

**TPC Benchmark™ C
Full Disclosure Report
for
Dell PowerEdge T710
using
Oracle 11g Database Server Standard Edition
and
Microsoft Windows Server 2003 Standard
x64 Edition SP1**

First Edition
Submitted for Review
November 18, 2009

First Edition, November 18, 2009

Dell believes that the information included in this document is accurate as of the publication date. The information in this document is subject to change without notice. Furthermore, Dell is not responsible for any errors contained within this document.

The pricing information given in this FDR is accurate as of the first publication date, November 18, 2009 and is generally available.

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

All performance data contained in this report were obtained in a rigorously controlled environment. Actual performance experienced by a particular customer may vary due to differences in system layout and configuration, hardware and/or software revision levels, and background system activity. The content of this document is for informational purposes only.

© Copyright 2009 Dell

All rights reserved. Permission is hereby granted to reproduce this document in whole or in part provided the copyright notice printed above is set forth in full text or on the title page of each item reproduced.

PowerEdge and PowerVault are registered trademarks of Dell Inc.

Oracle, Oracle 11g are registered trademarks for Oracle Inc.

Microsoft, Windows 2003, and SQL Server are registered trademarks of Microsoft Corporation.

TPC Benchmark, TPC-C and tpmC are registered trademarks of the Transaction Processing Performance Council.

Intel®, and Xeon® are registered trademarks of Intel Corporation.

Other product names mentioned in this document may be trademarks and/or registered trademarks of their respective companies.

Abstract

Overview

This report documents the methodology and results of the TPC Benchmark™ C test conducted on Dell PowerEdge T710. The tests were run in a client/server configuration using 3 PowerEdge SC 1430 as clients. The Database Management System used in this benchmark was Oracle 11g which was deployed on Microsoft Windows Server 2003 SP1 operating system on the database server and Microsoft Windows Server 2003 Standard Edition on the client. Microsoft COM+ provided the database connection queues. All tests were done in compliance with Revision 5.10.1 of the Transaction Processing Council's TPC Benchmark™ C Standard Specification. Two standard TPC Benchmark™ C metrics, transactions per second (tpmC) and price per tpmC (\$/tpmC) are reported and referred to in this document. The results from the tests are summarized below.

Hardware	Software	Total System Cost	tpmC	\$/tpmC	Availability Date
Dell PowerEdge T710	Oracle Database 11g Standard Edition with Windows Server 2003 Standard x64 Edition SP1	\$119,540	239,392	\$.50	November 18, 2009

Auditor

The results of the benchmark and test methodology used to produce the results were audited by Lorna Livingtree of Performance Metrics and have fully met the TPC-C rev 5.10.1 specifications.

Additional copies of this Full Disclosure Report can be obtained from either the Transaction Processing Performance Council or Dell at the following address:

Transaction Processing Performance Council (TPC)
c/o Administrator, TPC
Presidio of San Francisco
Bldg 572B Ruger St.
San Francisco, CA 94129-0920
Phone: (415) 561-6272, fax 415-561 6120
www.tpc.org

or

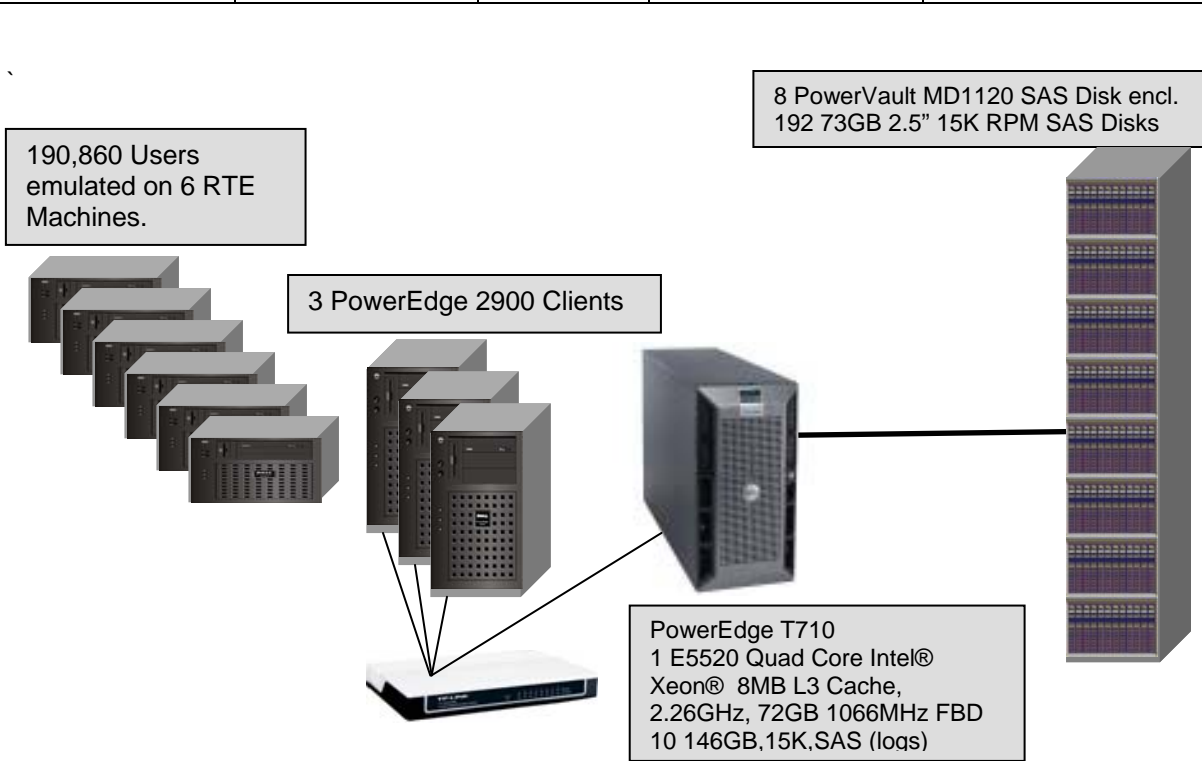
Dell
1 Dell Way
Round Rock, TX 78682
Attention: David J Morse.



PowerEdge T710 Server with Oracle Database 11g Standard Edition One

TPC-C Rev 5.10.1
Original Report Date
November 18, 2009

Total System Cost		TPC-C Throughput	Price/Performance	Availability Date
\$119,540		239,392 tpmC	\$.50 / tpmC	November 18, 2009
Processors	Database Manager	OS	Other Software	Number of Users
1/4/8 Quad Core Intel® Xeon® 5520, 8MB Cache, 2.27GHZ 1066MHZ FSB	Oracle Database 11g Standard Edition One	Microsoft Windows Server 2003 Enterprise x64 Edition SP1	Windows Server 2003 Standard Edition w/ COM+ Internet Information Server 6.0 Microsoft Visual C++	190,860



System Component	Server		Each Client	
Processor/Core/Cache	1	1/4/4 Quad Core Intel® Xeon® E5520, 8MB Cache, 2.26GHz, 1066Mhz FSB	1	1/4/4 Intel® Xeon® E5405 w/ 2x6MB L2, 2.0GHz
Memory		72GB 1066 FB-DIMM		4 GB
Disk Controllers	4 1	Dell PERC6/E RAID Integrated PERC6i RAID	1	Onboard SATA
Disk Drives	192 2 10	73GB 2.5" 15K SAS 73GB 2.5" 15K SAS (OS) 146GB 3.5" 15K SAS	1	250GB 7.2K SATA
Total Storage	204	13,824 GB SAS	1	250GB SATA
Other	2 1	Broadcom NetXtreme II GigE ports CD-ROM	2 1 1	Broadcom on-board ports Dual port Intel Pro 1000 NIC CD-ROM



PowerEdge T710

TPC-C 5.10.1 TPC Pricing 1.2

Report Date

November 18, 2009

Revision Date

November 18, 2009

Availability Date

November 18, 2009

Description	Part Number	Price Source	Unit Price	Qty	Extended Price	3 yr. Maint. Price	
Server Hardware							
T710 Tower Chassis with up to 16 2.5" HDD & 2 Broadcom NICs	224-5945	1	730.00	1	\$730.00	\$540.00	
E5520, 2.26Ghz,8M,1066Mhz	317-0259	1	\$579.00	1	\$579.00		
24GB 1066MHz(3x8GB),2R	317-1656	1	2,552.00	1	\$2,552.00		
48GB 1066MHz(6x8GB),2R	317-1655	1	4,992.00	1	\$4,992.00		
73GB,SAS,2.5-inch,10K RPM HD	341-8713	1	239.00	2	\$478.00		
SAS6/i,Integrated	341-9154	1	\$299.00	1	\$299.00		
PERC6/E SAS RAID, 2X4 EXTERNAL	341-5842	1	\$799.00	4	\$3,196.00		
DELL E1705,17 IN,17.0 VIS	320-8083	1	\$168.00	1	\$168.00		
				Subtotal	\$12,994.00	\$540.00	
Server Storage							
PV MD1120,RACK,2U,24 BAY,LBZL	223-6716	1	\$3,443.00	8	\$27,544.00	\$13,264.00	
Enclosure Management Modules, PowerVault MD1120	341-6492	1	\$0.00	8	\$0.00		
SAS Cable, 1M, MD11200	310-7082	1	\$30.00	8	\$240.00		
146GB,3GBPS,SAS,2.5IN,15K	341-9157	1	\$479.00	10	\$4,790.00		
73GB,SAS,2.5-inch,15K RPM HD	341-6498	1	\$329.00	192	\$63,168.00		
RACK-42U, CUST	900-9997	1	\$541.00	1	\$541.00		
				Subtotal	\$96,283.00	\$13,264.00	
Server Software							
Oracle Database 11g Standard Ed One, Per Processor, Unlimited Users, 3 years		2	\$2,900.00	1	\$2,900.00		
Oracle Premium Support, 3 years		2	\$1,276.00	3		\$3,828.00	
Windows Server 2003 Enterprise x64 Ed	421-0044	1	\$3,699.00	1	\$3,699.00		
				Subtotal	\$6,599.00	\$3,828.00	
Client Hardware							
Dell PowerEdge 2900 E5405,2x6MB,2.00GHz,1333FSB Additional processor	223-4719	1s	553.00	3	\$1,659.00	\$1,476.00	
4GB 667MHz(2x2GB),2R	311-7168	1	403.00	3	\$1,209.00		
250G 7K SATA2,3G,3.5,HP	341-3037	1	\$129.00	3	\$387.00		
DUAL,OnBoard,Broadcom,GB,ENET NICs	430-1764	1	\$0.00	3	\$0.00		
				Subtotal	\$3,255.00	\$1,476.00	
Client Software							
Windows Server 2003 Standard x64 Server	P73-01675	3	\$999.00	3	\$2,997.00		
Microsoft Visual Studio Standard 2005	127-00012	3	\$250.00	1	\$250.00		
Microsoft Problem Resolution Services		3	\$245.00	1		\$245.00	
				Subtotal	\$3,247.00	\$245.00	
User Connectivity							
TP-Link 8port 10Base-T, 100Base-T,1000Base-T Switch	B000N9B688	4	\$35.95	3	\$107.85		
4port KVM switch	B001P9CZ4Y	4	\$17.99	3	\$53.97		
3 ft patch cable	3c5egrnrb	4	\$0.68	6	\$4.08		
				Subtotal	\$165.90	\$0.00	
					(\$19,759.27)	(\$2,597.60)	
Notes:					Total	\$102,784.63	\$16,755.40
1S - One or more components of the measured configuration have been substituted in the Priced Configuration. See the FDR for details.							
*All items from Dell(1) are discounted 17% based on total dollar volume of this config.							
Price Source: 1=Dell, 2=Oracle, 3=Microsoft, 4=Amazon.com, NIO = Not Immediately Orderable							
Pricing may be verified by calling 1-800-BUY-DELL and referencing quote # 515860890 as a complex quote.							
Audited by Lorna Livingtree, Performance Metrics Inc.							
Prices used in TPC benchmarks reflect the actual prices a customer would pay for a one-time purchase of the stated components. Individually negotiated discounts are not permitted. Special prices based on 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 specifications. If you find that the stated prices are not available according to these items, please inform the TPC at pricing@tpc.org.							
					Three-Year Cost of Ownership:	\$119,540	USD
					TPC-C Throughput:	239,392	tpmC
					Price/Performance:	\$0.50	tpmC/USD

MQTh, computed Maximum Qualified Throughput

239,392 tpmC

Response Times (in seconds)

	Average	90 th	Max
- New order	0.27	0.60	3.92
- Payment	0.24	0.50	2.76
- OrderStatus	0.27	0.60	2.06
- Delivery (Interactive)	0.20	0.44	1.86
- Stocklevel	0.81	1.20	2.69
- Delivery (deferred portion)	0.06	0.11	2.78
- Menu	0.20	0.44	3.53

Response time delay added for emulated components

Menu 0.1
Resp 0.1

Transaction Mix, in percent of total transactions

- New-Order	44.92%
- Payment	43.01%
- OrderStatus	4.02%
- Delivery	4.01%
- StockLevel	4.01%

Keying/Think Times (in seconds),

	Min		Average		Max	
- New-Order	18.00	0.0	18.01	12.03	18.03	120.32
- Payment	3.00	0.0	3.01	12.03	3.03	120.32
- OrderStatus	2.00	0.0	2.01	10.03	2.02	100.32
- Delivery	2.00	0.0	2.01	5.04	2.02	50.31
- Stocklevel	2.00	0.0	2.01	5.03	2.03	50.31

Test Duration

- Ramp-up time	38 minutes
- Measurement interval	120 minutes
- Number of checkpoints	4
- Checkpoint interval	26.03 minutes
- Number of transactions (all types)	63,939,338

Table of Contents

ABSTRACT	III
OVERVIEW.....	III
AUDITOR	III
LIST OF TABLES	XI
LIST OF FIGURES	XII
INTRODUCTION	1
DOCUMENT STRUCTURE	1
BENCHMARK OVERVIEW	1
SYSTEM OVERVIEW	2
GENERAL ITEMS	3
TEST SPONSOR	3
APPLICATION CODE AND DEFINITION STATEMENTS	3
PARAMETER SETTINGS.....	3
CONFIGURATION DIAGRAMS	4
CLAUSE 1 -- LOGICAL DATABASE DESIGN RELATED ITEMS	6
TABLE DEFINITIONS.....	6
PHYSICAL ORGANIZATION OF THE DATABASE	6
INSERT AND DELETE OPERATIONS	6
HORIZONTAL AND VERTICAL PARTITIONING	6
REPLICATION.....	6
TABLE ATTRIBUTES.....	6
CLAUSE 2 -- TRANSACTION AND TERMINAL PROFILES RELATED ITEMS	7
RANDOM NUMBER GENERATION	7
SCREEN LAYOUT	7
TERMINAL VERIFICATION	7
INTELLIGENT TERMINALS	7
TRANSACTION PROFILES	7
TRANSACTION MIX	8
DEFERRED DELIVERY MECHANISM.....	8
CLAUSE 3 -- TRANSACTION AND SYSTEM PROPERTIES RELATED ITEMS	9
ACID TESTS.....	9
<i>Atomicity</i>	9
COMPLETED TRANSACTIONS	9
ABORTED TRANSACTIONS	9
<i>Consistency</i>	9
<i>Isolation</i>	9
<i>Durability</i>	10
DURABLE MEDIA FAILURE.....	10
LOSS OF DATA/ LOSS OF LOG.....	10
INSTANTANEOUS INTERRUPTION AND LOSS OF MEMORY	10
CLAUSE 4 -- SCALING AND DATABASE POPULATION RELATED ITEMS	12
TABLE CARDINALITY	12
CONSTANT VALUES.....	12
DATA DISTRIBUTION.....	12
PARTITION MAPPING	13
60 DAY SPACE CALCULATION	13

CLAUSE 5 -- PERFORMANCE METRICS AND RESPONSE TIME RELATED ITEMS.....	14
MEASURED TPMC.....	14
RESPONSE TIMES.....	14
THINK TIMES & KEY TIMES.....	14
RESPONSE TIME DISTRIBUTION CURVES.....	15
NEW-ORDER RESPONSE TIME VS. THROUGHPUT GRAPH.....	19
NEW-ORDER THINK TIME DISTRIBUTION GRAPH.....	20
STEADY-STATE GRAPH.....	20
STEADY-STATE METHODOLOGY.....	21
WORK PERFORMED DURING STEADY STATE.....	21
MEASUREMENT INTERVAL.....	22
MEASUREMENT PERIOD DURATION AND CHECKPOINT DURATION.....	22
TRANSACTION MIX.....	22
OTHER METRICS.....	22
CLAUSE 6 -- SUT, DRIVER, AND COMMUNICATION DEFINITION RELATED ITEMS.....	24
RTE PARAMETERS.....	24
EMULATED COMPONENTS.....	24
BENCHMARKED AND TARGETED SYSTEM CONFIGURATION DIAGRAMS.....	24
NETWORK CONFIGURATION.....	24
NETWORK BANDWIDTH.....	24
OPERATOR INTERVENTION.....	25
CLAUSE 7 -- PRICING RELATED ITEMS.....	26
HARDWARE AND SOFTWARE LIST.....	26
AVAILABILITY DATE.....	26
MEASURED TPMC.....	26
COUNTRY SPECIFIC PRICING.....	26
USAGE PRICING.....	26
SYSTEM PRICING.....	27
CLAUSE 9 -- AUDIT RELATED ITEMS.....	28
AUDITOR.....	28
AVAILABILITY OF THE FULL DISCLOSURE REPORT.....	28
APPENDIX A - APPLICATION SOURCE CODE.....	31
MODTPCC.CPP.....	31
STDAFX.CPP.....	46
STDAFX.H.....	46
DBCONNECTION.CPP.....	46
DBCONNECTION.H.....	66
DBCONNECTION/LOOPBACK.CPP.....	68
DBCONNECTION/MOD_TPCC.H.....	68
DBCONNECTION/STDAFX.CPP.....	72
DBCONNECTION/TPCCFLAGS.H.....	72
DBCONNECTION/TPCCPL.H.....	72
DBCONNECTION/TPCC_STRUCT.H.....	74
DBCONNECTION/TPCCSTRUCT.H.....	75
BLOCKS/LOAD_ORDORDL.SQL.....	78
BLOCKS/PAYNZ.SQL.....	78
BLOCKS/PAYZ.SQL.....	79
BLOCKS/TKVCPDEL.SQL.....	79
BLOCKS/TKVCPNEW.....	80
BLOCKS/VIEWS.SQL.....	82
MODTPCC.H.....	82
APPENDIX B: DATABASE DESIGN.....	84

DEFAULTOPTS.SH.....	85
DRIVER.SH.....	86
LOCALOPTIONS.SH.....	87
OPTIONS.SH.....	87
P_BUILD2.ORA.....	87
P_BUILD.ORA.....	89
P_CREATE.ORA.....	89
P_RUN.ORA.....	90
STEPENV.SH.....	90
CREATEDB.SQL.....	90
CREATEINDEX_ICUST1.SQL.....	92
CREATEINDEX_ICUST2.SQL.....	92
CREATEINDEX_IDIST.SQL.....	92
CREATEINDEX_IITEM.SQL.....	92
CREATEINDEX_INORD.SQL.....	92
CREATEINDEX_IORDL.SQL.....	92
CREATEINDEX_IORDR1.SQL.....	92
CREATEINDEX_IORDR2.SQL.....	93
CREATEINDEX_ISTOK.SQL.....	93
CREATEINDEX_IWARE.SQL.....	93
CREATESPACESTATS.SQL.....	93
CREATESTOREDPROCS.SQL.....	93
CREATETABLE_CUST.SQL.....	93
CREATETABLE_DIST.SQL.....	93
CREATETABLE_HIST.SQL.....	ERROR! BOOKMARK NOT DEFINED.
CREATETABLE_ITEM.SQL.....	ERROR! BOOKMARK NOT DEFINED.
CREATETABLE_NORD.SQL.....	94
CREATETABLE_ORDL.SQL.....	94
CREATETABLE_ORDR.SQL.....	94
CREATETABLE_STOK.SQL.....	94
CREATETABLE_WARE.SQL.....	94
SPACE_GET.SQL.....	95
SPACE_INIT.SQL.....	96
SPACE_RPT.SQL.....	96
TKVCININ.SQL.....	96
CREATETS.SH.....	96
GENERATED/CREATETS.SH.....	98
LOADCUST.SH.....	99
LOADDIST.SH.....	99
LOADHIST.SH.....	99
LOADITEM.SH.....	99
LOADNORD.SH.....	99
LOADORDRORDL.SH.....	99
LOADSTOK.SH.....	100
LOADWARE.SH.....	100
ANALYZE.SQL.....	100
ASSIGNTEMP.SQL.....	100
CREATEUSER.SQL.....	101
DBINIT.INI.....	101
CREATE_RAW_PARTITIONS.....	101
APPENDIX C - TUNABLE PARAMETERS.....	118
SERVER CONFIGURATION PARAMETERS.....	118
MICROSOFT WINDOWS 2003 SERVER PARAMETERS.....	118
ORACLE STARTUP SEQUENCE.....	118
DB SERVER MSINFO32 EXPORT.....	119
CLIENT MSINFO32 EXPORT.....	242

APPENDIX D – DISK STORAGE.....297
APPENDIX E - PRICE QUOTATIONS301

LIST OF TABLES

TABLE 1: TRANSACTION STATISTICS.....	8
TABLE 2: TRANSACTION MIX.....	8
TABLE 3: TABLE CARDINALITY.....	12
TABLE 4: CONSTANT VALUES	12
TABLE 5: DATA DISTRIBUTION	13
TABLE 6: TRANSACTION RESPONSE TIMES	14
TABLE 7: TRANSACTION KEY TIMES.....	14
TABLE 8: TRANSACTION THINK TIMES.....	15
TABLE 9: TRANSACTION MIX.....	22
TABLE 10: TRANSACTION STATISTICS.....	23

LIST OF FIGURES

FIGURE 1: MEASURED CONFIGURATION.....	4
FIGURE 2: PRICED CONFIGURATION	5
FIGURE 3: NEW ORDER RESPONSE TIME DISTRIBUTION	15
FIGURE 4: PAYMENT RESPONSE TIME DISTRIBUTION.....	16
FIGURE 5: ORDER STATUS RESPONSE TIME DISTRIBUTION.....	16
FIGURE 6: DELIVERY RESPONSE TIME DISTRIBUTION.....	17
FIGURE 7: STOCK LEVEL RESPONSE TIME DISTRIBUTION	18
FIGURE 8: NEW ORDER RESPONSE TIME VS. THROUGHPUT	19
FIGURE 9: NEW ORDER THINK TIME DISTRIBUTION	20
FIGURE 10: NEW ORDER THROUGHPUT VS. TIME.....	21

Introduction

Document Structure

The TPC Benchmark C Standard Specification Revision 5.10.1, written and approved by the Transaction Processing Performance Council (TPC), determines the contents of this report. The format of this report is based on this specification. Most sections of this report begin with the specification requirements printed in italic type, immediately followed by the detail in plain type of how Dell complied with the specification. Where extensive listings are required (such as listing of code), a note is included which references an appendix containing the listing.

Benchmark Overview

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

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

The performance metric reported by TPC-C is a "business throughput" measuring the number of orders processed per minute. Multiple transactions are used to simulate the business activity of processing an order, and each transaction is subject to a response time constraint.

The performance metric for this benchmark is expressed in transactions-per-minute-C (tpmC). To be compliant with the TPC-C standard, all references to tpmC results must include the tpmC rate, the associated price-per-tpmC, and the availability date of the priced configuration.

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

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

Despite the fact that this benchmark offers a rich environment that emulates many OLTP applications, this benchmark does not reflect the entire range of OLTP requirements. In addition, the extent to which a customer can achieve the results reported by a vendor is highly dependent on how closely TPC-C approximates the customer application. The relative performance of

systems derived from this benchmark does not necessarily hold for other workloads or environments. Extrapolations to any other environment are not recommended.

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

System Overview

The hardware configuration used in this TPC-C test is a Dell PowerEdge T710 server driven by three Dell PowerEdge SC1430 clients. The client and server are networked together via a 1000Base-T switch. Six remote terminal emulators (RTE) systems emulate users executing the standard TPC-C workload. The RTEs are connected to the client through a 1000Basecross-over cables. Oracle11g Database Server Standard Edition was the DBMS on the server machine. Microsoft Windows Server 2003, Enterprise x64 Edition SP1 was the operating system used on the server. Microsoft Windows Server 2003, Standard x64 Edition was used on the client.

The PowerEdge T710 motherboard uses an Intel chipset and can hold up to 2/8/8 two Pentium® Xeon® Quad Core processors. This configuration used a single Quad processor 2.26 GHz 1066 with 8MB L3 cache. The system has 1 PCIe x16 slot, 4 PCIe x8 slots, and 1 PCI-e X4 slot. The measured configuration used 72 GB of Fully Buffered 667Mhz DDR2 RAM, which was achieved using 9 8GB DIMMs. The network adapters are embedded with Broadcom NetXtreme II GigE network adapters.

The PowerEdge T710 has an integrated 16 slot riser board to which was attached 10 146GB SAS LFF DISKS in RAID 10 configuration containing the database log and 2 x 73GB SAS disk for OS via an internal channel on a Dell embedded PERC6i RAID controller. In addition, 4 Dell PERC6/E Dual Channel PCI-e RAID controllers were installed in the PCI Express slots for the data volumes. The Dell PERC6/E PCI Express RAID controllers were connected to 8 MD1120 disk pods enclosing a total of 192 73GB, 2.5" 15K RPM SAS disks.

The 3 SC1430 clients each have a quad-core 1/4/4 2.0GHz E5335 Intel Xeon® processors with 8MB of L2 cache. The client has 4096 Mbytes of RAM, one 250 GB hard disk, one integrated Broadcomm NetXtreme Gigabit Ethernet adapter and one Intel Pro 1000 PCI Network Interface Card. The clients were connected to the Database Server via a 1000Base-T swithc. The clients were driven through network segments to run a total of 190,860 emulated users.

General Items

Test Sponsor

A statement identifying the sponsor of the Benchmark and any other companies who have participated.

Dell was the test sponsor of this TPC Benchmark™ C.

Application Code and Definition Statements

The application program must be disclosed. This includes, but is not limited to, the code implementing the five transactions and the terminal input/output functions.

The application consists of a Remote Terminal Emulator (RTE) program emulating a set of users entering TPC-C transactions through web browsers, and communicating with Client machines running the Microsoft Internet Information Server (IIS) web server. The Client machines use the COM+ transaction monitor to communicate with the database server machine.

On each Client machine IIS loads a custom Microsoft Internet Information Server Application Programming Interface dynamic link library (ISAPI DLL) application program that communicates with the emulated web browsers through the HTTP protocol and with the database server through the COM+ transaction monitor. The application supplies fill-in screens to the user for each transaction, then parses the data in each request, and makes a call on the Oracle database Server through the COM+ layer, which manages a set of connections to the database server. The resulting data is passed back to the application where it is formatted into HTML and sent back to the user's browser. The Delivery transaction is handled directly from the application to the database without the use of COM+.

The web Client code is listed in Appendix A.

Parameter Settings

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

- *Database options*
- *Recover/commit options*
- *Consistency/locking options*
- *System parameter, application parameters, and configuration parameters.*

This requirement can be satisfied by providing a full listing of all parameters and options.

Appendix C contains all the database, Windows 2003 Server, and Internet Information Service parameters used in this benchmark.

Appendix D contains the 60 day space calculations.

Configuration Diagrams

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

Figures 1 and 2 respectively show the measured and priced full client/server configurations.

Figure 1: Measured Configuration

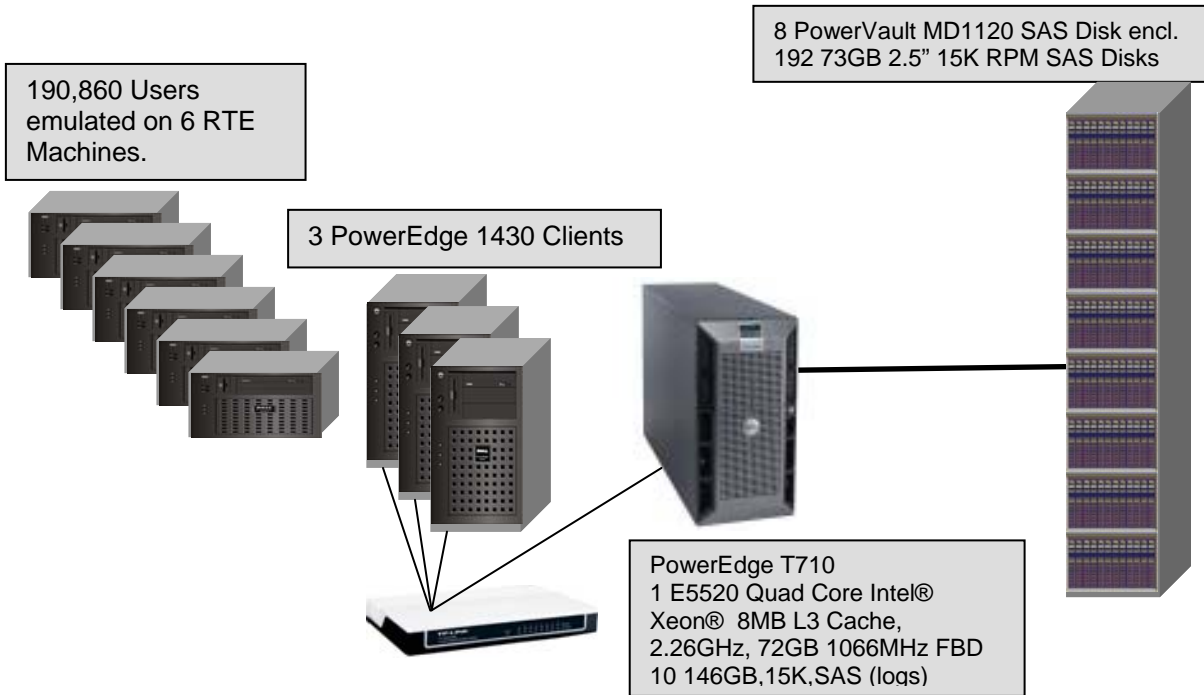
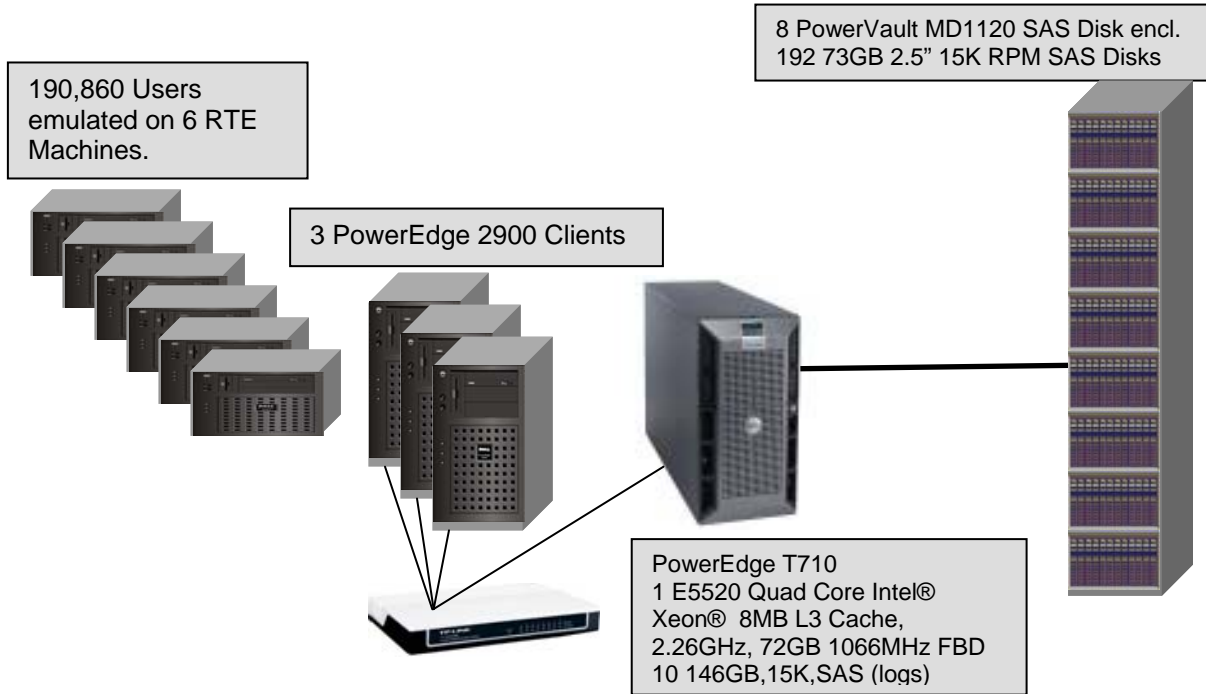


Figure 2: Priced Configuration



Clause 1 -- Logical Database Design Related Items

Table Definitions

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

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

Physical Organization of the Database

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

The measured configuration used 98 disk drives. The organization is shown in Table 5: Data Distribution.

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 restriction in the SUT database implementation that precludes inserts beyond the limits defined in Clause 1.4.11 must be disclosed. This includes the maximum number of rows that can be inserted and the maximum key value for these new rows. (8.1.2.3)

Insert and delete functionality was fully operational during the benchmark.

Horizontal and Vertical Partitioning

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

Partitioning was not used in this benchmark.

Replication

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

Replication was not used in this benchmark.

Table Attributes

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

No additional attributes were used in this benchmark.

Clause 2 -- Transaction and Terminal Profiles Related Items

Random Number Generation

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

Random numbers were generated using the drand48() and lrand48() UNIX calls. These functions generate pseudo random numbers using the linear congruential algorithm and 48-bit integer arithmetic. The random number generators are initially seeded using the srand48() call.

Screen Layout

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

The screen layouts are based on those in Clauses 2.4.3, 2.5.3, 2.6.3, 2.7.3, and 2.8.3 of the TPC-C Standard Specification. There are some very minor differences based on the fact that this is a web client implementation.

Terminal Verification

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

The terminal features were verified by allowing the auditor to manually execute each of the five transaction types.

Intelligent Terminals

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

Comment 1: *The intent of this clause is to describe any special manipulations performed by a local terminal or workstation to off-load work from the SUT. This includes, but is not limited to: screen presentations, message bundling, and local storage of TPC-C rows.*

Comment 2: *This disclosure also requires that all data manipulation functions performed by the local terminal to provide navigational aids for transaction(s) must also be described. Within this disclosure, the purpose of such additional function(s) must be explained.*

Application code involved in the manipulation of data was run on the client. Screen manipulation commands in the form of HTML were downloaded to the web browser, which handled input and output presentation graphics. A listing of this code is included in Appendix A.

Transaction Profiles

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

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

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

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

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

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

Table 1: Transaction Statistics

Transaction	Function	Value
New Order	Home Warehouse Items	99.00%
	Remote Warehouse Items	1.00%
	Rolled Back Transactions	1.00%
	Average Lines Per Order	10.00
Payment	Home Warehouse	85.00%
	Remote Warehouse	15.00%
	Non-Primary Key Access	60.01%
Order Status	Non-Primary Key Access	59.94%
Delivery	Skipped Transactions	0

Transaction Mix

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

Table 2: Transaction mix

Transaction	Percentage
New Order	44.92%
Payment	43.01%
Order Status	4.02%
Delivery	4.01%
Stock Level	4.01%

Deferred Delivery Mechanism

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

The application creates a thread pool consisting of a user-specified number of threads, which open connections on the database. When a Delivery transaction is posted one of these threads makes the database call while the transaction's original thread returns control to the user. Upon completion the Delivery thread writes an entry in the Delivery log and returns to the thread pool.

The source code is listed in Appendix A.

Clause 3 -- Transaction and System Properties Related Items

ACID Tests

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

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

Atomicity

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

Completed Transactions

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

Aborted Transactions

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

Consistency

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

Consistency conditions one through four were tested using a 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 ten (10) minutes 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 seven 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 D was followed.

Durability

The tested system must guarantee durability: the ability to preserve the effects of committed transactions 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 6920 warehouses of the database. The standard driving mechanism was used to generate a transaction load of 69200 users for the Loss of Data.

Loss of Data/ Loss of Log

Loss of data was demonstrated on 6920 warehouses of the database. The standard driving mechanism was used to generate the transaction load of 69200 users for the test. To demonstrate recovery from a permanent failure of durable media containing TPC-C tables, the following steps were executed:

1. 6920 warehouses of the database were used for this test.
2. A partition of a disk was backed up using an Oracle backup facility.
3. A sum of D_NEXT_O_ID was taken.
4. 69200 users were logged in to the database and ran transactions.
5. The system was run at steady state for 30 minutes.
6. The backed up partition was overwritten with garbage.
7. Oracle11g recorded errors about corrupt data on the partition. The database and the RTE were then shut down.
8. The backed up database partition was restored.
9. The database was then started and recovered using the recover command from SQLPLUS. The database was then opened.
10. Consistency was verified.
11. A new count of D_NEXT_O_ID was taken.
12. This number was compared with the number of new orders reported by the RTE. The difference was valid per the spec.
13. Samples were taken from the RTE files and used to query the database to demonstrate successful transactions had corresponding rows in the ORDER table.

Instantaneous Interruption and Loss of Memory

Instantaneous Interruption and Loss of Memory were demonstrated on the database with 19086 warehouses in a single test. The standard driving mechanism was used to generate the transaction load of 190,860 users for the test. To demonstrate recovery an instantaneous system interruption caused by powering off the Server, the following steps were executed:

1. The full database was used.
2. A sum of D_NEXT_O_ID was taken.
3. 190,860 users were logged in to the database and ran transactions.
4. The system was run in steady state for 30 minutes.
5. The Server was powered off by normal means, causing instantaneous interruption. No battery or UPS was providing power for the server.

-
6. The RTE was allowed to continue running. Completed transactions enroute from the clients were recorded. Error messages began appearing on the RTE screen.
 7. The RTE was stopped.
 8. The server was powered on again and rebooted.
 9. The database was restarted and automatically recovered.
 10. A new count of D_NEXT_O_ID was taken.
 11. Consistency was verified
 12. This number was compared with the number of new orders reported by the RTE. The difference was valid per the spec.
 13. Samples were taken from RTE transaction logs and used to query the database. It was demonstrated that successful transactions had corresponding rows in the ORDERS table.

Clause 4 -- Scaling and Database Population Related Items

Table Cardinality

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

The database was originally built with 19500 warehouses.

Table 3: Table Cardinality

Table	Cardinality as Benchmarked
Warehouse	19500
District	195,000
Customer	585,000,000
History	585,000,000
NewOrder	175,500,000
Orders	585,000,000
OrderLine	5,850,000,000
Item	100,000
Stock	1,950,000,000
Deleted Warehouses	0

Constant Values

The following values were used as constant value inputs to the NURand function for this benchmark.

Table 4: Constant Values

Function	Constant C Value
C_LAST (Build)	1
C_LAST (Run)	100

Data Distribution

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

The Database was built using a total of 204 disks: 192 73GB for data, 10 146GB for logs and 2 73GB for the OS and application software. The data drives were configured as hardware RAID 0. Logs and OS were configured as hardware RAID 10. Each Dell Perc6/E was configured with 2 logical drives each. Each logical drive spanned 12 disk drives. The embedded PERC5i RAID Controller 0 was configured with 1 logical drive spanning 6 146GB drives. Each Windows 2003 data drive contained raw partitions for database files and data backups. The details are shown in

Table 5.

Table 5: Data Distribution

Slot	Controller	Disks	Capacity	Usage
0	Dell PERC6i	2x73GB,15K,SAS RAID10	Disk0 67.75GB	OS
		10x146GB,15K,SAS RAID10	Disk1 680.63GB	Logs
3	Dell PERC6/E	12x73GB,15K,SAS RAID0	Disk 2-5 each 406.5GB	DB data
		12x73GB,15K,SAS RAID0	Disk 6-9 each 406.5GB	DB data
4	Dell PERC6/E	12x36GB,15K,SAS RAID0	Disk 10-13 each 406.5GB	DB data
		12x36GB,15K,SAS RAID0	Disk 14-17 each 406.5GB	DB data
5	Dell PERC6/E	12x36GB,15K,SAS RAID0	Disk 18-21 each 406.5GB	DB data
		12x36GB,15K,SAS RAID0	Disk 22-25 each 406.5GB	DB data
6	Dell PERC6/E	12x36GB,15K,SAS RAID0	Disk 26-29 each 406.5GB	DB data
		12x36GB,15K,SAS RAID0	Disk 30-33 each 406.5GB	DB data

Partition Mapping

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

Comment: *The intent is to provide sufficient detail about partitioning and replication to allow independent reconstruction of the test database. (8.1.5.3)*

An description of a database partitioning scheme is presented below as an example. The nomenclature of this example was outlined using the CUSTOMER table (in Clause 8.1.2.1), and has been extended to use the ORDER and ORDER_LINE tables as well.

The database was not replicated.

60 day Space Calculation

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 (see Clause 4.2.3). (8.1.5.5)

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

1. The size of the log groups was determined.
2. The checkpoint interval due to log switches was noted as 26:03mins
3. The final log space usage was calculated based on 1 and 2 above.
4. The log space usage for 8hr was extrapolated from 3 above.

The results of the above steps yielded a requirement 642.48 GB to sustain the log for 8 hours. Space available on the transaction log volume was 680.63 GB , indicating that enough storage was configured to sustain 8 hours of growth.

Growth requirements for dynamic tables Order, Order-Line and History were computed and shown Appendix D.

The details of the 60-day space requirement is shown in Appendix D.

Clause 5 -- Performance Metrics and Response Time Related Items

Measured TpmC

Measured tpmC must be reported. (8.1.6.1)

Measured TpmC 239,392.68
Price per TpmC \$.50

Response Times

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

Table 6: Transaction Response Times

Transaction	Average	90%	Maximum
New Order	0.270	0.600	3.92
Payment	0.240	0.500	2.76
Order Status	0.270	0.600	2.06
Interactive Delivery	0.200	0.440	1.86
Stock Level	0.810	1.200	2.69
Deferred Delivery	0.058	0.110	2.78
Menu	0.200	0.440	3.53

Think Times & Key Times

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

Table 7: Transaction Key Times

Transaction	Minimum	Average	Maximum
New Order	18.00	18.01	18.03
Payment	3.00	3.01	3.03
Order Status	2.00	2.01	2.02
Delivery	2.00	2.01	2.02
Stock Level	2.00	2.01	2.03

Table 8: Transaction Think Times

Transaction	Minimum	Average	Maximum
New Order	0.00	12.03	120.32
Payment	0.00	12.03	120.32
Order Status	0.00	10.03	100.32
Delivery	0.00	5.04	50.31
Stock Level	0.00	5.03	50.31

Response Time Distribution Curves

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

Figure 3: New Order Response Time Distribution

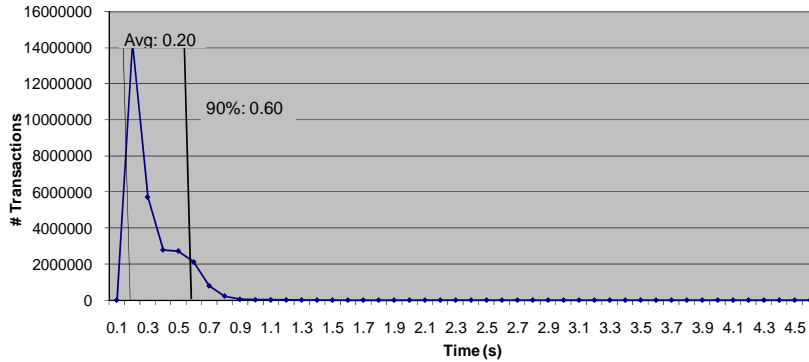


Figure 4: Payment Response Time Distribution

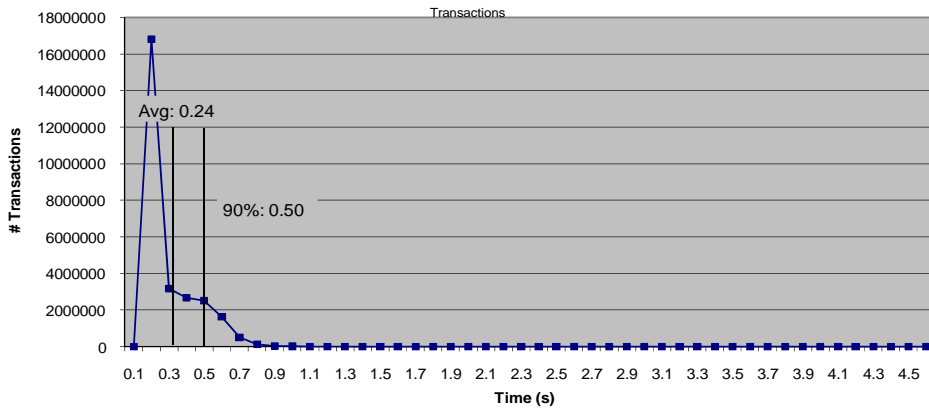


Figure 5: Order Status Response Time Distribution

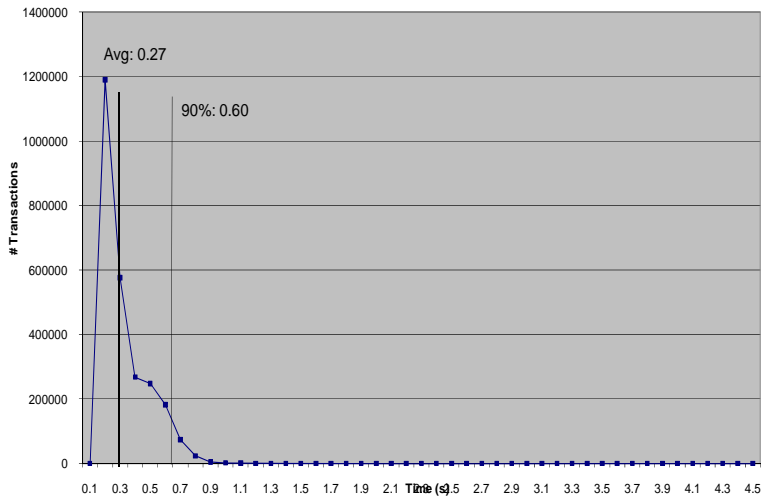


Figure 6: Delivery Response Time Distribution

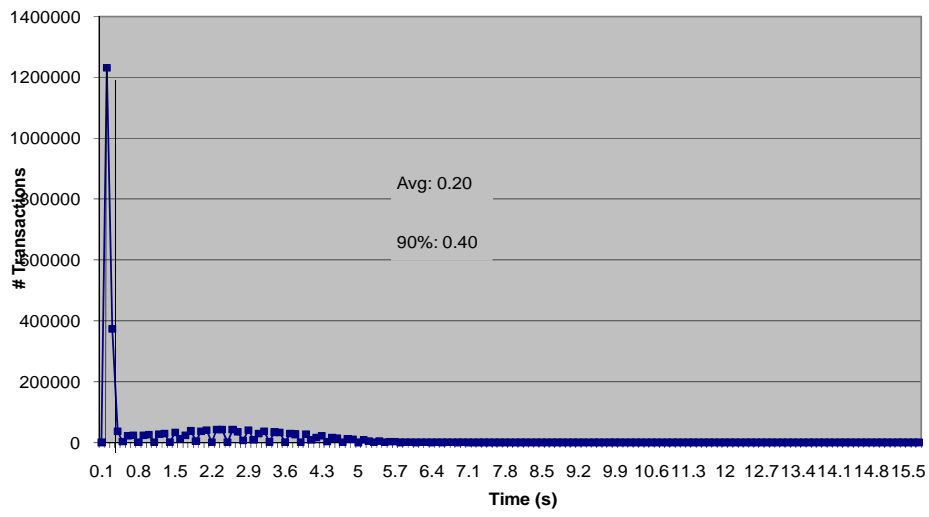
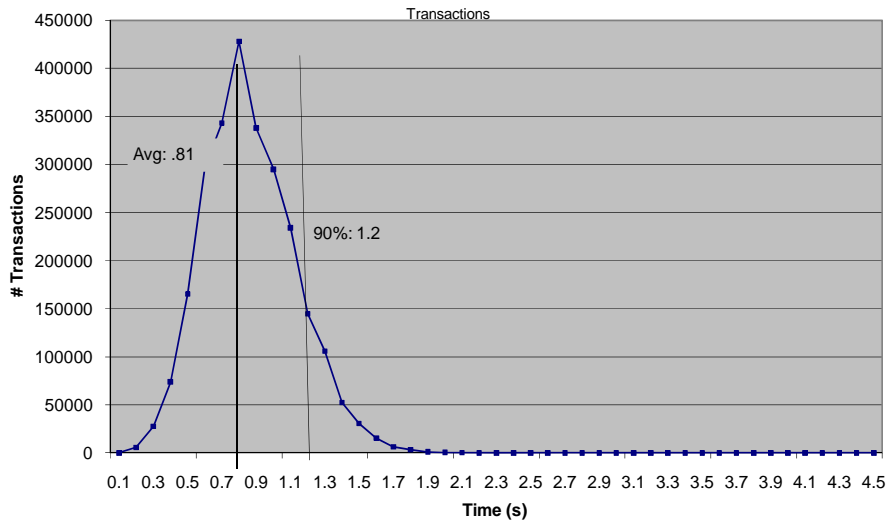


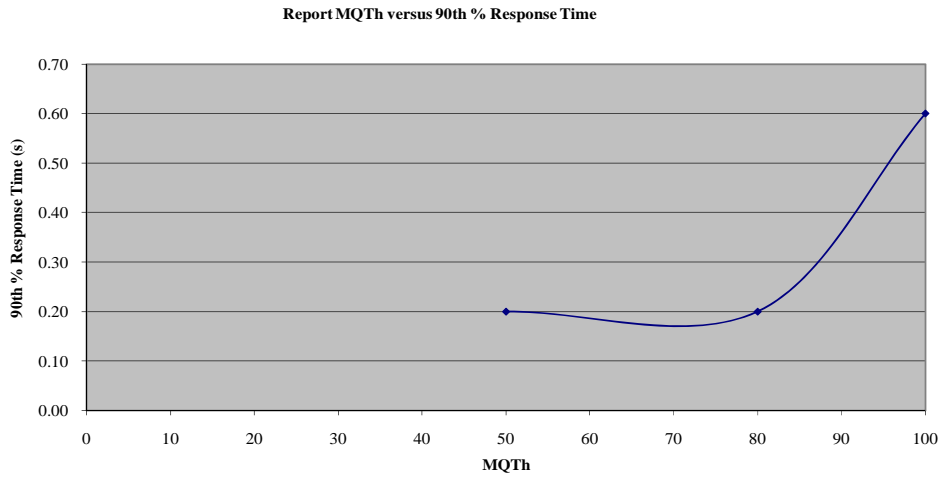
Figure 7: Stock Level Response Time Distribution



New-Order Response Time vs. Throughput Graph

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

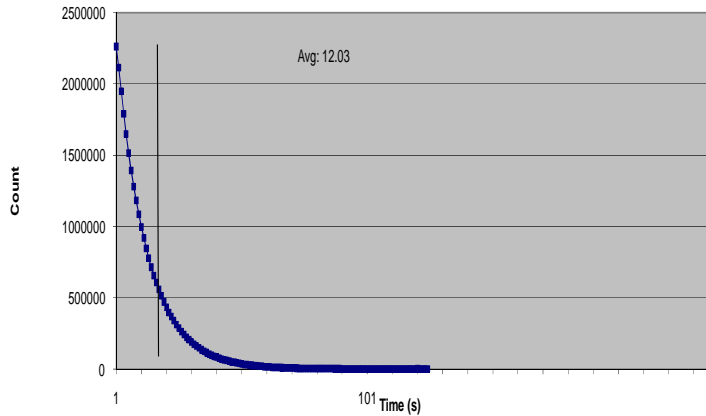
Figure 8: New Order Response Time vs. Throughput



New-Order Think Time Distribution Graph

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

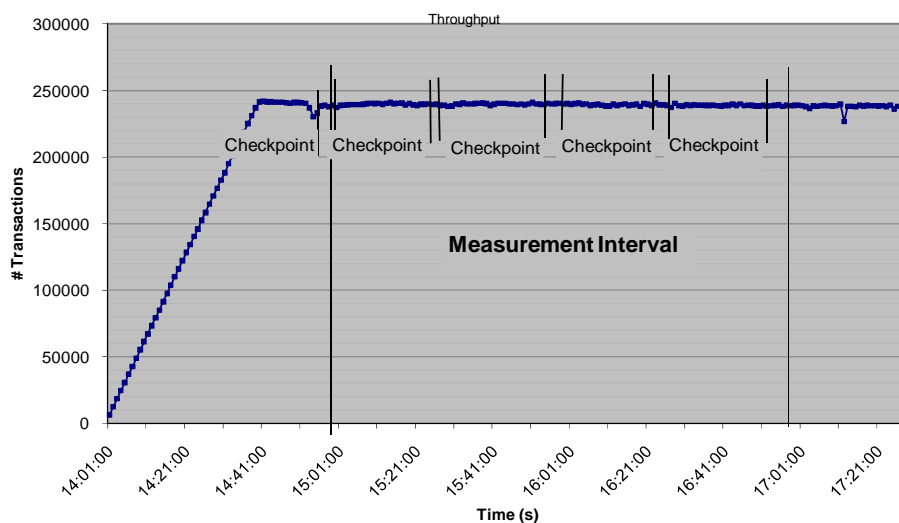
Figure 9: New Order Think Time Distribution



Steady-State Graph

A graph of throughput versus elapsed time (see Clause 5.6.5) must be reported for the New-Order transaction. (8.1.6.8)

Figure 10: New Order Throughput vs. Time



Steady-State Methodology

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

Steady state was determined using real time monitor utilities from both the operating system and 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. (8.1.6.10)

The RTE generated the required input data to choose a transaction from the menu. This data was timestamped. The menu response for the requested transaction was verified and timestamped in the RTE log files.

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

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

The RTE transmissions were sent to the web-based application program running on the client machine through Ethernet LANs. The web client managed the emulated web browser interface as well as all requests to the database on the server. The applications communicated with the database server over another Ethernet LAN using the COM+ transaction monitor

Measurement Interval

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

The measurement interval was 7200 seconds.

Measurement Period Duration and Checkpoint Duration

The start time and duration in seconds of at least the four (4) longest checkpoints during the measurement interval must be disclosed (see clause 5.5.2.2(2)) (8.1.6.11)

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

	Start	End	Duration
Measurement Interval	14:57:09	16:57:09	7,200
1 st Checkpoint	14:57:49	15:23:53	1564
2 nd Checkpoint	15:26:44	15:52:46	1562
3 rd Checkpoint	15:55:35	16:21:33	1558
4 th Checkpoint	16:24:23	16:50:29	1566

Transaction Mix

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

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

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

Table 9: Transaction Mix

Transaction	Percentage
New Order	44.92%
Payment	43.01%
Delivery	4.01%
Stock Level	4.01%
Order Status	4.02%

Other Metrics

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

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

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

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

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

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

Table 10: Transaction Statistics

Transaction	Function	Value
New Order	Home Warehouse Items	99.00%
	Remote Warehouse Items	1.00%
	Rolled Back Transactions	1.00%
	Average Lines Per Order	10.00
Payment	Home Warehouse	85.00%
	Remote Warehouse	15.00%
	Non-Primary Key Access	60.00%
Order Status	Non-Primary Key Access	59.94%
Delivery	Skipped Transactions	0

Clause 6 -- SUT, Driver, and Communication Definition Related Items

RTE Parameters

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

Comment: *The intent is to demonstrate the RTE was configured to generate transaction input data as specified in Clause 2.*

The RTE input parameters are listed in Appendix C - Tunable Parameters.

Emulated Components

It must be demonstrated that the functionality and performance of the components being emulated in the Driver System are equivalent to that of the priced system. The results of the test described in Clause 6.6.3.4 must be disclosed. (8.1.7.2)

No components were emulated.

Benchmarked and Targeted System Configuration 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 software and hardware functionality being performed on the Driver System, and its interface to the SUT must be disclosed (see Clause 6.6.3.6). (8.1.7.3)

The driver system performed transaction data generation and communication to the client through the standard web browser (HTTP) protocol. It also captured and timestamped the SUT output data for post-processing of the reported metrics. No other functionality was included on the driver system.

Figures 1 & 2 of this report contain detailed diagrams of both the benchmark configuration and the priced configuration.

Network Configuration

The network configurations of both the tested services and the 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 (see Clause 6.6.4). (8.1.7.4)

The network configurations of the benchmarked and priced configurations were identical.

Network Bandwidth

The bandwidth of the network(s) used in the tested/priced configuration must be disclosed. (8.1.7.5)

The bandwidth of the tested and priced networks were as follows:

- 1000 BaseT (1000 Mbit/sec) network segments between the RTE/Emulated Users and the Client.
- 1000 BaseT (1000 Mbit/sec) between the Clients and Server.

Operator Intervention

If the configuration requires operator intervention (see Clause 6.6.6), the mechanism and the frequency of this intervention must be disclosed. (8.1.7.6)

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

Clause 7 -- Pricing Related Items

Hardware and Software List

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

Pricing source(s) and effective date(s) of price(s) must also be reported. (8.1.8.1)

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. (8.1.8.2)

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 Date

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

Hardware Availability Date: Nov 18, 2009
Software Availability Date: Nov 18, 2009

Measured TpmC

A statement of the measured tpmC, as well as the respective calculations for 5-year pricing, price/performance (price/tpmC), and the availability date must be included. (8.1.8.4)

Maximum Qualified Throughput: 239,392 tpmC
Price Performance Metric: \$.50

Country Specific Pricing

Additional Clause 7 related items may be included in the Full Disclosure Report for each country specific priced configuration. Country specific pricing is subject to Clause 7.1.7. (8.1.8.5)

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

Usage Pricing

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

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

Comment: *Usage pricing may include, but is not limited to, the operating system and database management software.*

The component pricing based on usage is shown below:

- * 1 Microsoft Windows Server 2003, Enterprise x64 Edition License.
- * 3 Microsoft Windows Server 2003, Standard x64 Edition License.
- * 1 Oracle Database 11g Standard Edition
- * 1 Microsoft Visual C++ Standard Edition.
- * 3 Year Support for Hardware Components.

System Pricing

System pricing should include subtotals for the following components: Server Hardware, Server Software, Client Hardware, Client Software, and Network Components used for terminal connection (see Clause 7.2.2.3). Clause 6.1 describes the Server and Client components. An example of the standard pricing sheet is shown in Appendix B. (8.1.8.7)

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

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.

Clause 9 -- Audit Related Items

Auditor

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

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

This TPC-C benchmark has been audited by Lorna Livingtree of Performance Metrics.

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 Administrator, TPC
Presidio of San Francisco
Bldg 572B Ruger St.
San Francisco, CA 94129-0920
Phone: (415) 561-6272, Fax (415)561-6120
www.tpc.org

or:

One Dell Way
Round Rock, TX 78682
Attention: David J Morse.



November 18, 2009

Mr. Nicholas Wakou
Dell Computer Corporation
One Dell Way
Round Rock, TX 78682

I have verified by remote the TPC Benchmark™ C for the following configuration:

Platform: Dell PowerEdge T710
Database Manager: Oracle Database 11g
Operating System: Microsoft Windows Server 2003 Enterprise x64 Edition
Transaction Monitor: COM+

System Under Test: Dell PowerEdge T710 with:				
CPU's	Memory	Disks (total)	90% Response	TpmC
1 quad core Intel @ 2.27 Ghz	Main: 72 GB	194 @ 73GB 10 @ 146GB	0.60	239,392

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.
- * The database was properly scaled with 19,500 warehouses, 19,086 of which were active during the measured interval.
- * The ACID properties were successfully demonstrated.
- * Data loss durability was demonstrated on the SUT fully configured as it was for the performance test.
- * Input data was generated according to the specified percentages.
- * Eight hours of mirrored log space was present on the tested system.
- * The data for the 60 days space calculation was verified.
- * The steady state portion of the test was 120 minutes.
- * One checkpoint was taken in steady state before the measured interval opened.
- * Four checkpoints were completed inside the measured interval.
- * The system pricing was checked for major components and maintenance.
- * Third party quotes were verified for compliance.

Auditor Notes:

The tested client was a PowerEdge SC 1430. This system is no longer available. A PowerEdge 2900 has been substituted in the priced configuration. The specifications were verified and this change meets the substitution requirements.

Sincerely,

A handwritten signature in cursive script that reads "Lorna Livingtree".

Lorna Livingtree
Auditor

Appendix A - Application Source Code

modtpcc.cpp

```
// modtpcc.cpp : Defines the entry point for the DLL application.
//

#include "stdafx.h"
#include "modtpcc.h"
#include <httpext.h>

#ifdef DEBUG
#define DELIVERY_MUTEX
#define NEW_ALLOCATE_FORM
#endif

BOOL APIENTRY DllMain( HANDLE hModule,
                     DWORD ul_reason_for_call,
                     LPVOID lpReserved
                     )
{
    char string[MAXLEN];

    if (ul_reason_for_call == DLL_PROCESS_ATTACH) {
        int i;
        GetModuleFileName((HMODULE)hModule,
            DllPath, MAXLEN-1);

        strcpy(origin, DllPath);
        if (DllPath[0]!='\ ' && DllPath[1]!='\ ' &&
            DllPath[2]!='?' && DllPath[3]!='\ ')
            strcpy(DllPath, DllPath+4);
        for (i=strlen(DllPath); DllPath[i]!='\ ' && i--);
        DllPath[i]='\0';
        sprintf(InitFile, "%s\\%s", DllPath, InitName);
        sprintf(DllFile, "%s\\%s", DllPath, DllName);
        sprintf(LogFile, "%s\\%s", DllPath, LogName);

        OCIInitialize(OCI_THREADED|OCI_OBJECT,(dvoid *)0,0,0,0);

        //          sprintf(LogFile,
        "d:\\%s", LogName);

        /* load DBConnection.dll */

        if ((dllinstance = LoadLibrary(DllFile)) == NULL)
            return FALSE;

        if ((mod_tpcc_neworder=(int
            (FAR*)(T_neworder_data *) GetProcAddress((HMODULE)dllinstance,
            "mod_tpcc_neworder"))==NULL)
            return FALSE;

        if ((mod_tpcc_payment=(int
            (FAR*)(T_payment_data *) GetProcAddress((HMODULE)dllinstance,
            "mod_tpcc_payment"))==NULL)
            return FALSE;

        if ((mod_tpcc_delivery=(int
            (FAR*)(T_delivery_data *, int) GetProcAddress((HMODULE)dllinstance,
            "mod_tpcc_delivery"))==NULL)
            return FALSE;

        if ((mod_tpcc_orderstatus=(int
            (FAR*)(T_orderstatus_data *) GetProcAddress((HMODULE)dllinstance,
            "mod_tpcc_orderstatus"))==NULL)
            FALSE;

        if ((mod_tpcc_stocklevel=(int
            (FAR*)(T_stocklevel_data *) GetProcAddress((HMODULE)dllinstance,
            "mod_tpcc_stocklevel"))==NULL)
            return FALSE;

        if (userlog=(void (FAR*)(char * str, ...))
            GetProcAddress((HMODULE)dllinstance, "userlog"))==NULL)
            return FALSE;

        if ((initDelLog=(void (FAR*)(int)
            GetProcAddress((HMODULE)dllinstance, "initDelLog"))==NULL)
            return FALSE;

        if ((endDelLog=(void (FAR*)(int)
            GetProcAddress((HMODULE)dllinstance, "endDelLog"))==NULL)
            return FALSE;
    }
}
```

```

DllPath);
        userlog("load modtpcc.dll, DllPath: %s\n",

        if ((TlsPointer = TlsAlloc()) == 0xFFFFFFFF) {
            userlog("Error during TlsAlloc\n");
            return FALSE;
        }
        InitializeCriticalSection(&critical_initDelQueue);
        InitializeCriticalSection(&critical_memory);

        InitializeCriticalSection(&critical_DelQueue_free);

        InitializeCriticalSection(&critical_DelQueue_work);

        /* read ini parameters */
        readInit(string, "DBConnections",
            Default_DBConnections);
        DBConnections = atoi(string);
        userlog("number of DBConnections is %d\n",
            DBConnections);

#ifdef NEW_ALLOCATE_FORM
        readInit(string, "StartTerm",
            Default_StartTerm);
        userlog("number of Start Term is %s\n", string);
        /* StartTerm starts from 1 */
        if ((StartTerm = atoi(string) ) < 0) {
            userlog("error: Start Term is
            %d\n", StartTerm);
            return FALSE;
        }
        /* w_id starts from 1, d_id starts from 1 */
        StartTerm+=10;
#endif

        readInit(string, "KMaxterms",
            Default_Maxterms);
        userlog("number of Max Terms is %s000\n",
            string);
        /* add one more form for special characters */
        if ((Maxterms = atoi(string) * 1000 + 1) <= 1) {
            userlog("number of Max Terms is
            %d\n", Maxterms - 1);
            return FALSE;
        }
        readInit(string, "DeliveryQueues",
            Default_DeliveryQueues);
        userlog("number of Delivery Queues is %s\n",
            string);
        if ((DeliveryQueues = atoi(string)) <= 0) {
            userlog("number of Delivery
            Queues is %d\n", DeliveryQueues);
            return FALSE;
        }
        readInit(string, "DeliveryThreads",
            Default_DeliveryThreads);
        userlog("number of Delivery Threads is %s\n",
            string);
        if ((DeliveryThreads = atoi(string)) <= 0) {
            userlog("number of Delivery
            Threads is %d\n", DeliveryThreads);
            return FALSE;
        }
        initDelLog(DeliveryThreads);

        modtpcc_ready=1;
    }
    else if (ul_reason_for_call == DLL_PROCESS_DETACH) {
        endDelLog(DeliveryThreads);

        if ((TlsFree(TlsPointer)) == NULL) {
            userlog("Error during TlsFree\n");
            return FALSE;
        }
        if (!deleteDelQueue())
        {
            userlog("Error during
            deleteDelQueue\n");
            return FALSE;
        }
        DeleteCriticalSection(&critical_initDelQueue);
        DeleteCriticalSection(&critical_memory);

        DeleteCriticalSection(&critical_DelQueue_free);

        DeleteCriticalSection(&critical_DelQueue_work);
    }
}

```

APPENDIX A - APPLICATION SOURCE CODE

```

        DeleteCriticalSection(&(resp_global_pool.form_template_spinlock));
DeleteCriticalSection(&(txn_data_pool.form_template_spinlock));

        int i_type, i_pool;
#define GPOOL txn_global_pool[i_type][i_pool]
        for (i_type = 0; i_type <
POOL_TYPE_TXN_MAX; i_type++)
            for (i_pool = 0; i_pool <
TXN_TYPE_MAX; i_pool++)

DeleteCriticalSection(&(GPOOL.form_template_spinlock));
#undef GPOOL
    }

    return TRUE;
}

BOOL WINAPI GetExtensionVersion(HSE_VERSION_INFO *pVer)
{
    pVer->dwExtensionVersion = HSE_VERSION;
    strncpy(pVer->lpszExtensionDesc,
        "IIS ISAPI Extension", HSE_MAX_EXT_DLL_NAME_LEN);
    return TRUE;
}

DWORD WINAPI HttpExtensionProc(EXTENSION_CONTROL_BLOCK
*pECB)
{
    if (!modtpcc_ready)
        return FALSE;

    if (!memory_ready) {
        EnterCriticalSection(&critical_memory);
        if (!memory_ready) {
            allocateMemoryPool();
            memory_ready=1;
        }
        LeaveCriticalSection(&critical_memory);
    }

    if (!queue_ready) {
        EnterCriticalSection(&critical_initDelQueue);
        if (!queue_ready) {
            if (!initDelQueue()) {
                userlog("init
Delivery Queue failed\n");
            }
            LeaveCriticalSection(&critical_initDelQueue);
            return FALSE;
        }
        queue_ready=1;
    }
    LeaveCriticalSection(&critical_initDelQueue);
}

    return process_query(pECB)==TRUE ?
HSE_STATUS_SUCCESS_AND_KEEP_CONN :
HSE_STATUS_ERROR;
/*

    HSE_SEND_HEADER_EX_INFO info = { 0 };

    char szOut[256];
    DWORD nOut;

    nOut = sprintf(szOut, "%s is the input, LogFile:%s, DIPath:%s,
DIFile:%s, origin:%s, ORACLE_HOME: %s", pECB-
>lpszQueryString, LogFile, DIPath, DIFile, origin,
getenv("ORACLE_HOME"));

    char szHeader[256];
    DWORD nHeader = sprintf(szHeader, "Content-Type: text/html\n\n"
"Content-Length: %d\r\n\r\n", nOut);

    info.pszStatus = "200 OK";
    info.cchStatus = strlen(info.pszStatus);
    info.pszHeader = szHeader;
    info.cchHeader = nHeader;
    info.fKeepConn = false;

    if (!pECB->ServerSupportFunction(pECB->ConnID,
HSE_REQ_SEND_RESPONSE_HEADER_EX, &info, 0, 0))

```

```

        return HSE_STATUS_ERROR;

    if (!pECB->WriteClient(pECB->ConnID, szOut, &nOut, HSE_IO_SYNC))
        return HSE_STATUS_ERROR;

    return HSE_STATUS_SUCCESS;
*/
}

/*****
* initialize / delete Delivery Queue
*****/

int deleteDelQueue()
{
    DelQueue_info *ptr = DelQueue_begin, *next;

    DeliveryThreadstop = 1;

    for (int i=0; i<DeliveryThreads; i++) {
        if (!SetEvent(waitDelWork)) {
            userlog("Error on
SetEvent(waitDelWork) on deleteDelQueue\n");
        }

        if (WaitForSingleObject(DelThreadRunning,
100000) != WAIT_OBJECT_0) {
            userlog("Delivery Thread is not
loaded after 100 seconds\n");
        }
    }

    if (waitAvailableDelQueue != 0) {
        if (!CloseHandle(waitAvailableDelQueue))
            userlog("error on
CloseHandle(waitAvailableDelQueue)\n");
        waitAvailableDelQueue = 0;
    }

    if (waitDelWork != 0) {
        if (!CloseHandle(waitDelWork))
            userlog("error on
CloseHandle(waitDelWork)\n");
        waitDelWork = 0;
    }

    if (DelThreadRunning != 0) {
        if (!CloseHandle(DelThreadRunning))
            userlog("error on
CloseHandle(DelThreadRunning)\n");
        DelThreadRunning = 0;
    }

    while (ptr != NULL) {
        next=ptr->Next;
    }

#ifdef DELIVERY_MUTEX
    CloseHandle(ptr->queue_lock);
#endif

    free(ptr->pdata);
    free(ptr);
    ptr=next;
}

    ptr = DelQueue_free;
    while (ptr != NULL) {
        next=ptr->Next;
    }

#ifdef DELIVERY_MUTEX
    CloseHandle(ptr->queue_lock);
#endif

    free(ptr->pdata);
    free(ptr);
    ptr=next;
}

    return TRUE;
}

int initDelQueue()
{
    int i;

```

APPENDIX A - APPLICATION SOURCE CODE

```

DelQueue_info *ptr, *curr;

userlog("execute initDelQueue\n");

for (i=0; i<DeliveryQueues; i++) {
    if ((ptr = (DelQueue_info *)
malloc(sizeof(DelQueue_info))) == NULL) {
        userlog("malloc error in
initDelQueue\n");
        return FALSE;
    }
    ptr->pdata=(T_delivery_data
*)malloc(sizeof(T_delivery_data));
#ifdef DELIVERY_MUTEX
    if ((ptr->queue_lock=CreateMutex(NULL,
FALSE, NULL))==NULL) {
        userlog("Cannot create mutex on
queue lock\n");
        return FALSE;
    }
#endif
    if (!i)
        DelQueue_free=curr=ptr;
    else {
        curr->Next = ptr;
        curr = ptr;
    }

    DelQueue_begin = DelQueue_end = curr->Next = NULL;

    if ((waitAvailableDelQueue = CreateEvent(NULL, FALSE,
FALSE, "Wait Empty Delivery Queue")) == NULL) {
        userlog("Cannot create event :
waitAvailableDelQueue\n");
        return FALSE;
    }

    if ((waitDelWork = CreateEvent(NULL, FALSE, FALSE,
"Wait Delivery Work")) == NULL) {
        userlog("Cannot create event :
waitDelWork\n");
        return FALSE;
    }

    if ((DelThreadRunning = CreateEvent(NULL, FALSE,
FALSE, "Delivery Thread Running")) == NULL) {
        userlog("Cannot create event :
DelThreadRunning\n");
        return FALSE;
    }

    for (i=0; i < DeliveryThreads; i++) {
        if (_beginthread(initDeliveryThread, 0, (void *)
&i) == -1) {
            userlog("Error on
initDeliveryThread %d\n", i);
            return FALSE;
        }
        /* wait for 100 seconds */
        if (WaitForSingleObject(DelThreadRunning,
100000) != WAIT_OBJECT_0) {
            userlog("Delivery Thread (%d)
hasn't initialized after 100 seconds\n", i);
            return FALSE;
        }
        userlog("receive Delivery Thread %d
confirmation\n", i);
    }
    return TRUE;
}

void initDeliveryThread(void *thread_no)
{
    int thread_number=(int *)thread_no;
    DelQueue_info *queue_info;

    if (!SetEvent(DelThreadRunning))
        userlog("SetEvent Error on
initDeliveryThread(%d)\n", thread_number);
    else {
        userlog("Delivery Thread %d is created\n",
thread_number);

        while (!DeliveryThreadstop) {
            queue_info = NULL;
            while (!DeliveryThreadstop &&
queue_info == NULL) {
                queue_info=DequeueDel();
                if (queue_info ==
NULL) {
                    if (queue_info ==
(WaitForSingleObject(waitDelWork, INFINITE) != WAIT_OBJECT_0) {
                        userlog("Error on WaitForSingleObject(waitDelQueueWork)
in initDeliveryThread\n");
                        endDeliveryThread(thread_number);
                        return;
                    }
                }
            }
            if (!DeliveryThreadstop) {
                (void)mod_tpcc_delivery(queue_info->pdata,
thread_number);
                addFreeDelQueue(queue_info);
            }
            endDeliveryThread(thread_number);
        }

        void endDeliveryThread(int thread_number)
        {
            if (!SetEvent(DelThreadRunning)) {
                userlog("SetEvent Error on
endDeliveryThread(%d)\n", thread_number);
            }
            _endthread();
        }

        /******
        * Delivery Queue dequeue/enqueue
        * *****/

        DelQueue_info *DequeueDel()
        {
            DelQueue_info *ptr;

            if (DelQueue_begin == NULL) return NULL;

            EnterCriticalSection(&critical_DelQueue_work);

            if (DelQueue_begin == NULL) {
                LeaveCriticalSection(&critical_DelQueue_work);
                return NULL;
            }

            if (DelQueue_begin == DelQueue_end) {
                ptr = DelQueue_begin;
                DelQueue_begin = DelQueue_end = NULL;
            }
            else {
                ptr = DelQueue_begin;
                DelQueue_begin = DelQueue_begin->Next;
            }

            LeaveCriticalSection(&critical_DelQueue_work);

            return ptr;
        }

        void EnqueueDel(DelQueue_info *queue_info)
        {
            EnterCriticalSection(&critical_DelQueue_work);
            if (DelQueue_begin == NULL)
                DelQueue_begin=DelQueue_end=queue_info;

```

APPENDIX A - APPLICATION SOURCE CODE

```

        else {
            DelQueue_end->Next = queue_info;
            queue_info->Next = NULL;
            DelQueue_end = queue_info;
        }
    }
    LeaveCriticalSection(&critical_DelQueue_work);
}

void addFreeDelQueue(DelQueue_info *ptr)
{
    EnterCriticalSection(&critical_DelQueue_free);

    if (DelQueue_free==NULL) {
        DelQueue_free = ptr;
        ptr->Next = NULL;
    }
    else {
        ptr->Next = DelQueue_free;
        DelQueue_free = ptr;
    }
}
#ifdef DEBUG
useddel--;
if (useddel != 0 && useddel % 300 == 0)
    userlog("free a del queue: current: %d\n",
useddel);
#endif
LeaveCriticalSection(&critical_DelQueue_free);
if (!SetEvent(waitAvailableDelQueue))
    userlog("SetEvent Error on
addFreeDelQueue\n");
}

DelQueue_info *findFreeDelQueue()
{
    DelQueue_info *ptr=NULL;

    EnterCriticalSection(&critical_DelQueue_free);

    while (ptr==NULL) {
        if (DelQueue_free==NULL) {

            LeaveCriticalSection(&critical_DelQueue_free);
            if
            (WaitForSingleObject(waitAvailableDelQueue, INFINITE) !=
            WAIT_OBJECT_0) {

                userlog("WaitForSingleObject(waitAvailableDelQueue) in
            findFreeDelQueue\n");
            }
            userlog("Delivery queue is full,
            sleep for 10 seconds\n");
            #ifdef DEBUG
                userlog("used del queue: %d\n",
            useddel);
            #endif

            /* sleep for 10 seconds */
            Sleep(10000);

            EnterCriticalSection(&critical_DelQueue_free);
        }
        else {
            ptr = DelQueue_free;
            DelQueue_free =

            DelQueue_free->Next;
            #ifdef DEBUG
                useddel++;
                if (useddel % 300 == 0)
                    userlog("allocate a
            del queue current used: %d\n", useddel);
            #endif
        }
    }

    LeaveCriticalSection(&critical_DelQueue_free);

    return ptr;
}

/*****
* process query
*****/
int process_query(EXTENSION CONTROL BLOCK *pECB)

```

```

{
    int w_id, ld_id, form;
    char *ptr, *cmd;

    form = w_id = ld_id = 0;

    /*
    This process the request_rec http:server/tpcc
    */

    if (strlen(pECB->lpszQueryString) == 0)
        return sendform_welcome(pECB, "Welcome!");

    if (getcharvalue(pECB->lpszQueryString, '3', &ptr) {
        form = *ptr++;
        if (get_wid_did(ptr, &w_id, &ld_id, &ptr) == FALSE) {
            return
            send_error_message(pECB, 0, INVALID_TERMID, "", w_id, ld_id, 0);
        }
    }
    else {
        form = '\0';
    }

    if (getcharvalue(ptr, '0', &cmd) == FALSE)
        return send_error_message(pECB, 0, COMMAND_UNDEFINED, "",
        w_id, ld_id, 0);

    if ((form == '\0') && !(CMD_BEGIN(cmd)))
        return send_error_message(pECB, 0,
        INVALID_FORM_AND_CMD_NOT_BEGIN, "", w_id, ld_id, 0);

    if (CMD_PROCESS(cmd)) { /* cmd = Process */

        if (form == 'N') {
            /* New Order transaction */
            return mod_neworder_query(pECB, w_id, ld_id, ptr);
        }
        else if (form == 'P') {
            /* Payment order transaction */
            return mod_payment_query(pECB, w_id, ld_id, ptr);
        }
        else if (form == 'D') {
            /* Delivery order transaction */
            return mod_delivery_query(pECB, w_id, ld_id, ptr);
        }
        else if (form == 'O') {
            /* Order Status order transaction
            */
            return mod_orderstatus_query(pECB, w_id, ld_id, ptr);
        }
        else if (form == 'S') {
            /* Stock Level order transaction */
            return mod_stocklevel_query(pECB, w_id, ld_id, ptr);
        }
        else
            return
            send_error_message(pECB, 0, INVALID_FORM, "", w_id, ld_id, 0);
        }
        else if (CMD_BEGIN(cmd))
            return
            mod_begin_cmd(pECB);
        else if (CMD_NEWORDER(cmd))
            return
            mod_neworder_cmd(pECB, w_id, ld_id);
        else if (CMD_PAYMENT(cmd))
            return
            mod_payment_cmd(pECB, w_id, ld_id);
        else if (CMD_DELIVERY(cmd))
            return mod_delivery_cmd(pECB,
            w_id, ld_id);
        else if (CMD_ORDERSTATUS(cmd))
            return
            mod_orderstatus_cmd(pECB, w_id, ld_id);
        else if (CMD_STOCKLEVEL(cmd))
            return mod_stocklevel_cmd(pECB,
            w_id, ld_id);
        else if (CMD_EXIT(cmd))
            return mod_exit_cmd(pECB);
        else if (CMD_MENU(cmd))
            return mod_menu_cmd(pECB, w_id,
            ld_id);
        else
            return send_error_message(pECB, 0, COMMAND_UNDEFINED, "",
            w_id, ld_id, 0);

        return TRUE;
    }
}

int getcharvalue(char *iptr, char key, char **optr)
{
    *optr = iptr;

    while (iptr) {
        if ((key == *iptr) && ('=' == **optr)) {
            *optr = ++iptr;
            return TRUE;
        }
        while (iptr) {
            if ('&' == *iptr) {
                iptr++;
                break;
            }
        }
        iptr++;
    }
}

```

APPENDIX A - APPLICATION SOURCE CODE

```

    }
    return FALSE;
}

void readInit(char *output, char *parameter, char *default_value)
{
    if (_access(InitFile, 0x00) != NULL) {
        userlog("Cannot access init file: %s\n", InitFile);
        strcpy(output, default_value);
    }
    else
        GetPrivateProfileString("TPCC", parameter, default_value,
        output, MAXLEN, InitFile);
}

void allocateMemoryPool()
{
    userlog("Allocate Memory Pool\n");
    allocate_template_pool();
    allocate_response_pool();
    allocate_transaction_pool();
}

void allocate_response_pool()
{
    int i;

    InitializeCriticalSection(&(resp_global_pool.form_template_spinlock));
    resp_global_pool.form_template_length = BUF_SIZE;
    resp_global_pool.form_template_size =
    resp_global_pool.form_template_length * Maxterms;
    resp_global_pool.form_template_storage = (char
    *)malloc(resp_global_pool.form_template_size);
    resp_global_pool.free_slot = 0;
    resp_global_pool.free_list = (int *)malloc((Maxterms - 1) * sizeof(int));
    for (i = 0; i < (Maxterms - 2); i++) {
        resp_global_pool.free_list[i] = i + 1;
    }
    resp_global_pool.free_list[Maxterms - 2] = -1;
}

void make_txn_form_template(char *input_form, char
*input_form_template,
char *response_form, char *response_form_template, int txn_type)
{
    int length;
    /*
    For input form.
    */
    length = sprintf(input_form, FormHeader, mod_name);
    length = build_form_index(input_form, input_form_template,
    form_index[POOL_TYPE_TXN_INPUT][txn_type], length);
    length = (length + 16) & ~(int)7);

    txn_global_pool[POOL_TYPE_TXN_INPUT][txn_type].form_template_length =
    length+150;

    /*
    For output form.
    */
    length = sprintf(response_form, FormHeader, mod_name);
    length = build_form_index(response_form, response_form_template,
    form_index[POOL_TYPE_TXN_OUTPUT][txn_type], length);
    length = (length + 128) & ~(int)7);

    txn_global_pool[POOL_TYPE_TXN_OUTPUT][txn_type].form_template_length =
    length+250;
    return;
}

int build_form_index(char *form, char *form_template,
form_index_entry *f_index, int length)
{
    int current_index = 0;
    int i = 0;
    int j = 0;
    int current_length = length;

    while (form_template[j]) {
        if (form_template[j] != '#') {
            form[current_length] = form_template[j];
            i++; current_length++;
        }
        else {
            i = 0;
            f_index->index = current_length;
            while (form_template[j] == '#') {
                j++;
                form[current_length] = form_template[j];
                i++; current_length++;
            }
            f_index->length = j;
            f_index++; current_index++;
        }
    }
    form[current_length] = '\0'; current_length++;
    return current_length;
}

void allocate_template_pool()
{
#define FORM_PAD 64
#define GPOOL txn_global_pool[i_type][i_pool]

    char DeliveryInput[sizeof(DeliveryFormInput_Template)+FORM_PAD];
    char
    OrderStatusInput[sizeof(OrderStatusInput_Template)+FORM_PAD];
    char PaymentInput[sizeof(PaymentInput_Template)+FORM_PAD];
    char NewOrderInput[sizeof(NewOrderInput_Template)+FORM_PAD];
    char StockLevelInput[sizeof(StockLevelInput_Template)+FORM_PAD];

    char
    DeliveryOutput[sizeof(DeliveryFormOutput_Template)+FORM_PAD];
    char
    OrderStatusOutput[sizeof(OrderStatusOutput_Template)+FORM_PAD];
    char PaymentOutput[sizeof(PaymentOutput_Template)+FORM_PAD];
    char
    NewOrderOutput[sizeof(NewOrderOutput_Template)+FORM_PAD];
    char
    StockLevelOutput[sizeof(StockLevelOutput_Template)+FORM_PAD];
    int i_type, i_pool, i;

    make_txn_form_template(DeliveryInput, DeliveryFormInput_Template,
    DeliveryOutput, DeliveryFormOutput_Template,
    TXN_TYPE_DELIVERY);

    make_txn_form_template(OrderStatusInput,
    OrderStatusInput_Template,
    OrderStatusOutput, OrderStatusOutput_Template,
    TXN_TYPE_ORDERSTATUS);

    make_txn_form_template(PaymentInput, PaymentInput_Template,
    PaymentOutput, PaymentOutput_Template, TXN_TYPE_PAYMENT);

    make_txn_form_template(NewOrderInput, NewOrderInput_Template,
    NewOrderOutput, NewOrderOutput_Template,
    TXN_TYPE_NEWORDER);

    make_txn_form_template(StockLevelInput, StockLevelInput_Template,
    StockLevelOutput, StockLevelOutput_Template,
    TXN_TYPE_STOCKLEVEL);

    for (i_type = 0; i_type < POOL_TYPE_TXN_MAX; i_type++) {
        for (i_pool = 0; i_pool < TXN_TYPE_MAX; i_pool++) {
            int i, form_length;

            InitializeCriticalSection(&(GPOOL.form_template_spinlock));

            GPOOL.form_template_size = Maxterms;
            GPOOL.form_template_storage = (char *)malloc(Maxterms *
            GPOOL.form_template_length);
            GPOOL.free_list = (int *)malloc((Maxterms - 1) * sizeof(int));

            GPOOL.free_slot = 0;
            form_length = GPOOL.form_template_length;

            for (i = 0; i < (Maxterms - 2); i++) {
                GPOOL.free_list[i] = i + 1;
            }
            GPOOL.free_list[Maxterms-2] = -1;
        }
    }

    i_type = POOL_TYPE_TXN_INPUT; i_pool = TXN_TYPE_DELIVERY;
    strcpy((char *)GPOOL.form_template_storage,
    DeliveryInput);

    i_type = POOL_TYPE_TXN_OUTPUT; i_pool =
    TXN_TYPE_DELIVERY;
    strcpy((char *)GPOOL.form_template_storage,
    DeliveryOutput);

    i_type = POOL_TYPE_TXN_INPUT; i_pool =
    TXN_TYPE_STOCKLEVEL;
}

```

APPENDIX A - APPLICATION SOURCE CODE

```

strcpy((char *) (GPOOL.form_template_storage),
StockLevelInput);

i_type = POOL_TYPE_TXN_OUTPUT; i_pool =
TXN_TYPE_STOCKLEVEL;
strcpy((char *) (GPOOL.form_template_storage),
StockLevelOutput);

i_type = POOL_TYPE_TXN_INPUT; i_pool =
TXN_TYPE_NEWORDER;
strcpy((char *) (GPOOL.form_template_storage),
NewOrderInput);

i_type = POOL_TYPE_TXN_OUTPUT; i_pool =
TXN_TYPE_NEWORDER;
strcpy((char *) (GPOOL.form_template_storage),
NewOrderOutput);

i_type = POOL_TYPE_TXN_INPUT; i_pool =
TXN_TYPE_ORDERSTATUS;
strcpy((char *) (GPOOL.form_template_storage),
OrderStatusInput);

i_type = POOL_TYPE_TXN_OUTPUT; i_pool =
TXN_TYPE_ORDERSTATUS;
strcpy((char *) (GPOOL.form_template_storage),
OrderStatusOutput);

i_type = POOL_TYPE_TXN_INPUT; i_pool = TXN_TYPE_PAYMENT;
strcpy((char *) (GPOOL.form_template_storage),
PaymentInput);

i_type = POOL_TYPE_TXN_OUTPUT; i_pool =
TXN_TYPE_PAYMENT;
strcpy((char *) (GPOOL.form_template_storage),
PaymentOutput);

for (i_type = 0; i_type < POOL_TYPE_TXN_MAX; i_type++) {
for (i_pool = 0; i_pool < TXN_TYPE_MAX; i_pool++) {
for (i = 1; i < GPOOL.form_template_size; i++) {
memcpy((char *) (GPOOL.form_template_storage + i *
GPOOL.form_template_length),
(char *) (GPOOL.form_template_storage),
GPOOL.form_template_length);
}
}
}

#undef FORM_PAD
#undef GPOOL
}

void allocate_transaction_pool()
{
int i, pool_size;

pool_size = 0;
pool_size = MAX(pool_size, sizeof(T_connect_data));
pool_size = MAX(pool_size, sizeof(T_delivery_data));
pool_size = MAX(pool_size, sizeof(T_neworder_data));
pool_size = MAX(pool_size, sizeof(T_stocklevel_data));
pool_size = MAX(pool_size, sizeof(T_orderstatus_data));
pool_size = MAX(pool_size, sizeof(T_payment_data));
pool_size = MAX(pool_size, sizeof(T_login_data));

InitializeCriticalSection(&txn_data_pool.form_template_spinlock);
txn_data_pool.form_template_length = pool_size;
txn_data_pool.form_template_size =
txn_data_pool.form_template_length * Maxterms;
txn_data_pool.form_template_storage = (char
*) malloc(txn_data_pool.form_template_size);
txn_data_pool.free_slot = 0;
txn_data_pool.free_list = (int *) malloc((Maxterms - 1) * sizeof(int));
for (i = 0; i < (Maxterms - 2); i++) {
txn_data_pool.free_list[i] = i + 1;
}
txn_data_pool.free_list[Maxterms - 2] = -1;
}

/*
This processes the form that provides the w_id and d_id of a terminal.
*/
int mod_begin_cmd(EXTENSION_CONTROL_BLOCK *pECB)
{
char *ptr;
int w_id, d_id;

if ((getcharvalue(pECB->pszQueryString, '4', &ptr) == FALSE) || ((w_id =
atoi(ptr)) <= 0))
return sendform_welcome(pECB, "Error: Invalid Warehouse ID");

if ((getcharvalue(ptr, '5', &ptr) == FALSE) || ((d_id = atoi(ptr)) <= 0) ||
(d_id > 10))
return sendform_welcome(pECB, "Error: Invalid District DID");

/*
Perform activities related to database logon etc.
*/

return sendform_mainmenu(pECB, w_id, d_id);
}

int mod_exit_cmd(EXTENSION_CONTROL_BLOCK *pECB)
{
return sendform_welcome(pECB, "Goodbye!");
}

int mod_menu_cmd(EXTENSION_CONTROL_BLOCK *pECB, int w_id,
int d_id)
{
return sendform_mainmenu(pECB, w_id, d_id);
}

int get_wid_did(char *ptr, int *wid, int *did, char **optr)
{
int total = 0;
int c, pc;
int provided = FALSE;

*wid = *did = 0;
*optr = ptr;
pc = (int)(unsigned char) *ptr++;
if ((pc < '0') || (pc > '9'))
return FALSE;
c = (int)(unsigned char) *ptr++;
while ((c >= '0') && (c <= '9')) {
total = 10 * total + (pc - '0');
pc = c;
c = (int)(unsigned char) *ptr++;
provided = TRUE;
}
if (provided) {
*wid = total;
*did = (int) (pc - '0') + 1;
*optr = ptr;
return TRUE;
}
return FALSE;
}

int sendform_welcome(EXTENSION_CONTROL_BLOCK *pECB, char
*mesg)
{
char *response;
int index = -1, ret;

response = allocate_form(&resp_global_pool, &index);
sprintf(response, WelcomeForm, mod_name, mesg);
ret = send_response(pECB, response, strlen(response));
free_form(&resp_global_pool, response, index);
return ret;
}

int send_response(EXTENSION_CONTROL_BLOCK *pECB, char *form,
int size)
{
HSE_RESPONSE_VECTOR vec;
HSE_VECTOR_ELEMENT elem;
char szHeader[256];
DWORD nHeader = sprintf(szHeader, "Content-Type: text/html\r\n"
"Content-Length: %d\r\n" "Connection: Keep-Alive\r\n\r\n", size);

elem.ElementType =
HSE_VECTOR_ELEMENT_TYPE_MEMORY_BUFFER;
elem.cbOffset = 0;
elem.cbSize = size;
elem.pvContext = form;

vec.pszHeaders = szHeader;
vec.lpDataElementArray = &elem;
vec.nElementCount = 1;
}

```


APPENDIX A - APPLICATION SOURCE CODE

```

vec.pszStatus = "200 OK";
vec.dwFlags = HSE_IO_SEND_HEADERS;

if (!pECB->ServerSupportFunction(pECB->ConnID,
HSE_REQ_VECTOR_SEND, &vec, 0, 0))
{
    userlog("ServerSupportFunction() returns false");
    return FALSE;
}

pECB->dwHttpStatusCode = 200;

return TRUE;
}

char *allocate_form_new(form_template_pool *pool, int index)
{
    int pool_index=index-StartTerm;
    if (pool_index <= Maxterms)
        return (char *) (pool->form_template_storage +
pool_index * pool->form_template_length);
    else
        userlog("allocate_form_new failed
max_threads = %d", Maxterms);
    return (char *)0;
}

char *allocate_form(form_template_pool *pool, int *pool_index)
{
    int current;

    EnterCriticalSection(&(pool->form_template_spinlock));
    current = pool->free_slot;
    if (current >= 0) {
        pool->free_slot = pool->free_list[current];
        LeaveCriticalSection(&(pool->form_template_spinlock));
        *pool_index = current;
        return (char *) (pool->form_template_storage + current * pool-
>form_template_length);
    }
    LeaveCriticalSection(&(pool->form_template_spinlock));
    userlog("allocate_form failed max_threads = %d", Maxterms);
    *pool_index = -1;
    return (char *)0;
}

void free_form(form_template_pool *pool, char *form_template, int
pool_index)
{
    if (! form_template || pool_index < 0) return;

    EnterCriticalSection(&(pool->form_template_spinlock));
    pool->free_list[pool_index] = pool->free_slot;
    pool->free_slot = pool_index;
    LeaveCriticalSection(&(pool->form_template_spinlock));
}

int send_error_message(EXTENSION_CONTROL_BLOCK *pECB, int
error_type, int error,
char *error_msg, int w_id, int ld_id, void *context)
{
    char *response;
    char *mesg = "";
    int index = -1, ret;
    T_error_message *err = error_message;

    while (err->error_code) {
        if (err->error_code == error) {
            mesg = err->error_mesg; break;
        }
        err++;
    }
    response = allocate_form(&resp_global_pool, &index);
    sprintf(response, ErrorForm, mod_name, WDID(w_id, ld_id), error_type,
error, mesg, error_msg);
    ret=send_response(pECB, response, strlen(response));
    free_form(&resp_global_pool, response, index);
    return ret;
}

int sendform_mainmenu(EXTENSION_CONTROL_BLOCK *pECB, int
w_id, int ld_id)
{
    char *response;
    int index = -1, ret;

    response = allocate_form(&resp_global_pool, &index);
    sprintf(response, MainForm, mod_name, WDID(w_id, ld_id), "");
    ret=send_response(pECB, response, strlen(response));
    free_form(&resp_global_pool, response, index);
    return ret;
}

int sendform_neworderinput(EXTENSION_CONTROL_BLOCK *pECB, int
w_id, int ld_id)
{
    char *form;
    int index = w_id*10+ld_id, ret;
    form_template_pool *pool;
#define SUBI POOL_TYPE_TXN_INPUT][TXN_TYPE_NEWORDER

    pool = &txn_global_pool[SUBI];

#ifdef NEW_ALLOCATE_FORM
    form = allocate_form_new(pool, index);
#else
    form = allocate_form(pool, &index);
#endif

    fill_number(form, WDID(w_id, ld_id),
form_index[SUBI][NO_TERMID].index,
form_index[SUBI][NO_TERMID].length);
    fill_number(form, w_id, form_index[SUBI][NO_WID].index,
form_index[SUBI][NO_WID].length);
    ret=send_response(pECB, form, strlen(form));

#ifdef NEW_ALLOCATE_FORM
    free_form(pool, form, index);
#endif

    return ret;
#undef SUBI
}

int sendform_deliveryinput(EXTENSION_CONTROL_BLOCK *pECB, int
w_id, int ld_id)
{
    char *form;
    int index = w_id*10+ld_id, ret;
    form_template_pool *pool;
#define SUBI POOL_TYPE_TXN_INPUT][TXN_TYPE_DELIVERY

    pool = &txn_global_pool[SUBI];

#ifdef NEW_ALLOCATE_FORM
    form = allocate_form_new(pool, index);
#else
    form = allocate_form(pool, &index);
#endif

    fill_number(form, WDID(w_id, ld_id),
form_index[SUBI][DE_TERMID].index,
form_index[SUBI][DE_TERMID].length);
    fill_number(form, w_id, form_index[SUBI][DE_WID].index,
form_index[SUBI][DE_WID].length);
    ret=send_response(pECB, form, strlen(form));

#ifdef NEW_ALLOCATE_FORM
    free_form(pool, form, index);
#endif

    return ret;
#undef SUBI
}

int sendform_stocklevelinput(EXTENSION_CONTROL_BLOCK *pECB,
int w_id, int ld_id)
{
    char *form;
    int index = w_id*10+ld_id, ret;
    form_template_pool *pool;
#define SUBI POOL_TYPE_TXN_INPUT][TXN_TYPE_STOCKLEVEL

    pool = &txn_global_pool[SUBI];

#ifdef NEW_ALLOCATE_FORM
    form = allocate_form_new(pool, index);
#else
    form = allocate_form(pool, &index);
#endif
}

```

APPENDIX A - APPLICATION SOURCE CODE

```

fill_number(form, WIDID(w_id, Id_id),
form_index[SUBI][SL_TERMID].index,
form_index[SUBI][SL_TERMID].length);
fill_number(form, w_id, form_index[SUBI][SL_WID].index,
form_index[SUBI][SL_WID].length);
fill_number(form, Id_id, form_index[SUBI][SL_DID].index,
form_index[SUBI][SL_DID].length);
ret=send_response(pECB, form, strlen(form));

#endif

#define NEW_ALLOCATE_FORM
free_form(pool, form, index);
#endif

return ret;
#undef SUBI
}

int sendform_paymentinput(EXTENSION_CONTROL_BLOCK *pECB, int
w_id, int Id_id)
{
char *form;
int index = w_id*10+Id_id, ret;
form_template_pool *pool;
#define SUBI POOL_TYPE_TXN_INPUT[TXN_TYPE_PAYMENT

pool = &txn_global_pool[SUBI];

#ifdef NEW_ALLOCATE_FORM
form = allocate_form_new(pool, index);
#else
form = allocate_form(pool, &index);
#endif

fill_number(form, WIDID(w_id, Id_id),
form_index[SUBI][PA_INPUT_TERMID].index,
form_index[SUBI][PA_INPUT_TERMID].length);

fill_number(form, w_id, form_index[SUBI][PA_INPUT_WID].index,
form_index[SUBI][PA_INPUT_WID].length);

ret=send_response(pECB, form, strlen(form));

#endif

#define NEW_ALLOCATE_FORM
free_form(pool, form, index);
#endif

return ret;
#undef SUBI
}

int sendform_orderstatusinput(EXTENSION_CONTROL_BLOCK *pECB,
int w_id, int Id_id)
{
char *form;
int index = w_id*10+Id_id, ret;
form_template_pool *pool;
#define SUBI POOL_TYPE_TXN_INPUT[TXN_TYPE_ORDERSTATUS

pool = &txn_global_pool[SUBI];

#ifdef NEW_ALLOCATE_FORM
form = allocate_form_new(pool, index);
#else
form = allocate_form(pool, &index);
#endif

fill_number(form, WIDID(w_id, Id_id),
form_index[SUBI][OS_TERMID].index,
form_index[SUBI][OS_TERMID].length);
fill_number(form, w_id, form_index[SUBI][OS_WID].index,
form_index[SUBI][OS_WID].length);
ret=send_response(pECB, form, strlen(form));

#endif

#define NEW_ALLOCATE_FORM
free_form(pool, form, index);
#endif

return ret;
#undef SUBI
}

void fill_string(char *form, char *string, int index, int length, int *shift)
{
char *ptr;
int i;

for (i=0, ptr=string; i<length && (*ptr)!='\0'; i++, ptr++){
form[index+i]=(char)(*ptr);
switch (*ptr) {
case '\n' : (*shift)+=5;
break;
case '&' : (*shift)+=4;
break;
case '>' : (*shift)+=3;
break;
case '<' : (*shift)+=3;
break;
}
}

for (; i<length; i++)
form[index+i]=' ';

void adjust_form(char *form, int *indexes, int *length, int size, int formlen,
int totalshift)
{
int ptr, ptr2, ind;

for (ptr=formlen, ptr2=formlen+totalshift, ind=size-1; ptr>=0; ptr--) {
if (ind>=0 && ptr<indexes[ind])
ind--;
if (ind<0 || ptr>=indexes[ind]+length[ind])
form[ptr2--]=form[ptr];
else if (ptr>=indexes[ind] && ptr<indexes[ind]+length[ind])
switch (form[ptr]) {
case '\n' : form[ptr2--]=' '; form[ptr2--]='t'; form[ptr2--]='o';
form[ptr2--]='u'; form[ptr2--]='q'; form[ptr2--]='&';
break;
case '&' : form[ptr2--]=' '; form[ptr2--]='p'; form[ptr2--]='m';
form[ptr2--]='a'; form[ptr2--]='&';
break;
case '>' : form[ptr2--]=' '; form[ptr2--]='t';
form[ptr2--]='l'; form[ptr2--]='&';
break;
case '<' : form[ptr2--]=' '; form[ptr2--]='t';
form[ptr2--]='g'; form[ptr2--]='&';
break;
default : form[ptr2--]=form[ptr];
break;
}
}
}

void fill_double(char *form, double value, int index, int length)
{
int ptr = index + length - 1, DecPtr = ptr - 2;
int avalue=abs((int)(value*100.0));
int is_neg=(value<0.0);
char asterick[] = "*****";

if (avalue==0)
form[ptr--]='0';

while ((avalue!=0 && ptr>=index) || ptr > DecPtr) {
form[ptr--]='0' + avalue % 10;
avalue/=10;
if (ptr == DecPtr)
form[ptr--]='.';
}

if (ptr < index && (is_neg || avalue!=0))
memcpy(form+index, asterick, length);
else {
if (is_neg)
form[ptr--]='-';
while (ptr>=index)
form[ptr--]=' ';
}
}

void fill_number(char *form, int value, int index, int length)
{
char *pstart = (char *)form + index;
char *pend = pstart + length - 1;
char asterick[] = "*****";
int slen = length;
int is_neg, avalue;

is_neg = (value < 0);
avalue = abs(value);

do {
*pend = (avalue % 10) + '0';
avalue = avalue / 10;
if (--length) pend--;
} while (length);
/*
if (avalue==0 && length >0) {

```

APPENDIX A - APPLICATION SOURCE CODE

```

do {
    *pend=' ';
    if (--length) pend--;
} while (length);
*/
}
if (avalue) {
    memcpy(pstart, asterick, slen);
    return;
}

if (is_neg) {
    if (*pend == '0') {
        *pend = '-';
    } else {
        memcpy(pstart, asterick, slen);
        return;
    }
}
}

int parse_query_string(char *iptr, int max_cnt,
    char *txn_chars, value_index_entry *txn_vals)
{
    char *ptr = iptr;
    int key, i;

    for (i = 0; i < max_cnt; i++) {
        key = txn_chars[i];
        txn_vals[i].value = NULL;
        txn_vals[i].length = 0;
        if ((key == *ptr) && (&'-' == *++ptr)) {
            txn_vals[i].value = ++ptr;
        }
        while (ptr && ptr[0] != '\0') {
            if (&'-' == *ptr) {
                ptr++; break;
            }
            ptr++; txn_vals[i].length++;
        }
    }

    return TRUE;
}

int get_number(char *ptr, int *value)
{
    int c, total;
    int has_value = FALSE;
    int is_neg = FALSE;

    if (*ptr == '-') {
        is_neg = TRUE; ptr++;
    }
    c = (int) (unsigned char) *ptr++;

    total = 0;
    while ((c >= '0') && (c <= '9')) {
        total = 10 * total + (c - '0');
        c = (int) (unsigned char) *ptr++;
        has_value = TRUE;
    }
    if ((c == '\0') || ((&'-' == c) && has_value)) {
        *value = is_neg ? (0 - total) : total;
        return TRUE;
    }
    *value = 0;
    return FALSE;
}

/*****
*****
* mod transaction output
*****
*****/

int mod_neworder_query(EXTENSION_CONTROL_BLOCK *pECB, int
w_id, int ld_id, char *ptr)
{
    T_neworder_data *pdata;
    int index = w_id*10+ld_id, ret;
    int status = SUCCESS;

#ifdef NEW_ALLOCATE_FORM
    pdata = (T_neworder_data *)allocate_form_new(&txn_data_pool, index);
#else
    pdata = (T_neworder_data *)allocate_form(&txn_data_pool, &index);
#endif

    pdata->w_id = w_id; pdata->ld_id = ld_id; pdata->context = (void
*)pECB;

    status = parse_neworder_query(ptr, pdata);
    if (status != SUCCESS) {
        ret=send_error_message(pECB, 0, status, "", w_id, ld_id, 0);
    }

#ifdef NEW_ALLOCATE_FORM
    free_form(&txn_data_pool, (char *) pdata, index);
#endif

    return ret;
}

status = mod_tpcc_neworder(pdata);
ret=sendform_neworderoutput(status, pdata);

#ifdef NEW_ALLOCATE_FORM
    free_form(&txn_data_pool, (char *) pdata, index);
#endif

return ret;
}

int mod_delivery_query(EXTENSION_CONTROL_BLOCK *pECB, int
w_id, int ld_id, char *ptr)
{
    DelQueue_info *queue_info;
    int index=-1, ret;
    int status = SUCCESS;

    queue_info = findFreeDelQueue();
    queue_info->pdata->w_id = w_id;
    queue_info->pdata->ld_id = ld_id;
    queue_info->pdata->context = (void *)pECB;

    status = parse_delivery_query(ptr, queue_info->pdata);
    if (status != SUCCESS) {
        ret=send_error_message(pECB, 0, status, "", w_id, ld_id, 0);
        return ret;
    }

    EnqueueDel(queue_info);
    if (!SetEvent(waitDelWork)) {
        userlog("Error on SetEvent(waitDelWork)\n");
        ret=sendform_deliveryoutput(status, queue_info->pdata);
        ret=FALSE;
    }
    else ret=sendform_deliveryoutput(status, queue_info->pdata);
    return ret;
}

int mod_payment_query(EXTENSION_CONTROL_BLOCK *pECB, int
w_id, int ld_id, char *ptr)
{
    T_payment_data *pdata;
    int index = w_id*10+ld_id, ret;
    int status = SUCCESS;

#ifdef NEW_ALLOCATE_FORM
    pdata = (T_payment_data *)allocate_form_new(&txn_data_pool, index);
#else
    pdata = (T_payment_data *)allocate_form(&txn_data_pool, &index);
#endif

    pdata->w_id = w_id; pdata->ld_id = ld_id; pdata->context = (void
*)pECB;

    status = parse_payment_query(ptr, pdata);
    if (status != SUCCESS) {
        ret=send_error_message(pECB, 0, status, "", w_id, ld_id, 0);
    }

#ifdef NEW_ALLOCATE_FORM
    free_form(&txn_data_pool, (char *) pdata, index);
#endif

    return ret;
}

status = mod_tpcc_payment(pdata);
ret=sendform_paymentoutput(status, pdata);

#ifdef NEW_ALLOCATE_FORM
    free_form(&txn_data_pool, (char *) pdata, index);
#endif

return ret;
}

```

APPENDIX A - APPLICATION SOURCE CODE

```

int mod_orderstatus_query(EXTENSION_CONTROL_BLOCK *pECB, int
w_id, int ld_id, char *ptr)
{
    T_orderstatus_data *pdata;
    int index = w_id*10+ld_id, ret;
    int status = SUCCESS;

#ifdef NEW_ALLOCATE_FORM
    pdata = (T_orderstatus_data *)allocate_form_new(&txn_data_pool,
index);
#else
    pdata = (T_orderstatus_data *)allocate_form(&txn_data_pool, &index);
#endif

    pdata->w_id = w_id; pdata->ld_id = ld_id; pdata->context = (void
*)pECB;

    status = parse_orderstatus_query(ptr, pdata);
    if (status != SUCCESS) {
        ret=send_error_message(pECB, 0, status, "", w_id, ld_id, 0);
    }

#ifdef NEW_ALLOCATE_FORM
    free_form(&txn_data_pool, (char *) pdata, index);
#endif

    return ret;
}

status = mod_tpcc_orderstatus(pdata);
ret=sendform_orderstatusoutput(status, pdata);

#ifdef NEW_ALLOCATE_FORM
    free_form(&txn_data_pool, (char *) pdata, index);
#endif

    return ret;
}

int mod_stocklevel_query(EXTENSION_CONTROL_BLOCK *pECB, int
w_id, int ld_id, char *ptr)
{
    T_stocklevel_data *pdata;
    int index = w_id*10+ld_id, ret;
    int status = SUCCESS;

#ifdef NEW_ALLOCATE_FORM
    pdata = (T_stocklevel_data *)allocate_form_new(&txn_data_pool,
index);
#else
    pdata = (T_stocklevel_data *)allocate_form(&txn_data_pool, &index);
#endif

    pdata->w_id = w_id; pdata->ld_id = ld_id; pdata->context = (void
*)pECB;

    status = parse_stocklevel_query(ptr, pdata);

    if (status != SUCCESS) {
        ret=send_error_message(pECB, 0, status, "", w_id, ld_id, 0);
    }

#ifdef NEW_ALLOCATE_FORM
    free_form(&txn_data_pool, (char *) pdata, index);
#endif

    return ret;
}

status = mod_tpcc_stocklevel(pdata);
ret=sendform_stockleveloutput(status, pdata);

#ifdef NEW_ALLOCATE_FORM
    free_form(&txn_data_pool, (char *) pdata, index);
#endif

    return ret;
}

/*****
* parse transaction query
*****/

int parse_neworder_query(char *iptr, T_neworder_data *pdata)
{
    int status, i, items;
    value_index_entry value_ptr[NO_INPUT_MAX];
    char *ptr;

