



TPC Benchmark™ C

Full Disclosure Report

NEC Express5800/1320Xd (32 SMP)

**with Oracle® Database 10g Enterprise Edition
and
Microsoft® Windows® Server 2003, Datacenter Edition
for 64-bit Itanium-based Systems**

**Second Edition
Submitted for Review
September 8, 2003**

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Benchmark results are highly dependent upon workload, specific application requirements, and system design and implementation. Relative system performance will vary as a result of these and other factors. Therefore, TPC BenchmarkTM 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. Results obtained in other operating environments may vary significantly. NEC does not warrant or represent that a user can or will achieve similar performance expressed in transactions per minute (tpmC) or normalized price/performance (\$/tpmC). No warranty of system performance or price/performance is expressed or implied in this report.

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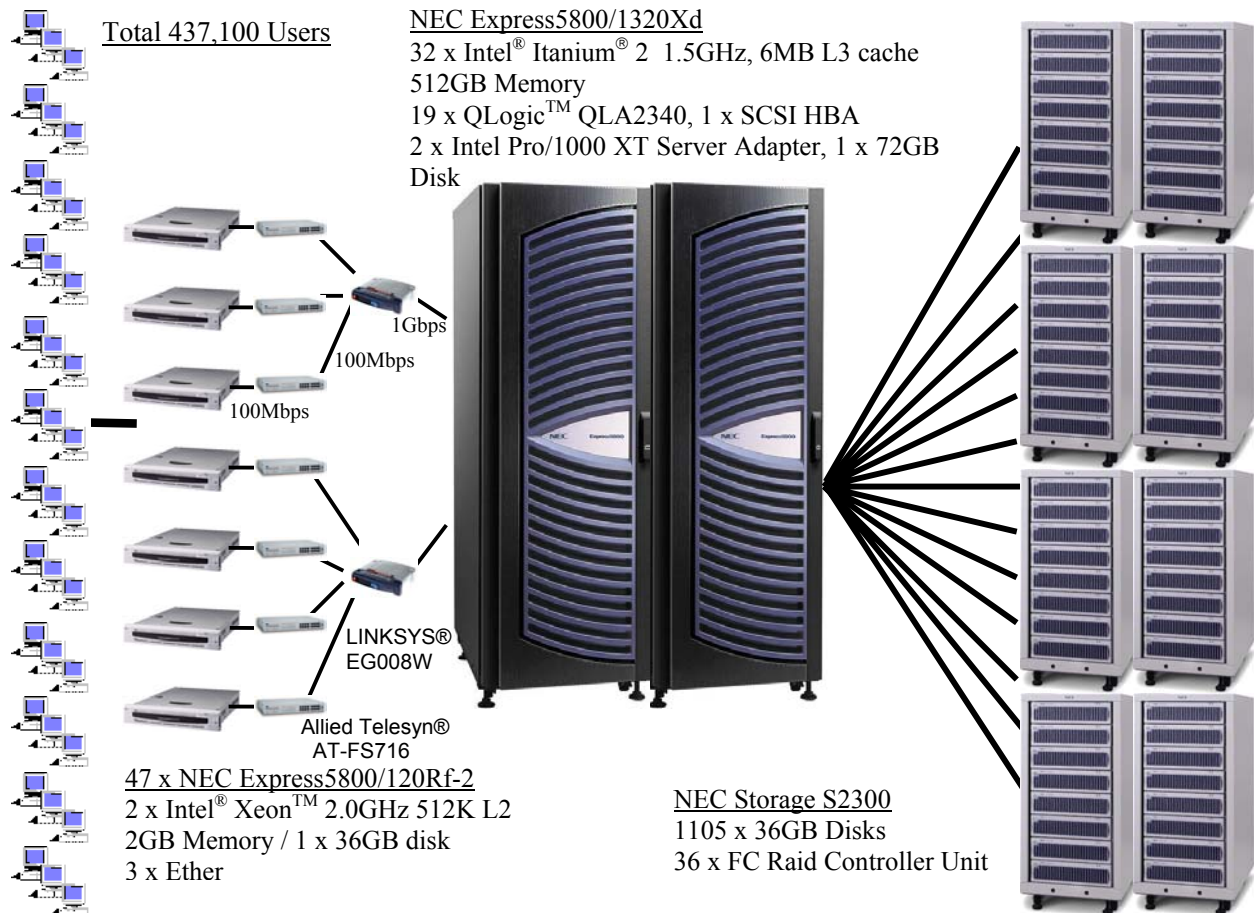
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		NEC Express5800/1320Xd C/S with Express5800/120Rf-2		TPC-C Rev.5.1 Reported Date Sep 8, 2003
Total System Cost		TPC-C Throughput		Price/Performance
\$6,136,554		521,440.53 tpmC		\$11.77 per tpmC
Processors		Database Manager	Operating System	Other Software
32 Intel® Itanium® 2 1.5GHz for Server		Oracle®Database 10g Enterprise Edition	Microsoft® Windows® Server 2003, Datacenter Edition for 64-bit Itanium-based Systems	Microsoft® IIS 5.0 BEA® Tuxedo 6.5 CFS-R Microsoft® VC++
				437,100



System Component	Server		Each Client	
Processors	32	Intel® Itanium® 2 1.5GHz	2	Intel® Xeon™ 2.0GHz
Cache		6MB L3 Cache		512KB L2 Cache
Memory		512GB		2GB
Disk Controllers	19 1	QLogic™ QLA2340 SCSI HBA	1	On-board SCSI
Disk Drives	1 1105	72GB (68.05GB Usable) 36GB (33.2GB Usable)	1	36GB
Total Storage		39,852GB		36GB
Others	1 2	DVD-ROM Drive 1Gbps Ether NIC	1 2 1	CD-ROM Drive On-board Ether controller 100Mbps Ether NIC

NEC		NEC Express5800/1320Xd				TPC-C REV 5.1	
		C/S w ith Express5800/120Rf-2				Report Date: 09/08/03	
Description	Part Number	Third Party Brand	Pricing	Unit Price	Qty	Extended Price	3-yr Mnt. Price
Server Hardware							
Express5800/1320Xd system	850200045	NEC	1	2,326,090	1	2,326,090	1,206,910
Base Original 32	Included	NEC	1	-	1	-	-
Cell Card Original	Included	NEC	1	-	8	-	-
CPU(1.5GHz/6MB)	Included	NEC	1	-	32	-	-
Memory(8GB)	Included	NEC	1	-	64	-	-
Base PCI Box	Included	NEC	1	-	3	-	-
Core PCI Box(Windows Model)	Included	NEC	1	-	1	-	-
PCI Cable(2.5m)	Included	NEC	1	-	6	-	-
PCI Cable(3.0m)	Included	NEC	1	-	2	-	-
Expansion Cabinet	Included	NEC	1	-	1	-	-
18GB 10K rpm HDD	Included	NEC	1	-	1	-	-
Gbit Ether NIC	Included	NEC	1	-	1	-	-
Mouse/Keyboard	Included	NEC	1	-	1	-	-
SCSI HBA with VHDCI cables	Included	NEC	1	-	1	-	-
Windows Server 2003, Datacenter Edition	Included	NEC	1	-	1	-	-
NEC AccuSync50 (15" monitor)	AS50	NEC	5	129	1	129	-
73.9GB 10K rpm SCSI HDD (+2 spares)	DK32EJ-72NC	HITACHI	5	649	3	1,948	-
FC HBA QLA2340 (+2 spares)	QLA2340-CK	QLogic	5	1,256	21	26,376	-
Intel PRO/1000 XT Server Adapter (+2 spares)	PWLA8490XT	Intel	5	138	4	553	-
Fast Ether Cable 25' RJ45-RJ45 (+10% spares)	N002-025-GY	Tripp Lite	5	7	62	454	-
Subtotal						2,355,550	1,206,910
Disk Subsystem							
NEC Storage S2300 Basic Unit	850161002	NEC	1	46,296	36	1,666,656	-
2 RAID_Cntrl, 1GB Cache, 1DE, 3 x 36GB Drive							
1GB(2 x 512MB) PC133 SDRAM memory	062-02301-000	NEC	1	1,999	72	143,928	-
S2300 DE (+10% spares)	062-02302-000	NEC	1	6,999	42	293,958	-
36GB 15K rpm FC HDD (+10% spares)	062-02303-000	NEC	1	1,099	1097	1,205,603	-
3 yr Telephone Upgrade Hdw & Storage							
Manager SW Support; 7days/ 24hours per day	IS-THSU-1095-072	NEC	1	1499	36		53,964
42U Rackframe	050-01790-000	NEC	1	1,799	9	16,191	-
FC Cable 10M LC-LC (+10% spares)	062-02304-000	NEC	1	200	40	8,000	-
Subtotal						3,334,336	53,964
Server Software							
Oracle Database 10g Enterprise Edition for 3 years, Unlimited Users		Oracle	2	20,000	32	640,000	
Oracle Database Server Support Package for 3 years		Oracle	2	6,000	1		6,000
Subtotal						640,000	6,000
Client Hardware							
NEC Express5800/120Rf-2							
Base System with 1 x Xeon Processor 2.0GHz/512	850166001	NEC	1	3,499	47	164,453	-
1 x Xeon Processor 2.0GHz/512KB BTO Option,	062-02259-000	NEC	1	499	47	23,453	-
1GB(2 x 512MB) DDR266 SDRAM memory,	062-02264-000	NEC	1	599	94	56,306	-
1 x 36GB 10K rpm HDD,	062-02012-000	NEC	1	459	47	21,573	-
CD-ROM, 2 x On-board LAN, KB/MS	Included	NEC	1	-	47	-	-
3 years of warranty service to 4-hour response, 7x24	DE-0000-1095-724	NEC	1	1,599	47	-	75,153
NEC AccuSync50 (15" monitor)	AS50	NEC	5	129	47	6,073	-
42U Rackframe	050-01790-000	NEC	1	1,799	3	5,397	-
Intel PRO/100+ Adapter, 20-pack (+10% spares)	PILA8460BNIPK20	Intel	5	549	3	1,647	-
Fast Ether Cable 10' RJ45-RJ45 (+10% spares)	N010-010-GY	Tripp Lite	5	6	104	665	-
Subtotal						279,567	75,153
Client Software							
Windows2000 Server, Server License	C11-00821	Microsoft	3	738	47	34,686	
Visual C++ Standard	254-00170	Microsoft	3	109	1	109	
Database Server Support Package	PRO-PRORS-16U(-	Microsoft	3	1,950	3		5,850
BEA Tuxedo 6.5 Core Functionality Services (CFS-R)		BEA	4	1,140	47	53,580	35,532
Subtotal						88,375	41,382
User Connectivity							
Linksys Gigabit 8-port Workgroup Switch (+2 spares)	EG008W	Linksys	5	178	4	713	
16-port Fast Ether Switch (+2 spares)	AT-FS716	Allied Telesyn	5	79	9	713	
Subtotal						1,426	0
TOTAL						6,699,254	1,383,409
Oracle Mandatory E-Business Discount						-129,200	
NEC brand total(Pricing 1-NEC)						5,931,608	1,336,027
NEC brand Large Purchase Cash Prepay Discount(-25%)						(1,482,902)	(334,007)
Notes: Pricing: 1-NEC 2-Oracle 3-Microsoft 4-BEA 5-CDW					3-Yr. Cost of Ownership: \$6,136,554 tpmC Rating: 521440.53 \$ / tpmC: \$11.77		
Results and methodology audited by Bradley J. Askins of InfoSizing, Inc. (www.sizing.com)							
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 reflects 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 terms, please inform the TPC at pricing@tpc.org. Thank you.							

Numerical Quantities Summary

MQTh, Computed Maximum Qualified Throughput

521,440.53 tpmC

<u>Response Times(in seconds)</u>	<u>Average</u>	<u>Maximum</u>	<u>90%</u>
New-Order	1.24	1623	3.49
Payment	0.83	101.16	2.93
Delivery(interactive portion)	0.58	21.71	1.99
Stock-Level	0.76	38.07	2.69
Order-status	0.81	53.63	2.85
Delivery(deferred portion)	0.33	61.61	1.32
Menu	0.49	20.83	1.41

Response time delay added for emulated components

0.1

Transaction Mix , in percent of total transaction

New-Order	44.80%
Payment	43.08%
Delivery	4.04%
Stock-Level	4.04%
Order-Status	4.04%

<u>Keying/Think Times (in seconds)</u>	<u>Average</u>		<u>Min</u>		<u>Max</u>	
New-Order	18.01	12.07	18.01	0.00	18.03	120.7
Payment	3.01	12.07	3.01	0.00	3.03	120.7
Delivery	2.01	5.07	2.01	0.00	2.01	50.7
Stock-Level	2.01	5.08	2.01	0.00	2.01	50.7
Order-Status	2.01	10.08	2.01	0.00	2.03	100.7

Test Duration

Ramp-up time	3820 seconds
Measurement interval	7203 seconds
Number of checkpoints	4
Checkpoint interval	1763 seconds
Number of transactions (all types) completed in measurement interval	139,778,175

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Abstract

This report documents the compliance of NEC Corporation's TPC Benchmark™ C tests on the NEC Express5800/1320Xd client/server system with version 5.1 of the TPC Benchmark C Standard Specification. 47 Clients (NEC Express5800/120Rf-2) were used as the front-end clients.

The operating system and the DBMS used on the server were Microsoft® Windows® Server 2003, Datacenter Edition and Oracle® Database 10g Enterprise Edition. The operating system on the clients was Microsoft® Windows® 2000 Server SP2. Those clients ran Microsoft® IIS server 5.0 and BEA Tuxedo® 6.5 CFS-R.

Two standard metrics, transaction-per-minute-C(tpmC) and price per tpmC(\$/tpmC) are reported, in accordance with the TPC Benchmark™ C Standard. The independent auditor's report by Bradley J. Askins appears at the end of this report.

TPC Benchmark™ C Metrics

The standard TPC Benchmark™ C metrics, tpmC (transactions per minute), price per tpmC (three year capital cost per measured tpmC) are reported.

System	SW	Total System Cost	TpmC	\$ per tpmC	Availability Date
NEC Express5800 /1320Xd	Oracle® Database 10g Enterprise Edition Microsoft® Windows® Server 2003, Datacenter Edition for 64-bit Itanium-based Systems	\$6,136,554	521,440.53	\$11.77	March 7, 2004

Standard and Executive Summary Statements

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

Auditor

The benchmark configuration, environment and methodology were audited by Bradley J. Askins of Info Sizing Inc. to verify compliance with the relevant TPC specifications.

Preface

The TPC Benchmark™ C was developed by the Transaction Processing Performance Council (TPC). The TPC was founded to define transaction processing benchmarks and to disseminate objective, verifiable performance data to the industry. This full disclosure report is based on the TPC Benchmark™ C Standard Specifications Version 5.1.

TPC Benchmark™ C Overview

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

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.

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

Document Structure

This TPC Benchmark™ C Full Disclosure Report is organized as follows:

- The main body of the document lists each item in Clause 8 of the TPC-C Standard and explains how each requirement is satisfied.
- Appendix A contains the source code of the TPC-C application code used to implement the TPC-C transactions.
- Appendix B contains the database definition and population code used in the tests.
- Appendix C contains the tunable parameters used in the TPC-C tests.
- Appendix D contains space calculation table.
- Appendix E contains third-party price quotations.

TPC Benchmark™ C Full Disclosure

The TPC Benchmark™ C Standard Specification requires test sponsors to publish, and make available to the public, a full disclosure report for the results to be considered compliant with the Standard. The required contents of the full disclosure report are specified in Clause 8. This report is intended to satisfy the Standard's requirement for full disclosure. It documents the compliance of the benchmark tests with each item listed in Clause 8 of the TPC Benchmark™ C Standard Specification.

In the Standard Specification, the main headings in Clause 8 are keyed to the other clauses. The headings in this report use the same sequence, so that they correspond to the titles or subjects referred to in Clause 8.

Each section in this report begins with the text of the corresponding item from Clause 8 of the Standard Specification, printed in italic type. The plain text that follows explains how the tests comply with the TPC Benchmark™ C requirement. In sections where Clause 8 requires extensive listings, the section refers to the appropriate appendix at the end of this report.

General Items

Order and titles

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

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

Summary Statement

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

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

Numerical Quantities Summary

The numerical quantities listed below must be summarized near the beginning of the Full Disclosure report :

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

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

Application Program

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

Appendix A contains the application source codes used in the TPC-C benchmark.

Sponsor

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

This benchmark test was sponsored by NEC Corporation. NEC has authorized NEC Corp. to publish TPC-C performance and price/performance results for the NEC Express5800/1320Xd. Price quotations contained in Appendix E correspond to the NEC Express5800/1320Xd server.

Parameters and Options

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

- *Database tuning options.*
- *Recovery/commit options.*
- *Consistency/locking options.*
- *Operating system and application configuration parameters.*
- *Compilation and linkage options and run-time optimizations used to create/install applications, OS, and/or databases.*

Appendix C contains the tunable parameters used in the TPC-C tests.

Configuration Diagrams

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

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

Figure 1.1 shows the measured configuration diagram.

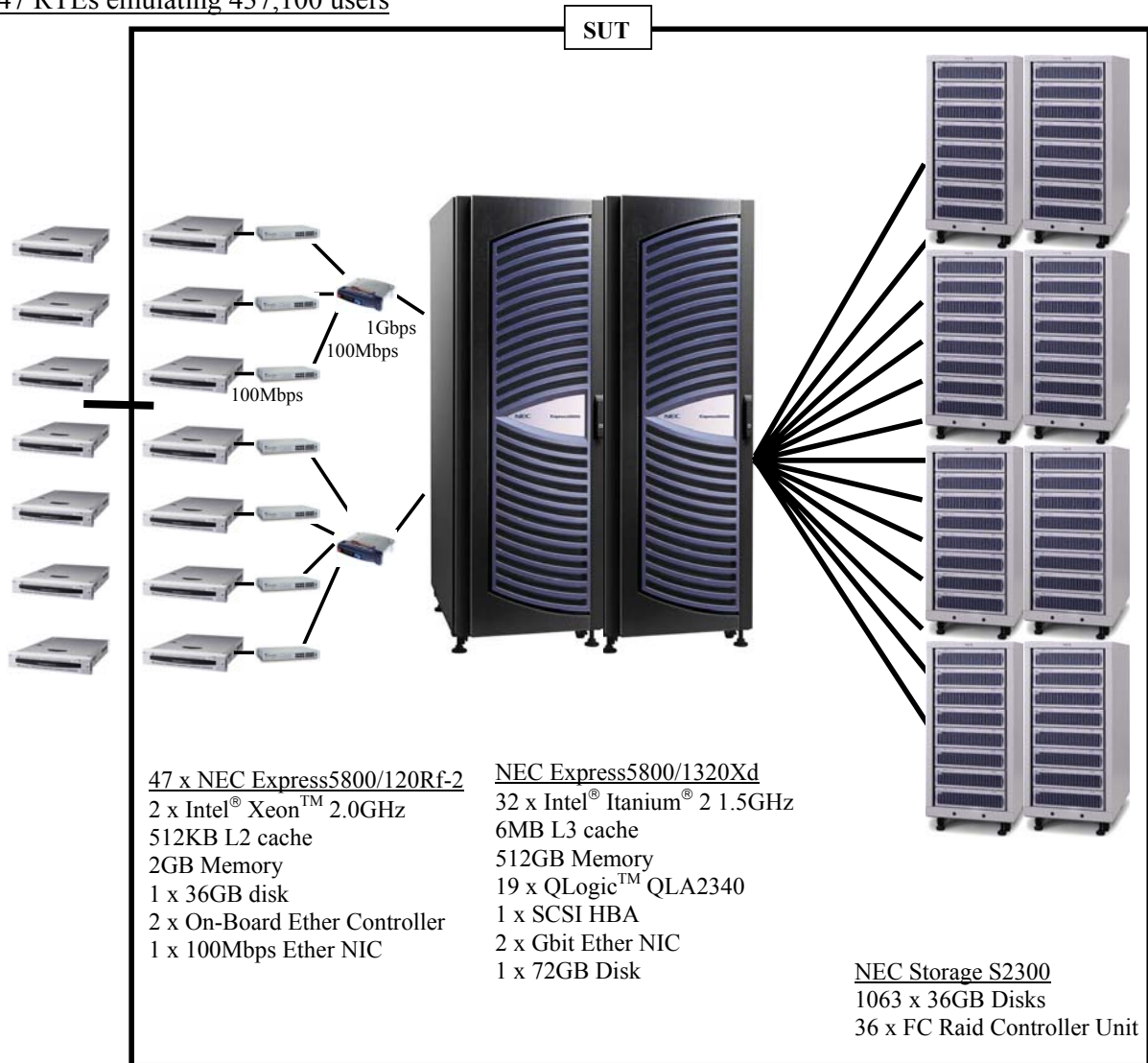
Figure 1.2 shows the priced configuration diagram.

Measured Configuration

The following figure represents the measured configuration. The benchmark system used a remote terminal emulator (RTE) to initiate transactions and measure response times of transactions, as well as record various data for each transaction.

Figure 1.1 Express5800/1320Xd, Measured Configuration Diagram

47 RTEs emulating 437,100 users

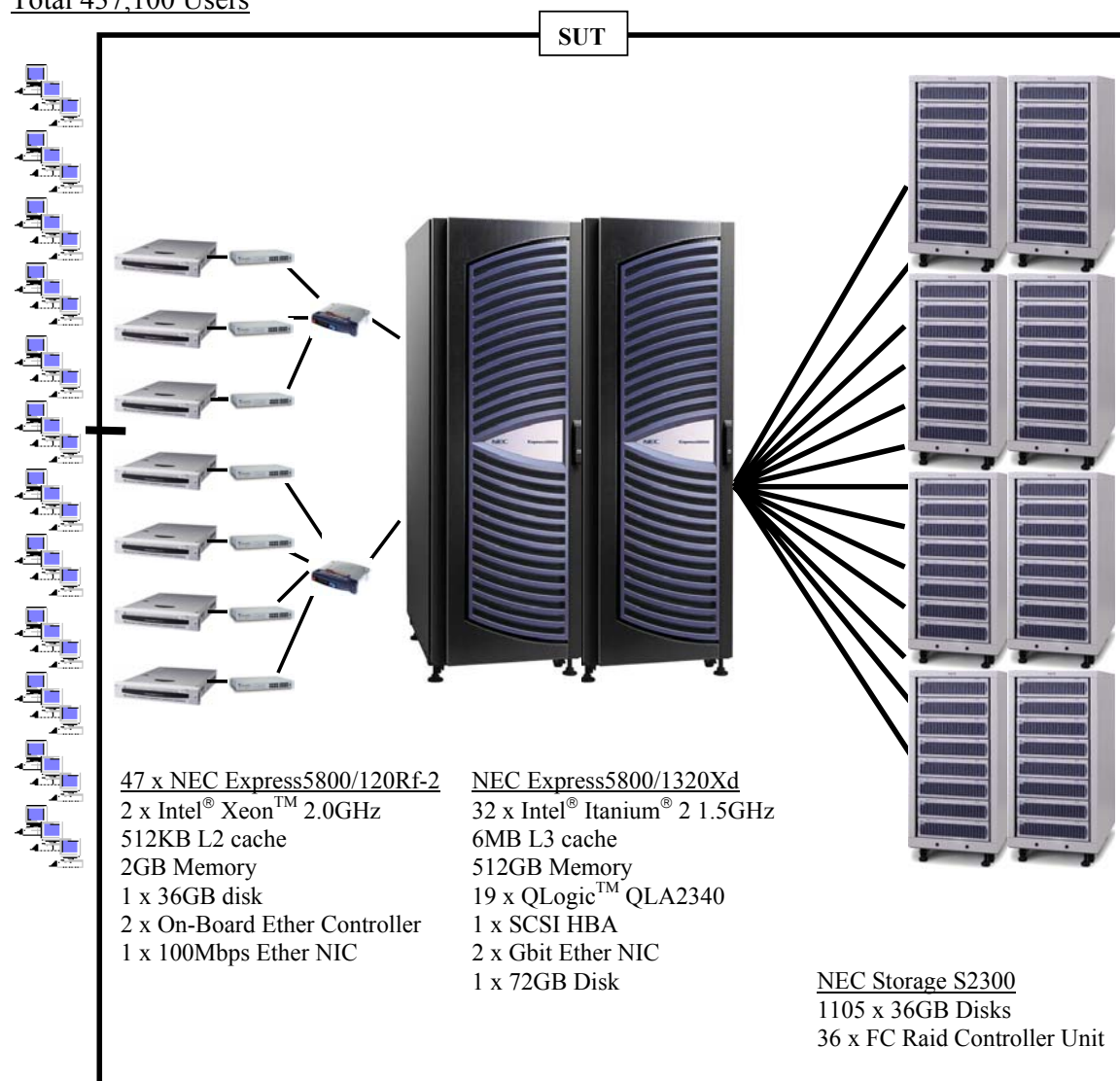


Priced System Configuration

The following figure depicts the priced system, whose cost determines the normalized price per tpmC reported for the test.

Figure1.2: Express5800/1320Xd, Priced Configuration Diagram

Total 437,100 Users



Clause 1 : Logical Database Design and Related Items

Table Definitions

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

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

Table Organization

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

Appendix B contains the code used to define the physical organization of tables and indices

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

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

Disclosure of 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.

Partitioning was not used on any table in this benchmark.

Replication of Tables

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

No tables were replicated in this benchmark test.

Additional and/or Duplicated Attributes in any Table

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).

No duplications or 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.

Random numbers generation in RTE and DB generator were verified by auditor independently.

Terminal Input/Output Screen Layout

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

All screen layouts were verified to be exactly followed the specification by auditor.

Terminal feature Verification

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

Each of five transaction types was tested by the auditor. The auditor verified that all the features specified in Clause 2.2.2.4 were provided.

Presentation Manager or Intelligent Terminal

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

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

Transaction Profiles

- . *The percentage of home and remote order-lines in the New-Order transactions must be disclosed.*
- . *The percentage of New-Order transactions that were rolled back as a result of an unused item number must be disclosed.*
- . *The number of items per orders entered by New-Order transactions must be disclosed.*
- . *The percentage of home and remote Payment transactions must be disclosed.*
- . *The percentage of Payment and Order-Status transactions that used non-primary key (C_LAST) access to the database must be disclosed.*
- . *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.*

Table 1 shows the numerical quantities required by Clause 8.1.3.5 through 8.1.3.10.

Transaction Mix

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

Table 1 shows the mix of transaction types seen by the SUT during the reported measurement interval.

Following table summarizes the data required for disclosure in Clause 8.1.3.5 through 8.1.3.11

Table 1 Transaction Statistics

Statistic		Value
New Order	Home warehouse order lines	98.99%
	Remote warehouse order lines	1.01%
	Rolled back transactions	0.99%
	Average items per order	9.9
Payment	Home warehouse payments	85.01%
	Remote warehouse payments	14.99%
	Accessed by last name	59.97%
Order Status	Accessed by last name	59.98%
Delivery	Skipped deliveries	0
Transaction Mix	New Order	44.80%
	Payment	43.08%
	Delivery	4.04%
	Stock Level	4.04%
	Order Status	4.04%

Queuing Mechanism

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

The client application processes submitted delivery transactions to server software running on the client machines. These delivery servers were responsible for processing queued deliveries to submit to the database server.

The source code is listed in Appendix A.

Clause 3 : Transaction and System Properties Related Items

Transaction System Properties (ACID)

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

The TPC Benchmark™ C Standard Specification defines a set of transaction processing system properties that a system under test (SUT) must support during the execution of the benchmark. Those properties are Atomicity, Consistency, Isolation and Durability (ACID). This section quotes the specification definition of each of those properties and describes the tests done as specified and monitored by the auditor, to demonstrate compliance.

Atomicity Tests

The system under test must guarantee that 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

Perform the Payment transaction for a randomly selected warehouse, district and customer (by customer number as specified in Clause 2.5.1.2) and verify that the records in the CUSTOMER, DISTRICT and WAREHOUSE tables have been changed appropriately.

The value of w_ytd, d_ytd, c_balance, c_ytd_payment and c_payment_cnt of a randomly selected warehouse, district, and customer were retrieved. The Payment transaction was executed on the same warehouse, district, and customer. The transaction was committed. The values w_ytd, d_ytd, c_balance, c_ytd_payment, and c_payment_cnt were retrieved again. It was verified that all values had been changed appropriately.

Aborted Transactions

Perform the Payment transaction for a randomly selected warehouse, district and customer (by customer number as specified in Clause 2.5.1.2) and substitute a ROLLBACK of the transaction for the COMMIT of the transaction. Verify that the records in CUSTOMER, DISTRICT and WAREHOUSE tables have Not been changed.

The value of w_ytd, d_ytd, c_balance, c_ytd_payment and c_payment_cnt of randomly selected warehouse, district, and customer were retrieved. The Payment transaction was executed on the same warehouse, district, and customer. The transaction was rolled back. The values of w_ytd, d_ytd, c_balance, c_ytd_payment, c_payment_cnt were retrieved again. It was verified that none of the values had changed.

Consistency Tests

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 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 over 5 minutes under 48,000 users (4,800 active warehouse) condition. A checkpoint generated in the test. The shell script of consistency was executed before and after the run. The result of the same queries verified that the database remained consistent after the run.

Isolation Tests

Sufficient conditions must be enabled at either the system or application level to ensure the required isolation level is obtained.

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

Case D was followed for Isolation Test 7.

Durability Tests

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

- *Permanent irrecoverable failure of any single durable medium during the Measurement Interval containing TPC-C database tables or recovery log data.*
- *Instantaneous interruption (system or subsystem crash/system hang) in processing which causes all or part of the processing of atomic transactions to halt..*

Instantaneous Interruption and Loss of Memory

Because the loss of power erases the contents of memory, both of instantaneous interruption and loss of memory were combined into a single test.

The following steps were performed on the full scaled database under the full load of users.

1. A sum of D_NEXT_O_ID of all rows in the district table was taken.
2. Full load of users were logged in to the database and kept running transactions about 5 minutes in steady state.
3. The system was powered off.
4. The RTE was shut down.
5. The system was powered up. Oracle® Database 10g was restarted and automatically recovered.
6. A new count of D_NEXT_O_ID was taken.
7. This number was compared with the number of new orders reported by the RTE.

Loss of Log and Data Disk

Loss of log and Loss of data disk were combined to a one test and were demonstrated on a 4,800 warehouse database. The standard driving mechanism was used to generate the transaction load of 48,000 users for the test. To demonstrate recovery from a permanent failure of durable media containing TPC-C tables and log, the following steps were performed.

1. A sum of D_NEXT_O_ID of all rows in the district table was taken.
2. 48,000 users were logged in to the database and kept running transactions about 5 minutes in steady state.
3. Removed one of mirrored log disk. The running continued without any interruptions.
4. One disk drive for data part in the array was removed causing Oracle® Database 10g error. Shut down Oracle® Database 10g.
5. Oracle® Database 10g was restarted and a dump of the transaction log was taken.
6. The 4,800 warehouse database was restored from backup.
7. The database was started and recovered by using recover command of Oracle® Database 10g.
8. A new count of D_NEXT_O_ID was taken.
9. This number was compared with the number of new orders reported by the RTE.

Loss of mirrored write-back cache

The Fibre Array system used for this benchmark has integrated feature of mirrored write-back cache. When a LUN is configured to enable write-back caching, the data on the cache is automatically mirrored on the RAMs in two controller modules, which are powered and protected from loss of power by the controller BBU. Loss of write-back cache was demonstrated on 4,800 warehouse database, by pulling off one of the controller module. A fully scaled database would also pass this test.

1. A sum of D_NEXT_O_ID of all rows in the district table was taken.
2. 48,000 users were logged in to the database and kept running transactions about 5 minutes in steady state.
3. A controller module, which manages write-back cache of mirrored drives, was pulled off.
4. Fibre system reported system error resulted in IO error for Oracle® Database 10g.
5. Contents on mirrored cache on another controller were automatically saved to temporal disk area and the Fibre Array house was eventually stopped. System was shut down.
6. The Fibre array was re-powered.
7. Saved data was automatically restored to mirrored cache and flushed to drives.
8. Oracle® Database 10g was started up and database was recovered.
9. A new count of D_NEXT_O_ID was taken.
10. This number was compared with the number of new orders reported by the RTE.

Clause 4 : Scaling and Database Population Related Items

Initial Cardinality of Tables

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

The TPC-C database was originally built with 48,000 warehouses.

Table 2 Number of Rows for Server

Table	Cardinality as benchmarked
Warehouse	48,000
District	480,000
Customer	1,440,000,000
History	1,440,000,000
Orders	1,440,000,000
New Order	432,000,000
Order Line	14,401,624,880
Stock	4,800,000,000
Item	100,000
Deleted Warehouse Rows	4,290

4,290 warehouses were deleted before the measurement. 43,710 warehouses and their associated tables were accessed during the measurement.

Constant Value for the NURand function

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

C_LAST (Build)	1
C_LAST (RUN)	66

Distribution of Tables and Logs

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

Table 3 depicts the distribution of the database over the disks of the tested and priced system.

Figure 1.1, 1.2 shows the disk configuration for measured and priced system.

Table 3 : Data Distribution

HBA#	storage system#	SP#	DEU#	# of Disks	RAID Level	Capacity (GB)	Partition1
Partitions for DB Log							
0	0	0	0	14	10	232.81	log_1 (201GB)
			1	14	10	232.81	log_2 (201GB)
			2	14	10	232.81	
			3	14	10	232.81	

HBA#	storage system#	SP#	DEU#	# of Disks	RAID Level	Capacity (GB)	Partition1-21	Partition22	Partition23
Partitions for DB Data									
1	1	0	0	15	0	498.91	*1	control file (2.5GB)	ORDR_0 (2.0GB)
			1	15	0	498.91		SP_0 (2.5GB)	ORDR_0 (2.0GB)
	2	0	0	15	0	498.91		SYSTEM (2.5GB)	ORDR_0 (2.0GB)
			1	15	0	498.91		-	ORDR_0 (2.0GB)
2	3	0	0	15	0	498.91		-	-
			1	15	0	498.91		-	-
	4	0	0	15	0	498.91		-	-
			1	15	0	498.91		-	-
3	5	0	0	15	0	498.91		-	-
			1	15	0	498.91		-	-
4	6	0	0	15	0	498.91		-	ORDR_0 (2.0GB)
			1	15	0	498.91		-	ORDR_0 (2.0GB)
	7	0	0	15	0	498.91		-	ORDR_0 (2.0GB)
			1	15	0	498.91		-	ORDR_0 (2.0GB)
5	8	0	0	15	0	498.91		SYSAUX (2.5GB)	ORDR_0 (2.0GB)
			1	15	0	498.91		-	ORDR_0 (2.0GB)
	9	0	0	15	0	498.91		UNDO_TS (8GB)	ORDR_0 (2.0GB)
			1	15	0	498.91		-	ORDR_0 (2.0GB)
6	10	0	0	15	0	498.91		-	ORDR_0 (2.0GB)
			1	15	0	498.91		-	ORDR_0 (2.0GB)
	11	0	0	15	0	498.91		-	ORDR_0 (2.0GB)
			1	15	0	498.91		-	ORDR_0 (2.0GB)
7	12	0	0	15	0	498.91		-	-
			1	15	0	498.91		-	-
	13	0	0	15	0	498.91		-	-
			1	15	0	498.91		-	-
8	14	0	0	15	0	498.91		-	-
			1	15	0	498.91		-	-
	15	0	0	15	0	498.91		-	-
			1	15	0	498.91		-	-
9	16	0	0	15	0	498.91		-	ORDR_0 (2.0GB)
			1	15	0	498.91		-	ORDR_0 (2.0GB)
	17	0	0	15	0	498.91		-	ORDR_0 (2.0GB)
			1	15	0	498.91		-	ORDR_0 (2.0GB)

10	18	0	0	15	0	498.91	*1	-	ORDR_0 (2.0GB)
			1	15	0	498.91		-	ORDR_0 (2.0GB)
	19	0	0	15	0	498.91		-	ORDR_0 (2.0GB)
			1	15	0	498.91		-	ORDR_0 (2.0GB)
11	20	0	0	15	0	498.91		-	-
			1	15	0	498.91		-	-
	21	0	0	15	0	498.91		-	-
			1	15	0	498.91		-	-
12	22	0	0	15	0	498.91		-	ORDR_0 (2.0GB)
			1	15	0	498.91		-	ORDR_0 (2.0GB)
	23	0	0	15	0	498.91		-	ORDR_0 (2.0GB)
			1	15	0	498.91		-	ORDR_0 (2.0GB)
13	24	0	0	15	0	498.91		-	ORDR_0 (2.0GB)
			1	15	0	498.91		-	ORDR_0 (2.0GB)
	25	0	0	15	0	498.91		-	ORDR_0 (2.0GB)
			1	15	0	498.91		-	ORDR_0 (2.0GB)
14	26	0	0	15	0	498.91		-	ORDR_0 (2.0GB)
			1	15	0	498.91		-	ORDR_0 (2.0GB)
	27	0	0	15	0	498.91		-	ORDR_0 (2.0GB)
			1	15	0	498.91		-	-
15	28	0	0	15	0	498.91		-	ORDR_0 (2.0GB)
			1	15	0	498.91		-	-
	29	0	0	15	0	498.91		-	ORDR_0 (2.0GB)
			1	15	0	498.91		-	-
16	30	0	0	15	0	498.91		-	ORDR_0 (2.0GB)
			1	15	0	498.91		-	-
	31	0	0	15	0	498.91		-	ORDR_0 (2.0GB)
			1	15	0	498.91		-	-
17	32	0	0	15	0	498.91		-	ORDR_0 (2.0GB)
			1	15	0	498.91		-	-
	33	0	0	15	0	498.91		-	-
			1	15	0	498.91		-	-
18	34	0	0	15	0	498.91		-	-
	35	0	0	15	0	498.91		-	-
			1	15	0	498.91		-	-

*1. Composition from Partition1 to Partition21is shown in the following table.

Partition1-21

partiton#	tablespace name
Partition1	WARE_0 (2GB)
Partition2	CUST_0 (7.5GB)
Partition3	CUST_0 (7.5GB)
Partition4	CUST_0 (7.5GB)
Partition5	DIST_0 (0.5GB)
Partition6	HIST_0 (2GB)
Partition7	STOK_0 (7.5GB)
Partition8	STOK_0 (7.5GB)
Partition9	STOK_0 (7.5GB)
Partition10	STOK_0 (7.5GB)
Partition11	ITEM_0 (0.1GB)
Partition12	ORDR_0 (20GB)
Partition13	NORD_0 (0.2GB)
Partition14	IWARE_0 (0.1GB)
Partition15	ICUST1_0 (0.8GB)
Partition16	ICUST2_0 (4GB)
Partition17	IDIST_0 (3.5GB)
Partition18	ISTOK_0 (2GB)
Partition19	IITEM_0 (0.1GB)
Partition20	IORDR2_0 (1GB)
Partition21	TEMP_0 (8GB)

Type of Database

A statement must be provided that describes:

1. The data model implemented by the DBMS used (e.g., relational, network, hierarchical)
2. The database interface (e.g., embedded, call level) and access language (e.g., SQL, DL/I, COBOL read/write) used to implement the TPC-C transactions. If more than one interface/access language is used to implement TPC-C,

each interface/access language must be described and a list of which interface/access language is used with which transaction type must be disclosed.

Oracle® Database 10g, a relational database, was used in this benchmark. Anonymous block PL/SQL and stored procedures were accessed through the ORACLE Call Interface. Application code is included in Appendix A.

Database Mapping

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

No partitioning or replication was used.

60-Days Space

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

The detail of 60-day space calculation is shown in Appendix D.

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

1. Logfile usage was obtained from system view.
2. The space used was calculated as the difference between the first and second query.
3. The number of NEW-ORDERS was verified from an RTE report covering the entire run.
4. The space used was divided by the number of NEW-ORDERS giving a space used per NEW-ORDER transaction.
5. The space used per transaction was multiplied by the measured tpmC rate times 480 minutes.

The results of the above steps yielded a requirement of 1,139.43 GB of logspace (i.e. 2,278.86 GB of mirrored transaction log volume) to be available to sustain 8 hours. Total space of priced disks for the transaction log volume was 2,328.06 GB. It indicates that enough storage was configured to sustain 8 hours of growth.

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

Clause 5 : Performance Metrics and Response Time Related Items

Throughput

Measured tpmC must be reported

Table 4 : Measured tpmC

521,440.53 tpmC

Response Times

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

Table 5 : Response Times (in seconds)

Type	Average	Maximum	90 th %
New-Order	1.24	1623	3.49
Payment	0.83	101.16	2.93
Interactive Delivery	0.58	21.71	1.99
Stock Level	0.76	38.07	2.69
Order Status	0.81	53.63	2.85
Deferred Delivery	0.33	61.61	1.32
Menu	0.49	20.83	1.41

Keying and Think Times

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

Table 6 : Keying Times

Type	Average	Minimum	Maximum
New-Order	18.01	18.01	18.03
Payment	3.01	3.01	3.03
Interactive Delivery	2.01	2.01	2.01
Stock Level	2.01	2.01	2.01
Order Status	2.01	2.01	2.03

Table 7 : Think Times

Type	Average	Minimum	Maximum
New-Order	12.07	0.00	120.7
Payment	12.07	0.00	120.7
Interactive Delivery	5.07	0.00	50.7
Stock Level	5.08	0.00	50.7
Order Status	10.08	0.00	100.7

Response Time Frequency Distribution Curves

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

Figure 2.1 : New-Order Response Time Distribution

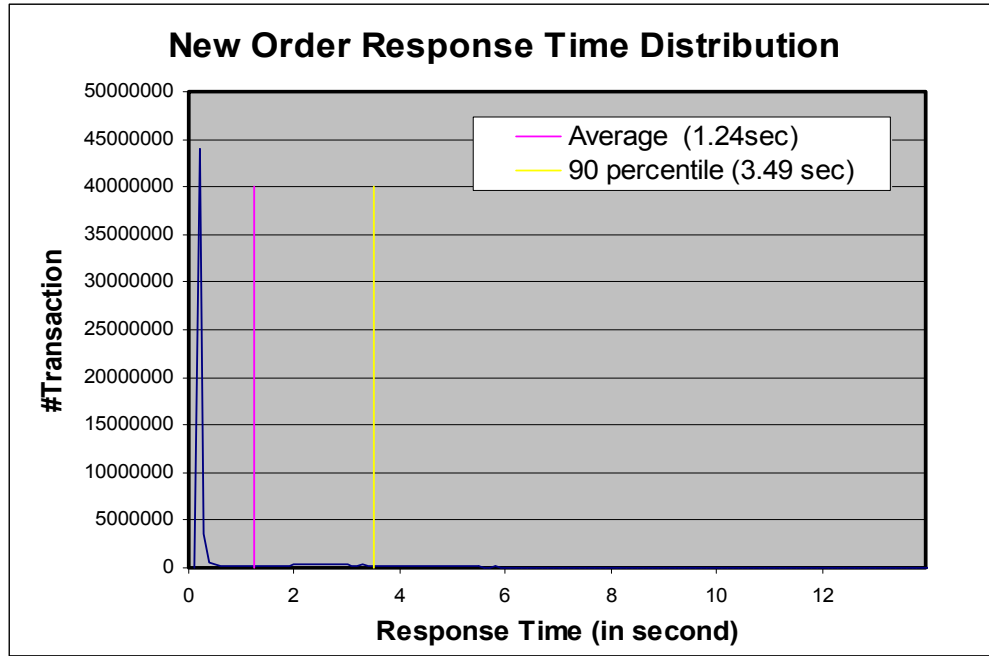


Figure 2.2 : Payment Response Time Distribution

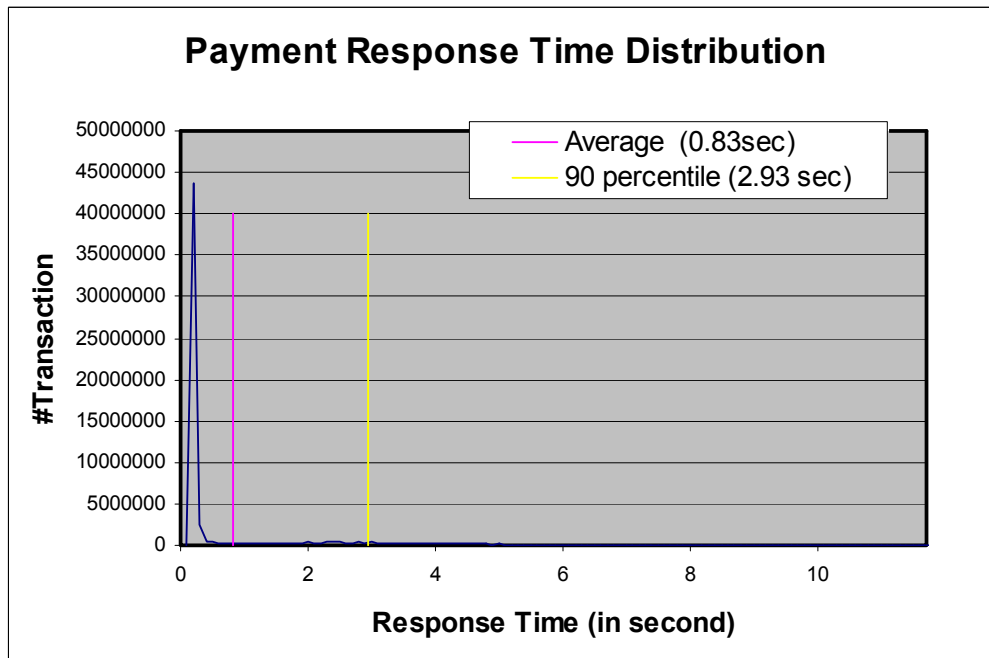


Figure 2.3 : Order-Status Response Time Distribution

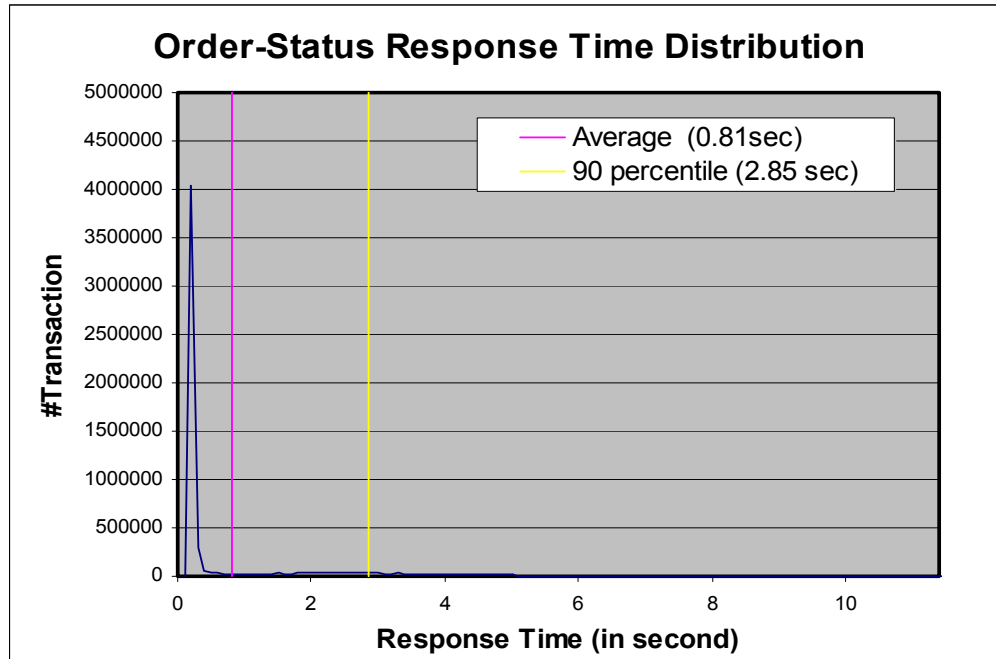
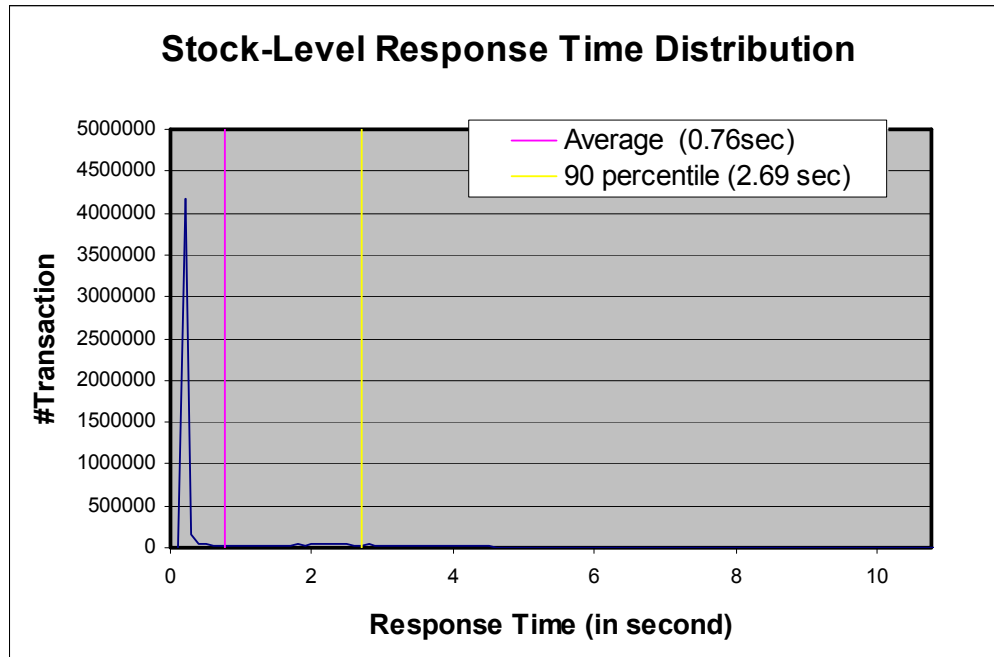


Figure 2.4 : Delivery Response Time Distribution



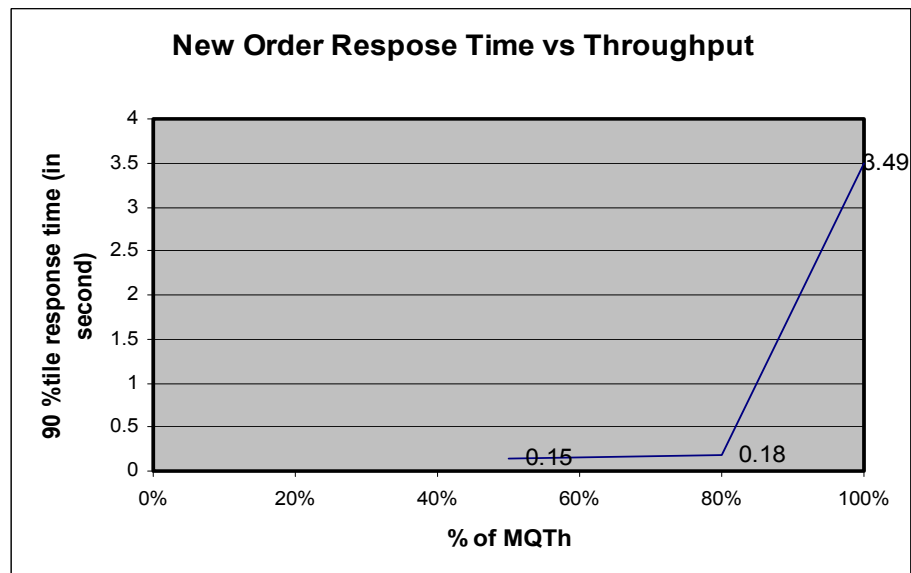
Figure 2.5 : Stock-Level Response Time Distribution



Response time versus Throughput Curve

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

Figure 2.6 Response Time vs. Throughput Curve



New-Order Think Time Frequency Distribution

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

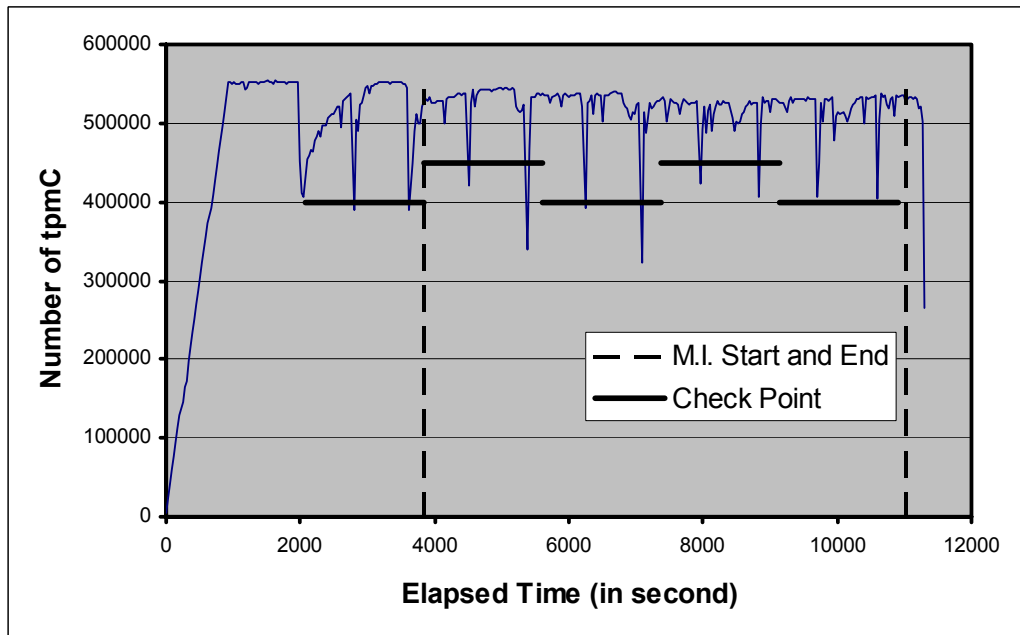
Figure 2.7 New-Order Think Time



New-Order Throughput vs. Elapsed Time

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

Figure 2.8 New Order Throughput vs. Elapsed Time



Steady State

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

Steady state was confirmed by the throughput data collected during the run and graphed in Figure 2.8.

