.

```

LOGICAL DRIVE STATUS:

```

Logical Drive 1:
Drive Status:           OK
Drive Failure Map:      0x00000000
Blocks to Rebuild:     0
Blocks Re-mapped:      0000 0000 0000 0000
0000 0000 0000
0000 0000 0000
Replaced Drive Map:     0x00000000
Active Spare Map:       0x00000000
Spare Status Flags:     0x00
Spare to Replaced Map:  See Big Spare to
Replace Map:
Replaced Marked OK Map: 0x00000000
Media Was Exchanged:    No
Cache Failure:          No
Expand Failure:         0x00

```

```

Unit Flags:            0x00
Big Remap Count:       All Counts Zero
Big Drive Failure Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
Big Replacement Drive Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
Big Active Spare Map:   0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000
Big Spare to Replace Map: No spares have
replaced any drives
Big Spare Marked OK Map: 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000

```

MONITOR AND PERFORMANCE DATA:

```

SCSI Port 1, Drive ID 0
Factory: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 45 36 43 43 30 30 30 37 31 33
35 3CC0E6CC00007135
31 43 55 58 33 42 30 35 00 00 00 43 4f 4d
50 1CUX3B05....COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 20
20 20 20 20 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 45 36 43 43 30 30 30 37 31 33
35 3CC0E6CC00007135
31 43 55 58 33 42 30 35 00 00 00 43 4f 4d
50 1CUX3B05....COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 20
20 20 20 20 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Threshold Flags:        0x0001
Serial Number Control:  0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

```

```

Threshold          Factory          Since Power
Control
Serv. Time 00005636 00000009
ffffffffff 8184
Read Blks 000000007cc6a4e4 00000000001a0bb8
8108 Hrd Read 00000000 00000000
ffffffffff 8184
Rtry Read 00000000 00000000
ffffffffff 8184
ECC Read 0000000000000000 0000000000000000
ffffffffff 8188
Write Blks 000000000b403147 00000000000000cc
8108 Hrd Write 00000000 00000000
ffffffffff 8184
Rtry Write 00000000 00000000
ffffffffff 8184

```

```

Seeks 0000000000000000 0000000000000000
8108 Seek Errs 0000000000000000 0000000000000000
ffffffffff 8188
Spin Cyls 00000000 00000000
ffffffffff 8184
Spin Time ffff ffff
ffff 8a82
Test 1 ffff ffff
ffff 0a82
Test 2 ffff ffff
ffff 8a82
Test 3 ffff ffff
ffff 8a82
Test 4 ffff ffff
ffff 8a82
Spare Blks ffffffff ffffffff
0a04 Re-mapped ffffffff ffffffff
ffffffffff 8d84
DRQ Tmots ffff ffff
ffff 0982
Timeouts 0000 0000
ffff 0182
Rebuilds 0000 0000
ffff 0182
Spn Retrs ffff ffff
ffff 0982
Fl Rd Recv 0000 0000
ffff 8182
Fl Wt Recv 0000 0000
ffff 0182
Format Err 0000 0000
ffff 0182
POST Err ffff ffff
ffff 0982
Drv Nt Ry 00000000 00000000
ffffffffff 0184
Reallc Abt ffffffff ffffffff
ffffffffff 0984
IRQ Gltns ffffffff ffffffff
ffffffffff 0984
Bus Flts 00000000 00000000
ffffffffff 8184
Hot Plgs 00000000 00000000
ffffffffff 0184
Tk Rwt Err ffff ffff
ffff 0982
Rmp Wt Err ffff ffff
ffff 0982
Bg Fw Rev 0000000000000000 0000000000000000
0a48 Med Flrs 0000 0000
ffff 0182
Hrdw Errs 0000 0000
ffff 0182
Abt Cmd Fl 0000 0000
ffff 0182
Spn Up Fl 0000 0000
ffff 0182
Bd Tgt Cnt 0000 0000
ffff 0182

```

Pred Fails 00000000 00000000
00000000 2184

DRIVE ERROR LOG:

Error Log Header:
Parameter Length = 0x14
Entry Size = 0x0014
Current Entry = 0x06
Total Errors Logged = 0x00000006
Error Log Data:

SCSI Time	CAM Stat	Sense Key	Sense Code	Qual	Block(V1)
00	22	00	00	00	00000000(0)
000000e7	12	0000			
00	22	00	00	00	00000000(0)
000000fe	12	0000			
00	22	00	00	00	00000000(0)
0000013d	12	0000			
00	22	00	00	00	00000000(0)
00000534	12	0000			
00	22	00	00	00	00000000(0)
000007ef	12	0000			
00	22	00	00	00	00000000(0)
00000aa9	12	0000			

SCSI Port 1, Drive ID 1

Factory: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 45 36 35 46 30 30 30 30 37 31 33
35 3CC0E65F00007135
4b 33 54 45 33 42 30 35 00 00 00 00 43 4f 4d
50 K3TE3B05...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00
00 00 00 00

.... Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 45 36 35 46 30 30 30 30 37 31 33
35 3CC0E65F00007135
4b 33 54 45 33 42 30 35 00 00 00 00 43 4f 4d
50 K3TE3B05...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00
00 00 00 00

.... Threshold Flags: 0x0001
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold Factory Since Power
Control Control
Serv. Time 00005636 00000009
ffffffffff 8184

Read Blks 000000007cdb96d8 00000000001a0bb7
8108
Hrd Read 00000000 00000000
ffffffffff 8184
Rtry Read 00000000 00000000
ffffffffff 8184
ECC Read 0000000000000000 0000000000000000
ffffffffff 8188
Write Blks 0000000003f8dc88 00000000000000cc
8108
Hrd Write 00000000 00000000
ffffffffff 8184
Rtry Write 00000000 00000000
ffffffffff 8184
Seeks 0000000000000000 0000000000000000
8108
Seek Errs 0000000000000000 0000000000000000
ffffffffff 8188
Spin Cyls 00000000 00000000
ffffffffff 8184
Spin Time ffff ffff
ffff 8a82
Test 1 ffff ffff
ffff 0a82
Test 2 ffff ffff
ffff 8a82
Test 3 ffff ffff
ffff 8a82
Test 4 ffff ffff
ffff 8a82
Spare Blks ffffffff ffffffff
0a04
Re-mapped ffffffff ffffffff
ffffffffff 8d84
DRQ Tmots ffff ffff
ffff 0982
Timeouts 0000 0000
ffff 0182
Rebuilds 0000 0000
ffff 0182
Spn Retrs ffff ffff
ffff 0982
Fl Rd Recv 0000 0000
ffff 8182
Fl Wt Recv 0000 0000
ffff 0182
Format Err 0000 0000
ffff 0182
POST Err ffff ffff
ffff 0982
Drv Nt Ry 00000000 00000000
ffffffffff 0184
Reallc Abt ffffffff ffffffff
ffffffffff 0984
IRQ Gltchs ffffffff ffffffff
ffffffffff 0984
Bus Flts 00000000 00000000
ffffffffff 8184
Hot Plgs 00000000 00000000
ffffffffff 0184
Tk Rwt Err ffff ffff
ffff 0982

Rmp Wt Err ffff ffff
ffff 0982
Bg Fw Rev 0000000000000000 0000000000000000
0a48
Med Flrs 0000 0000
ffff 0182
Hrdw Errs 0000 0000
ffff 0182
Abt Cmd Fl 0000 0000
ffff 0182
Spn Up Fl 0000 0000
ffff 0182
Bd Tgt Cnt 0000 0000
ffff 0182
Pred Fails 00000000 00000000
00000000 2184

DRIVE ERROR LOG:

Error Log Header:
Parameter Length = 0x14
Entry Size = 0x0014
Current Entry = 0x07
Total Errors Logged = 0x00000007
Error Log Data:

SCSI Time	CAM Stat	Sense Key	Sense Code	Qual	Block(V1)
02	04	01	1f	00	00000000(0)
00000001	37	0000			
00	22	00	00	00	00000000(0)
000000e7	12	0000			
00	22	00	00	00	00000000(0)
000000fe	12	0000			
00	22	00	00	00	00000000(0)
0000013d	12	0000			
00	22	00	00	00	00000000(0)
00000534	12	0000			
00	22	00	00	00	00000000(0)
000007ef	12	0000			
00	22	00	00	00	00000000(0)
00000aa9	12	0000			

SCSI Port 1, Drive ID 2

Factory: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 4c 53 42 35 30 30 30 30 37 31 33
35 3CC0LSB500007135
46 54 50 58 33 42 30 35 00 00 00 00 43 4f 4d
50 FTPX3B05...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00
00 00 00 00

.... Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 4c 53 42 35 30 30 30 30 37 31 33
35 3CC0LSB500007135

```

46 54 50 58 33 42 30 35 00 00 00 00 43 4f 4d
50 FTPX3B05...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Threshold Flags: 0x0001
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold Factory Since Power
Control
Serv. Time 00005636 00000009
ffffffffff 8184
Read Blks 000000007cdc0040 00000000001a0bb7
8108
Hrd Read 00000000 00000000
ffffffffff 8184
Rtry Read 00000000 00000000
ffffffffff 8184
ECC Read 000000000000000000 0000000000000000
ffffffffff 8188
Write Blks 0000000003f9aca6 00000000000000cc
8108
Hrd Write 00000000 00000000
ffffffffff 8184
Rtry Write 00000000 00000000
ffffffffff 8184
Seeks 000000000000000000 0000000000000000
8108
Seek Errs 000000000000000000 0000000000000000
ffffffffff 8188
Spin Cyls 00000000 00000000
ffffffffff 8184
Spin Time ffff ffff
ffff 8a82
Test 1 ffff ffff
ffff 0a82
Test 2 ffff ffff
ffff 8a82
Test 3 ffff ffff
ffff 8a82
Test 4 ffff ffff
ffff 8a82
Spare Blks ffffffff ffffffff
0a04
Re-mapped ffffffff ffffffff
ffffffffff 8d84
DRQ Tmots ffff ffff
ffff 0982
Timeouts 0000 0000
ffff 0182
Rebuilds 0000 0000
ffff 0182
Spn Retrs ffff ffff
ffff 0982
Fl Rd Recv 0000 0000
ffff 8182
Fl Wt Recv 0000 0000
ffff 0182

```

```

Format Err 0000 0000
ffff 0182
POST Err ffff ffff
ffff 0982
Drv Nt Ry 00000000 00000000
ffffffffff 0184
Reallc Abt ffffffff ffffffff
ffffffffff 0984
IRQ Gltchs ffffffff ffffffff
ffffffffff 0984
Bus Flts 00000000 00000000
ffffffffff 8184
Hot Plgs 00000000 00000000
ffffffffff 0184
Tk Rwt Err ffff ffff
ffff 0982
Rmp Wt Err ffff ffff
ffff 0982
Bg Fw Rev 0000000000000000 0000000000000000
0a48
Med Flrs 0000 0000
ffff 0182
Hrdw Errs 0000 0000
ffff 0182
Abt Cmd Fl 0000 0000
ffff 0182
Spn Up Fl 0000 0000
ffff 0182
Bd Tgt Cnt 0000 0000
ffff 0182
Pred Fails 00000000 00000000
00000000 2184

DRIVE ERROR LOG:
Error Log Header:
Parameter Length = 0x14
Entry Size = 0x0014
Current Entry = 0x06
Total Errors Logged = 0x00000006
Error Log Data:

SCSI CAM Sense Sense
Stat Stat Key Code Qual Block (V1)
Time Op InFo -----
- - - - -
00 22 00 00 00 00000000(0)
000000e7 12 0000
00 22 00 00 00 00000000(0)
000000fe 12 0000
00 22 00 00 00 00000000(0)
0000013d 12 0000
00 22 00 00 00 00000000(0)
00000534 12 0000
00 22 00 00 00 00000000(0)
000007ef 12 0000
00 22 00 00 00 00000000(0)
00000aa9 12 0000

SCSI Port 1, Drive ID 3
Factory: Serial #, Firmware Rev, and
Mfg/Model #:

```

```

33 43 43 30 4d 34 42 43 30 30 30 30 37 31 34
35 3CC0M4BC00007145
30 5a 4b 31 33 42 30 35 00 00 00 00 43 4f 4d
50 OZK13B05...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 4d 34 42 43 30 30 30 30 37 31 34
35 3CC0M4BC00007145
30 5a 4b 31 33 42 30 35 00 00 00 00 43 4f 4d
50 OZK13B05...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Threshold Flags: 0x0001
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold Factory Since Power
Control
Serv. Time 00005636 00000009
ffffffffff 8184
Read Blks 000000007cdc97f0 00000000001a0bb7
8108
Hrd Read 00000000 00000000
ffffffffff 8184
Rtry Read 00000000 00000000
ffffffffff 8184
ECC Read 000000000000000000 0000000000000000
ffffffffff 8188
Write Blks 0000000003f9a8b9 00000000000000cc
8108
Hrd Write 00000000 00000000
ffffffffff 8184
Rtry Write 00000000 00000000
ffffffffff 8184
Seeks 000000000000000000 0000000000000000
8108
Seek Errs 000000000000000000 0000000000000000
ffffffffff 8188
Spin Cyls 00000000 00000000
ffffffffff 8184
Spin Time ffff ffff
ffff 8a82
Test 1 ffff ffff
ffff 0a82
Test 2 ffff ffff
ffff 8a82
Test 3 ffff ffff
ffff 8a82
Test 4 ffff ffff
ffff 8a82
Spare Blks ffffffff ffffffff
0a04

```

```

Re-mapped ffffffff ffffffff
ffffffff 8d84
ffff DRQ Tmots ffff ffff
ffff Timeouts 0000 0000
ffff 0182
ffff Rebuilds 0000 0000
ffff 0182
ffff Spn Retrs ffff ffff
ffff 0982
ffff Fl Rd Recv 0000 0000
ffff 8182
ffff Fl Wt Recv 0000 0000
ffff 0182
ffff Format Err 0000 0000
ffff 0182
ffff POST Err ffff ffff
ffff 0982
ffff Drv Nt Ry 00000000 00000000
ffffffff 0184
ffffffff Reallc Abt ffffffff ffffffff
ffffffff 0984
ffffffff IRQ Gltchs ffffffff ffffffff
ffffffff 0984
ffff Bus Flts 00000000 00000000
ffffffff 8184
ffff Hot Plgs 00000000 00000000
ffffffff 0184
ffff Tk Rwt Err ffff ffff
ffff 0982
ffff Rmp Wt Err ffff ffff
ffff 0982
ffff Bg Fw Rev 0000000000000000 0000000000000000
0a48
ffff Med Flrs 0000 0000
ffff 0182
ffff Hrdw Errs 0000 0000
ffff 0182
ffff Abt Cmd Fl 0000 0000
ffff 0182
ffff Spn Up Fl 0000 0000
ffff 0182
ffff Bd Tgt Cnt 0000 0000
ffff 0182
ffff Pred Fails 00000000 00000000
00000000 2184

DRIVE ERROR LOG:
Error Log Header:
Parameter Length = 0x14
Entry Size = 0x0014
Current Entry = 0x06
Total Errors Logged = 0x00000006
Error Log Data:

SCSI CAM Sense Sense
Stat Stat Key Code Qual Block(VL)
Time Op Info -----
- - - - -
00 22 00 00 00 00000000(0)
000000e7 12 0000

```

```

00 22 00 00 00 00000000(0)
000000fe 12 0000
00 22 00 00 00 00000000(0)
0000013d 12 0000
00 22 00 00 00 00000000(0)
00000534 12 0000
00 22 00 00 00 00000000(0)
000007ef 12 0000
00 22 00 00 00 00000000(0)
00000aa9 12 0000

SCSI Port 1, Drive ID 4
Factory: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 45 35 33 53 30 30 30 30 37 31 33
35 3CC0E53S00007135
31 41 43 4b 33 42 30 35 00 00 00 00 43 4f 4d
50 1ACK3B05....COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 45 35 33 53 30 30 30 30 37 31 33
35 3CC0E53S00007135
31 41 43 4b 33 42 30 35 00 00 00 00 43 4f 4d
50 1ACK3B05....COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Threshold Flags: 0x0001
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold Factory Since Power
Control
Serv. Time 00005636 00000009
ffffffffff 8184
Read Blks 000000007cdb2fa5 00000000001a0bb7
8108
Hrd Read 00000000 00000000
ffffffffff 8184
Rtry Read 00000000 00000000
ffffffffff 8184
ECC Read 0000000000000000 0000000000000000
ffffffffff 8188
Write Blks 000000003f98d48 00000000000000cc
8108
Hrd Write 00000000 00000000
ffffffffff 8184
Rtry Write 00000000 00000000
ffffffffff 8184
Seeks 0000000000000000 0000000000000000
8108
Seek Errs 0000000000000000 0000000000000000
ffffffffff 8188

```

```

Spin Cyls 00000000 00000000
ffffffff 8184
ffff Spin Time ffff ffff
ffff 8a82
ffff Test 1 ffff ffff
ffff 0a82
ffff Test 2 ffff ffff
ffff 8a82
ffff Test 3 ffff ffff
ffff 8a82
ffff Test 4 ffff ffff
ffff 8a82
ffff Spare Blks ffffffff ffffffff
0a04
Re-mapped ffffffff ffffffff
ffffffff 8d84
ffff DRQ Tmots ffff ffff
ffff 0982
ffff Timeouts 0000 0000
ffff 0182
ffff Rebuilds 0000 0000
ffff 0182
ffff Spn Retrs ffff ffff
ffff 0982
ffff Fl Rd Recv 0000 0000
ffff 8182
ffff Fl Wt Recv 0000 0000
ffff 0182
ffff Format Err 0000 0000
ffff 0182
ffff POST Err ffff ffff
ffff 0982
ffff Drv Nt Ry 00000000 00000000
ffffffff 0184
ffffffff Reallc Abt ffffffff ffffffff
ffffffff 0984
ffffffff IRQ Gltchs ffffffff ffffffff
ffffffff 0984
ffff Bus Flts 00000000 00000000
ffffffff 8184
ffff Hot Plgs 00000000 00000000
ffffffff 0184
ffff Tk Rwt Err ffff ffff
ffff 0982
ffff Rmp Wt Err ffff ffff
ffff 0982
ffff Bg Fw Rev 0000000000000000 0000000000000000
0a48
ffff Med Flrs 0000 0000
ffff 0182
ffff Hrdw Errs 0000 0000
ffff 0182
ffff Abt Cmd Fl 0000 0000
ffff 0182
ffff Spn Up Fl 0000 0000
ffff 0182
ffff Bd Tgt Cnt 0000 0000
ffff 0182
ffff Pred Fails 00000000 00000000
00000000 2184

DRIVE ERROR LOG:
Error Log Header:

```

Parameter Length = 0x14
 Entry Size = 0x0014
 Current Entry = 0x06
 Total Errors Logged = 0x00000006
 Error Log Data:

SCSI Stat	CAM Stat	Sense Key	Sense Code	Qual	Block(V1)
Time	Op	Info			
00	22	00	00	00	00000000(0)
000000e7	12	0000			
00	22	00	00	00	00000000(0)
000000fe	12	0000			
00	22	00	00	00	00000000(0)
0000013d	12	0000			
00	22	00	00	00	00000000(0)
00000534	12	0000			
00	22	00	00	00	00000000(0)
000007ef	12	0000			
00	22	00	00	00	00000000(0)
00000aa9	12	0000			

SCSI Port 1, Drive ID 5
 Factory: Serial #, Firmware Rev, and Mfg/Model #:
 33 43 43 30 4c 4e 43 4a 30 30 30 30 37 31 33
 35 3CC0LNCJ00007135
 4b 33 54 34 33 42 30 35 00 00 00 00 43 4f 4d
 50 K3T43B05...COMP
 41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
 20 AQ BF01863644
 20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
 00
 00 00 00 00

....
 Since Power: Serial #, Firmware Rev, and Mfg/Model #:
 33 43 43 30 4c 4e 43 4a 30 30 30 30 37 31 33
 35 3CC0LNCJ00007135
 4b 33 54 34 33 42 30 35 00 00 00 00 43 4f 4d
 50 K3T43B05...COMP
 41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
 20 AQ BF01863644
 20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
 00
 00 00 00 00

....
 Threshold Flags: 0x0001
 Serial Number Control: 0x8054
 Firmware Revision Control: 0x8248
 Mfg/Model Number Control: 0x8268

Threshold	Factory Control	Since Power
ffffffffff	8184	00000009
8108	Read Blks 000000007cda8b9c	0000000001a0bb7
ffffffffff	Hrd Read 00000000	00000000
ffffffffff	8184	

Rtry Read	00000000	00000000
ffffffffff	8184	
BCC Read	0000000000000000	0000000000000000
ffffffffff	8188	
Write Blks	0000000004b80f86	00000000000000cc
8108		
Hrd Write	00000000	00000000
ffffffffff	8184	
Rtry Write	00000000	00000000
ffffffffff	8184	
Seeks	0000000000000000	0000000000000000
8108		
Seek Errs	0000000000000000	0000000000000000
ffffffffff	8188	
Spin Cyls	00000000	00000000
ffffffffff	8184	
Spin Time	ffff	ffff
ffff	8a82	
Test 1	ffff	ffff
ffff	0a82	
Test 2	ffff	ffff
ffff	8a82	
Test 3	ffff	ffff
ffff	8a82	
Test 4	ffff	ffff
ffff	8a82	
Spare Blks	ffffffffff	ffffffffff
0a04		
Re-mapped	ffffffffff	ffffffffff
ffffffffff	8d84	
DRQ Tmots	ffff	ffff
ffff	0982	
Timeouts	0000	0000
ffff	0182	
Rebuilds	0000	0000
ffff	0182	
Spn Retrs	ffff	ffff
ffff	0982	
Fl Rd Recv	0000	0000
ffff	8182	
Fl Wt Recv	0000	0000
ffff	0182	
Format Err	0000	0000
ffff	0182	
POST Err	ffff	ffff
ffff	0982	
Drv Nt Ry	00000000	00000000
ffffffffff	0184	
Reallc Abt	ffffffffff	ffffffffff
ffffffffff	0984	
IRQ Gltchs	ffffffffff	ffffffffff
ffffffffff	0984	
Bus Flts	00000000	00000000
ffffffffff	8184	
Hot Plgs	00000000	00000000
ffffffffff	0184	
Tk Rwt Err	ffff	ffff
ffff	0982	
Rmp Wt Err	ffff	ffff
ffff	0982	
Bg Fw Rev	0000000000000000	0000000000000000
0a48		

Med Flrs	0000	0000
ffff	0182	
Hrdw Errs	0000	0000
ffff	0182	
Abt Cmd Fl	0000	0000
ffff	0182	
Spn Up Fl	0000	0000
ffff	0182	
Bd Tgt Cnt	0000	0000
ffff	0182	
Pred Fails	00000000	00000000
00000000	2184	

DRIVE ERROR LOG:
 Error Log Header:
 Parameter Length = 0x14
 Entry Size = 0x0014
 Current Entry = 0x07
 Total Errors Logged = 0x00000007
 Error Log Data:

SCSI Stat	CAM Stat	Sense Key	Sense Code	Qual	Block(V1)
Time	Op	Info			
02	04	01	1f	00	00000000(0)
00000001	37	0000			
00	22	00	00	00	00000000(0)
000000e7	12	0000			
00	22	00	00	00	00000000(0)
000000fe	12	0000			
00	22	00	00	00	00000000(0)
0000013d	12	0000			
00	22	00	00	00	00000000(0)
00000534	12	0000			
00	22	00	00	00	00000000(0)
000007ef	12	0000			
00	22	00	00	00	00000000(0)
00000aa9	12	0000			

SCSI Port 1, Drive ID 6
 Not Available

DRIVE ERROR LOG:
 Not Available

SCSI Port 1, Drive ID 7
 Not Available

DRIVE ERROR LOG:
 Not Available

SCSI Port 1, Drive ID 8
 Factory: Serial #, Firmware Rev, and Mfg/Model #:
 33 43 43 30 4c 45 54 4b 30 30 30 30 37 31 34
 35 3CCOLETK00007145
 48 32 55 4d 33 42 30 35 00 00 00 00 43 4f 4d
 50 H2UM3B05...COMP
 41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
 20 AQ BF01863644

```

00      20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00      .....
      00 00 00 00
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
35      33 43 43 30 4c 45 54 4b 30 30 30 30 37 31 34
      3CCOLETK00007145
50      48 32 55 4d 33 42 30 35 00 00 00 00 43 4f 4d
      H2UM3B05....COMP
20      41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
      AQ BF01863644
00      20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00      .....
      00 00 00 00
....
Threshold Flags:          0x0001
Serial Number Control:   0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold          Factory          Since Power
Serv. Time 00005636 00000009
8184
Read Blks 000000007cc4ca56 00000000001a0bb7
8108
Hrd Read 00000000 00000000
8184
Rtry Read 00000000 00000000
8184
ECC Read 0000000000000000 0000000000000000
8188
Write Blks 000000001fb48db7 00000000000000cc
8108
Hrd Write 00000000 00000000
8184
Rtry Write 00000000 00000000
8184
Seeks 0000000000000000 0000000000000000
8108
Seek Errs 0000000000000000 0000000000000000
8188
Spin Cyls 00000000 00000000
8184
Spin Time ffff ffff
8a82
Test 1 ffff ffff
0a82
Test 2 ffff ffff
8a82
Test 3 ffff ffff
8a82
Test 4 ffff ffff
8a82
Spare Blks ffffffff ffffffff
0a04
Re-mapped ffffffff ffffffff
8d84
DRQ Tmots ffff ffff
0982
Timeouts 0000 0000
0182

```

```

Rebuilds 0000 0000
ffff 0182
Spn Retrs ffff ffff
ffff 0982
Fl Rd Recv 0000 0000
ffff 8182
Fl Wt Recv 0000 0000
ffff 0182
Format Err 0000 0000
ffff 0182
POST Err ffff ffff
ffff 0982
Drv Nt Ry 00000000 00000000
ffff 0184
Reallc Abt ffffffff ffffffff
ffff 0984
IRQ Gltns ffffffff ffffffff
ffff 0984
Bus Flts 00000000 00000000
ffff 8184
Hot Plgs 00000000 00000000
ffff 0184
Tk Rwt Err ffff ffff
ffff 0982
Rmp Wt Err ffff ffff
ffff 0982
Bg Fw Rev 0000000000000000 0000000000000000
0a48
Med Flrs 0000 0000
ffff 0182
Hrdw Errs 0000 0000
ffff 0182
Abt Cmd Fl 0000 0000
ffff 0182
Spn Up Fl 0000 0000
ffff 0182
Bd Tgt Cnt 0000 0000
ffff 0182
Pred Fails 00000000 00000000
00000000 2184

DRIVE ERROR LOG:
Error Log Header:
Parameter Length = 0x14
Entry Size = 0x0014
Current Entry = 0x06
Total Errors Logged = 0x00000006
Error Log Data:

SCSI CAM Sense Sense
Stat Stat Key Code Qual Block (V1)
Time Op Info
--- ---
00 22 00 00 00 00000000(0)
000000e7 12 0000
00 22 00 00 00 00000000(0)
000000fe 12 0000
00 22 00 00 00 00000000(0)
0000013d 12 0000
00 22 00 00 00 00000000(0)
00000534 12 0000

```

```

00 22 00 00 00 00000000(0)
000007ef 12 0000
00 22 00 00 00 00000000(0)
00000aa9 12 0000