```

```

status = parse_query_string(iptr, NO_INPUT_MAX, neworder_chars,
value_ptr);

if ((ptr = value_ptr[NO_INPUT_DID].value) == NULL) {
    return NEWORDER_MISSING_DID;
}
if ((status = get_number(ptr, &pdata->d_id)) == FALSE) {
    return NEWORDER_DISTRICT_INVALID;
}
if ((pdata->d_id > 10) || (pdata->d_id < 1)) {
    return NEWORDER_DISTRICT_RANGE;
}

if ((ptr = value_ptr[NO_INPUT_CID].value) == NULL) {
    return NEWORDER_CUSTOMER_KEY;
}
if ((status = get_number(ptr, &pdata->c_id)) == FALSE) {
    return NEWORDER_CUSTOMER_INVALID;
}
if ((pdata->c_id > 3000) || (pdata->c_id <= 0)) {
    return NEWORDER_CUSTOMER_RANGE;
}

pdata->o_all_local = 1;

for (i = 0, items = 0; i < 15; i++) {
    if ((ptr = value_ptr[i*3 + NO_INPUT_IID00].value) == NULL) {
        return NEWORDER_MISSING_IID_KEY;
    }
    if (value_ptr[i*3 + NO_INPUT_IID00].length > 0) {
        if ((status = get_number(ptr, &pdata->o_orderline[items].ol_i_id))
== FALSE) {
            return NEWORDER_ITEMID_INVALID;
        }
        if ((ptr = value_ptr[i*3 + NO_INPUT_SPW00].value) == NULL) {
            return NEWORDER_MISSING_SUPPW_KEY;
        }
        if ((status = get_number(ptr, &pdata-
>o_orderline[items].ol_supply_w_id)) == FALSE) {
            return NEWORDER_SUPPW_INVALID;
        }
        if ((ptr = value_ptr[i*3 + NO_INPUT_QTY00].value) == NULL) {
            return NEWORDER_MISSING_QTY_KEY;
        }
        if ((status = get_number(ptr, &pdata-
>o_orderline[items].ol_quantity)) == FALSE) {
            return NEWORDER_QTY_INVALID;
        }
        /*
        We use item number 111111 as the bad one.
        */
        if ((pdata->o_orderline[items].ol_i_id > 999999) ||
(pdata->o_orderline[items].ol_i_id < 1)) {
            return NEWORDER_ITEMID_RANGE;
        }
        if ((pdata->o_orderline[items].ol_quantity >= 100) ||
(pdata->o_orderline[items].ol_quantity < 1)) {
            return NEWORDER_QTY_RANGE;
        }
        if (pdata->o_all_local && pdata->o_orderline[items].ol_supply_w_id
!= pdata->w_id) {
            pdata->o_all_local = 0;
        }
        items++;
    } else {
        if (value_ptr[i*3 + NO_INPUT_SPW00].value == NULL) {
            return NEWORDER_MISSING_SUPPW_KEY;
        }
        if (value_ptr[i*3 + NO_INPUT_SPW00].length > 0) {
            return NEWORDER_SUPPW_WITHOUT_ITEMID;
        }
        if (value_ptr[i*3 + NO_INPUT_QTY00].value == NULL) {
            return NEWORDER_MISSING_QTY_KEY;
        }
        if (value_ptr[i*3 + NO_INPUT_QTY00].length > 0) {
            return NEWORDER_QTY_WITHOUT_ITEMID;
        }
    }
}

if (items == 0) {
    return NEWORDER_NOITEMS_ENTERED;
}
pdata->o_ol_cnt = items;
return SUCCESS;
}

int parse_payment_query(char *iptr, T_payment_data *pdata)
{
    int status, see_dot, i;
    value_index_entry value_ptr[PA_INPUT_MAX];
    char *ptr;

```

APPENDIX A - APPLICATION SOURCE CODE

```

status = parse_query_string(iptr, PA_INPUT_MAX, payment_chars,
value_ptr);

if ((ptr = value_ptr[PA_INPUT_DID].value) == NULL) {
    return PAYMENT_MISSING_DID_KEY;
}
if ((status = get_number(ptr, &pdata->d_id) == FALSE) {
    return PAYMENT_DISTRICT_INVALID;
}
if ((pdata->d_id > 10) || (pdata->d_id < 1)) {
    return PAYMENT_DISTRICT_RANGE;
}

if ((ptr = value_ptr[PA_INPUT_CID].value) == NULL) {
    return PAYMENT_MISSING_CID_KEY;
}

if (value_ptr[PA_INPUT_CID].length == 0) { /* c_id == 0 */
    pdata->c_id = 0;
    pdata->by_last_name = 1;
    if ((ptr = value_ptr[PA_INPUT_NAME].value) == NULL) {
        return PAYMENT_MISSING_CLASTNAME_KEY;
    }
    if (value_ptr[PA_INPUT_NAME].length == 0) {
        return PAYMENT_MISSING_CLASTNAME;
    }
    memcpy(pdata->c_last, ptr, value_ptr[PA_INPUT_NAME].length);
    pdata->c_last[value_ptr[PA_INPUT_NAME].length] = '\0';
    STRING_UPPERCASE(pdata->c_last);
    if (value_ptr[PA_INPUT_NAME].length > 16) {
        return PAYMENT_LAST_NAME_TO_LONG;
    }
} else { /* c_id != 0 */
    pdata->by_last_name = 0;
    if ((status = get_number(ptr, &pdata->c_id) == FALSE) {
        return PAYMENT_CUSTOMER_INVALID;
    }
    if ((pdata->c_id > 3000) || (pdata->c_id <= 0)) {
        return PAYMENT_CID_RANGE;
    }
    if ((ptr = value_ptr[PA_INPUT_NAME].value) == NULL) {
        return PAYMENT_MISSING_CLASTNAME_KEY;
    }
    if (value_ptr[PA_INPUT_NAME].length > 0) {
        return PAYMENT_CID_AND_CLASTNAME;
    }
}

if ((ptr = value_ptr[PA_INPUT_CDID].value) == NULL) {
    return PAYMENT_MISSING_CDI_KEY;
}
if ((status = get_number(ptr, &pdata->c_d_id) == FALSE) {
    return PAYMENT_CDI_INVALID;
}
if ((pdata->c_d_id > 10) || (pdata->c_d_id < 1)) {
    return PAYMENT_CDI_RANGE;
}
if ((ptr = value_ptr[PA_INPUT_CWID].value) == NULL) {
    return PAYMENT_MISSING_CWL_KEY;
}
if ((status = get_number(ptr, &pdata->c_w_id) == FALSE) {
    return PAYMENT_CWL_INVALID;
}
if ((ptr = value_ptr[PA_INPUT_AMT].value) == NULL) {
    return PAYMENT_MISSING_HAM_KEY;
}

see_dot = FALSE;

for (i = 0; i < value_ptr[PA_INPUT_AMT].length; i++) {
    if (ptr[i] == '\0') {
        return PAYMENT_HAM_INVALID;
    }
    if (ptr[i] == '.') {
        if (see_dot) {
            return PAYMENT_HAM_INVALID;
        } else {
            see_dot = TRUE;
        }
    }
    else {
        if ((ptr[i] > '9') || (ptr[i] < '0')) {
            return PAYMENT_HAM_INVALID;
        }
    }
}
pdata->h_amount = atof(ptr);

if ((pdata->h_amount < 0) || (pdata->h_amount >= 10000.0)) {
    return PAYMENT_HAM_RANGE;
}
return SUCCESS;
}

```

```

int parse_delivery_query(char *iptr, T_delivery_data *pdata)
{
    int status = SUCCESS;
    value_index_entry value_ptr[DE_INPUT_MAX];
    int i, see_dot;
    char *ptr;

    status = parse_query_string(iptr, DE_INPUT_MAX, delivery_chars,
value_ptr);

    if ((ptr = value_ptr[DE_INPUT_DID].value) == NULL) {
        return DELIVERY_MISSING_OCD_KEY;
    }
    if ((status = get_number(ptr, &pdata->o_carrier_id) == FALSE) {
        return DELIVERY_CARRIER_INVALID;
    }
    if ((pdata->o_carrier_id > 10) || (pdata->o_carrier_id < 1)) {
        return DELIVERY_CARRIER_ID_RANGE;
    }

    if ((ptr = value_ptr[DE_INPUT_QTIME].value) == NULL) {
        GetLocalTime(&(pdata->enqueue_date_time));
        pdata->enqueue_time = GetTickCount();
        return SUCCESS;
    }

    if (value_ptr[DE_INPUT_QTIME].length == 0) {
        return DELIVERY_MISSING_QUEUEUTIME_KEY;
    }

    see_dot = FALSE;

    for (i = 0; i < value_ptr[DE_INPUT_QTIME].length; i++) {
        if (ptr[i] == '\0') {
            return DELIVERY_MISSING_QUEUEUTIME_KEY;
        }
        if (ptr[i] == '.') {
            if (see_dot) {
                return DELIVERY_MISSING_QUEUEUTIME_KEY;
            } else {
                see_dot = TRUE;
            }
        }
        else {
            if ((ptr[i] > '9') || (ptr[i] < '0')) {
                return DELIVERY_MISSING_QUEUEUTIME_KEY;
            }
        }
    }

    pdata->enqueue_time = atof(ptr);

    return SUCCESS;
}

int parse_orderstatus_query(char *iptr, T_orderstatus_data *pdata)
{
    int status = SUCCESS;
    value_index_entry value_ptr[OS_INPUT_MAX];
    char *ptr;

    status = parse_query_string(iptr, OS_INPUT_MAX, orderstatus_chars,
value_ptr);

    if ((ptr = value_ptr[OS_INPUT_DID].value) == NULL) {
        return ORDERSTATUS_MISSING_DID_KEY;
    }
    if ((status = get_number(ptr, &pdata->d_id) == FALSE) {
        return ORDERSTATUS_DID_INVALID;
    }
    if ((pdata->d_id > 10) || (pdata->d_id < 1)) {
        return ORDERSTATUS_DID_RANGE;
    }

    if ((ptr = value_ptr[OS_INPUT_CID].value) == NULL) {
        return ORDERSTATUS_MISSING_CID_KEY;
    }

    if (value_ptr[OS_INPUT_CID].length == 0) {
        pdata->c_id = 0;
        pdata->by_last_name = 1;
        if ((ptr = value_ptr[OS_INPUT_NAME].value) == NULL) {
            return ORDERSTATUS_MISSING_CLASTNAME_KEY;
        }
        memcpy(pdata->c_last, ptr, value_ptr[OS_INPUT_NAME].length);
        pdata->c_last[value_ptr[OS_INPUT_NAME].length] = '\0';
        STRING_UPPERCASE(pdata->c_last);
        if (value_ptr[OS_INPUT_NAME].length > 16) {
            return ORDERSTATUS_CLASTNAME_RANGE;
        }
    }
    else { /* c_id != 0 */
        pdata->by_last_name = 0;

```

APPENDIX A - APPLICATION SOURCE CODE

```

if ((status = get_number(ptr, &pdata->c_id) == FALSE) {
    return ORDERSTATUS_CID_INVALID;
}
if ((pdata->c_id > 3000) || (pdata->c_id <= 0)) {
    return ORDERSTATUS_CID_RANGE;
}
if ((ptr = value_ptr[OS_INPUT_NAME].value) == NULL) {
    return ORDERSTATUS_MISSING_CLASTNAME_KEY;
}
if (value_ptr[OS_INPUT_NAME].length > 0) {
    return ORDERSTATUS_CID_AND_CLASTNAME;
}
}
return SUCCESS;
}

int parse_stocklevel_query(char *iptr, T_stocklevel_data *pdata)
{
    value_index_entry value_ptr[SL_INPUT_MAX];
    char *ptr;
    int status = SUCCESS;

    status = parse_query_string(iptr, SL_INPUT_MAX, stocklevel_chars,
value_ptr);

    if ((ptr = value_ptr[SL_INPUT_THRESHOLD].value) == NULL) {
        return STOCKLEVEL_MISSING_THRESHOLD_KEY;
    }
    if ((status = get_number(ptr, &pdata->threshold) == FALSE) {
        return STOCKLEVEL_THRESHOLD_INVALID;
    }
    if ((pdata->threshold >= 100) || (pdata->threshold < 0)) {
        return STOCKLEVEL_THRESHOLD_RANGE;
    }

    return SUCCESS;
}

/*****
*****
* sendform output
*****
*****/

int sendform_neworderoutput(int status, T_neworder_data *pdata)
{
    EXTENSION_CONTROL_BLOCK *pECB;
    int w_id, ld_id, ret;
    char *form, *form2;
    char blank[] = " ";
    int index = -1, formlen, strcount=0, shift=0, i, j, lineStart=15;
    int indexes[NO_FORMINDEX_SIZE], indLen[NO_FORMINDEX_SIZE],
index2=-1;
    form_template_pool *pool;

#define SUBI POOL_TYPE_TXN_OUTPUT[TXN_TYPE_NEWORDER

    w_id = pdata->w_id; ld_id = pdata->ld_id;
    pECB = (EXTENSION_CONTROL_BLOCK *) pdata-
>context;

    if (status != SUCCESS && status != DB_SUCCESS) {
        return send_error_message(pECB, 0, status, "", w_id, ld_id, 0);
    }

    if (pdata->txn_status != DB_RETURN_OCI_SUCCESS) {
        return send_error_message(pECB, 0, pdata-
>txn_status, " --- DATABASE ERROR ", w_id, ld_id, 0);
    }

    pool = &txn_global_pool[SUBI];
    index=w_id*10+ld_id;

#ifdef NEW_ALLOCATE_FORM
    form = allocate_form_new(pool, index);
#else
    form = allocate_form(pool, &index);
#endif

    formlen=strlen(form);

    fill_number(form, WIDID(w_id, ld_id),
form_index[SUBI][NO_TERMID].index,
form_index[SUBI][NO_TERMID].length);
    fill_number(form, w_id, form_index[SUBI][NO_WID].index,
form_index[SUBI][NO_WID].length);

    fill_number(form, pdata->d_id, form_index[SUBI][NO_DID].index,
form_index[SUBI][NO_DID].length);

```

```

if (!pdata->status) {
    fill_string(form, pdata->o_entry_d.DateString,
form_index[SUBI][NO_DATE].index,
form_index[SUBI][NO_DATE].length, &shift);
    indexes[strcount]=form_index[SUBI][NO_DATE].index;
    indLen[strcount++]=form_index[SUBI][NO_DATE].length;
} else {
    memcpy(form+form_index[SUBI][NO_DATE].index, blank,
form_index[SUBI][NO_DATE].length);
}

fill_number(form, pdata->c_id, form_index[SUBI][NO_CID].index,
form_index[SUBI][NO_CID].length);

fill_string(form, pdata->c_last, form_index[SUBI][NO_NAME].index,
form_index[SUBI][NO_NAME].length, &shift);
indexes[strcount]=form_index[SUBI][NO_NAME].index;
indLen[strcount++]=form_index[SUBI][NO_NAME].length;

fill_string(form, pdata->c_credit, form_index[SUBI][NO_CREDIT].index,
form_index[SUBI][NO_CREDIT].length, &shift);
indexes[strcount]=form_index[SUBI][NO_CREDIT].index;
indLen[strcount++]=form_index[SUBI][NO_CREDIT].length;

fill_double(form, pdata->c_discount,
form_index[SUBI][NO_DISC].index,
form_index[SUBI][NO_DISC].length);

fill_number(form, pdata->o_id, form_index[SUBI][NO_OID].index,
form_index[SUBI][NO_OID].length);

fill_number(form, pdata->o_ol_cnt, form_index[SUBI][NO_LINES].index,
form_index[SUBI][NO_LINES].length);

fill_double(form, pdata->w_tax, form_index[SUBI][NO_WTAX].index,
form_index[SUBI][NO_WTAX].length);

fill_double(form, pdata->d_tax, form_index[SUBI][NO_DTAX].index,
form_index[SUBI][NO_DTAX].length);

if (!pdata->status) {
    for (i=0; i<pdata->o_ol_cnt; i++) {
        fill_number(form, pdata->o_orderline[i].ol_supply_w_id,
form_index[SUBI][NO_SUPPW+i*8].index,
form_index[SUBI][NO_SUPPW+i*8].length);

        fill_number(form, pdata->o_orderline[i].ol_i_id,
form_index[SUBI][NO_ITEMID+i*8].index,
form_index[SUBI][NO_ITEMID+i*8].length);

        fill_string(form, pdata->o_orderline[i].i_name,
form_index[SUBI][NO_INAME+i*8].index,
form_index[SUBI][NO_INAME+i*8].length, &shift);
        indexes[strcount]=form_index[SUBI][NO_INAME+i*8].index;
        indLen[strcount++]=form_index[SUBI][NO_INAME+i*8].length;

        fill_number(form, pdata->o_orderline[i].ol_quantity,
form_index[SUBI][NO_QTY+i*8].index,
form_index[SUBI][NO_QTY+i*8].length);

        fill_number(form, pdata->o_orderline[i].s_quantity,
form_index[SUBI][NO_STOCK+i*8].index,
form_index[SUBI][NO_STOCK+i*8].length);

        fill_string(form, pdata->o_orderline[i].b_g,
form_index[SUBI][NO_BRAND+i*8].index,
form_index[SUBI][NO_BRAND+i*8].length, &shift);
        indexes[strcount]=form_index[SUBI][NO_BRAND+i*8].index;
        indLen[strcount++]=form_index[SUBI][NO_BRAND+i*8].length;

        fill_double(form, pdata->o_orderline[i].i_price,
form_index[SUBI][NO_PRICE+i*8].index,
form_index[SUBI][NO_PRICE+i*8].length);

        fill_double(form, pdata->o_orderline[i].ol_amount,
form_index[SUBI][NO_AMOUNT+i*8].index,
form_index[SUBI][NO_AMOUNT+i*8].length);
    }

    for (j=NO_SUPPW+i*8; j<NO_SUPPW+15*8; j++)

    memcpy(form+form_index[SUBI][j].index,blank,form_index[SUBI][j].length);

    for (lineStart=j=i; j<15; j++) {
        form[form_index[SUBI][NO_PRICE+j*8].index-1]=' ';
        form[form_index[SUBI][NO_AMOUNT+j*8].index-1]=' ';
    }
} else {

```

APPENDIX A - APPLICATION SOURCE CODE

```

/*
    for (j=NO_DISC; j<=NO_DTAX; j++)

memcpy(form+form_index[SUBI][j].index,blank,form_index[SUBI][j].length);
;
*/

    for (j=NO_SUPPW; j<NO_SUPPW+15*8; j++)

memcpy(form+form_index[SUBI][j].index,blank,form_index[SUBI][j].length);
;

    for (lineStart=0; j<15; j++) {
        form[form_index[SUBI][NO_PRICE+*8].index-1]=' ';
        form[form_index[SUBI][NO_AMOUNT+*8].index-1]=' ';
    }
}

if (!pdata->status) {
    fill_string(form, "Transaction committed",
        form_index[SUBI][NO_STATUS].index,
        form_index[SUBI][NO_STATUS].length, &shift);
    indexes[strcount]=form_index[SUBI][NO_STATUS].index;
    indLen[strcount++]=form_index[SUBI][NO_STATUS].length;

    fill_double(form, pdata->total_amount,
        form_index[SUBI][NO_TOTAL].index,
        form_index[SUBI][NO_TOTAL].length);
} else {
    fill_string(form, "Item number is not valid",
        form_index[SUBI][NO_STATUS].index,
        form_index[SUBI][NO_STATUS].length, &shift);
    indexes[strcount]=form_index[SUBI][NO_STATUS].index;
    indLen[strcount++]=form_index[SUBI][NO_STATUS].length;

    memcpy(form+form_index[SUBI][NO_TOTAL].index-1, blank,
        form_index[SUBI][NO_TOTAL].length+1);
}

if (shift)
    adjust_form(form, indexes, indLen, strcount, formlen, shift);

ret=send_response(pECB, form, strlen(form));

if (shift) {
    allocate_last_form(form2,pool);
    memcpy(form, form2, formlen+1);
}

for (j=lineStart; j<15; j++) {
    form[form_index[SUBI][NO_PRICE+*8].index-1]='$';
    form[form_index[SUBI][NO_AMOUNT+*8].index-1]='$';
}

#ifdef NEW_ALLOCATE_FORM
    free_form(pool, form, index);
#endif

    return ret;
#undef SUBI
}

int sendform_paymentoutput(int status, T_payment_data *pdata)
{
    EXTENSION_CONTROL_BLOCK *pECB;
    int w_id, ld_id, ret;
    char *form, *form2;
    char blank[] = "          ";
    int index = -1, formlen, strcount=0, shift=0, i=0, j, datalen;
    int indexes[PA_FORMINDEX_SIZE], indLen[PA_FORMINDEX_SIZE],
    index2=-1;
    form_template_pool *pool;

    w_id = pdata->w_id; ld_id = pdata->ld_id;
    pECB = (EXTENSION_CONTROL_BLOCK *) pdata-
->context;

    if (status != SUCCESS && status != DB_SUCCESS) {
        return send_error_message(pECB, 0, status, "", w_id, ld_id, 0);
    }

    if (pdata->txn_status != DB_RETURN_OCI_SUCCESS) {
        return send_error_message(pECB, 0, pdata->txn_status, " ---
DATABASE ERROR ", w_id, ld_id, 0);
    }

#define SUBI POOL_TYPE_TXN_OUTPUT[TXN_TYPE_PAYMENT

    pool = &txn_global_pool[SUBI];
    index=w_id*10+ld_id;

#ifdef NEW_ALLOCATE_FORM
    form = allocate_form_new(pool, index);
#endif
}

```

APPENDIX A - APPLICATION SOURCE CODE

```

fill_string(form, pdata->c_last, form_index[SUBI][PA_CLAST].index,
            form_index[SUBI][PA_CLAST].length, &shift);
indexes[strcount]=form_index[SUBI][PA_CLAST].index;
indLen[strcount++]=form_index[SUBI][PA_CLAST].length;

fill_string(form, pdata->c_since, DateString,
            form_index[SUBI][PA_SINCE].index,
            form_index[SUBI][PA_SINCE].length, &shift);
indexes[strcount]=form_index[SUBI][PA_SINCE].index;
indLen[strcount++]=form_index[SUBI][PA_SINCE].length;

fill_string(form, pdata->c_street_1, form_index[SUBI][PA_CST1].index,
            form_index[SUBI][PA_CST1].length, &shift);
indexes[strcount]=form_index[SUBI][PA_CST1].index;
indLen[strcount++]=form_index[SUBI][PA_CST1].length;

fill_string(form, pdata->c_credit, form_index[SUBI][PA_CREDIT].index,
            form_index[SUBI][PA_CREDIT].length, &shift);
indexes[strcount]=form_index[SUBI][PA_CREDIT].index;
indLen[strcount++]=form_index[SUBI][PA_CREDIT].length;

fill_string(form, pdata->c_street_2, form_index[SUBI][PA_CST2].index,
            form_index[SUBI][PA_CST2].length, &shift);
indexes[strcount]=form_index[SUBI][PA_CST2].index;
indLen[strcount++]=form_index[SUBI][PA_CST2].length;

fill_double(form, pdata->c_discount, form_index[SUBI][PA_DISC].index,
            form_index[SUBI][PA_DISC].length);

fill_string(form, pdata->c_city, form_index[SUBI][PA_CCITY].index,
            form_index[SUBI][PA_CCITY].length, &shift);
indexes[strcount]=form_index[SUBI][PA_CCITY].index;
indLen[strcount++]=form_index[SUBI][PA_CCITY].length;

fill_string(form, pdata->c_state, form_index[SUBI][PA_CSTATE].index,
            form_index[SUBI][PA_CSTATE].length, &shift);
indexes[strcount]=form_index[SUBI][PA_CSTATE].index;
indLen[strcount++]=form_index[SUBI][PA_CSTATE].length;

fill_string(form, pdata->c_zip, form_index[SUBI][PA_CZIP].index,
            form_index[SUBI][PA_CZIP].length, &shift);
indexes[strcount]=form_index[SUBI][PA_CZIP].index;
indLen[strcount++]=form_index[SUBI][PA_CZIP].length;

fill_string(form, pdata->c_phone,
            form_index[SUBI][PA_CPHONE].index,
            form_index[SUBI][PA_CPHONE].length, &shift);
indexes[strcount]=form_index[SUBI][PA_CPHONE].index;
indLen[strcount++]=form_index[SUBI][PA_CPHONE].length;

fill_double(form, pdata->h_amount,
            form_index[SUBI][PA_AMOUNT].index,
            form_index[SUBI][PA_AMOUNT].length);

fill_double(form, pdata->c_balance, form_index[SUBI][PA_CBAL].index,
            form_index[SUBI][PA_CBAL].length);

fill_double(form, pdata->c_credit_lim,
            form_index[SUBI][PA_LLIMIT].index,
            form_index[SUBI][PA_LLIMIT].length);

if (pdata->c_credit[0]=='B' && pdata->c_credit[1]=='C') {
    datalen=strlen(pdata->c_data);
    for (i=0; i<4; i++) {
        if (i * form_index[SUBI][PA_CUSTDATA+i].length >= datalen) break;
        fill_string(form, pdata-
>c_data+(i*form_index[SUBI][PA_CUSTDATA+i].length),
                form_index[SUBI][PA_CUSTDATA+i].index,
                form_index[SUBI][PA_CUSTDATA+i].length, &shift);
        indexes[strcount]=form_index[SUBI][PA_CUSTDATA+i].index;
        indLen[strcount++]=form_index[SUBI][PA_CUSTDATA+i].length;
    }
}

for (j=1; j<4; j++)
    memcpy(form+form_index[SUBI][PA_CUSTDATA+j].index, blank,
           form_index[SUBI][PA_CUSTDATA+j].length);

if (shift)
    adjust_form(form, indexes, indLen, strcount, formlen, shift);

ret=send_response(pECB, form, strlen(form));

if (shift) {
    allocate_last_form(form2, pool);
    memcpy(form, form2, formlen+1);
}

#ifdef NEW_ALLOCATE_FORM
free_form(pool, form, index);
#endif

return ret;
#undef SUBI
}

int sendform_orderstatusoutput(int status, T_orderstatus_data *pdata)
{
    EXTENSION_CONTROL_BLOCK *pECB;
    int w_id, ld_id, indexes[OS_FORMINDEX_SIZE],
    indLen[OS_FORMINDEX_SIZE];
    char *form, *form2;
    int index = -1, strcount=0, formlen, shift=0, i, j, index2=-1, lineStart=15,
ret;
    form_template_pool *pool;
    char blank[] = " ";

    w_id = pdata->w_id; ld_id = pdata->ld_id;
    pECB = (EXTENSION_CONTROL_BLOCK *) pdata-
>context;

    if (status != SUCCESS && status != DB_SUCCESS) {
        return send_error_message(pECB, 0, status, "", w_id, ld_id, 0);
    }

    if (pdata->txn_status != DB_RETURN_OCI_SUCCESS) {
        return send_error_message(pECB, 0, pdata->txn_status, " ---
DATABASE ERROR ", w_id, ld_id, 0);
    }

#define SUBI
POOL_TYPE_TXN_OUTPUT[TXN_TYPE_ORDERSTATUS

    pool = &txn_global_pool[SUBI];
    index=w_id*10+ld_id;

#ifdef NEW_ALLOCATE_FORM
    form = allocate_form_new(pool, index);
#else
    form = allocate_form(pool, &index);
#endif

    formlen = strlen(form);

    fill_number(form, WDID(w_id, ld_id),
            form_index[SUBI][OS_TERMID].index,
            form_index[SUBI][OS_TERMID].length);
    fill_number(form, w_id, form_index[SUBI][OS_WID].index,
            form_index[SUBI][OS_WID].length);
    fill_number(form, pdata->d_id, form_index[SUBI][OS_DID].index,
            form_index[SUBI][OS_DID].length);
    fill_number(form, pdata->c_id, form_index[SUBI][OS_CID].index,
            form_index[SUBI][OS_CID].length);
    fill_string(form, pdata->c_first, form_index[SUBI][OS_FIRST].index,
            form_index[SUBI][OS_FIRST].length, &shift);
    indexes[strcount]=form_index[SUBI][OS_FIRST].index;
    indLen[strcount++]=form_index[SUBI][OS_FIRST].length;

    fill_string(form, pdata->c_middle,
            form_index[SUBI][OS_MIDDLE].index,
            form_index[SUBI][OS_MIDDLE].length, &shift);
    indexes[strcount]=form_index[SUBI][OS_MIDDLE].index;
    indLen[strcount++]=form_index[SUBI][OS_MIDDLE].length;

    fill_string(form, pdata->c_last, form_index[SUBI][OS_LAST].index,
            form_index[SUBI][OS_LAST].length, &shift);
    indexes[strcount]=form_index[SUBI][OS_LAST].index;
    indLen[strcount++]=form_index[SUBI][OS_LAST].length;

    fill_double(form, pdata->c_balance,
            form_index[SUBI][OS_CBALANCE].index,
            form_index[SUBI][OS_CBALANCE].length);

    fill_number(form, pdata->o_id, form_index[SUBI][OS_OID].index,
            form_index[SUBI][OS_OID].length);

    fill_string(form, pdata->o_entry_d, DateString,
            form_index[SUBI][OS_ENTRY_DATE].index,
            form_index[SUBI][OS_ENTRY_DATE].length, &shift);
    indexes[strcount]=form_index[SUBI][OS_ENTRY_DATE].index;
    indLen[strcount++]=form_index[SUBI][OS_ENTRY_DATE].length;

    fill_number(form, pdata->o_carrier_id,
            form_index[SUBI][OS_CARID].index,
            form_index[SUBI][OS_CARID].length);

    for (i=0; i < pdata->o_ol_cnt; i++) {
        fill_number(form, pdata->o_orderline[i].ol_supply_w_id,
                form_index[SUBI][OS_SUPW+i*5].index,
                form_index[SUBI][OS_SUPW+i*5].length);

        fill_number(form, pdata->o_orderline[i].ol_id,

```


APPENDIX A - APPLICATION SOURCE CODE

```

        form_index[SUBI][OS_ITEMID+i*5].index,
        form_index[SUBI][OS_ITEMID+i*5].length);

    fill_number(form, pdata->o_orderline[i].ol_quantity,
        form_index[SUBI][OS_QTY+i*5].index,
        form_index[SUBI][OS_QTY+i*5].length);

    fill_double(form, pdata->o_orderline[i].ol_amount,
        form_index[SUBI][OS_AMOUNT+i*5].index,
        form_index[SUBI][OS_AMOUNT+i*5].length);

    fill_string(form, pdata->o_orderline[i].ol_delivery_d.DateString,
        form_index[SUBI][OS_DELDATE+i*5].index,
        form_index[SUBI][OS_DELDATE+i*5].length, &shift);
    indexes[strcount]=form_index[SUBI][OS_DELDATE+i*5].index;
    indLen[strcount++]=form_index[SUBI][OS_DELDATE+i*5].length;
}

for (lineStart=j; j<15;j++) {
    memcpy(form+form_index[SUBI][OS_SUPW+j*5].index, blank,
        form_index[SUBI][OS_SUPW+j*5].length);
    memcpy(form+form_index[SUBI][OS_ITEMID+j*5].index, blank,
        form_index[SUBI][OS_ITEMID+j*5].length);
    memcpy(form+form_index[SUBI][OS_QTY+j*5].index, blank,
        form_index[SUBI][OS_QTY+j*5].length);
    memcpy(form+form_index[SUBI][OS_AMOUNT+j*5].index-1, blank,
        form_index[SUBI][OS_AMOUNT+j*5].length+1);
    memcpy(form+form_index[SUBI][OS_DELDATE+j*5].index, blank,
        form_index[SUBI][OS_DELDATE+j*5].length);
}

if (shift)
    adjust_form(form, indexes, indLen, strcount, formLen, shift);

ret=send_response(pECB, form, strlen(form));

if (shift) {
    allocate_last_form(form2, pool);
    memcpy(form, form2, formLen+1);
}

for (j=lineStart; j<15; j++)
    form[form_index[SUBI][OS_AMOUNT+j*5].index-1]='$';

#ifdef NEW_ALLOCATE_FORM
    free_form(pool, form, index);
#endif

    return ret;
#undef SUBI
}

int sendform_deliveryoutput(int status, T_delivery_data *pdata)
{
    EXTENSION_CONTROL_BLOCK *pECB;

    int w_id, ld_id;
    char *form;
    int index = -1, ret;
    form_template_pool *pool;

    w_id = pdata->w_id; ld_id = pdata->ld_id;
    pECB = (EXTENSION_CONTROL_BLOCK *) pdata-
>context;
    if (status != SUCCESS && status != DB_SUCCESS) {
        return send_error_message(pECB, 0, status, "", w_id, ld_id, 0);
    }

#define SUBI_POOL_TYPE_TXN_OUTPUT[TXN_TYPE_DELIVERY]
    pool = &txn_global_pool[SUBI];
    index=w_id*10+ld_id;

#ifdef NEW_ALLOCATE_FORM
    form = allocate_form_new(pool, index);
#else
    form = allocate_form(pool, &index);
#endif

    fill_number(form, WIDID(w_id, ld_id),
        form_index[SUBI][DE_TERMID].index,
        form_index[SUBI][DE_TERMID].length);
    fill_number(form, w_id, form_index[SUBI][DE_WID].index,
        form_index[SUBI][DE_WID].length);
    fill_number(form, ld_id, form_index[SUBI][DE_DID].index,
        form_index[SUBI][DE_DID].length);
    fill_number(form, pdata->threshold,
        form_index[SUBI][SL_THRESHOLD].index,
        form_index[SUBI][SL_THRESHOLD].length);
    fill_number(form, pdata->low_stock,
        form_index[SUBI][SL_LOWSTOCK].index,
        form_index[SUBI][SL_LOWSTOCK].length);

    ret=send_response(pECB, form, strlen(form));

#ifdef NEW_ALLOCATE_FORM
    free_form(pool, form, index);
#endif

    return ret;
#undef SUBI
}

int (FAR * mod_tpcc_neworder)(T_neworder_data *);
int (FAR * mod_tpcc_payment)(T_payment_data *);
int (FAR * mod_tpcc_delivery)(T_delivery_data *, int);
int (FAR * mod_tpcc_orderstatus)(T_orderstatus_data *);
int (FAR * mod_tpcc_stocklevel)(T_stocklevel_data *);
void (FAR * userlog)(char * str, ...);
void (FAR * initDelLog)(int);
void (FAR * endDelLog)(int);

#include "..\DBConnection\mod_tpcc.h"
#include "..\DBConnection\tpcc_struct.h"
#include "..\DBConnection\mod_tpcc_error.h"
#include <oratypes.h>
#include <oci.h>
#include <ocidfn.h>

#define allocate_last_form(form, pool) \
(form)=(char *)((pool)->form_template_storage + \
(Maxterms - 1) * (pool)->form_template_length)

#define MAXLEN 100
#define Default_DBConnections "20"
#define Default_Maxterms "100"

```

```

#define Default_DeliveryQueues "500"
#define Default_DeliveryThreads "50"
#define Default_StartTerm "1"
#define LogName "log\\modtpcc.log"
#define InitName "DBInit.ini"
#defineDllName "DBConnection.dll"
#define mod_name "tpcc/modtpcc.dll"

typedef struct DelQueue_info {
    DelQueue_info *Next;
    T_delivery_data *pdata;
    HANDLE queue_lock;
} DelQueue_info;

/*****
* global functions
*****/

//void userlog(char *, ...);
void readInit(char *, char *, char *);
void allocateMemoryPool();
int initDelQueue();
int deleteDelQueue();
void endDeliveryThread(int);
void initDeliveryThread(void *);
DelQueue_info *DequeueDel();
void EnqueueDel(DelQueue_info *);
void addFreeDelQueue(DelQueue_info *);
DelQueue_info *findFreeDelQueue();

int parse_neworder_query(char *ptr, T_neworder_data *pdata);
int parse_payment_query(char *ptr, T_payment_data *pdata);
int parse_delivery_query(char *ptr, T_delivery_data *pdata);
int parse_orderstatus_query(char *ptr, T_orderstatus_data *pdata);
int parse_stocklevel_query(char *ptr, T_stocklevel_data *pdata);

int sendform_neworderoutput(int status, T_neworder_data *pdata);
int sendform_paymentoutput(int status, T_payment_data *pdata);
int sendform_orderstatusoutput(int status, T_orderstatus_data *pdata);
int sendform_deliveryoutput(int status, T_delivery_data *pdata);
int sendform_stockleveloutput(int status, T_stocklevel_data *pdata);

extern int (FAR * mod_tpcc_neworder)(T_neworder_data *);
extern int (FAR * mod_tpcc_payment)(T_payment_data *);
extern int (FAR * mod_tpcc_delivery)(T_delivery_data *);
extern int (FAR * mod_tpcc_orderstatus)(T_orderstatus_data *);
extern int (FAR * mod_tpcc_stocklevel)(T_stocklevel_data *);
extern void (FAR * userlog)(char * str, ...);
extern void (FAR * initDelLog)(int);
extern void (FAR * endDelLog)(int);

/*****
* global variables
*****/

DWORD TIsPointer;
char DllPath[MAXLEN];
char LogFile[MAXLEN];
char InitFile[MAXLEN];
char DllFile[MAXLEN];
char origin[MAXLEN];
CRITICAL_SECTION critical_initDelQueue;
CRITICAL_SECTION critical_memory;
CRITICAL_SECTION critical_DelQueue_free;
CRITICAL_SECTION critical_DelQueue_work;
HANDLE waitAvailableDelQueue;
HANDLE waitDelWork;
HANDLE DelThreadRunning;
HINSTANCE dllinstance;
int useddel=0;
int DBConnections;
int Maxterms;
int DeliveryQueues;
int DeliveryThreads;
int modtpcc_ready=0;
int memory_ready=0;
int queue_ready=0;
int DeliveryThreadstop=0;
int StartTerm=1;
DelQueue_info *DelQueue_begin = NULL;
DelQueue_info *DelQueue_end = NULL;
DelQueue_info *DelQueue_free = NULL;

```

```

static form_index_entry
form_index[POOL_TYPE_TXN_MAX][TXN_TYPE_MAX][MAX_FORM_INDEX];
static form_template_pool
txn_global_pool[POOL_TYPE_TXN_MAX][TXN_TYPE_MAX];
static form_template_pool txn_data_pool;
static form_template_pool resp_global_pool;

```

```

char delivery_chars [] = {'6', '7'};
char orderstatus_chars [] = {'8', '9', 'Y'};
char payment_chars [] = {'8', '9', 'Z', 'v', 'Y', 'w'};
char stocklevel_chars [] = {'x'};
char neworder_chars [] = {'8', '9', 'A', 'B', 'C', 'D', 'E', 'F', 'G', 'H', 'I', 'J', 'K', 'L', 'M', 'N', 'O', 'P', 'Q', 'R', 'S', 'T', 'U', 'V', 'W', 'X', 'a', 'b', 'c', 'd', 'e', 'f', 'g', 'h', 'i', 'j', 'k', 'l', 'm', 'n', 'o', 'p', 'q', 'r', 's', 't', 'u'};

```

stdafx.cpp

```

// stdafx.cpp : source file that includes just the standard includes
// modtpcc.pch will be the pre-compiled header
// stdafx.obj will contain the pre-compiled type information

```

```
#include "stdafx.h"
```

```

// TODO: reference any additional headers you need in STDAFX.H
// and not in this file

```

stdafx.h

```

// stdafx.h : include file for standard system include files,
// or project specific include files that are used frequently, but
// are changed infrequently
//

```

```

#if
!defined(AFX_STDAFX_H__FBB80AB0_1068_4095_8E53_EEA38B5CF47B__INCLUDED_)
#define
AFX_STDAFX_H__FBB80AB0_1068_4095_8E53_EEA38B5CF47B__INCLUDED_

```

```

#if _MSC_VER > 1000
#pragma once
#endif // _MSC_VER > 1000

```

```

// Insert your headers here
#define WIN32_LEAN_AND_MEAN // Exclude rarely-used stuff from Windows headers

```

```

#include <windows.h>
#include <stdio.h>
#include <stdlib.h>
#include <atlbase.h>
#include <io.h>
#include <time.h>
#include <process.h>
#include <sys/stat.h>

```

dbconnection.cpp

```

// DBConnection.cpp : Defines the entry point for the DLL application.
//

```

```

#include "stdafx.h"
#include "DBConnection.h"

```

```

#define OPS_LOGIN
#define CONNECTION_MUTEX
#define DEBUG
#define DEBUG_DETAIL
#define LOOPBACK

```

APPENDIX A - APPLICATION SOURCE CODE

```

BOOL WINAPI DIIMain( HANDLE hModule,
                    DWORD ul_reason_for_call,
                    LPVOID lpReserved
                    )
{
    char string[MAXLEN];

    if (ul_reason_for_call == DLL_PROCESS_ATTACH) {
        int i;

        DisableThreadLibraryCalls((HMODULE)hModule);

        GetModuleFileName((HMODULE)hModule, DllPath,
MAXLEN-1);
        if (DllPath[0]!='\ ' && DllPath[1]!='\ ' && DllPath[2]!='?' &&
DllPath[3]!='\ ')
            strcpy(DllPath, DllPath+4);
        for (i=strlen(DllPath); DllPath[i]!='\ ' && i--;)
            DllPath[i]='\0';
        sprintf(LogFile, "%s\\%s", DllPath, LogName);
        sprintf(InitFile, "%s\\%s", DllPath, InitName);
        sprintf(DelLogFile, "%s\\%s", DllPath, DelLogName);

        if (!SetCurrentDirectory(DllPath)) {
            userlog("Cannot change current directory to %s, Error: %n", DllPath,
GetLastError());
            return FALSE;
        }

        if ((TlsPtr = TlsAlloc()) == 0xFFFFFFFF) {
            userlog("Error during TlsAlloc\n");
            return FALSE;
        }

        readInit(string, "DBConnections", Default_DBConnections);
        DBConnections = atoi(string);
        userlog("number of DBConnections is %d\n",
DBConnections);

        TotalLoop=DBConnections*2;

        DBExecution_lock=(HANDLE*)malloc(sizeof(HANDLE)*DBC
onnections);
        for (i=0; i<DBConnections; i++)
            if ((DBExecution_lock[i]=CreateMutex(NULL,
FALSE, NULL))==NULL) {
                userlog("Cannot create mutex :
DBExecution_lock[%d]\n", i);
                return FALSE;
            }

        if (initializeDBExecutionPool() != TRUE) {
            userlog("initializeDBExecutionPool failed\n");
            return FALSE;
        }

        if ((waitIdle = CreateEvent(NULL, FALSE, FALSE, "Wait Idle
Event")) == NULL) {
            userlog("Cannot create event : waitIdle\n");
            return FALSE;
        }

        ready=1;
    }
    else if (ul_reason_for_call == DLL_PROCESS_DETACH) {
        int i;

        if ((TlsFree(TlsPtr)) == NULL) {
            userlog("Error during TlsFree\n");
            return FALSE;
        }

        for (i=0; i<DBConnections; i++) {
            ((DBExecution
*)(DBExecution_pool[i].pointer))->TPCexit();
            free(DBExecution_pool[i].pointer);
        }
        free (DBExecution_pool);
        CloseHandle(waitIdle);

        for (i=0; i<DBConnections; i++)
            CloseHandle(DBExecution_lock[i]);
    }

    return TRUE;
}

void initDelLog(int DelThreads)
{
    char filename[MAXLEN];

    DelFiles=(FILE **)malloc(sizeof(FILE *)*DelThreads);
    for (int i=0; i<DelThreads; i++) {
        sprintf(filename, "%s%d", DelLogFile, i);

        if ((DelFiles[i]=fopen(filename, "a"))==(FILE *) NULL) {
            userlog("Can't open file : %s\n", filename);
            exit(-1);
        }
        setvbuf(DelFiles[i], NULL, _IOFBF, 102400);
    }

    void endDelLog(int DelThreads)
    {
        for (int i=0; i<DelThreads; i++) {
            fclose(DelFiles[i]);
        }
        free(DelFiles);
    }

    /******
    *****
    * Execute transactions
    *****/

    #ifndef LOOPBACK

    int mod_tpcc_neworder(T_neworder_data *output)
    {
        int i;
        #ifndef CONNECTION_MUTEX
            HANDLE *mutexptr=NULL;
        #endif
        DBExecution_pool_info* ptr;

        DBExecution *dbexec;
        struct newstruct input;

        input.newin.w_id = output->w_id;
        input.newin.d_id = output->d_id;
        input.newin.c_id = output->c_id;

        for (i=0; i<output->o_o_cnt; i++) {
            input.newin.ol_i_id[i] = output->o_orderline[i].ol_i_id;
            input.newin.ol_supply_w_id[i] = output-
>o_orderline[i].ol_supply_w_id;
            input.newin.ol_quantity[i] = output-
>o_orderline[i].ol_quantity;
        }

        for (; i<15; i++) {
            input.newin.ol_i_id[i] = 0;
            input.newin.ol_supply_w_id[i] = 0;
            input.newin.ol_quantity[i] = 0;
        }

        #ifndef CONNECTION_MUTEX
            ptr=findIdleDBExecution(mutexptr);
        #else
            ptr=findIdleDBExecution();
        #endif
        dbexec=(DBExecution *) (ptr->pointer);
        ptr->neworder_count++;

        if (dbexec->TPCnew(&input) == -1) {
            convert_status(output->txn_status, dbexec-
>execstatus);
            #ifndef CONNECTION_MUTEX
                freeDBExecution(ptr, mutexptr);
            #else
                freeDBExecution(ptr);
            #endif
            userlog("TPCnew returns -1\n");
            return SUCCESS;
        }
        else {
            output->txn_status = DB_RETURN_OCI_SUCCESS;
        }

        output->status = dbexec->status;

        #ifndef CONNECTION_MUTEX
            freeDBExecution(ptr, mutexptr);
        #else
            freeDBExecution(ptr);
        #endif
        output->o_id = input.newout.o_id;
    }
}

```

APPENDIX A - APPLICATION SOURCE CODE

```

        output->o_ol_cnt = input.newout.o_ol_cnt;
        output->c_discount = input.newout.c_discount;
        output->w_tax = input.newout.w_tax;
        output->d_tax = input.newout.d_tax;
        output->total_amount = input.newout.total_amount;
        strncpy(output->o_entry_d.DateString,
input.newout.o_entry_d,20);
        strncpy(output->c_last, input.newout.c_last,17);
        strncpy(output->c_credit, input.newout.c_credit,3);
        for (i=0; i<output->o_ol_cnt; i++) {
            output->o_orderline[i].ol_amount =
input.newout.ol_amount[i];
            output->o_orderline[i].i_price =
input.newout.i_price[i];
            output->o_orderline[i].s_quantity =
input.newout.s_quantity[i];
            output->o_orderline[i].b_g[0] =
input.newout.brand_generic[i];
            strncpy(output->o_orderline[i].i_name,
input.newout.i_name[i], 25);
        }

        return SUCCESS;
    }

int mod_tpcc_payment(T_payment_data *output)
{
#ifdef CONNECTION_MUTEX
    HANDLE *mutexptr=NULL;
#endif
    DBExecution_pool_info *ptr;
    DBExecution *dbexec;
    struct paystruct input;

    input.payin.w_id = output->w_id;
    input.payin.d_id = output->d_id;
    input.payin.c_w_id = output->c_w_id;
    input.payin.c_d_id = output->c_d_id;
    input.payin.bylastname = output->by_last_name;
    input.payin.h_amount = (int)(output->h_amount * 100);

    if (input.payin.bylastname) {
        input.payin.c_id = 0;
        strncpy(input.payin.c_last, output->c_last, 17);
        input.payin.c_last[16]='\0';
    } else {
        input.payin.c_id = output->c_id;
        input.payin.c_last[0]='\0';
    }

#ifdef CONNECTION_MUTEX
    ptr=findIdleDBExecution(mutexptr);
#else
    ptr=findIdleDBExecution();
#endif
    dbexec=(DBExecution *)(&ptr->pointer);
    // ptr->payment_count++;

    if (dbexec->TPCpay(&input) == -1) {
        convert_status(output->txn_status, dbexec-
>execstatus);
#ifdef CONNECTION_MUTEX
        freeDBExecution(ptr, mutexptr);
#else
        freeDBExecution(ptr);
#endif
        userlog("TPCpay returns -1\n");
        return SUCCESS;
    } else {
        output->txn_status =
DB_RETURN_OCI_SUCCESS;
    }

#ifdef CONNECTION_MUTEX
    freeDBExecution(ptr, mutexptr);
#else
    freeDBExecution(ptr);
#endif

    strncpy(output->w_street_1, input.payout.w_street_1, 21);
    strncpy(output->w_street_2, input.payout.w_street_2, 21);
    strncpy(output->w_city, input.payout.w_city, 21);
    strncpy(output->w_state, input.payout.w_state, 3);
    strncpy(output->w_zip, input.payout.w_zip, 10);
    strncpy(output->d_street_1, input.payout.d_street_1, 21);
    strncpy(output->d_street_2, input.payout.d_street_2, 21);
    strncpy(output->d_city, input.payout.d_city, 21);
    strncpy(output->d_state, input.payout.d_state, 3);
    strncpy(output->d_zip, input.payout.d_zip, 10);
    output->c_id = input.payout.c_id;
    strncpy(output->c_first, input.payout.c_first, 17);

```

```

        strncpy(output->c_middle, input.payout.c_middle, 3);
        strncpy(output->c_last, input.payout.c_last, 17);
        strncpy(output->c_street_1, input.payout.c_street_1, 21);
        strncpy(output->c_street_2, input.payout.c_street_2, 21);
        strncpy(output->c_city, input.payout.c_city, 21);
        strncpy(output->c_state, input.payout.c_state, 3);
        strncpy(output->c_zip, input.payout.c_zip, 10);
        strncpy(output->c_phone, input.payout.c_phone, 17);
        strncpy(output->c_credit, input.payout.c_credit, 3);
        strncpy(output->c_since.DateString, input.payout.c_since,
11);

        strncpy(output->h_date.DateString, input.payout.h_date, 20);
        strncpy(output->c_data, input.payout.c_data, 200);
        output->c_credit_lim = input.payout.c_credit_lim;
        output->c_discount = input.payout.c_discount;
        output->c_balance = input.payout.c_balance;

        return SUCCESS;
    }

int mod_tpcc_delivery(T_delivery_data *output, int id)
{
#ifdef CONNECTION_MUTEX
    HANDLE *mutexptr=NULL;
#endif
    DBExecution_pool_info *ptr;
    DBExecution *dbexec;
    struct delstruct input;

    input.delin.w_id = output->w_id;
    input.delin.plsqlflag = 1;
    input.delin.o_carrier_id = output->o_carrier_id;

#ifdef CONNECTION_MUTEX
    ptr=findIdleDBExecution(mutexptr);
#else
    ptr=findIdleDBExecution();
#endif
    dbexec=(DBExecution *)(&ptr->pointer);
    // ptr->delivery_count++;

    if (dbexec->TPCdel(&input) == -1) {
        convert_status(output->txn_status, dbexec-
>execstatus);
#ifdef CONNECTION_MUTEX
        freeDBExecution(ptr, mutexptr);
#else
        freeDBExecution(ptr);
#endif
        userlog("TPCdel returns -1\n");
        return SUCCESS;
    } else {
        output->txn_status =
DB_RETURN_OCI_SUCCESS;
    }

    output->complete_time = GetTickCount();
    for (int i=0; i<10; i++)
        output->o_id[i]=dbexec->del_o_id[i];

#ifdef CONNECTION_MUTEX
    freeDBExecution(ptr, mutexptr);
#else
    freeDBExecution(ptr);
#endif

    write_delivery_log(output, id);

    return SUCCESS;
}

int mod_tpcc_orderstatus(T_orderstatus_data *output)
{
#ifdef CONNECTION_MUTEX
    HANDLE *mutexptr=NULL;
#endif
    DBExecution_pool_info *ptr;
    DBExecution *dbexec;
    struct ordstruct input;

    input.ordin.w_id = output->w_id;
    input.ordin.d_id = output->d_id;
    input.ordin.bylastname = output->by_last_name;
    if (input.ordin.bylastname) {
        input.ordin.c_id = 0;
        strncpy(input.ordin.c_last, output->c_last, 17);
        input.ordin.c_last[16]='\0';
    } else {

```

APPENDIX A - APPLICATION SOURCE CODE

```

        input.ordin.c_id = output->c_id;
        input.ordin.c_last[0]='\0';
    }

#ifdef CONNECTION_MUTEX
    ptr=findIdleDBExecution(mutexptr);
#else
    ptr=findIdleDBExecution();
#endif
    dbexec=(DBExecution *) (ptr->pointer);
    // ptr->orderstatus_count++;

    if (dbexec->TPCord(&input) == -1) {
        convert_status(output->txn_status, dbexec-
>execstatus);
#ifdef CONNECTION_MUTEX
        freeDBExecution(ptr, mutexptr);
#else
        freeDBExecution(ptr);
#endif
        userlog("TPCord returns -1\n");
        return SUCCESS;
    } else {
        output->txn_status =
DB_RETURN_OCI_SUCCESS;
    }

#ifdef CONNECTION_MUTEX
    freeDBExecution(ptr, mutexptr);
#else
    freeDBExecution(ptr);
#endif

    output->c_id = input.ordout.c_id;
    strncpy(output->c_last, input.ordout.c_last, 17);
    strncpy(output->c_first, input.ordout.c_first, 17);
    strncpy(output->c_middle, input.ordout.c_middle, 3);
    strncpy(output->o_entry_d, DateString,
input.ordout.o_entry_d, 20);
    output->c_balance = input.ordout.c_balance;
    output->o_id = input.ordout.o_id;
    output->o_carrier_id = input.ordout.o_carrier_id;
    output->o_ol_cnt = input.ordout.o_ol_cnt;
    for (int i=0; i<output->o_ol_cnt; i++) {
        output->o_orderline[i].ol_supply_w_id =
input.ordout.ol_supply_w_id[i];
        output->o_orderline[i].ol_i_id =
input.ordout.ol_i_id[i];
        output->o_orderline[i].ol_quantity =
input.ordout.ol_quantity[i];
        output->o_orderline[i].ol_amount =
input.ordout.ol_amount[i];
        strncpy(output-
>o_orderline[i].ol_delivery_d, DateString, input.ordout.ol_delivery_d[i], 11);
    }

    return SUCCESS;
}

int mod_tpcc_stocklevel(T_stocklevel_data *output)
{
#ifdef CONNECTION_MUTEX
    HANDLE *mutexptr=NULL;
#endif
    DBExecution_pool_info* ptr;
    DBExecution *dbexec;
    struct stostruct input;

    input.stoout.low_stock=-123;
    input.stoin.w_id = output->w_id;
    input.stoin.d_id = output->d_id;
    input.stoin.threshold = output->threshold;

#ifdef CONNECTION_MUTEX
    ptr=findIdleDBExecution(mutexptr);
#else
    ptr=findIdleDBExecution();
#endif
    dbexec=(DBExecution *) (ptr->pointer);
    // ptr->stocklevel_count++;

    if (dbexec->TPCsto(&input) == -1) {
        convert_status(output->txn_status, dbexec-
>execstatus);
#ifdef CONNECTION_MUTEX
        freeDBExecution(ptr, mutexptr);
#else
        freeDBExecution(ptr);
#endif
        userlog("TPCsto returns -1\n");
    } else {
        return SUCCESS;
    }
}

void write_delivery_log(T_delivery_data *pdata, int threadId)
{
    fprintf(DelFiles[threadId],
"%d/%d/%d %d:%d:%d.%d %ld %ld %ld %d
%d %d %d %d %d %d %d %d %d\n",
        pdata->enqueue_date_time.wMonth, pdata-
>enqueue_date_time.wDay,
        pdata->enqueue_date_time.wYear, pdata-
>enqueue_date_time.wHour,
        pdata->enqueue_date_time.wMinute, pdata-
>enqueue_date_time.wSecond,
        pdata->enqueue_date_time.wMilliseconds,
        pdata->enqueue_time,
        pdata->complete_time, pdata->complete_time-
pdata->enqueue_time, pdata->w_id,
        pdata->d_id, pdata->o_carrier_id, pdata-
>o_id[0], pdata->o_id[1],
        pdata->o_id[2], pdata->o_id[3], pdata->o_id[4],
        pdata->o_id[5],
        pdata->o_id[6], pdata->o_id[7], pdata->o_id[8],
        pdata->o_id[9]);
}

#ifdef CONNECTION_MUTEX
int freeDBExecution(DBExecution_pool_info *ptr, HANDLE *mutexptr)
#else
int freeDBExecution(DBExecution_pool_info *ptr)
#endif
{
    ptr->current_status = IDLE;

#ifdef DEBUG_DETAIL
    userlog("Thread %d release connection\n",
GetCurrentThreadId());
#endif

#ifdef CONNECTION_MUTEX
    if (mutexptr==NULL)
        userlog("Thread %d has mutexptr=NULL\n",
GetCurrentThreadId());
    ReleaseMutex((*mutexptr));
#endif
    if (!SetEvent(waitIdle)) {
        userlog("Error on SetEvent, in function: free
DBExecution\n");
        return FALSE;
    }
    return TRUE;
}

#ifdef CONNECTION_MUTEX
DBExecution_pool_info* findIdleDBExecution(HANDLE *mutexptr)
#else
DBExecution_pool_info* findIdleDBExecution()
#endif
{
    int current=GetCurrentThreadId() % DBConnections;

#ifdef DEBUG
    findDBExecutionCall++;
#endif
    while (1) {
        for (int count=0; count<TotalLoop; count++) {

```

APPENDIX A - APPLICATION SOURCE CODE

```

        if
(DBExecution_pool[current].current_status == IDLE) {
            switch(WaitForSingleObject(DBExecution_lock[current], 0)) {
                case
WAIT_ABANDONED:
#ifdef DEBUG
                    userlog("connection mutex returns WAIT_ABANDONED\n");
#endif
                case
WAIT_OBJECT_0:
#ifdef DEBUG_DETAIL
                    userlog("Thread %d get connection: %d\n",
GetCurrentThreadId(), current);
#endif
                    if (DBExecution_pool[current].current_status == IDLE) {
                        DBExecution_pool[current].current_status =
IN_USE;
#ifdef CONNECTION_MUTEX
                            ReleaseMutex(DBExecution_lock[current]);
#else
                            mutexptr=&(DBExecution_lock[current]);
#endif
                            TlsSetValue(TlsPtr, (void *)
DBExecution_pool[current].pointer);
                            return &(DBExecution_pool[current]);
                    }
                    else {
                        ReleaseMutex(DBExecution_lock[current]);
#ifdef DEBUG
                            userlog("get connection mutex, but
current_status is not IDLE\n");
#endif
                            break;
                    }
                case
WAIT_TIMEOUT:
                    break;
                default:
                    userlog("Error on WaitForSingleObject, DBExecution\n");
                    return NULL;
            }
        }
        current++;
        if (current==DBConnections)
            current=0;
#ifdef DEBUG
        findDBExecutionWait++;
        if (findDBExecutionWait !=0 &&
findDBExecutionWait % 100000 == 0)
            userlog("wait: %d, total call:
%d\n", findDBExecutionWait, findDBExecutionCall);
#endif
        if ((WaitForSingleObject(waitIdle, INFINITE)) !=
WAIT_OBJECT_0) {
            userlog("Error on
WaitForSingleObject, in function findIdleDBExecution\n");
            return NULL;
        }
        return NULL;
    }

void readInit(char *output, char *parameter, char *default_value)
{
    if (_access(InitFile, 0x00) != NULL) {
        userlog("Cannot access init file: %s\n", InitFile);
        strcpy(output, default_value);
    }
    else
        GetPrivateProfileString("TPCC", parameter, default_value,
output, MAXLEN, InitFile);
}

int initializeDBExecutionPool()
{
    DBExecution *ptr;

    userlog("execute initializeDBExecutionPool()\n");

    DBExecution_pool = (DBExecution_pool_info *) malloc
(sizeof(DBExecution_pool_info)*DBConnections);
    if (DBExecution_pool == 0) {
        userlog("malloc failed in
initializeDBExecutionPool\n");
        return FALSE;
    }
    memset((void*)DBExecution_pool, 0,
sizeof(DBExecution_pool_info)*DBConnections);
    for (int i=0; i<DBConnections; i++) {
        if ((ptr=new DBExecution) == NULL) {
            userlog("Cannot create
DBExecution object\n");
            return FALSE;
        }
        if ((TlsSetValue(TlsPtr, (void *) ptr)) == NULL) {
            userlog("TlsSetValue failed\n");
            return FALSE;
        }
        if (ptr->TPCinit(i, "tpcc", "tpcc")) {
            userlog("TPCinit failed\n");
            return FALSE;
        }
        DBExecution_pool[i].current_status = IDLE;
        DBExecution_pool[i].pointer = (void *) ptr;
        userlog ("DBExecution %d is initialized\n", i);
    }
    return TRUE;
}

void userlog (char * str, ...)
{
    HANDLE logMutex;
    FILE *file;
    time_t t;
    struct tm *currtime;
    va_list va;
    int threadId;

    logMutex = CreateMutex(NULL, FALSE, "TPCC_LOG");
    // Wait for initialization ended
    WaitForSingleObject(logMutex, INFINITE);

    threadId = GetCurrentThreadId();

    time (&t);
    currtime = localtime(&t);
    if ((file=fopen(LogFile, "a"))==(FILE *) NULL) {
        fprintf(stderr, "Can't open file : %s\n", LogFile);
        exit(-1);
    }
    va_start(va, str);
    fprintf(file, "[Time %d:%d:%d Thread: %d] ", currtime-
>tm_hour, currtime->tm_min, currtime->tm_sec, threadId);
    vfprintf(file, str, va);
    fprintf(file, "\n");
    va_end(va);

    fclose(file);
}

```

APPENDIX A - APPLICATION SOURCE CODE

```

        ReleaseMutex(logMutex);
        CloseHandle(logMutex);
    }

    sb4 no_data(dvoid *ctxp, OCIBind *bp, ub4 iter, ub4 index,
        dvoid **bufpp, ub4 *alenp, ub1 *piecep,
        dvoid **indpp)
    {
        *bufpp = (dvoid*)0;
        *alenp = 0;
        *indpp = (dvoid*)0;
        *piecep = OCI_ONE_PIECE;
        return (OCI_CONTINUE);
    }

    sb4 TPC_oid_data(dvoid *ctxp, OCIBind *bp, ub4 iter, ub4 index,
        dvoid **bufpp, ub4 *alenp, ub1 *piecep,
        dvoid **indpp, ub2 **rcodepp)
    {
        DBExecution *dbc;

        dbc = (DBExecution*) TlsGetValue(TlsPtr);
        if (dbc == 0) {
            userlog("TlsGetValue failed in TPC_oid_data\n");
            exit(-1);
        }

        *bufpp = &dbc->dctx->del_o_id[iter];
        *indpp = &dbc->dctx->del_o_id_ind[iter];
        dbc->dctx->del_o_id_len[iter]=sizeof(dbc->dctx->del_o_id[0]);
        *alenp = &dbc->dctx->del_o_id_len[iter];
        *rcodepp = &dbc->dctx->del_o_id_rcode[iter];
        *piecep = OCI_ONE_PIECE;
        return (OCI_CONTINUE);
    }

    sb4 cid_data(dvoid *ctxp, OCIBind *bp, ub4 iter, ub4 index,
        dvoid **bufpp, ub4 *alenp, ub1 *piecep,
        dvoid **indpp, ub2 **rcodepp)
    {
        DBExecution *dbc;

        dbc = (DBExecution*) TlsGetValue(TlsPtr);
        if (dbc == 0) {
            userlog("TlsGetValue failed in cid_data\n");
            exit(-1);
        }

        *bufpp = &dbc->dctx->c_id[iter];
        *indpp = &dbc->dctx->c_id_ind[iter];
        dbc->dctx->c_id_len[iter]=sizeof(dbc->dctx->c_id[0]);
        *alenp = &dbc->dctx->c_id_len[iter];
        *rcodepp = &dbc->dctx->c_id_rcode[iter];
        *piecep = OCI_ONE_PIECE;
        return (OCI_CONTINUE);
    }

    sb4 amt_data(dvoid *ctxp, OCIBind *bp, ub4 iter, ub4 index,
        dvoid **bufpp, ub4 *alenp, ub1 *piecep,
        dvoid **indpp, ub2 **rcodepp)
    {
        amtctx *actx;
        actx = (amtctx*)ctxp;

        *bufpp = &actx->ol_amt[index];
        *indpp = &actx->ol_amt_ind[index];
        actx->ol_amt_len[index]=sizeof(actx->ol_amt[0]);
        *alenp = &actx->ol_amt_len[index];
        *rcodepp = &actx->ol_amt_rcode[index];
        *piecep = OCI_ONE_PIECE;
        return (OCI_CONTINUE);
    }

    /*****
    * DBExecution member functions
    *****/

    DBExecution::DBExecution()
    {
        tracelevel = 0;
        logon = 0;

```

```

        new_init = 0;
        pay_init = 0;
        ord_init = 0;
        del_init_oci = 0;
        del_init_plsql = 0;
        sto_init = 0;
    }

    DBExecution::~DBExecution()
    {
    }

    #define SQLTXTNEW2 "BEGIN inittpc.init_no(:idx1arr); END;"
    #define SQLTXTDEL "BEGIN inittpc.init_del; END;"
    #define SQLTXTDEL1 "DELETE FROM nord WHERE no_d_id = :d_id \
        AND no_w_id = :w_id and rownum <= 1 \
        RETURNING no_o_id into :o_id "

    #define SQLTXTDEL3 "UPDATE ordr SET o_carrier_id = :carrier_id \
        WHERE o_id = :o_id and o_d_id = :d_id and o_w_id = :w_id \
        returning o_c_id into :o_c_id"

    #define SQLTXTDEL4 "UPDATE ordl \
        SET ol_delivery_d = :cr_date \
        WHERE ol_w_id = :w_id AND ol_d_id = :d_id AND ol_o_id = :o_id \
        RETURNING sum(ol_amount) into :ol_amount "

    #define SQLTXTDEL6 "UPDATE cust SET c_balance = c_balance + :amt, \
        c_delivery_cnt = c_delivery_cnt + 1 WHERE c_w_id = :w_id AND \
        c_d_id = :d_id AND c_id = :c_id"

    #define SQLCUR0 "SELECT rowid FROM cust \
        WHERE c_d_id = :d_id AND c_w_id = :w_id AND c_last = \
        :c_last \
        ORDER BY c_last, c_d_id, c_w_id, c_firs"

    #define SQLCUR1 "SELECT /*+ USE_NL(cust) INDEX_DESC(ordr iordr2) \
        */ \
        c_id, c_balance, c_first, c_middle, c_last, \
        o_id, o_entry_d, o_carrier_id, o_ol_cnt \
        FROM cust, ordr \
        WHERE cust.rowid = :cust_rowid \
        AND o_d_id = c_d_id AND o_w_id = c_w_id AND o_c_id = \
        c_id \
        ORDER BY o_c_id DESC, o_d_id DESC, o_w_id DESC, o_id \
        DESC"

    #define SQLCUR2 "SELECT /*+ USE_NL(cust) INDEX_DESC(ordr \
        iordr2) */ \
        c_balance, c_first, c_middle, c_last, \
        o_id, o_entry_d, o_carrier_id, o_ol_cnt \
        FROM cust, ordr \
        WHERE c_id = :c_id AND c_d_id = :d_id AND c_w_id = :w_id \
        AND o_d_id = c_d_id AND o_w_id = c_w_id AND o_c_id = c_id \
        \
        ORDER BY o_c_id DESC, o_d_id DESC, o_w_id DESC , o_id \
        DESC"

    #define SQLCUR3 "SELECT /*+ INDEX(ordl) */ \
        ol_i_id, ol_supply_w_id, ol_quantity, ol_amount, ol_delivery_d \
        FROM ordl \
        WHERE ol_o_id = :o_id AND ol_d_id = :d_id AND ol_w_id = \
        :w_id"

    #define SQLCUR4 "SELECT count(c_last) FROM cust \
        WHERE c_d_id = :d_id AND c_w_id = :w_id AND c_last = \
        :c_last "

    #ifdef PLSQLSTO
    #define SQLTXTSTO "BEGIN stocklevel.getstocklevel (:w_id, :d_id, \
        :threshold, \
        :low_stock); END;"
    #else
    #define SQLTXTSTO "SELECT /*+ nocache (stok) */ count (DISTINCT \
        s_i_id) \
        FROM ordl, stok, dist \
        WHERE d_id = :d_id AND d_w_id = :w_id AND \
        d_id = ol_d_id AND d_w_id = ol_w_id AND \
        ol_i_id = s_i_id AND ol_w_id = s_w_id AND \
        s_quantity < :threshold AND \
        ol_o_id BETWEEN (d_next_o_id - 20) AND (d_next_o_id - 1) \
        order by ol_o_id desc"
    #endif

    #define SQLTXT_INIT "BEGIN inittpc.init_pay; END;"

```

APPENDIX A - APPLICATION SOURCE CODE

```

int DBExecution::sqlfile(char *fnam, text *linebuf)
{
    FILE *fd;
    int nulpt = 0;
    char realfile[512];

    sprintf(realfile,"%s",fnam);
    fd = fopen(realfile,"r");
    if (!fd){
        fprintf(stderr," fopen on %s failed %d\n",fnam,fd);
        exit(-1);
    }
    while (fgets((char *)linebuf+nulpt, SQL_BUF_SIZE,fd))
        nulpt = strlen((char *)linebuf);

    fclose(fd);

    return(nulpt);
}

int DBExecution::ocierror(char *fname, int lineno, OCIError *errhp, sword
status)
{
    text errbuf[512];
    sb4 errcode;
    sb4 lstat;
    ub4 recno=2;

    switch (status) {
    case OCI_SUCCESS:
        break;
    case OCI_SUCCESS_WITH_INFO:
        userlog("ocierror: Module %s Line %d\n", fname, lineno);
        userlog("ocierror: Error - OCI_SUCCESS_WITH_INFO\n");
        lstat = OCIErrorGet (errhp, recno++, (text *) NULL, &errcode, errbuf,
            (ub4) sizeof(errbuf), OCI_HTYPE_ERROR);
        userlog("ocierror: Error - %s\n", errbuf);
        break;
    case OCI_NEED_DATA:
        userlog("ocierror: Module %s Line %d\n", fname, lineno);
        userlog("ocierror: Error - OCI_NEED_DATA\n");
        return (IRRECERR);
    case OCI_NO_DATA:
        userlog("ocierror: Module %s Line %d\n", fname, lineno);
        userlog("ocierror: Error - OCI_NO_DATA\n");
        return (IRRECERR);
    case OCI_ERROR:
        lstat = OCIErrorGet (errhp, (ub4) 1,
            (text *) NULL, &errcode, errbuf,
            (ub4) sizeof(errbuf),
OCI_HTYPE_ERROR);
        if (errcode == NOT_SERIALIZABLE) return (errcode);
        if (errcode == SNAPSHOT_TOO_OLD) return (errcode);
        while (lstat != OCI_NO_DATA)
        {
            userlog("ocierror: Module %s Line %d\n", fname, lineno);
            userlog("ocierror: Error - %s\n", errbuf);
            lstat = OCIErrorGet (errhp, recno++, (text *) NULL, &errcode, errbuf,
                (ub4) sizeof(errbuf), OCI_HTYPE_ERROR);
        }
        return (errcode);
    /* vmm313 TPCexit(1); */
    /* vmm313 exit(1); */
    case OCI_INVALID_HANDLE:
        userlog("ocierror: Module %s Line %d\n", fname, lineno);
        userlog("ocierror: Error - OCI_INVALID_HANDLE\n");
        TPCexit();
        exit(-1);
    case OCI_STILL_EXECUTING:
        userlog("ocierror: Module %s Line %d\n", fname, lineno);
        userlog("ocierror: Error - OCI_STILL_EXECUTE\n");
        return (IRRECERR);
    case OCI_CONTINUE:
        userlog("ocierror: Module %s Line %d\n", fname, lineno);
        userlog("ocierror: Error - OCI_CONTINUE\n");
        return (IRRECERR);
    default:
        userlog("ocierror: Module %s Line %d\n", fname, lineno);
        userlog("ocierror: Status - %s\n", status);
        return (IRRECERR);
    }
    return (RECOVERR);
}

/*****
*****
* TPCinit TPCexit
*****
*****/

int DBExecution::TPCinit (int id, char *uid, char *pwd)
{
    // OCIInitialize(OCI_DEFAULT|OCI_OBJECT,(dvoid *)0,0,0,0);
    // OCIEnvCreate(&tpcenv, OCI_DEFAULT|OCI_OBJECT,(dvoid
    *)0,0,0,0, (dvoid **)0);

    #ifndef LOOPBACK

        text stmbuff[100];
        int i;

        #define SQLTXT "alter session set isolation_level = serializable"
        #define SQLTXTTRC "alter session set sql_trace = true"
        #define SQLTXTTIM "alter session set timed_statistics = true"
        #define SQLTXTOPS "alter session set current_schema = tpcc"

        proc_no = id;
        /*
        char *temp;

        if ((temp = getenv("LOCAL"))==NULL)
            _putenv("LOCAL=tpcc");

        OCIInitialize(OCI_DEFAULT|OCI_OBJECT,(dvoid *)0,0,0,0);
        // OCIERROR(errhp, OCIInitialize(OCI_THREADED|OCI_OBJECT,(dvoid
        *)0,0,0,0);
        // OCIERROR(errhp, OCIEnvInit(&tpcenv, OCI_DEFAULT, 0, (dvoid **)0);

        OCIEnvCreate(&tpcenv, OCI_DEFAULT|OCI_OBJECT,(dvoid
        *)0,0,0,0, (dvoid **)0);

        OCIERROR(errhp, OCIHandleAlloc((dvoid *)tpcenv, (dvoid **)&tpcsrv,
        OCI_HTYPE_SERVER, 0, (dvoid **)0);
        OCIERROR(errhp, OCIHandleAlloc((dvoid *)tpcenv, (dvoid **)&errhp,
        OCI_HTYPE_ERROR, 0, (dvoid **)0);
        OCIERROR(errhp, OCIHandleAlloc((dvoid *)tpcenv, (dvoid **)&tpcsvc,
        OCI_HTYPE_SVCCTX, 0, (dvoid **)0);

        for (i=0; i<100; i++) {

            execstatus = OCIServerAttach(tpcsrv, errhp,
            (text *)0,0,OCI_DEFAULT);
            if (execstatus == OCI_SUCCESS || execstatus
            == OCI_SUCCESS_WITH_INFO)
                break;
            OCIERROR(errhp, execstatus);
            Sleep(10);
        }

        if (i==100) {
            userlog("Can't attach to Server after 100 tries\n");
            return -1;
        }

        OCIERROR(errhp, OCIAttrSet((dvoid *)tpcsvc, OCI_HTYPE_SVCCTX,
        (dvoid *)tpcsrv, (ub4)0,OCI_ATTR_SERVER, errhp));
        OCIERROR(errhp, OCIHandleAlloc((dvoid *)tpcenv, (dvoid **)&tpcsur,
        OCI_HTYPE_SESSION, 0, (dvoid **)0);
        #ifdef OPS_LOGIN
            OCIERROR(errhp, OCISessionBegin(tpcsvc, errhp, tpcsur,
            OCI_CRED_EXT, OCI_DEFAULT));
        #else
            OCIERROR(errhp, OCIAttrSet((dvoid *)tpcsur, OCI_HTYPE_SESSION,
            (dvoid *)uid, (ub4)strlen(uid),OCI_ATTR_USERNAME, errhp));
            OCIERROR(errhp, OCIAttrSet((dvoid *)tpcsur, OCI_HTYPE_SESSION,
            (dvoid *)pwd, (ub4)strlen(pwd),
            OCI_ATTR_PASSWORD, errhp));
            OCIERROR(errhp, OCISessionBegin(tpcsvc, errhp, tpcsur,
            OCI_CRED_RDBMS, OCI_DEFAULT));
        #endif

        OCIERROR(errhp, OCIAttrSet(tpcsvc, OCI_HTYPE_SVCCTX, tpcsur, 0,
        OCI_ATTR_SESSION, errhp));

        /* run all transaction in serializable mode */

        OCIHandleAlloc(tpcenv, (dvoid **)&curi, OCI_HTYPE_STMT, 0,
        (dvoid **)0);
        sprintf ((char *) stmbuff, SQLTXT);
        OCIStmtPrepare(curi, errhp, stmbuff, strlen((char *)stmbuff),
        OCI_NTV_SYNTAX, OCI_DEFAULT);
        OCIERROR(errhp,OCIStmtExecute(tpcsvc, curi,
        errhp,1,0,0,0,OCI_DEFAULT));

        OCIHandleFree(curi, OCI_HTYPE_STMT);

    #endif OPS_LOGIN
    }
}

```


APPENDIX A - APPLICATION SOURCE CODE

```

OCIHandleAlloc(tpcenv, (dvoid **)&curi, OCI_HTYPE_STMT, 0,
(dvoid**)0);
memset(stmbuf,0,100);
sprintf ((char *) stmbuf, SQLTXTOPS);
OCIStmtPrepare(cur, errhp, stmbuf, strlen((char *)stmbuf),
OCI_NTV_SYNTAX,
OCI_DEFAULT);
OCIERROR(errhp, OCIStmtExecute(tpcscv, cur,
errhp,1,0,0,0,OCI_DEFAULT));
OCIHandleFree((dvoid *)curi, OCI_HTYPE_STMT);
#endif

if (tracelevel == 3) {
OCIHandleAlloc(tpcenv, (dvoid **)&curi, OCI_HTYPE_STMT, 0,
(dvoid**)0);
memset(stmbuf,0,100);
sprintf ((char *) stmbuf, SQLTXTTIM);
OCIStmtPrepare(cur, errhp, stmbuf, strlen((char *)stmbuf),
OCI_NTV_SYNTAX,
OCI_DEFAULT);
OCIERROR(errhp, OCIStmtExecute(tpcscv, cur,
errhp,1,0,0,0,OCI_DEFAULT));
OCIHandleFree((dvoid *)curi, OCI_HTYPE_STMT);
}

logon = 1;

OCIERROR(errhp,OCIDateSysDate(errhp,&cr_date));

if (tkvcninit ()) { /* new order */
TPCexit ();
return (-1);
}
else
new_init = 1;

if (tkvcpinit ()) { /* payment */
TPCexit ();
return (-1);
}
else
pay_init = 1;

if (tkvcoint ()) { /* order status */
TPCexit ();
return (-1);
}
else
ord_init = 1;

if (tkvcdinit (0)) { /* delivery */
TPCexit ();
return (-1);
}
else
del_init_oci = 1;

if (tkvcdinit (1)) { /* delivery */
TPCexit ();
return (-1);
}
else
del_init_plsql = 1;

if (tkvcsinit ()) { /* stock level */
TPCexit ();
return (-1);
}
else
sto_init = 1;
}

#endif

return (0);
}

void DBExecution::TPCexit()
{
#ifdef LOOPBACK
if (new_init) {
tkvcndone();
new_init = 0;
}
if (pay_init) {
tkvcpdone();
pay_init = 0;
}
}

```

```

}
if (ord_init) {
tkvcodone();
ord_init = 0;
}
if (del_init_oci) {
tkvcddone(0);
del_init_oci = 0;
}
if (del_init_plsql) {
tkvcddone(1);
del_init_plsql = 0;
}
if (sto_init) {
tkvcdone();
sto_init = 0;
}

OCIHandleFree((dvoid *)tpcusr, OCI_HTYPE_SESSION);
OCIHandleFree((dvoid *)tpcscv, OCI_HTYPE_SVCCTX);
OCIHandleFree((dvoid *)errhp, OCI_HTYPE_ERROR);
OCIHandleFree((dvoid *)tpcscv, OCI_HTYPE_SERVER);
OCIHandleFree((dvoid *)tpcenv, OCI_HTYPE_ENV);
}

#endif
}

/*****
*****
* tkvcninit tkvcndone tkvcpinit tkvcpdone tkvcdinit tkvcddone tkvcoint
tkvcodone *
* tkvcsinit tkvcdone *
*****/

int DBExecution::tkvcninit ()
{
text stmbuf[32*1024];

nctx = (newctx *) malloc (sizeof(newctx));
DISCARD memset(nctx,(char)0,sizeof(newctx));
nctx->w_id_len = sizeof(w_id);
nctx->d_id_len = sizeof(d_id);
nctx->c_id_len = sizeof(c_id);
nctx->o_all_local_len = sizeof(o_all_local);
nctx->o_ol_cnt_len = sizeof(o_ol_cnt);
nctx->w_tax_len = 0;
nctx->d_tax_len = 0;
nctx->o_id_len = sizeof(o_id);
nctx->c_discount_len = 0;
nctx->c_credit_len = 0;
nctx->c_last_len = 0;
nctx->retries_len = sizeof(retries);
nctx->cr_date_len = sizeof(cr_date);

/* open first cursor */
DISCARD OCIERROR(errhp,OCIHandleAlloc(tpcenv,(dvoid **)&nctx->
curn1,
OCI_HTYPE_STMT, 0, (dvoid**)0));

#ifdef ISO
sqlfile("\\blocks\\tkvcpnew_iso.sql",stmbuf);
#else
sqlfile("\\blocks\\tkvcpnew_iso7.sql",stmbuf);
#endif
sqlfile("\\blocks\\tkvcpnew.sql",stmbuf);
#endif
#endif

DISCARD OCIERROR(errhp,OCIStmtPrepare(nctx->curn1, errhp,
stmbuf,
strlen((char *)stmbuf), OCI_NTV_SYNTAX, OCI_DEFAULT));

/* bind variables */

OCIBNDPL(nctx->curn1, nctx->w_id_bp, errhp,
":w_id",ADR(w_id),SIZ(w_id),
SQLT_INT, &nctx->w_id_len);
OCIBNDPL(nctx->curn1, nctx->d_id_bp, errhp,
":d_id",ADR(d_id),SIZ(d_id),
SQLT_INT, &nctx->d_id_len);
OCIBNDPL(nctx->curn1, nctx->c_id_bp, errhp,
":c_id",ADR(c_id),SIZ(c_id),
SQLT_INT, &nctx->c_id_len);
OCIBNDPL(nctx->curn1, nctx->o_all_local_bp, errhp, ":o_all_local",

```

APPENDIX A - APPLICATION SOURCE CODE

```

ADR(o_all_local), SIZ(o_all_local),SQLT_INT, &nctx-
>o_all_local_len);
OCIBNDPL(nctx->curr1, nctx->o_all_cnt_bp, errhp,
":o_all_cnt",ADR(o_all_cnt),
    SIZ(o_all_cnt),SQLT_INT, &nctx->o_all_cnt_len);
OCIBNDPL(nctx->curr1, nctx->w_tax_bp, errhp,
":w_tax",ADR(w_tax),SIZ(w_tax),
    SQLT_FLT, &nctx->w_tax_len);
OCIBNDPL(nctx->curr1, nctx->d_tax_bp, errhp,
":d_tax",ADR(d_tax),SIZ(d_tax),
    SQLT_FLT, &nctx->d_tax_len);
OCIBNDPL(nctx->curr1, nctx->o_id_bp, errhp,
":o_id",ADR(o_id),SIZ(o_id),
    SQLT_INT, &nctx->o_id_len);
OCIBNDPL(nctx->curr1, nctx->c_discount_bp, errhp, ":c_discount",
    ADR(c_discount), SIZ(c_discount),SQLT_FLT, &nctx-
>c_discount_len);
OCIBNDPL(nctx->curr1, nctx->c_credit_bp, errhp, ":c_credit",c_credit,
    SIZ(c_credit),SQLT_CHR, &nctx->c_credit_len);
OCIBNDPL(nctx->curr1, nctx->c_last_bp, errhp,
":c_last",c_last,SIZ(c_last),
    SQLT_STR, &nctx->c_last_len);
OCIBNDPL(nctx->curr1, nctx->retries_bp, errhp, ":retry",ADR(retries),
    SIZ(retries),SQLT_INT, &nctx->retries_len);
OCIBNDPL(nctx->curr1, nctx->cr_date_bp, errhp, ":cr_date",&cr_date,
    SIZ(OCIDate), SQLT_ODT, &nctx->cr_date_len);

OCIBNDPLA(nctx->curr1, nctx->ol_i_id_bp,errhp,":ol_i_id",noI_i_id,
    SIZ(int), SQLT_INT, nctx->noI_i_id_len,NITEMS,&nctx-
>noI_i_count);
OCIBNDPLA(nctx->curr1, nctx->ol_supply_w_id_bp, errhp,
":ol_supply_w_id",
    noI_supply_w_id,SIZ(int),SQLT_INT, nctx->noI_supply_w_id_len,
    NITEMS, &nctx->noI_s_count);

#ifdef USE_IEEE_NUMBER
OCIBNDPLA(nctx->curr1, nctx->ol_quantity_bp,errhp,":ol_quantity",
    noI_quantity, SIZ(double),SQLT_Bdouble,nctx->noI_quantity_len,
    NITEMS,&nctx->noI_q_count);

OCIBNDPLA(nctx->curr1, nctx-
>i_price_bp,errhp,":i_price",i_price,SIZ(double),
    SQLT_Bdouble, nctx->i_price_len, NITEMS, &nctx-
>noI_item_count);
#else
OCIBNDPLA(nctx->curr1, nctx->ol_quantity_bp,errhp,":ol_quantity",
    noI_quantity, SIZ(int),SQLT_INT,nctx->noI_quantity_len,
    NITEMS,&nctx->noI_q_count);

OCIBNDPLA(nctx->curr1, nctx-
>i_price_bp,errhp,":i_price",i_price,SIZ(int),
    SQLT_INT, nctx->i_price_len, NITEMS, &nctx->noI_item_count);
#endif /* USE_IEEE_NUMBER */
OCIBNDPLA(nctx->curr1, nctx->i_name_bp,errhp,":i_name",i_name,
    SIZ(i_name[0]),SQLT_STR, nctx->i_name_len,NITEMS,
    &nctx->noI_name_count);

#ifdef USE_IEEE_NUMBER
OCIBNDPLA(nctx->curr1, nctx-
>s_quantity_bp,errhp,":s_quantity",s_quantity,
    SIZ(double), SQLT_Bdouble,nctx->s_quant_len,NITEMS,&nctx-
>noI_qty_count);
#else
OCIBNDPLA(nctx->curr1, nctx-
>s_quantity_bp,errhp,":s_quantity",s_quantity,
    SIZ(int), SQLT_INT,nctx->s_quant_len,NITEMS,&nctx-
>noI_qty_count);
#endif /* USE_IEEE_NUMBER */

OCIBNDPLA(nctx->curr1, nctx-
>s_bg_bp, errhp, ":brand_generic",brand_generic,
    SIZ(char), SQLT_CHR,nctx->s_bg_len,NITEMS,&nctx-
>noI_bg_count);
#ifdef USE_IEEE_NUMBER
OCIBNDPLA(nctx->curr1, nctx-
>ol_amount_bp,errhp,":ol_amount",noI_amount,
    SIZ(double),SQLT_Bdouble, nctx->noI_amount_len,NITEMS,&nctx-
>noI_am_count);

OCIBNDPLA(nctx->curr1, nctx->s_remote_bp,errhp,":s_remote",nctx-
>s_remote,
    SIZ(double),SQLT_Bdouble, nctx->s_remote_len,NITEMS,&nctx-
>s_remote_count);
#else
OCIBNDPLA(nctx->curr1, nctx-
>ol_amount_bp,errhp,":ol_amount",noI_amount,
    SIZ(int),SQLT_INT, nctx->noI_amount_len,NITEMS,&nctx-
>noI_am_count);

OCIBNDPLA(nctx->curr1, nctx->s_remote_bp,errhp,":s_remote",nctx-
>s_remote,

```

```

    SIZ(int),SQLT_INT, nctx->s_remote_len,NITEMS,&nctx-
>s_remote_count);
#endif /* USE_IEEE_NUMBER */

/* open second cursor */
DISCARD OCIERROR(errhp,OCIHandleAlloc(tpcenv, (dvoid **)&nctx-
>curr2),
    OCI_HTYPE_STMT, 0, (dvoid**)0);
DISCARD sprintf ((char *) stmbuf, SQLTXTNW2);
DISCARD OCIERROR(errhp,OCIStmtPrepare(nctx->curr2, errhp,
stmbuf,
    strlen((char *)stmbuf), OCI_NTV_SYNTAX, OCI_DEFAULT));

/* execute second cursor to init newinit package */
{
    int idx1arr[NITEMS];
    OCIBind "idx1arr_bp";
    ub2 idx1arr_len[NITEMS];
    sb2 idx1arr_ind[NITEMS];
    ub4 idx1arr_count;
    ub2 idx;

    for (idx = 0; idx < NITEMS; idx++) {
        idx1arr[idx] = idx + 1;
        idx1arr_ind[idx] = TRUE;
        idx1arr_len[idx] = sizeof(int);
    }
    idx1arr_count = NITEMS;
    o_all_cnt = NITEMS;

/* Bind array */
OCIBNDPLA(nctx->curr2, idx1arr_bp,errhp,":idx1arr",idx1arr,
    SIZ(int), SQLT_INT, idx1arr_len, NITEMS,&idx1arr_count);

    execstatus = OCIStmtExecute(tpcenv,nctx->curr2, errhp,1,0,
    NULL(CONST
OCISnapshot),NULL(OCISnapshot),OCI_DEFAULT);

    if(execstatus != OCI_SUCCESS) {
OCITransRollback(tpcenv,errhp,OCI_DEFAULT);
        errcode = OCIERROR(errhp,execstatus);
        return -1;
    }
}

return (0);
}

void DBExecution::tkvcndone ()
{
    if (nctx)
    {
        DISCARD OCIHandleFree((dvoid *)nctx->curr1,OCI_HTYPE_STMT);
        DISCARD OCIHandleFree((dvoid *)nctx->curr2,OCI_HTYPE_STMT);
        free (nctx);
    }
}

int DBExecution::tkvodinit (int plsqflag)
{
    text stmbuf[SQL_BUF_SIZE];

    if (plsqflag)
    {
        pldctx = (pldelctx *) malloc (sizeof(pldelctx));
        DISCARD memset(pldctx, (char)0, (ub4)sizeof(pldelctx));
        /* Initialize */
        DISCARD OCIHandleAlloc(tpcenv, (dvoid **)&pldctx->curr1,
        OCI_HTYPE_STMT, 0,
            (dvoid**)0);
        DISCARD sprintf ((char *) stmbuf, SQLTXTDDEL);
        DISCARD OCIStmtPrepare(pldctx->curr1, errhp, stmbuf,
            (ub4) strlen((char *)stmbuf),
            OCI_NTV_SYNTAX, OCI_DEFAULT);
        DISCARD OCIERROR(errhp,
            OCIStmtExecute(tpcenv,pldctx-
>curr1,errhp,1,0,NULL(OCISnapshot),
            NULL(OCISnapshot), OCI_DEFAULT));

        DISCARD OCIHandleAlloc(tpcenv,(dvoid **)&pldctx->curr2,
        OCI_HTYPE_STMT,
            0, (dvoid**)0);
        #if defined(ISO5) || defined(ISO6) || defined(ISO8)

```

APPENDIX A - APPLICATION SOURCE CODE

```

#if defined(ISO5)
sqlfile(".\blocks\tkvcpedel_iso5.sql",stmbuf);
#endif
#if defined(ISO6)
sqlfile(".\blocks\tkvcpedel_iso6.sql",stmbuf);
#endif
#if defined(ISO8)
sqlfile(".\blocks\tkvcpedel_iso8.sql",stmbuf);
#endif
#else
sqlfile(".\blocks\tkvcpedel.sql",stmbuf);
#endif
DISCARD OCISmtPrepare(pldctx->curp2, errhp, stmbuf,
(ub4)strlen((char *)stmbuf), OCI_NTV_SYNTAX,
OCI_DEFAULT);
OCIBNDPL(pldctx->curp2, pldctx->w_id_bp, errhp, "w_id",
ADR(w_id), SIZ(int), SQLT_INT, &pldctx->w_id_len);
OCIBNDPL(pldctx->curp2, pldctx->ordcnt_bp, errhp, "ordcnt",
ADR(pldctx->ordcnt), SIZ(int), SQLT_INT, &pldctx->ordcnt_len);
OCIBNDPL(pldctx->curp2, pldctx->del_date_bp, errhp, "now",
ADR(pldctx->del_date), SIZ(OCIDate), SQLT_ODT, &pldctx-
>del_date_len);
OCIBNDPL(pldctx->curp2, pldctx->carrier_id_bp, errhp,
"carrier_id", ADR(o_carrier_id), SIZ(int),
SQLT_INT, &pldctx->carrier_id_len);

OCIBNDPLA(pldctx->curp2, pldctx->d_id_bp, errhp, "d_id",
pldctx->del_d_id, SIZ(int), SQLT_INT, pldctx->del_d_id_len,
NDISTS, &pldctx->del_d_id_rcnt);
OCIBNDPLA(pldctx->curp2, pldctx->o_id_bp, errhp, "order_id",
pldctx->del_o_id, SIZ(int), SQLT_INT, pldctx-
>del_o_id_len, NDISTS,
&pldctx->del_o_id_rcnt);
#endif USE_IEEE_NUMBER
OCIBNDPLA(pldctx->curp2, pldctx->sums_bp, errhp, "sums",
pldctx->sums, SIZ(double), SQLT_Bdouble, pldctx-
>sums_len, NDISTS,
&pldctx->sums_rcnt);
#else
OCIBNDPLA(pldctx->curp2, pldctx->sums_bp, errhp, "sums",
pldctx->sums, SIZ(int), SQLT_INT, pldctx->sums_len, NDISTS,
&pldctx->sums_rcnt);
#endif
OCIBNDPLA(pldctx->curp2, pldctx->o_c_id_bp, errhp, "o_c_id",
pldctx->o_c_id, SIZ(int), SQLT_INT, pldctx->o_c_id_len, NDISTS,
&pldctx->o_c_id_rcnt);
OCIBND(pldctx->curp2, pldctx->retry_bp, errhp, "retry",
ADR(pldctx->retry), SIZ(int), SQLT_INT);
}
else
{
dctx = (delctx *) malloc (sizeof(delctx));
memset(dctx, (char)0, sizeof(delctx));
dctx->norow = 0;
actx = (amtctx *) malloc (sizeof(amtctx));
memset(actx, (char)0, sizeof(amtctx));

OCIHandleAlloc(tpcenv, (dvoid **)&dctx->curd1), OCI_HTYPE_STMT,
0,
(dvoid**)0);
DISCARD sprintf ((char *) stmbuf, "%s", SQLTXTDEL1);
DISCARD OCISmtPrepare(dctx->curd1, errhp, stmbuf,
strlen((char *)stmbuf), OCI_NTV_SYNTAX,
OCI_DEFAULT);

OCIBND(dctx->curd1, dctx->w_id_bp, errhp, "w_id", dctx->w_id, SIZ(int),
SQLT_INT);
OCIBNDRA(dctx->curd1, dctx->d_id_bp, errhp, "d_id", dctx-
>d_id, SIZ(int),
SQLT_INT, NULL, NULL, NULL);

OCIBNDRAD(dctx->curd1, dctx->del_o_id_bp, errhp, "o_id",
SIZ(int), SQLT_INT, NULL,
&dctx->oid_ctx, no_data, TPC_oid_data);

/* open third cursor */
DISCARD OCIHandleAlloc(tpcenv, (dvoid **)&dctx->curd3),
OCI_HTYPE_STMT,
0, (dvoid**)0);
DISCARD sprintf ((char *) stmbuf, SQLTXTDEL3);
DISCARD OCISmtPrepare(dctx->curd3, errhp, stmbuf, strlen((char
*)stmbuf),
OCI_NTV_SYNTAX, OCI_DEFAULT);

/* bind variables */
OCIBNDRA(dctx->curd3, dctx->carrier_id_bp, errhp, "carrier id",

```

```

dctx->carrier_id, SIZ(dctx->carrier_id[0]), SQLT_INT,
dctx->carrier_id_ind, dctx->carrier_id_len, dctx->carrier_id_rcode);

OCIBNDRA(dctx->curd3, dctx->w_id_bp3, errhp, "w_id", dctx-
>w_id, SIZ(int),
SQLT_INT, NULL, NULL, NULL);
OCIBNDRA(dctx->curd3, dctx->d_id_bp3, errhp, "d_id", dctx-
>d_id, SIZ(int),
SQLT_INT, NULL, NULL, NULL);
OCIBNDRA(dctx->curd3, dctx->del_o_id_bp3, errhp, "o_id", dctx-
>del_o_id,
SIZ(int), SQLT_INT, NULL, NULL, NULL);
OCIBNDRAD(dctx->curd3, dctx->c_id_bp3, errhp, "o_c_id", SIZ(int),
SQLT_INT, NULL, &dctx->cid_ctx, no_data, cid_data);

/* open fourth cursor */
DISCARD OCIHandleAlloc(tpcenv, (dvoid **)&dctx->curd4),
OCI_HTYPE_STMT, 0,
(dvoid**)0);
DISCARD sprintf ((char *) stmbuf, SQLTXTDEL4);
DISCARD OCISmtPrepare(dctx->curd4, errhp, stmbuf, strlen((char
*)stmbuf),
OCI_NTV_SYNTAX, OCI_DEFAULT);

/* bind variables */
OCIBND(dctx->curd4, dctx->w_id_bp4, errhp, "w_id", dctx->w_id,
SIZ(int), SQLT_INT);
OCIBND(dctx->curd4, dctx->d_id_bp4, errhp, "d_id", dctx->d_id,
SIZ(int), SQLT_INT);
OCIBND(dctx->curd4, dctx->o_id_bp, errhp, "o_id", dctx->del_o_id,
SIZ(int), SQLT_INT);
OCIBND(dctx->curd4, dctx->cr_date_bp, errhp, "cr_date", dctx-
>del_date,
SIZ(OCIDate), SQLT_ODT);
OCIBNDRAD(dctx->curd4, dctx->olamt_bp, errhp, "o_lamount",
SIZ(int), SQLT_INT, NULL, actx, no_data, amt_data);

/* open sixth cursor */
DISCARD OCIHandleAlloc(tpcenv, (dvoid **)&dctx->curd6),
OCI_HTYPE_STMT,
0, (dvoid**)0);
DISCARD sprintf ((char *) stmbuf, SQLTXTDEL6);
DISCARD OCISmtPrepare(dctx->curd6, errhp, stmbuf, strlen((char
*)stmbuf),
OCI_NTV_SYNTAX, OCI_DEFAULT);

/* bind variables */
OCIBND(dctx->curd6, dctx->amt_bp, errhp, "amt", dctx->amt, SIZ(int),
SQLT_INT);
OCIBND(dctx->curd6, dctx->w_id_bp6, errhp, "w_id", dctx-
>w_id, SIZ(int),
SQLT_INT);
OCIBND(dctx->curd6, dctx->d_id_bp6, errhp, "d_id", dctx->d_id, SIZ(int),
SQLT_INT);
OCIBND(dctx->curd6, dctx->c_id_bp, errhp, "c_id", dctx->c_id, SIZ(int),
SQLT_INT);
}
return (0);
}

void DBExecution::shiftdata(int from)
{
int i;
for (i=from; i<NDISTS-1; i++)
{
dctx->del_o_id_ind[i] = dctx->del_o_id_ind[i+1];
dctx->del_o_id[i] = dctx->del_o_id[i+1];
dctx->w_id[i] = dctx->w_id[i+1];
dctx->d_id[i] = dctx->d_id[i+1];
dctx->carrier_id[i] = dctx->carrier_id[i+1];
}
}

void DBExecution::tkvoddone(int plsqqflag)
{
if (plsqqflag)
{
if (pldctx)
{
DISCARD OCIHandleFree((dvoid *)dctx->curd0, OCI_HTYPE_STMT);

```

APPENDIX A - APPLICATION SOURCE CODE

```

DISCARD free(pldctx);
}
else
{
if (dctx)
{
OCIHandleFree((dvoid *)dctx->curd1,OCI_HTYPE_STMT);
OCIHandleFree((dvoid *)dctx->curd2,OCI_HTYPE_STMT);
OCIHandleFree((dvoid *)dctx->curd3,OCI_HTYPE_STMT);
OCIHandleFree((dvoid *)dctx->curd4,OCI_HTYPE_STMT);
OCIHandleFree((dvoid *)dctx->curd5,OCI_HTYPE_STMT);
OCIHandleFree((dvoid *)dctx->curd6,OCI_HTYPE_STMT);
DISCARD free (dctx);
}
}
}

int DBExecution::tkvcoinit ()
{
int i;
text stmbuf[SQL_BUF_SIZE];

octx = (ordctx *) malloc (sizeof(ordctx));
DISCARD memset(octx,(char)0,sizeof(ordctx));
octx->cs = 1;
octx->norow = 0;
octx->somerows = 10;
for(i=0;i<100;i++) {
DISCARD OCIERROR(errhp, OCIDescriptorAlloc(tpcenv,
(dvoid**) &octx->c_rowid_ptr[i],
OCI_DTYPE_ROWID,0,(dvoid**)0));
}

DISCARD OCIERROR(errhp,
OCIHandleAlloc(tpcenv,(dvoid**) &octx-
>curo0,OCI_HTYPE_STMT,0,(dvoid**)0);
DISCARD OCIERROR(errhp,
OCIHandleAlloc(tpcenv,(dvoid**) &octx-
>curo0,OCI_HTYPE_STMT,0,(dvoid**)0);
DISCARD OCIERROR(errhp,
OCIHandleAlloc(tpcenv,(dvoid**) &octx-
>curo1,OCI_HTYPE_STMT,0,(dvoid**)0);
DISCARD OCIERROR(errhp,
OCIHandleAlloc(tpcenv,(dvoid**) &octx-
>curo2,OCI_HTYPE_STMT,0,(dvoid**)0);
DISCARD OCIERROR(errhp,
OCIHandleAlloc(tpcenv,(dvoid**) &octx-
>curo3,OCI_HTYPE_STMT,0,(dvoid**)0);
DISCARD OCIERROR(errhp,
OCIHandleAlloc(tpcenv,(dvoid**) &octx-
>curo4,OCI_HTYPE_STMT,0,(dvoid**)0);

/* c_id = 0, use find customer by lastname. Get an array or rowid's back*/
DISCARD sprintf((char *) stmbuf, SQLCUR0);
DISCARD OCIERROR(errhp,
OCIStmtPrepare(octx->curo0, errhp, stmbuf, (ub4)strlen((char *)stmbuf),
OCI_NTV_SYNTAX,OCI_DEFAULT));
DISCARD OCIERROR(errhp,
OCIAttrSet(octx->curo0,OCI_HTYPE_STMT,&octx->norow,0,
OCI_ATTR_PREFETCH_ROWS,errhp));
/* get order/customer info back based on rowid */
DISCARD sprintf((char *) stmbuf, SQLCUR1);
DISCARD OCIERROR(errhp,
OCIStmtPrepare(octx->curo1, errhp, stmbuf, (ub4)strlen((char *)stmbuf),
OCI_NTV_SYNTAX,OCI_DEFAULT));
DISCARD OCIERROR(errhp,
OCIAttrSet(octx->curo1,OCI_HTYPE_STMT,&octx->norow,0,
OCI_ATTR_PREFETCH_ROWS,errhp));

/* c_id == 0, use lastname to find customer */
DISCARD sprintf((char *) stmbuf, SQLCUR2);
DISCARD OCIERROR(errhp,
OCIStmtPrepare(octx->curo2, errhp, stmbuf, (ub4)strlen((char *)stmbuf),
OCI_NTV_SYNTAX,OCI_DEFAULT));
DISCARD OCIERROR(errhp,
OCIAttrSet(octx->curo2,OCI_HTYPE_STMT,&octx->norow,0,
OCI_ATTR_PREFETCH_ROWS,errhp));

DISCARD sprintf((char *) stmbuf, SQLCUR3);
DISCARD OCIERROR(errhp,
OCIStmtPrepare(octx->curo3, errhp, stmbuf, (ub4)strlen((char *)stmbuf),
OCI_NTV_SYNTAX,OCI_DEFAULT));
DISCARD OCIERROR(errhp,
OCIAttrSet(octx->curo3,OCI_HTYPE_STMT,&octx->norow,0,
OCI_ATTR_PREFETCH_ROWS,errhp));

DISCARD sprintf((char *) stmbuf, SQLCUR4);
DISCARD OCIERROR(errhp,
OCIStmtPrepare(octx->curo4, errhp, stmbuf, (ub4)strlen((char *)stmbuf),
OCI_NTV_SYNTAX,OCI_DEFAULT));
DISCARD OCIERROR(errhp,
OCIAttrSet(octx->curo4,OCI_HTYPE_STMT,&octx->norow,0,
OCI_ATTR_PREFETCH_ROWS,errhp));

for (i = 0; i < NITEMS; i++) {
octx->ol_supply_w_id_len[i] = sizeof(int);
octx->ol_i_id_len[i] = sizeof(int);
octx->ol_quantity_len[i] = sizeof(int);
octx->ol_amount_len[i] = sizeof(int);
octx->ol_delivery_d_len[i] = sizeof(ol_d_base[0]);
}
octx->ol_supply_w_id_csize = NITEMS;
octx->ol_i_id_csize = NITEMS;
octx->ol_quantity_csize = NITEMS;
octx->ol_amount_csize = NITEMS;
octx->ol_delivery_d_csize = NITEMS;
octx->ol_w_id_csize = NITEMS;
octx->ol_o_id_csize = NITEMS;
octx->ol_d_id_csize = NITEMS;
octx->ol_w_id_len = sizeof(int);
octx->ol_d_id_len = sizeof(int);
octx->ol_o_id_len = sizeof(int);

/* bind variables */

/* c_id (customer id) is not known */
OCIBND(octx->curo0,octx->w_id_bp[0],errhp,":w_id",ADR(w_id),
SIZ(int),SQLT_INT);
OCIBND(octx->curo0,octx->d_id_bp[0],errhp,":d_id",ADR(d_id),
SIZ(int),SQLT_INT);
OCIBND(octx->curo0,octx->c_last_bp[0],errhp,":c_last",c_last,
SIZ(c_last),SQLT_STR);
OCIDFNRA(octx->curo0,octx->c_rowid_dp,errhp,1,octx->c_rowid_ptr,
SIZ(OCIRowid*),SQLT_RDD,NULL,octx->c_rowid_len,NULL);

OCIBND(octx->curo1,octx->c_rowid_bp,errhp,":cust_rowid", &octx-
>c_rowid_cust,
sizeof(octx->c_rowid_ptr[0]),SQLT_RDD);
OCIDEF(octx->curo1,octx-
>c_id_dp,errhp,1,ADR(c_id),SIZ(int),SQLT_INT);
#ifdef USE_IEEE_NUMBER
OCIDEF(octx->curo1,octx->c_balance_dp[0],errhp,2,ADR(c_balance),
SIZ(double),SQLT_BDOUBLE);
#else
OCIDEF(octx->curo1,octx->c_balance_dp[0],errhp,2,ADR(c_balance),
SIZ(double),SQLT_FLT);
#endif /* USE_IEEE_NUMBER */
OCIDEF(octx->curo1,octx->c_first_dp[0],errhp,3,c_first,SIZ(c_first)-1,
SQLT_CHR);
OCIDEF(octx->curo1,octx->c_middle_dp[0],errhp,4,c_middle,
SIZ(c_middle)-1,SQLT_AFC);
OCIDEF(octx->curo1,octx->c_last_dp[0],errhp,5,c_last,SIZ(c_last)-1,
SQLT_CHR);
OCIDEF(octx->curo1,octx-
>o_id_dp[0],errhp,6,ADR(o_id),SIZ(int),SQLT_INT);
OCIDEF(octx->curo1,octx->o_entry_d_dp[0],errhp,7,
&o_entry_d_base,SIZ(OCIDate),SQLT_ODT);
OCIDEF(octx->curo1,octx->o_cr_id_dp[0],errhp,8,ADR(o_carrier_id),
SIZ(int),SQLT_INT);
OCIDEF(octx->curo1,octx->o_ol_cnt_dp[0],errhp,9,ADR(o_ol_cnt),
SIZ(int),SQLT_INT);

/* Bind for third cursor , no-zero customer id */
OCIBND(octx->curo2,octx->w_id_bp[1],errhp,":w_id",ADR(w_id),
SIZ(int),SQLT_INT);
OCIBND(octx->curo2,octx->d_id_bp[1],errhp,":d_id",ADR(d_id),
SIZ(int),SQLT_INT);
OCIBND(octx->curo2,octx->c_id_bp,errhp,":c_id",ADR(c_id),
SIZ(int),SQLT_INT);
#ifdef USE_IEEE_NUMBER
OCIDEF(octx->curo2,octx->c_balance_dp[1],errhp,1,ADR(c_balance),
SIZ(double),SQLT_BDOUBLE);
#else
OCIDEF(octx->curo2,octx->c_balance_dp[1],errhp,1,ADR(c_balance),
SIZ(double),SQLT_FLT);
#endif /* USE_IEEE_NUMBER */
OCIDEF(octx->curo2,octx->c_first_dp[1],errhp,2,c_first,SIZ(c_first)-1,
SQLT_CHR);
OCIDEF(octx->curo2,octx->c_middle_dp[1],errhp,3,c_middle,
SIZ(c_middle)-1,SQLT_AFC);
OCIDEF(octx->curo2,octx->c_last_dp[1],errhp,4,c_last,SIZ(c_last)-1,
SQLT_CHR);
OCIDEF(octx->curo2,octx-
>o_id_dp[1],errhp,5,ADR(o_id),SIZ(int),SQLT_INT);
OCIDEF(octx->curo2,octx->o_entry_d_dp[1],errhp,6, &o_entry_d_base,
SIZ(OCIDate),SQLT_ODT);
OCIDEF(octx->curo2,octx->o_cr_id_dp[1],errhp,7,ADR(o_carrier_id),
SIZ(int),SQLT_INT);
OCIDEF(octx->curo2,octx->o_ol_cnt_dp[1],errhp,8,ADR(o_ol_cnt),