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.

A checkpoint in Oracle® Database 10g writes to disk all updated memory pages that have not been yet actually written to disk. A checkpoint occurs at each switch of the redo log files. Oracle® Database 10g performs a log switch from one group to another when current redo logfiles are full. Redo log records are written to the redo log buffer (in memory) and are flushed to a redo log files on disk either when the transaction committed or when the redo log buffer became full. Oracle® Database 10g performed log switches (and checkpoints) four times during steady state of this benchmark.

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

	Start	End	Duration (in second)
M.I.	12:05:38	14:05:41	7203
1 st Checkpoint	12:08:08	12:34:44	1596
2 nd Checkpoint	12:37:31	13:04:07	1596
3 rd Checkpoint	13:06:54	13:33:30	1596
4 th Checkpoint	13:36:17	14:02:56	1599

Regulation of Transaction Mix

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

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

Transaction Statistics

- The percentage of the total mix for each transaction type must be disclosed.*
- The percentage of New-Order transactions rolled back as a result of invalid item number must be disclosed.*
- The average number of order-lines entered per New-Order transaction must be disclosed.*
- The percentage of remote order-lines entered per New-Order transaction must be disclosed.*
- The percentage of remote Payment transactions must be disclosed.*
- The percentage of customer selections by customer last name in the Payment and Order-Status transactions must be disclosed.*
- The percentage of Delivery transactions skipped due to there being fewer than necessary orders in the New-Order table must be disclosed.*

The above statistics are disclosed in Table 1.

Checkpoint Count and Location

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

There was one checkpoint before measurement and four checkpoints during measurement.

The time of the first checkpoint during the measurement interval is 150 seconds after the start of the measurement, and the average checkpoint interval is 1763 seconds and a checkpoint lasts approximately 1596.75 seconds.

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

Descriptions of RTE

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

The RTE used was NEC proprietary. The RTE input parameters are listed in Appendix C.

Loss of Terminal Connections

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

No terminal connections were lost.

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.

As configured for this test, the driver software emulates the traffic that would be observed from the users' PCs connected by Ethernet to the front-end clients using HTTP (HyperText Transfer Protocol) over TCP/IP. One tenth of a second (100 milli seconds) was added to each transaction time to compensate for the overhead of the Web browser.

Functional Diagrams and Detail of Driver System

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).

The diagrams in figure 1.1 and 1.2 show the tested and priced benchmark configurations.

Network configurations and Driver system

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).

Figure 1.1 and 1.2 in this report has the network configurations of both the tested system and the priced system.

Network Bandwidth

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

The database server contains two Gigabit Ethernet adapters. These adapters were connected to two Gigabit Ethernet switches. Each Gigabit Ethernet switch is cascaded to Ethernet switches with 100Mbps bandwidth. 47 front-end clients were connected to cascaded switches with 100Mbps bandwidth. Each client has two Ethernet adapters to connect to RTE system. The network bandwidth between RTE system and the front-end clients is 100Mbps. 94 segments were used for the connection of this tested configuration.

Operator Intervention

If the configuration requires operator intervention (see Clause 6.6.6), the mechanism and the frequency of this intervention must be disclosed.111

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

Clause 7 : Pricing Related Items

Hardware and Software Components

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.

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

The detailed list of all hardware and software for the priced configuration is listed in the system pricing summary.

Availability

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. This single date must be reported on the first page of the Executive Summary. All availability dates, whether for individual components or for the SUT as a whole, must be disclosed to a precision of one day.

The total system as priced will be available March 7, 2004.

Throughput, and Price Performance

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

- Maximum Qualified Throughput : 521,440.53 tpmC
- Price per tpmC : \$11.77 per tpmC
- Total 3-year cost of ownership : \$6,136,554

Country Specific Pricing

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

This system is priced for the United States of America.

Usage Pricing

For any usage pricing, the sponsor must disclose:

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

The component pricing based on usage is shown below:

- 32 Oracle® Database 10g Enterprise Edition for 3 years, Unlimited Users
- 1 Windows® Server 2003, Datacenter Edition
- 47 Windows® 2000 Server, Server License
- 47 BEA® Tuxedo 6.5 Core Functionality Services (CFS-R)
- 1 Visual C++ Standard

System Pricing

System pricing should include subtotals for the following components: Server Hardware, Server Software, Client Hardware, Client Software, and Network Components.

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.

A detailed list of all hardware and software, including the 3-year price, is provided in the Executive Summary at the front of this report. All third-party quotations are included in Appendix E at the end of this document.

Clause 8 : Audit Related Items

Auditor's Report

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

Next page contains the complete independent auditor's report by Bradley J. Askins of Info Sizing Inc. for the test described in this report.

Availability of the Full Disclosure Report

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

Presidio of San Francisco

Building 572B (surface)

P.O. Box 29920 (mail) San Francisco, CA 94129-0920

Voice: 415-561-6272

Fax: 415-561-6120

Email: info@tpc.org

Auditor's letter

INFO SIZING



Benchmark Sponsor: Hirohito Iseki
NEC Corporation
4-14-22, Shibaura
Minato-ku Tokyo, 108-8558

September 4, 2003

I verified the TPC Benchmark™ C performance of the following Client/Server configuration:

Platform: **NEC Express5800/1320Xd c/s**
Operating system: **Microsoft Windows Server 2003 Datacenter Edition for 64-bit Itanium-based Systems**
Database Manager: **Oracle Database 10g Enterprise Edition**
Transaction Manager: **BEA Tuxedo 6.5 CFS-R**

The results were:

CPU's Speed	Memory	Disks	NewOrder 90% Response Time	tpmC
Server: NEC Express5800/1320Xd				
32 x Itanium2 (1.5GHz)	512 GB Main (6MB L3 Cache per processor)	1105 x 36 GB 1 x 72 GB	3.49 Seconds	521,440.53
Forty-seven (47) Clients: NEC Express5800/120Rf-2 (Specification for each)				
2 x Intel Xeon (2.0 GHz)	2 GB Main Cache: 512 KB	1 x 36 GB	n/a	n/a

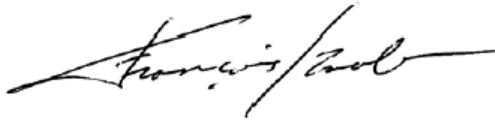
In my opinion, these performance results were produced in compliance with the TPC's requirements for the benchmark. The following verification items were given special attention:

- The database records were the proper size
- The database was properly scaled and populated
- The required ACID properties were met

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- The transactions were correctly implemented
- Input data was generated according to the specified percentages
- The transaction cycle times included the required keying and think times
- The reported response times were correctly measured.
- All 90% response times were under the specified maximums
- At least 90% of all delivery transactions met the 80 Second completion time limit
- The reported measurement interval was 120 minutes (7203 seconds)
- The reported measurement interval was representative of steady state conditions
- One checkpoint was taken during the reported measurement interval
- The repeatability of the measured performance was verified
- The 60 day storage requirement was correctly computed
- The system pricing was verified for major components and maintenance

Respectfully Yours,



François Raab, President



Bradley J. Askins, Auditor

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Appendix A : Application Source Code

A1. Front-End Source Code, Scripts

tpcc.c

```
/*=====+
|          Copyright (c) 1997  Oracle Corp, Redwood Shores, CA          |
|          All Rights Reserved                                          |
|=====+
| FILE:  TPCC.C                                                         |
| DESCRIPTION: Main module for TPCC.DLL                                |
| Master created: 15 Apr 97                                             |
|=====+ */
#ifdef TOPEND
#define TP_MT_SOURCE
#define STRICT
#endif

#define LOCAL_ALLOC 1  /* force local alloc to be true */

#include <windows.h>
#include <process.h>
#include <stdio.h>
#include <stdarg.h>
#include <malloc.h>
#include <stdlib.h>
#include <string.h>
#include <time.h>
#include <sys\timeb.h>
#include <io.h>
#include <assert.h>
#include <tchar.h>

#include "tpccerr.h"
#include "tpcc_info.h"
#include "httpext.h"

// #include "getval.h"

#ifdef TOPEND
#include <tp_csi.h>
BOOL TP_InitDone = FALSE;
#define DllExport __declspec(dllexport)
DllExport LONG tp_ChangeToGroup(LPTSTR, DWORD, DWORD);
```

```
tp_dif_structs_t *client_dif;

/*
 * Topend structure offset.
 */
#define TOPEND_STRUCT_OFFSET 4124

#endif

#ifdef TUX
#include <tmenv.h>
#include <xa.h>
#include <atmi.h>
#endif

#include "tpccapi.h"

static TPINIT *tpinf;
static DWORD   TLSIsTpInitKey;
static DWORD   TLSNewOrderKey;
static DWORD   TLSPaymentKey;
static DWORD   TLSOrderStatusKey;
static DWORD   TLSDeliveryKey;
static DWORD   TLSStockLevelKey;
static int      ThrTpInit();

char  szServer[32]  = { 0 };          //global variables used with
this DLL
char  szUser[32]    = { 0 };
char  szPassword[32] = { 0 };
char  szDatabase[32] = "tpcc";
char  szIID[16][8]  =
{"IID00*", "IID01", "IID02", "IID03", "IID04", "IID05", "IID06", "IID07", "IID08",
"IID09", "IID10", "IID11", "IID12", "IID13", "IID14", "IID15"};
char  szSP[16][8]   =
{"SP00*", "SP01", "SP02", "SP03", "SP04", "SP05", "SP06", "SP07", "SP08", "SP09",
"SP10", "SP11", "SP12", "SP13", "SP14", "SP15"};
char  szQty[16][8]  =
{"Qty00*", "Qty01", "Qty02", "Qty03", "Qty04", "Qty05", "Qty06", "Qty07", "Qty08",
"Qty09", "Qty10", "Qty11", "Qty12", "Qty13", "Qty14", "Qty15"};

BOOL   bLog          = FALSE;
BOOL   dLog          = FALSE;

#ifdef TOPEND
int      wait_time;
int      inactivity_time = 1500;
#endif

BOOL   bGeneric      = FALSE;
/* add structure to get delivery time stamp */
struct _timeb  timebuffer;

int      iThreads          = 5;
int      iMaxWareHouses    = 625;
int      iDelayMs           = 100;
```

```

short    iDeadlockRetry  = (short)3;
short    iMaxConnections = (short)625;
int       iErrVal        = 0;

//for debug
void debugdll(char *filename, char *format, ...)
{
    FILE *fp;
    va_list args;
    char buf[4096];
    int len;
    va_start( args, format );
    _strtime( buf );
    strcat( buf, " " );
    len = strlen( buf );
    (void)_vsprintf( buf+ len, sizeof( buf) - len - 1, format,
args);
    buf[sizeof( buf) - 1] = '\0';
    va_end( args );

    if (fp = fopen(filename, "ab"))
    {
        fprintf(fp, "%s.\n", buf);
        fflush(fp);
        fclose(fp);
    }
}

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

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

    _stprintf(szMsg, TEXT("Error in TPCC.DLL: "));
    lpszStrings[0] = szMsg;
    lpszStrings[1] = lpszMsg;

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

```

```

        (VOID) DeregisterEventSource(hEventSource);
    }
}

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

//defined command string functions, called via CMD=command http string
from html client.

void (*DoCmd[]) (EXTENSION_CONTROL_BLOCK *pECB, int iFormId, int iTermId,
int iSyncId) =
{
    NewOrderForm,
    PaymentForm,
    DeliveryForm,
    OrderStatusForm,
    StockLevelForm,
    Exitcmd,
    SubmitCmd,
    BeginCmd,
    ProcessCmd,
    MenuCmd,
    ClearCmd
};

//Terminal client id structure and interface defination
TERM Term = { 0, 0, 0, FALSE, NULL, TermInit, TermAllocate,
TermRestore, TermAdd, TermDelete };

//welcome to tpc-c html form buffer, this is first form client sees.
static char    *szWelcomeForm = "<HTML>"

    "<HEAD><TITLE>Welcome To TPC-C</TITLE></HEAD><BODY>"
    Identify your Warehouse and District for this session.<BR>"
    ACTION="tpcc.dll" METHOD="GET">"
    TYPE="hidden" NAME="STATUSID" VALUE="0">"
    TYPE="hidden" NAME="ERROR" VALUE="0">"
    TYPE="hidden" NAME="FORMID" VALUE="1">"
    TYPE="hidden" NAME="TERMINID" VALUE="-2">"
    TYPE="hidden" NAME="SYNCHID" VALUE="0">"
    "Please
    "<FORM
    "<INPUT
    "<INPUT
    "<INPUT
    "<INPUT
    "Warehouse

```

ID <INPUT NAME=\"w_id\" SIZE=6> 	"District	#ifdef TOPEND
ID <INPUT NAME=\"d_id\" SIZE=2> 	"<HR>	typedef struct DTEEntry {
TYPE=\"submit\" NAME=\"CMD\" VALUE=\"Submit\">	"<INPUT	HANDLE hSync;
"	"	struct DTEEntry *next;
"	"	tp_dif_structs_t *dif_struct;
"	"	char *message_buffer;
"	"	long *usr_dlg_ptr;
"	"	long usr_dlg_storage;
"	"	long buffer_length;
"	"	int rc;
"	"	} DialogTableEntry_t;
"	"	
"	"	//a place to put free DTEEntry cells
"	"	static DialogTableEntry_t DTFreeList={NULL,NULL,NULL,NULL,NULL,0,0,0};
"	"	
"	"	//a place to put active dialogs
"	"	static DialogTableEntry_t
"	"	DTActiveList={NULL,NULL,NULL,NULL,NULL,0,0,0};
"	"	
"	"	//can use for tuning, keep high
"	"	#define RECEIVE_THREAD_PRIORITY THREAD_PRIORITY_TIME_CRITICAL
"	"	#define MT_LOG_ERROR {\
"	"	char buf[160];\
"	"	sprintf(buf,"Problem at %d in %s\n",__LINE__,__FILE__);\
"	"	tp_system_log_text("TEthreads",buf);\
"	"	}\
"	"	
"	"	static void TEREceiveThread(void *ptr);
"	"	DialogTableEntry_t *GetDTE();
"	"	DialogTableEntry_t *FindOnList(long
"	"	tp_user_dialog_id,DialogTableEntry_t *head);
"	"	void RemoveFromList (DialogTableEntry_t *DTE, DialogTableEntry_t
"	"	*head);
"	"	void AddToList (DialogTableEntry_t *DTE, DialogTableEntry_t *head);
"	"	//prototypes for calls used in the application
"	"	
"	"	int tp_mt_initialize(tp_application_info_t *application_info,
"	"	tp_funct_struct_t function_array[],
"	"	long member_functions);
"	"	
"	"	int tp_mt_client_signon (tp_dialogue_info_t *info,
"	"	tp_dialogue_user_t *client,
"	"	long inactivity_time,
"	"	tp_service_name_t *service,
"	"	tp_input_format_t *input_format,
"	"	long message_length,
"	"	char *message_text);
"</FORM><BODY>	"</HTML>";	
static char szTpccLogPath[256]; //path to html log file if logging		int tp_mt_client_send (tp_dialogue_info_t *info,
turned on in registry.		tp_service_name_t *service,
static char szErrorLogPath[256]; //path to error log file.		tp_input_format_t *input_format,
		long message_length,
		char *message_text);
static CRITICAL_SECTION CriticalSection;		
static CRITICAL_SECTION ErrorLogCriticalSection;		int tp_mt_client_receive (tp_dialogue_info_t *info,
		long wait_time,
static int bTpccExit;		tp_output_format_t *output_format,
//exit delivery disconnect loop as dll exiting.		tp_service_name_t *service,

```

        tp_location_t *location,
        long          *buffer_length,
        char           *message_buffer);

#endif

/* FUNCTION: BOOL APIENTRY DllMain(HANDLE hModule, DWORD
ul_reason_for_call,
*          LPVOID lpReserved)
*
* PURPOSE: This function is the entry point for the DLL. This
implementation
*          is based on the fact that DLL_PROCESS_ATTACH is only called
from
*          the inet service once.
*          Connections are sent to this function as thread attachments.
*
* ARGUMENTS:  HANDLE  hModule          module handle
*              DWORD   ul_reason_for_call  reason for call
*              LPVOID  lpReserved        reserved for future use
*
* RETURNS:    BOOL    FALSE             errors occurred in
initialization
*              TRUE             DLL successfully
initialized
*
* COMMENTS: None
*
*/
BOOL APIENTRY DllMain(HANDLE hModule, DWORD ul_reason_for_call, LPVOID
lpReserved)
{
    int      i;
    static SECURITY_ATTRIBUTES  sa;
    static PSECURITY_DESCRIPTOR pSD;

#ifdef DEBUG_ENTRY
    DebugBreak( );
#endif

    switch( ul_reason_for_call )
    {
        case DLL_PROCESS_ATTACH:
            if ( ReadRegistrySettings() )
            {
                MessageBox(NULL, "Cannot Find TPCC Key in registry
(run install.exe).",
                        "Init", MB_OK | MB_ICONSTOP);
                return FALSE;
            }

            InitializeCriticalSection(&CriticalSection);
            InitializeCriticalSection(&ErrorLogCriticalSection);

            (*Term.Init)();
            if ( !(*Term.Allocate)() )

```

```

        {
            MessageBox(NULL, "Error Trm.Allocate().", "Init",
                MB_ICONSTOP);
            return FALSE;
        }

        for(i=Term.iNext; i<Term.iAvailable; i++)
            Term.pClientData[i].inUse = 0;
        Term.pClientData[0].inUse = 1;

        TLSIsTpInitedKey = TlsAlloc(); // check for failure

        TLSNewOrderKey = TlsAlloc();
        TLSPaymentKey = TlsAlloc();
        TLSOrderStatusKey = TlsAlloc();
        TLSDeliveryKey = TlsAlloc();
        TLSStockLevelKey = TlsAlloc();
        // assumption: value inited to 0

        break;

    case DLL_THREAD_ATTACH:
        break;

    case DLL_THREAD_DETACH:
        break;

    case DLL_PROCESS_DETACH:

        if ( pSD )
            free( pSD );

        bTpccExit = TRUE;

        (*Term.Restore)();

        DeleteCriticalSection(&CriticalSection);
        DeleteCriticalSection(&ErrorLogCriticalSection);

        TlsFree(TLSIsTpInitedKey);

        TlsFree(TLSNewOrderKey);
        TlsFree(TLSPaymentKey);
        TlsFree(TLSOrderStatusKey);
        TlsFree(TLSDeliveryKey);
        TlsFree(TLSStockLevelKey);

        break;
    }
    return TRUE;
}

```

```

/* FUNCTION: BOOL WINAPI GetExtensionVersion(HSE_VERSION_INFO *pVer)
 *
 * PURPOSE: This function is called by the inet service when the DLL is
 * first
 *          loaded.
 * ARGUMENTS:  HSE_VERSION_INFO      *pVer   passed in structure in
 * which to
 *          place expected version
 * number.
 *
 * RETURNS:    TRUE                   inet service expected return
 * value.
 *
 * COMMENTS:    None
 *
 */

```

```

_declspec (dllexport)

```

```

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

```

```

/* FUNCTION: DWORD WINAPI HttpExtensionProc(EXTENSION_CONTROL_BLOCK
 *pECB)
 *
 * PURPOSE: This function is the main entry point for the TPCC DLL. The
 *          internet service calls this function passing in the http
 * string.
 *
 * ARGUMENTS:  EXTENSION_CONTROL_BLOCK *pECB   structure pointer to
 * passed in
 *          internet service
 * information.
 *
 * RETURNS:    DWORD   HSE_STATUS_SUCCESS   connection can be dropped
 * if error
 *          HSE_STATUS_SUCCESS_AND_KEEP_CONN keep connect
 * valid comment sent
 *
 * COMMENTS:    None
 *
 */

```

```

_declspec (dllexport)

```

```

DWORD WINAPI HttpExtensionProc(EXTENSION_CONTROL_BLOCK *pECB)
{
    int iCmd, FormId, TermId, iSyncId;
    FILE *fp;

    static BOOL bReadRegistry = FALSE;

    if ( iMaxConnections == -1 )

```

```

{
    ErrorMessage(pECB, ERR_CAN_NOT_SET_MAX_CONNECTIONS,
ERR_TYPE_WEBDLL, NULL, -1, -1);
    return HSE_STATUS_SUCCESS;
}

//if registry setting is for html logging then show http string
passed in.
if ( bLog )
{
    SYSTEMTIME      systemTime;

    fp = fopen(szTpccLogPath, "ab");

    GetLocalTime(&systemTime);

    fprintf(fp, " * QUERY
 * %2.2d/%2.2d/%2.2d %2.2d:%2.2d:%2.2d\r\n\r\n%s\r\n\r\n",
systemTime.wYear, systemTime.wMonth,
systemTime.wDay, systemTime.wHour, systemTime.wMinute,
systemTime.wSecond,
pECB->lpszQueryString);
    fclose(fp);
}

//process http query
if ( !ProcessQueryString(pECB, &iCmd, &FormId, &TermId, &iSyncId) )
{
    if ( TermId < 0 ){

        WriteMessageToEventLog(TEXT("ProcessQueryString
is failed. Invalid TermID"));

        ErrorMessage(pECB, ERR_INVALID_TERMID,
ERR_TYPE_WEBDLL,
NULL, TermId, iSyncId);
    }
    else
        WriteMessageToEventLog(TEXT("Cannot get TermID and
SyncID"));

    ErrorMessage(pECB, ERR_COMMAND_UNDEFINED,
ERR_TYPE_WEBDLL, NULL, TermId, iSyncId);
    return HSE_STATUS_SUCCESS_AND_KEEP_CONN;
}

if ( TermId != 0 )
{
    if ( !IsValidTermId(TermId) )
    {
#ifdef FURLOG
        FILE *fur;

        fur =
        fopen("C:\\temp\\fur.txt", "ab");

        fprintf(fur,

```

```

"non0 Invalid termid = %d \n", TermId);

        fclose(fur);
    }

#endif // FURLOG

        WriteMessageToEventLog(TEXT("Invalid TermID"));

        ErrorMessage(pECB, ERR_INVALID_TERMID, ERR_TYPE_WEBDLL,
        NULL, TermId, iSyncId);
        return HSE_STATUS_SUCCESS_AND_KEEP_CONN;
    }

    //must have a valid syncid here since termid is valid
    if ( iSyncId < 1 || iSyncId !=
Term.pClientData[TermId].iSyncId )
    {

        WriteMessageToEventLog(TEXT("Invalid SyncID"));

        ErrorMessage(pECB, ERR_INVALID_SYNC_CONNECTION,
        ERR_TYPE_WEBDLL, NULL, TermId,
iSyncId);

        return HSE_STATUS_SUCCESS_AND_KEEP_CONN;
    }

    }

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

    //go execute http: command

    (*DoCmd[iCmd])(pECB, FormId, TermId, iSyncId);

    //finish up and keep connection
    return HSE_STATUS_SUCCESS_AND_KEEP_CONN;

}

/* FUNCTION: static BOOL IsValidTermId(int TermId)
 *
 * PURPOSE: This function checks to see of the passed in terminal id
is valid.
 *
 * ARGUMENTS:  int      TermId      client terminal id
 *
 * RETURNS:    BOOL      FALSE      Terminal ID Invalid
 *              TRUE      Terminal ID valid
 *
 * COMMENTS:   None
 *
 */

static BOOL IsValidTermId(int TermId)

```

```

{
    return (BOOL) ( TermId > 0 && TermId <= Term.iAvailable &&
Term.pClientData[TermId].inUse );
}

/* FUNCTION: BOOL ProcessQueryString(EXTENSION_CONTROL_BLOCK *pECB, int
*pCmd,
                                     int *pFormId, int *pTermId, int
*pSyncId)
 *
 * PURPOSE: This function extracts the relevent information out of the
http
 *           command passed in from the browser.
 *
 * ARGUMENTS:  EXTENSION_CONTROL_BLOCK *pECB      structure pointer to
passed in
 *
 *                                     internet service
information.
 *
 *                                     int      *pCmd      returned command id
 *                                     int      *pFormId    returned active form
client
 *
 *                                     browser is on
 *                                     int      *pTermId    returned client
terminal id
 *
 * RETURNS:    BOOL      FALSE      success
 *              TRUE      command passed in is invalid
 *
 * COMMENTS:   If this is the initial connection i.e. client is at
welcome screen
 *
 *             then there will not be a terminal id or current form id.
 *
 *             If this is the case then the pTermid and pFormid return
values are
 *
 *             undefined.
 */

BOOL ProcessQueryString(EXTENSION_CONTROL_BLOCK *pECB, int *pCmd, int
*pFormId,
                       int *pTermId, int *pSyncId)
{

    char *ptr;
    char szBuffer[25];
    char szTmp[25];
    char *dest = szBuffer;
    int i;

    if ( (ptr = strstr(pECB->lpszQueryString, "FORMID=")) )
        *pFormId = *(ptr+7) & 0x0F;

    if ( (ptr = strstr(pECB->lpszQueryString, "TERMID=")) )
    {
        *pTermId = atoi((ptr+7));

        if ( *pTermId == 0 )                //terminal id 0 used
internally
            *pTermId = -1;
    }
}

```

```

        if ( *pTermId == -2 )           //login screen
            *pTermId = 0;
    }
    else
        *pTermId = 0;

    if ( (ptr = strstr(pECB->lpszQueryString, "SYNCID=")) )
        *pSyncId = atoi((ptr+7));
    else
        *pSyncId = 0;

    if ( !(ptr = strstr(pECB->lpszQueryString, "CMD=")) )
    {
        ptr = szBuffer;

        if ( !strcmp(szBuffer, "Default") )
            strcpy(szBuffer, "CMD=Begin");

        switch( *pFormId )
        {
            case WELCOME_FORM:
                strcpy(szBuffer, "CMD=Submit");
                break;
            case MAIN_MENU_FORM:
                strcpy(szBuffer, "CMD=NewOrder");
                break;
            case NEW_ORDER_FORM:
            case PAYMENT_FORM:
            case DELIVERY_FORM:
            case ORDER_STATUS_FORM:
            case STOCK_LEVEL_FORM:
                if ( !(*pTermId) )
                    return FALSE;
                if ( GetKeyValue(pECB->lpszQueryString, "PI*", szTmp, sizeof(szTmp)) )
                    strcpy(szBuffer, "CMD=Process");
                else
                {
                    strcpy(szBuffer, "CMD=");
                    strcat(szBuffer, szCmds[*pFormId]
- NEW_ORDER_FORM]);
                }
                break;
            default:
                return FALSE;
        }
    }
    ptr += 4;

    while( *ptr && *ptr != '&' )
        *dest++ = *ptr++;
    *dest = 0;

    for(i=0; szCmds[i][0]; i++)
    {
        if ( !strcmp(szCmds[i], szBuffer) )

```

```

        {
            *pCmd = i;

            return TRUE;
        }
    }

    return FALSE;
}

/* FUNCTION: void NewOrderForm(EXTENSION_CONTROL_BLOCK *pECB, int
iFormId,
*
*
* PURPOSE: This function wraps the functionality needed for the TPC-C
New
*
* Order Form.
*
* ARGUMENTS:  int      iFormId      unused
*              int      iTermId      id of calling browser, i.e.
TERMID=from http
*
command line
*              EXTENSION_CONTROL_BLOCK *pECB      structure
pointer to passed in
*
* service information
*
* RETURNS:      None
*
* COMMENTS:      None
*
*/

void NewOrderForm(EXTENSION_CONTROL_BLOCK *pECB, int iFormId, int
iTermId, int iSyncId)
{
    WriteZString(pECB, MakeNewOrderForm(iTermId, iSyncId, TRUE,
FALSE, ""));
    UNUSEDPARAM(iFormId);
    return;
}

/* FUNCTION: void PaymentForm(EXTENSION_CONTROL_BLOCK *pECB, int
iFormId, int
*
*
* PURPOSE: This function wraps the functionality for the TPC-C Payment
Form.
*
* ARGUMENTS:  int      iFormId      unused
*              int      iTermId      id of calling browser, i.e.
TERMID=
*
*              int      iSyncId      sync id of calling browser
*

```



```

* EXTENSION_CONTROL_BLOCK *pECB structure pointer to
passed in
* internet service
information.
* RETURNS: None
*
* COMMENTS: None
*
*/

void PaymentForm(EXTENSION_CONTROL_BLOCK *pECB, int iFormId, int
iTermId, int iSyncId)
{
    WriteZString(pECB, MakePaymentForm(iTermId, iSyncId, TRUE) );
    UNUSEDPARAM(iFormId);
    return;
}

/* FUNCTION: void DeliveryForm(EXTENSION_CONTROL_BLOCK *pECB, int
iFormId, int
* iTermId, int iSyncId)
*
* PURPOSE: This function wraps the functionality for the TPC-C
Delivery Form.
*
* ARGUMENTS: int iFormId unused
* int iTermId id of calling browser, i.e.
TERMINID=
* from http command line
* int iSyncId sync id of calling browser
* EXTENSION_CONTROL_BLOCK *pECB structure pointer to
passed in
* internet service
information.
* RETURNS: None
*
* COMMENTS: None
*
*/

void DeliveryForm(EXTENSION_CONTROL_BLOCK *pECB, int iFormId, int
iTermId, int iSyncId)
{
    WriteZString(pECB, MakeDeliveryForm(iTermId, iSyncId, TRUE,
"") );
    UNUSEDPARAM(iFormId);

    return;
}

/* FUNCTION: void OrderStatusForm(EXTENSION_CONTROL_BLOCK *pECB, int
iFormId,
* int iTermId, int iSyncId)
*

```

```

* PURPOSE: This function wraps the function of the TPC-C Order Status
Form.
*
* ARGUMENTS: int iFormId unused
* int iTermId id of calling browser, i.e.
TERMINID=
* from http command line
* int iSyncId sync id of calling browser
* EXTENSION_CONTROL_BLOCK *pECB structure pointer to
passed in
* internet service
information.
* RETURNS: None
*
* COMMENTS: None
*
*/

void OrderStatusForm(EXTENSION_CONTROL_BLOCK *pECB, int iFormId, int
iTermId, int iSyncId)
{
    WriteZString(pECB, MakeOrderStatusForm(iTermId, iSyncId, TRUE) );
    UNUSEDPARAM(iFormId);

    return;
}

/* FUNCTION: void StockLevelForm(EXTENSION_CONTROL_BLOCK *pECB, int
iFormId,
c * int iTermId, int iSyncId)
*
* PURPOSE: This function wraps the functions of the TPC-C Stock Level
Form.
*
* ARGUMENTS: int iFormId unused
* int iTermId id of calling browser, i.e.
TERMINID=
* from http command line
* int iSyncId sync id of calling browser
* EXTENSION_CONTROL_BLOCK *pECB structure pointer to
passed in
* internet service
information.
* RETURNS: None
*
* COMMENTS: None
*
*/

void StockLevelForm(EXTENSION_CONTROL_BLOCK *pECB, int iFormId, int
iTermId, int iSyncId)
{
    WriteZString(pECB, MakeStockLevelForm(iTermId, iSyncId, TRUE) );

    return;
}

```

```

}

/* FUNCTION: void Exitcmd(EXTENSION_CONTROL_BLOCK *pECB, int iFormId,
int iTermId, int iSyncId)
*
* PURPOSE: This function removes a terminal id from use, the allocated
* structure however remains valid so the next request for a
new client
* will not require a new memory allocation.
*
* ARGUMENTS:  int      iFormId      unused
*             int      iTermId      id of calling browser, i.e.
TERMID=
*             int      iSyncId      from http command line
*             EXTENSION_CONTROL_BLOCK *pECB  structure pointer to
passed in
* internet service
information.
* RETURNS:    None
*
* COMMENTS:   None
*/

void Exitcmd(EXTENSION_CONTROL_BLOCK *pECB, int iFormId, int iTermId,
int iSyncId)
{
    (*Term.Delete)(pECB, iTermId);
    WriteZString(pECB, MakeWelcomeForm() );
    UNUSEDPARAM(iFormId);
    UNUSEDPARAM(iSyncId);

    return;
}

/* FUNCTION: void SubmitCmd(EXTENSION_CONTROL_BLOCK *pECB, int iFormId,
int
* iTermId, int iSyncId)
*
* PURPOSE: This function allocates a new terminal id in the Term
struct array.
*
* ARGUMENTS:  int      iFormId      unused
*             int      iTermId      id of calling browser, i.e.
TERMID=
*             int      iSyncId      from http command line
*             EXTENSION_CONTROL_BLOCK *pECB  structure pointer to
passed in
* internet service
information.
* RETURNS:    None
*
* COMMENTS:   A terminal id can be allocated but still be invalid if
the
* requested warehouse number is outside the range specified

```

```

in the
* registry. This then will force the client id to be
invalid and an
* error message sent to the users browser.
*/

void SubmitCmd(EXTENSION_CONTROL_BLOCK *pECB, int iFormId, int iTermId,
int iSyncId)
{
    int iCurrent;

    if ( (iCurrent = (*Term.Add)(pECB, pECB->lpszQueryString)) < 0 )
    {
        ErrorMessage(pECB, ERR_CANNOT_INIT_TERMINAL,
ERR_TYPE_WEBDLL, NULL, iCurrent, iSyncId);
        return;
    }

    if ( Term.pClientData[iCurrent].w_id > iMaxWareHouses ||
Term.pClientData[iCurrent].w_id < 1 )
    {
        ErrorMessage(pECB, ERR_W_ID_INVALID, ERR_TYPE_WEBDLL, NULL,
iCurrent, iSyncId);
        (*Term.Delete)(pECB, iCurrent);
        return;
    }

    if ( Term.pClientData[iCurrent].d_id < 1 ||
Term.pClientData[iCurrent].d_id > 10 )
    {
        ErrorMessage(pECB, ERR_D_ID_INVALID, ERR_TYPE_WEBDLL, NULL,
iCurrent, iSyncId);
        (*Term.Delete)(pECB, iCurrent);
        return;
    }

    WriteZString(pECB, MakeMainMenuForm(iCurrent,
Term.pClientData[iCurrent].iSyncId) );
    return;
}

/* FUNCTION: void BeginCmd(EXTENSION_CONTROL_BLOCK *pECB, int iFormId,
int iTermId, int iSyncId)
*
* PURPOSE: This function is the first command executed. It is
executed with
* the command:  CMD=Begin?Server=xxx from the http command
line.
*
* ARGUMENTS:  int      iFormId      unused
*             int      iTermId      id of calling browser, i.e.
TERMID=
*             int      iSyncId      from http command line
*             EXTENSION_CONTROL_BLOCK *pECB  structure pointer to
passed in
* internet service
information.
*

```

```

* RETURNS:      None
*
* COMMENTS:     SQL server must be specified, however the user and
password
*               parameters are optional. The complete command line is
*               CMD=Begin&Server=server&User=sa&Psw=&. The & are used
*               to separate parameters which is internet browser
standard.
*/

void BeginCmd(EXTENSION_CONTROL_BLOCK *pECB, int iFormId, int iTermId,
int iSyncId)
{
    LPSTR pQueryString;
    pQueryString = pECB->lpszQueryString;

    WriteZString(pECB, MakeWelcomeForm() );

    UNUSEDPARAM(iFormId);
    return;
}

/* FUNCTION: void ProcessCmd(EXTENSION_CONTROL_BLOCK *pECB, int iFormId,
int
*               iTermId, int iSyncId)
*
* PURPOSE:      This function process the passed in http command
*
* ARGUMENTS:    int      iFormId      unused
*               int      iTermId      id of calling browser, i.e.
TERMID=
*               int      iSyncId      from http command line
*               EXTENSION_CONTROL_BLOCK sync id of calling browser
*               *pECB      structure pointer to
passed in
*               internet service
information.
* RETURNS:      None
*
* COMMENTS:     None
*/

void ProcessCmd(EXTENSION_CONTROL_BLOCK *pECB, int iFormId, int iTermId,
int iSyncId)
{
    switch( iFormId )
    {
        case WELCOME_FORM:
            return;
        case MAIN_MENU_FORM:
            return;
    }

    switch( iFormId )
    {
        case NEW_ORDER_FORM:
            ProcessNewOrderForm(pECB, iTermId, iSyncId);
            break;

```

```

        case PAYMENT_FORM:
            ProcessPaymentForm(pECB, iTermId, iSyncId);
            break;
        case DELIVERY_FORM:
            ProcessDeliveryForm(pECB, iTermId, iSyncId);
            break;
        case ORDER_STATUS_FORM:
            ProcessOrderStatusForm(pECB, iTermId, iSyncId);
            break;
        case STOCK_LEVEL_FORM:
            ProcessStockLevelForm(pECB, iTermId, iSyncId);
            break;
    }
}

/* FUNCTION: void ClearCmd(EXTENSION_CONTROL_BLOCK *pECB, int iFormId,
int
*               iTermId, int iSyncId)
*
* PURPOSE:      This function frees all currently logged in terminal
ids.
*
* ARGUMENTS:    int      iFormId      unused
*               int      iTermId      id of calling browser, i.e.
TERMID=
*               int      iSyncId      from http command line
*               EXTENSION_CONTROL_BLOCK sync id of calling browser
*               *pECB      structure pointer to
passed in
*               internet service
information.
* RETURNS:      None
*
* COMMENTS:     Use this function with caution, it may cause
unpredictable
*               results if existing browsers attempt to use the web
client
*               without beginning at the login screen for each client.
*/

void ClearCmd(EXTENSION_CONTROL_BLOCK *pECB, int iFormId, int iTermId,
int iSyncId)
{
    int i;
    EnterCriticalSection(&CriticalSection);
    for(i=0; i<Term.iAvailable; i++)
    {
        if ( Term.pClientData[i].inUse )
            (*Term.Delete)(pECB, i);
    }
    Term.iNext = 0;
    Term.iAvailable = 0;
    Term.iMasterSyncId = 1;

    if ( Term.pClientData )
        free(Term.pClientData);

    Term.pClientData = NULL;

```

```

Term.bInit                = FALSE;

(*Term.Init)();

if ( !(*Term.Allocate)() )
{
    ErrorMessage(pECB, ERR_MAX_CONNECT_PARAM, ERR_TYPE_WEBDLL, NULL,
iTermId, iSyncId);
    return;
}

for(i=Term.iNext; i<Term.iAvailable; i++)
    Term.pClientData[i].inUse = 0;

Term.pClientData[0].inUse = 1;
LeaveCriticalSection(&CriticalSection);

WriteZString(pECB, MakeWelcomeForm() );
return;
}

/* FUNCTION: void MenuCmd(EXTENSION_CONTROL_BLOCK *pECB, int iFormId,
*                          int iTermId, int iSyncId)
*
* PURPOSE: This function causes an exit to the main menu
*
* ARGUMENTS:  int      iFormId      unused
*             int      iTermId      id of calling browser, i.e.
TERMIID=
*             int      iSyncId      from http command line
*             EXTENSION_CONTROL_BLOCK *pECB  structure pointer to
passed in
*                                     internet service
information.
* RETURNS:    None
*
* COMMENTS:   None
*/

void MenuCmd(EXTENSION_CONTROL_BLOCK *pECB, int iFormId, int iTermId,
int iSyncId)
{
    WriteZString(pECB, MakeMainMenuForm(iTermId, iSyncId) );
    return;
}

/* FUNCTION: void WriteZString(EXTENSION_CONTROL_BLOCK *pECB, char
*szStr)
*
* PURPOSE: This function is the low level output function. It writes
a string
* of text back to the client browser.
*
* ARGUMENTS: EXTENSION_CONTROL_BLOCK *pECB  passed in structure
pointer from

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```

*                                     inetsrv.
*                                     char      *szStr  string to display in
the client
*                                     browser.
*
* RETURNS:    None
*
* COMMENTS:   This function assumes that the string to written to the
client
*             browser has been formatted in an HTML manner.
*/

static void WriteZString(EXTENSION_CONTROL_BLOCK *pECB, char *szStr)
{
    FILE      *fp;
    int        lpbSize;
    int        iSize;
    char       szHeader[128];
    char       szHeader1[128];

    lpbSize = strlen(szStr)+1;

    if ( bLog )
    {
        SYSTEMTIME    systemTime;

        fp = fopen(szTpccLogPath, "ab");

        GetLocalTime(&systemTime);

        fprintf(fp, " * HTML PAGE
* %2.2d/%2.2d/%2.2d %2.2d:%2.2d:%2.2d\r\n\r\n%s\r\n\r\n",
                systemTime.wYear, systemTime.wMonth,
systemTime.wDay,
                systemTime.wHour, systemTime.wMinute,
systemTime.wSecond,
                szStr);

        fclose(fp);
    }

#ifdef PERFORMIX

    (*pECB->ServerSupportFunction)(pECB->ConnID,
HSE_REQ_DONE_WITH_SESSION, NULL, 0, 0);
    (*pECB->WriteClient)(pECB->ConnID, szStr, &lpbSize, 0);

#else

    iSize = sprintf(szHeader, "200 Ok");

    sprintf(szHeader1, "Connection: keep-alive\r\nContent-type:
text/html\r\nContent-Length: %d\r\n\r\n", lpbSize);//change 2003/7/11

    (*pECB->ServerSupportFunction)(pECB->ConnID,
HSE_REQ_SEND_RESPONSE_HEADER, szHeader, &iSize, (LPDWORD)szHeader1);
    (*pECB->WriteClient)(pECB->ConnID, szStr, &lpbSize, 0);
#endif