SCSI Port 1, Drive ID 9
Factory: Serial #, Firmware Rev, and
Mfg/Model #:
35 33 43 43 30 4c 4e 48 34 30 30 30 30 37 31 34
      3CCOLNH400007145
50 4b 4b 48 33 33 42 30 35 00 00 00 00 43 4f 4d
      KKH33B05....COMP
20 41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
      AQ BF01863644
00 20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
      00 00 00 00
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
35 33 43 43 30 4c 4e 48 34 30 30 30 30 37 31 34
      3CCOLNH400007145
50 4b 4b 48 33 33 42 30 35 00 00 00 00 43 4f 4d
      KKH33B05....COMP
20 41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
      AQ BF01863644
00 20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
      00 00 00 00
....
Threshold Flags:          0x0001
Serial Number Control:   0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold          Factory          Since Power
Serv. Time 00005636 00000009
8184
Read Blks 000000007c5ade8d 00000000001a0bb7
8108
Hrd Read 00000000 00000000
8184
Rtry Read 00000000 00000000
8184
ECC Read 0000000000000000 0000000000000000
8188
Write Blks 000000000affcb0b 00000000000000cc
8108
Hrd Write 00000000 00000000
8184
Rtry Write 00000000 00000000
8184
Seeks 0000000000000000 0000000000000000
8108
Seek Errs 0000000000000000 0000000000000000
8188
Spin Cyls 00000000 00000000
8184
Spin Time ffff ffff
8a82
Test 1 ffff ffff
0a82

```

```

Test 2      ffff      ffff
ffff      8a82
Test 3      ffff      ffff
ffff      8a82
Test 4      ffff      ffff
ffff      8a82
Spare Blks ffffffff ffffffff
0a04
Re-mapped  ffffffff ffffffff
ffff      8d84
DRQ Tmots  ffff      ffff
ffff      0982
Timeouts   0000      0000
ffff      0182
Rebuilds   0000      0000
ffff      0182
Spn Retrs  ffff      ffff
ffff      0982
Fl Rd Recv 0000      0000
ffff      8182
Fl Wt Recv 0000      0000
ffff      0182
Format Err 0000      0000
ffff      0182
POST Err   ffff      ffff
ffff      0982
Drv Nt Ry  00000000 00000000
ffff      0184
Reallc Abt ffffffff ffffffff
ffff      0984
IRQ Gltchs ffffffff ffffffff
ffff      0984
Bus Flts   00000000 00000000
ffff      8184
Hot Plgs   00000000 00000000
ffff      0184
Tk Rwt Err ffff      ffff
ffff      0982
Rmp Wt Err ffff      ffff
ffff      0982
Bg Fw Rev  0000000000000000 0000000000000000
0a48
Med Flrs   0000      0000
ffff      0182
Hrdw Errs 0000      0000
ffff      0182
Abt Cmd Fl 0000      0000
ffff      0182
Spn Up Fl  0000      0000
ffff      0182
Bd Tgt Cnt 0000      0000
ffff      0182
Pred Fails 00000000 00000000
00000000 2184

```

```

DRIVE ERROR LOG:
Error Log Header:
Parameter Length = 0x14
Entry Size       = 0x0014
Current Entry    = 0x06
Total Errors Logged = 0x00000006
Error Log Data:

```

```

SCSI CAM Sense Sense
Stat Stat Key Code Qual Block(VL)
Time Op InFo
-----
02 04 01 1f 00 00000000(0)
00000001 37 0000
00 22 00 00 00 00000000(0)
000000e7 12 0000
00 22 00 00 00 00000000(0)
0000013d 12 0000
00 22 00 00 00 00000000(0)
00000534 12 0000
00 22 00 00 00 00000000(0)
000007ef 12 0000
00 22 00 00 00 00000000(0)
00000aa9 12 0000

SCSI Port 1, Drive ID 10
Factory: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 45 41 4a 32 30 30 30 37 31 33
35 3CC0EAJ200007135
4b 34 41 37 33 42 30 35 00 00 00 43 4f 4d
50 K4A73B05...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 45 41 4a 32 30 30 30 37 31 33
35 3CC0EAJ200007135
4b 34 41 37 33 42 30 35 00 00 00 43 4f 4d
50 K4A73B05...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Threshold Flags: 0x0001
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold Factory Since Power
Control
Serv. Time 00005636 00000009
ffff      8184
8108 Read Blks 000000007dcf5c03 00000000001a0bb7
ffff      8184
Hrd Read 00000000 00000000
ffff      8184
Rtry Read 00000000 00000000
ffff      8184
ECC Read 0000000000000000 0000000000000000
ffff      8188
Write Blks 0000000003b8a393 00000000000000cc
8108

```

```

Hrd Write 00000000 00000000
ffff      8184
Rtry Write 00000000 00000000
ffff      8184
Seeks 0000000000000000 0000000000000000
8108
Seek Errs 0000000000000000 0000000000000000
ffff      8188
Spin Cyls 00000000 00000000
ffff      8184
Spin Time ffff      ffff
ffff      8a82
Test 1     ffff      ffff
ffff      0a82
Test 2     ffff      ffff
ffff      8a82
Test 3     ffff      ffff
ffff      8a82
Test 4     ffff      ffff
ffff      8a82
Spare Blks ffffffff ffffffff
0a04
Re-mapped  ffffffff ffffffff
ffff      8d84
DRQ Tmots  ffff      ffff
ffff      0982
Timeouts   0000      0000
ffff      0182
Rebuilds   0000      0000
ffff      0182
Spn Retrs  ffff      ffff
ffff      0982
Fl Rd Recv 0000      0000
ffff      8182
Fl Wt Recv 0000      0000
ffff      0182
Format Err 0000      0000
ffff      0182
POST Err   ffff      ffff
ffff      0982
Drv Nt Ry  00000000 00000000
ffff      0184
Reallc Abt ffffffff ffffffff
ffff      0984
IRQ Gltchs ffffffff ffffffff
ffff      0984
Bus Flts   00000000 00000000
ffff      8184
Hot Plgs   00000000 00000000
ffff      0184
Tk Rwt Err ffff      ffff
ffff      0982
Rmp Wt Err ffff      ffff
ffff      0982
Bg Fw Rev  0000000000000000 0000000000000000
0a48
Med Flrs   0000      0000
ffff      0182
Hrdw Errs 0000      0000
ffff      0182
Abt Cmd Fl 0000      0000
ffff      0182

```



```

Spn Up Fl 0000      0000
ffff      0182
Bd Tgt Cnt 0000      0000
ffff      0182
Pred Fails 00000000 00000000
00000000      2184

```

```

DRIVE ERROR LOG:
Error Log Header:
Parameter Length = 0x14
Entry Size      = 0x0014
Current Entry   = 0x05
Total Errors Logged = 0x00000005
Error Log Data:

```

SCSI Time	CAM Op	Sense Key	Sense Code	Qual	Block(VL)
00	22	00	00	00	00000000(0)
000000e7	12	0000			
00	22	00	00	00	00000000(0)
0000013d	12	0000			
00	22	00	00	00	00000000(0)
00000534	12	0000			
00	22	00	00	00	00000000(0)
000007ef	12	0000			
00	22	00	00	00	00000000(0)
00000aa9	12	0000			

```

SCSI Port 1, Drive ID 11
Factory: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 4c 54 53 4a 30 30 30 30 37 31 33
35 3CCOLTSJ00007135
50 1B0X3B05...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
00 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....

```

```

Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 4c 54 53 4a 30 30 30 30 37 31 33
35 3CCOLTSJ00007135
50 1B0X3B05...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
00 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....

```

```

Threshold Flags: 0x0001
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

```

```

Threshold      Factory      Since Power
Control

```

```

Serv. Time 00005636      00000009
ffffffffff      8184
Read Blks 000000007c03bde8 00000000001a0bb7
8108
Hrd Read 00000000      00000000
ffffffffff      8184
Rtry Read 00000000      00000000
ffffffffff      8184
ECC Read 0000000000000000 0000000000000000
ffffffffff      8188
Write Blks 0000000003f8f621 00000000000000cc
8108
Hrd Write 00000000      00000000
ffffffffff      8184
Rtry Write 00000000      00000000
ffffffffff      8184
Seeks 0000000000000000 0000000000000000
8108
Seek Errs 0000000000000000 0000000000000000
ffffffffff      8188
Spin Cyls 00000000      00000000
ffffffffff      8184
Spin Time ffff      ffff
ffff      8a82
Test 1 ffff      ffff
ffff      0a82
Test 2 ffff      ffff
ffff      8a82
Test 3 ffff      ffff
ffff      8a82
Test 4 ffff      ffff
ffff      8a82
Spare Blks ffffffff      ffffffff
0a04
Re-mapped ffffffff      ffffffff
ffffffffff      8d84
DRQ Tmots ffff      ffff
ffff      0982
Timeouts 0000      0000
ffff      0182
Rebuilds 0000      0000
ffff      0182
Spn Retrs ffff      ffff
ffff      0982
Fl Rd Recv 0000      0000
ffff      8182
Fl Wt Recv 0000      0000
ffff      0182
Format Err 0000      0000
ffff      0182
POST Err ffff      ffff
ffff      0982
Drv Nt Ry 00000000      00000000
ffffffffff      0184
Reallc Abt ffffffff      ffffffff
ffffffffff      0984
IRQ Gltns ffffffff      ffffffff
ffffffffff      0984
Bus Flts 00000000      00000000
ffffffffff      8184
Hot Plgs 00000000      00000000
ffffffffff      0184

```

```

Tk Rwt Err ffff      ffff
ffff      0982
Rmp Wt Err ffff      ffff
ffff      0982
Bg Fw Rev 0000000000000000 0000000000000000
0a48
Med Flrs 0000      0000
ffff      0182
Hrdw Errs 0000      0000
ffff      0182
Abt Cmd Fl 0000      0000
ffff      0182
Spn Up Fl 0000      0000
ffff      0182
Bd Tgt Cnt 0000      0000
ffff      0182
Pred Fails 00000000      00000000
00000000      2184

```

```

DRIVE ERROR LOG:
Error Log Header:
Parameter Length = 0x14
Entry Size      = 0x0014
Current Entry   = 0x07
Total Errors Logged = 0x00000007
Error Log Data:

```

SCSI Time	CAM Op	Sense Key	Sense Code	Qual	Block(VL)
02	04	01	1f	00	00000000(0)
00000001	37	0000			
00	22	00	00	00	00000000(0)
000000e7	12	0000			
00	22	00	00	00	00000000(0)
000000fe	12	0000			
00	22	00	00	00	00000000(0)
0000013d	12	0000			
00	22	00	00	00	00000000(0)
00000534	12	0000			
00	22	00	00	00	00000000(0)
000007ef	12	0000			
00	22	00	00	00	00000000(0)
00000aa9	12	0000			

```

SCSI Port 1, Drive ID 12
Factory: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 45 41 4d 31 30 30 30 30 37 31 33
35 3CCOEMAM100007135
50 1BA43B05...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
00 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....

```

```

Since Power: Serial #, Firmware Rev, and
Mfg/Model #:

```

```

33 43 43 30 45 41 4d 31 30 30 30 30 37 31 33
35 3CC0EAM100007135
31 42 41 34 33 42 30 35 00 00 00 00 43 4f 4d
50 1BA43B05....COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Threshold Flags:          0x0001
Serial Number Control:    0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold          Factory          Since Power
Control
Serv. Time 00005636          00000009
ffffffffff 8184
Read Blks 000000007c046663 00000000001a0bb7
8108
Hrd Read 00000000          00000000
ffffffffff 8184
Rtry Read 00000000          00000000
ffffffffff 8184
ECC Read 000000000000000000 0000000000000000
ffffffffff 8188
Write Blks 0000000003f91cf1 00000000000000cc
8108
Hrd Write 00000000          00000000
ffffffffff 8184
Rtry Write 00000000          00000000
ffffffffff 8184
Seeks 000000000000000000 0000000000000000
8108
Seek Errs 0000000000000000 0000000000000000
ffffffffff 8188
Spin Cyls 00000000          00000000
ffffffffff 8184
Spin Time ffff          ffff
ffff 8a82
Test 1 ffff          ffff
ffff 0a82
Test 2 ffff          ffff
ffff 8a82
Test 3 ffff          ffff
ffff 8a82
Test 4 ffff          ffff
ffff 8a82
Spare Blks ffffffff          ffffffff
0a04
Re-mapped ffffffff          ffffffff
ffffffffff 8d84
DRQ Tmots ffff          ffff
ffff 0982
Timeouts 0000          0000
ffff 0182
Rebuilds 0000          0000
ffff 0182
Spn Retrs ffff          ffff
ffff 0982
Fl Rd Recv 0000          0000
ffff 8182

```

```

Fl Wt Recv 0000          0000
ffff 0182
Format Err 0000          0000
ffff 0182
POST Err ffff          ffff
ffff 0982
Drv Nt Ry 00000000          00000000
ffffffffff 0184
Reallc Abt ffffffff          ffffffff
ffffffffff 0984
IRQ Gltchs ffffffff          ffffffff
ffffffffff 0984
Bus Flts 00000000          00000000
ffffffffff 8184
Hot Plgs 00000000          00000000
ffffffffff 0184
Tk Rwt Err ffff          ffff
ffff 0982
Rmp Wt Err ffff          ffff
ffff 0982
Bg Fw Rev 0000000000000000 0000000000000000
0a48
Med Flrs 0000          0000
ffff 0182
Hrdw Errs 0000          0000
ffff 0182
Abt Cmd Fl 0000          0000
ffff 0182
Spn Up Fl 0000          0000
ffff 0182
Bd Tgt Cnt 0000          0000
ffff 0182
Pred Fails 00000000          00000000
00000000 2184

DRIVE ERROR LOG:
Error Log Header:
Parameter Length = 0x14
Entry Size = 0x0014
Current Entry = 0x06
Total Errors Logged = 0x00000006
Error Log Data:

SCSI CAM Sense Sense
Stat Stat Key Code Qual Block(V1)
Time Op Info
---- ---- -
00 22 00 00 00 00000000(0)
000000e7 12 0000
00 22 00 00 00 00000000(0)
000000fe 12 0000
00 22 00 00 00 00000000(0)
0000013d 12 0000
00 22 00 00 00 00000000(0)
00000534 12 0000
00 22 00 00 00 00000000(0)
000007ef 12 0000
00 22 00 00 00 00000000(0)
00000aa9 12 0000

SCSI Port 1, Drive ID 13

```

```

Factory:          Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 45 43 32 45 30 30 30 30 37 31 33
35 3CC0EC2E00007135
46 54 4e 56 33 42 30 35 00 00 00 00 43 4f 4d
50 FTNV3B05....COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 45 43 32 45 30 30 30 30 37 31 33
35 3CC0EC2E00007135
46 54 4e 56 33 42 30 35 00 00 00 00 43 4f 4d
50 FTNV3B05....COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Threshold Flags:          0x0001
Serial Number Control:    0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold          Factory          Since Power
Control
Serv. Time 00005636          00000009
ffffffffff 8184
Read Blks 000000007c03c13d 00000000001a0bb7
8108
Hrd Read 00000000          00000000
ffffffffff 8184
Rtry Read 00000000          00000000
ffffffffff 8184
ECC Read 000000000000000000 0000000000000000
ffffffffff 8188
Write Blks 0000000003f9b1c5 00000000000000cc
8108
Hrd Write 00000000          00000000
ffffffffff 8184
Rtry Write 00000000          00000000
ffffffffff 8184
Seeks 000000000000000000 0000000000000000
8108
Seek Errs 0000000000000000 0000000000000000
ffffffffff 8188
Spin Cyls 00000000          00000000
ffffffffff 8184
Spin Time ffff          ffff
ffff 8a82
Test 1 ffff          ffff
ffff 0a82
Test 2 ffff          ffff
ffff 8a82
Test 3 ffff          ffff
ffff 8a82
Test 4 ffff          ffff
ffff 8a82

```

```

Spare Blks ffffffff ffffffff
0a04 Re-mapped ffffffff ffffffff
      8d84
      DRQ Tmots ffff ffff
      0982
      Timeouts 0000 0000
      0182
      Rebuilds 0000 0000
      0182
      Spn Retrs ffff ffff
      0982
      Fl Rd Recv 0000 0000
      8182
      Fl Wt Recv 0000 0000
      0182
      Format Err 0000 0000
      0182
      POST Err ffff ffff
      0982
      Drv Nt Ry 00000000 00000000
      0184
      Reallc Abt ffffffff ffffffff
      0984
      IRQ Gltchs ffffffff ffffffff
      0984
      Bus Flts 00000000 00000000
      8184
      Hot Plgs 00000000 00000000
      0184
      Tk Rwt Err ffff ffff
      0982
      Rmp Wt Err ffff ffff
      0982
      Bg Fw Rev 0000000000000000 0000000000000000
0a48 Med Flrs 0000 0000
      0182
      Hrdw Errs 0000 0000
      0182
      Abt Cmd Fl 0000 0000
      0182
      Spn Up Fl 0000 0000
      0182
      Bd Tgt Cnt 0000 0000
      0182
      Pred Fails 00000000 00000000
00000000 2184

DRIVE ERROR LOG:
Error Log Header:
Parameter Length = 0x14
Entry Size = 0x0014
Current Entry = 0x06
Total Errors Logged = 0x00000006
Error Log Data:

SCSI CAM Sense Sense
Stat Stat Key Code Qual Block(V1)
Time Op Info
---- ---- -
- --

```

```

00 22 00 00 00 00000000(0)
000000e7 12 0000
00 22 00 00 00 00000000(0)
000000fe 12 0000
00 22 00 00 00 00000000(0)
0000013d 12 0000
00 22 00 00 00 00000000(0)
00000534 12 0000
00 22 00 00 00 00000000(0)
000007ef 12 0000
00 22 00 00 00 00000000(0)
00000aa9 12 0000

SCSI Port 1, Drive ID 14
Factory: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 4c 51 56 58 30 30 30 37 31 34
34 3CC0LQVX00007144
4c 46 57 4a 33 42 30 35 00 00 00 43 4f 4d
50 LFWJ3B05...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 4c 51 56 58 30 30 30 37 31 34
34 3CC0LQVX00007144
4c 46 57 4a 33 42 30 35 00 00 00 43 4f 4d
50 LFWJ3B05...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....
Threshold Flags: 0x0001
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

Threshold Factory Since Power
Control
Serv. Time 00005636 00000009
ffffffffff 8184
Read Blks 000000007c026c8c 00000000001a0bb7
8108 Hrd Read 00000000 00000000
ffffffffff 8184
Rtry Read 00000000 00000000
ffffffffff 8184
ECC Read 0000000000000000 0000000000000000
ffffffffff 8188
Write Blks 0000000004b8754e 00000000000000cc
8108 Hrd Write 00000000 00000000
ffffffffff 8184
Rtry Write 00000000 00000000
ffffffffff 8184
Seeks 0000000000000000 0000000000000000
8108

```

```

Seek Errs 0000000000000000 0000000000000000
ffffffffff 8188
Spin Cyls 00000000 00000000
ffffffffff 8184
Spin Time ffff ffff
ffff 8a82
Test 1 ffff ffff
ffff 0a82
Test 2 ffff ffff
ffff 8a82
Test 3 ffff ffff
ffff 8a82
Test 4 ffff ffff
ffff 8a82
Spare Blks ffffffff ffffffff
0a04 Re-mapped ffffffff ffffffff
      8d84
      DRQ Tmots ffff ffff
      0982
      Timeouts 0000 0000
      0182
      Rebuilds 0000 0000
      0182
      Spn Retrs ffff ffff
      0982
      Fl Rd Recv 0000 0000
      8182
      Fl Wt Recv 0000 0000
      0182
      Format Err 0000 0000
      0182
      POST Err ffff ffff
      0982
      Drv Nt Ry 00000000 00000000
      0184
      Reallc Abt ffffffff ffffffff
      0984
      IRQ Gltchs ffffffff ffffffff
      0984
      Bus Flts 00000000 00000000
      8184
      Hot Plgs 00000000 00000000
      0184
      Tk Rwt Err ffff ffff
      0982
      Rmp Wt Err ffff ffff
      0982
      Bg Fw Rev 0000000000000000 0000000000000000
0a48 Med Flrs 0000 0000
      0182
      Hrdw Errs 0000 0000
      0182
      Abt Cmd Fl 0000 0000
      0182
      Spn Up Fl 0000 0000
      0182
      Bd Tgt Cnt 0000 0000
      0182
      Pred Fails 00000000 00000000
00000000 2184

```

```

DRIVE ERROR LOG:
Error Log Header:
Parameter Length = 0x14
Entry Size = 0x0014
Current Entry = 0x06
Total Errors Logged = 0x00000006
Error Log Data:

```

SCSI Time	CAM Stat	Sense Key	Sense Code	Qual	Block(VL)
00	22	00	00	00	00000000(0)
000000e7	12	0000			
00	22	00	00	00	00000000(0)
000000fe	12	0000			
00	22	00	00	00	00000000(0)
0000013d	12	0000			
00	22	00	00	00	00000000(0)
00000534	12	0000			
00	22	00	00	00	00000000(0)
000007ef	12	0000			
00	22	00	00	00	00000000(0)
00000aa9	12	0000			

```

SCSI Port 1, Drive ID 15
Factory: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 4b 5a 4c 37 30 30 30 30 37 31 34
35 3C0KZL700007145
48 4b 38 4a 33 42 30 35 00 00 00 00 43 4f 4d
50 HK8J3B05...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....

```

```

Since Power: Serial #, Firmware Rev, and
Mfg/Model #:
33 43 43 30 4b 5a 4c 37 30 30 30 30 37 31 34
35 3C0KZL700007145
48 4b 38 4a 33 42 30 35 00 00 00 00 43 4f 4d
50 HK8J3B05...COMP
41 51 20 20 42 46 30 31 38 36 33 36 34 34 20
20 AQ BF01863644
20 20 20 20 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00
....

```

```

Threshold Flags: 0x0001
Serial Number Control: 0x8054
Firmware Revision Control: 0x8248
Mfg/Model Number Control: 0x8268

```

```

Threshold Control Since Power
Serv. Time 00005636 00000009
ffffffffff 8184
Read Blks 000000007c19185f 0000000001a0bb7
8108

```

```

Hrd Read 00000000 00000000
ffffffffff 8184
Rtry Read 00000000 00000000
ffffffffff 8184
ECC Read 0000000000000000 0000000000000000
ffffffffff 8188
Write Blks 000000001e0ca802 00000000000000cc
8108
Hrd Write 00000000 00000000
ffffffffff 8184
Rtry Write 00000000 00000000
ffffffffff 8184
Seeks 0000000000000000 0000000000000000
8108
Seek Errs 0000000000000000 0000000000000000
ffffffffff 8188
Spin Cyls 00000000 00000000
ffffffffff 8184
Spin Time ffff ffff
ffff 8a82
Test 1 ffff ffff
ffff 0a82
Test 2 ffff ffff
ffff 8a82
Test 3 ffff ffff
ffff 8a82
Test 4 ffff ffff
ffff 8a82
Spare Blks ffffffff ffffffff
0a04
Re-mapped ffffffff ffffffff
ffffffffff 8d84
DRQ Tmots ffff ffff
ffff 0982
Timeouts 0000 0000
ffff 0182
Rebuilds 0000 0000
ffff 0182
Spn Retrs ffff ffff
ffff 0982
Fl Rd Recv 0000 0000
ffff 8182
Fl Wt Recv 0000 0000
ffff 0182
Format Err 0000 0000
ffff 0182
POST Err ffff ffff
ffff 0982
Drv Nt Ry 00000000 00000000
ffffffffff 0184
Reallc Abt ffffffff ffffffff
ffffffffff 0984
IRQ Gltchs ffffffff ffffffff
ffffffffff 0984
Bus Flts 00000000 00000000
ffffffffff 8184
Hot Plgs 00000000 00000000
ffffffffff 0184
Tk Rwt Err ffff ffff
ffff 0982
Rmp Wt Err ffff ffff
ffff 0982

```

```

Bg Fw Rev 0000000000000000 0000000000000000
0a48
Med Flrs 0000 0000
ffff 0182
Hrdw Errs 0000 0000
ffff 0182
Abt Cmd Fl 0000 0000
ffff 0182
Spn Up Fl 0000 0000
ffff 0182
Bd Tgt Cnt 0000 0000
ffff 0182
Pred Fails 00000000 00000000
00000000 2184

```

```

DRIVE ERROR LOG:
Error Log Header:
Parameter Length = 0x14
Entry Size = 0x0014
Current Entry = 0x07
Total Errors Logged = 0x00000007
Error Log Data:

```

SCSI Time	CAM Stat	Sense Key	Sense Code	Qual	Block(VL)
02	04	01	1f	00	00000000(0)
00000001	37	0000			
00	22	00	00	00	00000000(0)
000000e7	12	0000			
00	22	00	00	00	00000000(0)
000000fe	12	0000			
00	22	00	00	00	00000000(0)
0000013d	12	0000			
00	22	00	00	00	00000000(0)
00000534	12	0000			
00	22	00	00	00	00000000(0)
000007ef	12	0000			
00	22	00	00	00	00000000(0)
00000aa9	12	0000			

```

SCSI Port 2, Drive ID 0
Not Available

```

```

DRIVE ERROR LOG:
Not Available

```

```

SCSI Port 2, Drive ID 1
Not Available

```

```

DRIVE ERROR LOG:
Not Available

```

```

SCSI Port 2, Drive ID 2
Not Available

```

```

DRIVE ERROR LOG:
Not Available

```

```

SCSI Port 2, Drive ID 3
Not Available

```

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 4
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 5
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 6
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 7
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 8
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 9
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 10
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 11
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 12
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 13
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 14
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 2, Drive ID 15
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 3, Drive ID 0
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 3, Drive ID 1
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 3, Drive ID 2
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 3, Drive ID 3
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 3, Drive ID 4
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 3, Drive ID 5
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 3, Drive ID 6
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 3, Drive ID 7
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 3, Drive ID 8
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 3, Drive ID 9
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 3, Drive ID 10
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 3, Drive ID 11
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 3, Drive ID 12
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 3, Drive ID 13
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 3, Drive ID 14
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 3, Drive ID 15
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 0
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 1
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 2
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 3
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 4
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 5
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 6
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 7
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 8
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 9
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 10
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 11
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 12
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 13
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 14
Not Available

DRIVE ERROR LOG:
Not Available

SCSI Port 4, Drive ID 15
Not Available

DRIVE ERROR LOG:
Not Available

SURFACE ANALYSIS STATUS:

Time remaining to start: 13 secs.
Surface analysis delay: 15 secs.

SCSI Port 1:

Drive ID	Big Current Block
00	0x00016780
01	0x00016780
02	0x00016780
03	0x00016780
04	0x00016780
05	0x00016780
06	0x00000000
07	0x00000000
08	0x00016780
09	0x00016780
10	0x00016780
11	0x00016780
12	0x00016780
13	0x00016780
14	0x00016780
15	0x00016780

SCSI Port 2:

Drive ID	Big Current Block
00	0x00000000
01	0x00000000
02	0x00000000
03	0x00000000
04	0x00000000
05	0x00000000
06	0x00000000
07	0x00000000
08	0x00000000
09	0x00000000
10	0x00000000
11	0x00000000
12	0x00000000
13	0x00000000
14	0x00000000
15	0x00000000

SCSI Port 3:

Drive ID	Big Current Block
00	0x00000000
01	0x00000000
02	0x00000000
03	0x00000000
04	0x00000000
05	0x00000000
06	0x00000000
07	0x00000000
08	0x00000000
09	0x00000000
10	0x00000000
11	0x00000000
12	0x00000000
13	0x00000000
14	0x00000000
15	0x00000000

SCSI Port 4:

Drive ID	Big Current Block
00	0x00000000
01	0x00000000
02	0x00000000
03	0x00000000
04	0x00000000
05	0x00000000
06	0x00000000
07	0x00000000
08	0x00000000
09	0x00000000
10	0x00000000
11	0x00000000
12	0x00000000
13	0x00000000
14	0x00000000
15	0x00000000

Surface Logical Controller Drive Passes	Surface Big Analysis Status Pass Time	Big Inconsistent Analysis Block		Blocks Reassigned	Resets
		Analysis	Block		
2208	1 0x01 58	0x00000000		0	0
0	2 0x00	0x00000000		0	0
0	3 0x00	0x00000000		0	0
0	4 0x00	0x00000000		0	0
0	5 0x00	0x00000000		0	0
0	6 0x00	0x00000000		0	0
0	0				