```

APPENDIX A - APPLICATION SOURCE CODE

```

        SIZ(int),SQLT_INT);
/* Bind for last cursor */
        OCIBND(octx->cur03,octx->w_id_bp[2],errhp,":w_id",ADR(w_id),
        SIZ(int),SQLT_INT);
        OCIBND(octx->cur03,octx->d_id_bp[2],errhp,":d_id",ADR(d_id),
        SIZ(int),SQLT_INT);
        OCIBND(octx->cur03,octx->o_id_bp,errhp,":o_id",ADR(o_id),
        SIZ(int),SQLT_INT);
/*
        OCIBND(octx->cur03,octx->c_id_bp,errhp,":c_id",ADR(c_id),
        SIZ(int),SQLT_INT);
*/

        OCIDFNRA(octx->cur03, octx->ol_i_id_dp, errhp, 1,
        ol_i_id,SIZ(int),SQLT_INT,
                NULL,octx->ol_i_id_len, NULL);
        OCIDFNRA(octx->cur03,octx->ol_supply_w_id_dp,errhp,2,
        ol_supply_w_id,
                SIZ(int),SQLT_INT, NULL,
                octx->ol_supply_w_id_len, NULL);
#ifdef USE_IEEE_NUMBER
        OCIDFNRA(octx->cur03, octx->ol_quantity_dp,errhp,3,
        ol_quantity,SIZ(double),
                SQLT_Bdouble, NULL,octx->ol_quantity_len, NULL);
        OCIDFNRA(octx->cur03,octx->ol_amount_dp,errhp,4,ol_amount,
        SIZ(double),
                SQLT_Bdouble,NULL, octx->ol_amount_len, NULL);
#else
        OCIDFNRA(octx->cur03, octx->ol_quantity_dp,errhp,3,
        ol_quantity,SIZ(int),
                SQLT_INT, NULL,octx->ol_quantity_len, NULL);
        OCIDFNRA(octx->cur03,octx->ol_amount_dp,errhp,4,ol_amount,
        SIZ(int),
                SQLT_INT,NULL, octx->ol_amount_len, NULL);
#endif /* USE_IEEE_NUMBER */
        OCIDFNRA(octx->cur03,octx->ol_d_base_dp,errhp,5,ol_d_base,SIZ(OCIDate),
        SQLT_ODT, NULL,octx->ol_delivery_d_len,NULL);

        OCIBND(octx->cur04,octx->w_id_bp[3],errhp,":w_id",ADR(w_id),
        SIZ(int),SQLT_INT);
        OCIBND(octx->cur04,octx->d_id_bp[3],errhp,":d_id",ADR(d_id),
        SIZ(int),SQLT_INT);
        OCIBND(octx->cur04,octx->c_last_bp[1],errhp,":c_last",c_last,
        SIZ(c_last), SQLT_STR);
        OCIDEF(octx->cur04,octx->c_count_dp,errhp,1,ADR(octx->
        >rcount),SIZ(int),
                SQLT_INT);

        return (0);
}

void DBExecution::tkvcodone ()
{
    if (octx)
        free (octx);
}

int DBExecution::tkvcpinit (void)
{
    text stmbuff[SQL_BUF_SIZE];
    pctx = (payctx *)malloc(sizeof(payctx));
    memset(pctx,(char)0,sizeof(payctx));

/* cursor for init */
    DISCARD OCIERROR(errhp,OCIHandleAlloc(tpcenv, (dvoid **)&(pctx->
    >curpi)),
            OCI_HTYPE_STMT,0,(dvoid**)0);

    DISCARD OCIERROR(errhp,OCIHandleAlloc(tpcenv, (dvoid **)&(pctx->
    >curp0)),
            OCI_HTYPE_STMT,0,(dvoid**)0);
    DISCARD OCIERROR(errhp,OCIHandleAlloc(tpcenv, (dvoid **)&(pctx->
    >curp1)),
            OCI_HTYPE_STMT,0,(dvoid**)0);

/* build the init statement and execute it */

    sprintf ((char*)stmbuff, SQLTXT_INIT);
    DISCARD OCIERROR(errhp,OCIStmtPrepare(pctx->curpi, errhp,
    stmbuff,
            strlen((char *)stmbuff), OCI_NTV_SYNTAX, OCI_DEFAULT));
    DISCARD OCIERROR(errhp, OCIStmtExecute(tpcscv,pctx->
    >curpi,errhp,1,0,

```

```

        NULLP(CONST
        OCISnapshot),NULLP(OCISnapshot),OCI_DEFAULT));

/* customer id != 0, go by last name */

    sqlfile(":\blocks\paynz.sql",stmbuff);
    DISCARD OCIERROR(errhp,OCIStmtPrepare(pctx->curp0, errhp,
    stmbuff,
            strlen((char *)stmbuff), OCI_NTV_SYNTAX, OCI_DEFAULT));

/* customer id == 0, go by last name */

    sqlfile(":\blocks\payz.sql",stmbuff); /* sqlfile opens $O/bench/.../blocks/...
    */
    DISCARD OCIERROR(errhp,OCIStmtPrepare(pctx->curp1, errhp,
    stmbuff,
            strlen((char *)stmbuff), OCI_NTV_SYNTAX, OCI_DEFAULT));

    pctx->w_id_len = SIZ(w_id);
    pctx->d_id_len = SIZ(d_id);
    pctx->c_w_id_len = SIZ(c_w_id);
    pctx->c_d_id_len = SIZ(c_d_id);
    pctx->c_id_len = 0;
    pctx->h_amount_len = SIZ(h_amount);
    pctx->c_last_len = 0;
    pctx->w_street_1_len = 0;
    pctx->w_street_2_len = 0;
    pctx->w_city_len = 0;
    pctx->w_state_len = 0;
    pctx->w_zip_len = 0;
    pctx->d_street_1_len = 0;
    pctx->d_street_2_len = 0;
    pctx->d_city_len = 0;
    pctx->d_state_len = 0;
    pctx->d_zip_len = 0;
    pctx->c_first_len = 0;
    pctx->c_middle_len = 0;
    pctx->c_street_1_len = 0;
    pctx->c_street_2_len = 0;
    pctx->c_city_len = 0;
    pctx->c_state_len = 0;
    pctx->c_zip_len = 0;
    pctx->c_phone_len = 0;
    pctx->c_since_len = 0;
    pctx->c_credit_len = 0;
    pctx->c_credit_lim_len = 0;
    pctx->c_discount_len = 0;
    pctx->c_balance_len = sizeof(double);
    pctx->c_data_len = 0;
    pctx->h_date_len = 0;
    pctx->retries_len =SIZ(retries) ;
    pctx->cr_date_len = 7;

/* bind variables */

    OCIBNDPL(pctx->curp0, pctx->w_id_bp[0],
    errhp,":w_id",ADR(w_id),SIZ(int),
            SQLT_INT, NULL);
    OCIBNDPL(pctx->curp0, pctx->d_id_bp[0],
    errhp,":d_id",ADR(d_id),SIZ(int),
            SQLT_INT, NULL);
    OCIBND(pctx->curp0, pctx->c_w_id_bp[0],
    errhp,":c_w_id",ADR(c_w_id),SIZ(int),
            SQLT_INT);
    OCIBND(pctx->curp0, pctx->c_d_id_bp[0],
    errhp,":c_d_id",ADR(c_d_id),SIZ(int),
            SQLT_INT);
    OCIBND(pctx->curp0, pctx->c_id_bp[0], errhp,":c_id",ADR(c_id),SIZ(int),
            SQLT_INT);
#ifdef USE_IEEE_NUMBER
    OCIBNDPL(pctx->curp0, pctx->h_amount_bp[0],
    errhp,":h_amount",ADR(h_amount),
            SIZ(double),SQLT_Bdouble, &pctx->h_amount_len);
#else
    OCIBNDPL(pctx->curp0, pctx->h_amount_bp[0],
    errhp,":h_amount",ADR(h_amount),
            SIZ(int),SQLT_INT, &pctx->h_amount_len);
#endif /* USE_IEEE_NUMBER */
    OCIBNDPL(pctx->curp0, pctx->c_last_bp[0],
    errhp,":c_last",c_last,SIZ(c_last),
            SQLT_STR, &pctx->c_last_len);
    OCIBNDPL(pctx->curp0, pctx->w_street_1_bp[0],
    errhp,":w_street_1",w_street_1,
            SIZ(w_street_1),SQLT_STR, &pctx->w_street_1_len);
    OCIBNDPL(pctx->curp0, pctx->w_street_2_bp[0],
    errhp,":w_street_2",w_street_2,
            SIZ(w_street_2),SQLT_STR, &pctx->w_street_2_len);
    OCIBNDPL(pctx->curp0, pctx->w_city_bp[0],
    errhp,":w_city",w_city,SIZ(w_city),

```

APPENDIX A - APPLICATION SOURCE CODE

```

        SQLT_STR, &pctx->w_city_len);
    OCIBNDPL(pctx->curp0, pctx->w_state_bp[0], errhp,"w_state",w_state,
        SIZ(w_state), SQLT_STR, &pctx->w_state_len);
    OCIBNDPL(pctx->curp0, pctx->w_zip_bp[0],
errhp,"w_zip",w_zip,SIZ(w_zip),
        SQLT_STR, &pctx->w_zip_len);
    OCIBNDPL(pctx->curp0, pctx->d_street_1_bp[0],
errhp,"d_street_1",d_street_1,
        SIZ(d_street_1),SQLT_STR, &pctx->d_street_1_len);
    OCIBNDPL(pctx->curp0, pctx->d_street_2_bp[0],
errhp,"d_street_2",d_street_2,
        SIZ(d_street_2),SQLT_STR, &pctx->d_street_2_len);
    OCIBNDPL(pctx->curp0, pctx->d_city_bp[0],
errhp,"d_city",d_city,SIZ(d_city),
        SQLT_STR, &pctx->d_city_len);
    OCIBNDPL(pctx->curp0, pctx->d_state_bp[0], errhp,"d_state",d_state,
        SIZ(d_state), SQLT_STR, &pctx->d_state_len);
    OCIBNDPL(pctx->curp0, pctx->d_zip_bp[0],
errhp,"d_zip",d_zip,SIZ(d_zip),
        SQLT_STR, &pctx->d_zip_len);
    OCIBNDPL(pctx->curp0, pctx->c_first_bp[0], errhp,"c_first",c_first,
        SIZ(c_first), SQLT_STR, &pctx->c_first_len);
    OCIBNDPL(pctx->curp0, pctx->c_middle_bp[0],
errhp,"c_middle",c_middle,2,
        SQLT_AFC, &pctx->c_middle_len);
    OCIBNDPL(pctx->curp0, pctx->d_street_1_bp[0],
errhp,"c_street_1",c_street_1,
        SIZ(c_street_1),SQLT_STR, &pctx->c_street_1_len);
    OCIBNDPL(pctx->curp0, pctx->c_street_2_bp[0],
errhp,"c_street_2",c_street_2,
        SIZ(c_street_2),SQLT_STR, &pctx->c_street_2_len);
    OCIBNDPL(pctx->curp0, pctx->c_city_bp[0],
errhp,"c_city",c_city,SIZ(c_city),
        SQLT_STR, &pctx->c_city_len);
    OCIBNDPL(pctx->curp0, pctx->c_state_bp[0], errhp,"c_state",c_state,
        SIZ(c_state), SQLT_STR, &pctx->c_state_len);
    OCIBNDPL(pctx->curp0, pctx->c_zip_bp[0],
errhp,"c_zip",c_zip,SIZ(c_zip),
        SQLT_STR, &pctx->c_zip_len);
    OCIBNDPL(pctx->curp0, pctx->c_phone_bp[0],
errhp,"c_phone",c_phone,
        SIZ(c_phone), SQLT_STR, &pctx->c_phone_len);
    OCIBNDPL(pctx->curp0, pctx->c_since_bp[0],
errhp,"c_since",&c_since,
        SIZ(OCIDate), SQLT_ODT, &pctx->c_since_len);
    OCIBNDPL(pctx->curp0, pctx->c_credit_bp[0], errhp,"c_credit",c_credit,
        SIZ(c_credit),SQLT_CHR, &pctx->c_credit_len);
    OCIBNDPL(pctx->curp0, pctx->c_credit_lim_bp[0], errhp,"c_credit_lim",
        ADR(c_credit_lim),SIZ(int), SQLT_INT, &pctx->c_credit_lim_len);
    OCIBNDPL(pctx->curp0, pctx->c_discount_bp[0], errhp,"c_discount",
        ADR(c_discount),SIZ(c_discount), SQLT_FLT, &pctx-
>c_discount_len);
    #ifdef USE_IEEE_NUMBER
    OCIBNDPL(pctx->curp0, pctx->c_balance_bp[0], errhp,"c_balance",
        ADR(c_balance), SIZ(double),SQLT_BDOUBLE, &pctx-
>c_balance_len);
    #else
    OCIBNDPL(pctx->curp0, pctx->c_balance_bp[0], errhp,"c_balance",
        ADR(c_balance), SIZ(double),SQLT_FLT, &pctx->c_balance_len);
    #endif /* USE_IEEE_NUMBER */
    OCIBNDPL(pctx->curp0, pctx->c_data_bp[0],
errhp,"c_data",c_data,SIZ(c_data),
        SQLT_STR, &pctx->c_data_len);
    /*
    OCIBNDR(pctx->curp0, pctx->h_date_bp,
errhp,"h_date",h_date,SIZ(h_date),
        SQLT_STR, &pctx->h_date_ind, &pctx->h_date_len, &pctx-
>h_date_ro);
    */
    OCIBNDPL(pctx->curp0, pctx->retries_bp[0], errhp,"retry",ADR(retries),
        SIZ(int), SQLT_INT, &pctx->retries_len);
    OCIBNDPL(pctx->curp0, pctx->cr_date_bp[0],
errhp,"cr_date",ADR(cr_date),
        SIZ(OCIDate),SQLT_ODT, &pctx->cr_date_len);

    /* ---- Binds for the second cursor */

    OCIBNDPL(pctx->curp1, pctx->w_id_bp[1],
errhp,"w_id",ADR(w_id),SIZ(int),
        SQLT_INT, &pctx->w_id_len);
    OCIBNDPL(pctx->curp1, pctx->d_id_bp[1],
errhp,"d_id",ADR(d_id),SIZ(int),
        SQLT_INT, &pctx->d_id_len);
    OCIBND(pctx->curp1, pctx->c_w_id_bp[1],
errhp,"c_w_id",ADR(c_w_id),SIZ(int),
        SQLT_INT);
    OCIBND(pctx->curp1, pctx->c_d_id_bp[1],
errhp,"c_d_id",ADR(c_d_id),SIZ(int),
        SQLT_INT);
    OCIBNDPL(pctx->curp1, pctx->c_id_bp[1],
errhp,"c_id",ADR(c_id),SIZ(int),

```

```

        SQLT_INT, &pctx->c_id_len);
    #ifdef USE_IEEE_NUMBER
    OCIBNDPL(pctx->curp1, pctx->h_amount_bp[1],
errhp,"h_amount",ADR(h_amount),
        SIZ(double),SQLT_BDOUBLE, &pctx->h_amount_len);
    #else
    OCIBNDPL(pctx->curp1, pctx->h_amount_bp[1],
errhp,"h_amount",ADR(h_amount),
        SIZ(int),SQLT_INT, &pctx->h_amount_len);
    #endif /* USE_IEEE_NUMBER */
    OCIBND(pctx->curp1, pctx->c_last_bp[1],
errhp,"c_last",c_last,SIZ(c_last),
        SQLT_STR);
    OCIBNDPL(pctx->curp1, pctx->w_street_1_bp[1],
errhp,"w_street_1",w_street_1,
        SIZ(w_street_1),SQLT_STR, &pctx->w_street_1_len);
    OCIBNDPL(pctx->curp1, pctx->w_street_2_bp[1],
errhp,"w_street_2",w_street_2,
        SIZ(w_street_2),SQLT_STR, &pctx->w_street_2_len);
    OCIBNDPL(pctx->curp1, pctx->w_city_bp[1],
errhp,"w_city",w_city,SIZ(w_city),
        SQLT_STR, &pctx->w_city_len);
    OCIBNDPL(pctx->curp1, pctx->w_state_bp[1], errhp,"w_state",w_state,
        SIZ(w_state), SQLT_STR, &pctx->w_state_len);
    OCIBNDPL(pctx->curp1, pctx->w_zip_bp[1],
errhp,"w_zip",w_zip,SIZ(w_zip),
        SQLT_STR, &pctx->w_zip_len);
    OCIBNDPL(pctx->curp1, pctx->d_street_1_bp[1],
errhp,"d_street_1",d_street_1,
        SIZ(d_street_1),SQLT_STR, &pctx->d_street_1_len);
    OCIBNDPL(pctx->curp1, pctx->d_street_2_bp[1],
errhp,"d_street_2",d_street_2,
        SIZ(d_street_2),SQLT_STR, &pctx->d_street_2_len);
    OCIBNDPL(pctx->curp1, pctx->d_city_bp[1],
errhp,"d_city",d_city,SIZ(d_city),
        SQLT_STR, &pctx->d_city_len);
    OCIBNDPL(pctx->curp1, pctx->d_state_bp[1], errhp,"d_state",d_state,
        SIZ(d_state), SQLT_STR, &pctx->d_state_len);
    OCIBNDPL(pctx->curp1, pctx->d_zip_bp[1],
errhp,"d_zip",d_zip,SIZ(d_zip),
        SQLT_STR, &pctx->d_zip_len);
    OCIBNDPL(pctx->curp1, pctx->c_first_bp[1], errhp,"c_first",c_first,
        SIZ(c_first), SQLT_STR, &pctx->c_first_len);
    OCIBNDPL(pctx->curp1, pctx->c_middle_bp[1],
errhp,"c_middle",c_middle,2,
        SQLT_AFC, &pctx->c_middle_len);

    OCIBNDPL(pctx->curp1, pctx->c_street_1_bp[1],
errhp,"c_street_1",c_street_1,
        SIZ(c_street_1),SQLT_STR, &pctx->c_street_1_len);
    OCIBNDPL(pctx->curp1, pctx->c_street_2_bp[1],
errhp,"c_street_2",c_street_2,
        SIZ(c_street_2),SQLT_STR, &pctx->c_street_2_len);
    OCIBNDPL(pctx->curp1, pctx->c_city_bp[1], errhp,"c_city",c_city,
        SIZ(c_city),SQLT_STR, &pctx->c_city_len);
    OCIBNDPL(pctx->curp1, pctx->c_state_bp[1], errhp,"c_state",c_state,
        SIZ(c_state), SQLT_STR, &pctx->c_state_len);
    OCIBNDPL(pctx->curp1, pctx->c_zip_bp[1],
errhp,"c_zip",c_zip,SIZ(c_zip),
        SQLT_STR, &pctx->c_zip_len);
    OCIBNDPL(pctx->curp1, pctx->c_phone_bp[1],
errhp,"c_phone",c_phone,
        SIZ(c_phone), SQLT_STR, &pctx->c_phone_len);
    OCIBNDPL(pctx->curp1, pctx->c_since_bp[1],
errhp,"c_since",&c_since,
        SIZ(OCIDate), SQLT_ODT, &pctx->c_since_len);
    OCIBNDPL(pctx->curp1, pctx->c_credit_bp[1], errhp,"c_credit",c_credit,
        SIZ(c_credit),SQLT_CHR, &pctx->c_credit_len);
    OCIBNDPL(pctx->curp1, pctx->c_credit_lim_bp[1], errhp,"c_credit_lim",
        ADR(c_credit_lim),SIZ(int), SQLT_INT, &pctx->c_credit_lim_len);
    OCIBNDPL(pctx->curp1, pctx->c_discount_bp[1], errhp,"c_discount",
        ADR(c_discount),SIZ(c_discount), SQLT_FLT, &pctx-
>c_discount_len);
    #ifdef USE_IEEE_NUMBER
    OCIBNDPL(pctx->curp1, pctx->c_balance_bp[1], errhp,"c_balance",
        ADR(c_balance), SIZ(double),SQLT_BDOUBLE, &pctx-
>c_balance_len);
    #else
    OCIBNDPL(pctx->curp1, pctx->c_balance_bp[1], errhp,"c_balance",
        ADR(c_balance), SIZ(double),SQLT_FLT, &pctx->c_balance_len);
    #endif /* USE_IEEE_NUMBER */
    OCIBNDPL(pctx->curp1, pctx->c_data_bp[1],
errhp,"c_data",c_data,SIZ(c_data),
        SQLT_STR, &pctx->c_data_len);
    /*
    OCIBNDR(pctx->curp1, pctx->h_date_bp1,
errhp,"h_date",h_date,SIZ(h_date),
        SQLT_STR, &pctx->h_date_ind, &pctx->h_date_len, &pctx-
>h_date_ro);
    */
    OCIBNDPL(pctx->curp1, pctx->retries_bp[1], errhp,"retry",ADR(retries),
        SIZ(int), SQLT_INT, &pctx->retries_len);

```

APPENDIX A - APPLICATION SOURCE CODE

```

OCIBNDPL(pctx->curp1, pctx->cr_date_bp[1],
errhp, "cr_date", ADR(cr_date),
    SIZ(OCIDate), SQLT_ODT, &pctx->cr_date_len);

    return (0);
}

void DBExecution::tkvcpdone ()
{
    if(pctx) {
        free(pctx);
    }
}

int DBExecution::tkvcsinit ()
{
    text stmbuf[SQL_BUF_SIZE];
    sctx = (stoctx *) malloc(sizeof(stoctx));
    memset(sctx, (char)0, sizeof(stoctx));

    sctx->norow=0;

    OCIERROR(errhp,
        OCIHandleAlloc(tpcenv, (dvoid**)&sctx-
> curs, OCI_HTYPE_STMT, 0, (dvoid**)0));
    sprintf ((char *) stmbuf, SQLTXTSTO);
    OCIERROR(errhp, OCIStmtPrepare(sctx->curs, errhp, stmbuf, strlen((char
*)stmbuf),
        OCI_NTV_SYNTAX, OCI_DEFAULT));
#ifdef PLSQLSTO
    OCIERROR(errhp,
        OCIAttrSet(sctx->curs, OCI_HTYPE_STMT, (dvoid*)&sctx->norow, 0,
        OCI_ATTR_PREFETCH_ROWS, errhp));
#endif

    /* bind variables */

    OCIBND(sctx->curs, sctx->w_id_bp, errhp, "w_id", ADR(w_id), sizeof(int),
        SQLT_INT);
    OCIBND(sctx->curs, sctx->d_id_bp, errhp, "d_id", ADR(d_id), sizeof(int),
        SQLT_INT);
#ifdef USE_IEEE_NUMBER
    OCIBND(sctx->curs, sctx->threshold_bp, errhp, "threshold",
ADR(threshold),
        sizeof(double), SQLT_BDOUBLE);
#else
    OCIBND(sctx->curs, sctx->threshold_bp, errhp, "threshold",
ADR(threshold),
        sizeof(int), SQLT_INT);
#endif /* USE_IEEE_NUMBER */
#ifdef PLSQLSTO
    OCIBND(sctx->curs, sctx->low_stock_bp, errhp, "low_stock",
ADR(low_stock),
        sizeof(int), SQLT_INT);
#else
    OCIDEFINE(sctx->curs, sctx->low_stock_bp, errhp, 1, ADR(low_stock),
        sizeof(int), SQLT_INT);
#endif

    return (0);
}

void DBExecution::tkvcsdone ()
{
    if(sctx) free(sctx);
}

/*****
* tkvcn tkvcd tkvcp tkvco tkvcs
*****/

int DBExecution::tkvcsn ()
{
    int i;
    int rcount;

    retry:

    status = 0;          /* number of invalid items */

    /* get number of order lines, and check if all are local */

    o_ol_cnt = NITEMS;
    o_all_local = 1;
    for (i = 0; i < NITEMS; i++) {
        if (nol_i_id[i] == 0) {
            o_ol_cnt = i;
            break;
        }
        if (nol_supply_w_id[i] != w_id) {
#ifdef USE_IEEE_NUMBER
            nctx->s_remote[i] = 1.0;
        #else
            nctx->s_remote[i] = 1;
        #endif /* USE_IEEE_NUMBER */
            o_all_local = 0;
        }
        else
            nctx->s_remote[i] = 0;
    }

    nctx->w_id_len = sizeof(w_id);
    nctx->d_id_len = sizeof(d_id);
    nctx->c_id_len = sizeof(c_id);
    nctx->o_all_local_len = sizeof(o_all_local);
    nctx->o_ol_cnt_len = sizeof(o_ol_cnt);
    nctx->w_tax_len = 0;
    nctx->d_tax_len = 0;
    nctx->o_id_len = sizeof(o_id);
    nctx->c_discount_len = 0;
    nctx->c_credit_len = 0;
    nctx->c_last_len = 0;
    nctx->retries_len = sizeof(retries);
    nctx->cr_date_len = sizeof(cr_date);
    /* this is the row count */
    rcount = o_ol_cnt;
    nctx->nol_i_count = o_ol_cnt;
    nctx->nol_q_count = o_ol_cnt;
    nctx->nol_s_count = o_ol_cnt;
    nctx->s_remote_count = o_ol_cnt;

    nctx->nol_qty_count = 0;
    nctx->nol_bg_count = 0;
    nctx->nol_item_count = 0;
    nctx->nol_name_count = 0;
    nctx->nol_am_count = 0;

    /* initialization for array operations */
    for (i = 0; i < o_ol_cnt; i++) {
        nctx->ol_number[i] = i + 1;
        nctx->nol_i_id_len[i] = sizeof(int);
        nctx->nol_supply_w_id_len[i] = sizeof(int);
        nctx->nol_quantity_len[i] = sizeof(int);
        nctx->nol_amount_len[i] = sizeof(int);
        nctx->ol_o_id_len[i] = sizeof(int);
        nctx->ol_number_len[i] = sizeof(int);
        nctx->ol_dist_info_len[i] = nctx->s_dist_info_len[i];
        nctx->s_remote_len[i] = sizeof(int);
        nctx->s_quant_len[i] = sizeof(int);
        nctx->i_name_len[i] = 0;
        nctx->s_bg_len[i] = 0;
    }
    for (i = o_ol_cnt; i < NITEMS; i++) {
        nctx->nol_i_id_len[i] = 0;
        nctx->nol_supply_w_id_len[i] = 0;
        nctx->nol_quantity_len[i] = 0;
        nctx->nol_amount_len[i] = 0;
        nctx->ol_o_id_len[i] = 0;
        nctx->ol_number_len[i] = 0;
        nctx->ol_dist_info_len[i] = 0;
        nctx->s_remote_len[i] = 0;
        nctx->s_quant_len[i] = 0;
        nctx->i_name_len[i] = 0;
        nctx->s_bg_len[i] = 0;
    }

    execstatus = OCIStmtExecute(tpcsvc, nctx->cur1, errhp, 1, 0, 0, 0,
        OCI_DEFAULT |
OCI_COMMIT_ON_SUCCESS);

    if(execstatus != OCI_SUCCESS) {
        OCITransRollback(tpcsvc, errhp, OCI_DEFAULT);
        errcode = OCIERROR(errhp, execstatus);
        if(errcode == NOT_SERIALIZABLE) {
            retries++;
            goto retry;
        }
        else if (errcode == RECOVER) {
            retries++;
            goto retry;
        }
        else if (errcode == SNAPSHOT_TOO_OLD) {

```

APPENDIX A - APPLICATION SOURCE CODE

```

        retries++;
        goto retry;
    } else {
        return -1;
    }
}

/* did the txn succeed ? */
if (rcount != o_ol_cnt)
{
    status = rcount - o_ol_cnt;
    o_ol_cnt = rcount;
}

total_amount = 0;
for (i = 0; i < o_ol_cnt; i++) total_amount += nol_amount[i];
total_amount *= ((double)(1.0 - c_discount)) *
                ((double)(1.0 + (double)(d_tax) + (double)(w_tax)));
total_amount = total_amount/100;

return (0);
}

int DBExecution::tkvcd (int plsqliflag)
{
    int i;
    int rpc,rcount;
    int invalid;

    if (plsqliflag)
    {
        pldctx->w_id_len = sizeof (int);
        pldctx->carrier_id_len = sizeof (int);
        for (i = 0; i < NDISTS; i++)
        {
            pldctx->del_o_id_len[i] = sizeof(int);
            del_o_id[i] = 0;
        }
        pldctx->del_date_len = DEL_DATE_LEN;
        DISCARD memcpy(&pldctx->del_date,&cr_date,sizeof(OCIDate));

        pldctx->retry=0;

        DISCARD OCIERROR(errhp,
            OCIStmtExecute(tpcsvc,pldctx->curp2,errhp,1,0,NULLP(CONST
OCI_Snapshot),
            NULLP(OCI_Snapshot),OCI_DEFAULT));
        for (i = 0; i < NDISTS; i++)
        {
            del_o_id[i] = 0;
        }
        for (i = 0; i < (int)pldctx->del_o_id_rcnt; i++)
            del_o_id[pldctx->del_d_id[i] - 1] = pldctx->del_o_id[i];
    }
    else
    {
        retry:

        invalid = 0;

        /* initialization for array operations */

        for (i = 0; i < NDISTS; i++)
        {
            dctx->del_o_id_ind[i] = TRUE;
            dctx->d_id_ind[i] = TRUE;
            dctx->c_id_ind[i] = TRUE;
            dctx->del_date_ind[i] = TRUE;
            dctx->carrier_id_ind[i] = TRUE;
            dctx->amt_ind[i] = TRUE;

            dctx->del_o_id_len[i] = SIZ(dctx->del_o_id[0]);
            dctx->w_id_len[i] = SIZ(dctx->w_id[0]);
            dctx->d_id_len[i] = SIZ(dctx->d_id[0]);
            dctx->c_id_len[i] = SIZ(dctx->c_id[0]);
            dctx->del_date_len[i] = DEL_DATE_LEN;
            dctx->carrier_id_len[i] = SIZ(dctx->carrier_id[0]);
            dctx->amt_len[i] = SIZ(dctx->amt[0]);

            dctx->w_id[i] = w_id;
            dctx->d_id[i] = i+1;
            dctx->carrier_id[i] = o_carrier_id;
            memcpy(&dctx->del_date[i],&cr_date,sizeof(OCIDate));
        }

        memset(dctx, (char)0, sizeof(amtctx));
    }
}

```

```

/* array select from new_order and orders tables */

execstatus=OCIStmtExecute(tpcsvc,dctx->curd1,errhp,NDISTS,0,
    NULLP(CONST
OCI_Snapshot),NULLP(OCI_Snapshot),OCI_DEFAULT);
if((execstatus != OCI_SUCCESS) && (execstatus != OCI_NO_DATA))
{
    DISCARD OCITransRollback(tpcsvc,errhp,OCI_DEFAULT);
    errcode = OCIERROR(errhp,execstatus);
    if(errcode == NOT_SERIALIZABLE)
    {
        retries++;
        goto retry;
    }
    else if (errcode == RECOVERR)
    {
        retries++;
        goto retry;
    }
    else if (errcode == SNAPSHOT_TOO_OLD)
    {
        retries++;
        goto retry;
    }
    else
    {
        return -1;
    }
}

/* mark districts with no new order */
DISCARD OCIAttrGet(dctx-
>curd1,OCI_HTYPE_STMT,&rcount,NULLP(ub4),
    OCI_ATTR_ROW_COUNT,errhp);

rpc = rcount;
if (rcount != NDISTS )
{
    int j = 0;
    for (i=0;i < NDISTS; i++)
    {
        if (dctx->del_o_id_ind[j] == 0) /* there is data here */
            j++;
        else
            shiftdata(j);
    }
}

execstatus=OCIStmtExecute(tpcsvc,dctx->curd3,errhp,rpc,0,
    NULLP(CONST
OCI_Snapshot),NULLP(OCI_Snapshot),OCI_DEFAULT);
if((execstatus != OCI_SUCCESS)
{
    DISCARD OCITransRollback(tpcsvc,errhp,OCI_DEFAULT);
    errcode = OCIERROR(errhp,execstatus);
    if(errcode == NOT_SERIALIZABLE)
    {
        retries++;
        goto retry;
    }
    else if (errcode == RECOVERR)
    {
        retries++;
        goto retry;
    }
    else if (errcode == SNAPSHOT_TOO_OLD)
    {
        retries++;
        goto retry;
    }
    else
    {
        return -1;
    }
}

DISCARD OCIAttrGet(dctx-
>curd3,OCI_HTYPE_STMT,&rcount,NULLP(ub4),
    OCI_ATTR_ROW_COUNT,errhp);

if (rcount != rpc)
{
    userlog ("Error in TPC-C server %d: %d rows selected, %d ords
updated\n",
        proc_no, rpc, rcount);
    DISCARD OCITransRollback(tpcsvc,errhp,OCI_DEFAULT);
    return (-1);
}

/* array update of order_line table */
execstatus=OCIStmtExecute(tpcsvc,dctx->curd4,errhp,rpc,0,
    NULLP(CONST
OCI_Snapshot),NULLP(OCI_Snapshot),OCI_DEFAULT);

```


APPENDIX A - APPLICATION SOURCE CODE

```

if(execstatus != OCI_SUCCESS)
{
DISCARD OCITransRollback(tpcsvc, errhp, OCI_DEFAULT);
errcode = OCIERROR(errhp, execstatus);
if(errcode == NOT_SERIALIZABLE)
{
retries++;
goto retry;
}
else if (errcode == RECOVERERR)
{
retries++;
goto retry;
}
else if (errcode == SNAPSHOT_TOO_OLD)
{
retries++;
goto retry;
}
else
{
return -1;
}
}
DISCARD OCIAttrGet(dctx-
>curd4, OCI_HTYPE_STMT, &rcount, NULLP(ub4),
OCI_ATTR_ROW_COUNT, errhp);
/* transfer amounts */
for (i=0; i<rpc; i++)
{
dctx->amt[i]=0;
if ( actx->ol_amt_rcode[i] == 0)
{
dctx->amt[i] = actx->ol_amt[i];
}
}
#ifdef OLD
if (rcount > rpc) {
userlog
("Error in TPC-C server %d: %d ordnrs updated, %d ord
updated\n",
proc_no, rpc, rcount);
}
#endif

/* array update of customer table */
execstatus=OCIStmtExecute(tpcsvc, dctx->curd6, errhp, rpc, 0,
NULLP(CONST OCI_Snapshot), NULLP(OCI_Snapshot),
OCI_COMMIT_ON_SUCCESS | OCI_DEFAULT);

if(execstatus != OCI_SUCCESS)
{
OCITransRollback(tpcsvc, errhp, OCI_DEFAULT);
errcode = OCIERROR(errhp, execstatus);
if(errcode == NOT_SERIALIZABLE)
{
retries++;
goto retry;
}
else if (errcode == RECOVERERR)
{
retries++;
goto retry;
}
else if (errcode == SNAPSHOT_TOO_OLD)
{
retries++;
goto retry;
}
else
{
return -1;
}
}

DISCARD OCIAttrGet(dctx-
>curd6, OCI_HTYPE_STMT, &rcount, NULLP(ub4),
OCI_ATTR_ROW_COUNT, errhp);

if (rcount != rpc) {
userlog ("Error in TPC-C server %d: %d rows selected, %d cust
updated\n",
proc_no, rpc, rcount);
DISCARD OCITransRollback(tpcsvc, errhp, OCI_DEFAULT);
return (-1);
}

/* return o_id's in district id order */

for (i = 0; i < NDISTS; i++)
del_o_id[i] = 0;
for (i = 0; i < rpc; i++)
del_o_id[dctx->d_id[i] - 1] = dctx->del_o_id[i];
}
return (0);
}

int DBExecution::tkvco ()
{
int i;
int rcount;

#ifdef ISO9
int secondread = 0;
char sdate[30];
ub4 datelen;
sysdate(sdate);
printf("Order Status started at: %s\n", sdate);
#endif

for (i = 0; i < NITEMS; i++) {
octx->ol_supply_w_id_len[i] = sizeof(int);
octx->ol_i_id_len[i] = sizeof(int);
octx->ol_quantity_len[i] = sizeof(int);
octx->ol_amount_len[i] = sizeof(int);
octx->ol_delivery_d_len[i] = sizeof(OCIDate);
}
octx->ol_supply_w_id_csize = NITEMS;
octx->ol_i_id_csize = NITEMS;
octx->ol_quantity_csize = NITEMS;
octx->ol_amount_csize = NITEMS;
octx->ol_delivery_d_csize = NITEMS;
retry:
if (bylastname)
{
cbctx.reexec = FALSE;
execstatus=OCIStmtExecute(tpcsvc, octx->куро0, errhp, 100, 0,
NULLP(CONST
OCI_Snapshot), NULLP(OCI_Snapshot), OCI_DEFAULT);
/* will get OCI_NO_DATA if <100 found */
if ((execstatus != OCI_NO_DATA) && (execstatus != OCI_SUCCESS))
{
errcode=OCIERROR(errhp, execstatus);
if((errcode == NOT_SERIALIZABLE) || (errcode == RECOVERERR))
{
DISCARD OCITransCommit(tpcsvc, errhp, OCI_DEFAULT);
retries++;
goto retry;
} else {
return -1;
}
}
if (execstatus == OCI_NO_DATA) /* there are no more rows */
{
/* get rowcount, find middle one */
DISCARD OCIAttrGet(octx-
>куро0, OCI_HTYPE_STMT, &rcount, NULL,
OCI_ATTR_ROW_COUNT, errhp);
if (rcount < 1)
{
/*
userlog("ORDERSTATUS
rcount=%d\n", rcount);
*/
return (-1);
}
octx->cust_idx=(rcount)/2 ;
}
else
{
/* count the number of rows */
execstatus=OCIStmtExecute(tpcsvc, octx->куро4, errhp, 1, 0,
NULLP(CONST
OCI_Snapshot), NULLP(OCI_Snapshot), OCI_DEFAULT);
if ((execstatus != OCI_NO_DATA) && (execstatus !=
OCI_SUCCESS))
{
errcode=OCIERROR(errhp, execstatus);
if ((errcode == NOT_SERIALIZABLE) || (errcode ==
RECOVERERR))
{
DISCARD OCITransCommit(tpcsvc, errhp, OCI_DEFAULT);
retries++;
goto retry;
} else {
return -1;
}
}
cbctx.reexec = TRUE;
cbctx.count = (octx->rcount+1)/2 ;
execstatus=OCIStmtExecute(tpcsvc, octx->куро0, errhp, cbctx.count,

```

APPENDIX A - APPLICATION SOURCE CODE

```

0,NULLP(CONST OCISnapshot),
NULLP(OCISnapshot),OCL_DEFAULT);

DISCARD OCIAttrGet(octx-
>curo0,OCI_HTYPE_STMT,&rcount,NULL,
OCI_ATTR_ROW_COUNT,errhp);

/* will get OCI_NO_DATA if <100 found */
if ((int)cbctx.count != rcount)
{
/*
userlog ("did not get all rows ");
*/
return (-1);
}

if ((execstatus != OCI_NO_DATA) && (execstatus !=
OCI_SUCCESS))
{
errcode=OCIERROR(errhp, execstatus);
if((errcode == NOT_SERIALIZABLE) || (errcode == RECOVER))
{
DISCARD OCITransCommit(tpcsvc,errhp,OCI_DEFAULT);
retries++;
goto retry;
} else {
return -1;
}
}
octx->cust_idx=cbctx.count - 1 ;
}

octx->c_rowid_cust = octx->c_rowid_ptr[octx->cust_idx];
execstatus=OCIStmtExecute(tpcsvc,octx->curo1,errhp,1,0,
NULLP(CONST
OCISnapshot),NULLP(OCISnapshot),OCL_DEFAULT);
if (execstatus != OCI_SUCCESS)
{
errcode=OCIERROR(errhp,execstatus);
DISCARD OCITransCommit(tpcsvc,errhp,OCI_DEFAULT);
if((errcode == NOT_SERIALIZABLE) || (errcode == RECOVER))
|| (errcode == SNAPSHOT_TOO_OLD))
{
retries++;
goto retry;
} else {
return -1;
}
}
} else
{
execstatus=OCIStmtExecute(tpcsvc,octx->curo2,errhp,1,0,
NULLP(CONST OCISnapshot),NULLP(OCISnapshot),
OCL_DEFAULT);
if (execstatus != OCI_SUCCESS)
{
errcode=OCIERROR(errhp,execstatus);
DISCARD OCITransCommit(tpcsvc,errhp,OCI_DEFAULT);
if((errcode == NOT_SERIALIZABLE) || (errcode == RECOVER))
|| (errcode == SNAPSHOT_TOO_OLD))
{
retries++;
goto retry;
} else
{
return -1;
}
}
}
#endif ISO9
sysdate (sdate);
if (!secondread)
printf ("----- FIRST READ RESULT (out) %s -----\\n", sdate);
else
printf ("----- SECOND READ RESULT (out) %s -----\\n", sdate);

printf ("c_id = %d\\n", c_id);
printf ("c_last = %s\\n", c_last);
printf ("c_first = %s\\n", c_first);
printf ("c_middle = %s\\n", c_middle);
printf ("c_balance = %7.2f\\n", (double)c_balance/100);
printf ("o_id = %d\\n", o_id);
datelen = sizeof(o_entry_d);

OCIERROR(errhp,OCIDateToText(errhp,&o_entry_d_base,(text*)FULLDA
TE,SIZ(FULLDATE),(text*)0,0,&datelen,o_entry_d));
printf ("o_entry_d = %s\\n", o_entry_d);
printf ("o_carrier_id = %d\\n", o_carrier_id);
printf ("o_ol_cnt = %d\\n", o_ol_cnt);
printf ("-----\\n\\n", sdate);
}

if (!secondread) {
printf ("Sleep before re-read order at: %s\\n", sdate);
sleep (30);
sysdate (sdate);
printf ("Wake up and reread at: %s\\n", sdate);
secondread = 1;
goto retry;
}
}
#endif /* ISO9 */
}
octx->ol_w_id_len = sizeof(int);
octx->ol_d_id_len = sizeof(int);
octx->ol_o_id_len = sizeof(int);

execstatus = OCIStmtExecute(tpcsvc,octx->curo3,errhp,o_ol_cnt,0,
NULLP(CONST OCISnapshot),NULLP(OCISnapshot),
OCL_DEFAULT | OCI_COMMIT_ON_SUCCESS);
if (execstatus != OCI_SUCCESS )
{
errcode=OCIERROR(errhp,execstatus);
DISCARD OCITransCommit(tpcsvc,errhp,OCI_DEFAULT);
if((errcode == NOT_SERIALIZABLE) || (errcode == RECOVER))
|| (errcode == SNAPSHOT_TOO_OLD))
{
retries++;
goto retry;
}
} else
{
return -1;
}
}
/* clean up and convert the delivery dates */
for (i = 0; i < o_ol_cnt; i++)
{
ol_del_len[i]=sizeof(ol_delivery_d[i]);
DISCARD OCIERROR(errhp,OCIDateToText(errhp,&ol_d_base[i],
(const text*)SHORTDATE,(ub1)strlen(SHORTDATE),(text*)0,0,
&ol_del_len[i], ol_delivery_d[i]));
/*
cvtdmy(ol_d_base[i],ol_delivery_d[i]);
*/
}
return (0);
}

int DBExecution::tkvcp ()
{
retry:

pctx->w_id_len = SIZ(w_id);
pctx->d_id_len = SIZ(d_id);
pctx->c_w_id_len = 0;
pctx->c_d_id_len = 0;
pctx->c_id_len = 0;
pctx->h_amount_len = SIZ(h_amount);
pctx->c_last_len = SIZ(c_last);
pctx->w_street_1_len = 0;
pctx->w_street_2_len = 0;
pctx->w_city_len = 0;
pctx->w_state_len = 0;
pctx->w_zip_len = 0;
pctx->d_street_1_len = 0;
pctx->d_street_2_len = 0;
pctx->d_city_len = 0;
pctx->d_state_len = 0;
pctx->d_zip_len = 0;
pctx->c_first_len = 0;
pctx->c_middle_len = 0;
pctx->c_street_1_len = 0;
pctx->c_street_2_len = 0;
pctx->c_city_len = 0;
pctx->c_state_len = 0;
pctx->c_zip_len = 0;
pctx->c_phone_len = 0;
pctx->c_since_len = 0;
pctx->c_credit_len = 0;
pctx->c_credit_lim_len = 0;
pctx->c_discount_len = 0;
pctx->c_balance_len = sizeof(double);
pctx->c_data_len = 0;
pctx->h_date_len = 0;
pctx->retries_len = SIZ(retries);
pctx->cr_date_len = 7;

w_street_1[0]='\0';
}

```

APPENDIX A - APPLICATION SOURCE CODE

```

w_street_2[0]='\0';
w_city[0]='\0';
w_state[0]='\0';
w_zip[0]='\0';
c_first[0]='\0';
c_middle[0]='\0';
c_street_1[0]='\0';
c_street_2[0]='\0';
c_city[0]='\0';
c_state[0]='\0';
c_zip[0]='\0';
c_phone[0]='\0';
c_credit[0]='\0';
c_credit_lim=0;
c_discount=0.0;
c_balance=0.0;
c_data[0]='\0';
d_street_1[0]='\0';
d_street_2[0]='\0';
d_city[0]='\0';
d_state[0]='\0';
d_zip[0]='\0';

if (bylastname)
    c_id=0;
else
    c_last[0]='\0';

if(bylastname) {
    execstatus=OCIStmtExecute(tpcsvc,pctx->curp1,errhp,1,0,
        NULLP(CONST OCI_Snapshot),NULLP(OCI_Snapshot),
        OCI_DEFAULT|OCI_COMMIT_ON_SUCCESS);
} else {
    execstatus=OCIStmtExecute(tpcsvc,pctx->curp0,errhp,1,0,
        NULLP(CONST OCI_Snapshot),NULLP(OCI_Snapshot),
        OCI_DEFAULT|OCI_COMMIT_ON_SUCCESS);
}

if(execstatus != OCI_SUCCESS) {
    OCITransRollback(tpcsvc,errhp,OCI_DEFAULT);
    errcode = OCIERROR(errhp,execstatus);
    if(errcode == NOT_SERIALIZABLE) {
        retries++;
        goto retry;
    } else if (errcode == RECOVER) {
        retries++;
        goto retry;
    } else if (errcode == SNAPSHOT_TOO_OLD) {
        retries++;
        goto retry;
    } else {
        return -1;
    }
}
return 0;
}

int DBExecution::tkvcs ()
{
    retry:
        execstatus= OCIStmtExecute(tpcsvc,sctx->curs,errhp,1,0,0,0,
            OCI_COMMIT_ON_SUCCESS | OCI_DEFAULT);

        if (execstatus != OCI_SUCCESS)
        {
            errcode=OCIERROR(errhp,execstatus);
            OCITransCommit(tpcsvc,errhp,OCI_DEFAULT);
            if((errcode == NOT_SERIALIZABLE) || (errcode == RECOVER)
                || (errcode == SNAPSHOT_TOO_OLD))
            {
                retries++;
                goto retry;
            } else {
                return -1;
            }
        }

    return (0);
}

/*****
* TPCnew TPCpay TPCdel TPCord TPCsto
*
*****

```

```

*****/
int DBExecution::TPCnew (struct newstruct *str)
{
    int i;

    w_id = str->newin.w_id;
    d_id = str->newin.d_id;
    c_id = str->newin.c_id;
    for (i = 0; i < 15; i++) {
        nol_i_id[i] = str->newin.ol_i_id[i];
        nol_supply_w_id[i] = str->newin.ol_supply_w_id[i];
        nol_quantity[i] = str->newin.ol_quantity[i];
    }
    retries = 0;

#ifdef AVOID_DEADLOCK

    for (i = NITEMS; i > 0; i--) {
        if (nol_i_id[i-1] > 0) {
            ordl_cnt = i;
            break;
        }
    }

    for (i = 0; i < NITEMS; i++) indx[i] = i;
    q_sort(nol_i_id, str, 0, ordl_cnt-1);

#endif

    /*
    vgetdate(cr_date); */
    OCIERROR(errhp,OCIDateSysDate(errhp,&cr_date));

    if (str->newout.terror = tkvcn ()) {
        if (str->newout.terror != RECOVER)
            str->newout.terror = IRRERR;
        return (-1);
    }

    /* fill in date for o_entry_d from time in beginning of txn*/
    /*
    cvtdmyhms(cr_date,o_entry_d);
    */
    datelen = sizeof(o_entry_d);
    OCIERROR(errhp,
        OCIDateToText(errhp,&cr_date,(text*)FULLDATE,SIZ(FULLDATE),(text*)
        0,0,
            &datelen,o_entry_d));

    str->newout.terror = NOERR;
    str->newout.o_id = o_id;
    str->newout.o_ol_cnt = o_ol_cnt;
    strncpy (str->newout.c_last, c_last, 17);
    strncpy (str->newout.c_credit, c_credit, 3);
    str->newout.c_discount = c_discount;
    str->newout.w_tax = (double)(w_tax);
    str->newout.d_tax = (double)(d_tax);
    strncpy (str->newout.o_entry_d, (char*)o_entry_d, 20);
    str->newout.total_amount = total_amount;
    for (i = 0; i < o_ol_cnt; i++) {
        strncpy (str->newout.i_name[i], i_name[i], 25);
        str->newout.brand_generic[i] = brand_generic[i][0];
#ifdef USE_IEEE_NUMBER
        str->newout.s_quantity[i] = (int) s_quantity[i];
        str->newout.i_price[i] = i_price[i]/100;
        str->newout.ol_amount[i] = nol_amount[i]/100;
#else
        str->newout.s_quantity[i] = s_quantity[i];
        str->newout.i_price[i] = (double)(i_price[i])/100;
        str->newout.ol_amount[i] = (double)(nol_amount[i])/100;
#endif /* USE_IEEE_NUMBER */
    }

#ifdef AVOID_DEADLOCK
    q_sort(indx, str, 0, ordl_cnt-1);
#endif

    if (status)
        strcpy (str->newout.status, "Item number is not valid");
    else
        str->newout.status[0] = '\0';
    str->newout.retry = retries;
    return(1);
}

```

```

int DBExecution::TPCpay (struct paystruct *str)
{
    w_id = str->payin.w_id;
    d_id = str->payin.d_id;
    c_w_id = str->payin.c_w_id;
    c_d_id = str->payin.c_d_id;
#ifdef USE_IEEE_NUMBER
    h_amount = (double) str->payin.h_amount;
#else
    h_amount = str->payin.h_amount;
#endif /* USE_IEEE_NUMBER */
    bylastname = str->payin.bylastname;

    /*
    vgetdate(cr_date); */
    OCIErrror(errhp, OCIDateSysDate(errhp, &cr_date));

    if (bylastname) {
        c_id = 0;
        strncpy (c_last, str->payin.c_last, 17);
    }
    else {
        c_id = str->payin.c_id;
        strcpy (c_last, " ");
    }
    retries = 0;

    if (str->payout.terror = tkvcp ()) {
        if (str->payout.terror != RECOVER)
            str->payout.terror = IRRECERR;
        return (-1);
    }

    /*
    cvtdmyhms(cr_date, h_date);
    */
    hlen = SIZ(h_date);
    OCIErrror(errhp, OCIDateToText(errhp, &cr_date,
        (text*)FULLDATE, strlen(FULLDATE), (text*)0, 0, &hlen, h_date));

    /*
    cvtdmy(c_since, c_since_d);
    */
    sincelen = SIZ(c_since_d);
    OCIErrror(errhp, OCIDateToText(errhp, &c_since,
        (text*)SHORTDATE, strlen(SHORTDATE), (text*)0, 0, &sincelen, c_since_d));

    str->payout.terror = NOERR;
    strncpy (str->payout.w_street_1, w_street_1, 21);
    strncpy (str->payout.w_street_2, w_street_2, 21);
    strncpy (str->payout.w_city, w_city, 21);
    strncpy (str->payout.w_state, w_state, 3);
    strncpy (str->payout.w_zip, w_zip, 10);
    strncpy (str->payout.d_street_1, d_street_1, 21);
    strncpy (str->payout.d_street_2, d_street_2, 21);
    strncpy (str->payout.d_city, d_city, 21);
    strncpy (str->payout.d_state, d_state, 3);
    strncpy (str->payout.d_zip, d_zip, 10);
    str->payout.c_id = c_id;
    strncpy (str->payout.c_first, c_first, 17);
    strncpy (str->payout.c_middle, c_middle, 3);
    strncpy (str->payout.c_last, c_last, 17);
    strncpy (str->payout.c_street_1, c_street_1, 21);
    strncpy (str->payout.c_street_2, c_street_2, 21);
    strncpy (str->payout.c_city, c_city, 21);
    strncpy (str->payout.c_state, c_state, 3);
    strncpy (str->payout.c_zip, c_zip, 10);
    strncpy (str->payout.c_phone, c_phone, 17);
    strncpy (str->payout.c_since, (char*)c_since_d, 11);
    strncpy (str->payout.c_credit, c_credit, 3);
    str->payout.c_credit_lim = (double)(c_credit_lim)/100;
    str->payout.c_discount = c_discount;
    str->payout.c_balance = (double)(c_balance)/100;
    strncpy (str->payout.c_data, c_data, 201);
    strncpy (str->payout.h_date, (char*)h_date, 20);
    str->payout.retry = retries;
    return(1);
}

int DBExecution::TPCord (struct ordstruct *str)
{
    int i;
    w_id = str->ordin.w_id;
    d_id = str->ordin.d_id;
    bylastname = str->ordin.bylastname;
    if (bylastname) {
        c_id = 0;
        strncpy (c_last, str->ordin.c_last, 17);
    }
    else {
        c_id = str->ordin.c_id;
        strcpy (c_last, " ");
    }
    retries = 0;

    if (str->ordout.terror = tkvco ()) {
        if (str->ordout.terror != RECOVER)
            str->ordout.terror = IRRECERR;
        return (-1);
    }

    datelen = sizeof(o_entry_d);
    OCIErrror(errhp,
        OCIDateToText(errhp, &o_entry_d_base, (text*)FULLDATE, SIZ(FULLDATE),
            (text*)0, 0, &datelen, o_entry_d));

    str->ordout.terror = NOERR;
    str->ordout.c_id = c_id;
    strncpy (str->ordout.c_last, c_last, 17);
    strncpy (str->ordout.c_first, c_first, 17);
    strncpy (str->ordout.c_middle, c_middle, 3);
    str->ordout.c_balance = c_balance/100;
    str->ordout.o_id = o_id;
    strncpy (str->ordout.o_entry_d, (char*)o_entry_d, 20);
    if (o_carrier_id == 11)
        str->ordout.o_carrier_id = 0;
    else
        str->ordout.o_carrier_id = o_carrier_id;
    str->ordout.o_ol_cnt = o_ol_cnt;
    for (i = 0; i < o_ol_cnt; i++) {
        ol_delivery_d[i][10] = '\0';
        if (!strcmp((char*)ol_delivery_d[i], "15-09-1911"))
            strncpy (char*ol_delivery_d[i], "NOT DELIVR", 10);
        str->ordout.ol_supply_w_id[i] = ol_supply_w_id[i];
        str->ordout.ol_i_id[i] = ol_i_id[i];
#ifdef USE_IEEE_NUMBER
        str->ordout.ol_quantity[i] = (int) ol_quantity[i];
        str->ordout.ol_amount[i] = ol_amount[i]/100;
#else
        str->ordout.ol_quantity[i] = ol_quantity[i];
        str->ordout.ol_amount[i] = (double)(ol_amount[i])/100;
#endif /* USE_IEEE_NUMBER */
        strncpy (str->ordout.ol_delivery_d[i], (char*)ol_delivery_d[i], 11);
    }
    str->ordout.retry = retries;
    return(1);
}

int DBExecution::TPCdel (struct delstruct *str)
{
    int i;

    w_id = str->delin.w_id;
    o_carrier_id = str->delin.o_carrier_id;
    retries = 0;

    /*
    vgetdate(cr_date); */
    OCIErrror(errhp, OCIDateSysDate(errhp, &cr_date));

    if (str->delout.terror = tkvcd (str->delin.plsqflag)) {
        if (str->delout.terror == DEL_ERROR)
            return DEL_ERROR;
        if (str->delout.terror != RECOVER)
            str->delout.terror = IRRECERR;
        return (-1);
    }

    for (i = 0; i < 10; i++) {
        if (del_o_id[i] <= 0) {
            userlog ("DELIVERY: no new order for w_id: %d, d_id %d\n",
                w_id, i + 1);
        }
    }
    str->delout.terror = NOERR;
    str->delout.retry = retries;
    return(1);
}

```

APPENDIX A - APPLICATION SOURCE CODE

```

int DBExecution::TPCsto (struct stostruct *str)
{
    w_id = str->stoin.w_id;
    d_id = str->stoin.d_id;
    #ifdef USE_IEEE_NUMBER
        threshold = (double) str->stoin.threshold;
    #else
        threshold = str->stoin.threshold;
    #endif /* USE_IEEE_NUMBER */
    retries = 0;

    if (str->stout.terror = tkvcs ()) {
        if (str->stout.terror != RECOVERR)
            str->stout.terror = IRRECERR;
        return (-1);
    }

    str->stout.terror = NOERR;
    str->stout.low_stock = low_stock;
    str->stout.retry = retries;
    return(1);
}

#ifdef AVOID_DEADLOCK

void DBExecution::q_sort(int *arr,struct newstruct *str,int left, int right)
{
    int i, last;

    if(left >= right)
        return;
    swap(str,left,(left+right)/2);
    last = left;
    for(i=left+1;i<=right;i++)
        if(arr[i] < arr[left])
            swap(str,last,i);
    swap(str,last,i);
    q_sort(arr,str,left,last-1);
    q_sort(arr,str,last+1,right);
}

void DBExecution::swap(struct newstruct *str, int i, int j)
{
    int temp;
    double tmpf;
    char tmpstr[25];
    char tmpch;
    #ifdef USE_IEEE_NUMBER
        double temp_double;
    #endif;

    temp = indx[i];
    indx[i] = indx[j];
    indx[j] = temp;

    temp = nol_i_id[i];
    nol_i_id[i] = nol_i_id[j];
    nol_i_id[j] = temp;

    temp = nol_supply_w_id[i];
    nol_supply_w_id[i] = nol_supply_w_id[j];
    nol_supply_w_id[j] = temp;

    #ifdef USE_IEEE_NUMBER
        temp_double = nol_quantity[i];
        nol_quantity[i] = nol_quantity[j];
        nol_quantity[j] = temp_double;
    #endif

    temp_double = str->newout.i_price[i];
    str->newout.i_price[i] = str->newout.i_price[j];
    str->newout.i_price[j] = temp_double;

    temp_double = str->newout.ol_amount[i];
    str->newout.ol_amount[i] = str->newout.ol_amount[j];
    str->newout.ol_amount[j] = temp_double;

    temp_double = (double)str->newout.s_quantity[i];
    str->newout.s_quantity[i] = str->newout.s_quantity[j];
    str->newout.s_quantity[j] = (int)temp_double;
    #else
        temp = nol_quantity[i];
        nol_quantity[i] = nol_quantity[j];
        nol_quantity[j] = temp;
    #endif

    tmpf = str->newout.i_price[i];
    str->newout.i_price[i] = str->newout.i_price[j];
    str->newout.i_price[j] = tmpf;

    temp = str->newout.s_quantity[i];
    str->newout.s_quantity[i] = str->newout.s_quantity[j];
    str->newout.s_quantity[j] = temp;
    #endif /* USE_IEEE_NUMBER */

    strncpy(tmpstr,str->newout.i_name[i], 25);
    strncpy(str->newout.i_name[i],str->newout.i_name[j], 25);
    strncpy(str->newout.i_name[j],tmpstr, 25);

    tmpch = str->newout.brand_generic[i];
    str->newout.brand_generic[i] = str->newout.brand_generic[j];
    str->newout.brand_generic[j] = tmpch;
}

#endif

#ifdef LOOPBACK

int mod_tpcc_neworder(T_neworder_data *output)
{
    output->txn_status= DB_RETURN_OCI_SUCCESS;
    output->d_id=1;
    output->c_id=1;
    output->o_cnt=7;
    output->o_all_local=0;
    strcpy(output->o_entry_d.DateString, "20-01-2004
11:59:10");
    strcpy(output->c_last, "TESTLASTNAME<>'&");
    strcpy(output->c_credit, "GC");
    output->c_discount=.1791;
    output->w_tax=.093099996;
    output->d_tax=.159700006;
    output->o_id=2101;

    output->o_orderline[0].ol_i_id=98752;
    output->o_orderline[0].ol_supply_w_id=2;
    output->o_orderline[0].ol_quantity=5;
    output->o_orderline[0].ol_amount=2576.48;
    output->o_orderline[0].i_price=3.71;
    output->o_orderline[0].s_quantity=45;
    strcpy(output->o_orderline[0].i_name, "item98752");
    output->o_orderline[0].b_g[0]='G';

    output->o_orderline[1].ol_i_id=80479;
    output->o_orderline[1].ol_supply_w_id=1;
    output->o_orderline[1].ol_quantity=6;
    output->o_orderline[1].ol_amount=3490.03;
    output->o_orderline[1].i_price=6.81;
    output->o_orderline[1].s_quantity=58;
    strcpy(output->o_orderline[1].i_name, "item80479");
    output->o_orderline[1].b_g[0]='G';

    output->o_orderline[2].ol_i_id=58617;
    output->o_orderline[2].ol_supply_w_id=1;
    output->o_orderline[2].ol_quantity=6;
    output->o_orderline[2].ol_amount=1234.56;
    output->o_orderline[2].i_price=4.01;
    output->o_orderline[2].s_quantity=22;
    strcpy(output->o_orderline[2].i_name, "item58617");
    output->o_orderline[2].b_g[0]='G';

    output->o_orderline[3].ol_i_id=3394;
    output->o_orderline[3].ol_supply_w_id=1;
    output->o_orderline[3].ol_quantity=5;
    output->o_orderline[3].ol_amount=2345.67;
    output->o_orderline[3].i_price=1.73;
    output->o_orderline[3].s_quantity=18;
    strcpy(output->o_orderline[3].i_name, "item3394");
    output->o_orderline[3].b_g[0]='G';

    output->o_orderline[4].ol_i_id=2242;
    output->o_orderline[4].ol_supply_w_id=1;
    output->o_orderline[4].ol_quantity=4;
    output->o_orderline[4].ol_amount=3456.78;
    output->o_orderline[4].i_price=4.48;
    output->o_orderline[4].s_quantity=29;
    strcpy(output->o_orderline[4].i_name, "item2242");
    output->o_orderline[4].b_g[0]='G';

    output->o_orderline[6].ol_i_id=37310;
    output->o_orderline[6].ol_supply_w_id=1;
    output->o_orderline[6].ol_quantity=5;
}

```

APPENDIX A - APPLICATION SOURCE CODE

```

        output->o_orderline[6].ol_amount=4567.89;
        output->o_orderline[6].i_price=5.50;
        output->o_orderline[6].s_quantity=21;
        strcpy(output->o_orderline[6].i_name, "item37310");
        output->o_orderline[6].b_g[0]='G';

        output->o_orderline[5].ol_i_id=19395;
        output->o_orderline[5].ol_supply_w_id=3;
        output->o_orderline[5].ol_quantity=6;
        output->o_orderline[5].ol_amount=5678.90;
        output->o_orderline[5].i_price=10.19;
        output->o_orderline[5].s_quantity=80;
        strcpy(output->o_orderline[5].i_name, "item19395");
        output->o_orderline[5].b_g[0]='G';

        return SUCCESS;
    }

```

```

int mod_tpcc_payment(T_payment_data *output)
{
    int i;
    char c;

    output->txn_status= DB_RETURN_OCI_SUCCESS;
    output->d_id=2;
    output->c_id=99;
    strcpy(output->c_last, "paymentCLast");
    output->c_w_id=2;
    output->c_d_id=5;
    output->h_amount=54321.09;
    strcpy(output->h_date.DateString, "20-01-2004 11:59:10");
    strcpy(output->w_street_1, "WareStreet1");
    strcpy(output->w_street_2, "WareStreet2");
    strcpy(output->w_city, "WareCity");
    strcpy(output->w_state, "WareState");
    strcpy(output->w_zip, "WareZip");
    strcpy(output->d_street_1, "DistStreet1");
    strcpy(output->d_street_2, "DistStreet2");
    strcpy(output->d_city, "DistCity");
    strcpy(output->d_state, "DistState");
    strcpy(output->d_zip, "DistZip");
    strcpy(output->c_first, "CFirst");
    strcpy(output->c_middle, "PA");
    strcpy(output->c_street_1, "CustStreet1");
    strcpy(output->c_street_2, "CustStreet2");
    strcpy(output->c_city, "CustCity");
    strcpy(output->c_state, "CustState");
    strcpy(output->c_zip, "CustZip");
    strcpy(output->c_phone, "9876543");
    strcpy(output->c_since.DateString, "20-01-2004 11:59:05");
    strcpy(output->c_credit, "BC");
    output->c_credit_lim=34567.89;
    output->c_discount=.234;
    output->c_balance=876543.21;

    for (i=0, c='a'; i<143; i++, c++) {
        if (c=='z') c='a';
        output->c_data[i]=(char) c;
    }
    return SUCCESS;
}

```

```

int mod_tpcc_delivery(T_delivery_data *output, int id)
{
    output->txn_status= DB_RETURN_OCI_SUCCESS;
    output->o_carrier_id=4;
    write_delivery_log(output, id);
    return SUCCESS;
}

```

```

int mod_tpcc_orderstatus(T_orderstatus_data *output)
{
    output->txn_status= DB_RETURN_OCI_SUCCESS;
    output->d_id=8;
    output->c_id=4321;
    strcpy(output->c_last, "orderstatusCLast");
    strcpy(output->c_first, "CFirst");
    strcpy(output->c_middle, "OS");
    output->c_balance=7543.21;
    output->o_id=9832;
    output->o_ol_cnt=5;
    output->o_carrier_id=2;
    strcpy(output->o_entry_d.DateString, "20-01-2004 11:59:08");

    output->o_orderline[0].ol_i_id=98752;
    output->o_orderline[0].ol_supply_w_id=2;

```

```

    output->o_orderline[0].ol_quantity=5;
    output->o_orderline[0].ol_amount=2576.48;
    strcpy(output->o_orderline[0].ol_delivery_d.DateString, "20-01-2004
11:58:00");

```

```

    output->o_orderline[1].ol_i_id=80479;
    output->o_orderline[1].ol_supply_w_id=1;
    output->o_orderline[1].ol_quantity=6;
    output->o_orderline[1].ol_amount=3490.03;
    strcpy(output->o_orderline[1].ol_delivery_d.DateString, "20-01-2004
11:58:01");

```

```

    output->o_orderline[2].ol_i_id=58617;
    output->o_orderline[2].ol_supply_w_id=1;
    output->o_orderline[2].ol_quantity=6;
    output->o_orderline[2].ol_amount=1234.56;
    strcpy(output->o_orderline[2].ol_delivery_d.DateString, "20-01-2004
11:58:02");

```

```

    output->o_orderline[3].ol_i_id=3394;
    output->o_orderline[3].ol_supply_w_id=1;
    output->o_orderline[3].ol_quantity=5;
    output->o_orderline[3].ol_amount=2345.67;
    strcpy(output->o_orderline[3].ol_delivery_d.DateString, "20-01-2004
11:58:03");

```

```

    output->o_orderline[4].ol_i_id=2242;
    output->o_orderline[4].ol_supply_w_id=1;
    output->o_orderline[4].ol_quantity=4;
    output->o_orderline[4].ol_amount=3456.78;
    strcpy(output->o_orderline[4].ol_delivery_d.DateString, "20-01-2004
11:58:04");

```

```

    return SUCCESS;
}

```

```

int mod_tpcc_stocklevel(T_stocklevel_data *output)
{
    output->threshold=10;
    output->low_stock=1;
    output->txn_status= DB_RETURN_OCI_SUCCESS;
    return SUCCESS;
}

```

```
#endif
```

dbconnection.h

```

#include "tpccpl.h"
#include "tpccstruct.h"
#include "tpcc_struct.h"
#include "mod_tpcc_error.h"
#include "mod_tpcc.h"

#define MAXLEN 100
#define LogName "log\\DBConnection.log"
#define InitName "DBInit.ini"

// Execution Pool Status
#define IDLE 1
#define IN_USE 2

#define Default_DBConnections "20"
#define DelLogName "log\\DeliveryLog"

#define convert_status(A,B) \
{ \
    switch (B) { \
        case OCI_SUCCESS: (A)=DB_RETURN_OCI_SUCCESS; break; \
        case OCI_SUCCESS_WITH_INFO: \
        (A)=DB_RETURN_OCI_SUCCESS_WITH_INFO; break; \
        case OCI_NEED_DATA: (A)=DB_RETURN_OCI_NEED_DATA; break; \
        case OCI_NO_DATA: (A)=DB_RETURN_OCI_NO_DATA; break; \
        case OCI_ERROR: (A)=DB_RETURN_OCI_ERROR; break; \
        case OCI_INVALID_HANDLE: \
        (A)=DB_RETURN_OCI_INVALID_HANDLE; break; \
        case OCI_STILL_EXECUTING: \
        (A)=DB_RETURN_OCI_STILL_EXECUTING; break; \
        case OCI_CONTINUE: (A)=DB_RETURN_OCI_CONTINUE; break; \
    }; \
}

```

APPENDIX A - APPLICATION SOURCE CODE

```

/*****
*****
* DBExecution_pool_info *
*****/

typedef struct _DBExecution_pool_info {

    int current_status;
    int neworder_count;
    int payment_count;
    int orderstatus_count;
    int delivery_count;
    int stocklevel_count;
    void *pointer;

} DBExecution_pool_info;

/*****
*****
* global functions *
*****/

sb4 no_data(dvoid *,OCIBind *,ub4,ub4,dvoid **,ub4 *,ub1 *,dvoid **);
sb4 TPC_oid_data(dvoid *,OCIBind *,ub4,ub4,dvoid **,ub4 **,ub1 *,dvoid
**,ub2 **);
sb4 cid_data(dvoid *,OCIBind *,ub4,ub4,dvoid **,ub4 **,ub1 *,dvoid **,ub2
**);
sb4 amt_data(dvoid *,OCIBind *,ub4,ub4,dvoid **,ub4 **,ub1 *,dvoid
**,ub2 **);
void userlog(char *,...);
void readInit(char *,char *,char *);
int initializeDBExecutionPool();

DBExecution_pool_info* findIdleDBExecution();
int freeDBExecution(DBExecution_pool_info *);

//DBExecution_pool_info* findIdleDBExecution(HANDLE *);
//int freeDBExecution(DBExecution_pool_info *,HANDLE *);

void write_delivery_log(T_delivery_data *pdata, int id);
void initDelLog(int);
void endDelLog(int);

/*****
*****
* global variables *
*****/

HANDLE waitIdle;
HANDLE *DBExecution_lock;
DWORD TlsPtr;
DBExecution_pool_info *DBExecution_pool;
char DllPath[MAXLEN];
char LogFile[MAXLEN];
char InitFile[MAXLEN];
char DelLogFile[MAXLEN];
int TotalLoop=0;
int findDBExecutionCall=0;
int findDBExecutionWait=0;
int DBConnections;
int ready=0;
FILE **DelFiles;

/*****
*****
* DBExecution *
*****/

class DBExecution
{
public:
    DBExecution();
    ~DBExecution();

    int TPCinit(int, char *, char *);
    int TPCnew(struct newstruct *);
    int TPCpay(struct paystruct *);
    int TPCdel(struct delstruct *);
    int TPCord(struct ordstruct *);
    int TPCsto(struct stostruct *);
    void TPCexit();

#ifdef AVOID_DEADLOCK
    void swap(struct newstruct *, int, int);
#endif
};

void q_sort(int *, struct newstruct *, int, int);
#endif

int ocierror(char *, int, OCIError *, sword);
void shiftdata(int);
int sqlfile(char *, text *);

int tkvcninit();
int tkvcn();
void tkvcndone();

int tkvcpinit();
int tkvcp();
void tkvcpdone();

int tkvcoinit();
int tkvco();
void tkvcodone();

int tkvcdinit(int);
int tkvcd(int);
void tkvcddone(int);

int tkvcsinit();
int tkvcs();
void tkvcsdone();

delctx *dctx;
int execstatus;
int status;
int del_o_id[10];

private:
    int proc_no;
    int logon;
    int new_init;
    int pay_init;
    int ord_init;
    int del_init_oci;
    int del_init_plsql;
    int sto_init;
    int errcode;
    int indx[NITEMS];
    int ordl_cnt;

    /* for stock-level transaction */

    int w_id;
    int d_id;
    int c_id;
#ifdef USE_IEEE_NUMBER
    double threshold;
#else
    int threshold;
#endif /* USE_IEEE_NUMBER */
    int low_stock;

    /* for delivery transaction */

    int retries;

    /* for order-status transaction */

    int bylastname;
    char c_last[17];
    char c_first[17];
    char c_middle[3];
    double c_balance;
    int o_id;
    text o_entry_d[20];
    ub4 datelen;
    int o_carrier_id;
    int o_ol_cnt;
    int ol_supply_w_id[15];
    int ol_i_id[15];
#ifdef USE_IEEE_NUMBER
    double ol_quantity[15];
    double ol_amount[15];
#else
    int ol_quantity[15];
    int ol_amount[15];
#endif /* USE_IEEE_NUMBER */
    ub4 ol_del_len[15];
    text ol_delivery_d[15][11];
    OCIRowid *o_rowid;

    /* for payment transaction */

    int c_w_id;
    int c_d_id;
#ifdef USE_IEEE_NUMBER

```

```

double h_amount;
#else
int h_amount;
#endif /* USE_IEEE_NUMBER */
char w_street_1[21];
char w_street_2[21];
char w_city[21];
char w_state[3];
char w_zip[10];
char d_street_1[21];
char d_street_2[21];
char d_city[21];
char d_state[3];
char d_zip[10];
char c_street_1[21];
char c_street_2[21];
char c_city[21];
char c_state[3];
char c_zip[10];
char c_phone[17];
ub4 sincelen;
text c_since_d[11];
double c_discount;
char c_credit[3];
int c_credit_lim;
char c_data[201];
ub4 hlen;
text h_date[20];

/* for new order transaction */

int no_i_id[15];
int no_supply_w_id[15];
#endif USE_IEEE_NUMBER
double no_quantity[15];
double no_amount[15];
double s_quantity[15];
double i_price[15];
#else
int no_quantity[15];
int no_amount[15];
int s_quantity[15];
int i_price[15];
#endif /* USE_IEEE_NUMBER */
int no_quant10[15];
int no_quant9[15];
int no_ytdqty[15];
int o_all_local;
double w_tax;
double d_tax;
double total_amount;
char i_name[15][25];
char brand_gen[15];
char brand_generic[15][1];
int tracelevel;

OCIDate cr_date;
OCIDate c_since;
OCIDate o_entry_d_base;
OCIDate ol_d_base[15];
dvoid *xmem;

OCIEnv *tpcenv;
OCIError *errhp;
OCISvcCtx *tpcsvc;
OCIStmt *curi;

newctx *nctx;
ordctx *octx;
defctx *cbctx;
pldctx *pldctx;
amtctx *actx;
payctx *pctx;
stoctx *sctx;
};

```

Dbconnection/loopback.cpp

```

#include "stdafx.h"
#include "DBConnection.h"

```

Dbconnection/mod_tpcc.h

```

/* Copyright (c) 2004, Oracle Corporation. All rights reserved. */

```

```

/*
NAME
    mod_tpcc.h - <one-line expansion of the name>

DESCRIPTION
    <short description of facility this file declares/defines>

RELATED DOCUMENTS
    <note any documents related to this facility>

EXPORT FUNCTION(S)
    <external functions declared for use outside package - one-line
    descriptions>

INTERNAL FUNCTION(S)
    <other external functions declared - one-line descriptions>

EXAMPLES

NOTES
    <other useful comments, qualifications, etc.>

MODIFIED (MM/DD/YY)
    xnie    01/30/04 - the real mod_tpcc.h
    shuang  01/22/04 - shuang_rte
    shuang  01/21/04 - Creation
*/

```

```

#include <httpext.h>

#define CMD_PROCESS(p)    (p[0] == 'P') && (p[1] == 'r')
#define CMD_NEWORDER(p)  (p[0] == 'N')
#define CMD_PAYMENT(p)   (p[0] == 'P') && (p[1] == 'a')
#define CMD_DELIVERY(p)  (p[0] == 'D')
#define CMD_ORDERSTATUS(p) (p[0] == 'O')
#define CMD_STOCKLEVEL(p) (p[0] == 'S')
#define CMD_EXIT(p)      (p[0] == 'E')
#define CMD_MENU(p)      (p[0] == 'M')
#define CMD_BEGIN(p)     (p[0] == 'B')

#define TXN_TYPE_DELIVERY    0
#define TXN_TYPE_STOCKLEVEL  1
#define TXN_TYPE_NEWORDER    2
#define TXN_TYPE_ORDERSTATUS 3
#define TXN_TYPE_PAYMENT     4
#define TXN_TYPE_MAX         5

#define POOL_TYPE_TXN_INPUT    0
#define POOL_TYPE_TXN_OUTPUT  1
#define POOL_TYPE_TXN_MAX     2

#define MAX_FORM_INDEX        164
#define BUF_SIZE               4096
#define FILENAMESIZE          128
#define MYLOGFILE              "/tmp/mod_tpcc.log"
#define WDDID(w_id,d_id)      (10 * w_id + (d_id - 1))

```

```

#define MAX(a, b)              ((a > b) ? a : b)
#define MIN(a, b)              ((a > b) ? b : a)
#define STRING_UPPERCASE(x) \
{ \
    int str_pos; \
    int len = strlen(x); \
    for (str_pos=0; str_pos < len; str_pos++) \
        x[str_pos] = toupper(x[str_pos]); \
}

struct value_index_entry
{
    char *value;
    int length;
};
typedef struct value_index_entry value_index_entry;

struct form_index_entry
{
    int index;
    int length;
};
typedef struct form_index_entry form_index_entry;

struct form_template_pool
{
    CRITICAL_SECTION form_template_spinlock;
    /* mutex for serialisation */
}

```


APPENDIX A - APPLICATION SOURCE CODE

```

int form_template_length; /* Length of each form */
int form_template_size; /* Number of form in the pool */
char *form_template_storage; /* The space allocated for the whole pool */

int free_slot;
int *free_list;
};
typedef struct form_template_pool form_template_pool;

//static int tpcc_handler(request_rec *r);
//static int tpcc_post_config(apr_pool_t *p, apr_pool_t *pl,
// apr_pool_t *pt, server_rec *s);
//static void tpcc_child_init(apr_pool_t *p, server_rec *s);
//static void tpcc_register_hooks(apr_pool_t *p);

void allocate_response_pool();
void allocate_transaction_pool();
void allocate_template_pool();

int sendform_mainmenu(EXTENSION_CONTROL_BLOCK *pECB, int
w_id, int ld_id);
int sendform_welcome(EXTENSION_CONTROL_BLOCK *, char *);
int sendform_neworderinput(EXTENSION_CONTROL_BLOCK *pECB, int
w_id, int ld_id);
int sendform_paymentinput(EXTENSION_CONTROL_BLOCK *pECB, int
w_id, int ld_id);
int sendform_orderstatusinput(EXTENSION_CONTROL_BLOCK *pECB,
int w_id, int ld_id);
int sendform_deliveryinput(EXTENSION_CONTROL_BLOCK *pECB, int
w_id, int ld_id);
int sendform_stocklevelinput(EXTENSION_CONTROL_BLOCK *pECB,
int w_id, int ld_id);

int mod_neworder_query(EXTENSION_CONTROL_BLOCK *pECB, int
w_id, int ld_id, char *ptr);
int mod_delivery_query(EXTENSION_CONTROL_BLOCK *pECB, int
w_id, int ld_id, char *ptr);
int mod_payment_query(EXTENSION_CONTROL_BLOCK *pECB, int
w_id, int ld_id, char *ptr);
int mod_orderstatus_query(EXTENSION_CONTROL_BLOCK *pECB, int
w_id, int ld_id, char *ptr);
int mod_stocklevel_query(EXTENSION_CONTROL_BLOCK *pECB, int
w_id, int ld_id, char *ptr);
int process_query(EXTENSION_CONTROL_BLOCK *);
int mod_begin_cmd(EXTENSION_CONTROL_BLOCK *);
int mod_menu_cmd(EXTENSION_CONTROL_BLOCK *, int, int);
int mod_exit_cmd(EXTENSION_CONTROL_BLOCK *);
int send_error_message(EXTENSION_CONTROL_BLOCK *, int, int, char
*,int,int,void *);

int get_wid_did(char *iptr, int *wid, int *did, char **optr);
int getcharvalue(char *iptr, char key, char **optr);
char *allocate_form(form_template_pool *pool, int *index);
char *allocate_form_new(form_template_pool *pool, int index);
void free_form(form_template_pool *pool, char *form_template, int index);
void make_txn_form_template(char *, char *, char *, char *, int);
int build_form_index(char *form, char *form_template, form_index_entry
*f_index, int length);
int send_response(EXTENSION_CONTROL_BLOCK *, char *, int);
void fill_number(char *form, int value, int index, int length);
void fill_double(char *form, double value, int index, int length);
void fill_string(char *form, char *string, int index, int length, int *shift);
void adjust_form(char *form, int *indexes, int *length, int size, int formlen,
int totalshift);
int get_number(char *ptr, int *value);
int parse_query_string(char *iptr, int max_cnt, char *txn_chars,
value_index_entry *txn_vals);

#define mod_neworder_cmd(rec, w_id, ld_id)
sendform_neworderinput(rec, w_id, ld_id)
#define mod_delivery_cmd(rec, w_id, ld_id)
sendform_deliveryinput(rec, w_id, ld_id)
#define mod_payment_cmd(rec, w_id, ld_id)
sendform_paymentinput(rec, w_id, ld_id)
#define mod_orderstatus_cmd(rec, w_id, ld_id)
sendform_orderstatusinput(rec, w_id, ld_id)
#define mod_stocklevel_cmd(rec, w_id, ld_id)
sendform_stocklevelinput(rec, w_id, ld_id)

/* -----
The following defines the form layout of the different screens (forms).

NAME=1 - Command.

VALUE = NewOrder - neworder bring out new order input form
Delivery - delivery bring out delivery input form
OrderStatus - order status bring out order status input form
Payment - payment bring out payment input form
StockLevel - stock level bring out stock level input form
Menu - display main menu
Process - perform the specified transaction after providing
input
Begin - send wid and did

NAME=2 - Form Type.

VALUE = d,n,p,s,o [D,N,P,S,O] output/input. Plus terminal ID.
= W logon
= M main menu

Delivery
3 - district number.

Order Status
3 - district number.
4 - customer id.
5 - customer last name.

Payment
3 - district number.
4 - customer id.
5 - customer warehouse.
6 - customer district.
7 - name
8 - amount paid

Stock Level
3 - stock level threshold

New Order
3 - district number.
4 - customer number.
----- */

#define TRANSACTION_MENU \
<HR>\
<INPUT TYPE=submit NAME=0 VALUE=NewOrder>\
<INPUT TYPE=submit NAME=0 VALUE=Payment>\
<INPUT TYPE=submit NAME=0 VALUE=Delivery>\
<INPUT TYPE=submit NAME=0 VALUE=StockLevel>\
<INPUT TYPE=submit NAME=0 VALUE=OrderStatus>\
<INPUT TYPE=submit NAME=0 VALUE=Exit>

/* static char WelcomeForm [] =
<BODY><FORM ACTION=%s METHOD=GET>
<INPUT TYPE=hidden NAME=2 VALUE=B000>
%s. Please provide your warehouse ID and district ID.<BR>
Warehouse ID <INPUT NAME=3 SIZE=7><BR>
District ID <INPUT NAME=4 SIZE=2><BR>
<HR>
<INPUT TYPE=submit NAME=1 VALUE=Begin>
</FORM></BODY>; */
static char WelcomeForm [] =
<BODY><FORM ACTION=%s METHOD=GET>
<INPUT TYPE=hidden NAME=3 VALUE=W000>
%s. Please provide your warehouse ID and district ID.<BR>
Warehouse ID <INPUT NAME=4 SIZE=7><BR>
District ID <INPUT NAME=5 SIZE=2><BR>
<HR>
<INPUT TYPE=submit NAME=0 VALUE=Begin>
</FORM></BODY>;

static char FormHeader [] =
<BODY><FORM ACTION=%s METHOD=GET>;

#define FORM_BEGIN "<BODY><FORM ACTION=%s
METHOD=GET>"
#define FORM_END "</FORM></BODY>"
#define FORM_SUBMIT "<INPUT TYPE=submit NAME=0
VALUE=Process>"
#define FORM_MENU "<INPUT TYPE=submit NAME=0
VALUE=Menu>"

static char MainForm [] =
FORM_BEGIN
<INPUT TYPE=hidden NAME=3 VALUE=M%07d>
"%60s<BR>"
"Please Select the Next Transaction.<BR>"
TRANSACTION_MENU
FORM_END;

static char ErrorForm [] =
FORM_BEGIN
<INPUT TYPE=hidden NAME=3 VALUE=e%06d>
"Error: %d %d %40s %s<BR>"
TRANSACTION_MENU
FORM_END;

/*
static char ErrorForm [] =
FORM_BEGIN

```

APPENDIX A - APPLICATION SOURCE CODE

```
"<INPUT TYPE=hidden NAME=3 VALUE=e%06d>"
"Error: %d (%s): %s<BR>"
TRANSACTION_MENU
FORM_END;
*/
#define DE_EXTRA_ID 0
#define DE_INPUT_DID DE_EXTRA_ID + 1
#define DE_INPUT_QTIME DE_INPUT_DID + 1
#define DE_INPUT_MAX DE_INPUT_QTIME + 1

#define OS_INPUT_DID 0
#define OS_INPUT_CID OS_INPUT_DID + 1
#define OS_INPUT_NAME OS_INPUT_CID + 1
#define OS_INPUT_MAX OS_INPUT_NAME + 1

#define PA_INPUT_DID 0
#define PA_INPUT_CID PA_INPUT_DID + 1
#define PA_INPUT_CWID PA_INPUT_CID + 1
#define PA_INPUT_CDID PA_INPUT_CWID + 1
#define PA_INPUT_NAME PA_INPUT_CDID + 1
#define PA_INPUT_AMT PA_INPUT_NAME + 1
#define PA_INPUT_MAX PA_INPUT_AMT + 1

#define SL_INPUT_THRESHOLD 0
#define SL_INPUT_MAX SL_INPUT_THRESHOLD + 1

#define NO_INPUT_DID 0
#define NO_INPUT_CID NO_INPUT_DID + 1
#define NO_INPUT_SPW00 NO_INPUT_CID + 1
#define NO_INPUT_IID00 NO_INPUT_SPW00 + 1
#define NO_INPUT_QTY00 NO_INPUT_IID00 + 1
#define NO_INPUT_SPW01 NO_INPUT_QTY00 + 1
#define NO_INPUT_IID01 NO_INPUT_SPW01 + 1
#define NO_INPUT_QTY01 NO_INPUT_IID01 + 1
#define NO_INPUT_SPW02 NO_INPUT_QTY01 + 1
#define NO_INPUT_IID02 NO_INPUT_SPW02 + 1
#define NO_INPUT_QTY02 NO_INPUT_IID02 + 1
#define NO_INPUT_SPW03 NO_INPUT_QTY02 + 1
#define NO_INPUT_IID03 NO_INPUT_SPW03 + 1
#define NO_INPUT_QTY03 NO_INPUT_IID03 + 1
#define NO_INPUT_SPW04 NO_INPUT_QTY03 + 1
#define NO_INPUT_IID04 NO_INPUT_SPW04 + 1
#define NO_INPUT_QTY04 NO_INPUT_IID04 + 1
#define NO_INPUT_SPW05 NO_INPUT_QTY04 + 1
#define NO_INPUT_IID05 NO_INPUT_SPW05 + 1
#define NO_INPUT_QTY05 NO_INPUT_IID05 + 1
#define NO_INPUT_SPW06 NO_INPUT_QTY05 + 1
#define NO_INPUT_IID06 NO_INPUT_SPW06 + 1
#define NO_INPUT_QTY06 NO_INPUT_IID06 + 1
#define NO_INPUT_SPW07 NO_INPUT_QTY06 + 1
#define NO_INPUT_IID07 NO_INPUT_SPW07 + 1
#define NO_INPUT_QTY07 NO_INPUT_IID07 + 1
#define NO_INPUT_SPW08 NO_INPUT_QTY07 + 1
#define NO_INPUT_IID08 NO_INPUT_SPW08 + 1
#define NO_INPUT_QTY08 NO_INPUT_IID08 + 1
#define NO_INPUT_SPW09 NO_INPUT_QTY08 + 1
#define NO_INPUT_IID09 NO_INPUT_SPW09 + 1
#define NO_INPUT_QTY09 NO_INPUT_IID09 + 1
#define NO_INPUT_SPW10 NO_INPUT_QTY09 + 1
#define NO_INPUT_IID10 NO_INPUT_SPW10 + 1
#define NO_INPUT_QTY10 NO_INPUT_IID10 + 1
#define NO_INPUT_SPW11 NO_INPUT_QTY10 + 1
#define NO_INPUT_IID11 NO_INPUT_SPW11 + 1
#define NO_INPUT_QTY11 NO_INPUT_IID11 + 1
#define NO_INPUT_SPW12 NO_INPUT_QTY11 + 1
#define NO_INPUT_IID12 NO_INPUT_SPW12 + 1
#define NO_INPUT_QTY12 NO_INPUT_IID12 + 1
#define NO_INPUT_SPW13 NO_INPUT_QTY12 + 1
#define NO_INPUT_IID13 NO_INPUT_SPW13 + 1
#define NO_INPUT_QTY13 NO_INPUT_IID13 + 1
#define NO_INPUT_SPW14 NO_INPUT_QTY13 + 1
#define NO_INPUT_IID14 NO_INPUT_SPW14 + 1
#define NO_INPUT_QTY14 NO_INPUT_IID14 + 1
#define NO_INPUT_MAX NO_INPUT_QTY14 + 1

#define DE_TERMID 0
#define DE_WID DE_TERMID+1
#define DE_CARID DE_WID+1
#define DE_FORMINDEX_SIZE DE_CARID+1

static char DeliveryFormInput_Template [] =
"<INPUT TYPE=hidden NAME=3 VALUE=D#####>"
"<INPUT TYPE=hidden NAME=6 VALUE=0>"
"<PRE>
Delivery <BR>"
"Warehouse: ##### <BR><BR>"
"Carrier Number: <INPUT NAME=7 SIZE=2><BR><BR>"
"Execution Status: <BR></PRE>"
FORM_MENU
FORM_SUBMIT
FORM_END;

static char DeliveryFormOutput_Template [] =
```

```
"<INPUT TYPE=hidden NAME=3 VALUE=d#####>"
"<PRE>
Delivery <BR>"
"Warehouse: ##### <BR><BR>"
"Carrier Number: ##<BR><BR>"
"Execution Status: Delivery has been queued. <BR></PRE>"
TRANSACTION_MENU
FORM_END;

#define OS_TERMID 0
#define OS_WID OS_TERMID+1
#define OS_DID OS_WID+1
#define OS_CID OS_DID+1
#define OS_FIRST OS_CID+1
#define OS_MIDDLE OS_FIRST+1
#define OS_LAST OS_MIDDLE+1
#define OS_CBALANCE OS_LAST+1
#define OS_OID OS_CBALANCE+1
#define OS_ENTRY_DATE OS_OID+1
#define OS_CARID OS_ENTRY_DATE+1
#define OS_SUPW OS_CARID+1
#define OS_ITEMID OS_SUPW+1
#define OS_QTY OS_ITEMID+1
#define OS_AMOUNT OS_QTY+1
#define OS_DELDATE OS_AMOUNT+1
#define OS_FORMINDEX_SIZE OS_DELDATE+(14*5)+1

static char OrderStatusInput_Template [] =
"<INPUT TYPE=hidden NAME=3 VALUE=O#####>"
"<PRE>
Order-Status <BR>"
"Warehouse: ##### District: <INPUT NAME=8 SIZE=2><BR>"
"Customer: <INPUT NAME=9 SIZE=4> Name: <INPUT NAME=Y
SIZE=23> <BR>"
"Cust-Balance: <BR><BR>"
"Order-Number: Entry-Date: Carrier-Number:<BR>"
"Supply-W Item-ID QTY Amount Delivery-
Data<BR></PRE></HR>"
FORM_MENU
FORM_SUBMIT
FORM_END;

static char OrderStatusOutput_Template [] =
"<INPUT TYPE=hidden NAME=3 VALUE=O#####>"
"<PRE>
Order Status <BR>"
"Warehouse: ##### District: ##<BR>"
"Customer: #### Name: #####<BR>"
#####<BR>"
"Cust-Balance: $#####<BR><BR>"
"Order-Number: ##### Entry-Date: #####<BR>"
Carrier-Number: ##<BR>"
"Supply-W Item-ID QTY Amount Delivery-Data<BR>"
" ##### ## $##### <BR>"
" ##### ## $##### <BR>"
" ##### ## $##### <BR>"
" ##### ## $##### <BR>"
" ##### ## $##### <BR>"
" ##### ## $##### <BR>"
" ##### ## $##### <BR>"
" ##### ## $##### <BR>"
" ##### ## $##### <BR>"
" ##### ## $##### <BR>"
" ##### ## $##### <BR>"
" ##### ## $##### <BR>"
" ##### ## $##### <BR>"
" ##### ## $##### <BR>"
" ##### ## $##### <BR>"
" ##### ## $##### <BR>"
" ##### ## $##### <BR>"
"#####<BR>"
TRANSACTION_MENU
FORM_END;

#define PA_INPUT_TERMID 0
#define PA_INPUT_WID PA_TERMID+1
#define PA_INPUT_FORMINDEX_SIZE PA_INPUT_WID+1

#define PA_TERMID 0
#define PA_DATE PA_TERMID+1
#define PA_WID PA_DATE+1
#define PA_DID PA_WID+1
#define PA_WST1 PA_DID+1
#define PA_DST1 PA_WST1+1
#define PA_WST2 PA_DST1+1
#define PA_DST2 PA_WST2+1
#define PA_WCITY PA_DST2+1
#define PA_WSTATE PA_WCITY+1
#define PA_WZIP PA_WSTATE+1
#define PA_DCIITY PA_WZIP+1
#define PA_DSTATE PA_DCIITY+1
#define PA_DZIP PA_DSTATE+1
#define PA_CID PA_DZIP+1
#define PA_CWARE PA_CID+1
#define PA_CDIST PA_CWARE+1
#define PA_CFIRST PA_CDIST+1
```

APPENDIX A - APPLICATION SOURCE CODE

```
#define PA_CMIDDLE PA_CFIRST+1
#define PA_CLAST PA_CMIDDLE+1
#define PA_SINCE PA_CLAST+1
#define PA_CST1 PA_SINCE+1
#define PA_CREDIT PA_CST1+1
#define PA_CST2 PA_CREDIT+1
#define PA_DISC PA_CST2+1
#define PA_CCITY PA_DISC+1
#define PA_CSTATE PA_CCITY+1
#define PA_CZIP PA_CSTATE+1
#define PA_CPHONE PA_CZIP+1
#define PA_AMOUNT PA_CPHONE+1
#define PA_CBAL PA_AMOUNT+1
#define PA_LIMIT PA_CBAL+1
#define PA_CUSTDATA PA_LIMIT+1
#define PA_FORMINDEX_SIZE PA_CUSTDATA+3+1

static char PaymentInput_Template [] =
"<INPUT TYPE=hidden NAME=3 VALUE=P#####>"
"<PRE>
Payment<BR>"
"Date: <BR><BR>"
"Warehouse: ##### District: <INPUT NAME=8
SIZE=2><BR>"
"<BR><BR><BR><BR>"
"Customer: <INPUT NAME=9 SIZE=4>"
"Cust-Warehouse: <INPUT NAME=Z SIZE=7>"
"Cust-District: <INPUT NAME=v SIZE=2><BR>"
"Name: <INPUT NAME=Y SIZE=16> Since: <BR>"
"
Credit: <BR>"
"
Disc: <BR>"
"
Phone: <BR><BR>"
"Amount Paid: $<INPUT NAME=w SIZE=7> New Cust Balance:
<BR>"
"Credit limit:<BR><BR>Cust-Data: <BR><BR><BR><BR></PRE><HR>"
FORM_MENU
FORM_SUBMIT
FORM_END;

static char PaymentOutput_Template [] =
"<INPUT TYPE=hidden NAME=3 VALUE=p#####>"
"<PRE>
Payment<BR>"
"Date: #####<BR>"
"Warehouse: ##### District: ##<BR>"
"#####<BR>"
"#####<BR>"
"#####<BR>"
"#####<BR>"
"#####<BR>"
"Customer: #### Cust-Warehouse: ##### Cust-District: ##<BR>"
"Name: ##### Since:
#####<BR>"
"
Credit: ##<BR>"
"
%Disc: ###<BR>"
"
Phone:
#####<BR>"
"<BR><BR>"
"Amount Paid: $##### New Cust Balance:
$#####<BR>"
"Credit Limit: $#####<BR><BR>"
"Cust-Data:
#####<BR>"
"#####<BR>"
"#####<BR>"
"#####<BR>"
"#####<BR>"
"</PRE>"
TRANSACTION_MENU
FORM_END;

#define SL_TERMID 0
#define SL_WID SL_TERMID+1
#define SL_DID SL_WID+1
#define SL_THRESHOLD SL_DID+1
#define SL_LOWSTOCK SL_THRESHOLD+1
#define SL_FORMINDEX_SIZE SL_LOWSTOCK

static char StockLevelInput_Template [] =
"<INPUT TYPE=hidden NAME=3 VALUE=S#####>"
"<PRE>
Stock-Level<BR>"
"Warehouse: ##### District ##<BR><BR>"
"Stock Level Threshold: <INPUT NAME=x SIZE=2><BR><BR>"
"low stock: <BR></PRE><HR>"
FORM_MENU
FORM_SUBMIT
FORM_END;

static char StockLevelOutput_Template [] =
"<INPUT TYPE=hidden NAME=3 VALUE=s#####>"
"<PRE>
Stock Level<BR>"
"Warehouse: ##### District ##<BR><BR>"
```

```
"Stock Level Threshold: ##<BR><BR>"
"low stock: ### <BR></PRE><HR>"
TRANSACTION_MENU
FORM_END;

#define NO_TERMID 0
#define NO_WID NO_TERMID+1
#define NO_DID NO_WID+1
#define NO_DATE NO_DID+1
#define NO_CID NO_DATE+1
#define NO_NAME NO_CID+1
#define NO_CREDIT NO_NAME+1
#define NO_DISC NO_CREDIT+1
#define NO_OID NO_DISC+1
#define NO_LINES NO_OID+1
#define NO_WTAX NO_LINES+1
#define NO_DTAX NO_WTAX+1
#define NO_SUPPW NO_DTAX+1
#define NO_ITEMID NO_SUPPW+1
#define NO_INAME NO_ITEMID+1
#define NO_QTY NO_INAME+1
#define NO_STOCK NO_QTY+1
#define NO_BRAND NO_STOCK+1
#define NO_PRICE NO_BRAND+1
#define NO_AMOUNT NO_PRICE+1
#define NO_STATUS NO_AMOUNT + 14*8 + 1
#define NO_TOTAL NO_STATUS+1
#define NO_FORMINDEX_SIZE NO_TOTAL+1

static char NewOrderInput_Template [] =
"<INPUT TYPE=hidden NAME=3 VALUE=N#####>"
"<PRE>
New Order<BR>"
"Warehouse: ##### District: <INPUT NAME=8 SIZE=2>
Date: <BR>"
"Customer: <INPUT NAME=9 size=4> Name: Credit:
%Disc:<BR>"
"Order Number: Number of Lines: W_tax:
D_tax:<BR><BR>"
"Supp_W Item-Id Item Name Qty Stock B/G Price
Amount<BR>"
"<INPUT NAME=A SIZE=6> <INPUT NAME=B SIZE=7><INPUT
NAME=C SIZE=2><BR>"
"<INPUT NAME=D SIZE=6> <INPUT NAME=E SIZE=7><INPUT
NAME=F SIZE=2><BR>"
"<INPUT NAME=G SIZE=6> <INPUT NAME=H SIZE=7><INPUT NAME=I
SIZE=2><BR>"
"<INPUT NAME=J SIZE=6> <INPUT NAME=K SIZE=7><INPUT NAME=L
SIZE=2><BR>"
"<INPUT NAME=M SIZE=6> <INPUT NAME=N SIZE=7><INPUT
NAME=O SIZE=2><BR>"
"<INPUT NAME=P SIZE=6> <INPUT NAME=Q SIZE=7><INPUT
NAME=R SIZE=2><BR>"
"<INPUT NAME=S SIZE=6> <INPUT NAME=T SIZE=7><INPUT
NAME=U SIZE=2><BR>"
"<INPUT NAME=V SIZE=6> <INPUT NAME=W SIZE=7><INPUT
NAME=X SIZE=2><BR>"
"<INPUT NAME=a SIZE=6> <INPUT NAME=b SIZE=7><INPUT NAME=c
SIZE=2><BR>"
"<INPUT NAME=d SIZE=6> <INPUT NAME=e SIZE=7><INPUT NAME=f
SIZE=2><BR>"
"<INPUT NAME=g SIZE=6> <INPUT NAME=h SIZE=7><INPUT NAME=i
SIZE=2><BR>"
"<INPUT NAME=j SIZE=6> <INPUT NAME=k SIZE=7><INPUT NAME=l
SIZE=2><BR>"
"<INPUT NAME=m SIZE=6> <INPUT NAME=n SIZE=7><INPUT
NAME=o SIZE=2><BR>"
"<INPUT NAME=p SIZE=6> <INPUT NAME=q SIZE=7><INPUT NAME=r
SIZE=2><BR>"
"<INPUT NAME=s SIZE=6> <INPUT NAME=t SIZE=7><INPUT NAME=u
SIZE=2><BR>"
"Execution Status: Total:<BR></PRE><HR>"
FORM_MENU
FORM_SUBMIT
FORM_END;

static char NewOrderOutput_Template [] =
"<INPUT TYPE=hidden NAME=3 VALUE=n#####>"
"<PRE>
New Order<BR>"
"Warehouse: ##### District: ## Date:
#####<BR>"
"Customer: #### 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>"
"#####
$#####<BR>"
"#####
$#####<BR>"
```


APPENDIX A - APPLICATION SOURCE CODE

```

#define
OCIBNDRAA(stmp,bndp,errp,sqlvar,prog,progvl,ftype,indp,alen,arcode,ms,cu)\
ocierror(__FILE__,__LINE__,(errp),\

OCIHandleAlloc((stmp),&(bndp),OCI_HTYPE_BIND,0,(dvoid**0));\
ocierror(__FILE__,__LINE__,(errp),\
OCIBindByName((stmp),&(bndp),(errp),(text
*)(sqlvar),strlen(sqlvar),\

(progvl),(progvl),(ftype),(indp),(alen),(arcode),(ms),(cu),OCI_DEFAULT);

#define OCIDEFINE(stmp,dfnp,errp,pos,prog,progvl,ftype)\
OCIDefineByPos((stmp),&(dfnp),(errp),(pos),(progvl),(progvl),(ftype),\
0,0,0,OCI_DEFAULT);

#define OCIDEF(stmp,dfnp,errp,pos,prog,progvl,ftype)\
OCIHandleAlloc((stmp),(dvoid**)&(dfnp),OCI_HTYPE_DEFINE,0,\
(dvoid**0));\
OCIDefineByPos((stmp),&(dfnp),(errp),(pos),(progvl),(progvl),\
(ftype),NULL,NULL,NULL,OCI_DEFAULT);

#define
OCIDFNRA(stmp,dfnp,errp,pos,prog,progvl,ftype,indp,alen,arcode)\
OCIHandleAlloc((stmp),(dvoid**)&(dfnp),OCI_HTYPE_DEFINE,0,\
(dvoid**0));\
OCIDefineByPos((stmp),&(dfnp),(errp),(pos),(progvl),\

(progvl),(ftype),(indp),(alen),\

(arcode),OCI_DEFAULT);

#define OBNDRV(lda,cursor,sqlvar,prog,progvl,ftype)\
if (obndrv((cursor),(text*)(sqlvar),NA,(ub1*)(progvl),(progvl),(ftype),NA,\
(sb2 *)0,(text *)0,NA,NA))\
{errrpt(lda,cursor);return(-1);}\
else\
DISCARD 0

#define OBNDRA(lda,cursor,sqlvar,prog,progvl,ftype,indp,alen,arcode)\
if (obndra((cursor),(text*)(sqlvar),NA,(ub1*)(progvl),(progvl),(ftype),NA,\
(indp),(alen),(arcode),(ub4)0,(ub4)0,(text*)0,NA,NA))\
{errrpt(lda,cursor);return(-1);}\
else\
DISCARD 0

#define
OBNDRAA(lda,cursor,sqlvar,prog,progvl,ftype,indp,alen,arcode,ms,cs)\
if (obndraa((cursor),(text*)(sqlvar),NA,(ub1*)(progvl),(progvl),(ftype),NA,\
(indp),(alen),(arcode),(ub4)(ms),(ub4)(cs),(text*)0,NA,NA))\
{errrpt(lda,cursor);return(-1);}\
else\
DISCARD 0

#define
ODEFIN(lda,cursor,pos,buf,buf1,ftype,scal,indp,fmt,fmtl,fmtr,rlen,rcode)\
if (odefin((cursor),(pos),(ub1*)(buf),(buf1),(ftype),(scal),(indp),\
(text*)(fmt),(fml),(fmr),(rlen),(rcode))\
{errrpt(lda,cursor);return(-1);}\
else\
DISCARD 0

#define
OEXFET(lda,cursor,nrows,cancel,exact)\
if (oexfet((cursor),(nrows),(cancel),(exact))\
{if ((cursor)->rc == 1403)\
{if (errrpt(lda,cursor); orol(lda); return(-1);)\
else if (errrpt(lda,cursor)==RECOVER)\
{orol(lda);return(RECOVER);}\
else{orol(lda);return(-1);}}\
else\
DISCARD 0

#define
OOPEN(lda,cursor)\
if (oopen((cursor),(lda),(text*)0,NA,NA,(text*)0,NA))\
{errrpt(lda,cursor);return(-1);}\
else\
DISCARD 0

#define
OPARSE(lda,cursor,sqlstm,sql,(defflg),(ub4)(ingflg))\
if (oparse((cursor),(sqlstm),(sb4)(sql),(defflg),(ub4)(ingflg))\
{errrpt(lda,cursor);return(-1);}\
else\
DISCARD 0

#define
OFEN(lda,cursor,nrows)\
if (ofen((cursor),(nrows))\
{if (errrpt(lda,cursor)==RECOVER)\
{orol(lda);return(RECOVER);}\
else{orol(lda);return(-1);}}\

else\
DISCARD 0

#define
OEXEC(lda,cursor)\
if (oexec((cursor))\
{if (errrpt(lda,cursor)==RECOVER)\
{orol(lda);return(RECOVER);}\
else{orol(lda);return(-1);}}\
else\
DISCARD 0

#define
OCOM(lda,cursor)\
if (ocom((lda))\
{errrpt(lda,cursor);orol(lda);return(-1);}\
else\
DISCARD 0

#define
OEXN(lda,cursor,itors,rowoff)\
if (oexn((cursor),(itors),(rowoff))\
{if (errrpt(lda,cursor)==RECOVER)\
{orol(lda);return(RECOVER);}\
else{orol(lda);return(-1);}}\
else\
DISCARD 0

/* bind in/out for plsql without indicator and rcode */
#define
OCIBNDPL(stmp,bndp,errp,sqlvar,prog,progvl,ftype,alen)\
DISCARD ocierror(__FILE__,__LINE__,(errp),\

OCIHandleAlloc((stmp),(dvoid**)&(bndp),OCI_HTYPE_BIND,0,(dvoid**0)
);\
DISCARD ocierror(__FILE__,__LINE__,(errp),\
OCIBindByName((stmp),&(bndp),(errp),(CONST text*)(sqlvar),\
(sb4)strlen((CONST char*)(sqlvar)),(dvoid*)(progvl),(progvl),(ftype),\
NULL(dvoid),(alen),NULL(ub2),
0,NULL(ub4),OCI_DEFAULT));

/* bind in/out for plsql arrays without indicator and rcode */
#define
OCIBNDPLA(stmp,bndp,errp,sqlvar,prog,progvl,ftype,alen,ms,cu)\
DISCARD ocierror(__FILE__,__LINE__,(errp),\

OCIHandleAlloc((stmp),(dvoid**)&(bndp),OCI_HTYPE_BIND,0,(dvoid**0)
);\
DISCARD ocierror(__FILE__,__LINE__,(errp),\
OCIBindByName((stmp),&(bndp),(errp),(CONST text*)(sqlvar),\
(sb4)strlen((CONST char*)(sqlvar)),(void*)(progvl),\
(progvl),(ftype),NULL,(alen),NULL,(ms),(cu),OCI_DEFAULT));

#define
OCIDEFINE(stmp,dfnp,errp,pos,prog,progvl,ftype)\
OCIDefineByPos((stmp),&(dfnp),(errp),(pos),(progvl),(progvl),(ftype),\
0,0,0,OCI_DEFAULT);

#define
OCIDEF(stmp,dfnp,errp,pos,prog,progvl,ftype)\
OCIHandleAlloc((stmp),(dvoid**)&(dfnp),OCI_HTYPE_DEFINE,0,\
(dvoid**0));\
OCIDefineByPos((stmp),&(dfnp),(errp),(pos),(progvl),(progvl),\
(ftype),NULL,NULL,NULL,OCI_DEFAULT);

#define
OCIDFNRA(stmp,dfnp,errp,pos,prog,progvl,ftype,indp,alen,arcode)\
OCIHandleAlloc((stmp),(dvoid**)&(dfnp),OCI_HTYPE_DEFINE,0,\
(dvoid**0));\
OCIDefineByPos((stmp),&(dfnp),(errp),(pos),(progvl),\

(progvl),(ftype),(indp),(alen),\

(arcode),OCI_DEFAULT);

#define
OCIDFNDRY(stmp,dfnp,errp,pos,prog,progvl,ftype,indp,ctxp,cbf_data)\
ocierror(__FILE__,__LINE__,(errp),\
OCIHandleAlloc((stmp),(dvoid**)&(dfnp),OCI_HTYPE_DEFINE,0,\
(dvoid**0));\
ocierror(__FILE__,__LINE__,(errp),\
OCIDefineByPos((stmp),&(dfnp),(errp),(pos),(progvl),(progvl),(ftype),\
(indp),NULL,NULL,OCI_DYNAMIC_FETCH));\
ocierror(__FILE__,__LINE__,(errp),\
OCIDefineDynamic((dfnp),(errp),(ctxp),(cbf_data));

#endif

```

Dbconnection/tpcc_struct.h

```

/* Copyright (c) 2004, Oracle Corporation. All rights reserved. */
/*
NAME
tpcc_struct.h - <one-line expansion of the name>

DESCRIPTION
<short description of facility this file declares/defines>

RELATED DOCUMENTS
<note any documents related to this facility>

EXPORT FUNCTION(S)
<external functions declared for use outside package - one-line
descriptions>

INTERNAL FUNCTION(S)
<other external functions declared - one-line descriptions>

EXAMPLES

NOTES
<other useful comments, qualifications, etc.>

MODIFIED (MM/DD/YY)
xnie 02/09/04 - add status field to carry error status
shuang 01/22/04 - shuang_rte
shuang 01/21/04 - Creation
*/

#define MAX_ORDERLINE 15
#define SMALL_BUF_SIZE 32

#define TXN_COMMON_DATA \
int w_id; \
int ld_id; \
int txn_status; \
int db_status; \
void *context

struct T_connect_data
{
TXN_COMMON_DATA;
};
typedef struct T_connect_data T_connect_data;

struct T_date
{
char DateString[20];
};
typedef struct T_date T_date;

struct T_delivery_data
{
TXN_COMMON_DATA;
SYSTEMTIME enqueue_date_time;
DWORD enqueue_time;
DWORD complete_time;
int o_carrier_id;
int o_id[10];
};
typedef struct T_delivery_data T_delivery_data;

struct T_orderline
{
int ol_i_id;
int ol_supply_w_id;
int ol_quantity;
char i_name[25];
int s_quantity;
char b_g[2];
double i_price;
double ol_amount;
};
typedef struct T_orderline T_orderline;

struct T_neworder_data
{
TXN_COMMON_DATA;
int d_id;
int c_id;
int o_ol_cnt;
int o_all_local;
T_orderline o_orderline[MAX_ORDERLINE];
T_date o_entry_d;
char o_lee[47];