```

```

        return;
    }

/* FUNCTION: void h_printf(EXTENSION_CONTROL_BLOCK *pECB, char
*format, ...)
*
* PURPOSE: This function forms a high level printf for an HTML
browser
*
* ARGUMENTS: EXTENSION_CONTROL_BLOCK *pECB    passed in structure
pointer from
*
*             char                inetsrv.
*             *format printf style format
string
*             ...                  other arguments as required by
printf
*             style format string.
*
* RETURNS:    None
*
* COMMENTS: This function is mainly used for developmental support.
*/

static void h_printf(EXTENSION_CONTROL_BLOCK *pECB, char *format, ...)
{
    int lpbSize;
    char szBuff[512];
    char szTmp[512];

    va_list marker;
    va_start( marker, format );
    vsprintf(szTmp, format, marker);
    va_end( marker );

    lpbSize = wsprintf(szBuff, "<HTML>%s</HTML>", szTmp) + 1;
    (*pECB->WriteClient)(pECB->ConnID, szBuff, &lpbSize, 0);

    return;
}

/* FUNCTION: void ErrorMessage(EXTENSION_CONTROL_BLOCK *pECB, int
iError, int
*
*             iErrorType, char *szMsg)
*
* PURPOSE:    This function displays an error message in the client
browser.
*
* ARGUMENTS: EXTENSION_CONTROL_BLOCK *pECB    passed in structure
pointer from
*
*             int                inetsrv.
*             iError            id of error message
*             int                iErrorType    error type,
ERR_TYPE_SQL,
*
*             ERR_TYPE_OCI, or
*             ERR_TYPE_WEBDLL
*             int                iTermId      terminal id from

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browser
*
*             int                iSyncid      sync id from browser
*             char                *szMsg      optional error message
string
*
*                                     used with ERR_TYPE_SQL and
ERR_TYPE_OCI
*
* RETURNS:    None
*
* COMMENTS:    If the error type is ERR_TYPE_WEBDLL the szmsg
parameter may be
*
*             NULL because it is ignored. If the error type is
ERR_TYPE_SQL or
*
*             ERR_TYPE_OCI then the szMsg parameter contains the text
of the
*
*             error message, so the szMsg parameter cannot be NULL.
*/

void ErrorMessage(EXTENSION_CONTROL_BLOCK *pECB, int iError, int
iErrorType, char *szMsg, int iTermId, int iSyncId)
{
    int i;
    static SERRORMSG errorMsgs[] =
    {
        { ERR_SUCCESS, "Success, no error." },
        { ERR_COMMAND_UNDEFINED, "Command undefined." },
        { ERR_NOT_IMPLEMENTED_YET, "Not Implemented Yet." },
        { ERR_CANNOT_INIT_TERMINAL, "Cannot initialize client
connection." },
        { ERR_OUT_OF_MEMORY, "insufficient memory." },
        { ERR_NEW_ORDER_NOT_PROCESSED, "Cannot process new Order
form." },
        { ERR_PAYMENT_NOT_PROCESSED, "Cannot process payment
form." },
        { ERR_NO_SERVER_SPECIFIED, "No Server name specified." },
        { ERR_ORDER_STATUS_NOT_PROCESSED, "Cannot process order
status form." },
        { ERR_W_ID_INVALID, "Invalid Warehouse ID." },
        { ERR_CAN_NOT_SET_MAX_CONNECTIONS, "Insufficient memory
to allocate # connections." },
        { ERR_NOSUCH_CUSTOMER, "No such customer." },
        { ERR_D_ID_INVALID, "Invalid District ID Must be 1 to
10." },
        { ERR_MAX_CONNECT_PARAM, "Max client connections exceeded,
run install to increase." },
        { ERR_INVALID_SYNC_CONNECTION, "Invalid Terminal Sync
ID." },
        { ERR_INVALID_TERMID, "Invalid Terminal ID." },
        { ERR_PAYMENT_INVALID_CUSTOMER, "Payment Form, No such
Customer." },
        { ERR_SQL_OPEN_CONNECTION, "SQLOpenConnection API
Failed." },
        { ERR_STOCKLEVEL_MISSING_THRESHOLD_KEY, "Stock Level
missing Threshold key \"TT*\"." },
        { ERR_STOCKLEVEL_THRESHOLD_INVALID, "Stock Level
Threshold invalid data type range = 1 - 99." },
        { ERR_STOCKLEVEL_THRESHOLD_RANGE, "Stock Level Threshold
out of range, range must be 1 - 99." },
    }
}

```

```

    {
        ERR_STOCKLEVEL_NOT_PROCESSED, "Stock Level not
processed." },
    {
        ERR_NEWORDER_FORM_MISSING_DID, "New Order missing
District key \"DID*\".\" },
    {
        ERR_NEWORDER_DISTRICT_INVALID, "New Order District ID
Invalid range 1 - 10." },
    {
        ERR_NEWORDER_DISTRICT_RANGE, "New Order District ID out
of Range. Range = 1 - 10." },
    {
        ERR_NEWORDER_CUSTOMER_KEY, "New Order missing Customer
key \"CID*\".\" },
    {
        ERR_NEWORDER_CUSTOMER_INVALID, "New Order customer id
invalid data type, range = 1 to 3000." },
    {
        ERR_NEWORDER_CUSTOMER_RANGE, "New Order customer id out
of range, range = 1 to 3000." },
    {
        ERR_NEWORDER_MISSING_IID_KEY, "New Order missing Item
Id key \"IID*\".\" },
    {
        ERR_NEWORDER_ITEM_BLANK_LINES, "New Order blank order
lines all orders must be continuous." },
    {
        ERR_NEWORDER_ITEMID_INVALID, "New Order Item Id is
wrong data type, must be numeric." },
    {
        ERR_NEWORDER_MISSING_SUPPW_KEY, "New Order missing
Supp_W key \"SP##*\".\" },
    {
        ERR_NEWORDER_SUPPW_INVALID, "New Order Supp_W invalid
data type must be numeric." },
    {
        ERR_NEWORDER_MISSING_QTY_KEY, "New Order Missing Qty
key \"Qty##*\".\" },
    {
        ERR_NEWORDER_QTY_INVALID, "New Order Qty invalid must
be numeric range 1 - 99." },
    {
        ERR_NEWORDER_SUPPW_RANGE, "New Order Supp_W value out
of range - 1 to MaxWarehouses." },
    {
        ERR_NEWORDER_ITEMID_RANGE, "New Order Item Id is out of
range. Range = 1 to 999999." },
    {
        ERR_NEWORDER_QTY_RANGE, "New Order Qty is out of range.
Range = 1 to 99." },
    {
        ERR_PAYMENT_DISTRICT_INVALID, "Payment District ID is
invalid must be 1 - 10." },
    {
        ERR_NEWORDER_SUPPW_WITHOUT_ITEMID, "New Order Supp_W
field entered without a Item Id." },
    {
        ERR_NEWORDER_QTY_WITHOUT_ITEMID, "New Order Qty entered
without a corresponding Item Id." },
    {
        ERR_NEWORDER_NOITEMS_ENTERED, "New Order Blank Items
between items, items must be continuous." },
    {
        ERR_PAYMENT_MISSING_DID_KEY, "Payment missing district
Key \"DID*\".\" },
    {
        ERR_PAYMENT_DISTRICT_RANGE, "Payment District Out of
range, range = 1 - 10." },
    {
        ERR_PAYMENT_MISSING_CID_KEY, "Payment missing Customer
Key \"CID*\".\" },
    {
        ERR_PAYMENT_CUSTOMER_INVALID, "Payment Customer data
type invalid, must be numeric." },
    {
        ERR_PAYMENT_MISSING_CLT, "Payment missing Customer Last
Name Key \"CLT*\".\" },
    {
        ERR_PAYMENT_LAST_NAME_TO_LONG, "Payment Customer last
name longer than 16 characters." },
    {
        ERR_PAYMENT_CUSTOMER_RANGE, "Payment Customer ID out of
range, must be 1 to 3000." },
    {
        ERR_PAYMENT_CID_AND_CLT, "Payment Customer ID and Last
Name entered must be one or other." },
    {
        ERR_PAYMENT_MISSING_CDI_KEY, "Payment missing Customer

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district key \"CDI*\".\" },
    {
        ERR_PAYMENT_CDI_INVALID, "Payment Customer district
invalid must be numeric." },
    {
        ERR_PAYMENT_CDI_RANGE, "Payment Customer district out of
range must be 1 - 10." },
    {
        ERR_PAYMENT_MISSING_CWI_KEY, "Payment missing Customer
Warehouse key \"CWI*\".\" },
    {
        ERR_PAYMENT_CWI_INVALID, "Payment Customer Warehouse
invalid must be numeric." },
    {
        ERR_PAYMENT_CWI_RANGE, "Payment Customer Warehouse out
of range, 1 to Max Warehouses." },
    {
        ERR_PAYMENT_MISSING_HAM_KEY, "Payment missing Amount key
\"HAM*\".\" },
    {
        ERR_PAYMENT_HAM_INVALID, "Payment Amount invalid data
type must be numeric." },
    {
        ERR_PAYMENT_HAM_RANGE, "Payment Amount out of range, 0 -
9999.99." },
    {
        ERR_ORDERSTATUS_MISSING_DID_KEY, "Order Status missing
District key \"DID*\".\" },
    {
        ERR_ORDERSTATUS_DID_INVALID, "Order Status District
invalid, value must be numeric 1 - 10." },
    {
        ERR_ORDERSTATUS_DID_RANGE, "Order Status District out of
range must be 1 - 10." },
    {
        ERR_ORDERSTATUS_MISSING_CID_KEY, "Order Status missing
Customer key \"CID*\".\" },
    {
        ERR_ORDERSTATUS_MISSING_CLT_KEY, "Order Status missing
Customer Last Name key \"CLT*\".\" },
    {
        ERR_ORDERSTATUS_CLT_RANGE, "Order Status Customer last
name longer than 16 characters." },
    {
        ERR_ORDERSTATUS_CID_INVALID, "Order Status Customer ID
invalid, range must be numeric 1 - 3000." },
    {
        ERR_ORDERSTATUS_CID_RANGE, "Order Status Customer ID
out of range must be 1 - 3000." },
    {
        ERR_ORDERSTATUS_CID_AND_CLT, "Order Status Customer ID
and LastName entered must be only one." },
    {
        ERR_DELIVERY_MISSING_OCD_KEY, "Delivery missing Carrier
ID key \"OCD*\".\" },
    {
        ERR_DELIVERY_CARRIER_INVALID, "Delivery Carrier ID
invalid must be numeric 1 - 10." },
    {
        ERR_DELIVERY_CARRIER_ID_RANGE, "Delivery Carrier ID out
of range must be 1 - 10." },
    {
        ERR_PAYMENT_MISSING_CLT_KEY, "Payment missing Customer
Last Name key \"CLT*\".\" },
    {
        ERR_TPINIT_BAD,
        "Tuxedo tpinit
Failed."
    },
    {
        ERR_TPALLOC_BAD,
        "Tuxedo tpalloc
Failed."
    },
    {
        ERR_TPCALL_BAD,
        "Tuxedo tpcall
Failed."
    },
    {
        TOPEND_SEND_ERROR, "TOPEND client send error." },
    {
        TOPEND_RECEIVE_ERROR, "TOPEND client receive error." },
    {
        0, ""
    }
};

```

```

static char szNoMsg[] = "";
char      *szForm;

if ( !szMsg )
    szMsg = szNoMsg;

if ( iTermId > 0 && IsValidTermId(iTermId) )
    szForm = Term.pClientData[iTermId].szBuffer; //if termid valid
use common terminal static buffer.
else
    szForm = Term.pClientData[0].szBuffer; //else term id invalid
so use common terminal static buffer.

switch(iErrorType)
{
case ERR_TYPE_WEBDLL:
    for(i=0; errorMsgs[i].szMsg[0]; i++)
    {
        if ( iError == errorMsgs[i].iError )
            break;
    }

    if ( !errorMsgs[i].szMsg[0] )
        i = 1;

    strcpy(szForm, "<HTML><HEAD><TITLE>Welcome To TPC-
C</TITLE></HEAD><BODY><FORM ACTION=\"tpcc.dll\" METHOD=\"GET\">");
    sprintf(szForm+strlen(szForm), "<INPUT
TYPE=\"hidden\"<NAME=\"STATUSID\" VALUE=\"%d\">", iError);
    sprintf(szForm+strlen(szForm), "<INPUT TYPE=\"hidden\"
NAME=\"ERROR\" VALUE=\"%d\">", iErrVal);
    sprintf(szForm+strlen(szForm), "<INPUT
TYPE=\"hidden\"<NAME=\"TERMINID\" VALUE=\"%d\">", iTermId);
    sprintf(szForm+strlen(szForm), "<INPUT
TYPE=\"hidden\"<NAME=\"SYNCHID\" VALUE=\"%d\">", iSyncId);
    sprintf(szForm+strlen(szForm), "Error: TPCCWEB(%d): %s",
iError,errorMsgs[i].szMsg);
    strcat(szForm, "</FORM><BODY></HTML>");
    WriteZString(pECB, szForm);
    break;

case ERR_TYPE_SQL:
    strcpy(szForm, "<HTML><HEAD><TITLE>Welcome To TPC-
C</TITLE></HEAD><BODY><FORM ACTION=\"tpcc.dll\" METHOD=\"GET\">");
    sprintf(szForm+strlen(szForm), "<INPUT
TYPE=\"hidden\"<NAME=\"STATUSID\" VALUE=\"%d\">", iError);
    sprintf(szForm+strlen(szForm), "<INPUT TYPE=\"hidden\"
NAME=\"ERROR\" VALUE=\"%d\">", iErrVal);
    sprintf(szForm+strlen(szForm), "<INPUT
TYPE=\"hidden\"<NAME=\"TERMINID\" VALUE=\"%d\">", iTermId);
    sprintf(szForm+strlen(szForm), "<INPUT
TYPE=\"hidden\"<NAME=\"SYNCHID\" VALUE=\"%d\">", iSyncId);
    sprintf(szForm+strlen(szForm), "Error: Oracle(%d): %s",
iError, szMsg);
    strcat(szForm, "</FORM><BODY></HTML>");
    WriteZString(pECB, szForm);
    break;
}

```

```

case ERR_TYPE_OCI:
    strcpy(szForm, "<HTML><HEAD><TITLE>Welcome To TPC-
C</TITLE></HEAD><BODY><FORM ACTION=\"tpcc.dll\" METHOD=\"GET\">");
    sprintf(szForm+strlen(szForm), "<INPUT
TYPE=\"hidden\"<NAME=\"STATUSID\" VALUE=\"%d\">", iError);
    sprintf(szForm+strlen(szForm), "<INPUT TYPE=\"hidden\"
NAME=\"ERROR\" VALUE=\"%d\">", iErrVal);
    sprintf(szForm+strlen(szForm), "<INPUT
TYPE=\"hidden\"<NAME=\"TERMINID\" VALUE=\"%d\">", iTermId);
    sprintf(szForm+strlen(szForm), "<INPUT
TYPE=\"hidden\"<NAME=\"SYNCHID\" VALUE=\"%d\">", iSyncId);
    sprintf(szForm+strlen(szForm), "Error: OCI(%d): %s", iError,
szMsg);
    strcat(szForm, "</FORM><BODY></HTML>");
    WriteZString(pECB, szForm);
    break;

case ERR_TYPE_TUXEDO:
    strcpy(szForm, "<HTML><HEAD><TITLE>Welcome To
TPC-C</TITLE></HEAD><BODY><FORM ACTION=\"tpcc.dll\" METHOD=\"GET\">");
    sprintf(szForm+strlen(szForm), "<INPUT
TYPE=\"hidden\" NAME=\"STATUSID\" VALUE=\"%d\">", iError);
    sprintf(szForm+strlen(szForm), "<INPUT
TYPE=\"hidden\" NAME=\"ERROR\" VALUE=\"%d\">", iErrVal);
    sprintf(szForm+strlen(szForm), "<INPUT
TYPE=\"hidden\" NAME=\"TERMINID\" VALUE=\"%d\">", iTermId);
    sprintf(szForm+strlen(szForm), "<INPUT
TYPE=\"hidden\" NAME=\"SYNCHID\" VALUE=\"%d\">", iSyncId);
    sprintf(szForm+strlen(szForm), "Error:
Tuxedo: %d %s", iError, szMsg);
    strcat(szForm, "</FORM><BODY></HTML>");
    WriteZString(pECB, szForm);
    break;
}
return;
}

/* FUNCTION: BOOL GetKeyValue(char *pQueryString, char *pKey, char
*pValue,
*
* int iMax, char **pBeyondKey)
*
* PURPOSE: This function parses http formatted string for specific key
values.
*
* ARGUMENTS: char *pQueryString http string from client browser
* char *pKey key value to look for
* char *pValue character array into which to place
key's value
*
* int iMax maximum length of key value
array.
*
* char **pBeyondKey Pointer to location beyond key
value
*
* RETURNS: BOOL FALSE key value not found
* TRUE key value found
*
* COMMENTS: http keys are formatted either KEY=value& or

```

```

KEY=value\0. This
* DLL formats TPC-C input fields in such a manner that the keys can be
* extracted in the above manner.
*/

static BOOL GetKeyValue(char *pQueryString, char *pKey, char *pValue,
int iMax)

{
    char *ptr;

    if ( !(ptr=strstr(pQueryString, pKey)) )
        return FALSE;
    if ( !(ptr=strchr(ptr, '=')) )
        return FALSE;
    ptr++;
    iMax--;
    while( *ptr && *ptr != '&' && iMax)
    {
        *pValue++ = *ptr++;
        iMax--;
    }
    *pValue = 0;
    return TRUE;
}

/* FUNCTION: void TermInit(void)
*
* PURPOSE: This function initializes the client terminal structure it
is
*          called when the TPCC.DLL is first loaded by the inet
service.
*
* ARGUMENTS:    none
*
* RETURNS:      None
*
* COMMENTS:     None
*/

static void TermInit(void)
{
    if ( Term.bInit )
        return;
    Term.iNext = 0;
    Term.iMasterSyncId = 1;
    Term.iAvailable = 0;
    Term.pClientData = NULL;
    Term.bInit = TRUE;
    return;
}

/* FUNCTION: void TermRestore(void)
*
* PURPOSE: This function frees allocated resources associated with the
* terminal structure.

```

```

*
* ARGUMENTS:    none
*
* RETURNS:      None
*
* COMMENTS:     This function is called only with the inet service
unloads the
*              TPCC.DLL
*/

static void TermRestore(void)
{
    Term.iNext = 0;
    Term.iAvailable = 0;
    Term.iMasterSyncId = 0;
    if ( Term.pClientData )
        free(Term.pClientData);
    Term.pClientData = NULL;
    Term.bInit = FALSE;
    return;
}

/* FUNCTION: int TermAllocate(void)
*
* PURPOSE: This funct allocates terminal array entries in the Term
structure.
*
* ARGUMENTS:    None
*
* RETURNS:      int TRUE or 1 if sucessfull
                int FALSE or 0 if terminal id cannot be allocated.
*
* COMMENTS:     None
*/

static int TermAllocate(void)
{
    Term.iAvailable += 32;
    if ( !Term.pClientData )
        Term.pClientData = (PCLIENTDATA)malloc(Term.iAvailable *
sizeof(CLIENTDATA));
    else
        Term.pClientData = (PCLIENTDATA)realloc(Term.pClientData,
Term.iAvailable * sizeof(CLIENTDATA));

    return ( Term.pClientData ) ? 1 : 0;
}

/* FUNCTION: int TermAdd(EXTENSION_CONTROL_BLOCK *pECB, char
*pQueryString, int iTermId)
*
* PURPOSE: This function assigns a terminal id which is used to
identify a
*          client browser.
*
* ARGUMENTS: EXTENSION_CONTROL_BLOCK *pECB      passed instructure
pointer

```



```

*
*      char      *pQueryString    from inetsrv.
*      passed to      http query string
*
*      this DLL.
*
*      int      iTermId      terminal id from
browser
* RETURNS:      int      assigned terminal id
*      -1      cannot assign id error occurred.
*
*
* COMMENTS: if the terminal id cannot be assigned it is because of
*      insufficient memory or the SQL connection cannot be
allocated.
*
*/

```

```

static int TermAdd(EXTENSION_CONTROL_BLOCK *pECB, char *pQueryString)
{
    char      szTmp[32];

    int      i, iCurrent, iTotalConnections, iTickCount;

    EnterCriticalSection(&CriticalSection);
    for(i=0; iTotalConnections = 0; i<Term.iAvailable; i++)
    {
        if ( Term.pClientData[i].inUse )
            iTotalConnections++;
    }

    if ( iTotalConnections >= iMaxConnections )
    {
        for(iCurrent = 1, i=1, iTickCount = 0x7FFFFFFF;
i<iMaxConnections; i++)
        {
            if ( iTickCount > Term.pClientData[i].iTickCount )
            {
                iTickCount = Term.pClientData[i].iTickCount;
                iCurrent = i;
            }
        }
    }
    else
    {
        for(i=0; i<Term.iAvailable; i++)
        {
            if ( !Term.pClientData[i].inUse )
                break;
        }

        iCurrent = i;
    }
    if ( i == Term.iAvailable )
    {
        Term.iNext = Term.iAvailable;
        if ( !(*Term.Allocate)() )
            goto TermAddErr1;

        for(i=Term.iNext; i<Term.iAvailable; i++)

```

```

        Term.pClientData[i].inUse = 0;

        iCurrent = Term.iNext;
    }

    Term.pClientData[iCurrent].inUse = 1;
    if ( !GetKeyValue(pQueryString, "w_id", szTmp, sizeof(szTmp)) )
        goto TermAddErr1;

    Term.pClientData[iCurrent].w_id = (int)atoi(szTmp); //change
2003/07/19
    if ( !GetKeyValue(pQueryString, "d_id", szTmp, sizeof(szTmp)) )
        goto TermAddErr1;

    Term.pClientData[iCurrent].d_id = atoi(szTmp);
    Term.pClientData[iCurrent].iTickCount = GetTickCount();
    Term.pClientData[iCurrent].iSyncId = Term.iMasterSyncId++;
    if ( Init(pECB, iCurrent, Term.pClientData[iCurrent].iSyncId,
szServer, szUser, szPassword, szDatabase) )
    {
        (*Term.Delete)(pECB, iCurrent);
        goto TermAddErr1;
    }

    LeaveCriticalSection(&CriticalSection);
    return iCurrent;

TermAddErr1:
    LeaveCriticalSection(&CriticalSection);
    return -1;    //terminal unsuccessfully added
}

/* FUNCTION: void TermDelete(EXTENSION_CONTROL_BLOCK *pECB, int id)
*
* PURPOSE: This function makes a terminal entry in the Term array
available
*      for reuse.
*
* ARGUMENTS: EXTENSION_CONTROL_BLOCK *pECB passed in structure
pointer from
*
*      int      id      inetsrv.
*      Terminal id of client exiting
*
* RETURNS:      None
*
* COMMENTS:      None
*
*/

static void TermDelete(EXTENSION_CONTROL_BLOCK *pECB, int id)
{
    if ( id >= 0 && id < Term.iAvailable )
    {
        Close(pECB, id, -1);
        Term.pClientData[id].inUse = 0;

#ifdef LOCAL_ALLOC
        tpfree((char *)Term.pClientData[id].newOrderDataPtr);

```

```

        tpfree((char *)Term.pClientData[id].paymentDataPtr);
        tpfree((char *)Term.pClientData[id].orderStatusDataPtr);
        tpfree((char *)Term.pClientData[id].deliveryDataPtr);
        tpfree((char *)Term.pClientData[id].stockLevelDataPtr);
#endif
    }

    return;
}

/* FUNCTION: BOOL Init(EXTENSION_CONTROL_BLOCK *pECB, int iTermId, int
iSyncId,
*           char *szServer, char *szUser, char *szPassword,
*           char *szDatabase)
*
* PURPOSE: This function initializes the sql connection for use.
*
* ARGUMENTS: EXTENSION_CONTROL_BLOCK *pECB    passed in structure
pointer
*           from inetsrv.
*           id of browser client that this
connection is for.
*           int iTermId
*           int iSyncId      sync id for this client session
*           char *szServer   sql server name
*           char *szUser     user name
*           char *szPassword user password
*           char *szDatabase database to use
*
* RETURNS:  BOOL    FALSE if successfull
*           TRUE    if an error occurs and connection cannot be
established.
*
* COMMENTS:  None
*/
BOOL Init(EXTENSION_CONTROL_BLOCK *pECB, int iTermId, int iSyncId, char
*szServer, char *szUser, char*szPassword, char *szDatabase)
{
    char    szApp[32];
#ifdef LOCAL_ALLOC
    char    buf[40];
    int     iRc;
#endif
#ifdef TOPEND
    int     i;
    void    space_fill();
    tp_dif_structs_t *tclient_dif;
    char    ascii_pid[10];
    int     msglen;
    FILE    *fp1;
#else
    sprintf(szApp, "TPCC:%ld", (int)iTermId);
    /* Term.pClientData[iTermId].dbContext = NULL;    - do not keep
context */
#endif

```

```

#endif

#ifdef TOPEND
EnterCriticalSection(&CriticalSection);
if (TP_InitDone == FALSE)
{
    TP_InitDone = TRUE;
    LeaveCriticalSection (&CriticalSection);

    if((i=(int)tp_ChangeToGroup((LPSTR)getenv("TP_SYSTEM"),
LOGON32_LOGON_INTERACTIVE,
LOGON32_PROVIDER_DEFAULT))!=0)
    {
        if (bLog)
        {
            fp1 = fopen(szTpccLogPath,"ab");
            fprintf(fp1,"Bad status from
tp_ChangeToGroup,status=%d*\n",i);
            fclose(fp1);
        }
        MessageBox(NULL, "Failed in tp_ChangeToGroup.",
"Init", MB_OK | MB_ICONSTOP);
        return TRUE; //changed DMA
    }
    //initialize TOPEND

    if ((i=tp_mt_initialize(NULL,NULL,0L))!=TP_OK)
    {
        if (bLog)
        {
            fp1 = fopen(szTpccLogPath,"ab");
            fprintf(fp1,"Bad status from
tp_mt_initialize,status=%d*\n",i);
            fclose(fp1);
        }

        return TRUE; //changed DMA
    }
} //if init
else
LeaveCriticalSection(&CriticalSection);

sprintf(szApp,"TPCC:%ld", (int)iTermId);
// Term.pClientData[iTermId].dbproc=NULL;

if((i=client_dif= tp_csi_alloc(TP_DIF_ALL))== NULL)
{
    if (bLog)
    {
        // SYSTEMTIME systemTime;
        fp1 = fopen(szTpccLogPath,"ab");
        fprintf(fp1,"Bad status from tp_csi_alloc,status=%d*\n",i);
        fclose(fp1);
    }
}

ErrorMessage(pECB, TOPEND_SEND_ERROR, ERR_TYPE_WEBDLL,

```

```

        NULL,iTermId,iSyncId);

    return TRUE;
}

(tp_dif_structs_t*)Term.pClientData[iTermId].tp_structadr =
client_dif;
tclient_dif =
(tp_dif_structs_t*)Term.pClientData[iTermId].tp_structadr;

sprintf(ascii_pid,"%d",iTermId);

tclient_dif->info->tp_user_dialogue_id = iTermId;
tclient_dif->info->tp_user_message_id = 0L;
tclient_dif->info->tp_system_dialogue_id.tp_sys_dialogue = 0L;
tclient_dif->info->tp_flags = TP_NOFLAGS;

space_fill (tclient_dif->client->tp_userid,"tpcc
cli",TP_USERID_LEN);
space_fill (tclient_dif->client-
>tp_endpoint,ascii_pid,TP_ENDPOINT_LEN);
space_fill (tclient_dif->client->tp_password,"",TP_PASSWORD_LEN);
space_fill
(tclient_dif->service-
>tp_product_name,"tpcc",TP_PROD_NAME_LEN);
space_fill
(tclient_dif->output_format-
>tp_format_name,"",TP_FMT_NAME_LEN);
space_fill
(tclient_dif->service-
>tp_function_name,"tpcc1",TP_FUNC_NAME_LEN);

tclient_dif->service->tp_function_qualifier = 0;
wait_time = TP_BLOCK;
msglen = 0L;

if ((i = tp_mt_client_signon(tclient_dif->info,tclient_dif-
>client,
        inactivity_time,NULL,NULL,0,NULL)) != TP_OK)
{
    if (bLog)
    {
        fpl = fopen(szTpccLogPath,"ab");
        fprintf(fpl,"client signon
failed,status=%d,iTermId=%d,iSyncId=%d\n",
            i,iTermId,iSyncId);
        fclose(fpl);
    }

    ErrorMessage(pECB,TOPEND_SEND_ERROR,ERR_TYPE_WEBDLL,
        NULL,iTermId,iSyncId);

    return TRUE;
}

if ((i = tp_mt_client_receive(tclient_dif->info,wait_time,
        tclient_dif->output_format,tclient_dif->service,
        tclient_dif->location,&msglen,NULL)) != TP_OK)
{

```

```

        if (bLog)
        {
            fpl = fopen(szTpccLogPath,"ab");
            fprintf(fpl,"client receive from signon
failed,status=%d\n",i);
            fclose(fpl);
        }

        ErrorMessage(pECB,TOPEND_SEND_ERROR,ERR_TYPE_WEBDLL,
            NULL,iTermId,iSyncId);

        return TRUE;
    }

    if (bLog)
    {
        fpl = fopen(szTpccLogPath,"ab");
        fprintf(fpl,"client %d signed on.\n",iTermId);
        fclose(fpl);
    }

    #else
    #ifdef TUX
    #ifndef LOCAL_ALLOC /* only do if not doing local alloc of
tuxedo data structures */
    //      Add initialization of Tuxedo Structures

    //          NEWORDER

        if ((Term.pClientData[iTermId].newOrderDataPtr =
(NewOrderData *)tpalloc("CARRAY", NULL, sizeof(NewOrderData))) == NULL)
        {
            iRc = tperrno;
            sprintf(buf, "Tpccalloc %d", iRc);
            ErrorMessage(pECB, ERR_TPALLOC_BAD,
ERR_TYPE_TUXEDO, buf, 0, 0);
            {
                FILE *fp;

                fp = fopen(szTpccLogPath, "ab");
                fprintf(fp, ">>>> Init Thread %d :
NewOrder tpalloc failed: iRc = %d \r\n",
                    GetCurrentThreadId(), iRc);
                fclose(fp);
            }
            sprintf(buf, "Tpccalloc %d", iRc);
            ErrorMessage(pECB, ERR_TPALLOC_BAD,
ERR_TYPE_TUXEDO, buf, 0, 0);
            return TRUE;
        }

        if ( dLog )
        {
            FILE *fp;

            fp = fopen(szTpccLogPath, "ab");
            fprintf(fp, "** Init Thread %d iTermId %d *
NewOrderDataPtr: %x \r\n",
                GetCurrentThreadId(), iTermId,

```

```

&Term.pClientData[iTermId].newOrderDataPtr);
    fclose(fp);
}

//      PAYMENT

    if ((Term.pClientData[iTermId].paymentDataPtr =
(PaymentData *)tpalloc("CARRAY", NULL, sizeof(PaymentData))) == NULL)
    {
        iRc = tperrno;
        {
            FILE *fp;

            fp = fopen(szTpccLogPath, "ab");
            fprintf(fp, ">>>> Init Thread %d :
Payment tmalloc failed: iRc = %d \r\n",
                GetCurrentThreadId(), iRc);
            fclose(fp);
        }
        sprintf(buf, "Tpccalloc %d", iRc);
        ErrorMessage(pECB, ERR_TPALLOC_BAD,
ERR_TYPE_TUXEDO, buf, 0, 0);
        return TRUE;
    }

    if ( dLog )
    {
        FILE *fp;

        fp = fopen(szTpccLogPath, "ab");
        fprintf(fp, "* Init Thread %d iTermId %d *
PaymentDataPtr: %x \r\n",
            GetCurrentThreadId(), iTermId,
&Term.pClientData[iTermId].paymentDataPtr);
        fclose(fp);
    }

//      ORDERSTATUS

    if ((Term.pClientData[iTermId].orderStatusDataPtr =
(OrderStatusData *)tpalloc("CARRAY", NULL, sizeof(OrderStatusData))) ==
NULL)
    {
        iRc = tperrno;
        {
            FILE *fp;

            fp = fopen(szTpccLogPath, "ab");
            fprintf(fp, ">>>> Init Thread %d :
OrderStatus tmalloc failed: iRc = %d \r\n",
                GetCurrentThreadId(), iRc);
            fclose(fp);
        }
        sprintf(buf, "Tpccalloc %d", iRc);
        ErrorMessage(pECB, ERR_TPALLOC_BAD,
ERR_TYPE_TUXEDO, buf, 0, 0);
        return TRUE;
    }

```

```

    if ( dLog )
    {
        FILE *fp;

        fp = fopen(szTpccLogPath, "ab");
        fprintf(fp, "* Init Thread %d iTermId %d *
OrderStatusDataPtr: %x \r\n",
            GetCurrentThreadId(), iTermId,
&Term.pClientData[iTermId].orderStatusDataPtr);
        fclose(fp);
    }

//      DELIVERY

    if ((Term.pClientData[iTermId].deliveryDataPtr =
(DeliveryData *)tpalloc("CARRAY", NULL, sizeof(DeliveryData))) == NULL)
    {
        iRc = tperrno;
        {
            FILE *fp;

            fp = fopen(szTpccLogPath, "ab");
            fprintf(fp, ">>>> Init Thread %d :
Delivery tmalloc failed: iRc = %d \r\n",
                GetCurrentThreadId(), iRc);
            fclose(fp);
        }
        sprintf(buf, "Tpccalloc %d", iRc);
        ErrorMessage(pECB, ERR_TPALLOC_BAD,
ERR_TYPE_TUXEDO, buf, 0, 0);
        return TRUE;
    }

    if ( dLog )
    {
        FILE *fp;

        fp = fopen(szTpccLogPath, "ab");

        fprintf(fp, "* Init Thread %d iTermId %d *
DeliveryDataPtr: %x \r\n",
            GetCurrentThreadId(), iTermId,
&Term.pClientData[iTermId].deliveryDataPtr);
        fclose(fp);
    }

//      STOCKLEVEL

    if ((Term.pClientData[iTermId].stockLevelDataPtr =
(StockLevelData *)tpalloc("CARRAY", NULL, sizeof(StockLevelData))) ==
NULL)
    {
        iRc = tperrno;
        {
            FILE *fp;

            fp = fopen(szTpccLogPath, "ab");
            fprintf(fp, ">>>> Init Thread %d :
StockLevel tmalloc failed: iRc = %d \r\n",

```

```

        GetCurrentThreadId(), iRc);
        fclose(fp);
    }
    sprintf(buf, "Tpccalloc %d", iRc);
    ErrorMessage(pECB, ERR_TPALLOC_BAD,
ERR_TYPE_TUXEDO, buf, 0, 0);
    return TRUE;
}

if ( dLog )
{
    FILE *fp;

    fp = fopen(szTpccLogPath, "ab");

    fprintf(fp, "* Init Thread %d iTermId %d *
StockLevelDataPtr: %x \r\n",
        GetCurrentThreadId(), iTermId,
&Term.pClientData[iTermId].stockLevelDataPtr);
    fclose(fp);
}
#endif
#endif
return FALSE;
}

/* FUNCTION: BOOL Close(EXTENSION_CONTROL_BLOCK*pECB, int iTermId, int
iSyncId)
*
* PURPOSE:      This function closes the sql connection for use.
*
* ARGUMENTS:    EXTENSION_CONTROL_BLOCK *pECB    passed in structure
pointer from
*
*               inetsrv.
* int iTermId      id of browser client that this
cxn is for.
* int iSyncId      sync id of client
browser
*
* RETURNS:      BOOL    FALSE    if successfull
*                  TRUE     if an error occurs and connection
cannot be
*                  terminated.
*
* COMMENTS:      None
*
*/

static BOOL Close(EXTENSION_CONTROL_BLOCK *pECB, int iTermId, int
iSyncId)
{
#ifdef TOPEND

    tp_dif_structs_t *tclient_dif;
    tclient_dif = (tp_dif_structs_t
*)Term.pClientData[iTermId].tp_structadr;

```

```

        tclient_dif->info->tp_flags = TP_SIGNOFF_IMMED;

        tp_client_signoff(tclient_dif->info);
        tp_csi_free (tclient_dif);
        return TRUE;

    } else /* do any database special closing, nothing at this time */
        return 0;
    #endif
    UNUSEDPARAM(iSyncId);
}

/* FUNCTION: void FormatString(char *szDest, char *szPic, char *szSrc)
*
* PURPOSE:      This function formats a character string for inclusion
in the
*               HTML formatted page being constructed.
*
* ARGUMENTS:    char *szDest Destination buffer where formatted
string is to
*               be placed
*               char *szPic  picture string which describes how
character
*               value is to be formatted.
*               char *szSrc  character string value.
*
* RETURNS:      None
*
* COMMENTS:      This function is used to format TPC-C phone and zip value
strings.
*
*/
static void FormatString(char *szDest, char *szPic, char *szSrc)
{
    while( *szPic )
    {
        if ( *szPic == 'X' )
        {
            if ( *szSrc )
                *szDest++ = *szSrc++;
            else
                *szDest++ = ' ';
        }
        else
            *szDest++ = *szPic;

        szPic++;
    }

    *szDest = 0;
    return;
}

/* FUNCTION: char *MakeStockLevelForm(int iTermId, int iSyncId, BOOL
bInput)
*

```


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```

Term.pClientData[iTermId].trans.newOrderData.newout.c_credit,
Term.pClientData[iTermId].trans.newOrderData.newout.c_discount
* 100,
Term.pClientData[iTermId].trans.newOrderData.newout.o_id,
Term.pClientData[iTermId].trans.newOrderData.newout.o_ol_cnt,
Term.pClientData[iTermId].trans.newOrderData.newout.w_tax * 100,
Term.pClientData[iTermId].trans.newOrderData.newout.d_tax *
100);
// We could make 0-4 be hard coded in one sprintf, since we know that
// there is at least 5
// order lines, or is this a benchmark special??
// etw
for(i=0;
i<Term.pClientData[iTermId].trans.newOrderData.newout.o_ol_cnt; i++)
{
//
// FormatHTMLString(szName,
Term.pClientData[iTermId].NewOrderData.ol[i].ol_i_name, 24);

sprintf(szForm+strlen(szForm),
"%6.6d %6.6d %-24.24s %2.2d %3.3d %1c $%6.2f $%7.2f
<BR>",
//
Term.pClientData[iTermId].trans.newOrderData.newin.ol_supply_w_
id[i],//change
//
Term.pClientData[iTermId].trans.newOrderData.newin.ol_i_id[i],//
/change
Term.pClientData[iTermId].trans.newOrderData.newout.ol_supply_w
_id[i],//change
Term.pClientData[iTermId].trans.newOrderData.newout.ol_i_id[i],
//change
Term.pClientData[iTermId].trans.newOrderData.newout.i_name[i],
Term.pClientData[iTermId].trans.newOrderData.newout.ol_quantity
[i],//change
//
Term.pClientData[iTermId].trans.newOrderData.newin.ol_quantity[
i],//change
Term.pClientData[iTermId].trans.newOrderData.newout.s_quantity[
i],
Term.pClientData[iTermId].trans.newOrderData.newout.brand_gener
ic[i],
Term.pClientData[iTermId].trans.newOrderData.newout.i_price[i],
Term.pClientData[iTermId].trans.newOrderData.newout.ol_amount[i
] );

```

```

}
for(; i<15; i++)
    strcat(szForm, "<BR>");

sprintf(szForm+strlen(szForm), "Execution
Status: %24.24s Total: $%8.2f ",
execution_status,

Term.pClientData[iTermId].trans.newOrderData.newout.total_ammoun
t);

strcat(szForm, "</PRE><HR><BR>\
<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"..NewOrder..\">\
<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"..Payment..\">\
<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"..Delivery..\">\
<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"..Order-Status..\">\
<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"..Stock-Level..\">\
<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"..Exit..\">\
</FORM></HTML>");
}
else // not bValid
{
//
// FormatHTMLString(szName,
Term.pClientData[iTermId].NewOrderData.c_last, 16),
//
// FormatHTMLString(szCredit,
Term.pClientData[iTermId].NewOrderData.c_credit, 2);
// statusid set to 1 for benchcraft - indicator for invalid item
strcpy(szForm, "<HTML><HEAD><TITLE>TPC-C New
Order</TITLE>\
</HEAD><BODY><FORM ACTION=\"tpcc.dll\" METHOD=\"GET\">\
<INPUT TYPE=\"hidden\" NAME=\"STATUSID\" VALUE=\"1\">\
<INPUT TYPE=\"hidden\" NAME=\"ERROR\" VALUE=\"0\">\
<INPUT TYPE=\"hidden\" NAME=\"FORMID\" VALUE=\"3\">"); //
NEW_ORDER_FORM = 3

sprintf(szForm+strlen(szForm), "<INPUT TYPE=\"hidden\"
NAME=\"TERMID\" VALUE=\"%d\">\
<INPUT TYPE=\"hidden\" NAME=\"SYNCID\" VALUE=\"%d\">\
<PRE>
Warehouse: %6.6d District: %2.2d Date:<BR>\
Customer: %4.4d Name: %s Credit: %s %Disc:<BR>\
Order Number: %8.8d Number of Lines: W_tax:
D_tax:<BR><BR>",
iTermId,
iSyncId,

Term.pClientData[iTermId].trans.newOrderData.newin.w_id,
Term.pClientData[iTermId].trans.newOrderData.newin.d_id,

Term.pClientData[iTermId].trans.newOrderData.newin.c_id,
Term.pClientData[iTermId].trans.newOrderData.newout.c_last,
Term.pClientData[iTermId].trans.newOrderData.newout.c_credit,
Term.pClientData[iTermId].trans.newOrderData.newout.o_id

```



```

%-20s %-2s %10.10s      %-20s %-2s %10.10s<BR><BR>\
Customer: %4.4d Cust-Warehouse: %6.6d Cust-District: %2.2d<BR>\
Name:   %-16s %-2s %-16s      Since:  %10s<BR>\
        %-20s                  Credit: %s<BR>\
        %-20s                  %%Disc:  %5.2f<BR>\
        %-20s %-2s %10.10s      Phone:  %-19.19s<BR><BR>\
Amount Paid:      $%7.2f      New Cust Balance: $%14.2f<BR>\
Credit Limit:    $%13.2f<BR><BR>",

        iTermId,
        iSyncId,

Term.pClientData[iTermId].trans.paymentData.payout.h_date,
Term.pClientData[iTermId].trans.paymentData.payin.w_id,
Term.pClientData[iTermId].trans.paymentData.payin.d_id,
Term.pClientData[iTermId].trans.paymentData.payout.w_street_1,
Term.pClientData[iTermId].trans.paymentData.payout.d_street_1,
Term.pClientData[iTermId].trans.paymentData.payout.w_street_2,
Term.pClientData[iTermId].trans.paymentData.payout.d_street_2,
Term.pClientData[iTermId].trans.paymentData.payout.w_city,
Term.pClientData[iTermId].trans.paymentData.payout.w_state,
        szW_Zip,
Term.pClientData[iTermId].trans.paymentData.payout.d_city,
Term.pClientData[iTermId].trans.paymentData.payout.d_state,
        szD_Zip,

Term.pClientData[iTermId].trans.paymentData.payout.c_id,
Term.pClientData[iTermId].trans.paymentData.payin.c_w_id,
Term.pClientData[iTermId].trans.paymentData.payin.c_d_id,
Term.pClientData[iTermId].trans.paymentData.payout.c_first,
Term.pClientData[iTermId].trans.paymentData.payout.c_middle,
Term.pClientData[iTermId].trans.paymentData.payout.c_last,
Term.pClientData[iTermId].trans.paymentData.payout.c_since,
Term.pClientData[iTermId].trans.paymentData.payout.c_street_1,
Term.pClientData[iTermId].trans.paymentData.payout.c_credit,
Term.pClientData[iTermId].trans.paymentData.payout.c_street_2,

Term.pClientData[iTermId].trans.paymentData.payout.c_discount*1

```

00,

```

Term.pClientData[iTermId].trans.paymentData.payout.c_city,
Term.pClientData[iTermId].trans.paymentData.payout.c_state,
        szC_Zip, szC_Phone,

(float) (Term.pClientData[iTermId].trans.paymentData.payin.h_amo
unt)/100.0,

Term.pClientData[iTermId].trans.paymentData.payout.c_balance,
Term.pClientData[iTermId].trans.paymentData.payout.c_credit_lim
);

// This part can probably be made a little more efficient
//etw
        ptr =
Term.pClientData[iTermId].trans.paymentData.payout.c_credit;
//for dedug katsuf
        if (bLog){
                FILE *fpl;
                fpl = fopen(szTpccLogPath, "ab");
                fprintf(fpl, "c_cre= %s", ptr);
                fprintf(fpl, "c_da
= %s",Term.pClientData[iTermId].trans.paymentData.payout.c_data);
                fclose(fpl);
        }
        if ( *ptr == 'B' && *(ptr+1) == 'C' )
        {
                ptr =
Term.pClientData[iTermId].trans.paymentData.payout.c_data;
                l = strlen( ptr ) / 50;
                for(i=0; i<4; i++, ptr += 50)
                {
                        if ( i <= l )
                                UtilStrCpy(szTmp, ptr, 50);
                        else
                                szTmp[0] = 0;
                        if ( !i )
                        {
                                FormatHTMLString(szTmpStr1, szTmp, 50);
                                wsprintf(szForm+strlen(szForm),
"Cust-Data: %-50s<BR>", szTmp);
                        }
                        else
                        {
                                FormatHTMLString(szTmpStr1, szTmp, 50);
                                wsprintf(szForm+strlen(szForm),
"
                                %-50s<BR>", szTmp);
                        }
                }
        }
        else {
                strcat(szForm, "Cust-Data: <BR><BR><BR><BR>");
        }

        strcat(szForm, "</PRE><HR><BR>\
<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"..NewOrder..\">\
<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"..Payment..\">\
<INPUT TYPE=\"submit\" NAME=\"CMD\" VALUE=\"..Delivery..\">\

```



```
strcat (szForm,
```

```

    }
    return szForm;
}

```

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```
static void UtilStrCpy(char * pDest, char * pSrc, int n)
{
    strncpy(pDest, pSrc, n);
    pDest[n] = '\0';

    return;
}
```

```
static void ProcessNewOrderForm(EXTENSION_CONTROL_BLOCK *pECB, int
iTermId, int iSyncId)
{
#ifdef TOPEND
    int                i,iRc;
    int msglen;
    tp_dif_structs t    *tclient_dif;
    void space_fill();
#else // assume tuxedo at this point
    int                iRc, iError;
    long ilen, *olen;
    char buf[40];
#endif

#ifdef LOCAL_ALLOC
    NewOrderData *newOrderDataPtr;
#endif
}
```

```

#ifdef TUX
    if((iRc = ThrTpInit(pECB)) < 0)
    {
        // This is bad
        {
            FILE *fp;

            fp = fopen(szTpccLogPath, "ab");
            fprintf(fp, "* ProcessNewOrder Thread %d\n",
iTermId %d Failed ThrTpInit \r\n",
                GetCurrentThreadId(), iTermId);
            fclose(fp);

            sprintf(buf, "NewOrder ThrTpInit < 0 >> Thread %d",
GetCurrentThreadId());
            ErrorMessage(pECB, ERR_TPINIT_BAD, ERR_TYPE_TUXEDO, buf, 0,
0);
            return;//change 2003/7/11
        }
    }
#endif

    memset(&Term.pClientData[iTermId].trans.newOrderData, 0,
sizeof(NewOrderData));
    Term.pClientData[iTermId].trans.newOrderData.newin.w_id =
Term.pClientData[iTermId].w_id;

    if ( (iError=GetNewOrderData(pECB->lpszQueryString,
&Term.pClientData[iTermId].trans.newOrderData)) != ERR_SUCCESS )
    {
        ErrorMessage(pECB, iError, ERR_TYPE_WEBDLL, NULL,
iTermId, iSyncId);
        return;
    }

#ifdef TOPEND

    tclient_dif = (tp_dif_structs_t
*)Term.pClientData[iTermId].tp_structadr;

    // Input top end neworder data
    /* Initialize Top End for tpcc transactions */
    tclient_dif->info->tp_user_dialogue_id = iTermId;
    if (bGeneric)
        space_fill(tclient_dif->service->tp_function_name,
"all_txn",TP_FUNC_NAME_LEN);
    else
        space_fill(tclient_dif->service->tp_function_name,
"neworder",TP_FUNC_NAME_LEN);

    space_fill(tclient_dif->service->tp_product_name, "tpcc",
TP_PROD_NAME_LEN);
    space_fill(tclient_dif->input_format->tp_format_name, "",
TP_FMT_NAME_LEN);
    space_fill(tclient_dif->input_format->tp_format_language, "",
TP_LANG_LEN);
    space_fill(tclient_dif->input_format->tp_format_type, "",