```

0      7  0x00  0x00000000      0  0
0      8  0x00  0x00000000      0  0
0      9  0x00  0x00000000      0  0
0     10  0x00  0x00000000      0  0
0     11  0x00  0x00000000      0  0
0     12  0x00  0x00000000      0  0
0     13  0x00  0x00000000      0  0
0     14  0x00  0x00000000      0  0
0     15  0x00  0x00000000      0  0
0     16  0x00  0x00000000      0  0
0     17  0x00  0x00000000      0  0
0     18  0x00  0x00000000      0  0
0     19  0x00  0x00000000      0  0
0     20  0x00  0x00000000      0  0
0     21  0x00  0x00000000      0  0
0     22  0x00  0x00000000      0  0
0     23  0x00  0x00000000      0  0
0     24  0x00  0x00000000      0  0
0     25  0x00  0x00000000      0  0
0     26  0x00  0x00000000      0  0
0     27  0x00  0x00000000      0  0
0     28  0x00  0x00000000      0  0
0     29  0x00  0x00000000      0  0
0     30  0x00  0x00000000      0  0
0     31  0x00  0x00000000      0  0
0     32  0x00  0x00000000      0  0

```

```

ACCELERATOR STATUS:
Logical Drive Disable Map: 0xffffffffe
Read Cache Size: 0 MBytes
Posted Write Size: 112 MBytes
Disable Flag: 0x00
Status: 0x00000001
Disable Code: 0x0000
Total Memory Size: 112 MBytes
Battery Count: 2
Battery Status: 0x0003

```

```

Parity Read Errors: 0000
Parity Write Errors: 0000
Error Log: N/A
Failed Batteries: 0x0000
Board Present: Yes
Accelerator Failure Map: 0x00000000
Max Error Log Entries: 16
NVRAM Load Status: 0x00
Memory Size Shift Factor: 0x0a
Non Battery Backed Memory: 0 MBytes
Memory State: 0x00

PHYSICAL DRIVE IDENTIFICATION:

SCSI Port 1, Drive ID 0
Vendor Id: COMPAQ
Product Id: BF01863644
Product Rev: 3B05
Vendor Specific: 3CC0E6CC
Serial Number: 3CC0E6CC000071351CUX
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports: Tagged Command Queueing
                  Linked Commands
                  Synchronous Data Transfer
                  16-bit Wide Data Transfer
                  512 bytes/sector
Block Size:
Total Blocks: 35565080 sectors/disk
Reserved Blocks: 1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P: yes
Last Failure Reason: 0x00 (Drive has not
failed)
Phys Drive Flags: 0xcd 0x35 0x05
operational
Enabled
Wide SCSI transfers
Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external
SCSI connector
Configured as part of
Logical Drive
SCSI LUN: 0
Spi Speed Rules: 0x00000000
Physical Connector: P1 (controller connector
attached to drive)
Physical Bay in Box: 0 (number of the physical
drive bay in the enclosure)

MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 02
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
Page 03: 83 16 02 b8 00 00 00 04 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00

```

```

Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
Page 09: 89 0e 00 00 00 00 00 00 00 00 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
Page 1a: 8a 0a 00 00 00 00 00 01 00 00 00
Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
Page 33: b3 16 02 b8 00 00 00 04 00 00 01
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
Page 00: 80 06 00 00 3a a7 00 00

SCSI Port 1, Drive ID 1
Vendor Id: COMPAQ
Product Id: BF01863644
Product Rev: 3B05
Vendor Specific: 3CC0E65F
Serial Number: 3CC0E65F00007135K3TE
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports: Tagged Command Queueing
                  Linked Commands
                  Synchronous Data Transfer
                  16-bit Wide Data Transfer
                  512 bytes/sector
Block Size:
Total Blocks: 35565080 sectors/disk
Reserved Blocks: 1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P: yes
Last Failure Reason: 0x00 (Drive has not
failed)
Phys Drive Flags: 0xcd 0x35 0x05
operational
Enabled
Wide SCSI transfers
Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external
SCSI connector
Configured as part of
Logical Drive
SCSI LUN: 0
Spi Speed Rules: 0x00000000
Physical Connector: P1 (controller connector
attached to drive)
Physical Bay in Box: 1 (number of the physical
drive bay in the enclosure)

MODE SENSE:

```

```

00 Header: fb 00 10 08 00 00 00 00 00 00 02
ff Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
00 Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00 00
fe Page 03: 83 16 02 b8 00 00 00 04 00 00 00
02 00 01
00 00 4c 00 50 40 00 00 00
00 Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00
ff Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00
00 00 00 00
00 Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 04 0a 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87
00 Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
00 08 00 00 00 00 10 08
04 Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
01 Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01 Page 33: b3 16 02 b8 00 00 00 04 00 00 01
5a 02 00 00 01
00 00 4c 00 50 40 00 00 00
00 Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00
00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00

```

SCSI Port 1, Drive ID 2

```

Vendor Id: COMPAQ
Product Id: BF01863644
Product Rev: 3B05
Vendor Specific: 3CC0LSB5
Serial Number: 3CC0LSB500007135FTPX
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports: Tagged Command Queuing
Linked Commands
Synchronous Data Transfer
16-bit Wide Data Transfer
512 bytes/sector
Block Size:
Total Blocks: 35565080 sectors/disk
Reserved Blocks: 1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P: yes
Last Failure Reason: 0x00 (Drive has not
failed)
Phys Drive Flags: 0xcd 0x35 0x05
operational Drive present and
Enabled Wide SCSI transfers
Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled

```

```

SCSI connector Drive attached to external
Configured as part of
Logical Drive
SCSI LUN: 0
Spi Speed Rules: 0x00000000
Physical Connector: P1 (controller connector
attached to drive)
Physical Bay in Box: 2 (number of the physical
drive bay in the enclosure)

```

```

MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 00 02
00 Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00 00 00
fe Page 03: 83 16 02 b8 00 00 00 04 00 00 00
02 00 01
00 00 4c 00 50 40 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00
ff Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00
00 00 00 00
00 Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 04 0a 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87
00 Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
00 08 00 00 00 00 10 08
04 Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
01 Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01 Page 33: b3 16 02 b8 00 00 00 04 00 00 01
5a 02 00 00 01
00 00 4c 00 50 40 00 00 00
00 Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00
00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00

```

SCSI Port 1, Drive ID 3

```

Vendor Id: COMPAQ
Product Id: BF01863644
Product Rev: 3B05
Vendor Specific: 3CCOM4BC
Serial Number: 3CCOM4BC000071450ZK1
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports: Tagged Command Queuing
Linked Commands
Synchronous Data Transfer
16-bit Wide Data Transfer
512 bytes/sector
Block Size:
Total Blocks: 35565080 sectors/disk
Reserved Blocks: 1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E

```

```

Stamped for M&P: yes
Last Failure Reason: 0x00 (Drive has not
failed)
Phys Drive Flags: 0xcd 0x35 0x05
operational Drive present and
Enabled Wide SCSI transfers
Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external

```

```

SCSI connector Configured as part of
Logical Drive
SCSI LUN: 0
Spi Speed Rules: 0x00000000
Physical Connector: P1 (controller connector
attached to drive)
Physical Bay in Box: 3 (number of the physical
drive bay in the enclosure)

```

```

MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 00 02
00 Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00 00 00
fe Page 03: 83 16 02 b8 00 00 00 04 00 00 00
02 00 01
00 00 4c 00 50 40 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00
ff Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00
00 00 00 00
00 Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 04 0a 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87
00 Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
00 08 00 00 00 00 10 08
04 Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
01 Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01 Page 33: b3 16 02 b8 00 00 00 04 00 00 01
5a 02 00 00 01
00 00 4c 00 50 40 00 00 00
00 Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00
00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00

```

SCSI Port 1, Drive ID 4

```

Vendor Id: COMPAQ
Product Id: BF01863644
Product Rev: 3B05

```



```

Vendor Specific: 3CC0E53S
Serial Number: 3CC0E53S000071351ACK
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports: Tagged Command Queuing
                  Linked Commands
                  Synchronous Data Transfer
                  16-bit Wide Data Transfer
Block Size: 512 bytes/sector
Total Blocks: 35565080 sectors/disk
Reserved Blocks: 1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P: yes
Last Failure Reason: 0x00 (Drive has not
failed)
Phys Drive Flags: 0xcd 0x35 0x05
                  Drive present and
operational
Enabled
Wide SCSI transfers
Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external
SCSI connector
Configured as part of
Logical Drive
SCSI LUN: 0
Spi Speed Rules: 0x00000000
Physical Connector: P1 (controller connector
attached to drive)
Physical Bay in Box: 4 (number of the physical
drive bay in the enclosure)
MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 02
00
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00
Page 03: 83 16 02 b8 00 00 00 04 00 00 00
fe 02 00 01
00 4c 00 50 40 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00
00 00 00 00 3a a7 00 00
Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00
00 00 00 00
Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 04 0a 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87
Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
00 08 00 00 00 00 10 08
Page 1a: 9a 0a 00 00 00 00 01 00 00 00
04
Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01

```

```

Page 33: b3 16 02 b8 00 00 00 04 00 00 01
5a 02 00 00 01
00 4c 00 50 40 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00
00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00
SCSI Port 1, Drive ID 5
Vendor Id: COMPAQ
Product Id: BF01863644
Product Rev: 3B05
Vendor Specific: 3CC0LNCJ
Serial Number: 3CC0LNCJ000007135K3T4
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports: Tagged Command Queuing
                  Linked Commands
                  Synchronous Data Transfer
                  16-bit Wide Data Transfer
Block Size: 512 bytes/sector
Total Blocks: 35565080 sectors/disk
Reserved Blocks: 1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P: yes
Last Failure Reason: 0x00 (Drive has not
failed)
Phys Drive Flags: 0xcd 0x35 0x05
                  Drive present and
operational
Enabled
Wide SCSI transfers
Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external
SCSI connector
Configured as part of
Logical Drive
SCSI LUN: 0
Spi Speed Rules: 0x00000000
Physical Connector: P1 (controller connector
attached to drive)
Physical Bay in Box: 5 (number of the physical
drive bay in the enclosure)
MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 02
00
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00
Page 03: 83 16 02 b8 00 00 00 04 00 00 00
fe 02 00 01
00 4c 00 50 40 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00
00 00 00 00 3a a7 00 00
Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00
00 00 00 00

```

```

Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 04 0a 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87
Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
00 08 00 00 00 00 10 08
Page 1a: 9a 0a 00 00 00 00 01 00 00 00
04
Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01
Page 33: b3 16 02 b8 00 00 00 04 00 00 01
5a 02 00 00 01
00 4c 00 50 40 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00
00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00
SCSI Port 1, Drive ID 6 ---> Not available
SCSI Port 1, Drive ID 7 ---> Not available
SCSI Port 1, Drive ID 8
Vendor Id: COMPAQ
Product Id: BF01863644
Product Rev: 3B05
Vendor Specific: 3CC0LETK
Serial Number: 3CC0LETK00007145H2UM
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports: Tagged Command Queuing
                  Linked Commands
                  Synchronous Data Transfer
                  16-bit Wide Data Transfer
Block Size: 512 bytes/sector
Total Blocks: 35565080 sectors/disk
Reserved Blocks: 1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P: yes
Last Failure Reason: 0x00 (Drive has not
failed)
Phys Drive Flags: 0xcd 0x35 0x05
                  Drive present and
operational
Enabled
Wide SCSI transfers
Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external
SCSI connector
Configured as part of
Logical Drive
SCSI LUN: 0
Spi Speed Rules: 0x00000000
Physical Connector: P1 (controller connector
attached to drive)
Physical Bay in Box: 8 (number of the physical
drive bay in the enclosure)
MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 02
00
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff

```

```

Page 02: 82 0e 80 80 00 0a 00 00 00 00
00 00 00 00 00
Page 03: 83 16 02 b8 00 00 00 04 00 00 00
fe 02 00 00 01
00 4c 00 50 40 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00 00
00 00 00 00 3a a7 00 00
Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00
00 00 00 00
Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 04 0a 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87
Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
00 08 00 00 00 00 10 08
Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
04
Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01
Page 33: b3 16 02 b8 00 00 00 04 00 00 01
5a 02 00 00 01
00 4c 00 50 40 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00
00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00

SCSI Port 1, Drive ID 9
Vendor Id: COMPAQ
Product Id: BF01863644
Product Rev: 3B05
Vendor Specific: 3CC0LNH4
Serial Number: 3CC0LNH400007145KKH3
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports: Tagged Command Queueing
Linked Commands
Synchronous Data Transfer
16-bit Wide Data Transfer

Block Size: 512 bytes/sector
Total Blocks: 35565080 sectors/disk
Reserved Blocks: 1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P: yes
Last Failure Reason: 0x00 (Drive has not
failed)
Phys Drive Flags: 0xcd 0x35 0x05
Drive present and
operational
Enabled
Wide SCSI transfers
Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external
SCSI connector
Configured as part of
Logical Drive
SCSI LUN: 0

```

```

Spi Speed Rules: 0x00000000
Physical Connector: P1 (controller connector
attached to drive)
Physical Bay in Box: 9 (number of the physical
drive bay in the enclosure)

MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 00 02
00
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00 00 00
Page 03: 83 16 02 b8 00 00 00 04 00 00 00
fe 02 00 00 01
00 4c 00 50 40 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00 00
00 00 00 00 3a a7 00 00
Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00
00 00 00 00
Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 04 0a 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87
Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
00 08 00 00 00 00 10 08
Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
04
Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01
Page 33: b3 16 02 b8 00 00 00 04 00 00 01
5a 02 00 00 01
00 4c 00 50 40 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00
00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00

SCSI Port 1, Drive ID 10
Vendor Id: COMPAQ
Product Id: BF01863644
Product Rev: 3B05
Vendor Specific: 3CC0EAJ2
Serial Number: 3CC0EAJ200007135K4A7
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports: Tagged Command Queueing
Linked Commands
Synchronous Data Transfer
16-bit Wide Data Transfer

Block Size: 512 bytes/sector
Total Blocks: 35565080 sectors/disk
Reserved Blocks: 1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P: yes
Last Failure Reason: 0x00 (Drive has not
failed)
Phys Drive Flags: 0xcd 0x35 0x05

```

```

Drive present and
operational
Wide SCSI transfers
Enabled
Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external
SCSI connector
Configured as part of
Logical Drive
SCSI LUN: 0
Spi Speed Rules: 0x00000000
Physical Connector: P1 (controller connector
attached to drive)
Physical Bay in Box: 10 (number of the physical
drive bay in the enclosure)

MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 00 02
00
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00 00 00
Page 03: 83 16 02 b8 00 00 00 04 00 00 00
fe 02 00 00 01
00 4c 00 50 40 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00 00
00 00 00 00 3a a7 00 00
Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00
00 00 00 00
Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 04 0a 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87
Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
00 08 00 00 00 00 10 08
Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
04
Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01
Page 33: b3 16 02 b8 00 00 00 04 00 00 01
5a 02 00 00 01
00 4c 00 50 40 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00
00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00

SCSI Port 1, Drive ID 11
Vendor Id: COMPAQ
Product Id: BF01863644
Product Rev: 3B05
Vendor Specific: 3CC0LTSJ
Serial Number: 3CC0LTSJ000071351B0X
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports: Tagged Command Queueing

```

```

Linked Commands
Synchronous Data Transfer
16-bit Wide Data Transfer
Block Size: 512 bytes/sector
Total Blocks: 35565080 sectors/disk
Reserved Blocks: 1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P: yes
Last Failure Reason: 0x00 (Drive has not
failed)
Phys Drive Flags: 0xcd 0x35 0x05
Drive present and
operational
Enabled
Wide SCSI transfers
Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external
SCSI connector Configured as part of
Logical Drive
SCSI LUN: 0
Spi Speed Rules: 0x00000000
Physical Connector: P1 (controller connector
attached to drive)
Physical Bay in Box: 11 (number of the physical
drive bay in the enclosure)
MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 02
00
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00
Page 03: 83 16 02 b8 00 00 00 04 00 00 00
fe 02 00 00 01
00 4c 00 50 40 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00 00 3a a7 00 00
Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00
00 00 00 00
Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 04 0a 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87
Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
00 08 00 00 00 00 10 08
Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
04
Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01
Page 33: b3 16 02 b8 00 00 00 04 00 00 01
5a 02 00 00 01
00 4c 00 50 40 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00

```

```

00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00
SCSI Port 1, Drive ID 12
Vendor Id: COMPAQ
Product Id: BF01863644
Product Rev: 3B05
Vendor Specific: 3CC0EAM1
Serial Number: 3CC0EAM1000071351BA4
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports: Tagged Command Queueing
Linked Commands
Synchronous Data Transfer
16-bit Wide Data Transfer
Block Size: 512 bytes/sector
Total Blocks: 35565080 sectors/disk
Reserved Blocks: 1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P: yes
Last Failure Reason: 0x00 (Drive has not
failed)
Phys Drive Flags: 0xcd 0x35 0x05
Drive present and
operational
Enabled
Wide SCSI transfers
Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external
SCSI connector Configured as part of
Logical Drive
SCSI LUN: 0
Spi Speed Rules: 0x00000000
Physical Connector: P1 (controller connector
attached to drive)
Physical Bay in Box: 12 (number of the physical
drive bay in the enclosure)
MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 02
00
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00 00 00
Page 03: 83 16 02 b8 00 00 00 04 00 00 00
fe 02 00 00 01
00 4c 00 50 40 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00 00 3a a7 00 00
Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00
00 00 00 00
Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 04 0a 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87

```

```

Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
00 08 00 00 00 00 10 08
Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
04
Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01
Page 33: b3 16 02 b8 00 00 00 04 00 00 01
5a 02 00 00 01
00 4c 00 50 40 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00
SCSI Port 1, Drive ID 13
Vendor Id: COMPAQ
Product Id: BF01863644
Product Rev: 3B05
Vendor Specific: 3CC0EC2E
Serial Number: 3CC0EC2E00007135FTNV
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports: Tagged Command Queueing
Linked Commands
Synchronous Data Transfer
16-bit Wide Data Transfer
Block Size: 512 bytes/sector
Total Blocks: 35565080 sectors/disk
Reserved Blocks: 1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P: yes
Last Failure Reason: 0x00 (Drive has not
failed)
Phys Drive Flags: 0xcd 0x35 0x05
Drive present and
operational
Enabled
Wide SCSI transfers
Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external
SCSI connector Configured as part of
Logical Drive
SCSI LUN: 0
Spi Speed Rules: 0x00000000
Physical Connector: P1 (controller connector
attached to drive)
Physical Bay in Box: 13 (number of the physical
drive bay in the enclosure)
MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 02
00
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00 00 00
Page 03: 83 16 02 b8 00 00 00 04 00 00 00
fe 02 00 00 01
00 4c 00 50 40 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00 00 3a a7 00 00
Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00
00 00 00 00
Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 04 0a 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87

```

```

Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00 00
    00 00 00 00 3a a7 00 00
Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00
    00 00 00 00
Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 04 0a 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87
Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
    00 08 00 00 00 00 10 08
Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
04
Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01
Page 33: b3 16 02 b8 00 00 00 04 00 00 01
5a 02 00 00 01
    00 4c 00 50 40 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00
    00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00

SCSI Port 1, Drive ID 14
Vendor Id:          COMPAQ
Product Id:        BF01863644
Product Rev:       3B05
Vendor Specific:   3CC0LQVX
Serial Number:     3CC0LQVX00007144LFWJ
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports:  Tagged Command Queuing
                  Linked Commands
                  Synchronous Data Transfer
                  16-bit Wide Data Transfer

Block Size:        512 bytes/sector
Total Blocks:      35565080 sectors/disk
Reserved Blocks:  1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P:   yes
Last Failure Reason: 0x00 (Drive has not
failed)
Phys Drive Flags: 0xcd 0x35 0x05
Drive present and
operational
Enabled
Wide SCSI transfers
Ultra2 SCSI Enabled
S.M.A.R.T. Supported
S.M.A.R.T. Enabled
Drive attached to external

SCSI connector
Configured as part of

Logical Drive
SCSI LUN:          0
Spi Speed Rules:  0x00000000
Physical Connector: P1 (controller connector
attached to drive)
Physical Bay in Box: 14 (number of the physical
drive bay in the enclosure)

```

```

MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 00 02
00
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00 00 00
Page 03: 83 16 02 b8 00 00 00 04 00 00 00
fe 02 00 00 01
    00 4c 00 50 40 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00 00
    00 00 00 00 3a a7 00 00
Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00
    00 00 00 00
Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 04 0a 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87
Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
    00 08 00 00 00 00 10 08
Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
04
Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01
Page 33: b3 16 02 b8 00 00 00 04 00 00 01
5a 02 00 00 01
    00 4c 00 50 40 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00
    00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00

SCSI Port 1, Drive ID 15
Vendor Id:          COMPAQ
Product Id:        BF01863644
Product Rev:       3B05
Vendor Specific:   3CC0KZL7
Serial Number:     3CC0KZL700007145HK8J
SCSI Inquiry Header: 00 00 02 12 8b 00 01 3e
Device Supports:  Tagged Command Queuing
                  Linked Commands
                  Synchronous Data Transfer
                  16-bit Wide Data Transfer

Block Size:        512 bytes/sector
Total Blocks:      35565080 sectors/disk
Reserved Blocks:  1088 reserved sectors/disk
SCSI Inquiry Bits: 0x3E
Stamped for M&P:   yes
Last Failure Reason: 0x00 (Drive has not
failed)
Phys Drive Flags: 0xcd 0x35 0x05
Drive present and
operational
Enabled
Wide SCSI transfers
Ultra2 SCSI Enabled
S.M.A.R.T. Supported

```

```

S.M.A.R.T. Enabled
Drive attached to external

SCSI connector
Configured as part of

Logical Drive
SCSI LUN:          0
Spi Speed Rules:  0x00000000
Physical Connector: P1 (controller connector
attached to drive)
Physical Bay in Box: 15 (number of the physical
drive bay in the enclosure)

MODE SENSE:
Header: fb 00 10 08 00 00 00 00 00 00 02
00
Page 01: 81 0a e4 0b f0 00 00 00 05 00 ff
ff
Page 02: 82 0e 80 80 00 0a 00 00 00 00 00
00 00 00 00 00
Page 03: 83 16 02 b8 00 00 00 04 00 00 00
fe 02 00 00 01
    00 4c 00 50 40 00 00 00
Page 04: 84 16 00 1b 59 14 00 00 00 00 00
00 00 00 00 00
    00 00 00 00 3a a7 00 00
Page 07: 87 0a 04 0b f0 00 00 00 00 00 ff
ff
Page 08: 88 12 00 00 ff ff 00 00 ff ff ff
ff 80 40 00 00
    00 00 00 00
Page 09: 89 0e 00 00 00 00 00 00 00 00 00
00 00 04 0a 00
Page 0a: 8a 0a 00 10 00 00 00 00 00 00 02
87
Page 0c: 8c 16 80 00 00 16 00 00 00 00 00
00 00 28 88 09
    00 08 00 00 00 00 10 08
Page 1a: 9a 0a 00 00 00 00 00 01 00 00 00
04
Page 1c: 9c 0a 11 04 00 00 00 01 00 00 00
01
Page 33: b3 16 02 b8 00 00 00 04 00 00 01
5a 02 00 00 01
    00 4c 00 50 40 00 00 00
Page 34: b4 16 00 28 89 0a 00 00 00 00 00
00 00 00 00 00
    00 00 00 00 3a a7 00 00
Page 00: 80 06 00 00 0f 00 00 00

SCSI Port 2, Drive ID 0 ---> Not available
SCSI Port 2, Drive ID 1 ---> Not available
SCSI Port 2, Drive ID 2 ---> Not available
SCSI Port 2, Drive ID 3 ---> Not available
SCSI Port 2, Drive ID 4 ---> Not available
SCSI Port 2, Drive ID 5 ---> Not available
SCSI Port 2, Drive ID 6 ---> Not available
SCSI Port 2, Drive ID 7 ---> Not available
SCSI Port 2, Drive ID 8 ---> Not available
SCSI Port 2, Drive ID 9 ---> Not available
SCSI Port 2, Drive ID 10 ---> Not available
SCSI Port 2, Drive ID 11 ---> Not available
SCSI Port 2, Drive ID 12 ---> Not available
SCSI Port 2, Drive ID 13 ---> Not available

```

```

SCSI Port 2, Drive ID 14 ---> Not available
SCSI Port 2, Drive ID 15 ---> Not available
SCSI Port 3, Drive ID 0 ---> Not available
SCSI Port 3, Drive ID 1 ---> Not available
SCSI Port 3, Drive ID 2 ---> Not available
SCSI Port 3, Drive ID 3 ---> Not available
SCSI Port 3, Drive ID 4 ---> Not available
SCSI Port 3, Drive ID 5 ---> Not available
SCSI Port 3, Drive ID 6 ---> Not available
SCSI Port 3, Drive ID 7 ---> Not available
SCSI Port 3, Drive ID 8 ---> Not available
SCSI Port 3, Drive ID 9 ---> Not available
SCSI Port 3, Drive ID 10 ---> Not available
SCSI Port 3, Drive ID 11 ---> Not available
SCSI Port 3, Drive ID 12 ---> Not available
SCSI Port 3, Drive ID 13 ---> Not available
SCSI Port 3, Drive ID 14 ---> Not available
SCSI Port 3, Drive ID 15 ---> Not available
SCSI Port 4, Drive ID 0 ---> Not available
SCSI Port 4, Drive ID 1 ---> Not available
SCSI Port 4, Drive ID 2 ---> Not available
SCSI Port 4, Drive ID 3 ---> Not available
SCSI Port 4, Drive ID 4 ---> Not available
SCSI Port 4, Drive ID 5 ---> Not available
SCSI Port 4, Drive ID 6 ---> Not available
SCSI Port 4, Drive ID 7 ---> Not available
SCSI Port 4, Drive ID 8 ---> Not available
SCSI Port 4, Drive ID 9 ---> Not available
SCSI Port 4, Drive ID 10 ---> Not available
SCSI Port 4, Drive ID 11 ---> Not available
SCSI Port 4, Drive ID 12 ---> Not available
SCSI Port 4, Drive ID 13 ---> Not available
SCSI Port 4, Drive ID 14 ---> Not available
SCSI Port 4, Drive ID 15 ---> Not available

```

CONTROLLER PARAMETERS:

```

LED Control: 0x00
Command List Verification: On
Backed-out Write drives: 0
Stripes for Parity: 0
Distribution Mode: 0x00
Maximum Driver Requests: 0x0000
Elevator Trend Count: 0x0000
Disable Elevator: 0x00
Force Scan Complete: 0x00
Synch/Asynch Mode: Auto Detect
Force Narrow: No
Rebuild Priority: 0
Expand Priority: 0
SDB ASIC Fix: 0x00
PDIP Burst Disable: 0x00
Software Name:
Hardware Name:

```

SCSI BUS 1 PARAMETERS:

```

Inquiry Data Valid: Yes
Inquiry Header: 03 00 02 02 21 00 00 00
Vendor Id: COMPAQ
Product Id: PROLIANT 4LEE
Product Rev: JB49
Installed Drive Map: 0x0000003f
Hot Plug Counts:

```