```

```

char c_credit[3];
double c_discount;
double w_tax;
double d_tax;
int o_id;
double total_amount;
int status;
};
typedef struct T_neworder_data T_neworder_data;

struct T_stocklevel_data
{
TXN_COMMON_DATA;
int threshold;
int low_stock;
};
typedef struct T_stocklevel_data T_stocklevel_data;

struct T_orderline_status
{
int ol_supply_w_id;
int ol_i_id;
int ol_quantity;
double ol_amount;
T_date ol_delivery_d;
};
typedef struct T_orderline_status T_orderline_status;

struct T_orderstatus_data
{
TXN_COMMON_DATA;
int by_last_name;
int d_id;
int c_id;
char c_last[17];
char c_first[17];
char c_middle[3];
double c_balance;
int o_id;
T_date o_entry_d;
int o_carrier_id;
int o_ol_cnt;
T_orderline_status o_orderline[MAX_ORDERLINE];
};
typedef struct T_orderstatus_data T_orderstatus_data;

struct T_payment_data
{
TXN_COMMON_DATA;
int by_last_name;
int d_id;
int c_id;
char c_last[17];
int c_w_id;
int c_d_id;
double h_amount;
T_date h_date;
char w_street_1[21];
char w_street_2[21];
char w_city[21];
char w_state[3];
char w_zip[10];
char d_street_1[21];
char d_street_2[21];
char d_city[21];
char d_state[3];
char d_zip[10];
char c_first[17];
char c_middle[3];
char c_street_1[21];
char c_street_2[21];
char c_city[21];
char c_state[3];
char c_zip[10];
char c_phone[17];
T_date c_since;
char c_credit[3];
double c_credit_lim;
double c_discount;
double c_balance;
char c_data[201];
};
typedef struct T_payment_data T_payment_data;

struct T_transaction_data
{
int txn_type;
union {
T_delivery_data delivery_data;
T_payment_data payment_data;
T_neworder_data neworder_data;

```

APPENDIX A - APPLICATION SOURCE CODE

```

T_stocklevel_data stocklevel_data;
T_orderstatus_data orderstatus_data;
} txn_data;

);
typedef struct T_transaction_data T_transaction_data;

struct T_login_data
{
    TXN_COMMON_DATA;
    char server[SMALL_BUF_SIZE];
    char database[SMALL_BUF_SIZE];
    char user[SMALL_BUF_SIZE];
    char password[SMALL_BUF_SIZE];
    char application[SMALL_BUF_SIZE];
};
typedef struct T_login_data T_login_data;

```

Dbconnection/tpccstruct.h

```

#define NITEMS 15
#define ROWIDLEN 20
#define OCIROWLEN 20

```

```

struct newctx {

    ub2 nol_i_id_len[NITEMS];
    ub2 nol_supply_w_id_len[NITEMS];
    ub2 nol_quantity_len[NITEMS];
    ub2 nol_amount_len[NITEMS];
    ub2 s_quantity_len[NITEMS];
    ub2 i_name_len[NITEMS];
    ub2 i_price_len[NITEMS];
    ub2 s_dist_info_len[NITEMS];
    ub2 ol_o_id_len[NITEMS];
    ub2 ol_number_len[NITEMS];
    ub2 s_remote_len[NITEMS];
    ub2 s_quant_len[NITEMS];
    ub2 ol_dist_info_len[NITEMS];
    ub2 s_bg_len[NITEMS];

    int ol_o_id[NITEMS];
    int ol_number[NITEMS];

#ifdef USE_IEEE_NUMBER
    double s_remote[NITEMS];
#else
    int s_remote[NITEMS];
#endif
    char s_dist_info[NITEMS][25];
    OCIStmt *curr1;
    OCIBind *ol_i_id_bp;
    OCIBind *ol_supply_w_id_bp;
    OCIBind *i_price_bp;
    OCIBind *i_name_bp;
    OCIBind *s_bg_bp;
    ub4 nol_i_count;
    ub4 nol_s_count;
    ub4 nol_q_count;
    ub4 nol_item_count;
    ub4 nol_name_count;
    ub4 nol_qty_count;
    ub4 nol_bg_count;
    ub4 nol_am_count;
    ub4 s_remote_count;
    OCIStmt *curr2;
    OCIBind *ol_quantity_bp;
    OCIBind *s_remote_bp;
    OCIBind *s_quantity_bp;
    OCIBind *w_id_bp;
    OCIBind *d_id_bp;
    OCIBind *c_id_bp;
    OCIBind *o_all_local_bp;
    OCIBind *o_all_cnt_bp;
    OCIBind *w_tax_bp;
    OCIBind *d_tax_bp;
    OCIBind *o_id_bp;
    OCIBind *c_discount_bp;
    OCIBind *c_credit_bp;
    OCIBind *c_last_bp;
    OCIBind *retries_bp;
    OCIBind *cr_date_bp;
    OCIBind *ol_o_id_bp;

```

```

OCIBind *ol_amount_bp;

    ub2 w_id_len;
    ub2 d_id_len;
    ub2 c_id_len;
    ub2 o_all_local_len;
    ub2 o_all_cnt_len;
    ub2 w_tax_len;
    ub2 d_tax_len;
    ub2 o_id_len;
    ub2 c_discount_len;
    ub2 c_credit_len;
    ub2 c_last_len;
    ub2 retries_len;
    ub2 cr_date_len;
};

typedef struct newctx newctx;

```

```

#define NDISTS 10
#define ROWIDLEN 20

```

```

struct delctx {
    sb2 del_o_id_ind[NDISTS];
    sb2 d_id_ind[NDISTS];
    sb2 c_id_ind[NDISTS];
    sb2 del_date_ind[NDISTS];
    sb2 carrier_id_ind[NDISTS];
    sb2 amt_ind[NDISTS];

    ub4 del_o_id_len[NDISTS];
    ub4 c_id_len[NDISTS];
    int oid_ctx;
    int cid_ctx;
    OCIBind *olamt_bp;

    ub2 w_id_len[NDISTS];
    ub2 d_id_len[NDISTS];
    ub2 del_date_len[NDISTS];
    ub2 carrier_id_len[NDISTS];
    ub2 amt_len[NDISTS];

    ub2 del_o_id_rcode[NDISTS];
    ub2 cons_rcode[NDISTS];
    ub2 w_id_rcode[NDISTS];
    ub2 d_id_rcode[NDISTS];
    ub2 c_id_rcode[NDISTS];
    ub2 del_date_rcode[NDISTS];
    ub2 carrier_id_rcode[NDISTS];
    ub2 amt_rcode[NDISTS];

    int del_o_id[NDISTS];
    int del_d_id[NDISTS];
    int cons[NDISTS];
    int w_id[NDISTS];
    int d_id[NDISTS];
    int c_id[NDISTS];
    int carrier_id[NDISTS];
    int amt[NDISTS];
    ub4 del_o_id_rcnt;
    int retry;
    OCIRowid *no_rowid_ptr[NDISTS];
    OCIRowid *o_rowid_ptr[NDISTS];
    OCIDate del_date[NDISTS];
    OCIStmt *curd0;
    OCIStmt *curd1;
    OCIStmt *curd2;
    OCIStmt *curd3;
    OCIStmt *curd4;
    OCIStmt *curd5;
    OCIStmt *curd6;
    OCIStmt *curdtest;

    OCIBind *w_id_bp;
    OCIBind *w_id_bp3;
    OCIBind *w_id_bp4;
    OCIBind *w_id_bp5;
    OCIBind *w_id_bp6;
    OCIBind *d_id_bp;
    OCIBind *d_id_bp3;
    OCIBind *d_id_bp4;
    OCIBind *d_id_bp6;
    OCIBind *o_id_bp;
    OCIBind *cr_date_bp;
    OCIBind *c_id_bp;
    OCIBind *c_id_bp3;
    OCIBind *no_rowid_bp;
    OCIBind *carrier_id_bp;
    OCIBind *o_rowid_bp;

```

APPENDIX A - APPLICATION SOURCE CODE

```

OCIBind *del_o_id_bp;
OCIBind *del_o_id_bp3;
OCIBind *amt_bp;
OCIBind *bstr1_bp[10];
OCIBind *bstr2_bp[10];
OCIBind *retry_bp;
OCIDefine *inum_dp;
OCIDefine *d_id_dp;
OCIDefine *del_o_id_dp;
OCIDefine *no_rowid_dp;
OCIDefine *c_id_dp;
OCIDefine *o_rowid_dp;
OCIDefine *cons_dp;
OCIDefine *amt_dp;

int norow;
};

typedef struct delctx delctx;
struct pldelctx {

ub2 del_d_id_len[NDISTS];
ub2 del_o_id_len[NDISTS];

ub2 w_id_len;
ub2 d_id_len[NDISTS];
ub2 o_c_id_len[NDISTS];
ub2 sums_len[NDISTS];
ub2 carrier_id_len;
ub2 ordcnt_len;
ub2 del_date_len;

int del_o_id[NDISTS];
int del_d_id[NDISTS];
int o_c_id[NDISTS];
#ifdef USE_IEEE_NUMBER
double sums[NDISTS];
#else
int sums[NDISTS];
#endif
OCIDate del_date;
int carrier_id;
int ordcnt;

ub4 del_o_id_rcnt;
ub4 del_d_id_rcnt;
ub4 o_c_id_rcnt;
ub4 sums_rcnt;

int retry;
OCISmt *curp1;
OCISmt *curp2;
OCIBind *w_id_bp;
OCIBind *d_id_bp;
OCIBind *o_id_bp;
OCIBind *o_c_id_bp;
OCIBind *ordcnt_bp;
OCIBind *sums_bp;
OCIBind *del_date_bp;
OCIBind *carrier_id_bp;
OCIBind *retry_bp;

int norow;
};
typedef struct pldelctx pldelctx;

struct amtctx {
int ol_amt[NITEMS];
sb2 ol_amt_ind[NITEMS];
ub4 ol_amt_len[NITEMS];
ub2 ol_amt_rcode[NITEMS];
int ol_cnt;
};
typedef struct amtctx amtctx;

struct ordctx {

ub2 c_rowid_len[100];
ub2 ol_supply_w_id_len[NITEMS];
ub2 ol_i_id_len[NITEMS];
ub2 ol_quantity_len[NITEMS];
ub2 ol_amount_len[NITEMS];
ub2 ol_delivery_d_len[NITEMS];
ub2 ol_w_id_len;
ub2 ol_d_id_len;
ub2 ol_o_id_len;

ub4 ol_supply_w_id_csize;
ub4 ol_i_id_csize;
ub4 ol_quantity_csize;
ub4 ol_amount_csize;
ub4 ol_delivery_d_csize;
ub4 ol_w_id_csize;
ub4 ol_d_id_csize;
ub4 ol_o_id_csize;

OCISmt *curo0;
OCISmt *curo1;
OCISmt *curo2;
OCISmt *curo3;
OCISmt *curo4;
OCIBind *c_id_bp;
OCIBind *w_id_bp[4];
OCIBind *d_id_bp[4];
OCIBind *c_last_bp[2];
OCIBind *o_id_bp;
OCIBind *c_rowid_bp;
OCIDefine *c_rowid_dp;
OCIDefine *c_last_dp[2];
OCIDefine *c_id_dp;
OCIDefine *c_first_dp[2];
OCIDefine *c_middle_dp[2];
OCIDefine *c_balance_dp[2];
OCIDefine *o_id_dp[2];
OCIDefine *o_entry_d_dp[2];
OCIDefine *o_cr_id_dp[2];
OCIDefine *ol_cnt_dp[2];
OCIDefine *ol_d_dp;
OCIDefine *ol_i_id_dp;
OCIDefine *ol_supply_w_id_dp;
OCIDefine *ol_quantity_dp;
OCIDefine *ol_amount_dp;
OCIDefine *ol_d_base_dp;
OCIDefine *c_count_dp;
OCIRowid *c_rowid_ptr[100];
OCIRowid *c_rowid_cust;
int cs;
int cust_idx;
int norow;
int rcount;
int somerows;
};

typedef struct ordctx ordctx;

struct defctx
{
boolean reexec;
ub4 count;
};
typedef struct defctx defctx;

struct payctx {
OCISmt *curpi;
OCISmt *curp0;
OCISmt *curp1;
OCIBind *w_id_bp[2];
ub2 w_id_len;

OCIBind *d_id_bp[2];
ub2 d_id_len;

OCIBind *c_w_id_bp[2];
ub2 c_w_id_len;

OCIBind *c_d_id_bp[2];
ub2 c_d_id_len;

OCIBind *c_id_bp[2];
ub2 c_id_len;

OCIBind *h_amount_bp[2];
ub2 h_amount_len;

OCIBind *c_last_bp[2];
ub2 c_last_len;

OCIBind *w_street_1_bp[2];
ub2 w_street_1_len;

OCIBind *w_street_2_bp[2];
ub2 w_street_2_len;

OCIBind *w_city_bp[2];
ub2 w_city_len;

OCIBind *w_state_bp[2];
ub2 w_state_len;
};

```


APPENDIX A - APPLICATION SOURCE CODE

```

OCIBind *w_zip_bp[2];
ub2 w_zip_len;

OCIBind *d_street_1_bp[2];
ub2 d_street_1_len;

OCIBind *d_street_2_bp[2];
ub2 d_street_2_len;

OCIBind *d_city_bp[2];
ub2 d_city_len;

OCIBind *d_state_bp[2];
ub2 d_state_len;

OCIBind *d_zip_bp[2];
ub2 d_zip_len;

OCIBind *c_first_bp[2];
ub2 c_first_len;

OCIBind *c_middle_bp[2];
ub2 c_middle_len;

OCIBind *c_street_1_bp[2];
ub2 c_street_1_len;

OCIBind *c_street_2_bp[2];
ub2 c_street_2_len;

OCIBind *c_city_bp[2];
ub2 c_city_len;

OCIBind *c_state_bp[2];
ub2 c_state_len;

OCIBind *c_zip_bp[2];
ub2 c_zip_len;

OCIBind *c_phone_bp[2];
ub2 c_phone_len;

OCIBind *c_since_bp[2];
ub2 c_since_len;

OCIBind *c_credit_bp[2];
ub2 c_credit_len;

OCIBind *c_credit_lim_bp[2];
ub2 c_credit_lim_len;

OCIBind *c_discount_bp[2];
ub2 c_discount_len;

OCIBind *c_balance_bp[2];
ub2 c_balance_len;

OCIBind *c_data_bp[2];
ub2 c_data_len;

OCIBind *h_date_bp[2];
ub2 h_date_len;

OCIBind *retries_bp[2];
ub2 retries_len;

OCIBind *cr_date_bp[2];
ub2 cr_date_len;

OCIBind *byln_bp[2];
ub2 byln_len;
};

typedef struct payctx payctx;

struct stoctx {
    OCIStmit *curs;
    OCIBind *w_id_bp;
    OCIBind *d_id_bp;
    OCIBind *d_id_bp;
    OCIBind *threshold_bp;
#ifdef PLSQLSTO
    OCIBind *low_stock_bp;
#else
    OCIDefine *low_stock_bp;
#endif
    int norow;
};

typedef struct stoctx stoctx;

/* New order */

struct newinstruct {
    int w_id;
    int d_id;
    int c_id;
    int ol_i_id[15];
    int ol_supply_w_id[15];
    int ol_quantity[15];
};

struct newoutstruct {
    int terror;
    int o_id;
    int o_ol_cnt;
    char c_last[17];
    char c_credit[3];
    double c_discount;
    double w_tax;
    double d_tax;
    char o_entry_d[20];
    double total_amount;
    char i_name[15][25];
    int s_quantity[15];
    char brand_generic[15];
    double i_price[15];
    double ol_amount[15];
    char status[26];
    int retry;
};

struct newstruct {
    struct newinstruct newin;
    struct newoutstruct newout;
};

/* Payment */

struct payinstruct {
    int w_id;
    int d_id;
    int c_w_id;
    int c_d_id;
    int c_id;
    int bylastname;
    int h_amount;
    char c_last[17];
};

struct payoutstruct {
    int terror;
    char w_street_1[21];
    char w_street_2[21];
    char w_city[21];
    char w_state[3];
    char w_zip[10];
    char d_street_1[21];
    char d_street_2[21];
    char d_city[21];
    char d_state[3];
    char d_zip[10];
    int c_id;
    char c_first[17];
    char c_middle[3];
    char c_last[17];
    char c_street_1[21];
    char c_street_2[21];
    char c_city[21];
    char c_state[3];
    char c_zip[10];
    char c_phone[17];
    char c_since[11];
    char c_credit[3];
    double c_credit_lim;
    double c_discount;
    double c_balance;
    char c_data[20];
    char h_date[20];
    int retry;
};

struct paystruct {
    struct payinstruct payin;
    struct payoutstruct payout;
};

/* Order status */

struct ordinstruct {

```

```

int w_id;
int d_id;
int c_id;
int bylastname;
char c_last[17];
};

struct ordoutstruct {
int terror;
int c_id;
char c_last[17];
char c_first[17];
char c_middle[3];
double c_balance;
int o_id;
char o_entry_d[20];
int o_carrier_id;
int o_ol_cnt;
int ol_supply_w_id[15];
int ol_i_id[15];
int ol_quantity[15];
double ol_amount[15];
char ol_delivery_d[15][11];
int retry;
};

struct ordstruct {
struct ordinstruc ordin;
struct ordoutstruct ordout;
};

/* Delivery */

struct delinstruc {
int w_id;
int o_carrier_id;
double qtime;
int in_timing_int;
int plsqflag;
};

struct deloutstruct {
int terror;
int retry;
};

struct delstruct {
struct delinstruc delin;
struct deloutstruct delout;
};

/* Stock level */

struct stoinstruct {
int w_id;
int d_id;
int threshold;
};

struct stooutstruct {
int terror;
int low_stock;
int retry;
};

struct stostruct {
struct stoinstruct stoin;
struct stooutstruct stoout;
};

```

Blocks/load_ordordl.sql

```

-- anonymous block for loading order/orderline

DECLARE
order_idx PLS_INTEGER;
order_rows PLS_INTEGER;
ordl_rows PLS_INTEGER;
ordl_idx PLS_INTEGER;
ordl_idx_hi PLS_INTEGER;
local_idx PLS_INTEGER;
BEGIN
order_rows := :order_rows;
ordl_rows := :ordl_rows;

```

```

order_idx := 1;
ordl_idx := 1;

WHILE (order_idx <= order_rows) LOOP

INSERT INTO ordr (O_ID, O_D_ID, O_W_ID, O_C_ID, O_ENTRY_D,
O_CARRIER_ID, O_OL_CNT, O_ALL_LOCAL)
VALUES (:o_id(order_idx), :o_d_id(order_idx), :o_w_id(order_idx),
:o_c_id(order_idx), SYSDATE, :o_carrier_id(order_idx),
:o_ol_cnt(order_idx), 1);

ordl_idx_hi := ordl_idx + :o_ol_cnt(order_idx) - 1;

IF (:o_id(order_idx) < 2101 ) THEN
FORALL local_idx IN ordl_idx .. ordl_idx_hi
INSERT INTO ordl (OL_O_ID, OL_D_ID, OL_W_ID,
OL_NUMBER,
OL_DELIVERY_D, OL_I_ID, OL_SUPPLY_W_ID,
OL_QUANTITY,
OL_AMOUNT, OL_DIST_INFO)
VALUES (:ol_o_id(local_idx), :ol_d_id(local_idx),
:ol_w_id(local_idx), :ol_number(local_idx),
SYSDATE, :ol_i_id(local_idx),
:ol_supply_w_id(local_idx), 5, 0,
:ol_dist_info(local_idx));
ELSE
FORALL local_idx IN ordl_idx .. ordl_idx_hi
INSERT INTO ordl (OL_O_ID, OL_D_ID, OL_W_ID,
OL_NUMBER,
OL_DELIVERY_D, OL_I_ID, OL_SUPPLY_W_ID,
OL_QUANTITY,
OL_AMOUNT, OL_DIST_INFO)
VALUES (:ol_o_id(local_idx), :ol_d_id(local_idx),
:ol_w_id(local_idx), :ol_number(local_idx),
to_date('01-Jan-1811'), :ol_i_id(local_idx),
:ol_supply_w_id(local_idx), 5,
:ol_amount(local_idx), :ol_dist_info(local_idx));
END IF;
ordl_idx := ordl_idx_hi + 1;
order_idx := order_idx + 1;
END LOOP;
END;

```

Blocks/paynz.sql

```

DECLARE /* paynz */
not_serializable EXCEPTION;
PRAGMA EXCEPTION_INIT(not_serializable,-8177);
deadlock EXCEPTION;
PRAGMA EXCEPTION_INIT(deadlock,-60);
snapshot_too_old EXCEPTION;
PRAGMA EXCEPTION_INIT(snapshot_too_old,-1555);
BEGIN
LOOP BEGIN
UPDATE ware
SET w_ytd = w_ytd + :h_amount
WHERE w_id = :w_id
RETURNING w_name, w_street_1, w_street_2, w_city, w_state,
w_zip
INTO initpcc.ware_name, :w_street_1, :w_street_2, :w_city,
:w_state, :w_zip;

UPDATE cust
SET c_balance = c_balance - :h_amount,
c_ytd_payment = c_ytd_payment + :h_amount,
c_payment_cnt = c_payment_cnt+1
WHERE c_id = :c_id AND c_d_id = :c_d_id AND
c_w_id = :c_w_id
RETURNING rowid, c_first, c_middle, c_last, 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
INTO initpcc.cust_rowid,:c_first, :c_middle, :c_last, :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;
IF SQL%NOTFOUND THEN
raise NO_DATA_FOUND;
END IF;

IF :c_credit = 'BC' THEN
UPDATE cust
SET c_data = substr ((to_char (:c_id) || ' ' ||
to_char (:c_d_id) || ' ' ||

```

APPENDIX A - APPLICATION SOURCE CODE

```

        to_char (:c_w_id) || '' ||
        to_char (:d_id) || '' ||
        to_char (:w_id) || '' ||
        to_char (:h_amount/100, '9999.99') || '' )
        || c_data, 1, 500)
WHERE rowid = inittpc.cust_rowid
RETURNING substr(c_data,1, 200)
INTO :c_data;

END IF;

UPDATE dist
SET d_ytd = d_ytd + :h_amount
WHERE d_id = :d_id
AND d_w_id = :w_id
RETURNING d_name, d_street_1, d_street_2, d_city, d_state, d_zip
INTO inittpc.dist_name, d_street_1, d_street_2, :d_city, :d_state,
:d_zip;
IF SQL%NOTFOUND THEN
raise NO_DATA_FOUND;
END IF;

INSERT INTO hist (h_c_id, h_c_d_id, h_c_w_id, h_d_id, h_w_id,
h_amount, h_date, h_data)
VALUES
(:c_id, :c_d_id, :c_w_id, :d_id, :w_id, :h_amount,
:cr_date, inittpc.ware_name || ' ' || inittpc.dist_name);
EXIT;

EXCEPTION
WHEN not_serializable OR deadlock OR snapshot_too_old THEN
ROLLBACK;
:retry := :retry + 1;
END;

END LOOP;
END;

```

Blocks/payz.sql

```

DECLARE /* payz */
not_serializable EXCEPTION;
PRAGMA EXCEPTION_INIT(not_serializable,-8177);
deadlock EXCEPTION;
PRAGMA EXCEPTION_INIT(deadlock,-60);
snapshot_too_old EXCEPTION;
PRAGMA EXCEPTION_INIT(snapshot_too_old,-1555);
BEGIN
LOOP BEGIN
UPDATE ware
SET w_ytd = w_ytd+ :h_amount
WHERE w_id = :w_id
RETURNING w_name,
w_street_1, w_street_2, w_city, w_state, w_zip
INTO inittpc.ware_name,
:w_street_1, :w_street_2, :w_city, :w_state, :w_zip;

SELECT rowid
BULK COLLECT INTO inittpc.row_id
FROM cust
WHERE c_d_id = :c_d_id AND c_w_id = :c_w_id AND c_last =
:c_last
ORDER BY c_last, c_d_id, c_w_id, c_first;

inittpc.c_num := sql%rowcount;
inittpc.cust_rowid := inittpc.row_id((inittpc.c_num) / 2);

UPDATE cust
SET c_balance = c_balance - :h_amount,
c_ytd_payment = c_ytd_payment+ :h_amount,
c_payment_cnt = c_payment_cnt+1
WHERE rowid = inittpc.cust_rowid
RETURNING
c_id, c_first, c_middle, c_last, 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
INTO :c_id, :c_first, :c_middle, :c_last,
: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;

:c_data := ' ';
IF :c_credit = 'BC' THEN

```

```

UPDATE cust
SET c_data = substr ((to_char (:c_id) || '' ||
to_char (:c_d_id) || '' ||
to_char (:c_w_id) || '' ||
to_char (:d_id) || '' ||
to_char (:w_id) || '' ||
to_char (:h_amount/100, '9999.99') || '' )
|| c_data, 1, 500)
WHERE rowid = inittpc.cust_rowid
RETURNING substr(c_data,1, 200)
INTO :c_data;

END IF;

UPDATE dist
SET d_ytd = d_ytd+ :h_amount
WHERE d_id = :d_id
AND d_w_id = :w_id
RETURNING d_name, d_street_1, d_street_2, d_city,
d_state, d_zip
INTO inittpc.dist_name, :d_street_1, :d_street_2, :d_city,
:d_state, :d_zip;

IF SQL%NOTFOUND
THEN
raise NO_DATA_FOUND;
END IF;

INSERT INTO hist (h_c_id, h_c_d_id, h_c_w_id, h_d_id, h_w_id,
h_amount, h_date, h_data)
VALUES (:c_id, :c_d_id, :c_w_id, :d_id, :w_id, :h_amount,
:cr_date, inittpc.ware_name || ' ' || inittpc.dist_name);
EXIT;

EXCEPTION
WHEN not_serializable OR deadlock OR snapshot_too_old THEN
ROLLBACK;
:retry := :retry + 1;
END;

END LOOP;
END;

```

Blocks/tkvcpdel.sql

```

declare
TYPE numarray IS TABLE OF NUMBER INDEX BY BINARY_INTEGER;
TYPE numlist is varray (10) of number;
dist numarray;
amt numarray;
cnt pls_integer;

not_serializable EXCEPTION;
PRAGMA EXCEPTION_INIT(not_serializable, -8177);
deadlock EXCEPTION;
PRAGMA EXCEPTION_INIT(deadlock, -60);
snapshot_too_old EXCEPTION;
PRAGMA EXCEPTION_INIT(snapshot_too_old, -1555);

BEGIN
LOOP BEGIN
FORALL d IN 1..10
DELETE FROM nord N
WHERE no_d_id = inittpc.dist(d)
AND no_w_id = :w_id
AND no_o_id = (select min (no_o_id)
from nord
where no_d_id = N.no_d_id
and no_w_id = N.no_w_id)
RETURNING no_d_id, no_o_id BULK COLLECT INTO :d_id,
:order_id;

:ordcnt := SQL%ROWCOUNT;

FORALL o IN 1.. :ordcnt
UPDATE ord SET o_carrier_id = :carrier_id
WHERE o_id = :order_id (o)
AND o_d_id = :d_id (o)
AND o_w_id = :w_id
RETURNING o_c_id BULK COLLECT INTO :o_c_id;

FORALL o IN 1.. :ordcnt
UPDATE ord SET ol_delivery_d = :now
WHERE ol_w_id = :w_id
AND ol_d_id = :d_id (o)
AND ol_o_id = :order_id (o)

```

APPENDIX A - APPLICATION SOURCE CODE

```

RETURNING sum(ol_amount) BULK COLLECT INTO :sums;

FORALL c IN 1.. :ordcnt
UPDATE cust
  SET c_balance = c_balance + :sums(c),
      c_delivery_cnt = c_delivery_cnt + 1
WHERE c_w_id = :w_id
AND c_d_id = :d_id(c)
AND c_id = :o_c_id(c);
COMMIT;
EXIT;
EXCEPTION
  WHEN not_serializable OR deadlock OR snapshot_too_old
  THEN
  ROLLBACK;
:retry := :retry + 1;
END;

END LOOP; -- for retry
END;

```

Blocks/tkvcpnew

-- New Order Anonymous block

```

DECLARE
  idx          PLS_INTEGER;
  dummy_local PLS_INTEGER;
  cache_ol_cnt PLS_INTEGER;
  not_serializable EXCEPTION;
  PRAGMA EXCEPTION_INIT(not_serializable,-8177);
  deadlock     EXCEPTION;
  PRAGMA EXCEPTION_INIT(deadlock,-60);
  snapshot_too_old EXCEPTION;
  PRAGMA EXCEPTION_INIT(snapshot_too_old,-1555);

PROCEDURE u1 IS
BEGIN
  FORALL idx IN 1 .. cache_ol_cnt
  UPDATE stock_item
  SET s_order_cnt = s_order_cnt + 1,
      s_ytd = s_ytd + :ol_quantity(idx),
      s_remote_cnt = s_remote_cnt + :s_remote(idx),
      s_quantity = (CASE WHEN s_quantity < :ol_quantity (idx) + 10
                      THEN s_quantity +91
                      ELSE s_quantity
                    END) - :ol_quantity(idx)
  WHERE i_id = :ol_i_id(idx)
  AND s_w_id = :ol_supply_w_id(idx)
  RETURNING i_price, i_name, s_quantity, s_dist_01,
            i_price*:ol_quantity(idx),
            CASE WHEN i_data NOT LIKE '%ORIGINAL%'
            THEN 'G'
            ELSE (CASE WHEN s_data NOT LIKE '%ORIGINAL%'
            THEN 'G'
            ELSE 'B'
            END)
            END
  BULK COLLECT INTO :i_price, :i_name, :s_quantity, inittpc.s_dist,
                   :ol_amount,:brand_generic;
END u1;

PROCEDURE u2 IS
BEGIN
  FORALL idx IN 1 .. cache_ol_cnt
  UPDATE stock_item
  SET s_order_cnt = s_order_cnt + 1,
      s_ytd = s_ytd + :ol_quantity(idx),
      s_remote_cnt = s_remote_cnt + :s_remote(idx),
      s_quantity = (CASE WHEN s_quantity < :ol_quantity (idx) + 10
                      THEN s_quantity +91
                      ELSE s_quantity
                    END) - :ol_quantity(idx)
  WHERE i_id = :ol_i_id(idx)
  AND s_w_id = :ol_supply_w_id(idx)
  RETURNING i_price, i_name, s_quantity, s_dist_02,
            i_price*:ol_quantity(idx),
            CASE WHEN i_data NOT LIKE '%ORIGINAL%'
            THEN 'G'
            ELSE (CASE WHEN s_data NOT LIKE '%ORIGINAL%'
            THEN 'G'
            ELSE 'B'
            END)
            END
  BULK COLLECT INTO :i_price, :i_name, :s_quantity, inittpc.s_dist,
                   :ol_amount,:brand_generic;

```

```

END u2;

PROCEDURE u3 IS
BEGIN
  FORALL idx IN 1 .. cache_ol_cnt
  UPDATE stock_item
  SET s_order_cnt = s_order_cnt + 1,
      s_ytd = s_ytd + :ol_quantity(idx),
      s_remote_cnt = s_remote_cnt + :s_remote(idx),
      s_quantity = (CASE WHEN s_quantity < :ol_quantity (idx) + 10
                      THEN s_quantity +91
                      ELSE s_quantity
                    END) - :ol_quantity(idx)
  WHERE i_id = :ol_i_id(idx)
  AND s_w_id = :ol_supply_w_id(idx)
  RETURNING i_price, i_name, s_quantity, s_dist_03,
            i_price*:ol_quantity(idx),
            CASE WHEN i_data NOT LIKE '%ORIGINAL%'
            THEN 'G'
            ELSE (CASE WHEN s_data NOT LIKE '%ORIGINAL%'
            THEN 'G'
            ELSE 'B'
            END)
            END
  BULK COLLECT INTO :i_price, :i_name, :s_quantity, inittpc.s_dist,
                   :ol_amount,:brand_generic;
END u3;

PROCEDURE u4 IS
BEGIN
  FORALL idx IN 1 .. cache_ol_cnt
  UPDATE stock_item
  SET s_order_cnt = s_order_cnt + 1,
      s_ytd = s_ytd + :ol_quantity(idx),
      s_remote_cnt = s_remote_cnt + :s_remote(idx),
      s_quantity = (CASE WHEN s_quantity < :ol_quantity (idx) + 10
                      THEN s_quantity +91
                      ELSE s_quantity
                    END) - :ol_quantity(idx)
  WHERE i_id = :ol_i_id(idx)
  AND s_w_id = :ol_supply_w_id(idx)
  RETURNING i_price, i_name, s_quantity, s_dist_04,
            i_price*:ol_quantity(idx),
            CASE WHEN i_data NOT LIKE '%ORIGINAL%'
            THEN 'G'
            ELSE (CASE WHEN s_data NOT LIKE '%ORIGINAL%'
            THEN 'G'
            ELSE 'B'
            END)
            END
  BULK COLLECT INTO :i_price, :i_name, :s_quantity, inittpc.s_dist,
                   :ol_amount,:brand_generic;
END u4;

PROCEDURE u5 IS
BEGIN
  FORALL idx IN 1 .. cache_ol_cnt
  UPDATE stock_item
  SET s_order_cnt = s_order_cnt + 1,
      s_ytd = s_ytd + :ol_quantity(idx),
      s_remote_cnt = s_remote_cnt + :s_remote(idx),
      s_quantity = (CASE WHEN s_quantity < :ol_quantity (idx) + 10
                      THEN s_quantity +91
                      ELSE s_quantity
                    END) - :ol_quantity(idx)
  WHERE i_id = :ol_i_id(idx)
  AND s_w_id = :ol_supply_w_id(idx)
  RETURNING i_price, i_name, s_quantity, s_dist_05,
            i_price*:ol_quantity(idx),
            CASE WHEN i_data NOT LIKE '%ORIGINAL%'
            THEN 'G'
            ELSE (CASE WHEN s_data NOT LIKE '%ORIGINAL%'
            THEN 'G'
            ELSE 'B'
            END)
            END
  BULK COLLECT INTO :i_price, :i_name, :s_quantity, inittpc.s_dist,
                   :ol_amount,:brand_generic;
END u5;

PROCEDURE u6 IS
BEGIN
  FORALL idx IN 1 .. cache_ol_cnt
  UPDATE stock_item
  SET s_order_cnt = s_order_cnt + 1,
      s_ytd = s_ytd + :ol_quantity(idx),
      s_remote_cnt = s_remote_cnt + :s_remote(idx),
      s_quantity = (CASE WHEN s_quantity < :ol_quantity (idx) + 10
                      THEN s_quantity +91
                      ELSE s_quantity
                    END) - :ol_quantity(idx)
  WHERE i_id = :ol_i_id(idx)

```

APPENDIX A - APPLICATION SOURCE CODE

```

AND s_w_id = :ol_supply_w_id(idx)
RETURNING i_price, i_name, s_quantity, s_dist_06,
         i_price*ol_quantity(idx),
CASE WHEN i_data NOT LIKE '%ORIGINAL%'
THEN 'G'
ELSE (CASE WHEN s_data NOT LIKE '%ORIGINAL%'
THEN 'G'
ELSE 'B'
END)
END
BULK COLLECT INTO :i_price, :i_name, :s_quantity, inittpcc.s_dist,
                 :ol_amount, :brand_generic;
END u6;

PROCEDURE u7 IS
BEGIN
FORALL idx IN 1 .. cache_ol_cnt
UPDATE stock_item
SET s_order_cnt = s_order_cnt + 1,
s_ytd = s_ytd + :ol_quantity(idx),
s_remote_cnt = s_remote_cnt + :s_remote(idx),
s_quantity = (CASE WHEN s_quantity < :ol_quantity (idx) + 10
THEN s_quantity +91
ELSE s_quantity
END) - :ol_quantity(idx)
WHERE i_id = :ol_i_id(idx)
AND s_w_id = :ol_supply_w_id(idx)
RETURNING i_price, i_name, s_quantity, s_dist_07,
         i_price*ol_quantity(idx),
CASE WHEN i_data NOT LIKE '%ORIGINAL%'
THEN 'G'
ELSE (CASE WHEN s_data NOT LIKE '%ORIGINAL%'
THEN 'G'
ELSE 'B'
END)
END
BULK COLLECT INTO :i_price, :i_name, :s_quantity, inittpcc.s_dist,
                 :ol_amount, :brand_generic;
END u7;

PROCEDURE u8 IS
BEGIN
FORALL idx IN 1 .. cache_ol_cnt
UPDATE stock_item
SET s_order_cnt = s_order_cnt + 1,
s_ytd = s_ytd + :ol_quantity(idx),
s_remote_cnt = s_remote_cnt + :s_remote(idx),
s_quantity = (CASE WHEN s_quantity < :ol_quantity (idx) + 10
THEN s_quantity +91
ELSE s_quantity
END) - :ol_quantity(idx)
WHERE i_id = :ol_i_id(idx)
AND s_w_id = :ol_supply_w_id(idx)
RETURNING i_price, i_name, s_quantity, s_dist_08,
         i_price*ol_quantity(idx),
CASE WHEN i_data NOT LIKE '%ORIGINAL%'
THEN 'G'
ELSE (CASE WHEN s_data NOT LIKE '%ORIGINAL%'
THEN 'G'
ELSE 'B'
END)
END
BULK COLLECT INTO :i_price, :i_name, :s_quantity, inittpcc.s_dist,
                 :ol_amount, :brand_generic;
END u8;

PROCEDURE u9 IS
BEGIN
FORALL idx IN 1 .. cache_ol_cnt
UPDATE stock_item
SET s_order_cnt = s_order_cnt + 1,
s_ytd = s_ytd + :ol_quantity(idx),
s_remote_cnt = s_remote_cnt + :s_remote(idx),
s_quantity = (CASE WHEN s_quantity < :ol_quantity (idx) + 10
THEN s_quantity +91
ELSE s_quantity
END) - :ol_quantity(idx)
WHERE i_id = :ol_i_id(idx)
AND s_w_id = :ol_supply_w_id(idx)
RETURNING i_price, i_name, s_quantity, s_dist_09,
         i_price*ol_quantity(idx),
CASE WHEN i_data NOT LIKE '%ORIGINAL%'
THEN 'G'
ELSE (CASE WHEN s_data NOT LIKE '%ORIGINAL%'
THEN 'G'
ELSE 'B'
END)
END
BULK COLLECT INTO :i_price, :i_name, :s_quantity, inittpcc.s_dist,
                 :ol_amount, :brand_generic;
END u9;

PROCEDURE u10 IS
BEGIN
FORALL idx IN 1 .. cache_ol_cnt
UPDATE stock_item
SET s_order_cnt = s_order_cnt + 1,
s_ytd = s_ytd + :ol_quantity(idx),
s_remote_cnt = s_remote_cnt + :s_remote(idx),
s_quantity = (CASE WHEN s_quantity < :ol_quantity (idx) + 10
THEN s_quantity +91
ELSE s_quantity
END) - :ol_quantity(idx)
WHERE i_id = :ol_i_id(idx)
AND s_w_id = :ol_supply_w_id(idx)
RETURNING i_price, i_name, s_quantity, s_dist_10,
         i_price*ol_quantity(idx),
CASE WHEN i_data NOT LIKE '%ORIGINAL%'
THEN 'G'
ELSE (CASE WHEN s_data NOT LIKE '%ORIGINAL%'
THEN 'G'
ELSE 'B'
END)
END
BULK COLLECT INTO :i_price, :i_name, :s_quantity, inittpcc.s_dist,
                 :ol_amount, :brand_generic;
END u10;

PROCEDURE fix_items IS
rows_lost PLS_INTEGER;
max_index PLS_INTEGER;
temp_index PLS_INTEGER;
BEGIN
idx := 1;
rows_lost := 0;
max_index := dummy_local;

WHILE (max_index != cache_ol_cnt) LOOP

WHILE (idx <= sql%rowcount AND
sql%bulk_rowcount(idx + rows_lost) = 1)
LOOP
idx := idx + 1;
END LOOP;

temp_index := max_index;
WHILE (temp_index >= idx + rows_lost) LOOP
:ol_amount(temp_index + 1) := :ol_amount(temp_index);
:i_price(temp_index + 1) := :i_price(temp_index);
:i_name(temp_index + 1) := :i_name(temp_index);
:s_quantity(temp_index + 1) := :s_quantity(temp_index);
inittpcc.s_dist(temp_index + 1) := inittpcc.s_dist(temp_index);
:brand_generic(temp_index + 1) := :brand_generic(temp_index);
temp_index := temp_index - 1;
END LOOP;

IF (idx + rows_lost <= cache_ol_cnt) THEN
:i_price(idx + rows_lost) := 0;
:i_name(idx + rows_lost) := 'NO ITEM';
:s_quantity(idx + rows_lost) := 0;
inittpcc.s_dist(idx + rows_lost) := NULL;
:brand_generic(idx + rows_lost) := '';
:ol_amount(idx + rows_lost) := 0;
rows_lost := rows_lost + 1;
max_index := max_index + 1;
END IF;

END LOOP;
END fix_items;

BEGIN
LOOP BEGIN
cache_ol_cnt := :o_ol_cnt;

UPDATE dist SET d_next_o_id = d_next_o_id + 1
WHERE d_id = :d_id AND d_w_id = :w_id
RETURNING d_tax, d_next_o_id-1
INTO :d_tax, :o_id;

SELECT c_discount, c_last, c_credit
INTO :c_discount, :c_last, :c_credit
FROM cust
WHERE c_id = :c_id AND c_d_id = :d_id AND c_w_id = :w_id;

SELECT w_tax
INTO :w_tax
FROM ware
WHERE w_id = :w_id;

INSERT INTO nord (no_o_id, no_d_id, no_w_id)
VALUES (:o_id, :d_id, :w_id);

INSERT INTO ord (o_id, o_d_id, o_w_id, o_c_id, o_entry_d,

```

```

o_carrier_id, o_ol_cnt, o_all_local)
VALUES (:o_id, :d_id, :w_id, :c_id,
:cr_date, 11, :o_ol_cnt, :o_all_local);

dummy_local := :d_id;

IF (dummy_local < 6) THEN
IF (dummy_local < 3) THEN
IF (dummy_local = 1) THEN
u1;
ELSE
u2;
END IF;
ELSE
IF (dummy_local = 3) THEN
u3;
ELSIF (dummy_local = 4) then
u4;
ELSE
u5;
END IF;
END IF;
ELSE
IF (dummy_local < 8) THEN
IF (dummy_local = 6) THEN
u6;
ELSE
u7;
END IF;
ELSE
IF (dummy_local = 8) THEN
u8;
ELSIF (dummy_local = 9) then
u9;
ELSE
u10;
END IF;
END IF;
END IF;
END IF;

dummy_local := sql%rowcount;

IF (dummy_local != cache_ol_cnt ) THEN fix_items; END IF;

FORALL idx IN 1..dummy_local
INSERT INTO ordl
(o_l_o_id, o_l_d_id, o_l_w_id, o_l_number, o_l_delivery_d, o_l_i_id,
o_l_supply_w_id, o_l_quantity, o_l_amount, o_l_dist_info)
VALUES (:o_id, :d_id, :w_id, inittpcc.idx1arr(idx), inittpcc.nulldate,
:o_l_i_id(idx), :o_l_supply_w_id(idx),
:o_l_quantity(idx), :o_l_amount(idx), inittpcc.s_dist(idx));

IF (dummy_local != :o_ol_cnt) THEN
:o_ol_cnt := dummy_local;
ROLLBACK;
END IF;

EXIT;

EXCEPTION
WHEN not_serializable OR deadlock OR snapshot_too_old THEN
ROLLBACK;
:retry := :retry + 1;
END;
END LOOP;
END;
```

Blocks/views.sql

```

connect tpcc/tpcc;
set echo on;

create or replace view wh_cust
(w_id, w_tax, c_id, c_d_id, c_w_id, c_discount, c_last, c_credit)
as select w.w_id, w.w_tax,
c.c_id, c.c_d_id, c.c_w_id, c.c_discount, c.c_last, c.c_credit
from cust c, ware w
where w.w_id = c.c_w_id;

create or replace view wh_dist
(w_id, d_id, d_tax, d_next_o_id, w_tax )
as select w.w_id, d.d_id, d.d_tax, d.d_next_o_id, w.w_tax
from dist d, ware w
where w.w_id = d.d_w_id;

create or replace view stock_item
(i_id, s_w_id, i_price, i_name, i_data, s_data, s_quantity)
```

```

s_order_cnt, s_ytd, s_remote_cnt,
s_dist_01, s_dist_02, s_dist_03, s_dist_04, s_dist_05,
s_dist_06, s_dist_07, s_dist_08, s_dist_09, s_dist_10)
as
select /*+ leading(s) use_nl(i) */
i.i_id, s_w_id, i.i_price, i.i_name, i.i_data, s_data, s_quantity,
s_order_cnt, s_ytd, s_remote_cnt,
s_dist_01, s_dist_02, s_dist_03, s_dist_04, s_dist_05,
s_dist_06, s_dist_07, s_dist_08, s_dist_09, s_dist_10
from stok s, item i
where i.i_id = s.s_i_id;

set echo off
```

modtpcc.h

```

#include "..\DBConnection\mod_tpcc.h"
#include "..\DBConnection\tpcc_struct.h"
#include "..\DBConnection\mod_tpcc_error.h"
#include <oratypes.h>
#include <oci.h>
#include <ocidfn.h>

#define allocate_last_form(form, pool) \
(form)=(char *)((pool)->form_template_storage + \
(Maxterms - 1) * (pool)->form_template_length)

#define MAXLEN 100
#define Default_DBConnections "20"
#define Default_Maxterms "100"
#define Default_DeliveryQueues "500"
#define Default_DeliveryThreads "50"
#define Default_StartTerm "1"
#define LogName "log\modtpcc.log"
#define InitName "DBInit.ini"
#define DLLName "DBConnection.dll"
#define mod_name "tpcc/modtpcc.dll"

typedef struct _DelQueue_info {
_DelQueue_info *Next;
T_delivery_data *pdata;
HANDLE queue_lock;
} DelQueue_info;

/*****
* global functions
*****/

//void userlog (char *, ...);
void readInit(char *, char *, char *);
void allocateMemoryPool();
long initDelQueue();
long deleteDelQueue();
void endDeliveryThread(long);
void initDeliveryThread(void *);
DelQueue_info *DequeueDel();
void EnqueueDel(DelQueue_info *);
void addFreeDelQueue(DelQueue_info *);
DelQueue_info *findFreeDelQueue();

long parse_neworder_query(char *ptr, T_neworder_data *pdata);
long parse_payment_query(char *ptr, T_payment_data *pdata);
long parse_delivery_query(char *ptr, T_delivery_data *pdata);
long parse_orderstatus_query(char *ptr, T_orderstatus_data *pdata);
long parse_stocklevel_query(char *ptr, T_stocklevel_data *pdata);

long sendform_neworderoutput(long status, T_neworder_data *pdata);
long sendform_paymentoutput(long status, T_payment_data *pdata);
long sendform_orderstatusoutput(long status, T_orderstatus_data *pdata);
long sendform_deliveryoutput(long status, T_delivery_data *pdata);
long sendform_stockleveloutput(long status, T_stocklevel_data *pdata);

extern long (FAR * mod_tpcc_neworder)(T_neworder_data *);
extern long (FAR * mod_tpcc_payment)(T_payment_data *);
extern long (FAR * mod_tpcc_delivery)(T_delivery_data *, long);
extern long (FAR * mod_tpcc_orderstatus)(T_orderstatus_data *);
extern long (FAR * mod_tpcc_stocklevel)(T_stocklevel_data *);
extern void (FAR *userlog)(char * str, ...);
extern void (FAR *initDell_ol)(long);
```

APPENDIX A - APPLICATION SOURCE CODE

```
extern void (FAR *endDelLog)(long);

/*****
*****
* global variables
*****
*****/

DWORD TlsPointer;
char DIIPath[MAXLEN];
char LogFile[MAXLEN];
char InitFile[MAXLEN];
char DIIFile[MAXLEN];
char origin[MAXLEN];
CRITICAL_SECTION critical_initDelQueue;
CRITICAL_SECTION critical_memory;
CRITICAL_SECTION critical_DelQueue_free;
CRITICAL_SECTION critical_DelQueue_work;
HANDLE waitAvailableDelQueue;
HANDLE waitDelWork;
HANDLE DelThreadRunning;
HINSTANCE dllinstance;
long useddel=0;
long DBConnections;
long Maxterms;
long DeliveryQueues;
long DeliveryThreads;
long modtpcc_ready=0;
long memory_ready=0;
long queue_ready=0;
long DeliveryThreadstop=0;
long StartTerm=1;
DelQueue_info *DelQueue_begin = NULL;
DelQueue_info *DelQueue_end = NULL;
DelQueue_info *DelQueue_free = NULL;

static form_index_entry
form_index[POOL_TYPE_TXN_MAX][TXN_TYPE_MAX][MAX_FORM_I
NDEX];
static form_template_pool
txn_global_pool[POOL_TYPE_TXN_MAX][TXN_TYPE_MAX];
static form_template_pool txn_data_pool;
static form_template_pool resp_global_pool;

char delivery_chars [] = {'6', '7'};
char orderstatus_chars [] = {'8', '9', 'Y'};
char payment_chars [] = {'8', '9', 'Z', 'v', 'Y', 'w'};
char stocklevel_chars [] = {'x'};
char neworder_chars [] = {'8', '9',
'A', 'B', 'C', 'D', 'E', 'F', 'G', 'H', 'I',
'J', 'K', 'L', 'M', 'N', 'O', 'P', 'Q', 'R',
'S', 'T', 'U', 'V', 'W', 'X', 'a', 'b', 'c',
'd', 'e', 'f', 'g', 'h', 'i', 'j', 'k', 'l',
'm', 'n', 'o', 'p', 'q', 'r', 's', 't', 'u'};
```

APPENDIX B: DATABASE DESIGN

defaultopts.sh

```

# configurable vars
tpcc_os=unix
tpcc_version=ttt
tpcc_ldrive=1
tpcc_scale=10
tpcc_np=1
tpcc_cpu=1
#megabytes
tpcc_memsize=512
#minutes
tpcc_runlen=24

tpcc_temp_imp=temp
tpcc_temp_size=10M
tpcc_temp_ext=calc
tpcc_temp_nf=calc
tpcc_temp_bs=2K

tpcc_ware_imp=iot
tpcc_ware_size=10M
tpcc_ware_ext=calc
tpcc_ware_nf=calc
tpcc_ware_bs=auto

tpcc_ware_used=-1
tpcc_ware_free=-1
tpcc_ware_trans=-1

tpcc_ware_indices=1-

tpcc_ware_autospace=t
tpcc_ware_flg=30
tpcc_ware_fl=22

tpcc_iware_imp=none
tpcc_iware_size=1M
tpcc_iware_ext=calc
tpcc_iware_nf=calc
tpcc_iware_bs=2K

tpcc_iware_used=-1
tpcc_iware_free=-1
tpcc_iware_trans=-1

tpcc_iware_autospace=t
tpcc_iware_flg=30
tpcc_iware_fl=22

tpcc_iware_indices=1-

tpcc_dist_imp=cluster
tpcc_dist_size=10M
tpcc_dist_ext=calc
tpcc_dist_nf=calc
tpcc_dist_bs=auto

tpcc_dist_used=-1
tpcc_dist_free=-1
tpcc_dist_trans=-1

tpcc_dist_indices=2-1-

tpcc_dist_autospace=t
tpcc_dist_flg=30
tpcc_dist_fl=22

tpcc_idist_imp=index
tpcc_idist_size=1M
tpcc_idist_ext=calc
tpcc_idist_nf=calc
tpcc_idist_bs=2K

tpcc_idist_used=-1
tpcc_idist_free=-1
tpcc_idist_trans=-1

tpcc_idist_autospace=t
tpcc_idist_flg=30
tpcc_idist_fl=22

tpcc_idist_indices=2-1-

tpcc_item_imp=cluster
tpcc_item_size=15M
tpcc_item_ext=calc
tpcc_item_nf=calc

```

```

tpcc_item_bs=auto

tpcc_item_used=-1
tpcc_item_free=-1
tpcc_item_trans=-1

tpcc_item_indices=1-

tpcc_item_autospace=t
tpcc_item_flg=30
tpcc_item_fl=22

tpcc_item_imp=index
tpcc_item_size=1M
tpcc_item_ext=calc
tpcc_item_nf=calc
tpcc_item_bs=2K

tpcc_item_used=-1
tpcc_item_free=-1
tpcc_item_trans=-1

tpcc_item_autospace=t
tpcc_item_flg=30
tpcc_item_fl=22

tpcc_item_indices=1-

tpcc_nord_imp=iot
tpcc_nord_size=10M
tpcc_nord_ext=calc
tpcc_nord_nf=calc
tpcc_nord_bs=auto

tpcc_nord_used=-1
tpcc_nord_free=-1
tpcc_nord_trans=-1

tpcc_nord_indices=1-2-3-

tpcc_nord_autospace=t
tpcc_nord_flg=30
tpcc_nord_fl=22

tpcc_inord_imp=none
tpcc_inord_size=1M
tpcc_inord_ext=calc
tpcc_inord_nf=calc
tpcc_inord_bs=2K

tpcc_inord_used=-1
tpcc_inord_free=-1
tpcc_inord_trans=-1

tpcc_inord_autospace=t
tpcc_inord_flg=30
tpcc_inord_fl=22

tpcc_inord_indices=1-2-3-

tpcc_ordl_imp=iot
tpcc_ordl_size=10M
tpcc_ordl_ext=calc
tpcc_ordl_nf=calc
tpcc_ordl_bs=auto

tpcc_ordl_used=-1
tpcc_ordl_free=-1
tpcc_ordl_trans=-1

tpcc_ordl_indices=1-2-3-4-

tpcc_ordl_autospace=t
tpcc_ordl_flg=30
tpcc_ordl_fl=22

tpcc_iordl_imp=none
tpcc_iordl_size=1M
tpcc_iordl_ext=calc
tpcc_iordl_nf=calc
tpcc_iordl_bs=2K

tpcc_iordl_used=-1
tpcc_iordl_free=-1
tpcc_iordl_trans=-1

tpcc_iordl_autospace=t
tpcc_iordl_flg=30
tpcc_iordl_fl=22

tpcc_iordl_indices=1-2-3-4-

```

```

tpcc_ordr_imp=table
tpcc_ordr_size=10M
tpcc_ordr_ext=calc
tpcc_ordr_nf=calc
tpcc_ordr_bs=auto

tpcc_ordr_used=-1
tpcc_ordr_free=-1
tpcc_ordr_trans=-1

tpcc_ordr_indices=2-3-1

tpcc_ordr_autospace=t
tpcc_ordr_flg=30
tpcc_ordr_fl=22

tpcc_iordr1_imp=index
tpcc_iordr1_size=1M
tpcc_iordr1_ext=calc
tpcc_iordr1_nf=calc
tpcc_iordr1_bs=2K

tpcc_iordr1_used=-1
tpcc_iordr1_free=-1
tpcc_iordr1_trans=-1

tpcc_iordr1_autospace=t
tpcc_iordr1_flg=30
tpcc_iordr1_fl=22

tpcc_iordr1_indices=2-3-1

tpcc_iordr2_imp=index
tpcc_iordr2_size=1M
tpcc_iordr2_ext=calc
tpcc_iordr2_nf=calc
tpcc_iordr2_bs=2K

tpcc_iordr2_used=-1
tpcc_iordr2_free=-1
tpcc_iordr2_trans=-1

tpcc_iordr2_autospace=t
tpcc_iordr2_flg=30
tpcc_iordr2_fl=22

tpcc_iordr2_indices=2-3-4-1

tpcc_stok_imp=cluster
tpcc_stok_size=35M
tpcc_stok_ext=calc
tpcc_stok_nf=calc
tpcc_stok_bs=auto

tpcc_stok_used=-1
tpcc_stok_free=-1
tpcc_stok_trans=-1

tpcc_stok_indices=1-2-

tpcc_stok_autospace=t
tpcc_stok_flg=30
tpcc_stok_fl=22

tpcc_istok_imp=index
tpcc_istok_size=1M
tpcc_istok_ext=calc
tpcc_istok_nf=calc
tpcc_istok_bs=2K

tpcc_istok_used=-1
tpcc_istok_free=-1
tpcc_istok_trans=-1

tpcc_istok_autospace=t
tpcc_istok_flg=30
tpcc_istok_fl=22

tpcc_istok_indices=1-2-

tpcc_cust_imp=cluster
tpcc_cust_size=25M
tpcc_cust_ext=calc
tpcc_cust_nf=calc
#bs
tpcc_cust_bs=2K
tpcc_cust_used=-1

```

```

tpcc_cust_free=-1
tpcc_cust_trans=-1

tpcc_cust_indices=1-2-3-

tpcc_cust_autospace=t
tpcc_cust_flg=30
tpcc_cust_fl=22

tpcc_icust1_imp=index
tpcc_icust1_size=1M
tpcc_icust1_ext=calc
tpcc_icust1_nf=calc
tpcc_icust1_bs=2K

tpcc_icust1_used=-1
tpcc_icust1_free=-1
tpcc_icust1_trans=-1

tpcc_icust1_autospace=t
tpcc_icust1_flg=30
tpcc_icust1_fl=22

tpcc_icust1_indices=1-2-3-

tpcc_icust2_imp=index
tpcc_icust2_size=1M
tpcc_icust2_ext=calc
tpcc_icust2_nf=calc
tpcc_icust2_bs=2K

tpcc_icust2_used=-1
tpcc_icust2_free=-1
tpcc_icust2_trans=-1

tpcc_icust2_autospace=t
tpcc_icust2_flg=30
tpcc_icust2_fl=22

tpcc_icust2_indices=6-7-1-2-3-

tpcc_hist_imp=table
tpcc_hist_size=10M
tpcc_hist_ext=calc
tpcc_hist_nf=calc
tpcc_hist_bs=auto

tpcc_hist_used=-1
tpcc_hist_free=-1
tpcc_hist_trans=-1

tpcc_hist_indices=no

tpcc_hist_autospace=t
tpcc_hist_flg=30

```

driver.sh

```

#!/bin/sh

./stepenv.sh

if expr $# \< 1 > /dev/null; then
echo "$0 <starting stepname> <optional: only>"
echo OR use:
echo "$0 buildcreate - to build the database creation scripts"
echo "$0 create - to create the database (after buildcreate)"
echo "$0 steps - to list individual steps"
exit 1
fi

if expr x$1 = xsteps > /dev/null; then
echo stepnames are from creation scripts: $tpcc_create_steps
echo
echo or running steps: $tpcc_steps
echo "use the 'only' option to only do that step (otherwise all steps after
will also be executed.)"
echo " (e.g. $0 listfiles only)"
echo "use the 'through' option to do a sequence of steps (inclusively.)"
echo " (e.g. $0 shutdowndb through startupdb_p_build)"
exit 1
fi

startstep=$1
controlcmd=$2
endstep=$3

```

APPENDIX B: DATABASE DESIGN

```
# Aliases for special steps
if test $startstep = buildcreate; then
  startstep=echo $tpcc_create_steps | cut -d' ' -f1
fi

if test $startstep = create; then
  startstep=echo $tpcc_steps | cut -d' ' -f1
fi

if test "x$controlcmd" = x; then
  endstep=
  # Since endstep is null it won't match any other steps, so we keep going.
elif test "x$controlcmd" = xonly; then
  controlcmd=only
  # this is allowed
elif test "x$controlcmd" = xthrough; then
  actualstep=f
  for step in $tpcc_create_steps $tpcc_steps ; do
    if test "x$step" = "x$endstep"; then
      actualstep=t
    fi
  done
  if test $actualstep = f; then
    echo "Invalid step $endstep. Use $0 steps to show steps."
    exit 1
  fi
else
  echo "Invalid syntax. Use $0 by itself for help."
  exit 1
fi

echo Starting from step: $startstep

dostep=f
for step in $tpcc_create_steps $tpcc_steps ; do
  if expr $step = $startstep > /dev/null; then
    dostep=t
  fi

  if expr $dostep = t > /dev/null; then
    echo STEP: $step
    cd $tpcc_bench
    $tpcc_scripts/echo $step | cut -d- -f1 .sh `echo $step | sed -e's/-*/-/` |
    cut -d- -f2- | sed -e's/-*/g`
    lasterror=?
    cd $tpcc_bench
    if test -n "`find $tpcc_bench/scripts -name *.log`"; then
      mv -f *.log `find $tpcc_bench/scripts -name *.log`
    $tpcc_bench/log/
    else
      if test -n "`find $tpcc_bench/ -name *.log`"; then
        mv -f *.log $tpcc_bench/log/
      fi
    fi

    if expr $lasterror != 0 > /dev/null; then
      if expr $lasterror != 99 > /dev/null; then
        echo Step $step failed. Stopping driver.
        exit 1
      else
        echo Step $step has completed and requested stop. Stopping driver.
        exit 0
      fi
    fi
    if test "x$controlcmd" = xonly; then
      exit 0
    fi
    if test "x$endstep" = "x$step"; then
      echo The driver reached the last desired step. Stopping driver.
      exit 0
    fi
  done

  if expr $dostep = f > /dev/null; then
    echo No such step: $1
  fi
fi
```

localoptions.sh

```
#LOCAL OPTION FILE- You must fill these in
# before the driver will work.
```

```
#oracle sid to use for the run
ORACLE_SID=tpcc
```

```
#folder location of the database files (or links to raw partitions)
tpcc_disks_location=C:\mnt\

#FOR NT
#tpcc_disks_location=\\\\.\\

#FOR RAC

#node id
#tpcc_rac_id=1

# How many createts_node*.sh will be run in this node, started from
tpcc_rac_id
# eq. if tpcc_rac_id is 3 and tpcc_rac_createts_count is 2
# createts_node3.sh and createts_node4.sh will be executed

#tpcc_rac_createts_count=1

#locations of various files used in the generation scripts.
#(you can usually leave these alone.)
tpcc_sql_dir=$(tpcc_bench)/scripts/sql
tpcc_log_dir=$(tpcc_bench)/log
tpcc_genscripts_dir=$(tpcc_bench)/scripts/generated

#Once you have filled all the options, comment
#out or delete this line.
```

Options.sh

```
tpcc_os='nt'
tpcc_version='tnt'
tpcc_ldrive='32'
tpcc_scale='19500'
tpcc_np='1'
tpcc_cpu='4'
tpcc_memsize='73728'
tpcc_runlen='20'
tpcc_compress='t'
tpcc_overflow='t'
tpcc_defbs='2'
tpcc_jeec_number='f'
tpcc_numfiles='0'

tpcc_cust_imp='cluster'
tpcc_cust_size='calc'
tpcc_cust_ext='calc'
tpcc_cust_nf='calc'
tpcc_cust_bs='auto'
tpcc_cust_used='-1'
tpcc_cust_free='0'
tpcc_cust_trans='3'
tpcc_cust_autospace='t'
tpcc_cust_flg='43'
tpcc_cust_fl='22'
tpcc_cust_rsize='auto'
tpcc_cust_hkey='auto'
tpcc_cust_hash='auto'
tpcc_cust_bpool='recycle'
tpcc_cust_indices='3-2-1-'

tpcc_dist_imp='cluster'
tpcc_dist_size='calc'
tpcc_dist_ext='calc'
tpcc_dist_nf='calc'
tpcc_dist_bs='auto'
tpcc_dist_used='-1'
tpcc_dist_free='-1'
tpcc_dist_trans='4'
tpcc_dist_autospace='t'
tpcc_dist_flg='43'
tpcc_dist_fl='22'
tpcc_dist_rsize='auto'
tpcc_dist_hkey='auto'
tpcc_dist_hash='auto'
tpcc_dist_bpool='default'
tpcc_dist_indices='2-1-'

tpcc_hist_imp='table'
tpcc_hist_size='1791'
tpcc_hist_ext='calc'
tpcc_hist_nf='calc'
tpcc_hist_bs='auto'
tpcc_hist_used='-1'
tpcc_hist_free='5'
tpcc_hist_trans='4'
```

APPENDIX B: DATABASE DESIGN

tpcc_hist_autospace='t'
 tpcc_hist_flg='43'
 tpcc_hist_fl='22'
 tpcc_hist_rsize='auto'
 tpcc_hist_hkey='auto'
 tpcc_hist_hash='auto'
 tpcc_hist_bpool='recycle'
 tpcc_hist_indices=no

tpcc_item_imp='cluster'
 tpcc_item_size='calc'
 tpcc_item_ext='calc'
 tpcc_item_nf='calc'
 tpcc_item_bs='auto'
 tpcc_item_used='-1'
 tpcc_item_free='0'
 tpcc_item_trans='3'
 tpcc_item_autospace='t'
 tpcc_item_flg='43'
 tpcc_item_fl='22'
 tpcc_item_rsize='auto'
 tpcc_item_hkey='auto'
 tpcc_item_hash='auto'
 tpcc_item_bpool='keep'
 tpcc_item_indices=1-

tpcc_nord_imp='queue'
 tpcc_nord_size='178'
 tpcc_nord_ext='calc'
 tpcc_nord_nf='calc'
 tpcc_nord_bs='auto'
 tpcc_nord_used='-1'
 tpcc_nord_free='5'
 tpcc_nord_trans='4'
 tpcc_nord_autospace='t'
 tpcc_nord_flg='43'
 tpcc_nord_fl='22'
 tpcc_nord_rsize='auto'
 tpcc_nord_hkey='auto'
 tpcc_nord_hash='auto'
 tpcc_nord_bpool='default'
 tpcc_nord_indices=1-2-3-

tpcc_ordl_imp='queue'
 tpcc_ordl_size='21775'
 tpcc_ordl_ext='calc'
 tpcc_ordl_nf='calc'
 tpcc_ordl_bs='16K'
 tpcc_ordl_used='-1'
 tpcc_ordl_free='5'
 tpcc_ordl_trans='4'
 tpcc_ordl_autospace='t'
 tpcc_ordl_flg='43'
 tpcc_ordl_fl='22'
 tpcc_ordl_rsize='auto'
 tpcc_ordl_hkey='auto'
 tpcc_ordl_hash='auto'
 tpcc_ordl_bpool='default'
 tpcc_ordl_indices=1-2-3-4-

tpcc_ordr_imp='queue'
 tpcc_ordr_size='1206'
 tpcc_ordr_ext='calc'
 tpcc_ordr_nf='calc'
 tpcc_ordr_bs='16K'
 tpcc_ordr_used='-1'
 tpcc_ordr_free='5'
 tpcc_ordr_trans='4'
 tpcc_ordr_autospace='t'
 tpcc_ordr_flg='43'
 tpcc_ordr_fl='22'
 tpcc_ordr_rsize='auto'
 tpcc_ordr_hkey='auto'
 tpcc_ordr_hash='auto'
 tpcc_ordr_bpool='default'
 tpcc_ordr_indices=2-3-1-

tpcc_stok_imp='cluster'
 tpcc_stok_size='calc'
 tpcc_stok_ext='calc'
 tpcc_stok_nf='calc'
 tpcc_stok_bs='auto'
 tpcc_stok_used='-1'
 tpcc_stok_free='0'
 tpcc_stok_trans='2'
 tpcc_stok_autospace='t'
 tpcc_stok_flg='43'
 tpcc_stok_fl='22'
 tpcc_stok_rsize='auto'
 tpcc_stok_hkey='auto'
 tpcc_stok_hash='auto'
 tpcc_stok_bpool='keep'
 tpcc_stok_indices=1-2-

tpcc_ware_imp='cluster'
 tpcc_ware_size='calc'
 tpcc_ware_ext='calc'
 tpcc_ware_nf='calc'
 tpcc_ware_bs='auto'
 tpcc_ware_used='-1'
 tpcc_ware_free='-1'
 tpcc_ware_trans='2'
 tpcc_ware_autospace='t'
 tpcc_ware_flg='43'
 tpcc_ware_fl='22'
 tpcc_ware_rsize='auto'
 tpcc_ware_hkey='auto'
 tpcc_ware_hash='auto'
 tpcc_ware_bpool='default'
 tpcc_ware_indices=1-

tpcc_icust1_imp='index'
 tpcc_icust1_size='736'
 tpcc_icust1_ext='calc'
 tpcc_icust1_nf='calc'
 tpcc_icust1_bs='16K'
 tpcc_icust1_used='-1'
 tpcc_icust1_free='1'
 tpcc_icust1_trans='3'
 tpcc_icust1_autospace='t'
 tpcc_icust1_flg='43'
 tpcc_icust1_fl='22'
 tpcc_icust1_rsize='auto'
 tpcc_icust1_hkey='auto'
 tpcc_icust1_hash='auto'
 tpcc_icust1_bpool='default'
 tpcc_icust1_indices=3-2-1-

tpcc_icust2_imp='index'
 tpcc_icust2_size='4591'
 tpcc_icust2_ext='calc'
 tpcc_icust2_nf='calc'
 tpcc_icust2_bs='auto'
 tpcc_icust2_used='-1'
 tpcc_icust2_free='1'
 tpcc_icust2_trans='3'
 tpcc_icust2_autospace='t'
 tpcc_icust2_flg='43'
 tpcc_icust2_fl='22'
 tpcc_icust2_rsize='auto'
 tpcc_icust2_hkey='auto'
 tpcc_icust2_hash='auto'
 tpcc_icust2_bpool='default'
 tpcc_icust2_indices=6-3-2-7-1-

tpcc_idist_imp='index'
 tpcc_idist_size='4'
 tpcc_idist_ext='calc'
 tpcc_idist_nf='calc'
 tpcc_idist_bs='auto'
 tpcc_idist_used='-1'
 tpcc_idist_free='5'
 tpcc_idist_trans='3'
 tpcc_idist_autospace='t'
 tpcc_idist_flg='43'
 tpcc_idist_fl='22'
 tpcc_idist_rsize='auto'
 tpcc_idist_hkey='auto'
 tpcc_idist_hash='auto'
 tpcc_idist_bpool='default'
 tpcc_idist_indices=2-1-

tpcc_iitem_imp='index'
 tpcc_iitem_size='2048'
 tpcc_iitem_ext='calc'
 tpcc_iitem_nf='calc'
 tpcc_iitem_bs='auto'
 tpcc_iitem_used='-1'
 tpcc_iitem_free='5'
 tpcc_iitem_trans='4'
 tpcc_iitem_autospace='t'
 tpcc_iitem_flg='43'
 tpcc_iitem_fl='22'
 tpcc_iitem_rsize='auto'
 tpcc_iitem_hkey='auto'
 tpcc_iitem_hash='auto'
 tpcc_iitem_bpool='default'
 tpcc_iitem_indices=1-

tpcc_inord_imp='none'
 tpcc_inord_size='229'
 tpcc_inord_ext='calc'
 tpcc_inord_nf='calc'
 tpcc_inord_bs='auto'
 tpcc_inord_used='-1'
 tpcc_inord_free='5'

```
tpcc_inord_trans=4'
tpcc_inord_autospace='t'
tpcc_inord_flg='43'
tpcc_inord_fl='22'
tpcc_inord_rsize='auto'
tpcc_inord_hkey='auto'
tpcc_inord_hash='auto'
tpcc_inord_bpool='default'
tpcc_inord_indices=1-2-3-
```

```
tpcc_iordl_imp='none'
tpcc_iordl_size='8072'
tpcc_iordl_ext='calc'
tpcc_iordl_nf='calc'
tpcc_iordl_bs='auto'
tpcc_iordl_used='-1'
tpcc_iordl_free='5'
tpcc_iordl_trans='4'
tpcc_iordl_autospace='t'
tpcc_iordl_flg='43'
tpcc_iordl_fl='22'
tpcc_iordl_rsize='auto'
tpcc_iordl_hkey='auto'
tpcc_iordl_hash='auto'
tpcc_iordl_bpool='default'
tpcc_iordl_indices=1-2-3-4-
```

```
tpcc_iordr1_imp='none'
tpcc_iordr1_size='703'
tpcc_iordr1_ext='calc'
tpcc_iordr1_nf='calc'
tpcc_iordr1_bs='auto'
tpcc_iordr1_used='-1'
tpcc_iordr1_free='1'
tpcc_iordr1_trans='3'
tpcc_iordr1_autospace='t'
tpcc_iordr1_flg='43'
tpcc_iordr1_fl='22'
tpcc_iordr1_rsize='auto'
tpcc_iordr1_hkey='auto'
tpcc_iordr1_hash='auto'
tpcc_iordr1_bpool='default'
tpcc_iordr1_indices=2-3-1-
```

```
tpcc_iordr2_imp='index'
tpcc_iordr2_size='1135'
tpcc_iordr2_ext='calc'
tpcc_iordr2_nf='calc'
tpcc_iordr2_bs='auto'
tpcc_iordr2_used='-1'
tpcc_iordr2_free='25'
tpcc_iordr2_trans='4'
tpcc_iordr2_autospace='t'
tpcc_iordr2_flg='43'
tpcc_iordr2_fl='22'
tpcc_iordr2_rsize='auto'
tpcc_iordr2_hkey='auto'
tpcc_iordr2_hash='auto'
tpcc_iordr2_bpool='default'
tpcc_iordr2_indices=2-3-4-1-
```

```
tpcc_istok_imp='index'
tpcc_istok_size='2090'
tpcc_istok_ext='calc'
tpcc_istok_nf='calc'
tpcc_istok_bs='16K'
tpcc_istok_used='-1'
tpcc_istok_free='1'
tpcc_istok_trans='3'
tpcc_istok_autospace='t'
tpcc_istok_flg='43'
tpcc_istok_fl='22'
tpcc_istok_rsize='auto'
tpcc_istok_hkey='auto'
tpcc_istok_hash='auto'
tpcc_istok_bpool='default'
tpcc_istok_indices=1-2-
```

```
tpcc_iware_imp='index'
tpcc_iware_size='1'
tpcc_iware_ext='calc'
tpcc_iware_nf='calc'
tpcc_iware_bs='auto'
tpcc_iware_used='-1'
tpcc_iware_free='1'
tpcc_iware_trans='3'
tpcc_iware_autospace='t'
tpcc_iware_flg='43'
tpcc_iware_fl='22'
tpcc_iware_rsize='auto'
tpcc_iware_hkey='auto'
tpcc_iware_hash='auto'
tpcc_iware_bpool='default'
```

```
tpcc_iware_indices=1-
```

```
tpcc_temp_imp='temp'
tpcc_temp_size='16145'
tpcc_temp_ext='calc'
tpcc_temp_nf='calc'
tpcc_temp_bs='auto'
tpcc_temp_used='-1'
tpcc_temp_free='0'
tpcc_temp_trans='3'
tpcc_temp_autospace='t'
tpcc_temp_flg='43'
tpcc_temp_fl='22'
tpcc_temp_rsize='auto'
tpcc_temp_hkey='auto'
tpcc_temp_hash='auto'
tpcc_temp_bpool='default'
tpcc_temp_indices=no
```

p_build.ora

```
compatible = 10.1.0.0.0
db_name = tpcc
control_files = (C:\mnt\control_001,C:\mnt\control_002)
parallel_max_servers = 100
recovery_parallelism = 40
db_files = 461
db_cache_size = 24576M
db_8k_cache_size = 9216M
db_16k_cache_size = 24576M
dml_locks = 500
statistics_level = basic
log_buffer = 1048576
processes = 150
sessions = 150
transactions = 150
shared_pool_size = 4608M
cursor_space_for_time = TRUE
db_block_size = 2048
undo_management = auto
undo_retention = 2
plsql_optimize_level=2
UNDO_TABLESPACE = undo_1
db_4k_cache_size = 20M
```

p_build2.ora

```
compatible = 10.1.0.0.0
db_name = tpcc
control_files = (C:\mnt\control_001,C:\mnt\control_002)
parallel_max_servers = 100
recovery_parallelism = 40
db_files = 461
db_cache_size = 24576M
db_8k_cache_size = 9216M
db_16k_cache_size = 24576M
dml_locks = 500
statistics_level = basic
log_buffer = 1048576
processes = 150
sessions = 150
transactions = 150
shared_pool_size = 4608M
cursor_space_for_time = TRUE
db_block_size = 2048
undo_management = auto
undo_retention = 2
plsql_optimize_level=2

UNDO_TABLESPACE = undo_1
db_4k_cache_size = 20M
```

P_create.ora

```
compatible = 10.1.0.0.0
db_name = tpcc
control_files = (C:\mnt\control_001,C:\mnt\control_002)
db_block_size = 2048
db_cache_size = 24576M
db_8k_cache_size = 9216M
log_buffer = 1048576
db_16k_cache_size = 24576M
undo_management = manual
statistics_level = basic
```

APPENDIX B: DATABASE DESIGN

```
shared_pool_size = 4608M
plsql_optimize_level=2
db_4k_cache_size = 20M
```

p_run.ora

```
compatible = 11.1.0.0.0
db_name = tpcc
control_files = (C:\mnt\control_001,C:\mnt\control_002)
processes = 1000
sessions = 1370
open_cursors=120
db_block_size = 2048
transactions = 1100
db_files = 400
db_file_multiblock_read_count = 32
fast_start_mttr_target = 0
parallel_max_servers = 0
dml_locks = 500
remote_login_passwordfile = shared
aq_tm_processes = 0
utl_file_dir = *
max_dump_file_size = 1M
resource_manager_plan = *
statistics_level = basic

db_cache_size = 11000M
db_8k_cache_size = 512M
db_16k_cache_size = 11000M
db_keep_cache_size = 34000M
db_recycle_cache_size = 6600M
shared_pool_size = 3200M
```

```
log_buffer = 10485760
log_checkpoint_interval = 0
log_checkpoint_timeout = 0
log_checkpoints_to_alert = true
```

```
plsql_optimize_level = 2
db_writer_processes = 2
disk_asynch_io = true
replication_dependency_tracking = false
db_block_checking = false
db_block_checksum = false
undo_management = auto
undo_retention = 0
undo_tablespace = undo_1
transactions_per_rollback_segment = 1
trace_enabled = false
query_rewrite_enabled = false
```

```
timed_statistics = false
#timed_statistics = true
```

```
max_dump_file_size = 2G
```

stepenv.sh

```
# forces any env variables we set to be exported
set -a
tpcc_kit=t
tpcc_bench=c:\tpcc19500
#tpcc_bench=$PWD
tpcc_scripts=$tpcc_bench/scripts
tpcc_require=$tpcc_scripts/require_vars.sh
tpcc_lcm=$tpcc_scripts/lcm.sh
tpcc_tokilobytes=$tpcc_scripts/tokilobytes.sh
tpcc_fromkilobytes=$tpcc_scripts/fromkilobytes.sh
tpcc_estsize=$tpcc_scripts/estsize.sh
tpcc_notneg=$tpcc_scripts/notneg.sh
tpcc_isneg=$tpcc_scripts/isneg.sh
```

```
# need a better way to check for bc, may
# resort to checking each directory in path
# if this doesn't work
#11/7/02 - alex.ni this is causing too many problems
#because systems have bc in some odd place. typically
#mangled cygwin installs w/ mksnt/cygwin mixes
```

```
#!/usr/bin/bc -o -x /bin/bc; then
tpcc_bcexpr=$tpcc_scripts/bcexpr.sh
#else
#tpcc_bcexpr=expr
#fi
```

```
# the ksh version is a bit faster, so we want
# to use it if we have ksh. Otherwise we have
# a compatible version.
#!/usr/bin/ksh; then
#tpcc_createts=$tpcc_scripts/createts.ksh
#else
tpcc_createts=$tpcc_scripts/createts.sh
#fi
```

```
tpcc_tabledata=$tpcc_scripts/tabledata.sh
tpcc_load=$tpcc_bench/benchrun/bin/tpccload.exe
tpcc_createtablespace=$tpcc_scripts/createtablespace.sh
```

```
##
tpcc_sqlplus=cat
tpcc_sqlplus_args="/nolog"
tpcc_internal_connect="connect / as sysdba"
tpcc_user_pass="tpcc/tpcc"
tpcc_dba_user_pass="system/manager"
oracle_dba_system
oracle_dba_password=manager
tpcc_sqlplus=sqlplus
```

```
# import options generated by gui
. ${tpcc_bench}/options.sh
```

```
#8gb oracle filesize limit (in k)
tpcc_fs_size_limit_k=8243200
#2gb - 1k oracle extent limit (in k)
tpcc_extent_limit_k=2048000
#file number limit: 1024
tpcc_file_number_limit=1024
```

```
# Runlen calculations should be in hours, but
# this was the old calculation, which assumed
# minutes, and also 8 times:
# tpcc_runlen=$tpcc_bcexpr 8 \* 60 \* $tpcc_runlen`
# we just want to keep the value as it is.
```

```
tpcc_system_size=400M
tpcc_kilo_bytes=1024
#tpcc_logfile_size=$tpcc_bcexpr 20 + \($tpcc_scale \)
```

```
if test $tpcc_np -gt 1 ; then
# 4.69k per commit * 2.1 commit per TPMC ~ 9.85K
# 9.85k * 30 minutes * 12.5 TPMC per Warehouse = 3693
tpcc_logfile_size=$tpcc_bcexpr \($tpcc_scale \* 3693 \) /
$tpcc_kilo_bytes`
else
# 2.4k per commit * 2.1 commit per TPMC ~ 5k
# 5k * 30 minutes * 12.5 TPMC per Warehouse = 1875
tpcc_logfile_size=$tpcc_bcexpr \($tpcc_scale \* 1875 \) /
$tpcc_kilo_bytes`
fi
```

```
if test $tpcc_logfile_size -lt 1024; then
tpcc_logfile_size=1024
fi
tpcc_logfile_size="${tpcc_logfile_size}M"
```

```
tpcc_undo_size=$tpcc_bcexpr 2 \* $tpcc_scale`
if test $tpcc_undo_size -gt 8096; then
tpcc_undo_size=8096
fi
if test $tpcc_undo_size -lt 512; then
tpcc_undo_size=512
fi
tpcc_undo_size="${tpcc_undo_size}M"
```

```
tpcc_undo_bs=8K
```

```
tpcc_statspack_size=$tpcc_bcexpr 1 \* $tpcc_scale`
if test $tpcc_statspack_size -gt 2048; then
tpcc_statspack_size=2048
fi
if test $tpcc_statspack_size -lt 300; then
tpcc_statspack_size=300
fi
tpcc_statspack_size="${tpcc_statspack_size}M"
```

```
tpcc_sysaux_size=120M
```

```
# fixed table params
```

```
#table list (note temp is always at the end since it may use numbers from
other tables, and it's not included in these lists)
```

APPENDIX B: DATABASE DESIGN

```

tpcc_table_list='ware cust dist hist stok item ordr ordl nord'
tpcc_index_list='iware icust1 icust2 idist istok item iordr1 iordr2 iordl inord'
##for these I use average row length, calculated from multi-blocksize stats.
#we figure out how many new rows we will gain in a run (in
createtablespace.sh)
#and add that much to the base tablespace size.
tpcc_hist_growth=51
tpcc_ordr_growth=35
tpcc_nord_growth=regular
#tpcc_ordl_growth=660
tpcc_ordl_growth=900

#i started indices at 1/10th... need an exact figure
tpcc_iordr1_growth=20
tpcc_iordr2_growth=20
tpcc_iordl_growth=66
tpcc_inord_growth=2

tpcc_item_growth=0
tpcc_item_growth=0
tpcc_temp_growth=0

tpcc_cust_growth=regular
tpcc_icust1_growth=regular
tpcc_icust2_growth=regular

tpcc_stok_growth=regular
tpcc_istok_growth=regular

tpcc_ware_growth=regular
tpcc_iware_growth=regular

tpcc_dist_growth=regular
tpcc_idist_growth=regular

# minimum size of temp tablespace
tpcc_tempt_min=10240

# for Linux, set appropriate tablespace heuristics
# to set high io tables to have 64 files, and minimize
# others.
if expr $tpcc_os = linux > /dev/null; then
# for table in $tpcc_table_list $tpcc_index_list temp; do
# eval "tpcc_$(table)_tsfileinc=1"
# done
if test $tpcc_numfiles = 0 ; then
tpcc_numfiles=256
fi
tpcc_os=unix

# tpcc_stok_tsfileinc=64
# tpcc_cust_tsfileinc=64
# tpcc_iordl2_tsfileinc=16
# tpcc_icust2_tsfileinc=16
# tpcc_iordl_tsfileinc=16
else
#in case someone changes out of linux, and the shell is stuck
for table in $tpcc_table_list $tpcc_index_list temp; do
eval "tpcc_$(table)_tsfileinc="
done
fi
tpcc_stok_tsfileinc=
tpcc_cust_tsfileinc=
tpcc_iordl2_tsfileinc=
tpcc_icust2_tsfileinc=
tpcc_iordl_tsfileinc=
##fi

# import local options
. $(tpcc_bench)/localoptions.sh

if expr `echo x$tpcc_no_options` = xt > /dev/null; then
echo Please modify $(tpcc_bench)/localoptions.sh to configure the
generator.
exit 1
fi

tpcc_fixordrordl=$(tpcc_genscripts_dir)/loadfixordrordl.sh
tpcc_updateordrordl=$(tpcc_scripts)/updateordrordl.sh

#tp- get table param. (that is, $tpcc_tablename_tableparam)
tp(){
eval echo \"${tpcc}_${1}_${2}\"
}

# automatically generated variables
if expr `echo $tpcc_version | cut -b1` = t > /dev/null; then
tpcc_auto_undo=t
else
tpcc_auto_undo=f
fi
if expr `echo $tpcc_version | cut -b2` = t > /dev/null; then

```

```

tpcc_autospace_avail=t
else
tpcc_autospace_avail=f
fi
if expr `echo $tpcc_version | cut -b3` = t > /dev/null; then
tpcc_queue_avail=t
tpcc_use_sysaux=t
else
tpcc_queue_avail=f
tpcc_use_sysaux=f
fi

# for NT, ORACLE does not like $variables in sql scripts, so we must
# hardcode these things for it.
if test x$tpcc_os = xnt; then
tpcc_hardcode=t
else
tpcc_hardcode=f
fi

# if this is unset we need to make sure it's something anyway
if test x$tpcc_defbs = x; then
tpcc_defbs=2
fi

# used for loading program
if test x$tpcc_hash_overflow = xt; then
tpcc_hash_overflow=t
else
unset tpcc_hash_overflow
fi
if test x$tpcc_overflow = xt; then
tpcc_hash_overflow=t
else
unset tpcc_hash_overflow
fi

tpcc_create_steps="buildtpccflags buildcreatets buildcreatedb \
buildcreatetable-ware buildcreatetable-cust buildcreatetable-dist
buildcreatetable-hist buildcreatetable-stok buildcreatetable-item
buildcreatetable-ordr buildcreatetable-ordl buildcreatetable-nord \
buildloadware buildloaddist buildloaditem buildloadhist buildloadnord
buildloadordrordl buildloadcust buildloadstok \
buildcreateindex-iware buildcreateindex-icust1 buildcreateindex-icust2
buildcreateindex-idist buildcreateindex-istok buildcreateindex-item
buildcreateindex-iordr1 buildcreateindex-iordr2 buildcreateindex-iordl
buildcreateindex-inord \
buildstoreprocsq buildspacestats listfiles
"

# remove runscript-loadfixordrordl - shuang, 030626

tpcc_steps="runsqllocal-createdb shutdowndb startupdb-p_build
createuser ddview runscript-createts assigntemp \
runsql-createtable_ware runsql-createtable_cust runsql-createtable_dist
runsql-createtable_hist runsql-createtable_stok runsql-createtable_item
runsql-createtable_ordr runsql-createtable_ordl runsql-createtable_nord \
runscript-loadware runscript-loaddist runscript-loaditem runscript-loadhist
runscript-loadnord runscript-loadordrordl runscript-loadcust runscript-
loadstok \
analyze runsql-createindex_iware runsql-createindex_icust1 runsql-
createindex_icust2 runsql-createindex_idist runsql-createindex_istok
runsql-createindex_iitem runsql-createindex_iordr1 runsql-
createindex_iordr2 runsql-createindex_iordl runsql-createindex_inord \
createts createstoredprocs createspacestats createmisc"

tpcc_total_files=524

# no longer automatically exports env variables
set +a

# check for problems with configuration
badconf=
for table in $tpcc_table_list; do
if expr `tp $table imp` = queue > /dev/null; then
if expr $tpcc_queue_avail = f > /dev/null; then
echo Table $table may not be a queue, since queues are
echo are unavailable in the selected Oracle version.
badconf=t
fi
fi
if expr $tpcc_autospace_avail = f \& `tp $table autospace` = t > /dev/null;
then
echo Table $table may not use bitmapped space management
echo since it is not available in the selected Oracle version.
badconf=t
fi
done

if test -n "$badconf"; then
exit 1
fi

```

```
# make sure we have everything
if $tpcc_require ORACLE_SID \
tpcc_tokilobytes tpcc_createts tpcc_lcm\
tpcc_sqlplus tpcc_internal_connect\
tpcc_np tpcc_cpu tpcc_os tpcc_runlen tpcc_ldrive tpcc_scale\
tpcc_disks_location tpcc_auto_undo tpcc_tempts_min\
tpcc_system_size tpcc_logfile_size\
tpcc_undo_size tpcc_undo_bs\
oracle_dba oracle_dba_password tpcc_dba_user_pass
then exit 1; fi

if test x$tpcc_hardcode != xt; then
tpcc_disks_location=$(tpcc_disks_location)/
# tpcc_sql_dir=$tpcc_sql_dir'
# tpcc_statspack_size=$tpcc_statspack_size'
# tpcc_genscripts_dir=$tpcc_genscripts_dir'
fi
```

createdb.sql

```
/* created automatically by /cygdrive/c/tpcc19500/scripts/buildcreatedb.sh
Tue Aug 4 16:10:52 CDT 2009 */
spool createdb.log
```

```
set echo on
```

```
shutdown abort
```

```
startup pfile=p_create.ora nomount
create database tpcc
controlfile reuse
maxinstances 1
datafile
'C:\mnt\system_1' size 400M reuse
logfile 'C:\mnt\log_1_1' size 35705M reuse,
'C:\mnt\log_1_2' size 35705M reuse
sysaux datafile 'C:\mnt\tpccaux_0_0' size 120M reuse ;
```

```
create undo tablespace undo_1 datafile
'C:\mnt\roll1' size 8096M reuse blocksize 8K;
```

```
set echo off
exit sql.sqlcode
```

createindex_icust1.sql

```
/* created automatically by
/cygdrive/c/tpcc19500/scripts/buildcreateindex.sh Tue Aug 4 16:17:10
CDT 2009 */
```

```
set timing on
set sqlblanklines on
spool createindex_icust1.log ;
set echo on ;
drop index icust1 ;
create unique index icust1 on cust ( c_w_id
, c_d_id
, c_id )
pctfree 1 intrans 3
storage ( buffer_pool default )
parallel 16
compute statistics
tablespace icust1_0 ;
set echo off
spool off
exit sql.sqlcode;
```

createindex_icust2.sql

```
/* created automatically by
/cygdrive/c/tpcc19500/scripts/buildcreateindex.sh Tue Aug 4 16:17:22
CDT 2009 */
```

```
set timing on
set sqlblanklines on
spool createindex_icust2.log ;
set echo on ;
drop index icust2 ;
create unique index icust2 on cust ( c_last
, c_w_id
, c_d_id
, c_id )
```

```
, c_id )
pctfree 1 intrans 3
storage ( buffer_pool default )
parallel 16
compute statistics
tablespace icust2_0 ;
set echo off
spool off
exit sql.sqlcode;
```

createindex_idist.sql

```
/* created automatically by
/cygdrive/c/tpcc19500/scripts/buildcreateindex.sh Tue Aug 4 16:17:37
CDT 2009 */
```

```
set timing on
set sqlblanklines on
spool createindex_idist.log ;
set echo on ;
drop index idist ;
create unique index idist on dist ( d_w_id
, d_id )
pctfree 5 intrans 3
storage ( buffer_pool default )
parallel 1
compute statistics
tablespace idist_0 ;
set echo off
spool off
exit sql.sqlcode;
```

createindex_iitem.sql

```
/* created automatically by
/cygdrive/c/tpcc19500/scripts/buildcreateindex.sh Tue Aug 4 16:17:58
CDT 2009 */
```

```
set timing on
set sqlblanklines on
spool createindex_iitem.log ;
set echo on ;
drop index iitem ;
create unique index iitem on item ( i_id )
pctfree 5 intrans 4
storage ( buffer_pool default )
```

```
compute statistics
tablespace iitem_0 ;
set echo off
spool off
exit sql.sqlcode;
```

createindex_inord.sql

```
/* created automatically by
/cygdrive/c/tpcc19500/scripts/buildcreateindex.sh Tue Aug 4 16:18:47
CDT 2009 */
```

```
set timing on
exit 0;
```

createindex_iordl.sql

```
/* created automatically by
/cygdrive/c/tpcc19500/scripts/buildcreateindex.sh Tue Aug 4 16:18:34
CDT 2009 */
```

```
set timing on
exit 0;
```

createindex_iordr1.sql

```
/* created automatically by
/cygdrive/c/tpcc19500/scripts/buildcreateindex.sh Tue Aug 4 16:18:09
CDT 2009 */
```

```
set timing on
exit 0;
```


createindex_iordr2.sql

```

/* created automatically by
/cygdrive/c/tpcc19500/scripts/buildcreateindex.sh Tue Aug 4 16:18:21
CDT 2009 */
set timing on
set sqlblanklines on
spool createindex_iordr2.log ;
set echo on ;
drop index iordr2 ;
create unique index iordr2 on ordr ( o_c_id
,o_d_id
,o_w_id
,o_id )
pctfree 25 intrans 4
storage ( buffer_pool default )
parallel 16
compute statistics
tablespace iordr2_0 ;
set echo off
spool off
exit sql.sqlcode;

```

createindex_istok.sql

```

/* created automatically by
/cygdrive/c/tpcc19500/scripts/buildcreateindex.sh Tue Aug 4 16:17:47
CDT 2009 */
set timing on
set sqlblanklines on
spool createindex_istok.log ;
set echo on ;
drop index istok ;
create unique index istok on stok ( s_i_id
,s_w_id )
pctfree 1 intrans 3
storage ( buffer_pool default )
parallel 16
compute statistics
tablespace istok_0 ;
set echo off
spool off
exit sql.sqlcode;

```

createindex_iware.sql

```

/* created automatically by
/cygdrive/c/tpcc19500/scripts/buildcreateindex.sh Tue Aug 4 16:17:00
CDT 2009 */
set timing on
set sqlblanklines on
spool createindex_iware.log ;
set echo on ;
drop index iware ;
create unique index iware on ware ( w_id )
pctfree 1 intrans 3
storage ( buffer_pool default )
parallel 1
compute statistics
tablespace iware_0 ;
set echo off
spool off

```

exit sql.sqlcode;

createspacestats.sql

```

@space_init
@space_get 239392 19086
@space_rpt
spool off
exit sql.sqlcode;

```

createstoreprocs.sql

spool createstoreprocs.log

```

@tkvcin.sql
spool off
exit sql.sqlcode;

```

createtable_cust.sql

```

/* created automatically by
/cygdrive/c/tpcc19500/scripts/buildcreatetable.sh Tue Aug 4 16:11:37 CDT
2009 */
set timing on
set sqlblanklines on
spool createtable_cust.log
set echo on
drop cluster custcluster ;

```

```

create cluster custcluster (
c_id number
,c_d_id number
,c_w_id number
)
single table
hashkeys 585000000
hash is ( (c_id * ( 19500 * 10 ) + c_w_id * 10 + c_d_id ) )
size 180
pctfree 0 intrans 3
storage ( buffer_pool recycle ) parallel ( degree 4 )
tablespace cust_0;

```

```

create table cust (
c_id number
,c_d_id number
,c_w_id number
,c_discount number
,c_credit char(2)
,c_last varchar2(16)
,c_first varchar2(16)
,c_credit_lim number
,c_balance number
,c_ytd_payment number
,c_payment_cnt number
,c_delivery_cnt number
,c_street_1 varchar2(20)
,c_street_2 varchar2(20)
,c_city varchar2(20)
,c_state char(2)
,c_zip char(9)
,c_phone char(16)
,c_since date
,c_middle char(2)
,c_data char(500)
)
cluster custcluster (
c_id
,c_d_id
,c_w_id
);
set echo off
spool off
exit sql.sqlcode;

```

createtable_dist.sql

```

/* created automatically by
/cygdrive/c/tpcc19500/scripts/buildcreatetable.sh Tue Aug 4 16:12:52 CDT
2009 */
set timing on
set sqlblanklines on
spool createtable_dist.log
set echo on
drop cluster distcluster including tables ;

```

```

create cluster distcluster (
d_id number
,d_w_id number
)
single table
hashkeys 195000
hash is ( ((d_w_id * 10) + d_id ) )
size 1448
intrans 4
storage ( buffer_pool default )
tablespace dist_0;

```

```

create table dist (
d_id number
d_w_id number

```

```

, d_ytd number
, d_next_o_id number
, d_tax number
, d_name varchar2(10)
, d_street_1 varchar2(20)
, d_street_2 varchar2(20)
, d_city varchar2(20)
, d_state char(2)
, d_zip char(9)
)
cluster distcluster (
  d_id
, d_w_id
);
set echo off
spool off
exit sql.sqlcode;

```

createtable_nord.sql

```

/* created automatically by
/cygdrive/c/tpcc19500/scripts/buildcreatetable.sh Tue Aug 4 16:16:14 CDT
2009 */
set timing on
set sqlblanklines on
spool createtable_nord.log
set echo on
drop cluster nordcluster_queue including tables ;

create cluster nordcluster_queue (
  no_w_id number
, no_d_id number
, no_o_id number SORT
)

hashkeys 195000
hash is ( (no_w_id - 1) * 10 + no_d_id - 1 )
size 190
tablespace nord_0;

create table nord (
  no_w_id number
, no_d_id number
, no_o_id number sort
, constraint nord_uk primary key ( no_w_id
, no_d_id
, no_o_id )
)
cluster nordcluster_queue (
  no_w_id
, no_d_id
, no_o_id
);
set echo off
spool off
exit sql.sqlcode;

```

createtable_ordl.sql

```

/* created automatically by /tmp/tpcc/scripts/buildcreatetable.sh Thu Apr
24 17:19:38 PDT 2008 */
set timing on
set sqlblanklines on
spool createtable_ordl.log
set echo on
create table ordl (
  ol_w_id number
, ol_d_id number
, ol_o_id number sort
, ol_number number sort
, ol_i_id number
, ol_delivery_d date
, ol_amount number
, ol_supply_w_id number
, ol_quantity number
, ol_dist_info char(24)
, constraint ordl_uk primary key (ol_w_id, ol_d_id, ol_o_id, ol_number ))
CLUSTER ordcluster_queue(ol_w_id, ol_d_id, ol_o_id, ol_number) ;
set echo off
spool off
exit sql.sqlcode;

```

createtable_ordr.sql

```

/* created automatically by
/cygdrive/c/tpcc19500/scripts/buildcreatetable.sh Tue Aug 4 16:15:52 CDT
2009 */
set timing on
set sqlblanklines on
spool createtable_ordr.log
set echo on
create table ordl (
  ol_w_id number
, ol_d_id number
, ol_o_id number sort
, ol_number number sort
, ol_i_id number
, ol_delivery_d date
, ol_amount number
, ol_supply_w_id number
, ol_quantity number
, ol_dist_info char(24)
, constraint ordl_uk primary key (ol_w_id, ol_d_id, ol_o_id, ol_number ))
CLUSTER ordcluster_queue(ol_w_id, ol_d_id, ol_o_id, ol_number) ;
set echo off
spool off
exit sql.sqlcode;

```

createtable_stok.sql

```

/* created automatically by
/cygdrive/c/tpcc19500/scripts/buildcreatetable.sh Tue Aug 4 16:13:55 CDT
2009 */
set timing on
set sqlblanklines on
spool createtable_stok.log
set echo on
drop cluster stokcluster including tables ;

create cluster stokcluster (
  s_i_id number
, s_w_id number
)
single table
hashkeys 1950000000
hash is ( (s_i_id * 19500 + s_w_id) )
size 256
pctfree 0 intrans 2 maxtrans 2
storage ( buffer_pool keep ) parallel ( degree 4 )
tablespace stok_0;

create table stok (
  s_i_id number
, s_w_id number
, s_quantity number
, s_ytd number
, s_order_cnt number
, s_remote_cnt number
, s_data varchar2(50)
, 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)
)
cluster stokcluster (
  s_i_id
, s_w_id
);
set echo off
spool off
exit sql.sqlcode;

```

createtable_ware.sql

```

/* created automatically by
/cygdrive/c/tpcc19500/scripts/buildcreatetable.sh Tue Aug 4 16:10:59 CDT
2009 */
set timing on
set sqlblanklines on

```

APPENDIX B: DATABASE DESIGN

```
spool createtable_ware.log
set echo on
drop cluster warecluster including tables ;
```

```
create cluster warecluster (
  w_id number
)
single table
hashkeys 19500
hash is ( (w_id - 1) )
size 1448
initrans 2
storage ( buffer_pool default )
tablespace ware_0;
```

```
create table ware (
  w_id number
, w_ytd number
, w_tax number
, w_name varchar2(10)
, w_street_1 varchar2(20)
, w_street_2 varchar2(20)
, w_city varchar2(20)
, w_state char(2)
, w_zip char(9)
)
cluster warecluster (
  w_id
);
set echo off
spool off
exit sql.sqlcode;
```

space_get.sql

```
REM=====
=====+
REM Copyright (c) 1995 Oracle Corp. Redwood Shores, CA |
REM OPEN SYSTEMS PERFORMANCE GROUP |
REM All Rights Reserved |
REM=====
=====+
REM FILENAME
REM space_get.sql
REM DESCRIPTION
REM Get sizes of tables, indexes and tablespaces.
REM Usage: sqlplus 'sys/change_on_install as sysdba' @space_get
[<tpm> <# of warehouses>]
REM=====
=====*/
```

```
set echo on;
delete from tpcc_data;
delete from tpcc_space;
delete from tpcc_totSPACE;
```

```
insert into tpcc_data
select substr(segment_name,1,18), substr(segment_type,1,15),
sum(blocks), t.block_size,
round(sum(blocks) * 0.05), 0,
sum(blocks) + round(sum(blocks) * 0.05)
from dba_extents e, dba_tablespaces t
where owner = 'TPCC' AND ( segment_type = 'INDEX' OR
segment_type = 'INDEX PARTITION' OR segment_type =
'CLUSTER'
OR segment_type = 'TABLE' OR segment_type = 'TABLE
PARTITION')
AND e.tablespace_name <> 'SYSTEM' AND e.tablespace_name <>
'SP_0'
AND e.tablespace_name = t.tablespace_name
group by segment_name, segment_type, t.block_size;
```

```
insert into tpcc_data
select 'SYSTEM', 'SYS', sum(blocks), t.block_size, 0, 0, sum(blocks)
from dba_data_files f, dba_tablespaces t
where f.tablespace_name = 'SYSTEM' and t.tablespace_name =
f.tablespace_name
group by t.block_size;
```

```
insert into tpcc_data
select 'SYSAUX', 'SYS', sum(blocks), t.block_size, 0, 0, sum(blocks)
from dba_data_files f, dba_tablespaces t
where f.tablespace_name = 'SYSAUX' and t.tablespace_name =
f.tablespace_name
group by t.block_size;
```

```
insert into tpcc_data
select 'ROLL_SEG', 'SYS', sum(blocks), t.block_size, 0, 0,
sum(blocks)
```

```
from dba_data_files f, dba_tablespaces t
```

```
where f.tablespace_name like '%UNDO_TS%' and
f.tablespace_name = t.tablespace_name
group by f.tablespace_name, t.block_size;
```

```
insert into tpcc_data
select 'DB_STAT', 'SYS', sum(blocks), t.block_size, 0, 0, sum(blocks)
from dba_data_files f, dba_tablespaces t
where f.tablespace_name like '%SP_0%' and f.tablespace_name =
t.tablespace_name
group by f.tablespace_name, t.block_size;
```

```
update tpcc_data
set five_pct = 0,
daily_grow = round(blocks * &&1 / 62.5 / &&2),
total = blocks + round(blocks * &&1 / 62.5 / &&2)
where segment = 'HIST' OR segment = 'ORDRCLUSTER_QUEUE'
OR
segment = 'IORDL';
```

```
insert into tpcc_space
select substr(ex$.name,1,18), sum(sp$.sz_blocks), sp$.block_size, 0, 0,
0, 0
from
(select f.tablespace_name , sum(blocks) sz_blocks, t.block_size
block_size
from dba_data_files f, dba_tablespaces t
where f.tablespace_name <> 'SYSTEM' and f.tablespace_name =
t.tablespace_name
group by f.tablespace_name, t.block_size
) sp$,
(select distinct tablespace_name, segment_name name
from dba_extents
where owner = 'TPCC'
and (segment_type = 'CLUSTER' or segment_type = 'TABLE'
or segment_type = 'TABLE PARTITION' or segment_type = 'INDEX'
or segment_type = 'INDEX PARTITION')
and tablespace_name <> 'SYSTEM'
) ex$
where sp$.tablespace_name = ex$.tablespace_name
group by ex$.name, sp$.block_size;
```

```
insert into tpcc_space
select substr(f.tablespace_name,1,18), sum(blocks), t.block_size, 0, 0,
0, 0
from dba_data_files f, dba_tablespaces t
where (f.tablespace_name = 'SYSTEM' or f.tablespace_name =
'SYSAUX')
and f.tablespace_name = t.tablespace_name
group by f.tablespace_name, t.block_size;
```

```
insert into tpcc_space
select 'ROLL_SEG', sum(blocks), t.block_size, 0, 0, 0, 0
from dba_data_files f, dba_tablespaces t
where f.tablespace_name = 'UNDO_TS' and f.tablespace_name =
t.tablespace_name
group by f.tablespace_name, t.block_size;
```

```
insert into tpcc_space
select 'DB_STAT', sum(blocks), t.block_size, 0, 0, 0, 0
from dba_data_files f, dba_tablespaces t
where f.tablespace_name = 'SP_0' and f.tablespace_name =
t.tablespace_name
group by f.tablespace_name, t.block_size;
```

```
update tpcc_space
set required =
(
select sum(total)
from tpcc_data
where tpcc_data.segment = tpcc_space.segment
)
where segment in
(
select segment from tpcc_data
);
```

```
update tpcc_space
set static =
(
select sum(total)
from tpcc_data
where tpcc_data.segment = tpcc_space.segment
)
where segment in
(
select segment from tpcc_data
);
```

```
update tpcc_space
set static = 0,
dynamic =
(
select sum(blocks)
```

APPENDIX B: DATABASE DESIGN

```
from tpcc_data
  where tpcc_data.segment = tpcc_space.segment
)
where segment in ('HIST', 'ORDRCLUSTER_QUEUE', 'IORDL');

update tpcc_space
set oversize = blocks - required;

insert into tpcc_totSPACE
select &&1, &&2, sum(static * block_size)/1024, sum(dynamic *
block_size)/1024, sum(oversize * block_size)/1024, 0, 0, 0
from tpcc_space;

update tpcc_totSPACE
set daily_grow =
(
select sum(daily_grow * block_size)/1024
from tpcc_data
);
update tpcc_totSPACE
set space60 = static + 60 * daily_grow;
set echo off;
```

space_init.sql

```
REM=====
=====+
REM FILENAME
REM space_init.sql
REM DESCRIPTION
REM Create tables for space calculations.
REM Usage: sqlplus 'sys/change_on_install as sysdba' @space_init.sql
REM=====
=====*/

set echo on;
drop table tpcc_data;
drop table tpcc_space;
drop table tpcc_totSPACE;
create table tpcc_data (
  segment varchar2(18),
  type varchar2(15),
  blocks number,
  block_size number,
  five_pct number,
  daily_grow number,
  total number
);
create table tpcc_space (
  segment varchar2(18),
  blocks number,
  block_size number,
  required number,
  static number,
  dynamic number,
  oversize number
);
create table tpcc_totSPACE (
  tpm number,
  nware number,
  static number,
  dynamic number,
  oversize number,
  daily_grow number,
  daily_spre number,
  space60 number
);
create unique index tpcc_data on tpcc_data (segment);
create unique index tpcc_space on tpcc_space (segment);
set echo off;
```

space_rpt.sql

```
REM=====
=====+
REM Copyright (c) 1995 Oracle Corp. Redwood Shores, CA |
REM OPEN SYSTEMS PERFORMANCE GROUP |
REM All Rights Reserved |
REM=====
=====+
REM FILENAME
REM space_rpt.sql
REM DESCRIPTION
```

```
REM Generate space report and save it in space.rpt
REM Usage: sqlplus 'sys/change_on_install as sysdba' @space_rpt.sql
REM=====
=====*/

set space 2
set pagesize 2000
set echo off
set termout off
set verify off
set feedback off
set pagesize 60 linesize 120
spool space.rpt
select tpm, nware from tpcc_totSPACE;
select * from tpcc_data order by segment;
select * from tpcc_space order by segment;
select static, dynamic, oversize, daily_grow, daily_spre, space60
from tpcc_totSPACE;
spool off;
```

tkvcinin.sql

```
-- The initnew package for storing variables used in the
-- New Order anonymous block
```

```
CREATE OR REPLACE PACKAGE initppcc
AS
TYPE intarray IS TABLE OF INTEGER INDEX BY BINARY_INTEGER;
TYPE distarray IS TABLE OF VARCHAR(24) INDEX BY
BINARY_INTEGER;
nulldate DATE;
TYPE rowidarray IS TABLE OF ROWID INDEX BY PLS_INTEGER;
s_dist distarray;
idx1arr intarray;
s_remote intarray;
dist intarray;
row_id rowidarray;
cust_rowid rowid;
dist_name VARCHAR2(11);
ware_name VARCHAR2(11);
c_num PLS_INTEGER;
```

```
PROCEDURE init_no(idxarr intarray);
PROCEDURE init_del;
PROCEDURE init_pay;
END initppcc;
/
show errors;
```

```
CREATE OR REPLACE PACKAGE BODY initppcc AS
PROCEDURE init_no (idxarr intarray)
IS
BEGIN
-- initialize null date
nulldate := TO_DATE('01-01-1811', 'MM-DD-YYYY');
idx1arr := idxarr;
END init_no;
```

```
PROCEDURE init_del
IS
BEGIN
FOR i IN 1 .. 10 LOOP
dist(i) := i;
END LOOP;
END init_del;
```

```
PROCEDURE init_pay IS
BEGIN
NULL;
END init_pay;
```

```
END initppcc;
/
show errors
exit
```

createts.sh

```
#!/bin/sh
#NOTE - ANY CHANGES MUST BE MADE TO CREATETS.KSH AS
WELL.
# createts.sh [name] [no. of file] [no. of partition] [filesize] [ext. size]
# [unix/nt] [1: temporary ts / 0: others] [filecount] [no of cpu]
# [blocksize] [t: bitmapped / f: manual manage / d:
dictionary ]
```

APPENDIX B: DATABASE DESIGN

```

name=$1
fileno=$2
noofts=$3
filesize=$4
extsize=$5
ver=$6
isTemp=$7
filecount=$8
para= expr $9 ` 2`
#blocksize=$(10) sh bug workaround
blocksize=`echo $@ | cut -d ' ' -f10`
#autospace=$(11) sh bug workaround
autospace= echo $@ | cut -d ' ' -f11`

addts=$tpcc_scripts/addts.sh
addfile=$tpcc_scripts/addfile.sh

if expr "x$tpcc_createts_print" = "xt" > /dev/null ; then
createtsout=$(tpcc_genscripts_dir)/createts_node${tpcc_rac_node}.sh
fileavg= expr $fileno / $tpcc_np`

if test $noofts -gt 1 ; then
avg_ts_node= expr $noofts / $tpcc_np`
if test "x$tpcc_rac_createts_phase" = "x1" ; then
fileavg=$avg_ts_node
else
if test "x$tpcc_rac_createts_phase" = "x2" ; then
fileavg= expr $fileavg - $avg_ts_node`
fi
fi

fileend=` expr $fileavg ` $tpcc_rac_node`
filestart= expr $fileend - $fileavg`
if expr $tpcc_rac_node = $tpcc_np > /dev/null ; then
fileend=$fileno
fi
fi

#if test $ver = unix;
#then
fileaddr="$tpcc_disks_location";
#elif test $ver = nt;
#then
# fileaddr=\\\\.\\
#fi

filecounter=0
i=0
while test $i -lt $noofts ; do

filecount= expr $filecount + 1 ;
if expr "x$tpcc_createts_print" = "xt" > /dev/null ; then
if test "x$tpcc_rac_createts_phase" = "x1" ; then
if test "x$name" = "xitem" -o "x$name" = "xiitem" -o "x$name" =
"xtemp" -o "x$name" = "xrestbl" ; then
if test $tpcc_rac_node = 1 ; then
echo $addts $name\_ $i $fileaddr$name\_ $\i\_0 $filesize $extsize
$blocksize $isTemp $autospace \& >> $createtsout
rac_count= expr $rac_count + 1`
if test "$rac_count" = "$para" ; then
rac_count=0
echo wait >> $createtsout
fi
fi
else
if test $filecounter -ge $filestart -a $filecounter -lt $fileend ; then
echo $addts $name\_ $i $fileaddr$name\_ $\i\_0 $filesize $extsize
$blocksize $isTemp $autospace \& >> $createtsout
rac_count= expr $rac_count + 1`
if test "$rac_count" = "$para" ; then
rac_count=0
echo wait >> $createtsout
fi
fi
fi
else
$addts $name\_ $i $fileaddr$name\_ $\i\_0 $filesize $extsize $blocksize
$isTemp $autospace \> junk$filecount 2\>\&1 \&;
fi
eval "proc$filecount=$i"
filecounter= expr $filecounter + 1`

p=`expr $filecount % $para` ;
if test $p = 0 ;
then
k= expr $filecount - $para + 1` ;
if test $k -le $8 ;
then
k= expr $8 + 1` ;
fi
while test $k -le $filecount ; do

```

```

# wait `eval echo $proc$k`
wait
eval "proc$k=$?"
k= expr $k + 1 ;
done
fi

i=`expr $i + 1` ;

done

p=`expr $filecount % $para`
if test $p != 0 ;
then
k= expr $filecount - $p + 1` ;
if test $k -le $8 ;
then
k= expr $8 + 1` ;
fi
while test $k -le $filecount ; do
# wait `eval echo $proc$k`
wait
eval "proc$k=$?"
k= expr $k + 1`
done
fi

if test "x$tpcc_createts_print" = "xt" -a "x$tpcc_rac_createts_phase" = "x1"
; then
echo $rac_count
exit 0
fi

if test "x$tpcc_createts_print" = "xt" -a $noofts -gt 1 -a
"x$tpcc_rac_createts_phase" = "x2" ; then
filecounter=0
fi

filecount=0
fileperts= expr $fileno / $noofts - 1`
if test $fileperts -gt 0 ;
then
i=0
while test $i -lt $noofts ; do
j=0;
while test $j -lt $fileperts ;do

filecount=`expr $filecount + 1` ;
if expr "x$tpcc_createts_print" = "xt" > /dev/null ; then
if test "x$tpcc_rac_createts_phase" = "x2" ; then
if test "x$name" = "xitem" -o "x$name" = "xtemp" -o "x$name" =
"xrestbl" ; then
if test $tpcc_rac_node = 1 ; then
echo $addfile $name\_ $i $fileaddr$name\_ $\i\_ `expr $j + 1`
$filesize $isTemp \& >> $createtsout
rac_count= expr $rac_count + 1`
if test "$rac_count" = "$para" ; then
rac_count=0
echo wait >> $createtsout
fi
fi
else
if test $filecounter -ge $filestart -a $filecounter -lt $fileend ; then
echo $addfile $name\_ $i $fileaddr$name\_ $\i\_ `expr $j + 1`
$filesize $isTemp \& >> $createtsout
rac_count= expr $rac_count + 1`
if test "$rac_count" = "$para" ; then
rac_count=0
echo wait >> $createtsout
fi
fi
fi
else
$addfile $name\_ $i $fileaddr$name\_ $\i\_ `expr $j + 1` $filesize
$isTemp \> junk$filecount 2\>\&1 &
fi
eval "proc$filecount=$i"

filecounter= expr $filecounter + 1`

p=`expr $filecount % $para` ;
if test $p = 0 ;
then
wait
# k= expr $filecount - $para + 1` ;
# if test $k -le $8 ;
# then
# k= expr $8 + 1` ;
# fi
# while test $k -le $filecount ; do
# wait
# eval "proc$k=$?"