```

```

TP_FMTTYPE_LEN);
    tclient_dif->service->tp_function_qualifier = 0;
    msglen = sizeof(CLIENTDATA) - TOPEND_STRUCT_OFFSET;

    Term.pClientData[iTermId].type = 'N';
    if ((i = tp_mt_client_send(tclient_dif->info, tclient_dif-
>service, tclient_dif->input_format, msglen, (char
*)&Term.pClientData[iTermId].type)) != TP_OK)
    {
        if (bLog)
        {
            FILE *fp1;
            fp1 = fopen(szTpccLogPath, "ab");
            fprintf(fp1, "tp_mt_client_send returned error status
= %d\n, i");
            fclose(fp1);
        }

        ErrorMessage(pECB, TOPEND_SEND_ERROR, ERR_TYPE_WEBDLL, NULL,
iTermId, iSyncId);
        return;
    }

    msglen = sizeof(CLIENTDATA) - TOPEND_STRUCT_OFFSET;

    if ((i = tp_mt_client_receive(tclient_dif->info, wait_time,
tclient_dif->output_format, tclient_dif->service, tclient_dif->location,
&msglen, (char *)&Term.pClientData[iTermId].type)) != TP_OK)
    {
        if (bLog)
        {
            FILE *fp1;
            fp1 = fopen(szTpccLogPath, "ab");
            fprintf(fp1, "Received error status = %d from client
receive for neworder transaction\n", i);
            fclose(fp1);
        }

        ErrorMessage(pECB, TOPEND_RECEIVE_ERROR, ERR_TYPE_WEBDLL, NULL,
iTermId, iSyncId);
        return;
    }

    iRc = Term.pClientData[iTermId].retval

#else // assume we are running tuxedo at this point
#ifdef LOCAL_ALLOC // using local alloc method for tuxedo

    if ((newOrderDataPtr = (NewOrderData *) tmalloc("CARRAY", NULL,
sizeof(NewOrderData))) == NULL)
    {
        iRc = tperrno;
        {
            FILE *fp;

```

```

        fp = fopen(szTpccLogPath, "ab");
        fprintf(fp, "* ProcessNewOrder Thread %d
iTermId %d tmalloc tperrno %d \r\n",
        GetCurrentThreadId(), iTermId, iRc);
        fclose(fp);
    }
    sprintf(buf, "NewOrder Tmalloc %d", iRc);
    ErrorMessage(pECB, ERR_TPALLOC_BAD, ERR_TYPE_TUXEDO, buf,
0, 0);
    tpfree((char *)newOrderDataPtr);
    return;
}

*newOrderDataPtr =
Term.pClientData[iTermId].trans.newOrderData;
ilen = sizeof(NewOrderData);
olen = &ilen;

if ( dLog )
{
    FILE *fp;

    fp = fopen(szTpccLogPath, "ab");
    fprintf(fp, "* ProcessNewOrder Thread %d iTermId %d
newOrderDataPtr: %x \r\n",
        GetCurrentThreadId(), iTermId,
&newOrderDataPtr);
    fclose(fp);
}

if (tpcall("OPSTUXSERVER", (char *)newOrderDataPtr, ilen, (char
**) &newOrderDataPtr, (long *)olen, TPSIGRSTRT) == -1)
{
    iRc = tperrno;
    {
        FILE *fp;

        fp = fopen(szTpccLogPath, "ab");
        fprintf(fp, "* ProcessNewOrder Thread %d
iTermId %d tpcall tperrno %d \r\n",
        GetCurrentThreadId(), iTermId, iRc);
        fclose(fp);
    }
    sprintf(buf, "Neworder tpcall %d", iRc);
    ErrorMessage(pECB, ERR_TPCALL_BAD, ERR_TYPE_TUXEDO,
buf, iTermId, iSyncId);
    tpfree((char *)newOrderDataPtr);
    return;
}

if ( dLog )
{
    FILE *fp;

    fp = fopen(szTpccLogPath, "ab");
    fprintf(fp, "*** ProcessNewOrder Thread %d iTermId %d
newOrderDataPtr: %x \r\n",
        GetCurrentThreadId(), iTermId,
&newOrderDataPtr);

```

```

        fclose(fp);
    }

    Term.pClientData[iTermId].trans.newOrderData = *newOrderDataPtr;

    iRc = newOrderDataPtr->retval;

    tpfree((char *)newOrderDataPtr);

#else // using global alloc method for tuxedo

    *Term.pClientData[iTermId].newOrderDataPtr =
Term.pClientData[iTermId].trans.newOrderData;

    ilen = sizeof(NewOrderData);
    olen = &ilen;

    if ( dLog )
    {
        FILE *fp;

        fp = fopen(szTpccLogPath, "ab");
        fprintf(fp, "* ProcessNewOrder Thread %d iTermId %d
NewOrderDataPtr: %x \r\n",
        GetCurrentThreadId(), iTermId,
&Term.pClientData[iTermId].newOrderDataPtr);
        fclose(fp);
    }

    if (tpcall("NEWORDER", (char
*)Term.pClientData[iTermId].newOrderDataPtr, ilen,
(char **) &Term.pClientData[iTermId].newOrderDataPtr,
(long *)olen, TPSIGRSTRT) == -1)
    {
        iRc = tperrno;
        {
            FILE *fp;

            fp = fopen(szTpccLogPath, "ab");
            fprintf(fp, "* ProcessNewOrder Thread %d
iTermId %d tpcall tperrno %d \r\n",
            GetCurrentThreadId(), iTermId, iRc);
            fclose(fp);
        }
        sprintf(buf, "Neworder tpcall %d", iRc);
        ErrorMessage(pECB, ERR_TPCALL_BAD, ERR_TYPE_TUXEDO, buf,
iTermId, iSyncId);
        // tpfree((char *)newOrderDataPtr);
        return;
    }

    if ( dLog )
    {
        FILE *fp;

        fp = fopen(szTpccLogPath, "ab");
        fprintf(fp, "*** ProcessNewOrder Thread %d iTermId %d

```

```

NewOrderDataPtr: %x \r\n",
    GetCurrentThreadId(), iTermId,
    &Term.pClientData[iTermId].newOrderDataPtr);
    fclose(fp);
}

Term.pClientData[iTermId].trans.newOrderData =
*Term.pClientData[iTermId].newOrderDataPtr;

iRc = Term.pClientData[iTermId].newOrderDataPtr->retval;

#endif
#endif

if(bLog){
    FILE *fp1;
    fp1 = fopen(szTpccLogPath, "ab");
    fprintf(fp1, ">> ProcessNewOrder iRc = %d \r\n", iRc);
    fclose(fp1);
}

if ( iRc < 0)
{
    ErrorMessage(pECB, ERR_NEW_ORDER_NOT_PROCESSED, ERR_TYPE_WEBDLL,
    NULL, iTermId, iSyncId);
    return;
}

if (iRc == 0)
    WriteZString(pECB, MakeNewOrderForm(iTermId, iSyncId, FALSE,
FALSE, "Item number is not valid"));
else

    WriteZString(pECB, MakeNewOrderForm(iTermId, iSyncId, FALSE,
TRUE, "transaction committed"));

    return;
}

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

```

```

*         int      iSyncId                      client browser sync id
*
* RETURNS:     None
*
* COMMENTS:    None
*
*/

static void ProcessPaymentForm(EXTENSION_CONTROL_BLOCK *pECB, int
iTermId, int iSyncId)
{
#ifdef TOPEND
    int          i,iRc;
    tp_diff_structs_t *tclient_diff;
    int msglen;
#else // assume tuxedo at this point
    int          iRc, iError;
    long         ilen, *olen;
    //           PECBINFO      pEcbInfo;
    char buf[40];
#endif

#ifdef LOCAL_ALLOC
    PaymentData *paymentDataPtr;
#endif

#ifdef TUX
    if((iRc = ThrTpInit(pECB)) <0)
    {
        // This is bad
        {
            FILE *fp;

            fp = fopen(szTpccLogPath, "ab");
            fprintf(fp, "* ProcessPayment Thread %d
iTermId %d Failed ThrTpInit \r\n",
                GetCurrentThreadId(), iTermId );
            fclose(fp);

            sprintf(buf, "Payment ThrTpInit < 0 >> Thread %d",
                GetCurrentThreadId());
            ErrorMessage(pECB, ERR_TPINIT_BAD, ERR_TYPE_TUXEDO, buf, 0,
0);
            return;//change 2003/7/11
        }
    }
#endif

    memset(&Term.pClientData[iTermId].trans.paymentData, 0,
sizeof(PaymentData));
    Term.pClientData[iTermId].trans.paymentData.payin.w_id =
Term.pClientData[iTermId].w_id;

    if ( (iError=GetPaymentData(pECB->lpszQueryString,
&Term.pClientData[iTermId].trans.paymentData)) !=ERR_SUCCESS )
    {
        ErrorMessage(pECB, iError, ERR_TYPE_WEBDLL, NULL, iTermId,
iSyncId);
    }

```

```

        return;
    }
#ifdef TOPEND

    tclient_dif = (tp_dif_structs_t
*)Term.pClientData[iTermId].tp_structadr;

    // Input topend information for call to process payment form

    tclient_dif->info->tp_user_dialogue_id = iTermId;

    if (bGeneric)
        space_fill(tclient_dif->service->tp_function_name,
"all_txn",TP_FUNC_NAME_LEN);
    else
        space_fill(tclient_dif->service->tp_function_name,
"payment",TP_FUNC_NAME_LEN);

    space_fill(tclient_dif->service->tp_product_name, "tpcc",
TP_PROD_NAME_LEN);
    space_fill(tclient_dif->input_format->tp_format_name, "",
TP_FMT_NAME_LEN);
    space_fill(tclient_dif->input_format->tp_format_language, "",
TP_LANG_LEN);
    space_fill(tclient_dif->input_format->tp_format_type, "",
TP_FMTTYPE_LEN);
    tclient_dif->service->tp_function_qualifier = 0;
    msglen = sizeof(CLIENTDATA) - TOPEND_STRUCT_OFFSET;

    Term.pClientData[iTermId].type = 'P';

    // tp_system_log_text("ProcessPayment:", "before
tp_mt_client_send");

    if ((i = tp_mt_client_send(tclient_dif->info, tclient_dif-
>service,
        tclient_dif->input_format, msglen, (char
*)&Term.pClientData[iTermId].type)) != TP_OK)
    {
        ErrorMessage(pECB, TOPEND_SEND_ERROR, ERR_TYPE_WEBDLL, NULL,
iTermId, iSyncId);

        if (bLog)
        {
            FILE *fp1;
            fp1 = fopen(szTpccLogPath, "ab");
            fprintf(fp1, "Received error status = %d on payment send
fnt\n", i);
            fclose(fp1);
        }
        return;
    }

    msglen = sizeof(CLIENTDATA) - TOPEND_STRUCT_OFFSET;
    // tp_system_log_text("ProcessPayment:", "before
tp_mt_client_receive");
    if ((i = tp_mt_client_receive(tclient_dif->info, wait_time,
        tclient_dif->output_format, tclient_dif->service,

```

```

        tclient_dif->location, &msglen, (char
*)&Term.pClientData[iTermId].type)) != TP_OK)
    {
        //tp_system_log_text("ProcessPayment:", "Error on
tp_mt_client_receive");
        if (bLog)
        {
            FILE *fp1;
            fp1 = fopen(szTpccLogPath, "ab");
            fprintf(fp1, "Received error status = %d from client receive
for payment transaction\n", i);
            fclose(fp1);
        }

        ErrorMessage(pECB, TOPEND_RECEIVE_ERROR, ERR_TYPE_WEBDLL, NULL,
iTermId, iSyncId);
        return;
    }

    iRc = Term.pClientData[iTermId].retval;

#else // assume tuxedo running here

#ifdef LOCAL_ALLOC

    if ((paymentDataPtr = (PaymentData *) tmalloc("CARRAY", NULL,
sizeof(PaymentData))) == NULL)
    {
        iRc = tperrno;
        {
            FILE *fp;

            fp = fopen(szTpccLogPath, "ab");
            fprintf(fp, "** ProcessPayment Thread %d
iTermId %d tmalloc tperrno %d \r\n",
                GetCurrentThreadId(), iTermId, iRc);
            fclose(fp);
        }
        sprintf(buf, "Payment Tmalloc %d", iRc);
        ErrorMessage(pECB, ERR_TPALLOC_BAD, ERR_TYPE_TUXEDO, buf,
0, 0);

        tpfree((char *)paymentDataPtr);
        return;
    }

    *paymentDataPtr= Term.pClientData[iTermId].trans.paymentData;

    ilen = sizeof(PaymentData);
    olen = &ilen;

    if ( dLog )
    {
        FILE *fp;

        fp = fopen(szTpccLogPath, "ab");
        fprintf(fp, "** ProcessPayment Thread %d iTermId %d

```

```

paymentDataPtr: %x \r\n",
    GetCurrentThreadId(), iTermId, &paymentDataPtr);
fclose(fp);
}

if (tpcall("OPSTUXSERVER", (char *)paymentDataPtr, ilen, (char
**) &paymentDataPtr, (long *)olen, TPSIGRSTRT) == -1)
{
    iRc = tperrno;
    {
        FILE *fp;

        fp = fopen(szTpccLogPath, "ab");
        fprintf(fp, "** ProcessPayment Thread %d
iTermId %d tpcall tperrno %d \r\n",
            GetCurrentThreadId(), iTermId, iRc);
        fclose(fp);

        sprintf(buf, "Payment tpcall %d", iRc);
        ErrorMessage(pECB, ERR_TPCALL_BAD, ERR_TYPE_TUXEDO, buf,
iTermId, iSyncId);
        tpfree((char *)paymentDataPtr);

        return;
    }

    if ( dLog )
    {
        FILE *fp;

        fp = fopen(szTpccLogPath, "ab");
        fprintf(fp, "** ProcessPayment Thread %d iTermId %d
paymentDataPtr: %x \r\n",
            GetCurrentThreadId(), iTermId, &paymentDataPtr);
        fclose(fp);
    }

    Term.pClientData[iTermId].trans.paymentData = *paymentDataPtr;

    iRc = paymentDataPtr->retval;

    tpfree((char *)paymentDataPtr);

#else

    *Term.pClientData[iTermId].paymentDataPtr =
Term.pClientData[iTermId].trans.paymentData;

    ilen = sizeof(PaymentData);
    olen = &ilen;

    if ( dLog )
    {
        FILE *fp;

        fp = fopen(szTpccLogPath, "ab");

```

```

        fprintf(fp, "** ProcessPayment Thread %d iTermId %d
PaymentDataPtr: %x \r\n",
            GetCurrentThreadId(), iTermId,
&Term.pClientData[iTermId].paymentDataPtr);
        fclose(fp);
    }

    if (tpcall("PAYMENT", (char
*)Term.pClientData[iTermId].paymentDataPtr, ilen,
(char **) &Term.pClientData[iTermId].paymentDataPtr,
(long *)olen, TPSIGRSTRT) == -1)
    {
        iRc = tperrno;
        {
            FILE *fp;

            fp = fopen(szTpccLogPath, "ab");
            fprintf(fp, "** ProcessPayment Thread %d
iTermId %d tpcall tperrno %d \r\n",
                GetCurrentThreadId(), iTermId, iRc);
            fclose(fp);

            sprintf(buf, "Payment tpcall %d", iRc);
            ErrorMessage(pECB, ERR_TPCALL_BAD, ERR_TYPE_TUXEDO, buf,
iTermId, iSyncId);
            // tpfree((char *)PaymentDataPtr);
            return;
        }

        if ( dLog )
        {
            FILE *fp;

            fp = fopen(szTpccLogPath, "ab");
            fprintf(fp, "** ProcessPayment Thread %d iTermId %d
PaymentDataPtr: %x \r\n",
                GetCurrentThreadId(), iTermId,
&Term.pClientData[iTermId].paymentDataPtr);
            fclose(fp);
        }

        Term.pClientData[iTermId].trans.paymentData =
*Term.pClientData[iTermId].paymentDataPtr;

        iRc = Term.pClientData[iTermId].paymentDataPtr->retval;

    #endif
#endif

    if ( iRc == 0 )
        ErrorMessage(pECB, ERR_PAYMENT_INVALID_CUSTOMER,
ERR_TYPE_WEBDLL, NULL, iTermId, iSyncId);
    else if ( iRc < 0 )
        ErrorMessage(pECB, ERR_PAYMENT_NOT_PROCESSED, ERR_TYPE_WEBDLL,
NULL, iTermId, iSyncId);
    else
    {
        WriteZString(pECB, MakePaymentForm(iTermId, iSyncId, FALSE) );
    }

```

```

    }

    return;
}

/* FUNCTION: void ProcessOrderStatusForm(EXTENSION_CONTROL_BLOCK *pECB,
int
*
*                               iTermId, int iSyncId)
*
* PURPOSE: This function gets and validates the input data from the
Order Status
*          form filling in the required input variables. It then calls
the
*          SQLOrderStatus transaction, constructs the output form and
writes it
*          back to client browser.
*
* ARGUMENTS:  EXTENSION_CONTROL_BLOCK *pECB    passed in structure
pointer from
*
*                               inetsrv.
*          int                               iTermId client browser terminal
id
*          int                               iSyncId client browser sync id
*
* RETURNS:    None
*
* COMMENTS:    None
*/
static void ProcessOrderStatusForm(EXTENSION_CONTROL_BLOCK *pECB, int
iTermId, int iSyncId)
{
#ifdef TOPEND
    int                i,iRc;
    int                iError;
    void space_fill();
    tp_dif_structs_t   *tclient_dif;
    int msglen;
#else // assume tuxedo
    int                iRc, iError;
    long ilen, *olen;
    //      PECBINFO      pEcbInfo;
    char buf[40];
#endif

#ifdef LOCAL_ALLOC
    OrderStatusData *orderStatusDataPtr;
#endif

#ifdef TUX

    if((iRc = ThrTpInit(pECB)) <0)
    {
        // This is bad
        {
            FILE *fp;

```

```

        fp = fopen(szTpccLogPath, "ab");
        fprintf(fp, "* ProcessOrderStatus Thread %d
iTermId %d Failed ThrTpInit \r\n",
                GetCurrentThreadId(), iTermId );
        fclose(fp);
    }
    sprintf(buf, "OrderStatus ThrTpInit < 0 >> Thread %d",
GetCurrentThreadId());
    ErrorMessage(pECB, ERR_TPINIT_BAD, ERR_TYPE_TUXEDO, buf, 0,
0);
    return;//change 2003/7/11
}

#endif

    memset(&Term.pClientData[iTermId].trans.orderStatusData, 0,
sizeof(OrderStatusData));
    Term.pClientData[iTermId].trans.orderStatusData.ordin.w_id =
Term.pClientData[iTermId].w_id;
    if ( (iError=GetOrderStatusData(pECB->lpszQueryString,
&Term.pClientData[iTermId].trans.orderStatusData)) !=
ERR_SUCCESS )
    {
        ErrorMessage(pECB, iError, ERR_TYPE_WEBDLL, NULL, iTermId,
iSyncId);
        return;
    }

#ifdef TOPEND

    tclient_dif = (tp_dif_structs_t
*)Term.pClientData[iTermId].tp_structadr;

    /* Initialize Top End for tpcc transactions */
    tclient_dif->info->tp_user_dialogue_id = iTermId;

    if (bGeneric)
        space_fill(tclient_dif->service->tp_function_name,
"all_txn",TP_FUNC_NAME_LEN);
    else
        space_fill(tclient_dif->service->tp_function_name,
"ordstat",TP_FUNC_NAME_LEN);

    space_fill(tclient_dif->service->tp_product_name, "tpcc",
TP_PROD_NAME_LEN);
    space_fill(tclient_dif->input_format->tp_format_name, "",
TP_FMT_NAME_LEN);
    space_fill(tclient_dif->input_format->tp_format_language, "",
TP_LANG_LEN);
    space_fill(tclient_dif->input_format->tp_format_type, "",
TP_FMTTYPE_LEN);
    tclient_dif->service->tp_function_qualifier = 0;
    msglen = sizeof(CLIENTDATA) - TOPEND_STRUCT_OFFSET;

    Term.pClientData[iTermId].type = 'O';

    if ((i = tp_mt_client_send(tclient_dif->info, tclient_dif-
>service,
        tclient_dif->input_format, msglen, (char

```

```

*)&Term.pClientData[iTermId].type)) != TP_OK)
{
    if (bLog)
    {
        FILE *fp1;
        fp1 = fopen(szTpccLogPath, "ab");
        fprintf(fp1, "Received error status = %d on client send for
order status transaction\n", i);
        fclose(fp1);
    }

    ErrorMessage(pECB, TOPEND_SEND_ERROR, ERR_TYPE_WEBDLL, NULL,
iTermId, iSyncId);
    return;
}

msglen = sizeof(CLIENTDATA) - TOPEND_STRUCT_OFFSET;

if ((i = tp_mt_client_receive(tclient_dif->info, wait_time,
tclient_dif->output_format, tclient_dif->service, tclient_dif->location,
&msglen, (char *)&Term.pClientData[iTermId].type)) != TP_OK)
{
    if (bLog)
    {
        FILE *fp1;
        fp1 = fopen(szTpccLogPath, "ab");
        fprintf(fp1, "Received error status = %d from client receive
for order status transaction\n", i);
        fclose(fp1);
    }
    fprintf(stderr, "Received error status = %d from client receive
for order status transaction\n", i);
    ErrorMessage(pECB, TOPEND_RECEIVE_ERROR, ERR_TYPE_WEBDLL, NULL,
iTermId, iSyncId);
    return;
}

iRc = Term.pClientData[iTermId].retval;

#else

#ifdef LOCAL_ALLOC

    if ((orderStatusDataPtr = (OrderStatusData *) tmalloc("CARRAY",
NULL, sizeof(OrderStatusData))) == NULL)
    {
        iRc = tperrno;
        {
            FILE *fp;

            fp = fopen(szTpccLogPath, "ab");
            fprintf(fp, "** ProcessOrderStatus Thread %d
iTermId %d tmalloc tperrno %d \r\n",
GetCurrentThreadId(), iTermId, iRc);
            fclose(fp);
        }
    }
}

```

```

        sprintf(buf, "OrderStatus tmalloc %d", iRc);
        ErrorMessage(NULL, ERR_TPALLOC_BAD, ERR_TYPE_TUXEDO, buf,
0, 0);

        tpfree((char *)orderStatusDataPtr);
        return;
    }

    *orderStatusDataPtr =
Term.pClientData[iTermId].trans.orderStatusData;

    ilen = sizeof(OrderStatusData);
    olen = &ilen;

    if ( dLog )
    {
        FILE *fp;

        fp = fopen(szTpccLogPath, "ab");
        fprintf(fp, "** ProcessOrderStatus Thread %d iTermId %d
orderStatusDataPtr: %x \r\n",
GetCurrentThreadId(), iTermId,
&orderStatusDataPtr);
        fclose(fp);
    }

    if (tpcall("OPSTUXSERVER", (char *)orderStatusDataPtr, ilen, (char
*)&orderStatusDataPtr, (long *)olen, TPSIGRSTRT) == -1)
    {
        iRc = tperrno;
        {
            FILE *fp;

            fp = fopen(szTpccLogPath, "ab");
            fprintf(fp, "** ProcessOrderStatus Thread %d
iTermId %d tpcall tperrno %d \r\n",
GetCurrentThreadId(), iTermId, iRc);
            fclose(fp);
        }
        sprintf(buf, "OrderStatus tpcall %d", iRc);
        ErrorMessage(pECB, ERR_TPCALL_BAD, ERR_TYPE_TUXEDO, buf,
iTermId, iSyncId);
        tpfree((char *)orderStatusDataPtr);

        return;
    }

    if ( dLog )
    {
        FILE *fp;

        fp = fopen(szTpccLogPath, "ab");
        fprintf(fp, "*** ProcessOrderStatus Thread %d iTermId %d
orderStatusDataPtr: %x \r\n",
GetCurrentThreadId(), iTermId,
&orderStatusDataPtr);
        fclose(fp);
    }

    Term.pClientData[iTermId].trans.orderStatusData =

```



```

*orderStatusDataPtr;

    iRc = orderStatusDataPtr->retval;

    tpfree((char *)orderStatusDataPtr);

#else

    *Term.pClientData[iTermId].orderStatusDataPtr =
Term.pClientData[iTermId].trans.orderStatusData;

    ilen = sizeof(OrderStatusData);
    olen = &ilen;

    if ( dLog )
    {
        FILE *fp;

        fp = fopen(szTpccLogPath, "ab");
        fprintf(fp, "** ProcessOrderStatus Thread %d iTermId %d
OrderStatusDataPtr: %x \r\n",
                GetCurrentThreadId(), iTermId,
                &Term.pClientData[iTermId].orderStatusDataPtr);
        fclose(fp);
    }

    if (tpcall("ORDERSTATUS", (char
*)Term.pClientData[iTermId].orderStatusDataPtr, ilen,
    (char **) &Term.pClientData[iTermId].orderStatusDataPtr,
(long *)olen, TPSIGRSTRT) == -1)
    {
        iRc = tperrno;
        {
            FILE *fp;

            fp = fopen(szTpccLogPath, "ab");
            fprintf(fp, "** ProcessOrderStatus Thread %d
iTermId %d tpcall tperrno %d \r\n",
                    GetCurrentThreadId(), iTermId, iRc);
            fclose(fp);
        }
        sprintf(buf, "OrderStatus tpcall %d", iRc);
        ErrorMessage(pECB, ERR_TPCALL_BAD, ERR_TYPE_TUXEDO, buf,
iTermId, iSyncId);
        // tpfree((char
*)Term.pClientData[iTermId].orderStatusDataPtr);
        return;
    }

    if ( dLog )
    {
        FILE *fp;

        fp = fopen(szTpccLogPath, "ab");
        fprintf(fp, "*** ProcessOrderStatus Thread %d iTermId %d
OrderStatusDataPtr: %x \r\n",

```

```

                GetCurrentThreadId(), iTermId,
                &Term.pClientData[iTermId].orderStatusDataPtr);
        fclose(fp);
    }

    Term.pClientData[iTermId].trans.orderStatusData =
*Term.pClientData[iTermId].orderStatusDataPtr;

    iRc = Term.pClientData[iTermId].orderStatusDataPtr->retval;

#endif
#endif

    if ( iRc == 0 )
        ErrorMessage(pECB, ERR_NOSUCH_CUSTOMER, ERR_TYPE_WEBDLL, NULL,
iTermId, iSyncId);
    else if ( iRc < 0 )
        ErrorMessage(pECB, ERR_ORDER_STATUS_NOT_PROCESSED,
ERR_TYPE_WEBDLL, NULL, iTermId, iSyncId);
    else
        WriteZString(pECB, MakeOrderStatusForm(iTermId, iSyncId,
FALSE) );

    return;
}

/* FUNCTION: void ProcessDeliveryForm(EXTENSION_CONTROL_BLOCK *pECB,
*                                     int iTermId, int iSyncId)
*
* PURPOSE: This function gets and validates the input data from
delivery form
* filling in the required input variables. It then calls the
PostDeliveryInfo
* Api, The client is then informed that the transaction has been
posted.
*
* ARGUMENTS:  EXTENSION_CONTROL_BLOCK *pECB  passed in structure
pointer from
*
*                                     inetsrv.
*                                     iTermId client browser terminal
*                                     id
*                                     int
*                                     iSyncId clinet browser sync id
*
* RETURNS:    None
*
* COMMENTS:    None
*/

static void ProcessDeliveryForm(EXTENSION_CONTROL_BLOCK *pECB, int
iTermId, int iSyncId)
{
#ifdef TOPEND
    char    szTmp[26];
    int     i;
    void space_fill();

```

```

        tp_dif_structs_t *tclient_dif;
        int msglen;
#else
        int      iRc;
        //      int      iError;
        char      szTmp[26];
        long ilen, *olen;
        //      int      tmp;
        char buf[40];
#endif

#ifdef LOCAL_ALLOC
        DeliveryData *deliveryDataPtr;
#endif

#ifdef TUX

        if((iRc = ThrTpInit(pECB)) <0)
        {
            // This is bad
            {
                FILE *fp;

                fp = fopen(szTpccLogPath, "ab");
                fprintf(fp, "** ProcessDelivery Thread %d
iTermId %d Failed ThrTpInit \r\n",
                        GetCurrentThreadId(), iTermId );
                fclose(fp);
            }
            sprintf(buf, "Delivery ThrTpInit < 0 >> Thread %d",
GetCurrentThreadId());
            ErrorMessage(pECB, ERR_TPINIT_BAD, ERR_TYPE_TUXEDO, buf, 0,
0);
            return;//change 2003/7/11
        }
#endif

        memset(&Term.pClientData[iTermId].trans.deliveryData, 0,
sizeof(DeliveryData));
        Term.pClientData[iTermId].trans.deliveryData.delin.w_id =
Term.pClientData[iTermId].w_id;

        if ( !GetKeyValue(pECB->lpszQueryString, "OCD*", szTmp,
sizeof(szTmp)) )
        {
            ErrorMessage(pECB, ERR_DELIVERY_MISSING_OCD_KEY,ERR_TYPE_WEBDLL,
NULL, iTermId, iSyncId);
            return;
        }

        if ( !IsNumeric (szTmp) )
        {
            ErrorMessage(pECB, ERR_DELIVERY_CARRIER_INVALID,ERR_TYPE_WEBDLL,
NULL, iTermId, iSyncId);
            return;

```

```

        }

        Term.pClientData[iTermId].trans.deliveryData.delin.o_carrier_id =
atoi(szTmp);
        if
        ( Term.pClientData[iTermId].trans.deliveryData.delin.o_carrier_id > 10
||
        Term.pClientData[iTermId].trans.deliveryData.delin.o_carrier_id
< 1 )
        {
            ErrorMessage(pECB, ERR_DELIVERY_CARRIER_ID_RANGE,ERR_TYPE_WEBDLL,
NULL, iTermId, iSyncId);
            return;
        }

        //post delivery info

#ifdef TOPEND

        tclient_dif = (tp_dif_structs_t
*)Term.pClientData[iTermId].tp_structadr;

        /* Initialize Top End for tpcc transactions */
        tclient_dif->info->tp_user_dialogue_id = iTermId;
        tclient_dif->info->tp_flags = TP_NO_RESPONSE;
        space_fill(tclient_dif->service->tp_function_name,
"del_bat",TP_FUNC_NAME_LEN);
        space_fill(tclient_dif->service->tp_product_name, "tpcc",
TP_PROD_NAME_LEN);
        space_fill(tclient_dif->input_format->tp_format_name, "",
TP_FMT_NAME_LEN);
        space_fill(tclient_dif->input_format->tp_format_language, "",
TP_LANG_LEN);
        space_fill(tclient_dif->input_format->tp_format_type, "",
TP_FMTTYPE_LEN);
        tclient_dif->service->tp_function_qualifier = 0;
        msglen = sizeof(CLIENTDATA) - TOPEND_STRUCT_OFFSET;

        Term.pClientData[iTermId].type = 'D';

        /* get the time the entry is put on the queue */
        _ftime(&timebuffer);
        Term.pClientData[iTermId].trans.deliveryData.delin.qtime =
timebuffer.time + timebuffer.millitm/1000.0;

        if ((i = tp_mt_client_send(tclient_dif->info, tclient_dif-
>service,
            tclient_dif->input_format, msglen, (char
*)&Term.pClientData[iTermId].type)) != TP_OK)
        {
            if (bLog)
            {
                FILE *fpl;
                fpl = fopen(szTpccLogPath, "ab");
                fprintf(fpl, "Received error status = %d on client send for
delivery transaction\n", i);
                fclose(fpl);
            }

```

```

        ErrorMessage(pECB, TOPEND_SEND_ERROR, ERR_TYPE_WEBDLL, NULL,
iTermId, iSyncId);
        return;
    }

    /* msglen might need to be 0, as not receiving anything put ack
from server */
    msglen = sizeof(CLIENTDATA) - TOPEND_STRUCT_OFFSET;

    if ((i = tp_mt_client_receive(tclient_dif->info, wait_time,
tclient_dif->output_format, tclient_dif->service, tclient_dif->location,
&msglen, (char *)&Term.pClientData[iTermId].type)) != TP_OK)
    {
        if (bLog)
        {
            FILE *fpl;
            fpl = fopen(szTpccLogPath, "ab");
            fprintf(fpl, "Received error status = %d from client receive
for order status transaction\n", i);
            fclose(fpl);
        }

        ErrorMessage(pECB, TOPEND_RECEIVE_ERROR, ERR_TYPE_WEBDLL, NULL,
iTermId, iSyncId);
        return;
    }
    /* reset flags for next txn */
    tclient_dif->info->tp_flags = TP_NOFLAGS;
#else
#ifdef LOCAL_ALLOC

    if ((deliveryDataPtr = (DeliveryData *) tmalloc("CARRAY", NULL,
sizeof(DeliveryData))) == NULL)
    {
        iRc = tperrno;
        {
            FILE *fp;

            fp = fopen(szTpccLogPath, "ab");
            fprintf(fp, "** ProcessDelivery Thread %d
iTermId %d tmalloc tperrno %d \r\n",
                GetCurrentThreadId(), iTermId, iRc);
            fclose(fp);
        }
        sprintf(buf, "Delivery Tpcalloc %d", iRc);
        ErrorMessage(NULL, ERR_TPALLOC_BAD, ERR_TYPE_TUXEDO, buf,
0, 0);
        tpfree((char *)deliveryDataPtr);

        return;
    }

    *deliveryDataPtr =
Term.pClientData[iTermId].trans.deliveryData;

    ilen = sizeof(DeliveryData);

```

```

        olen = &ilen;

        if ( dLog )
        {
            FILE *fp;

            fp = fopen(szTpccLogPath, "ab");
            fprintf(fp, "** ProcessDelivery Thread %d iTermId %d
deliveryDataPtr: %x \r\n",
                GetCurrentThreadId(), iTermId,
&deliveryDataPtr);
            fclose(fp);
        }

        /* get the time the entry is put on the queue */
        _ftime(&timebuffer);
        deliveryDataPtr->delin.qtime = timebuffer.time +
timebuffer.millitm/1000.0;

        if (tpacall("OPSTUXSERVER", (char *)deliveryDataPtr, ilen,
TPNOREPLY|TPSIGRSTRT) != 0) {
            iRc = tperrno;
            {
                FILE *fp;

                fp = fopen(szTpccLogPath, "ab");
                fprintf(fp, "** ProcessDelivery Thread %d
iTermId %d tpcall tperrno %d \r\n",
                    GetCurrentThreadId(), iTermId, iRc);
                fclose(fp);
            }
            sprintf(buf, "Delivery tpcall %d", iRc);
            ErrorMessage(pECB, ERR_TPCALL_BAD, ERR_TYPE_TUXEDO, buf,
iTermId, iSyncId);
            tpfree((char *)deliveryDataPtr);

            return;
        }

        if ( dLog )
        {
            FILE *fp;

            fp = fopen(szTpccLogPath, "ab");
            fprintf(fp, "** ProcessDelivery Thread %d iTermId %d
deliveryDataPtr: %x \r\n",
                GetCurrentThreadId(), iTermId,
&deliveryDataPtr);
            fclose(fp);
        }

        tpfree((char *)deliveryDataPtr);

```

```

#else
    *Term.pClientData[iTermId].deliveryDataPtr =
Term.pClientData[iTermId].trans.deliveryData;

    ilen = sizeof(DeliveryData);
    olen = &ilen;

    if ( dLog )
    {
        FILE *fp;

        fp = fopen(szTpccLogPath, "ab");
        fprintf(fp, "* ProcessDelivery Thread %d iTermId %d
DeliveryDataPtr: %x \r\n",
            GetCurrentThreadId(), iTermId,
&Term.pClientData[iTermId].deliveryDataPtr);
        fclose(fp);
    }

    /* get the time the entry is put on the queue */
    ftime(&timebuffer);
    Term.pClientData[iTermId].deliveryDataPtr->delin.qtime =
timebuffer.time + timebuffer.millitm/1000.0;

    if (tpcall("DELIVERY", (char
*)Term.pClientData[iTermId].deliveryDataPtr, ilen,
        (char **) &Term.pClientData[iTermId].deliveryDataPtr,
(long *)olen, TPSIGRSTRT) == -1) {
        iRc = tperrno;
        {
            FILE *fp;

            fp = fopen(szTpccLogPath, "ab");
            fprintf(fp, "* ProcessDelivery Thread %d
iTermId %d tpcall tperrno %d \r\n",
                GetCurrentThreadId(), iTermId, iRc);
            fclose(fp);
        }
        sprintf(buf, "Delivery tpcall %d", iRc);
        ErrorMessage(pECB, ERR_TPCALL_BAD, ERR_TYPE_TUXEDO, buf,
iTermId, iSyncId);
        // tpfree((char *)Term.pClientData[iTermId].deliveryDataPtr);
        return;
    }

    if ( dLog )
    {
        FILE *fp;

        fp = fopen(szTpccLogPath, "ab");
        fprintf(fp, "*** ProcessDelivery Thread %d iTermId %d
DeliveryDataPtr: %x \r\n",
            GetCurrentThreadId(), iTermId,
&Term.pClientData[iTermId].deliveryDataPtr);
        fclose(fp);
    }

    iRc = Term.pClientData[iTermId].deliveryDataPtr->retval;

```

```

#endif
#endif

    WriteZString(pECB, MakeDeliveryForm(iTermId, iSyncId, FALSE,
"Delivery has been queued."));

    return;
}

/* FUNCTION: void ProcessStockLevelForm(EXTENSION_CONTROL_BLOCK *pECB,
int
    iTermId, int iSyncId)
*
* PURPOSE: This function gets and validates the input data from the
Stock Level
* form filling in the required input variables. It then calls the
* SQLStockLevel transaction, constructs the output form and writes it
* back to client browser.
*
* ARGUMENTS: EXTENSION_CONTROL_BLOCK *pECB passed in structure
pointer from
*
*
* int iTermId client browser terminal
*
* int iSyncId client browser sync id
*
* RETURNS: None
*
* COMMENTS: None
*
*/

static void ProcessStockLevelForm(EXTENSION_CONTROL_BLOCK *pECB, int
iTermId, int iSyncId)
{
#ifdef TOPEND
    char szTmp[26];
    int i, iRc;
    int msglen;
    void space_fill();
    tp_dif_structs_t *tclient_dif;
#else
    int iRc;
    // int iError;
    char szTmp[26];
    // BOOL bRc;
    long ilen, *olen;
    // PECBINFO pEcbInfo;
    char buf[40];
#endif

    #ifdef LOCAL_ALLOC
        StockLevelData *stockLevelDataPtr;
    #endif

    #ifdef TUX

```

```

    if((iRc = ThrTpInit(pECB)) <0)
    {
        // This is bad
        {
            FILE *fp;

            fp = fopen(szTpccLogPath, "ab");
            fprintf(fp, "** ProcessStockLevel Thread %d
iTermId %d Failed ThrTpInit \r\n",
                GetCurrentThreadId(), iTermId );
            fclose(fp);
        }
        sprintf(buf, "StockLevel ThrTpInit < 0 >> Thread %d",
GetCurrentThreadId());
        ErrorMessage(pECB, ERR_TPINIT_BAD, ERR_TYPE_TUXEDO, buf, 0,
0);
        return;//change 2003/7/11
    }
#endif

    memset(&Term.pClientData[iTermId].trans.stocklevelData, 0,
sizeof(StockLevelData));
    Term.pClientData[iTermId].trans.stocklevelData.stoin.w_id =
Term.pClientData[iTermId].w_id;
    Term.pClientData[iTermId].trans.stocklevelData.stoin.d_id =
Term.pClientData[iTermId].d_id;
    if ( !GetKeyValue(pECB->lpszQueryString, "TT*", szTmp,
sizeof(szTmp)) )
    {
        ErrorMessage(pECB,
ERR_STOCKLEVEL_MISSING_THRESHOLD_KEY,ERR_TYPE_WEBDLL, NULL, iTermId,
iSyncId);
        return;
    }
    if ( !IsNumeric(szTmp) )
    {
        ErrorMessage(pECB,
ERR_STOCKLEVEL_THRESHOLD_INVALID,ERR_TYPE_WEBDLL, NULL, iTermId,
iSyncId);
        return;
    }
    Term.pClientData[iTermId].trans.stocklevelData.stoin.threshold =
atoi(szTmp);
    if
( Term.pClientData[iTermId].trans.stocklevelData.stoin.threshold >= 100
||
Term.pClientData[iTermId].trans.stocklevelData.stoin.threshold <= 0 )
    {
        ErrorMessage(pECB,
ERR_STOCKLEVEL_THRESHOLD_RANGE,ERR_TYPE_WEBDLL, NULL, iTermId,
iSyncId);
        return;
    }
}

#ifdef TOPEND

    tclient_dif = (tp_dif_structs_t
*)Term.pClientData[iTermId].tp_structadr;

```

```

/* Initialize Top End for tpcc transactions */
tclient_dif->info->tp_user_dialogue_id = iTermId;

    if (bGeneric)
        space_fill(tclient_dif->service->tp_function_name,
"all_txn",TP_FUNC_NAME_LEN);
    else
        space_fill(tclient_dif->service->tp_function_name,
"stklevel",TP_FUNC_NAME_LEN);

        space_fill(tclient_dif->service->tp_product_name, "tpcc",
TP_PROD_NAME_LEN);
        space_fill(tclient_dif->input_format->tp_format_name, "",
TP_FMT_NAME_LEN);
        space_fill(tclient_dif->input_format->tp_format_language, "",
TP_LANG_LEN);
        space_fill(tclient_dif->input_format->tp_format_type, "",
TP_FMTTYPE_LEN);
        tclient_dif->service->tp_function_qualifier = 0;
        msglen = sizeof(CLIENTDATA) - TOPEND_STRUCT_OFFSET;

        Term.pClientData[iTermId].type = 'S';

        if ((i = tp_mt_client_send(tclient_dif->info, tclient_dif-
>service, tclient_dif->input_format, msglen, (char
*)&Term.pClientData[iTermId].type)) != TP_OK)
        {

            if (bLog)
            {
                FILE *fp1;
                fp1 = fopen(szTpccLogPath, "ab");
                fprintf(fp1, "Received error status = %d from client send
for stock level transaction\n", i);
                fclose(fp1);
            }

            ErrorMessage(pECB, TOPEND_SEND_ERROR, ERR_TYPE_WEBDLL, NULL,
iTermId, iSyncId);
            return;
        }

        msglen = sizeof(CLIENTDATA) - TOPEND_STRUCT_OFFSET;

        if ((i = tp_mt_client_receive(tclient_dif->info, wait_time,
tclient_dif->output_format, tclient_dif->service, tclient_dif->location,
&msglen, (char *)&Term.pClientData[iTermId].type)) != TP_OK)
        {
            if (bLog)
            {
                FILE *fp1;
                fp1 = fopen(szTpccLogPath, "ab");
                fprintf(fp1, "Received error status = %d from client receive
for stock level transaction\n", i);
                fclose(fp1);
            }

            ErrorMessage(pECB, TOPEND_RECEIVE_ERROR, ERR_TYPE_WEBDLL, NULL,
iTermId, iSyncId);

```

```

        return;
    }

    iRc = Term.pClientData[iTermId].retval;

#else

#ifdef LOCAL_ALLOC

    if ((stockLevelDataPtr = (StockLevelData *) tmalloc("CARRAY",
NULL, sizeof(StockLevelData))) == NULL)
    {
        iRc = tperrno;
        {
            FILE *fp;

            fp = fopen(szTpccLogPath, "ab");
            fprintf(fp, "** ProcessStockLevel Thread %d
iTermId %d tmalloc tperrno %d \r\n",
                GetCurrentThreadId(), iTermId, iRc);
            fclose(fp);
        }
        sprintf(buf, "Tpcalloc %d", iRc);
        ErrorMessage(NULL, ERR_TPALLOC_BAD, ERR_TYPE_TUXEDO, buf,
0, 0);
        tpfree((char *)stockLevelDataPtr);

        return;
    }

    *stockLevelDataPtr =
Term.pClientData[iTermId].trans.stocklevelData;

    ilen = sizeof(StockLevelData);
    olen = &ilen;

    if ( dLog )
    {
        FILE *fp;

        fp = fopen(szTpccLogPath, "ab");
        fprintf(fp, "** ProcessStockLevel Thread %d iTermId %d
stockLevelDataPtr: %x \r\n",
            GetCurrentThreadId(), iTermId,
&stockLevelDataPtr);
        fclose(fp);
    }

    if (tpcall("OPSTUXSERVER", (char *) stockLevelDataPtr, ilen, (char
**)&stockLevelDataPtr, (long *) olen, TPSIGRSTRT) == -1) {
        iRc = tperrno;
        {
            FILE *fp;

            fp = fopen(szTpccLogPath, "ab");
            fprintf(fp, "** ProcessStockLevel Thread %d
iTermId %d tpcall tperrno %d \r\n",
                GetCurrentThreadId(), iTermId, iRc);
            fclose(fp);

```

```

        }
        sprintf(buf, "StockLevel tpcall %d", iRc);
        ErrorMessage(pECB, ERR_TPCALL_BAD, ERR_TYPE_TUXEDO, buf,
iTermId, iSyncId);
        tpfree((char *)stockLevelDataPtr);

        return;
    }

    if ( dLog )
    {
        FILE *fp;

        fp = fopen(szTpccLogPath, "ab");
        fprintf(fp, "** ProcessStockLevel Thread %d iTermId %d
stockLevelDataPtr: %x \r\n",
            GetCurrentThreadId(), iTermId,
&stockLevelDataPtr);
        fclose(fp);
    }

    Term.pClientData[iTermId].trans.stocklevelData =
*stockLevelDataPtr;

    iRc = stockLevelDataPtr->retval;

    tpfree((char *)stockLevelDataPtr);

#else

    *Term.pClientData[iTermId].stockLevelDataPtr =
Term.pClientData[iTermId].trans.stocklevelData;

    ilen = sizeof(StockLevelData);
    olen = &ilen;

    if ( dLog )
    {
        FILE *fp;

        fp = fopen(szTpccLogPath, "ab");
        fprintf(fp, "** ProcessStockLevel Thread %d iTermId %d
StockLevelDataPtr: %x \r\n",
            GetCurrentThreadId(), iTermId,
&Term.pClientData[iTermId].stockLevelDataPtr);
        fclose(fp);
    }

    if (tpcall("STOCKLEVEL", (char
*)Term.pClientData[iTermId].stockLevelDataPtr, ilen,
(char **)&Term.pClientData[iTermId].stockLevelDataPtr,
(long *) olen, TPSIGRSTRT) == -1) {
        iRc = tperrno;
        {
            FILE *fp;

            fp = fopen(szTpccLogPath, "ab");