```

All counts are zero
Fan Alert Count: 0x0000
Alarm Status: 0x00 (No Alarms)
Temperature Status: 0x00
Valid Alarm Bits: 0x03
Alarm Count: 0000
Specific Counts: 00000 00000 00000 00000
00000 00000 00000 00000
Connection Info: 0x2809
SCSI Device Rev: 0x01
Fan Status: 0x2809
More Inquiry Data:
02 20 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
SCSI Device Type: 0x00cf9005 (AIC-7899)
Bus Bitmap: 0x0000007f
Interrupt Count: 00000000
Ultra Bus Faults: 0x00000000
SCSI Initiator ID: 7
SCSI Target ID: 7
Physical Connector: P1 (controller connector
attached to drive)
Big Inst Drive Map: 0xff3f 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000
Big Bus Map: 0xffff 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000
More Connection Info: 0x01 (LVD SCSI bus enabled)

```

SCSI BUS 2 PARAMETERS:

```

Inquiry Data Valid: No
Installed Drive Map: 0x00000000
Hot Plug Counts:
All counts are zero
Fan Alert Count: 0x0000
Alarm Status: 0x00 (No Alarms)
Temperature Status: 0x00
Valid Alarm Bits: 0x00
Alarm Count: 0000
Specific Counts: 00000 00000 00000 00000
00000 00000 00000 00000
Connection Info: 0x2000
SCSI Device Rev: 0x01
Fan Status: 0x2000
More Inquiry Data:
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
SCSI Device Type: 0x00cf9005 (AIC-7899)
Bus Bitmap: 0x00003f80
Interrupt Count: 00000000
Ultra Bus Faults: 0x00000000
SCSI Initiator ID: 7

```

```

SCSI Target ID: 7
Physical Connector: P2 (controller connector
attached to drive)
Big Inst Drive Map: 0x0000 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000
Big Bus Map: 0x0000 0xffff 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000
More Connection Info: 0x01 (LVD SCSI bus enabled)

```

SCSI BUS 3 PARAMETERS:

```

Inquiry Data Valid: No
Installed Drive Map: 0x00000000
Hot Plug Counts:
All counts are zero
Fan Alert Count: 0x0000
Alarm Status: 0x00 (No Alarms)
Temperature Status: 0x00
Valid Alarm Bits: 0x00
Alarm Count: 0000
Specific Counts: 00000 00000 00000 00000
00000 00000 00000 00000
Connection Info: 0x2000
SCSI Device Rev: 0x01
Fan Status: 0x2000
More Inquiry Data:
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
SCSI Device Type: 0x00cf9005 (AIC-7899)
Bus Bitmap: 0x001fc000
Interrupt Count: 00000000
Ultra Bus Faults: 0x00000000
SCSI Initiator ID: 7
SCSI Target ID: 7
Physical Connector: P3 (controller connector
attached to drive)
Big Inst Drive Map: 0x0000 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000
Big Bus Map: 0x0000 0x0000 0xffff 0x0000
0x0000 0x0000 0x0000 0x0000
More Connection Info: 0x01 (LVD SCSI bus enabled)

```

SCSI BUS 4 PARAMETERS:

```

Inquiry Data Valid: No
Installed Drive Map: 0x00000000
Hot Plug Counts:
All counts are zero
Fan Alert Count: 0x0000
Alarm Status: 0x00 (No Alarms)
Temperature Status: 0x00
Valid Alarm Bits: 0x00
Alarm Count: 0000
Specific Counts: 00000 00000 00000 00000
00000 00000 00000 00000
Connection Info: 0x2000
SCSI Device Rev: 0x01
Fan Status: 0x2000
More Inquiry Data:

```

```
00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 .....
```

```
SCSI Device Type: 0x00cf9005 (AIC-7899)
Bus Bitmap: 0x0fe00000
Interrupt Count: 00000000
Ultra Bus Faults: 0x00000000
SCSI Initiator ID: 7
SCSI Target ID: 7
Physical Connector: P4 (controller connector
attached to drive)
Big Inst Drive Map: 0x0000 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000
Big Bus Map: 0x0000 0x0000 0x0000 0xffff
0x0000 0x0000 0x0000 0x0000
More Connection Info: 0x01 (LVD SCSI bus enabled)
```

MASTER BOOT RECORD (LOGICAL DRIVE 1)

```
Logical Drive 1 (SCSI Port 1, Drive ID 0):
Master Boot Record hex dump:
33 c0 8e d0 bc 00 7c fb 50 07 50 1f fc be
1b 7c bf 1b 06 50 57 b9 e5 01 f3 a4 cb bd be 07
b1 04 38 6e 00 7c 09 75 13 83 c5 10 e2 f4 cd 18
8b f5 83 c6 10 49 74 19 38 2c 74 f6 a0 b5 07 b4
07 8b f0 ac 3c 00 74 fc bb 07 00 b4 0e cd 10 eb
f2 88 4e 10 e8 46 00 73 2a fe 46 10 80 7e 04 0b
74 0b 80 7e 04 0c 74 05 a0 b6 07 75 d2 80 46 02
06 83 46 08 06 83 56 0a 00 e8 21 00 73 05 a0 b6
07 eb bc 81 3e fe 7d 55 aa 74 0b 80 7e 10 00 74
c8 a0 b7 07 eb a9 8b fc 1e 57 8b f5 cb bf 05 00
8a 56 00 b4 08 cd 13 72 23 8a c1 24 3f 98 8a de
8a fc 43 f7 e3 8b d1 86 d6 b1 06 d2 ee 42 f7 e2
39 56 0a 77 23 72 05 39 46 08 73 1c b8 01 02 bb
00 7c 8b 4e 02 8b 56 00 cd 13 73 51 4f 74 4e 32
e4 8a 56 00 cd 13 eb e4 8a 56 00 60 bb aa 55 b4
41 cd 13 72 36 81 fb 55 aa 75 30 f6 c1 01 74 2b
61 60 6a 00 6a 00 ff 76 0a ff 76 08 6a 00 68 00
7c 6a 01 6a 10 b4 42 8b f4 cd 13 61 61 73 0e 4f
74 0b
```

```
76 61 32 e4 8a 56 00 cd 13 eb d6 61 f9 c3 49 6e
74 61 6c 69 64 20 70 61 72 74 69 74 69 6f 6e 20
69 6e 62 6c 65 00 45 72 72 6f 72 20 6c 6f 61 64
73 74 67 20 6f 70 65 72 61 74 69 6e 67 20 73 79
72 61 65 6d 00 4d 69 73 73 69 6e 67 20 6f 70 65
00 00 74 69 6e 67 20 73 79 73 74 65 6d 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
55 aa
```

PARTITION TABLES:

```
SCSI Port 1, Drive ID 0:
00 01 01 00 07 fe 7f 03 3f 00 00 00 c5 bb
3f 00 (Start C/H/S 0000/001/01, End
0259/254/63)
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
SCSI Port 1, Drive ID 9: ---> Same as above.
```

RIS DATA AREA:

```
SCSI Port 1, Drive ID 0:
RIS drive: 0x0
RIS Copy 0:
Drive id: 0
RIS signature: ASTROS
Physical Drives: 14
Logical Drives: 1
Physical Drive State: (00=OK, 01=bad or not
present, 02=replacement)
00 00 00 00 00 00 00 01 01 00 00 00 00 00 00
01 01 01 01 01 01 01 01 01 01 01 01 01 01 01
01 01 01 01 01 01 01 01 01 01 01 01 01 01 01
01 01 01 01 01 01 01 01 01 01 01 01 01 01 01
```

```
Signature: 0xa7387484
RIS version: 1500
Logical Drive State: (00=OK, 01=failed,
02=unused)
02 02 00 02 02 02 02 02 02 02 02 02 02 02 02
02 02 02 02 02 02 02 02 02 02 02 02 02 02 02
RIS updates: 256
Remap interrupted: 0
Surface delay: 150
Overheat delay: 0
M&P delay: 60
RIS hex dump:
00 41 53 54 52 4f 53 20 a7 38 74 84 00 00
01 00 05 dc 0e 01 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 01 01 00 00 00 00 00 00 00 00 01 01 01 01
01 01 01 01 01 01 01 01 01 01 01 01 01 01 01
01 01 01 01 01 01 01 01 01 01 01 01 01 01 01
01 01 01 01 01 01 01 01 01 01 01 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 3c 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
```



```

00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00      00 00 00 00 00 00 00 00 00 00 00 00 00 00
38 bd      00 00 00 00 00 00 00 00 00 00 00 00 00 00

```

```

RIS Copy 1: Same as above.
SCSI Port 1, Drive ID 1:
RIS drive: 0x1
RIS Copy 0: Same as above.
RIS Copy 1: Same as above.
SCSI Port 1, Drive ID 2:
RIS drive: 0x2
RIS Copy 0: Same as above.
RIS Copy 1: Same as above.
SCSI Port 1, Drive ID 3:
RIS drive: 0x3
RIS Copy 0: Same as above.
RIS Copy 1: Same as above.
SCSI Port 1, Drive ID 4:
RIS drive: 0x4
RIS Copy 0: Same as above.
RIS Copy 1: Same as above.
SCSI Port 1, Drive ID 5:
RIS drive: 0x5
RIS Copy 0: Same as above.
RIS Copy 1: Same as above.
SCSI Port 1, Drive ID 6: Physical drive not
connected.
SCSI Port 1, Drive ID 7: Physical drive not
connected.
SCSI Port 1, Drive ID 8:
RIS drive: 0x8
RIS Copy 0: Same as above.
RIS Copy 1: Same as above.
SCSI Port 1, Drive ID 9:
RIS drive: 0x9
RIS Copy 0: Same as above.
RIS Copy 1: Same as above.
SCSI Port 1, Drive ID 10:
RIS drive: 0xa
RIS Copy 0: Same as above.
RIS Copy 1: Same as above.
SCSI Port 1, Drive ID 11:
RIS drive: 0xb
RIS Copy 0: Same as above.
RIS Copy 1: Same as above.
SCSI Port 1, Drive ID 12:
RIS drive: 0xc
RIS Copy 0: Same as above.
RIS Copy 1: Same as above.
SCSI Port 1, Drive ID 13:
RIS drive: 0xd
RIS Copy 0: Same as above.
RIS Copy 1: Same as above.

```

```

SCSI Port 1, Drive ID 14:
RIS drive: 0xe
RIS Copy 0: Same as above.
RIS Copy 1: Same as above.
SCSI Port 1, Drive ID 15:
RIS drive: 0xf
RIS Copy 0: Same as above.
RIS Copy 1: Same as above.
SCSI Port 2, Drive ID 0: Physical drive not
connected.
SCSI Port 2, Drive ID 1: Physical drive not
connected.
SCSI Port 2, Drive ID 2: Physical drive not
connected.
SCSI Port 2, Drive ID 3: Physical drive not
connected.
SCSI Port 2, Drive ID 4: Physical drive not
connected.
SCSI Port 2, Drive ID 5: Physical drive not
connected.
SCSI Port 2, Drive ID 6: Physical drive not
connected.
SCSI Port 2, Drive ID 7: Physical drive not
connected.
SCSI Port 2, Drive ID 8: Physical drive not
connected.
SCSI Port 2, Drive ID 9: Physical drive not
connected.
SCSI Port 2, Drive ID 10: Physical drive not
connected.
SCSI Port 2, Drive ID 11: Physical drive not
connected.
SCSI Port 2, Drive ID 12: Physical drive not
connected.
SCSI Port 2, Drive ID 13: Physical drive not
connected.
SCSI Port 2, Drive ID 14: Physical drive not
connected.
SCSI Port 2, Drive ID 15: Physical drive not
connected.
SCSI Port 3, Drive ID 0: Physical drive not
connected.
SCSI Port 3, Drive ID 1: Physical drive not
connected.
SCSI Port 3, Drive ID 2: Physical drive not
connected.
SCSI Port 3, Drive ID 3: Physical drive not
connected.
SCSI Port 3, Drive ID 4: Physical drive not
connected.
SCSI Port 3, Drive ID 5: Physical drive not
connected.
SCSI Port 3, Drive ID 6: Physical drive not
connected.
SCSI Port 3, Drive ID 7: Physical drive not
connected.
SCSI Port 3, Drive ID 8: Physical drive not
connected.
SCSI Port 3, Drive ID 9: Physical drive not
connected.
SCSI Port 3, Drive ID 10: Physical drive not
connected.

```

```

SCSI Port 3, Drive ID 11: Physical drive not
connected.
SCSI Port 3, Drive ID 12: Physical drive not
connected.
SCSI Port 3, Drive ID 13: Physical drive not
connected.
SCSI Port 3, Drive ID 14: Physical drive not
connected.
SCSI Port 3, Drive ID 15: Physical drive not
connected.
SCSI Port 4, Drive ID 0: Physical drive not
connected.
SCSI Port 4, Drive ID 1: Physical drive not
connected.
SCSI Port 4, Drive ID 2: Physical drive not
connected.
SCSI Port 4, Drive ID 3: Physical drive not
connected.
SCSI Port 4, Drive ID 4: Physical drive not
connected.
SCSI Port 4, Drive ID 5: Physical drive not
connected.
SCSI Port 4, Drive ID 6: Physical drive not
connected.
SCSI Port 4, Drive ID 7: Physical drive not
connected.
SCSI Port 4, Drive ID 8: Physical drive not
connected.
SCSI Port 4, Drive ID 9: Physical drive not
connected.
SCSI Port 4, Drive ID 10: Physical drive not
connected.
SCSI Port 4, Drive ID 11: Physical drive not
connected.
SCSI Port 4, Drive ID 12: Physical drive not
connected.
SCSI Port 4, Drive ID 13: Physical drive not
connected.
SCSI Port 4, Drive ID 14: Physical drive not
connected.
SCSI Port 4, Drive ID 15: Physical drive not
connected.

```

ProLiant DL580 is a trademark of Compaq Computer Corporation.

System Summary

System Information report written at: 07/26/2001
10:37:47 PM
g10[System Information]

[Following are sub-categories of this main category]

[System Summary]

Item	Value
------	-------

```

OS Name      Microsoft Windows 2000 Advanced Server
Version      5.0.2195 Service Pack 1 Build 2195
OS Manufacturer  Microsoft Corporation
System Name   G10
System Manufacturer Compaq
System Model  ProLiant
System Type   X86-based PC
Processor x86 Family 6 Model 10 Stepping 4
GenuineIntel -900 Mhz
Processor x86 Family 6 Model 10 Stepping 4
GenuineIntel -900 Mhz
Processor x86 Family 6 Model 10 Stepping 4
GenuineIntel -900 Mhz
Processor x86 Family 6 Model 10 Stepping 4
GenuineIntel -900 Mhz
Processor x86 Family 6 Model 10 Stepping 4
GenuineIntel -900 Mhz
Processor x86 Family 6 Model 10 Stepping 4
GenuineIntel -900 Mhz
Processor x86 Family 6 Model 10 Stepping 4
GenuineIntel -900 Mhz
BIOS Version 02/16/01
Windows Directory C:\WINNT
System Directory C:\WINNT\System32
Boot Device      \Device\Harddisk0\Partition2
Locale           United States
User Name        G10\Administrator
Time Zone        Central Daylight Time
Total Physical Memory 8,125,756 KB
Available Physical Memory 977,852 KB
Total Virtual Memory 20,244,036 KB
Available Virtual Memory 6,090,252 KB
Page File Space 12,118,280 KB
Page File C:\pagefile.sys

```

[Hardware Resources]

[Following are sub-categories of this main category]

[Conflicts/Sharing]

```

Resource Device
No conflicted/shared resources

```

[DMA]

```

Channel Device Status
7 Direct memory access controller OK
2 Standard floppy disk controller OK

```

[Forced Hardware]

```

Device PNP Device ID
No Forced Hardware

```

[I/O]

```

Address Range Device Status
0x0000-0x2FFF PCI bus OK

```

```

0x0000-0x2FFF Direct memory access controller
OK
0x6000-0xF000 PCI bus OK
0x2000-0x20FF Compaq Smart Array 5300
Controller (Non-Miniport) OK
0x1800-0x18FF Compaq Advanced System Management
Controller OK
0x2400-0x24FF ATI Technologies Inc. 3D RAGE IIC
PCI OK
0x03B0-0x03BB ATI Technologies Inc. 3D RAGE IIC
PCI OK
0x03C0-0x03DF ATI Technologies Inc. 3D RAGE IIC
PCI OK
0x2800-0x28FF Compaq Smart Array Controller OK
0x0A79-0x0A79 ISAPNP Read Data Port OK
0x0279-0x0279 ISAPNP Read Data Port OK
0x02F4-0x02F7 ISAPNP Read Data Port OK
0x0F50-0x0F58 Motherboard resources OK
0x1000-0x107F Motherboard resources OK
0x0020-0x0021 Programmable interrupt controller
OK
0x00A0-0x00A1 Programmable interrupt controller
OK
0x0C00-0x0C01 Programmable interrupt controller
OK
0x0040-0x0043 System timer OK
0x0080-0x008F Direct memory access controller
OK
0x00C0-0x00DF Direct memory access controller
OK
0x040B-0x040B Direct memory access controller
OK
0x04D6-0x04D6 Direct memory access controller
OK
0x01F0-0x01F7 Standard IDE/ESDI Hard Disk
Controller OK
0x03F6-0x03F6 Standard IDE/ESDI Hard Disk
Controller OK
0x0061-0x0061 System speaker OK
0x015C-0x015D Extended IO Bus OK
0x0220-0x0223 Extended IO Bus OK
0x0230-0x0231 Extended IO Bus OK
0x0240-0x0243 Extended IO Bus OK
0x0250-0x025B Extended IO Bus OK
0x025D-0x025F Extended IO Bus OK
0x0378-0x037A Printer Port (LPT1) OK
0x03F8-0x03FF Communications Port (COM1) OK
0x02F8-0x02FF Communications Port (COM2) OK
0x03F0-0x03F5 Standard floppy disk controller
OK
0x03F7-0x03F7 Standard floppy disk controller
OK
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
0x3000-0x4FFF PCI bus OK
0x3000-0x4FFF Compaq Smart Array 5300
Controller (Non-Miniport) OK
0x4000-0x4FFF DEC 21154 PCI to PCI bridge OK
0x4020-0x403F Compaq NC3131 Fast Ethernet NIC
#4 OK

```

```

0x3400-0x34FF Compaq Smart Array 5300
Controller (Non-Miniport) OK
0x5000-0x5FFF PCI bus OK
0x5000-0x5FFF Compaq Smart Array 5300
Controller (Non-Miniport) OK
0x5400-0x54FF Compaq Smart Array 5300
Controller (Non-Miniport) OK

```

[IRQs]

```

IRQ Number Device
9 Microsoft ACPI-Compliant System
23 Compaq Smart Array 5300 Controller (Non-
Miniport)
21 Compaq NC6134 Gigabit Module
24 Compaq Smart Array Controller
14 Standard IDE/ESDI Hard Disk Controller
4 Communications Port (COM1)
3 Communications Port (COM2)
6 Standard floppy disk controller
12 PS/2 Compatible Mouse
1 Standard 101/102-Key or Microsoft Natural
PS/2 Keyboard
20 Compaq NC3131 Fast Ethernet NIC #4
18 Compaq Smart Array 5300 Controller (Non-
Miniport)
16 Compaq Smart Array 5300 Controller (Non-
Miniport)
30 Compaq Smart Array 5300 Controller (Non-
Miniport)
28 Compaq Smart Array 5300 Controller (Non-
Miniport)

```

[Memory]

```

Range Device Status
0xA0000-0xBFFFF PCI bus OK
0xA0000-0xBFFFF ATI Technologies Inc. 3D RAGE IIC
PCI OK
0xF0000000-0xF2FFFFFF PCI bus OK
0xFEC00000-0xFFFFFFFF PCI bus OK
0xFEC00000-0xFFFFFFFF Advanced programmable
interrupt controller
0xF72C0000-0xF72FFFFFF Compaq Smart Array 5300
Controller (Non-Miniport) OK
0xF7100000-0xF71FFFFFF Compaq Smart Array 5300
Controller (Non-Miniport) OK
0xF70E0000-0xF70FFFFFF Compaq NC6134 Gigabit
Module OK
0xF70C0000-0xF70C00FF Compaq Advanced System
Management Controller OK
0xF4000000-0xF4FFFFFF ATI Technologies Inc.
3D RAGE IIC PCI OK
0xF70B0000-0xF70B0FFF ATI Technologies Inc.
3D RAGE IIC PCI OK
0xF6000000-0xF6FFFFFF Compaq Smart Array
Controller OK
0xF5000000-0xF5FFFFFF Compaq Smart Array
Controller OK
0xC0000-0xDFFFF Motherboard resources OK
0xF7300000-0xF7AFFFFFF PCI bus OK
0xF7300000-0xF7AFFFFFF DEC 21154 PCI to PCI
bridge OK

```

```

0xF7900000-0xF7AFFFFF    DEC 21154 PCI to PCI
bridge OK
0xF7900000-0xF7AFFFFF    Compaq NC3131 Fast
Ethernet NIC #4 OK
0xF73E0000-0xF73E0FFF    Compaq NC3131 Fast
Ethernet NIC #4 OK
0xF78C0000-0xF78FFFFF    Compaq Smart Array 5300
Controller (Non-Miniport) OK
0xF7700000-0xF77FFFFF    Compaq Smart Array 5300
Controller (Non-Miniport) OK
0xF76C0000-0xF76FFFFF    Compaq Smart Array 5300
Controller (Non-Miniport) OK
0xF7500000-0xF75FFFFF    Compaq Smart Array 5300
Controller (Non-Miniport) OK
0xF7B00000-0xF7BFFFFF    PCI bus OK
0xF7FC0000-0xF7FFFFF    Compaq Smart Array 5300
Controller (Non-Miniport) OK
0xF7E00000-0xF7EFFFFF    Compaq Smart Array 5300
Controller (Non-Miniport) OK
0xF7DC0000-0xF7DFFFFF    Compaq Smart Array 5300
Controller (Non-Miniport) OK
0xF7C00000-0xF7CFFFFF    Compaq Smart Array 5300
Controller (Non-Miniport) OK

```

[Components]

[Following are sub-categories of this main category]

[Multimedia]

[Following are sub-categories of this main category]

[Audio Codecs]

Codec	Manufacturer	Description	Status	File	Version	Size	Creation Date
c:\winnt\system32\tssoft32.acm	INC.	DSP GROUP,	OK				
	C:\WINNT\System32\TSSOFT32.ACM		1.01	9.27 KB (9,488 bytes)			12/7/1999 6:00:00 AM
c:\winnt\system32\msadp32.acm	Microsoft Corporation		OK				
	C:\WINNT\System32\MSADP32.ACM	5.00.2134.1	14.77 KB (15,120 bytes)				12/7/1999 6:00:00 AM
c:\winnt\system32\msg711.acm	Microsoft Corporation		OK				
	C:\WINNT\System32\MSG711.ACM	5.00.2134.1	10.27 KB (10,512 bytes)				12/7/1999 6:00:00 AM
c:\winnt\system32\iac25_32.ax	Intel Corporation		OK				
	C:\WINNT\System32\IAC25_32.AX	2.05.53	195.00 KB (199,680 bytes)				12/7/1999 6:00:00 AM
c:\winnt\system32\imaadp32.acm	Microsoft Corporation		OK				
	C:\WINNT\System32\IMAADP32.ACM						

Codec	Manufacturer	Description	Status	File	Version	Size	Creation Date
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 6:00:00 AM
c:\winnt\system32\msg723.acm	Microsoft Corporation		OK				
	C:\WINNT\System32\MSG723.ACM	4.4.3385	106.77 KB (109,328 bytes)				4/24/2001 11:27:25 AM
c:\winnt\system32\lhacm.acm	Microsoft Corporation		OK				
	C:\WINNT\System32\LHACM.ACM	4.4.3385	33.27 KB (34,064 bytes)				4/24/2001 11:27:26 AM
[Video Codecs]							
c:\winnt\system32\ir50_32.dll	Intel Corporation		OK				
	C:\WINNT\System32\IR50_32.DLL	R.5.10.15.2.55	737.50 KB (755,200 bytes)				12/7/1999 6:00:00 AM
c:\winnt\system32\msh261.drv	Microsoft Corporation		OK				
	C:\WINNT\System32\MSH261.DRV	4.4.3385	163.77 KB (167,696 bytes)				4/24/2001 11:27:26 AM
c:\winnt\system32\msh263.drv	Microsoft Corporation		OK				
	C:\WINNT\System32\MSH263.DRV	4.4.3385	252.27 KB (258,320 bytes)				4/24/2001 11:26:52 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 6:00:00 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 6:00:00 AM
c:\winnt\system32\msrle32.dll	Microsoft Corporation		OK				
	C:\WINNT\System32\MSRLE32.DLL	5.00.2134.1	10.77 KB (11,024 bytes)				12/7/1999 6:00:00 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 6:00:00 AM
[CD-ROM]							
Item	Value						
Drive	Unknown						
Description	Unknown						

Item	Value
Media Loaded	Unknown
Media Type	Unknown
Name	Unknown
Manufacturer	Unknown
Status	Unknown
Transfer Rate	Unknown
SCSI Target ID	Unknown
PNP Device ID	Unknown

[Sound Device]

Item	Value
No sound devices	

[Display]

Item	Value
Name	ATI Technologies Inc. 3D RAGE IIC PCI
PNP Device ID	PCI\VEN_1002&DEV_4756&SUBSYS_00000000&REV_7
	A\3&267A616A&0&68
Adapter Type	ATI 3D RAGE IIC PCI (A21), ATI Technologies Inc. compatible
Adapter Description	ATI Technologies Inc. 3D RAGE IIC PCI
Adapter RAM	2.00 MB (2,097,152 bytes)
Installed Drivers	atiraged.dll
Driver Version	5.00.2174.1
INF File	display.inf (atirage 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&3D912C8&0
NumberOfFunctionKeys	12

[Pointing Device]

Item	Value
Hardware Type	PS/2 Compatible Mouse
Number of Buttons	2
Status	OK

PNP Device ID ACPI\PNP0F13\4&3D912C8&0
Power Management Supported False
Double Click Threshold 6
Handedness Right Handed Operation

[Modem]

Item Value
No modems

[Network]

[Following are sub-categories of this main category]

[Adapter]

Item Value
Name [00000000] Compaq NC3131 Fast Ethernet NIC
Adapter Type Not Available
Product Name Compaq NC3131 Fast Ethernet NIC
Installed True
PNP Device ID Not Available
Last Reset 7/26/2001 4:42:47 PM
Index 0
Service Name N100
IP Address 130.130.1.10
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 00:08:C7:86:5F:67
Service Name Not Available

Name [00000001] Compaq NC3131 Fast Ethernet NIC
Adapter Type Not Available
Product Name Compaq NC3131 Fast Ethernet NIC
Installed True
PNP Device ID Not Available
Last Reset 7/26/2001 4:42:47 PM
Index 1
Service Name N100
IP Address 130.168.209.110
IP Subnet 255.255.0.0
Default IP Gateway Not Available
DHCP Enabled True
DHCP Server 192.168.0.1
DHCP Lease Expires 5/4/2001 10:28:58 AM
DHCP Lease Obtained 4/27/2001 10:28:58 AM
MAC Address 00:50:8B:CF:C4:E7
Service Name Not Available

Name [00000002] RAS Async Adapter
Adapter Type Not Available
Product Name RAS Async Adapter
Installed True
PNP Device ID Not Available
Last Reset 7/26/2001 4:42:47 PM
Index 2
Service Name AsyncMac

IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled False
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available
Service Name Not Available

Name [00000003] WAN Miniport (L2TP)
Adapter Type Not Available
Product Name WAN Miniport (L2TP)
Installed True
PNP Device ID ROOT\MS_L2TPMINIPOINT\0000
Last Reset 7/26/2001 4:42:47 PM
Index 3
Service Name Rasl2tp
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled False
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available
Service Name Rasl2tp
Driver c:\winnt\system32\drivers\rasl2tp.sys
(50800, 5.00.2179.1)

Name [00000004] WAN Miniport (PPTP)
Adapter Type Wide Area Network (WAN)
Product Name WAN Miniport (PPTP)
Installed True
PNP Device ID ROOT\MS_PPTPMINIPOINT\0000
Last Reset 7/26/2001 4:42:47 PM
Index 4
Service Name PptpMiniport
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled False
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 50:50:54:50:30:30
Service Name PptpMiniport
Driver c:\winnt\system32\drivers\raspptp.sys
(47856, 5.00.2160.1)

Name [00000005] Direct Parallel
Adapter Type Not Available
Product Name Direct Parallel
Installed True
PNP Device ID ROOT\MS_PTIMINIPOINT\0000
Last Reset 7/26/2001 4:42:47 PM
Index 5
Service Name Raspti
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled False
DHCP Server Not Available

DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available
Service Name Raspti
Driver c:\winnt\system32\drivers\raspti.sys
(16880, 5.00.2146.1)

Name [00000006] WAN Miniport (IP)
Adapter Type Not Available
Product Name WAN Miniport (IP)
Installed True
PNP Device ID ROOT\MS_NDISWANIP\0000
Last Reset 7/26/2001 4:42:47 PM
Index 6
Service Name NdisWan
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled False
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available
Service Name NdisWan
Driver c:\winnt\system32\drivers\ndiswan.sys
(90768, 5.00.2184.1)

Name [00000007] Compaq NC3131 Fast Ethernet NIC
Adapter Type Not Available
Product Name Compaq NC3131 Fast Ethernet NIC
Installed True
PNP Device ID PCI\VEN_8086&DEV_1229&SUBSYS_B0DD0E11&REV_0
5\4&1138865F&0&2008
Last Reset 7/26/2001 4:42:47 PM
Index 7
Service Name N100
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 N100
Driver c:\winnt\system32\drivers\n100nt5.sys
(87824, 5.29.04.0067)

Name [00000008] Compaq NC3131 Fast Ethernet NIC
Adapter Type Ethernet 802.3
Product Name Compaq NC3131 Fast Ethernet NIC
Installed True
PNP Device ID PCI\VEN_8086&DEV_1229&SUBSYS_B0DD0E11&REV_0
5\4&1138865F&0&2808
Last Reset 7/26/2001 4:42:47 PM
Index 8
Service Name N100
IP Address 130.168.209.110
IP Subnet 255.255.0.0
Default IP Gateway Not Available
DHCP Enabled False

DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address 00:50:8B:CF:C4:E7
 Service Name N100
 IRQ Number 20
 I/O Port 0x4020-0x403F
 Driver c:\winnt\system32\drivers\n100nt5.sys
 (87824, 5.29.04.0067)

Name [00000009] Compaq NC6134 Gigabit Module
 Adapter Type Ethernet 802.3
 Product Name Compaq NC6134 Gigabit Module
 Installed True
 PNP Device ID
 PCI\VEN_8086&DEV_1000&SUBSYS_B1230E11&REV_0
 3\3&267A616A&0&18
 Last Reset 7/26/2001 4:42:47 PM
 Index 9
 Service Name N1000
 IP Address 130.130.1.10
 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 00:08:C7:86:5F:67
 Service Name N1000
 IRQ Number 21
 Driver c:\winnt\system32\drivers\n1000nt5.sys
 (34576, 1.05.00.1020)

[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_{E9EA9F17-AA8E-4E12-9494-3592CDE7B257}] SEQPACKET 6
 ConnectionlessService False
 GuaranteesDelivery True
 GuaranteesSequencing True
 MaximumAddressSize 20 bytes
 MaximumMessageSize 64000 bytes
 MessageOriented True
 MinimumAddressSize 20 bytes
 PseudoStreamOriented False
 SupportsBroadcasting False
 SupportsConnectData False
 SupportsDisconnectData False
 SupportsEncryption False
 SupportsExpeditedData False
 SupportsGracefulClosing False

SupportsGuaranteedBandwidth False
 SupportsMulticasting False

Name MSAFD NetBIOS
 [\Device\NetBT_Tcpip_{E9EA9F17-AA8E-4E12-9494-3592CDE7B257}] DATAGRAM 6
 ConnectionlessService True
 GuaranteesDelivery False
 GuaranteesSequencing False
 MaximumAddressSize 20 bytes
 MaximumMessageSize 64000 bytes
 MessageOriented True
 MinimumAddressSize 20 bytes
 PseudoStreamOriented False
 SupportsBroadcasting True
 SupportsConnectData False
 SupportsDisconnectData False
 SupportsEncryption False
 SupportsExpeditedData False
 SupportsGracefulClosing False
 SupportsGuaranteedBandwidth False
 SupportsMulticasting False

Name MSAFD NetBIOS
 [\Device\NetBT_Tcpip_{14B7A22C-7074-45E3-B456-2AF80E23E511}] SEQPACKET 5
 ConnectionlessService False
 GuaranteesDelivery True
 GuaranteesSequencing True
 MaximumAddressSize 20 bytes
 MaximumMessageSize 64000 bytes
 MessageOriented True
 MinimumAddressSize 20 bytes
 PseudoStreamOriented False
 SupportsBroadcasting False
 SupportsConnectData False
 SupportsDisconnectData False
 SupportsEncryption False
 SupportsExpeditedData False
 SupportsGracefulClosing False
 SupportsGuaranteedBandwidth False
 SupportsMulticasting False

Name MSAFD NetBIOS
 [\Device\NetBT_Tcpip_{14B7A22C-7074-45E3-B456-2AF80E23E511}] DATAGRAM 5
 ConnectionlessService True
 GuaranteesDelivery False
 GuaranteesSequencing False
 MaximumAddressSize 20 bytes
 MaximumMessageSize 64000 bytes
 MessageOriented True
 MinimumAddressSize 20 bytes
 PseudoStreamOriented False
 SupportsBroadcasting True
 SupportsConnectData False
 SupportsDisconnectData False
 SupportsEncryption False
 SupportsExpeditedData False
 SupportsGracefulClosing False
 SupportsGuaranteedBandwidth False
 SupportsMulticasting False