```

APPENDIX B: DATABASE DESIGN

```
# k=`expr $k + 1`;
# done
fi

j=`expr $j + 1`
done

i=`expr $i + 1`
done

p=`expr $filecount % $para`
if test $p != 0;
then
k=`expr $filecount - $p + 1`;
if test $k -le $8;
then
k=`expr $8 + 1`;
fi
while test $k -le $filecount; do
# wait `eval echo `sproc`$k`
wait
eval "proc$k=$?"
k=`expr $k + 1`
done
fi
fi

if test "x$tpcc_createts_print" = "xt"; then
echo $frac_count
fi

exit 0

i=`expr $8 + 1`
proc=0
while test $i -le $filecount ;do
eval `process=$proc`$i
proc=`expr $proc + $process`
i=`expr $i + 1`
done

out=`expr $proc % 127`
# Added wait here for all tablespaces to be created
wait
if expr x$tpcc_listfiles = xt > /dev/null; then
exit 0
fi

if test $out -ne 0
then
exit 1;
else
exit 0;
fi
```

generated/createts.sh

```
#created automatically by /cygdrive/c/tpcc19500/scripts/buildcreatets.sh
Tue Aug 4 16:08:22 CDT 2009

# Tablespace ware, ts size 50M (51200K)
# each file 50M (51200K)
# extents 42754K (42754K)
# 1 files

$tpcc_createts ware 1 1 50M 42754K nt 0 0 4 auto t
if expr $? != 0 > /dev/null; then
echo Creating tablespace for ware failed. Exiting.
exit 0
fi

# Tablespace cust, ts size 524160M (536739840K)
# each file 5460M (5591040K)
# extents 107416K (107416K)
# 96 files

$tpcc_createts cust 96 1 5460M 107416K nt 0 1 4 auto t
if expr $? != 0 > /dev/null; then
echo Creating tablespace for cust failed. Exiting.
exit 0
fi

# Tablespace dist, ts size 420M (430080K)
# each file 420M (430080K)
# extents 418324K (418324K)
# 1 files
```

```
$tpcc_createts dist 1 1 420M 418324K nt 0 97 4 auto t
if expr $? != 0 > /dev/null; then
echo Creating tablespace for dist failed. Exiting.
exit 0
fi

# Tablespace hist, ts size 58560M (59965440K)
# each file 1830M (1873920K)
# extents 98342K (98342K)
# 32 files

$tpcc_createts hist 32 1 1830M 98342K nt 0 98 4 auto t
if expr $? != 0 > /dev/null; then
echo Creating tablespace for hist failed. Exiting.
exit 0
fi

# Tablespace stok, ts size 587520M (601620480K)
# each file 6120M (6266880K)
# extents 120444K (120444K)
# 96 files

$tpcc_createts stok 96 1 6120M 120444K nt 0 130 4 auto t
if expr $? != 0 > /dev/null; then
echo Creating tablespace for stok failed. Exiting.
exit 0
fi

# Tablespace item, ts size 20M (20480K)
# each file 20M (20480K)
# extents 16892K (16892K)
# 1 files

$tpcc_createts item 1 1 20M 16892K nt 0 226 4 auto t
if expr $? != 0 > /dev/null; then
echo Creating tablespace for item failed. Exiting.
exit 0
fi

# Tablespace ordr, ts size 830080M (850001920K)
# each file 25940M (26562560K)
# extents 170224K (170224K)
# 32 files

$tpcc_createts ordr 32 1 25940M 170224K nt 0 227 4 16K t
if expr $? != 0 > /dev/null; then
echo Creating tablespace for ordr failed. Exiting.
exit 0
fi

# Tablespace nord, ts size 6810M (6973440K)
# each file 6810M (6973440K)
# extents 696524K (696524K)
# 1 files

$tpcc_createts nord 1 1 6810M 696524K nt 0 259 4 auto t
if expr $? != 0 > /dev/null; then
echo Creating tablespace for nord failed. Exiting.
exit 0
fi

# Tablespace iware, ts size 30M (30720K)
# each file 30M (30720K)
# extents 25400K (25400K)
# 1 files

$tpcc_createts iware 1 1 30M 25400K nt 0 260 4 auto t
if expr $? != 0 > /dev/null; then
echo Creating tablespace for iware failed. Exiting.
exit 0
fi

# Tablespace icust1, ts size 13750M (14080000K)
# each file 13750M (14080000K)
# extents 439776K (439776K)
# 1 files

$tpcc_createts icust1 1 1 13750M 439776K nt 0 261 4 16K t
if expr $? != 0 > /dev/null; then
echo Creating tablespace for icust1 failed. Exiting.
exit 0
fi

# Tablespace icust2, ts size 35520M (36372480K)
# each file 1110M (1136640K)
# extents 35302K (35302K)
# 32 files

$tpcc_createts icust2 32 1 1110M 35302K nt 0 262 4 auto t
if expr $? != 0 > /dev/null; then
echo Creating tablespace for icust2 failed. Exiting.
exit 0
```

APPENDIX B: DATABASE DESIGN

```
fi

# Tablespace idist, ts size 100M (102400K)
# each file 100M (102400K)
# extents 98524K (98524K)
# 1 files

$tpcc_createts idist 1 1 100M 98524K nt 0 294 4 auto t
if expr $? != 0 > /dev/null; then
    echo Creating tablespace for idist failed. Exiting.
    exit 0
fi

# Tablespace istok, ts size 40660M (41635840K)
# each file 40660M (41635840K)
# extents 1301024K (1301024K)
# 1 files

$tpcc_createts istok 1 1 40660M 1301024K nt 0 295 4 16K t
if expr $? != 0 > /dev/null; then
    echo Creating tablespace for istok failed. Exiting.
    exit 0
fi

# Tablespace iitem, ts size 20M (20480K)
# each file 20M (20480K)
# extents 11264K (11264K)
# 1 files

$tpcc_createts iitem 1 1 20M 11264K nt 0 296 4 auto t
if expr $? != 0 > /dev/null; then
    echo Creating tablespace for iitem failed. Exiting.
    exit 0
fi

# Tablespace iordr2, ts size 34240M (35061760K)
# each file 1070M (1095680K)
# extents 33982K (33982K)
# 32 files

$tpcc_createts iordr2 32 1 1070M 33982K nt 0 297 4 auto t
if expr $? != 0 > /dev/null; then
    echo Creating tablespace for iordr2 failed. Exiting.
    exit 0
fi

# Tablespace temp, ts size 102400M (104857600K)
# each file 3200M (3276800K)
# extents 204148K (204148K)
# 32 files

$tpcc_createts temp 32 1 3200M 204148K nt 1 329 4 auto t
if expr $? != 0 > /dev/null; then
    echo Creating tablespace for temp failed. Exiting.
    exit 0
fi
```

loadcust.sh

```
#created automatically by /cygdrive/c/tpcc19500/scripts/evenload.sh Tue
Aug 4 16:16:44 CDT 2009
rm -f loadcust*.log
cd $tpcc_bench
allprocs=
$tpcc_load -M 19500 -C -l 1 -m 375 >> loadcust0.log 2>&1 &
allprocs="$allprocs $(!)"
$tpcc_load -M 19500 -C -l 376 -m 750 >> loadcust1.log 2>&1 &
allprocs="$allprocs $(!)"
$tpcc_load -M 19500 -C -l 751 -m 1125 >> loadcust2.log 2>&1 &
allprocs="$allprocs $(!)"
$tpcc_load -M 19500 -C -l 1126 -m 1500 >> loadcust3.log 2>&1 &
allprocs="$allprocs $(!)"
$tpcc_load -M 19500 -C -l 1501 -m 1875 >> loadcust4.log 2>&1 &
allprocs="$allprocs $(!)"
$tpcc_load -M 19500 -C -l 1876 -m 2250 >> loadcust5.log 2>&1 &
allprocs="$allprocs $(!)"
$tpcc_load -M 19500 -C -l 2251 -m 2625 >> loadcust6.log 2>&1 &
allprocs="$allprocs $(!)"
$tpcc_load -M 19500 -C -l 2626 -m 3000 >> loadcust7.log 2>&1 &
allprocs="$allprocs $(!)"
error=0
for curproc in $allprocs; do
    wait $curproc
    error= expr $? + $error
done
```

```
exit `expr $error != 0`
```

loaddist.sh

```
cd $tpcc_bench
$tpcc_load -M $tpcc_scale -d > loaddist.log 2>&1
```

loadhist.sh

```
#created automatically by /cygdrive/c/tpcc19500/scripts/evenload.sh Tue
Aug 4 16:16:32 CDT 2009
rm -f loadhist*.log
cd $tpcc_bench
allprocs=
$tpcc_load -M 19500 -h -b 1 -e 2437 >> loadhist0.log 2>&1 &
allprocs="$allprocs $(!)"
$tpcc_load -M 19500 -h -b 2438 -e 4874 >> loadhist1.log 2>&1 &
allprocs="$allprocs $(!)"
$tpcc_load -M 19500 -h -b 4875 -e 7311 >> loadhist2.log 2>&1 &
allprocs="$allprocs $(!)"
$tpcc_load -M 19500 -h -b 7312 -e 9748 >> loadhist3.log 2>&1 &
allprocs="$allprocs $(!)"
$tpcc_load -M 19500 -h -b 9749 -e 12186 >> loadhist4.log 2>&1 &
allprocs="$allprocs $(!)"
$tpcc_load -M 19500 -h -b 12187 -e 14624 >> loadhist5.log 2>&1 &
allprocs="$allprocs $(!)"
$tpcc_load -M 19500 -h -b 14625 -e 17062 >> loadhist6.log 2>&1 &
allprocs="$allprocs $(!)"
$tpcc_load -M 19500 -h -b 17063 -e 19500 >> loadhist7.log 2>&1 &
allprocs="$allprocs $(!)"
error=0
for curproc in $allprocs; do
    wait $curproc
    error= expr $? + $error
done
exit `expr $error != 0`
```

loaditem.sh

```
cd $tpcc_bench
$tpcc_load -M $tpcc_scale -i > loaditem.log 2>&1
```

loadnord.sh

```
#created automatically by /cygdrive/c/tpcc19500/scripts/evenload.sh Tue
Aug 4 16:16:37 CDT 2009
rm -f loadnord*.log
cd $tpcc_bench
allprocs=
$tpcc_load -M 19500 -n -b 1 -e 19500 >> loadnord0.log 2>&1 &
allprocs="$allprocs $(!)"
error=0
for curproc in $allprocs; do
    wait $curproc
    error= expr $? + $error
done
exit `expr $error != 0`

for curproc in $allprocs; do
    wait $curproc
    error= expr $? + $error
done
exit `expr $error != 0`
```

loadordrordl.sh

```
#created automatically by /cygdrive/c/tpcc19500/scripts/evenload.sh Tue
Aug 4 16:16:39 CDT 2009
rm -f loadordrordl*.log
cd $tpcc_bench
allprocs=
$tpcc_load -M 19500 -o \\.\dummy0.dat -b 1 -e 2437 >> loadordrordl0.log
2>&1 &
allprocs="$allprocs $(!)"
$tpcc_load -M 19500 -o \\.\dummy1.dat -b 2438 -e 4874 >>
loadordrordl1.log 2>&1 &
```

APPENDIX B: DATABASE DESIGN

```
allprocs="$allprocs ${!}"
$tpcc_load -M 19500 -o \\.\dummy2.dat -b 4875 -e 7311 >>
loadordrordl2.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 19500 -o \\.\dummy3.dat -b 7312 -e 9748 >>
loadordrordl3.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 19500 -o \\.\dummy4.dat -b 9749 -e 12186 >>
loadordrordl4.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 19500 -o \\.\dummy5.dat -b 12187 -e 14624 >>
loadordrordl5.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 19500 -o \\.\dummy6.dat -b 14625 -e 17062 >>
loadordrordl6.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 19500 -o \\.\dummy7.dat -b 17063 -e 19500 >>
loadordrordl7.log 2>&1 &
allprocs="$allprocs ${!}"
error=0
for curproc in $allprocs; do
    wait $curproc
    error=`expr $? + $error`
done
exit `expr $error != 0`
```

loadstok.sh

```
#created automatically by /cygdrive/c/tpcc19500/scripts/evenload.sh Tue
Aug 4 16:16:49 CDT 2009
rm -f loadstok*.log
cd $tpcc_bench
allprocs=
$tpcc_load -M 19500 -S -j 1 -k 12500 >> loadstok0.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 19500 -S -j 12501 -k 25000 >> loadstok1.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 19500 -S -j 25001 -k 37500 >> loadstok2.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 19500 -S -j 37501 -k 50000 >> loadstok3.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 19500 -S -j 50001 -k 62500 >> loadstok4.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 19500 -S -j 62501 -k 75000 >> loadstok5.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 19500 -S -j 75001 -k 87500 >> loadstok6.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 19500 -S -j 87501 -k 100000 >> loadstok7.log 2>&1 &
allprocs="$allprocs ${!}"
error=0
for curproc in $allprocs; do
    wait $curproc
    error=`expr $? + $error`
done
exit `expr $error != 0`
```

loadware.sh

```
cd $tpcc_bench
$tpcc_load -M $tpcc_scale -w > loadware.log 2>&1
```

analyze.sql

```
spool analyze.log;
set echo on;
```

```
connect tpcc/tpcc
```

```
execute dbms_stats.GATHER_TABLE_STATS (OWNNNAME=>'TPCC', -
    TABNAME=>'STOK', -
    PARTNAME=>NULL, -
    ESTIMATE_PERCENT=>1, -
    BLOCK_SAMPLE=>TRUE, -
    METHOD_OPT=>'FOR ALL COLUMNS SIZE 1', -
    DEGREE=>10, -
    GRANULARITY=>'DEFAULT', -
    CASCADE=>TRUE);
```

```
execute dbms_stats.GATHER_TABLE_STATS (OWNNNAME=>'TPCC', -
    TABNAME=>'CUST', -
    PARTNAME=>NULL, -
    ESTIMATE_PERCENT=>1, -
    BLOCK_SAMPLE=>TRUE, -
    METHOD_OPT=>'FOR ALL COLUMNS SIZE 1', -
    DEGREE=>10, -
```

```
GRANULARITY=>'DEFAULT', -
CASCADE=>TRUE);
```

```
execute dbms_stats.GATHER_TABLE_STATS (OWNNNAME=>'TPCC', -
    TABNAME=>'ORDR', -
    PARTNAME=>NULL, -
    ESTIMATE_PERCENT=>1, -
    BLOCK_SAMPLE=>TRUE, -
    METHOD_OPT=>'FOR ALL COLUMNS SIZE 1', -
    DEGREE=>10, -
    GRANULARITY=>'DEFAULT', -
    CASCADE=>TRUE);
```

```
execute dbms_stats.GATHER_TABLE_STATS (OWNNNAME=>'TPCC', -
    TABNAME=>'ORDL', -
    PARTNAME=>NULL, -
    ESTIMATE_PERCENT=>1, -
    BLOCK_SAMPLE=>TRUE, -
    METHOD_OPT=>'FOR ALL COLUMNS SIZE 1', -
    DEGREE=>10, -
    GRANULARITY=>'DEFAULT', -
    CASCADE=>TRUE);
```

```
execute dbms_stats.GATHER_TABLE_STATS (OWNNNAME=>'TPCC', -
    TABNAME=>'NORD', -
    PARTNAME=>NULL, -
    ESTIMATE_PERCENT=>1, -
    BLOCK_SAMPLE=>TRUE, -
    METHOD_OPT=>'FOR ALL COLUMNS SIZE 1', -
    DEGREE=>10, -
    GRANULARITY=>'DEFAULT', -
    CASCADE=>TRUE);
```

```
execute dbms_stats.GATHER_TABLE_STATS(OWNNNAME=>'TPCC', -
    TABNAME=>'HIST', -
    PARTNAME=>NULL, -
    ESTIMATE_PERCENT=>1, -
    BLOCK_SAMPLE=>TRUE, -
    METHOD_OPT=>'FOR ALL COLUMNS SIZE 1', -
    DEGREE=>10, -
    GRANULARITY=>'DEFAULT', -
    CASCADE=>TRUE);
```

```
execute dbms_stats.GATHER_TABLE_STATS(OWNNNAME=>'TPCC', -
    TABNAME=>'DIST', -
    PARTNAME=>NULL, -
    ESTIMATE_PERCENT=>1, -
    BLOCK_SAMPLE=>TRUE, -
    METHOD_OPT=>'FOR ALL COLUMNS SIZE 1', -
    DEGREE=>10, -
    GRANULARITY=>'DEFAULT', -
    CASCADE=>TRUE);
```

```
execute dbms_stats.GATHER_TABLE_STATS(OWNNNAME=>'TPCC', -
    TABNAME=>'ITEM', -
    PARTNAME=>NULL, -
    ESTIMATE_PERCENT=>10, -
    BLOCK_SAMPLE=>TRUE, -
    METHOD_OPT=>'FOR ALL COLUMNS SIZE 1', -
    DEGREE=>1, -
    GRANULARITY=>'DEFAULT', -
    CASCADE=>TRUE);
```

```
execute dbms_stats.GATHER_TABLE_STATS(OWNNNAME=>'TPCC', -
    TABNAME=>'WARE', -
    PARTNAME=>NULL, -
    ESTIMATE_PERCENT=>10, -
    BLOCK_SAMPLE=>TRUE, -
    METHOD_OPT=>'FOR ALL COLUMNS SIZE 1', -
    DEGREE=>10, -
    GRANULARITY=>'DEFAULT', -
    CASCADE=>TRUE);
```

```
set echo off;
spool off;
```

```
exit sql.sqlcode ;
```

assigntemp.sql

```
spool assigntemp.log;
```

```
set echo on;
```



```
alter user tpcc temporary tablespace temp_0;

set echo off;
spool off;

exit ;
```

createuser.sql

```
spool createusertpcc.log;

set echo on;

create user tpcc identified by tpcc;

grant dba to tpcc;

set echo off;
spool off;

exit ;
```

DBInit.ini (client1)

```
[TPCC]
StartTerm=1
DBConnections=234
KMaxterms=70
DeliveryQueues=400
DeliveryThreads=67
```

DBInit.ini (client2)

```
[TPCC]

StartTerm=69201

DBConnections=234

KMaxterms=70

DeliveryQueues=400DeliveryThreads=67
```

DBInit.ini (client3)

```
[TPCC]

StartTerm=130801

DBConnections=234

KMaxterms=70

DeliveryQueues=400

DeliveryThreads=67
```

Create_raw_partitions

```
select disk=1
create partition extended
select disk=2
create partition extended
select disk=3
create partition extended
select disk=4
create partition extended
select disk=5
create partition extended
select disk=6
create partition extended
select disk=7
create partition extended
```

```
select disk=8
create partition extended
select disk=9
create partition extended
select disk=10
create partition extended
select disk=11
create partition extended
select disk=12
create partition extended
select disk=13
create partition extended
select disk=14
create partition extended
select disk=15
create partition extended
select disk=16
create partition extended
select disk=17
create partition extended
select disk=18
create partition extended
select disk=19
create partition extended
select disk=20
create partition extended
select disk=21
create partition extended
select disk=22
create partition extended
select disk=23
create partition extended
select disk=24
create partition extended
select disk=25
create partition extended
select disk=26
create partition extended
select disk=27
create partition extended
select disk=28
create partition extended
select disk=29
create partition extended
select disk=30
create partition extended
select disk=31
create partition extended
select disk=32
create partition extended
select disk=33
create partition extended
```

```
select disk=2
create partition logical size=200
assign mount=c:\mnt\ware_0_0
```

```
select disk=3
create partition logical size=7000
assign mount=c:\mnt\cust_0_0
```

```
select disk=4
create partition logical size=7000
assign mount=c:\mnt\cust_0_1
```

```
select disk=5
create partition logical size=7000
assign mount=c:\mnt\cust_0_2
```

```
select disk=6
create partition logical size=7000
assign mount=c:\mnt\cust_0_3
```

```
select disk=7
create partition logical size=7000
assign mount=c:\mnt\cust_0_4
```

```
select disk=8
create partition logical size=7000
assign mount=c:\mnt\cust_0_5
```

```
select disk=9
create partition logical size=7000
assign mount=c:\mnt\cust_0_6
```

```
select disk=10
create partition logical size=7000
assign mount=c:\mnt\cust_0_7
```

```
select disk=11
create partition logical size=7000
assign mount=c:\mnt\cust_0_8
```

APPENDIX B: DATABASE DESIGN

```
select disk=12
create partition logical size=7000
assign mount=c:\mnt\cust_0_9

select disk=13
create partition logical size=7000
assign mount=c:\mnt\cust_0_10

select disk=14
create partition logical size=7000
assign mount=c:\mnt\cust_0_11

select disk=15
create partition logical size=7000
assign mount=c:\mnt\cust_0_12

select disk=16
create partition logical size=7000
assign mount=c:\mnt\cust_0_13

select disk=17
create partition logical size=7000
assign mount=c:\mnt\cust_0_14

select disk=18
create partition logical size=7000
assign mount=c:\mnt\cust_0_15

select disk=19
create partition logical size=7000
assign mount=c:\mnt\cust_0_16

select disk=20
create partition logical size=7000
assign mount=c:\mnt\cust_0_17

select disk=21
create partition logical size=7000
assign mount=c:\mnt\cust_0_18

select disk=22
create partition logical size=7000
assign mount=c:\mnt\cust_0_19

select disk=23
create partition logical size=7000
assign mount=c:\mnt\cust_0_20

select disk=24
create partition logical size=7000
assign mount=c:\mnt\cust_0_21

select disk=25
create partition logical size=7000
assign mount=c:\mnt\cust_0_22

select disk=26
create partition logical size=7000
assign mount=c:\mnt\cust_0_23

select disk=27
create partition logical size=7000
assign mount=c:\mnt\cust_0_24

select disk=28
create partition logical size=7000
assign mount=c:\mnt\cust_0_25

select disk=29
create partition logical size=7000
assign mount=c:\mnt\cust_0_26

select disk=30
create partition logical size=7000
assign mount=c:\mnt\cust_0_27

select disk=31
create partition logical size=7000
assign mount=c:\mnt\cust_0_28

select disk=32
create partition logical size=7000
assign mount=c:\mnt\cust_0_29

select disk=33
create partition logical size=7000
assign mount=c:\mnt\cust_0_30

select disk=2
create partition logical size=7000
assign mount=c:\mnt\cust_0_31

select disk=3
```

```
create partition logical size=7000
assign mount=c:\mnt\cust_0_32

select disk=4
create partition logical size=7000
assign mount=c:\mnt\cust_0_33

select disk=5
create partition logical size=7000
assign mount=c:\mnt\cust_0_34

select disk=6
create partition logical size=7000
assign mount=c:\mnt\cust_0_35

select disk=7
create partition logical size=7000
assign mount=c:\mnt\cust_0_36

select disk=8
create partition logical size=7000
assign mount=c:\mnt\cust_0_37

select disk=9
create partition logical size=7000
assign mount=c:\mnt\cust_0_38

select disk=10
create partition logical size=7000
assign mount=c:\mnt\cust_0_39

select disk=11
create partition logical size=7000
assign mount=c:\mnt\cust_0_40

select disk=12
create partition logical size=7000
assign mount=c:\mnt\cust_0_41

select disk=13
create partition logical size=7000
assign mount=c:\mnt\cust_0_42

select disk=14
create partition logical size=7000
assign mount=c:\mnt\cust_0_43

select disk=15
create partition logical size=7000
assign mount=c:\mnt\cust_0_44

select disk=16
create partition logical size=7000
assign mount=c:\mnt\cust_0_45

select disk=17
create partition logical size=7000
assign mount=c:\mnt\cust_0_46

select disk=18
create partition logical size=7000
assign mount=c:\mnt\cust_0_47

select disk=19
create partition logical size=7000
assign mount=c:\mnt\cust_0_48

select disk=20
create partition logical size=7000
assign mount=c:\mnt\cust_0_49

select disk=21
create partition logical size=7000
assign mount=c:\mnt\cust_0_50

select disk=22
create partition logical size=7000
assign mount=c:\mnt\cust_0_51

select disk=23
create partition logical size=7000
assign mount=c:\mnt\cust_0_52

select disk=24
create partition logical size=7000
assign mount=c:\mnt\cust_0_53

select disk=25
create partition logical size=7000
assign mount=c:\mnt\cust_0_54

select disk=26
create partition logical size=7000
```

APPENDIX B: DATABASE DESIGN

```
assign mount=c:\mnt\cust_0_55

select disk=27
create partition logical size=7000
assign mount=c:\mnt\cust_0_56

select disk=28
create partition logical size=7000
assign mount=c:\mnt\cust_0_57

select disk=29
create partition logical size=7000
assign mount=c:\mnt\cust_0_58

select disk=30
create partition logical size=7000
assign mount=c:\mnt\cust_0_59

select disk=31
create partition logical size=7000
assign mount=c:\mnt\cust_0_60

select disk=32
create partition logical size=7000
assign mount=c:\mnt\cust_0_61

select disk=33
create partition logical size=7000
assign mount=c:\mnt\cust_0_62

select disk=2
create partition logical size=7000
assign mount=c:\mnt\cust_0_63

select disk=3
create partition logical size=7000
assign mount=c:\mnt\cust_0_64

select disk=4
create partition logical size=7000
assign mount=c:\mnt\cust_0_65

select disk=5
create partition logical size=7000
assign mount=c:\mnt\cust_0_66

select disk=6
create partition logical size=7000
assign mount=c:\mnt\cust_0_67

select disk=7
create partition logical size=7000
assign mount=c:\mnt\cust_0_68

select disk=8
create partition logical size=7000
assign mount=c:\mnt\cust_0_69

select disk=9
create partition logical size=7000
assign mount=c:\mnt\cust_0_70

select disk=10
create partition logical size=7000
assign mount=c:\mnt\cust_0_71

select disk=11
create partition logical size=7000
assign mount=c:\mnt\cust_0_72

select disk=12
create partition logical size=7000
assign mount=c:\mnt\cust_0_73

select disk=13
create partition logical size=7000
assign mount=c:\mnt\cust_0_74

select disk=14
create partition logical size=7000
assign mount=c:\mnt\cust_0_75

select disk=15
create partition logical size=7000
assign mount=c:\mnt\cust_0_76

select disk=16
create partition logical size=7000
assign mount=c:\mnt\cust_0_77

select disk=17
create partition logical size=7000
assign mount=c:\mnt\cust_0_78
```

```
select disk=18
create partition logical size=7000
assign mount=c:\mnt\cust_0_79

select disk=19
create partition logical size=7000
assign mount=c:\mnt\cust_0_80

select disk=20
create partition logical size=7000
assign mount=c:\mnt\cust_0_81

select disk=21
create partition logical size=7000
assign mount=c:\mnt\cust_0_82

select disk=22
create partition logical size=7000
assign mount=c:\mnt\cust_0_83

select disk=23
create partition logical size=7000
assign mount=c:\mnt\cust_0_84

select disk=24
create partition logical size=7000
assign mount=c:\mnt\cust_0_85

select disk=25
create partition logical size=7000
assign mount=c:\mnt\cust_0_86

select disk=26
create partition logical size=7000
assign mount=c:\mnt\cust_0_87

select disk=27
create partition logical size=7000
assign mount=c:\mnt\cust_0_88

select disk=28
create partition logical size=7000
assign mount=c:\mnt\cust_0_89

select disk=29
create partition logical size=7000
assign mount=c:\mnt\cust_0_90

select disk=30
create partition logical size=7000
assign mount=c:\mnt\cust_0_91

select disk=31
create partition logical size=7000
assign mount=c:\mnt\cust_0_92

select disk=32
create partition logical size=7000
assign mount=c:\mnt\cust_0_93

select disk=33
create partition logical size=7000
assign mount=c:\mnt\cust_0_94

select disk=2
create partition logical size=7000
assign mount=c:\mnt\cust_0_95

select disk=3
create partition logical size=800
assign mount=c:\mnt\dist_0_0

select disk=4
create partition logical size=3000
assign mount=c:\mnt\hist_0_0

select disk=5
create partition logical size=3000
assign mount=c:\mnt\hist_0_1

select disk=6
create partition logical size=3000
assign mount=c:\mnt\hist_0_2

select disk=7
create partition logical size=3000
assign mount=c:\mnt\hist_0_3

select disk=8
create partition logical size=3000
assign mount=c:\mnt\hist_0_4
```

APPENDIX B: DATABASE DESIGN

```
select disk=9
create partition logical size=3000
assign mount=c:\mnt\hist_0_5

select disk=10
create partition logical size=3000
assign mount=c:\mnt\hist_0_6

select disk=11
create partition logical size=3000
assign mount=c:\mnt\hist_0_7

select disk=12
create partition logical size=3000
assign mount=c:\mnt\hist_0_8

select disk=13
create partition logical size=3000
assign mount=c:\mnt\hist_0_9

select disk=14
create partition logical size=3000
assign mount=c:\mnt\hist_0_10

select disk=15
create partition logical size=3000
assign mount=c:\mnt\hist_0_11

select disk=16
create partition logical size=3000
assign mount=c:\mnt\hist_0_12

select disk=17
create partition logical size=3000
assign mount=c:\mnt\hist_0_13

select disk=18
create partition logical size=3000
assign mount=c:\mnt\hist_0_14

select disk=19
create partition logical size=3000
assign mount=c:\mnt\hist_0_15

select disk=20
create partition logical size=3000
assign mount=c:\mnt\hist_0_16

select disk=21
create partition logical size=3000
assign mount=c:\mnt\hist_0_17

select disk=22
create partition logical size=3000
assign mount=c:\mnt\hist_0_18

select disk=23
create partition logical size=3000
assign mount=c:\mnt\hist_0_19

select disk=24
create partition logical size=3000
assign mount=c:\mnt\hist_0_20

select disk=25
create partition logical size=3000
assign mount=c:\mnt\hist_0_21

select disk=26
create partition logical size=3000
assign mount=c:\mnt\hist_0_22

select disk=27
create partition logical size=3000
assign mount=c:\mnt\hist_0_23

select disk=28
create partition logical size=3000
assign mount=c:\mnt\hist_0_24

select disk=29
create partition logical size=3000
assign mount=c:\mnt\hist_0_25

select disk=30
create partition logical size=3000
assign mount=c:\mnt\hist_0_26

select disk=31
create partition logical size=3000
assign mount=c:\mnt\hist_0_27

select disk=32
```

```
create partition logical size=3000
assign mount=c:\mnt\hist_0_28

select disk=33
create partition logical size=3000
assign mount=c:\mnt\hist_0_29

select disk=2
create partition logical size=3000
assign mount=c:\mnt\hist_0_30

select disk=3
create partition logical size=3000
assign mount=c:\mnt\hist_0_31

select disk=4
create partition logical size=8000
assign mount=c:\mnt\stok_0_0

select disk=5
create partition logical size=8000
assign mount=c:\mnt\stok_0_1

select disk=6
create partition logical size=8000
assign mount=c:\mnt\stok_0_2

select disk=7
create partition logical size=8000
assign mount=c:\mnt\stok_0_3

select disk=8
create partition logical size=8000
assign mount=c:\mnt\stok_0_4

select disk=9
create partition logical size=8000
assign mount=c:\mnt\stok_0_5

select disk=10
create partition logical size=8000
assign mount=c:\mnt\stok_0_6

select disk=11
create partition logical size=8000
assign mount=c:\mnt\stok_0_7

select disk=12
create partition logical size=8000
assign mount=c:\mnt\stok_0_8

select disk=13
create partition logical size=8000
assign mount=c:\mnt\stok_0_9

select disk=14
create partition logical size=8000
assign mount=c:\mnt\stok_0_10

select disk=15
create partition logical size=8000
assign mount=c:\mnt\stok_0_11

select disk=16
create partition logical size=8000
assign mount=c:\mnt\stok_0_12

select disk=17
create partition logical size=8000
assign mount=c:\mnt\stok_0_13

select disk=18
create partition logical size=8000
assign mount=c:\mnt\stok_0_14

select disk=19
create partition logical size=8000
assign mount=c:\mnt\stok_0_15

select disk=20
create partition logical size=8000
assign mount=c:\mnt\stok_0_16

select disk=21
create partition logical size=8000
assign mount=c:\mnt\stok_0_17

select disk=22
create partition logical size=8000
assign mount=c:\mnt\stok_0_18

select disk=23
create partition logical size=8000
```

APPENDIX B: DATABASE DESIGN

```
assign mount=c:\mntfstok_0_19

select disk=24
create partition logical size=8000
assign mount=c:\mntfstok_0_20

select disk=25
create partition logical size=8000
assign mount=c:\mntfstok_0_21

select disk=26
create partition logical size=8000
assign mount=c:\mntfstok_0_22

select disk=27
create partition logical size=8000
assign mount=c:\mntfstok_0_23

select disk=28
create partition logical size=8000
assign mount=c:\mntfstok_0_24

select disk=29
create partition logical size=8000
assign mount=c:\mntfstok_0_25

select disk=30
create partition logical size=8000
assign mount=c:\mntfstok_0_26

select disk=31
create partition logical size=8000
assign mount=c:\mntfstok_0_27

select disk=32
create partition logical size=8000
assign mount=c:\mntfstok_0_28

select disk=33
create partition logical size=8000
assign mount=c:\mntfstok_0_29

select disk=2
create partition logical size=8000
assign mount=c:\mntfstok_0_30

select disk=3
create partition logical size=8000
assign mount=c:\mntfstok_0_31

select disk=4
create partition logical size=8000
assign mount=c:\mntfstok_0_32

select disk=5
create partition logical size=8000
assign mount=c:\mntfstok_0_33

select disk=6
create partition logical size=8000
assign mount=c:\mntfstok_0_34

select disk=7
create partition logical size=8000
assign mount=c:\mntfstok_0_35

select disk=8
create partition logical size=8000
assign mount=c:\mntfstok_0_36

select disk=9
create partition logical size=8000
assign mount=c:\mntfstok_0_37

select disk=10
create partition logical size=8000
assign mount=c:\mntfstok_0_38

select disk=11
create partition logical size=8000
assign mount=c:\mntfstok_0_39

select disk=12
create partition logical size=8000
assign mount=c:\mntfstok_0_40

select disk=13
create partition logical size=8000
assign mount=c:\mntfstok_0_41

select disk=14
create partition logical size=8000
assign mount=c:\mntfstok_0_42
```

```
select disk=15
create partition logical size=8000
assign mount=c:\mntfstok_0_43

select disk=16
create partition logical size=8000
assign mount=c:\mntfstok_0_44

select disk=17
create partition logical size=8000
assign mount=c:\mntfstok_0_45

select disk=18
create partition logical size=8000
assign mount=c:\mntfstok_0_46

select disk=19
create partition logical size=8000
assign mount=c:\mntfstok_0_47

select disk=20
create partition logical size=8000
assign mount=c:\mntfstok_0_48

select disk=21
create partition logical size=8000
assign mount=c:\mntfstok_0_49

select disk=22
create partition logical size=8000
assign mount=c:\mntfstok_0_50

select disk=23
create partition logical size=8000
assign mount=c:\mntfstok_0_51

select disk=24
create partition logical size=8000
assign mount=c:\mntfstok_0_52

select disk=25
create partition logical size=8000
assign mount=c:\mntfstok_0_53

select disk=26
create partition logical size=8000
assign mount=c:\mntfstok_0_54

select disk=27
create partition logical size=8000
assign mount=c:\mntfstok_0_55

select disk=28
create partition logical size=8000
assign mount=c:\mntfstok_0_56

select disk=29
create partition logical size=8000
assign mount=c:\mntfstok_0_57

select disk=30
create partition logical size=8000
assign mount=c:\mntfstok_0_58

select disk=31
create partition logical size=8000
assign mount=c:\mntfstok_0_59

select disk=32
create partition logical size=8000
assign mount=c:\mntfstok_0_60

select disk=33
create partition logical size=8000
assign mount=c:\mntfstok_0_61

select disk=2
create partition logical size=8000
assign mount=c:\mntfstok_0_62

select disk=3
create partition logical size=8000
assign mount=c:\mntfstok_0_63

select disk=4
create partition logical size=8000
assign mount=c:\mntfstok_0_64

select disk=5
create partition logical size=8000
assign mount=c:\mntfstok_0_65
```

APPENDIX B: DATABASE DESIGN

```
select disk=6
create partition logical size=8000
assign mount=c:\mntfstok_0_66

select disk=7
create partition logical size=8000
assign mount=c:\mntfstok_0_67

select disk=8
create partition logical size=8000
assign mount=c:\mntfstok_0_68

select disk=9
create partition logical size=8000
assign mount=c:\mntfstok_0_69

select disk=10
create partition logical size=8000
assign mount=c:\mntfstok_0_70

select disk=11
create partition logical size=8000
assign mount=c:\mntfstok_0_71

select disk=12
create partition logical size=8000
assign mount=c:\mntfstok_0_72

select disk=13
create partition logical size=8000
assign mount=c:\mntfstok_0_73

select disk=14
create partition logical size=8000
assign mount=c:\mntfstok_0_74

select disk=15
create partition logical size=8000
assign mount=c:\mntfstok_0_75

select disk=16
create partition logical size=8000
assign mount=c:\mntfstok_0_76

select disk=17
create partition logical size=8000
assign mount=c:\mntfstok_0_77

select disk=18
create partition logical size=8000
assign mount=c:\mntfstok_0_78

select disk=19
create partition logical size=8000
assign mount=c:\mntfstok_0_79

select disk=20
create partition logical size=8000
assign mount=c:\mntfstok_0_80

select disk=21
create partition logical size=8000
assign mount=c:\mntfstok_0_81

select disk=22
create partition logical size=8000
assign mount=c:\mntfstok_0_82

select disk=23
create partition logical size=8000
assign mount=c:\mntfstok_0_83

select disk=24
create partition logical size=8000
assign mount=c:\mntfstok_0_84

select disk=25
create partition logical size=8000
assign mount=c:\mntfstok_0_85

select disk=26
create partition logical size=8000
assign mount=c:\mntfstok_0_86

select disk=27
create partition logical size=8000
assign mount=c:\mntfstok_0_87

select disk=28
create partition logical size=8000
assign mount=c:\mntfstok_0_88

select disk=29
```

```
create partition logical size=8000
assign mount=c:\mntfstok_0_89

select disk=30
create partition logical size=8000
assign mount=c:\mntfstok_0_90

select disk=31
create partition logical size=8000
assign mount=c:\mntfstok_0_91

select disk=32
create partition logical size=8000
assign mount=c:\mntfstok_0_92

select disk=33
create partition logical size=8000
assign mount=c:\mntfstok_0_93

select disk=2
create partition logical size=8000
assign mount=c:\mntfstok_0_94

select disk=3
create partition logical size=8000
assign mount=c:\mntfstok_0_95

select disk=4
create partition logical size=80
assign mount=c:\mntfitem_0_0

select disk=5
create partition logical size=30000
assign mount=c:\mntfldr_0_0

select disk=6
create partition logical size=30000
assign mount=c:\mntfldr_0_1

select disk=7
create partition logical size=30000
assign mount=c:\mntfldr_0_2

select disk=8
create partition logical size=30000
assign mount=c:\mntfldr_0_3

select disk=9
create partition logical size=30000
assign mount=c:\mntfldr_0_4

select disk=10
create partition logical size=30000
assign mount=c:\mntfldr_0_5

select disk=11
create partition logical size=30000
assign mount=c:\mntfldr_0_6

select disk=12
create partition logical size=30000
assign mount=c:\mntfldr_0_7

select disk=13
create partition logical size=30000
assign mount=c:\mntfldr_0_8

select disk=14
create partition logical size=30000
assign mount=c:\mntfldr_0_9

select disk=15
create partition logical size=30000
assign mount=c:\mntfldr_0_10

select disk=16
create partition logical size=30000
assign mount=c:\mntfldr_0_11

select disk=17
create partition logical size=30000
assign mount=c:\mntfldr_0_12

select disk=18
create partition logical size=30000
assign mount=c:\mntfldr_0_13

select disk=19
create partition logical size=30000
assign mount=c:\mntfldr_0_14

select disk=20
create partition logical size=30000
```

APPENDIX B: DATABASE DESIGN

```
assign mount=c:\mnt\lordr_0_15

select disk=21
create partition logical size=30000
assign mount=c:\mnt\lordr_0_16

select disk=22
create partition logical size=30000
assign mount=c:\mnt\lordr_0_17

select disk=23
create partition logical size=30000
assign mount=c:\mnt\lordr_0_18

select disk=24
create partition logical size=30000
assign mount=c:\mnt\lordr_0_19

select disk=25
create partition logical size=30000
assign mount=c:\mnt\lordr_0_20

select disk=26
create partition logical size=30000
assign mount=c:\mnt\lordr_0_21

select disk=27
create partition logical size=30000
assign mount=c:\mnt\lordr_0_22

select disk=28
create partition logical size=30000
assign mount=c:\mnt\lordr_0_23

select disk=29
create partition logical size=30000
assign mount=c:\mnt\lordr_0_24

select disk=30
create partition logical size=30000
assign mount=c:\mnt\lordr_0_25

select disk=31
create partition logical size=30000
assign mount=c:\mnt\lordr_0_26

select disk=32
create partition logical size=30000
assign mount=c:\mnt\lordr_0_27

select disk=33
create partition logical size=30000
assign mount=c:\mnt\lordr_0_28

select disk=2
create partition logical size=30000
assign mount=c:\mnt\lordr_0_29

select disk=3
create partition logical size=30000
assign mount=c:\mnt\lordr_0_30

select disk=4
create partition logical size=30000
assign mount=c:\mnt\lordr_0_31

select disk=5
create partition logical size=9000
assign mount=c:\mnt\nord_0_0

select disk=6
create partition logical size=200
assign mount=c:\mnt\iware_0_0

select disk=7
create partition logical size=16000
assign mount=c:\mnt\icust1_0_0

select disk=8
create partition logical size=1200
assign mount=c:\mnt\icust2_0_0

select disk=9
create partition logical size=1200
assign mount=c:\mnt\icust2_0_1

select disk=10
create partition logical size=1200
assign mount=c:\mnt\icust2_0_2

select disk=11
create partition logical size=1200
assign mount=c:\mnt\icust2_0_3
```

```
select disk=12
create partition logical size=1200
assign mount=c:\mnt\icust2_0_4

select disk=13
create partition logical size=1200
assign mount=c:\mnt\icust2_0_5

select disk=14
create partition logical size=1200
assign mount=c:\mnt\icust2_0_6

select disk=15
create partition logical size=1200
assign mount=c:\mnt\icust2_0_7

select disk=16
create partition logical size=1200
assign mount=c:\mnt\icust2_0_8

select disk=17
create partition logical size=1200
assign mount=c:\mnt\icust2_0_9

select disk=18
create partition logical size=1200
assign mount=c:\mnt\icust2_0_10

select disk=19
create partition logical size=1200
assign mount=c:\mnt\icust2_0_11

select disk=20
create partition logical size=1200
assign mount=c:\mnt\icust2_0_12

select disk=21
create partition logical size=1200
assign mount=c:\mnt\icust2_0_13

select disk=22
create partition logical size=1200
assign mount=c:\mnt\icust2_0_14

select disk=23
create partition logical size=1200
assign mount=c:\mnt\icust2_0_15

select disk=24
create partition logical size=1200
assign mount=c:\mnt\icust2_0_16

select disk=25
create partition logical size=1200
assign mount=c:\mnt\icust2_0_17

select disk=26
create partition logical size=1200
assign mount=c:\mnt\icust2_0_18

select disk=27
create partition logical size=1200
assign mount=c:\mnt\icust2_0_19

select disk=28
create partition logical size=1200
assign mount=c:\mnt\icust2_0_20

select disk=29
create partition logical size=1200
assign mount=c:\mnt\icust2_0_21

select disk=30
create partition logical size=1200
assign mount=c:\mnt\icust2_0_22

select disk=31
create partition logical size=1200
assign mount=c:\mnt\icust2_0_23
select disk=32
create partition logical size=1200
assign mount=c:\mnt\icust2_0_24

select disk=33
create partition logical size=1200
assign mount=c:\mnt\icust2_0_25

select disk=2
create partition logical size=1200
assign mount=c:\mnt\icust2_0_26

select disk=3
```

APPENDIX B: DATABASE DESIGN

```
create partition logical size=1200
assign mount=c:\mnt\icust2_0_27

select disk=4
create partition logical size=1200
assign mount=c:\mnt\icust2_0_28

select disk=5
create partition logical size=1200
assign mount=c:\mnt\icust2_0_29

select disk=6
create partition logical size=1200
assign mount=c:\mnt\icust2_0_30

select disk=7
create partition logical size=1200
assign mount=c:\mnt\icust2_0_31

select disk=8
create partition logical size=200
assign mount=c:\mnt\idist_0_0

select disk=9
create partition logical size=60000
assign mount=c:\mnt\istok_0_0

select disk=10
create partition logical size=100
assign mount=c:\mnt\item_0_0

select disk=11
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_0

select disk=12
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_1

select disk=13
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_2

select disk=14
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_3

select disk=15
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_4

select disk=16
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_5

select disk=17
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_6

select disk=18
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_7

select disk=19
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_8

select disk=20
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_9

select disk=21
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_10

select disk=22
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_11

select disk=23
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_12

select disk=24
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_13

select disk=25
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_14

select disk=26
create partition logical size=1200
```

```
assign mount=c:\mnt\iordr2_0_15

select disk=27
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_16

select disk=28
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_17

select disk=29
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_18

select disk=30
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_19

select disk=31
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_20

select disk=32
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_21

select disk=33
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_22

select disk=2
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_23

select disk=3
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_24

select disk=4
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_25

select disk=5
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_26

select disk=6
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_27

select disk=7
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_28

select disk=8
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_29

select disk=9
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_30

select disk=10
create partition logical size=1200
assign mount=c:\mnt\iordr2_0_31

select disk=11
create partition logical size=4000
assign mount=c:\mnt\temp_0_0

select disk=12
create partition logical size=4000
assign mount=c:\mnt\temp_0_1

select disk=13
create partition logical size=4000
assign mount=c:\mnt\temp_0_2

select disk=14
create partition logical size=4000
assign mount=c:\mnt\temp_0_3

select disk=15
create partition logical size=4000
assign mount=c:\mnt\temp_0_4

select disk=16
create partition logical size=4000
assign mount=c:\mnt\temp_0_5

select disk=17
create partition logical size=4000
assign mount=c:\mnt\temp_0_6
```


APPENDIX B: DATABASE DESIGN

```
select disk=18
create partition logical size=4000
assign mount=c:\mnt\temp_0_7

select disk=19
create partition logical size=4000
assign mount=c:\mnt\temp_0_8

select disk=20
create partition logical size=4000
assign mount=c:\mnt\temp_0_9

select disk=21
create partition logical size=4000
assign mount=c:\mnt\temp_0_10

select disk=22
create partition logical size=4000
assign mount=c:\mnt\temp_0_11

select disk=23
create partition logical size=4000
assign mount=c:\mnt\temp_0_12

select disk=24
create partition logical size=4000
assign mount=c:\mnt\temp_0_13

select disk=25
create partition logical size=4000
assign mount=c:\mnt\temp_0_14

select disk=26
create partition logical size=4000
assign mount=c:\mnt\temp_0_15

select disk=27
create partition logical size=4000
assign mount=c:\mnt\temp_0_16

select disk=28
create partition logical size=4000
assign mount=c:\mnt\temp_0_17

select disk=29
create partition logical size=4000
assign mount=c:\mnt\temp_0_18

select disk=30
create partition logical size=4000
assign mount=c:\mnt\temp_0_19

select disk=31
create partition logical size=4000
assign mount=c:\mnt\temp_0_20

select disk=32
create partition logical size=4000
assign mount=c:\mnt\temp_0_21

select disk=33
create partition logical size=4000
assign mount=c:\mnt\temp_0_22

select disk=2
create partition logical size=4000
assign mount=c:\mnt\temp_0_23

select disk=3
create partition logical size=4000
assign mount=c:\mnt\temp_0_24

select disk=4
create partition logical size=4000
assign mount=c:\mnt\temp_0_25

select disk=5
create partition logical size=4000
assign mount=c:\mnt\temp_0_26

select disk=6
create partition logical size=4000
assign mount=c:\mnt\temp_0_27

select disk=7
create partition logical size=4000
assign mount=c:\mnt\temp_0_28

select disk=8
create partition logical size=4000
assign mount=c:\mnt\temp_0_29
```

```
select disk=9
create partition logical size=4000
assign mount=c:\mnt\temp_0_30

select disk=10
create partition logical size=4000
assign mount=c:\mnt\temp_0_31

select disk=11
create partition logical size=300
assign mount=c:\mnt\tpccaux_0_0

select disk=12
create partition logical size=80
assign mount=c:\mnt\control_001

select disk=13
create partition logical size=80
assign mount=c:\mnt\control_002

select disk=14
create partition logical size=3000
assign mount=c:\mnt\sp_0

select disk=15
create partition logical size=9000
assign mount=c:\mnt\sp_1

select disk=15
create partition logical size=600
assign mount=c:\mnt\system_1

select disk=16
create partition logical size=10000
assign mount=c:\mnt\roll1

select disk=16
create partition logical size=200
assign mount=c:\mnt\bk_ware_0_0

select disk=17
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_0

select disk=18
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_1

select disk=19
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_2

select disk=20
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_3

select disk=21
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_4

select disk=22
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_5

select disk=23
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_6

select disk=24
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_7

select disk=25
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_8

select disk=26
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_9

select disk=27
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_10

select disk=28
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_11

select disk=29
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_12

select disk=30
```

APPENDIX B: DATABASE DESIGN

```
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_13

select disk=31
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_14

select disk=32
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_15

select disk=33
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_16

select disk=2
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_17

select disk=3
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_18

select disk=4
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_19

select disk=5
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_20

select disk=6
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_21

select disk=7
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_22

select disk=8
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_23

select disk=9
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_24

select disk=10
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_25

select disk=11
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_26

select disk=12
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_27

select disk=13
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_28

select disk=14
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_29

select disk=15
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_30

select disk=16
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_31

select disk=17
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_32

select disk=18
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_33

select disk=19
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_34

select disk=20
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_35

select disk=21
create partition logical size=7000
```

```
assign mount=c:\mnt\bk_cust_0_36

select disk=22
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_37

select disk=23
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_38

select disk=24
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_39

select disk=25
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_40

select disk=26
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_41

select disk=27
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_42

select disk=28
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_43

select disk=29
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_44

select disk=30
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_45

select disk=31
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_46

select disk=32
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_47

select disk=33
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_48

select disk=2
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_49

select disk=3
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_50

select disk=4
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_51

select disk=5
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_52

select disk=6
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_53

select disk=7
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_54

select disk=8
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_55

select disk=9
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_56

select disk=10
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_57

select disk=11
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_58

select disk=12
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_59
```

APPENDIX B: DATABASE DESIGN

```
select disk=13
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_60

select disk=14
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_61

select disk=14
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_62

select disk=15
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_63

select disk=16
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_64

select disk=17
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_65

select disk=18
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_66

select disk=19
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_67

select disk=20
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_68

select disk=21
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_69

select disk=22
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_70

select disk=23
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_71

select disk=24
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_72

select disk=25
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_73

select disk=26
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_74

select disk=27
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_75

select disk=28
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_76

select disk=29
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_77

select disk=30
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_78

select disk=31
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_79

select disk=32
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_80

select disk=33
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_81

select disk=2
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_82
```

```
select disk=3
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_83

select disk=4
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_84

select disk=5
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_85

select disk=6
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_86

select disk=7
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_87

select disk=8
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_88

select disk=9
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_89

select disk=10
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_90

select disk=11
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_91

select disk=12
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_92

select disk=13
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_93

select disk=14
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_94

select disk=15
create partition logical size=7000
assign mount=c:\mnt\bk_cust_0_95

select disk=16
create partition logical size=800
assign mount=c:\mnt\bk_dist_0_0

select disk=17
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_0

select disk=18
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_1

select disk=19
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_2

select disk=20
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_3

select disk=21
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_4

select disk=22
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_5

select disk=23
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_6

select disk=24
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_7

select disk=25
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_8

select disk=26
```

APPENDIX B: DATABASE DESIGN

```
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_9

select disk=27
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_10

select disk=28
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_11

select disk=29
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_12

select disk=30
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_13

select disk=31
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_14

select disk=32
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_15

select disk=33
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_16

select disk=2
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_17

select disk=3
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_18

select disk=4
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_19

select disk=5
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_20

select disk=6
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_21

select disk=7
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_22

select disk=8
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_23

select disk=9
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_24

select disk=10
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_25

select disk=11
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_26

select disk=12
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_27

select disk=13
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_28

select disk=14
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_29

select disk=15
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_30

select disk=16
create partition logical size=3000
assign mount=c:\mnt\bk_hist_0_31

select disk=17
create partition logical size=8000
```

```
assign mount=c:\mnt\bk_stok_0_0

select disk=18
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_1

select disk=19
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_2

select disk=20
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_3

select disk=21
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_4

select disk=22
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_5

select disk=23
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_6

select disk=24
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_7

select disk=26
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_8

select disk=27
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_9

select disk=28
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_10

select disk=29
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_11

select disk=30
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_12

select disk=31
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_13

select disk=32
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_14

select disk=33
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_15

select disk=2
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_16

select disk=3
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_17

select disk=4
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_18

select disk=5
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_19

select disk=6
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_20

select disk=7
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_21

select disk=8
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_22

select disk=9
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_23
```

APPENDIX B: DATABASE DESIGN

```
select disk=10
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_24

select disk=11
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_25

select disk=12
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_26

select disk=13
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_27

select disk=14
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_28

select disk=15
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_29

select disk=16
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_30

select disk=17
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_31

select disk=18
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_32

select disk=19
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_33

select disk=20
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_34

select disk=21
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_35

select disk=22
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_36

select disk=23
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_37

select disk=24
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_38

select disk=25
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_39

select disk=26
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_40

select disk=27
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_41

select disk=28
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_42

select disk=29
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_43

select disk=30
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_44

select disk=31
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_45

select disk=32
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_46
```

```
select disk=33
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_47

select disk=2
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_48

select disk=3
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_49

select disk=4
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_50

select disk=5
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_51

select disk=6
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_52

select disk=7
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_53

select disk=8
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_54

select disk=9
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_55

select disk=10
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_56

select disk=11
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_57

select disk=12
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_58

select disk=13
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_59

select disk=14
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_60

select disk=15
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_61

select disk=16
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_62

select disk=17
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_63

select disk=18
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_64

select disk=19
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_65

select disk=20
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_66

select disk=21
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_67

select disk=22
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_68

select disk=23
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_69

select disk=24
```

APPENDIX B: DATABASE DESIGN

```
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_70

select disk=25
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_71

select disk=26
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_72

select disk=27
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_73

select disk=28
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_74

select disk=29
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_75

select disk=30
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_76

select disk=31
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_77

select disk=32
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_78

select disk=33
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_79

select disk=2
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_80

select disk=3
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_81

select disk=4
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_82

select disk=5
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_83

select disk=6
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_84

select disk=7
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_85

select disk=8
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_86

select disk=9
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_87

select disk=10
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_88

select disk=11
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_89

select disk=12
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_90

select disk=13
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_91

select disk=14
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_92

select disk=15
create partition logical size=8000
```

```
assign mount=c:\mnt\bk_stok_0_93

select disk=16
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_94

select disk=17
create partition logical size=8000
assign mount=c:\mnt\bk_stok_0_95

select disk=18
create partition logical size=80
assign mount=c:\mnt\bk_item_0_0

select disk=19
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_0

select disk=20
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_1

select disk=21
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_2

select disk=22
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_3

select disk=23
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_4

select disk=24
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_5

select disk=25
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_6

select disk=26
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_7

select disk=27
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_8

select disk=28
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_9

select disk=29
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_10

select disk=30
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_11

select disk=31
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_12

select disk=32
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_13

select disk=33
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_14

select disk=2
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_15

select disk=3
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_16

select disk=4
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_17

select disk=5
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_18

select disk=6
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_19
```

APPENDIX B: DATABASE DESIGN

```
select disk=7
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_20

select disk=8
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_21

select disk=9
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_22

select disk=10
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_23

select disk=11
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_24

select disk=12
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_25

select disk=13
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_26

select disk=14
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_27

select disk=15
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_28

select disk=16
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_29

select disk=17
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_30

select disk=18
create partition logical size=30000
assign mount=c:\mnt\bk_ordr_0_31

select disk=19
create partition logical size=200
assign mount=c:\mnt\bk_iware_0_0

select disk=20
create partition logical size=16000
assign mount=c:\mnt\bk_icust1_0_0

select disk=21
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_0

select disk=22
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_1

select disk=23
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_2

select disk=24
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_3

select disk=25
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_4

select disk=26
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_5

select disk=27
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_6

select disk=28
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_7

select disk=29
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_8
```

```
select disk=30
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_9

select disk=31
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_10

select disk=32
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_11

select disk=33
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_12

select disk=2
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_13

select disk=3
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_14

select disk=4
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_15

select disk=5
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_16

select disk=5
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_17

select disk=6
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_18

select disk=7
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_19

select disk=8
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_20

select disk=9
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_21

select disk=10
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_22

select disk=11
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_23

select disk=12
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_24

select disk=13
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_25

select disk=14
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_26

select disk=16
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_27

select disk=17
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_28

select disk=18
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_29

select disk=19
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_30

select disk=20
create partition logical size=1200
assign mount=c:\mnt\bk_icust2_0_31
select disk=21
create partition logical size=200
```

APPENDIX B: DATABASE DESIGN

```
assign mount=c:\mnt\bk_idist_0_0

select disk=22
create partition logical size=60000
assign mount=c:\mnt\bk_istok_0_0

select disk=23
create partition logical size=100
assign mount=c:\mnt\bk_iitem_0_0

select disk=24
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_0

select disk=24
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_1

select disk=25
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_2

select disk=26
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_3

select disk=27
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_4

select disk=28
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_5

select disk=29
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_6

select disk=30
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_7

select disk=31
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_8

select disk=32
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_9

select disk=33
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_10

select disk=2
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_11

select disk=3
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_12

select disk=4
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_13

select disk=5
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_14

select disk=6
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_15

select disk=7
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_16

select disk=8
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_17

select disk=9
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_18

select disk=10
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_19

select disk=11
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_20
```

```
select disk=12
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_21

select disk=13
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_22

select disk=14
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_23

select disk=15
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_24

select disk=16
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_25

select disk=17
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_26

select disk=18
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_27

select disk=19
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_28

select disk=20
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_29

select disk=21
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_30

select disk=22
create partition logical size=1200
assign mount=c:\mnt\bk_iordr2_0_31

select disk=23
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_0

select disk=24
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_1

select disk=25
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_2

select disk=26
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_3

select disk=27
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_4

select disk=28
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_5

select disk=29
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_6

select disk=30
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_7

select disk=31
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_8

select disk=32
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_9

select disk=33
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_10

select disk=2
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_11
```


APPENDIX B: DATABASE DESIGN

```
select disk=3
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_12

select disk=4
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_13

select disk=5
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_14

select disk=6
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_15

select disk=7
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_16

select disk=8
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_17

select disk=9
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_18

select disk=10
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_19

select disk=11
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_20

select disk=12
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_21

select disk=13
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_22

select disk=14
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_23

select disk=15
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_24

select disk=16
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_25

select disk=17
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_26

select disk=18
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_27

select disk=19
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_28

select disk=20
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_29

select disk=21
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_30

select disk=22
create partition logical size=4000
assign mount=c:\mnt\bk_temp_0_31

select disk=23
create partition logical size=300
assign mount=c:\mnt\bk_tpccaux_0_0

select disk=24
create partition logical size=80
assign mount=c:\mnt\bk_control_001

select disk=25
create partition logical size=80
assign mount=c:\mnt\bk_control_002

select disk=26
```

```
create partition logical size=3000
assign mount=c:\mnt\bk_sp_0

select disk=27
create partition logical size=9000
assign mount=c:\mnt\bk_sp_1

select disk=27
create partition logical size=600
assign mount=c:\mnt\bk_system_1

select disk=28
create partition logical size=10000
assign mount=c:\mnt\bk_roll1

select disk=29
create partition logical size=9000
assign mount=c:\mnt\bk_nord_0_0

select disk=1
create partition logical size=40000
assign mount=c:\mnt\log_1_1

select disk=1
create partition logical size=40000
assign mount=c:\mnt\log_1_2

select disk=2
create partition logical size=40000
assign mount=c:\mnt\bk_log_1_1

select disk=2
create partition logical size=40000
assign mount=c:\mnt\bk_log_1_2
```

Appendix C - Tunable Parameters

Server Configuration Parameters

Microsoft Windows 2003 Server Parameters

The following services were disabled on the server:

- * Alerter
- * Automatic Updates
- * Computer Browser
- * Cryptographic Services
- * DHCP Client
- * Distributed File System
- * Distributed Link Tracking Client
- * DNS Client
- * Global Array Manager Server
- * Help and Support
- * IPSEC Policy Agent
- * License Logging Service
- * Messenger
- * MSSQLserver
- * Microsoft Search
- * Print Spooler
- * Process Control Service
- * Remote Registry Service
- * Removable Storage
- * Run as Service
- * System Event Notification
- * SSDP Discovery service
- * Task Scheduler
- * Wireless configuration

Oracle Startup Sequence

1. Boot up systems: clients, servers, & RTEs.
2. Startup the database on the server using p_run.ora.
3. Start the RTE.
4. Adjust RTE throttle.

DB Server msinfo32 export

System Information report written at: 11/11/09 17:38:59

System Name: T710

[System Summary]

Item Value

OS Name Microsoft(R) Windows(R) Server 2003 Enterprise x64 Edition
 Version 5.2.3790 Service Pack 2 Build 3790
 Other OS Description Not Available
 OS Manufacturer Microsoft Corporation
 System Name T710
 System Manufacturer Dell Inc.
 System Model PowerEdge T710
 System Type x64-based PC
 Processor EM64T Family 6 Model 26 Stepping 5 GenuineIntel ~2261 Mhz
 Processor EM64T Family 6 Model 26 Stepping 5 GenuineIntel ~2261 Mhz
 Processor EM64T Family 6 Model 26 Stepping 5 GenuineIntel ~2261 Mhz
 Processor EM64T Family 6 Model 26 Stepping 5 GenuineIntel ~2261 Mhz
 Processor EM64T Family 6 Model 26 Stepping 5 GenuineIntel ~2261 Mhz
 Processor EM64T Family 6 Model 26 Stepping 5 GenuineIntel ~2261 Mhz
 Processor EM64T Family 6 Model 26 Stepping 5 GenuineIntel ~2261 Mhz
 Processor EM64T Family 6 Model 26 Stepping 5 GenuineIntel ~2261 Mhz
 BIOS Version/Date Dell Inc. 1.0.0, 5/20/2009
 SMBIOS Version 2.6
 Windows Directory C:\WINDOWS
 System Directory C:\WINDOWS\system32
 Boot Device \Device\HarddiskVolume1
 Locale United States
 Hardware Abstraction Layer Version = "5.2.3790.3959 (srv03_sp2_rtm.070216-1710)"
 User Name Not Available
 Time Zone Central Standard Time
 Total Physical Memory 73,717.90 MB
 Available Physical Memory 3.79 GB
 Total Virtual Memory 74.26 GB
 Available Virtual Memory 7.37 GB
 Page File Space 4.00 GB
 Page File C:\pagefile.sys

[Hardware Resources]

[Conflicts/Sharing]

Resource Device
 IRQ 85 PCI standard PCI-to-PCI bridge
 IRQ 85 PCI standard PCI-to-PCI bridge
 IRQ 85 PCI standard PCI-to-PCI bridge
 IRQ 85 PCI standard PCI-to-PCI bridge

I/O Port 0x0000A000-0x0000DFFF PCI bus

APPENDIX C - TUNABLE PARAMETERS

I/O Port 0x0000A000-0x0000DFFF	PCI standard PCI-to-PCI bridge
I/O Port 0x00000000-0x00000CF7	PCI bus
I/O Port 0x00000000-0x00000CF7	Direct memory access controller
IRQ 20 Standard Universal PCI to USB Host Controller	
IRQ 20 Standard Universal PCI to USB Host Controller	
IRQ 53 PCI standard host CPU bridge	
IRQ 53 PCI standard PCI-to-PCI bridge	
IRQ 53 PCI standard PCI-to-PCI bridge	
IRQ 53 PCI standard PCI-to-PCI bridge	
IRQ 53 PCI standard PCI-to-PCI bridge	
IRQ 53 PCI standard PCI-to-PCI bridge	
IRQ 21 Standard Universal PCI to USB Host Controller	
IRQ 21 Standard Universal PCI to USB Host Controller	
IRQ 21 Standard Enhanced PCI to USB Host Controller	
Memory Address 0xDA000000-0xDDFFFFFF	PCI standard PCI-to-PCI bridge
Memory Address 0xDA000000-0xDDFFFFFF	Broadcom BCM5709C NetXtreme II GigE
Memory Address 0xD6000000-0xD9FFFFFF	PCI standard PCI-to-PCI bridge
Memory Address 0xD6000000-0xD9FFFFFF	Broadcom BCM5709C NetXtreme II GigE #3
Memory Address 0xA0000-0xBFFFF	PCI bus
Memory Address 0xA0000-0xBFFFF	Standard VGA Graphics Adapter
Memory Address 0xD5000000-0xDFFFFFFF	PCI bus
Memory Address 0xD5000000-0xDFFFFFFF	Standard VGA Graphics Adapter
Memory Address 0xD4000000-0xDFFFFFFF	PCI bus
Memory Address 0xD4000000-0xDFFFFFFF	PCI standard PCI-to-PCI bridge

[DMA]

Resource	Device	Status
Channel 4	Direct memory access controller	OK

[Forced Hardware]

Device PNP Device ID

[I/O]

Resource	Device	Status
0x00000000-0x00000CF7	PCI bus	OK
0x00000000-0x00000CF7	Direct memory access controller	OK
0x00000D00-0x00009FFF	PCI bus	OK
0x0000E000-0x0000FFFF	PCI bus	OK
0x0000F000-0x0000FFFF	PCI standard PCI-to-PCI bridge	OK
0x0000FC00-0x0000FCFF	DELL PERC 6/i Integrated RAID Controller	OK
0x0000EC40-0x0000EC5F	Standard Universal PCI to USB Host Controller	OK
0x0000EC60-0x0000EC7F	Standard Universal PCI to USB Host Controller	OK

APPENDIX C - TUNABLE PARAMETERS

0x0000EC80-0x0000EC9F	Standard Universal PCI to USB Host Controller	OK
0x0000ECA0-0x0000ECBF	Standard Universal PCI to USB Host Controller	OK
0x0000ECC0-0x0000ECDF	Standard Universal PCI to USB Host Controller	OK
0x0000ECE0-0x0000ECFF	Standard Universal PCI to USB Host Controller	OK
0x000003B0-0x000003BB	Standard VGA Graphics Adapter	OK
0x000003C0-0x000003DF	Standard VGA Graphics Adapter	OK
0x00000080-0x0000009F	Direct memory access controller	OK
0x000000C0-0x000000DF	Direct memory access controller	OK
0x000000F0-0x000000FF	Numeric data processor	OK
0x00000020-0x0000003F	Programmable interrupt controller	OK
0x000000A0-0x000000BF	Programmable interrupt controller	OK
0x000004D0-0x000004D1	Programmable interrupt controller	OK
0x00000061-0x00000061	System board	OK
0x00000070-0x0000007F	System CMOS/real time clock	OK
0x00000040-0x0000005F	System timer	OK
0x000003F8-0x000003FF	Communications Port (COM1)	OK
0x000002F8-0x000002FF	Communications Port (COM2)	OK
0x00000800-0x0000087F	System board	OK
0x000000E0-0x000000E7	System board	OK
0x00000880-0x000008FF	System board	OK
0x00000900-0x0000091F	System board	OK
0x00000920-0x00000923	System board	OK
0x00000924-0x00000924	System board	OK
0x00000C00-0x00000C7F	System board	OK
0x00000CA0-0x00000CA7	System board	OK
0x00000CA9-0x00000CAB	System board	OK
0x00000CAD-0x00000CAF	System board	OK
0x00000060-0x00000060	System board	OK
0x00000064-0x00000064	System board	OK
0x00000CA8-0x00000CA8	System board	OK
0x00000CAC-0x00000CAC	System board	OK
0x0000EC10-0x0000EC17	Standard Dual Channel PCI IDE Controller	OK
0x0000EC08-0x0000EC0B	Standard Dual Channel PCI IDE Controller	OK
0x0000EC18-0x0000EC1F	Standard Dual Channel PCI IDE Controller	OK
0x0000EC0C-0x0000EC0F	Standard Dual Channel PCI IDE Controller	OK
0x0000EC20-0x0000EC2F	Standard Dual Channel PCI IDE Controller	OK
0x0000EC30-0x0000EC3F	Standard Dual Channel PCI IDE Controller	OK
0x0000A000-0x0000DFFF	PCI bus	OK
0x0000A000-0x0000DFFF	PCI standard PCI-to-PCI bridge	OK
0x0000D000-0x0000DFFF	PCI standard PCI-to-PCI bridge	OK
0x0000DC00-0x0000DCFF	DELL PERC 6/E Adapter RAID Controller- XP	OK
0x0000C000-0x0000CFFF	PCI standard PCI-to-PCI bridge	OK
0x0000CC00-0x0000CCFF	DELL PERC 6/E Adapter RAID Controller- XP	OK
0x0000B000-0x0000BFFF	PCI standard PCI-to-PCI bridge	OK
0x0000BC00-0x0000BCFF	DELL PERC 6/E Adapter RAID Controller- XP	OK
0x0000AC00-0x0000ACFF	DELL PERC 6/E Adapter RAID Controller- XP	OK

[IRQs]

Resource	Device	Status
IRQ 9	Microsoft ACPI-Compliant System	OK
IRQ 53	PCI standard host CPU bridge	OK
IRQ 53	PCI standard PCI-to-PCI bridge	OK
IRQ 53	PCI standard PCI-to-PCI bridge	OK
IRQ 53	PCI standard PCI-to-PCI bridge	OK

APPENDIX C - TUNABLE PARAMETERS

IRQ 53 PCI standard PCI-to-PCI bridge OK
 IRQ 53 PCI standard PCI-to-PCI bridge OK
 IRQ 36 Broadcom BCM5709C NetXtreme II GigE #3 OK
 IRQ 48 Broadcom BCM5709C NetXtreme II GigE #4 OK
 IRQ 32 Broadcom BCM5709C NetXtreme II GigE OK
 IRQ 42 Broadcom BCM5709C NetXtreme II GigE #2 OK
 IRQ 34 DELL PERC 6/i Integrated RAID Controller OK
 IRQ 17 Standard Universal PCI to USB Host Controller OK
 IRQ 18 Standard Universal PCI to USB Host Controller OK
 IRQ 19 Standard Enhanced PCI to USB Host Controller OK
 IRQ 21 Standard Universal PCI to USB Host Controller OK
 IRQ 21 Standard Universal PCI to USB Host Controller OK
 IRQ 21 Standard Enhanced PCI to USB Host Controller OK
 IRQ 20 Standard Universal PCI to USB Host Controller OK
 IRQ 20 Standard Universal PCI to USB Host Controller OK
 IRQ 13 Numeric data processor OK
 IRQ 8 System CMOS/real time clock OK
 IRQ 0 System timer OK
 IRQ 4 Communications Port (COM1) OK
 IRQ 3 Communications Port (COM2) OK
 IRQ 23 Standard Dual Channel PCI IDE Controller OK
 IRQ 85 PCI standard PCI-to-PCI bridge OK
 IRQ 85 PCI standard PCI-to-PCI bridge OK
 IRQ 85 PCI standard PCI-to-PCI bridge OK
 IRQ 85 PCI standard PCI-to-PCI bridge OK
 IRQ 64 DELL PERC 6/E Adapter RAID Controller- XP OK
 IRQ 66 DELL PERC 6/E Adapter RAID Controller- XP OK
 IRQ 70 DELL PERC 6/E Adapter RAID Controller- XP OK
 IRQ 72 DELL PERC 6/E Adapter RAID Controller- XP OK

[Memory]

Resource	Device	Status
0xA0000-0xBFFFF	PCI bus	OK
0xA0000-0xBFFFF	Standard VGA Graphics Adapter	OK
0xD5000000-0xDFFFFFFF	PCI bus	OK
0xD5000000-0xDFFFFFFF	Standard VGA Graphics Adapter	OK
0xFED40000-0xFED44FFF	PCI bus	OK
0xD6000000-0xD9FFFFFF	PCI standard PCI-to-PCI bridge	OK
0xD6000000-0xD9FFFFFF	Broadcom BCM5709C NetXtreme II GigE #3	OK
0xD8000000-0xD9FFFFFF	Broadcom BCM5709C NetXtreme II GigE #4	OK
0xDA000000-0xDDFFFFFF	PCI standard PCI-to-PCI bridge	OK
0xDA000000-0xDDFFFFFF	Broadcom BCM5709C NetXtreme II GigE	OK
0xDC000000-0xDDFFFFFF	Broadcom BCM5709C NetXtreme II GigE #2	OK
0xDF100000-0xDF1FFFFF	PCI standard PCI-to-PCI bridge	OK
0xDF180000-0xDF1BFFFF	DELL PERC 6/i Integrated RAID Controller	OK
0xDF1C0000-0xDF1FFFFF	DELL PERC 6/i Integrated RAID Controller	OK
0xDF0FF800-0xDF0FFBFF	Standard Enhanced PCI to USB Host Controller	OK
0xDF0FFC00-0xDF0FFFFF	Standard Enhanced PCI to USB Host Controller	OK
0xDE7FC000-0xDE7FFFFF	Standard VGA Graphics Adapter	OK
0xDE800000-0xDEFFFFFF	Standard VGA Graphics Adapter	OK
0xE0000000-0xE7FFFFFF	Motherboard resources	OK
0xD4000000-0xDFFFFFFF	PCI bus	OK
0xD4000000-0xDFFFFFFF	PCI standard PCI-to-PCI bridge	OK
0xD4080000-0xD40BFFFF	DELL PERC 6/E Adapter RAID Controller- XP	OK

APPENDIX C - TUNABLE PARAMETERS

0xD40C0000-0xD40FFFFF	DELL PERC 6/E Adapter RAID Controller- XP	OK
0xD4100000-0xD41FFFFF	PCI standard PCI-to-PCI bridge	OK
0xD4180000-0xD41BFFFF	DELL PERC 6/E Adapter RAID Controller- XP	OK
0xD41C0000-0xD41FFFFF	DELL PERC 6/E Adapter RAID Controller- XP	OK
0xD4200000-0xD42FFFFF	PCI standard PCI-to-PCI bridge	OK
0xD4280000-0xD42BFFFF	DELL PERC 6/E Adapter RAID Controller- XP	OK
0xD42C0000-0xD42FFFFF	DELL PERC 6/E Adapter RAID Controller- XP	OK
0xD4300000-0xD43FFFFF	PCI standard PCI-to-PCI bridge	OK
0xD4380000-0xD43BFFFF	DELL PERC 6/E Adapter RAID Controller- XP	OK
0xD43C0000-0xD43FFFFF	DELL PERC 6/E Adapter RAID Controller- XP	OK
0xE8000000-0xEFFFFFFF	Motherboard resources	OK
0xFED00000-0xFED003FF	High precision event timer	OK
0xFED90000-0xFED91FFF	Motherboard resources	OK
0xFED92000-0xFED93FFF	Motherboard resources	OK

[Components]

[Multimedia]

[Audio Codecs]

CODEC	Manufacturer	Description	Status	File	Version	Size	Creation Date
c:\windows\system32\msgsm32.acm	Microsoft Corporation					OK	
C:\WINDOWS\system32\MSGSM32.ACM				5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	34.50 KB (35,328 bytes)	2/18/2007 6:00 AM
c:\windows\system32\msg711.acm	Microsoft Corporation					OK	
C:\WINDOWS\system32\MSG711.ACM				5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	13.50 KB (13,824 bytes)	2/18/2007 6:00 AM
c:\windows\system32\tsssoft32.acm	DSP GROUP, INC.					OK	
C:\WINDOWS\system32\TSSOFT32.ACM				1.01		13.50 KB (13,824 bytes)	2/18/2007 6:00 AM
c:\windows\system32\imaadp32.acm	Microsoft Corporation					OK	
C:\WINDOWS\system32\IMAADP32.ACM				5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	24.00 KB (24,576 bytes)	2/18/2007 6:00 AM
c:\windows\system32\msadp32.acm	Microsoft Corporation					OK	
C:\WINDOWS\system32\MSADP32.ACM				5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	23.50 KB (24,064 bytes)	2/18/2007 6:00 AM

[Video Codecs]

CODEC	Manufacturer	Description	Status	File	Version	Size	Creation Date
c:\windows\system32\iyuv_32.dll	Microsoft Corporation					OK	
C:\WINDOWS\system32\IYUV_32.DLL				5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	52.50 KB (53,760 bytes)	3/24/2005 11:19 AM
c:\windows\system32\msrle32.dll	Microsoft Corporation					OK	
C:\WINDOWS\system32\MSRLE32.DLL				5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	15.50 KB (15,872 bytes)	2/18/2007 6:00 AM
c:\windows\system32\msvidc32.dll	Microsoft Corporation					OK	
C:\WINDOWS\system32\MSVIDC32.DLL				5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	43.00 KB (44,032 bytes)	2/18/2007 6:00 AM

APPENDIX C - TUNABLE PARAMETERS

c:\windows\system32\msyuv.dll Microsoft Corporation OK
C:\WINDOWS\system32\MSYUV.DLL 5.2.3790.1830 (srv03_sp1_rtm.050324-1447)
21.00 KB (21,504 bytes)3/24/2005 11:21 AM
c:\windows\system32\tsbyuv.dll Microsoft Corporation OK
C:\WINDOWS\system32\TSBYUV.DLL 5.2.3790.1830 (srv03_sp1_rtm.050324-1447)
12.50 KB (12,800 bytes)3/24/2005 11:34 AM

[CD-ROM]

Item Value
Drive D:
Description CD-ROM Drive
Media Loaded No
Media Type CD-ROM
Name HL-DT-ST DVD-ROM DH10N
Manufacturer (Standard CD-ROM drives)
Status OK
Transfer Rate Not Available
SCSI Target ID 0
PNP Device ID IDE\CDROMHL-DT-ST_DVD-
ROM_DH10N_____0D08____\5&38A051A3&0&0.0.0

[Sound Device]

Item Value

[Display]

Item Value
Name Standard VGA Graphics Adapter
PNP Device ID
PCI\VEN_102B&DEV_0532&SUBSYS_029B1028&REV_0A\4&3BF10EF&0&18F0
Adapter Type Matrox Graphics Inc., (Standard display types) compatible
Adapter Description Standard VGA Graphics Adapter
Adapter RAM 8.00 MB (8,388,608 bytes)
Installed Driversvga.dll,framebuf.dll,vga256,vga64k
Driver Version 5.2.3790.1830
INF File display.inf (vga section)
Color Planes 1
Color Table Entries 4294967296
Resolution 1024 x 768 x 1 hertz
Bits/Pixel 32
Memory Address 0xD5000000-0xDFFFFFFF
Memory Address 0xDE7FC000-0xDE7FFFFFFF
Memory Address 0xDE800000-0xDEFFFFFFF
I/O Port 0x000003B0-0x000003BB
I/O Port 0x000003C0-0x000003DF
Memory Address 0xA0000-0xBFFFF

[Infrared]

Item Value

[Input]

[Keyboard]

Item Value
Description USB Human Interface Device
Name Enhanced (101- or 102-key)
Layout 00000409
PNP Device ID USB\VID_09AE&PID_0002&MI_00\6&8FA055B&0&0000
Number of Function Keys 12

Description USB Human Interface Device
Name Enhanced (101- or 102-key)
Layout 00000409
PNP Device ID USB\VID_0624&PID_0248&MI_00\6&289FB716&0&0000
Number of Function Keys 12

[Pointing Device]

Item Value
Hardware Type USB Human Interface Device
Number of Buttons 5
Status OK
PNP Device ID USB\VID_09AE&PID_0002&MI_01\6&8FA055B&0&0001
Power Management Supported No
Double Click Threshold 6
Handedness Right Handed Operation

Hardware Type USB Human Interface Device
Number of Buttons 5
Status OK
PNP Device ID USB\VID_0624&PID_0248&MI_01\6&289FB716&0&0001
Power Management Supported No
Double Click Threshold 6
Handedness Right Handed Operation

[Modem]

Item Value

[Network]

[Adapter]

Item Value
Name [00000001] RAS Async Adapter
Adapter Type Not Available
Product Type RAS Async Adapter
Installed Yes
PNP Device ID Not Available
Last Reset 11/4/2009 4:38 PM
Index 1
Service Name AsyncMac

APPENDIX C - TUNABLE PARAMETERS

IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000002] WAN Miniport (L2TP)
Adapter Type Not Available
Product Type WAN Miniport (L2TP)
Installed Yes
PNP Device ID ROOT\MS_L2TPMINIPORT\0000
Last Reset 11/4/2009 4:38 PM
Index 2
Service Name Rasl2tp
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000003] WAN Miniport (PPTP)
Adapter Type Wide Area Network (WAN)
Product Type WAN Miniport (PPTP)
Installed Yes
PNP Device ID ROOT\MS_PPTPMINIPORT\0000
Last Reset 11/4/2009 4:38 PM
Index 3
Service Name PptpMiniport
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 50:50:54:50:30:30

Name [00000004] WAN Miniport (PPPOE)
Adapter Type Wide Area Network (WAN)
Product Type WAN Miniport (PPPOE)
Installed Yes
PNP Device ID ROOT\MS_PPPOEMINIPORT\0000
Last Reset 11/4/2009 4:38 PM
Index 4
Service Name RasPppoe
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No

APPENDIX C - TUNABLE PARAMETERS

DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 33:50:6F:45:30:30

Name [00000005] Direct Parallel
Adapter Type Not Available
Product Type Direct Parallel
Installed Yes
PNP Device ID ROOT\MS_PTMINIPORT\0000
Last Reset 11/4/2009 4:38 PM
Index 5
Service Name Raspti
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000006] WAN Miniport (IP)
Adapter Type Not Available
Product Type WAN Miniport (IP)
Installed Yes
PNP Device ID ROOT\MS_NDISWANIP\0000
Last Reset 11/4/2009 4:38 PM
Index 6
Service Name NdisWan
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000007] Broadcom BCM5709C NetXtreme II GigE (NDIS VBD Client)
Adapter Type Ethernet 802.3
Product Type Broadcom BCM5709C NetXtreme II GigE (NDIS VBD Client)
Installed Yes
PNP Device ID
B06BDR\VL2ND&PCI_163914E4&SUBSYS_029B1028&REV_20\5&1F4B46B&0&20050
200
Last Reset 11/4/2009 4:38 PM
Index 7
Service Name l2nd
IP Address 0.0.0.0
IP Subnet 0.0.0.0
Default IP Gateway Not Available
DHCP Enabled Yes
DHCP Server
DHCP Lease Expires Not Available

APPENDIX C - TUNABLE PARAMETERS

DHCP Lease Obtained Not Available
MAC Address 00:23:AE:FB:52:19

Name [00000008] Broadcom BCM5709C NetXtreme II GigE (NDIS VBD Client)
Adapter Type Ethernet 802.3
Product Type Broadcom BCM5709C NetXtreme II GigE (NDIS VBD Client)
Installed Yes
PNP Device ID
B06BDR\VL2ND&PCI_163914E4&SUBSYS_029B1028&REV_20\5&1A8DDC15&0&200
50200
Last Reset 11/4/2009 4:38 PM
Index 8
Service Name I2nd
IP Address 0.0.0.0
IP Subnet 0.0.0.0
Default IP Gateway Not Available
DHCP Enabled Yes
DHCP Server
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:23:AE:FB:52:1B

Name [00000009] Broadcom BCM5709C NetXtreme II GigE (NDIS VBD Client)
Adapter Type Ethernet 802.3
Product Type Broadcom BCM5709C NetXtreme II GigE (NDIS VBD Client)
Installed Yes
PNP Device ID
B06BDR\VL2ND&PCI_163914E4&SUBSYS_029B1028&REV_20\5&15F2CCFE&0&200
50100
Last Reset 11/4/2009 4:38 PM
Index 9
Service Name I2nd
IP Address 192.1.1.107
IP Subnet 255.255.255.0
Default IP Gateway 192.1.1.200
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:23:AE:FB:52:15

Name [00000010] Broadcom BCM5709C NetXtreme II GigE (NDIS VBD Client)
Adapter Type Ethernet 802.3
Product Type Broadcom BCM5709C NetXtreme II GigE (NDIS VBD Client)
Installed Yes
PNP Device ID
B06BDR\VL2ND&PCI_163914E4&SUBSYS_029B1028&REV_20\5&D0ED55F&0&2005
0100
Last Reset 11/4/2009 4:38 PM
Index 10
Service Name I2nd
IP Address 0.0.0.0
IP Subnet 0.0.0.0
Default IP Gateway Not Available
DHCP Enabled Yes

APPENDIX C - TUNABLE PARAMETERS

DHCP Server
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:23:AE:FB:52:17

[Protocol]

Item	Value
Name	MSAFD Tcpip [TCP/IP]
Connectionless Service	No
Guarantees Delivery	Yes
Guarantees Sequencing	Yes
Maximum Address Size	16 bytes
Maximum Message Size	0 bytes
Message Oriented	No
Minimum Address Size	16 bytes
Pseudo Stream Oriented	No
Supports Broadcasting	No
Supports Connect Data	No
Supports Disconnect Data	No
Supports Encryption	No
Supports Expedited Data	Yes
Supports Graceful Closing	Yes
Supports Guaranteed Bandwidth	No
Supports Multicasting	No

Name	MSAFD Tcpip [UDP/IP]
Connectionless Service	Yes
Guarantees Delivery	No
Guarantees Sequencing	No
Maximum Address Size	16 bytes
Maximum Message Size	63.93 KB (65,467 bytes)
Message Oriented	Yes
Minimum Address Size	16 bytes
Pseudo Stream Oriented	No
Supports Broadcasting	Yes
Supports Connect Data	No
Supports Disconnect Data	No
Supports Encryption	No
Supports Expedited Data	No
Supports Graceful Closing	No
Supports Guaranteed Bandwidth	No
Supports Multicasting	Yes

Name	RSVP UDP Service Provider
Connectionless Service	Yes
Guarantees Delivery	No
Guarantees Sequencing	No
Maximum Address Size	16 bytes
Maximum Message Size	63.93 KB (65,467 bytes)
Message Oriented	Yes
Minimum Address Size	16 bytes
Pseudo Stream Oriented	No
Supports Broadcasting	Yes
Supports Connect Data	No

APPENDIX C - TUNABLE PARAMETERS

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

Name RSVP TCP Service Provider
Connectionless Service No
Guarantees Delivery Yes
Guarantees Sequencing Yes
Maximum Address Size 16 bytes
Maximum Message Size 0 bytes
Message Oriented No
Minimum Address Size 16 bytes
Pseudo Stream Oriented No
Supports Broadcasting No
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption Yes
Supports Expedited Data Yes
Supports Graceful Closing Yes
Supports Guaranteed Bandwidth No
Supports Multicasting No

[WinSock]

Item Value
File c:\windows\system32\wsock32.dll
Size 24.50 KB (25,088 bytes)
Version 5.2.3790.1830 (srv03_sp1_rtm.050324-1447)

[Ports]

[Serial]

Item Value
Name Communications Port (COM1)
Status OK
PNP Device ID ACPI\PNP0501\1
Maximum Input Buffer Size 0
Maximum Output Buffer Size No
Settable Baud Rate Yes
Settable Data Bits Yes
Settable Flow Control Yes
Settable Parity Yes
Settable Parity Check Yes
Settable Stop Bits Yes
Settable RLSD Yes
Supports RLSD Yes
Supports 16 Bit Mode No
Supports Special Characters No
Baud Rate 9600

APPENDIX C - TUNABLE PARAMETERS

Bits/Byte 8
Stop Bits 1
Parity None
Busy No
Abort Read/Write on Error No
Binary Mode Enabled Yes
Continue XMit on XOff No
CTS Outflow Control No
Discard NULL Bytes No
DSR Outflow Control 0
DSR Sensitivity 0
DTR Flow Control Type Enable
EOF Character 0
Error Replace Character 0
Error Replacement Enabled No
Event Character 0
Parity Check Enabled No
RTS Flow Control Type Enable
XOff Character 19
XOffXMit Threshold 512
XOn Character 17
XOnXMit Threshold 2048
XOnXOff InFlow Control 0
XOnXOff OutFlow Control 0
I/O Port 0x000003F8-0x000003FF
IRQ Channel IRQ 4

Name Communications Port (COM2)

Status OK
PNP Device ID ACPI\PNP0501\2
Maximum Input Buffer Size 0
Maximum Output Buffer Size No
Settable Baud Rate Yes
Settable Data Bits Yes
Settable Flow Control Yes
Settable Parity Yes
Settable Parity Check Yes
Settable Stop Bits Yes
Settable RLSD Yes
Supports RLSD Yes
Supports 16 Bit Mode No
Supports Special Characters No
Baud Rate 9600
Bits/Byte 8
Stop Bits 1
Parity None
Busy No
Abort Read/Write on Error No
Binary Mode Enabled Yes
Continue XMit on XOff No
CTS Outflow Control No
Discard NULL Bytes No
DSR Outflow Control 0
DSR Sensitivity 0
DTR Flow Control Type Enable

APPENDIX C - TUNABLE PARAMETERS

EOF Character 0
Error Replace Character 0
Error Replacement Enabled No
Event Character 0
Parity Check Enabled No
RTS Flow Control Type Enable
XOff Character 19
XOffXMit Threshold 512
XOn Character 17
XOnXMit Threshold 2048
XOnXOff InFlow Control 0
XOnXOff OutFlow Control 0
I/O Port 0x000002F8-0x000002FF
IRQ Channel IRQ 3

[Parallel]

Item Value

[Storage]

[Drives]

Item Value
Drive C:
Description Local Fixed Disk
Compressed No
File System NTFS
Size 67.74 GB (72,736,116,736 bytes)
Free Space 43.11 GB (46,287,577,088 bytes)
Volume Name
Volume Serial Number 1C4700B0

Drive D:
Description CD-ROM Disc

[Disks]

Item Value
Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 23
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 5
SCSI Target ID 0
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065

APPENDIX C - TUNABLE PARAMETERS

Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #18, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 24
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 5
SCSI Target ID 1
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #19, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 23
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 5
SCSI Target ID 2
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #20, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk

APPENDIX C - TUNABLE PARAMETERS

Partitions 23
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 5
SCSI Target ID 3
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #21, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 22
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 5
SCSI Target ID 4
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #22, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 22
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 5
SCSI Target ID 5
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #23, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)

APPENDIX C - TUNABLE PARAMETERS

Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 22
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 5
SCSI Target ID 6
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #24, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 22
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 5
SCSI Target ID 7
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #25, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 23
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 6
SCSI Target ID 0

APPENDIX C - TUNABLE PARAMETERS

Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #26, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 23
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 6
SCSI Target ID 1
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #27, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 23
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 6
SCSI Target ID 2
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #28, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device

APPENDIX C - TUNABLE PARAMETERS

Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 23
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 6
SCSI Target ID 3
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #29, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 23
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 6
SCSI Target ID 4
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #30, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 23
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 6
SCSI Target ID 5
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575

APPENDIX C - TUNABLE PARAMETERS

Tracks/Cylinder 255
Partition Disk #31, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 24
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 6
SCSI Target ID 6
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #32, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 22
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 6
SCSI Target ID 7
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #33, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 23
SCSI Bus 1

APPENDIX C - TUNABLE PARAMETERS

SCSI Logical Unit 0
SCSI Port 3
SCSI Target ID 0
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #2, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 23
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 3
SCSI Target ID 1
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #3, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 23
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 3
SCSI Target ID 2
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #4, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

APPENDIX C - TUNABLE PARAMETERS

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 23
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 3
SCSI Target ID 3
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #5, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 24
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 3
SCSI Target ID 4
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #6, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 23
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 3
SCSI Target ID 5
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)

APPENDIX C - TUNABLE PARAMETERS

Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #7, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 24
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 3
SCSI Target ID 6
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #8, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 23
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 3
SCSI Target ID 7
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #9, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes

APPENDIX C - TUNABLE PARAMETERS

Media Type Fixed hard disk
Partitions 25
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 4
SCSI Target ID 0
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #10, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 23
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 4
SCSI Target ID 1
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #11, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 23
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 4
SCSI Target ID 2
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #12, Partition #0

APPENDIX C - TUNABLE PARAMETERS

Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 24
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 4
SCSI Target ID 3
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #13, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 23
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 4
SCSI Target ID 4
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #14, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 23
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 4

APPENDIX C - TUNABLE PARAMETERS

SCSI Target ID 5
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #15, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 23
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 4
SCSI Target ID 6
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #16, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/E Adapter SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 23
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 4
SCSI Target ID 7
Sectors/Track 63
Size 406.50 GB (436,474,483,200 bytes)
Total Cylinders 53,065
Total Sectors 852,489,225
Total Tracks 13,531,575
Tracks/Cylinder 255
Partition Disk #17, Partition #0
Partition Size 406.49 GB (436,466,257,920 bytes)
Partition Starting Offset 8,225,280 bytes

Description Disk drive
Manufacturer (Standard disk drives)

APPENDIX C - TUNABLE PARAMETERS

Model DELL PERC 6/i SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 2
SCSI Target ID 0
Sectors/Track 63
Size 67.75 GB (72,744,376,320 bytes)
Total Cylinders 8,844
Total Sectors 142,078,860
Total Tracks 2,255,220
Tracks/Cylinder 255
Partition Disk #0, Partition #0
Partition Size 67.74 GB (72,736,118,784 bytes)
Partition Starting Offset 32,256 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model DELL PERC 6/i SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 2
SCSI Bus 1
SCSI Logical Unit 0
SCSI Port 2
SCSI Target ID 1
Sectors/Track 63
Size 680.62 GB (730,807,902,720 bytes)
Total Cylinders 88,849
Total Sectors 1,427,359,185
Total Tracks 22,656,495
Tracks/Cylinder 255
Partition Disk #1, Partition #0
Partition Size 680.61 GB (730,799,677,440 bytes)
Partition Starting Offset 8,225,280 bytes

[SCSI]

Item Value
Name DELL PERC 6/i Integrated RAID Controller
Manufacturer DELL
Status OK
PNP Device ID
PCIIVEN_1000&DEV_0060&SUBSYS_1F0C1028&REV_04\4&3A926429&0&0028
Memory Address 0xDF180000-0xDF1BFFFF
I/O Port 0x0000FC00-0x0000FCFF
Memory Address 0xDF1C0000-0xDF1FFFFF
IRQ Channel IRQ 34

Name DELL PERC 6/E Adapter RAID Controller- XP
Manufacturer LSI Logic Corp.,

APPENDIX C - TUNABLE PARAMETERS

Status OK
PNP Device ID
 PCI\VEN_1000&DEV_0060&SUBSYS_1F0A1028&REV_04\4&224B9372&0&0018
Memory Address 0xD4080000-0xD40BFFFF
I/O Port 0x0000DC00-0x0000DCFF
Memory Address 0xD40C0000-0xD40FFFFF
IRQ Channel IRQ 64

Name DELL PERC 6/E Adapter RAID Controller- XP
Manufacturer LSI Logic Corp.,
Status OK
PNP Device ID
 PCI\VEN_1000&DEV_0060&SUBSYS_1F0A1028&REV_04\4&34FC91D7&0&0028
Memory Address 0xD4180000-0xD41BFFFF
I/O Port 0x0000CC00-0x0000CCFF
Memory Address 0xD41C0000-0xD41FFFFF
IRQ Channel IRQ 66

Name DELL PERC 6/E Adapter RAID Controller- XP
Manufacturer LSI Logic Corp.,
Status OK
PNP Device ID
 PCI\VEN_1000&DEV_0060&SUBSYS_1F0A1028&REV_04\4&C12C635&0&0038
Memory Address 0xD4280000-0xD42BFFFF
I/O Port 0x0000BC00-0x0000BCFF
Memory Address 0xD42C0000-0xD42FFFFF
IRQ Channel IRQ 70

Name DELL PERC 6/E Adapter RAID Controller- XP
Manufacturer LSI Logic Corp.,
Status OK
PNP Device ID
 PCI\VEN_1000&DEV_0060&SUBSYS_1F0A1028&REV_04\4&30ECC5AD&0&0048
Memory Address 0xD4380000-0xD43BFFFF
I/O Port 0x0000AC00-0x0000ACFF
Memory Address 0xD43C0000-0xD43FFFFF
IRQ Channel IRQ 72

[IDE]

Item Value
Name Standard Dual Channel PCI IDE Controller
Manufacturer (Standard IDE ATA/ATAPI controllers)
Status OK
PNP Device ID PCI\VEN_8086&DEV_2921&SUBSYS_029B1028&REV_02\3&474B838&0&FA
I/O Port 0x0000EC10-0x0000EC17
I/O Port 0x0000EC08-0x0000EC0B
I/O Port 0x0000EC18-0x0000EC1F
I/O Port 0x0000EC0C-0x0000EC0F
I/O Port 0x0000EC20-0x0000EC2F
I/O Port 0x0000EC30-0x0000EC3F
IRQ Channel IRQ 23

Name Primary IDE Channel
Manufacturer (Standard IDE ATA/ATAPI controllers)

APPENDIX C - TUNABLE PARAMETERS

Status OK
PNP Device ID PCIIDE\IDECHANNEL\4&361A4066&0&0

Name Secondary IDE Channel
Manufacturer (Standard IDE ATA/ATAPI controllers)
Status OK
PNP Device ID PCIIDE\IDECHANNEL\4&361A4066&0&1

[Printing]

Name	Driver	Port Name	Server Name
------	--------	-----------	-------------

[Problem Devices]

Device PNP Device ID Error Code
System Interrupt Controller
PCIIVEN_8086&DEV_342E&SUBSYS_00000000&REV_13\3&474B838&0&A0 The
drivers for this device are not installed.
System Interrupt Controller
PCIIVEN_8086&DEV_3422&SUBSYS_00000000&REV_13\3&474B838&0&A1 The
drivers for this device are not installed.
System Interrupt Controller
PCIIVEN_8086&DEV_3423&SUBSYS_00000000&REV_13\3&474B838&0&A2 The
drivers for this device are not installed.
System Interrupt Controller
PCIIVEN_8086&DEV_342E&SUBSYS_00000000&REV_13\3&1E630CBB&0&A0
The drivers for this device are not installed.
System Interrupt Controller
PCIIVEN_8086&DEV_3422&SUBSYS_00000000&REV_13\3&1E630CBB&0&A1The
drivers for this device are not installed.
System Interrupt Controller
PCIIVEN_8086&DEV_3423&SUBSYS_00000000&REV_13\3&1E630CBB&0&A2The
drivers for this device are not installed.