```

```

        fprintf(fp, "** ProcessStockLevel Thread %d
iTermId %d tpcall tperrno %d \r\n",
        GetCurrentThreadId(), iTermId, iRc);
        fclose(fp);
    }
    sprintf(buf, "StockLevel tpcall %d", iRc);
    ErrorMessage(pECB, ERR_TPCALL_BAD, ERR_TYPE_TUXEDO, buf,
iTermId, iSyncId);
    // tpfree((char *)StockLevelDataPtr);
    return;
}

if ( dLog )
{
    FILE *fp;

    fp = fopen(szTpccLogPath, "ab");
    fprintf(fp, "** ProcessStockLevel Thread %d iTermId %d
StockLevelDataPtr: %x \r\n",
        GetCurrentThreadId(), iTermId,
&Term.pClientData[iTermId].stockLevelDataPtr);
    fclose(fp);
}

Term.pClientData[iTermId].trans.stocklevelData =
*Term.pClientData[iTermId].stockLevelDataPtr;

iRc = Term.pClientData[iTermId].stockLevelDataPtr->retval;

#endif
#endif

if ( iRc < 0 ) {
    ErrorMessage(pECB, ERR_STOCKLEVEL_NOT_PROCESSED, ERR_TYPE_WEBDLL,
NULL, iTermId, iSyncId);
}
else {
    WriteZString(pECB, MakeStockLevelForm(iTermId, iSyncId, FALSE) );
}

return;
}

/* FUNCTION: int GetNewOrderData(LPSTR lpszQueryString, NewOrderData
*pNewOrderData)
*
* PURPOSE: This function extracts and validates the new order form
data from
*
*          an http command string.
*
* ARGUMENTS: LPSTR      lpszQueryString client browser http command
string
*              NewOrderData  *pNewOrderData pointer to new order data
structure
*
* RETURNS:      int          error code indicating reason for
failure
*              ERR_SUCCESS   new order input data successfully

```

```

parsed
*
*
* COMMENTS:      None
*
*/
static int GetNewOrderData(LPSTR lpszQueryString, NewOrderData
*pNewOrderData)
{
    char      szTmp[26];
    int        i,j,skipped;
    short      items;

    //      BOOL      bCheck;
    //      char *      s;

    //      s=lpszQueryString;

    if ( !GetKeyValue(lpszQueryString, "DID*", szTmp,
sizeof(szTmp)) )
        return ERR_NEWORDER_FORM_MISSING_DID;

    if ( !IsNumeric(szTmp) )
        return ERR_NEWORDER_DISTRICT_INVALID;

    pNewOrderData->newin.d_id = atoi(szTmp);

    //      if ( pNewOrderData->newin.d_id > 10 || pNewOrderData-
>newin.d_id < 1)
    //          return ERR_NEWORDER_DISTRICT_INVALID;

    if ( !GetKeyValue(lpszQueryString, "CID*", szTmp,
sizeof(szTmp)) )
        return ERR_NEWORDER_CUSTOMER_KEY;

    if ( !IsNumeric(szTmp) )
        return ERR_NEWORDER_CUSTOMER_INVALID;

    pNewOrderData->newin.c_id = atoi(szTmp);

    //      if ( pNewOrderData->newin.c_id > 3000 || pNewOrderData-
>newin.c_id <1)
    //          return ERR_NEWORDER_CUSTOMER_INVALID;
    /*pNewOrderData->o_all_local=1;*/

    //      bCheck = FALSE;
    //      skipped = 0;
    //      for(i=0, items=0; i<15; i++)
    //      {

        if ( !GetKeyValue(lpszQueryString, szIID[i], szTmp,
sizeof(szTmp)) )
            return ERR_NEWORDER_MISSING_IID_KEY;

        if ( szTmp[0] )
        {
            //if blank lines between item ids
            if ( bCheck )

```

```

//          return ERR_NEWORDER_ITEM_BLANK_LINES;
if ( !IsNumeric(szTmp) )
    return ERR_NEWORDER_ITEMID_INVALID;
pNewOrderData->newin.ol_i_id[i-skipped] =
atoi(szTmp);

if ( !GetKeyValue(lpszQueryString, szSP[i],
szTmp, sizeof(szTmp)) )
    return ERR_NEWORDER_MISSING_SUPPW_KEY;
if ( !IsNumeric(szTmp) )
    return ERR_NEWORDER_SUPPW_INVALID;
pNewOrderData->newin.ol_supply_w_id[i-skipped] =
(int)atoi(szTmp); //2003/07/19
/*          if ( pNewOrderData->o_all_local &&
pNewOrderData->o_ol[i].ol_supply_w_id != pNewOrderData->w_id )
pNewOrderData->o_all_local = 0; */

if ( !GetKeyValue(lpszQueryString, szQty[i],
szTmp, sizeof(szTmp)) )
    return ERR_NEWORDER_MISSING_QTY_KEY;

if ( !IsNumeric(szTmp) )
    return ERR_NEWORDER_QTY_INVALID;

pNewOrderData->old_quantity[i-skipped] =
atoi(szTmp);
pNewOrderData->newin.ol_quantity[i-skipped] =
atoi(szTmp);

items++;

if ( pNewOrderData->newin.ol_i_id[i-skipped] >=
1000000 || pNewOrderData->newin.ol_i_id[i-skipped] < 1 )
    return ERR_NEWORDER_ITEMID_RANGE;
if ( pNewOrderData->newin.ol_quantity[i-skipped]
>= 100 || pNewOrderData->newin.ol_quantity[i-skipped] < 1 )
    return ERR_NEWORDER_QTY_RANGE;

//      skipped = 0;
}
else
{
    if ( !GetKeyValue(lpszQueryString, szSP[i],
szTmp, sizeof(szTmp)) )
        return ERR_NEWORDER_MISSING_QTY_KEY;

    if ( szTmp[0] )
        return ERR_NEWORDER_SUPPW_WITHOUT_ITEMID;

    if ( !GetKeyValue(lpszQueryString, szQty[i],
szTmp, sizeof(szTmp)) )
        return ERR_NEWORDER_MISSING_QTY_KEY;

    if ( szTmp[0] )
        return ERR_NEWORDER_QTY_WITHOUT_ITEMID;

//      bCheck = TRUE;
skipped ++;

```

```

}
    skipped = 0;
if ( items == 0 )
    return ERR_NEWORDER_NOITEMS_ENTERED;

// pNewOrderData->newout.o_ol_cnt = items;

return ERR_SUCCESS;
}

/* FUNCTION: int GetPaymentData(LPSTR lpszQueryString, PaymentData
*pPaymentData)
*
*
* PURPOSE: This function extracts and validates the payment form data
from an
*          http command string.
*
* ARGUMENTS: LPSTR      lpszQueryString client browser http command
string
*          PaymentData  *pPaymentData   ptr to payment data
structure
*
* RETURNS:  int          error code indicating reason for
failure
*          ERR_SUCCESS   all input data successfully parsed
*
* COMMENTS:  None
*/
static int GetPaymentData(LPSTR lpszQueryString, PaymentData
*pPaymentData)
{
    char    szTmp[26];
    char    *ptr;
    char    *s;
    double  fTmp;

//      s=lpszQueryString;
if(!GetKeyValue(lpszQueryString, "DID*", szTmp, sizeof(szTmp)))
    return ERR_PAYMENT_MISSING_DID_KEY;

if ( !IsNumeric(szTmp) )
    return ERR_PAYMENT_DISTRICT_INVALID;
pPaymentData->payin.d_id = atoi(szTmp);

//      if ( pPaymentData->payin.d_id > 10 || pPaymentData->payin.d_id
<1 )
//          return ERR_PAYMENT_DISTRICT_INVALID;

if(!GetKeyValue(lpszQueryString, "CID*", szTmp, sizeof(szTmp)))
    return ERR_PAYMENT_MISSING_CID_KEY;

if ( szTmp[0] && !IsNumeric(szTmp) )
    return ERR_PAYMENT_CUSTOMER_INVALID;

pPaymentData->payin.c_id = atoi(szTmp);

```



```

//      if ( pPaymentData->payin.c_id > 3000 || pPaymentData-
>payin.c_id <1 )
//          return ERR_PAYMENT_CUSTOMER_INVALID;

    if ( bLog ){
        FILE *fp1;
        fp1 = fopen(szTpccLogPath, "ab");
        fprintf(fp1, "cid = %s\n",szTmp);
        fclose(fp1);
    }

    if ( szTmp[0] == 0 )
    {
        if(!GetKeyValue(lpszQueryString, "CLT*", szTmp,
sizeof(szTmp)))
            return ERR_PAYMENT_MISSING_CLT;
        _strupr( szTmp );

        strcpy(pPaymentData->payin.c_last, szTmp);
        if ( strlen(pPaymentData->payin.c_last) > 16 )
            return ERR_PAYMENT_LAST_NAME_TO_LONG;
        pPaymentData->payin.bylastname=1;
    }
    else
    {
        if(!GetKeyValue(lpszQueryString, "CLT*", szTmp,
sizeof(szTmp)))
            return ERR_PAYMENT_MISSING_CLT_KEY;
        if ( szTmp[0] )
            return ERR_PAYMENT_CID_AND_CLT;
    }

//      s=lpszQueryString;

    if(!GetKeyValue(lpszQueryString, "CWI*", szTmp, sizeof(szTmp)))
        return ERR_PAYMENT_MISSING_CWI_KEY;

    if ( !IsNumeric(szTmp) )
        return ERR_PAYMENT_CWI_INVALID;

    pPaymentData->payin.c_w_id = atoi(szTmp);

//      if ( pPaymentData->payin.c_w_id > iMaxWareHouses ||
pPaymentData->payin.c_w_id <1)
//          return ERR_PAYMENT_CWI_INVALID;

    if ( bLog ){
        FILE *fp1;
        fp1 = fopen(szTpccLogPath, "ab");
        fprintf(fp1, "cid = %s\n",szTmp);
        fclose(fp1);
    }

    if(!GetKeyValue(lpszQueryString, "CDI*", szTmp, sizeof(szTmp)))
        return ERR_PAYMENT_MISSING_CDI_KEY;

    if ( !IsNumeric(szTmp) )
        return ERR_PAYMENT_CDI_INVALID;

```

```

        pPaymentData->payin.c_d_id = atoi(szTmp);

//      if ( pPaymentData->payin.c_d_id > 10 || pPaymentData-
>payin.c_d_id <1)
//          return ERR_PAYMENT_CDI_INVALID;

    if(!GetKeyValue(lpszQueryString, "HAM*", szTmp, sizeof(szTmp)))
        return ERR_PAYMENT_MISSING_HAM_KEY;

    ptr = szTmp;

    while( *ptr )
    {
        if ( *ptr == '.' )
        {
            ptr++;
            if ( !*ptr )
                break;
            if ( *ptr < '0' || *ptr > '9' )
                return ERR_PAYMENT_HAM_INVALID;
            ptr++;
            if ( !*ptr )
                break;
            if ( *ptr < '0' || *ptr > '9' )
                return ERR_PAYMENT_HAM_INVALID;
            if ( !*ptr )
                return ERR_PAYMENT_HAM_INVALID;
        }
        else if ( *ptr < '0' || *ptr > '9' )
            return ERR_PAYMENT_HAM_INVALID;
        ptr++;
    }

    fTmp = atof(szTmp);
    pPaymentData->payin.h_amount = fTmp * 100;
    if ( pPaymentData->payin.h_amount >= 1000000 || pPaymentData-
>payin.h_amount < 0 )
        return ERR_PAYMENT_HAM_RANGE;

    if ( bLog ){
        FILE *fp1;
        fp1 = fopen(szTpccLogPath, "ab");
        fprintf(fp1, "cid = %s\n",szTmp);
        fclose(fp1);
    }
    if ( bLog ){
        FILE *fp1;
        fp1 = fopen(szTpccLogPath, "ab");
        fprintf(fp1, "ouma
= %s\n",lpszQueryString);
        fclose(fp1);
    }

    return ERR_SUCCESS;
}

/* FUNCTION: int GetOrderStatusData(LPSTR lpszQueryString,

```

```

*
*                               OrderStatusData *pOrderStatusData)
*
* PURPOSE: This function extracts and validates the payment form data
from an
*           http command string.
*
* ARGUMENTS: LPSTR               lpszQueryString   client browser http
command
*                               string
*           OrderStatusData *pOrderStatusData   pointer to order
status
*                               data structure
*
* RETURNS:   int                error code indicating reason for
failure
*           ERR_SUCCESS         successfully parsed all required input
data
*
* COMMENTS:   None
*
*/
static int GetOrderStatusData(LPSTR lpszQueryString, OrderStatusData
*pOrderStatusData)
{
    char    szTmp[26];
    // char    *s;
    // s=lpszQueryString;

    if(!GetKeyValue(lpszQueryString, "DID*", szTmp, sizeof(szTmp)))
        return ERR_ORDERSTATUS_MISSING_DID_KEY;
    if ( !IsNumeric(szTmp) )
        return ERR_ORDERSTATUS_DID_INVALID;
    pOrderStatusData->ordin.d_id = atoi(szTmp);

    if(!GetKeyValue(lpszQueryString, "CID*", szTmp, sizeof(szTmp)))
        return ERR_ORDERSTATUS_MISSING_CID_KEY;

    if ( szTmp[0] == 0 )
    {
        pOrderStatusData->ordin.c_id = 0;
        if(!GetKeyValue(lpszQueryString, "CLT*", szTmp,
sizeof(szTmp)))
            return ERR_ORDERSTATUS_MISSING_CLT_KEY;
        _strupr( szTmp );
        strcpy(pOrderStatusData->ordin.c_last, szTmp);
        if ( strlen(pOrderStatusData->ordin.c_last) > 16 )
            return ERR_ORDERSTATUS_CLT_RANGE;
        pOrderStatusData->ordin.bylastname = 1;
    }
    else
    {
        if ( !IsNumeric(szTmp) )
            return ERR_ORDERSTATUS_CID_INVALID;
        pOrderStatusData->ordin.c_id = atoi(szTmp);
        if(!GetKeyValue(lpszQueryString, "CLT*", szTmp,
sizeof(szTmp)))
            return ERR_ORDERSTATUS_MISSING_CLT_KEY;
        if ( szTmp[0] )
            return ERR_ORDERSTATUS_CID_AND_CLT;
    }
}

```

```

}

return ERR_SUCCESS;
}

/* FUNCTION: BOOL ReadRegistrySettings(void)
*
* PURPOSE: This function reads the NT registry for startup parameters.
There
*           parameters are under the TPCC key.
*
* ARGUMENTS:   None
*
* RETURNS:     None
*
* COMMENTS:    This function also sets up required operation variables
to
*               their default value so if registry is not setup the
default
*               values will be used.
*
*/
static BOOL ReadRegistrySettings(void)
{
    HKEY    hKey;
    DWORD   size;
    DWORD   type;
    char    szTmp[256];

    bLog    = FALSE;
    dLog    = FALSE;
    bGeneric = FALSE;
    iMaxWareHouses = 625;
    iThreads = 5;
    iDelayMs = 100;
    iDeadlockRetry = (short)3;
    strcpy(szTpccLogPath, "tpcclog.");

    if ( RegOpenKeyEx(HKEY_LOCAL_MACHINE, "SOFTWARE\\ORACLE\\tpcc", 0,
KEY_READ, &hKey) != ERROR_SUCCESS )
        return TRUE;
    size = sizeof(szTmp);

    if ( RegQueryValueEx(hKey, "PATH", 0, &type, szTmp, &size) ==
ERROR_SUCCESS )
    {
        strcpy(szTpccLogPath, szTmp);
        strcat(szTpccLogPath, "tpcclog.");
        strcpy(szErrorLogPath, szTmp);
        strcat(szErrorLogPath, "tpccerr.");
    }

    size = sizeof(szTmp);
    if ( RegQueryValueEx(hKey, "LOG", 0, &type, szTmp, &size) ==
ERROR_SUCCESS )
    {
        if ( !strcmp(szTmp, "ON") )
            bLog = TRUE;
    }
}

```

```

    }

    size = sizeof(szTmp);
    if ( RegQueryValueEx(hKey, "DEBUG", 0, &type, szTmp, &size) ==
ERROR_SUCCESS )
    {
        if ( !strcmp(szTmp, "ON") )
            dLog = TRUE;
    }

    size = sizeof(szTmp);
    if ( RegQueryValueEx(hKey, "MaximumWarehouses", 0, &type, szTmp,
&size) == ERROR_SUCCESS )
    {
        iMaxWareHouses = atoi(szTmp);
        if ( iMaxWareHouses == 0 )
            iMaxWareHouses = 500;
    }

    size = sizeof(szTmp);
    if ( RegQueryValueEx(hKey, "NumberOfDeliveryThreads", 0, &type,
szTmp, &size) == ERROR_SUCCESS )
        iThreads = atoi(szTmp);
    if ( !iThreads )
        iThreads = 5;

    size = sizeof(szTmp);
    if ( RegQueryValueEx(hKey, "BackoffDelay", 0, &type, szTmp,
&size) == ERROR_SUCCESS )
        iDelayMs = atoi(szTmp);
    if ( !iDelayMs )
        iDelayMs = 100;

    size = sizeof(szTmp);
    if ( RegQueryValueEx(hKey, "DeadlockRetry", 0, &type, szTmp,
&size) == ERROR_SUCCESS )
        iDeadlockRetry = (short)atoi(szTmp);
    if ( !iDeadlockRetry )
        iDeadlockRetry = (short)3;

    size = sizeof(szTmp);
    if ( RegQueryValueEx(hKey, "MaxConnections", 0, &type, szTmp,
&size) == ERROR_SUCCESS )
        iMaxConnections = (short)atoi(szTmp);
    if ( !iMaxConnections )
        iMaxConnections = (short)25;

    size = sizeof(szTmp);
    if ( RegQueryValueEx(hKey, "GenSrv", 0, &type, szTmp, &size) ==
ERROR_SUCCESS )
    {
        if ( !strcmp(szTmp, "ON") )
            bGeneric = TRUE;
    }

    RegCloseKey(hKey);
    return FALSE;
}

```

```

/* FUNCTION: BOOL IsNumeric(char *ptr)
*
* PURPOSE: This function determines if a string is numeric. It fails
if any
*           characters other than numeric and null terminator are
present.
*
* ARGUMENTS:  char    *ptr    pointer to string to check.
*
* RETURNS:    BOOL    FALSE   if string is not all numeric
*               TRUE    if string contains all numeric characters i.e.
'0' - '9'
*
* COMMENTS:    None
*
*/

```

```

static BOOL IsNumeric( char *ptr)
{
    if ( *ptr == 0 )
        return FALSE;
    while( *ptr && isdigit(*ptr) )
        ptr++;
    return ( !*ptr );
}

```

```

/* FUNCTION: void FormatHTMLString(char *szBuff, int iLen, char *szStr)
*
* PURPOSE: This function Handles translation of HTML specific
character field
*           data when an HTML output form is generated.
*
* ARGUMENTS:  char    *szBuff    Returned string information
*               char    *szStr    input string to be formatted.
*               int     iLen      Length of returned string
*
* RETURNS:    none
*
* COMMENTS:    The length parameter is the absolute length of the
returned
*               string in HTML characters. For example the input string
> would
*               be returned as &gt; which would be counted as 1
character.If
*               the number of input characters is less than the iLen
parameter
*               spaces are appended to the end of the string to ensure
that at
*               least iLen characters are returned in the szBuff
parameter.
*
*/

```

```

static void FormatHTMLString(char *szBuff, char *szStr, int iLen)
{
    while( iLen && *szStr )
    {
        switch( *szStr )
        {

```

```

case '>':
    *szBuff++ = '&';
    *szBuff++ = 'g';
    *szBuff++ = 't';
    *szBuff++ = ';';
    szStr++;
    break;
case '<':
    *szBuff++ = '&';
    *szBuff++ = 'l';
    *szBuff++ = 't';
    *szBuff++ = ';';
    szStr++;
    break;
case '&':
    *szBuff++ = '&';
    *szBuff++ = 'a';
    *szBuff++ = 'm';
    *szBuff++ = 'p';
    *szBuff++ = ';';
    szStr++;
    break;
case '\\':
    *szBuff++ = '&';
    *szBuff++ = 'q';
    *szBuff++ = 'u';
    *szBuff++ = 'o';
    *szBuff++ = 't';
    *szBuff++ = ';';
    szStr++;
    break;
default:
    *szBuff++ = *szStr++;
    break;
}
iLen--;
}
while( iLen-- )
    *szBuff++ = ' ';
*szBuff = 0;
return;
}

/*static int ThrTpInit(EXTENSION_CONTROL_BLOCK *pECB)
{
    // use CS for ttpalloc ?
    static int num_tpinit=0;
    static int x=1;
    static int once=0;
    static CRITICAL_SECTION    TpCriticalSection;
    int iRc, TpRc, lasterr;
    char buf[40];
    int retry = 0;

    BOOL Success = FALSE;

    if(!TlsGetValue(TLSIsTpInitKey))
    {
        lasterr = GetLastError();

```

```

        if (lasterr != NO_ERROR)
        {
            sprintf(buf,"TlsGetValue %d",lasterr);
            ErrorMessage(pECB, ERR_TPINIT_BAD,
                ERR_TYPE_TUXEDO, buf, 0, 0);
            return -1;
        }
        if (!once)
        {
            InitializeCriticalSection(&TpCriticalSection);
            once=1;
        }

        if ( dLog )
        {
            FILE *fp;

            fp = fopen(szTpccLogPath, "ab");
            fprintf(fp, "* In ThrTpInit Thread %d * \r\n",
                GetCurrentThreadId());
            fclose(fp);
        }

        while ( retry < TP_MAX_RETRIES )
        {
            EnterCriticalSection(&TpCriticalSection);

            if(tpinf == NULL)
            {
                if ((tpinf = ( TPINIT *)tpalloc("TPINIT",
                    NULL, sizeof(TPINIT))) == NULL)
                {
                    TpRc = tperrno;
                    if ( dLog )
                    {
                        FILE *fp;

                        fp = fopen(szTpccLogPath, "ab");
                        fprintf(fp, ">>>> ThrTpInit %d :
                            ttpalloc of tpinit failed: %d \r\n",
                                GetCurrentThreadId(),
                                TpRc);
                        fclose(fp);
                    }
                }

                tpinf = NULL;
                retry++;
                LeaveCriticalSection(&TpCriticalSection);
                Sleep(50); // Relinquish thread timeslice
                continue;
            }

            tpinf->flags |= TPMULTICONTEXTS;
        }
    }
}

```

```

// Do the TPINIT
itoa(++num_tpinit, tpinf->cltname, 10);
iRc = tpinit(tpinf);

// check tpinit() ?
if (iRc < 0 )
{
    TpRc = tperrno;

    lasterr = GetLastError();
    retry++ ;

    if ( dLog )
    {
        FILE *fp;

        fp = fopen(szTpccLogPath, "ab");
        fprintf(fp, "* ThrTpInit

Thread %d Retry : count %d * \r\n",
        GetCurrentThreadId(),
        retry);

        fclose(fp);
    }
    else
    {
        Success = TRUE;
        tpfree( ( char * ) tpinf);
        tpinf=NULL;
        break;
    }
    --num_tpinit;
    LeaveCriticalSection(&TpCriticalSection);
    Sleep(50); // Relinquish thread
timeslice

} // retry the tpinit if it failed the first time
LeaveCriticalSection(&TpCriticalSection);

if ( Success == FALSE )
{
    TpRc = tperrno;
    {
        FILE *fp;

        fp = fopen(szTpccLogPath, "ab");
        fprintf(fp, ">>>> ThrTpInit Thread %d

Failed tperrno= %d Last Err= %d \r\n",
        GetCurrentThreadId(), TpRc,
        lasterr);

        fclose(fp);

        sprintf(buf,"Thread %d: In ThrTpInit

        GetCurrentThreadId(),iRc, TpRc);
        ErrorMessage(pECB, ERR_TPINIT_BAD,

ERR_TYPE_TUXEDO, buf, 0, 0);

```

```

return -1;
}
if ( Success == TRUE )
{
    if ( dLog )
    {
        FILE *fp;

        fp = fopen(szTpccLogPath, "ab");
        fprintf(fp, "* ThrTpInit Thread %d

Success retry count %d * \r\n",
        GetCurrentThreadId(), retry);
        fclose(fp);
    }
    if ( ( iRc=TLSSetValue(TLSIsTpInitKey,&x)) ==
0)
    {
        {
            FILE *fp;

            fp = fopen(szTpccLogPath, "ab");
            fprintf(fp, ">>>> ThrTpInit %d :

TLSSetValue Failed iRc: %d \r\n",
            GetCurrentThreadId(), iRc);
            fclose(fp);
        }
        sprintf(buf,"TLSSetValue %d",iRc);
        ErrorMessage(pECB, ERR_TPINIT_BAD,

ERR_TYPE_TUXEDO, buf, 0, 0);
        return -1;
    }
}
else
{
    if ( dLog )
    {
        FILE *fp;

        fp = fopen(szTpccLogPath, "ab");
        fprintf(fp, "* ThrTpInit Thread %d already

tpinit * \r\n", GetCurrentThreadId());
        fclose(fp);
    }
}

return 0;
}*/

static int ThrTpInit(EXTENSION_CONTROL_BLOCK *pECB)
{
    // use CS for tptpalloc ?
    static int num_tpinit=0;
    static int x=1;
    static int once=0;
    static CRITICAL_SECTION TpCriticalSection;

```

```

int iRc, TpRc, lasterr;
char buf[40];
int retry = 0;

BOOL Success = FALSE;

if(!TlsGetValue(TLSIsTpInitedKey))
{
    lasterr = GetLastError();
    if (lasterr != NO_ERROR)
    {
        sprintf(buf,"TlsGetValue %d", lasterr);
        ErrorMessage(pECB, ERR_TPINIT_BAD,
ERR_TYPE_TUXEDO, buf, 0, 0);
        return -1;
    }
    if (!once)
    {
        once=1;
        InitializeCriticalSection(&TpCriticalSection);
    }

    if ( dLog )
    {
        FILE *fp;

        fp = fopen(szTpccLogPath, "ab");
        fprintf(fp, "* In ThrTpInit Thread %d * \r\n",
GetCurrentThreadId());
        fclose(fp);
    }

    for ( retry = 0; retry < TP_MAX_RETRIES; retry++ )
    {
        EnterCriticalSection(&TpCriticalSection);

        if(tpinf == NULL)
        {
            if ((tpinf = ( TPINIT *)tpalloc("TPINIT",
NULL, sizeof(TPINIT))) == NULL)
            {
                TpRc = tperrno;
                lasterr = GetLastError();

                if ( dLog )
                {
                    FILE *fp;

                    fp = fopen(szTpccLogPath, "ab");
                    fprintf(fp, ">>>> ThrTpInit %d :
tpalloc of tpinit failed: %d \r\n",
TpRc);

                    GetCurrentThreadId(),
                    fclose(fp);
                }
            }
        }
    }
}

```

```

tpinf=NULL;
Sleep(50); // Relinquish thread timeslice
LeaveCriticalSection(&TpCriticalSection);
continue;
}

// Do the TPINIT
tpinf->flags |= TPMULTICONTEXTS;
itoa(++num_tpinit, tpinf->cltname, 10);
iRc = tpinit(tpinf);
if (iRc < 0 )
{
    TpRc = tperrno;
    lasterr = GetLastError();

    if ( dLog )
    {
        FILE *fp;

        fp = fopen(szTpccLogPath, "ab");
        fprintf(fp, "* ThrTpInit
Thread %d Retry : count %d * \r\n",
GetCurrentThreadId(),
retry);

        fclose(fp);
    }

    --num_tpinit;
    Sleep(50); // Relinquish
thread timeslice
    LeaveCriticalSection(&TpCriticalSection);
    continue;
}

Success = TRUE;
tpfree( ( char * ) tpinf);
tpinf=NULL;
Sleep(50); // Relinquish thread
timeslice
    LeaveCriticalSection(&TpCriticalSection);
    break;

} // retry the tpinit if it failed the first time

if ( Success == FALSE )
{
    if ( dLog )
    {
        FILE *fp;

        fp = fopen(szTpccLogPath, "ab");
        fprintf(fp, ">>>> ThrTpInit Thread %d
Failed tperrno= %d Last Err= %d \r\n",
GetCurrentThreadId(), TpRc,
lasterr);

        fclose(fp);
    }
}

```

```

        sprintf(buf,"Thread %d: In ThrTpInit iRc=%d
Tperrno=%d",
        GetCurrentThreadId(),iRc, TpRc);
        ErrorMessage(pECB, ERR_TPINIT_BAD,
ERR_TYPE_TUXEDO, buf, 0, 0);

        return -1;
    }
    if ( Success == TRUE )
    {
        if ( dLog )
        {
            FILE *fp;

            fp = fopen(szTpccLogPath, "ab");
            fprintf(fp, "* ThrTpInit Thread %d
Success retry count %d * \r\n",
                GetCurrentThreadId(), retry);
            fclose(fp);
        }

        if ( ( iRc=TlsSetValue(TLSIsTpInitKey,&x)) ==
0)
        {
            {
                FILE *fp;

                fp = fopen(szTpccLogPath, "ab");
                fprintf(fp, ">>>> ThrTpInit %d :
TlsSetValue Failed iRc: %d \r\n",
                    GetCurrentThreadId(), iRc);
                fclose(fp);
            }
            sprintf(buf,"TlsSetValue %d",iRc);
            ErrorMessage(pECB, ERR_TPINIT_BAD,
ERR_TYPE_TUXEDO, buf, 0, 0);
            return -1;
        }
    }
    else
    {
        if ( dLog )
        {
            FILE *fp;

            fp = fopen(szTpccLogPath, "ab");
            fprintf(fp, "* ThrTpInit Thread %d already
tpinited * \r\n", GetCurrentThreadId());
            fclose(fp);
        }
    }

    return 0;
}

#ifdef TOPEND

```

```

void space_fill(s1, s2, i)

char *s1, *s2;
int i;

{
    int ii;

    strncpy(s1,s2,i);

    for(ii=0; ii<i; ii++)
    {
        if (s1[ii] == '\0') s1[ii] = 0x20;
    }
    return;
}

/* This is the function for the new thread that is added to the process.
*/
/* The error handling needs to be improved. Almost every problem is
fatal. */
static void TereceiveThread(void *ptr)
{
    tp_dif_structs_t *dif_struct;
    long buffer_length;
    char *message_buffer;
    int rc;
    FILE *fpl;

    if ((rc = (int)tp_ChangeToGroup ((LPSTR)getenv("TP_SYSTEM"),
        LOGON32_LOGON_INTERACTIVE,
        LOGON32_PROVIDER_DEFAULT)) != 0)
    {
        if (bLog)
        {
            fpl = fopen(szTpccLogPath, "ab");
            fprintf(fpl, "Received bad status from tp_ChangeToGroup,
status = %d ***\n", rc);
            fclose(fpl);
        }
        MT_LOG_ERROR;
        return;
    }

    dif_struct = tp_csi_alloc (TP_DIF_DIAL_INFO |
                                TP_DIF_SERVICE_NAME |
                                TP_DIF_OUTPUT_FORMAT |
                                TP_DIF_LOCATION);

    if (dif_struct == NULL)
    {
        MT_LOG_ERROR;
        return;
    }

    if ((message_buffer = (char *) malloc (TP_MAX_BUF_LEN)) == NULL)
    {
        MT_LOG_ERROR;
        return;
    }
}

```

```

}

/* receive loop. Should there be a way to shut this down? */
for (;;)
{
    if (tp_WaitForSingleObject (NULL, INFINITE) == WAIT_TIMEOUT)
    {
        MT_LOG_ERROR;
        return;
    }
    dif_struct->info->tp_user_dialogue_id = TP_ANY_DIALOGUE;
    dif_struct->info->tp_flags = TP_NOFLAGS;
    buffer_length = TP_MAX_BUF_LEN;

    rc = tp_client_receive (dif_struct->info, TP_NOBLOCK,
                           dif_struct->output_format,
                           dif_struct->service,
                           dif_struct->location,
                           &buffer_length,
                           message_buffer);

    switch (rc)
    {
        case TP_TIMEOUT:
        {
            break;
        }
        case TP_ADMIN:
        {
            /* This assumes that admin messages aren't used in the
            application. */
            /* Receive the message and throw it away. */
            long flags, buf_len;
            char buffer[1];

            flags = TP_TRUNCATE;
            buf_len = 1;
            tp_system_admin (&flags, &buf_len, buffer);
            break;
        }
        case TP_DISSOLVED:
        case TP_OK:
        case TP_RESET:
        case TP_SERVICE:
        case TP_SIGNON_INHIBITED:
        case TP_USER:
        {
            DialogTableEntry_t *DTE;
            void *ptr;

            DTE = FindOnList (dif_struct->info->tp_user_dialogue_id,
                              &DTActiveList);
            if (DTE == NULL)
            {
                /* We received in a dialog without outstanding work???
                */
                MT_LOG_ERROR;
                return;
            }
        }
    }
}

```

```

/* trade data with DTE. */
ptr = DTE->dif_struct->info;
DTE->dif_struct->info = dif_struct->info;
dif_struct->info = ptr;

ptr = DTE->dif_struct->output_format;
DTE->dif_struct->output_format = dif_struct->
>output_format;
dif_struct->output_format = ptr;

ptr = DTE->dif_struct->service;
DTE->dif_struct->service = dif_struct->service;
dif_struct->service = ptr;

ptr = DTE->dif_struct->location;
DTE->dif_struct->location = dif_struct->location;
dif_struct->location = ptr;

DTE->buffer_length = buffer_length;

if (DTE->message_buffer == NULL)
{
    if ((DTE->message_buffer = malloc (buffer_length)) ==
    NULL)
    {
        MT_LOG_ERROR;
        return;
    }
}
else
{
    /* NONPORTABLE */
    if (_msize (DTE->message_buffer) < (size_t)
    buffer_length)
    {
        if ((DTE->message_buffer = realloc (DTE-
    >message_buffer,
        buffer_length)) == NULL)
        {
            MT_LOG_ERROR;
            return;
        }
    }
}
memcpy (DTE->message_buffer, message_buffer,
buffer_length);
DTE->rc = rc;
/* Signal that the data is ready. */
SetEvent (DTE->hSync);
break;

}
case TP_SHUTDOWN:
{
    DialogTableEntry_t *DTE;
    /* tell everyone */
    if (WaitForSingleObject (DTActiveList.hSync, INFINITE)
    == WAIT_TIMEOUT)
    {
        MT_LOG_ERROR;
    }
}
}

```



```

        return;
    }
    DTE = DTActiveList.next;
    while (DTE != NULL)
    {
        DTE->rc = TP_SHUTDOWN;
        SetEvent (DTE->hSync);
        DTE = DTE->next;
    }
    if (!ReleaseMutex(DTActiveList.hSync))
    {
        MT_LOG_ERROR;
        return;
    }
    break;
}
default:
{
    if (bLog)
    {
        fpl = fopen(szTpccLogPath, "ab");
        fprintf(fpl, "TereceiveThread received error status
= %d\n", rc);
        fclose(fpl);
    }
    MT_LOG_ERROR;
    return;
}
}
}

int tp_mt_initialize(tp_application_info_t *application_info,
                    tp_func_struct_t      function_array[],
                    long                    number_functions)
{
    static HANDLE hReceiveThread = NULL;
    int rc;

    rc = tp_initialize(application_info, function_array,
number_functions);

    if (rc == TP_OK)
    {
        /* Make sure that the global data is initialized. */
        if (DTFreeList.hSync == NULL)
        {
            if ((DTFreeList.hSync = CreateMutex(NULL, FALSE, NULL)) ==
NULL)
            {
                MT_LOG_ERROR;
                tp_terminate();
                return TP_DIFERR;
            }
        }
        if (DTActiveList.hSync == NULL)
        {

```

```

            if ((DTActiveList.hSync = CreateMutex(NULL, FALSE, NULL)) ==
NULL)
            {
                MT_LOG_ERROR;
                tp_terminate();
                return TP_DIFERR;
            }
        }
        /* Make sure that the receive thread is running */
        if (hReceiveThread == NULL)
        {
            if ((hReceiveThread = (HANDLE) _beginthread(TereceiveThread,
0, NULL)) == (HANDLE) -1 )
            {
                MT_LOG_ERROR;
                tp_terminate();
                return TP_DIFERR;
            }
            if (!SetThreadPriority (hReceiveThread,
RECEIVE_THREAD_PRIORITY))
            {
                MT_LOG_ERROR;
            }
        }
    }
    return rc;
}

int tp_mt_client_signon(tp_dialogue_info_t *info,
                        tp_dialogue_user_t *client,
                        long                inactivity_time,
                        tp_service_name_t  *service,
                        tp_input_format_t  *input_format,
                        long                message_length,
                        char                *message_text)
{
    DialogTableEntry_t *DTE = GetDTE();
    int rc;

    if (DTE == NULL)
    {
        MT_LOG_ERROR;
        return TP_DIFERR;
    }
    if (!ResetEvent (DTE->hSync))
    {
        MT_LOG_ERROR;
        return TP_DIFERR;
    }

    /* This is to handle TP_UNIQUE_DIALOGUE */
    DTE->usr_dlg_ptr = &(info->tp_user_dialogue_id);
    AddToList(DTE, &DTActiveList);

    rc = tp_client_signon(info, client, inactivity_time, service,
input_format, message_length, message_text);

    switch (rc)

```

```

{
    case TP DISSOLVING:
    case TP_OK:
    {
        DTE->usr_dlg_storage = info->tp_user_dialogue_id;
        DTE->usr_dlg_ptr = &(DTE->usr_dlg_storage);
        break;
    }
    default:
    {
        /* there is nothing to receive */
        RemoveFromList (DTE, &DTActiveList);
        AddToList (DTE, &DTFreeList);
    }
}
return rc;
}

int tp_mt_client_send(tp_dialogue_info_t *info,
                    tp_service_name_t *service,
                    tp_input_format_t *input_format,
                    long message_length,
                    char *message_text)
{
    DialogTableEntry_t *DTE = GetDTE();
    int rc;

    if (DTE == NULL)
    {
        MT_LOG_ERROR;
        return TP_DIFERR;
    }
    if (!ResetEvent (DTE->hSync))
    {
        MT_LOG_ERROR;
        return TP_DIFERR;
    }
    DTE->usr_dlg_storage = info->tp_user_dialogue_id;
    DTE->usr_dlg_ptr = &(DTE->usr_dlg_storage);
    AddToList(DTE, &DTActiveList);

    rc = tp_client_send(info, service, input_format, message_length,
message_text);
    switch (rc)
    {
        case TP DISSOLVING:
        case TP_OK:
        case TP_RESET:
        {
            break;
        }
        default:
        {
            /* there is nothing to receive */
            RemoveFromList (DTE, &DTActiveList);
            AddToList (DTE, &DTFreeList);
        }
    }
}

```

```

        return rc;
    }

int tp_mt_client_receive(tp_dialogue_info_t *info,
                    long wait_time,
                    tp_output_format_t *output_format,
                    tp_service_name_t *service,
                    tp_location_t *location,
                    long *buffer_length,
                    char *message_buffer)
{
    DialogTableEntry_t *DTE = FindOnList(info->tp_user_dialogue_id,
&DTActiveList);
    int rc;
    FILE *fpl;

    if (DTE == NULL)
    {
        MT_LOG_ERROR;
        return TP_DIFERR;
    }
    wait_time = TP_BLOCK;

    /* Wait for the receive to actually happen */
    if (WaitForSingleObject(DTE->hSync, INFINITE) == WAIT_TIMEOUT)
    {
        if (bLog)
        {
            fpl = fopen(szTpccLogPath, "ab");
            fprintf(fpl, "tp_mt_client_receive got a timeout error\n");
            fclose(fpl);
        }
        return TP_TIMEOUT;
    }

    if (DTE->buffer_length > *buffer_length)
    {
        *buffer_length = DTE->buffer_length;
        return TP_BUFSIZE;
    }

    RemoveFromList (DTE, &DTActiveList);

    memcpy (info, DTE->dif_struct->info, sizeof
(tp_dialogue_info_t));
    memcpy (output_format, DTE->dif_struct->output_format, sizeof
(tp_output_format_t));
    memcpy (service, DTE->dif_struct->service, sizeof
(tp_service_name_t));
    memcpy (location, DTE->dif_struct->location, sizeof
(tp_location_t));
    *buffer_length = DTE->buffer_length;
    memcpy (message_buffer, DTE->message_buffer, *buffer_length);
    rc = DTE->rc;

    AddToList (DTE, &DTFreeList);
    return rc;
}

```

```

}

void AddToList (DialogTableEntry_t *DTE, DialogTableEntry_t *head)
{
    if (WaitForSingleObject (head->hSync, INFINITE) == WAIT_TIMEOUT)
    {
        MT_LOG_ERROR;
        return;
    }
    DTE->next = head->next;
    head->next = DTE;
    if (!ReleaseMutex (head->hSync))
    {
        MT_LOG_ERROR;
    }
    return;
}

void RemoveFromList (DialogTableEntry_t *DTE, DialogTableEntry_t *head)
{
    DialogTableEntry_t *ptr;

    if (WaitForSingleObject (head->hSync, INFINITE) == WAIT_TIMEOUT)
    {
        MT_LOG_ERROR;
        return;
    }
    ptr = head;

    while ((ptr != NULL) && (ptr->next != DTE))
    {
        ptr = ptr->next;
    }
    if (ptr == NULL)
    {
        MT_LOG_ERROR;
        ReleaseMutex (head->hSync);
        return;
    }
    ptr->next = DTE->next;

    if (!ReleaseMutex (head->hSync))
    {
        MT_LOG_ERROR;
    }
    return;
}

DialogTableEntry_t *FindOnList (long tp_user_dialogue_id,
DialogTableEntry_t *head)
{
    DialogTableEntry_t *ptr;

    if (WaitForSingleObject (head->hSync, INFINITE) == WAIT_TIMEOUT)
    {
        MT_LOG_ERROR;
        return NULL;
    }
    ptr = head->next;

    while ((ptr != NULL) && (ptr->usr_dlg_ptr != tp_user_dialogue_id))
    {
        ptr = ptr->next;
    }
    if (ptr == NULL)
    {
        MT_LOG_ERROR;
        ReleaseMutex (head->hSync);
        return NULL;
    }
    if (!ReleaseMutex (head->hSync))
    {
        MT_LOG_ERROR;
    }
    return ptr;
}

DialogTableEntry_t *GetDTE()
{
    DialogTableEntry_t *ptr = NULL;

    if (WaitForSingleObject (DTFreeList.hSync, INFINITE) == WAIT_TIMEOUT)
    {
        MT_LOG_ERROR;
        return NULL;
    }

    if (DTFreeList.next != NULL)
    {
        ptr = DTFreeList.next;
        DTFreeList.next = ptr->next;
    }

    if (!ReleaseMutex (DTFreeList.hSync))
    {
        MT_LOG_ERROR;
    }

    if (ptr == NULL)
    {
        if ((ptr = (DialogTableEntry_t *) malloc (sizeof (DialogTableEntry_t))) == NULL)
        {
            MT_LOG_ERROR;
            return NULL;
        }

        if ((ptr->dif_struct = tp_csi_alloc (TP_DIF_DIAL_INFO |
                                            TP_DIF_SERVICE_NAME |
                                            TP_DIF_OUTPUT_FORMAT |
                                            TP_DIF_LOCATION)) == NULL)
        {
            MT_LOG_ERROR;
            return NULL;
        }
    }
}

```

```

        free(ptr);
        return NULL;
    }
    ptr->buffer_length = 0;
    ptr->message_buffer = NULL;
    ptr->rc = 0;
    if ((ptr->hSync = CreateEvent (NULL, TRUE, FALSE, NULL)) ==
NULL)
    {
        MT_LOG_ERROR;
        tp_csi_free (ptr->dif_struct);
        free (ptr);
        return NULL;
    }
    ptr->next = NULL;
}
return ptr;
}

#endif

```

httpext.h

```

                                LPVOID        lpvBuffer,
                                LPDWORD        lpdwSize );
BOOL (WINAPI * WriteClient)    ( HCONN        ConnID,
                                LPVOID        Buffer,
                                LPDWORD        lpdwBytes,
                                DWORD          dwReserved );
BOOL (WINAPI * ReadClient)    ( HCONN        ConnID,
                                LPVOID        lpvBuffer,
                                LPDWORD        lpdwSize );
BOOL (WINAPI * ServerSupportFunction) ( HCONN        hConn,
                                DWORD          dwHSERRequest,
                                LPVOID        lpvBuffer,
                                LPDWORD        lpdwSize,
                                LPDWORD        lpdwDataType );
} EXTENSION_CONTROL_BLOCK, *LPEXTENSION_CONTROL_BLOCK;
//
// these are the prototypes that must be exported from the extension
DLL
//
_declspec (dllexport)
BOOL WINAPI GetExtensionVersion( HSE_VERSION_INFO *pVer );
_declspec (dllexport)
DWORD WINAPI HttpExtensionProc( EXTENSION_CONTROL_BLOCK *pECB );
// the following type declarations are for the server side
typedef BOOL (WINAPI * PFN_GETEXTENSIONVERSION) ( HSE_VERSION_INFO
*pVer );
typedef DWORD (WINAPI *
PFN_HTTPEXTENSIONPROC ) ( EXTENSION_CONTROL_BLOCK *pECB );
#ifdef __cplusplus
}
#endif
#endif // end definition _HTTPEXT_H_

```

tpccerr.h

```

#ifndef TPCCERR_H
#define TPCCERR_H

/*=====+
|          Copyright (c) 1997 Oracle Corp, Redwood Shores, CA          |
|          All Rights Reserved                                          |
+=====+
| FILENAME                                                              |
| tpccerr.h                                                            |
| DESCRIPTION                                                            |
| Include file for TPC-C benchmark programs.                          |
+=====*/

// #define LIMIT_TUXQUEUE

#define TP_MAX_RETRIES 1
#define ERR_TYPE_WEBDLL 1
#define ERR_TYPE_SQL 2
#define ERR_TYPE_OCI 3
#define ERR_TYPE_TUXEDO 4
#define ERR_DB_SUCCESS 0
/* Database transaction succeeded */

#define ERR_DB_ERROR 1 /* A database error has occurred */
#define ERR_TRANSPORT_ERROR 2 /* A transport error has occurred */
#define ERR_DB_INTERFACE 3 /* An error occurred setting up */
/* connection to DB */
#define ERR_DB_DEADLOCK_LIMIT 4 /* The DB deadlock retry limit
was */
/* reached */
#define ERR_DB_NOT_COMMITTED 5 /* Transaction not committed */
#define ERR_DB_DEAD 6 /* Database connection is invalid */
#define ERR_SUCCESS 1000 /*"Success, no error.
#define ERR_COMMAND_UNDEFINED 1001 /*"Command undefined.
#define ERR_NOT_IMPLEMENTED_YET 1002 /*"Not Implemented Yet.
#define ERR_CANNOT_INIT_TERMINAL 1003 /*"Cannot initialize
client connection.
#define ERR_OUT_OF_MEMORY 1004 /*"insufficient memory.
#define ERR_NEW_ORDER_NOT_PROCESSED 1005 /*"Cannot process new Order
form.
#define ERR_PAYMENT_NOT_PROCESSED 1006 /*"Cannot process payment
form.
#define ERR_NO_SERVER_SPECIFIED 1007 /*"No Server name
specified.
#define ERR_ORDER_STATUS_NOT_PROCESSED 1008 /*"Cannot process order
status form.
#define ERR_W_ID_INVALID 1009 /*"Invalid Warehouse ID.
#define ERR_CAN_NOT_SET_MAX_CONNECTIONS 1010 /*"Insufficient
memory to
//allocate # connections.
#define ERR_NOSUCH_CUSTOMER 1011 /*"No such customer.
#define ERR_D_ID_INVALID 1012 /*"Invalid District ID Must be 1
to 10.
#define ERR_MAX_CONNECT_PARAM 1013 /*"Max client connections
exceeded,
//run install to increase.
#define ERR_INVALID_SYNC_CONNECTION 1014 /*"Invalid Terminal Sync ID.