```
Name MSAFD NetBIOS
[\\Device\\NetBT_Tcpip_{54017C0C-0B00-4178-9F99-7178ED09E83D}] 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_{54017C0C-0B00-4178-9F99-7178ED09E83D}] 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_{4838D198-761D-41EC-81A2-8C67EE62B187}] SEQPACKET 0
ConnectionlessService False
GuaranteesDelivery True
GuaranteesSequencing True
MaximumAddressSize 20 bytes
MaximumMessageSize 64000 bytes
MessageOriented True
MinimumAddressSize 20 bytes
PseudoStreamOriented False
SupportsBroadcasting False
SupportsConnectData False
SupportsDisconnectData False
SupportsEncryption False
SupportsExpeditedData False
SupportsGracefulClosing False
SupportsGuaranteedBandwidth False
SupportsMulticasting False
```

```
Name MSAFD NetBIOS
[\\Device\\NetBT_Tcpip_{4838D198-761D-41EC-81A2-8C67EE62B187}] 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_{13B298CA-2A90-41D8-A324-81A90F75C42B}] SEQPACKET 1
ConnectionlessService False
GuaranteesDelivery True
GuaranteesSequencing True
MaximumAddressSize 20 bytes
MaximumMessageSize 64000 bytes
MessageOriented True
MinimumAddressSize 20 bytes
PseudoStreamOriented False
SupportsBroadcasting False
SupportsConnectData False
SupportsDisconnectData False
SupportsEncryption False
SupportsExpeditedData False
SupportsGracefulClosing False
SupportsGuaranteedBandwidth False
SupportsMulticasting False
```

```
Name MSAFD NetBIOS
[\\Device\\NetBT_Tcpip_{13B298CA-2A90-41D8-A324-81A90F75C42B}] 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_{56C273B3-C78A-4963-AD3D-4CC4EB001571}] 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_{56C273B3-C78A-4963-AD3D-4CC4EB001571}] DATAGRAM 2
ConnectionlessService True
GuaranteesDelivery False
GuaranteesSequencing False
MaximumAddressSize 20 bytes
MaximumMessageSize 64000 bytes
MessageOriented True
MinimumAddressSize 20 bytes
PseudoStreamOriented False
SupportsBroadcasting True
SupportsConnectData False
SupportsDisconnectData False
SupportsEncryption False
SupportsExpeditedData False
SupportsGracefulClosing False
SupportsGuaranteedBandwidth False
SupportsMulticasting False
```

```
Name MSAFD NetBIOS
[\\Device\\NetBT_Tcpip_{6C27B090-F99D-47DF-95F1-BA2A3C78E47B}] SEQPACKET 3
ConnectionlessService False
GuaranteesDelivery True
GuaranteesSequencing True
MaximumAddressSize 20 bytes
MaximumMessageSize 64000 bytes
MessageOriented True
MinimumAddressSize 20 bytes
PseudoStreamOriented False
SupportsBroadcasting False
SupportsConnectData False
SupportsDisconnectData False
SupportsEncryption False
SupportsExpeditedData False
SupportsGracefulClosing False
SupportsGuaranteedBandwidth False
SupportsMulticasting False
```

```
Name MSAFD NetBIOS
[\\Device\\NetBT_Tcpip_{6C27B090-F99D-47DF-95F1-BA2A3C78E47B}] DATAGRAM 3
ConnectionlessService True
GuaranteesDelivery False
GuaranteesSequencing False
MaximumAddressSize 20 bytes
MaximumMessageSize 64000 bytes
MessageOriented True
```

```

MinimumAddressSize 20 bytes
PseudoStreamOriented False
SupportsBroadcasting True
SupportsConnectData False
SupportsDisconnectData False
SupportsEncryption False
SupportsExpeditedData False
SupportsGracefulClosing False
SupportsGuaranteedBandwidth False
SupportsMulticasting False

```

[WinSock]

```

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

File c:\winnt\system32\wsock32.dll
Version 5.00.2195.1207
Size 21.27 KB (21,776 bytes)

```

[Ports]

[Following are sub-categories of this main category]

[Serial]

```

Item Value
Name COM1
Status OK
PNP Device ID ACPI\PNP0501\0
Maximum Input Buffer Size Not Available
Maximum Output Buffer Size Not Available
Settable Baud Rate Not Available
Settable Data Bits Not Available
Settable Flow Control Not Available
Settable Parity Not Available
Settable Parity Check Not Available
Settable Stop Bits Not Available
Settable RLSD Not Available
Supports RLSD Not Available
Supports 16 Bit Mode Not Available
Supports Special Characters Not Available
Baud Rate 9600
Bits/Byte 8
Stop Bits 1
Parity None
Busy 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
(62448, 5.00.2134.1)

```

```

Name COM2
Status OK
PNP Device ID ACPI\PNP0501\1
Maximum Input Buffer Size 0
Maximum Output Buffer Size False
Settable Baud Rate True
Settable Data Bits True
Settable Flow Control True
Settable Parity True
Settable Parity Check True
Settable Stop Bits True
Settable RLSD True
Supports RLSD True
Supports 16 Bit Mode False
Supports Special Characters False
Baud Rate 9600
Bits/Byte 8
Stop Bits 1
Parity None
Busy 0
Abort Read/Write on Error 0
Binary Mode Enabled -1
Continue Xmit on Xoff 0
CTS Outflow Control 0
Discard NULL Bytes 0
DSR Outflow Control 0
DSR Sensitivity 0
DTR Flow Control Type Enable
EOF Character 0
Error Replace Character 0
Error Replacement Enabled 0
Event Character 0
Parity Check Enabled 0
RTS Flow Control Type Enable
Xoff Character 19
XoffXmit Threshold 512
XOn Character 17
XOnXmit Threshold 2048
XOnXoff InFlow Control 0
XOnXoff OutFlow Control 0
IRQ Number 3
I/O Port 0x02F8-0x02FF
Driver c:\winnt\system32\drivers\serial.sys
(62448, 5.00.2134.1)

[Parallel]

Item Value

```

```

Name LPT1
PNP Device ID ACPI\PNP0400\5&3B049A2C&0

```

[Storage]

[Following are sub-categories of this main category]

[Drives]

```

Item Value
Drive A:
Description 3 1/2 Inch Floppy Drive

```

```

Drive C:
Description Local Fixed Disk
Compressed False
File System NTFS
Size 8.43 GB (9,049,370,624 bytes)
Free Space 1.34 GB (1,443,663,872 bytes)
Volume Name
Volume Serial Number E4E9370B
Partition Disk #22, Partition #1
Partition Size 8.43 GB (9,049,374,720 bytes)
Starting Offset 37601280 bytes
Drive Description Compaq SCSI Drive Array
Drive Manufacturer Compaq
Drive Model Compaq Disk Array SCSI Disk
Device
Drive BytesPerSector 512
Drive MediaLoaded True
Drive MediaType Fixed hard disk media
Drive Partitions 2
Drive SCSI Bus 0
Drive SCSI LogicalUnit 0
Drive SCSI Port 1
Drive SCISITargetId 0
Drive SectorsPerTrack 32
Drive Size 9091153920 bytes
Drive TotalCylinders 2176
Drive TotalSectors 17756160
Drive TotalTracks 554880
Drive TracksPerCylinder 255

```

```

Drive E:
Description Local Fixed Disk
Compressed Not Available
File System Not Available
Size Not Available
Free Space Not Available
Volume Name Not Available
Volume Serial Number Not Available

```

```

Drive F:
Description Local Fixed Disk
Compressed Not Available
File System Not Available
Size Not Available
Free Space Not Available
Volume Name Not Available
Volume Serial Number Not Available

```

Drive G:
 Description Local Fixed Disk
 Compressed Not Available
 File System Not Available
 Size Not Available
 Free Space Not Available
 Volume Name Not Available
 Volume Serial Number Not Available

Drive H:
 Description Local Fixed Disk
 Compressed Not Available
 File System Not Available
 Size Not Available
 Free Space Not Available
 Volume Name Not Available
 Volume Serial Number Not Available

Drive I:
 Description Local Fixed Disk
 Compressed Not Available
 File System Not Available
 Size Not Available
 Free Space Not Available
 Volume Name Not Available
 Volume Serial Number Not Available

Drive J:
 Description Local Fixed Disk
 Compressed Not Available
 File System Not Available
 Size Not Available
 Free Space Not Available
 Volume Name Not Available
 Volume Serial Number Not Available

Drive K:
 Description Local Fixed Disk
 Compressed Not Available
 File System Not Available
 Size Not Available
 Free Space Not Available
 Volume Name Not Available
 Volume Serial Number Not Available

Drive L:
 Description Local Fixed Disk
 Compressed Not Available
 File System Not Available
 Size Not Available
 Free Space Not Available
 Volume Name Not Available
 Volume Serial Number Not Available

Drive M:
 Description Local Fixed Disk
 Compressed Not Available
 File System Not Available
 Size Not Available
 Free Space Not Available
 Volume Name Not Available
 Volume Serial Number Not Available

Drive N:
 Description Local Fixed Disk
 Compressed Not Available
 File System Not Available
 Size Not Available
 Free Space Not Available
 Volume Name Not Available
 Volume Serial Number Not Available

Drive O:
 Description Local Fixed Disk
 Compressed Not Available
 File System Not Available
 Size Not Available
 Free Space Not Available
 Volume Name Not Available
 Volume Serial Number Not Available

Drive P:
 Description Local Fixed Disk
 Compressed Not Available
 File System Not Available
 Size Not Available
 Free Space Not Available
 Volume Name Not Available
 Volume Serial Number Not Available

Drive Q:
 Description Local Fixed Disk
 Compressed Not Available
 File System Not Available
 Size Not Available
 Free Space Not Available
 Volume Name Not Available
 Volume Serial Number Not Available

Drive R:
 Description Local Fixed Disk
 Compressed Not Available
 File System Not Available
 Size Not Available
 Free Space Not Available
 Volume Name Not Available
 Volume Serial Number Not Available

Drive S:
 Description Local Fixed Disk
 Compressed Not Available
 File System Not Available
 Size Not Available
 Free Space Not Available
 Volume Name Not Available
 Volume Serial Number Not Available

Drive T:
 Description Local Fixed Disk
 Compressed False
 File System NTFS
 Size 102.98 GB (110,572,404,736 bytes)
 Free Space 83.07 GB (89,194,643,456 bytes)
 Volume Name backup1
 Volume Serial Number 8CB57BA5
 Partition Disk #3, Partition #0

Partition Size 102.98 GB (110,572,406,784 bytes)
 Starting Offset 32256 bytes
 Drive Description \\.\PHYSICALDRIVE3
 Drive Manufacturer Not Available
 Drive Model Not Available
 Drive BytesPerSector 512
 Drive MediaLoaded True
 Drive MediaType Fixed hard disk media
 Drive Partitions 1
 Drive SCSIbus Not Available
 Drive SCSILogicalUnit Not Available
 Drive SCSIPort Not Available
 Drive SCSTargetId Not Available
 Drive SectorsPerTrack 63
 Drive Size 110572439040 bytes
 Drive TotalCylinders 13443
 Drive TotalSectors 215961795
 Drive TotalTracks 3427965
 Drive TracksPerCylinder 255

Drive U:
 Description Local Fixed Disk
 Compressed False
 File System NTFS
 Size 102.98 GB (110,572,404,736 bytes)
 Free Space 83.58 GB (89,739,968,512 bytes)
 Volume Name backup2
 Volume Serial Number ECEC56A6
 Partition Disk #6, Partition #0
 Partition Size 102.98 GB (110,572,406,784 bytes)
 Starting Offset 32256 bytes
 Drive Description \\.\PHYSICALDRIVE6
 Drive Manufacturer Not Available
 Drive Model Not Available
 Drive BytesPerSector 512
 Drive MediaLoaded True
 Drive MediaType Fixed hard disk media
 Drive Partitions 1
 Drive SCSIbus Not Available
 Drive SCSILogicalUnit Not Available
 Drive SCSIPort Not Available
 Drive SCSTargetId Not Available
 Drive SectorsPerTrack 63
 Drive Size 110572439040 bytes
 Drive TotalCylinders 13443
 Drive TotalSectors 215961795
 Drive TotalTracks 3427965
 Drive TracksPerCylinder 255

Drive V:
 Description Local Fixed Disk
 Compressed False
 File System NTFS
 Size 102.98 GB (110,572,404,736 bytes)
 Free Space 83.58 GB (89,739,968,512 bytes)
 Volume Name backup3
 Volume Serial Number AC2A5D4F
 Partition Disk #9, Partition #0
 Partition Size 102.98 GB (110,572,406,784 bytes)
 Starting Offset 32256 bytes
 Drive Description \\.\PHYSICALDRIVE9
 Drive Manufacturer Not Available
 Drive Model Not Available

```

Drive BytesPerSector      512
Drive MediaLoaded        True
Drive MediaType          Fixed hard disk media
Drive Partitions         1
Drive SCSIBus            Not Available
Drive SCSILogicalUnit    Not Available
Drive SCSIPort           Not Available
Drive SCISITargetId     Not Available
Drive SectorsPerTrack   63
Drive Size               110572439040 bytes
Drive TotalCylinders     13443
Drive TotalSectors      215961795
Drive TotalTracks       3427965
Drive TracksPerCylinder 255

```

```

Drive W:
Description      Local Fixed Disk
Compressed       False
File System      NTFS
Size             102.98 GB (110,572,404,736 bytes)
Free Space       83.58 GB (89,739,952,128 bytes)
Volume Name      backup4
Volume Serial Number 545ED5BE
Partition Disk #12, Partition #0
Partition Size   102.98 GB (110,572,406,784 bytes)
Starting Offset  32256 bytes
Drive Description \\.\PHYSICALDRIVE12
Drive Manufacturer Not Available
Drive Model      Not Available
Drive BytesPerSector 512
Drive MediaLoaded True
Drive MediaType   Fixed hard disk media
Drive Partitions 1
Drive SCSIBus    Not Available
Drive SCSILogicalUnit Not Available
Drive SCSIPort   Not Available
Drive SCISITargetId Not Available
Drive SectorsPerTrack 63
Drive Size       110572439040 bytes
Drive TotalCylinders 13443
Drive TotalSectors 215961795
Drive TotalTracks 3427965
Drive TracksPerCylinder 255

```

```

Drive X:
Description      Local Fixed Disk
Compressed       False
File System      NTFS
Size             102.98 GB (110,572,404,736 bytes)
Free Space       83.58 GB (89,739,968,512 bytes)
Volume Name      backup5
Volume Serial Number FC92709E
Partition Disk #15, Partition #0
Partition Size   102.98 GB (110,572,406,784 bytes)
Starting Offset  32256 bytes
Drive Description \\.\PHYSICALDRIVE15
Drive Manufacturer Not Available
Drive Model      Not Available
Drive BytesPerSector 512
Drive MediaLoaded True
Drive MediaType   Fixed hard disk media
Drive Partitions 1
Drive SCSIBus    Not Available

```

```

Drive SCSILogicalUnit    Not Available
Drive SCSIPort           Not Available
Drive SCISITargetId     Not Available
Drive SectorsPerTrack   63
Drive Size               110572439040 bytes
Drive TotalCylinders     13443
Drive TotalSectors      215961795
Drive TotalTracks       3427965
Drive TracksPerCylinder 255

```

```

Drive Y:
Description      Local Fixed Disk
Compressed       False
File System      NTFS
Size             102.98 GB (110,572,404,736 bytes)
Free Space       83.58 GB (89,739,952,128 bytes)
Volume Name      backup6
Volume Serial Number D4BDCD47
Partition Disk #18, Partition #0
Partition Size   102.98 GB (110,572,406,784 bytes)
Starting Offset  32256 bytes
Drive Description \\.\PHYSICALDRIVE18
Drive Manufacturer Not Available
Drive Model      Not Available
Drive BytesPerSector 512
Drive MediaLoaded True
Drive MediaType   Fixed hard disk media
Drive Partitions 1
Drive SCSIBus    Not Available
Drive SCSILogicalUnit Not Available
Drive SCSIPort   Not Available
Drive SCISITargetId Not Available
Drive SectorsPerTrack 63
Drive Size       110572439040 bytes
Drive TotalCylinders 13443
Drive TotalSectors 215961795
Drive TotalTracks 3427965
Drive TracksPerCylinder 255

```

```

Drive Z:
Description      Local Fixed Disk
Compressed       False
File System      NTFS
Size             102.98 GB (110,572,404,736 bytes)
Free Space       83.58 GB (89,739,952,128 bytes)
Volume Name      backup7
Volume Serial Number 50EA40F8
Partition Disk #21, Partition #0
Partition Size   102.98 GB (110,572,406,784 bytes)
Starting Offset  32256 bytes
Drive Description \\.\PHYSICALDRIVE21
Drive Manufacturer Not Available
Drive Model      Not Available
Drive BytesPerSector 512
Drive MediaLoaded True
Drive MediaType   Fixed hard disk media
Drive Partitions 1
Drive SCSIBus    Not Available
Drive SCSILogicalUnit Not Available
Drive SCSIPort   Not Available
Drive SCISITargetId Not Available
Drive SectorsPerTrack 63
Drive Size       110572439040 bytes

```

```

Drive TotalCylinders     13443
Drive TotalSectors      215961795
Drive TotalTracks       3427965
Drive TracksPerCylinder 255

```

[SCSI]

```

Item      Value
Name      Compaq Smart Array 5300 Controller (Non-
Miniport)
Caption   Compaq Smart Array 5300 Controller (Non-
Miniport)
Driver    cpqcissb
Status    OK
PNP Device ID
          PCI\VEN_0E11&DEV_B060&SUBSYS_40700E11&REV_0
          2\3&267A616A&0&08
Device ID
          PCI\VEN_0E11&DEV_B060&SUBSYS_40700E11&REV_0
          2\3&267A616A&0&08
Device Map Not Available
Index     Not Available
Max Number Controlled Not Available
IRQ Number 23
I/O Port 0x2000-0x20FF
Driver    c:\winnt\system32\drivers\cpqcissb.sys
(36096, 5.01.10.02)

```

```

Name      Compaq Smart Array Controller
Caption   Compaq Smart Array Controller
Driver    cpqgarry2
Status    OK
PNP Device ID
          PCI\VEN_1000&DEV_0010&SUBSYS_40400E11&REV_0
          1\3&267A616A&0&70
Device ID
          PCI\VEN_1000&DEV_0010&SUBSYS_40400E11&REV_0
          1\3&267A616A&0&70
Device Map Not Available
Index     Not Available
Max Number Controlled Not Available
IRQ Number 24
I/O Port 0x2800-0x28FF
Driver    c:\winnt\system32\drivers\cpqgarry2.sys
(13424, 5.00.2139.1)

```

```

Name      Compaq Smart Array 5300 Controller (Non-
Miniport)
Caption   Compaq Smart Array 5300 Controller (Non-
Miniport)
Driver    cpqcissb
Status    OK
PNP Device ID
          PCI\VEN_0E11&DEV_B060&SUBSYS_40700E11&REV_0
          2\3&13C0B0C5&0&18
Device ID
          PCI\VEN_0E11&DEV_B060&SUBSYS_40700E11&REV_0
          2\3&13C0B0C5&0&18
Device Map Not Available
Index     Not Available
Max Number Controlled Not Available
IRQ Number 18

```

```

I/O Port 0x3000-0x4FFF
Driver c:\winnt\system32\drivers\cpqcissb.sys
(36096, 5.01.10.02)

Name Compaq Smart Array 5300 Controller (Non-
Miniport)
Caption Compaq Smart Array 5300 Controller (Non-
Miniport)
Driver cpqcissb
Status OK
PNP Device ID
PCI\VEN_0E11&DEV_B060&SUBSYS_40700E11&REV_0
2\3&13C0B0C5&0&28
Device ID
PCI\VEN_0E11&DEV_B060&SUBSYS_40700E11&REV_0
2\3&13C0B0C5&0&28
Device Map Not Available
Index Not Available
Max Number Controlled Not Available
IRQ Number 16
I/O Port 0x3400-0x34FF
Driver c:\winnt\system32\drivers\cpqcissb.sys
(36096, 5.01.10.02)

Name Compaq Smart Array 5300 Controller (Non-
Miniport)
Caption Compaq Smart Array 5300 Controller (Non-
Miniport)
Driver cpqcissb
Status OK
PNP Device ID
PCI\VEN_0E11&DEV_B060&SUBSYS_40700E11&REV_0
2\3&1070020&0&08
Device ID
PCI\VEN_0E11&DEV_B060&SUBSYS_40700E11&REV_0
2\3&1070020&0&08
Device Map Not Available
Index Not Available
Max Number Controlled Not Available
IRQ Number 30
I/O Port 0x5000-0x5FFF
Driver c:\winnt\system32\drivers\cpqcissb.sys
(36096, 5.01.10.02)