[USB]

Device PNP Device ID
Standard Universal PCI to USB Host Controller
PCIIVEN_8086&DEV_2937&SUBSYS_029B1028&REV_02\3&474B838&0&D0
Standard Universal PCI to USB Host Controller
PCIIVEN_8086&DEV_2938&SUBSYS_029B1028&REV_02\3&474B838&0&D1
Standard Enhanced PCI to USB Host Controller
PCIIVEN_8086&DEV_293C&SUBSYS_029B1028&REV_02\3&474B838&0&D7
Standard Universal PCI to USB Host Controller
PCIIVEN_8086&DEV_2934&SUBSYS_029B1028&REV_02\3&474B838&0&E8
Standard Universal PCI to USB Host Controller
PCIIVEN_8086&DEV_2935&SUBSYS_029B1028&REV_02\3&474B838&0&E9
Standard Universal PCI to USB Host Controller
PCIIVEN_8086&DEV_2936&SUBSYS_029B1028&REV_02\3&474B838&0&EA
Standard Universal PCI to USB Host Controller
PCIIVEN_8086&DEV_2939&SUBSYS_029B1028&REV_02\3&474B838&0&EB
Standard Enhanced PCI to USB Host Controller
PCIIVEN_8086&DEV_293A&SUBSYS_029B1028&REV_02\3&474B838&0&EF

[Software Environment]

APPENDIX C - TUNABLE PARAMETERS

[System Drivers]

Name	Description	File	Type	Started	Start Mode	State	Status	Error Control
	Accept Pause	Accept Stop						
abiosdsk	Abiosdsk	Not Available	Kernel Driver	No	Disabled	Stopped		OK
	Stopped	OK	Ignore	No	No			
acpi	Microsoft ACPI Driver	c:\windows\system32\drivers\acpi.sys	Kernel Driver	Yes	Kernel Driver	Yes		Yes
	Boot Running	OK	Normal	No	Yes			
acpiec	ACPIEC	c:\windows\system32\drivers\acpiec.sys	Kernel Driver	No	Kernel Driver	No		No
	Disabled	Stopped	OK	Normal	No	No		
adpu160m	adpu160m	Not Available	Kernel Driver	No	Kernel Driver	No		Disabled
	Stopped	OK	Normal	No	No			
adpu320	adpu320	Not Available	Kernel Driver	No	Kernel Driver	No		Disabled
	Stopped	OK	Normal	No	No			
afd	AFD	c:\windows\system32\drivers\afd.sys	Kernel Driver	Yes	Kernel Driver	Yes		System
	Running	OK	Normal	No	Yes			
aic78u2	aic78u2	Not Available	Kernel Driver	No	Kernel Driver	Disabled		Stopped
	Normal	No	No					OK
aic78xx	aic78xx	Not Available	Kernel Driver	No	Kernel Driver	Disabled		Stopped
	Normal	No	No					OK
aliide	Aliide	Not Available	Kernel Driver	No	Kernel Driver	Disabled		Stopped
	Normal	No	No					OK
amdide	AmdIde	Not Available	Kernel Driver	No	Kernel Driver	Disabled		Stopped
	Normal	No	No					OK
arc	arc	Not Available	Kernel Driver	No	Kernel Driver	Disabled		Stopped
	Normal	No	No					OK
asynmac	RAS Asynchronous Media Driver	c:\windows\system32\drivers\asynmac.sys	Kernel Driver	No	Kernel Driver	No		Manual
	Stopped	OK	Normal	No	No			
atapi	Standard IDE/ESDI Hard Disk Controller	c:\windows\system32\drivers\atapi.sys	Kernel Driver	Yes	Kernel Driver	Yes		Kernel
	Driver	Yes	Boot Running	OK	Normal	No	Yes	
atdisk	Atdisk	Not Available	Kernel Driver	No	Kernel Driver	Disabled		Stopped
	Ignore	No	No					OK
atmarpc	ATM ARP Client Protocol	c:\windows\system32\drivers\atmarpc.sys	Kernel Driver	No	Kernel Driver	Stopped		OK
	Kernel Driver	No	Manual	Stopped	OK	Normal	No	No
audstub	Audio Stub Driver	c:\windows\system32\drivers\audstub.sys	Kernel Driver	Yes	Kernel Driver	Yes		Kernel Driver
	Yes	Manual	Running	OK	Normal	No	Yes	
b06bdrv	Broadcom NetXtreme II VBD	c:\windows\system32\drivers\bxbvda.sys	Kernel Driver	Yes	Kernel Driver	Yes		Kernel Driver
	Kernel Driver	Yes	Boot Running	OK	Normal	No	Yes	
beep	Beep	c:\windows\system32\drivers\beep.sys	Kernel Driver	Yes	Kernel Driver	Yes		System
	Running	OK	Normal	No	Yes			
blfp	Broadcom Advanced Server Program Driver	c:\windows\system32\drivers\basamd64.sys	Kernel Driver	No	Kernel Driver	No		Manual
	Stopped	OK	Normal	No	No			
cdac15ba	CdaC15BA	c:\windows\system32\drivers\cdac15ba.sys	Kernel Driver	Yes	Kernel Driver	Yes		Kernel Driver
	Yes	Auto	Running	OK	Normal	No	Yes	
cdad10ba	CdaD10BA	c:\windows\system32\drivers\cdad10ba.sys	Kernel Driver	Yes	Kernel Driver	Yes		Kernel Driver
	Yes	Auto	Running	OK	Normal	No	Yes	
cdfs	Cdfs	c:\windows\system32\drivers\cdfs.sys	File System Driver	Yes	File System Driver	Yes		Yes
	Disabled	Running	OK	Normal	No	Yes		
cdrom	CD-ROM Driver	c:\windows\system32\drivers\cdrom.sys	Kernel Driver	Yes	Kernel Driver	Yes		System
	Running	OK	Normal	No	Yes			

APPENDIX C - TUNABLE PARAMETERS

changer	Changer	Not Available	Kernel Driver	No	System Stopped			
OK	Ignore	No	No					
clusdisk	Cluster Disk Driver	c:\windows\system32\drivers\clusdisk.sys	Kernel Driver	Yes	System Stopped			
No	Disabled	Stopped	OK	Normal	No	No		
cmdide	CmdIde	Not Available	Kernel Driver	No	Disabled	Stopped	OK	
Normal	No	No						
cpqccissm	cpqccissm	Not Available	Kernel Driver	No	Disabled			
Stopped	OK	Normal	No	No				
crcdisk	CRC Disk Filter Driver	c:\windows\system32\drivers\crcdisk.sys	Kernel Driver	Yes	System Stopped			
Boot	Running	OK	Normal	No	Yes			
dfsdriver	DfsDriver	c:\windows\system32\drivers\dfs.sys	File System Driver	Yes	System Stopped			
Yes	Boot	Running	OK	Normal	No	Yes		
disk	Disk Driver	c:\windows\system32\drivers\disk.sys	Kernel Driver	Yes	System Stopped			
Running	OK	Normal	No	Yes				
dmboot	dmboot	c:\windows\system32\drivers\dmboot.sys	Kernel Driver	No	System Stopped			
Disabled	Stopped	OK	Normal	No	No			
dmio	Logical Disk Manager Driver	c:\windows\system32\drivers\dmio.sys	Kernel Driver	Yes	System Stopped			
Yes	Boot	Running	OK	Normal	No	Yes		
dmload	dmload	c:\windows\system32\drivers\dmload.sys	Kernel Driver	Yes	System Stopped			
Running	OK	Normal	No	Yes				
dpti2o	dpti2o	Not Available	Kernel Driver	No	Disabled	Stopped	OK	
Normal	No	No						
elxstor	elxstor	Not Available	Kernel Driver	No	Disabled	Stopped	OK	
Normal	No	No						
fastfat	Fastfat	c:\windows\system32\drivers\fastfat.sys	File System Driver	No	System Stopped			
Disabled	Stopped	OK	Normal	No	No			
fdc	Fdc	c:\windows\system32\drivers\fdc.sys	Kernel Driver	No	System			
Stopped	OK	Ignore	No	No				
fips	Fips	c:\windows\system32\drivers\fips.sys	Kernel Driver	Yes	System			
Running	OK	Normal	No	Yes				
flpydisk	Flpydisk	c:\windows\system32\drivers\flpydisk.sys	Kernel Driver	No	System Stopped			
System	Stopped	OK	Ignore	No	No			
fltmgr	FltMgr	c:\windows\system32\drivers\fltmgr.sys	File System Driver	Yes	System Stopped			
Running	OK	Normal	No	Yes				
ftdisk	Volume Manager Driver	c:\windows\system32\drivers\ftdisk.sys	Kernel Driver	Yes	System Stopped			
Boot	Running	OK	Normal	No	Yes			
gpc	Generic Packet Classifier	c:\windows\system32\drivers\msgpc.sys	Kernel Driver	Yes	System Stopped			
Yes	Manual	Running	OK	Normal	No	Yes		
hidusb	Microsoft HID Class Driver	c:\windows\system32\drivers\hidusb.sys	Kernel Driver	Yes	System Stopped			
Yes	Manual	Running	OK	Ignore	No	Yes		
hpciss	hpciss	Not Available	Kernel Driver	No	Disabled	Stopped	OK	
Normal	No	No						
http	HTTP	c:\windows\system32\drivers\http.sys	Kernel Driver	No	Manual			
Stopped	OK	Normal	No	No				
i2omgmt	i2omgmt	Not Available	Kernel Driver	No	System Stopped			
OK	Normal	No	No					
i8042prt	i8042prt	c:\windows\system32\drivers\i8042prt.sys	Kernel Driver	Yes	System Stopped			
No	System	Stopped	OK	Ignore	No	No		
iirsp	iirsp	Not Available	Kernel Driver	No	Disabled	Stopped	OK	
Normal	No	No						
imapi	CD-Burning Filter Driver	c:\windows\system32\drivers\imapi.sys	Kernel Driver	No	System Stopped			
System	Stopped	OK	Normal	No	No			
intelide	IntellIde	Not Available	Kernel Driver	No	Disabled	Stopped	OK	
Normal	No	No						

APPENDIX C - TUNABLE PARAMETERS

intelppm	Intel Processor Driver	c:\windows\system32\drivers\intelppm.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes		
ip6fw	IPv6 Windows Firewall Driver	c:\windows\system32\drivers\ip6fw.sys	Kernel Driver	No	Manual	Stopped	OK	Normal	No	No		
ipfilterdriver	IP Traffic Filter Driver	c:\windows\system32\drivers\ipfltdrv.sys	Kernel Driver	No	Manual	Stopped	OK	Normal	No	No		
ipinip	IP in IP Tunnel Driver	c:\windows\system32\drivers\ipinip.sys	Kernel Driver	No	Manual	Stopped	OK	Normal	No	No		
ipnat	IP Network Address Translator	c:\windows\system32\drivers\ipnat.sys	Kernel Driver	No	Manual	Stopped	OK	Normal	No	No		
ipsec	IPSEC driver	c:\windows\system32\drivers\ipsec.sys	Kernel Driver	Yes	Running	OK	Normal	No	Yes		System	
isapnp	PnP ISA/EISA Bus Driver	c:\windows\system32\drivers\isapnp.sys	Kernel Driver	Yes	Boot	Running	OK	Critical	No	Yes		
kbdclass	Keyboard Class Driver	c:\windows\system32\drivers\kbdclass.sys	Kernel Driver	Yes	System	Running	OK	Normal	No	Yes		
kbdhid	Keyboard HID Driver	c:\windows\system32\drivers\kbdhid.sys	Kernel Driver	Yes	System	Running	OK	Ignore	No	Yes		
ksecdd	KSecDD	c:\windows\system32\drivers\ksecdd.sys	Kernel Driver	Yes	Running	OK	Normal	No	Yes		Boot	
ksthunk	Kernel Streaming WOW64 Thunk Service	c:\windows\system32\drivers\ksthunk.sys	Kernel Driver	Yes	Running	OK	Normal	No	Yes		Manual	
l2nd	Broadcom NetXtreme II BXND	c:\windows\system32\drivers\bxnd52a.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes		
lp6nds35	lp6nds35	Not Available	Kernel Driver	No	Stopped	OK	Normal	No	No	Disabled		
mnmd	mnmd	c:\windows\system32\drivers\mnmd.sys	Kernel Driver	Yes	Running	OK	Ignore	No	Yes		System	
modem	Modem	c:\windows\system32\drivers\modem.sys	Kernel Driver	No	Stopped	OK	Ignore	No	No		Manual	
mouclass	Mouse Class Driver	c:\windows\system32\drivers\mouclass.sys	Kernel Driver	Yes	System	Running	OK	Normal	No	Yes		
mouhid	Mouse HID Driver	c:\windows\system32\drivers\mouhid.sys	Kernel Driver	Yes	Manual	Running	OK	Ignore	No	Yes		
mountmgr	Mount Point Manager	c:\windows\system32\drivers\mountmgr.sys	Kernel Driver	Yes	Boot	Running	OK	Normal	No	Yes		
mraid35x	mraid35x	Not Available	Kernel Driver	No	Stopped	OK	Normal	No	No	Disabled		
mrxdav	WebDav Client Redirector	c:\windows\system32\drivers\mrxdav.sys	File System Driver	No	Manual	Stopped	OK	Normal	No	No		
mrxsm	MRXSMB	c:\windows\system32\drivers\mrxsm.sys	File System Driver	Yes	System	Running	OK	Normal	No	Yes		
msas2k3	msas2k3	c:\windows\system32\drivers\msas2k3.sys	Kernel Driver	Yes	Boot	Running	OK	Normal	No	Yes		
msfs	Msfs	c:\windows\system32\drivers\msfs.sys	File System Driver	Yes	Running	OK	Normal	No	Yes		System	
mssmbios	Microsoft System Management BIOS Driver	c:\windows\system32\drivers\mssmbios.sys	Kernel Driver	Yes	Running	OK	Normal	No	Yes		Manual	
mup	Mup	c:\windows\system32\drivers\mup.sys	File System Driver	Yes	Running	OK	Normal	No	Yes		Boot	
ndis	NDIS System Driver	c:\windows\system32\drivers\ndis.sys	Kernel Driver	Yes	Boot	Running	OK	Normal	No	Yes		

APPENDIX C - TUNABLE PARAMETERS

ndistapi	Remote Access NDIS TAPI Driver	c:\windows\system32\drivers\ndistapi.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes		
ndisuio	NDIS Usermode I/O Protocol	c:\windows\system32\drivers\ndisuio.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes		
ndiswan	Remote Access NDIS WAN Driver	c:\windows\system32\drivers\ndiswan.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes		
ndproxy	NDIS Proxy	c:\windows\system32\drivers\ndproxy.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes		
netbios	NetBIOS Interface	c:\windows\system32\drivers\netbios.sys	File System	Driver	Yes	System	Running	OK	Normal	No	Yes	
netbt	NetBios over Tcpip	c:\windows\system32\drivers\netbt.sys	Kernel Driver	Yes	System	Running	OK	Normal	No	Yes		
nfrd960	nfrd960 Not Available		Kernel Driver	No	Manual	Stopped	OK	Disabled				
npfs	Npfs	c:\windows\system32\drivers\npfs.sys	File System	Driver	Yes	System	Running	OK	Normal	No	Yes	
ntfs	Ntfs	c:\windows\system32\drivers\ntfs.sys	File System	Driver	Yes	System	Disabled	Running	OK	Normal	No	Yes
null	Null	c:\windows\system32\drivers\null.sys	Kernel Driver	Yes	System	Running	OK	Normal	No	Yes		
parport	Parport	c:\windows\system32\drivers\parport.sys	Kernel Driver	No	Manual	Stopped	OK	Ignore	No	No		
partmgr	Partition Manager	c:\windows\system32\drivers\partmgr.sys	Kernel Driver	Yes	Boot	Running	OK	Normal	No	Yes		
pci	PCI Bus Driver	c:\windows\system32\drivers\pci.sys	Kernel Driver	Yes	Boot	Running	OK	Critical	No	Yes		
pciide	PCIIde	c:\windows\system32\drivers\pciide.sys	Kernel Driver	Yes	Boot	Running	OK	Normal	No	Yes		
pcmcia	Pcmcia	c:\windows\system32\drivers\pcmcia.sys	Kernel Driver	No	Manual	Stopped	OK	Normal	No	No		
pdcomp	PDCOMP		Kernel Driver	No	Manual	Stopped	OK	Ignore	No	No		
pdframe	PDFRAME		Kernel Driver	No	Manual	Stopped	OK	Ignore	No	No		
pdreli	PDRELI		Kernel Driver	No	Manual	Stopped	OK	Ignore	No	No		
pdrframe	PDRFRAME		Kernel Driver	No	Manual	Stopped	OK	Ignore	No	No		
percsas	percsas	c:\windows\system32\drivers\percsas.sys	Kernel Driver	Yes	Boot	Running	OK	Normal	No	Yes		
pptpminiport	WAN Miniport (PPTP)	c:\windows\system32\drivers\raspppt.sys	Kernel	Driver	Yes	Manual	Running	OK	Normal	No	Yes	
ptilink	Direct Parallel Link Driver	c:\windows\system32\drivers\ptilink.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes		
ql2300	ql2300 Not Available		Kernel Driver	No	Manual	Stopped	OK	Disabled				
rasacd	Remote Access Auto Connection Driver	c:\windows\system32\drivers\rasacd.sys	Kernel	Driver	Yes	System	Running	OK	Normal	No	Yes	
rasl2tp	WAN Miniport (L2TP)	c:\windows\system32\drivers\rasl2tp.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes		
rasppoe	Remote Access PPPOE Driver	c:\windows\system32\drivers\rasppoe.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes		
raspti	Direct Parallel	c:\windows\system32\drivers\raspti.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes		

APPENDIX C - TUNABLE PARAMETERS

rdbss	Rdbss	c:\windows\system32\drivers\rdbss.sys	File System Driver	Yes	System	Running	OK	Normal	No	Yes
rdpcdd	RDPCCDD	c:\windows\system32\drivers\rdpcdd.sys	Kernel Driver	Yes	System	Running	OK	Ignore	No	Yes
rdpdr	Terminal Server Device Redirector Driver	c:\windows\system32\drivers\rdpdr.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes
rdpwd	RDPWD	c:\windows\system32\drivers\rdpwd.sys	Kernel Driver	Yes	Manual	Running	OK	Ignore	No	Yes
redbook	Digital CD Audio Playback Filter Driver	c:\windows\system32\drivers\redbook.sys	Kernel Driver	Yes	System	Running	OK	Normal	No	Yes
scsiprnt	Microsoft SCSI/1394 Generic Printer Class	c:\windows\system32\drivers\scsiprnt.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes
secdrv	Security Driver	c:\windows\system32\drivers\secdrv.sys	Kernel Driver	Yes	Auto	Running	OK	Normal	No	Yes
serenum	Serenum Filter Driver	c:\windows\system32\drivers\serenum.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes
serial	Serial port driver	c:\windows\system32\drivers\serial.sys	Kernel Driver	Yes	System	Running	OK	Ignore	No	Yes
sfloppy	High-Capacity Floppy Disk Drive	c:\windows\system32\drivers\sfloppy.sys	Kernel Driver	No	Manual	Stopped	OK	Normal	No	No
simbad	Simbad	Not Available	Kernel Driver	No	Disabled	Stopped	OK			OK
srv	Srv	c:\windows\system32\drivers\srv.sys	File System Driver	Yes	Manual	Running	OK	Normal	No	Yes
swenum	Software Bus Driver	c:\windows\system32\drivers\swenum.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes
symc8xx	symc8xx	Not Available	Kernel Driver	No	Disabled	Stopped	OK	Normal	No	No
symmpi	symmpi	Not Available	Kernel Driver	No	Disabled	Stopped	OK			OK
sym_hi	sym_hi	Not Available	Kernel Driver	No	Disabled	Stopped	OK			OK
sym_u3	sym_u3	Not Available	Kernel Driver	No	Disabled	Stopped	OK			OK
tcpip	TCP/IP Protocol Driver	c:\windows\system32\drivers\tcpip.sys	Kernel Driver	Yes	System	Running	OK	Normal	No	Yes
tdpipe	TDPIPE	c:\windows\system32\drivers\tdpipe.sys	Kernel Driver	No	Manual	Stopped	OK	Ignore	No	No
tdtcp	TDTCP	c:\windows\system32\drivers\tdtcp.sys	Kernel Driver	Yes	Manual	Running	OK	Ignore	No	Yes
termdd	Terminal Device Driver	c:\windows\system32\drivers\termdd.sys	Kernel Driver	Yes	System	Running	OK	Normal	No	Yes
toside	Toside	Not Available	Kernel Driver	No	Disabled	Stopped	OK			OK
udfs	Udfs	c:\windows\system32\drivers\udfs.sys	File System Driver	No	Disabled	Stopped	OK	Normal	No	No
ultra	ultra	Not Available	Kernel Driver	No	Disabled	Stopped	OK			OK
update	Microcode Update Driver	c:\windows\system32\drivers\update.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes
usbccgp	Microsoft USB Generic Parent Driver	c:\windows\system32\drivers\usbccgp.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes

APPENDIX C - TUNABLE PARAMETERS

usbhci	Microsoft USB 2.0 Enhanced Host Controller Miniport Driver	c:\windows\system32\drivers\usbhci.sys	Kernel Driver	Yes	Manual		
	Running	OK	Normal	No	Yes		
usbhub	USB2 Enabled Hub	c:\windows\system32\drivers\usbhub.sys	Kernel Driver				
	Yes	Manual	Running	OK	Normal	No	Yes
usbstor	USB Mass Storage Driver	c:\windows\system32\drivers\usbstor.sys	Kernel				
Driver	No	Manual	Stopped	OK	Normal	No	No
usbuhci	Microsoft USB Universal Host Controller Miniport Driver	c:\windows\system32\drivers\usbuhci.sys	Kernel Driver	Yes	Manual		
	Running	OK	Normal	No	Yes		
vga	vga	c:\windows\system32\drivers\vgapnp.sys	Kernel Driver	Yes	Manual		
	Running	OK	Ignore	No	Yes		
vgasave	VGA Display Controller.	c:\windows\system32\drivers\vga.sys	Kernel Driver				
	No	System	Stopped	OK	Ignore	No	No
viaide	Vialde	Not Available	Kernel Driver	No	Disabled	Stopped	OK
	Normal	No	No				
volsnap	Storage volumes	c:\windows\system32\drivers\volsnap.sys	Kernel Driver				
	Yes	Boot	Running	OK	Normal	No	Yes
wanarp	Remote Access IP ARP Driver	c:\windows\system32\drivers\wanarp.sys	Kernel				
Driver	Yes	Manual	Running	OK	Normal	No	Yes
wdf01000	Kernel Mode Driver Frameworks service	c:\windows\system32\drivers\wdf01000.sys	Kernel Driver	Yes	Boot		
	Running	OK	Ignore	No	Yes		
wdica	WDICA	Not Available	Kernel Driver	No	Manual	Stopped	OK
	No	No					Ignore
wlbs	Network Load Balancing	c:\windows\system32\drivers\wlbs.sys	Kernel Driver				
	No	Manual	Stopped	OK	Normal	No	No

[Signed Drivers]

Device Name	Signed	Device Class	Driver Version	Driver Date	Manufacturer	INF
Name	Driver Name	Device ID				
Microsoft System Management BIOS Driver	Yes	SYSTEM	5.2.3790.3959	10/1/2002	Microsoft	netrasa.inf
	10/1/2002	(Standard system devices)	machine.inf	Not Available		ROOT\SYSTEM\0002
Microcode Update Device	Yes	SYSTEM	5.2.3790.3959	10/1/2002	Microsoft	netrasa.inf
	(Standard system devices)	machine.inf	Not Available	ROOT\SYSTEM\0001		ROOT\SYSTEM\0001
Plug and Play Software Device Enumerator	Yes	SYSTEM	5.2.3790.3959	10/1/2002	Microsoft	netrasa.inf
	10/1/2002	(Standard system devices)	machine.inf	Not Available		ROOT\SYSTEM\0000
Terminal Server Mouse Driver	Yes	SYSTEM	5.2.3790.3959	10/1/2002	Microsoft	netrasa.inf
	(Standard system devices)	machine.inf	Not Available	ROOT\RDP_MOU\0000		ROOT\RDP_MOU\0000
Terminal Server Keyboard Driver	Yes	SYSTEM	5.2.3790.3959	10/1/2002	Microsoft	netrasa.inf
	(Standard system devices)	machine.inf	Not Available	ROOT\RDP_KBD\0000		ROOT\RDP_KBD\0000
Terminal Server Device Redirector	Yes	SYSTEM	5.2.3790.3959	10/1/2002	Microsoft	netrasa.inf
	(Standard system devices)	machine.inf	Not Available	ROOT\RDPDR\0000		ROOT\RDPDR\0000
Direct Parallel	Yes	NET	5.2.3790.1830	10/1/2002	Microsoft	netrasa.inf
	Not Available	ROOTMS_PTMINIPORT\0000				ROOTMS_PTMINIPORT\0000
WAN Miniport (PPTP)	Yes	NET	5.2.3790.1830	10/1/2002	Microsoft	netrasa.inf
	netrasa.inf	Not Available	ROOTMS_PPTPMINIPORT\0000			ROOTMS_PPTPMINIPORT\0000
WAN Miniport (PPPOE)	Yes	NET	5.2.3790.1830	10/1/2002	Microsoft	netrasa.inf
	netrasa.inf	Not Available	ROOTMS_PPPOEMINIPORT\0000			ROOTMS_PPPOEMINIPORT\0000
WAN Miniport (IP)	Yes	NET	5.2.3790.1830	10/1/2002	Microsoft	netrasa.inf
	netrasa.inf	Not Available	ROOTMS_NDISWANIP\0000			ROOTMS_NDISWANIP\0000

APPENDIX C - TUNABLE PARAMETERS

WAN Miniport (L2TP) netrasa.inf	Yes Not Available	NET ROOTMS_L2TPMINIPORT\0000	5.2.3790.1830 10/1/2002	Microsoft	
Video Codecs wave.inf	Yes Not Available	MEDIA ROOTMEDIA\MS_MMVID	5.2.3790.1830 10/1/2002	(Standard system devices)	
Legacy Video Capture Devices wave.inf	Yes Not Available	MEDIA ROOTMEDIA\MS_MMVCD	5.2.3790.1830 10/1/2002	(Standard system devices)	
Media Control Devices wave.inf	Yes Not Available	MEDIA ROOTMEDIA\MS_MMMCI	5.2.3790.1830 10/1/2002	(Standard system devices)	
Legacy Audio Drivers wave.inf	Yes Not Available	MEDIA ROOTMEDIA\MS_MMDRV	5.2.3790.1830 10/1/2002	(Standard system devices)	
Audio Codecs wave.inf	Yes Not Available	MEDIA ROOTMEDIA\MS_MMACM	5.2.3790.1830 10/1/2002	(Standard system devices)	
Kernel Mode Driver Frameworks service	Not Available	LEGACYDRIVER		Not Available	
Not Available	Not Available	Not Available	Not Available		
ROOTLEGACY_WDF01000\0000					
Remote Access IP ARP Driver	Not Available	LEGACYDRIVER		Not Available	Not Available
Not Available	Not Available	Not Available	Not Available		
ROOTLEGACY_WANARP\0000					
Storage volumes	Not Available	LEGACYDRIVER		Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	ROOTLEGACY_VOLSNAP\0000	
TDTCP	Not Available	LEGACYDRIVER		Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	ROOTLEGACY_TDTCP\0000	
TCP/IP Protocol Driver	Not Available	LEGACYDRIVER		Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	ROOTLEGACY_TCPIP\0000	
Security Driver	Not Available	LEGACYDRIVER		Not Available	Not Available
Available	Not Available	Not Available	Not Available	ROOTLEGACY_SECDRV\0000	
RDPWD	Not Available	LEGACYDRIVER		Not Available	Not Available
Available	Not Available	Not Available	Not Available	ROOTLEGACY_RDPWD\0000	
RDPCDD	Not Available	LEGACYDRIVER		Not Available	Not Available
Available	Not Available	Not Available	Not Available	ROOTLEGACY_RDPCDD\0000	
Remote Access Auto Connection Driver	Not Available	LEGACYDRIVER		Not Available	
Not Available	Not Available	Not Available	Not Available	Not Available	
ROOTLEGACY_RASACD\0000					
Partition Manager	Not Available	LEGACYDRIVER		Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	ROOTLEGACY_PARTMGR\0000	
Null	Not Available	LEGACYDRIVER		Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	ROOTLEGACY_NULL\0000	
NetBios over Tcpi	Not Available	LEGACYDRIVER		Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	ROOTLEGACY_NETBT\0000	
NDProxy	Not Available	LEGACYDRIVER		Not Available	Not Available
Available	Not Available	Not Available	Not Available	ROOTLEGACY_NDPROXY\0000	
NDIS Usermode I/O Protocol	Not Available	LEGACYDRIVER		Not Available	Not Available
Available	Not Available	Not Available	Not Available	Not Available	
ROOTLEGACY_NDISUIO\0000					
Remote Access NDIS TAPI Driver	Not Available	LEGACYDRIVER		Not Available	
Not Available	Not Available	Not Available	Not Available	Not Available	
ROOTLEGACY_NDISTAPI\0000					
NDIS System Driver	Not Available	LEGACYDRIVER		Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	ROOTLEGACY_NDIS\0000	
mountmgr	Not Available	LEGACYDRIVER		Not Available	Not Available
Available	Not Available	Not Available	Not Available	ROOTLEGACY_MOUNTMGR\0000	
mnmd	Not Available	LEGACYDRIVER		Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	ROOTLEGACY_MNMDD\0000	
ksecdd	Not Available	LEGACYDRIVER		Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	ROOTLEGACY_KSECDD\0000	

APPENDIX C - TUNABLE PARAMETERS

IPSEC driver Available	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available
IP Network Address Translator Available	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available
Generic Packet Classifier Available	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available
Fips	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available
dmload	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available
dmboot	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available
CRC Disk Filter Driver	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available
CdaD10BA Available	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available
CdaC15BA Available	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available
Beep	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available
AFD	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available
Generic volume Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft	
volume.inf	Not Available				
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB07OFFSET36E5EF7200LEN					
GTHFA087E00					
Generic volume Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft	
volume.inf	Not Available				
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB07OFFSET369AECC000LE					
NGTH4B023400					
Generic volume Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft	
volume.inf	Not Available				
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB07OFFSET364FEA0E00LE					
NGTH4B023400					
Generic volume Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft	
volume.inf	Not Available				
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB07OFFSET2EFCA6AC00LE					
NGTH75342E400					
Generic volume Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft	
volume.inf	Not Available				
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB07OFFSET2D0894B400LEN					
GTH1F4117A00					
Generic volume Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft	
volume.inf	Not Available				
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB07OFFSET2B1482BC00LE					
NGTH1F4117A00					
Generic volume Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft	
volume.inf	Not Available				
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB07OFFSET292070C400LEN					
GTH1F4117A00					
Generic volume Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft	
volume.inf	Not Available				
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB07OFFSET2864AB4600LEN					
GTHBBC50000					

APPENDIX C - TUNABLE PARAMETERS

Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB07OFFSET26AEDCCC00LE NGTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB07OFFSET24F90E5200LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB07OFFSET23433FD800LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB07OFFSET224936DC00LEN GTHFA087E00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB07OFFSET21FE342A00LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB07OFFSET13582AE800LEN GTHEA608C400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB07OFFSET130D283600LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB07OFFSETBB9E4D400LEN GTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB07OFFSET9C5D2DC00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB07OFFSET7D1C0E400LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB07OFFSET5DDAEEC00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB07OFFSET521E96E00LEN GTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB07OFFSET36C1AF400LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft

APPENDIX C - TUNABLE PARAMETERS

STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB07OFFSET1B64C7A00LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB07OFFSET7E0000LENGTH					
1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB00OFFSET284CA56400LEN					
GTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB00OFFSET2801A2B200LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB00OFFSET27B6A00000LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB00OFFSET20635C9E00LEN					
GTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB00OFFSET1E6F4AA600LE					
NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB00OFFSET1C7B38AE00LE					
NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB00OFFSET1A8726B600LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB00OFFSET19CB613800LEN					
GTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB00OFFSET181592BE00LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB00OFFSET165FC44400LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB00OFFSET14A9F5CA00LE					
NGTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB00OFFSET13AFECCE00LE					
NGTHFA087E00					

APPENDIX C - TUNABLE PARAMETERS

Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB00OFFSET1364EA1C00LE NGTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB00OFFSET13582AE800LEN GTHCBEB600				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB00OFFSET130D283600LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB00OFFSETBB9E4D400LEN GTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB00OFFSET9C5D2DC00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB00OFFSET7D1C0E400LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB00OFFSET5DDAEEC00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB00OFFSET521E96E00LEN GTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB00OFFSET36C1AF400LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB00OFFSET1B64C7A00LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB00OFFSET7E0000LENGTH 1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0DOFFSET2C280A2000LE NGTHFA087E00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0DOFFSET2BDD076E00LE NGTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft

APPENDIX C - TUNABLE PARAMETERS

STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0DOFFSET2B9204BC00LE NGTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0DOFFSET243EC15A00LE NGTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0DOFFSET224AAF6200LE NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0DOFFSET20569D6A00LE NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0DOFFSET1E628B7200LE NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0DOFFSET1DA6C5F400LE NGTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0DOFFSET1BF0F77A00LE NGTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0DOFFSET1A3B290000LE NGTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0DOFFSET18855A8600LE GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0DOFFSET178B518A00LE NGTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0DOFFSET17404ED800LE NGTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0DOFFSET16F54C2600LE NGTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0DOFFSET130D283600LE GTH3E8237200					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0DOFFSETBB9E4D400LE GTH75342E400					

APPENDIX C - TUNABLE PARAMETERS

Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0DOFFSET9C5D2DC00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0DOFFSET7D1C0E400LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0DOFFSET5DDAEEC00LE NGTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0DOFFSET521E96E00LEN GTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0DOFFSET36C1AF400LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0DOFFSET1B64C7A00LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0DOFFSET7E0000LENGTH 1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0EOFFSET284CA56400LE NGTHFA087E00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0EOFFSET2801A2B200LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0EOFFSET27B6A00000LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0EOFFSET20635C9E00LE NGTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0EOFFSET1E6F4AA600LE NGTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0EOFFSET1C7B38AE00LE NGTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft

APPENDIX C - TUNABLE PARAMETERS

STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0EOFFSET1A8726B600LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0EOFFSET19CB613800LE					
NGTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0EOFFSET181592BE00LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0EOFFSET165FC44400LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0EOFFSET14A9F5CA00LE					
NGTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0EOFFSET13AFECCE00LE					
NGTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0EOFFSET1364EA1C00LE					
NGTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0EOFFSET1319E76A00LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0EOFFSET130D283600LEN					
GTHCBEB600					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0EOFFSETBB9E4D400LEN					
GTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0EOFFSET9C5D2DC00LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0EOFFSET7D1C0E400LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0EOFFSET5DDAEEC00LE					
NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0EOFFSET521E96E00LEN					
GTHBBC50000					

APPENDIX C - TUNABLE PARAMETERS

Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0EOFFSET36C1AF400LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0EOFFSET1B64C7A00LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0EOFFSET7E0000LENGTH 1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0BOFFSET2ABDBBDA00LE NGTHFA087E00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0BOFFSET2A72B92800LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0BOFFSET2A27B67600LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0BOFFSET29DCB3C400LE NGTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0BOFFSET2289706200LEN GTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0BOFFSET20955E6A00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0BOFFSET1EA14C7200LE NGTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0BOFFSET1CAD3A7A00LE NGTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0BOFFSET1BF174FC00LE NGTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0BOFFSET1A3BA68200LE NGTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft

APPENDIX C - TUNABLE PARAMETERS

STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0BOFFSET1885D80800LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0BOFFSET16D0098E00LE					
NGTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0BOFFSET15D6009200LEN					
GTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0BOFFSET158AFDE000LE					
NGTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0BOFFSET153FFB2E00LE					
NGTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0BOFFSET130D283600LEN					
GTH232D27A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0BOFFSETBB9E4D400LEN					
GTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0BOFFSET9C5D2DC00LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0BOFFSET7D1C0E400LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0BOFFSET5DDAEEC00LE					
NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0BOFFSET521E96E00LEN					
GTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0BOFFSET36C1AF400LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0BOFFSET1B64C7A00LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB0BOFFSET7E0000LENGTH					
1B5CDFC00					

APPENDIX C - TUNABLE PARAMETERS

Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF4OFFSET28454AC600LEN GTHFA087E00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF4OFFSET27FA481400LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF4OFFSET27AF456200LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF4OFFSET205C020000LEN GTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF4OFFSET1E67F00800LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF4OFFSET1C73DE1000LE NGTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF4OFFSET1A7FCC1800LE NGTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF4OFFSET19C4069A00LEN GTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF4OFFSET180E382000LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF4OFFSET165869A600LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF4OFFSET14A29B2C00LE NGTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF4OFFSET13A8923000LEN GTHFA087E00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF4OFFSET135D8F7E00LE NGTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft

APPENDIX C - TUNABLE PARAMETERS

STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF4OFFSET13128CCC00LE					
NGTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF4OFFSETBBF496A00LEN					
GTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF4OFFSETBB9E4D400LEN					
GTH5641800					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF4OFFSET9C5D2DC00LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF4OFFSET7D1C0E400LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF4OFFSET5DDAEEC00LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF4OFFSET521E96E00LEN					
GTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF4OFFSET36C1AF400LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF4OFFSET1B64C7A00LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF4OFFSET7E0000LENGTH					
1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF6OFFSET2871E7FC00LE					
NGTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF6OFFSET2826E54A00LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF6OFFSET27DBE29800LE					
NGTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF6OFFSET20889F3600LEN					
GTH75342E400					

APPENDIX C - TUNABLE PARAMETERS

Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF6OFFSET1E948D3E00LE NGTH1F4117A00	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF6OFFSET1CA07B4600LE NGTH1F4117A00	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF6OFFSET1AAC694E00LE NGTH1F4117A00	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF6OFFSET19F0A3D000LE NGTHBBC50000	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF6OFFSET183AD55600LEN GTH1B5CDFC00	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF6OFFSET168506DC00LE NGTH1B5CDFC00	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF6OFFSET14CF386200LEN GTH1B5CDFC00	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF6OFFSET13D52F6600LEN GTHFA087E00	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF6OFFSET138A2CB400LE NGTH4B023400	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF6OFFSET133F2A0200LEN GTH4B023400	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF6OFFSETBEBE6A000LEN GTH75342E400	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF6OFFSET9F7D4A800LEN GTH1F4117A00	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF6OFFSET803C2B000LEN GTH1F4117A00	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft

APPENDIX C - TUNABLE PARAMETERS

STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF6OFFSET60FB0B800LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF6OFFSET553EB3A00LEN					
GTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF6OFFSET521E96E00LEN					
GTH32014E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF6OFFSET36C1AF400LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF6OFFSET1B64C7A00LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF6OFFSET7E0000LENGTH					
1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF0OFFSET330B083800LEN					
GTH9C4595A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF0OFFSET2946AE6000LEN					
GTH9C4595A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF0OFFSET284CA56400LEN					
GTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF0OFFSET2801A2B200LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF0OFFSET27B6A00000LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF0OFFSET20635C9E00LEN					
GTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF0OFFSET1E6F4AA600LE					
NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF0OFFSET1C7B38AE00LE					
NGTH1F4117A00					

APPENDIX C - TUNABLE PARAMETERS

Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF0OFFSET1A8726B600LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF0OFFSET19CB613800LEN GTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF0OFFSET181592BE00LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF0OFFSET165FC44400LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF0OFFSET14A9F5CA00LE NGTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF0OFFSET13AFECCE00LE NGTHFA087E00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF0OFFSET1364EA1C00LE NGTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF0OFFSET1319E76A00LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF0OFFSETBC6A40800LEN GTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF0OFFSET9D2921000LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF0OFFSET7DE801800LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF0OFFSET5EA6E2000LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF0OFFSET52EA8A200LEN GTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft

APPENDIX C - TUNABLE PARAMETERS

STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF0OFFSET378DA2800LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF0OFFSET1C30BAE00LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF0OFFSETD3D3400LENGT					
H1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FBF0OFFSET7E0000LENGTH					
CBEB600					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB37OFFSET2745DD3400LEN					
GTH5641800					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB37OFFSET264BD43800LEN					
GTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB37OFFSET2600D18600LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB37OFFSET25B5CED400LE					
NGTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB37OFFSET1E628B7200LEN					
GTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB37OFFSET1C6E797A00LE					
NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB37OFFSET1A7A678200LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB37OFFSET19BEA20400LEN					
GTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB37OFFSET1808D38A00LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB37OFFSET1653051000LEN					
GTH1B5CDFC00					

APPENDIX C - TUNABLE PARAMETERS

Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB37OFFSET149D369600LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB37OFFSET13A32D9A00LE NGTHFA087E00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB37OFFSET13582AE800LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB37OFFSET130D283600LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB37OFFSETBB9E4D400LEN GTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB37OFFSET9C5D2DC00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB37OFFSET7D1C0E400LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB37OFFSET5DDAE00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB37OFFSET521E96E00LEN GTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB37OFFSET36C1AF400LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB37OFFSET1B64C7A00LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB37OFFSET7E0000LENGTH 1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB30OFFSET293F53C200LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft

APPENDIX C - TUNABLE PARAMETERS

STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB30OFFSET2939EF2C00LEN					
GTH5641800					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB30OFFSET283FE63000LEN					
GTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB30OFFSET27F4E37E00LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB30OFFSET27A9E0CC00LE					
NGTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB30OFFSET20569D6A00LEN					
GTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB30OFFSET1E628B7200LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB30OFFSET1C6E797A00LE					
NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB30OFFSET1A7A678200LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB30OFFSET19BEA20400LEN					
GTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB30OFFSET1808D38A00LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB30OFFSET1653051000LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB30OFFSET149D369600LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB30OFFSET13A32D9A00LE					
NGTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB30OFFSET13582AE800LEN					
GTH4B023400					

APPENDIX C - TUNABLE PARAMETERS

Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB30OFFSET130D283600LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB30OFFSETBB9E4D400LEN GTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB30OFFSET9C5D2DC00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB30OFFSET7D1C0E400LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB30OFFSET5DDAEEC00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB30OFFSET521E96E00LEN GTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB30OFFSET36C1AF400LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB30OFFSET1B64C7A00LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB30OFFSET7E0000LENGTH 1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3DOFFSET28F54C1400LE NGTH131E5000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3DOFFSET27FB431800LEN GTHFA087E00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3DOFFSET27F4E37E00LE NGTH65F1C00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3DOFFSET27A9E0CC00LE NGTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft

APPENDIX C - TUNABLE PARAMETERS

STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3DOFFSET20569D6A00LE					
NGTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3DOFFSET1E628B7200LE					
NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3DOFFSET1C6E797A00LE					
NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3DOFFSET1A7A678200LE					
NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3DOFFSET19BEA20400LE					
NGTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3DOFFSET1808D38A00LE					
NGTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3DOFFSET1653051000LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3DOFFSET149D369600LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3DOFFSET13A32D9A00LE					
NGTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3DOFFSET13582AE800LE					
NGTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3DOFFSET130D283600LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3DOFFSETBB9E4D400LEN					
GTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3DOFFSET9C5D2DC00LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3DOFFSET7D1C0E400LEN					
GTH1F4117A00					

APPENDIX C - TUNABLE PARAMETERS

Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3DOFFSET5DDAEEC00LE NGTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3DOFFSET521E96E00LEN GTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3DOFFSET36C1AF400LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3DOFFSET1B64C7A00LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3DOFFSET7E0000LENGTH 1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3EOFFSET36E5EF7200LE NGTHFA087E00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3EOFFSET369AECC000LE NGTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3EOFFSET27F4E37E00LE NGTHEA608C400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3EOFFSET27A9E0CC00LE NGTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3EOFFSET20569D6A00LE NGTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3EOFFSET1E628B7200LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3EOFFSET1C6E797A00LE NGTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3EOFFSET1A7A678200LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft

APPENDIX C - TUNABLE PARAMETERS

STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3EOFFSET19BEA20400LE					
NGTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3EOFFSET1808D38A00LE					
NGTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3EOFFSET1653051000LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3EOFFSET149D369600LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3EOFFSET13A32D9A00LE					
NGTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3EOFFSET13582AE800LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3EOFFSET130D283600LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3EOFFSETBB9E4D400LEN					
GTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3EOFFSET9C5D2DC00LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3EOFFSET7D1C0E400LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3EOFFSET5DDAEEC00LE					
NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3EOFFSET521E96E00LEN					
GTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3EOFFSET36C1AF400LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3EOFFSET1B64C7A00LEN					
GTH1B5CDFC00					

APPENDIX C - TUNABLE PARAMETERS

Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3EOFFSET7E0000LENGTH 1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3BOFFSET284CA56400LE NGTHFA087E00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3BOFFSET2801A2B200LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3BOFFSET27F4E37E00LE NGTHCBEB600				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3BOFFSET27A9E0CC00LE NGTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3BOFFSET20569D6A00LE NGTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3BOFFSET1E628B7200LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3BOFFSET1C6E797A00LE NGTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3BOFFSET1A7A678200LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3BOFFSET19BEA20400LE NGTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3BOFFSET1808D38A00LE NGTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3BOFFSET1653051000LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3BOFFSET149D369600LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft

APPENDIX C - TUNABLE PARAMETERS

STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3BOFFSET13A32D9A00LE					
NGTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3BOFFSET13582AE800LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3BOFFSET130D283600LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3BOFFSETBB9E4D400LEN					
GTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3BOFFSET9C5D2DC00LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3BOFFSET7D1C0E400LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3BOFFSET5DDAEEC00LE					
NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3BOFFSET521E96E00LEN					
GTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3BOFFSET36C1AF400LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3BOFFSET1B64C7A00LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB3BOFFSET7E0000LENGTH					
1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB24OFFSET2C280A2000LEN					
GTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB24OFFSET2BDD076E00LE					
NGTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB24OFFSET2B9204BC00LE					
NGTH4B023400					

APPENDIX C - TUNABLE PARAMETERS

Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME1&30A96598&0&SIGNATURE5757FB24OFFSET27A9E0CC00LE NGTH3E8237200				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME1&30A96598&0&SIGNATURE5757FB24OFFSET20569D6A00LEN GTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME1&30A96598&0&SIGNATURE5757FB24OFFSET1E628B7200LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME1&30A96598&0&SIGNATURE5757FB24OFFSET1C6E797A00LE NGTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME1&30A96598&0&SIGNATURE5757FB24OFFSET1A7A678200LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME1&30A96598&0&SIGNATURE5757FB24OFFSET19BEA20400LEN GTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME1&30A96598&0&SIGNATURE5757FB24OFFSET1808D38A00LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME1&30A96598&0&SIGNATURE5757FB24OFFSET1653051000LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME1&30A96598&0&SIGNATURE5757FB24OFFSET149D369600LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME1&30A96598&0&SIGNATURE5757FB24OFFSET13A32D9A00LE NGTHFA087E00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME1&30A96598&0&SIGNATURE5757FB24OFFSET13582AE800LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME1&30A96598&0&SIGNATURE5757FB24OFFSET130D283600LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME1&30A96598&0&SIGNATURE5757FB24OFFSETBB9E4D400LEN GTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft

APPENDIX C - TUNABLE PARAMETERS

STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB24OFFSET9C5D2DC00LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB24OFFSET7D1C0E400LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB24OFFSET5DDAEEC00LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB24OFFSET521E96E00LEN					
GTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB24OFFSET36C1AF400LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB24OFFSET1B64C7A00LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB24OFFSET7E0000LENGTH					
1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB21OFFSET284CA56400LEN					
GTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB21OFFSET2801A2B200LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB21OFFSET27B6A00000LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB21OFFSET27A9E0CC00LE					
NGTHCBEB600					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB21OFFSET20569D6A00LEN					
GTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB21OFFSET1E628B7200LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB21OFFSET1C6E797A00LE					
NGTH1F4117A00					

APPENDIX C - TUNABLE PARAMETERS

Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB21OFFSET1A7A678200LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB21OFFSET19BEA20400LEN GTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB21OFFSET1808D38A00LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB21OFFSET1653051000LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB21OFFSET149D369600LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB21OFFSET13A32D9A00LE NGTHFA087E00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB21OFFSET13582AE800LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB21OFFSET130D283600LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB21OFFSETBB9E4D400LEN GTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB21OFFSET9C5D2DC00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB21OFFSET7D1C0E400LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB21OFFSET5DDAE00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB21OFFSET521E96E00LEN GTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft

APPENDIX C - TUNABLE PARAMETERS

STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB21OFFSET36C1AF400LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB21OFFSET1B64C7A00LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB21OFFSET7E0000LENGTH					
1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB22OFFSET28454AC600LEN					
GTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB22OFFSET27FA481400LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB22OFFSET27AF456200LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB22OFFSET205C020000LEN					
GTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB22OFFSET20569D6A00LEN					
GTH5641800					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB22OFFSET1E628B7200LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB22OFFSET1C6E797A00LE					
NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB22OFFSET1A7A678200LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB22OFFSET19BEA20400LEN					
GTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB22OFFSET1808D38A00LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB22OFFSET1653051000LEN					
GTH1B5CDFC00					

APPENDIX C - TUNABLE PARAMETERS

Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB22OFFSET149D369600LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB22OFFSET13A32D9A00LE NGTHFA087E00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB22OFFSET13582AE800LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB22OFFSET130D283600LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB22OFFSETBB9E4D400LEN GTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB22OFFSET9C5D2DC00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB22OFFSET7D1C0E400LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB22OFFSET5DDAE00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB22OFFSET521E96E00LEN GTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB22OFFSET36C1AF400LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB22OFFSET1B64C7A00LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB22OFFSET7E0000LENGTH 1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB5FOFFSET283FE63000LEN GTHFA087E00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft

APPENDIX C - TUNABLE PARAMETERS

STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB5FOFFSET27F4E37E00LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB5FOFFSET27A9E0CC00LE					
NGTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB5FOFFSET20569D6A00LEN					
GTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB5FOFFSET1E628B7200LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB5FOFFSET1C6E797A00LE					
NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB5FOFFSET1A7A678200LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB5FOFFSET19BEA20400LE					
NGTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB5FOFFSET1808D38A00LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB5FOFFSET1653051000LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB5FOFFSET149D369600LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB5FOFFSET13A32D9A00LE					
NGTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB5FOFFSET13582AE800LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB5FOFFSET130D283600LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB5FOFFSETBB9E4D400LEN					
GTH75342E400					

APPENDIX C - TUNABLE PARAMETERS

Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB5FOFFSET9C5D2DC00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB5FOFFSET7D1C0E400LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB5FOFFSET5DDAE00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB5FOFFSET521E96E00LEN GTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB5FOFFSET36C1AF400LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB5FOFFSET1B64C7A00LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB5FOFFSET7E0000LENGTH 1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB58OFFSET283FE63000LEN GTHFA087E00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB58OFFSET27F4E37E00LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB58OFFSET27A9E0CC00LE NGTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB58OFFSET20569D6A00LEN GTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB58OFFSET1E628B7200LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB58OFFSET1C6E797A00LE NGTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft

APPENDIX C - TUNABLE PARAMETERS

STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB58OFFSET1A7A678200LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB58OFFSET19BEA20400LEN					
GTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB58OFFSET1808D38A00LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB58OFFSET1653051000LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB58OFFSET149D369600LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB58OFFSET13A32D9A00LE					
NGTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB58OFFSET13582AE800LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB58OFFSET130D283600LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB58OFFSETBB9E4D400LEN					
GTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB58OFFSET9C5D2DC00LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB58OFFSET7D1C0E400LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB58OFFSET5DDAEEC00LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB58OFFSET521E96E00LEN					
GTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB58OFFSET36C1AF400LEN					
GTH1B5CDFC00					

APPENDIX C - TUNABLE PARAMETERS

Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB58OFFSET1B64C7A00LEN GTH1B5CDFC00	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB58OFFSET7E0000LENGTH 1B5CDFC00	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB45OFFSET283FE63000LEN GTHFA087E00	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB45OFFSET27F4E37E00LEN GTH4B023400	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB45OFFSET27A9E0CC00LE NGTH4B023400	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB45OFFSET20569D6A00LEN GTH75342E400	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB45OFFSET1E628B7200LEN GTH1F4117A00	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB45OFFSET1C6E797A00LE NGTH1F4117A00	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB45OFFSET1A7A678200LEN GTH1F4117A00	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB45OFFSET19BEA20400LEN GTHBBC50000	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB45OFFSET1808D38A00LEN GTH1B5CDFC00	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB45OFFSET1653051000LEN GTH1B5CDFC00	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB45OFFSET149D369600LEN GTH1B5CDFC00	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft

APPENDIX C - TUNABLE PARAMETERS

STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB45OFFSET13A32D9A00LE					
NGTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB45OFFSET13582AE800LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB45OFFSET130D283600LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB45OFFSETBB9E4D400LEN					
GTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB45OFFSET9C5D2DC00LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB45OFFSET7D1C0E400LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB45OFFSET5DDAE00LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB45OFFSET521E96E00LEN					
GTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB45OFFSET36C1AF400LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB45OFFSET1B64C7A00LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB45OFFSET7E0000LENGTH					
1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB46OFFSET283FE63000LEN					
GTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB46OFFSET27F4E37E00LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB46OFFSET27A9E0CC00LE					
NGTH4B023400					

APPENDIX C - TUNABLE PARAMETERS

Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB46OFFSET20569D6A00LEN GTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB46OFFSET1E628B7200LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB46OFFSET1C6E797A00LE NGTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB46OFFSET1A7A678200LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB46OFFSET19BEA20400LEN GTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB46OFFSET1808D38A00LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB46OFFSET1653051000LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB46OFFSET149D369600LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB46OFFSET13A32D9A00LE NGTHFA087E00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB46OFFSET13582AE800LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB46OFFSET130D283600LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB46OFFSETBB9E4D400LEN GTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB46OFFSET9C5D2DC00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft

APPENDIX C - TUNABLE PARAMETERS

STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB46OFFSET7D1C0E400LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB46OFFSET5DDAE00LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB46OFFSET521E96E00LEN					
GTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB46OFFSET36C1AF400LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB46OFFSET1B64C7A00LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB46OFFSET7E0000LENGTH					
1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB43OFFSET2939EF2C00LEN					
GTH232D27A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB43OFFSET283FE63000LEN					
GTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB43OFFSET27F4E37E00LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB43OFFSET27A9E0CC00LE					
NGTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB43OFFSET20569D6A00LEN					
GTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB43OFFSET1E628B7200LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB43OFFSET1C6E797A00LE					
NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB43OFFSET1A7A678200LEN					
GTH1F4117A00					

APPENDIX C - TUNABLE PARAMETERS

Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB43OFFSET19BEA20400LEN GTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB43OFFSET1808D38A00LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB43OFFSET1653051000LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB43OFFSET149D369600LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB43OFFSET13A32D9A00LE NGTHFA087E00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB43OFFSET13582AE800LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB43OFFSET130D283600LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB43OFFSETBB9E4D400LEN GTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB43OFFSET9C5D2DC00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB43OFFSET7D1C0E400LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB43OFFSET5DDAEEC00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB43OFFSET521E96E00LEN GTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB43OFFSET36C1AF400LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft

APPENDIX C - TUNABLE PARAMETERS

STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB43OFFSET1B64C7A00LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB43OFFSET7E0000LENGTH					
1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4COFFSET2939EF2C00LE					
NGTH27115F800					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4COFFSET283FE63000LEN					
GTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4COFFSET27F4E37E00LE					
NGTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4COFFSET27A9E0CC00LE					
NGTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4COFFSET20569D6A00LE					
NGTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4COFFSET1E628B7200LE					
NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4COFFSET1C6E797A00LE					
NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4COFFSET1A7A678200LE					
NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4COFFSET19BEA20400LE					
NGTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4COFFSET1808D38A00LE					
NGTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4COFFSET1653051000LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4COFFSET149D369600LEN					
GTH1B5CDFC00					

APPENDIX C - TUNABLE PARAMETERS

Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4COFFSET13A32D9A00LE NGTHFA087E00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4COFFSET13582AE800LE NGTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4COFFSET130D283600LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4COFFSETBB9E4D400LEN GTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4COFFSET9C5D2DC00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4COFFSET7D1C0E400LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4COFFSET5DDAEEC00LE NGTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4COFFSET521E96E00LEN GTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4COFFSET36C1AF400LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4COFFSET1B64C7A00LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4COFFSET7E0000LENGTH 1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB49OFFSET295FAF4600LEN GTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB49OFFSET2939EF2C00LEN GTH25BF9C00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft

APPENDIX C - TUNABLE PARAMETERS

STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB49OFFSET283FE63000LEN					
GTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB49OFFSET27F4E37E00LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB49OFFSET27A9E0CC00LE					
NGTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB49OFFSET20569D6A00LEN					
GTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB49OFFSET1E628B7200LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB49OFFSET1C6E797A00LE					
NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB49OFFSET1A7A678200LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB49OFFSET19BEA20400LEN					
GTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB49OFFSET1808D38A00LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB49OFFSET1653051000LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB49OFFSET149D369600LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB49OFFSET13A32D9A00LE					
NGTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB49OFFSET13582AE800LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB49OFFSET130D283600LEN					
GTH4B023400					

APPENDIX C - TUNABLE PARAMETERS

Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB49OFFSETBB9E4D400LEN GTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB49OFFSET9C5D2DC00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB49OFFSET7D1C0E400LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB49OFFSET5DDAEEC00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB49OFFSET521E96E00LEN GTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB49OFFSET36C1AF400LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB49OFFSET1B64C7A00LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB49OFFSET7E0000LENGTH 1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4AOFFSET2939EF2C00LE NGTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4AOFFSET283FE63000LEN GTHFA087E00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4AOFFSET27F4E37E00LE NGTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4AOFFSET27A9E0CC00LE NGTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4AOFFSET20569D6A00LE NGTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft

APPENDIX C - TUNABLE PARAMETERS

STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4AOFFSET1E628B7200LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4AOFFSET1C6E797A00LE					
NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4AOFFSET1A7A678200LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4AOFFSET19BEA20400LE					
NGTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4AOFFSET1808D38A00LE					
NGTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4AOFFSET1653051000LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4AOFFSET149D369600LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4AOFFSET13A32D9A00LE					
NGTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4AOFFSET13582AE800LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4AOFFSET130D283600LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4AOFFSETBB9E4D400LEN					
GTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4AOFFSET9C5D2DC00LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4AOFFSET7D1C0E400LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4AOFFSET5DDAEEC00LE					
NGTH1F4117A00					

APPENDIX C - TUNABLE PARAMETERS

Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4AOFFSET521E96E00LEN GTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4AOFFSET36C1AF400LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4AOFFSET1B64C7A00LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB4AOFFSET7E0000LENGTH 1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB2FOFFSET2A33F82800LEN GTHFA087E00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB2FOFFSET29E8F57600LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB2FOFFSET299DF2C400LE NGTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB2FOFFSET224AAF6200LEN GTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB2FOFFSET20569D6A00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB2FOFFSET1E628B7200LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB2FOFFSET1C6E797A00LE NGTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB2FOFFSET1A7A678200LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB2FOFFSET19BEA20400LE NGTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft

APPENDIX C - TUNABLE PARAMETERS

STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB2FOFFSET1808D38A00LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB2FOFFSET1653051000LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB2FOFFSET149D369600LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB2FOFFSET13A32D9A00LE					
NGTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB2FOFFSET13582AE800LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB2FOFFSET130D283600LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB2FOFFSETBB9E4D400LEN					
GTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB2FOFFSET9C5D2DC00LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB2FOFFSET7D1C0E400LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB2FOFFSET5DDAEEC00LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB2FOFFSET521E96E00LEN					
GTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB2FOFFSET36C1AF400LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB2FOFFSET1B64C7A00LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB2FOFFSET7E0000LENGTH					
1B5CDFC00					

APPENDIX C - TUNABLE PARAMETERS

Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB28OFFSET2939EF2C00LEN GTHFA087E00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB28OFFSET28EEEC7A00LE NGTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB28OFFSET28A3E9C800LE NGTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB28OFFSET2150A66600LEN GTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB28OFFSET1F5C946E00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB28OFFSET1D68827600LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB28OFFSET1B74707E00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB28OFFSET1AB8AB0000LE NGTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB28OFFSET1A86A93400LEN GTH32014E00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB28OFFSET18D0DABA00LE NGTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB28OFFSET171B0C4000LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB28OFFSET170E4D0C00LE NGTHCBEB600				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB28OFFSET149D369600LEN GTH27115F800				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft

APPENDIX C - TUNABLE PARAMETERS

STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB28OFFSET13A32D9A00LE					
NGTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB28OFFSET13582AE800LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB28OFFSET130D283600LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB28OFFSETBB9E4D400LEN					
GTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB28OFFSET9C5D2DC00LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB28OFFSET7D1C0E400LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB28OFFSET5DDAE00LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB28OFFSET521E96E00LEN					
GTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB28OFFSET36C1AF400LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB28OFFSET1B64C7A00LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB28OFFSET7E0000LENGTH					
1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB15OFFSET2914AC9400LEN					
GTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB15OFFSET281AA39800LEN					
GTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB15OFFSET27CFA0E600LE					
NGTH4B023400					

APPENDIX C - TUNABLE PARAMETERS

Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB15OFFSET207C5D8400LEN GTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB15OFFSET1E884B8C00LE NGTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB15OFFSET1C94399400LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB15OFFSET1AA0279C00LE NGTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB15OFFSET19E4621E00LEN GTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB15OFFSET182E93A400LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB15OFFSET1678C52A00LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB15OFFSET14C2F6B000LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB15OFFSET149D369600LEN GTH25BF9C00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB15OFFSET13A32D9A00LE NGTHFA087E00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB15OFFSET13582AE800LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB15OFFSET130D283600LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB15OFFSETBB9E4D400LEN GTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft

APPENDIX C - TUNABLE PARAMETERS

STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB15OFFSET9C5D2DC00LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB15OFFSET7D1C0E400LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB15OFFSET5DDAEEC00LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB15OFFSET521E96E00LEN					
GTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB15OFFSET36C1AF400LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB15OFFSET1B64C7A00LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB15OFFSET7E0000LENGTH					
1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB16OFFSET2AB17A2800LEN					
GTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB16OFFSET2A66777600LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB16OFFSET2A1B74C400LE					
NGTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB16OFFSET22C8316200LEN					
GTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB16OFFSET20D41F6A00LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB16OFFSET1EE00D7200LE					
NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB16OFFSET1CEBFB7A00LE					
NGTH1F4117A00					

APPENDIX C - TUNABLE PARAMETERS

Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB16OFFSET1C3035FC00LE NGTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB16OFFSET1A7A678200LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB16OFFSET18C4990800LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB16OFFSET170ECA8E00LE NGTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB16OFFSET1558FC1400LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB16OFFSET149D369600LEN GTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB16OFFSET13A32D9A00LE NGTHFA087E00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB16OFFSET13582AE800LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB16OFFSET130D283600LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB16OFFSETBB9E4D400LEN GTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB16OFFSET9C5D2DC00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB16OFFSET7D1C0E400LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB16OFFSET5DDAE00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft

APPENDIX C - TUNABLE PARAMETERS

STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB16OFFSET521E96E00LEN					
GTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB16OFFSET36C1AF400LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB16OFFSET1B64C7A00LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB16OFFSET7E0000LENGTH					
1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB13OFFSET28454AC600LEN					
GTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB13OFFSET27FA481400LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB13OFFSET27AF456200LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB13OFFSET205C020000LEN					
GTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB13OFFSET1E67F00800LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB13OFFSET1C73DE1000LE					
NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB13OFFSET1A7FCC1800LE					
NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB13OFFSET19C4069A00LEN					
GTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB13OFFSET180E382000LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB13OFFSET165869A600LEN					
GTH1B5CDFC00					

APPENDIX C - TUNABLE PARAMETERS

Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB13OFFSET14A29B2C00LE NGTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB13OFFSET149D369600LEN GTH5641800				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB13OFFSET13A32D9A00LE NGTHFA087E00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB13OFFSET13582AE800LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB13OFFSET130D283600LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB13OFFSETBB9E4D400LEN GTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB13OFFSET9C5D2DC00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB13OFFSET7D1C0E400LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB13OFFSET5DDAE00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB13OFFSET521E96E00LEN GTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB13OFFSET36C1AF400LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB13OFFSET1B64C7A00LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB13OFFSET7E0000LENGTH 1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft

APPENDIX C - TUNABLE PARAMETERS

STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1COFFSET28454AC600LE					
NGTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1COFFSET27FA481400LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1COFFSET27AF456200LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1COFFSET205C020000LEN					
GTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1COFFSET1E67F00800LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1COFFSET1C73DE1000LE					
NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1COFFSET1A7FCC1800LE					
NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1COFFSET19C4069A00LE					
NGTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1COFFSET180E382000LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1COFFSET165869A600LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1COFFSET14A29B2C00LE					
NGTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1COFFSET149D369600LEN					
GTH5641800					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1COFFSET13A32D9A00LE					
NGTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1COFFSET13582AE800LE					
NGTH4B023400					

APPENDIX C - TUNABLE PARAMETERS

Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1COFFSET130D283600LEN GTH4B023400	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1COFFSETBB9E4D400LEN GTH75342E400	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1COFFSET9C5D2DC00LEN GTH1F4117A00	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1COFFSET7D1C0E400LEN GTH1F4117A00	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1COFFSET5DDAEEC00LE NGTH1F4117A00	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1COFFSET521E96E00LEN GTHBBC50000	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1COFFSET36C1AF400LEN GTH1B5CDFC00	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1COFFSET1B64C7A00LEN GTH1B5CDFC00	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1COFFSET7E0000LENGTH 1B5CDFC00	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB19OFFSET285304FE00LEN GTHFA087E00	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB19OFFSET2808024C00LEN GTH4B023400	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB19OFFSET27BCFF9A00LE NGTH4B023400	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
Generic volume Yes volume.inf STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB19OFFSET2069BC3800LEN GTH75342E400	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft

APPENDIX C - TUNABLE PARAMETERS

STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB19OFFSET1E75AA4000LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB19OFFSET1C81984800LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB19OFFSET1A8D865000LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB19OFFSET19D1C0D200LE					
NGTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB19OFFSET181BF25800LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB19OFFSET166623DE00LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB19OFFSET14B0556400LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB19OFFSET149D369600LEN					
GTH131E5000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB19OFFSET13A32D9A00LE					
NGTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB19OFFSET13582AE800LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB19OFFSET130D283600LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB19OFFSETBB9E4D400LEN					
GTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB19OFFSET9C5D2DC00LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB19OFFSET7D1C0E400LEN					
GTH1F4117A00					

APPENDIX C - TUNABLE PARAMETERS

Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB19OFFSET5DDAEEC00LEN GTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB19OFFSET521E96E00LEN GTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB19OFFSET36C1AF400LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB19OFFSET1B64C7A00LEN GTH1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB19OFFSET7E0000LENGTH 1B5CDFC00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1AOFFSET284645CA00LE NGTHFA087E00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1AOFFSET27FB431800LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1AOFFSET27B0406600LEN GTH4B023400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1AOFFSET205CFD0400LE NGTH75342E400				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1AOFFSET1E68EB0C00LE NGTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1AOFFSET1C74D91400LE NGTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1AOFFSET1A80C71C00LE NGTH1F4117A00				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1AOFFSET19C5019E00LE NGTHBBC50000				
Generic volume Yes volume.inf	VOLUME Not Available	5.2.3790.1830	10/1/2002	Microsoft

APPENDIX C - TUNABLE PARAMETERS

STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1AOFFSET180F332400LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1AOFFSET165964AA00LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1AOFFSET14A3963000LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1AOFFSET13A98D3400LE					
NGTHFA087E00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1AOFFSET135E8A8200LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1AOFFSET13582AE800LEN					
GTH65F1C00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1AOFFSET130D283600LEN					
GTH4B023400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1AOFFSETBB9E4D400LEN					
GTH75342E400					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1AOFFSET9C5D2DC00LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1AOFFSET7D1C0E400LEN					
GTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1AOFFSET5DDAEEC00LE					
NGTH1F4117A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1AOFFSET521E96E00LEN					
GTHBBC50000					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1AOFFSET36C1AF400LEN					
GTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1AOFFSET1B64C7A00LEN					
GTH1B5CDFC00					

APPENDIX C - TUNABLE PARAMETERS

Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE5757FB1AOFFSET7E0000LENGTH1B5CDFC00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATUREF9B63FDEOFFSET9C4D7D800LENGTH9C4595A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATUREF9B63FDEOFFSET7E0000LENGTH9C4595A00					
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf		Not Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURED92CD92COFFSET7E00LENGTH10EF691800					
Volume Manager	Yes	SYSTEM	5.2.3790.3959	10/1/2002	(Standard
system devices)\machine.inf		Not Available	ROOT\FTDISK\0000		
Logical Disk Manager	Yes	SYSTEM	5.2.3790.3959	10/1/2002	(Standard
system devices)\machine.inf		Not Available	ROOT\DMIO\0000		
ACPI Fixed Feature Button	Yes	SYSTEM	5.2.3790.3959	10/1/2002	
(Standard system devices)		machine.inf	Not Available		
ACPI\FIXEDBUTTON\2&DABA3FF&0					
Motherboard resources	Yes	SYSTEM	5.2.3790.3959	10/1/2002	(Standard
system devices)\machine.inf		Not Available	ACPI\PNP0C02\VTD		
High precision event timer	Yes	SYSTEM	5.2.3790.3959	10/1/2002	
(Standard system devices)		machine.inf	Not Available	ACPI\PNP0103\0	
Motherboard resources	Yes	SYSTEM	5.2.3790.3959	10/1/2002	(Standard
system devices)\machine.inf		Not Available	ACPI\PNP0C02\80		
System Interrupt Controller		Not Available	UNKNOWN	Not Available	Not Available
	Not Available	Not Available	Not Available		
PCI\VEN_8086&DEV_3423&SUBSYS_00000000&REV_13\3&1E630CBB&0&A2					
System Interrupt Controller		Not Available	UNKNOWN	Not Available	Not Available
	Not Available	Not Available	Not Available		
PCI\VEN_8086&DEV_3422&SUBSYS_00000000&REV_13\3&1E630CBB&0&A1					
System Interrupt Controller		Not Available	UNKNOWN	Not Available	Not Available
	Not Available	Not Available	Not Available		
PCI\VEN_8086&DEV_342E&SUBSYS_00000000&REV_13\3&1E630CBB&0&A0					
DELL PERC RAID Virtual Device	Yes	SYSTEM	2.24.0.64	1/19/2009	
DELL oem0.inf		Not Available			
SCSI\OTHER&VEN___RAID&PROD__DUMMYDEVICE&REV_0001\5&33FEACF8&0&014000					
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
disk.inf		Not Available			
SCSI\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.21\5&33FEACF8&0&010700					
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
disk.inf		Not Available			
SCSI\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.21\5&33FEACF8&0&010600					
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
disk.inf		Not Available			
SCSI\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.21\5&33FEACF8&0&010500					

APPENDIX C - TUNABLE PARAMETERS

Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
disk.inf	Not Available				
SCS\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.21\5&33FEACF8&0&0					
10400					
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
disk.inf	Not Available				
SCS\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.21\5&33FEACF8&0&0					
10300					
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
disk.inf	Not Available				
SCS\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.21\5&33FEACF8&0&0					
10200					
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
disk.inf	Not Available				
SCS\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.21\5&33FEACF8&0&0					
10100					
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
disk.inf	Not Available				
SCS\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.21\5&33FEACF8&0&0					
10000					
DELL PERC 6/E Adapter RAID Controller- XP	No	SCSIADAPTER	2.8.0.64		
12/15/2006	LSI Logic Corp.,oem10.inf		Not Available		
PCI\VEN_1000&DEV_0060&SUBSYS_1F0A1028&REV_04\4&30ECC5AD&0&0048					
PCI standard PCI-to-PCI bridge	Yes	SYSTEM	5.2.3790.3959	10/1/2002	
(Standard system devices)	machine.inf		Not Available		
PCI\VEN_8086&DEV_3410&SUBSYS_00000000&REV_13\3&1E630CBB&0&48					
DELL PERC RAID Virtual Device	Yes	SYSTEM	2.24.0.64	1/19/2009	
DELL oem0.inf	Not Available				
SCS\OTHER&VEN___RAID&PROD__DUMMYDEVICE&REV_0001\5&213F28FB&0&0					
14000					
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
disk.inf	Not Available				
SCS\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.11\5&213F28FB&0&01					
0700					
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
disk.inf	Not Available				
SCS\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.11\5&213F28FB&0&01					
0600					
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
disk.inf	Not Available				
SCS\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.11\5&213F28FB&0&01					
0500					
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
disk.inf	Not Available				
SCS\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.11\5&213F28FB&0&01					
0400					
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
disk.inf	Not Available				
SCS\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.11\5&213F28FB&0&01					
0300					
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
disk.inf	Not Available				
SCS\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.11\5&213F28FB&0&01					
0200					

APPENDIX C - TUNABLE PARAMETERS

Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
	disk.inf	Not Available			
	SCSI\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.11\5&213F28FB&0&01				
	0100				
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
	disk.inf	Not Available			
	SCSI\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.11\5&213F28FB&0&01				
	0000				
DELL PERC 6/E Adapter RAID Controller- XP	No		SCSIADAPTER 2.8.0.64		
	12/15/2006	LSI Logic Corp.,oem10.inf	Not Available		
	PCI\VEN_1000&DEV_0060&SUBSYS_1F0A1028&REV_04\4&C12C635&0&0038				
PCI standard PCI-to-PCI bridge	Yes	SYSTEM	5.2.3790.3959	10/1/2002	
	(Standard system devices)	machine.inf	Not Available		
	PCI\VEN_8086&DEV_340E&SUBSYS_00000000&REV_13\3&1E630CBB&0&38				
DELL PERC RAID Virtual Device	Yes	SYSTEM	2.24.0.64	1/19/2009	
	DELL oem0.inf	Not Available			
	SCSI\OTHER&VEN___RAID&PROD__DUMMYDEVICE&REV_0001\5&1A932484&0&0				
	14000				
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
	disk.inf	Not Available			
	SCSI\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.11\5&1A932484&0&01				
	0700				
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
	disk.inf	Not Available			
	SCSI\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.11\5&1A932484&0&01				
	0600				
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
	disk.inf	Not Available			
	SCSI\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.11\5&1A932484&0&01				
	0500				
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
	disk.inf	Not Available			
	SCSI\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.11\5&1A932484&0&01				
	0400				
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
	disk.inf	Not Available			
	SCSI\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.11\5&1A932484&0&01				
	0300				
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
	disk.inf	Not Available			
	SCSI\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.11\5&1A932484&0&01				
	0200				
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
	disk.inf	Not Available			
	SCSI\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.11\5&1A932484&0&01				
	0100				
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
	disk.inf	Not Available			
	SCSI\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.11\5&1A932484&0&01				
	0000				
DELL PERC 6/E Adapter RAID Controller- XP	No		SCSIADAPTER 2.8.0.64		
	12/15/2006	LSI Logic Corp.,oem10.inf	Not Available		
	PCI\VEN_1000&DEV_0060&SUBSYS_1F0A1028&REV_04\4&34FC91D7&0&0028				

APPENDIX C - TUNABLE PARAMETERS

PCI standard PCI-to-PCI bridge	Yes	SYSTEM	5.2.3790.3959	10/1/2002	(Standard system devices)
		machine.inf	Not Available		
PCI\VEN_8086&DEV_340C&SUBSYS_00000000&REV_13\3&1E630CBB&0&28					
DELL PERC RAID Virtual Device	Yes	SYSTEM	2.24.0.64	1/19/2009	
		DELL oem0.inf	Not Available		
SCSI\OTHER&VEN___RAID&PROD__DUMMYDEVICE&REV_0001\5&1E43A04C&0&014000					
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
		disk.inf	Not Available		
SCSI\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.21\5&1E43A04C&0&010700					
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
		disk.inf	Not Available		
SCSI\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.21\5&1E43A04C&0&010600					
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
		disk.inf	Not Available		
SCSI\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.21\5&1E43A04C&0&010500					
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
		disk.inf	Not Available		
SCSI\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.21\5&1E43A04C&0&010400					
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
		disk.inf	Not Available		
SCSI\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.21\5&1E43A04C&0&010300					
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
		disk.inf	Not Available		
SCSI\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.21\5&1E43A04C&0&010200					
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
		disk.inf	Not Available		
SCSI\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.21\5&1E43A04C&0&010100					
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
		disk.inf	Not Available		
SCSI\DISK&VEN_DELL&PROD_PERC_6/E_ADAPTER&REV_1.21\5&1E43A04C&0&010000					
DELL PERC 6/E Adapter RAID Controller- XP	No	SCSIADAPTER	2.8.0.64		
		12/15/2006 LSI Logic Corp.,oem10.inf	Not Available		
PCI\VEN_1000&DEV_0060&SUBSYS_1F0A1028&REV_04\4&224B9372&0&0018					
PCI standard PCI-to-PCI bridge	Yes	SYSTEM	5.2.3790.3959	10/1/2002	(Standard system devices)
		machine.inf	Not Available		
PCI\VEN_8086&DEV_340A&SUBSYS_00000000&REV_13\3&1E630CBB&0&18					
PCI bus	Yes	SYSTEM	5.2.3790.3959	10/1/2002	(Standard system devices)
		machine.inf	Not Available		ACPI\PNP0A08\99
Motherboard resources	Yes	SYSTEM	5.2.3790.3959	10/1/2002	(Standard system devices)
		machine.inf	Not Available		ACPI\PNP0C02\0
Secondary IDE Channel	Yes	HDC	5.2.3790.1830	10/1/2002	(Standard IDE ATA/ATAPI controllers)
		mshdc.inf	Not Available		
PCI\IDE\IDECHANNEL\4&361A4066&0&1					
CD-ROM Drive	Yes	CDROM	5.2.3790.1830	10/1/2002	(Standard CD-ROM drives)
		cdrom.inf	Not Available		IDE\CDROMHL-DT-ST_DVD-ROM_DH10N_____0D08____\5&38A051A3&0&0.0.0

APPENDIX C - TUNABLE PARAMETERS

Primary IDE Channel (ATA/ATAPI controllers)	Yes	HDC	5.2.3790.1830	10/1/2002	(Standard IDE mshdc.inf Not Available PCIIDE\IDECHANNEL\4&361A4066&0&0
Standard Dual Channel PCI IDE Controller (Standard IDE ATA/ATAPI controllers)	Yes	HDC	5.2.3790.1830	10/1/2002	(Standard IDE ATA/ATAPI controllers) mshdc.inf Not Available PCIIVEN_8086&DEV_2921&SUBSYS_029B1028&REV_02\3&474B838&0&FA
System board devices)	Yes	SYSTEM	5.2.3790.3959	10/1/2002	(Standard system machine.inf Not Available ACPI\PNP0C01\1
System board devices)	Yes	SYSTEM	5.2.3790.3959	10/1/2002	(Standard system machine.inf Not Available ACPI\PI0001\5
System board devices)	Yes	SYSTEM	5.2.3790.3959	10/1/2002	(Standard system machine.inf Not Available ACPI\PNP0C01\0
Communications Port msports.inf	Yes	PORTS	5.2.3790.1830	10/1/2002	(Standard port types) Not Available ACPI\PNP0501\2
Communications Port msports.inf	Yes	PORTS	5.2.3790.1830	10/1/2002	(Standard port types) Not Available ACPI\PNP0501\1
System timer devices)	Yes	SYSTEM	5.2.3790.3959	10/1/2002	(Standard system machine.inf Not Available ACPI\PNP0100\4&302DE5D7&0
System CMOS/real time clock (Standard system devices)	Yes	SYSTEM	5.2.3790.3959	10/1/2002	(Standard system devices) machine.inf Not Available ACPI\PNP0B00\4&302DE5D7&0
System board devices)	Yes	SYSTEM	5.2.3790.3959	10/1/2002	(Standard system machine.inf Not Available ACPI\PNP0C01\2
Programmable interrupt controller (Standard system devices)	Yes	SYSTEM	5.2.3790.3959	10/1/2002	(Standard system devices) machine.inf Not Available ACPI\PNP0000\4&302DE5D7&0
Numeric data processor (Standard system devices)	Yes	SYSTEM	5.2.3790.3959	10/1/2002	(Standard system devices) machine.inf Not Available ACPI\PNP0C04\4&302DE5D7&0
Direct memory access controller (Standard system devices)	Yes	SYSTEM	5.2.3790.3959	10/1/2002	(Standard system devices) machine.inf Not Available ACPI\PNP0200\4&302DE5D7&0
PCI standard ISA bridge (Standard system devices)	Yes	SYSTEM	5.2.3790.3959	10/1/2002	(Standard system devices) machine.inf Not Available PCIIVEN_8086&DEV_2918&SUBSYS_00000000&REV_02\3&474B838&0&F8
Default Monitor types)	Yes	MONITOR	5.2.3790.1830	10/1/2002	(Standard monitor machine.inf Not Available DISPLAY\DEFAULT_MONITOR\5&4D1274C&0&12345678&06&03
Standard VGA Graphics Adapter (Standard display types)	Yes	DISPLAY	5.2.3790.1830	10/1/2002	(Standard display types) display.inf Not Available PCIIVEN_102B&DEV_0532&SUBSYS_029B1028&REV_0A\4&3BF10EF&0&18F0
Intel(R) 82801 PCI Bridge - 244E Intel	Yes	SYSTEM	5.2.3790.3959	10/1/2002	(Standard system devices) machine.inf Not Available PCIIVEN_8086&DEV_244E&SUBSYS_00000000&REV_92\3&474B838&0&F0
USB Root Hub usbport.inf	Yes	USB	5.2.3790.1830	10/1/2002	(Standard USB Host Controller) Not Available USB\ROOT_HUB20\4&21F0EA4&0
Standard Enhanced PCI to USB Host Controller (Standard USB Host Controller)	Yes	USB	5.2.3790.1830	10/1/2002	(Standard USB Host Controller) usbport.inf Not Available PCIIVEN_8086&DEV_293A&SUBSYS_029B1028&REV_02\3&474B838&0&EF
USB Root Hub usbport.inf	Yes	USB	5.2.3790.1830	10/1/2002	(Standard USB Host Controller) Not Available USB\ROOT_HUB\4&1FD153A8&0
Standard Universal PCI to USB Host Controller (Standard USB Host Controller)	Yes	USB	5.2.3790.1830	10/1/2002	(Standard USB Host Controller) usbport.inf Not Available PCIIVEN_8086&DEV_2939&SUBSYS_029B1028&REV_02\3&474B838&0&EB
USB Root Hub usbport.inf	Yes	USB	5.2.3790.1830	10/1/2002	(Standard USB Host Controller) Not Available USB\ROOT_HUB\4&1014301D&0

APPENDIX C - TUNABLE PARAMETERS

Standard Universal PCI to USB Host Controller	Yes	USB	5.2.3790.1830	10/1/2002	
(Standard USB Host Controller)		usbport.inf	Not Available		
		PCI\VEN_8086&DEV_2936&SUBSYS_029B1028&REV_02\3&474B838&0&EA			
USB Root Hub	Yes	USB	5.2.3790.1830	10/1/2002	(Standard USB Host Controller)
		usbport.inf	Not Available		USB\ROOT_HUB\4&18CE9452&0
Standard Universal PCI to USB Host Controller	Yes	USB	5.2.3790.1830	10/1/2002	
(Standard USB Host Controller)		usbport.inf	Not Available		
		PCI\VEN_8086&DEV_2935&SUBSYS_029B1028&REV_02\3&474B838&0&E9			
HID-compliant mouse	Yes	MOUSE	5.2.3790.1830	10/1/2002	Microsoft
		msmouse.inf	Not Available		HID\VID_0624&PID_0248&MI_01\7&8401AFE&0&0000
USB Human Interface Device	Yes	HIDCLASS	5.2.3790.1830	10/1/2002	
(Standard system devices)		input.inf	Not Available		
		USB\VID_0624&PID_0248&MI_01\6&289FB716&0&0001			
HID Keyboard Device	Yes	KEYBOARD	5.2.3790.1830	10/1/2002	(Standard
keyboards)		keyboard.inf	Not Available		
		HID\VID_0624&PID_0248&MI_00\7&2C1758C0&0&0000			
USB Human Interface Device	Yes	HIDCLASS	5.2.3790.1830	10/1/2002	
(Standard system devices)		input.inf	Not Available		
		USB\VID_0624&PID_0248&MI_00\6&289FB716&0&0000			
USB Composite Device	Yes	USB	5.2.3790.1830	10/1/2002	(Standard USB Host
Controller)		usb.inf	Not Available		
		USB\VID_0624&PID_0248\20080519			
HID-compliant mouse	Yes	MOUSE	5.2.3790.1830	10/1/2002	Microsoft
		msmouse.inf	Not Available		HID\VID_09AE&PID_0002&MI_01\7&FDD9F08&0&0000
USB Human Interface Device	Yes	HIDCLASS	5.2.3790.1830	10/1/2002	
(Standard system devices)		input.inf	Not Available		
		USB\VID_09AE&PID_0002&MI_01\6&8FA055B&0&0001			
HID Keyboard Device	Yes	KEYBOARD	5.2.3790.1830	10/1/2002	(Standard
keyboards)		keyboard.inf	Not Available		
		HID\VID_09AE&PID_0002&MI_00\7&38484CD1&0&0000			
USB Human Interface Device	Yes	HIDCLASS	5.2.3790.1830	10/1/2002	
(Standard system devices)		input.inf	Not Available		
		USB\VID_09AE&PID_0002&MI_00\6&8FA055B&0&0000			
USB Composite Device	Yes	USB	5.2.3790.1830	10/1/2002	(Standard USB Host
Controller)		usb.inf	Not Available		
		USB\VID_09AE&PID_0002\USB_COMPOSITE_DEVICE			
USB Root Hub	Yes	USB	5.2.3790.1830	10/1/2002	(Standard USB Host Controller)
		usbport.inf	Not Available		USB\ROOT_HUB\4&25F011F5&0
Standard Universal PCI to USB Host Controller	Yes	USB	5.2.3790.1830	10/1/2002	
(Standard USB Host Controller)		usbport.inf	Not Available		
		PCI\VEN_8086&DEV_2934&SUBSYS_029B1028&REV_02\3&474B838&0&E8			
Generic USB Hub	Yes	USB	5.2.3790.1830	10/1/2002	(Generic USB Hub)
		usb.inf	Not Available		USB\VID_0424&PID_2514\5&309924AF&0&3
USB Root Hub	Yes	USB	5.2.3790.1830	10/1/2002	(Standard USB Host Controller)
		usbport.inf	Not Available		USB\ROOT_HUB20\4&1A40EB3A&0
Standard Enhanced PCI to USB Host Controller	Yes	USB	5.2.3790.1830	10/1/2002	
(Standard USB Host Controller)		usbport.inf	Not Available		
		PCI\VEN_8086&DEV_293C&SUBSYS_029B1028&REV_02\3&474B838&0&D7			
USB Root Hub	Yes	USB	5.2.3790.1830	10/1/2002	(Standard USB Host Controller)
		usbport.inf	Not Available		USB\ROOT_HUB\4&AAC042C&0
Standard Universal PCI to USB Host Controller	Yes	USB	5.2.3790.1830	10/1/2002	
(Standard USB Host Controller)		usbport.inf	Not Available		
		PCI\VEN_8086&DEV_2938&SUBSYS_029B1028&REV_02\3&474B838&0&D1			
USB Root Hub	Yes	USB	5.2.3790.1830	10/1/2002	(Standard USB Host Controller)
		usbport.inf	Not Available		USB\ROOT_HUB\4&3412A21B&0

APPENDIX C - TUNABLE PARAMETERS

Standard Universal PCI to USB Host Controller	Yes	USB	5.2.3790.1830	10/1/2002	
(Standard USB Host Controller)	usbport.inf	Not Available			
	PCI\VEN_8086&DEV_2937&SUBSYS_029B1028&REV_02\3&474B838&0&D0				
System Interrupt Controller	Not Available	UNKNOWN	Not Available	Not Available	
	Not Available	Not Available	Not Available		
	PCI\VEN_8086&DEV_3423&SUBSYS_00000000&REV_13\3&474B838&0&A2				
System Interrupt Controller	Not Available	UNKNOWN	Not Available	Not Available	
	Not Available	Not Available	Not Available		
	PCI\VEN_8086&DEV_3422&SUBSYS_00000000&REV_13\3&474B838&0&A1				
System Interrupt Controller	Not Available	UNKNOWN	Not Available	Not Available	
	Not Available	Not Available	Not Available		
	PCI\VEN_8086&DEV_342E&SUBSYS_00000000&REV_13\3&474B838&0&A0				
PCI standard PCI-to-PCI bridge	Yes	SYSTEM	5.2.3790.3959	10/1/2002	
(Standard system devices)	machine.inf	Not Available			
	PCI\VEN_8086&DEV_340E&SUBSYS_00000000&REV_13\3&474B838&0&38				
DELL PERC RAID Virtual Device	Yes	SYSTEM	2.24.0.64	1/19/2009	
	DELL oem0.inf	Not Available			
	SCSI\OTHER&VEN__RAID&PROD_DUMMYDEVICE&REV_0001\5&322F983C&0&0				
	14000				
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
	disk.inf	Not Available			
	SCSI\DISK&VEN_DELL&PROD_PERC_6/I&REV_1.22\5&322F983C&0&010100				
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
	disk.inf	Not Available			
	SCSI\DISK&VEN_DELL&PROD_PERC_6/I&REV_1.22\5&322F983C&0&010000				
Generic Printer	Yes	PNPPRINTERS	5.2.3790.1830	10/1/2002	Printer Vendor
	genprint.inf	Not Available			
	SCSI\PRINTER&VEN_DP&PROD_SAS_T710_BP_X.03&REV_F03E\5&322F983C&0&0				
	02400				
DELL PERC 6/i Integrated RAID Controller	Yes	SCSIADAPTER	2.24.0.64		
	1/19/2009	DELL oem1.inf	Not Available		
	PCI\VEN_1000&DEV_0060&SUBSYS_1F0C1028&REV_04\4&3A926429&0&0028				
PCI standard PCI-to-PCI bridge	Yes	SYSTEM	5.2.3790.3959	10/1/2002	
(Standard system devices)	machine.inf	Not Available			
	PCI\VEN_8086&DEV_340C&SUBSYS_00000000&REV_13\3&474B838&0&28				
PCI standard PCI-to-PCI bridge	Yes	SYSTEM	5.2.3790.3959	10/1/2002	
(Standard system devices)	machine.inf	Not Available			
	PCI\VEN_8086&DEV_340B&SUBSYS_00000000&REV_13\3&474B838&0&20				
Broadcom BCM5709C NetXtreme II GigE (NDIS VBD Client)	Yes	NET	4.8.5.0		
	1/28/2009	Broadcom Corporation	oem4.inf	Not Available	
	B06BDR\VL2ND&PCI_163914E4&SUBSYS_029B1028&REV_20\5&1A8DDC15&0&200				
	50200				
Broadcom BCM5709C NetXtreme II GigE	Yes	SYSTEM	4.6.110.0		
	2/26/2009	Broadcom Corporation	oem2.inf	Not Available	
	PCI\VEN_14E4&DEV_1639&SUBSYS_029B1028&REV_20\4&2ABD55E4&0&0118				
Broadcom BCM5709C NetXtreme II GigE (NDIS VBD Client)	Yes	NET	4.8.5.0		
	1/28/2009	Broadcom Corporation	oem4.inf	Not Available	
	B06BDR\VL2ND&PCI_163914E4&SUBSYS_029B1028&REV_20\5&1F4B46B&0&20050				
	200				
Broadcom BCM5709C NetXtreme II GigE	Yes	SYSTEM	4.6.110.0		
	2/26/2009	Broadcom Corporation	oem2.inf	Not Available	
	PCI\VEN_14E4&DEV_1639&SUBSYS_029B1028&REV_20\4&2ABD55E4&0&0018				
PCI standard PCI-to-PCI bridge	Yes	SYSTEM	5.2.3790.3959	10/1/2002	
(Standard system devices)	machine.inf	Not Available			
	PCI\VEN_8086&DEV_340A&SUBSYS_00000000&REV_13\3&474B838&0&18				

APPENDIX C - TUNABLE PARAMETERS

Broadcom BCM5709C NetXtreme II GigE (NDIS VBD Client)	Yes	NET	4.8.5.0			
1/28/2009	Broadcom Corporation	oem4.inf	Not Available			
B06BDR\VL2ND&PCI_163914E4&SUBSYS_029B1028&REV_20\5&D0ED55F&0&20050100						
Broadcom BCM5709C NetXtreme II GigE	Yes	SYSTEM	4.6.110.0			
2/26/2009	Broadcom Corporation	oem2.inf	Not Available			
PCI\VEN_14E4&DEV_1639&SUBSYS_029B1028&REV_20\4&2FF82C8F&0&0108						
Broadcom BCM5709C NetXtreme II GigE (NDIS VBD Client)	Yes	NET	4.8.5.0			
1/28/2009	Broadcom Corporation	oem4.inf	Not Available			
B06BDR\VL2ND&PCI_163914E4&SUBSYS_029B1028&REV_20\5&15F2CCFE&0&20050100						
Broadcom BCM5709C NetXtreme II GigE	Yes	SYSTEM	4.6.110.0			
2/26/2009	Broadcom Corporation	oem2.inf	Not Available			
PCI\VEN_14E4&DEV_1639&SUBSYS_029B1028&REV_20\4&2FF82C8F&0&0008						
PCI standard PCI-to-PCI bridge	Yes	SYSTEM	5.2.3790.3959	10/1/2002		
(Standard system devices)	machine.inf	Not Available				
PCI\VEN_8086&DEV_3408&SUBSYS_00000000&REV_13\3&474B838&0&08						
PCI standard host CPU bridge	Yes	SYSTEM	5.2.3790.3959	10/1/2002		
(Standard system devices)	machine.inf	Not Available				
PCI\VEN_8086&DEV_3406&SUBSYS_00000000&REV_13\3&474B838&0&00						
PCI bus	Yes	SYSTEM	5.2.3790.3959	10/1/2002	(Standard system devices)	
	machine.inf	Not Available	ACPI\PNP0A03\5			
System board	Yes	SYSTEM	5.2.3790.3959	10/1/2002	(Standard system devices)	
	machine.inf	Not Available	ACPI\PNP0C33\WHEA			
Intel Processor Available	Yes	PROCESSOR	5.2.3790.1830	10/1/2002	Intel	cpu.inf Not
ACPI\GENUINEINTEL_-EM64T_FAMILY_6_MODEL_26\7						
Intel Processor Available	Yes	PROCESSOR	5.2.3790.1830	10/1/2002	Intel	cpu.inf Not
ACPI\GENUINEINTEL_-EM64T_FAMILY_6_MODEL_26\6						
Intel Processor Available	Yes	PROCESSOR	5.2.3790.1830	10/1/2002	Intel	cpu.inf Not
ACPI\GENUINEINTEL_-EM64T_FAMILY_6_MODEL_26\5						
Intel Processor Available	Yes	PROCESSOR	5.2.3790.1830	10/1/2002	Intel	cpu.inf Not
ACPI\GENUINEINTEL_-EM64T_FAMILY_6_MODEL_26\4						
Intel Processor Available	Yes	PROCESSOR	5.2.3790.1830	10/1/2002	Intel	cpu.inf Not
ACPI\GENUINEINTEL_-EM64T_FAMILY_6_MODEL_26\3						
Intel Processor Available	Yes	PROCESSOR	5.2.3790.1830	10/1/2002	Intel	cpu.inf Not
ACPI\GENUINEINTEL_-EM64T_FAMILY_6_MODEL_26\2						
Intel Processor Available	Yes	PROCESSOR	5.2.3790.1830	10/1/2002	Intel	cpu.inf Not
ACPI\GENUINEINTEL_-EM64T_FAMILY_6_MODEL_26\1						
Intel Processor Available	Yes	PROCESSOR	5.2.3790.1830	10/1/2002	Intel	cpu.inf Not
ACPI\GENUINEINTEL_-EM64T_FAMILY_6_MODEL_26\0						
Microsoft ACPI-Compliant System	Yes	SYSTEM	5.2.3790.1830	10/1/2002		
Microsoft	acpi.inf	Not Available	ACPI_HAL\PNP0C08\0			
ACPI Multiprocessor x64-based PC	Yes	COMPUTER	5.2.3790.3959	10/1/2002		
(Standard computers)	hal.inf	Not Available	ROOT\ACPI_HAL\0000			
Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Not Available	Not Available	Not Available	HTREE\ROOT\0			

[Environment Variables]

Variable	Value	User Name
ClusterLog	C:\WINDOWS\Cluster\cluster.log	<SYSTEM>
ComSpec	%SystemRoot%\system32\cmd.exe	<SYSTEM>
FP_NO_HOST_CHECK	NO	<SYSTEM>
LD_LIBRARY_PATH	c:\app\administrator\product\11.1.0\db_1\lib	<SYSTEM>
NUMBER_OF_PROCESSORS	8	<SYSTEM>

APPENDIX C - TUNABLE PARAMETERS

```

ORACLE_HOME      c:\app\administrator\product\11.1.0\db_1<SYSTEM>
ORACLE_SID tpcc  <SYSTEM>
OS Windows_NT   <SYSTEM>
Path
    C:\app\Administrator\product\11.1.0\db_1\bin;%SystemRoot%\system32;%SystemRoot%
;%SystemRoot%\System32\Wbem;.c:\mks\mksnt; <SYSTEM>
PATHEXT .COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH <SYSTEM>
PROCESSOR_ARCHITECTURE AMD64 <SYSTEM>
PROCESSOR_IDENTIFIER EM64T Family 6 Model 26 Stepping 5, GenuineIntel
<SYSTEM>
PROCESSOR_LEVEL 6 <SYSTEM>
PROCESSOR_REVISION 1a05 <SYSTEM>
TEMP %SystemRoot%\TEMP <SYSTEM>
TMP %SystemRoot%\TEMP <SYSTEM>
windir %SystemRoot% <SYSTEM>
TEMP %USERPROFILE%\Local Settings\Temp NT AUTHORITY\SYSTEM
TMP %USERPROFILE%\Local Settings\Temp NT AUTHORITY\SYSTEM
TEMP %USERPROFILE%\Local Settings\Temp NT AUTHORITY\LOCAL SERVICE
TMP %USERPROFILE%\Local Settings\Temp NT AUTHORITY\LOCAL SERVICE
TEMP %USERPROFILE%\Local Settings\Temp NT AUTHORITY\NETWORK SERVICE
TMP %USERPROFILE%\Local Settings\Temp NT AUTHORITY\NETWORK SERVICE
TEMP %USERPROFILE%\Local Settings\Temp T710\Administrator
TMP %USERPROFILE%\Local Settings\Temp T710\Administrator
    
```

[Print Jobs]

Document	Size	Owner	Notify	Status	Time Submitted	Start Time	Until Time
Elapsed Time	Pages	Printed	Job ID	Priority	Parameters	Driver	Print Processor
Host	Print Queue	Data Type	Name				

[Network Connections]

Local Name	Remote Name	Type	Status	User Name
------------	-------------	------	--------	-----------

[Running Tasks]

Name	Path	Process ID	Priority	Min Working Set	Max Working Set	Start
Time	Version	Size	File Date			
system	idle process	Not Available	0	0	Not Available	Not Available
Available		Not Available	Not Available	Not Available		Not
system	Not Available	4	8	0	1380	Not Available
Available		Not Available				Not
smss.exe	Not Available	324	11	200	1380	11/4/2009 4:38 PM
Available		Not Available	Not Available			Not
csrss.exe	Not Available	372	13	Not Available	Not Available	11/4/2009 4:39 PM
PM	Not Available	Not Available	Not Available			
winlogon.exe	c:\windows\system32\winlogon.exe		396	13	200	1380
	11/4/2009 4:39 PM		5.2.3790.3959 (srv03_sp2_rtm.070216-1710)			922.00 KB
	(944,128 bytes)		2/18/2007 6:00 AM			
services.exe	c:\windows\system32\services.exe		444	9	200	1380
	11/4/2009 4:39 PM		5.2.3790.3959 (srv03_sp2_rtm.070216-1710)			219.00 KB
	(224,256 bytes)		2/18/2007 6:00 AM			
lsass.exe	c:\windows\system32\lsass.exe		456	9	200	1380
PM	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)		14.00 KB (14,336 bytes)			11/4/2009 4:39 PM
						2/18/2007 6:00 AM

APPENDIX C - TUNABLE PARAMETERS

svchost.exe	c:\windows\system32\svchost.exe	624	8	200	1380	
	11/4/2009 4:39 PM	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)			25.00 KB	
(25,600 bytes)	2/18/2007 6:00 AM					
svchost.exe	Not Available	700	8	Not Available	Not Available	11/4/2009 4:39 PM
svchost.exe	Not Available	764	8	Not Available	Not Available	11/4/2009 4:39 PM
svchost.exe	Not Available	800	8	Not Available	Not Available	11/4/2009 4:39 PM
svchost.exe	c:\windows\system32\svchost.exe	816	8	200	1380	
	11/4/2009 4:39 PM	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)			25.00 KB	
(25,600 bytes)	2/18/2007 6:00 AM					
spoolsv.exe	c:\windows\system32\spoolsv.exe	940	8	200	1380	
	11/4/2009 4:39 PM	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)			107.50 KB	
(110,080 bytes)	2/18/2007 6:00 AM					
msdtc.exe	Not Available	964	8	Not Available	Not Available	11/4/2009 4:39 PM
svchost.exe	c:\windows\system32\svchost.exe	1112	8	200	1380	
	11/4/2009 4:39 PM	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)			25.00 KB	
(25,600 bytes)	2/18/2007 6:00 AM					
oracle.exe	c:\app\administrator\product\11.1.0\db_1\bin\oracle.exe	1156	8	200	1380	
	11/4/2009 4:39 PM	11.1.0.6.0 Production			103.53 MB (108,560,896 bytes)	
	8/16/2009 1:38 PM					
oravssw.exe	c:\app\administrator\product\11.1.0\db_1\bin\oravssw.exe	1244	8	200	1380	
	11/4/2009 4:39 PM	Not Available			230.50 KB (236,032 bytes)	
	8/16/2009 1:41 PM					
svchost.exe	Not Available	1268	8	Not Available	Not Available	11/4/2009 4:39 PM
vivaldiframework.exe	c:\program files (x86)\megaraid storage manager\framework\vivaldiframework.exe	1384	8	200	1380	
	11/29/2006 7:05 PM	52.00 KB (53,248 bytes)				
cmd.exe	c:\windows\system32\cmd.exe	1448	8	200	1380	
	11/4/2009 4:39 PM	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)			538.00 KB (550,912 bytes)	
	2/18/2007 6:00 AM					
javaw.exe	c:\program files (x86)\megaraid storage manager\jre\bin\javaw.exe	1460	8	200	1380	
	11/4/2009 4:39 PM	6.0.0.105			132.00 KB (135,168 bytes)	
	12/21/2006 4:40 PM					
mrmonitor.exe	c:\program files (x86)\megaraid storage manager\megamonitor\mrmonitor.exe	1572	8	200	1380	
	11/4/2009 4:39 PM	Not Available			408.00 KB	
(417,792 bytes)	11/15/2006 11:57 AM					
wmiprvse.exe	Not Available	1652	8	Not Available	Not Available	11/4/2009 4:39 PM
svchost.exe	c:\windows\system32\svchost.exe	1732	8	200	1380	
	11/4/2009 4:39 PM	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)			25.00 KB	
(25,600 bytes)	2/18/2007 6:00 AM					
csrss.exe	Not Available	1948	13	Not Available	Not Available	11/4/2009 4:39 PM
winlogon.exe	c:\windows\system32\winlogon.exe	1976	13	200	1380	
	11/4/2009 4:39 PM	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)			922.00 KB	
(944,128 bytes)	2/18/2007 6:00 AM					
rdpclip.exe	c:\windows\system32\rdpclip.exe	752	8	200	1380	
	11/4/2009 4:39 PM	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)			99.00 KB	
(101,376 bytes)	8/15/2009 4:06 PM					

APPENDIX C - TUNABLE PARAMETERS

explorer.exe	c:\windows\explorer.exe	2092	8	200	1380	11/4/2009 4:39 PM
	6.00.3790.3959 (srv03_sp2_rtm.070216-1710)					1.30 MB (1,364,480 bytes)
						2/18/2007 6:00 AM
bacstray.exe	c:\program files\broadcom\bacs\bacstray.exe	2160	8	200	1380	11/4/2009 4:39 PM
	11. 7. 5. 0					432.31 KB (442,688 bytes)
						3/9/2009 10:08 AM
popup.exe	c:\program files (x86)\megaraid storage manager\megapopup\popup.exe	2224	8	200	1380	11/4/2009 4:39 PM
						1.00-21 76.09 KB (77,920 bytes)
						8/15/2006 4:00 PM
csrss.exe	Not Available	2468	13	Not Available	Not Available	11/4/2009 4:48 PM
	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
winlogon.exe	c:\windows\system32\winlogon.exe	2492	13	200	1380	11/4/2009 4:48 PM
	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)					922.00 KB
						(944,128 bytes) 2/18/2007 6:00 AM
rdpclip.exe	c:\windows\system32\rdpclip.exe	2676	8	200	1380	11/4/2009 4:48 PM
	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)					99.00 KB
						(101,376 bytes) 8/15/2009 4:06 PM
explorer.exe	c:\windows\explorer.exe	2756	8	200	1380	11/4/2009 4:48 PM
	6.00.3790.3959 (srv03_sp2_rtm.070216-1710)					1.30 MB (1,364,480 bytes)
						2/18/2007 6:00 AM
bacstray.exe	c:\program files\broadcom\bacs\bacstray.exe	2860	8	200	1380	11/4/2009 4:48 PM
	11. 7. 5. 0					432.31 KB (442,688 bytes)
						3/9/2009 10:08 AM
popup.exe	c:\program files (x86)\megaraid storage manager\megapopup\popup.exe	2900	8	200	1380	11/4/2009 4:48 PM
						1.00-21 76.09 KB (77,920 bytes)
						8/15/2006 4:00 PM
cmd.exe	c:\windows\system32\cmd.exe	2936	8	200	1380	11/4/2009 4:48 PM
	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)					538.00 KB (550,912 bytes)
						2/18/2007 6:00 AM
bash.exe	c:\cygwin\bin\bash.exe	3008	8	200	1380	11/4/2009 4:48 PM
	Not Available	458.50 KB (469,504 bytes)				8/15/2009 6:23 PM
bash.exe	c:\cygwin\bin\bash.exe	3004	8	200	1380	11/4/2009 4:48 PM
	Not Available	458.50 KB (469,504 bytes)				8/15/2009 6:23 PM
logon.scr	Not Available	1584	4	Not Available	Not Available	11/4/2009 4:49 PM
	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
cmd.exe	c:\windows\system32\cmd.exe	1344	8	200	1380	11/4/2009 5:04 PM
	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)					538.00 KB (550,912 bytes)
						2/18/2007 6:00 AM
bash.exe	c:\cygwin\bin\bash.exe	880	8	200	1380	11/4/2009 5:04 PM
	Not Available	458.50 KB (469,504 bytes)				8/15/2009 6:23 PM
bash.exe	c:\cygwin\bin\bash.exe	2364	8	200	1380	11/4/2009 5:04 PM
	Not Available	458.50 KB (469,504 bytes)				8/15/2009 6:23 PM
cmd.exe	c:\windows\system32\cmd.exe	1252	8	200	1380	11/4/2009 5:05 PM
	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)					538.00 KB (550,912 bytes)
						2/18/2007 6:00 AM
bash.exe	c:\cygwin\bin\bash.exe	2308	8	200	1380	11/4/2009 5:05 PM
	Not Available	458.50 KB (469,504 bytes)				8/15/2009 6:23 PM
bash.exe	c:\cygwin\bin\bash.exe	1588	8	200	1380	11/4/2009 5:05 PM
	Not Available	458.50 KB (469,504 bytes)				8/15/2009 6:23 PM
cmd.exe	c:\windows\system32\cmd.exe	4504	8	200	1380	11/4/2009 6:55 PM
	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)					538.00 KB (550,912 bytes)
						2/18/2007 6:00 AM
bash.exe	c:\cygwin\bin\bash.exe	2408	8	200	1380	11/4/2009 6:55 PM
	Not Available	458.50 KB (469,504 bytes)				8/15/2009 6:23 PM

APPENDIX C - TUNABLE PARAMETERS

bash.exe	c:\cygwin\bin\bash.exe	3140	8	200	1380	11/4/2009 6:55 PM
	Not Available	458.50 KB (469,504 bytes)				8/15/2009 6:23 PM
cmd.exe	c:\windows\system32\cmd.exe	3236	8	200	1380	11/5/2009 12:32 PM
	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	538.00 KB (550,912 bytes)				2/18/2007 6:00 AM
bash.exe	c:\cygwin\bin\bash.exe	4624	8	200	1380	11/5/2009 12:32 PM
	Not Available	458.50 KB (469,504 bytes)				8/15/2009 6:23 PM
bash.exe	c:\cygwin\bin\bash.exe	2960	8	200	1380	11/5/2009 12:32 PM
	Not Available	458.50 KB (469,504 bytes)				8/15/2009 6:23 PM
mmc.exe	c:\windows\system32\mmc.exe	6064	8	200	1380	11/5/2009 5:12 PM
	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	3.03 MB (3,177,984 bytes)				2/18/2007 6:00 AM
cmd.exe	c:\windows\system32\cmd.exe	3612	8	200	1380	11/5/2009 5:14 PM
	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	538.00 KB (550,912 bytes)				2/18/2007 6:00 AM
bash.exe	c:\cygwin\bin\bash.exe	488	8	200	1380	11/5/2009 5:14 PM
	Not Available	458.50 KB (469,504 bytes)				8/15/2009 6:23 PM
bash.exe	c:\cygwin\bin\bash.exe	6028	8	200	1380	11/5/2009 5:14 PM
	Not Available	458.50 KB (469,504 bytes)				8/15/2009 6:23 PM
bash.exe	c:\cygwin\bin\bash.exe	4848	8	200	1380	11/6/2009 1:05 PM
	Not Available	458.50 KB (469,504 bytes)				8/15/2009 6:23 PM
sqlplus.exe	c:\app\administrator\product\11.1.0\db_1\bin\sqlplus.exe	4112	8	200	1380	11/6/2009 1:05 PM
	11.1.0.6.0	739.00 KB (756,736 bytes)				8/16/2009 1:39 PM
cmd.exe	c:\windows\system32\cmd.exe	4496	8	200	1380	11/6/2009 1:43 PM
	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	538.00 KB (550,912 bytes)				2/18/2007 6:00 AM
tnslsnr.exe	c:\app\administrator\product\11.1.0\db_1\bin\tnslsnr.exe	2068	8	200	1380	11/6/2009 1:43 PM
	Not Available	541.50 KB (554,496 bytes)				8/16/2009 1:39 PM
wuaucit.exe	c:\windows\system32\wuaucit.exe	5188	8	200	1380	11/10/2009 10:58 AM
	5.7.3790.1830 (srv03_sp1_rtm.050324-1447)	156.00 KB (159,744 bytes)				8/15/2009 4:08 PM
helpctr.exe	c:\windows\pchealth\helpctr\binaries\helpctr.exe	6096	8	200	1380	11/11/2009 5:36 PM
	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	1.30 MB (1,363,456 bytes)				8/15/2009 4:08 PM
helpsvc.exe	c:\windows\pchealth\helpctr\binaries\helpsvc.exe	5228	8	200	1380	11/11/2009 5:36 PM
	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	1.52 MB (1,591,296 bytes)				8/15/2009 4:08 PM
wmiprvse.exe	Not Available	5664	8	Not Available	Not Available	11/11/2009 5:36 PM
	Not Available	Not Available	Not Available	Not Available	Not Available	

[Loaded Modules]

Name	Version	Size	File Date	Manufacturer	Path
winlogon	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	922.00 KB (944,128 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\winlogon.exe
ntdll	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	1.20 MB (1,254,400 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\ntdll.dll
kernel32	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	1.43 MB (1,503,232 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\kernel32.dll
advapi32	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	1.00 MB (1,051,648 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\advapi32.dll
rpcrt4	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	1.58 MB (1,653,248 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\rpcrt4.dll

APPENDIX C - TUNABLE PARAMETERS

secur32	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	120.00 KB (122,880 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\secur32.dll
crypt32	5.131.3790.3959 (srv03_sp2_rtm.070216-1710)	1.36 MB (1,429,504 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\crypt32.dll
msvcrt	7.0.3790.3959 (srv03_sp2_rtm.070216-1710)	508.00 KB (520,192 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\msvcrt.dll
user32	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	1.04 MB (1,086,976 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\user32.dll
gdi32	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	603.50 KB (617,984 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\gdi32.dll
msasn1	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	152.50 KB (156,160 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\msasn1.dll
nddeapi	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	25.00 KB (25,600 bytes)
AM	Microsoft Corporation	c:\windows\system32\nddeapi.dll
profmap	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	36.00 KB (36,864 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\profmap.dll
netapi32	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	589.00 KB (603,136 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\netapi32.dll
userenv	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	1.02 MB (1,071,104 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\userenv.dll
psapi	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	29.00 KB (29,696 bytes)
AM	Microsoft Corporation	c:\windows\system32\psapi.dll
regapi	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	108.50 KB (111,104 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\regapi.dll
setupapi	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	1.45 MB (1,524,224 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\setupapi.dll
version	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	28.00 KB (28,672 bytes)
AM	Microsoft Corporation	c:\windows\system32\version.dll
winsta	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	89.00 KB (91,136 bytes)
AM	Microsoft Corporation	c:\windows\system32\winsta.dll
ws2_32	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	174.50 KB (178,688 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\ws2_32.dll
ws2help	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	30.50 KB (31,232 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\ws2help.dll
msgina	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	1.14 MB (1,193,472 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\msgina.dll
shsvcs	6.00.3790.3959 (srv03_sp2_rtm.070216-1710)	194.00 KB (198,656 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\shsvcs.dll
shlwapi	6.00.3790.3959 (srv03_sp2_rtm.070216-1710)	607.00 KB (621,568 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\shlwapi.dll
sfc	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	6.00 KB (6,144 bytes)
AM	Microsoft Corporation	c:\windows\system32\sfc.dll
sfc_os	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	183.50 KB (187,904 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\sfc_os.dll
wintrust	5.131.3790.3959 (srv03_sp2_rtm.070216-1710)	297.50 KB (304,640 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\wintrust.dll
imagehlp	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	57.50 KB (58,880 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\imagehlp.dll
ole32	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	2.50 MB (2,622,976 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\ole32.dll
comctl32	6.0 (srv03_sp2_rtm.070216-1710)	1.51 MB (1,584,640 bytes)
	8/15/2009 10:55 AM Microsoft Corporation	c:\windows\winsxs\amd64_microsoft.windows.common-controls_6595b64144ccf1df_6.0.3790.3959_x-ww_0a7b2435\comctl32.dll

APPENDIX C - TUNABLE PARAMETERS

winscard	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	229.50 KB (235,008 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\winscard.dll
wtsapi32	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	29.00 KB (29,696 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\wtsapi32.dll
sxs	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	1.89 MB (1,977,856 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\sxs.dll
shell32	6.00.3790.3959 (srv03_sp2_rtm.070216-1710)	10.02 MB (10,505,728 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\shell32.dll
rsaenh	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	298.84 KB (306,008 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\rsaenh.dll
wldap32	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	390.50 KB (399,872 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\wldap32.dll
cscdll	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	151.50 KB (155,136 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\cscdll.dll
dimsntfy	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	28.00 KB (28,672 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\dimsntfy.dll
wlnotify	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	148.50 KB (152,064 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\wlnotify.dll
winmm	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	303.50 KB (310,784 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\winmm.dll
winspool	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	247.00 KB (252,928 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\winspool.drv
mpr	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	115.00 KB (117,760 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\mpr.dll
oleaut32	5.2.3790.3959	1.07 MB (1,121,792 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\oleaut32.dll
comctl32	5.82 (srv03_sp2_rtm.070216-1710)	935.00 KB (957,440 bytes)
	8/15/2009 10:55 AM Microsoft Corporation	c:\windows\winsxs\amd64_microsoft.windows.common-
		controls_6595b64144ccf1df_5.82.3790.3959_x-ww_ab06deb0\comctl32.dll
uxtheme	6.00.3790.3959 (srv03_sp2_rtm.070216-1710)	494.50 KB (506,368 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\uxtheme.dll
clbcatq	2001.12.4720.3959 (srv03_sp2_rtm.070216-1710)	862.50 KB (883,200 bytes)
	8/15/2009 4:06 PM Microsoft Corporation	c:\windows\system32\clbcatq.dll
comres	2001.12.4720.3959 (srv03_sp2_rtm.070216-1710)	779.50 KB (798,208 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\comres.dll
wbemprox	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	38.00 KB (38,912 bytes)
	8/15/2009 4:06 PM Microsoft Corporation	c:\windows\system32\wbem\wbemprox.dll
wbemcomn	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	518.00 KB (530,432 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\wbem\wbemcomn.dll
xpsp2res	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	2.77 MB (2,899,456 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\xpsp2res.dll
wbemsvc	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	58.00 KB (59,392 bytes)
	8/15/2009 4:06 PM Microsoft Corporation	c:\windows\system32\wbem\wbemsvc.dll
fastprox	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	866.50 KB (887,296 bytes)
	8/15/2009 4:06 PM Microsoft Corporation	c:\windows\system32\wbem\fastprox.dll
msvcp60	7.0.3790.1830 (srv03_sp1_rtm.050324-1447)	919.50 KB (941,568 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\msvcp60.dll
ntdsapi	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	127.50 KB (130,560 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\ntdsapi.dll
dnsapi	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	298.50 KB (305,664 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\dnsapi.dll

APPENDIX C - TUNABLE PARAMETERS

services	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	219.00 KB (224,256 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\services.exe
scsvr	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	595.00 KB (609,280 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\scsvr.dll
authz	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	171.00 KB (175,104 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\authz.dll
umpnpgm	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	205.00 KB (209,920 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\umpnpgm.dll
ncobjapi	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	77.50 KB (79,360 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\ncobjapi.dll
eventlog	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	127.50 KB (130,560 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\eventlog.dll
lsass	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	14.00 KB (14,336 bytes)
AM	Microsoft Corporation	c:\windows\system32\lsass.exe
lsasrv	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	1.49 MB (1,566,720 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\lsasrv.dll
samsrv	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	1.01 MB (1,059,328 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\samsrv.dll
cryptdll	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	47.00 KB (48,128 bytes)
AM	Microsoft Corporation	c:\windows\system32\cryptdll.dll
samlib	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	69.50 KB (71,168 bytes)
AM	Microsoft Corporation	c:\windows\system32\samlib.dll
msprvs	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	47.50 KB (48,640 bytes)
AM	Microsoft Corporation	c:\windows\system32\msprvs.dll
kerberos	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	706.00 KB (722,944 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\kerberos.dll
msv1_0	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	253.00 KB (259,072 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\msv1_0.dll
iphlpapi	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	178.50 KB (182,784 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\iphlpapi.dll
netlogon	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	665.50 KB (681,472 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\netlogon.dll
w32time	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	398.00 KB (407,552 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\w32time.dll
schannel	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	248.00 KB (253,952 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\schannel.dll
wdigest	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	131.00 KB (134,144 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\wdigest.dll
rassfm	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	36.00 KB (36,864 bytes)
AM	Microsoft Corporation	c:\windows\system32\rassfm.dll
kdcsvc	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	410.00 KB (419,840 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\kdcsvc.dll
ntdsa	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	2.83 MB (2,967,040 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\ntdsa.dll
ntdsatq	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	51.00 KB (52,224 bytes)
AM	Microsoft Corporation	c:\windows\system32\ntdsatq.dll
msswsock	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	480.50 KB (492,032 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\msswsock.dll
esent	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	2.26 MB (2,367,488 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\esent.dll
scecli	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	308.00 KB (315,392 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\scecli.dll
ws03res	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	794.00 KB (813,056 bytes)
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\ws03res.dll