```

```

#define ERR_INVALID_TERMID 1015 // "Invalid Terminal ID.
#define ERR_PAYMENT_INVALID_CUSTOMER 1016 // "Payment Form, No such
Customer.
#define ERR_SQL_OPEN_CONNECTION 1017 // "SQLOpenConnection API
Failed.
#define ERR_STOCKLEVEL_MISSING_THRESHOLD_KEY 1018 // "Stock Level
missing
// Threshold key "TT*".
#define ERR_STOCKLEVEL_THRESHOLD_INVALID 1019 // "Stock Level Threshold
invalid
// data type range = 1 - 99.
#define ERR_STOCKLEVEL_THRESHOLD_RANGE 1020 // "Stock Level Threshold
out of
// range, range must be 1 -
99.
#define ERR_STOCKLEVEL_NOT_PROCESSED 1021 // "Stock Level not processed.
#define ERR_NEWORDER_FORM_MISSING_DID 1022 // "NewOrder miss District
key "DID*".
#define ERR_NEWORDER_DISTRICT_INVALID 1023 // "NewOrder District ID
Invalid
// range 1 - 10.
#define ERR_NEWORDER_DISTRICT_RANGE 1024 // "New Order District ID out
of
// Range. Range = 1 - 10.
#define ERR_NEWORDER_CUSTOMER_KEY 1025 // "New Order missing Customer
key "CID*".
#define ERR_NEWORDER_CUSTOMER_INVALID 1026 // "NewOrder customer id
invalid data
// type, range = 1 to 3000.
#define ERR_NEWORDER_CUSTOMER_RANGE 1027 // "New Order customer id out
of
// range, range = 1 to 3000.
#define ERR_NEWORDER_MISSING_IID_KEY 1028 // "NewOrder missng ItemId
key "IID*".
#define ERR_NEWORDER_ITEM_BLANK_LINES 1029 // "NewOrder blank order
lines all
// orders must be continuous.
#define ERR_NEWORDER_ITEMID_INVALID 1030 // "New Order Item Id is
wrong data
// type, must be numeric.
#define ERR_NEWORDER_MISSING_SUPPW_KEY 1031 // "NewOrder missing Supp_W
key
// "SP###".
#define ERR_NEWORDER_SUPPW_INVALID 1032 // "New Order Supp_W
invalid data
// type must be numeric.
#define ERR_NEWORDER_MISSING_QTY_KEY 1033 // "NewOrder Missing Qty key
"Qty###".
#define ERR_NEWORDER_QTY_INVALID 1034 // "NewOrder Qty invalid must
be
// numeric range 1 - 99.
#define ERR_NEWORDER_SUPPW_RANGE 1035 // "New Order Supp_W
value out of
// range range = 1 - Max
Warehouses.
#define ERR_NEWORDER_ITEMID_RANGE 1036 // "New Order Item Id is
out of range.
// Range = 1 to 999999.
#define ERR_NEWORDER_QTY_RANGE 1037 // "New Order Qty is out of range.
// Range = 1 to 99.
#define ERR_PAYMENT_DISTRICT_INVALID 1038 // "Payment District ID is
invalid
// must be 1 - 10.

```

```

#define ERR_NEWORDER_SUPPW_WITHOUT_ITEMID 1039 // "NewOrder Supp_W field
entered
// without a corrsponding
Item Id.
#define ERR_NEWORDER_QTY_WITHOUT_ITEMID 1040 // "NewOrder Qty entered
without a
// corrsponding Item Id.
#define ERR_NEWORDER_NOITEMS_ENTERED 1041 // "NewOrder Blank Itēms
between
// items, items must be
continuous.
#define ERR_PAYMENT_MISSING_DID_KEY 1042 // "Payment missing District
Key "DID*".
#define ERR_PAYMENT_DISTRICT_RANGE 1043 // "Payment District Out
of range,
// range = 1 - 10.
#define ERR_PAYMENT_MISSING_CID_KEY 1044 // "Payment missing Customer
Key "CID*".
#define ERR_PAYMENT_CUSTOMER_INVALID 1045 // "PaymentCustomer data type
invalid,
// must be numeric.
#define ERR_PAYMENT_MISSING_CLT 1046 // "Payment missing
Customer Last Name
// Key "CLT*".
#define ERR_PAYMENT_LAST_NAME_TO_LONG 1047 // "Payment Customer last
name
// longer than 16 characters.
#define ERR_PAYMENT_CUSTOMER_RANGE 1048 // "Payment Customer ID out
of range,
// must be 1 to 3000.
#define ERR_PAYMENT_CID_AND_CLT 1049 // "Payment Customer ID and
Last Name
// entered must be one or other.
#define ERR_PAYMENT_MISSING_CDI_KEY 1050 // "Payment missing Customer
district
// key "CDI*".
#define ERR_PAYMENT_CDI_INVALID 1051 // "Payment Customer
district invalid
// must be numeric.
#define ERR_PAYMENT_CDI_RANGE 1052 // "Payment Customer district out
of
// range must be 1 - 10.
#define ERR_PAYMENT_MISSING_CWI_KEY 1053 // "Payment missing Customer
Warehouse
// key "CWI*".
#define ERR_PAYMENT_CWI_INVALID 1054 // "Payment Customer
Warehouse invalid
// must be numeric.
#define ERR_PAYMENT_CWI_RANGE 1055 // "Payment Customer Warehouse out
of
// range, 1 to Max Warehouses.
#define ERR_PAYMENT_MISSING_HAM_KEY 1056 // "Payment missing Amount key
"HAM*".
#define ERR_PAYMENT_HAM_INVALID 1057 // "Payment Amount invalid
data type
// must be numeric.
#define ERR_PAYMENT_HAM_RANGE 1058 // "Payment Amount out of range,
// 0 - 9999.99.
#define ERR_ORDERSTATUS_MISSING_DID_KEY 1059 // "OrderStatus
missing District
// key "DID*".
#define ERR_ORDERSTATUS_DID_INVALID 1060 // "Order Status District
invalid,

```

```

//value must be numeric 1 - 10.
#define ERR_ORDERSTATUS_DID_RANGE 1061 // "Order Status District
out of range

//must be 1 - 10.
#define ERR_ORDERSTATUS_MISSING_CID_KEY 1062 // "OrderStatus missing
Customer

//key "CID*".
#define ERR_ORDERSTATUS_MISSING_CLT_KEY 1063 // "OrderStatus missing
Customer

//Last Name key "CLT*".
#define ERR_ORDERSTATUS_CLT_RANGE 1064 // "Order Status Customer
last name

//longer than 16 characters.
#define ERR_ORDERSTATUS_CID_INVALID 1065 // "Order Status Customer ID
invalid,

//range must be numeric 1 - 3000.
#define ERR_ORDERSTATUS_CID_RANGE 1066 // "Order Status Customer
ID out of

//range must be 1 - 3000.
#define ERR_ORDERSTATUS_CID_AND_CLT 1067 // "Order Status Customer ID
and

//LastName entered must be only
one."
#define ERR_DELIVERY_MISSING_OCD_KEY 1068 // "Delivery missing Carrier
ID key

// "OCD*".
#define ERR_DELIVERY_CARRIER_INVALID 1069 // "Delivery Carrier ID
invalid must

//be numeric 1 - 10.
#define ERR_DELIVERY_CARRIER_ID_RANGE 1070 // "Delivery Carrier ID out
of range

//must be 1 - 10.
#define ERR_PAYMENT_MISSING_CLT_KEY 1071 // "Payment missing Customer
Last

//Name key "CLT*".
#define TOPEND_SEND_ERROR 1072 // "TOPEND client send error".
#define TOPEND_RECEIVE_ERROR 1073 // "TOPEND client receive error".

#ifdef LIMIT_TUXQUEUE
#define ERR_TUXQUEUE_TIMEOUT 1074
#define ERR_TUXQUEUE_FAILED 1075
#endif // LIMIT_TUXQUEUE

#ifdef LIMIT_TUXQUEUE2
#define ERR_TUXQUEUE_TIMEOUT 1074
#define ERR_TUXQUEUE_FAILED 1075
#endif // LIMIT_TUXQUEUE

#define ERR_TPINIT_BAD 5001 // "Tuxedo tpinit Failed."
#define ERR_TPALLOC_BAD 5002 // "Tuxedo tpalloC Failed."
#define ERR_TPCALL_BAD 5003 // "Tuxedo tpcall Failed."

#endif /* TPCCERR_H */

```

tpcc_info.h

```

/*
 * $Header: tpcc_info.h 7030100.1 95/07/19 15:11:37 plai Generic<base>
 * Copyr (c) 1995 Oracle
 */
/*=====+

```

```

| Copyright (c) 1995 Oracle Corp, Redwood Shores, CA |
| OPEN SYSTEMS PERFORMANCE GROUP |
| All Rights Reserved |
+=====+
| FILENAME |
| tpcc_info.h |
| DESCRIPTION |
| Include file for TPC-C benchmark programs. |
+=====+

```

```

#ifndef TPCC_INFO_H
#define TPCC_INFO_H

/* this set is duplicated in c_Defs.h, c_Defs.h is used for batch
driver */
#define MENTXN 0 /* menu txn */
#define NEWTXN 1 /* new order transaction */
#define PAYTXN 2 /* payment transaction */
#define ORDTXN 3 /* order status transaction */
#define DELTXN 4 /* delivery transaction */
#define STOTXN 5 /* stock level transaction */
#define ALLTXN 6 /* for processing all txns */
#define ALLTXNODEL 7 /* for processing all txns except delivery
*/
/* 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];
    float c_discount;
    float w_tax;
    float d_tax;
    char o_entry_d[20];
    float total_amount;
    char i_name[15][25];
    int s_quantity[15];
    char brand_generic[15];
    float i_price[15];
    float ol_amount[15];
    char status[26];
    int retry;
    int ol_i_id[15]; //add
    int ol_supply_w_id[15]; //add
    int ol_quantity[15]; //add
};

```

```

struct newstruct {

```

```

    int    retval;
    int old_quantity[15];
    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;
    float 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;
    float c_discount;
    double c_balance;
    char c_data[201];
    char h_date[20];
    int retry;
};

struct paystruct {
    int retval;
    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];
    float ol_amount[15];
    char ol_delivery_d[15][11];
    int retry;
};

struct ordstruct {
    int retval;
    struct ordinstruct ordin;
    struct ordoutstruct ordout;
};

/* Delivery */

struct delinstruct {
    int w_id;
    int o_carrier_id;
    double qtime;
    int in_timing_int;
    int plsqliflag;
};

struct deloutstruct {
    int terror;
    int retry;
};

struct delstruct {
    int retval;
    struct delinstruct 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 {
    int retval;
    struct stoinstruct stoin;
    struct stooutstruct stoout;
};

/* used these definitions in client code only */
typedef struct delstruct DeliveryData, *pDeliveryData;
typedef struct newstruct NewOrderData, *pNewOrderData;
typedef struct paystruct PaymentData, *pPaymentData;
typedef struct ordstruct OrderStatusData, *pOrderStatusData;
typedef struct stostruct StockLevelData, *pStockLevelData;

#endif

```

makefile.intel

```

#
#      Copyright (c) 1997 Oracle Corp, Redwood Shores, CA
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# FILE:      makefile.intel
# DESCRIPTION: Builds TPCC Application Code (Front and backend for
# clients)
# CREATED:   02 July 97
# rmook      11/20/97      8.0.4 edits
# MODIFIED:
# rmook      11/20/97      setup enhancements

CPU          = i386

#Oracle Installation Location is %ORACLE_HOME%
ORACLE_HOME  = c:\orcl10i_32

#TPCC Kit location is %TPCC_HOME%
TPCC_HOME    = C:\oracle\tool\10i_tpcc25.change\benchrun

#TopEnd installation location is %TM_HOME% or
#TUXEDO installation

!IF "$(CFG)" != "TOPEND" && "$(CFG)" != "TUXEDO"
!MESSAGE Invalid configuration "$(CFG)" specified.
!MESSAGE You can specify a configuration when running NMAKE
!MESSAGE by defining the macro CFG on the command line. For example:
!MESSAGE
!MESSAGE NMAKE /f "makefile.intel" CFG="TUXEDO"

```

```

!MESSAGE
!MESSAGE Possible choices for configuration are:
!MESSAGE
!MESSAGE TUXEDO - for tuxedo linking
!MESSAGE TOPEND - for topend linking
!MESSAGE
!ERROR An invalid configuration is specified.
!ENDIF

```

```

OCI_SUB      = oci
OCI_INCLUDE  = $(ORACLE_HOME)\$(OCI_SUB)\include
OCI_LIB_HOME = $(ORACLE_HOME)\lib
#OCI_LIB     = $(OCI_LIB_HOME)\ociw32.lib
OCI_LIB      = C:\orcl10i_32\lib\oci.lib

```

```

DPB_LIB_DIR  = $(TPCC_HOME)\source\lib
DPB_LIB      = $(DPB_LIB_DIR)\dpbnt.lib

```

```

CSRC_DIR     = $(TPCC_HOME)\source\client
SSRC_DIR     = $(TPCC_HOME)\source\server

```

```

!IF "$(CFG)" == "TOPEND"
TM_HOME      = C:\TOPEND
TM_LOC       = $(TM_HOME)\LIB
TM_LIB       = $(TM_LOC)\tpappl.lib $(TM_LOC)\tpbase.lib
TM_FW        = ..\..\tpmon\topend\lib\tpfw.lib
TM_INC       = $(TM_HOME)\include
TM_INCLUDES  = /I$(TM_INC)

```

```

TM_CFLAGS    = /DTOP /D_CONSOLE /DWIN32 /DTOPEND

```

```

ORA_DEFINES  = /DORACLE /DOCI /DORA_NT
ORA_INCLUDES = /I$(OCI_INCLUDE) /I$(DPB_LIB_DIR)
APP_INCLUDES = /I$(CSRC_DIR) /I$(SSRC_DIR)

```

```

#
#      Destination for executables.
#
BIN_DIR       = ..\..\bin
!ENDIF

```

```

!IF "$(CFG)" == "TUXEDO"
TM_HOME      = c:\PROGRA~1\BEASYS~1\TUXEDO
TM_LOC       = $(TM_HOME)\LIB
TM_LIB       = $(TM_LOC)\libtux.lib
TM_FW        =
TM_INC       = $(TM_HOME)\include
TM_INCLUDES  = /I$(TM_INC)

TM_CFLAGS    = /DTUX /D_CONSOLE /DWIN32 /D_TMSTHEADS

```

```

#ORA_DEFINES =
#ORA_INCLUDES =
APP_INCLUDES = /I$(CSRC_DIR) /I$(SSRC_DIR)

```

```

#
#      Destination for executables.
#

```



```

BIN_DIR          = ..\..\bin
!ENDIF

#Visual C++ 5.x libs

CLIB_DIR         = c:\Program Files\Microsoft Visual Studio\VC98\lib
SOCKETS_LIB      = "$(CLIB_DIR)\wsock32.lib"
ADVAPI_LIB       = "$(CLIB_DIR)\advapi32.lib"
USER32_LIB       = "$(CLIB_DIR)\user32.lib"
MSVCRT_LIB       = "$(CLIB_DIR)\msvcrt.lib"

CL               = cl
CFLAGS           = -c -W3 -D_X86_=1
COPT             = -Ox -Oy- -Gf
#CDEBUG          = -Od -Z7 -Ge
#CDEBUG          = -Od -Zi -GX

CL_OPS           = $(CFLAGS) $(COPT) $(CDEBUG) $(ORA_DEFINES)
$(TM_CFLAGS) $(ORA_INCLUDES) $(TM_INCLUDES) $(APP_INCLUDES)

LINK             = link
#LFLAGS = /debug:full /debugtype:cv /pdb:none

LIBRARIAN        = lib
#
# Private C compilation rule.
#
.c.obj:
    @$(CL) $(CL_OPS) /Fo$@ $*.c

#
# Rule for building an "exe" in $(BIN_DIR) and using object files
# in current
# directory.
#
{}.obj{$(BIN_DIR)}.exe:
    @$(LINK) $(LFLAGS) /OUT:$@ $(DPB_LIB) $(OCI_LIB) $**

!IF "$(CFG)" == "TOPEND"
top: $(DPB_LIB) \
    $(BIN_DIR)\serv_n1.exe \
    $(BIN_DIR)\serv_p1.exe \
    $(BIN_DIR)\serv_o1.exe \
    $(BIN_DIR)\serv_d1.exe \
    $(BIN_DIR)\serv_s1.exe \
    $(BIN_DIR)\serv_g1.exe \
    $(BIN_DIR)\tpcc.dll

!ELSE
top: $(DPB_LIB) \
    $(BIN_DIR)\tpcc.dll

!ENDIF

c_trnsnt.lib: plnew.obj plpay.obj plord.obj pldel.obj plsto.obj
tpccpl.obj
    @$(LIBRARIAN) /out:$@ $**

$(DPB_LIB):
    pushd $(DPB_LIB_DIR)
    $(MAKE) -f makefile.intel

```

```

popd

tpcc.obj: $(CSRC_DIR)\tpcc.c $(CSRC_DIR)\tpccapi.h
$(CSRC_DIR)\tpccerr.h ; @$(CL) /MT $(CL_OPS) $(CSRC_DIR)\tpcc.c

server_n.obj: $(SSRC_DIR)\server_n.c $(SSRC_DIR)\tpcc_info.h tpccapi.h
$(TM_INC)\TP_CSI.H $(TM_INC)\TP_FMT.H ; @$(CL) $(CL_OPS)
$(SSRC_DIR)\server_n.c

server_p.obj: $(SSRC_DIR)\server_p.c $(SSRC_DIR)\tpcc_info.h tpccapi.h
$(TM_INC)\TP_CSI.H $(TM_INC)\TP_FMT.H ; @$(CL) $(CL_OPS)
$(SSRC_DIR)\server_p.c

server_o.obj: $(SSRC_DIR)\server_o.c $(SSRC_DIR)\tpcc_info.h tpccapi.h
$(TM_INC)\TP_CSI.H $(TM_INC)\TP_FMT.H ; @$(CL) $(CL_OPS)
$(SSRC_DIR)\server_o.c

server_d.obj: $(SSRC_DIR)\server_d.c $(SSRC_DIR)\tpcc_info.h tpccapi.h
$(TM_INC)\TP_CSI.H $(TM_INC)\TP_FMT.H ; @$(CL) $(CL_OPS)
$(SSRC_DIR)\server_d.c

server_s.obj: $(SSRC_DIR)\server_s.c $(SSRC_DIR)\tpcc_info.h tpccapi.h
$(TM_INC)\TP_CSI.H $(TM_INC)\TP_FMT.H ; @$(CL) $(CL_OPS)
$(SSRC_DIR)\server_s.c

server_g.obj: $(SSRC_DIR)\server_g.c $(SSRC_DIR)\tpcc_info.h tpccapi.h
$(TM_INC)\TP_CSI.H $(TM_INC)\TP_FMT.H ; @$(CL) $(CL_OPS)
$(SSRC_DIR)\server_g.c

plnew.obj: $(SSRC_DIR)\plnew.c $(SSRC_DIR)\tpcc.h
$(SSRC_DIR)\tpccpl.h ; @$(CL) $(CL_OPS) $(SSRC_DIR)\plnew.c
plpay.obj: $(SSRC_DIR)\plpay.c $(SSRC_DIR)\tpcc.h
$(SSRC_DIR)\tpccpl.h ; @$(CL) $(CL_OPS) $(SSRC_DIR)\plpay.c
plord.obj: $(SSRC_DIR)\plord.c $(SSRC_DIR)\tpcc.h
$(SSRC_DIR)\tpccpl.h ; @$(CL) $(CL_OPS) $(SSRC_DIR)\plord.c
pldel.obj: $(SSRC_DIR)\pldel.c $(SSRC_DIR)\tpcc.h
$(SSRC_DIR)\tpccpl.h ; @$(CL) $(CL_OPS) $(SSRC_DIR)\pldel.c
plsto.obj: $(SSRC_DIR)\plsto.c $(SSRC_DIR)\tpcc.h
$(SSRC_DIR)\tpccpl.h ; @$(CL) $(CL_OPS) $(SSRC_DIR)\plsto.c

tpccpl.obj: $(SSRC_DIR)\tpccpl.c $(SSRC_DIR)\tpcc.h
$(SSRC_DIR)\tpccpl.h ; @$(CL) $(CL_OPS) $(SSRC_DIR)\tpccpl.c

report.obj: $(SSRC_DIR)\report.c $(SSRC_DIR)\results.h ; @$(CL)
$(CL_OPS) $(SSRC_DIR)\report.c

errrpt.obj: $(SSRC_DIR)\errrpt.c ; @$(CL) $(CL_OPS)
$(SSRC_DIR)\errrpt.c

c_dump.obj: $(SSRC_DIR)\c_dump.c ; @$(CL) $(CL_OPS)
$(SSRC_DIR)\c_dump.c

tpccsvr.obj: $(SSRC_DIR)\tpccsvr.c ; @$(CL) $(CL_OPS)
$(SSRC_DIR)\tpccsvr.c

$(BIN_DIR)\serv_n1.exe: server_n.obj c_trnsnt.lib c_dump.obj errrpt.obj
report.obj \
    tpccpl.obj tpccsvr.obj $(TM_LIB) $(DPB_LIB) $(OCI_LIB)
$(SOCKETS_LIB) $(ADVAPI_LIB)
    @$(LINK) $(LFLAGS) /OUT:$@ $**

$(BIN_DIR)\serv_p1.exe: server_p.obj c_trnsnt.lib c_dump.obj errrpt.obj
report.obj \

```

```

        tpccpl.obj tpccsvr.obj $(TM_LIB) $(DPB_LIB) $(OCI_LIB)
$(SOCKETS_LIB) $(ADVAPI_LIB)
        @$(LINK) $(LFLAGS) /OUT:$@ $**

$(BIN_DIR)\serv_ol.exe: server_o.obj c_trnsnt.lib c_dump.obj errrpt.obj
report.obj \
        tpccpl.obj tpccsvr.obj $(TM_LIB) $(DPB_LIB) $(OCI_LIB)
$(SOCKETS_LIB) $(ADVAPI_LIB)
        @$(LINK) $(LFLAGS) /OUT:$@ $**

$(BIN_DIR)\serv_dl.exe: server_d.obj c_trnsnt.lib c_dump.obj errrpt.obj
report.obj \
        tpccpl.obj tpccsvr.obj $(TM_LIB) $(DPB_LIB) $(OCI_LIB)
$(SOCKETS_LIB) $(ADVAPI_LIB)
        @$(LINK) $(LFLAGS) /OUT:$@ $**

$(BIN_DIR)\serv_sl.exe: server_s.obj c_trnsnt.lib c_dump.obj errrpt.obj
report.obj \
        tpccpl.obj tpccsvr.obj $(TM_LIB) $(DPB_LIB) $(OCI_LIB)
$(SOCKETS_LIB) $(ADVAPI_LIB)
        @$(LINK) $(LFLAGS) /OUT:$@ $**

$(BIN_DIR)\serv_gl.exe: server_g.obj c_trnsnt.lib c_dump.obj errrpt.obj
report.obj \
        tpccpl.obj tpccsvr.obj $(TM_LIB) $(DPB_LIB) $(OCI_LIB)
$(SOCKETS_LIB) $(ADVAPI_LIB)
        @$(LINK) $(LFLAGS) /OUT:$@ $**

$(BIN_DIR)\tpcc.dll: tpcc.obj $(TM_LIB) $(TM_FW) $(SOCKETS_LIB)
$(USER32_LIB) $(ADVAPI_LIB)
        @$(LINK) /dll /def:"$(CSRC_DIR)\tpcc.def" $(LFLAGS)
/NODEFAULTLIB:"library" /OUT:$@ $**

clean:
        @for %f in ( *.obj *.lib $(BIN_DIR)\*.exe ) do if exist %f
del %f
        @for %f in ( *.obj *.lib ) do if exist $(DPB_LIB_DIR)\%f del
$(DPB_LIB_DIR)\%f

```

A2. Back-End Source Code, Scripts

pldel.c

```

#ifdef RCSID
static char *RCSid =
    "$Header: pldel.c 7030100.5 96/06/24 16:26:06 plai Generic<base>
$ Copyr (c) 1994 Oracle";
#endif /* RCSID */

/*=====
|           Copyright (c) 1996 Oracle Corp, Redwood Shores, CA
|           OPEN SYSTEMS PERFORMANCE GROUP
|           All Rights Reserved
|=====
| FILENAME
|   pldel.c
| DESCRIPTION

```

```

|           OCI version of DELIVERY transaction in TPC-C benchmark.
|=====*/

#include "tpcc.h"
#ifdef TUX
#include <userlog.h>
#endif

/*
extern int userlog();
*/

#define DMLRETDEL

#define SQLTXT "BEGIN inittpcc.init_del ; END;"

#define SQLTXT1 "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 SQLTXT3 "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 SQLTXT4 "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 SQLTXT6 "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 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];
OCISmt *curd0;
OCISmt *curd1;
OCISmt *curd2;
OCISmt *curd3;
OCISmt *curd4;
OCISmt *curd5;
OCISmt *curd6;
OCISmt *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;
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];
float sums[NDISTS];
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;

static pldelctx *pldctx;

static delctx *dctx;

#ifdef DMLRETDL
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;
amtctx *actx;

#endif

#ifdef DMLRETDL

```

```

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

#ifdef OLD
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;
    actx->ol_cnt = actx->ol_cnt + 1;
    *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;
    if (iter == 1)
        return (OCI_CONTINUE);
    else
        return (OCI_ERROR);
}
#else
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);
}
#endif

#endif

tkvcdinit (int plsqliflag)
{
    text stmbuf[SQL_BUF_SIZE];

    if (plsqliflag)
    {
        pldctx = (pldelctx *) malloc (sizeof(pldelctx));
        DISCARD memset(pldctx, (char)0, (ub4) sizeof(pldelctx));
        /* Initialize */
        DISCARD OCIHandleAlloc(tpcenv, (dvoid**) &pldctx->curp1,
        OCI_HTYPE_STMT, 0,
                                (dvoid**)0);
        DISCARD sprintf ((char *) stmbuf, SQLTXT);
        DISCARD OCIStmtPrepare(pldctx->curp1, errhp, stmbuf,
                                (ub4) strlen((char *) stmbuf),
                                OCI_NTV_SYNTAX, OCI_DEFAULT);
        DISCARD OCIERROR(errhp,
                            OCIStmtExecute(tpcenv, pldctx->curp1, errhp, 1, 0, NULLP(OCISnapshot),
                            NULLP(OCISnapshot), OCI_DEFAULT));

        DISCARD OCIHandleAlloc(tpcenv, (dvoid**) &pldctx->curp2,
        OCI_HTYPE_STMT,
                                0, (dvoid**)0);
        #if defined(ISO5) || defined(ISO6) || defined(ISO8)
        #if defined(ISO5)
            sqlfile("../blocks/tkvcpdcl_iso5.sql", stmbuf);
        #endif
        #if defined(ISO6)
            sqlfile("../blocks/tkvcpdcl_iso6.sql", stmbuf);
        #endif
        #if defined(ISO8)
            sqlfile("../blocks/tkvcpdcl_iso8.sql", stmbuf);
        #endif
        #else
            sqlfile("../blocks/tkvcpdcl.sql", stmbuf);
        #endif
        DISCARD OCIStmtPrepare(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",

```

```

        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);
        OCIBNDPLA(pldctx->curp2, pldctx->sums_bp, errhp, ":sums",
        pldctx->sums, SIZ(float), SQLT_BFLOAT, pldctx-
>sums_len, NDISTS,
        &pldctx->sums_rcnt);
        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", SQLTXT1);
        DISCARD OCISTmtPrepare(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, SQLTXT3);
        DISCARD OCISTmtPrepare(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, SQLTXT4);
        DISCARD OCISTmtPrepare(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, ":ol amount",
        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, SQLTXT6);
        DISCARD OCISTmtPrepare(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 shiftdata(from)
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];
    }
}

```

```

tkvcd (int plsflag)

```

```

{
    int i, j;
    int rpc,rcount,count;
    int invalid;

    if (plsflag)
    {
        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,
            OCISmtExecute(tpcsvc,pldctx->curp2,errhp,1,0,NULLP(CONST
OCISnapshot),
                NULLP(OCISnapshot),OCI_DEFAULT));
        for (i = 0; i < NDISTS; i++)
        {
            del_o_id[i] = 0;
        }
        for (i = 0; i < 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(actx,(char)0,sizeof(amtctx));

```

```

    /* array select from new_order and orders tables */

```

```

    execstatus=OCISmtExecute(tpcsvc,dctx->curd1,errhp,NDISTS,0,
        NULLP(CONST

```

```

OCISnapshot),NULLP(OCISnapshot),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 == RECOVERERR)
        {
            retries++;
            goto retry;
        }
        else if (errcode == SNAPSHOT_TOO_OLD)
        {
            retries++;
            goto retry;
        }
        else
        {
            return -1;
        }
    }
}

```

```

}
/* mark districts with no new order */
DISCARD OCIAAttrGet(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
OCISnapshot),NULLP(OCISnapshot),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 OCIAAttrGet(dctx->curd3,OCI_HTYPE_STMT,&rcount,NULLP(ub4),
    OCI_ATTR_ROW_COUNT,errhp);

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

```

```

/* array update of order_line table */
execstatus=OCIStmtExecute(tpcsvc,dctx->curd4,errhp,rpc,0,
    NULLP(CONST
OCISnapshot),NULLP(OCISnapshot),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 OCIAAttrGet(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 ordl
updated\n",
        proc_no, rpc, rcount);
}
#endif

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

```



```

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];

```

```

float s_remote[NITEMS];
char s_dist_info[NITEMS][25];
OCISmt *curn1;
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;
OCISmt *curn2;
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;

```

```

sb2 w_id_len;
ub2 d_id_len;
ub2 c_id_len;
ub2 o_all_local_len;
ub2 o_ol_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;

```

```

static newctx *nctx;

```

```

tkvcninit ()
{

```

```

    int i;
    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));

```

```

    #if defined(ISO)
        sqlfile("../blocks/tkvcnpnew_iso.sql", stmbuf);
    #else
    #if defined(ISO7)
        sqlfile("../blocks/tkvcnpnew_iso7.sql", stmbuf);
    #else
        sqlfile("../blocks/tkvcnpnew.sql", stmbuf);
    #endif
    #endif

```

```

    #endif
    #endif

```

```

    DISCARD OCIERROR(errhp, OCISmtPrepare(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",
        ADR(o_all_local), SIZ(o_all_local), SQLT_INT, &nctx-
        >o_all_local_len);

```

```

    OCIBNDPL(nctx->curn1, nctx->o_all_cnt_bp, errhp,
":o_ol_cnt",ADR(o_ol_cnt),
    SIZ(o_ol_cnt),SQLT_INT, &nctx->o_ol_cnt_len);

    OCIBNDPL(nctx->curn1, nctx->w_tax_bp, errhp,
":w_tax",ADR(w_tax),SIZ(w_tax),
    SQLT_FLT, &nctx->w_tax_len);

    OCIBNDPL(nctx->curn1, nctx->d_tax_bp, errhp,
":d_tax",ADR(d_tax),SIZ(d_tax),
    SQLT_FLT, &nctx->d_tax_len);

    OCIBNDPL(nctx->curn1, nctx->o_id_bp, errhp,
":o_id",ADR(o_id),SIZ(o_id),
    SQLT_INT, &nctx->o_id_len);

    OCIBNDPL(nctx->curn1, nctx->c_discount_bp, errhp, ":c_discount",
    ADR(c_discount), SIZ(c_discount),SQLT_FLT, &nctx-
>c_discount_len);

    OCIBNDPL(nctx->curn1, nctx->c_credit_bp, errhp, ":c_credit",c_credit,
    SIZ(c_credit),SQLT_CHR, &nctx->c_credit_len);

    OCIBNDPL(nctx->curn1, nctx->c_last_bp, errhp,
":c_last",c_last,SIZ(c_last),
    SQLT_STR, &nctx->c_last_len);

    OCIBNDPL(nctx->curn1, nctx->retries_bp, errhp, ":retry",ADR(retries),
    SIZ(retries),SQLT_INT, &nctx->retries_len);

    OCIBNDPL(nctx->curn1, nctx->cr_date_bp, errhp, ":cr_date",&cr_date,
    SIZ(OCIDate), SQLT_ODT, &nctx->cr_date_len);

    OCIBNDPLA(nctx->curn1, nctx->ol_i_id_bp,errhp,":ol_i_id",nol_i_id,
    SIZ(int), SQLT_INT, nctx->nol_i_id_len,NITEMS,&nctx-
>nol_i_count);

    OCIBNDPLA(nctx->curn1, nctx->ol_supply_w_id_bp, errhp,
":ol_supply_w_id",
    nol_supply_w_id,SIZ(int),SQLT_INT, nctx->nol_supply_w_id_len,
    NITEMS, &nctx->nol_s_count);

    OCIBNDPLA(nctx->curn1, nctx->ol_quantity_bp,errhp,":ol_quantity",
    nol_quantity, SIZ(float),SQLT_BFLOAT,nctx->nol_quantity_len,
    NITEMS,&nctx->nol_q_count);

    OCIBNDPLA(nctx->curn1, nctx-
>i_price_bp,errhp,":i_price",i_price,SIZ(float),
    SQLT_BFLOAT, nctx->i_price_len, NITEMS, &nctx-
>nol_item_count);

    OCIBNDPLA(nctx->curn1, nctx->i_name_bp,errhp,":i_name",i_name,
    SIZ(i_name[0]),SQLT_STR, nctx->i_name_len,NITEMS,
    &nctx->nol_name_count);

    OCIBNDPLA(nctx->curn1, nctx-
>s_quantity_bp,errhp,":s_quantity",s_quantity,
    SIZ(float), SQLT_BFLOAT,nctx->s_quant_len,NITEMS,&nctx-
>nol_qty_count);

```

```

    OCIBNDPLA(nctx->curn1, nctx-
>s_bg_bp,errhp,":brand_generic",brand_generic,
    SIZ(char), SQLT_CHR,nctx->s_bg_len,NITEMS,&nctx-
>nol_bg_count);

    OCIBNDPLA(nctx->curn1, nctx-
>ol_amount_bp,errhp,":ol_amount",nol_amount,
    SIZ(float),SQLT_BFLOAT, nctx->nol_amount_len,NITEMS,&nctx-
>nol_am_count);

    OCIBNDPLA(nctx->curn1, nctx->s_remote_bp,errhp,":s_remote",nctx-
>s_remote,
    SIZ(float),SQLT_BFLOAT, nctx->s_remote_len,NITEMS,&nctx-
>s_remote_count);

    /* open second cursor */
    DISCARD OCIERROR(errhp,OCIHandleAlloc(tpcenv, (dvoid **)(&nctx-
>curn2),
    OCI_HTYPE_STMT, 0, (dvoid**)0));

    DISCARD sprintf ((char *) stmbuf, SQLTXT2);
    DISCARD OCIERROR(errhp,OCIStmtPrepare(nctx->curn2, errhp, stmbuf,
    strlen((char *)stmbuf), OCI_NTV_SYNTAX,
OCI_DEFAULT));

    /* execute second cursor to init newinit package */
    {
        int idxlarr[NITEMS];
        OCIBind *idxlarr_bp;
        ub2 idxlarr_len[NITEMS];
        ub2 idxlarr_rcode[NITEMS];
        sb2 idxlarr_ind[NITEMS];
        ub4 idxlarr_count;
        ub2 idx;

        for (idx = 0; idx < NITEMS; idx++) {
            idxlarr[idx] = idx + 1;
            idxlarr_ind[idx] = TRUE;
            idxlarr_len[idx] = sizeof(int);
        }
        idxlarr_count = NITEMS;
        o_ol_cnt = NITEMS;

        /* Bind array */
        OCIBNDPLA(nctx->curn2, idxlarr_bp,errhp,":idxlarr",idxlarr,
    SIZ(int), SQLT_INT, idxlarr_len, NITEMS,&idxlarr_count);

        execstatus = OCIStmtExecute(tpcsvc,nctx->curn2,errhp,1,0,
    NULL(CONST
OCI_Snapshot),NULLP(OCI_Snapshot),OCI_DEFAULT);

        if(execstatus != OCI_SUCCESS) {

            OCITransRollback(tpcsvc,errhp,OCI_DEFAULT);
            errcode = OCIERROR(errhp,execstatus);

            return -1;
        }
    }

```

```

    }

    return (0);
}

tkvcn ()
{
    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) {
            nctx->s_remote[i] = (float)1;
            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->nol_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 = OCISstmtExecute(tpcsvc, nctx->curnl, 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) {
        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 *= ((float)(1.0 - c_discount)) * (float)(1.0 +
((float)(d_tax)) + ((float)(w_tax)));
    total_amount = total_amount/100;

    return (0);
}

```

```
void tkvcndone ()
```

```

{
    int i;

    if (nctx)
    {
        DISCARD OCIHandleFree((dvoid *)nctx->curn1,OCI_HTYPE_STMT);
        DISCARD OCIHandleFree((dvoid *)nctx->curn2,OCI_HTYPE_STMT);
        free (nctx);
    }
}

```

plord.c

```
/* Copyright (c) 2002, Oracle Corporation. All rights reserved. */
```

```
/*
```

```

NAME
    tkvcordq.c - OCI version using queues of ORDER STATUS
                transaction in TPC-C benchmark.

```

```

DESCRIPTION
    <short description of facility this file declares/defines>

```

```
EXPORT FUNCTION(S)
```

```

INTERNAL FUNCTION(S)
    <other external functions defined - one-line descriptions>

```

```

STATIC FUNCTION(S)
    <static functions defined - one-line descriptions>

```

```

NOTES
    <other useful comments, qualifications, etc.>

```

```

MODIFIED   (MM/DD/YY)
xnie       06/25/02 - queue open cluster join.
heri       05/07/02 - Fix error in cursor.
heri       02/01/02 - Cleanup, remove indicator values and return
codes.
lwan       07/25/01 - Merged lwan_tpccitr
lwan       07/23/01 - fix include
lwan       07/23/01 - Creation

```

```
*/
```

```
#include "tpcc.h"
```

```

/*-----
-----

```

```
PRIVATE TYPES AND CONSTANTS
```

```
-----*/
```

```

/*-----
-----

```

```
STATIC FUNCTION DECLARATIONS
```

```
-----*/
```

```

#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_first"

```

```

#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, ordr.rowid \
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, ordr.rowid \
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 /*+ ORDERED USE_NL(ordr) CLUSTER(ordr) */ \
ol_i_id, ol_supply_w_id, ol_quantity, ol_amount,
ol_delivery_d \
FROM ordr, ordl \
WHERE ordr.rowid = :ordr_rowid \
                AND o_id = ol_o_id AND ol_d_id = o_d_id AND ol_w_id
= o_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 "

```

```

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;
OCIBind *o_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_rowid_dp[2];
OCIDefine *o_id_dp[2];
OCIDefine *o_entry_d_dp[2];
OCIDefine *o_cr_id_dp[2];
OCIDefine *o_ol_cnt_dp[2];
OCIDefine *ol_d_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;
OCIRowid *o_rowid;
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;

static ordctx *octx;

static defctx cbctx;

tkvcoininit ()
{
    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;
    /* get the rowid handles */
    OCIERROR(errhp, OCIDescriptorAlloc((dvoid *)tpcenv, (dvoid **)&octx-
>o_rowid,
                                (ub4)OCI_DTYPE_ROWID, (size_t) 0, (dvoid **)0));
    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 of rowid's
    back */
    DISCARD sprintf((char *) stmbuf, SQLCUR0);
    DISCARD OCIERROR(errhp,
        OCISmtPrepare(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);
OCIDF(octx->curo1, octx->c_id_dp, errhp, 1, ADR(c_id), SIZ(int), SQLT_INT);
OCIDF(octx->curo1, octx->c_balance_dp[0], errhp, 2, ADR(c_balance),
SIZ(double), SQLT_BDOUBLE);
OCIDF(octx->curo1, octx->c_first_dp[0], errhp, 3, c_first, SIZ(c_first)-1,
SQLT_CHR);
OCIDF(octx->curo1, octx->c_middle_dp[0], errhp, 4, c_middle,
SIZ(c_middle)-1, SQLT_AFC);
OCIDF(octx->curo1, octx->c_last_dp[0], errhp, 5, c_last, SIZ(c_last)-1,
SQLT_CHR);
OCIDF(octx->curo1, octx->o_id_dp[0], errhp, 6, ADR(o_id), SIZ(int), SQLT_INT);
OCIDF(octx->curo1, octx->o_entry_d_dp[0], errhp, 7,
&o_entry_d_base, SIZ(OCIDate), SQLT_ODT);
OCIDF(octx->curo1, octx->o_cr_id_dp[0], errhp, 8, ADR(o_carrier_id),
SIZ(int), SQLT_INT);
OCIDF(octx->curo1, octx->o_ol_cnt_dp[0], errhp, 9, ADR(o_ol_cnt),
SIZ(int), SQLT_INT);
OCIDF(octx->curo1, octx->o_rowid_dp[0], errhp, 10, ADR(octx->o_rowid),
SIZ(OCIRowid*), SQLT_RDD);

/* 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);
OCIDF(octx->curo2, octx->c_balance_dp[1], errhp, 1, ADR(c_balance),
SIZ(double), SQLT_BDOUBLE);
OCIDF(octx->curo2, octx->c_first_dp[1], errhp, 2, c_first, SIZ(c_first)-1,
SQLT_CHR);
OCIDF(octx->curo2, octx->c_middle_dp[1], errhp, 3, c_middle,
SIZ(c_middle)-1, SQLT_AFC);
OCIDF(octx->curo2, octx->c_last_dp[1], errhp, 4, c_last, SIZ(c_last)-1,
SQLT_CHR);
OCIDF(octx->curo2, octx->o_id_dp[1], errhp, 5, ADR(o_id), SIZ(int), SQLT_INT);
OCIDF(octx->curo2, octx->o_entry_d_dp[1], errhp, 6, &o_entry_d_base,
SIZ(OCIDate), SQLT_ODT);
OCIDF(octx->curo2, octx->o_cr_id_dp[1], errhp, 7, ADR(o_carrier_id),
SIZ(int), SQLT_INT);
OCIDF(octx->curo2, octx->o_ol_cnt_dp[1], errhp, 8, ADR(o_ol_cnt),
SIZ(int), SQLT_INT);
OCIDF(octx->curo2, octx->o_rowid_dp[1], errhp, 9, ADR(octx->o_rowid),
SIZ(OCIRowid*), SQLT_RDD);

/* Bind for last cursor */

/*
OCIBND(octx->curo3, octx->w_id_bp[2], errhp, ":w_id", ADR(w_id),
SIZ(int), SQLT_INT);
*/

```

```

    OCIBND(octx->curo3,octx->d_id_bp[2],errhp,":d_id",ADR(d_id),
    SIZ(int),SQLT_INT);
    OCIBND(octx->curo3,octx->o_id_bp,errhp,":o_id",ADR(o_id),
    SIZ(int),SQLT_INT);
    OCIBND(octx->curo3,octx->c_id_bp,errhp,":c_id",ADR(c_id),
    SIZ(int),SQLT_INT);
    */
    OCIBND(octx->curo3,octx->o_rowid_bp,errhp,":ordr_rowid",
    &octx->o_rowid, SIZ(OCIRowid*),SQLT_RDD);

    OCIDFNRA(octx->curo3, octx->ol_i_id_dp, errhp, 1,
    ol_i_id,SIZ(int),SQLT_INT,
    NULL,octx->ol_i_id_len, NULL);
    OCIDFNRA(octx->curo3,octx->ol_supply_w_id_dp,errhp,2, ol_supply_w_id,
    SIZ(int),SQLT_INT, NULL,
    octx->ol_supply_w_id_len, NULL);
    OCIDFNRA(octx->curo3, octx->ol_quantity_dp,errhp,3,
    ol_quantity,SIZ(float),
    SQLT_BFLOAT, NULL,octx->ol_quantity_len, NULL);
    OCIDFNRA(octx->curo3,octx->ol_amount_dp,errhp,4,ol_amount,
    SIZ(float),
    SQLT_BFLOAT,NULL, octx->ol_amount_len, NULL);
    OCIDFNRA(octx->curo3,octx->
    ol_d_base_dp,errhp,5,ol_d_base,SIZ(OCIDate),
    SQLT_ODT, NULL,octx->ol_delivery_d_len,NULL);

    OCIBND(octx->curo4,octx->w_id_bp[3],errhp,":w_id",ADR(w_id),
    SIZ(int),SQLT_INT);
    OCIBND(octx->curo4,octx->d_id_bp[3],errhp,":d_id",ADR(d_id),
    SIZ(int),SQLT_INT);
    OCIBND(octx->curo4,octx->c_last_bp[1],errhp,":c_last",c_last,
    SIZ(c_last), SQLT_STR);
    OCIDF(octx->curo4,octx->c_count_dp,errhp,1,ADR(octx->
    rcount),SIZ(int),
    SQLT_INT);

    return (0);
}

tkvco ()
{
    int i;
    int rcount;

    #if defined(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->curo0,errhp,100,0,
        NULLP(CONST
        OCISnapshot),NULLP(OCISnapshot),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 == RECOVER))
            {
                DISCARD OCITransCommit(tpcsvc,errhp,OCI_DEFAULT);
                retries++;
                goto retry;
            } else {
                printf("cursor o0. wid = %d. c_id = %d. ", w_id, d_id);
                if (bylastname) printf("lastname = %s.\n", c_last);
                else printf("c_id = %d.\n", c_id);
                return -1;
            }
        }
    }
    if (execstatus == OCI_NO_DATA) /* there are no more rows */
    {
        /* get rowcount, find middle one */
        DISCARD OCIAttrGet(octx->curo0,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->curo4,errhp,1,0,
        NULLP(CONST
        OCISnapshot),NULLP(OCISnapshot),OCI_DEFAULT);
        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 {
                printf("cursor o4. wid = %d. c_id = %d. ", w_id, d_id);
                if (bylastname) printf("lastname = %s.\n", c_last);
                else printf("c_id = %d.\n", c_id);
                return -1;
            }
        }
    }
}

```

```

if (octx->rcount+1 < 2*10 )
    octx->cust_idx=(octx->rcount+1)/2 ;
else
    /* */
    {
        cbctx.reexec = TRUE;
        cbctx.count = (octx->rcount+1)/2 ;
        execstatus=OCIStmtExecute(tpcsvc,octx->curo0,errhp,cbctx.count,
                                0,NULLP(CONST OCISnapshot),
                                NULLP(OCISnapshot),OCI_DEFAULT);
        /* will get OCI_NO_DATA if <100 found */
        if (cbctx.count > 0)
        {
            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 {
                printf("cursor o0. wid = %d. c_id = %d. ", w_id, d_id);
                if (bylastname) printf("lastname = %s.\n", c_last);
                else printf("c_id = %d.\n", c_id);
                return -1;
            }
        }
        octx->cust_idx=0 ;
    }

    octx->c_rowid_cust = octx->c_rowid_ptr[octx->cust_idx];
    execstatus=OCIStmtExecute(tpcsvc,octx->curo1,errhp,1,0,
                            NULLP(CONST
OCISnapshot),NULLP(OCISnapshot),OCI_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 {
            printf("cursor o1. wid = %d. c_id = %d. ", w_id, d_id);
            if (bylastname) printf("lastname = %s.\n", c_last);
            else printf("c_id = %d.\n", c_id);
            return -1;
        }
    }
}
else
{
    execstatus=OCIStmtExecute(tpcsvc,octx->curo2,errhp,1,0,
                            NULLP(CONST OCISnapshot),NULLP(OCISnapshot),
OCI_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
    {
        printf("cursor o2. wid = %d. c_id = %d. ", w_id, d_id);
        if (bylastname) printf("lastname = %s.\n", c_last);
        else printf("c_id = %d.\n", c_id);
        return -1;
    }
}

#ifdef 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", (float)c_balance/100);
    printf ("o_id = %d\n", o_id);
    datelen = sizeof(o_entry_d);

OCIERROR(errhp,OCIDateToText(errhp,&o_entry_d_base,(text*)FULLDATE,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),
OCI_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
{
    printf("cursor o3. wid = %d. c_id = %d. ", w_id, d_id);
    if (bylastname) printf("lastname = %s.\n", c_last);
    else printf("c_id = %d.\n", c_id);
    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);
}

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

/* end of file tkvcord.c */