Name Compaq Smart Array 5300 Controller (Non-
Miniport)
Caption Compaq Smart Array 5300 Controller (Non-
Miniport)
Driver cpqcissb
Status OK
PNP Device ID
PCI\VEN_0E11&DEV_B060&SUBSYS_40700E11&REV_0
2\3&1070020&0&10
Device ID
PCI\VEN_0E11&DEV_B060&SUBSYS_40700E11&REV_0
2\3&1070020&0&10
Device Map Not Available
Index Not Available
Max Number Controlled Not Available
IRQ Number 28
I/O Port 0x5400-0x54FF
Driver c:\winnt\system32\drivers\cpqcissb.sys
(36096, 5.01.10.02)

```

[Printing]

Name Port Name Server Name
No printing information

[Problem Devices]

Device	PNP Device ID	Error Code
COMPAQ CD-224E	IDE\CDROMCOMPAQ_CD-224E	9.0B\5&233B1041&0&0
Compaq NC3131 Fast Ethernet NIC #3	PCI\VEN_8086&DEV_1229&SUBSYS_B0DD0E11&REV_05\4&1138865F&0&2008 22	

[USB]

Device PNP Device ID
No USB Devices

[Software Environment]

[Following are sub-categories of this main category]

[Drivers]

Name	Description	File	Type
	Started Start Mode		State
	Status Error Control		Accept Pause
	Accept Stop		
abiosdsk	Abiosdsk Not Available		Kernel Driver
	False Disabled Stopped		OK
	Ignore False		False
abp480n5	abp480n5 Not Available		Kernel Driver
	False Disabled Stopped		OK
	Normal False		False
acpi	Microsoft ACPI Driver		
	c:\winnt\system32\drivers\acpi.sys		
	Kernel Driver True		Boot
	Running OK Normal		False
	True		
acpiec	ACPIEC		
	c:\winnt\system32\drivers\acpiec.sys		
	Kernel Driver False		Disabled
	Stopped OK Normal		False
	False		
adpu160m	adpu160m Not Available		Kernel Driver
	False Disabled Stopped		OK
	Normal False		False
afd	AFD Networking Support Environment		
	c:\winnt\system32\drivers\afd.sys		
	Kernel Driver True		Auto
	Running OK Normal		False
	True		
ahal54x	Ahal54x Not Available		Kernel Driver
	False Disabled Stopped		OK
	Normal False		False
aic116x	aic116x Not Available		Kernel Driver
	False Disabled Stopped		OK
	Normal False		False

aic78u2	aic78u2	Not Available	Kernel Driver
	False Disabled	Stopped	OK
	Normal False	False	
aic78xx	aic78xx	Not Available	Kernel Driver
	False Disabled	Stopped	OK
	Normal False	False	
ami0nt	ami0nt	Not Available	Kernel Driver
	False Disabled	Stopped	OK
	Normal False	False	
amsint	amsint	Not Available	Kernel Driver
	False Disabled	Stopped	OK
	Normal False	False	
asc	asc	Not Available	Kernel Driver
	False Disabled	Stopped	OK
	Normal False	False	
asc3350p	asc3350p	Not Available	Kernel Driver
	False Disabled	Stopped	OK
	Normal False	False	
asc3550	asc3550	Not Available	Kernel Driver
	False Disabled	Stopped	OK
	Normal False	False	
asyncmac	RAS Asynchronous Media Driver		
	c:\winnt\system32\drivers\asyncmac.sys		
	Kernel Driver False		Manual
	Stopped OK Normal		False
	False		
atapi	Standard IDE/ESDI Hard Disk Controller		
	c:\winnt\system32\drivers\atapi.sys		
	Kernel Driver True		Boot
	Running OK Normal		False
	True		
atdisk	Atdisk Not Available		Kernel Driver
	False Disabled	Stopped	OK
	Ignore False		False
atirage	atirage		
	c:\winnt\system32\drivers\atiragem.sys		
	Kernel Driver True		Manual
	Running OK Ignore		False
	True		
atmarpc	ATM ARP Client Protocol		
	c:\winnt\system32\drivers\atmarpc.sys		
	Kernel Driver False		Manual
	Stopped OK Normal		False
	False		
audstub	Audio Stub Driver		
	c:\winnt\system32\drivers\audstub.sys		
	Kernel Driver True		Manual
	Running OK Normal		False
	True		
beep	Beep		
	c:\winnt\system32\drivers\beep.sys		
	Kernel Driver True		System
	Running OK Normal		False
	True		
buslogic	BusLogic Not Available		Kernel Driver
	False Disabled	Stopped	OK
	Normal False		False
cd20xrnt	cd20xrnt Not Available		Kernel Driver
	False Disabled	Stopped	OK
	Normal False		False
cdaudio	Cdaudio		
	c:\winnt\system32\drivers\cdaudio.sys		
	Kernel Driver False		System

```

Stopped OK Ignore False
False
cdfs Cdfs
c:\winnt\system32\drivers\cdfs.sys
File System Driver False Disabled
Stopped OK Normal False
False
cdrom CD-ROM Driver
c:\winnt\system32\drivers\cdrom.sys
Kernel Driver False System
Stopped OK Normal False
False
changer Changer Not Available Kernel Driver
False System Stopped OK
Ignore False False
cpqarray Cpqarray Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
cpqarray2 cpqarray2
c:\winnt\system32\drivers\cpqarray2.sys
Kernel Driver True Boot
Running OK Normal False
True
cpqcissb Compaq CISS Controllers Device Driver
c:\winnt\system32\drivers\cpqcissb.sys
Kernel Driver True Boot
Running OK Normal False
True
cpqcissd Compaq CISS Controllers Disk Driver
c:\winnt\system32\drivers\cpqcissd.sys
Kernel Driver True Boot
Running OK Normal False
True
cpqfcalm cpqfcalm Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
cpqfws2e cpqfws2e Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
dac960nt dac960nt Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
deckzpsx deckzpsx Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
dfsdriver DfsDriver c:\winnt\system32\drivers\dfs.sys
File System Driver True Boot
Running OK Normal False
True
disk Disk Driver
c:\winnt\system32\drivers\disk.sys
Kernel Driver True Boot
Running OK Normal 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
fd16_700 Fd16_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
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
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 True Manual
Running OK Normal False
True
ipsraidn ipsraidn Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
isapnp PnP ISA/EISA Bus Driver
c:\winnt\system32\drivers\isapnp.sys
Kernel Driver True Boot
Running OK Critical 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
lbtrfdc lbtrfdc Not Available Kernel Driver
False System Stopped OK
Ignore False False
lp6nds35 lp6nds35 Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
mmdd mmdd
c:\winnt\system32\drivers\mmdd.sys
Kernel Driver True System
Running OK Ignore False
True
modem Modem
c:\winnt\system32\drivers\modem.sys
Kernel Driver False Manual
Stopped OK Ignore False
False
mouclass Mouse Class Driver
c:\winnt\system32\drivers\mouclass.sys
Kernel Driver True System
Running OK Normal False
True
mountmgr MountMgr
c:\winnt\system32\drivers\mountmgr.sys
Kernel Driver True Boot
Running OK Normal False
True

```

mraid35x	mraid35x	Not Available	Kernel Driver
	False	Disabled	Stopped
	Normal	False	OK
mrxsmb	MRXSMB	False	False
	c:\winnt\system32\drivers\mrxsmb.sys	File System Driver	True
	Running	OK	Normal
	True	False	False
msfs	Msfs	True	System
	c:\winnt\system32\drivers\msfs.sys	File System Driver	True
	Running	OK	Normal
	True	False	False
mkserv	Microsoft Streaming Service Proxy	Kernel Driver	False
	c:\winnt\system32\drivers\mkserv.sys	Kernel Driver	False
	Stopped	OK	Normal
	True	False	False
mspclock	Microsoft Streaming Clock Proxy	Kernel Driver	False
	c:\winnt\system32\drivers\mspclock.sys	Kernel Driver	False
	Stopped	OK	Normal
	True	False	False
mspqm	Microsoft Streaming Quality Manager Proxy	Kernel Driver	False
	c:\winnt\system32\drivers\mspqm.sys	Kernel Driver	False
	Stopped	OK	Normal
	True	False	False
mup	Mup	c:\winnt\system32\drivers\mup.sys	File System Driver
	Running	OK	Normal
	True	False	False
n100	Compaq Ethernet or Fast Ethernet NIC NT Driver	Kernel Driver	True
	c:\winnt\system32\drivers\n100nt5.sys	Kernel Driver	True
	Running	OK	Normal
	True	False	False
n1000	Compaq Gigabit Ethernet NIC NT Driver	Kernel Driver	True
	c:\winnt\system32\drivers\n1000nt5.sys	Kernel Driver	True
	Running	OK	Normal
	True	False	False
nocr710	Nocr710	Not Available	Kernel Driver
	False	Disabled	Stopped
	Normal	False	False
ndis	NDIS System Driver	Kernel Driver	True
	c:\winnt\system32\drivers\ndis.sys	Kernel Driver	True
	Running	OK	Normal
	True	False	False
ndistapi	Remote Access NDIS TAPI Driver	Kernel Driver	True
	c:\winnt\system32\drivers\ndistapi.sys	Kernel Driver	True
	Running	OK	Normal
	True	False	False
ndiswan	Remote Access NDIS WAN Driver	Kernel Driver	True
	c:\winnt\system32\drivers\ndiswan.sys	Kernel Driver	True
	Running	OK	Normal
	True	False	False
ndproxy	NDIS Proxy	Kernel Driver	True
	c:\winnt\system32\drivers\ndproxy.sys	Kernel Driver	True
	Running	OK	Normal
	True	False	False

netbios	NetBIOS Interface	Kernel Driver	True
	c:\winnt\system32\drivers\netbios.sys	File System Driver	True
	Running	OK	Normal
	True	False	False
netbt	NetBios over Tcpip	Kernel Driver	True
	c:\winnt\system32\drivers\netbt.sys	Kernel Driver	True
	Running	OK	Normal
	True	False	False
netdetect	NetDetect	Kernel Driver	False
	c:\winnt\system32\drivers\netdetect.sys	Kernel Driver	False
	Stopped	OK	Normal
	True	False	False
npfs	Npfs	File System Driver	True
	c:\winnt\system32\drivers\npfs.sys	File System Driver	True
	Running	OK	Normal
	True	False	False
ntfs	Ntfs	File System Driver	True
	c:\winnt\system32\drivers\ntfs.sys	File System Driver	True
	Running	OK	Normal
	True	False	False
null	Null	Kernel Driver	True
	c:\winnt\system32\drivers\null.sys	Kernel Driver	True
	Running	OK	Normal
	True	False	False
nwlkflt	IPX Traffic Filter Driver	Kernel Driver	False
	c:\winnt\system32\drivers\nwlkflt.sys	Kernel Driver	False
	Stopped	OK	Normal
	True	False	False
nwlkfwd	IPX Traffic Forwarder Driver	Kernel Driver	False
	c:\winnt\system32\drivers\nwlkfwd.sys	Kernel Driver	False
	Stopped	OK	Normal
	True	False	False
parallel	Parallel class driver	Kernel Driver	True
	c:\winnt\system32\drivers\parallel.sys	Kernel Driver	True
	Running	OK	Normal
	True	False	False
parport	Parallel port driver	Kernel Driver	True
	c:\winnt\system32\drivers\parport.sys	Kernel Driver	True
	Running	OK	Ignore
	True	False	False
partmgr	PartMgr	Kernel Driver	True
	c:\winnt\system32\drivers\partmgr.sys	Kernel Driver	True
	Running	OK	Normal
	True	False	False
parvdm	ParVdm	Kernel Driver	True
	c:\winnt\system32\drivers\parvdm.sys	Kernel Driver	True
	Running	OK	Ignore
	True	False	False

pci	PCI Bus Driver	Kernel Driver	True
	c:\winnt\system32\drivers\pci.sys	Kernel Driver	True
	Running	OK	Critical
	True	False	False
pcidump	PCIDump	Kernel Driver	False
	Not Available	System	Stopped
	Ignore	False	False
pciide	PCIide	Kernel Driver	False
	Not Available	Disabled	Stopped
	Normal	False	False
pcmcia	Pcmcia	Kernel Driver	False
	c:\winnt\system32\drivers\pcmcia.sys	Kernel Driver	False
	Stopped	OK	Normal
	True	False	False
pdcomp	PDCOMP	Kernel Driver	False
	Not Available	Manual	Stopped
	Ignore	False	False
pdframe	PDFRAME	Kernel Driver	False
	Not Available	Manual	Stopped
	Ignore	False	False
pdreli	PDRELI	Kernel Driver	False
	Not Available	Manual	Stopped
	Ignore	False	False
pdrframe	PDRFRAME	Kernel Driver	False
	Not Available	Manual	Stopped
	Ignore	False	False
pptpminiport	WAN Miniport (PPTP)	Kernel Driver	True
	c:\winnt\system32\drivers\raspppt.sys	Kernel Driver	True
	Running	OK	Normal
	True	False	False
ptilink	Direct Parallel Link Driver	Kernel Driver	True
	c:\winnt\system32\drivers\ptilink.sys	Kernel Driver	True
	Running	OK	Normal
	True	False	False
ql1080	ql1080	Kernel Driver	False
	Not Available	Disabled	Stopped
	Normal	False	False
ql10wnt	Ql10wnt	Kernel Driver	False
	Not Available	Disabled	Stopped
	Normal	False	False
ql1240	ql1240	Kernel Driver	False
	Not Available	Disabled	Stopped
	Normal	False	False
ql2100	ql2100	Kernel Driver	False
	Not Available	Disabled	Stopped
	Normal	False	False
rasacd	Remote Access Auto Connection Driver	Kernel Driver	True
	c:\winnt\system32\drivers\rasacd.sys	Kernel Driver	True
	Running	OK	Normal
	True	False	False
rasl2tp	WAN Miniport (L2TP)	Kernel Driver	True
	c:\winnt\system32\drivers\rasl2tp.sys	Kernel Driver	True
	Running	OK	Normal
	True	False	False
raspti	Direct Parallel	Kernel Driver	True
	c:\winnt\system32\drivers\raspti.sys	Kernel Driver	True
	Running	OK	Normal
	True	False	False

```

Running OK Normal False
True
rca Microsoft Streaming Network Raw Channel
Access c:\winnt\system32\drivers\rca.sys
Kernel Driver False Manual
Stopped OK Normal False
False
rdbss Rdbss
c:\winnt\system32\drivers\rdbss.sys
File System Driver True System
Running OK Normal False
True
rdpdr Terminal Server Device Redirector Driver
c:\winnt\system32\drivers\rdpdr.sys
Kernel Driver True Manual
Running OK Normal False
True
rdpwd RDPWD
c:\winnt\system32\drivers\rdpwd.sys
Kernel Driver True Manual
Running OK Ignore False
True
redbook Digital CD Audio Playback Filter Driver
c:\winnt\system32\drivers\redbook.sys
Kernel Driver False System
Stopped OK Normal False
False
serenum Serenum Filter Driver
c:\winnt\system32\drivers\serenum.sys
Kernel Driver True Manual
Running OK Normal False
True
serial Serial port driver
c:\winnt\system32\drivers\serial.sys
Kernel Driver True System
Running OK Ignore False
True
sfloppy Sfloppy
c:\winnt\system32\drivers\sfloppy.sys
Kernel Driver False System
Stopped OK Ignore False
False
sglfb Sglfb Not Available Kernel Driver
False System Stopped OK
Normal False False
simbad Simbad Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
sparrow Sparrow Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
srv Srv c:\winnt\system32\drivers\srv.sys
File System Driver True Manual
Running OK Normal False
True
swenum Software Bus Driver
c:\winnt\system32\drivers\swenum.sys
Kernel Driver True Manual
Running OK Normal False
True
symc810 Symc810 Not Available Kernel Driver
False Disabled Stopped OK
Normal False False

```

```

symc8xx symc8xx Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
sym_hi sym_hi Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
tcPIP TCP/IP Protocol Driver
c:\winnt\system32\drivers\tcpip.sys
Kernel Driver True System
Running OK Normal False
True
tdasync TDASYNC
c:\winnt\system32\drivers\tdasync.sys
Kernel Driver False Manual
Stopped OK Ignore False
False
tdipx TDIPX
c:\winnt\system32\drivers\tdipx.sys
Kernel Driver False Manual
Stopped OK Ignore False
False
tdnetb TDNETB
c:\winnt\system32\drivers\tdnetb.sys
Kernel Driver False Manual
Stopped OK Ignore False
False
tdpipe TDPIPE
c:\winnt\system32\drivers\tdpipe.sys
Kernel Driver False Manual
Stopped OK Ignore False
False
tdspx TDSPX
c:\winnt\system32\drivers\tdspx.sys
Kernel Driver False Manual
Stopped OK Ignore False
False
tdtcp TDTCP
c:\winnt\system32\drivers\tdtcp.sys
Kernel Driver True Manual
Running OK Ignore False
True
termdd Terminal Device Driver
c:\winnt\system32\drivers\termdd.sys
Kernel Driver True Auto
Running OK Normal False
True
tga Tga Not Available Kernel Driver
False System Stopped OK
Ignore False False
udfs Udfs
c:\winnt\system32\drivers\udfs.sys
File System Driver False Disabled
Stopped OK Normal False
False
ultra66 ultra66 Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
update Microcode Update Driver
c:\winnt\system32\drivers\update.sys
Kernel Driver True Manual
Running OK Normal False
True

```

```

vgasave VgaSave c:\winnt\system32\drivers\vga.sys
Kernel Driver True System
Running OK Ignore False
True
wanarp Remote Access IP ARP Driver
c:\winnt\system32\drivers\wanarp.sys
Kernel Driver True Manual
Running OK Normal False
True
wdica Wdica Not Available Kernel Driver
False Manual Stopped OK
Ignore False False

[Environment Variables]

Variable Value User Name
ComSpec %SystemRoot%\system32\cmd.exe <SYSTEM>
Os2LibPath %SystemRoot%\system32\os2\dll;
<SYSTEM>
Path
%SystemRoot%\system32;%SystemRoot%;%SystemR
oot%\System32\Wbem;C:\Program Files\Microsoft SQL
Server\80\Tools\BINN <SYSTEM>
windir %SystemRoot% <SYSTEM>
OS Windows_NT <SYSTEM>
PROCESSOR_ARCHITECTURE x86 <SYSTEM>
PROCESSOR_LEVEL 6 <SYSTEM>
PROCESSOR_IDENTIFIER x86 Family 6 Model 10
Stepping 4, GenuineIntel <SYSTEM>
PROCESSOR_REVISION 0a04 <SYSTEM>
NUMBER_OF_PROCESSORS 8 <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
G10\Administrator
TMP %USERPROFILE%\Local Settings\Temp
G10\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
No print jobs