APPENDIX C - TUNABLE PARAMETERS

ipsecsvc	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	361.50 KB (370,176 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\ipsecsvc.dll
oakley	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	385.00 KB (394,240 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\oakley.dll
winipsec	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	52.50 KB (53,760 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\winipsec.dll
pstorsvc	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	36.00 KB (36,864 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\pstorsvc.dll
psbase	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	124.00 KB (126,976 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\psbase.dll
hnetcfg	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	568.00 KB (581,632 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\hnetcfg.dll
wshtcpip	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	29.00 KB (29,696 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\wshtcpip.dll
dssenh	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	231.34 KB (236,888 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\dssenh.dll
wlbsctrl	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	137.50 KB (140,800 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\wlbsctrl.dll
svchost	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	25.00 KB (25,600 bytes)	2/18/2007 6:00 AM
	Microsoft Corporation		c:\windows\system32\svchost.exe
rpcss	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	819.00 KB (838,656 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\rpcss.dll
ntmarta	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	222.50 KB (227,840 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\ntmarta.dll
wzcsvc	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	644.50 KB (659,968 bytes)	
	2/16/2007 7:05 PM	Microsoft Corporation	c:\windows\system32\wzcsvc.dll
rtutils	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	66.00 KB (67,584 bytes)	2/18/2007 6:00 AM
	Microsoft Corporation		c:\windows\system32\rtutils.dll
wmi	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	5.50 KB (5,632 bytes)	2/18/2007 6:00 AM
	Microsoft Corporation		c:\windows\system32\wmi.dll
dhcpcsvc	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	220.50 KB (225,792 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\dhcpcsvc.dll
atl	3.05.2284	96.50 KB (98,816 bytes)	2/18/2007 6:00 AM
		Microsoft Corporation	c:\windows\system32\atl.dll
rastls	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	238.50 KB (244,224 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\rastls.dll
cryptui	5.131.3790.3959 (srv03_sp2_rtm.070216-1710)	705.50 KB (722,432 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\cryptui.dll
mprapi	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	154.50 KB (158,208 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\mprapi.dll
activeds	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	348.50 KB (356,864 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\activeds.dll
adslidpc	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	240.50 KB (246,272 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\adslidpc.dll
credui	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	202.00 KB (206,848 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\credui.dll
rasapi32	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	410.00 KB (419,840 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\rasapi32.dll
rasman	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	95.50 KB (97,792 bytes)	2/18/2007 6:00 AM
	Microsoft Corporation		c:\windows\system32\rasman.dll
tapi32	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	332.50 KB (340,480 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\tapi32.dll
raschap	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	141.00 KB (144,384 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\raschap.dll

APPENDIX C - TUNABLE PARAMETERS

schedsvc	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	308.00 KB (315,392 bytes)	
	8/15/2009 4:08 PM	Microsoft Corporation	c:\windows\system32\schedsvc.dll
msidle	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	9.00 KB (9,216 bytes)	2/18/2007 6:00 AM
	Microsoft Corporation		c:\windows\system32\msidle.dll
wkssvc	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	221.00 KB (226,304 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\wkssvc.dll
aelupsvc	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	31.50 KB (32,256 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\aelupsvc.dll
apphelp5	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	241.00 KB (246,784 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\apphelp.dll
cryptsvc	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	114.00 KB (116,736 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\cryptsvc.dll
certcli	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	371.50 KB (380,416 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\certcli.dll
vssapi	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	1.26 MB (1,320,960 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\vssapi.dll
dmserver	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	36.50 KB (37,376 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\dmserver.dll
es	2001.12.4720.3959 (srv03_sp2_rtm.070216-1710)	357.00 KB (365,568 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\es.dll
pchsvc	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	75.50 KB (77,312 bytes)	8/15/2009 4:08 PM
	Microsoft Corporation		c:\windows\pchealth\helpctr\binaries\pchsvc.dll
srvsvc	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	156.50 KB (160,256 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\srvsvc.dll
seclogon	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	27.50 KB (28,160 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\seclogon.dll
sens	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	63.50 KB (65,024 bytes)	2/18/2007 6:00 AM
	Microsoft Corporation		c:\windows\system32\sens.dll
comsvcs	2001.12.4720.3959 (srv03_sp2_rtm.070216-1710)	2.13 MB (2,234,880 bytes)	
	8/15/2009 4:06 PM	Microsoft Corporation	c:\windows\system32\comsvcs.dll
trkwks	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	177.50 KB (181,760 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\trkwks.dll
wmisvc	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	227.50 KB (232,960 bytes)	
	8/15/2009 4:06 PM	Microsoft Corporation	c:\windows\system32\wbem\wmisvc.dll
wuauerv	5.7.3790.1830 (srv03_sp1_rtm.050324-1447)	12.00 KB (12,288 bytes)	
	8/15/2009 4:08 PM	Microsoft Corporation	c:\windows\system32\wuauerv.dll
wuaueng	5.7.3790.3959 (srv03_sp2_rtm.070216-1710)	2.16 MB (2,269,184 bytes)	
	8/15/2009 4:08 PM	Microsoft Corporation	c:\windows\system32\wuaueng.dll
advpack	6.00.3790.3959 (srv03_sp2_rtm.070216-1710)	146.00 KB (149,504 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\advpack.dll
shfolder	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	34.00 KB (34,816 bytes)	2/18/2007 6:00 AM
	Microsoft Corporation		c:\windows\system32\shfolder.dll
winhttp	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	511.50 KB (523,776 bytes)	
	8/15/2009 10:55 AM	Microsoft Corporation	c:\windows\winsxs\amd64_microsoft.windows.winhttp_6595b64144ccf1df_5.1.3790.3959_x-ww_03aca661\winhttp.dll
cabinet	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	138.50 KB (141,824 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\cabinet.dll
mspatcha	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	48.00 KB (49,152 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\mspatcha.dll
browser	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	125.50 KB (128,512 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\browser.dll
wbemcore	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	1.22 MB (1,282,560 bytes)	
	8/15/2009 4:06 PM	Microsoft Corporation	c:\windows\system32\wbem\wbemcore.dll

APPENDIX C - TUNABLE PARAMETERS

esscli	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	626.50 KB (641,536 bytes)	
	8/15/2009 4:06 PM Microsoft Corporation	c:\windows\system32\wbem\esscli.dll	
wmiutils	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	171.00 KB (175,104 bytes)	
	8/15/2009 4:06 PM Microsoft Corporation	c:\windows\system32\wbem\wmiutils.dll	
repdrvfs	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	353.50 KB (361,984 bytes)	
	8/15/2009 4:06 PM Microsoft Corporation	c:\windows\system32\wbem\repdrvfs.dll	
wmiprvsd	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	743.00 KB (760,832 bytes)	
	8/15/2009 4:06 PM Microsoft Corporation	c:\windows\system32\wbem\wmiprvsd.dll	
wbemess	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	532.50 KB (545,280 bytes)	
	8/15/2009 4:06 PM Microsoft Corporation	c:\windows\system32\wbem\wbemess.dll	
ncprov	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	73.00 KB (74,752 bytes)	8/15/2009 4:06 PM
	Microsoft Corporation	c:\windows\system32\wbem\ncprov.dll	
wiarpc	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	57.00 KB (58,368 bytes)	2/18/2007 6:00 AM
	Microsoft Corporation	c:\windows\system32\wiarpc.dll	
netrap	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	26.00 KB (26,624 bytes)	2/18/2007 6:00 AM
	Microsoft Corporation	c:\windows\system32\netrap.dll	
netman	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	454.50 KB (465,408 bytes)	
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\netman.dll	
netshell	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	2.33 MB (2,438,656 bytes)	
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\netshell.dll	
clusapi	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	127.00 KB (130,048 bytes)	
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\clusapi.dll	
wininet	6.00.3790.3959 (srv03_sp2_rtm.070216-1710)	1.14 MB (1,190,912 bytes)	
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\wininet.dll	
wzcsapi	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	50.50 KB (51,712 bytes)	2/16/2007 7:05 PM
	Microsoft Corporation	c:\windows\system32\wzcsapi.dll	
rasdlg	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	859.50 KB (880,128 bytes)	
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\rasdlg.dll	
rasadhlp	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	12.00 KB (12,288 bytes)	
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\rasadhlp.dll	
ntlsapi	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	11.00 KB (11,264 bytes)	2/18/2007 6:00 AM
	Microsoft Corporation	c:\windows\system32\ntlsapi.dll	
xactsrv	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	134.50 KB (137,728 bytes)	
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\xactsrv.dll	
wups	5.7.3790.3959 (srv03_sp2_rtm.070216-1710)	37.50 KB (38,400 bytes)	8/15/2009 4:08 PM
	Microsoft Corporation	c:\windows\system32\wups.dll	
spoolsv	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	107.50 KB (110,080 bytes)	
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\spoolsv.exe	
spoolss	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	164.00 KB (167,936 bytes)	
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\spoolss.dll	
localspl	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	732.50 KB (750,080 bytes)	
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\localspl.dll	
cnbjmon	5.2.3790.1224 (dnsvr(skatar).040514-1058)	63.00 KB (64,512 bytes)	
	3/24/2005 11:15 AM Microsoft Corporation	c:\windows\system32\cnbjmon.dll	
pjlmon	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	25.50 KB (26,112 bytes)	3/24/2005 11:22 AM
	Microsoft Corporation	c:\windows\system32\pjlmon.dll	
tcpmon	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	90.50 KB (92,672 bytes)	2/18/2007 6:00 AM
	Microsoft Corporation	c:\windows\system32\tcpmon.dll	
wsnmp32	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	67.50 KB (69,120 bytes)	
	2/18/2007 6:00 AM Microsoft Corporation	c:\windows\system32\wsnmp32.dll	
tcpmib	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	25.00 KB (25,600 bytes)	2/18/2007 6:00 AM
	Microsoft Corporation	c:\windows\system32\tcpmib.dll	

APPENDIX C - TUNABLE PARAMETERS

wsock32	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	24.50 KB (25,088 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\wsock32.dll
mgmtapi	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	22.50 KB (23,040 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\mgmtapi.dll
snmpapi	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	31.50 KB (32,256 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\snmpapi.dll
usbmon	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	28.50 KB (29,184 bytes)	2/18/2007 6:00 AM
	Microsoft Corporation	c:\windows\system32\usbmon.dll	
winnr	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	30.00 KB (30,720 bytes)	2/18/2007 6:00 AM
	Microsoft Corporation	c:\windows\system32\winnr.dll	
wshqos	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	33.50 KB (34,304 bytes)	2/18/2007 6:00 AM
	Microsoft Corporation	c:\windows\system32\wshqos.dll	
win32spl	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	167.00 KB (171,008 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\win32spl.dll
inetpp	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	148.50 KB (152,064 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\inetpp.dll
icmp	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	3.50 KB (3,584 bytes)	2/18/2007 6:00 AM
	Microsoft Corporation	c:\windows\system32\icmp.dll	
ps5ui	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	232.00 KB (237,568 bytes)	
	10/12/2009 2:34 PM	Microsoft Corporation	c:\windows\system32\spool\drivers\x64\3\ps5ui.dll
ersvc	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	31.00 KB (31,744 bytes)	2/18/2007 6:00 AM
	Microsoft Corporation	c:\windows\system32\ersvc.dll	
oracle	11.1.0.6.0 Production	103.53 MB (108,560,896 bytes)	8/16/2009 1:38 PM Oracle Corporation
		c:\app\administrator\product\11.1.0\db_1\bin\oracle.exe	
oraclient11	11.1.0.6.0 Production	3.87 MB (4,059,136 bytes)	8/16/2009 1:40 PM Oracle Corporation
		c:\app\administrator\product\11.1.0\db_1\bin\oraclient11.dll	
oracore11	11.1.0.6.0 Production	1.26 MB (1,320,960 bytes)	8/16/2009 1:42 PM Oracle Corporation
		c:\app\administrator\product\11.1.0\db_1\bin\oracore11.dll	
oranls11	11.1.0.6.0 Production	992.00 KB (1,015,808 bytes)	8/16/2009 1:40 PM Oracle Corporation
		c:\app\administrator\product\11.1.0\db_1\bin\oranls11.dll	
oraunls11	11.1.0.6.0 Production	100.00 KB (102,400 bytes)	8/16/2009 1:40 PM Oracle Corporation
		c:\app\administrator\product\11.1.0\db_1\bin\oraunls11.dll	
orauts	11.1.0.6.0 Production	9.50 KB (9,728 bytes)	8/16/2009 1:42 PM Oracle Corporation
		c:\app\administrator\product\11.1.0\db_1\bin\orauts.dll	
oravsn11	11.1.0.6.0 Production	7.00 KB (7,168 bytes)	8/18/2009 2:16 PM Oracle Corporation
		c:\app\administrator\product\11.1.0\db_1\bin\oravsn11.dll	
oracommon11	11.1.0.6.0 Production	1.82 MB (1,911,296 bytes)	8/16/2009 1:40 PM Oracle Corporation
		c:\app\administrator\product\11.1.0\db_1\bin\oracommon11.dll	
orasnls11	11.1.0.6.0 Production	199.50 KB (204,288 bytes)	8/16/2009 1:40 PM Oracle Corporation
		c:\app\administrator\product\11.1.0\db_1\bin\orasnls11.dll	
orageneric11	11.1.0.6.0 Production	12.45 MB (13,056,512 bytes)	8/16/2009 1:40 PM Oracle Corporation
		c:\app\administrator\product\11.1.0\db_1\bin\orageneric11.dll	
oraxml11	11.1.0.6.0 Production	2.82 MB (2,952,704 bytes)	8/16/2009 1:41 PM Oracle Corporation
		c:\app\administrator\product\11.1.0\db_1\bin\oraxml11.dll	
msvcirt	7.0.3790.1830 (srv03_sp1_rtm.050324-1447)	91.00 KB (93,184 bytes)	2/18/2007 6:00 AM
	Microsoft Corporation	c:\windows\system32\msvcirt.dll	
oran11	11.1.0.6.0 Production	4.59 MB (4,810,240 bytes)	8/16/2009 1:42 PM Oracle Corporation
		c:\app\administrator\product\11.1.0\db_1\bin\oran11.dll	
oranl11	11.1.0.6.0 Production	452.00 KB (462,848 bytes)	8/16/2009 1:42 PM Oracle Corporation
		c:\app\administrator\product\11.1.0\db_1\bin\oranl11.dll	
orantcp11	11.1.0.6.0 Production	201.50 KB (206,336 bytes)	8/16/2009 1:42 PM Oracle Corporation
		c:\app\administrator\product\11.1.0\db_1\bin\orantcp11.dll	
oranldap11	11.1.0.6.0 Production	311.50 KB (318,976 bytes)	8/16/2009 1:42 PM Oracle Corporation
		c:\app\administrator\product\11.1.0\db_1\bin\oranldap11.dll	

APPENDIX C - TUNABLE PARAMETERS

oranzsbb11	11.1.0.6.0	Production	1.83 MB (1,919,488 bytes)	8/16/2009 1:42 PM	
Oracle Corporation c:\app\administrator\product\11.1.0\db_1\bin\oranzsbb11.dll					
orancrypt11	11.1.0.6.0	Production	119.50 KB (122,368 bytes)	8/16/2009 1:42 PM	
Oracle Corporation c:\app\administrator\product\11.1.0\db_1\bin\orancrypt11.dll					
oraldapclnt11	11.1.0.6.0	Production	1.82 MB (1,909,760 bytes)	8/16/2009 1:42 PM	
Oracle Corporation c:\app\administrator\product\11.1.0\db_1\bin\oraldapclnt11.dll					
oranro11	11.1.0.6.0	Production	340.50 KB (348,672 bytes)	8/16/2009 1:42 PM	
Oracle Corporation c:\app\administrator\product\11.1.0\db_1\bin\oranro11.dll					
oranhst11	11.1.0.6.0	Production	26.00 KB (26,624 bytes)	8/16/2009 1:42 PM	Oracle Corporation
c:\app\administrator\product\11.1.0\db_1\bin\oranhst11.dll					
oran cds11	11.1.0.6.0	Production	5.00 KB (5,120 bytes)	8/16/2009 1:42 PM	Oracle Corporation
c:\app\administrator\product\11.1.0\db_1\bin\oran cds11.dll					
orantns11	11.1.0.6.0	Production	41.00 KB (41,984 bytes)	8/16/2009 1:42 PM	Oracle Corporation
c:\app\administrator\product\11.1.0\db_1\bin\orantns11.dll					
oraztkg11	11.1.0.6.0	Production	686.50 KB (702,976 bytes)	8/16/2009 1:42 PM	
Oracle Corporation c:\app\administrator\product\11.1.0\db_1\bin\oraztkg11.dll					
orapls11	11.1.0.6.0	Production	4.89 MB (5,123,072 bytes)	8/16/2009 1:40 PM	
Oracle Corporation c:\app\administrator\product\11.1.0\db_1\bin\orapls11.dll					
ORASLAX11	11.0.0.1.0	Production	25.50 KB (26,112 bytes)	8/16/2009 1:40 PM	Oracle Corporation
c:\app\administrator\product\11.1.0\db_1\bin\oraslax11.dll					
oraplp11	11.1.0.6.0	Production	4.16 MB (4,363,264 bytes)	8/16/2009 1:40 PM	
Oracle Corporation c:\app\administrator\product\11.1.0\db_1\bin\oraplp11.dll					
orahasgen11	11.1.0.6.0	Production	505.50 KB (517,632 bytes)	8/16/2009 1:42 PM	
Oracle Corporation c:\app\administrator\product\11.1.0\db_1\bin\orahasgen11.dll					
oraocr11	11.1.0.6.0	Production	549.50 KB (562,688 bytes)	8/16/2009 1:42 PM	
Oracle Corporation c:\app\administrator\product\11.1.0\db_1\bin\oraocr11.dll					
oraocrb11	11.1.0.6.0	Production	418.50 KB (428,544 bytes)	8/16/2009 1:42 PM	
Oracle Corporation c:\app\administrator\product\11.1.0\db_1\bin\oraocrb11.dll					
orazt11	11.1.0.6.0	Production	52.50 KB (53,760 bytes)	8/16/2009 1:42 PM	Oracle Corporation
c:\app\administrator\product\11.1.0\db_1\bin\orazt11.dll					
orasql11	11.1.0.6.0	Production	393.00 KB (402,432 bytes)	8/16/2009 1:42 PM	
Oracle Corporation c:\app\administrator\product\11.1.0\db_1\bin\orasql11.dll					
libmmd	8.1.8.2		816.00 KB (835,584 bytes)	8/16/2009 1:38 PM	Intel Corporation
c:\app\administrator\product\11.1.0\db_1\bin\libmmd.dll					
oransgr11	11.1.0.6.0	Production	158.50 KB (162,304 bytes)	8/16/2009 1:42 PM	
Oracle Corporation c:\app\administrator\product\11.1.0\db_1\bin\oransgr11.dll					
oraclsra11	11.1.0.6.0	Production	44.00 KB (45,056 bytes)	8/16/2009 1:39 PM	Oracle Corporation
c:\app\administrator\product\11.1.0\db_1\bin\oraclsra11.dll					
oradbcfg11	11.1.0.6.0	Production	108.50 KB (111,104 bytes)	8/16/2009 1:39 PM	
Oracle Corporation c:\app\administrator\product\11.1.0\db_1\bin\oradbcfg11.dll					
orawwg	10.1.2.0.0	Production	170.50 KB (174,592 bytes)	8/16/2009 1:39 PM	Oracle Corporation
c:\app\administrator\product\11.1.0\db_1\bin\orawwg.dll					
dbghelp	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)		1.22 MB (1,274,368 bytes)	2/18/2007 6:00 AM	Microsoft Corporation
c:\windows\system32\dbghelp.dll					
oraimr11	10, 1, 0, 2		118.50 KB (121,344 bytes)	8/16/2009 1:40 PM	Oracle Corporation
c:\app\administrator\product\11.1.0\db_1\bin\oraimr11.dll					
oranbeq11	11.1.0.6.0	Production	103.50 KB (105,984 bytes)	8/16/2009 1:42 PM	
Oracle Corporation c:\app\administrator\product\11.1.0\db_1\bin\oranbeq11.dll					
security	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)		6.00 KB (6,144 bytes)	2/18/2007 6:00 AM	Microsoft Corporation
c:\windows\system32\security.dll					
oravssw		Not Available	230.50 KB (236,032 bytes)	8/16/2009 1:41 PM	Not Available
c:\app\administrator\product\11.1.0\db_1\bin\oravssw.exe					
oci	11.1.0.1.0		635.50 KB (650,752 bytes)	8/16/2009 1:42 PM	Oracle Corporation
c:\app\administrator\product\11.1.0\db_1\bin\oci.dll					

APPENDIX C - TUNABLE PARAMETERS

VivaldiFramework	Not Available	52.00 KB (53,248 bytes)	11/29/2006 7:05 PM	Not Available
c:\program files (x86)\megaraid storage manager\framework\vivaldiframework.exe				
wow64	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	244.50 KB (250,368 bytes)	2/18/2007 6:00 AM	Microsoft Corporation
c:\windows\system32\wow64.dll				
wow64win	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	280.00 KB (286,720 bytes)	2/18/2007 6:00 AM	Microsoft Corporation
c:\windows\system32\wow64win.dll				
wow64cpu	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	18.50 KB (18,944 bytes)	2/18/2007 6:00 AM	Microsoft Corporation
c:\windows\system32\wow64cpu.dll				
cmd	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	538.00 KB (550,912 bytes)	2/18/2007 6:00 AM	Microsoft Corporation
c:\windows\system32\cmd.exe				
javaw	6.0.0.105	132.00 KB (135,168 bytes)	12/21/2006 4:40 PM	Sun Microsystems, Inc.
c:\program files (x86)\megaraid storage manager\jre\bin\javaw.exe				
mrmonitor	Not Available	408.00 KB (417,792 bytes)	11/15/2006 11:57 AM	Not Available
c:\program files (x86)\megaraid storage manager\megamonitor\mrmonitor.exe				
termsrv	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	355.50 KB (364,032 bytes)	8/15/2009 4:06 PM	Microsoft Corporation
c:\windows\system32\termsrv.dll				
icaapi	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	27.50 KB (28,160 bytes)	8/15/2009 4:06 PM	Microsoft Corporation
c:\windows\system32\icaapi.dll				
mstlsapi	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	188.00 KB (192,512 bytes)	2/18/2007 6:00 AM	Microsoft Corporation
c:\windows\system32\mstlsapi.dll				
rdpwsx	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	170.13 KB (174,216 bytes)	8/15/2009 4:06 PM	Microsoft Corporation
c:\windows\system32\rdpwsx.dll				
rdpsnd	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	25.00 KB (25,600 bytes)	2/18/2007 6:00 AM	Microsoft Corporation
c:\windows\system32\rdpsnd.dll				
scredir	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	38.50 KB (39,424 bytes)	2/18/2007 6:00 AM	Microsoft Corporation
c:\windows\system32\scredir.dll				
cscui	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	441.00 KB (451,584 bytes)	2/18/2007 6:00 AM	Microsoft Corporation
c:\windows\system32\cscui.dll				
msacm32	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	31.00 KB (31,744 bytes)	2/18/2007 6:00 AM	Microsoft Corporation
c:\windows\system32\msacm32.drv				
msacm32	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	112.00 KB (114,688 bytes)	2/18/2007 6:00 AM	Microsoft Corporation
c:\windows\system32\msacm32.dll				
imaadp32	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	24.00 KB (24,576 bytes)	2/18/2007 6:00 AM	Microsoft Corporation
c:\windows\system32\imaadp32.acm				
msadp32	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	23.50 KB (24,064 bytes)	2/18/2007 6:00 AM	Microsoft Corporation
c:\windows\system32\msadp32.acm				
msg7115	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	13.50 KB (13,824 bytes)	2/18/2007 6:00 AM	Microsoft Corporation
c:\windows\system32\msg711.acm				
msgsm32	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	34.50 KB (35,328 bytes)	2/18/2007 6:00 AM	Microsoft Corporation
c:\windows\system32\msgsm32.acm				
tssoft32	1.01	13.50 KB (13,824 bytes)	2/18/2007 6:00 AM	DSP GROUP, INC.
c:\windows\system32\tssoft32.acm				
tsd32	1.03	24.50 KB (25,088 bytes)	2/18/2007 6:00 AM	DSP GROUP, INC.
c:\windows\system32\tsd32.dll				
printui	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	928.00 KB (950,272 bytes)	2/18/2007 6:00 AM	Microsoft Corporation
c:\windows\system32\printui.dll				
cfgmgr32	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	18.00 KB (18,432 bytes)	2/18/2007 6:00 AM	Microsoft Corporation
c:\windows\system32\cfgmgr32.dll				
drprov	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	24.00 KB (24,576 bytes)	2/18/2007 6:00 AM	Microsoft Corporation
c:\windows\system32\drprov.dll				
ntlman	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	72.00 KB (73,728 bytes)	2/18/2007 6:00 AM	Microsoft Corporation
c:\windows\system32\ntlman.dll				
netui0	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	130.00 KB (133,120 bytes)	2/18/2007 6:00 AM	Microsoft Corporation
c:\windows\system32\netui0.dll				

APPENDIX C - TUNABLE PARAMETERS

netui1	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	338.50 KB (346,624 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\netui1.dll
davclnt	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	39.50 KB (40,448 bytes)	2/18/2007 6:00 AM
	Microsoft Corporation		c:\windows\system32\davclnt.dll
rdpclip	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	99.00 KB (101,376 bytes)	
	8/15/2009 4:06 PM	Microsoft Corporation	c:\windows\system32\rdpclip.exe
urlmon	6.00.3790.3959 (srv03_sp2_rtm.070216-1710)	1.04 MB (1,088,000 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\urlmon.dll
explorer	6.00.3790.3959 (srv03_sp2_rtm.070216-1710)	1.30 MB (1,364,480 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\explorer.exe
browseui	6.00.3790.3959 (srv03_sp2_rtm.070216-1710)	1.53 MB (1,605,120 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\browseui.dll
shdocvw	6.00.3790.3959 (srv03_sp2_rtm.070216-1710)	2.33 MB (2,438,144 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\shdocvw.dll
themeui	6.00.3790.3959 (srv03_sp2_rtm.070216-1710)	531.50 KB (544,256 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\themeui.dll
msimg32	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	6.50 KB (6,656 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\msimg32.dll
actxprxy	6.00.3790.3959 (srv03_sp2_rtm.070216-1710)	220.50 KB (225,792 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\actxprxy.dll
linkinfo	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	31.00 KB (31,744 bytes)	2/18/2007 6:00 AM
	Microsoft Corporation		c:\windows\system32\linkinfo.dll
ntshru1	6.00.3790.3959 (srv03_sp2_rtm.070216-1710)	184.00 KB (188,416 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\ntshru1.dll
browse1c	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	63.00 KB (64,512 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\browse1c.dll
shdoc1c	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	589.50 KB (603,648 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\shdoc1c.dll
webcheck	6.00.3790.3959 (srv03_sp2_rtm.070216-1710)	438.50 KB (449,024 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\webcheck.dll
stobject	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	142.50 KB (145,920 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\stobject.dll
batmeter	6.00.3790.3959 (srv03_sp2_rtm.070216-1710)	41.50 KB (42,496 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\batmeter.dll
powrprof	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	32.50 KB (33,280 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\powrprof.dll
zipfldr	6.00.3790.3959 (srv03_sp2_rtm.070216-1710)	449.50 KB (460,288 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\zipfldr.dll
bacstray	11.7.5.0	432.31 KB (442,688 bytes)	3/9/2009 10:08 AM
	Broadcom Corporation		c:\program files\broadcom\bacs\bacstray.exe
popup	1.00-21 76.09 KB (77,920 bytes)		8/15/2006 4:00 PM
			c:\program files (x86)\megaraid storage manager\megapopup\popup.exe
cryptnet	5.131.3790.3959 (srv03_sp2_rtm.070216-1710)	108.50 KB (111,104 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\cryptnet.dll
sensapi	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	10.50 KB (10,752 bytes)	2/18/2007 6:00 AM
	Microsoft Corporation		c:\windows\system32\sensapi.dll
bash	Not Available	458.50 KB (469,504 bytes)	8/15/2009 6:23 PM
			Not Available
			c:\cygwin\bin\bash.exe
mmc	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	3.03 MB (3,177,984 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\mmc.exe
mfc42u	6.50.9146.0	1.39 MB (1,460,992 bytes)	2/18/2007 6:00 AM
	Microsoft Corporation		c:\windows\system32\mfc42u.dll
oleacc	4.2.5406.0 (srv03_sp2_rtm.070216-1710)	374.50 KB (383,488 bytes)	
	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\oleacc.dll

APPENDIX C - TUNABLE PARAMETERS

mmcbase	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	275.50 KB (282,112 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\mmcbase.dll
comdlg32	6.00.3790.3959 (srv03_sp2_rtm.070216-1710)	447.00 KB (457,728 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\comdlg32.dll
duser	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	445.00 KB (455,680 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\duser.dll
mmcndmgr	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	3.78 MB (3,963,392 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\mmcndmgr.dll
msxml3	8.80.1185.0	2.04 MB (2,144,256 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\msxml3.dll
smlgocfg	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	711.50 KB (728,576 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\smlgocfg.dll
pdh	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	563.00 KB (576,512 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\pdh.dll
odbc32	3.526.3959.0 (srv03_sp2_rtm.070216-1710)	408.00 KB (417,792 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\odbc32.dll
odbcbcsp	2000.086.3959.00 (srv03_sp2_rtm.070216-1710)	32.00 KB (32,768 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\odbcbcsp.dll
odbcint	3.526.1830.0 (srv03_sp1_rtm.050324-1447)	96.00 KB (98,304 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\odbcint.dll
mlang	6.00.3790.3959 (srv03_sp2_rtm.070216-1710)	686.00 KB (702,464 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\mlang.dll
sysmon	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	392.50 KB (401,920 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\sysmon.ocx
perfos	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	31.50 KB (32,256 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\perfos.dll
perfdisk	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	34.50 KB (35,328 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\perfdisk.dll
sqlplus	11.1.0.6.0	739.00 KB (756,736 bytes)	8/16/2009 1:39 PM	Oracle Corporation	c:\app\administrator\product\11.1.0\db_1\bin\sqlplus.exe
tnslsnr	Not Available	541.50 KB (554,496 bytes)	8/16/2009 1:39 PM	Not Available	c:\app\administrator\product\11.1.0\db_1\bin\tnslsnr.exe
onsclnt	Not Available	58.50 KB (59,904 bytes)	8/16/2009 1:42 PM	Not Available	c:\app\administrator\product\11.1.0\db_1\bin\onsclnt.dll
oranipc11	11.1.0.6.0 Production	89.00 KB (91,136 bytes)	8/16/2009 1:42 PM	Oracle Corporation	c:\app\administrator\product\11.1.0\db_1\bin\oranipc11.dll
oraocrutl11	11.1.0.6.0 Production	39.00 KB (39,936 bytes)	8/16/2009 1:42 PM	Oracle Corporation	c:\app\administrator\product\11.1.0\db_1\bin\oraocrutl11.dll
wuaucit	5.7.3790.1830 (srv03_sp1_rtm.050324-1447)	156.00 KB (159,744 bytes)	8/15/2009 4:08 PM	Microsoft Corporation	c:\windows\system32\wuaucit.exe
wuaucpl	5.7.3790.3959 (srv03_sp2_rtm.070216-1710)	177.50 KB (181,760 bytes)	8/15/2009 4:08 PM	Microsoft Corporation	c:\windows\system32\wuaucpl.cpl
helpctr	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	1.30 MB (1,363,456 bytes)	8/15/2009 4:08 PM	Microsoft Corporation	c:\windows\pchealth\helpctr\binaries\helpctr.exe
hcappres	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	7.50 KB (7,680 bytes)	8/15/2009 4:08 PM	Microsoft Corporation	c:\windows\pchealth\helpctr\binaries\hcappres.dll
itss	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	208.50 KB (213,504 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\itss.dll
pchshell	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	155.00 KB (158,720 bytes)	8/15/2009 4:08 PM	Microsoft Corporation	c:\windows\pchealth\helpctr\binaries\pchshell.dll
mshtml	6.00.3790.3959 (srv03_sp2_rtm.070216-1710)	5.72 MB (5,999,616 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\mshtml.dll

APPENDIX C - TUNABLE PARAMETERS

msls31	3.10.349.0	357.00 KB (365,568 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\msls31.dll
msimtf	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	380.50 KB (389,632 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\msimtf.dll
msctf	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	617.50 KB (632,320 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\msctf.dll
jscript	5.6.0.8832	976.00 KB (999,424 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\jscript.dll
imm32	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	208.00 KB (212,992 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\imm32.dll
mshtml	6.00.3790.3959 (srv03_sp2_rtm.070216-1710)	905.50 KB (927,232 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\mshtml.dll
vbscript	5.6.0.8832	647.00 KB (662,528 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\vbscript.dll
msinfo	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	635.50 KB (650,752 bytes)	8/15/2009 4:08 PM	Microsoft Corporation	c:\windows\pchealth\helpctr\binaries\msinfo.dll
riched32	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	7.00 KB (7,168 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\riched32.dll
riched20	5.31.23.1225	1.11 MB (1,160,192 bytes)	2/18/2007 6:00 AM	Microsoft Corporation	c:\windows\system32\riched20.dll
helpsvc	5.2.3790.3959 (srv03_sp2_rtm.070216-1710)	1.52 MB (1,591,296 bytes)	8/15/2009 4:08 PM	Microsoft Corporation	c:\windows\pchealth\helpctr\binaries\helpsvc.exe

[Services]

Display Name	Name	State	Start Mode	Service Type	Path	Error Control	Start
Name	Tag ID						
Application Experience Lookup Service	AeLookupSvc	Running	Auto	Share Process	c:\windows\system32\svchost.exe -k netsvcs	Normal LocalSystem	0
Alerter	Alerter	Stopped	Disabled	Share Process	c:\windows\system32\svchost.exe -k localservice	Normal NT	0
AUTHORITY\LocalService							
Application Layer Gateway Service	ALG	Stopped	Manual	Own Process	c:\windows\system32\alg.exe	Normal NT AUTHORITY\LocalService	0
Application Management	AppMgmt	Stopped	Manual	Share Process	c:\windows\system32\svchost.exe -k netsvcs	Normal LocalSystem	0
Windows Audio	AudioSrv	Stopped	Disabled	Share Process	c:\windows\system32\svchost.exe -k netsvcs	Normal LocalSystem	0
Background Intelligent Transfer Service	BITS	Stopped	Manual	Share Process	c:\windows\system32\svchost.exe -k netsvcs	Normal LocalSystem	0
Computer Browser	Browser	Running	Auto	Share Process	c:\windows\system32\svchost.exe -k netsvcs	Normal LocalSystem	0
Indexing Service	CiSvc	Stopped	Disabled	Share Process	c:\windows\system32\cisvc.exe	Normal LocalSystem	0
ClipBook	ClipSrv	Stopped	Disabled	Own Process	c:\windows\system32\clipsrv.exe	Normal LocalSystem	0
COM+ System Application	COMSysApp	Stopped	Manual	Own Process	c:\windows\system32\dlhhost.exe /processid:{02d4b3f1-fd88-11d1-960d-00805fc79235}	Normal LocalSystem	0
Cryptographic Services	CryptSvc	Running	Auto	Share Process	c:\windows\system32\svchost.exe -k netsvcs	Normal LocalSystem	0
DCOM Server Process Launcher	DcomLaunch	Running	Auto	Share Process	c:\windows\system32\svchost.exe -k dcomlaunch	Normal LocalSystem	0

APPENDIX C - TUNABLE PARAMETERS

Distributed File System	Dfs	Stopped	Manual	Own Process		
	c:\windows\system32\dfsrv.exe		Normal	LocalSystem	0	
DHCP Client	Dhcp	Running	Auto	Share Process		
	c:\windows\system32\svchost.exe -k networkservice		Normal	NT		
AUTHORITY\NetworkService		0				
Logical Disk Manager Administrative Service	dmadmin	Stopped	Manual	Share		
Process	c:\windows\system32\dmadmin.exe /com		Normal	LocalSystem	0	
Logical Disk Manager	dmserver	Running	Auto	Share Process		
	c:\windows\system32\svchost.exe -k netsvcs		Normal	LocalSystem	0	
DNS Client	Dnscache	Running	Auto	Share Process		
	c:\windows\system32\svchost.exe -k networkservice		Normal	NT		
AUTHORITY\NetworkService		0				
Error Reporting Service	ERSvc	Running	Auto	Share Process		
	c:\windows\system32\svchost.exe -k winerr		Ignore	LocalSystem	0	
Event Log	Eventlog	Running	Auto	Share Process		
	c:\windows\system32\services.exe		Normal	LocalSystem	0	
COM+ Event System	EventSystem	Running	Auto	Share Process		
	c:\windows\system32\svchost.exe -k netsvcs		Normal	LocalSystem	0	
Help and Support	helpsvc	Running	Auto	Share Process		
	c:\windows\system32\svchost.exe -k netsvcs		Normal	LocalSystem	0	
Human Interface Device Access	HidServ	Stopped	Disabled	Share Process		
	c:\windows\system32\svchost.exe -k netsvcs		Normal	LocalSystem	0	
HTTP SSL	HTTPFilter	Stopped	Manual	Share Process		
	c:\windows\system32\lsass.exe		Normal	LocalSystem	0	
IAS Jet Database Access	IASJet	Stopped	Manual	Share Process		
	c:\windows\systow64\svchost.exe -k iasjet		Normal	LocalSystem	0	
InstallDriver Table Manager	IDriverT	Stopped	Manual	Own Process	"c:\program files (x86)\common files\installshield\driver\1050\intel 32\idrivert.exe"	Ignore LocalSystem 0
IMAPI CD-Burning COM Service	ImapiService	Stopped	Disabled	Own		
Process	c:\windows\system32\imapi.exe		Normal	LocalSystem	0	
Intersite Messaging	IsmServ	Stopped	Disabled	Own Process		
	c:\windows\system32\ismserv.exe		Normal	LocalSystem	0	
Kerberos Key Distribution Center	kdc	Stopped	Disabled	Share Process		
	c:\windows\system32\lsass.exe		Normal	LocalSystem	0	
Server	lanmanserver	Running	Auto	Share Process		
	c:\windows\system32\svchost.exe -k netsvcs		Normal	LocalSystem	0	
Workstation	lanmanworkstation	Running	Auto	Share Process		
	c:\windows\system32\svchost.exe -k netsvcs		Normal	LocalSystem	0	
License Logging	LicenseService	Stopped	Disabled	Own Process		
	c:\windows\system32\llssrv.exe		Normal	NT AUTHORITY\NetworkService	0	
TCP/IP NetBIOS Helper	LmHosts	Running	Auto	Share Process		
	c:\windows\system32\svchost.exe -k localservice		Normal	NT		
AUTHORITY\LocalService		0				
MRMonitor	MegaMonitorSrv	Running	Auto	Own Process	"c:\program files (x86)\megaraid storage manager\megamonitor\mrmonitor.exe"	Normal LocalSystem 0
Messenger	Messenger	Stopped	Disabled	Share Process		
	c:\windows\system32\svchost.exe -k netsvcs		Normal	LocalSystem	0	
NetMeeting Remote Desktop Sharing	mnmsrvc	Stopped	Disabled	Own		
Process	c:\windows\system32\mnmsrvc.exe		Normal	LocalSystem	0	
Distributed Transaction Coordinator	MSDTC	Running	Auto	Own Process		
	c:\windows\system32\msdtc.exe		Normal	NT AUTHORITY\NetworkService	0	
Windows Installer	MSIServer	Stopped	Manual	Share Process		
	c:\windows\system32\msiexec.exe /v		Normal	LocalSystem	0	

APPENDIX C - TUNABLE PARAMETERS

MSMFramework	MSMFramework	Running	Auto	Own Process	"c:\program files (x86)\megaraid storage manager\framework\vivaldiframework.exe"
	Normal LocalSystem	0			
Network DDE	NetDDE	Stopped	Disabled	Share Process	
	c:\windows\system32\netdde.exe		Normal LocalSystem	0	
Network DDE DSDM	NetDDEdsdm	Stopped	Disabled	Share Process	
	c:\windows\system32\netdde.exe		Normal LocalSystem	0	
Net Logon	Netlogon	Stopped	Manual	Share Process	
	c:\windows\system32\lsass.exe		Normal LocalSystem	0	
Network Connections	Netman	Running	Manual	Share Process	
	c:\windows\system32\svchost.exe -k netsvcs		Normal LocalSystem	0	
Network Location Awareness (NLA)	Nla	Running	Manual	Share Process	
	c:\windows\system32\svchost.exe -k netsvcs		Normal LocalSystem	0	
File Replication	NtFrs	Stopped	Manual	Own Process	c:\windows\system32\ntfrs.exe
	Ignore LocalSystem	0			
NT LM Security Support Provider		NtLmSsp	Stopped	Manual	Share Process
	c:\windows\system32\lsass.exe		Normal LocalSystem	0	
Removable Storage	NtmsSvc	Stopped	Manual	Share Process	
	c:\windows\system32\svchost.exe -k netsvcs		Normal LocalSystem	0	
OracleJobSchedulertpcc	OracleJobSchedulertpcc	Stopped	Disabled		
	Own Process	c:\app\administrator\product\11.1.0\db_1\bin\extjob.exe	tpcc	Normal	
	LocalSystem	0			
OracleORACLE_HOME_TNSListener	OracleORACLE_HOME_TNSListener	Stopped			
	Manual Own Process	c:\app\administrator\product\11.1.0\db_1\bin\tnslsnr		Normal	
	LocalSystem	0			
OracleServicetpcc	OracleServicetpcc	Running	Auto	Own Process	
	c:\app\administrator\product\11.1.0\db_1\bin\oracle.exe	tpcc		Normal LocalSystem	
	0				
OracleTNSListener	OracleTNSListener	Running	Manual	Own Process	
	c:\app\administrator\product\11.1.0\db_1\bin\tnslsnr		Normal LocalSystem	0	
Oracle tpcc VSS Writer Service	OracleVssWritertpcc	Running	Auto	Own Process	
	c:\app\administrator\product\11.1.0\db_1\bin\oravssw.exe	tpcc		Normal LocalSystem	
	0				
Plug and Play	PlugPlay	Running	Auto	Share Process	
	c:\windows\system32\services.exe		Normal LocalSystem	0	
IPSEC ServicesPolicyAgent		Running	Auto	Share Process	
	c:\windows\system32\lsass.exe		Normal LocalSystem	0	
Protected Storage	ProtectedStorage	Running	Auto	Share Process	
	c:\windows\system32\lsass.exe		Normal LocalSystem	0	
Remote Access Auto Connection Manager		RasAuto	Stopped	Manual	Share Process
	c:\windows\system32\svchost.exe -k netsvcs		Normal LocalSystem	0	
Remote Access Connection Manager		RasMan	Stopped	Manual	Share Process
	c:\windows\system32\svchost.exe -k netsvcs		Normal LocalSystem	0	
Remote Desktop Help Session Manager		RDSessMgr	Stopped	Manual	Own Process
	c:\windows\system32\sessmgr.exe		Normal LocalSystem	0	
Routing and Remote Access	RemoteAccess	Stopped	Disabled	Share Process	
	c:\windows\system32\svchost.exe -k netsvcs		Normal LocalSystem	0	
Remote Registry	RemoteRegistry	Running	Auto	Share Process	
	c:\windows\system32\svchost.exe -k regsvc		Normal NT AUTHORITY\LocalService		
	0				
Remote Procedure Call (RPC) Locator		RpcLocator	Stopped	Manual	Own Process
	c:\windows\system32\locator.exe		Normal NT AUTHORITY\NetworkService		
	0				

APPENDIX C - TUNABLE PARAMETERS

Remote Procedure Call (RPC)	RpcSs	Running	Auto	Share Process
c:\windows\system32\svchost.exe -k rpcss			Normal	NT
AUTHORITY\NetworkService		0		
Resultant Set of Policy Provider	RSOPProv	Stopped	Manual	Share Process
c:\windows\system32\rsopprov.exe			Normal	LocalSystem 0
Special Administration Console Helper	sacsrv	Stopped	Manual	Share Process
c:\windows\system32\svchost.exe -k netsvcs			Normal	LocalSystem 0
Security Accounts Manager	SamSs	Running	Auto	Share Process
c:\windows\system32\lsass.exe			Normal	LocalSystem 0
Smart Card	SCardSvr	Stopped	Manual	Share Process
c:\windows\system32\scardsvr.exe			Ignore	NT AUTHORITY\LocalService 0
Task Scheduler Schedule		Running	Auto	Share Process
c:\windows\system32\svchost.exe -k netsvcs			Normal	LocalSystem 0
Secondary Logon	seclogon	Running	Auto	Share Process
c:\windows\system32\svchost.exe -k netsvcs			Ignore	LocalSystem 0
System Event Notification	SENS	Running	Auto	Share Process
c:\windows\system32\svchost.exe -k netsvcs			Normal	LocalSystem 0
Windows Firewall/Internet Connection Sharing (ICS)		Disabled	Share Process	Stopped
c:\windows\system32\svchost.exe -k netsvcs			Normal	LocalSystem 0
Shell Hardware Detection	ShellHWDetection	Running	Auto	Share Process
c:\windows\system32\svchost.exe -k netsvcs			Ignore	LocalSystem 0
Print Spooler	Spooler	Running	Auto	Own Process
c:\windows\system32\spoolsv.exe			Normal	LocalSystem 0
Windows Image Acquisition (WIA)	stisvc	Stopped	Disabled	Share Process
c:\windows\system32\svchost.exe -k imgsvc			Normal	NT AUTHORITY\LocalService 0
Microsoft Software Shadow Copy Provider	swprv	Stopped	Manual	Own Process
c:\windows\system32\svchost.exe -k swprv			Normal	LocalSystem 0
Performance Logs and Alerts	SysmonLog	Stopped	Auto	Own Process
c:\windows\system32\smlogsvc.exe			Normal	NT Authority\NetworkService 0
Telephony	TapiSrv	Stopped	Manual	Share Process
c:\windows\system32\svchost.exe -k tapisrv			Normal	LocalSystem 0
Terminal Services	TermService	Running	Manual	Share Process
c:\windows\system32\svchost.exe -k termsvcs			Normal	LocalSystem 0
Themes	Themes	Stopped	Disabled	Share Process
c:\windows\system32\svchost.exe -k netsvcs			Normal	LocalSystem 0
Telnet	TlntSvr	Stopped	Disabled	Own Process
c:\windows\system32\tlntsvr.exe			Normal	NT AUTHORITY\LocalService 0
Distributed Link Tracking Server	TrkSvr	Stopped	Disabled	Share Process
c:\windows\system32\svchost.exe -k netsvcs			Normal	LocalSystem 0
Distributed Link Tracking Client	TrkWks	Running	Auto	Share Process
c:\windows\system32\svchost.exe -k netsvcs			Normal	LocalSystem 0
Terminal Services Session Directory	Tssdis	Stopped	Disabled	Own Process
c:\windows\system32\tssdis.exe			Normal	LocalSystem 0
Windows User Mode Driver Framework	UMWdf	Stopped	Manual	Own Process
c:\windows\system32\wdfmgr.exe			Normal	NT AUTHORITY\LocalService 0
Uninterruptible Power Supply	UPS	Stopped	Manual	Own Process
c:\windows\system32\ups.exe			Normal	NT AUTHORITY\LocalService 0
Virtual Disk Service	vds	Stopped	Manual	Own Process
c:\windows\system32\vds.exe			Normal	LocalSystem 0
Volume Shadow Copy	VSS	Stopped	Manual	Own Process
c:\windows\system32\vssvc.exe			Normal	LocalSystem 0

APPENDIX C - TUNABLE PARAMETERS

Windows Time	W32Time	Running	Auto	Share Process	
	c:\windows\system32\svchost.exe -k localservice			Normal NT	
AUTHORITY\LocalService		0			
WebClient	WebClient	Stopped	Disabled	Share Process	
	c:\windows\system32\svchost.exe -k localservice			Normal NT	
AUTHORITY\LocalService		0			
WinHTTP Web Proxy Auto-Discovery Service	WinHttpAutoProxySvc	Stopped		Manual	
	Share Process c:\windows\system32\svchost.exe -k localservice			Normal NT	
AUTHORITY\LocalService		0			
Windows Management Instrumentation	winmgmt	Running	Auto	Share Process	
	c:\windows\system32\svchost.exe -k netsvcs		Ignore	LocalSystem 0	
Portable Media Serial Number Service	WmdmPmSN	Stopped		Manual Share Process	
	c:\windows\system32\svchost.exe -k netsvcs		Normal	LocalSystem 0	
Windows Management Instrumentation Driver Extensions	Wmi	Stopped		Manual	
	Share Process c:\windows\system32\svchost.exe -k netsvcs		Normal	LocalSystem	
	0				
WMI Performance Adapter	WmiApSrv	Stopped		Manual Own Process	
	c:\windows\system32\wbem\wmiapsrv.exe		Normal	LocalSystem 0	
Automatic Updates	wuauerv	Running	Auto	Share Process	
	c:\windows\system32\svchost.exe -k netsvcs		Normal	LocalSystem 0	
Wireless Configuration	WZCSVC	Running	Auto	Share Process	
	c:\windows\system32\svchost.exe -k netsvcs		Normal	LocalSystem 0	
Network Provisioning Service	xmlprov	Stopped		Manual Share Process	
	c:\windows\system32\svchost.exe -k netsvcs		Normal	LocalSystem 0	

[Program Groups]

Group Name	Name	User Name	
Accessories	Default User:Accessories	Default User	
Accessories\Accessibility	Default User:Accessories\Accessibility	Default User	
Accessories\Entertainment	Default User:Accessories\Entertainment	Default User	
Startup	Default User:Startup	Default User	
Accessories	All Users:Accessories	All Users	
Accessories\Accessibility	All Users:Accessories\Accessibility	All Users	
Accessories\Communications	All Users:Accessories\Communications	All Users	
Accessories\Entertainment	All Users:Accessories\Entertainment	All Users	
Accessories\System Tools	All Users:Accessories\System Tools	All Users	
Administrative Tools	All Users:Administrative Tools	All Users	
Broadcom	All Users:Broadcom	All Users	
Cygwin	All Users:Cygwin	All Users	
MegaRAID Storage Manager	All Users:MegaRAID Storage Manager	All Users	
Oracle - ORACLE_HOME	All Users:Oracle - ORACLE_HOME	All Users	
Oracle - ORACLE_HOME\Application Development	All Users:Oracle - ORACLE_HOME\Application Development	All Users	
Oracle - ORACLE_HOME\Configuration and Migration Tools	All Users:Oracle - ORACLE_HOME\Configuration and Migration Tools	All Users	
Oracle - ORACLE_HOME\Integrated Management Tools	All Users:Oracle - ORACLE_HOME\Integrated Management Tools	All Users	
Oracle - ORACLE_HOME\Oracle Installation Products	All Users:Oracle - ORACLE_HOME\Oracle Installation Products	All Users	
Oracle - ORACLE_HOME\Warehouse Builder	All Users:Oracle - ORACLE_HOME\Warehouse Builder	All Users	
Oracle - ORACLE_HOME\Warehouse Builder\Administration	All Users:Oracle - ORACLE_HOME\Warehouse Builder\Administration	All Users	
Startup	All Users:Startup	All Users	

APPENDIX C - TUNABLE PARAMETERS

Accessories	NT AUTHORITY\SYSTEM:Accessories	NT AUTHORITY\SYSTEM	
Accessories\Accessibility	NT AUTHORITY\SYSTEM:Accessories\Accessibility		NT AUTHORITY\SYSTEM
Accessories\Entertainment	NT AUTHORITY\SYSTEM:Accessories\Entertainment		NT AUTHORITY\SYSTEM
Startup	NT AUTHORITY\SYSTEM:Startup		NT AUTHORITY\SYSTEM
Accessories	T710\Administrator:Accessories		T710\Administrator
Accessories\Accessibility	T710\Administrator:Accessories\Accessibility		T710\Administrator
Accessories\Entertainment	T710\Administrator:Accessories\Entertainment		T710\Administrator
Administrative Tools	T710\Administrator:Administrative Tools		T710\Administrator
Startup	T710\Administrator:Startup		T710\Administrator

[Startup Programs]

Program	Command	User Name	Location
desktop\desktop.ini		NT AUTHORITY\SYSTEM	Startup
desktop\desktop.ini		T710\Administrator	Startup
desktop\desktop.ini		.DEFAULT	Startup
desktop\desktop.ini		All Users	Common Startup
bacstray	c:\program files\broadcom\bacs\bacstray.exe	All Users	HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Run

[OLE Registration]

Object	Local Server
Sound (OLE2)	sndrec32.exe
Media Clip	mplay32.exe
Video Clip	mplay32.exe /avi
MIDI Sequence	mplay32.exe /mid
Sound	Not Available
Media Clip	Not Available
WordPad Document	"%programfiles%\windows nt\accessories\wordpad.exe"
Bitmap Image	mspaint.exe

[Windows Error Reporting]

Time	Type	Details
8/15/2009 6:10 PM	Application Error	Faulting application setup.exe, version 0.0.0.0, faulting module unknown, version 0.0.0.0, fault address 0x010801e2.

11/5/2009 3:38 PM	Application Hang	Hanging application mmc.exe, version 5.2.3790.3959, hang module hungapp, version 0.0.0.0, hang address 0x0000000000000000.

8/26/2009 12:50 PM	Application Hang	Hanging application rundll32.exe, version 5.2.3790.1830, hang module hungapp, version 0.0.0.0, hang address 0x0000000000000000.

[Internet Settings]

[Internet Explorer]

[Following are sub-categories of this main category]

APPENDIX C - TUNABLE PARAMETERS

[Summary]

Item Value
 Version 6.0.3790.1830
 Build 63790.1830
 Application Path C:\Program Files\Internet Explorer
 Language English (United States)
 Active Printer Not Available

Cipher Strength 128-bit
 Content Advisor Disabled
 IEAK Install No

[File Versions]

File	Version	Size	Date	Path	Company
actxprxy.dll	6.0.3790.3959	221 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
actxprxy.dll	6.0.3790.3959	221 KB	2/18/2007 6:00:00 AM	.	Microsoft Corporation
advpack.dll	6.0.3790.3959	146 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
advpack.dll	6.0.3790.3959	146 KB	2/18/2007 6:00:00 AM	.	Microsoft Corporation
asctrls.ocx	6.0.3790.1830	147 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
asctrls.ocx	6.0.3790.1830	147 KB	2/18/2007 6:00:00 AM	.	Microsoft Corporation
browselc.dll	6.0.3790.1830	63 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
browselc.dll	6.0.3790.1830	63 KB	2/18/2007 6:00:00 AM	.	Microsoft Corporation
browseui.dll	6.0.3790.3959	1,568 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
browseui.dll	6.0.3790.3959	1,568 KB	2/18/2007 6:00:00 AM	.	Microsoft Corporation
cdfview.dll	6.0.3790.3959	216 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
cdfview.dll	6.0.3790.3959	216 KB	2/18/2007 6:00:00 AM	.	Microsoft Corporation
comctl32.dll	5.82.3790.3959	935 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
comctl32.dll	5.82.3790.3959	935 KB	2/18/2007 6:00:00 AM	.	Microsoft Corporation
dxtmsft.dll	6.3.3790.3959	325 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
dxtmsft.dll	6.3.3790.3959	325 KB	2/18/2007 6:00:00 AM	.	Microsoft Corporation
dxtmsft.dll	6.3.3790.3959	549 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
dxtmsft.dll	6.3.3790.3959	549 KB	2/18/2007 6:00:00 AM	.	Microsoft Corporation
iecont.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
iecontlc.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
iedkcs32.dll	16.0.3790.3959	417 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
iedkcs32.dll	16.0.3790.3959	417 KB	2/18/2007 6:00:00 AM	.	Microsoft Corporation
iepeers.dll	6.0.3790.3959	362 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
iepeers.dll	6.0.3790.3959	362 KB	2/18/2007 6:00:00 AM	.	Microsoft Corporation
iesetup.dll	6.0.3790.1830	71 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
iesetup.dll	6.0.3790.1830	71 KB	2/18/2007 6:00:00 AM	.	Microsoft Corporation

APPENDIX C - TUNABLE PARAMETERS

ieunit.inf	Not Available	24 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32
	Not Available			
ieunit.inf	Not Available	24 KB	2/18/2007 6:00:00 AM	Not Available
ieexplore.exe	6.0.3790.1830	94 KB	2/18/2007 6:00:00 AM	C:\Program Files\Internet Explorer
	Microsoft Corporation			
imgutil.dll	6.0.3790.3959	61 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32
	Microsoft Corporation			
imgutil.dll	6.0.3790.3959	61 KB	2/18/2007 6:00:00 AM	Microsoft Corporation
inetctl.cpl	6.0.3790.3959	431 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32
	Microsoft Corporation			
inetctl.cpl	6.0.3790.3959	431 KB	2/18/2007 6:00:00 AM	Microsoft Corporation
inetctl.dll	6.0.3790.1830	110 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32
	Microsoft Corporation			
inetctl.dll	6.0.3790.1830	110 KB	2/18/2007 6:00:00 AM	Microsoft Corporation
inseng.dll	6.0.3790.3959	147 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32
	Microsoft Corporation			
inseng.dll	6.0.3790.3959	147 KB	2/18/2007 6:00:00 AM	Microsoft Corporation
mlang.dll	6.0.3790.3959	686 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32
	Microsoft Corporation			
mlang.dll	6.0.3790.3959	686 KB	2/18/2007 6:00:00 AM	Microsoft Corporation
msencode.dll	<File Missing>	Not Available	Not Available	Not Available
mshta.exe	6.0.3790.1830	38 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32
	Microsoft Corporation			
mshta.exe	6.0.3790.1830	38 KB	2/18/2007 6:00:00 AM	Microsoft Corporation
mshtml.dll	6.0.3790.3959	5,859 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32
	Microsoft Corporation			
mshtml.dll	6.0.3790.3959	5,859 KB	2/18/2007 6:00:00 AM	Microsoft Corporation
mshtml.tlb	6.0.3790.1830	1,320 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32
	Microsoft Corporation			
mshtml.tlb	6.0.3790.1830	1,320 KB	2/18/2007 6:00:00 AM	Microsoft Corporation
mshtml.dll	6.0.3790.3959	906 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32
	Microsoft Corporation			
mshtml.dll	6.0.3790.3959	906 KB	2/18/2007 6:00:00 AM	Microsoft Corporation
mshtml.dll	6.0.3790.1830	56 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32
	Microsoft Corporation			
mshtml.dll	6.0.3790.1830	56 KB	2/18/2007 6:00:00 AM	Microsoft Corporation
msident.dll	6.0.3790.1830	69 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32
	Microsoft Corporation			
msident.dll	6.0.3790.1830	69 KB	2/18/2007 6:00:00 AM	Microsoft Corporation
msident.dll	6.0.3790.1830	16 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32
	Microsoft Corporation			
msident.dll	6.0.3790.1830	16 KB	2/18/2007 6:00:00 AM	Microsoft Corporation
msieftp.dll	6.0.3790.3959	369 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32
	Microsoft Corporation			
msieftp.dll	6.0.3790.3959	369 KB	2/18/2007 6:00:00 AM	Microsoft Corporation
msrating.dll	6.0.3790.3959	240 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32
	Microsoft Corporation			
msrating.dll	6.0.3790.3959	240 KB	2/18/2007 6:00:00 AM	Microsoft Corporation
mstime.dll	6.0.3790.3959	880 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32
	Microsoft Corporation			
mstime.dll	6.0.3790.3959	880 KB	2/18/2007 6:00:00 AM	Microsoft Corporation
occache.dll	6.0.3790.3959	126 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32
	Microsoft Corporation			

APPENDIX C - TUNABLE PARAMETERS

occache.dll	6.0.3790.3959	126 KB	2/18/2007 6:00:00 AM	.	Microsoft Corporation
proctexe.ocx	<File Missing>	Not Available	Not Available	Not Available	Not Available
sendmail.dll	6.0.3790.3959	64 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
sendmail.dll	6.0.3790.3959	64 KB	2/18/2007 6:00:00 AM	.	Microsoft Corporation
shdoclc.dll	6.0.3790.1830	590 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
shdoclc.dll	6.0.3790.1830	590 KB	2/18/2007 6:00:00 AM	.	Microsoft Corporation
shdocvw.dll	6.0.3790.3959	2,381 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
shdocvw.dll	6.0.3790.3959	2,381 KB	2/18/2007 6:00:00 AM	.	Microsoft Corporation
shfolder.dll	6.0.3790.1830	34 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
shfolder.dll	6.0.3790.1830	34 KB	2/18/2007 6:00:00 AM	.	Microsoft Corporation
shlwapi.dll	6.0.3790.3959	607 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
shlwapi.dll	6.0.3790.3959	607 KB	2/18/2007 6:00:00 AM	.	Microsoft Corporation
tdc.ocx	1.3.0.3130	91 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
tdc.ocx	1.3.0.3130	91 KB	2/18/2007 6:00:00 AM	.	Microsoft Corporation
url.dll	6.0.3790.1830	40 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
url.dll	6.0.3790.1830	40 KB	2/18/2007 6:00:00 AM	.	Microsoft Corporation
urlmon.dll	6.0.3790.3959	1,063 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
urlmon.dll	6.0.3790.3959	1,063 KB	2/18/2007 6:00:00 AM	.	Microsoft Corporation
webcheck.dll	6.0.3790.3959	439 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
webcheck.dll	6.0.3790.3959	439 KB	2/18/2007 6:00:00 AM	.	Microsoft Corporation
wininet.dll	6.0.3790.3959	1,163 KB	2/18/2007 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
wininet.dll	6.0.3790.3959	1,163 KB	2/18/2007 6:00:00 AM	.	Microsoft Corporation

[Connectivity]

Item Value
Connection Preference Never dial

LAN Settings

AutoConfigProxy wininet.dll
AutoProxyDetectMode Disabled
AutoConfigURL
Proxy Disabled
ProxyServer
ProxyOverride

[Cache]

[Following are sub-categories of this main category]
[Summary]

APPENDIX C - TUNABLE PARAMETERS

Item	Value
Page Refresh Type	Automatic
Temporary Internet Files Folder	C:\Documents and Settings\Administrator\Local Settings\Temporary Internet Files
Total Disk Space	Not Available
Available Disk Space	Not Available
Maximum Cache Size	Not Available
Available Cache Size	Not Available

[List of Objects]

Program File	Status	CodeBase
No cached object information available		

[Content]

[Following are sub-categories of this main category]
[Summary]

Item	Value
Content Advisor	Disabled

[Personal Certificates]

Issued To	Issued By	Validity	Signature Algorithm
No personal certificate information available			

[Other People Certificates]

Issued To	Issued By	Validity	Signature Algorithm
No other people certificate information available			

[Publishers]

Name
No publisher information available

[Security]

Zone	Security Level
My Computer	Custom
Local intranet	Custom
Trusted sites	Custom
Internet High	
Restricted sites	Custom

Client msinfo32 export

System Information report written at: 11/11/09 17:39:13
System Name: PE1430
[System Summary]

Item	Value
OS Name	Microsoft(R) Windows(R) Server 2003 Standard x64 Edition

APPENDIX C - TUNABLE PARAMETERS

Version 5.2.3790 Service Pack 1 Build 3790
Other OS Description Not Available
OS Manufacturer Microsoft Corporation
System Name PE1430
System Manufacturer Dell Inc.
System Model PowerEdge SC1430
System Type x64-based PC
Processor EM64T Family 6 Model 15 Stepping 11 GenuineIntel ~1995 Mhz
Processor EM64T Family 6 Model 15 Stepping 11 GenuineIntel ~1995 Mhz
Processor EM64T Family 6 Model 15 Stepping 11 GenuineIntel ~1995 Mhz
Processor EM64T Family 6 Model 15 Stepping 11 GenuineIntel ~1995 Mhz
Processor EM64T Family 6 Model 15 Stepping 11 GenuineIntel ~1995 Mhz
Processor EM64T Family 6 Model 15 Stepping 11 GenuineIntel ~1995 Mhz
Processor EM64T Family 6 Model 15 Stepping 11 GenuineIntel ~1995 Mhz
BIOS Version/Date Dell Inc. 1.4.0, 8/6/2007
SMBIOS Version 2.4
Windows Directory C:\WINDOWS
System Directory C:\WINDOWS\system32
Boot Device \Device\HarddiskVolume1
Locale United States
Hardware Abstraction Layer Version = "5.2.3790.1830 (srv03_sp1_rtm.050324-1447)"
User Name PE1430\Administrator
Time Zone Central Standard Time
Total Physical Memory 4,094.99 MB
Available Physical Memory 3.51 GB
Total Virtual Memory 5.75 GB
Available Virtual Memory 5.54 GB
Page File Space 2.00 GB
Page File C:\pagefile.sys

[Hardware Resources]

[Conflicts/Sharing]

Resource	Device
I/O Port 0x00000000-0x00000CF7	PCI bus
I/O Port 0x00000000-0x00000CF7	Direct memory access controller

IRQ 20 Standard Universal PCI to USB Host Controller
IRQ 20 Standard Universal PCI to USB Host Controller

IRQ 21 Standard Universal PCI to USB Host Controller
IRQ 21 Standard Universal PCI to USB Host Controller
IRQ 21 Standard Enhanced PCI to USB Host Controller

IRQ 16 PCI standard host CPU bridge
IRQ 16 PCI standard PCI-to-PCI bridge
IRQ 16 PCI standard PCI-to-PCI bridge
IRQ 16 PCI standard PCI-to-PCI bridge
IRQ 16 PCI standard PCI-to-PCI bridge
IRQ 16 PCI standard PCI-to-PCI bridge
IRQ 16 Intel(R) PRO/1000 PT Quad Port Server Adapter

APPENDIX C - TUNABLE PARAMETERS

IRQ 16 PCI standard PCI-to-PCI bridge
 IRQ 16 Broadcom NetXtreme Gigabit Ethernet

IRQ 17 Intel(R) PRO/1000 PT Quad Port Server Adapter #2
 IRQ 17 Intel(R) PRO/1000 PT Quad Port Server Adapter #3

Memory Address 0xE0000000-0xFDFFFFFF PCI bus
 Memory Address 0xE0000000-0xFDFFFFFF Motherboard resources

Memory Address 0xA0000-0xBFFFF PCI bus
 Memory Address 0xA0000-0xBFFFF Standard VGA Graphics Adapter

I/O Port 0x0000D000-0x0000EFFF PCI standard PCI-to-PCI bridge
 I/O Port 0x0000D000-0x0000EFFF PCI standard PCI-to-PCI bridge
 I/O Port 0x0000D000-0x0000EFFF PCI standard PCI-to-PCI bridge

[DMA]

Resource	Device	Status
Channel 4	Direct memory access controller	OK
Channel 2	Standard floppy disk controller	OK

[Forced Hardware]

Device PNP Device ID

[I/O]

Resource	Device	Status
0x00000000-0x00000CF7	PCI bus	OK
0x00000000-0x00000CF7	Direct memory access controller	OK
0x00000D00-0x0000FFFF	PCI bus	OK
0x0000D000-0x0000EFFF	PCI standard PCI-to-PCI bridge	OK
0x0000D000-0x0000EFFF	PCI standard PCI-to-PCI bridge	OK
0x0000D000-0x0000EFFF	PCI standard PCI-to-PCI bridge	OK
0x0000E000-0x0000EFFF	PCI standard PCI-to-PCI bridge	OK
0x0000BCE0-0x0000BCFF	Standard Universal PCI to USB Host Controller	OK
0x0000BCC0-0x0000BCDF	Standard Universal PCI to USB Host Controller	OK
0x0000BCA0-0x0000BCBF	Standard Universal PCI to USB Host Controller	OK
0x0000BC80-0x0000BC9F	Standard Universal PCI to USB Host Controller	OK
0x0000CC00-0x0000CCFF	Standard VGA Graphics Adapter	OK
0x000003B0-0x000003BB	Standard VGA Graphics Adapter	OK
0x000003C0-0x000003DF	Standard VGA Graphics Adapter	OK
0x00000080-0x0000009F	Direct memory access controller	OK
0x000000C0-0x000000DF	Direct memory access controller	OK
0x000000F0-0x000000FF	Numeric data processor	OK
0x00000020-0x0000003F	Programmable interrupt controller	OK
0x000000A0-0x000000BF	Programmable interrupt controller	OK
0x000004D0-0x000004D1	Programmable interrupt controller	OK
0x00000061-0x00000061	System board	OK
0x00000070-0x0000007F	System CMOS/real time clock	OK
0x00000040-0x0000005F	System timer	OK
0x000003F8-0x000003FF	Communications Port (COM1)	OK
0x000003F0-0x000003F5	Standard floppy disk controller	OK

APPENDIX C - TUNABLE PARAMETERS

0x000003F7-0x000003F7	Standard floppy disk controller	OK
0x00000378-0x0000037F	ECP Printer Port (LPT1)	OK
0x00000778-0x0000077F	ECP Printer Port (LPT1)	OK
0x00000800-0x0000087F	System board	OK
0x00000880-0x000008BF	System board	OK
0x000008C0-0x000008DF	System board	OK
0x000008E0-0x000008E3	System board	OK
0x00000C00-0x00000C7F	System board	OK
0x00000060-0x00000060	System board	OK
0x00000064-0x00000064	System board	OK
0x0000FC00-0x0000FC0F	Standard Dual Channel PCI IDE Controller	OK
0x000001F0-0x000001F7	Primary IDE Channel	OK
0x000003F6-0x000003F6	Primary IDE Channel	OK
0x00000170-0x00000177	Secondary IDE Channel	OK
0x00000376-0x00000376	Secondary IDE Channel	OK
0x0000BC78-0x0000BC7F	Standard Dual Channel PCI IDE Controller	OK
0x0000BC70-0x0000BC73	Standard Dual Channel PCI IDE Controller	OK
0x0000BC60-0x0000BC67	Standard Dual Channel PCI IDE Controller	OK
0x0000BC58-0x0000BC5B	Standard Dual Channel PCI IDE Controller	OK
0x0000BC40-0x0000BC4F	Standard Dual Channel PCI IDE Controller	OK

[IRQs]

Resource	Device	Status
IRQ 9	Microsoft ACPI-Compliant System	OK
IRQ 16	PCI standard host CPU bridge	OK
IRQ 16	PCI standard PCI-to-PCI bridge	OK
IRQ 16	PCI standard PCI-to-PCI bridge	OK
IRQ 16	PCI standard PCI-to-PCI bridge	OK
IRQ 16	PCI standard PCI-to-PCI bridge	OK
IRQ 16	PCI standard PCI-to-PCI bridge	OK
IRQ 16	Intel(R) PRO/1000 PT Quad Port Server Adapter	OK
IRQ 16	PCI standard PCI-to-PCI bridge	OK
IRQ 16	Broadcom NetXtreme Gigabit Ethernet	OK
IRQ 17	Intel(R) PRO/1000 PT Quad Port Server Adapter #2	OK
IRQ 17	Intel(R) PRO/1000 PT Quad Port Server Adapter #3	OK
IRQ 18	Intel(R) PRO/1000 PT Quad Port Server Adapter #4	OK
IRQ 21	Standard Universal PCI to USB Host Controller	OK
IRQ 21	Standard Universal PCI to USB Host Controller	OK
IRQ 21	Standard Enhanced PCI to USB Host Controller	OK
IRQ 20	Standard Universal PCI to USB Host Controller	OK
IRQ 20	Standard Universal PCI to USB Host Controller	OK
IRQ 13	Numeric data processor	OK
IRQ 8	System CMOS/real time clock	OK
IRQ 0	System timer	OK
IRQ 4	Communications Port (COM1)	OK
IRQ 6	Standard floppy disk controller	OK
IRQ 14	Primary IDE Channel	OK
IRQ 23	Standard Dual Channel PCI IDE Controller	OK

[Memory]

Resource	Device	Status
0xA0000-0xBFFFF	PCI bus	OK
0xA0000-0xBFFFF	Standard VGA Graphics Adapter	OK

APPENDIX C - TUNABLE PARAMETERS

0xE0000000-0xFDFFFFFF	PCI busOK	
0xE0000000-0xFDFFFFFF	Motherboard resources	OK
0xFDB00000-0xFDCFFFFF	PCI standard PCI-to-PCI bridge	OK
0xFD500000-0xFDAFFFFF	PCI standard PCI-to-PCI bridge	OK
0xFD600000-0xFDAFFFFF	PCI standard PCI-to-PCI bridge	OK
0xFD900000-0xFDAFFFFF	PCI standard PCI-to-PCI bridge	OK
0xFD9E0000-0xFD9FFFFF	Intel(R) PRO/1000 PT Quad Port Server Adapter	OK
0xFD9C0000-0xFD9DFFFF	Intel(R) PRO/1000 PT Quad Port Server Adapter	OK
0xFD9A0000-0xFD9BFFFF	Intel(R) PRO/1000 PT Quad Port Server Adapter #2	OK
0xFD980000-0xFD99FFFF	Intel(R) PRO/1000 PT Quad Port Server Adapter #2	OK
0xFD700000-0xFD8FFFFF	PCI standard PCI-to-PCI bridge	OK
0xFD7E0000-0xFD7FFFFF	Intel(R) PRO/1000 PT Quad Port Server Adapter #3	OK
0xFD7C0000-0xFD7DFFFF	Intel(R) PRO/1000 PT Quad Port Server Adapter #3	OK
0xFD7A0000-0xFD7BFFFF	Intel(R) PRO/1000 PT Quad Port Server Adapter #4	OK
0xFD780000-0xFD79FFFF	Intel(R) PRO/1000 PT Quad Port Server Adapter #4	OK
0xFDD00000-0xFDEFFFFF	PCI standard PCI-to-PCI bridge	OK
0xFDDF0000-0xFDDFFFFF	Broadcom NetXtreme Gigabit Ethernet	OK
0xFDF00400-0xFDF007FF	Standard Enhanced PCI to USB Host Controller	OK
0xF0000000-0xF7FFFFFF	Standard VGA Graphics Adapter	OK
0xFD3F0000-0xFD3FFFFF	Standard VGA Graphics Adapter	OK
0xFDF00000-0xFDF003FF	Standard Dual Channel PCI IDE Controller	OK
0xFED00000-0xFED003FF	High precision event timer	OK

[Components]

[Multimedia]

[Audio Codecs]

CODEC	Manufacturer	Description	Status	File	Version	Size	Creation Date
c:\windows\system32\msadp32.acm	Microsoft Corporation		OK				
C:\WINDOWS\system32\MSADP32.ACM				5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	23.50 KB (24,064 bytes)	3/25/2005 6:00 AM
c:\windows\system32\msg711.acm	Microsoft Corporation		OK				
C:\WINDOWS\system32\MSG711.ACM				5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	13.50 KB (13,824 bytes)	3/25/2005 6:00 AM
c:\windows\system32\tsssoft32.acm	DSP GROUP, INC.		OK				
C:\WINDOWS\system32\TSSOFT32.ACM				1.01		13.50 KB (13,824 bytes)	3/25/2005 6:00 AM
c:\windows\system32\msgsm32.acm	Microsoft Corporation		OK				
C:\WINDOWS\system32\MSGSM32.ACM				5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	34.50 KB (35,328 bytes)	3/25/2005 6:00 AM
c:\windows\system32\imaadp32.acm	Microsoft Corporation		OK				
C:\WINDOWS\system32\IMAADP32.ACM				5.2.3790.1830	(srv03_sp1_rtm.050324-1447)	24.00 KB (24,576 bytes)	3/25/2005 6:00 AM

[Video Codecs]

CODEC	Manufacturer	Description	Status	File	Version	Size	Creation Date
-------	--------------	-------------	--------	------	---------	------	---------------

APPENDIX C - TUNABLE PARAMETERS

c:\windows\system32\msvidc32.dll	Microsoft Corporation	OK
C:\WINDOWS\system32\MSVIDC32.DLL	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	43.00 KB (44,032 bytes)3/25/2005 6:00 AM
c:\windows\system32\msrle32.dll	Microsoft Corporation	OK
C:\WINDOWS\system32\MSRLE32.DLL	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	15.50 KB (15,872 bytes)3/25/2005 6:00 AM
c:\windows\system32\iyuv_32.dll	Microsoft Corporation	OK
C:\WINDOWS\system32\IYUV_32.DLL	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	52.50 KB (53,760 bytes)3/24/2005 11:19 AM
c:\windows\system32\msyuv.dll	Microsoft Corporation	OK
C:\WINDOWS\system32\MSYUV.DLL	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	21.00 KB (21,504 bytes)3/24/2005 11:21 AM
c:\windows\system32\tsbyuv.dll	Microsoft Corporation	OK
C:\WINDOWS\system32\TSBYUV.DLL	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	12.50 KB (12,800 bytes)3/24/2005 11:34 AM

[CD-ROM]

Item	Value
Drive	D:
Description	CD-ROM Drive
Media Loaded	No
Media Type	CD-ROM
Name	PBDS CD-ROM DH-48N1P
Manufacturer	(Standard CD-ROM drives)
Status	OK
Transfer Rate	Not Available
SCSI Target ID	0
PNP Device ID	IDE\CDROMPBDS_CD-ROM_DH-48N1P_____AD11____\5&1ADA0B61&0&0.0.0
Driver	c:\windows\system32\drivers\cdrom.sys (5.2.3790.1830 (srv03_sp1_rtm.050324-1447), 75.50 KB (77,312 bytes), 3/25/2005 6:00 AM)

[Sound Device]

Item	Value
------	-------

[Display]

Item	Value
Name	Standard VGA Graphics Adapter
PNP Device ID	PCI\VEN_1002&DEV_515E&SUBSYS_01B91028&REV_02\4&2014205D&0&48F0
Adapter Type	ATI ES1000, (Standard display types) compatible
Adapter Description	Standard VGA Graphics Adapter
Adapter RAM	16.00 MB (16,777,216 bytes)
Installed Drivers	vga.dll,framebuf.dll,vga256,vga64k
Driver Version	5.2.3790.1830
INF File	display.inf (vga section)
Color Planes	1
Color Table Entries	4294967296
Resolution	1024 x 768 x 1 hertz
Bits/Pixel	32
Memory Address	0xF0000000-0xF7FFFFFF
I/O Port	0x0000CC00-0x0000CCFF

APPENDIX C - TUNABLE PARAMETERS

Memory Address 0xFD3F0000-0xFD3FFFFF
I/O Port 0x000003B0-0x000003BB
I/O Port 0x000003C0-0x000003DF
Memory Address 0xA0000-0xBFFFF
Driver c:\windows\system32\drivers\vgapnp.sys (5.2.3790.1830 (srv03_sp1_rtm.050324-1447), 33.00 KB (33,792 bytes), 10/11/2009 10:43 AM)

[Infrared]

Item Value

[Input]

[Keyboard]

Item Value
Description USB Human Interface Device
Name Enhanced (101- or 102-key)
Layout 00000409
PNP Device ID USB\VID_09AE&PID_0002&MI_00\6&8FA055B&0&0000
Number of Function Keys 12
Driver c:\windows\system32\drivers\hidusb.sys (5.2.3790.1830 (srv03_sp1_rtm.050324-1447), 18.50 KB (18,944 bytes), 3/25/2005 6:00 AM)

[Pointing Device]

Item Value
Hardware Type USB Human Interface Device
Number of Buttons 5
Status OK
PNP Device ID USB\VID_09AE&PID_0002&MI_01\6&8FA055B&0&0001
Power Management Supported No
Double Click Threshold 6
Handedness Right Handed Operation
Driver c:\windows\system32\drivers\hidusb.sys (5.2.3790.1830 (srv03_sp1_rtm.050324-1447), 18.50 KB (18,944 bytes), 3/25/2005 6:00 AM)

[Modem]

Item Value

[Network]

[Adapter]

Item Value
Name [00000001] RAS Async Adapter
Adapter Type Not Available
Product Type RAS Async Adapter
Installed Yes
PNP Device ID Not Available

APPENDIX C - TUNABLE PARAMETERS

Last Reset 11/10/2009 1:06 PM
Index 1
Service Name AsyncMac
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available

Name [00000002] WAN Miniport (L2TP)
Adapter Type Not Available
Product Type WAN Miniport (L2TP)
Installed Yes
PNP Device ID ROOT\MS_L2TPMINIPORT\0000
Last Reset 11/10/2009 1:06 PM
Index 2
Service Name Rasl2tp
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available
Driver c:\windows\system32\drivers\rasl2tp.sys (5.2.3790.1830 (srv03_sp1_rtm.050324-1447), 132.00 KB (135,168 bytes), 3/25/2005 6:00 AM)

Name [00000003] WAN Miniport (PPTP)
Adapter Type Wide Area Network (WAN)
Product Type WAN Miniport (PPTP)
Installed Yes
PNP Device ID ROOT\MS_PPTPMINIPORT\0000
Last Reset 11/10/2009 1:06 PM
Index 3
Service Name PptpMiniport
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 50:50:54:50:30:30
Driver c:\windows\system32\drivers\raspptp.sys (5.2.3790.1830 (srv03_sp1_rtm.050324-1447), 117.50 KB (120,320 bytes), 3/25/2005 6:00 AM)

Name [00000004] WAN Miniport (PPPOE)
Adapter Type Wide Area Network (WAN)
Product Type WAN Miniport (PPPOE)
Installed Yes
PNP Device ID ROOT\MS_PPPOEMINIPORT\0000

APPENDIX C - TUNABLE PARAMETERS

Last Reset 11/10/2009 1:06 PM
Index 4
Service Name RasPppoe
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 33:50:6F:45:30:30
Driver c:\windows\system32\drivers\rasppoe.sys (5.2.3790.1830 (srv03_sp1_rtm.050324-1447), 67.50 KB (69,120 bytes), 3/25/2005 6:00 AM)

Name [00000005] Direct Parallel
Adapter Type Not Available
Product Type Direct Parallel
Installed Yes
PNP Device ID ROOT\MS_PTMINIPORT\0000
Last Reset 11/10/2009 1:06 PM
Index 5
Service Name Raspti
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available
Driver c:\windows\system32\drivers\raspti.sys (5.2.3790.1830 (srv03_sp1_rtm.050324-1447), 30.50 KB (31,232 bytes), 3/25/2005 6:00 AM)

Name [00000006] WAN Miniport (IP)
Adapter Type Not Available
Product Type WAN Miniport (IP)
Installed Yes
PNP Device ID ROOT\MS_NDISWANIP\0000
Last Reset 11/10/2009 1:06 PM
Index 6
Service Name NdisWan
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available
Driver c:\windows\system32\drivers\ndiswan.sys (5.2.3790.1830 (srv03_sp1_rtm.050324-1447), 157.50 KB (161,280 bytes), 3/25/2005 6:00 AM)

Name [00000007] Broadcom NetXtreme Gigabit Ethernet
Adapter Type Ethernet 802.3
Product Type Broadcom NetXtreme Gigabit Ethernet

APPENDIX C - TUNABLE PARAMETERS

Installed Yes
PNP Device ID
PCIIVEN_14E4&DEV_1677&SUBSYS_01B91028&REV_21\4&187919FE&0&00E0
Last Reset 11/10/2009 1:06 PM
Index 7
Service Name b57nd
IP Address 192.1.1.110
IP Subnet 255.255.255.0
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:1E:4F:B0:3B:AB
Memory Address 0xFDDF0000-0xFDDFFFFF
IRQ Channel IRQ 16
Driver c:\windows\system32\drivers\b57amd64.sys (8.48.0.0 built by: WinDDK, 233.50 KB (239,104 bytes), 10/11/2009 6:09 PM)

Name [00000008] Intel(R) PRO/1000 PT Quad Port Server Adapter
Adapter Type Ethernet 802.3
Product Type Intel(R) PRO/1000 PT Quad Port Server Adapter
Installed Yes
PNP Device ID
PCIIVEN_8086&DEV_10A4&SUBSYS_10A48086&REV_06\6&1A840AB9&0&00000018
Last Reset 11/10/2009 1:06 PM
Index 8
Service Name e1express
IP Address 192.1.2.110
IP Subnet 255.255.255.0
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:15:17:15:B8:9C
Memory Address 0xFD9E0000-0xFD9FFFFF
Memory Address 0xFD9C0000-0xFD9DFFFF
IRQ Channel IRQ 16
Driver c:\windows\system32\drivers\e1e5132e.sys (9.12.36.0 built by: WinDDK, 320.64 KB (328,336 bytes), 12/4/2008 11:58 PM)

Name [00000009] Intel(R) PRO/1000 PT Quad Port Server Adapter
Adapter Type Ethernet 802.3
Product Type Intel(R) PRO/1000 PT Quad Port Server Adapter
Installed Yes
PNP Device ID
PCIIVEN_8086&DEV_10A4&SUBSYS_10A48086&REV_06\6&1A840AB9&0&01000018
Last Reset 11/10/2009 1:06 PM
Index 9
Service Name e1express
IP Address 192.1.6.110
IP Subnet 255.255.255.0
Default IP Gateway Not Available
DHCP Enabled No

APPENDIX C - TUNABLE PARAMETERS

DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:15:17:15:B8:9D
Memory Address 0xFD9A0000-0xFD9BFFFF
Memory Address 0xFD980000-0xFD99FFFF
IRQ Channel IRQ 17
Driver c:\windows\system32\drivers\e1e5132e.sys (9.12.36.0 built by: WinDDK, 320.64 KB (328,336 bytes), 12/4/2008 11:58 PM)

Name [00000010] Intel(R) PRO/1000 PT Quad Port Server Adapter
Adapter Type Ethernet 802.3
Product Type Intel(R) PRO/1000 PT Quad Port Server Adapter
Installed Yes
PNP Device ID
PCIIVEN_8086&DEV_10A4&SUBSYS_10A48086&REV_06\6&BF71098&0&00080018
Last Reset 11/10/2009 1:06 PM
Index 10
Service Name e1express
IP Address 192.1.4.110
IP Subnet 255.255.255.0
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:15:17:15:B8:9E
Memory Address 0xFD7E0000-0xFD7FFFFFF
Memory Address 0xFD7C0000-0xFD7DFFFF
IRQ Channel IRQ 17
Driver c:\windows\system32\drivers\e1e5132e.sys (9.12.36.0 built by: WinDDK, 320.64 KB (328,336 bytes), 12/4/2008 11:58 PM)

Name [00000011] Intel(R) PRO/1000 PT Quad Port Server Adapter
Adapter Type Ethernet 802.3
Product Type Intel(R) PRO/1000 PT Quad Port Server Adapter
Installed Yes
PNP Device ID
PCIIVEN_8086&DEV_10A4&SUBSYS_10A48086&REV_06\6&BF71098&0&01080018
Last Reset 11/10/2009 1:06 PM
Index 11
Service Name e1express
IP Address 192.1.8.110
IP Subnet 255.255.255.0
Default IP Gateway Not Available
DHCP Enabled No
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address 00:15:17:15:B8:9F
Memory Address 0xFD7A0000-0xFD7BFFFF
Memory Address 0xFD780000-0xFD79FFFF
IRQ Channel IRQ 18
Driver c:\windows\system32\drivers\e1e5132e.sys (9.12.36.0 built by: WinDDK, 320.64 KB (328,336 bytes), 12/4/2008 11:58 PM)

APPENDIX C - TUNABLE PARAMETERS

[Protocol]

Item Value
Name MSAFD Tcpi [TCP/IP]
Connectionless Service No
Guarantees Delivery Yes
Guarantees Sequencing Yes
Maximum Address Size 16 bytes
Maximum Message Size 0 bytes
Message Oriented No
Minimum Address Size 16 bytes
Pseudo Stream Oriented No
Supports Broadcasting No
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data Yes
Supports Graceful Closing Yes
Supports Guaranteed Bandwidth No
Supports Multicasting No

Name MSAFD Tcpi [UDP/IP]
Connectionless Service Yes
Guarantees Delivery No
Guarantees Sequencing No
Maximum Address Size 16 bytes
Maximum Message Size 63.93 KB (65,467 bytes)
Message Oriented Yes
Minimum Address Size 16 bytes
Pseudo Stream Oriented No
Supports Broadcasting Yes
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption No
Supports Expedited Data No
Supports Graceful Closing No
Supports Guaranteed Bandwidth No
Supports Multicasting Yes

Name RSVP UDP Service Provider
Connectionless Service Yes
Guarantees Delivery No
Guarantees Sequencing No
Maximum Address Size 16 bytes
Maximum Message Size 63.93 KB (65,467 bytes)
Message Oriented Yes
Minimum Address Size 16 bytes
Pseudo Stream Oriented No
Supports Broadcasting Yes
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption Yes
Supports Expedited Data No
Supports Graceful Closing No

APPENDIX C - TUNABLE PARAMETERS

Supports Guaranteed Bandwidth No
Supports Multicasting Yes

Name RSVP TCP Service Provider
Connectionless Service No
Guarantees Delivery Yes
Guarantees Sequencing Yes
Maximum Address Size 16 bytes
Maximum Message Size 0 bytes
Message Oriented No
Minimum Address Size 16 bytes
Pseudo Stream Oriented No
Supports Broadcasting No
Supports Connect Data No
Supports Disconnect Data No
Supports Encryption Yes
Supports Expedited Data Yes
Supports Graceful Closing Yes
Supports Guaranteed Bandwidth No
Supports Multicasting No

[WinSock]

Item	Value
File	c:\windows\system32\wsock32.dll
Size	24.50 KB (25,088 bytes)
Version	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)

[Ports]

[Serial]

Item	Value
Name	Communications Port (COM1)
Status	OK
PNP Device ID	ACPI\PNP0501\1
Maximum Input Buffer Size	0
Maximum Output Buffer Size	No
Settable Baud Rate	Yes
Settable Data Bits	Yes
Settable Flow Control	Yes
Settable Parity	Yes
Settable Parity Check	Yes
Settable Stop Bits	Yes
Settable RLSD	Yes
Supports RLSD	Yes
Supports 16 Bit Mode	No
Supports Special Characters	No
Baud Rate	9600
Bits/Byte	8
Stop Bits	1
Parity	None
Busy	No

APPENDIX C - TUNABLE PARAMETERS

Abort Read/Write on Error No
Binary Mode Enabled Yes
Continue XMit on XOff No
CTS Outflow Control No
Discard NULL Bytes No
DSR Outflow Control 0
DSR Sensitivity 0
DTR Flow Control Type Enable
EOF Character 0
Error Replace Character 0
Error Replacement Enabled No
Event Character 0
Parity Check Enabled No
RTS Flow Control Type Enable
XOff Character 19
XOffXMit Threshold 512
XOn Character 17
XOnXMit Threshold 2048
XOnXOff InFlow Control 0
XOnXOff OutFlow Control 0
I/O Port 0x000003F8-0x000003FF
IRQ Channel IRQ 4
Driver c:\windows\system32\drivers\serial.sys (5.2.3790.1830 (srv03_sp1_rtm.050324-1447),
118.50 KB (121,344 bytes), 3/25/2005 6:00 AM)

[Parallel]

Item Value
Name LPT1
PNP Device ID ACPI\PNP0401\4&2AA4AD3D&0
I/O Port 0x00000378-0x0000037F
I/O Port 0x00000778-0x0000077F
Driver c:\windows\system32\drivers\parport.sys (5.2.3790.1830 (srv03_sp1_rtm.050324-1447),
131.00 KB (134,144 bytes), 3/24/2005 11:22 AM)

[Storage]

[Drives]

Item Value
Drive C:
Description Local Fixed Disk
Compressed No
File System NTFS
Size 232.82 GB (249,990,901,760 bytes)
Free Space 123.24 GB (132,323,405,824 bytes)
Volume Name
Volume Serial Number 6C0957B8

Drive D:
Description CD-ROM Disc

Drive V:

APPENDIX C - TUNABLE PARAMETERS

Description Network Connection
Provider Name \\r805\c\$

Drive W:
Description Network Connection
Provider Name \\192.1.1.107\c\$

Drive X:
Description Network Connection
Provider Name \\pe1600\c\$

Drive Z:
Description Network Connection
Provider Name \\mt1\c\$

[Disks]

Item Value
Description Disk drive
Manufacturer (Standard disk drives)
Model WDC WD2500JS-75NCB3
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 1
SCSI Target ID 0
Sectors/Track 63
Size 232.83 GB (249,999,160,320 bytes)
Total Cylinders 30,394
Total Sectors 488,279,610
Total Tracks 7,750,470
Tracks/Cylinder 255
Partition Disk #0, Partition #0
Partition Size 232.82 GB (249,990,902,784 bytes)
Partition Starting Offset 32,256 bytes

[SCSI]

Item Value

[IDE]

Item Value
Name Standard Dual Channel PCI IDE Controller
Manufacturer (Standard IDE ATA/ATAPI controllers)
Status OK
PNP Device ID PCI\VEN_8086&DEV_269E&SUBSYS_01B91028&REV_09\3&61AAA01&0&F9
I/O Port 0x0000FC00-0x0000FC0F
Driver c:\windows\system32\drivers\pciide.sys (5.2.3790.1830 (srv03_sp1_rtm.050324-1447), 6.00 KB (6,144 bytes), 3/25/2005 6:00 AM)

Name Primary IDE Channel

APPENDIX C - TUNABLE PARAMETERS

Manufacturer (Standard IDE ATA/ATAPI controllers)
Status OK
PNP Device ID PCIIDE\IDECHANNEL\4&18B1FEB&0&0
I/O Port 0x000001F0-0x000001F7
I/O Port 0x000003F6-0x000003F6
IRQ Channel IRQ 14
Driver c:\windows\system32\drivers\atapi.sys (5.2.3790.1830 (srv03_sp1_rtm.050324-1447), 145.00 KB (148,480 bytes), 3/25/2005 6:00 AM)

Name Secondary IDE Channel
Manufacturer (Standard IDE ATA/ATAPI controllers)
Status OK
PNP Device ID PCIIDE\IDECHANNEL\4&18B1FEB&0&1
I/O Port 0x00000170-0x00000177
I/O Port 0x00000376-0x00000376
Driver c:\windows\system32\drivers\atapi.sys (5.2.3790.1830 (srv03_sp1_rtm.050324-1447), 145.00 KB (148,480 bytes), 3/25/2005 6:00 AM)

Name Standard Dual Channel PCI IDE Controller
Manufacturer (Standard IDE ATA/ATAPI controllers)
Status OK
PNP Device ID PCI\VEN_8086&DEV_2680&SUBSYS_01B91028&REV_09\3&61AAA01&0&FA
I/O Port 0x0000BC78-0x0000BC7F
I/O Port 0x0000BC70-0x0000BC73
I/O Port 0x0000BC60-0x0000BC67
I/O Port 0x0000BC58-0x0000BC5B
I/O Port 0x0000BC40-0x0000BC4F
Memory Address 0xFDF00000-0xFDF003FF
IRQ Channel IRQ 23
Driver c:\windows\system32\drivers\pciide.sys (5.2.3790.1830 (srv03_sp1_rtm.050324-1447), 6.00 KB (6,144 bytes), 3/25/2005 6:00 AM)

Name Primary IDE Channel
Manufacturer (Standard IDE ATA/ATAPI controllers)
Status OK
PNP Device ID PCIIDE\IDECHANNEL\4&36B719D8&0&0
Driver c:\windows\system32\drivers\atapi.sys (5.2.3790.1830 (srv03_sp1_rtm.050324-1447), 145.00 KB (148,480 bytes), 3/25/2005 6:00 AM)

Name Secondary IDE Channel
Manufacturer (Standard IDE ATA/ATAPI controllers)
Status OK
PNP Device ID PCIIDE\IDECHANNEL\4&36B719D8&0&1
Driver c:\windows\system32\drivers\atapi.sys (5.2.3790.1830 (srv03_sp1_rtm.050324-1447), 145.00 KB (148,480 bytes), 3/25/2005 6:00 AM)

[Printing]

Name	Driver	Port Name	Server Name
Microsoft XPS Document Writer	Microsoft XPS Document Writer	XPSPort:	

[Problem Devices]

Device	PNP Device ID	Error Code
--------	---------------	------------

APPENDIX C - TUNABLE PARAMETERS

[USB]

Device PNP Device ID
 Standard Universal PCI to USB Host Controller
 PCI\VEN_8086&DEV_2688&SUBSYS_01B91028&REV_09\3&61AAA01&0&E8
 Standard Universal PCI to USB Host Controller
 PCI\VEN_8086&DEV_2689&SUBSYS_01B91028&REV_09\3&61AAA01&0&E9
 Standard Universal PCI to USB Host Controller
 PCI\VEN_8086&DEV_268A&SUBSYS_01B91028&REV_09\3&61AAA01&0&EA
 Standard Universal PCI to USB Host Controller
 PCI\VEN_8086&DEV_268B&SUBSYS_01B91028&REV_09\3&61AAA01&0&EB
 Standard Enhanced PCI to USB Host Controller
 PCI\VEN_8086&DEV_268C&SUBSYS_01B91028&REV_09\3&61AAA01&0&EF

[Software Environment]

[System Drivers]

Name	Description	File	Type	Started	Start Mode	State	Status	Error Control
	Accept Pause	Accept	Stop					
abiosdsk	Abiosdsk	Stopped	Not Available	OK	Kernel Driver	No	Disabled	
acpi	Microsoft ACPI Driver	c:\windows\system32\drivers\acpi.sys	Kernel Driver	Yes	Kernel Driver	No	Yes	System
acpiec	ACPIEC	c:\windows\system32\drivers\acpiec.sys	Kernel Driver	No	Kernel Driver	No	No	
adpu160m	adpu160m	Stopped	Not Available	OK	Kernel Driver	No	Disabled	
adpu320	adpu320	Stopped	Not Available	OK	Kernel Driver	No	Disabled	
afd	AFD	c:\windows\system32\drivers\afd.sys	Kernel Driver	Yes	Kernel Driver	Yes	System	
aic78u2	aic78u2	Not Available	Kernel Driver	No	Kernel Driver	Disabled	Stopped	OK
aic78xx	aic78xx	Not Available	Kernel Driver	No	Kernel Driver	Disabled	Stopped	OK
aliide	Aliide	Not Available	Kernel Driver	No	Kernel Driver	Disabled	Stopped	OK
amdide	AmdIde	Not Available	Kernel Driver	No	Kernel Driver	Disabled	Stopped	OK
arc	arc	Not Available	Kernel Driver	No	Kernel Driver	Disabled	Stopped	OK
asynctac	RAS Asynchronous Media Driver	c:\windows\system32\drivers\asynctac.sys	Kernel Driver	No	Kernel Driver	No	Manual	
atapi	Standard IDE/ESDI Hard Disk Controller	c:\windows\system32\drivers\atapi.sys	Kernel Driver	Yes	Kernel Driver	Yes		
atdisk	Atdisk	Not Available	Kernel Driver	No	Kernel Driver	Disabled	Stopped	OK
atmarpc	ATM ARP Client Protocol	c:\windows\system32\drivers\atmarpc.sys	Kernel Driver	No	Kernel Driver	Normal	No	No
audstubs	Audio Stub Driver	c:\windows\system32\drivers\audstubs.sys	Kernel Driver	Yes	Kernel Driver	Yes		

APPENDIX C - TUNABLE PARAMETERS

b57nd	Broadcom NetXtreme Gigabit Ethernet	c:\windows\system32\drivers\b57amd64.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes		
beep	Beep	c:\windows\system32\drivers\beep.sys	Kernel Driver	Yes	System	Running	OK	Normal	No	Yes		
blfp	Broadcom Advanced Server Program Driver	c:\windows\system32\drivers\basamd64.sys	Kernel Driver	No	Manual	Stopped	OK	Normal	No	No		
cdac15ba	CdaC15BA	c:\windows\system32\drivers\cdac15ba.sys	Kernel Driver	Yes	Kernel Driver	Running	OK	Normal	No	Yes		
cdad10ba	CdaD10BA	c:\windows\system32\drivers\cdad10ba.sys	Kernel Driver	Yes	Kernel Driver	Running	OK	Normal	No	Yes		
cdfs	Cdfs	c:\windows\system32\drivers\cdfs.sys	File System Driver	Disabled	Yes	Running	OK	Normal	No	Yes		
cdrom	CD-ROM Driver	c:\windows\system32\drivers\cdrom.sys	Kernel Driver	Running	Yes	OK	OK	Normal	No	Yes	System	
changer	Changer		Kernel Driver	OK	System	Not Available	Ignore	No	No	Stopped		
clusdisk	Cluster Disk Driver	c:\windows\system32\drivers\clusdisk.sys	Kernel Driver	No	Kernel Driver	Stopped	OK	Normal	No	No		
cmdide	CmldIde	Not Available	Kernel Driver	Normal	OK	Not Available	Disabled	Stopped	OK			
cpqccissm	cpqccissm	Not Available	Kernel Driver	Stopped	Disabled	OK	Normal	No	No	Stopped		
crcdisk	CRC Disk Filter Driver	c:\windows\system32\drivers\crcdisk.sys	Kernel Driver	Boot	Yes	Running	OK	Normal	No	Yes		
dfsdriver	DfsDriver	c:\windows\system32\drivers\dfs.sys	File System Driver	Yes	File System Driver	Boot	Running	OK	Normal	No	Yes	
disk	Disk Driver	c:\windows\system32\drivers\disk.sys	Kernel Driver	Running	Yes	OK	Normal	No	Yes	Boot		
dmboot	dmboot	c:\windows\system32\drivers\dmboot.sys	Kernel Driver	Disabled	No	Stopped	OK	Normal	No	No		
dmio	Logical Disk Manager Driver	c:\windows\system32\drivers\dmio.sys	Kernel Driver	Yes	Kernel Driver	Boot	Running	OK	Normal	No	Yes	
dmload	dmload	c:\windows\system32\drivers\dmload.sys	Kernel Driver	Running	Yes	OK	Normal	No	Yes	Boot		
dpti2o	dpti2o	Not Available	Kernel Driver	Normal	OK	Not Available	Disabled	Stopped	OK			
e1express	Intel(R) PRO/1000 PCI Express Network Connection Driver	c:\windows\system32\drivers\e1e5132e.sys	Kernel Driver	Running	Manual	OK	Normal	No	Yes			
elxstor	elxstor	Not Available	Kernel Driver	Normal	OK	Not Available	Disabled	Stopped	OK			
fastfat	Fastfat	c:\windows\system32\drivers\fastfat.sys	File System Driver	Disabled	No	Stopped	OK	Normal	No	No		
fdc	Floppy Disk Controller Driver	c:\windows\system32\drivers\fdc.sys	Kernel Driver	Yes	Kernel Driver	Manual	Running	OK	Normal	No	Yes	
fips	Fips	c:\windows\system32\drivers\fips.sys	Kernel Driver	Running	System	OK	Normal	No	Yes			
flpydisk	Flpydisk	c:\windows\system32\drivers\flpydisk.sys	Kernel Driver	System	No	Stopped	OK	Ignore	No	No		
fltmgr	FltMgr	c:\windows\system32\drivers\fltmgr.sys	File System Driver	Running	Yes	OK	Normal	No	Yes	Boot		
ftdisk	Volume Manager Driver	c:\windows\system32\drivers\ftdisk.sys	Kernel Driver	Boot	Yes	Running	OK	Normal	No	Yes		

APPENDIX C - TUNABLE PARAMETERS

gpc	Generic Packet Classifier	c:\windows\system32\drivers\msgpc.sys	Kernel Driver					
	Yes Manual Running		OK Normal	No	Yes			
hidusb	Microsoft HID Class Driver	c:\windows\system32\drivers\hidusb.sys	Kernel Driver					
	Yes Manual Running		OK Ignore	No	Yes			
hpciss	hpciss	Not Available	Kernel Driver	No	Disabled	Stopped	OK	
	Normal No	No						
http	HTTP	c:\windows\system32\drivers\http.sys	Kernel Driver	Yes	Manual			
	Running OK		Normal No	Yes				
i2omgmt	i2omgmt	Not Available	Kernel Driver	No	System Stopped			
	OK Normal No	No						
i8042prt	i8042prt	c:\windows\system32\drivers\i8042prt.sys	Kernel Driver					
	No System Stopped		OK Ignore	No	No			
iirsp	iirsp	Not Available	Kernel Driver	No	Disabled	Stopped	OK	
	Normal No	No						
imapi	CD-Burning Filter Driver	c:\windows\system32\drivers\imapi.sys	Kernel Driver	No				
	System Stopped		OK Normal	No	No			
intelide	IntelIde	Not Available	Kernel Driver	No	Disabled	Stopped	OK	
	Normal No	No						
intelppm	Intel Processor Driver	c:\windows\system32\drivers\intelppm.sys	Kernel					
Driver	Yes Manual Running		OK Normal	No	Yes			
ip6fw	IPv6 Windows Firewall Driver	c:\windows\system32\drivers\ip6fw.sys	Kernel Driver					
	No Manual Stopped		OK Normal	No	No			
ipfilterdriver	IP Traffic Filter Driver	c:\windows\system32\drivers\ipfltdrv.sys	Kernel Driver					
	No Manual Stopped		OK Normal	No	No			
ipinip	IP in IP Tunnel Driver	c:\windows\system32\drivers\ipinip.sys	Kernel Driver	No				
	Manual Stopped		OK Normal	No	No			
ipnat	IP Network Address Translator	c:\windows\system32\drivers\ipnat.sys	Kernel Driver					
	No Manual Stopped		OK Normal	No	No			
ipsec	IPSEC driver	c:\windows\system32\drivers\ipsec.sys	Kernel Driver	Yes	System			
	Running OK		Normal No	Yes				
irenum	IR Enumerator Service	c:\windows\system32\drivers\irenum.sys	Kernel Driver	No				
	Manual Stopped		OK Normal	No	No			
isapnp	PnP ISA/EISA Bus Driver	c:\windows\system32\drivers\isapnp.sys	Kernel Driver					
	Yes Boot Running		OK Critical	No	Yes			
kbdclass	Keyboard Class Driver	c:\windows\system32\drivers\kbdclass.sys	Kernel					
Driver	Yes System Running		OK Normal	No	Yes			
kbdhid	Keyboard HID Driver	c:\windows\system32\drivers\kbdhid.sys	Kernel Driver	Yes				
	System Running		OK Ignore	No	Yes			
ksecdd	KSecDD	c:\windows\system32\drivers\ksecdd.sys	Kernel Driver	Yes	Boot			
	Running OK		Normal No	Yes				
ksthunk	Kernel Streaming WOW64 Thunk Service	c:\windows\system32\drivers\ksthunk.sys	Kernel Driver	Yes	Manual			
	Running OK		Normal No	Yes				
lp6nds35	lp6nds35	Not Available	Kernel Driver	No	Disabled			
	Stopped OK		Normal No	No				
mnmd	mnmd	c:\windows\system32\drivers\mnmd.sys	Kernel Driver	Yes	System			
	Running OK		Ignore No	Yes				
modem	Modem	c:\windows\system32\drivers\modem.sys	Kernel Driver	No	Manual			
	Stopped OK		Ignore No	No				
mouclass	Mouse Class Driver	c:\windows\system32\drivers\mouclass.sys	Kernel					
Driver	Yes System Running		OK Normal	No	Yes			
mouhid	Mouse HID Driver	c:\windows\system32\drivers\mouhid.sys	Kernel Driver					
	Yes Manual Running		OK Ignore	No	Yes			
mountmgr	Mount Point Manager	c:\windows\system32\drivers\mountmgr.sys	Kernel					
Driver	Yes Boot Running		OK Normal	No	Yes			

APPENDIX C - TUNABLE PARAMETERS

mraid35x	mraid35x	Not Available	Kernel Driver	No	Disabled		
	Stopped	OK	Normal	No	No		
mrxdav	WebDav Client Redirector	c:\windows\system32\drivers\mrxdav.sys			File		
System Driver	No	Manual	Stopped	OK	Normal	No	No
mrxsmb	MRXSMB	c:\windows\system32\drivers\mrxsmb.sys			File System Driver		
	Yes	System	Running	OK	Normal	No	Yes
msfs	Msfs	c:\windows\system32\drivers\msfs.sys	File System Driver		Yes	System	
	Running	OK	Normal	No	Yes		
mssmbios	Microsoft System Management BIOS Driver	c:\windows\system32\drivers\mssmbios.sys	Kernel Driver	Yes	Manual		
	Running	OK	Normal	No	Yes		
mup	Mup	c:\windows\system32\drivers\mup.sys	File System Driver		Yes	Boot	
	Running	OK	Normal	No	Yes		
ndis	NDIS System Driver	c:\windows\system32\drivers\ndis.sys	Kernel Driver		Yes		
	Boot	Running	OK	Normal	No	Yes	
ndistapi	Remote Access NDIS TAPI Driver	c:\windows\system32\drivers\ndistapi.sys					
	Kernel Driver	Yes	Manual	Running	OK	Normal	No
ndisuio	NDIS Usermode I/O Protocol	c:\windows\system32\drivers\ndisuio.sys	Kernel Driver				
	Yes	Manual	Running	OK	Normal	No	Yes
ndiswan	Remote Access NDIS WAN Driver	c:\windows\system32\drivers\ndiswan.sys	Kernel Driver	Yes	Manual		
	Running	OK	Normal	No	Yes		
ndproxy	NDIS Proxy	c:\windows\system32\drivers\ndproxy.sys	Kernel Driver		Yes		
	Manual	Running	OK	Normal	No	Yes	
netbios	NetBIOS Interface	c:\windows\system32\drivers\netbios.sys			File System		
Driver	Yes	System	Running	OK	Normal	No	Yes
netbt	NetBios over Tcpip	c:\windows\system32\drivers\netbt.sys	Kernel Driver		Yes		
	System	Running	OK	Normal	No	Yes	
nfrd960	nfrd960	Not Available	Kernel Driver	No	Disabled	Stopped	OK
	Normal	No	No				
npfs	Npfs	c:\windows\system32\drivers\npfs.sys	File System Driver		Yes	System	
	Running	OK	Normal	No	Yes		
ntfs	Ntfs	c:\windows\system32\drivers\ntfs.sys	File System Driver		Yes		
	Disabled	Running	OK	Normal	No	Yes	
null	Null	c:\windows\system32\drivers\null.sys	Kernel Driver	Yes	System		
	Running	OK	Normal	No	Yes		
parport	Parallel port driver	c:\windows\system32\drivers\parport.sys	Kernel Driver		Yes		
	Manual	Running	OK	Normal	No	Yes	
partmgr	Partition Manager	c:\windows\system32\drivers\partmgr.sys			Kernel Driver		
	Yes	Boot	Running	OK	Normal	No	Yes
pci	PCI Bus Driver	c:\windows\system32\drivers\pci.sys	Kernel Driver		Yes	Boot	
	Running	OK	Critical	No	Yes		
pciide	PCIIde	c:\windows\system32\drivers\pciide.sys	Kernel Driver	Yes	Boot		
	Running	OK	Normal	No	Yes		
pcmcia	Pcmcia	c:\windows\system32\drivers\pcmcia.sys	Kernel Driver	No	Disabled		
	Stopped	OK	Normal	No	No		
pdcomp	PDCOMP	Not Available	Kernel Driver	No	Manual	Stopped	OK
	Ignore	No	No				
pdframe	PDFRAME	Not Available	Kernel Driver	No	Manual	Stopped	
	OK	Ignore	No	No			
pdreli	PDRELI	Not Available	Kernel Driver	No	Manual	Stopped	OK
	Ignore	No	No				
pdframe	PDRFRAME	Not Available	Kernel Driver	No	Manual	Stopped	
	OK	Ignore	No	No			