```

plpay.c

```

#ifdef RCSID
static char *RCSid =
"$Header: plpay.c 7030100.1 95/07/19 14:44:59 plai Generic<base>
$ Copyr (c) 1994 Oracle";
#endif /* RCSID */

/*=====+
|          Copyright (c) 1995 Oracle Corp, Redwood Shores, CA
|          OPEN SYSTEMS PERFORMANCE GROUP
|          All Rights Reserved
|=====+
| FILENAME
|    plpay.c

```

```

| DESCRIPTION
|   OCI version (using PL/SQL stored procedure) of
|   PAYMENT transaction in TPC-C benchmark.
+=====*/

#include "tpcc.h"

#ifdef TUX
#include <userlog.h>
#endif

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

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;

    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;
```

```

payctx *pctx;

int tkvcpinit (void)
{
    text stmbuf[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*)stmbuf, SQLTXT_INIT);
    DISCARD OCIERROR(errhp, OCISstmtPrepare(pctx->curpi, errhp, stmbuf,
    strlen((char *)stmbuf), OCI_NTV_SYNTAX, OCI_DEFAULT));
    DISCARD OCIERROR(errhp, OCISstmtExecute(tpcenv, pctx->curpi, errhp, 1, 0,
    NULLP(CONST
    OCISnapshot), NULLP(OCISnapshot), OCI_DEFAULT));

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

    sqlfile("../blocks/paynz.sql", stmbuf);
    DISCARD OCIERROR(errhp, OCISstmtPrepare(pctx->curp0, errhp, stmbuf,
    strlen((char *)stmbuf), OCI_NTV_SYNTAX, OCI_DEFAULT));

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

    sqlfile("../blocks/payz.sql", stmbuf); /* sqlfile opens
    $O/bench/.../blocks/... */
    DISCARD OCIERROR(errhp, OCISstmtPrepare(pctx->curp1, errhp, stmbuf,
    strlen((char *)stmbuf), 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);
OCIBNDPL(pctx->curp0, pctx->h_amount_bp[0],
errhp,":h_amount",ADR(h_amount),
        SIZ(float),SQLT_BFLOAT, &pctx->h_amount_len);
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),
        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->c_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);
OCIBNDPL(pctx->curp0, pctx->c_balance_bp[0], errhp,":c_balance",
        ADR(c_balance), SIZ(double),SQLT_BDOUBLE, &pctx-
>c_balance_len);
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_rc);
*/
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->curpl, pctx->w_id_bp[1],
errhp,":w_id",ADR(w_id),SIZ(int),
        SQLT_INT, &pctx->w_id_len);
OCIBNDPL(pctx->curpl, pctx->d_id_bp[1],
errhp,":d_id",ADR(d_id),SIZ(int),
        SQLT_INT, &pctx->d_id_len);
OCIBND(pctx->curpl, pctx->c_w_id_bp[1],
errhp,":c_w_id",ADR(c_w_id),SIZ(int),
        SQLT_INT);
OCIBND(pctx->curpl, pctx->c_d_id_bp[1],
errhp,":c_d_id",ADR(c_d_id),SIZ(int),
        SQLT_INT);
OCIBNDPL(pctx->curpl, pctx->c_id_bp[1],
errhp,":c_id",ADR(c_id),SIZ(int),
        SQLT_INT, &pctx->c_id_len);
OCIBNDPL(pctx->curpl, pctx->h_amount_bp[1],
errhp,":h_amount",ADR(h_amount),
        SIZ(float),SQLT_BFLOAT, &pctx->h_amount_len);
OCIBND(pctx->curpl, pctx->c_last_bp[1],
errhp,":c_last",c_last,SIZ(c_last),
        SQLT_STR);
OCIBNDPL(pctx->curpl, 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->curpl, 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->curpl, pctx->w_city_bp[1],
errhp,":w_city",w_city,SIZ(w_city),
        SQLT_STR, &pctx->w_city_len);
OCIBNDPL(pctx->curpl, pctx->w_state_bp[1], errhp,":w_state",w_state,
        SIZ(w_state), SQLT_STR, &pctx->w_state_len);
OCIBNDPL(pctx->curpl, pctx->w_zip_bp[1],
errhp,":w_zip",w_zip,SIZ(w_zip),
        SQLT_STR, &pctx->w_zip_len);
OCIBNDPL(pctx->curpl, 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->curpl, 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->curpl, pctx->d_city_bp[1],
errhp,":d_city",d_city,SIZ(d_city),
        SQLT_STR, &pctx->d_city_len);
OCIBNDPL(pctx->curpl, pctx->d_state_bp[1], errhp,":d_state",d_state,
        SIZ(d_state), SQLT_STR, &pctx->d_state_len);
OCIBNDPL(pctx->curpl, pctx->d_zip_bp[1],
errhp,":d_zip",d_zip,SIZ(d_zip),
        SQLT_STR, &pctx->d_zip_len);
OCIBNDPL(pctx->curpl, pctx->c_first_bp[1], errhp,":c_first",c_first,
        SIZ(c_first), SQLT_STR, &pctx->c_first_len);
OCIBNDPL(pctx->curpl, pctx->c_middle_bp[1],
errhp,":c_middle",c_middle,2,
        SQLT_AFC, &pctx->c_middle_len);

OCIBNDPL(pctx->curpl, 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->curpl, 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->curpl, pctx->c_city_bp[1], errhp,":c_city",c_city,
        SIZ(c_city),SQLT_STR, &pctx->c_city_len);
OCIBNDPL(pctx->curpl, pctx->c_state_bp[1], errhp,":c_state",c_state,
        SIZ(c_state), SQLT_STR, &pctx->c_state_len);
OCIBNDPL(pctx->curpl, pctx->c_zip_bp[1],
errhp,":c_zip",c_zip,SIZ(c_zip),
        SQLT_STR, &pctx->c_zip_len);
OCIBNDPL(pctx->curpl, pctx->c_phone_bp[1], errhp,":c_phone",c_phone,
        SIZ(c_phone), SQLT_STR, &pctx->c_phone_len);
OCIBNDPL(pctx->curpl, pctx->c_since_bp[1], errhp,":c_since",&c_since,
        SIZ(OCIDate), SQLT_ODT, &pctx->c_since_len);
OCIBNDPL(pctx->curpl, pctx->c_credit_bp[1],
errhp,":c_credit",c_credit,
        SIZ(c_credit),SQLT_CHR, &pctx->c_credit_len);
OCIBNDPL(pctx->curpl, 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->curpl, pctx->c_discount_bp[1], errhp,":c_discount",
        ADR(c_discount),SIZ(c_discount), SQLT_FLT, &pctx-
>c_discount_len);
OCIBNDPL(pctx->curpl, pctx->c_balance_bp[1], errhp,":c_balance",
        ADR(c_balance), SIZ(double),SQLT_BDOUBLE, &pctx-
>c_balance_len);
OCIBNDPL(pctx->curpl, pctx->c_data_bp[1],
errhp,":c_data",c_data,SIZ(c_data),
        SQLT_STR, &pctx->c_data_len);
/*
OCIBNDR(pctx->curpl, 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_rc);
*/
OCIBNDPL(pctx->curpl, pctx->retries_bp[1],
errhp,":retry",ADR(retries),
        SIZ(int), SQLT_INT, &pctx->retries_len);
OCIBNDPL(pctx->curpl, pctx->cr_date_bp[1],
errhp,":cr_date",ADR(cr_date),
        SIZ(OCIDate),SQLT_ODT, &pctx->cr_date_len);

return (0);
}

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;

if (bylastname) {
    execstatus=OCISstmtExecute(tpcsvc,pctx->curp1,errhp,1,0,
        NULLP(CONST OCISnapshot),NULLP(OCISnapshot),
        OCI_DEFAULT|OCI_COMMIT_ON_SUCCESS);
} else {
    execstatus=OCISstmtExecute(tpcsvc,pctx->curp0,errhp,1,0,
        NULLP(CONST OCISnapshot),NULLP(OCISnapshot),
        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 == RECOVERERR) {
        retries++;
        goto retry;
    } else if (errcode == SNAPSHOT_TOO_OLD) {
        retries++;
        goto retry;
    } else {
        return -1;
    }
}
return 0;
}

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

```

plsto.c

```

#ifdef RCSID
static char *RCSid =
    "$Header: plsto.c 7010000.3 95/02/14 12:48:03 plai Generic<base>
$ Copyr (c) 1994 Oracle";
#endif /* RCSID */

/*=====+
|          Copyright (c) 1994 Oracle Corp, Redwood Shores, CA
|                      OPEN SYSTEMS PERFORMANCE GROUP
|                      All Rights Reserved
|=====+
| FILENAME
|   plsto.c
| DESCRIPTION
|   OCI version of STOCK LEVEL transaction in TPC-C benchmark.
|=====+*/

#include "tpcc.h"

#ifdef PLSQLSTO
#define SQLTXT "BEGIN stocklevel.getstocklevel
(:w_id, :d_id, :threshold, \
:low_stock); END;"
#else
#define SQLTXT "SELECT 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

struct stoctx {
    OCISstmt *curs;
    OCIBind *w_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;

stoctx *sctx;

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, SQLTXT);
    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);
    OCIBND(sctx->curs,sctx->threshold_bp,errhp, ":threshold",
ADR(threshold),
        sizeof(float),SQLT_BFLOAT);
#ifdef PLSQLSTO
    OCIBND(sctx->curs,sctx->low_stock_bp,errhp,":low_stock" ,
ADR(low_stock),
        sizeof(int), SQLT_INT);
#else
    OCIDFNE(sctx->curs,sctx->low_stock_bp,errhp, 1, ADR(low_stock),
        sizeof(int), SQLT_INT);
#endif

    return (0);
}

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);
}

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

```

tpccpl.c

```

#ifdef RCSID
static char *RCSid =
    "$Header: tpccpl.c 7030100.2 96/04/02 17:51:34 plai Generic<base>
$ Copyr (c) 1994 Oracle";
#endif /* RCSID */

/*=====+
|           Copyright (c) 1994  Oracle Corp, Redwood Shores, CA
|                               OPEN SYSTEMS PERFORMANCE GROUP
|                               All Rights Reserved
+=====+
| FILENAME
|   tpccpl.c
| DESCRIPTION
|   TPC-C transactions in PL/SQL.
+=====+*/

#include <stdio.h>
#include <time.h>
#include <sys\timeb.h>
#include "tpcc.h"
#ifdef TUX
#include <userlog.h>
#else
#include <stdarg.h>
#endif

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

FILE *lfp;
FILE *fopen ();
#ifdef ORA_NT
#undef boolean
// #include "dpbcore.h"
// #define gettime dpbtimef
#else
extern double gettime ();
#endif
int proc_no = 0;
static int logon = 0;
static int new_init = 0;
static int pay_init = 0;
static int ord_init = 0;
static int del_init_oci = 0;
static int del_init_plsql = 0;
static int sto_init = 0;

```

```

static int res_init = 0;

int execstatus;
int errcode;

struct _timeb timebuffer;//change

OCIEnv *tpcenv;
OCIServer *tpcsrv;
OCIError *errhp;
OCISvcCtx *tpcsvc;
OCISession *tpcusr;
OCIStmt *curi;

/* for stock-level transaction */

int w_id;
int d_id;
int c_id;
float threshold;
int low_stock;

/* for delivery transaction */

int del_o_id[10];
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];
float ol_quantity[15];
float ol_amount[15];
ub4 ol_del_len[15];
text ol_delivery_d[15][11];
/* xnie - begin */
OCIRowid *o_rowid;
/* xnie - end */

/* for payment transaction */

int c_w_id;
int c_d_id;
float h_amount;
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];
float 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 nol_i_id[15];
int nol_supply_w_id[15];
float nol_quantity[15];
int nol_quant10[15];
int nol_quant19[15];
int nol_ytdqty[15];
float nol_amount[15];
int o_all_local;
float w_tax;
float d_tax;
float total_amount;
char i_name[15][25];
float s_quantity[15];
char brand_gen[15];
float i_price[15];
char brand_generic[15][1];
int status;
int tracelevel = 0;

OCIDate cr_date;
OCIDate c_since;
OCIDate o_entry_d_base;
OCIDate ol_d_base[15];
dvoid *xmem;

#ifdef AVOID_DEADLOCK
int indx[NITEMS], ordl_cnt;
void swap(struct newstruct *str, int i, int j);
void q_sort(int *arr, struct newstruct *str, int left, int right);
#endif

/*
extern char oracle_home[256];
*/

/* NewOrder Binding stuff */

//for debug

void debuglog(char *filename, char *format, ...)
{
    FILE *fp;
    va_list args;

```

```

char buf[4096];
int len;
va_start( args, format );
_sstrtime( buf );
strcat( buf, " " );
len = strlen( buf );
(void)_vsprintf( buf+ len, sizeof( buf) - len - 1, format,
args);
buf[sizeof( buf) - 1]= '\0';
va_end( args );

if (fp = fopen(filename, "a"))
{
    fprintf(fp,"%s.\n", buf);
    fflush(fp);
    fclose(fp);
}

}

#ifdef TUX
void userlog (char* ftmp, ...)
{
    va_list va;
    va_start(va, ftmp);
    vfprintf(stderr, ftmp, va);
    va_end(va);
}
#endif

/* vmm313 void ocierror(fname, lineno, errhp, status) */
int ocierror(fname, lineno, errhp, status)
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:
        debuglog("C:\\OCIErrorLog", "2 Error -
OCI_SUCCESS WITH INFO\n");
        //fprintf(stderr, "Module %s Line %d\n", fname, lineno);
        //fprintf(stderr, "Error - OCI_SUCCESS WITH INFO\n");
        lstat = OCIErrorGet (errhp, recno++, (text *) NULL, &errcode,
errbuf,
                                (ub4) sizeof(errbuf), OCI_HTYPE_ERROR);
        debuglog("c:\\OCIErrorLog", "2 Error - %s\n", errbuf);
        //fprintf(stderr, "Error - %s\n", errbuf);
        break;
    case OCI_NEED_DATA:
        debuglog("c:\\OCIErrorLog", "3 Module %s Line %d\n", fname,
lineno);
        debuglog("c:\\OCIErrorLog", "3 Error - OCI_NEED_DATA\n");
        //fprintf(stderr, "Module %s Line %d\n", fname, lineno);
        //fprintf(stderr, "Error - OCI_NEED_DATA\n");
        return (IRRECERR);

```

```

    case OCI_NO_DATA:
        debuglog("c:\\OCIErrorLog", "4 Module %s Line %d\n", fname,
lineno);
        debuglog("c:\\OCIErrorLog", "4 Error - OCI_NO_DATA\n");
        //fprintf(stderr, "Module %s Line %d\n", fname, lineno);
        //fprintf(stderr, "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)
        {
            debuglog("c:\\OCIErrorLog", "5 ERROR");
            return (errcode);
        }
        if (errcode == SNAPSHOT_TOO_OLD)
        {
            debuglog("c:\\OCIErrorLog", "6 snapshot_too_old");
            return (errcode);
        }
        while (lstat != OCI_NO_DATA)
        {
            debuglog("c:\\OCIErrorLog", "7 Module %s Line %d\n", fname,
lineno);
            debuglog("c:\\OCIErrorLog", "7 Error - %s\n", errbuf);
            //fprintf(stderr, "Module %s Line %d\n", fname, lineno);
            //fprintf(stderr, "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:
        debuglog("C:\\OCIErrorLog", "8 Module %s Line %d\n", fname,
lineno);
        debuglog("c:\\OCIErrorLog", "8 Error - OCI_INVALID_HANDLE\n");
        //fprintf(stderr, "Module %s Line %d\n", fname, lineno);
        //fprintf(stderr, "Error - OCI_INVALID_HANDLE\n");
        TPCexit(1);
        exit(-1);
    case OCI_STILL_EXECUTING:
        debuglog("c:\\OCIErrorLog", "9 Module %s Line %d\n", fname,
lineno);
        debuglog("c:\\OCIErrorLog", "9 Error - OCI_STILL_EXECUTE\n");
        //fprintf(stderr, "Module %s Line %d\n", fname, lineno);
        //fprintf(stderr, "Error - OCI_STILL_EXECUTE\n");
        return (IRRECERR);
    case OCI_CONTINUE:
        debuglog("c:\\OCIErrorLog", "10 Module %s Line %d\n", fname,
lineno);
        debuglog("c:\\OCIErrorLog", "10 Error - OCI_CONTINUE\n");
        //fprintf(stderr, "Module %s Line %d\n", fname, lineno);
        //fprintf(stderr, "Error - OCI_CONTINUE\n");
        return (IRRECERR);
    default:
        debuglog("c:\\OCIErrorLog", "11 Module %s Line %d\n", fname,
lineno);
        debuglog("c:\\OCIErrorLog", "11 Status - %s\n", status);
        //fprintf(stderr, "Module %s Line %d\n", fname, lineno);
        //fprintf(stderr, "Status - %s\n", status);

```



```

        return (IRRECERR);
    }
    return (RECOVERR);
}

FILE *vopen(fnam,mode)
char *fnam;
char *mode;
{
    FILE *fd;

#ifdef DEBUG
    fprintf(stderr, "tkvuopen() fnam: %s, mode: %s\n", fnam, mode);
#endif

    fd = fopen((char *)fnam, (char *)mode);
    if (!fd){
        fprintf(stderr, "fopen on %s failed %d\n", fnam, fd);
        exit(-1);
    }
    return(fd);
}

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

#ifdef DEBUG
    fprintf(stderr, "sqlfile() fnam: %s, linebuf: %x\n", fnam,
linebuf);
#endif

    /*
    sprintf(realfile,"%s/bench/tpc/tpcc/blocks/%s",oracle_home,fnam);
    */
    sprintf(realfile,"%s",fnam);
    fd = vopen(realfile,"r");
    while (fgets((char *)linebuf+nulpt, SQL_BUF_SIZE,fd))
    {
        nulpt = strlen((char *)linebuf);
    }
    return(nulpt);
}

#ifdef NOT
void vgetdate (unsigned char *oradt)
{
    struct tm *loctime;
    time_t int_time;

    struct ORADATE {
        unsigned char century;
        unsigned char year;
        unsigned char month;
        unsigned char day;
        unsigned char hour;
        unsigned char minute;
        unsigned char second;

```

```

    } Date;
    int century;
    int cnvrtOK;

    /* assume convert is successful */
    cnvrtOK = 1;

    /* get the current date and time as an integer */
    time( &int_time);

    /* Convert the current date and time into local time */
    loctime = localtime( &int_time);

    century = (1900+loctime->tm_year) / 100;

    Date.century = (unsigned char)(century + 100);
    if (Date.century < 119 || Date.century > 120) cnvrtOK = 0;
    Date.year = (unsigned char)(loctime->tm_year+100);
    if (Date.year < 100 || Date.year > 199) cnvrtOK = 0;
    Date.month = (unsigned char)(loctime->tm_mon + 1);
    if (Date.month < 1 || Date.month > 12) cnvrtOK = 0;
    Date.day = (unsigned char)loctime->tm_mday;
    if (Date.day < 1 || Date.day > 31) cnvrtOK = 0;
    Date.hour = (unsigned char)(loctime->tm_hour + 1);
    if (Date.hour < 1 || Date.hour > 24) cnvrtOK = 0;
    Date.minute= (unsigned char)(loctime->tm_min + 1);
    if (Date.minute < 1 || Date.minute > 60) cnvrtOK = 0;
    Date.second= (unsigned char)(loctime->tm_sec + 1);
    if (Date.second < 1 || Date.second > 60) cnvrtOK = 0;

    if (cnvrtOK)
        memcpy(oradt,&Date,7);
    else
        *oradt = '\0';

    return;
}

void cvtdmy (unsigned char *oradt, char *outdate)
{
    struct ORADATE {
        unsigned char century;
        unsigned char year;
        unsigned char month;
        unsigned char day;
        unsigned char hour;
        unsigned char minute;
        unsigned char second;
    } Date;

    int day,month,year;

    memcpy(&Date,oradt,7);

    year = (Date.century-100)*100 + Date.year-100;
    month = Date.month;
    day = Date.day;
    sprintf(outdate,"%02d-%02d-%4d\0",day,month,year);

    return;
}

```

```

}

void cvtdmyhms (unsigned char *oradt, char *outdate)
{
    struct ORADATE {
        unsigned char    century;
        unsigned char    year;
        unsigned char    month;
        unsigned char    day;
        unsigned char    hour;
        unsigned char    minute;
        unsigned char    second;
    } Date;

    int day,month,year;
    int hour,min,sec;

    memcpy(&Date,oradt,7);

    year = (Date.century-100)*100 + Date.year-100;
    month = Date.month;
    day = Date.day;
    hour = Date.hour - 1;
    min = Date.minute - 1;
    sec = Date.second - 1;

    sprintf(outdate,"%02d-%02d-%4d %02d:%02d:%02d\0",
            day,month,year,hour,min,sec);

    return;
}
#endif

void TPCexit (void)
{
    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) {
        tkvcddone();
        sto_init = 0;
    }
}

```

```

}

OCIHandleFree((dvoid *)tpcusr, OCI_HTYPE_SESSION);
OCIHandleFree((dvoid *)tpcsvc, OCI_HTYPE_SVCCTX);
OCIHandleFree((dvoid *)errhp, OCI_HTYPE_ERROR);
OCIHandleFree((dvoid *)tpcsrv, OCI_HTYPE_SERVER);
OCIHandleFree((dvoid *)tpcenv, OCI_HTYPE_ENV);

if (lfp) {
    //fflush (lfp);
    fclose (lfp);
    lfp = NULL;
}

}

TPCinit (id, uid, pwd)

int id;
char *uid;
char *pwd;

{
    char filename[40];
    text stmbuf[100];

    proc_no = id;
    sprintf (filename, "tpcc_%d.del", proc_no);
    if ((lfp = fopen (filename, "w")) == NULL) {
#ifdef TUX
        userlog ("Error in TPC-C server %d: Failed to open %s\n",
                proc_no, filename);
    #else
        fprintf (stderr, "Error in TPC-C server %d: Failed to open %s\n",
                proc_no, filename);
    #endif

        return (-1);
    }

    OCIInitialize(OCI_DEFAULT|OCI_OBJECT,(dvoid *)0,0,0,0);
    OCIEnvInit(&tpcenv, OCI_DEFAULT, 0, (dvoid **)0);
    OCIHandleAlloc((dvoid *)&tpcenv, (dvoid **)&tpcsrv, OCI_HTYPE_SERVER,
0, (dvoid **)0);
    OCIHandleAlloc((dvoid *)&tpcenv, (dvoid **)&errhp, OCI_HTYPE_ERROR,
0, (dvoid **)0);
    OCIServerAttach(tpcsrv, errhp, (text *)0,0,OCI_DEFAULT); //change
    OCIHandleAlloc((dvoid *)&tpcenv, (dvoid **)&tpcsvc, OCI_HTYPE_SVCCTX,
0, (dvoid **)0);
    OCIAttrSet((dvoid *)tpcsvc, OCI_HTYPE_SVCCTX, (dvoid *)tpcsrv,
(ub4)0,OCI_ATTR_SERVER, errhp);
    OCIHandleAlloc((dvoid *)&tpcenv, (dvoid **)&tpcusr, OCI_HTYPE_SESSION,
0, (dvoid **)0);
    OCIAttrSet((dvoid *)tpcusr, OCI_HTYPE_SESSION, (dvoid *)uid,
(ub4)strlen(uid),OCI_ATTR_USERNAME, errhp);
    OCIAttrSet((dvoid *)tpcusr, OCI_HTYPE_SESSION, (dvoid *)pwd,
(ub4)strlen(pwd),
OCI_ATTR_PASSWORD, errhp);
}

```

```

    OCIErrror(errhp, OCISessionBegin(tpcsvc, errhp, tpcusr,
OCI_CRED_RDBMS, OCI_DEFAULT));
    OCIAttrSet(tpcsvc, OCI_HTYPE_SVCCTX, tpcusr, 0, OCI_ATTR_SESSION,
errhp);
    /* run all transaction in serializable mode */

    OCIHandleAlloc(tpcenv, (dvoid **)&curi, OCI_HTYPE_STMT, 0,
(dvoid**)0);
    sprintf((char *) stmbuf, SQLTXT);
    OCISmtPrepare(curi, errhp, stmbuf, strlen((char *)stmbuf),
OCI_NTV_SYNTAX, OCI_DEFAULT);
    OCIErrror(errhp, OCISmtExecute(tpcsvc, curi,
errhp, 1, 0, 0, 0, OCI_DEFAULT));
    OCIHandleFree(curi, OCI_HTYPE_STMT);

/*
This is done in cvdrv.c
if (tracelevel == 2) {
    OCIHandleAlloc(tpcenv, (dvoid **)&curi, OCI_HTYPE_STMT, 0,
(dvoid**)0);
    memset(stmbuf, 0, 100);
    sprintf((char *) stmbuf, SQLTXTTRC);
    OCISmtPrepare(curi, errhp, stmbuf, strlen((char *)stmbuf),
OCI_NTV_SYNTAX, OCI_DEFAULT);
    OCIErrror(errhp, OCISmtExecute(tpcsvc, curi,
errhp, 1, 0, 0, 0, OCI_DEFAULT));
    OCIHandleFree((dvoid *)curi, OCI_HTYPE_STMT);
}
*/
if (tracelevel == 3) {
    OCIHandleAlloc(tpcenv, (dvoid **)&curi, OCI_HTYPE_STMT, 0,
(dvoid**)0);

    memset(stmbuf, 0, 100);
    sprintf((char *) stmbuf, SQLTXTTIM);
    OCISmtPrepare(curi, errhp, stmbuf, strlen((char *)stmbuf),
OCI_NTV_SYNTAX, OCI_DEFAULT);
    OCIErrror(errhp, OCISmtExecute(tpcsvc, curi,
errhp, 1, 0, 0, 0, OCI_DEFAULT));
    OCIHandleFree((dvoid *)curi, OCI_HTYPE_STMT);
}

logon = 1;

OCIErrror(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 (tkvcoinit ()) { /* 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;

    return (0);
}

TPCnew (str)
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); */

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

if (str->newout.terror = tkvcn ()) {
    if (str->newout.terror != RECOVERR)
        str->newout.terror = IRRECERR;
    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);
OCIERERROR(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 = (float) w_tax;
str->newout.d_tax = (float) 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++) {
    str->newout.ol_i_id[i] = nol_i_id[i]; //add
    str->newout.ol_supply_w_id[i] = nol_supply_w_id[i]; //add
    str->newout.ol_quantity[i] = nol_quantity[i]; //add
    strncpy(str->newout.i_name[i], i_name[i], 25);
    str->newout.s_quantity[i] = (int) s_quantity[i];
    str->newout.brand_generic[i] = brand_generic[i][0];
    str->newout.i_price[i] = i_price[i]/100;
    str->newout.ol_amount[i] = nol_amount[i]/100;
}

#ifndef AVOID_DEADLOCK
//q_sort(indx, str, 0, ordl_cnt-1);
#endif

if (status){
    strcpy(str->newout.status, "Item number is not valid");
    return(0); //add for abort transaction
}
else
    str->newout.status[0] = '\0';
str->newout.retry = retries;

```

```

#if defined(TOP) || defined(TUX) /* changed mjb 17 feb for tuxedo
*/
    return(1);
#else
    return (0);
#endif
}

TPCpay (str)

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;
    h_amount = str->payin.h_amount;
    bylastname = str->payin.bylastname;

/*
vgetdate(cr_date); */
OCIERERROR(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 != RECOVERR)
        str->payout.terror = IRRECERR;
    return (-1);
}

/*
cvtdmyhms(cr_date, h_date);
*/
hlen = SIZ(h_date);
OCIERERROR(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);
OCIERERROR(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 = (float)(c_credit_lim)/100;
str->payout.c_discount = c_discount;
str->payout.c_balance = (float)(c_balance)/100;
strncpy (str->payout.c_data, c_data, 201);
strncpy (str->payout.h_date, (char*)h_date, 20);
str->payout.retry = retries;
#if defined(TOP) || defined(TUX) /* changed mjb 17 Feb */
return(1);
#else
return (0);
#endif
}

```

TPCord (str)

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 = IRECCERR;
        return (-1);
    }
}

```

```

datelen = sizeof(o_entry_d);
OCIERROR(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][i0] = '\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];
    str->ordout.ol_quantity[i] = (int) ol_quantity[i];
    str->ordout.ol_amount[i] = ol_amount[i]/100;
    strncpy (str->ordout.ol_delivery_d[i], (char*)ol_delivery_d[i],
11);
}
str->ordout.retry = retries;
#if defined(TOP) || defined(TUX)
return(1);
#else
return (0);
#endif
}

```

TPCdel (str)

struct delstruct *str;

```

{
    double tr_end;
    int i;

    w_id = str->delin.w_id;
    o_carrier_id = str->delin.o_carrier_id;
    retries = 0;
    /*
    vgetdate(cr_date); */
    OCIERROR(errhp,OCIDateSysDate(errhp,&cr_date));

    str->delin.plsqlflag = 1; // 1:PLSQLDEL, 0:OCIDEL

    if (str->delout.terror = tkvcd (str->delin.plsqlflag)) {
        if(str->delout.terror == DEL_ERROR)

```

```

        return DEL_ERROR;
    if (str->delout.terror != RECOVER)
        str->delout.terror = IRRECERR;
    return (-1);
}

//tr_end = gettime (); //error
ftime(&timebuffer);
tr_end = timebuffer.time + timebuffer.millitm/1000.0;
/* old type
fprintf (lfp, "%d %d %f %f %d %d", str->delin.in_timing_int,
        (tr_end - str->delin.qtime) <= DELRT ? 1 : 0,
        str->delin.qtime, tr_end, w_id, o_carrier_id);
for (i = 0; i < 10; i++) {
    fprintf (lfp, " %d %d", i + 1, del_o_id[i]);
    if (del_o_id[i] <= 0) {
#ifdef TUX
        userlog ("DELIVERY: no new order for w_id: %d, d_id %d\n",
                w_id, i + 1);
#else
        fprintf (stderr, "DELIVERY: no new order for w_id: %d,
d_id %d\n",
                w_id, i + 1);
#endif
    }
}
fprintf (lfp, " %d\n", retries);
str->delout.terror = NOERR;
str->delout.retry = retries;

*/
fprintf (lfp, "%f %f %d %d", str->delin.qtime, tr_end, w_id,
o_carrier_id);
for (i = 0; i < 10; i++) {
    fprintf (lfp, " %d", del_o_id[i]);
    if (del_o_id[i] <= 0) {
#ifdef TUX
        userlog ("DELIVERY: no new order for w_id: %d, d_id %d\n",
                w_id, i + 1);
#else
        fprintf (stderr, "DELIVERY: no new order for w_id: %d,
d_id %d\n",
                w_id, i + 1);
#endif
    }
}
fprintf (lfp, "\n");
str->delout.terror = NOERR;
str->delout.retry = retries;

#ifdef TOP || defined(TUX) /* changed mjb 17 feb */
    return(1);
#else
    return (0);
#endif
}

```

TPCsto (str)

```

struct stostruct *str;
{
    w_id = str->stoin.w_id;
    d_id = str->stoin.d_id;
    threshold = (float) str->stoin.threshold;
    retries = 0;

    if (str->stoout.terror = tkvcs ()) {
        if (str->stoout.terror != RECOVER)
            str->stoout.terror = IRRECERR;
        return (-1);
    }

    str->stoout.terror = NOERR;
    str->stoout.low_stock = low_stock;
    str->stoout.retry = retries;
#ifdef TOP || defined(TUX) /* changed mjb 17 feb */
    return(1);
#else
    return (0);
#endif
}

#ifdef AVOID_DEADLOCK

void 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, left, last);
    q_sort(arr, str, left, last-1);
    q_sort(arr, str, last+1, right);
}

void swap(struct newstruct *str, int i, int j)
{
    float temp_float;
    int temp;
    char tmpstr[25];
    char tmpch;

    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;
}

```

```

temp_float = nol_quantity[i];
nol_quantity[i] = nol_quantity[j];
nol_quantity[j] = temp_float;

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);

temp = str->newout.s_quantity[i];
str->newout.s_quantity[i] = str->newout.s_quantity[j];
str->newout.s_quantity[j] = temp;

tmpch = str->newout.brand_generic[i];
str->newout.brand_generic[i] = str->newout.brand_generic[j];
str->newout.brand_generic[j] = tmpch;

temp_float = str->newout.i_price[i];
str->newout.i_price[i] = str->newout.i_price[j];
str->newout.i_price[j] = temp_float;

temp_float = str->newout.ol_amount[i];
str->newout.ol_amount[i] = str->newout.ol_amount[j];
str->newout.ol_amount[j] = temp_float;
}

#endif

```

tpccsvr.c

```

#ifdef RCSID
static char *RCSid =
"$Header: tpccsvr.c 7030100.1 95/07/19 15:39:28 plai Generic<base>
$ Copyr (c) 1995 Oracle";
#endif /* RCSID */

/*=====+
|      Copyright (c) 1995  Oracle Corp, Redwood Shores, CA      |
|              OPEN SYSTEMS PERFORMANCE GROUP                  |
|              All Rights Reserved                              |
+=====+
| FILENAME                                                       |
|   tpccsvr.c                                                    |
| DESCRIPTION                                                    |
|   Tuxedo server for TPC-C. use a #define TUX                  |
|   TOPEND server for TPC-C. use a #define TOP                  |
+=====+*/

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

#ifdef TUX
#include <atmi.h>          // must occur prior to include of tpccapi.h
#include <stdlib.h>        // for generation of random seed for server
id

```

```

#include <time.h>          // for generation of random seed for server
id
#endif

#define TPCSVR
#include "tpcc.h"
#include "tpcc_info.h"
#include "httpext.h"      //ISAPI DDL information header
#include "tpccapi.h"      //this dlls specific structure, value e.t.
header

#ifdef TUX

#include <tmenv.h>
#include <xa.h>
#include <userlog.h>

/* set up pointers for type casting */
struct newstruct *newinfo;
struct paystruct *payinfo;
struct ordstruct *ordinfo;
struct delstruct *delinfo;
struct stostruct *stoinfo;

extern void TMlog();

#endif

void TMlog( char *format, ...)
{
    va_list args;
    char buf[4096];
    int len;
    va_start( args, format );
    _strtime( buf );
    strcat( buf, " ");
    len = strlen( buf );
    (void) _vsprintf( buf+ len, sizeof( buf) - len - 1, format,
args);
    buf[sizeof( buf )- 1]= '\0';
    va_end( args );
    userlog( buf );
}

/* FUNCTION: int tpsvrinit (int argc, char *argv[]);
*
* PURPOSE:      Connects into database
* ARGUMENTS:    parameters passed in as  int svrid, char *uid, char
*pwd, int txntype
*
*      do not check ordering, assume correct
*      svrid:    an id number for server running
*      uid:      the userid for the database
*      pwd:      the password for the userid
*      txntype:  transaction type the server will be running
* RETURNS:      None
*
* COMMENTS:     None
*
*/

```

```

int tpsvrinit (int argc, char *argv[])
{
    int svrid, txntype;
    char *uid, *pwd;
    int svrcnt;

    /* pull out the values from argv */
    svrid = atoi(argv[0]);
    uid = argv[1];
    pwd = argv[2];
    txntype = atoi(argv[3]);

#ifdef TUX

    //srand ( (unsigned)time( NULL ) );
    //svrcnt = rand();
    svrcnt = getpid();

    /* send 6 for all txns to be initd */
    /* fix uid an pwd for now, pull out later */
    /* not passing parameters through TUX yet */
    if (TPCinit (svrcnt, "tpcc", "tpcc", 6)) {
        TMlog( " FAILED to init all txns types");
    }

    return (-1);

}

return 0;

#else // for topend
    if (TPCinit (svrid, uid, pwd, txntype)) {
        fprintf(stderr, "Failed in TPCinit (probably connecting).");
        exit (1);
    }

    return (1);
#endif
}

void tpsvrdone ()
{
    TPCexit (0);
}

/* FUNCTION: int NEWORDER(CLIENTDATA *jobData, NewOrderData *neword,
int deadlock)
*
* PURPOSE:      This function handles the new order transaction.
*
* ARGUMENTS:    deadlock :    count of deadlocks encountered during txn
*                jobData:    pointer to entire block of user data
*                neword:     pointer to datastructure in jobData that
contains the new order data
* RETURNS:      int          TRUE      transaction committed
*                FALSE      item number not valid
*                -1          deadlock max
retry reached
*
* COMMENTS:      None
*/

```

```

* ARGUMENTS:    deadlock :    count of deadlocks encountered during txn
*                jobData:    pointer to entire block of user data
*                neword:     pointer to datastructure in jobData that
contains the new order data
* RETURNS:      int          TRUE      transaction committed
*                FALSE      item number not valid
*                -1          deadlock max
retry reached
*
* COMMENTS:      None
*/

#ifdef TOP
int NEWORDER(CLIENTDATA *jobData, NewOrderData *neword, int deadlock)
#else
void NEWORDER (TPSVCINFO *msg)
#endif

{

#ifdef TOP
    int result;

    result = TPCnew(neword);

    return result;

#else // for Tuxedo

    newinfo = (struct newstruct *) msg->data;
    newinfo->retval = TPCnew (newinfo); // set return value to 0 or -1

    // always return tpreturn success - let client side poll retval for
actual error
    tpreturn (TPSUCCESS, 0, (char *) newinfo, sizeof (struct newstruct),
0);

#endif

}

/* FUNCTION: int PAYMENT(CLIENTDATA *jobData, PaymentData *paydata, int
deadlock)
*
* PURPOSE:      This function handles the new order transaction.
*
* ARGUMENTS:    deadlock :    count of deadlocks encountered during txn
*                jobData:    pointer to entire block of user data
*                paydata:    pointer to datastructure in jobData that
contains the new order data
* RETURNS:      int          TRUE      transaction committed
*                FALSE      item number not valid
*                -1          deadlock max
retry reached
*
* COMMENTS:      None
*/

```



```

#ifdef TOP
int PAYMENT(CLIENTDATA *jobData, PaymentData *paydata, int deadlock)
#else
void PAYMENT (TPSVCINFO *msg)
#endif

{

#ifdef TOP

    int result;

    result = TPCpay(paydata);

    return result;

#else

    payinfo = (struct paystruct *) msg->data;
    payinfo->retval = TPCpay (payinfo); // set return value to 1 or 0
    or -1

    // always return tpreturn success - let client side poll retval for
    actual error
    tpreturn (TPSUCCESS, 0, (char *) payinfo, sizeof (struct paystruct),
    0);

#endif

}

/* FUNCTION: int ORDERSTATUS(CLIENTDATA *jobData, OrderStatusData
*orddata, int deadlock)
*
* PURPOSE:      This function handles the new order transaction.
*
* ARGUMENTS:   deadlock :   count of deadlocks encountered during txn
*                  jobData:   pointer to entire block of user data
*                  orddata:   pointer to datastructure in jobData that
contains the new order data
* RETURNS:      int          TRUE      transaction committed
*                  FALSE      item number not valid
*                  -1          deadlock max
retry reached
*
* COMMENTS:     None
*
*/

#ifdef TOP
int ORDERSTATUS(CLIENTDATA *jobData, OrderStatusData *orddata, int
deadlock)
#else
void ORDERSTATUS (TPSVCINFO *msg)
#endif

{

#ifdef TOP

```

```

    int result;

    result = TPCord(orddata);

    return result;

#else

    ordinfo = (struct ordstruct *) msg->data;
    ordinfo->retval = TPCord (ordinfo); // set return value to 0 or -1

    // always return tpreturn success - let client side poll retval for
    actual error
    tpreturn (TPSUCCESS, 0, (char *) ordinfo, sizeof (struct ordstruct),
    0);

#endif

}

/* FUNCTION: int DELIVERY(CLIENTDATA *jobData, DeliveryData *deldata,
int deadlock)
*
* PURPOSE:      This function handles the new order transaction.
*
* ARGUMENTS:   deadlock :   count of deadlocks encountered during txn
*                  jobData:   pointer to entire block of user data
*                  stodata:   pointer to datastructure in jobData that
contains the new order data
* RETURNS:      int          TRUE      transaction committed
*                  FALSE      item number not valid
*                  -1          deadlock max
retry reached
*
* COMMENTS:     None
*
*/

#ifdef TOP
int DELIVERY(CLIENTDATA *jobData, DeliveryData *deldata, int deadlock)
#else
void DELIVERY (TPSVCINFO *msg)
#endif

{

#ifdef TOP
    int result;

    result = TPCdel(deldata);

    return result;

#else

    delinfo = (struct delstruct *) msg->data;
    delinfo->retval = TPCdel (delinfo); // set return value to 0 or -1

```

```

    // always return tpreturn success - let client side poll retval for
    actual error
    tpreturn (TPSUCCESS, 0, (char *) delinfo, sizeof (struct delstruct),
    0);

#endif

}

/* FUNCTION: int STOCKLEVEL(CLIENTDATA *jobData, StockLevelData
*stodata, int deadlock)
*
* PURPOSE:      This function handles the new order transaction.
*
* ARGUMENTS:    deadlock :    count of deadlocks encountered during txn
*                  jobData:    pointer to entire block of user data
*                  stodata:    pointer to datastructure in jobData that
contains the new order data
* RETURNS:      int          TRUE      transaction committed
*                  FALSE      item number not valid
*                  -1          deadlock max
retry reached
*
*
* COMMENTS:      None
*
*/

#ifdef TOP
int STOCKLEVEL(CLIENTDATA *jobData, StockLevelData *stodata, int
deadlock)
#else
void STOCKLEVEL (TPSVCINFO *msg)
#endif

{

#ifdef TOP

    int result;

    result = TPCsto(stodata);

    return result;

#else

    stoinfo = (struct stostruct *) msg->data;
    stoinfo->retval = TPCsto (stoinfo); // set return value to 0 or -1

    // always return tpreturn success - let client side poll retval for
    actual error
    tpreturn (TPSUCCESS, 0, (char *) stoinfo, sizeof (struct stostruct),
    0);

#endif

}

```

```

/* FUNCTION: int OPSTUXSERVER(CLIENTDATA *jobData, NewOrderData *neword,
int deadlock)
*
* PURPOSE:      This function handles all transactions.
*
* ARGUMENTS:    deadlock :    count of deadlocks encountered during txn
*                  jobData:    pointer to entire block of user data
*                  neword:     pointer to datastructure in jobData that
contains the new order data
* RETURNS:      int          TRUE      transaction committed
*                  FALSE      item number not valid
*                  -1          deadlock max
retry reached
*
*
* COMMENTS:      None
*
*/

#ifdef TOP
int OPSTUXSERVER(CLIENTDATA *jobData, NewOrderData *neword, int
deadlock)
#else
void OPSTUXSERVER (TPSVCINFO *msg)
#endif

{

#ifdef TOP

    int result;

    result = TPCnew(neword);

    return result;

#else

    // for Tuxedo

    if (msg->len == sizeof(struct newstruct)) { // len for neworder
        //if (msg->len == 928) { // len for neworder for old
        newinfo = (struct newstruct *) msg->data;
        newinfo->retval = TPCnew (newinfo); // set return value to 0 or
-1

        // always return tpreturn success - let client side poll retval
for actual error
        tpreturn (TPSUCCESS, 0, (char *) newinfo, sizeof (struct
newstruct), 0);
    }
    else if (msg->len == sizeof(struct paystruct)) {
        //if (msg->len == 616) { // len for payment for old
        payinfo = (struct paystruct *) msg->data;
        payinfo->retval = TPCpay (payinfo); // set return value to
1 or 0 or -1

        // always return tpreturn success - let client side poll
retval for actual error
        tpreturn (TPSUCCESS, 0, (char *) payinfo, sizeof (struct
paystruct), 0);
    }
    else if (msg->len == sizeof(struct ordstruct)) {
        //if (msg->len == 544) { // len for order status
        ordinfo = (struct ordstruct *) msg->data;

```

```

        ordinfo->retval = TPCord (ordinfo);  // set return value to 0 or
-1

        // always return tpreturn success - let client side poll retval
for actual error
        tpreturn (TPSUCCESS, 0, (char *) ordinfo, sizeof (struct
ordstruct), 0);
    }
    else if (msg->len == sizeof(struct delstruct)) {
        //if (msg->len == 40) { // len for delivery
        delinfo = (struct delstruct *) msg->data;
        delinfo->retval = TPCdel (delinfo);  // set return value to 0 or
-1

        // always return tpreturn success - let client side poll retval
for actual error
        tpreturn (TPSUCCESS, 0, (char *) delinfo, sizeof (struct
delstruct), 0);
    }
    else { // assume rest is stock level

        stoinfo = (struct stostruct *) msg->data;
        stoinfo->retval = TPCsto (stoinfo);  // set return value to 0 or
-1

        // always return tpreturn success - let client side poll retval
for actual error
        tpreturn (TPSUCCESS, 0, (char *) stoinfo, sizeof (struct
stostruct), 0);
    }
}

#endif
}

```

bs-mb.c

```

#include <stdio.h>
#include <xa.h>
#include <atmi.h>

#if defined(__cplusplus)
extern "C" {
#endif
extern int _tmrunserver _((int));
extern void OPSTUXSERVER _((TPSVCINFO *));
#if defined(__cplusplus)
}
#endif

static struct tmdsptchtbl_t _tmdsptchtbl[] = {
    { "OPSTUXSERVER", "OPSTUXSERVER", (void *) _((TPSVCINFO *))
OPSTUXSERVER, 0, 0 },
    { NULL, NULL, NULL, 0, 0 }
};

#ifdef _TMDLLIMPORT
#define _TMDLLIMPORT
#endif

```

```

_TMDLLIMPORT extern struct xa_switch_t tmnull_switch;

struct tmsvrargs_t tmsvrargs = {
    NULL,
    &_tmdsptchtbl[0],
    0,
    tpsvrinit,
    tpsvrdone,
    _tmrunserver, /* PRIVATE */
    NULL, /* RESERVED */
    NULL, /* RESERVED */
    NULL, /* RESERVED */
    NULL /* RESERVED */
};

struct tmsvrargs_t *
#ifdef _TMPROTOTYPES
_tmgetsvrargs(void)
#else
_tmgetsvrargs()
#endif
{
    tmsvrargs.xa_switch = &tmnull_switch;
    return(&tmsvrargs);
}

int
#ifdef _TMPROTOTYPES
main(int argc, char **argv)
#else
main(argc,argv)
int argc;
char **argv;
#endif
{
    #ifdef TMAINEXIT
    #include "mainexit.h"
    #endif

    return( _tmstartserver( argc, argv, _tmgetsvrargs()));
}

```

tpccapi.h

```

#ifndef TPCCAPI_H
#define TPCCAPI_H

/*=====+
|          Copyright (c) 1997  Oracle Corp, Redwood Shores, CA          |
|                                OPEN SYSTEMS PERFORMANCE GROUP          |
|                                All Rights Reserved                      |
+=====+
| FILENAME                      |
| tpccapi.h                    |
| DESCRIPTION                  |
| header file to tpcc.dll      |
+=====+*/

```

```

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

//note that the welcome form must be processed first as terminal
ids
//assigned here, once the terminal id is assigned then the forms
can
//be processed in any order.