[Network Connections]

```


Local Name	Remote Name	Type		
Status	User Name			
No network connections information				
[Running Tasks]				
Name	Path	Process ID	Priority	Min
Working Set	Max Working Set	Start Time		
Version	Size	File Date		
system idle process	Not Available	0	0	0
Available	Unknown	Unknown		
system	Not Available	8	8	0
1413120	Not Available	Unknown	Unknown	
Unknown	Unknown			
smss.exe	c:\winnt\system32\smss.exe	200	11	
204800	1413120	7/26/2001 9:45:23 PM		
5.00.2195.31	44.27 KB (45,328 bytes)			
12/7/1999 6:00:00 AM				
csrss.exe	c:\winnt\system32\csrss.exe	228	13	
204800	1413120	7/26/2001 9:45:29 PM		
5.00.2137.1	5.27 KB (5,392 bytes)			
12/7/1999 6:00:00 AM				
winlogon.exe	c:\winnt\system32\winlogon.exe			
252	13	204800	1413120	
7/26/2001 9:45:30 PM				
5.00.2195.1600	172.77 KB (176,912 bytes)			
12/7/1999 6:00:00 AM				
services.exe	c:\winnt\system32\services.exe			
284	9	204800	1413120	
7/26/2001 9:45:31 PM				
5.00.2134.1	86.77 KB (88,848 bytes)			
12/7/1999 6:00:00 AM				
lsass.exe	c:\winnt\system32\lsass.exe	296	13	
204800	1413120	7/26/2001 9:45:31 PM		
5.00.2195.1620	32.77 KB (33,552 bytes)			
12/7/1999 6:00:00 AM				
svchost.exe	c:\winnt\system32\svchost.exe	472		
8	204800	1413120	7/26/2001	
9:45:34 PM				
5.00.2134.1	7.77 KB			
(7,952 bytes)				
spoolsv.exe	c:\winnt\system32\spoolsv.exe	492		
8	204800	1413120	7/26/2001	
9:45:34 PM				
5.00.2161.1	43.77 KB			
(44,816 bytes)				
msdtc.exe	c:\winnt\system32\msdtc.exe	520	8	
204800	1413120	7/26/2001 9:45:34 PM		
1999.9.3421.3	6.77 KB (6,928 bytes)			
4/24/2001 6:25:07 AM				
svchost.exe	c:\winnt\system32\svchost.exe	772		
8	204800	1413120	7/26/2001	
9:45:36 PM				
5.00.2134.1	7.77 KB			
(7,952 bytes)				
llssrv.exe	c:\winnt\system32\llssrv.exe	792		
9	204800	1413120	7/26/2001	
9:45:36 PM				
5.00.2167.1	114.27 KB			
(117,008 bytes)				
regsvcs.exe	c:\winnt\system32\regsvcs.exe	836		
8	204800	1413120	7/26/2001	
9:45:36 PM				
5.00.2195.31	65.27 KB			
(66,832 bytes)				
5/7/2001 4:08:40 PM				

rshsvcs.exe	c:\winnt\system32\rshsvcs.exe	868		
8	204800	1413120	7/26/2001	
9:45:36 PM				
(36,864 bytes)				
5/2/2001 3:37:14 PM				
mstask.exe	c:\winnt\system32\mstask.exe	888		
8	204800	1413120	7/26/2001	
9:45:36 PM				
(118,032 bytes)				
4/7.2137.1	115.27 KB			
4/24/2001 11:27:12 AM				
tardisnt.exe	c:\winnt\system32\tardisnt.exe			
928	8	204800	1413120	
7/26/2001 9:45:38 PM				
Not Available				
179.00 KB (183,296 bytes)				
4/24/2001				
1:26:57 PM				
termsrv.exe	c:\winnt\system32\termsrv.exe			
1044	10	204800	1413120	
7/26/2001 9:45:37 PM				
5.00.2195.1340	136.77 KB (140,048 bytes)			
5/7/2001 4:08:37 PM				
winmgmt.exe	c:\winnt\system32\wbem\winmgmt.exe			
1084	8	204800	1413120	
7/26/2001 9:45:37 PM				
1.50.1085.0009	192.08 KB (196,685 bytes)			
5/7/2001 4:08:56 PM				
mssearch.exe	c:\program files\common files\system\mssearch\bin\mssearch.exe	1096	8	
204800	1413120	7/26/2001 9:45:38 PM		
9.107.6223.2	64.00 KB (65,536 bytes)			
6/19/2001 4:19:15 PM				
dfssvc.exe	c:\winnt\system32\dfssvc.exe			
1180	8	204800	1413120	
7/26/2001 9:45:44 PM				
5.00.2195.1340	87.77 KB (89,872 bytes)			
5/7/2001 4:08:50 PM				
explorer.exe	c:\winnt\explorer.exe			
1360	8	204800	1413120	
7/26/2001 9:47:17 PM				
5.00.3103.1000	237.27 KB (242,960 bytes)			
5/7/2001 4:08:54 PM				
svchost.exe	c:\winnt\system32\svchost.exe			
1400	8	204800	1413120	
7/26/2001 9:47:18 PM				
5.00.2134.1	7.77 KB (7,952 bytes)			
12/7/1999				
6:00:00 AM				
sqlmangr.exe	c:\program files\microsoft sql server\80\tools\bin\sqlmangr.exe	1508	8	
204800	1413120	7/26/2001 9:47:21 PM		
2000.080.0382.00	72.57 KB (74,308 bytes)			
4/24/2001 1:35:24 PM				
cmd.exe	c:\winnt\system32\cmd.exe	400	8	
204800	1413120	7/26/2001 9:48:51 PM		
5.00.2195.1600	230.77 KB (236,304 bytes)			
12/7/1999 6:00:00 AM				
sqlservr.exe	c:\sql2k\mssql\bin\sqlservr.exe			
1380	13	204800	1413120	
7/26/2001 9:48:51 PM				
2000.080.0384.00	7.05 MB (7,397,457 bytes)			
4/24/2001 1:34:44 PM				
rsvps.exe	c:\winnt\system32\rsvps.exe	2268	8	
204800	1413120	7/26/2001 10:36:05 PM		
5.00.2167.1	172.77 KB (176,912 bytes)			
12/7/1999 6:00:00 AM				

[Loaded Modules]				
Name	Version	Size	File Date	Manufacturer
Path				
traffic.dll	5.00.2139.1	30.77 KB		
(31,504 bytes)			12/7/1999 6:00:00 AM	
Microsoft Corporation				
c:\winnt\system32\traffic.dll				
rsvps.exe	5.00.2167.1	172.77 KB (176,912 bytes)		
12/7/1999 6:00:00 AM				
Microsoft Corporation				
c:\winnt\system32\rsvps.exe				
sqloledb.rll	2000.080.0380	60.00 KB		
(61,440 bytes)			6/19/2001 5:01:55 PM	
Microsoft Corporation				
c:\program files\common files\system\ole db\sqloledb.rll				
dbnetlib.dll	2000.080.0380.00	84.08 KB		
(86,097 bytes)			6/19/2001 5:01:53 PM	
Microsoft Corporation				
c:\winnt\system32\dbnetlib.dll				
oledb32r.dll	2.61.7326.0	68.27 KB		
(69,904 bytes)			6/19/2001 5:01:49 PM	
Microsoft Corporation				
c:\program files\common files\system\ole db\oledb32r.dll				
oledb32.dll	2.61.7326.0	448.27 KB		
(459,024 bytes)			6/19/2001 5:01:49 PM	
Microsoft Corporation				
c:\program files\common files\system\ole db\oledb32.dll				
msdat13.dll	2.61.7326.0	92.27 KB		
(94,480 bytes)			6/19/2001 5:01:48 PM	
Microsoft Corporation				
c:\program files\common files\system\ole db\msdat13.dll				
msdart.dll	2.61.7326.0	144.27 KB		
(147,728 bytes)			6/19/2001 5:01:48 PM	
Microsoft Corporation				
c:\winnt\system32\msdart.dll				
sqloledb.dll	2000.080.0380	484.08 KB		
(495,700 bytes)			6/19/2001 5:01:54 PM	
Microsoft Corporation				
c:\program files\common files\system\ole db\sqloledb.dll				
sqlftqry.dll	2000.080.0384.00	108.57 KB		
(111,180 bytes)			4/24/2001 1:34:57 PM	
Microsoft Corporation				
c:\sql2k\mssql\bin\sqlftqry.dll				
ssmslpcn.dll	2000.080.0382.00	28.56 KB		
(29,244 bytes)			4/24/2001 1:34:46 PM	
Microsoft Corporation				
c:\sql2k\mssql\bin\ssmslpcn.dll				
ssnmpn70.dll	2000.080.0194.00	24.06 KB		
(24,638 bytes)			4/24/2001 1:34:46 PM	
Microsoft Corporation				
c:\sql2k\mssql\bin\ssnmpn70.dll				
ssnetlib.dll	2000.080.0382.00	84.56 KB		
(86,588 bytes)			4/24/2001 1:34:46 PM	
Microsoft Corporation				
c:\sql2k\mssql\bin\ssnetlib.dll				
sqllevn70.rll	2000.080.0194.00	28.00 KB		
(28,672 bytes)			4/24/2001 1:34:46 PM	
Microsoft Corporation				
c:\sql2k\mssql\bin\resources\1033\sqllevn70.rll				
msvcirt.dll	6.10.8637.0	76.05 KB		
(77,878 bytes)			12/7/1999 6:00:00 AM	

Microsoft Corporation
 c:\winnt\system32\msvcirt.dll
 sqlsort.dll 2000.080.0382.00 576.56 KB
 (590,396 bytes) 4/24/2001 1:34:46 PM
 Microsoft Corporation
 c:\sql2k\mssql\bin\sqlsort.dll
 ums.dll 2000.080.0382.00 48.07 KB (49,228 bytes)
 4/24/2001 1:34:46 PM Microsoft
 Corporation c:\sql2k\mssql\bin\ums.dll
 opens60.dll 2000.080.0194.00 24.06 KB
 (24,639 bytes) 4/24/2001 1:34:46 PM
 Microsoft Corporation
 c:\sql2k\mssql\bin\opens60.dll
 sqlservr.exe 2000.080.0384.00 7.05 MB
 (7,397,457 bytes) 4/24/2001 1:34:44 PM
 Microsoft Corporation
 c:\sql2k\mssql\bin\sqlservr.exe
 cmd.exe 5.00.2195.1600 230.77 KB (236,304
 bytes) 12/7/1999 6:00:00 AM Microsoft
 Corporation c:\winnt\system32\cmd.exe
 sqlmgr.rll 2000.080.0194.00 96.00 KB
 (98,304 bytes) 4/24/2001 1:35:24 PM
 Microsoft Corporation c:\program
 files\microsoft sql
 server\80\tools\bin\resources\1033\sqlmgr.rll
 sqlsvc.rll 2000.080.0194.00 24.00 KB
 (24,576 bytes) 4/24/2001 1:35:22 PM
 Microsoft Corporation c:\program
 files\microsoft sql
 server\80\tools\bin\resources\1033\sqlsvc.rll
 odbint.dll 3.520.7326.0 88.00 KB
 (90,112 bytes) 6/19/2001 5:01:49 PM
 Microsoft Corporation
 c:\winnt\system32\odbint.dll
 sqlresld.dll 2000.080.0382.00 28.56 KB
 (29,248 bytes) 4/24/2001 1:35:22 PM
 Microsoft Corporation c:\program
 files\microsoft sql server\80\tools\bin\sqlresld.dll
 odbcbcp.dll 2000.080.0380.00 28.57 KB
 (29,252 bytes) 6/19/2001 5:01:53 PM
 Microsoft Corporation
 c:\winnt\system32\odbcbcp.dll
 sqlsvc.dll 2000.080.0382.00 92.56 KB
 (94,784 bytes) 4/24/2001 1:35:22 PM
 Microsoft Corporation c:\program
 files\microsoft sql server\80\tools\bin\sqlsvc.dll
 odb32.dll 3.520.7326.0 216.27 KB
 (221,456 bytes) 6/19/2001 5:01:49 PM
 Microsoft Corporation
 c:\winnt\system32\odb32.dll
 w95scm.dll 2000.080.0194.00 48.56 KB
 (49,728 bytes) 4/24/2001 1:35:21 PM
 Microsoft Corporation c:\program
 files\microsoft sql server\80\tools\bin\w95scm.dll
 comdlg32.dll 5.00.3103.1000 236.77 KB
 (242,448 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\comdlg32.dll
 sqlunirl.dll 2000.080.0380.00 176.56 KB
 (180,800 bytes) 4/9/2001 10:46:18 AM
 Microsoft Corporation
 c:\winnt\system32\sqlunirl.dll

sqlmgrn.exe 2000.080.0382.00 72.57 KB
 (74,308 bytes) 4/24/2001 1:35:24 PM
 Microsoft Corporation c:\program
 files\microsoft sql server\80\tools\bin\sqlmgrn.exe
 tapisrv.dll 5.00.2186.1 168.77 KB
 (172,816 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\tapisrv.dll
 linkinfo.dll 5.00.2134.1 15.77 KB
 (16,144 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\linkinfo.dll
 msi.dll 1.11.1314.0 1.72 MB (1,798,928
 bytes) 5/7/2001 4:08:45 PM Microsoft Corporation
 c:\winnt\system32\msi.dll
 powrprof.dll 5.00.3103.1000 13.27 KB
 (13,584 bytes) 5/7/2001 4:08:40 PM Microsoft
 Corporation c:\winnt\system32\powrprof.dll
 batmeter.dll 5.00.2920.0000 20.27 KB
 (20,752 bytes) 5/7/2001 4:08:51 PM Microsoft
 Corporation c:\winnt\system32\batmeter.dll
 stobject.dll 5.00.2195.1387 79.27 KB
 (81,168 bytes) 5/7/2001 4:08:38 PM Microsoft
 Corporation c:\winnt\system32\stobject.dll
 webcheck.dll 5.00.3103.1000 251.77 KB
 (257,808 bytes) 5/7/2001 4:08:37 PM Microsoft
 Corporation c:\winnt\system32\webcheck.dll
 netui1.dll 5.00.2134.1 210.27 KB
 (215,312 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\netui1.dll
 netui0.dll 5.00.2134.1 70.27 KB
 (71,952 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\netui0.dll
 ntlanman.dll 5.00.2157.1 35.27 KB
 (36,112 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\ntlanman.dll
 ntshrui.dll 5.00.2134.1 46.77 KB
 (47,888 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\ntshrui.dll
 mydocs.dll 5.00.2920.0000 55.77 KB
 (57,104 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\mydocs.dll
 browseui.dll 5.00.3103.1000 788.77 KB
 (807,696 bytes) 5/7/2001 4:08:51 PM Microsoft
 Corporation c:\winnt\system32\browseui.dll
 shdocvw.dll 5.00.3103.1000 1.05 MB
 (1,104,144 bytes) 5/7/2001 4:08:39 PM Microsoft
 Corporation c:\winnt\system32\shdocvw.dll
 explorer.exe 5.00.3103.1000 237.27 KB
 (242,960 bytes) 5/7/2001 4:08:54 PM Microsoft
 Corporation c:\winnt\explorer.exe
 dfssvc.exe 5.00.2195.1340 87.77 KB
 (89,872 bytes) 5/7/2001 4:08:50 PM Microsoft
 Corporation c:\winnt\system32\dfssvc.exe
 iprop.dll 5.00.2181.1 4.27 KB (4,368 bytes)
 12/7/1999 6:00:00 AM Microsoft
 Corporation c:\winnt\system32\iprop.dll

srchidx.dll 9.107.6223.2 380.00 KB
 (389,120 bytes) 6/19/2001 4:19:16 PM
 Microsoft Corporation
 c:\progra-1\common-1\system\mssearch\bin\sr
 chidx.dll
 propdefs.dll 9.107.6223.2 136.00 KB
 (139,264 bytes) 6/19/2001 4:19:16 PM
 Microsoft Corporation
 c:\progra-1\common-1\system\mssearch\bin\pr
 opdefs.dll
 lcdetect.dll 9.107.6223.2 28.00 KB
 (28,672 bytes) 6/19/2001 4:19:15 PM
 Microsoft Corporation c:\program
 files\common files\system\mssearch\bin\lcdetect.dll
 tquery.dll 9.107.6223.2 1.45 MB
 (1,515,520 bytes) 6/19/2001 4:19:16 PM
 Microsoft Corporation c:\program
 files\common files\system\mssearch\bin\tquery.dll
 security.dll 5.00.2154.1 5.77 KB
 (5,904 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\security.dll
 mssrch.dll 9.107.6223.2 1.23 MB
 (1,290,240 bytes) 6/19/2001 4:19:16 PM
 Microsoft Corporation
 c:\progra-1\common-1\system\mssearch\bin\ms
 srch.dll
 mssws.dll 9.107.6223.2 36.00 KB (36,864 bytes)
 6/19/2001 4:19:16 PM Microsoft
 Corporation c:\program files\common
 files\system\mssearch\bin\mssws.dll
 mssearch.exe 9.107.6223.2 64.00 KB
 (65,536 bytes) 6/19/2001 4:19:15 PM
 Microsoft Corporation c:\program
 files\common files\system\mssearch\bin\mssearch.exe
 wshnetbs.dll 5.00.2134.1 7.77 KB
 (7,952 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\wshnetbs.dll
 ntmarta.dll 5.00.2158.1 98.77 KB
 (101,136 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\ntmarta.dll
 provthrd.dll 1.50.1085.0000 68.07 KB
 (69,708 bytes) 4/24/2001 11:27:11 AM
 Microsoft Corporation
 c:\winnt\system32\wbem\provthrd.dll
 ntevt.dll 1.50.1085.0000 192.06 KB (196,669
 bytes) 12/7/1999 6:00:00 AM Microsoft
 Corporation c:\winnt\system32\wbem\ntevt.dll
 perfos.dll 5.00.2155.1 21.27 KB
 (21,776 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\perfos.dll
 psapi.dll 5.00.2134.1 28.27 KB (28,944 bytes)
 12/7/1999 6:00:00 AM Microsoft
 Corporation c:\winnt\system32\psapi.dll
 framedyn.dll 1.50.1085.0000 164.05 KB
 (167,992 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\wbem\framedyn.dll
 cimwin32.dll 1.50.1085.0016 1.02 MB
 (1,073,232 bytes) 5/7/2001 4:08:56 PM Microsoft

Corporation
 c:\winnt\system32\wbem\cimwin32.dll
 wbemsvc.dll 1.50.1085.0007 40.07 KB
 (41,036 bytes) 5/7/2001 4:08:56 PM Microsoft
 Corporation
 c:\winnt\system32\wbem\wbemsvc.dll
 wbemess.dll 1.50.1085.0007 364.07 KB
 (372,804 bytes) 5/7/2001 4:08:56 PM Microsoft
 Corporation
 c:\winnt\system32\wbem\wbemess.dll
 fastprox.dll 1.50.1085.0007 144.08 KB
 (147,536 bytes) 5/7/2001 4:08:56 PM Microsoft
 Corporation
 c:\winnt\system32\wbem\fastprox.dll
 wbemcore.dll 1.50.1085.0008 628.07 KB
 (643,140 bytes) 5/7/2001 4:08:56 PM Microsoft
 Corporation
 c:\winnt\system32\wbem\wbemcore.dll
 wbemcomn.dll 1.50.1085.0007 692.07 KB
 (708,675 bytes) 5/7/2001 4:08:56 PM Microsoft
 Corporation
 c:\winnt\system32\wbem\wbemcomn.dll
 winmgmt.exe 1.50.1085.0009 192.08 KB
 (196,685 bytes) 5/7/2001 4:08:56 PM Microsoft
 Corporation
 c:\winnt\system32\wbem\winmgmt.exe
 rdpswx.dll 5.00.2180.1 94.40 KB
 (96,664 bytes) 4/24/2001 6:25:10 AM
 Microsoft Corporation
 c:\winnt\system32\rdpswx.dll
 ntlsapl.dll 5.00.2134.1 6.77 KB
 (6,928 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\ntlsapi.dll
 mstlsapi.dll 5.00.2181.1 24.77 KB
 (25,360 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\mstlsapi.dll
 icaapi.dll 5.00.2134.1 118.77 KB
 (121,616 bytes) 4/24/2001 6:25:09 AM
 Microsoft Corporation
 c:\winnt\system32\icaapi.dll
 regapi.dll 5.00.2155.1 35.27 KB
 (36,112 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\regapi.dll
 termsrv.exe 5.00.2195.1340 136.77 KB
 (140,048 bytes) 5/7/2001 4:08:37 PM Microsoft
 Corporation
 c:\winnt\system32\termsrv.exe
 rapilib.dll 5.00.2167.1 25.27 KB
 (25,872 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\rapilib.dll
 rsvpsp.dll 5.00.2167.1 74.77 KB
 (76,560 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\rsvpsp.dll
 tardisnt.exe Not Available 179.00 KB
 (183,296 bytes) 4/24/2001 1:26:57 PM Not
 Available
 c:\winnt\system32\tardisnt.exe
 msidle.dll 5.00.2920.0000 6.27 KB
 (6,416 bytes) 12/7/1999 6:00:00 AM

Microsoft Corporation
 c:\winnt\system32\msidle.dll
 mstask.exe 4.71.2137.1 115.27 KB
 (118,032 bytes) 4/24/2001 11:27:12 AM
 Microsoft Corporation
 c:\winnt\system32\mstask.exe
 rshsvc.dll Not Available 11.50 KB
 (11,776 bytes) 5/2/2001 3:37:14 PM Not Available
 c:\winnt\system32\rshsvc.dll
 rshsvc.exe Not Available 36.00 KB
 (36,864 bytes) 5/2/2001 3:37:14 PM Not Available
 c:\winnt\system32\rshsvc.exe
 regsvc.exe 5.00.2195.31 65.27 KB
 (66,832 bytes) 5/7/2001 4:08:40 PM Microsoft
 Corporation
 c:\winnt\system32\regsvc.exe
 llsrc.dll 5.00.2149.1 45.77 KB
 (46,864 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\llsrc.dll
 llssrv.exe 5.00.2167.1 114.27 KB
 (117,008 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\llssrv.exe
 wmi.dll 5.00.2191.1 6.27 KB (6,416 bytes)
 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\wmi.dll
 netshell.dll 5.00.2195.1600 456.77 KB
 (467,728 bytes) 5/7/2001 4:08:41 PM Microsoft
 Corporation
 c:\winnt\system32\netshell.dll
 netman.dll 5.00.2195.1600 89.27 KB
 (91,408 bytes) 5/7/2001 4:08:41 PM Microsoft
 Corporation
 c:\winnt\system32\netman.dll
 rasdlg.dll 5.00.2194.1 514.27 KB
 (526,608 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\rasdlg.dll
 netcfgx.dll 5.00.2195.1618 533.77 KB
 (546,576 bytes) 5/7/2001 4:08:42 PM Microsoft
 Corporation
 c:\winnt\system32\netcfgx.dll
 rasman.dll 5.00.2195.27 146.77 KB
 (150,288 bytes) 5/7/2001 4:08:40 PM Microsoft
 Corporation
 c:\winnt\system32\rasman.dll
 ntmsdba.dll 5.00.2195.1600 167.77 KB
 (171,792 bytes) 5/7/2001 4:08:41 PM Microsoft
 Corporation
 c:\winnt\system32\ntmsdba.dll
 sens.dll 5.00.2163.1 36.77 KB (37,648 bytes)
 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\sens.dll
 ntmssvc.dll 5.00.2187.1 390.77 KB
 (400,144 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\ntmssvc.dll
 es.dll 1999.9.3422.21 231.77 KB (237,328
 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\es.dll
 mtxoci.dll 1999.9.3421.3 109.27 KB
 (111,888 bytes) 4/24/2001 6:25:09 AM
 Microsoft Corporation
 c:\winnt\system32\mtxoci.dll
 resutils.dll 5.00.2195.1613 39.77 KB
 (40,720 bytes) 5/7/2001 4:08:40 PM Microsoft
 Corporation
 c:\winnt\system32\resutils.dll

clusapi.dll 5.00.2195.1613 54.27 KB
 (55,568 bytes) 5/7/2001 4:08:50 PM Microsoft
 Corporation
 c:\winnt\system32\clusapi.dll
 msvcp50.dll 5.00.7051.552.50 KB (565,760
 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\msvcp50.dll
 xolehlp.dll 1999.9.3421.3 17.27 KB
 (17,680 bytes) 4/24/2001 6:25:08 AM
 Microsoft Corporation
 c:\winnt\system32\xolehlp.dll
 msdtclog.dll 2000.2.3478.0 193.50 KB
 (198,144 bytes) 4/24/2001 6:25:07 AM
 Microsoft Corporation
 c:\winnt\system32\msdtclog.dll
 mtxclu.dll 1999.9.3421.3 50.27 KB
 (51,472 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\mtxclu.dll
 msdtcprx.dll 2000.2.3482.0 1.32 MB
 (1,379,840 bytes) 5/7/2001 4:08:46 PM Microsoft
 Corporation
 c:\winnt\system32\msdtcprx.dll
 txfaux.dll 1999.9.3422.24 341.27 KB
 (349,456 bytes) 4/24/2001 6:25:07 AM
 Microsoft Corporation
 c:\winnt\system32\txfaux.dll
 msdtctm.dll 2000.2.3478.0 4.09 MB
 (4,292,608 bytes) 7/18/2001 12:15:12 PM
 Microsoft Corporation
 c:\winnt\system32\msdtctm.dll
 msdtc.exe 1999.9.3421.3 6.77 KB (6,928 bytes)
 4/24/2001 6:25:07 AM
 Microsoft Corporation
 c:\winnt\system32\msdtc.exe
 inetpp.dll 5.00.2195.25 65.27 KB
 (66,832 bytes) 5/7/2001 4:08:48 PM Microsoft
 Corporation
 c:\winnt\system32\inetpp.dll
 win32spl.dll 5.00.2195.1340 92.27 KB
 (94,480 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\win32spl.dll
 usbmon.dll 5.00.2165.1 11.27 KB
 (11,536 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\usbmon.dll
 tcpmon.dll 5.00.2195.1225 40.77 KB
 (41,744 bytes) 5/7/2001 4:08:37 PM Microsoft
 Corporation
 c:\winnt\system32\tcpmon.dll
 pjlmn.dll 5.00.2165.1 12.77 KB
 (13,072 bytes) 11/30/1999 5:39:36 PM
 Microsoft Corporation
 c:\winnt\system32\pjlmn.dll
 cnbjmon.dll 5.00.2134.1 43.77 KB
 (44,816 bytes) 11/30/1999 5:38:48 PM
 Microsoft Corporation
 c:\winnt\system32\cnbjmon.dll
 localepl.dll 5.00.2195.1340 246.27 KB
 (252,176 bytes) 12/7/1999 6:00:00 AM
 Microsoft Corporation
 c:\winnt\system32\localepl.dll
 spoolss.dll 5.00.2161.1 61.77 KB
 (63,248 bytes) 4/24/2001 6:08:13 AM
 Microsoft Corporation
 c:\winnt\system32\spoolss.dll

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spoolsv.exe      5.00.2161.1      43.77 KB
(44,816 bytes)  4/24/2001 6:08:13 AM
Microsoft Corporation
c:\winnt\system32\spoolsv.exe
rpcss.dll       5.00.2195.1600  229.27 KB (234,768
bytes) 5/7/2001 4:08:40 PM Microsoft Corporation
c:\winnt\system32\rpcss.dll
svchost.exe     5.00.2134.1      7.77 KB
(7,952 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\svchost.exe
dssbase.dll    5.00.2195.1391  141.27 KB
(144,656 bytes) 5/7/2001 3:54:47 PM Microsoft
Corporation c:\winnt\system32\dssbase.dll
oakley.dll     5.00.2195.1600  378.77 KB
(387,856 bytes) 5/7/2001 4:08:41 PM Microsoft
Corporation c:\winnt\system32\oakley.dll
mfc42u.dll     6.00.8665.0      972.05 KB
(995,384 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\mfc42u.dll
polagent.dll   5.00.2183.1      108.27 KB
(110,864 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\polagent.dll
scecli.dll     5.00.2191.1      105.27 KB
(107,792 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\scecli.dll
atl.dll        3.00.8449 57.56 KB (58,938 bytes)
12/7/1999 6:00:00 AM Microsoft
Corporation c:\winnt\system32\atl.dll
certcli.dll    5.00.2175.1      132.27 KB
(135,440 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\certcli.dll
esent.dll     6.0.3940.4        1.08 MB (1,135,888
bytes) 5/7/2001 4:08:48 PM Microsoft Corporation
c:\winnt\system32\esent.dll
ntdsatq.dll   5.00.2195.1284   31.27 KB
(32,016 bytes) 5/7/2001 4:08:41 PM Microsoft
Corporation c:\winnt\system32\ntdsatq.dll
ntdsa.dll     5.00.2195.1600   987.27 KB (1,010,960
bytes) 5/7/2001 4:08:41 PM Microsoft Corporation
c:\winnt\system32\ntdsa.dll
kdcsvc.dll    5.00.2195.1284   133.77 KB
(136,976 bytes) 5/7/2001 4:08:47 PM Microsoft
Corporation c:\winnt\system32\kdcsvc.dll
sfmapi.dll    5.00.2134.1      38.77 KB
(39,696 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\sfmapi.dll
rassfm.dll    5.00.2195.1179   21.27 KB
(21,776 bytes) 5/7/2001 4:08:40 PM Microsoft
Corporation c:\winnt\system32\rassfm.dll
mpr.dll       5.00.2195.1340   53.27 KB (54,544 bytes)
5/7/2001 4:08:46 PM Microsoft Corporation
c:\winnt\system32\mpr.dll
schannel.dll   5.00.2195.1163   137.27 KB
(140,560 bytes) 5/7/2001 3:56:38 PM Microsoft
Corporation c:\winnt\system32\schannel.dll

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netlogon.dll   5.00.2195.1600   348.27 KB
(356,624 bytes) 5/7/2001 4:08:41 PM Microsoft
Corporation c:\winnt\system32\netlogon.dll
msvl_0.dll     5.00.2195.1620   92.77 KB
(94,992 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\msvl_0.dll
kerberos.dll   5.00.2195.1378   197.77 KB
(202,512 bytes) 5/7/2001 4:08:47 PM Microsoft
Corporation c:\winnt\system32\kerberos.dll
msprivs.dll    5.00.2154.1      41.50 KB
(42,496 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\msprivs.dll
samsrv.dll     5.00.2195.1609   343.27 KB
(351,504 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\samsrv.dll
lsaasrv.dll    5.00.2195.1620   475.27 KB
(486,672 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\lsaasrv.dll
lsass.exe     5.00.2195.1620   32.77 KB (33,552 bytes)
12/7/1999 6:00:00 AM Microsoft
Corporation c:\winnt\system32\lsass.exe
wmicore.dll    5.00.2178.1      70.77 KB
(72,464 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\wmicore.dll
rasadhlp.dll  5.00.2168.1       7.27 KB
(7,440 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\rasadhlp.dll
winrnr.dll    5.00.2160.1      18.77 KB
(19,216 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\winrnr.dll
rnr20.dll     5.00.2195.1207   35.77 KB (36,624 bytes)
5/7/2001 4:08:40 PM Microsoft Corporation
c:\winnt\system32\rnr20.dll
mswsock.dll   5.00.2195.1207   62.77 KB
(64,272 bytes) 5/7/2001 4:08:42 PM Microsoft
Corporation c:\winnt\system32\mswsock.dll
msgsvc.dll    5.00.2181.1      33.77 KB
(34,576 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\msgsvc.dll
browser.dll   5.00.2142.1      48.27 KB
(49,424 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\browser.dll
alrsvc.dll    5.00.2134.1      17.77 KB
(18,192 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\alrsvc.dll
trkwks.dll    5.00.2166.1      88.77 KB
(90,896 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\trkwks.dll
seclogon.dll  5.00.2135.1      15.77 KB
(16,144 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\seclogon.dll

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wshtcpip.dll  5.00.2134.1      17.27 KB
(17,680 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\wshtcpip.dll
msafd.dll     5.00.2195.1614   102.77 KB (105,232
bytes) 5/7/2001 4:08:46 PM Microsoft Corporation
c:\winnt\system32\msafd.dll
psbase.dll    5.00.2195.1600   111.77 KB
(114,448 bytes) 5/7/2001 4:08:40 PM Microsoft
Corporation c:\winnt\system32\psbase.dll
cryptsvc.dll  5.00.2181.1      61.77 KB
(63,248 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\cryptsvc.dll
cryptdll.dll  5.00.2135.1      41.27 KB
(42,256 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\cryptdll.dll
wkssvc.dll    5.00.2195.1175   95.27 KB
(97,552 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\wkssvc.dll
srvsvc.dll    5.00.2178.1      79.27 KB
(81,168 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\srvsvc.dll
cfgmgr32.dll  5.00.2134.1      16.77 KB
(17,168 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\cfgmgr32.dll
dmserver.dll  2195.23.297.2    11.77 KB
(12,048 bytes) 5/7/2001 4:08:49 PM VERITAS
Software Corp. c:\winnt\system32\dmserver.dll
lmhsvc.dll    5.00.2134.1      9.27 KB
(9,488 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\lmhsvc.dll
dnrslvr.dll   5.00.2195.1600   88.77 KB
(90,896 bytes) 5/7/2001 4:08:49 PM Microsoft
Corporation c:\winnt\system32\dnrslvr.dll
tapi32.dll    5.00.2182.1      123.27 KB
(126,224 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\tapi32.dll
rasman.dll    5.00.2188.1      54.77 KB
(56,080 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\rasman.dll
rasapi32.dll  5.00.2188.1      189.77 KB
(194,320 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\rasapi32.dll
rtutils.dll   5.00.2168.1      43.77 KB
(44,816 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\rtutils.dll
adslldpc.dll  5.00.2195.1600   125.77 KB
(128,784 bytes) 5/7/2001 4:08:51 PM Microsoft
Corporation c:\winnt\system32\adslldpc.dll
activeds.dll  5.00.2172.1      172.77 KB
(176,912 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\activeds.dll

```

mprapi.dll 5.00.2181.1 79.27 KB
(81,168 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\mprapi.dll
iphlpapi.dll 5.00.2173.2 67.77 KB
(69,392 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\iphlpapi.dll
icmp.dll 5.00.2134.1 7.27 KB (7,440 bytes)
12/7/1999 6:00:00 AM Microsoft Corporation
c:\winnt\system32\icmp.dll
dhcpcsvc.dll 5.00.2153.1 88.77 KB
(90,896 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\dhcpcsvc.dll
eventlog.dll 5.00.2178.1 43.77 KB
(44,816 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\eventlog.dll
ntdsapi.dll 5.00.2160.1 56.27 KB
(57,616 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\ntdsapi.dll
scesrv.dll 5.00.2188.1 225.77 KB
(231,184 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\scesrv.dll
umpnpgm.dll 5.00.2182.1 86.27 KB
(88,336 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\umpnpgm.dll
services.exe 5.00.2134.1 86.77 KB
(88,848 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\services.exe
clbcatq.dll 2000.2.3449.0 496.27 KB
(508,176 bytes) 5/7/2001 4:08:50 PM Microsoft Corporation
c:\winnt\system32\clbcatq.dll
oleaut32.dll 2.40.4514 600.27 KB (614,672 bytes)
12/7/1999 6:00:00 AM Microsoft Corporation
c:\winnt\system32\oleaut32.dll
cscui.dll 5.00.2195.1387 227.27 KB (232,720 bytes)
5/7/2001 4:08:50 PM Microsoft Corporation
c:\winnt\system32\cscui.dll
winspool.drv 5.00.2195.1340 109.77 KB
(112,400 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\winspool.drv
winscard.dll 5.00.2134.1 77.27 KB
(79,120 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\winscard.dll
wlnotify.dll 5.00.2195.1163 53.27 KB
(54,544 bytes) 5/7/2001 4:08:37 PM Microsoft Corporation
c:\winnt\system32\wlnotify.dll
csdll.dll 5.00.2195.1600 98.27 KB
(100,624 bytes) 5/7/2001 4:08:50 PM Microsoft Corporation
c:\winnt\system32\csdll.dll
lz32.dll 5.00.2134.1 9.77 KB (10,000 bytes)
12/7/1999 6:00:00 AM Microsoft Corporation
c:\winnt\system32\lz32.dll
version.dll 5.00.2134.1 15.77 KB
(16,144 bytes) 12/7/1999 6:00:00 AM