APPENDIX C - TUNABLE PARAMETERS

pptpminiport Driver	WAN Miniport (PPTP)	c:\windows\system32\drivers\raspptp.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes		
ptilink	Direct Parallel Link Driver	c:\windows\system32\drivers\ptilink.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes		
ql2300	ql2300	Not Available	Kernel Driver	No	Manual	Stopped	OK	Normal	No	No		
rasacd Driver	Remote Access Auto Connection Driver	c:\windows\system32\drivers\rasacd.sys	Kernel Driver	Yes	System	Running	OK	Normal	No	Yes		
rasl2tp	WAN Miniport (L2TP)	c:\windows\system32\drivers\rasl2tp.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes		
rasppoe	Remote Access PPPOE Driver	c:\windows\system32\drivers\rasppoe.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes		
raspti	Direct Parallel	c:\windows\system32\drivers\raspti.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes	Manual	
rbss	Rdbss	c:\windows\system32\drivers\rdbss.sys	File System Driver	Yes	System	Running	OK	Normal	No	Yes		
rdpcdd	RDP CDD	c:\windows\system32\drivers\rdpcdd.sys	Kernel Driver	Yes	System	Running	OK	Ignore	No	Yes		
rdpdr	Terminal Server Device Redirector Driver	c:\windows\system32\drivers\rdpdr.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes		
rdpwd	RDPWD	c:\windows\system32\drivers\rdpwd.sys	Kernel Driver	Yes	Manual	Running	OK	Ignore	No	Yes		
redbook	Digital CD Audio Playback Filter Driver	c:\windows\system32\drivers\redbook.sys	Kernel Driver	Yes	System	Running	OK	Normal	No	Yes		
secdrv	Security Driver	c:\windows\system32\drivers\secdrv.sys	Kernel Driver	Yes	Auto	Running	OK	Normal	No	Yes		
serenum Driver	Serenum Filter Driver	c:\windows\system32\drivers\serenum.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes		
serial	Serial port driver	c:\windows\system32\drivers\serial.sys	Kernel Driver	Yes	System	Running	OK	Ignore	No	Yes		
sfloppy	High-Capacity Floppy Disk Drive	c:\windows\system32\drivers\sfloppy.sys	Kernel Driver	No	Manual	Stopped	OK	Normal	No	No		
simbad	Simbad	Not Available	Kernel Driver	No	Manual	Stopped	OK	Normal	No	No		
srv	Srv	c:\windows\system32\drivers\srv.sys	File System Driver	Yes	Manual	Running	OK	Normal	No	Yes		
swenum Driver	Software Bus Driver	c:\windows\system32\drivers\swenum.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes		
symc8xx	symc8xx	Not Available	Kernel Driver	No	Manual	Stopped	OK	Normal	No	No	Disabled	
symmpi	symmpi	Not Available	Kernel Driver	No	Manual	Stopped	OK	Normal	No	No		OK
sym_hi	sym_hi	Not Available	Kernel Driver	No	Manual	Stopped	OK	Normal	No	No		OK
sym_u3	sym_u3	Not Available	Kernel Driver	No	Manual	Stopped	OK	Normal	No	No		OK
tcpip	TCP/IP Protocol Driver	c:\windows\system32\drivers\tcpip.sys	Kernel Driver	Yes	System	Running	OK	Normal	No	Yes		
tdpipe	TDPIPE	c:\windows\system32\drivers\tdpipe.sys	Kernel Driver	No	Manual	Stopped	OK	Ignore	No	No		
tdtcp	TDTCP	c:\windows\system32\drivers\tdtcp.sys	Kernel Driver	Yes	Manual	Running	OK	Ignore	No	Yes		
termdd	Terminal Device Driver	c:\windows\system32\drivers\termdd.sys	Kernel Driver	Yes	System	Running	OK	Normal	No	Yes		

APPENDIX C - TUNABLE PARAMETERS

toside	Toside	Not Available	Kernel Driver	No	Disabled	Stopped	OK
	Normal	No					
udfs	Udfs	c:\windows\system32\drivers\udfs.sys	File System Driver	No	Disabled	Stopped	OK
	Normal	No					
ultra	ultra	Not Available	Kernel Driver	No	Disabled	Stopped	OK
	Normal	No					
update	Microcode Update Driver		c:\windows\system32\drivers\update.sys	Kernel Driver	Yes	Manual Running	OK
	Yes	Manual	Running	OK	Normal	No	Yes
usbccgp	Microsoft USB Generic Parent Driver		c:\windows\system32\drivers\usbccgp.sys	Kernel Driver	Yes	Manual	Running
	Running	OK	Normal	No	Yes		
usbehci	Microsoft USB 2.0 Enhanced Host Controller Miniport Driver		c:\windows\system32\drivers\usbehci.sys	Kernel Driver	Yes	Manual	Running
	Running	OK	Normal	No	Yes		
usbhub	USB2 Enabled Hub		c:\windows\system32\drivers\usbhub.sys	Kernel Driver	Yes	Manual Running	OK
	Yes	Manual	Running	OK	Normal	No	Yes
usbstor	USB Mass Storage Driver		c:\windows\system32\drivers\usbstor.sys	Kernel Driver	No	Manual Stopped	OK
	No	Manual	Stopped	OK	Normal	No	No
usbuhci	Microsoft USB Universal Host Controller Miniport Driver		c:\windows\system32\drivers\usbuhci.sys	Kernel Driver	Yes	Manual	Running
	Running	OK	Normal	No	Yes		
vga	vga	c:\windows\system32\drivers\vgapnp.sys	Kernel Driver	Yes	Manual	Running	OK
	Running	OK	Ignore	No	Yes		
vgasave	VGA Display Controller		c:\windows\system32\drivers\vga.sys	Kernel Driver	No	System Stopped	OK
	No	System	Stopped	OK	Ignore	No	No
viaide	Vialde	Not Available	Kernel Driver	No	Disabled	Stopped	OK
	Normal	No					
volsnap	Storage volumes		c:\windows\system32\drivers\volsnap.sys	Kernel Driver	Yes	Boot Running	OK
	Yes	Boot	Running	OK	Normal	No	Yes
wanarp	Remote Access IP ARP Driver		c:\windows\system32\drivers\wanarp.sys	Kernel Driver	Yes	Manual Running	OK
	Yes	Manual	Running	OK	Normal	No	Yes
wdica	WDICA	Not Available	Kernel Driver	No	Manual Stopped	OK	Ignore
	No	No					
wlbs	Network Load Balancing		c:\windows\system32\drivers\wlbs.sys	Kernel Driver	No	Manual Stopped	OK
	No	Manual	Stopped	OK	Normal	No	No

[Signed Drivers]

Device Name	Signed	Device Class	Driver Version	Driver Date	Manufacturer	INF
Name	Driver Name	Device ID				
Microsoft System Management BIOS Driver	Yes	Standard system devices	SYSTEM	5.2.3790.1830	10/1/2002	ROOT\SYSTEM\0002
	10/1/2002	(Standard system devices)	machine.inf	Not Available	Not Available	
Microcode Update Device	Yes	Standard system devices	SYSTEM	5.2.3790.1830	10/1/2002	ROOT\SYSTEM\0001
	(Standard system devices)		machine.inf	Not Available	Not Available	
Plug and Play Software Device Enumerator	Yes	Standard system devices	SYSTEM	5.2.3790.1830	10/1/2002	ROOT\SYSTEM\0000
	10/1/2002	(Standard system devices)	machine.inf	Not Available	Not Available	
Terminal Server Mouse Driver	Yes	Standard system devices	SYSTEM	5.2.3790.1830	10/1/2002	ROOT\RDP_MOU\0000
	(Standard system devices)		machine.inf	Not Available	Not Available	
Terminal Server Keyboard Driver	Yes	Standard system devices	SYSTEM	5.2.3790.1830	10/1/2002	ROOT\RDP_KBD\0000
	(Standard system devices)		machine.inf	Not Available	Not Available	
Terminal Server Device Redirector	Yes	Standard system devices	SYSTEM	5.2.3790.1830	10/1/2002	ROOT\RDPDR\0000
	(Standard system devices)		machine.inf	Not Available	Not Available	

APPENDIX C - TUNABLE PARAMETERS

Direct Parallel	Yes	NET	5.2.3790.1830	10/1/2002	Microsoft	netrasa.inf
	Not Available	ROOTMS_PT	MINIPORT\0000			
WAN Miniport (PPTP)	Yes	NET	5.2.3790.1830	10/1/2002	Microsoft	
	netrasa.inf	Not Available	ROOTMS_PPTP	MINIPORT\0000		
WAN Miniport (PPPOE)	Yes	NET	5.2.3790.1830	10/1/2002	Microsoft	
	netrasa.inf	Not Available	ROOTMS_PPPOE	MINIPORT\0000		
WAN Miniport (IP)	Yes	NET	5.2.3790.1830	10/1/2002	Microsoft	
	netrasa.inf	Not Available	ROOTMS_NDIS	WANIP\0000		
WAN Miniport (L2TP)	Yes	NET	5.2.3790.1830	10/1/2002	Microsoft	
	netrasa.inf	Not Available	ROOTMS_L2T	MINIPORT\0000		
Video Codecs	Yes	MEDIA	5.2.3790.1830	10/1/2002	(Standard system devices)	
	wave.inf	Not Available	ROOTMEDIA\MS_MM	VID		
Legacy Video Capture	Devices	Yes	MEDIA	5.2.3790.1830	10/1/2002	(Standard system devices)
	wave.inf	Not Available	ROOTMEDIA\MS_MM	VCD		
Media Control Devices	Yes	MEDIA	5.2.3790.1830	10/1/2002	(Standard system devices)	
	wave.inf	Not Available	ROOTMEDIA\MS_M	MMCI		
Legacy Audio Drivers	Yes	MEDIA	5.2.3790.1830	10/1/2002	(Standard system devices)	
	wave.inf	Not Available	ROOTMEDIA\MS_M	MDRV		
Audio Codecs	Yes	MEDIA	5.2.3790.1830	10/1/2002	(Standard system devices)	
	wave.inf	Not Available	ROOTMEDIA\MS_M	MACM		
Remote Access IP ARP	Driver	Not Available	LEGACYDRIVER		Not Available	Not Available
Available	Not Available	Not Available	Not Available			
			ROOTLEGACY_WAN	ARP\0000		
volsnap	Not Available	LEGACYDRIVER		Not Available	Not Available	Not Available
	Not Available	Not Available	ROOTLEGACY_VOLS	NAP\0000		
TDTCP	Not Available	LEGACYDRIVER		Not Available	Not Available	Not Available
	Not Available	Not Available	ROOTLEGACY_TDT	CP\0000		
TCP/IP Protocol	Driver	Not Available	LEGACYDRIVER		Not Available	Not Available
	Not Available	Not Available	Not Available	ROOTLEGACY_TC	PIP\0000	
Security Driver	Not Available	LEGACYDRIVER		Not Available	Not Available	Not Available
Available	Not Available	Not Available	ROOTLEGACY_SEC	DRV\0000		
RDPWD	Not Available	LEGACYDRIVER		Not Available	Not Available	Not Available
Available	Not Available	Not Available	ROOTLEGACY_RDP	WD\0000		
RDPCDD	Not Available	LEGACYDRIVER		Not Available	Not Available	Not Available
Available	Not Available	Not Available	ROOTLEGACY_RDP	CDD\0000		
Remote Access Auto	Connection	Driver	Not Available	LEGACYDRIVER		Not Available
	Not Available	Not Available	Not Available	Not Available		
			ROOTLEGACY_RAS	ACD\0000		
Partition Manager	Not Available	LEGACYDRIVER		Not Available	Not Available	Not Available
	Not Available	Not Available	Not Available	ROOTLEGACY_PART	MGR\0000	
Null	Not Available	LEGACYDRIVER		Not Available	Not Available	Not Available
	Not Available	Not Available	ROOTLEGACY_NULL	\0000		
NetBios over Tcpi	p	Not Available	LEGACYDRIVER		Not Available	Not Available
	Not Available	Not Available	Not Available	ROOTLEGACY_NET	BT\0000	
NDProxy	Not Available	LEGACYDRIVER		Not Available	Not Available	Not Available
Available	Not Available	Not Available	ROOTLEGACY_ND	PROXY\0000		
NDIS Usermode I/O	Protocol	Not Available	LEGACYDRIVER		Not Available	Not Available
Available	Not Available	Not Available	Not Available			
			ROOTLEGACY_NDIS	SUIO\0000		
Remote Access NDIS	TAPI	Driver	Not Available	LEGACYDRIVER		Not Available
	Not Available	Not Available	Not Available	Not Available		
			ROOTLEGACY_NDIS	TAPI\0000		
NDIS System Driver	Not Available	LEGACYDRIVER		Not Available	Not Available	Not Available
	Not Available	Not Available	Not Available	ROOTLEGACY_NDIS	\0000	

APPENDIX C - TUNABLE PARAMETERS

mountmgr	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available
Available	Not Available	Not Available	ROOTLEGACY_MOUNTMGR\0000		
mnmd	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available
Available	Not Available	Not Available	ROOTLEGACY_MNMDD\0000		
ksecdd	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available
Available	Not Available	Not Available	ROOTLEGACY_KSECDD\0000		
IPSEC driver	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available
Available	Not Available	Not Available	ROOTLEGACY_IPSEC\0000		
IP Network Address Translator	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available
Available	Not Available	Not Available	ROOTLEGACY_IPNAT\0000		
HTTP	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available
Available	Not Available	Not Available	ROOTLEGACY_HTTP\0000		
Generic Packet Classifier	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available
Available	Not Available	Not Available	ROOTLEGACY_GPC\0000		
Fips	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available
Available	Not Available	Not Available	ROOTLEGACY_FIPS\0000		
dmload	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available
Available	Not Available	Not Available	ROOTLEGACY_DMLOAD\0000		
dmboot	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available
Available	Not Available	Not Available	ROOTLEGACY_DMBOOT\0000		
CRC Disk Filter Driver	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available
Available	Not Available	Not Available	ROOTLEGACY_CRCDISK\0000		
CdaD10BA	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available
Available	Not Available	Not Available	ROOTLEGACY_CDAD10BA\0000		
CdaC15BA	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available
Available	Not Available	Not Available	ROOTLEGACY_CDAC15BA\0000		
Beep	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available
Available	Not Available	Not Available	ROOTLEGACY_BEEP\0000		
AFD	Not Available	LEGACYDRIVER	Not Available	Not Available	Not Available
Available	Not Available	Not Available	ROOTLEGACY_AFD\0000		
Generic volume	Yes	VOLUME	5.2.3790.1830	10/1/2002	Microsoft
volume.inf	Not Available				
STORAGE\VOLUME\1&30A96598&0&SIGNATUREF021F021OFFSET7E00LENGTH3A349E7400					
Volume Manager	Yes	SYSTEM	5.2.3790.1830	10/1/2002	(Standard
system devices)machine.inf	Not Available				
Logical Disk Manager	Yes	SYSTEM	5.2.3790.1830	10/1/2002	(Standard
system devices)machine.inf	Not Available				
ACPI Fixed Feature Button	Yes	SYSTEM	5.2.3790.1830	10/1/2002	
(Standard system devices)	machine.inf				Not Available
ACPI\FIXEDBUTTON\2&DABA3FF&0					
High precision event timer	Yes	SYSTEM	5.2.3790.1830	10/1/2002	
(Standard system devices)	machine.inf				Not Available
ACPI\PNP0103\0					
Motherboard resources	Yes	SYSTEM	5.2.3790.1830	10/1/2002	(Standard
system devices)machine.inf	Not Available				
ACPI\PNP0C02\0					
Secondary IDE Channel	Yes	HDC	5.2.3790.1830	10/1/2002	(Standard IDE
ATA/ATAPI controllers)	mshdc.inf				
PCI\IDE\IDECHANNEL\4&36B719D8&0&1					
Disk drive	Yes	DISKDRIVE	5.2.3790.1830	10/1/2002	(Standard disk drives)
disk.inf	Not Available				
IDE\DISKWDC_WD2500JS-75NCB3_____10.02E04\5&2A0CF612&0&0.0.0					
Primary IDE Channel	Yes	HDC	5.2.3790.1830	10/1/2002	(Standard IDE
ATA/ATAPI controllers)	mshdc.inf				
PCI\IDE\IDECHANNEL\4&36B719D8&0&0					

APPENDIX C - TUNABLE PARAMETERS

Standard Dual Channel PCI IDE Controller (Standard IDE ATA/ATAPI controllers)	Yes	HDC	5.2.3790.1830	10/1/2002	
		mshdc.inf	Not Available		
PCI\VEN_8086&DEV_2680&SUBSYS_01B91028&REV_09\3&61AAA01&0&FA					
Secondary IDE Channel (Standard IDE ATA/ATAPI controllers)	Yes	HDC	5.2.3790.1830	10/1/2002	(Standard IDE ATA/ATAPI controllers)
		mshdc.inf	Not Available		
PCI\IDE\IDECHANNEL\4&18B1FEB&0&1					
CD-ROM Drive (Standard CD-ROM drives)	Yes	CDROM	5.2.3790.1830	10/1/2002	(Standard CD-ROM drives)
		cdrom.inf	Not Available		
IDE\CDROMPBDS_CD-ROM_DH-48N1P_____AD11_____5&1ADA0B61&0&0.0.0					
Primary IDE Channel (Standard IDE ATA/ATAPI controllers)	Yes	HDC	5.2.3790.1830	10/1/2002	(Standard IDE ATA/ATAPI controllers)
		mshdc.inf	Not Available		
PCI\IDE\IDECHANNEL\4&18B1FEB&0&0					
Standard Dual Channel PCI IDE Controller (Standard IDE ATA/ATAPI controllers)	Yes	HDC	5.2.3790.1830	10/1/2002	
		mshdc.inf	Not Available		
PCI\VEN_8086&DEV_269E&SUBSYS_01B91028&REV_09\3&61AAA01&0&F9					
System board (Standard system devices)	Yes	SYSTEM	5.2.3790.1830	10/1/2002	(Standard system devices)
		machine.inf	Not Available		
ACPI\PNP0C01\0					
Printer Port Logical Interface (Standard system devices)	Yes	SYSTEM	5.2.3790.1830	10/1/2002	
		machine.inf	Not Available		
LPTENUM\MICROSOFTRAWPORT\5&387F7EE5&0&LPT1					
ECP Printer Port (Standard port types)	Yes	PORTS	5.2.3790.1830	10/1/2002	(Standard port types)
		msports.inf	Not Available		
ACPI\PNP0401\4&2AA4AD3D&0					
Standard floppy disk controller (Standard floppy disk controllers)	Yes	FDC	5.2.3790.1830	10/1/2002	(Standard floppy disk controllers)
		fdc.inf	Not Available		
ACPI\PNP0700\4&2AA4AD3D&0					
Communications Port (Standard port types)	Yes	PORTS	5.2.3790.1830	10/1/2002	(Standard port types)
		msports.inf	Not Available		
ACPI\PNP0501\1					
System timer (Standard system devices)	Yes	SYSTEM	5.2.3790.1830	10/1/2002	(Standard system devices)
		machine.inf	Not Available		
ACPI\PNP0100\4&2AA4AD3D&0					
System CMOS/real time clock (Standard system devices)	Yes	SYSTEM	5.2.3790.1830	10/1/2002	
		machine.inf	Not Available		
ACPI\PNP0B00\4&2AA4AD3D&0					
System board (Standard system devices)	Yes	SYSTEM	5.2.3790.1830	10/1/2002	(Standard system devices)
		machine.inf	Not Available		
ACPI\PNP0C01\2					
Programmable interrupt controller (Standard system devices)	Yes	SYSTEM	5.2.3790.1830	10/1/2002	
		machine.inf	Not Available		
ACPI\PNP0000\4&2AA4AD3D&0					
Numeric data processor (Standard system devices)	Yes	SYSTEM	5.2.3790.1830	10/1/2002	(Standard system devices)
		machine.inf	Not Available		
ACPI\PNP0C04\4&2AA4AD3D&0					
Direct memory access controller (Standard system devices)	Yes	SYSTEM	5.2.3790.1830	10/1/2002	
		machine.inf	Not Available		
ACPI\PNP0200\4&2AA4AD3D&0					
PCI standard ISA bridge (Standard system devices)	Yes	SYSTEM	5.2.3790.1830	10/1/2002	(Standard system devices)
		machine.inf	Not Available		
PCI\VEN_8086&DEV_2670&SUBSYS_00000000&REV_09\3&61AAA01&0&F8					
Default Monitor (Standard monitor types)	Yes	MONITOR	5.2.3790.1830	10/1/2002	(Standard monitor types)
		monitor.inf	Not Available		
DISPLAY\DEFAULT_MONITOR\5&2A694D8A&0&12345678&0B&09					
Standard VGA Graphics Adapter (Standard display types)	Yes	DISPLAY	5.2.3790.1830	10/1/2002	
		display.inf	Not Available		
PCI\VEN_1002&DEV_515E&SUBSYS_01B91028&REV_02\4&2014205D&0&48F0					
Intel(R) 82801 PCI Bridge - 244E (Standard system devices)	Yes	SYSTEM	5.2.3790.1830	10/1/2002	
		machine.inf	Not Available		
PCI\VEN_8086&DEV_244E&SUBSYS_00000000&REV_D9\3&61AAA01&0&F0					
USB Root Hub (Standard USB Host Controller)	Yes	USB	5.2.3790.1830	10/1/2002	(Standard USB Host Controller)
		usbport.inf	Not Available		
USB\ROOT_HUB20\4&658A081&0					

APPENDIX C - TUNABLE PARAMETERS

Standard Enhanced PCI to USB Host Controller	Yes	USB	5.2.3790.1830	10/1/2002	
(Standard USB Host Controller)		usbport.inf	Not Available		
PCI\VEN_8086&DEV_268C&SUBSYS_01B91028&REV_09\3&61AAA01&0&EF					
USB Root Hub	Yes	USB	5.2.3790.1830	10/1/2002	(Standard USB Host Controller)
		usbport.inf	Not Available		USB\ROOT_HUB\4&38F3D7&0
Standard Universal PCI to USB Host Controller	Yes	USB	5.2.3790.1830	10/1/2002	
(Standard USB Host Controller)		usbport.inf	Not Available		
PCI\VEN_8086&DEV_268B&SUBSYS_01B91028&REV_09\3&61AAA01&0&EB					
USB Root Hub	Yes	USB	5.2.3790.1830	10/1/2002	(Standard USB Host Controller)
		usbport.inf	Not Available		USB\ROOT_HUB\4&35CD017&0
Standard Universal PCI to USB Host Controller	Yes	USB	5.2.3790.1830	10/1/2002	
(Standard USB Host Controller)		usbport.inf	Not Available		
PCI\VEN_8086&DEV_268A&SUBSYS_01B91028&REV_09\3&61AAA01&0&EA					
USB Root Hub	Yes	USB	5.2.3790.1830	10/1/2002	(Standard USB Host Controller)
		usbport.inf	Not Available		USB\ROOT_HUB\4&11C31C8E&0
Standard Universal PCI to USB Host Controller	Yes	USB	5.2.3790.1830	10/1/2002	
(Standard USB Host Controller)		usbport.inf	Not Available		
PCI\VEN_8086&DEV_2689&SUBSYS_01B91028&REV_09\3&61AAA01&0&E9					
HID-compliant mouse	Yes	MOUSE	5.2.3790.1830	10/1/2002	Microsoft
		msmouse.inf	Not Available		HID\VID_09AE&PID_0002&MI_01\7&FDD9F08&0&0000
USB Human Interface Device	Yes	HIDCLASS	5.2.3790.1830	10/1/2002	
(Standard system devices)		input.inf	Not Available		
USB\VID_09AE&PID_0002&MI_01\6&8FA055B&0&0001					
HID Keyboard Device	Yes	KEYBOARD	5.2.3790.1830	10/1/2002	(Standard
keyboards)		keyboard.inf	Not Available		
HID\VID_09AE&PID_0002&MI_00\7&38484CD1&0&0000					
USB Human Interface Device	Yes	HIDCLASS	5.2.3790.1830	10/1/2002	
(Standard system devices)		input.inf	Not Available		
USB\VID_09AE&PID_0002&MI_00\6&8FA055B&0&0000					
USB Composite Device	Yes	USB	5.2.3790.1830	10/1/2002	(Standard USB Host
Controller)		usb.inf	Not Available		
USB\VID_09AE&PID_0002\USB_COMPOSITE_DEVICE					
USB Root Hub	Yes	USB	5.2.3790.1830	10/1/2002	(Standard USB Host Controller)
		usbport.inf	Not Available		USB\ROOT_HUB\4&3848A91D&0
Standard Universal PCI to USB Host Controller	Yes	USB	5.2.3790.1830	10/1/2002	
(Standard USB Host Controller)		usbport.inf	Not Available		
PCI\VEN_8086&DEV_2688&SUBSYS_01B91028&REV_09\3&61AAA01&0&E8					
Broadcom NetXtreme Gigabit Ethernet	Yes	NET	8.48.0.0	10/31/2005	
		oem0.inf	Not Available		
PCI\VEN_14E4&DEV_1677&SUBSYS_01B91028&REV_21\4&187919FE&0&00E0					
PCI standard PCI-to-PCI bridge	Yes	SYSTEM	5.2.3790.1830	10/1/2002	
(Standard system devices)		machine.inf	Not Available		
PCI\VEN_8086&DEV_2690&SUBSYS_00000000&REV_09\3&61AAA01&0&E0					
PCI standard host CPU bridge	Yes	SYSTEM	5.2.3790.1830	10/1/2002	
(Standard system devices)		machine.inf	Not Available		
PCI\VEN_8086&DEV_25F6&SUBSYS_00000000&REV_92\3&61AAA01&0&B0					
PCI standard host CPU bridge	Yes	SYSTEM	5.2.3790.1830	10/1/2002	
(Standard system devices)		machine.inf	Not Available		
PCI\VEN_8086&DEV_25F5&SUBSYS_00000000&REV_92\3&61AAA01&0&A8					
PCI standard host CPU bridge	Yes	SYSTEM	5.2.3790.1830	10/1/2002	
(Standard system devices)		machine.inf	Not Available		
PCI\VEN_8086&DEV_25F3&SUBSYS_00000000&REV_92\3&61AAA01&0&98					
PCI standard host CPU bridge	Yes	SYSTEM	5.2.3790.1830	10/1/2002	
(Standard system devices)		machine.inf	Not Available		
PCI\VEN_8086&DEV_25F1&SUBSYS_00000000&REV_92\3&61AAA01&0&88					

APPENDIX C - TUNABLE PARAMETERS

PCI standard host CPU bridge	Yes	SYSTEM	5.2.3790.1830	10/1/2002
(Standard system devices)		machine.inf	Not Available	
PCIIVEN_8086&DEV_25F0&SUBSYS_00000000&REV_92\3&61AAA01&0&82				
PCI standard host CPU bridge	Yes	SYSTEM	5.2.3790.1830	10/1/2002
(Standard system devices)		machine.inf	Not Available	
PCIIVEN_8086&DEV_25F0&SUBSYS_00000000&REV_92\3&61AAA01&0&81				
PCI standard host CPU bridge	Yes	SYSTEM	5.2.3790.1830	10/1/2002
(Standard system devices)		machine.inf	Not Available	
PCIIVEN_8086&DEV_25F0&SUBSYS_00000000&REV_92\3&61AAA01&0&80				
Intel(R) PRO/1000 PT Quad Port Server Adapter	Yes	NET	9.12.36.0	
12/4/2008	Intel	oem6.inf	Not Available	
PCIIVEN_8086&DEV_10A4&SUBSYS_10A48086&REV_06\6&BF71098&0&01080018				
Intel(R) PRO/1000 PT Quad Port Server Adapter	Yes	NET	9.12.36.0	
12/4/2008	Intel	oem6.inf	Not Available	
PCIIVEN_8086&DEV_10A4&SUBSYS_10A48086&REV_06\6&BF71098&0&00080018				
PCI standard PCI-to-PCI bridge	Yes	SYSTEM	5.2.3790.1830	10/1/2002
(Standard system devices)		machine.inf	Not Available	
PCIIVEN_111D&DEV_8018&SUBSYS_00000000&REV_04\5&E457461&0&080018				
Intel(R) PRO/1000 PT Quad Port Server Adapter	Yes	NET	9.12.36.0	
12/4/2008	Intel	oem6.inf	Not Available	
PCIIVEN_8086&DEV_10A4&SUBSYS_10A48086&REV_06\6&1A840AB9&0&01000018				
Intel(R) PRO/1000 PT Quad Port Server Adapter	Yes	NET	9.12.36.0	
12/4/2008	Intel	oem6.inf	Not Available	
PCIIVEN_8086&DEV_10A4&SUBSYS_10A48086&REV_06\6&1A840AB9&0&00000018				
PCI standard PCI-to-PCI bridge	Yes	SYSTEM	5.2.3790.1830	10/1/2002
(Standard system devices)		machine.inf	Not Available	
PCIIVEN_111D&DEV_8018&SUBSYS_00000000&REV_04\5&E457461&0&000018				
PCI standard PCI-to-PCI bridge	Yes	SYSTEM	5.2.3790.1830	10/1/2002
(Standard system devices)		machine.inf	Not Available	
PCIIVEN_111D&DEV_8018&SUBSYS_00000000&REV_04\4&3382D5D3&0&0018				
PCI standard PCI-to-PCI bridge	Yes	SYSTEM	5.2.3790.1830	10/1/2002
(Standard system devices)		machine.inf	Not Available	
PCIIVEN_8086&DEV_25E3&SUBSYS_00000000&REV_92\3&61AAA01&0&18				
PCI standard PCI-to-PCI bridge	Yes	SYSTEM	5.2.3790.1830	10/1/2002
(Standard system devices)		machine.inf	Not Available	
PCIIVEN_8086&DEV_350C&SUBSYS_00000000&REV_01\4&A27001&0&0310				
PCI standard PCI-to-PCI bridge	Yes	SYSTEM	5.2.3790.1830	10/1/2002
(Standard system devices)		machine.inf	Not Available	
PCIIVEN_8086&DEV_3514&SUBSYS_00000000&REV_01\5&1E0A8BA7&0&080010				
PCI standard PCI-to-PCI bridge	Yes	SYSTEM	5.2.3790.1830	10/1/2002
(Standard system devices)		machine.inf	Not Available	
PCIIVEN_8086&DEV_3510&SUBSYS_00000000&REV_01\5&1E0A8BA7&0&000010				
PCI standard PCI-to-PCI bridge	Yes	SYSTEM	5.2.3790.1830	10/1/2002
(Standard system devices)		machine.inf	Not Available	
PCIIVEN_8086&DEV_3500&SUBSYS_00000000&REV_01\4&A27001&0&0010				
PCI standard PCI-to-PCI bridge	Yes	SYSTEM	5.2.3790.1830	10/1/2002
(Standard system devices)		machine.inf	Not Available	
PCIIVEN_8086&DEV_25E2&SUBSYS_00000000&REV_92\3&61AAA01&0&10				
PCI standard host CPU bridge	Yes	SYSTEM	5.2.3790.1830	10/1/2002
(Standard system devices)		machine.inf	Not Available	
PCIIVEN_8086&DEV_25D4&SUBSYS_00000000&REV_92\3&61AAA01&0&00				
PCI bus	Yes	SYSTEM	5.2.3790.1830	10/1/2002
(Standard system devices)		machine.inf	Not Available	
ACPI\PNP0A03\2&DABA3FF&0				
Intel Processor	Yes	PROCESSOR	5.2.3790.1830	10/1/2002
Available		ACPI\GENUINEINTEL_-EM64T_FAMILY_6_MODEL_15\7	Intel	cpu.inf Not

APPENDIX C - TUNABLE PARAMETERS

Intel Processor Available	Yes	PROCESSOR	5.2.3790.1830	10/1/2002	Intel	cpu.inf	Not
Intel Processor Available	Yes	PROCESSOR	5.2.3790.1830	10/1/2002	Intel	cpu.inf	Not
Intel Processor Available	Yes	PROCESSOR	5.2.3790.1830	10/1/2002	Intel	cpu.inf	Not
Intel Processor Available	Yes	PROCESSOR	5.2.3790.1830	10/1/2002	Intel	cpu.inf	Not
Intel Processor Available	Yes	PROCESSOR	5.2.3790.1830	10/1/2002	Intel	cpu.inf	Not
Intel Processor Available	Yes	PROCESSOR	5.2.3790.1830	10/1/2002	Intel	cpu.inf	Not
Intel Processor Available	Yes	PROCESSOR	5.2.3790.1830	10/1/2002	Intel	cpu.inf	Not
Microsoft ACPI-Compliant System	Yes	SYSTEM	5.2.3790.1830	10/1/2002			
ACPI Multiprocessor (Standard computers)	Yes	COMPUTER	5.2.3790.1830	10/1/2002			
Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Not Available	No	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

[Environment Variables]

Variable	Value	User Name
ClusterLog	C:\WINDOWS\Cluster\cluster.log	<SYSTEM>
ComSpec	%SystemRoot%\system32\cmd.exe	<SYSTEM>
FP_NO_HOST_CHECKNO	<SYSTEM>	
LD_LIBRARY_PATH	C:\app\Administrator\product\11.1.0\db_1\lib	<SYSTEM>
LOCAL tpcc2	<SYSTEM>	
NUMBER_OF_PROCESSORS	8	<SYSTEM>
ORACLE_BASE	c:\app\Administrator	<SYSTEM>
ORACLE_HOME	C:\app\Administrator\product\11.1.0\db_1	<SYSTEM>
ORACLE_SID	tpcc	<SYSTEM>
OS Path	Windows_NT	<SYSTEM>
	C:\app\Administrator\product\11.1.0\db_1\bin;%SystemRoot%\system32;%SystemRoot%\system32\Wbem;C:\Program Files\Intel\DMIX;c:\Program Files (x86)\Microsoft SQL Server\90\Tools\binn\;c:\mks\mksnt<SYSTEM>	
PATHEXT	.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH	<SYSTEM>
PROCESSOR_ARCHITECTURE	AMD64	<SYSTEM>
PROCESSOR_IDENTIFIER	EM64T Family 6 Model 15 Stepping 11, GenuineIntel	<SYSTEM>
PROCESSOR_LEVEL	6	<SYSTEM>
PROCESSOR_REVISION	0f0b	<SYSTEM>
TEMP	%SystemRoot%\TEMP	<SYSTEM>
TMP	%SystemRoot%\TEMP	<SYSTEM>
VS90COMNTOOLS	C:\Program Files (x86)\Microsoft Visual Studio 9.0\Common7\Tools\	<SYSTEM>
windir	%SystemRoot%	<SYSTEM>
TEMP	%USERPROFILE%\Local Settings\Temp	NT AUTHORITY\SYSTEM
TMP	%USERPROFILE%\Local Settings\Temp	NT AUTHORITY\SYSTEM
TEMP	%USERPROFILE%\Local Settings\Temp	NT AUTHORITY\LOCAL SERVICE
TMP	%USERPROFILE%\Local Settings\Temp	NT AUTHORITY\LOCAL SERVICE

APPENDIX C - TUNABLE PARAMETERS

TEMP	%USERPROFILE%\Local Settings\Temp	NT AUTHORITY\NETWORK SERVICE
TMP	%USERPROFILE%\Local Settings\Temp	NT AUTHORITY\NETWORK SERVICE
TEMP	%USERPROFILE%\Local Settings\Temp	PE1430\Administrator
TMP	%USERPROFILE%\Local Settings\Temp	PE1430\Administrator

[Print Jobs]

Document	Size	Owner	Notify	Status	Time Submitted	Start Time	Until Time
Elapsed Time	Pages	Printed	Job ID	Priority	Parameters	Driver	Print Processor
Host Print Queue	Data Type	Name					

[Network Connections]

Local Name	Remote Name	Type	Status	User Name
------------	-------------	------	--------	-----------

[Running Tasks]

Name	Path	Process ID	Priority	Min Working Set	Max Working Set	Start
Time	Version	Size	File Date			
system idle process		Not Available	0	0	Not Available	Not Available
Available		Not Available	Not Available	Not Available		Not Available
system	Not Available	4	8	0	1413120	Not Available
	Not Available	Not Available				Not Available
smss.exe	Not Available	772	11	204800	1413120	11/10/2009 1:06 PM
	Not Available	Not Available	Not Available			
csrss.exe	Not Available	948	13	Not Available	Not Available	11/10/2009 1:06 PM
	Not Available	Not Available	Not Available			
winlogon.exe	c:\windows\system32\winlogon.exe		356	13	204800 1413120	11/10/2009 1:06 PM
			5.2.3790.1830	(srv03_sp1_rtm.050324-1447)		901.00 KB
	(922,624 bytes)	3/25/2005 6:00 AM				
services.exe	c:\windows\system32\services.exe		420	9	204800 1413120	11/10/2009 1:06 PM
			5.2.3790.1830	(srv03_sp1_rtm.050324-1447)		216.50 KB
	(221,696 bytes)	3/25/2005 6:00 AM				
lsass.exe	c:\windows\system32\lsass.exe		464	9	204800 1413120	11/10/2009 1:06 PM
			5.2.3790.1830	(srv03_sp1_rtm.050324-1447)		14.00 KB
	(14,336 bytes)	3/25/2005 6:00 AM				
svchost.exe	c:\windows\system32\svchost.exe		696	8	204800 1413120	11/10/2009 1:06 PM
			5.2.3790.1830	(srv03_sp1_rtm.050324-1447)		24.50 KB
	(25,088 bytes)	3/25/2005 6:00 AM				
svchost.exe	Not Available	756	8	Not Available	Not Available	11/10/2009 1:06 PM
	Not Available	Not Available	Not Available			
svchost.exe	Not Available	920	8	Not Available	Not Available	11/10/2009 1:06 PM
	Not Available	Not Available	Not Available			
svchost.exe	Not Available	1112	8	Not Available	Not Available	11/10/2009 1:06 PM
	Not Available	Not Available	Not Available			
svchost.exe	c:\windows\system32\svchost.exe		1144	8	204800 1413120	11/10/2009 1:06 PM
			5.2.3790.1830	(srv03_sp1_rtm.050324-1447)		24.50 KB
	(25,088 bytes)	3/25/2005 6:00 AM				
spoolsv.exe	c:\windows\system32\spoolsv.exe		912	8	204800 1413120	11/10/2009 1:07 PM
			5.2.3790.1830	(srv03_sp1_rtm.050324-1447)		107.00 KB
	(109,568 bytes)	3/25/2005 6:00 AM				
msdtc.exe	Not Available	984	8	Not Available	Not Available	11/10/2009 1:07 PM
	Not Available	Not Available	Not Available			

APPENDIX C - TUNABLE PARAMETERS

svchost.exe	c:\windows\system32\svchost.exe	1140	8	204800	1413120	11/10/2009 1:07 PM	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	24.50 KB (25,088 bytes)	3/25/2005 6:00 AM
inetinfo.exe	c:\windows\system32\inetinfo.exe	1296	8	204800	1413120	11/10/2009 1:07 PM	6.0.3790.1830 (srv03_sp1_rtm.050324-1447)	17.50 KB (17,920 bytes)	10/11/2009 8:17 PM
svchost.exe	Not Available	1440	8	Not Available	Not Available	11/10/2009 1:07 PM	Not Available	Not Available	Not Available
svchost.exe	c:\windows\system32\svchost.exe	1908	8	204800	1413120	11/10/2009 1:07 PM	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	24.50 KB (25,088 bytes)	3/25/2005 6:00 AM
dfssvc.exe	c:\windows\system32\dfssvc.exe	2032	8	204800	1413120	11/10/2009 1:07 PM	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	311.50 KB (318,976 bytes)	3/25/2005 6:00 AM
svchost.exe	c:\windows\system32\svchost.exe	1680	8	204800	1413120	11/10/2009 1:07 PM	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	24.50 KB (25,088 bytes)	3/25/2005 6:00 AM
wmiprvse.exe	Not Available	536	8	Not Available	Not Available	11/10/2009 1:08 PM	Not Available	Not Available	Not Available
explorer.exe	c:\windows\explorer.exe	2420	8	204800	1413120	11/10/2009 1:08 PM	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	1.30 MB (1,364,480 bytes)	3/25/2005 6:00 AM
bacstray.exe	c:\program files\broadcom\bacs\bacstray.exe	2548	8	204800	1413120	11/10/2009 1:08 PM	8, 3, 11, 0	105.00 KB (107,520 bytes)	4/4/2006 11:42 PM
wuauclt.exe	c:\windows\system32\wuauclt.exe	2896	8	204800	1413120	11/10/2009 1:08 PM	5.7.3790.1830 (srv03_sp1_rtm.050324-1447)	156.00 KB (159,744 bytes)	10/11/2009 5:51 PM
helpctr.exe	c:\windows\pchealth\helpctr\binaries\helpctr.exe	280	8	204800	1413120	11/11/2009 5:37 PM	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	1.30 MB (1,363,456 bytes)	10/11/2009 5:51 PM
helpsvc.exe	c:\windows\pchealth\helpctr\binaries\helpsvc.exe	936	8	204800	1413120	11/11/2009 5:37 PM	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	1.52 MB (1,591,296 bytes)	10/11/2009 5:51 PM
wmiprvse.exe	Not Available	2612	8	Not Available	Not Available	11/11/2009 5:37 PM	Not Available	Not Available	Not Available

[Loaded Modules]

Name	Version	Size	File Date	Manufacturer	Path
winlogon	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	901.00 KB (922,624 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\winlogon.exe
ntdll	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	1.20 MB (1,257,472 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\ntdll.dll
kernel32	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	1.43 MB (1,500,160 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\kernel32.dll
advapi32	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	1.00 MB (1,051,136 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\advapi32.dll
rpcrt4	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	1.63 MB (1,714,176 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\rpcrt4.dll
crypt32	5.131.3790.1830 (srv03_sp1_rtm.050324-1447)	1.36 MB (1,428,992 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\crypt32.dll
msasn1	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	152.50 KB (156,160 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\msasn1.dll

APPENDIX C - TUNABLE PARAMETERS

msvcr7	7.0.3790.1830 (srv03_sp1_rtm.050324-1447)	508.00 KB (520,192 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\msvcr7.dll
user32	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	1.04 MB (1,085,952 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\user32.dll
gdi32	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	592.00 KB (606,208 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\gdi32.dll
nddeapi	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	25.00 KB (25,600 bytes)
AM	Microsoft Corporation	c:\windows\system32\nddeapi.dll
profmap	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	36.00 KB (36,864 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\profmap.dll
netapi32	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	589.00 KB (603,136 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\netapi32.dll
userenv	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	1.02 MB (1,069,056 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\userenv.dll
psapi	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	29.00 KB (29,696 bytes)
AM	Microsoft Corporation	c:\windows\system32\psapi.dll
regapi	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	108.50 KB (111,104 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\regapi.dll
secur32	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	120.00 KB (122,880 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\secur32.dll
setupapi	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	1.45 MB (1,523,200 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\setupapi.dll
version	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	28.00 KB (28,672 bytes)
AM	Microsoft Corporation	c:\windows\system32\version.dll
winsta	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	89.00 KB (91,136 bytes)
AM	Microsoft Corporation	c:\windows\system32\winsta.dll
ws2_32	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	176.50 KB (180,736 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\ws2_32.dll
ws2help	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	30.50 KB (31,232 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\ws2help.dll
msgina	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	1.14 MB (1,193,472 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\msgina.dll
shsvcs	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	193.50 KB (198,144 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\shsvcs.dll
shlwapi	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	606.50 KB (621,056 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\shlwapi.dll
sfc	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	6.00 KB (6,144 bytes)
AM	Microsoft Corporation	c:\windows\system32\sfc.dll
sfc_os	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	183.50 KB (187,904 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\sfc_os.dll
wintrust	5.131.3790.1830 (srv03_sp1_rtm.050324-1447)	297.50 KB (304,640 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\wintrust.dll
imagehlp	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	57.50 KB (58,880 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\imagehlp.dll
ole32	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	2.43 MB (2,543,616 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\ole32.dll
comctl32	6.0 (srv03_sp1_rtm.050324-1447)	1.51 MB (1,584,128 bytes)
	10/11/2009 10:40 AM Microsoft Corporation	c:\windows\winsxs\amd64_microsoft.windows.common-
	controls_6595b64144ccf1df_6.0.3790.1830_x-ww_aced72af\comctl32.dll	
winscard	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	230.00 KB (235,520 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\winscard.dll
wtsapi32	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	29.00 KB (29,696 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\wtsapi32.dll

APPENDIX C - TUNABLE PARAMETERS

sxs	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	1.91 MB (2,003,968 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\sxs.dll
shell32	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	10.01 MB (10,492,416 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\shell32.dll
wldap32	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	390.00 KB (399,360 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\wldap32.dll
rsaenh	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	241.96 KB (247,768 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\rsaenh.dll
cscdll	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	151.50 KB (155,136 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\cscdll.dll
dimsntfy	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	28.00 KB (28,672 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\dimsntfy.dll
wlnotify	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	148.00 KB (151,552 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\wlnotify.dll
mpr	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	115.00 KB (117,760 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\mpr.dll
oleaut32	5.2.3790.1830	1.06 MB (1,116,160 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\oleaut32.dll
winmm	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	303.50 KB (310,784 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\winmm.dll
winspool	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	247.00 KB (252,928 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\winspool.drv
comctl32	5.82 (srv03_sp1_rtm.050324-1447)	934.50 KB (956,928 bytes)	10/11/2009 10:40 AM	Microsoft Corporation	c:\windows\winsxs\amd64_microsoft.windows.common-
controls_6595b64144ccf1df_5.82.3790.1830_x-ww_4d792d2a\comctl32.dll					
uxtheme	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	494.50 KB (506,368 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\uxtheme.dll
samlib	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	69.00 KB (70,656 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\samlib.dll
cscui	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	441.00 KB (451,584 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\cscui.dll
ntlanman	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	71.50 KB (73,216 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\ntlanman.dll
netui0	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	130.00 KB (133,120 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\netui0.dll
netui1	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	338.50 KB (346,624 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\netui1.dll
drprov	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	24.00 KB (24,576 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\drprov.dll
davclnt	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	38.00 KB (38,912 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\davclnt.dll
mprui	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	67.50 KB (69,120 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\mprui.dll
netui2	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	542.00 KB (555,008 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\netui2.dll
comdlg32	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	446.50 KB (457,216 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\comdlg32.dll
netmsg	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	179.00 KB (183,296 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\netmsg.dll
clbcatq	2001.12.4720.1830 (srv03_sp1_rtm.050324-1447)	865.00 KB (885,760 bytes)	10/11/2009 5:49 PM	Microsoft Corporation	c:\windows\system32\clbcatq.dll
comres	2001.12.4720.1830 (srv03_sp1_rtm.050324-1447)	779.50 KB (798,208 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\comres.dll

APPENDIX C - TUNABLE PARAMETERS

ntmarta	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	222.50 KB (227,840 bytes)	
	3/25/2005 6:00 AM Microsoft Corporation		c:\windows\system32\ntmarta.dll
xpsp2res	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	2.77 MB (2,899,456 bytes)	
	3/25/2005 6:00 AM Microsoft Corporation		c:\windows\system32\xpsp2res.dll
wbemprox	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	38.00 KB (38,912 bytes)	
	10/11/2009 5:49 PM Microsoft Corporation		c:\windows\system32\wbem\wbemprox.dll
wbemcomn	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	524.00 KB (536,576 bytes)	
	3/25/2005 6:00 AM Microsoft Corporation		c:\windows\system32\wbem\wbemcomn.dll
wbemsvc	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	58.00 KB (59,392 bytes)	
	10/11/2009 5:49 PM Microsoft Corporation		c:\windows\system32\wbem\wbemsvc.dll
fastprox	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	866.50 KB (887,296 bytes)	
	10/11/2009 5:49 PM Microsoft Corporation		c:\windows\system32\wbem\fastprox.dll
msvcp60	7.0.3790.1830 (srv03_sp1_rtm.050324-1447)	919.50 KB (941,568 bytes)	
	3/25/2005 6:00 AM Microsoft Corporation		c:\windows\system32\msvcp60.dll
ntdsapi	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	127.50 KB (130,560 bytes)	
	3/25/2005 6:00 AM Microsoft Corporation		c:\windows\system32\ntdsapi.dll
dnsapi	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	297.50 KB (304,640 bytes)	
	3/25/2005 6:00 AM Microsoft Corporation		c:\windows\system32\dnsapi.dll
services	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	216.50 KB (221,696 bytes)	
	3/25/2005 6:00 AM Microsoft Corporation		c:\windows\system32\services.exe
ncobjapi	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	80.00 KB (81,920 bytes)	
	3/25/2005 6:00 AM Microsoft Corporation		c:\windows\system32\ncobjapi.dll
scesrv	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	594.50 KB (608,768 bytes)	
	3/25/2005 6:00 AM Microsoft Corporation		c:\windows\system32\scesrv.dll
authz	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	167.00 KB (171,008 bytes)	
	3/25/2005 6:00 AM Microsoft Corporation		c:\windows\system32\authz.dll
umpnpgmr	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	205.00 KB (209,920 bytes)	
	3/25/2005 6:00 AM Microsoft Corporation		c:\windows\system32\umpnpgmr.dll
eventlog	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	127.00 KB (130,048 bytes)	
	3/25/2005 6:00 AM Microsoft Corporation		c:\windows\system32\eventlog.dll
lsass	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	14.00 KB (14,336 bytes)	3/25/2005 6:00 AM
	Microsoft Corporation		c:\windows\system32\lsass.exe
lsasrv	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	1.50 MB (1,568,256 bytes)	
	3/25/2005 6:00 AM Microsoft Corporation		c:\windows\system32\lsasrv.dll
samsrv	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	1.01 MB (1,059,328 bytes)	
	3/25/2005 6:00 AM Microsoft Corporation		c:\windows\system32\samsrv.dll
cryptdll	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	47.00 KB (48,128 bytes)	3/25/2005 6:00 AM
	Microsoft Corporation		c:\windows\system32\cryptdll.dll
msprivs	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	47.50 KB (48,640 bytes)	3/25/2005 6:00 AM
	Microsoft Corporation		c:\windows\system32\msprivs.dll
kerberos	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	698.00 KB (714,752 bytes)	
	3/25/2005 6:00 AM Microsoft Corporation		c:\windows\system32\kerberos.dll
msv1_0	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	253.00 KB (259,072 bytes)	
	3/25/2005 6:00 AM Microsoft Corporation		c:\windows\system32\msv1_0.dll
iphlpapi	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	177.00 KB (181,248 bytes)	
	3/25/2005 6:00 AM Microsoft Corporation		c:\windows\system32\iphlpapi.dll
netlogon	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	666.00 KB (681,984 bytes)	
	3/25/2005 6:00 AM Microsoft Corporation		c:\windows\system32\netlogon.dll
w32time	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	400.50 KB (410,112 bytes)	
	3/25/2005 6:00 AM Microsoft Corporation		c:\windows\system32\w32time.dll
schannel	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	248.00 KB (253,952 bytes)	
	3/25/2005 6:00 AM Microsoft Corporation		c:\windows\system32\schannel.dll

APPENDIX C - TUNABLE PARAMETERS

wdigest	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	130.50 KB (133,632 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\wdigest.dll
rassfm	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	36.00 KB (36,864 bytes)
AM	Microsoft Corporation	c:\windows\system32\rassfm.dll
kdcsvc	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	409.00 KB (418,816 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\kdcsvc.dll
ntdsa	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	2.81 MB (2,948,096 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\ntdsa.dll
esent	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	2.26 MB (2,366,976 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\esent.dll
ntdsatq	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	51.00 KB (52,224 bytes)
AM	Microsoft Corporation	c:\windows\system32\ntdsatq.dll
msswsock	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	478.00 KB (489,472 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\msswsock.dll
scecli	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	308.00 KB (315,392 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\scecli.dll
ws03res	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	794.00 KB (813,056 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\ws03res.dll
hnetcfg	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	561.00 KB (574,464 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\hnetcfg.dll
wshtcpip	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	29.00 KB (29,696 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\wshtcpip.dll
ipsecsvc	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	358.50 KB (367,104 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\ipsecsvc.dll
oakley	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	372.50 KB (381,440 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\oakley.dll
winiipsec	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	52.50 KB (53,760 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\winiipsec.dll
pstorsvc	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	36.00 KB (36,864 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\pstorsvc.dll
psbase	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	124.00 KB (126,976 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\psbase.dll
dssenh	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	226.96 KB (232,408 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\dssenh.dll
wlbsctrl	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	137.50 KB (140,800 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\wlbsctrl.dll
w3ssl	6.0.3790.1830 (srv03_sp1_rtm.050324-1447)	21.00 KB (21,504 bytes)
AM	Microsoft Corporation	c:\windows\system32\w3ssl.dll
strmfilt	6.0.3790.1830 (srv03_sp1_rtm.050324-1447)	131.50 KB (134,656 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\strmfilt.dll
httpapi	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	36.50 KB (37,376 bytes)
AM	Microsoft Corporation	c:\windows\system32\httpapi.dll
svchost	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	24.50 KB (25,088 bytes)
AM	Microsoft Corporation	c:\windows\system32\svchost.exe
rpcss	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	672.00 KB (688,128 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\rpcss.dll
wzcsvc	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	492.00 KB (503,808 bytes)
	3/24/2005 11:35 AM Microsoft Corporation	c:\windows\system32\wzcsvc.dll
rtutils	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	66.00 KB (67,584 bytes)
AM	Microsoft Corporation	c:\windows\system32\rtutils.dll
wmi	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	5.50 KB (5,632 bytes)
AM	Microsoft Corporation	c:\windows\system32\wmi.dll
dhcpcsvc	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	219.00 KB (224,256 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\dhcpcsvc.dll

APPENDIX C - TUNABLE PARAMETERS

atl	3.05.2284	96.50 KB (98,816 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\atl.dll
rastls	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	236.50 KB (242,176 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\rastls.dll
cryptui	5.131.3790.1830 (srv03_sp1_rtm.050324-1447)	705.50 KB (722,432 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\cryptui.dll
mprapi	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	154.50 KB (158,208 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\mprapi.dll
activeds	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	348.50 KB (356,864 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\activeds.dll
adslidpc	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	240.50 KB (246,272 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\adslidpc.dll
credui	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	202.00 KB (206,848 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\credui.dll
rasapi32	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	410.00 KB (419,840 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\rasapi32.dll
rasman	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	95.50 KB (97,792 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\rasman.dll
tapi32	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	332.50 KB (340,480 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\tapi32.dll
raschap	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	141.00 KB (144,384 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\raschap.dll
schedsvc	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	308.50 KB (315,904 bytes)	10/11/2009 5:51 PM	Microsoft Corporation	c:\windows\system32\schedsvc.dll
wiarpc	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	57.00 KB (58,368 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\wiarpc.dll
msidle	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	9.00 KB (9,216 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\msidle.dll
wkssvc	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	221.00 KB (226,304 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\wkssvc.dll
aelupsvc	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	31.50 KB (32,256 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\aelupsvc.dll
apphelp	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	241.00 KB (246,784 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\apphelp.dll
cryptsvc	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	114.00 KB (116,736 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\cryptsvc.dll
certcli	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	372.00 KB (380,928 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\certcli.dll
vssapi	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	1.26 MB (1,320,960 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\vssapi.dll
dmserver	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	36.50 KB (37,376 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\dmserver.dll
es	2001.12.4720.1830 (srv03_sp1_rtm.050324-1447)	357.00 KB (365,568 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\es.dll
pchsvc	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	76.00 KB (77,824 bytes)	10/11/2009 5:51 PM	Microsoft Corporation	c:\windows\pchealth\helpctr\binaries\pchsvc.dll
srvsvc	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	156.50 KB (160,256 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\srvsvc.dll
seclogon	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	27.50 KB (28,160 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\seclogon.dll
sens	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	63.50 KB (65,024 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\sens.dll
trkwks	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	177.50 KB (181,760 bytes)	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\trkwks.dll

APPENDIX C - TUNABLE PARAMETERS

wmisvc	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	227.00 KB (232,448 bytes)
	10/11/2009 5:49 PM Microsoft Corporation	c:\windows\system32\wbem\wmisvc.dll
wuauerv	5.7.3790.1830 (srv03_sp1_rtm.050324-1447)	12.00 KB (12,288 bytes)
	10/11/2009 5:51 PM Microsoft Corporation	c:\windows\system32\wuauerv.dll
wuaueng	5.7.3790.1830 (srv03_sp1_rtm.050324-1447)	2.17 MB (2,270,720 bytes)
	10/11/2009 5:51 PM Microsoft Corporation	c:\windows\system32\wuaueng.dll
advpack	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	146.00 KB (149,504 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\advpack.dll
cabinet	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	138.50 KB (141,824 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\cabinet.dll
mspatcha	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	48.00 KB (49,152 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\mspachta.dll
shfolder	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	34.00 KB (34,816 bytes)
	AM Microsoft Corporation	c:\windows\system32\shfolder.dll
winhttp	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	508.50 KB (520,704 bytes)
	10/11/2009 10:40 AM Microsoft Corporation	c:\windows\winsxs\amd64_microsoft.windows.winhttp_6595b64144ccf1df_5.1.3790.1830_x-ww_a61ef4db\winhttp.dll
comsvcs	2001.12.4720.1830 (srv03_sp1_rtm.050324-1447)	2.06 MB (2,156,544 bytes)
	10/11/2009 5:49 PM Microsoft Corporation	c:\windows\system32\comsvcs.dll
wbemcore	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	1.24 MB (1,299,968 bytes)
	10/11/2009 5:49 PM Microsoft Corporation	c:\windows\system32\wbem\wbemcore.dll
esscli	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	626.50 KB (641,536 bytes)
	10/11/2009 5:49 PM Microsoft Corporation	c:\windows\system32\wbem\esscli.dll
wmiutils	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	171.00 KB (175,104 bytes)
	10/11/2009 5:49 PM Microsoft Corporation	c:\windows\system32\wbem\wmiutils.dll
repdrvfs	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	353.50 KB (361,984 bytes)
	10/11/2009 5:49 PM Microsoft Corporation	c:\windows\system32\wbem\repdrvfs.dll
wmiprvsd	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	743.00 KB (760,832 bytes)
	10/11/2009 5:49 PM Microsoft Corporation	c:\windows\system32\wbem\wmiprvsd.dll
wbemess	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	532.50 KB (545,280 bytes)
	10/11/2009 5:49 PM Microsoft Corporation	c:\windows\system32\wbem\wbemess.dll
ntlsapi	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	11.00 KB (11,264 bytes)
	AM Microsoft Corporation	c:\windows\system32\ntlsapi.dll
wups	5.7.3790.1830 (srv03_sp1_rtm.050324-1447)	37.50 KB (38,400 bytes)
	10/11/2009 5:51 PM Microsoft Corporation	c:\windows\system32\wups.dll
ncprov	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	73.00 KB (74,752 bytes)
	10/11/2009 5:49 PM Microsoft Corporation	c:\windows\system32\wbem\ncprov.dll
netman	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	457.00 KB (467,968 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\netman.dll
netshell	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	2.32 MB (2,437,120 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\netshell.dll
clusapi	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	127.00 KB (130,048 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\clusapi.dll
wininet	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	1.13 MB (1,186,304 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\wininet.dll
wzcsapi	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	49.00 KB (50,176 bytes)
	3/24/2005 11:35 AM Microsoft Corporation	c:\windows\system32\wzcsapi.dll
rasdlg	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	859.50 KB (880,128 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\rasdlg.dll
rasadhlp	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	12.00 KB (12,288 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\rasadhlp.dll

APPENDIX C - TUNABLE PARAMETERS

spoolsv	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	107.00 KB (109,568 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\spoolsv.exe
spoolss	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	163.00 KB (166,912 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\spoolss.dll
localspl	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	730.50 KB (748,032 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\localspl.dll
cnbjmon	5.2.3790.1224 (dnsvr(skatar).040514-1058)	63.00 KB (64,512 bytes)
	3/24/2005 11:15 AM Microsoft Corporation	c:\windows\system32\cnbjmon.dll
pjlmon	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	25.50 KB (26,112 bytes)
	3/24/2005 11:22 AM Microsoft Corporation	c:\windows\system32\pjlmon.dll
tcpmon	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	91.00 KB (93,184 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\tcpmon.dll
wsnmp32	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	67.50 KB (69,120 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\wsnmp32.dll
tcpmib	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	25.00 KB (25,600 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\tcpmib.dll
wsock32	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	24.50 KB (25,088 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\wsock32.dll
mgmtapi	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	22.50 KB (23,040 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\mgmtapi.dll
snmpapi	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	31.50 KB (32,256 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\snmpapi.dll
usbmon	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	28.50 KB (29,184 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\usbmon.dll
filterpipelineprintproc	6.0.6000.16438 (winmain(wmbla).070123-1244)	35.00 KB (35,840 bytes)
	10/13/2009 7:49 PM Microsoft Corporation	c:\windows\system32\spool\prtprocs\x64\filterpipelineprintproc.dll
winrnr	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	30.00 KB (30,720 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\winrnr.dll
wshqos	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	33.50 KB (34,304 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\wshqos.dll
win32spl	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	167.00 KB (171,008 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\win32spl.dll
netrap	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	26.00 KB (26,624 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\netrap.dll
inetpp	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	148.50 KB (152,064 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\inetpp.dll
icmp	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	3.50 KB (3,584 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\icmp.dll
ersvc	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	31.00 KB (31,744 bytes)
	3/25/2005 6:00 AM Microsoft Corporation	c:\windows\system32\ersvc.dll
inetinfo	6.0.3790.1830 (srv03_sp1_rtm.050324-1447)	17.50 KB (17,920 bytes)
	10/11/2009 8:17 PM Microsoft Corporation	c:\windows\system32\inetsrv\inetinfo.exe
iisutil	6.0.3790.1830 (srv03_sp1_rtm.050324-1447)	316.50 KB (324,096 bytes)
	10/11/2009 8:17 PM Microsoft Corporation	c:\windows\system32\inetsrv\iisutil.dll
rpcref	6.0.3790.1830 (srv03_sp1_rtm.050324-1447)	4.50 KB (4,608 bytes)
	10/11/2009 8:17 PM Microsoft Corporation	c:\windows\system32\inetsrv\rpcref.dll
iisrtl	6.0.3790.1830 (srv03_sp1_rtm.050324-1447)	225.00 KB (230,400 bytes)
	10/11/2009 6:50 PM Microsoft Corporation	c:\windows\system32\iisrtl.dll
iisadmin	6.0.3790.1830 (srv03_sp1_rtm.050324-1447)	30.00 KB (30,720 bytes)
	10/11/2009 8:17 PM Microsoft Corporation	c:\windows\system32\inetsrv\iisadmin.dll
coadmin	6.0.3790.1830 (srv03_sp1_rtm.050324-1447)	100.50 KB (102,912 bytes)
	10/11/2009 8:17 PM Microsoft Corporation	c:\windows\system32\inetsrv\coadmin.dll

APPENDIX C - TUNABLE PARAMETERS

admwprox	6.0.3790.1830 (srv03_sp1_rtm.050324-1447)	66.00 KB (67,584 bytes)	
	10/11/2009 6:50 PM	Microsoft Corporation	c:\windows\system32\admwprox.dll
iiscfg	6.0.3790.1830 (srv03_sp1_rtm.050324-1447)	1.24 MB (1,298,432 bytes)	
	10/11/2009 8:17 PM	Microsoft Corporation	c:\windows\system32\inetsrv\iiscfg.dll
metadata	6.0.3790.1830 (srv03_sp1_rtm.050324-1447)	342.00 KB (350,208 bytes)	
	10/11/2009 8:17 PM	Microsoft Corporation	c:\windows\system32\inetsrv\metadata.dll
msxml3	8.70.1104.0	2.04 MB (2,141,184 bytes)	3/25/2005 6:00 AM Microsoft Corporation
			c:\windows\system32\msxml3.dll
svcxext	6.0.3790.1830 (srv03_sp1_rtm.050324-1447)	60.50 KB (61,952 bytes)	10/11/2009 8:17 PM
		Microsoft Corporation	c:\windows\system32\inetsrv\svcxext.dll
security	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	6.00 KB (6,144 bytes)	3/25/2005 6:00 AM
		Microsoft Corporation	c:\windows\system32\security.dll
iismap	6.0.3790.1830 (srv03_sp1_rtm.050324-1447)	97.00 KB (99,328 bytes)	10/11/2009 8:17 PM
		Microsoft Corporation	c:\windows\system32\iismap.dll
wamreg	6.0.3790.1830 (srv03_sp1_rtm.050324-1447)	78.50 KB (80,384 bytes)	10/11/2009 8:17 PM
		Microsoft Corporation	c:\windows\system32\inetsrv\wamreg.dll
iisw3adm	6.0.3790.1830 (srv03_sp1_rtm.050324-1447)	305.00 KB (312,320 bytes)	
	10/11/2009 8:17 PM	Microsoft Corporation	c:\windows\system32\inetsrv\iisw3adm.dll
w3cache	6.0.3790.1830 (srv03_sp1_rtm.050324-1447)	27.50 KB (28,160 bytes)	
	10/11/2009 8:17 PM	Microsoft Corporation	c:\windows\system32\inetsrv\w3cache.dll
w3tp	6.0.3790.1830 (srv03_sp1_rtm.050324-1447)	16.00 KB (16,384 bytes)	10/11/2009 8:17 PM
		Microsoft Corporation	c:\windows\system32\inetsrv\w3tp.dll
lonsint	6.0.3790.1830 (srv03_sp1_rtm.050324-1447)	17.50 KB (17,920 bytes)	10/11/2009 8:17 PM
		Microsoft Corporation	c:\windows\system32\inetsrv\lonsint.dll
dfssvc	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	311.50 KB (318,976 bytes)	
	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\dfssvc.exe
resutils	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	98.50 KB (100,864 bytes)	
	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\resutils.dll
termsrv	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	354.50 KB (363,008 bytes)	
	10/11/2009 5:49 PM	Microsoft Corporation	c:\windows\system32\termsrv.dll
icaapi	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	27.50 KB (28,160 bytes)	10/11/2009 5:49 PM
		Microsoft Corporation	c:\windows\system32\icaapi.dll
mstlsapi	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	187.00 KB (191,488 bytes)	
	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\mstlsapi.dll
rdpwsx	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	170.13 KB (174,216 bytes)	
	10/11/2009 5:49 PM	Microsoft Corporation	c:\windows\system32\rdpwsx.dll
explorer	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	1.30 MB (1,364,480 bytes)	
	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\explorer.exe
browseui	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	1.53 MB (1,601,536 bytes)	
	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\browseui.dll
shdocvw	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	2.30 MB (2,416,128 bytes)	
	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\shdocvw.dll
themeui	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	530.50 KB (543,232 bytes)	
	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\themeui.dll
msimg32	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	6.50 KB (6,656 bytes)	
	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\msimg32.dll
actxprxy	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	220.50 KB (225,792 bytes)	
	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\actxprxy.dll
linkinfo	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	30.00 KB (30,720 bytes)	3/25/2005 6:00 AM
		Microsoft Corporation	c:\windows\system32\linkinfo.dll
ntshru	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	184.00 KB (188,416 bytes)	
	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\ntshru.dll

APPENDIX C - TUNABLE PARAMETERS

browselc	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	63.00 KB (64,512 bytes)	
	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\browselc.dll
urlmon	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	1.02 MB (1,074,176 bytes)	
	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32?urlmon.dll
msi	3.1.4000.1830	4.27 MB (4,476,416 bytes)	3/25/2005 6:00 AM Microsoft Corporation
			c:\windows\system32\msi.dll
webcheck	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	439.00 KB (449,536 bytes)	
	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\webcheck.dll
stobject	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	142.50 KB (145,920 bytes)	
	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\stobject.dll
batmeter	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	41.50 KB (42,496 bytes)	
	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\batmeter.dll
powrprof	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	32.50 KB (33,280 bytes)	
	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\powrprof.dll
shdoclc	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	589.50 KB (603,648 bytes)	
	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\shdoclc.dll
bacstray	8, 3, 11, 0	105.00 KB (107,520 bytes)	4/4/2006 11:42 PM
	Broadcom Corporation		c:\program files\broadcom\bacs\bacstray.exe
mfc42	6.50.9146.0	1.40 MB (1,470,464 bytes)	3/25/2005 6:00 AM Microsoft Corporation
			c:\windows\system32\mfc42.dll
wuauclt	5.7.3790.1830 (srv03_sp1_rtm.050324-1447)	156.00 KB (159,744 bytes)	
	10/11/2009 5:51 PM	Microsoft Corporation	c:\windows\system32\wuauclt.exe
wuauclt	5.7.3790.1830 (srv03_sp1_rtm.050324-1447)	177.50 KB (181,760 bytes)	
	10/11/2009 5:51 PM	Microsoft Corporation	c:\windows\system32\wuauclt.cpl
helpctr	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	1.30 MB (1,363,456 bytes)	
	10/11/2009 5:51 PM	Microsoft Corporation	c:\windows\pchealth\helpctr\binaries\helpctr.exe
hcappres	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	7.50 KB (7,680 bytes)	
	10/11/2009 5:51 PM	Microsoft Corporation	c:\windows\pchealth\helpctr\binaries\hcappres.dll
itss	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	208.00 KB (212,992 bytes)	
	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\itss.dll
pchshell	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	155.00 KB (158,720 bytes)	
	10/11/2009 5:51 PM	Microsoft Corporation	c:\windows\pchealth\helpctr\binaries\pchshell.dll
mlang	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	686.00 KB (702,464 bytes)	
	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\mlang.dll
mshtml	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	5.65 MB (5,928,448 bytes)	
	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\mshtml.dll
msls31	3.10.349.0	357.00 KB (365,568 bytes)	3/25/2005 6:00 AM Microsoft Corporation
			c:\windows\system32\msls31.dll
msimtf	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	380.50 KB (389,632 bytes)	
	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\msimtf.dll
msctf	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	617.50 KB (632,320 bytes)	
	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\msctf.dll
jscript	5.6.0.8827	974.50 KB (997,888 bytes)	3/25/2005 6:00 AM Microsoft Corporation
			c:\windows\system32\jscript.dll
imm32	5.2.3790.1830 (srv03_sp1_rtm.050324-1447)	208.00 KB (212,992 bytes)	
	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\imm32.dll
mshtml	6.00.3790.1830 (srv03_sp1_rtm.050324-1447)	905.50 KB (927,232 bytes)	
	3/25/2005 6:00 AM	Microsoft Corporation	c:\windows\system32\mshtml.dll
vbscript	5.6.0.8827	646.50 KB (662,016 bytes)	3/25/2005 6:00 AM Microsoft Corporation
			c:\windows\system32\vbscript.dll

APPENDIX C - TUNABLE PARAMETERS

```

msinfo 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 636.00 KB (651,264 bytes)
        10/11/2009 5:51 PM Microsoft Corporation
        c:\windows\pchealth\helpctr\binaries\msinfo.dll
mfc42u 6.50.9146.0 1.39 MB (1,462,272 bytes) 3/25/2005 6:00 AM Microsoft
Corporation c:\windows\system32\mfc42u.dll
riched32 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 7.00 KB (7,168 bytes)
        3/25/2005 6:00 AM Microsoft Corporation c:\windows\system32\riched32.dll
riched20 5.31.23.1224 1.10 MB (1,157,120 bytes) 3/25/2005 6:00 AM
Microsoft Corporation c:\windows\system32\riched20.dll
mydocs 6.00.3790.1830 (srv03_sp1_rtm.050324-1447) 101.00 KB (103,424 bytes)
        3/25/2005 6:00 AM Microsoft Corporation c:\windows\system32\mydocs.dll
helpsvc 5.2.3790.1830 (srv03_sp1_rtm.050324-1447) 1.52 MB (1,591,296 bytes)
        10/11/2009 5:51 PM Microsoft Corporation
        c:\windows\pchealth\helpctr\binaries\helpsvc.exe

```

[Services]

Display Name	Name	State	Start Mode	Service Type	Path	Error Control	Start Name	Tag ID
Application Experience Lookup Service	AeLookupSvc	Running	Auto	Share Process	c:\windows\system32\svchost.exe -k netsvcs	Normal LocalSystem	0	
Alerter	Alerter	Stopped	Disabled	Share Process	c:\windows\system32\svchost.exe -k localservice	Normal NT	0	
AUTHORITY\LocalService								
Application Layer Gateway Service	ALG	Stopped	Manual	Own Process	c:\windows\system32\alg.exe	Normal NT AUTHORITY\LocalService	0	
Application Management	AppMgmt	Stopped	Manual	Share Process	c:\windows\system32\svchost.exe -k netsvcs	Normal LocalSystem	0	
ASP.NET State Service	aspnet_state	Stopped	Manual	Own Process	c:\windows\microsoft.net\framework64\v2.0.50727\aspnet_state.exe	Normal NT	0	
AUTHORITY\NetworkService								
Windows Audio	AudioSrv	Stopped	Manual	Share Process	c:\windows\system32\svchost.exe -k netsvcs	Normal LocalSystem	0	
Background Intelligent Transfer Service	BITS	Stopped	Manual	Share Process	c:\windows\system32\svchost.exe -k netsvcs	Normal LocalSystem	0	
Computer Browser	Browser	Stopped	Manual	Share Process	c:\windows\system32\svchost.exe -k netsvcs	Normal LocalSystem	0	
Indexing Service	CiSvc	Stopped	Disabled	Share Process	c:\windows\system32\cisvc.exe	Normal LocalSystem	0	
ClipBook	ClipSrv	Stopped	Disabled	Own Process	c:\windows\system32\clipsrv.exe	Normal LocalSystem	0	
.NET Runtime Optimization Service	v2.0.50727_X86	Stopped	Manual	Own Process	c:\windows\microsoft.net\framework\v2.0.50727\mscorsvw.exe	Ignore LocalSystem	0	
.NET Runtime Optimization Service	v2.0.50727_x64	Stopped	Manual	Own Process	c:\windows\microsoft.net\framework64\v2.0.50727\mscorsvw.exe	Ignore LocalSystem	0	
COM+ System Application	COMSysApp	Stopped	Manual	Own Process	c:\windows\system32\dlhhost.exe /processid:{02d4b3f1-fd88-11d1-960d-00805fc79235}	Normal LocalSystem	0	
Cryptographic Services	CryptSvc	Running	Auto	Share Process	c:\windows\system32\svchost.exe -k netsvcs	Normal LocalSystem	0	

APPENDIX C - TUNABLE PARAMETERS

DCOM Server Process Launcher	DcomLaunch	Running	Auto	Share Process	
c:\windows\system32\svchost.exe -k dcomlaunch			Normal	LocalSystem	0
Distributed File System Dfs	Running	Auto	Own Process		
c:\windows\system32\dfsrv.exe			Normal	LocalSystem	0
DHCP Client Dhcp	Running	Auto	Share Process		
c:\windows\system32\svchost.exe -k networkservice			Normal	NT	
AUTHORITY\NetworkService		0			
Logical Disk Manager Administrative Service	dmdm	Stopped	Manual	Share	
Process	c:\windows\system32\dmdm.exe /com		Normal	LocalSystem	0
Logical Disk Manager dmserver	Running	Auto	Share Process		
c:\windows\system32\svchost.exe -k netsvcs			Normal	LocalSystem	0
DNS Client Dnscache	Running	Auto	Share Process		
c:\windows\system32\svchost.exe -k networkservice			Normal	NT	
AUTHORITY\NetworkService		0			
Error Reporting Service ERSvc	Running	Auto	Share Process		
c:\windows\system32\svchost.exe -k winerr			Ignore	LocalSystem	0
Event Log Eventlog	Running	Auto	Share Process		
c:\windows\system32\services.exe			Normal	LocalSystem	0
COM+ Event System EventSystem	Running	Auto	Share Process		
c:\windows\system32\svchost.exe -k netsvcs			Normal	LocalSystem	0
Windows Presentation Foundation Font Cache 3.0.0.0	FontCache3.0.0.0	Stopped			
Manual Own Process					
c:\windows\microsoft.net\framework64\v3.0\wpf\presentationfontcache.exe					Normal
NT AUTHORITY\LocalService		0			
Help and Support helpsvc	Running	Auto	Share Process		
c:\windows\system32\svchost.exe -k netsvcs			Normal	LocalSystem	0
Human Interface Device Access HidServ	Stopped	Disabled	Share Process		
c:\windows\system32\svchost.exe -k netsvcs			Normal	LocalSystem	0
HTTP SSL HTTPFilter	Running	Manual	Share Process		
c:\windows\system32\lsass.exe			Normal	LocalSystem	0
IAS Jet Database Access IASJet	Stopped	Manual	Share Process		
c:\windows\syswow64\svchost.exe -k iasjet			Normal	LocalSystem	0
Windows CardSpace idsvc	Stopped	Manual	Share Process		
"c:\windows\microsoft.net\framework64\v3.0\windows communication foundation\infocard.exe"			Normal	LocalSystem	0
IIS Admin Service IISADMIN	Running	Auto	Share Process		
c:\windows\system32\inetinfo.exe			Normal	LocalSystem	0
IMAPI CD-Burning COM Service ImapiService	Stopped	Disabled	Own		
Process	c:\windows\system32\imapi.exe		Normal	LocalSystem	0
Intersite Messaging IsmServ	Stopped	Disabled	Own Process		
c:\windows\system32\ismserv.exe			Normal	LocalSystem	0
Kerberos Key Distribution Center kdc	Stopped	Disabled	Share Process		
c:\windows\system32\lsass.exe			Normal	LocalSystem	0
Server lanmanserver	Running	Auto	Share Process		
c:\windows\system32\svchost.exe -k netsvcs			Normal	LocalSystem	0
Workstation LanmanWorkstation	Running	Auto	Share Process		
c:\windows\system32\svchost.exe -k netsvcs			Normal	LocalSystem	0
License Logging LicenseService	Stopped	Disabled	Own Process		
c:\windows\system32\llssrv.exe			Normal	NT AUTHORITY\NetworkService	0
TCP/IP NetBIOS Helper LmHosts	Running	Auto	Share Process		
c:\windows\system32\svchost.exe -k localservice			Normal	NT	
AUTHORITY\LocalService		0			
Messenger Messenger	Stopped	Disabled	Share Process		
c:\windows\system32\svchost.exe -k netsvcs			Normal	LocalSystem	0

APPENDIX C - TUNABLE PARAMETERS

NetMeeting Remote Desktop Sharing Process	mnmsrvc	Stopped	Disabled	Own
c:\windows\system32\mnmsrvc.exe Normal LocalSystem 0				
Distributed Transaction Coordinator	MSDTCRunning	Auto	Own Process	
c:\windows\system32\msdtc.exe Normal NT AUTHORITY\NetworkService 0				
Windows Installer	MSIServer	Stopped	Manual Share Process	
c:\windows\system32\msiexec.exe /v Normal LocalSystem 0				
SQL Server (SQLEXPRESS)	MSSQL\$SQLEXPRESS	Stopped	Manual Own Process	
"c:\program files (x86)\microsoft sql server\mssql.1\mssql\binn\sqlservr.exe" -ssqlexpress Normal NT AUTHORITY\NetworkService 0				
SQL Server Active Directory Helper	MSSQLServerADHelper	Stopped	Disabled	
Own Process "c:\program files (x86)\microsoft sql server\90\shared\sqladhlp90.exe" Normal NT AUTHORITY\NetworkService 0				
Visual Studio 2008 Remote Debugger Process	msvsmon90	Stopped	Disabled	Own
"c:\program files\microsoft visual studio 9.0\common7\ide\remote debugger\x64\msvsmon.exe" /service msvsmon90 Ignore LocalSystem 0				
Network DDE	NetDDE	Stopped	Disabled	Share Process
c:\windows\system32\netdde.exe Normal LocalSystem 0				
Network DDE DSDM	NetDDEdsdm	Stopped	Disabled	Share Process
c:\windows\system32\netdde.exe Normal LocalSystem 0				
Net Logon	Netlogon	Stopped	Manual Share Process	
c:\windows\system32\lsass.exe Normal LocalSystem 0				
Network Connections	Netman	Running	Manual Share Process	
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0				
Net.Tcp Port Sharing Service Process	NetTcpPortSharing	Stopped	Disabled	Share
"c:\windows\microsoft.net\framework64\v3.0\windows communication foundation\smsvchost.exe" Normal NT AUTHORITY\LocalService 0				
Network Location Awareness (NLA)	Nla	Running	Manual Share Process	
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0				
File Replication NtFrs		Stopped	Manual Own Process	c:\windows\system32\ntfrs.exe
Ignore LocalSystem 0				
NT LM Security Support Provider	NtLmSsp	Stopped	Manual Share Process	
c:\windows\system32\lsass.exe Normal LocalSystem 0				
Removable Storage	NtmsSvc	Stopped	Manual Share Process	
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0				
Office Source Engine	ose	Stopped	Manual Own Process	"c:\program files (x86)\common files\microsoft shared\source engine\ose.exe"
Normal LocalSystem 0				
Plug and Play	PlugPlay	Running	Auto Share Process	
c:\windows\system32\services.exe Normal LocalSystem 0				
IPSEC Services Policy Agent		Running	Auto Share Process	
c:\windows\system32\lsass.exe Normal LocalSystem 0				
Protected Storage	ProtectedStorage	Running	Auto	Share Process
c:\windows\system32\lsass.exe Normal LocalSystem 0				
Remote Access Auto Connection Manager Process	RasAuto	Stopped	Manual Share	
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0				
Remote Access Connection Manager	RasMan	Stopped	Manual Share Process	
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0				
Remote Desktop Help Session Manager	RDSessMgr	Stopped	Manual Own Process	
c:\windows\system32\sessmgr.exe Normal LocalSystem 0				
Routing and Remote Access	RemoteAccess	Stopped	Disabled	Share Process
c:\windows\system32\svchost.exe -k netsvcs Normal LocalSystem 0				
Remote Registry	RemoteRegistry	Running	Auto	Share Process
c:\windows\system32\svchost.exe -k regsvc Normal NT AUTHORITY\LocalService 0				

APPENDIX C - TUNABLE PARAMETERS

Remote Procedure Call (RPC) Locator	RpcLocator	Stopped	Manual Own Process
c:\windows\system32\locator.exe	Normal	NT AUTHORITY\NetworkService	0
Remote Procedure Call (RPC)	RpcSs	Running	Auto Share Process
c:\windows\system32\svchost.exe -k rpcss	Normal	NT AUTHORITY\NetworkService	0
Resultant Set of Policy Provider	RSOPProv	Stopped	Manual Share Process
c:\windows\system32\rsopprov.exe	Normal	LocalSystem	0
Special Administration Console Helper	sacsvr	Stopped	Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs	Normal	LocalSystem	0
Security Accounts Manager	SamSs	Running	Auto Share Process
c:\windows\system32\lsass.exe	Normal	LocalSystem	0
Smart Card	SCardSvr	Stopped	Manual Share Process
c:\windows\system32\scardsvr.exe	Ignore	NT AUTHORITY\LocalService	0
Task Scheduler Schedule	Running	Auto	Share Process
c:\windows\system32\svchost.exe -k netsvcs	Normal	LocalSystem	0
Secondary Logon	seclogon	Running	Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs	Ignore	LocalSystem	0
System Event Notification	SENS	Running	Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs	Normal	LocalSystem	0
Windows Firewall/Internet Connection Sharing (ICS)	Disabled	Share Process	Stopped
c:\windows\system32\svchost.exe -k netsvcs	Normal	LocalSystem	0
Shell Hardware Detection	ShellHWDetection	Running	Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs	Ignore	LocalSystem	0
Print Spooler	Spooler	Running	Auto Own Process
c:\windows\system32\spoolsv.exe	Normal	LocalSystem	0
SQL Server Browser	SQLBrowser	Stopped	Disabled Own Process
"c:\program files (x86)\microsoft sql server\90\shared\sqlbrowser.exe"	Normal	NT AUTHORITY\NetworkService	0
SQL Server VSS Writer	SQLWriter	Stopped	Manual Own Process
files\microsoft sql server\90\shared\sqlwriter.exe"	Normal	LocalSystem	0
Windows Image Acquisition (WIA)	stisvc	Stopped	Disabled Share Process
c:\windows\system32\svchost.exe -k imgsvc	Normal	NT AUTHORITY\LocalService	0
Microsoft Software Shadow Copy Provider	swprv	Stopped	Manual Own Process
c:\windows\system32\svchost.exe -k swprv	Normal	LocalSystem	0
Performance Logs and Alerts	SysmonLog	Stopped	Auto Own Process
c:\windows\system32\smlogsvc.exe	Normal	NT Authority\NetworkService	0
Telephony	TapiSrv	Stopped	Manual Share Process
c:\windows\system32\svchost.exe -k tapisrv	Normal	LocalSystem	0
Terminal Services	TermService	Running	Manual Share Process
c:\windows\system32\svchost.exe -k termsvc	Normal	LocalSystem	0
Themes	Themes	Stopped	Disabled Share Process
c:\windows\system32\svchost.exe -k netsvcs	Normal	LocalSystem	0
Telnet	TIntSvr	Stopped	Disabled Own Process
c:\windows\system32\tlntsvr.exe	Normal	NT AUTHORITY\LocalService	0
Distributed Link Tracking Server	TrkSvr	Stopped	Disabled Share Process
c:\windows\system32\svchost.exe -k netsvcs	Normal	LocalSystem	0
Distributed Link Tracking Client	TrkWks	Running	Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs	Normal	LocalSystem	0
Terminal Services Session Directory	Tssdis	Stopped	Disabled Own Process
c:\windows\system32\tssdis.exe	Normal	LocalSystem	0
Windows User Mode Driver Framework	UMWdf	Stopped	Manual Own Process
c:\windows\system32\wdfmgr.exe	Normal	NT AUTHORITY\LocalService	0

APPENDIX C - TUNABLE PARAMETERS

Uninterruptible Power Supply	UPS	Stopped	Manual Own Process	
c:\windows\system32\ups.exe		Normal NT AUTHORITY\LocalService	0	
Virtual Disk Service	vds	Stopped	Manual Own Process	
c:\windows\system32\vds.exe		Normal LocalSystem	0	
Volume Shadow Copy	VSS	Stopped	Manual Own Process	
c:\windows\system32\vssvc.exe		Normal LocalSystem	0	
Windows Time	W32Time	Stopped	Manual Share Process	
c:\windows\system32\svchost.exe -k localservice		Normal NT AUTHORITY\LocalService	0	
World Wide Web Publishing Service	W3SVC	Running	Auto Share Process	
c:\windows\system32\svchost.exe -k iissvcs		Normal LocalSystem	0	
WebClient	WebClient	Stopped	Disabled Share Process	
c:\windows\system32\svchost.exe -k localservice		Normal NT AUTHORITY\LocalService	0	
WinHTTP Web Proxy Auto-Discovery Service	WinHttpAutoProxySvc	Stopped	Manual Share Process	
c:\windows\system32\svchost.exe -k localservice		Normal NT AUTHORITY\LocalService	0	
Windows Management Instrumentation	winmgmt	Running	Auto Share Process	
c:\windows\system32\svchost.exe -k netsvcs		Ignore LocalSystem	0	
Portable Media Serial Number Service	WmdmPmSN	Stopped	Manual Share Process	
c:\windows\system32\svchost.exe -k netsvcs		Normal LocalSystem	0	
Windows Management Instrumentation Driver Extensions	Wmi	Stopped	Manual Share Process	
c:\windows\system32\svchost.exe -k netsvcs		Normal LocalSystem	0	
WMI Performance Adapter	WmiApSrv	Stopped	Manual Own Process	
c:\windows\system32\wbem\wmiapsrv.exe		Normal LocalSystem	0	
Automatic Updates	wuauclt	Running	Auto Share Process	
c:\windows\system32\svchost.exe -k netsvcs		Normal LocalSystem	0	
Wireless Configuration	WZC	Running	Auto Share Process	
c:\windows\system32\svchost.exe -k netsvcs		Normal LocalSystem	0	
Network Provisioning Service	xmlprov	Stopped	Manual Share Process	
c:\windows\system32\svchost.exe -k netsvcs		Normal LocalSystem	0	

[Program Groups]

Group Name	Name	User Name
Accessories	Default User:Accessories	Default User
Accessories\Accessibility	Default User:Accessories\Accessibility	Default User
Accessories\Entertainment	Default User:Accessories\Entertainment	Default User
Startup	Default User:Startup	Default User
Accessories	All Users:Accessories	All Users
Accessories\Accessibility	All Users:Accessories\Accessibility	All Users
Accessories\Communications	All Users:Accessories\Communications	All Users
Accessories\Entertainment	All Users:Accessories\Entertainment	All Users
Accessories\System Tools	All Users:Accessories\System Tools	All Users
Administrative Tools	All Users:Administrative Tools	All Users
Broadcom	All Users:Broadcom	All Users
Microsoft SQL Server 2005	All Users:Microsoft SQL Server 2005	All Users
Microsoft SQL Server 2005\Configuration Tools	All Users:Microsoft SQL Server 2005\Configuration Tools	All Users
Microsoft Visual Studio 2008	All Users:Microsoft Visual Studio 2008	All Users
Microsoft Visual Studio 2008\Visual Studio Remote Tools	All Users:Microsoft Visual Studio 2008\Visual Studio Remote Tools	All Users
Microsoft Visual Studio 2008\Visual Studio Tools	All Users:Microsoft Visual Studio 2008\Visual Studio Tools	All Users

APPENDIX C - TUNABLE PARAMETERS

Microsoft Windows SDK v6.0A All Users:Microsoft Windows SDK v6.0A All Users
Microsoft Windows SDK v6.0A\Tools All Users:Microsoft Windows SDK v6.0A\Tools All Users
Oracle - ORACLE_HOME All Users:Oracle - ORACLE_HOME All Users
Oracle - ORACLE_HOME\Application Development All Users:Oracle - ORACLE_HOME\Application Development All Users
Oracle - ORACLE_HOME\Configuration and Migration Tools All Users:Oracle - ORACLE_HOME\Configuration and Migration Tools All Users
Oracle - ORACLE_HOME\Integrated Management ToolsAll Users:Oracle - ORACLE_HOME\Integrated Management Tools All Users
Oracle - ORACLE_HOME\Oracle Installation Products All Users:Oracle - ORACLE_HOME\Oracle Installation Products All Users
Oracle - ORACLE_HOME\Warehouse Builder All Users:Oracle - ORACLE_HOME\Warehouse Builder All Users
Oracle - ORACLE_HOME\Warehouse Builder\Administration All Users:Oracle - ORACLE_HOME\Warehouse Builder\Administration All Users
Startup All Users:Startup All Users
Accessories NT AUTHORITY\SYSTEM:Accessories NT AUTHORITY\SYSTEM
Accessories\Accessibility NT AUTHORITY\SYSTEM:Accessories\Accessibility NT AUTHORITY\SYSTEM
Accessories\Entertainment NT AUTHORITY\SYSTEM:Accessories\Entertainment NT AUTHORITY\SYSTEM
Startup NT AUTHORITY\SYSTEM:Startup NT AUTHORITY\SYSTEM
Accessories PE1430\Administrator:Accessories PE1430\Administrator
Accessories\Accessibility PE1430\Administrator:Accessories\Accessibility PE1430\Administrator
Accessories\Entertainment PE1430\Administrator:Accessories\Entertainment PE1430\Administrator
Startup PE1430\Administrator:Startup PE1430\Administrator

[Startup Programs]

Program	Command	User Name	Location
desktopdesktop.ini		NT AUTHORITY\SYSTEM	Startup
desktopdesktop.ini		PE1430\Administrator	Startup
desktopdesktop.ini		.DEFAULT	Startup
desktopdesktop.ini		All Users	Common Startup
bacstray	c:\program files\broadcom\bacs\bacstray.exe	All Users	
	HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Run		

[OLE Registration]

Object	Local Server
Sound (OLE2)	sndrec32.exe
Media Clip	mplay32.exe
Video Clip	mplay32.exe /avi
MIDI Sequence	mplay32.exe /mid
Microsoft Equation 3.0	c:\progra~2\common~1\micro~1\equation\eqnedt32.exe
Sound	Not Available
Media Clip	Not Available
WordPad Document	"%programfiles%\windows nt\accessories\wordpad.exe"
Bitmap Image	mspaint.exe

[Windows Error Reporting]

APPENDIX C - TUNABLE PARAMETERS

Time	Type	Details
10/13/2009 7:32 PM	Application Error	Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 7:30 PM	Application Error	Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 7:28 PM	Application Error	Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 7:27 PM	Application Error	Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 7:25 PM	Application Error	Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 7:23 PM	Application Error	Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 5:44 PM	Application Error	Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 5:43 PM	Application Error	Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 5:42 PM	Application Error	Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 5:41 PM	Application Error	Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 5:40 PM	Application Error	Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 5:39 PM	Application Error	Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 5:38 PM	Application Error	Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 5:37 PM	Application Error	Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 5:36 PM	Application Error	Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 5:36 PM	Application Error	Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 5:35 PM	Application Error	Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 5:34 PM	Application Error	Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

APPENDIX C - TUNABLE PARAMETERS

10/13/2009 3:42 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 3:40 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 3:39 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 3:38 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module w3core.dll, version 6.0.3790.1830, fault address 0x00000000000adff.

10/13/2009 3:37 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 3:34 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 3:32 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 3:07 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 3:06 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 3:05 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 3:00 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 2:54 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 2:53 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 2:50 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 2:47 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 2:45 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 2:43 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 2:42 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

APPENDIX C - TUNABLE PARAMETERS

10/13/2009 2:17 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 2:15 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 2:14 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 2:13 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 2:12 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 2:11 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 2:11 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 2:10 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 2:09 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 2:08 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 2:08 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 2:06 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/13/2009 2:03 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module msvcrt.dll, version 7.0.3790.1830, fault address 0x000000000003b222.

10/12/2009 1:45 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module modtpcc.dll, version 0.0.0.0, fault address 0x000000000001f48.

10/12/2009 1:45 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module modtpcc.dll, version 0.0.0.0, fault address 0x000000000001f48.

10/12/2009 1:44 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module modtpcc.dll, version 0.0.0.0, fault address 0x000000000001f48.

10/12/2009 1:43 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module modtpcc.dll, version 0.0.0.0, fault address 0x000000000001f48.

10/12/2009 1:43 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module modtpcc.dll, version 0.0.0.0, fault address 0x000000000001f48.

APPENDIX C - TUNABLE PARAMETERS

10/12/2009 12:08 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module modtpcc.dll, version 0.0.0.0, fault address 0x0000000000001f48.

10/12/2009 12:07 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module modtpcc.dll, version 0.0.0.0, fault address 0x0000000000001f48.

10/12/2009 12:07 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module modtpcc.dll, version 0.0.0.0, fault address 0x0000000000001f48.

10/12/2009 12:06 PM Application Error Faulting application w3wp.exe, version 6.0.3790.1830, faulting module modtpcc.dll, version 0.0.0.0, fault address 0x0000000000001f48.

[Internet Settings]

[Internet Explorer]

[Following are sub-categories of this main category]
[Summary]

Item	Value
Version	6.0.3790.1830
Build	63790.1830
Application Path	C:\Program Files\Internet Explorer
Language	English (United States)
Active Printer	Microsoft XPS Document Writer,winspool,Ne00:

Cipher Strength 128-bit
Content Advisor Disabled
IEAK Install No

[File Versions]

File	Version	Size	Date	Path	Company
actxprxy.dll	6.0.3790.1830	221 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
advpack.dll	6.0.3790.1830	146 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
asctrls.ocx	6.0.3790.1830	147 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
browselc.dll	6.0.3790.1830	63 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
browseui.dll	6.0.3790.1830	1,564 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
cdfview.dll	6.0.3790.1830	216 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
comctl32.dll	5.82.3790.1830	935 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
dxttrans.dll	6.3.3790.1830	320 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
dxtmsft.dll	6.3.3790.1830	549 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	Microsoft Corporation
iecont.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available

APPENDIX C - TUNABLE PARAMETERS

iecontlc.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
iedkcs32.dll	16.0.3790.1830	417 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	
	Microsoft Corporation				
iepeers.dll	6.0.3790.1830	361 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	
	Microsoft Corporation				
iesetup.dll	6.0.3790.1830	71 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	
	Microsoft Corporation				
ieunit.inf	Not Available	24 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	
	Not Available				
ieexplore.exe	6.0.3790.1830	94 KB	3/25/2005 6:00:00 AM	C:\Program Files\Internet Explorer	
	Microsoft Corporation				
imgutil.dll	6.0.3790.1830	61 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	
	Microsoft Corporation				
inetctl.cpl	6.0.3790.1830	428 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	
	Microsoft Corporation				
inetctlc.dll	6.0.3790.1830	110 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	
	Microsoft Corporation				
inseng.dll	6.0.3790.1830	147 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	
	Microsoft Corporation				
mlang.dll	6.0.3790.1830	686 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	
	Microsoft Corporation				
msencode.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
mshta.exe	6.0.3790.1830	38 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	
	Microsoft Corporation				
mshtml.dll	6.0.3790.1830	5,790 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	
	Microsoft Corporation				
mshtml.tlb	6.0.3790.1830	1,320 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	
	Microsoft Corporation				
mshtml.ed.dll	6.0.3790.1830	906 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	
	Microsoft Corporation				
mshtmlr.dll	6.0.3790.1830	56 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	
	Microsoft Corporation				
msident.dll	6.0.3790.1830	69 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	
	Microsoft Corporation				
msidntld.dll	6.0.3790.1830	16 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	
	Microsoft Corporation				
msieftp.dll	6.0.3790.1830	369 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	
	Microsoft Corporation				
msrating.dll	6.0.3790.1830	240 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	
	Microsoft Corporation				
mstime.dll	6.0.3790.1830	878 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	
	Microsoft Corporation				
occache.dll	6.0.3790.1830	126 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	
	Microsoft Corporation				
proctexe.ocx	<File Missing>	Not Available	Not Available	Not Available	Not Available
sendmail.dll	6.0.3790.1830	64 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	
	Microsoft Corporation				
shdoclc.dll	6.0.3790.1830	590 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	
	Microsoft Corporation				
shdocvw.dll	6.0.3790.1830	2,360 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	
	Microsoft Corporation				
shfolder.dll	6.0.3790.1830	34 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	
	Microsoft Corporation				
shlwapi.dll	6.0.3790.1830	607 KB	3/25/2005 6:00:00 AM	C:\WINDOWS\system32	
	Microsoft Corporation				

APPENDIX C - TUNABLE PARAMETERS

tdc.ocx 1.3.0.3130 91 KB 3/25/2005 6:00:00 AM C:\WINDOWS\system32
Microsoft Corporation
url.dll 6.0.3790.1830 40 KB 3/25/2005 6:00:00 AM C:\WINDOWS\system32
Microsoft Corporation
urlmon.dll 6.0.3790.1830 1,049 KB 3/25/2005 6:00:00 AM
C:\WINDOWS\system32 Microsoft Corporation
webcheck.dll 6.0.3790.1830 439 KB 3/25/2005 6:00:00 AM C:\WINDOWS\system32
Microsoft Corporation
wininet.dll 6.0.3790.1830 1,159 KB 3/25/2005 6:00:00 AM
C:\WINDOWS\system32 Microsoft Corporation

[Connectivity]

Item Value
Connection Preference Never dial

LAN Settings

AutoConfigProxy wininet.dll
AutoProxyDetectMode Disabled
AutoConfigURL
Proxy Disabled
ProxyServer
ProxyOverride

[Cache]

[Following are sub-categories of this main category]
[Summary]

Item Value
Page Refresh Type Automatic
Temporary Internet Files Folder C:\Documents and Settings\Administrator\Local
Settings\Temporary Internet Files
Total Disk Space Not Available
Available Disk Space Not Available
Maximum Cache Size Not Available
Available Cache Size Not Available

[List of Objects]

Program File Status CodeBase
No cached object information available

[Content]

[Following are sub-categories of this main category]
[Summary]

Item Value
Content Advisor Disabled

[Personal Certificates]

Issued To	Issued By	Validity	Signature	Algorithm
Dell System Performance Labs			295	Nov 2009

TPC-C Full Disclosure Report
©Copyright 2009 Dell Inc.

APPENDIX C - TUNABLE PARAMETERS

No personal certificate information available

[Other People Certificates]

Issued To	Issued By	Validity	Signature Algorithm
No other people certificate information available			

[Publishers]

Name
No publisher information available

[Security]

Zone	Security Level
My Computer	Custom
Local intranet	Custom
Trusted sites	Low
Internet	Medium
Restricted sites	Custom

Appendix D – Disk Storage

TPM		NWARE			
-----		-----			
239392		19086			
SEGMENT		TYPE	BLOCKS	BLOCK_SIZE	FIVE_PCT
DAILY_GROW		TOTAL			

CUSTCLUSTER		CLUSTER	205003436	2048	10250172
0	215253608				
DB_STAT		SYS	1048576	2048	0
0	1048576				
DISTCLUSTER		CLUSTER	209162	2048	10458
0	219620				
HIST		TABLE	17996586	2048	0
3611643	21608229				
ICUST1		INDEX	797094	16384	39855
0	836949				
ICUST2		INDEX	15779994	2048	789000
0	16568994				
IDIST		INDEX	49262	2048	2463
0	51725				
IITEM		INDEX	5632	2048	282
0	5914				
IORDR2		INDEX	11570871	2048	578544
0	12149415				
ISTOK		INDEX	2439420	16384	121971
0	2561391				
ITEMCLUSTER		CLUSTER	8446	2048	422
0	8868				
IWARE		INDEX	12700	2048	635
0	13335				
NORDCLUSTER_QUEUE		CLUSTER	2437834	2048	121892
0	2559726				
ORDRCLUSTER_QUEUE		CLUSTER	29714727	16384	0
5963297	35678024				
STOKCLUSTER		CLUSTER	278888082	2048	13944404
0	292832486				
SYSAUX		SYS	61440	2048	0
0	61440				
SYSTEM		SYS	204800	2048	0
0	204800				
SYS_IQ0000011992\$\$		INDEX	127668	16384	6383
0	134051				
SYS_IQ0000011996\$\$		INDEX	348262	2048	17413
0	365675				
WARECLUSTER		CLUSTER	21377	2048	1069
0	22446				

SEGMENT		BLOCKS	BLOCK_SIZE	REQUIRED	STATIC
DYNAMIC	OVERSIZE				

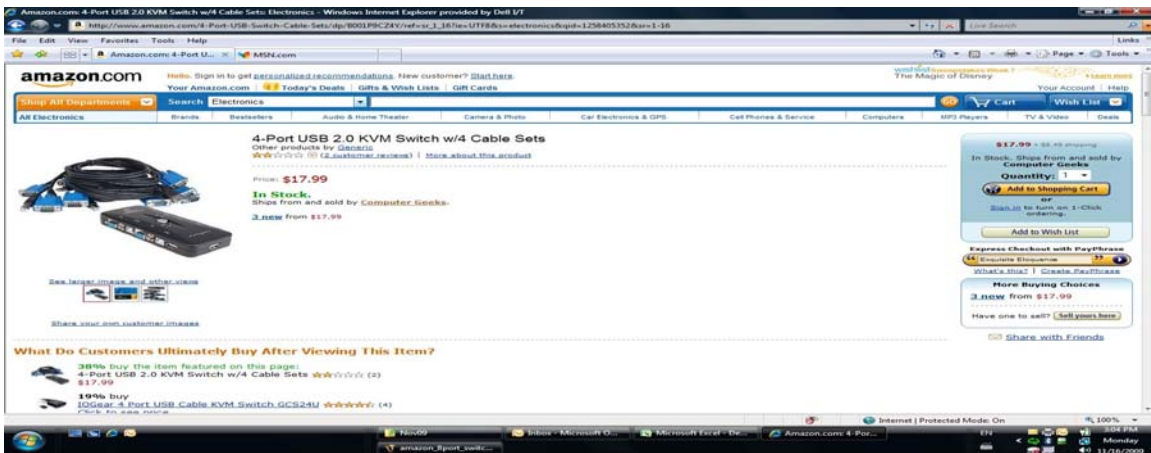
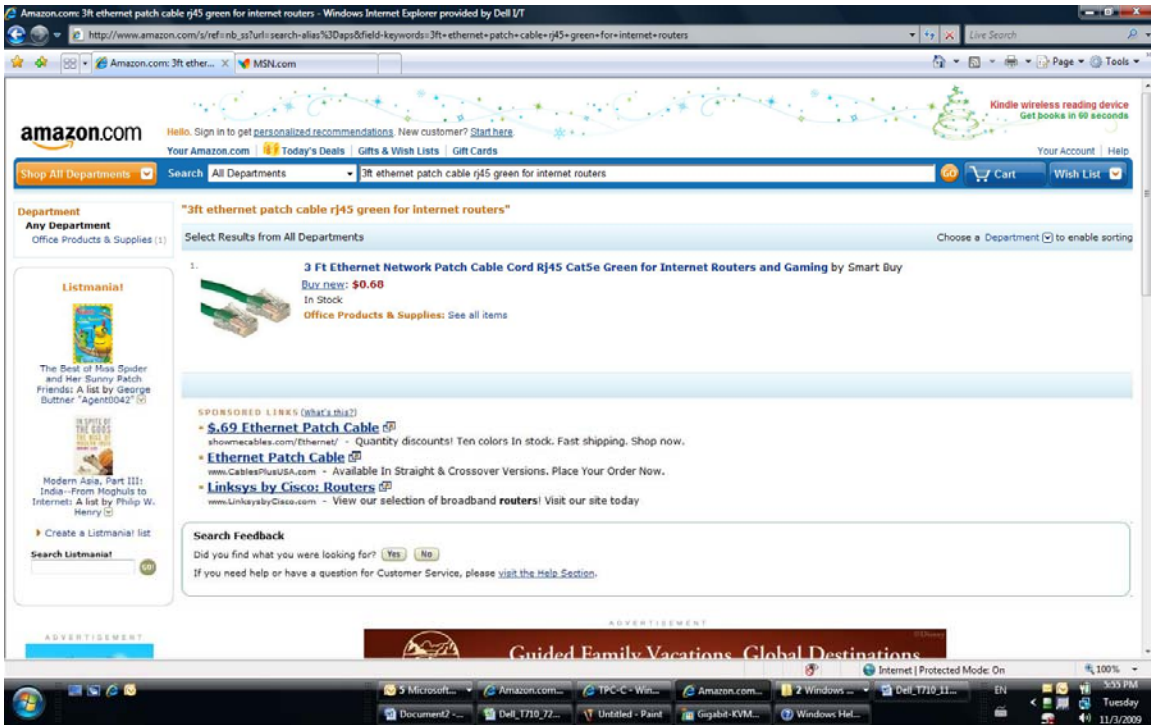
APPENDIX D – DISK STORAGE

CUSTCLUSTER	268369920	2048	215253608	215253608
0 53116312				
DB_STAT	1048576	2048	1048576	1048576
0 0				
DISTCLUSTER	215040	2048	219620	219620
0 -4580				
HIST	29982720	2048	21608229	0
17996586 8374491				
ICUST1	880000	16384	836949	836949
0 43051				
ICUST2	18186240	2048	16568994	16568994
0 1617246				
IDIST	51200	2048	51725	51725
0 -525				
IITEM	10240	2048	5914	5914
0 4326				
IORDR2	17530880	2048	12149415	12149415
0 5381465				
ISTOK	2602240	16384	2561391	2561391
0 40849				
ITEMCLUSTER	10240	2048	8868	8868
0 1372				
IWARE	15360	2048	13335	13335
0 2025				
NORDCLUSTER_QUEUE	3486720	2048	2559726	2559726
0 926994				
ORDRCLUSTER_QUEUE	53125120	16384	35678024	0
29714727 17447096				
STOKCLUSTER	300810240	2048	292832486	292832486
0 7977754				
SYSAUX	61440	2048	61440	61440
0 0				
SYSTEM	204800	2048	204800	204800
0 0				
SYS_IQ0000011992\$\$	53125120	16384	134051	134051
0 52991069				
SYS_IQ0000011996\$\$	3486720	2048	365675	365675
0 3121045				
WARECLUSTER	25600	2048	22446	22446
0 3154				

APPENDIX D – DISK STORAGE

	STATIC -----	DYNAMIC -----	OVERSIZE -----	DAILY_GROV -----	DAILY_SPRE -----	60 Day Space -----
KB	1139251512	511428804	1289395198	102636038	0	7297413792
MB	1112550	499442	1259175	100231	0	7126381
GB	1086	488	1230	98	0	6959
	DATA					
	Disk Capacity	Qty	Total			
146GB	135.5	0	0			
73GB	67.75	194	13,144			
36GB	33.38	0	0			
	LOGs					
	Log size (MB)		35705			
	Chkpt Interval (mins)		26:03:00			
		Space required	Space Configured (GB)			
	Data	6,959.00	13,144.00			
	Logs	642.48	680.63			

Appendix E - Price Quotations



The screenshot displays the Amazon.com product page for a TP-Link TL-SG1008D switch. The product is described as an 8-port Ethernet switch with 10Base-T, 100Base-TX, and 1000Base-T ports. The price is listed as \$35.95, and it is currently in stock. The page includes a search bar, navigation links, and a sidebar with promotional offers. A sponsored section for network setup services is also visible, along with a 'Special Offers' section for Kindle. The browser window shows the URL and the date 11/16/2009.

APPENDIX E – PRICE QUOTATIONS

Product	Price	Quantity	Extended Price
Oracle Database 11g Standard Edition One, Per Processor, Unlimited Users, 3 years	\$2900	1*	\$2900
Oracle Premium Support for 3 years	\$1276	3	\$3828
Oracle TOTAL			\$6728

*When licensing Oracle programs with Standard Edition One or Standard Edition in the product name, a processors is counted equivalent to an occupied socket.

Oracle pricing contact: MaryBeth Pierantoni, mary.beth.pierantoni@oracle.com, 916-315-5081

APPENDIX E – PRICE QUOTATIONS

Microsoft Corporation
One Microsoft Way
Redmond, WA 98052-6399

Tel 425 882 8080
Fax 425 936 7329
<http://www.microsoft.com/>

Microsoft

November 5, 2009

Dell
Gene Purdy
1 Dell Way
Round Rock, TX 78664

Here is the information you requested regarding pricing for several Microsoft products to be used in conjunction with your TPC-C benchmark testing.

All pricing shown is in US Dollars (\$).

Part Number	Description	Unit Price	Quantity	Price
P73-01675	Windows Server 2003 R2 Standard x64 Edition <i>Server License Only - No CALs No Discounts Applied</i>	\$999	3	\$2,997
127-00012	Visual Studio Standard 2005 <i>Full License No Discount Applied</i>	\$250	1	\$250
N/A	Microsoft Problem Resolution Services <i>Professional Support (1 Incident)</i>	\$245	1	\$245

A list of Microsoft's resellers can be found at
<http://www.microsoft.com/products/info/render.aspx?view=22&type=mpn&content=22/licensing>

All products listed above are currently orderable and available.

Defect support is included in the purchase price. Additional support is available from Microsoft PSS on an incident by incident basis at \$245 per call.

This quote is valid for the next 90 days.

Reference ID: PCgepu0911050000002279.