Microsoft Corporation
c:\winnt\system32\version.dll
rsabase.dll 5.00.2195.1391 129.27 KB
(132,368 bytes) 5/7/2001 3:56:34 PM Microsoft Corporation
c:\winnt\system32\rsabase.dll
mscat32.dll 5.131.2134.1 7.77 KB
(7,952 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\mscat32.dll
ole32.dll 5.00.2195.1607 965.27 KB (988,432 bytes)
5/7/2001 4:08:40 PM Microsoft Corporation
c:\winnt\system32\ole32.dll
imagehlp.dll 5.00.2195.1 125.27 KB
(128,272 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\imagehlp.dll
msasn1.dll 5.00.2134.1 51.27 KB
(52,496 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\msasn1.dll
crypt32.dll 5.131.2195.1340 464.77 KB
(475,920 bytes) 5/7/2001 4:08:50 PM Microsoft Corporation
c:\winnt\system32\crypt32.dll
wintrust.dll 5.131.2143.1 162.27 KB
(166,160 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\wintrust.dll
setupapi.dll 5.00.2195.1608 552.77 KB
(566,032 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\setupapi.dll
winmm.dll 5.00.2161.1 184.77 KB (189,200 bytes)
12/7/1999 6:00:00 AM Microsoft Corporation
c:\winnt\system32\winmm.dll
comctl32.dll 5.81 537.77 KB (550,672 bytes)
12/7/1999 6:00:00 AM Microsoft Corporation
c:\winnt\system32\comctl32.dll
shlwapi.dll 5.00.3103.1000 282.27 KB
(289,040 bytes) 5/7/2001 4:08:38 PM Microsoft Corporation
c:\winnt\system32\shlwapi.dll
shell32.dll 5.00.3103.1000 2.25 MB
(2,358,032 bytes) 5/7/2001 4:08:38 PM Microsoft Corporation
c:\winnt\system32\shell32.dll
msgina.dll 5.00.2195.1600 323.27 KB
(331,024 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\msgina.dll
winsta.dll 5.00.2195.32 36.27 KB
(37,136 bytes) 5/7/2001 4:08:37 PM Microsoft Corporation
c:\winnt\system32\winsta.dll
wsock32.dll 5.00.2195.1207 21.27 KB
(21,776 bytes) 5/7/2001 4:08:37 PM Microsoft Corporation
c:\winnt\system32\wsock32.dll
dnsapi.dll 5.00.2195.1600 127.77 KB
(130,832 bytes) 5/7/2001 4:08:49 PM Microsoft Corporation
c:\winnt\system32\dnsapi.dll
wldap32.dll 5.00.2195.1175 155.27 KB
(158,992 bytes) 5/7/2001 4:08:37 PM Microsoft Corporation
c:\winnt\system32\wldap32.dll
ws2help.dll 5.00.2134.1 17.77 KB
(18,192 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\ws2help.dll

ws2_32.dll 5.00.2195.1340 68.77 KB
(70,416 bytes) 5/7/2001 4:08:37 PM Microsoft Corporation
c:\winnt\system32\ws2_32.dll
samlib.dll 5.00.2160.1 46.27 KB
(47,376 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\samlib.dll
netrap.dll 5.00.2134.1 11.27 KB
(11,536 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\netrap.dll
netapi32.dll 5.00.2195.1600 303.27 KB
(310,544 bytes) 5/7/2001 4:08:42 PM Microsoft Corporation
c:\winnt\system32\netapi32.dll
profmap.dll 5.00.2181.1 29.27 KB
(29,968 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\profmap.dll
secur32.dll 5.00.2195.1600 47.27 KB
(48,400 bytes) 5/7/2001 4:08:39 PM Microsoft Corporation
c:\winnt\system32\secur32.dll
sfc.dll 5.00.2195.1618 90.05 KB (92,216 bytes)
5/7/2001 4:08:39 PM Microsoft Corporation
c:\winnt\system32\sfc.dll
nddeapi.dll 5.00.2137.1 15.27 KB
(15,632 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\nddeapi.dll
userenv.dll 5.00.2195.1600 359.27 KB
(367,888 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\userenv.dll
rpcrt4.dll 5.00.2195.1615 436.27 KB
(446,736 bytes) 5/7/2001 4:08:40 PM Microsoft Corporation
c:\winnt\system32\rpcrt4.dll
advapi32.dll 5.00.2195.1600 349.27 KB
(357,648 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\advapi32.dll
msvcrt.dll 6.10.8637.0 288.09 KB
(295,000 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\msvcrt.dll
winlogon.exe 5.00.2195.1600 172.77 KB
(176,912 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\winlogon.exe
gdi32.dll 5.00.2195.1340 228.77 KB (234,256 bytes)
12/7/1999 6:00:00 AM Microsoft Corporation
c:\winnt\system32\gdi32.dll
kernel32.dll 5.00.2195.1600 713.27 KB
(730,384 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\kernel32.dll
user32.dll 5.00.2195.1600 392.77 KB
(402,192 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\user32.dll
winsrv.dll 5.00.2195.1600 245.77 KB
(251,664 bytes) 11/30/1999 5:39:54 PM
Microsoft Corporation
c:\winnt\system32\winsrv.dll

```

basesrv.dll      5.00.2191.1      35.27 KB
(36,112 bytes)  12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\basesrv.dll
csrssv.dll      5.00.2137.1      33.77 KB
(34,576 bytes)  12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\csrssv.dll
csrss.exe       5.00.2137.1      5.27 KB (5,392 bytes)
12/7/1999 6:00:00 AM Microsoft
Corporation c:\winnt\system32\csrss.exe
sfcfiles.dll    5.00.2195.1      973.27 KB
(996,624 bytes) 12/7/1999 6:00:00 AM
Microsoft Corporation
c:\winnt\system32\sfcfiles.dll
ntdll.dll       5.00.2195.1600   475.27 KB (486,672
bytes) 5/7/2001 3:56:09 PM Microsoft Corporation
c:\winnt\system32\ntdll.dll
smss.exe        5.00.2195.31     44.27 KB (45,328 bytes)
12/7/1999 6:00:00 AM Microsoft
Corporation c:\winnt\system32\smss.exe

[Services]

Display Name    Name      State  Start Mode
Service Type    Path      Error Control
Start Name      Tag ID

Alerter         Alerter   Running Auto   Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0

Application Management AppMgmt   Stopped
Manual Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0

Computer Browser Browser   Running Auto
Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0

Indexing Service cisvc    Stopped Manual
Share Process
c:\winnt\system32\cisvc.exe
LocalSystem 0

ClipBook        ClipSrv   Stopped Manual Own Process
c:\winnt\system32\clipsrv.exe
Normal LocalSystem 0

Distributed File System Dfs       Running
Auto Own Process
c:\winnt\system32\dfssvc.exe
LocalSystem 0

DHCP Client     Dhcp      Running Auto
Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0

Logical Disk Manager Administrative Service
dmdadmin Stopped Manual Share Process
c:\winnt\system32\dmdadmin.exe /com
Normal LocalSystem 0

Logical Disk Manager dmserver  Running
Auto Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0

DNS Client      Dnscache Running Auto
Share Process

```

```

c:\winnt\system32\services.exe
Normal LocalSystem 0
Event Log Eventlog Running Auto Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
COM+ Event System EventSystem Running
Manual Share Process
c:\winnt\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Fax Service Fax Stopped Manual Own
Process c:\winnt\system32\faxsvc.exe
Normal LocalSystem 0
Intersite Messaging IsmServ Stopped Disabled Own
Process c:\winnt\system32\ismserv.exe
Normal LocalSystem 0
Kerberos Key Distribution Center kdc
Stopped Disabled Share Process
c:\winnt\system32\lsass.exe Normal
LocalSystem 0
Server lanmanserver Running Auto
Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
Workstation lanmanworkstation Running
Auto Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
License Logging Service LicenseService
Running Auto Own Process
c:\winnt\system32\llssrv.exe Normal
LocalSystem 0
TCP/IP NetBIOS Helper Service LmHosts Running
Auto Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
Messenger Messenger Running Auto Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
NetMeeting Remote Desktop Sharing mnmsrvc
Stopped Manual Own Process
c:\winnt\system32\mnmsrvc.exe Normal
LocalSystem 0
Distributed Transaction Coordinator MSDTC
Running Auto Own Process
c:\winnt\system32\msdtc.exe Normal
LocalSystem 0
Windows Installer MSIServer Stopped Manual
Share Process
c:\winnt\system32\msiexec.exe /v
Normal LocalSystem 0
Microsoft Search MSSEARCH Running Auto
Share Process "c:\program
files\common files\system\mssearch\bin\mssearch.exe"
Normal LocalSystem 0
MSSQLSERVER MSSQLSERVER Stopped
Manual Own Process
c:\sql2k\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 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 NtFrms Stopped Manual Own
Process c:\winnt\system32\ntfrs.exe Ignore
LocalSystem 0
NT LM Security Support Provider NtLmSsp
Running Manual Share Process
c:\winnt\system32\lsass.exe Normal
LocalSystem 0
Removable Storage NtmsSvc Running Auto
Share Process
c:\winnt\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Plug and Play PlugPlay Running Auto
Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
IPSEC Policy Agent PolicyAgent Running
Auto Share Process
c:\winnt\system32\lsass.exe Normal
LocalSystem 0
Protected Storage ProtectedStorage Running
Auto Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
Remote Access Auto Connection Manager RasAuto
Stopped Manual Share Process
c:\winnt\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Remote Access Connection Manager RasMan
Stopped Manual Share Process
c:\winnt\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Routing and Remote Access RemoteAccess
Stopped Disabled Share Process
c:\winnt\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Remote Registry Service RemoteRegistry
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

```

```

Remote Shell Service      RshSvc      Running
  Auto      Own Process
  c:\winnt\system32\rshsvc.exe Normal
  LocalSystem      0
QoS RSVP                 RSVP        Running Manual Own Process
  c:\winnt\system32\rsvp.exe -s Normal
  LocalSystem      0
Security Accounts Manager SamSs      Running
  Auto      Share Process
  c:\winnt\system32\lsass.exe Normal
  LocalSystem      0
Smart Card Helper        SCardDrv  Stopped Manual
  Share Process
  c:\winnt\system32\scardsvr.exe
  Ignore LocalSystem      0
Smart Card               SCardSvr  Stopped Manual
  Share Process
  c:\winnt\system32\scardsvr.exe
  Ignore LocalSystem      0
Task Scheduler           Schedule  Running Auto
  Share Process
  c:\winnt\system32\mstask.exe Normal
  LocalSystem      0
RunAs Service            seclogon  Running Auto
  Share Process
  c:\winnt\system32\services.exe
  Ignore LocalSystem      0
System Event Notification SENS      Running
  Auto      Share Process
  c:\winnt\system32\svchost.exe -k netsvcs
  Normal LocalSystem      0
Internet Connection Sharing SharedAccess
  Stopped Manual Share Process
  c:\winnt\system32\svchost.exe -k netsvcs
  Normal LocalSystem      0
Print Spooler            Spooler   Running Auto Own
Process c:\winnt\system32\spoolsv.exe Normal
  LocalSystem      0
SQLSERVERAGENT          SQLSERVERAGENT Stopped
  Manual Own Process
  c:\sql2k\mssql\bin\sqlagent.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
Tardis time service     Tardis    Running Auto Own
Process c:\winnt\system32\tardisnt.exe
  Normal LocalSystem      0
Terminal Services       TermService Running
  Auto      Own Process
  c:\winnt\system32\termsrv.exe Normal
  LocalSystem      0
Telnet                   TlntSvr  Stopped Manual Own Process
  c:\winnt\system32\tlntsvr.exe Normal
  LocalSystem      0
Distributed Link Tracking Server TrkSvr
  Stopped Manual Share Process
  c:\winnt\system32\services.exe
  Normal LocalSystem      0

```

```

Distributed Link Tracking Client TrkWks
  Running Auto Share Process
  c:\winnt\system32\services.exe
  Normal LocalSystem      0
Uninterruptible Power Supply UPS Stopped
  Manual Own Process
  c:\winnt\system32\ups.exe Normal
  LocalSystem      0
Utility Manager          UtilMan   Stopped Manual Own
Process c:\winnt\system32\utilman.exe Normal
  LocalSystem      0
Windows Time             W32Time  Stopped Manual
  Share Process
  c:\winnt\system32\services.exe
  Normal LocalSystem      0
Windows Management Instrumentation WinMgmt
  Running Auto Own Process
  c:\winnt\system32\wbem\winmgmt.exe
  Ignore LocalSystem      0
Windows Management Instrumentation Driver Extensions
  Wmi      Running Manual Share Process
  c:\winnt\system32\services.exe
  Normal LocalSystem      0

[Program Groups]

Group Name      Name      User Name
Accessories     Default User:Accessories
  Default User
Accessories\Accessibility Default
User:Accessories\Accessibility Default User
Accessories\Entertainment Default
User:Accessories\Entertainment Default User
Accessories\System Tools Default
User:Accessories\System Tools Default User
Startup Default User:Startup Default User
Accessories All Users:Accessories All
Users
Accessories\Communications All
Users:Accessories\Communications All Users
Accessories\Entertainment All
Users:Accessories\Entertainment All Users
Accessories\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
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 G10\Administrator:Accessories
G10\Administrator
Accessories\Accessibility
G10\Administrator:Accessories\Accessibility
G10\Administrator
Accessories\Entertainment
G10\Administrator:Accessories\Entertainment
G10\Administrator

```

```

Accessories\System Tools
  G10\Administrator:Accessories\System Tools
  G10\Administrator
Administrative Tools
  G10\Administrator:Administrative Tools
  G10\Administrator
Debugging Tools G10\Administrator:Debugging Tools
  G10\Administrator
Debugging Tools\Exception Monitor
  G10\Administrator:Debugging Tools\Exception
Monitor G10\Administrator
Startup G10\Administrator:Startup
  G10\Administrator

[Startup Programs]

Program Command User Name Location
Service Manager
  c:\progra-1\micros-3\80\tools\bin\sqlmangr
.exe /n All Users Common Startup

[OLE Registration]

Object Local Server
Sound (OLE2) sndrec32.exe
Media Clip mplay32.exe
Video Clip mplay32.exe /avi
MIDI Sequence mplay32.exe /mid
Sound Not Available
Media Clip Not Available
Image Document "C:\Program Files\Windows
NT\Accessories\ImageVue\KodakImg.exe"
WordPad Document "%ProgramFiles%\Windows
NT\Accessories\WORDPAD.EXE"
Windows Media Services DRM Storage object Not
Available
Bitmap Image mspaint.exe

[Internet Explorer 5]

[ Following are sub-categories of this main category
]

[Summary]

Item Value
Version 5.00.3103.1000
Build 53103.1000
Product ID 51879-000-0000007-05775
Application Path C:\Program Files\Internet
Explorer
Language English (United States)
Active Printer Not Available

Cipher Strength 56-bit
Content Advisor Disabled
IEAK Install No

[File Versions]

File Version Size Date Path
Company

```

```

advapi32.dll      5.0.2195.1600      349 KB
5/7/2001 3:54:16 PM C:\WINNT\system32
Microsoft Corporation
advpack.dll      5.0.3103.1000      87 KB
5/7/2001 3:54:16 PM C:\WINNT\system32
Microsoft Corporation
browsec.dll      5.0.3103.1000      35 KB
5/7/2001 3:54:22 PM C:\WINNT\system32
Microsoft Corporation
browseui.dll     5.0.3103.1000      789 KB
5/7/2001 3:54:22 PM C:\WINNT\system32
Microsoft Corporation
ckcnv.exe        5.0.2189.1          9 KB      12/7/1999
7:00:00 AM      C:\WINNT\system32 Microsoft
Corporation
comctl32.dll     5.81.3103.1000     538 KB
5/7/2001 3:54:34 PM C:\WINNT\system32
Microsoft Corporation
crypt32.dll      5.131.2195.1340    465 KB
5/7/2001 3:54:38 PM C:\WINNT\system32
Microsoft Corporation
ehnsig.dll       <File Missing>      Not Available
Not Available      Not Available      Not
Available
iemigrat.dll     <File Missing>      Not Available
Not Available      Not Available      Not
Available
iesetup.dll      5.0.3103.1000      57 KB
5/7/2001 3:55:06 PM C:\WINNT\system32
Microsoft Corporation
iexplore.exe     5.0.2920.0          59 KB
12/7/1999 7:00:00 AM C:\Program
Files\Internet Explorer Microsoft
Corporation
imagehlp.dll     5.0.2195.1          125 KB
12/7/1999 7:00:00 AM C:\WINNT\system32
Microsoft Corporation
imghelp.dll      <File Missing>      Not Available
Not Available      Not Available      Not
Available
inseng.dll       5.0.3103.1000      72 KB
5/7/2001 3:55:16 PM C:\WINNT\system32
Microsoft Corporation
jobexec.dll      5.0.0.1             47 KB      12/7/1999
7:00:00 AM      C:\WINNT\system32 Microsoft
Corporation
jscript.dll      5.1.0.5010          476 KB
5/7/2001 3:55:24 PM C:\WINNT\system32
Microsoft Corporation
jsproxy.dll      5.0.2920.0          13 KB
12/7/1999 7:00:00 AM C:\WINNT\system32
Microsoft Corporation
msahtml.dll      <File Missing>      Not Available
Not Available      Not Available      Not
Available
mshhtml.dll     5.0.3103.1000      2292 KB
5/7/2001 3:55:46 PM C:\WINNT\system32
Microsoft Corporation
msjava.dll       5.0.3310.0          922 KB
5/7/2001 3:55:50 PM C:\WINNT\system32
Microsoft Corporation
msoss.dll        <File Missing>      Not Available
Not Available      Not Available      Not
Available

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```

msxml.dll        8.0.5226.0          506 KB      5/7/2001
3:56:00 PM      C:\WINNT\system32 Microsoft
Corporation
occache.dll      5.0.3103.1000      86 KB
5/7/2001 3:56:20 PM C:\WINNT\system32
Microsoft Corporation
ole32.dll        5.0.2195.1607      965 KB      5/7/2001
3:56:26 PM      C:\WINNT\system32 Microsoft
Corporation
oleaut32.dll     2.40.4514.1         600 KB
5/7/2001 3:56:26 PM C:\WINNT\system32
Microsoft Corporation
olepro32.dll     5.0.4514.1          160 KB
5/7/2001 3:56:26 PM C:\WINNT\system32
Microsoft Corporation
rsabase.dll      5.0.2195.1391      129 KB
5/7/2001 3:56:34 PM C:\WINNT\system32
Microsoft Corporation
rsaenh.dll       <File Missing>      Not Available
Not Available      Not Available      Not
Available
rsapi32.dll      <File Missing>      Not Available
Not Available      Not Available      Not
Available
rsasig.dll       <File Missing>      Not Available
Not Available      Not Available      Not
Available
schannel.dll     5.0.2195.0          137 KB
5/7/2001 3:56:38 PM C:\WINNT\system32
Microsoft Corporation
shdoc401.dll     <File Missing>      Not Available
Not Available      Not Available      Not
Available
shdocv.dll       5.0.3103.1000      1078 KB
5/7/2001 3:56:42 PM C:\WINNT\system32
Microsoft Corporation
shell32.dll      5.0.3103.1000      2303 KB
5/7/2001 3:56:42 PM C:\WINNT\system32
Microsoft Corporation
shlwapi.dll      5.0.3103.1000      282 KB
5/7/2001 3:56:42 PM C:\WINNT\system32
Microsoft Corporation
url.dll          5.0.2920.0          82 KB      12/7/1999
7:00:00 AM      C:\WINNT\system32 Microsoft
Corporation
urlmon.dll       5.0.3103.1000      441 KB
5/7/2001 3:56:56 PM C:\WINNT\system32
Microsoft Corporation
vbscript.dll     5.1.0.5010          428 KB
5/7/2001 3:56:56 PM C:\WINNT\system32
Microsoft Corporation
webcheck.dll     5.0.3103.1000      252 KB
5/7/2001 3:57:02 PM C:\WINNT\system32
Microsoft Corporation
win.com          5.0.2134.1          24 KB      12/7/1999
7:00:00 AM      C:\WINNT\system32 Microsoft
Corporation
wininet.dll      5.0.3103.1000      457 KB
5/7/2001 3:57:08 PM C:\WINNT\system32
Microsoft Corporation
winsock.dll      3.10.0.103          3 KB
12/7/1999 7:00:00 AM C:\WINNT\system32
Microsoft Corporation

```

```

wintrust.dll     5.131.2143.1       162 KB
12/7/1999 7:00:00 AM C:\WINNT\system32
Microsoft Corporation
wsock.vxd        <File Missing>      Not Available      Not
Available Not Available Not Available
wsock32.dll      5.0.2195.1207      21 KB
5/7/2001 3:57:26 PM C:\WINNT\system32
Microsoft Corporation
wsock32n.dll     <File Missing>      Not Available
Not Available      Not Available      Not
Available

[Connectivity]

Item      Value
Connection Preference      Never dial
EnableHttp1.1              1
ProxyHttp1.1                0

LAN Settings

AutoConfigProxy      Not Available
AutoProxyDetectMode Enabled
AutoConfigURL
Proxy      Disabled
ProxyServer
ProxyOverride

[Cache]

[ Following are sub-categories of this main category ]

[Summary]

Item      Value
Page Refresh Type      Automatic
Temporary Internet Files Folder      C:\Documents
and Settings\Administrator\Local Settings\Temporary
Internet Files
Total Disk Space      8630 MB
Available Disk Space      1376 MB
Maximum Cache Size      269 MB
Available Cache Size      270 MB

[List of Objects]

Program File      Status      CodeBase
No cached object information available

[Content]

[ Following are sub-categories of this main category ]

[Summary]

Item      Value
Content Advisor      Disabled

[Personal Certificates]

Issued To Issued By Validity      Signature Algorithm

```


Administrator Administrator 4/26/2001 to
4/2/2101 sha1RSA
Administrator Administrator 4/24/2001 to
3/31/2101 sha1RSA
Administrator Administrator 4/27/2001 to
4/3/2101 sha1RSA

[Other People Certificates]

Issued To Issued By Validity Signature Algorithm
No other people certificate information available

[Publishers]

Name
No publisher information available

[Security]

Zone	Security Level
Local intranet	Medium-low
Trusted sites	Low
Internet Medium	
Restricted sites	High

[Applications]

Software Updates

QFE355122 for SQL Server and QFE15 and QFE16 for
Windows 2000 SP2 (for MSDTC).

Appendix D: 60-Day Space

TPC-C 60 Day Space Requirements						
Warehouses	45600				TpmC	576,882.56
Table	Rows	Data KB	Index KB	Extra 5% KB	8hr Space	Total Space KB
Warehouse	45,600	4,992	1,488	324		6804
District	456,000	51,456	1,536	2,650		55642
Customer	1,368,000,000	994,909,248	62,092,808	52,850,103		1109852159
History	1,368,000,000	81,671,808	266,880		324,596,394	81938688
NewOrder	410,400,000	7,312,320	19,392	366,586		7698298
Orders	1,368,000,000	44,669,568	21,793,920		120,027,289	66463488
OrderLine	13,680,000,000	911,988,776	2,159,040		218,518,870	914147816
Item	2,400,000	228,672	1,920	11,530		242122
Stock	4,560,000,000	1,459,200,000	3,090,624	73,114,531		1535405155
Total		3,500,036,840	89,427,608	126,345,723	663,142,553	3,715,810,171
MB						
Dynamic Space	1,013,994	Sum of Data for Order, Orderline and History				
Static Space	2,614,727	Sum of Data+Index+5%-Dynamic Space				
Free Space	na	Total Allocated Spac - (Dynamic + Static Space)				
Daily Growth	205,248	(Dynamic Space/(W*62.5))*tpmc				
Daily Spread	-	(Free Space -1.5*Daily Growth) Zero Assumed				
60 Day Space MB	14,929,582					
60 Day Space GB	14,579.67	GB				
Log Size	85,999.99	MB				
KB Per New Order	6,402.54	KB				
8 hr log MB	1,690,756.11	MB				
8 hr log GB	1,651.13	GB				
Disks						
Space Usage	GB Needed	Measured	Disk Size	Formatted Size	GB Measured	
60 Day Space DB	14,579.67	2352	18GB	16.950	39,866	
		0	9GB	8.473	0.00	
		0	4GB	3.999	0.00	
Total DB disk space		2352			39,866	
DTC log drives		42	18GB	16.950	711.90	
DTC OS drives		4	9GB	8.473	33.89	
8-hr log + mirror	3,302.26	240	18GB	16.950	4,068	
OS, Swap	72	64	9GB	8.473	542.25	
Total Storage	17,953.93				45,222	

Appendix E:
Third Party Letters



Cisco Systems

Ph: 713.778.5640
Fax:

Price Quotation

Date: 8/28/2001
To: Compaq Computer

Quote Number: 85S-E1L
Total Price: \$130,170.00

Attn: Michael
V. Nikolaiev

Ph:
Fax:

Product Number	Product Description	Qty	Unit List Price	Disc Price	Disc %	Extended Price
WS-C6509-1300AC=	Catalyst 6509 Chassis w/ 1300W AC Power Supply	1	\$13,990.00		0.000%	\$13,990.00
WS-X6K-S2-MSFC2	Catalyst 6500 Supervisor Engine-2, 2GE, plus MSFC-2 & PFC-2	1	\$34,995.00		0.000%	\$34,995.00
WS-X6416-GBIC	Catalyst 6000 16-port Gig- Ethernet Mod. (Req. GBICs)	2	\$19,995.00		0.000%	\$39,990.00
WS-X6408A-GBIC	Catalyst 6000 8-port GE, Enhanced QoS (Req. GBICs)	1	\$9,995.00		0.000%	\$9,995.00
CON-SNTP-WS-C6509	24x7x4 Service, Catalyst 6509	3	\$10,400.00		0.000%	\$31,200.00

FOB Point: Origin
Ship Date:
Quote Valid Until: 09/27/2001

Payment Terms: Net 30
Installation: Available on Request and Billable
Warranty: 90 days

Signed:

Ramsey McCreary

Notes:

This price quotation does not constitute an offer by Cisco to sell products, but is instead an invitation to issue a purchase order to Cisco until the Quotation Valid date specified on this Price Quotation. Such a purchase order will be subject to Cisco's standard procedures, terms, and conditions for the acceptance of purchase orders. This order may be subject to sales tax, VAT, duty and freight charges even if not noted on this quote.

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Mfg. Part No DSSX16

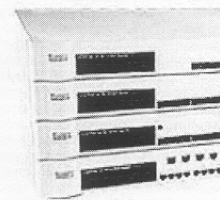
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- Linksys WPC11 Instant Network PC Card \$105.00 [buy now](#)
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- Monitors
- Multimedia

The EtherFast 10/100 Dual-Speed 16 Port Switch is the most flexible way to boost your network's performance while increasing manageability and migrating to the power of Fast Ethernet. Designed to meet the needs of medium businesses, corporate LANs and enterprise networks. Allow your 10Mbps and 100Mbps network segments to communicate directly with one another and increase network performance. With support for half and full duplex speeds, the switches allow your network to run as fast as 200Mbps!

When you upgrade your Ethernet network, Linksys EtherFast Switches offer you cost-effective solutions that complement your migration strategy. The EtherFast 10/100 Dual-Speed Switches have two expansion slots built in. Add a 100BASE-FX ST or SC-Type Fiber Optic Distance Extender module. With just one of these versatile switches, you can uplink to fiber backbones, connect to other fiber LAN segments, track down network bandwidth problems, re-direct network traffic, and much more.

EtherFast Switches eliminate bottlenecks and bandwidth constraints, optimizing network performance while protecting your investment in your existing infrastructure. The EtherFast 10/100

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- Over 16,000 MAC address table entries available
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- LEDs: Power, Management, Link/Activity, Full Duplex/Collision, and 100Mbps
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- Auto partitioning protects PCs from downed network Lines
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Microsoft Corporation
One Microsoft Way
Redmond, WA 98052-6399

Tel 425 882 8080
Fax 425 936 7329
<http://www.microsoft.com/>

Microsoft

September 14, 2001

Compaq
Paul Cao
20555 SH 249
Houston, TX 77070

Paul:

Here is the information you requested regarding pricing for several Microsoft products to be used in conjunction with your TPC-C V5.0 benchmark testing.

All pricing shown is in US Dollars (\$).

Part Number	Description	Unit Price	Quantity	Price
810-00945	SQL Server 2000 Enterprise Edition <i>Per processor licensing</i> <i>Discount schedule: Select B discount plan</i>	\$ 15,802	192	\$ 3,033,984
C11-00821	Windows 2000 Server <i>Server license only - No CALs</i> <i>Discount schedule: Open Program - No Level</i>	\$ 738	1	\$ 738
C10-00475	Windows 2000 Advanced Server <i>Server license only - No CALs</i> <i>Discount schedule: Open Program - No Level</i>	\$ 2,399	1	\$ 2,399
048-00317	Visual C++ Professional 6.0 Win32	\$ 549	1	\$ 549
	3-year maintenance for above software	\$ 2,095	1	\$ 150,840

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: Pwuii0114097659

Please include this Reference ID in any correspondence regarding this price quote.