#define WELCOME_FORM        1
//beginning form no term id assigned, form id
#define MAIN_MENU_FORM        2
//term id assigned main menu form id
#define NEW_ORDER_FORM        3
//new order form id
#define PAYMENT_FORM        4
//payment form id
#define DELIVERY_FORM        5
//delivery form id
#define ORDER_STATUS_FORM        6
//order status id
#define STOCK_LEVEL_FORM        7
//stock level form id

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

//error message structure used in ErrorMessage API
typedef struct _SERRORMSG
{
    int        iError;        //error id of message
    char        szMsg[80];        //message to sent to browser
} SERRORMSG;

//This structure defines the data necessary to keep distinct
for each
//terminal or client connection.
typedef struct _CLIENTDATA
{
    int        inUse;        //in use flag allows client entries to
be reused
    int        w_id;        //warehouse id assigned at welcome form
    int        d_id;        //district id assigned at welcome form
    int        iProcessRequestCounter;        //request counter
    int        iSyncId;        //synchronization id
    int        iTickCount;        //time of last access;
    int        iTermId;        //terminal id of http stream connection
    char        szBuffer[4096]; //form buffer; HTML form built for
client here
    //for TOPEND
    char        type;
    int        retval;
    int        client;
    BOOL        bFailed;
#ifdef TOPEND
    long        *tp_structadr;
#else // assume tuxedo

```

```

        struct newstruct        *newOrderDataPtr;        //new order
Tuxedo buffer
        struct paystruct        *paymentDataPtr;        //payment
Tuxedo buffer
        struct ordstruct        *orderStatusDataPtr;        //order status
Tuxedo buffer
        struct delstruct        *deliveryDataPtr;        //delivery
Tuxedo buffer
        struct stostruct        *stockLevelDataPtr;        //stock level
Tuxedo buffer
#endif
    union {
        struct newstruct        newOrderData;        //new order form data
        struct paystruct        paymentData;        //payment form data
        struct ordstruct        orderStatusData;        //order status form
    } trans;
    data
        struct delstruct        deliveryData;        //delivery form data
        struct stostruct        stocklevelData;        //stock level form data
    } CLIENTDATA;

typedef CLIENTDATA *PCLIENTDATA;        //pointer to client structure
//This structure is used to define the operational interface
for
//terminal id support
typedef struct _TERM
{
    int        iAvailable;        //total allocated terminal array entries
    int        iNext;        //next available terminal array element
    int        iMasterSyncId;        //synchronization id
    BOOL        bInit;        //structure has been initialized flag
    CLIENTDATA        *pClientData;        //pointer to allocated client data
    void        (*Init)(void);        //API to initialize this structure
    int        (*Allocate)(void);        //API to allocate new terminal entry;array
id returned
    void        (*Restore)(void);        //API to free terminal data
    int        (*Add)(EXTENSION_CONTROL_BLOCK *pECB,
        char *pQueryString);        //API to add a terminal id to array,
//this context will be passed
from the
//browser to the tpcc.dll in the
//TERMINID= key in the HTTP string.
void        (*Delete)(EXTENSION_CONTROL_BLOCK *pECB, int id); //API to free
//resources used
by a
//terminal array
//entry
} TERM;

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

//this structure allows the EXTENSION CONTROL BLOCK to be passed
to the
//msg and error handlers.
typedef struct _ECBINFO
{
    int        iTermId;        //terminal id
    int        iSyncId;        //browser sync id
    BOOL        bDeadlock;        //deadlock condition flag
    BOOL        bFailed;        //cleared before sql transaction, set
in err
//handlers if an error occurs

```

```

        EXTENSION_CONTROL_BLOCK *pECB;    //inetsrv current connection
structure
        //information
} ECBINFO, *PECBINFO;

//function prototypes

#ifdef TOPEND // in tuxedo defined in atmi.h
extern int tpsvrinit (int argc, char * argv[]);
        // argv arguments are  int pid, char *uid, char *pwd, int
txntype

extern int NEWORDER(CLIENTDATA *jobData, NewOrderData *neword, int
deadlock);
extern int PAYMENT(CLIENTDATA *jobData, PaymentData *paydata, int
deadlock);
extern int ORDERSTATUS(CLIENTDATA *jobData, OrderStatusData *orddata,
int deadlock);
extern int STOCKLEVEL(CLIENTDATA *jobData, StockLevelData *stodata, int
deadlock);
extern int DELIVERY(CLIENTDATA *jobData, DeliveryData *deldata, int
deadlock);
#endif

#ifdef TUX
extern void NEWORDER(TPSVCINFO *msg);
extern void PAYMENT(TPSVCINFO *msg);
extern void ORDERSTATUS(TPSVCINFO *msg);
extern void STOCKLEVEL(TPSVCINFO *msg);
extern void DELIVERY(TPSVCINFO *msg);
#endif

BOOL APIENTRY DllMain(HANDLE hModule, DWORD ul_reason_for_call, LPVOID
lpReserved);
static BOOL IsValidTermId(int TermId);
BOOL ProcessQueryString(EXTENSION_CONTROL_BLOCK *pECB, int *pCmd, int
*pFormId, int *pTermId, int *pSyncId);
void NewOrderForm(EXTENSION_CONTROL_BLOCK *pECB, int iFormId, int
iTermId, int iSyncId);
void PaymentForm(EXTENSION_CONTROL_BLOCK *pECB, int iFormId, int
iTermId, int iSyncId);
void DeliveryForm(EXTENSION_CONTROL_BLOCK *pECB, int iFormId, int
iTermId, int iSyncId);
void OrderStatusForm(EXTENSION_CONTROL_BLOCK *pECB, int iFormId, int
iTermId, int iSyncId);
void StockLevelForm(EXTENSION_CONTROL_BLOCK *pECB, int iFormId, int
iTermId, int iSyncId);
void ExitCmd(EXTENSION_CONTROL_BLOCK *pECB, int iFormId, int iTermId,
int iSyncId);
void SubmitCmd(EXTENSION_CONTROL_BLOCK *pECB, int iFormId, int iTermId,
int iSyncId);
void BeginCmd(EXTENSION_CONTROL_BLOCK *pECB, int iFormId, int iTermId,
int iSyncId);
void ProcessCmd(EXTENSION_CONTROL_BLOCK *pECB, int iFormId, int iTermId,
int iSyncId);
void ClearCmd(EXTENSION_CONTROL_BLOCK *pECB, int iFormId, int iTermId,
int iSyncId);
void MenuCmd(EXTENSION_CONTROL_BLOCK *pECB, int iFormId, int iTermId,
int iSyncId);
static void WriteZString(EXTENSION_CONTROL_BLOCK *pECB, char *szStr);
static void h_printf(EXTENSION_CONTROL_BLOCK *pECB, char *format, ...);

```

```

void ErrorMessage(EXTENSION_CONTROL_BLOCK *pECB, int iError, int
iErrorType, char *szMsg, int iTermId, int iSyncId);
static BOOL GetKeyValue(char *pQueryString, char *pKey, char *pValue,
int iMax);
static void TermInit(void);
static void TermRestore(void);
static int TermAllocate(void);
static int TermAdd(EXTENSION_CONTROL_BLOCK *pECB, char *pQueryString);
static void TermDelete(EXTENSION_CONTROL_BLOCK *pECB, int id);
BOOL Init(EXTENSION_CONTROL_BLOCK *pECB, int iTermId, int iSyncId, char
*szServer, char *szUser, char *szPassword, char *szDatabase);
static BOOL Close(EXTENSION_CONTROL_BLOCK *pECB, int iTermId, int
iSyncId);
static void FormatString(char *szDest, char *szPic, char *szSrc);
static char *MakeStockLevelForm(int iTermId, int iSyncId, BOOL bInput);
static char *MakeMainMenuForm(int iTermId, int iSyncId);
static char *MakeWelcomeForm(void);
static char *MakeNewOrderForm(int iTermId, int iSyncId, BOOL bInput,
BOOL bValid, char *execution status);
static char *MakePaymentForm(int iTermId, int iSyncId, BOOL bInput);
static char *MakeOrderStatusForm(int iTermId, int iSyncId, BOOL
bInput);
static char *MakeDeliveryForm(int iTermId, int iSyncId, BOOL bInput,
char *execution status);
void UtilStrCpy(char * pDest, char * pSrc, int n);
static void ProcessNewOrderForm(EXTENSION_CONTROL_BLOCK *pECB, int
iTermId, int iSyncId);
static void ProcessPaymentForm(EXTENSION_CONTROL_BLOCK *pECB, int
iTermId, int iSyncId);
static void ProcessOrderStatusForm(EXTENSION_CONTROL_BLOCK *pECB, int
iTermId, int iSyncId);
static void ProcessDeliveryForm(EXTENSION_CONTROL_BLOCK *pECB, int
iTermId, int iSyncId);
static void ProcessStockLevelForm(EXTENSION_CONTROL_BLOCK *pECB, int
iTermId, int iSyncId);
static int GetNewOrderData(LPSTR lpszQueryString, NewOrderData
*pNewOrderData);
static int GetPaymentData(LPSTR lpszQueryString, PaymentData
*pPaymentData);
static int GetOrderStatusData(LPSTR lpszQueryString, OrderStatusData
*pOrderStatusData);
static BOOL ReadRegistrySettings(void);
static BOOL IsNumeric(char *ptr);
static void FormatHTMLString(char *szBuff, char *szStr, int iLen);
static void Log(char *szType, char *szStr);
int do_neworder(NewOrderData *pNOData);
int do_payment(PaymentData *pPAYData);
int do_orderstatus(OrderStatusData *pOSData);
int do_delivery(pDeliveryData pDelivery);
int do_stocklevel(StockLevelData *pSTOData);
int end_neworder(NewOrderData *pNOData);
int end_payment(PaymentData *pPAYData);
int end_orderstatus(OrderStatusData *pOSData);
int end_stocklevel(StockLevelData *pSTOData);
int do_all_txns(int txn);
int do_disconnect( );

#endif /* TPCCAPI_H */

```

tpcc.h

```

/*
 * $Header: tpcc.h 7030100.1 95/07/19 15:10:55 plai Generic<base>
 $ Copyr (c) 1993 Oracle
 */
/*=====+
 |          Copyright (c) 1995  Oracle Corp, Redwood Shores, CA  |
 |          OPEN SYSTEMS PERFORMANCE GROUP                      |
 |          All Rights Reserved                                  |
 +=====+
 | FILENAME
 |   tpcc.h
 | DESCRIPTION
 |   Include file for TPC-C benchmark programs.
 +=====+*/

#ifndef TPCC_H
#define TPCC_H

#ifndef FALSE
# define FALSE 0
#endif

#ifndef TRUE
# define TRUE 1
#endif

#include <stdio.h>
#include <stdlib.h>
#include <ctype.h>
#include <string.h>

#ifndef boolean
#define boolean int
#endif

#include <oratypes.h>
#include <oci.h>
#include <ocidfn.h>
/*
#ifdef __STDC__
#include "ociapr.h"
#else
#include "ocikpr.h"
#endif
*/

typedef struct cda_def csrdef;
typedef struct cda_def ldadef;

/* TPC-C transaction functions */

extern int TPCinit ();
extern int TPCnew ();
extern int TPCpay ();
extern int TPCord ();
extern int TPCdel ();
extern int TPCsto ();

```

```

extern void TPCexit ();
extern int TPCdumpinit ();
extern void TPCdumpnew ();
extern void TPCdumppay ();
extern void TPCdumpord ();
extern void TPCdumpdel ();
extern void TPCdumpsto ();
extern void TPCdumpexit ();
#ifndef TUX
extern void userlog(char* fntp, ...);
#endif

/* Error codes */

#define RECOVERR -10
#define IRRECERR -20
#define NOERR 111
#define DEL_ERROR -666
#define DEL_DATE_LEN 7
#define NDISTS 10
#define NITEMS 15
#define SQL_BUF_SIZE 8192

#define FULLDATE "dd-mon-yy.hh24:mi:ss"
#define SHORTDATE "dd-mm-yyyy"

#define DELRT 80.0

extern int tkvcninit ();
extern int tkvcpinit ();
extern int tkvcoinit ();
extern int tkvcdinit ();
extern int tkvcsinit ();

extern int tkvcn ();
extern int tkvcp ();
extern int tkvco ();
extern int tkvcd ();
extern int tkvcs ();

extern void tkvcndone ();
extern void tkvcpdone ();
extern void tkvcodone ();
extern void tkvcddone ();
extern void tkvcsdone ();

extern int tkvcss (); /* for alter session to get memory size and trace
 */
extern boolean multitranx;
extern int ord_init;

extern void errrpt ();
extern int ocierror(char *fname, int lineno, OCLError *errhp, sword
status);
extern int sqlfile(char *fname, text *linebuf);

```

```

extern FILE *lfp;
extern FILE *fopen ();
extern int proc_no;
extern int doid[];

extern int execstatus;
extern int errcode;

extern OCIEnv *tpcenv;
extern OCIServer *tpcsrv;
extern OCIError *errhp;
extern OCISvcCtx *tpcsvc;
extern OCISession *tpcusr;
extern OCISmt *curntest;
/* The bind and define handles for each transaction are
   included in their respective header files. */

/* for stock-level transaction */

extern int w_id;
extern int d_id;
extern int c_id;
extern float threshold;
extern int low_stock;

/* for delivery transaction */

extern int del_o_id[10];
extern int carrier_id;
extern int retries;

/* for order-status transaction */

extern int bylastname;
extern char c_last[17];
extern char c_first[17];
extern char c_middle[3];
extern double c_balance;
extern int o_id;
extern text o_entry_d[20];
extern int o_carrier_id;
extern int o_ol_cnt;
extern int ol_supply_w_id[15];
extern int ol_i_id[15];
extern float ol_quantity[15];
extern float ol_amount[15];
ub4 ol_del_len[15];
extern text ol_delivery_d[15][11];
/* xnie - begin */
extern OCIRowid *o_rowid;
/* xnie - end */

/* for payment transaction */

extern int c_w_id;
extern int c_d_id;
extern float h_amount;

```

```

extern char w_street_1[21];
extern char w_street_2[21];
extern char w_city[21];
extern char w_state[3];
extern char w_zip[10];
extern char d_street_1[21];
extern char d_street_2[21];
extern char d_city[21];
extern char d_state[3];
extern char d_zip[10];
extern char c_street_1[21];
extern char c_street_2[21];
extern char c_city[21];
extern char c_state[3];
extern char c_zip[10];
extern char c_phone[17];
extern text c_since_d[11];
extern char c_credit[3];
extern int c_credit_lim;
extern float c_discount;
extern char c_data[201];
extern text h_date[20];

/* for new order transaction */

extern int nol_i_id[15];
extern int nol_supply_w_id[15];
extern float nol_quantity[15];
extern int nol_quant10[15];
extern int nol_quant19[15];
extern int nol_ytdqty[15];
extern float nol_amount[15];
extern int o_all_local;
extern float w_tax;
extern float d_tax;
extern float total_amount;
extern char i_name[15][25];
extern int i_name_strlen[15];
extern ub2 i_name_strlen_len[15];
extern ub2 i_name_strlen_rcode[15];
extern ub4 i_name_strlen_csize;
extern float s_quantity[15];
extern char brand_gen[15];
extern ub2 brand_gen_len[15];
extern ub2 brand_gen_rcode[15];
extern ub4 brand_gen_csize;
extern float i_price[15];
extern char brand_generic[15][1];
extern int status;
extern int tracelevel;

/* Miscellaneous */
extern OCIDate cr_date;
extern OCIDate c_since;
extern OCIDate o_entry_d_base;
extern OCIDate ol_d_base[15];

#ifdef DISCARD
# define DISCARD (void)

```

```

#endif

#ifndef sword
# define sword int
#endif

#define VER7          2

#define NA             -1      /* ANSI SQL NULL */
#define NLT             1      /* length for string null terminator */
#define DEADLOCK       60      /* ORA-00060: deadlock */
#define NO_DATA_FOUND  1403    /* ORA-01403: no data found */
#define NOT_SERIALIZABLE 8177  /* ORA-08177: transaction not
serializable */
#define SNAPSHOT_TOO_OLD 1555  /* ORA-01555: snapshot too old */

#ifndef NULLP
# define NULLP(x)  (x *)NULL
#endif /* NULLP */

#define ADR(object) ((ub1 *)&(object))
#define SIZ(object) ((sword)sizeof(object))

typedef char date[24+NLT];
typedef char varchar2;

#define min(x,y)  (((x) < (y)) ? (x) : (y))

#define OCIEERROR(errp,function)\
    ocierror(__FILE__,__LINE__, (errp), (function));

#define OCIBND(stmp, bndp, errp, sqlvar, progvl, ftype)\
    ocierror(__FILE__,__LINE__, (errp), \

OCIHandleAlloc((stmp), (dvoid**)&(bndp), OCI_HTYPE_BIND, 0, (dvoid**)0)); \
    ocierror(__FILE__,__LINE__, (errp), \
        OCIBindByName((stmp), &(bndp), (errp), \
            (text *) (sqlvar), strlen((sqlvar)), \
            (progvl), (progvl), (ftype), 0, 0, 0, 0, OCI_DEFAULT));

/* bind arrays for sql */
#define
OCIBNDRA(stmp, bndp, errp, sqlvar, progvl, ftype, indp, alen, arcde) \
    DISCARD ocierror(__FILE__,__LINE__, (errp), \

OCIHandleAlloc((stmp), (dvoid**)&(bndp), OCI_HTYPE_BIND, 0, (dvoid**)0)); \
    DISCARD ocierror(__FILE__,__LINE__, (errp), \
        OCIBindByName((stmp), &(bndp), (errp), (text
*) (sqlvar), strlen((sqlvar)), \

        (progvl), (progvl), (ftype), (indp), (alen), (arcde), 0, 0, OCI_DEFAULT));

/* use with callback data */
#define OCIBNDRAD(stmp, bndp, errp, sqlvar, progvl, ftype, indp, ctp, \
        cbf_nodata, cbf_data) \
    DISCARD ocierror(__FILE__,__LINE__, (errp), \

```

```

OCIHandleAlloc((stmp), (dvoid**)&(bndp), OCI_HTYPE_BIND, 0, (dvoid**)0)); \
    DISCARD ocierror(__FILE__,__LINE__, (errp), \
        OCIBindByName((stmp), &(bndp), (errp), (text *) (sqlvar), \
            strlen((sqlvar)), 0, (progvl), (ftype), \
            indp, 0, 0, 0, OCI_DATA_AT_EXEC)); \
    DISCARD ocierror(__FILE__,__LINE__, (errp), \

OCIBindDynamic((bndp), (errp), (ctxp), (cbf_nodata), (ctxp), (cbf_data));

/* bind in/out for plsql without indicator and rcode */
#define OCIBNDPL(stmp, bndp, errp, sqlvar, 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), \
            NULLP(dvoid), (alen), NULLP(ub2),
        0, NULLP(ub4), OCI_DEFAULT));

/* bind in values for plsql with indicator and rcode */
#define
OCIBNDR(stmp, bndp, errp, sqlvar, progvl, progvl, ftype, indp, alen, arcde) \
    DISCARD ocierror(__FILE__,__LINE__, (errp), \

OCIHandleAlloc((stmp), (dvoid**)&(bndp), OCI_HTYPE_BIND, 0, (dvoid**)0)); \
    DISCARD ocierror(__FILE__,__LINE__, (errp), \
        OCIBindByName((stmp), &(bndp), (errp), (text
*) (sqlvar), strlen((sqlvar)), \
            (progvl), (progvl), (ftype), (indp), (alen), (arcde), 0, 0,
        \
            OCI_DEFAULT));

/* bind in/out for plsql arrays without indicator and rcode */
#define OCIBNDPLA(stmp, bndp, errp, sqlvar, progvl, 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));

/* bind in/out values for plsql with indicator and rcode */
#define
OCIBNDRAA(stmp, bndp, errp, sqlvar, progvl, progvl, ftype, indp, alen, arcde, \
        ms, cu) \
    ocierror(__FILE__,__LINE__, (errp), \

OCIHandleAlloc((stmp), (dvoid**)&(bndp), OCI_HTYPE_BIND, 0, (dvoid**)0)); \
    ocierror(__FILE__,__LINE__, (errp), \
        OCIBindByName((stmp), &(bndp), (errp), (text
*) (sqlvar), strlen((sqlvar)), \

```



```

(progvl), (ftype), (indp), (alen), (arcode), (ms), (cu), OCI_DEFAULT))
;

#define OCIDEFINE(stmp, dfnp, errp, pos, progv, progvl, ftype) \

OCIDefineByPos((stmp), &(dfnp), (errp), (pos), (progvl), (ftype), \
0, 0, 0, OCI_DEFAULT);

#define OCIDEF(stmp, dfnp, errp, pos, progv, progvl, ftype) \
OCIHandleAlloc((stmp), (dvoid**) &(dfnp), OCI_HTYPE_DEFINE, 0, \
(dvoid**) 0); \
OCIDefineByPos((stmp), &(dfnp), (errp), (pos), (progvl), \
(ftype), NULL, NULL, NULL, OCI_DEFAULT); \

#define
OCIDFNRA(stmp, dfnp, errp, pos, progv, 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
OCIDFNDRN(stmp, dfnp, errp, pos, progv, progvl, ftype, indp, ctp, 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), (ctp), (cbf_data)));

#ifndef TPCSVR

/* New order */

struct newwinstruct {
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];
float c_discount;

```

```

float w_tax;
float d_tax;
char o_entry_d[20];
float total_amount;
char i_name[15][25];
int s_quantity[15];
char brand_generic[15];
float i_price[15];
float ol_amount[15];
char status[26];
int retry;
int ol_i_id[15]; //add
int ol_supply_w_id[15]; //add
int ol_quantity[15]; //add
};

struct newstruct {
int retval;
int old_quantity[15];
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;
float 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;
    float c_discount;
    double c_balance;
    char c_data[201];
    char h_date[20];
    int retry;
};

struct paystruct {
    int retval;
    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];
    float ol_amount[15];
    char ol_delivery_d[15][11];
    int retry;
};

struct ordstruct {
    int retval;
    struct ordinstruct ordin;
    struct ordoutstruct ordout;
};

/* Delivery */

struct delinstruct {
    int w_id;
    int o_carrier_id;
    double qtime;

```

```

    int in_timing_int;
    int plsqliflag;
};

struct deloutstruct {
    int terror;
    int retry;
};

struct delstruct {
    int retval;
    struct delinstruct 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 {
    int retval;
    struct stoinstruct stoin;
    struct stooutstruct stoout;
};

#endif

#endif

```

tpccpl.h

```

/*
 * $Header: tpccpl.h 7030100.1 96/04/02 18:03:35 plai Generic<base>
 * Copyr (c) 1994 Oracle
 */
/*=====+
|          Copyright (c) 1994 Oracle Corp, Redwood Shores, CA          |
|                                OPEN SYSTEMS PERFORMANCE GROUP          |
|                                All Rights Reserved                     |
+=====+
| FILENAME                      |
| tpccpl.h                     |
| DESCRIPTION                   |
| Header file for TPC-C transactions in PL/SQL.                       |
+=====*/

#ifndef TPCCPL_H

```

```

#define TPCCPL_H

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

#ifdef TUX
#define DELRT 5.0
#else
#define DELRT 80.0
#endif

extern int plnewinit ();
extern int plpayinit ();
extern int plordinit ();
extern int pldelinit ();
extern int plstoinit ();

extern int plnew ();
extern int plpay ();
extern int plord ();
extern int pldel ();
extern int plsto ();

extern void plnewdone ();
extern void plpaydone ();
extern void plorddone ();
extern void pldeldone ();
extern void plstodone ();

extern errrpt ();
extern void logerr();
extern int ocierror(char *fname, int lineno, OCLError *errhp, sword
status);

extern int sqlfile(char *fname, text *linebuf);

extern void cvtdmy ( unsigned char *orady, char *outdate);
extern void cvtdmyhms (unsigned char *orady, char *outdate);

extern FILE *lfp;
extern FILE *fopen ();
extern int proc no;
extern int doid[];
extern int execstatus;
extern int errcode;

extern OCIEnv *tpcenv;
extern OCIServer *tpcsrv;
extern OCLError *errhp;
extern OCISvcCtx *tpcsvc;
extern OCISession *tpcusr;
extern OCISmt *curn, *curn1, *curn2, *curn3[10], *curn4;
extern OCISmt *curntest;
/* The bind and define handles for each transaction are
   included in their respective header files. */

extern ldadef tpclda;
extern csrdef curs;
extern csrdef curd;
extern csrdef curo0;
extern csrdef curo1;

```

```

extern csrdef curo2;
/*extern csrdef curp0;
extern csrdef curp1;
*/
/*extern csrdef curn, curn1, curn2, curn3[10], curn4;*/

extern unsigned long tpchda[];

/* for stock-level transaction */

extern int w_id;
extern int d_id;
extern int c_id;
extern int threshold;
extern int low_stock;

/* for delivery transaction */

extern int del_o_id[10];
extern int carrier_id;
extern int retries;

/* for order-status transaction */

extern int bylastname;
extern char c_last[17];
extern char c_first[17];
extern char c_middle[3];
extern double c_balance;
extern int o_id;
extern char o_entry_d[20];
extern int o_carrier_id;
extern int o_ol_cnt;
extern int ol_supply_w_id[15];
extern int ol_i_id[15];
extern int ol_quantity[15];
extern int ol_amount[15];
extern char ol_delivery_d[15][11];

/* for payment transaction */

extern int c_w_id;
extern int c_d_id;
extern int h_amount;
extern char w_street_1[21];
extern char w_street_2[21];
extern char w_city[21];
extern char w_state[3];
extern char w_zip[10];
extern char d_street_1[21];
extern char d_street_2[21];
extern char d_city[21];
extern char d_state[3];
extern char d_zip[10];
extern char c_street_1[21];
extern char c_street_2[21];
extern char c_city[21];
extern char c_state[3];
extern char c_zip[10];
extern char c_phone[17];
extern char c_since_d[11];
extern char c_credit[3];

```

```

extern int c_credit_lim;
extern int c_discount;
extern char c_data[201];
extern char h_date[20];
extern char bad_credit[33];

/* for new order transaction */

extern int nol_i_id[15];
extern int nol_supply_w_id[15];
extern int nol_quantity[15];
extern int nol_quantit10[15];
extern int nol_quantit11[15];
extern int nol_ytdqty[15];
extern int nol_amount[15];
extern int o_all_local;
extern int w_tax;
extern int d_tax;
extern float total_amount;
extern char i_name[15][25];
extern int i_name_strlen[15];
extern ub2 i_name_strlen_len[15];
extern ub2 i_name_strlen_rcode[15];
extern ub4 i_name_strlen_csize;
extern int s_quantity[15];
extern char brand_gen[15];
extern ub2 brand_gen_len[15];
extern ub2 brand_gen_rcode[15];
extern ub4 brand_gen_csize;
extern int i_price[15];
extern int status;

/* Miscellaneous */
extern unsigned char cr_date[7];
extern unsigned char c_since[7];
extern unsigned char o_entry_d_base[7];
extern unsigned char oi_d_base[15][7];

#ifdef DISCARD
# define DISCARD (void)
#endif

#ifdef sword
# define sword int
#endif

#define VER7          2

#define NA            -1      /* ANSI SQL NULL */
#define NLT           1      /* length for string null terminator */
#define DEADLOCK      60     /* ORA-00060: deadlock */
#define NO_DATA_FOUND 1403   /* ORA-01403: no data found */
#define NOT_SERIALIZABLE 8177 /* ORA-08177: transaction not
serializable */
#define SNAPSHOT_TOO_OLD 1555 /* ORA-01555: snapshot too old */

#ifdef NULLP
# define NULLP (void *)NULL
#endif /* NULLP */

#define ADR(object) ((ub1 *)&(object))
#define SIZ(object) ((sword)sizeof(object))

typedef char date[24+NLT];
typedef char varchar2;

#define OCIEERROR(errp,function)\
    ocierror(__FILE__, __LINE__, (errp), (function));

#define OCIBND(stmp, bndp, errp, sqlvar, progvl, progvl, ftype)\
    ocierror(__FILE__, __LINE__, (errp), \

OCIHandleAlloc((stmp), (dvoid*)&(bndp), OCI_HTYPE_BIND, 0, (dvoid**)0)); \
    ocierror(__FILE__, __LINE__, (errp), \
        OCIBindByName((stmp), &(bndp), (errp), \
            (text *) (sqlvar), strlen((sqlvar)), \
            (progvl), (progvl), (ftype), 0, 0, 0, 0, OCI_DEFAULT));

#define
OCIBNDRA(stmp, bndp, errp, sqlvar, progvl, progvl, ftype, indp, alen, arcode) \
    ocierror(__FILE__, __LINE__, (errp), \

OCIHandleAlloc((stmp), (dvoid*)&(bndp), OCI_HTYPE_BIND, 0, (dvoid**)0)); \
    ocierror(__FILE__, __LINE__, (errp), \
        OCIBindByName((stmp), &(bndp), (errp), (text
*) (sqlvar), strlen((sqlvar)), \
            (progvl), (progvl), (ftype), (indp), (alen), (rcode), 0, 0, OCI_DEFAULT));
#define
OCIBNDRAD(stmp, bndp, errp, sqlvar, progvl, ftype, indp, ctp, cbf_nodata, cbf_d
ata) \
    ocierror(__FILE__, __LINE__, (errp), \

OCIHandleAlloc((stmp), (dvoid*)&(bndp), OCI_HTYPE_BIND, 0, (dvoid**)0)); \
    ocierror(__FILE__, __LINE__, (errp), \
        OCIBindByName((stmp), &(bndp), (errp), (text *) (sqlvar), \
            strlen((sqlvar)), 0, (progvl), (ftype), \
            indp, 0, 0, 0, 0, OCI_DATA_AT_EXEC)); \
    ocierror(__FILE__, __LINE__, (errp), \

OCIBindDynamic((bndp), (errp), (ctp), (cbf_nodata), (ctp), (cbf_data));

#define
OCIBNDR(stmp, bndp, errp, sqlvar, progvl, progvl, ftype, indp, alen, arcode) \
    ocierror(__FILE__, __LINE__, (errp), \

OCIHandleAlloc((stmp), (dvoid*)&(bndp), OCI_HTYPE_BIND, 0, (dvoid**)0)); \
    ocierror(__FILE__, __LINE__, (errp), \
        OCIBindByName((stmp), &(bndp), (errp), (text
*) (sqlvar), strlen((sqlvar)), \
            (progvl), (progvl), (ftype), (indp), (alen), (rcode), 0, 0, OCI_DEFAULT));
#define
OCIBNDRAA(stmp, bndp, errp, sqlvar, progvl, 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), (rcode), 0, 0, OCI_DEFAULT));

```

```

(progvl), (progvl), (ftype), (indp), (alen), (arcodes), (ms), (cu), OCI_DEFAULT))
;

#define OCIDEFINE(stmp, dfnp, errp, pos, progvl, progvl, ftype) \

OCIDefineByPos((stmp), &(dfnp), (errp), (pos), (progvl), (progvl), (ftype), \
0, 0, 0, OCI_DEFAULT);

#define OCIDEF(stmp, dfnp, errp, pos, progvl, 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, progvl, progvl, ftype, indp, alen, arcodes) \
OCIHandleAlloc((stmp), (dvoid**) &(dfnp), OCI_HTYPE_DEFINE, 0, \
(dvoid**) 0); \
OCIDefineByPos((stmp), &(dfnp), (errp), (pos), (progvl), \
(progvl), (ftype), (indp), (alen), \
(arcodes), OCI_DEFAULT); \

/*
OCIDefineArrayOfStruct((dfnp), (errp), (progvl), \
sizeof((indp)[0]), \
sizeof((alen)[0]), \
sizeof((arcodes)[0]));

*/
/*
#define
OCIDFNRA(stmp, dfnp, errp, pos, progvl, progvl, ftype, indp, alen, arcodes) \
ocierror(_FILE_, _LINE_, (errp), \
OCIHandleAlloc(tpcenv, &(dfnp), OCI_HTYPE_DEFINE, 0, \
(dvoid**) 0)); \
ocierror(_FILE_, _LINE_, (errp), \
OCIDefineByPos((stmp), &(dfnp), (errp), (pos), (progvl), \
(progvl), (ftype), (indp), (alen), \
(arcodes), OCI_DEFAULT)); \
ocierror(_FILE_, _LINE_, (errp), \
OCIDefineArrayOfStruct((dfnp), (errp), (progvl), \
sizeof((indp)[0]), \
sizeof((alen)[0]), \
sizeof((arcodes)[0])));

*/

#define OBNDRAV(lda, cursor, sqlvar, progvl, 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, progvl, progvl, ftype, indp, alen, arcodes) \
if
(obndra((cursor), (text*)(sqlvar), NA, (ub1*)(progvl), (progvl), (ftype), NA, \
(indp), (alen), (arcodes), (ub4) 0, (ub4*) 0, (text*) 0, NA, NA)) \
{errrpt(lda, cursor); return(-1);} \
else \
DISCARD 0

```

```

#define
OBNDRAA(lda, cursor, sqlvar, progvl, progvl, ftype, indp, alen, arcodes, ms, cs) \
if
(obndra((cursor), (text*)(sqlvar), NA, (ub1*)(progvl), (progvl), (ftype), NA, \
(indp), (alen), (arcodes), (ub4) (ms), (ub4*) (cs), (text*) 0, NA, NA)) \
{errrpt(lda, cursor); return(-1);} \
else \
DISCARD 0

#define
ODEFIN(lda, cursor, pos, buf, buf1, ftype, scale, indp, fmt, fmt1, fmtt, rlen, rcodes) \
if
(odefin((cursor), (pos), (ub1*)(buf), (buf1), (ftype), (scale), (indp), \
(text*)(fmt), (fmt1), (fmtt), (rlen), (rcodes))) \
{errrpt(lda, cursor); return(-1);} \
else \
DISCARD 0

#define OEXFET(lda, cursor, nrow, cancel, exact) \
if (oexfet((cursor), (nrow), (cancel), (exact))) \
{if ((cursor)->rc == 1403) \
{i=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, sql1, defflg, lngflg) \
if (oparse((cursor), (sqlstm), (sb4) (sql1), (defflg), (ub4) (lngflg))) \
{errrpt(lda, cursor); return(-1);} \
else \
DISCARD 0

#define OFEN(lda, cursor, nrow) \
if (ofen((cursor), (nrow))) \
{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

#endif
```

Makefile.nt

```
#
#      Copyright (c) 1997 Oracle Corp, Redwood Shores, CA
#      All Rights Reserved

# FILE:      Makefile
# DESCRIPTION: Builds TPCC Load/Test executables
# CREATED:   02 July 97
# MODIFIED:
#   rmook    02/04/98      added perf counter stuff
#   jdavison 2/4/98       changes for ops
#   rmook    11/20/97      setup enhancements
#   rmook    11/20/97      8.0.4 edits (oci.lib)
#

CPU              = i386

# !IF "$(CFG)" != "TUXEDO"  && "$(CFG)" != "TOPEND"
# !MESSAGE Invalid configuration "$(CFG)" specified.
# !MESSAGE You can specify a configuration when running NMAKE
# !MESSAGE by defining the macro CFG on the command line. For example:
# !MESSAGE
# !MESSAGE NMAKE /f "Makefile" CFG="TUXEDO"
# !MESSAGE
# !MESSAGE Possible choices for configuration are:
# !MESSAGE
# !MESSAGE TUXEDO - for tuxedo build
# !MESSAGE TOPEND - for topend build
# !MESSAGE
# !ERROR An invalid configuration is specified.
# !ENDIF

TPCCBENCH        = C:\oracletool\10i_tpcc25.change\benchrun
TPCCBIN          = $(TPCCBENCH)\bin
ORACLE_HOME      = c:\orcl10i_32
CLIB_DIR         = c:\Program Files\Microsoft Visual Studio\VC98\lib

SOURCE_DIR       = $(TPCCBENCH)\source\server

OCI_SUB          = oci
OCI_INCLUDE      = $(ORACLE_HOME)\$(OCI_SUB)\include
OCI_LIB_HOME     = $(ORACLE_HOME)\lib
# OCI_LIB        = $(OCI_LIB_HOME)\ora803.lib
OCI_LIB          = C:\orcl10i_32\lib\oci.lib
```

```
DPB_LIB_DIR      = ..\lib
DPB_LIB          = $(DPB_LIB_DIR)\dpbnt.lib

!IF "$(CFG)" == "TUXEDO"
COMMON_LIB_DIR = C:\inetpub\wwwroot
COMMON_LIB      = $(COMMON_LIB_DIR)\common_files.lib
```

```
!ELSE
COMMON_LIB_DIR = C:\inetpub\wwwroot
# COMMON_LIB   =
COMMON_LIB      = common_files.lib
```

```
!ENDIF
```

```
# Visual C++ libraries
SOCKETS_LIB      = "$(CLIB_DIR)\wssock32.lib"
ADVAPI_LIB       = "$(CLIB_DIR)\advapi32.lib"
```

```
CL               = cl
CFLAGS           = -c -W3 -D_X86_=1
COPT             = -Ox -Oy- -Gf
CDEBUG           = -Od -Z7 -Ge
```

```
!IF "$(CFG)" == "TUXEDO"
#TM_CFLAGS = /DTUX /D_CONSOLE /DWIN32 /D_TMSTHEADS /IC:\TUXEDO\include
TM_CFLAGS = /DTUX /D_CONSOLE /DWIN32 /D_TMSTHEADS
/IC:\PROGRA~1\BEASYS~1\TUXEDO\include
!ENDIF
```

```
!IF "$(CFG)" == "TOPEND"
TM_CFLAGS = /DTOP
!ENDIF
```

```
#TM_CFLAGS =
```

```
ORA_DEFINES      = /DORACLE /DOCI /DORA_NT
ORA_INCLUDES     = /I$(OCI_INCLUDE) /I$(DPB_LIB_DIR)
```

```
# 2002/05/04 Eliminate CDEBUG from CL_OPS : by gotoh
#CL_OPS          = $(CFLAGS) $(COPT) $(CDEBUG) $(ORA_DEFINES)
$(TM_CFLAGS) $(ORA_INCLUDES)
CL_OPS           = $(CFLAGS) $(COPT) $(ORA_DEFINES)
$(TM_CFLAGS) $(ORA_INCLUDES)
```

```
LINK             = link
LFLAGS           = /debug:full /debugtype:cv /pdb:none
```

```
LIBRARIAN        = lib
```

```
#
#      Private C compilation rule.
#
.c.obj:
    @$(CL) $(CL_OPS) /Fo$@ $*.c
```

```
#
#      Destination for executables.
#
```

```

BIN_DIR      = ../..\\bin

#
#      Rule for building an "exe" in $(BIN_DIR) and using object files
#      in current
#      directory.
#
{}.obj{$(BIN_DIR)}.exe:
    @$(LINK) $(LFLAGS) /OUT:$@ $(DPB_LIB) $(OCI_LIB) $**

!IF "$(CFG)" == "TUXEDO"
all:      $(COMMON_LIB)

!ELSE
all:      $(DPB_LIB) \
          $(BIN_DIR)\tpccload.exe

!ENDIF

c_trnsnt.lib: plnew.obj plpay.obj plord.obj pldel.obj plsto.obj
    @$(LIBRARIAN) /out:$@ $**

$(DPB_LIB):
    cd $(DPB_LIB_DIR)
#      $(MAKE) -f makefile.intel )
    $(MAKE) -f Makefile.nt
    cd $(SOURCE_DIR)

$(COMMON_LIB): plnew.obj plpay.obj plord.obj pldel.obj plsto.obj \
    tpccpl.obj
    @$(LIBRARIAN) /out:$@ $**

press_return.obj: press_return.c

runid.obj: runid.c

tpccload.obj: tpccload.c tpcc.h

c_drv_o7.obj:  c_drv_o7.c tpcc.h tpcc_info.h results.h perf.h

perf.obj:  perf.c perf.h

single_txn.obj: single_txn.c tpcc.h tpcc_info.h results.h

sleep.obj:  sleep.c

c_dump.obj:  c_dump.c tpcc.h tpcc_info.h

test_drv.obj:  test_drv.c tpcc.h tpcc_info.h

test_trn.obj:  test_trn.c tpcc.h tpcc_info.h

tpccpl.obj: tpccpl.c tpcc.h tpcc_info.h tpccpl.h

plnew.obj: plnew.c tpcc.h tpccpl.h
plpay.obj: plpay.c tpcc.h tpccpl.h
plord.obj: plord.c tpcc.h tpccpl.h
pldel.obj: pldel.c tpcc.h tpccpl.h
plsto.obj: plsto.c tpcc.h tpccpl.h

```

```

report.obj: report.c results.h

errrpt.obj: errrpt.c

tpccsvr.obj:  tpccsvr.c tpcc2.h tpcc_info.h tpccapi.h

getrand.obj:  getrand.c

90per.obj:  90per.c

runtpb.obj:  runtpb.c

$(BIN_DIR)\tpccload.exe: tpccload.obj

$(BIN_DIR)\test_drv.exe: test_drv.obj c_drv_o7.obj c_dump.obj
errrpt.obj perf.obj \
    $(SOCKETS_LIB)

$(BIN_DIR)\test_trn.exe: test_trn.obj c_trnsnt.lib $(ADVAPI_LIB)
tpccpl.obj c_dump.obj \
    errrpt.obj

$(BIN_DIR)\tpcc.exe: c_drv_o7.obj c_trnsnt.lib tpccpl.obj c_dump.obj
report.obj perf.obj \
    errrpt.obj $(DPB_LIB) $(OCI_LIB)
$(SOCKETS_LIB) $(ADVAPI_LIB)
    @$(LINK) $(LFLAGS) /OUT:$@ $**

$(BIN_DIR)\single_txn.exe: single_txn.obj c_trnsnt.lib tpccpl.obj
c_dump.obj \
    report.obj errrpt.obj $(DPB_LIB) $(OCI_LIB)
$(SOCKETS_LIB) $(ADVAPI_LIB)
    @$(LINK) $(LFLAGS) /OUT:$@ $**

$(BIN_DIR)\getrand.exe:  getrand.obj

$(BIN_DIR)\90per.exe:  90per.obj

$(BIN_DIR)\runtpb.exe:  runtpb.obj

$(BIN_DIR)\sleep.exe:  sleep.obj

$(BIN_DIR)\press_return.exe: press_return.obj

ntstat.obj: ntstat.c counter.h counters.h
    @$(CL) $(CL_OPS) /DORACLE_PROCESS /Fo$@ $*.c

ins_stat.obj: ins_stat.c counter.h

$(BIN_DIR)\ntstat.exe: ntstat.obj ins_stat.obj $(ADVAPI_LIB)

clean:
    @for %f in ( *.obj *.lib $(BIN_DIR)\*.exe ) do if exist %f
del %f
    @for %f in ( *.obj *.lib ) do if exist $(DPB_LIB_DIR)\%f del
$(DPB_LIB_DIR)\%f

```

paynz.sql

```
DECLARE /* paynz */
--      cust_rowid          ROWID;
--      dist_name           VARCHAR2(11);
--      ware_name           VARCHAR2(11);
--      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
inittpcc.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
inittpcc.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;

--      :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 = inittpcc.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
inittpcc.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, inittpcc.ware_name || ' ' ||
inittpcc.dist_name);
--      COMMIT;
--      :h_date := to_char (:cr_date, 'DD-MM-YYYY.HH24:MI:SS');
    EXIT;

    EXCEPTION
      WHEN not_serializable OR deadlock OR snapshot_too_old THEN
        ROLLBACK;
        :retry := :retry + 1;

    END;

  END LOOP;
END;
```

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 inittpcc.ware_name,
:w_street_1, :w_street_2, :w_city, :w_state, :w_zip;
```



```

SELECT rowid
BULK COLLECT INTO inittpcc.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;

inittpcc.c_num := sql%rowcount;
inittpcc.cust_rowid := inittpcc.row_id((inittpcc.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 = inittpcc.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 = inittpcc.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 inittpcc.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, inittpcc.ware_name || ' ' ||
inittpcc.dist_name);

EXIT;

EXCEPTION
    WHEN not_serializable OR deadlock OR snapshot_too_old THEN
        ROLLBACK;
        :retry := :retry + 1;
    END;

END LOOP;
END;
```

tkvcin.sql

```

-- The initnew package for storing variables used in the
-- New Order anonymous block

CREATE OR REPLACE PACKAGE inittpcc
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;
    idxlarr       intarray;
    s_remote      intarray;
    d_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 inittpcc;
/
show errors;

CREATE OR REPLACE PACKAGE BODY inittpcc AS
    PROCEDURE init_no (idxarr intarray)
    IS
    BEGIN
        -- initialize null date
        nulldate := TO_DATE('01-01-1811', 'MM-DD-YYYY');
        idxlarr := idxarr;
    END init_no;

    PROCEDURE init_del
    IS
    BEGIN
        FOR i IN 1 .. 10 LOOP
            dist(i) := i;
        END LOOP;
    END;
```

```

END init_del;

PROCEDURE init_pay IS
BEGIN
    NULL;
END init_pay;

END inittpcc;
/
show errors
exit

```

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 = inittpcc.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 ordr 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 ordl 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)
            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;

```

buildsvr.bat

```

@rem
@rem          Copyright (c) 1998 Oracle Corp, Redwood Shores, CA
@rem                                     All Rights Reserved

rem Build TM servers

cl /MD /Ox /G6 -IC:\PROGRA~1\BEASYS~1\TUXEDO\include -
IC:\oracle\tool\10i_tpcc25.change\benchrun\source\server -
IC:\oracle\tool\10i_tpcc25.change\benchrun\source\client -
IC:\orcl10i_32\oci\include -DTUX -Fegeneric BS-mb.c tpccsvr.c
C:\inetpub\wwwroot\common_files.lib C:\orcl10i_32\lib\oci.lib
C:\PROGRA~1\BEASYS~1\TUXEDO\lib\libtux.lib
C:\PROGRA~1\BEASYS~1\TUXEDO\lib\libbuft.lib
C:\PROGRA~1\BEASYS~1\TUXEDO\lib\libtux2.lib
C:\PROGRA~1\BEASYS~1\TUXEDO\lib\libfml.lib
C:\PROGRA~1\BEASYS~1\TUXEDO\lib\libfml32.lib
C:\PROGRA~1\BEASYS~1\TUXEDO\lib\libbgp.lib wsock32.lib kernel32.lib
advapi32.lib user32.lib gdi32.lib winspool.lib -link -implib:BS-mb.lib
/nodfaultlib:libc.lib /nodfaultlib:libcd.lib

```

Appendix B : Database Design

B.1 Database build scripts

db.links

```

log_1          \Device\Harddisk0\Partition1
log_2          \Device\Harddisk1\Partition1
control_001    \Device\Harddisk4\Partition22
system_001     \Device\Harddisk6\Partition22

```

```

myaux.df      \Device\Harddisk22\Partition22
roll01        \Device\Harddisk24\Partition22
sp_0          \Device\Harddisk5\Partition22
ware_0_0      \Device\Harddisk4\Partition1
ware_0_1      \Device\Harddisk8\Partition1
ware_0_2      \Device\Harddisk16\Partition1
ware_0_3      \Device\Harddisk14\Partition1
ware_0_4      \Device\Harddisk24\Partition1
ware_0_5      \Device\Harddisk20\Partition1
ware_0_6      \Device\Harddisk32\Partition1
ware_0_7      \Device\Harddisk28\Partition1
ware_0_8      \Device\Harddisk40\Partition1
ware_0_9      \Device\Harddisk36\Partition1
ware_0_10     \Device\Harddisk48\Partition1
ware_0_11     \Device\Harddisk56\Partition1
ware_0_12     \Device\Harddisk64\Partition1
ware_0_13     \Device\Harddisk44\Partition1
ware_0_14     \Device\Harddisk52\Partition1
ware_0_15     \Device\Harddisk71\Partition1
ware_0_16     \Device\Harddisk60\Partition1
ware_0_17     \Device\Harddisk68\Partition1
ware_0_18     \Device\Harddisk5\Partition1
ware_0_19     \Device\Harddisk9\Partition1
ware_0_20     \Device\Harddisk17\Partition1
ware_0_21     \Device\Harddisk15\Partition1
ware_0_22     \Device\Harddisk25\Partition1
ware_0_23     \Device\Harddisk21\Partition1
ware_0_24     \Device\Harddisk33\Partition1
ware_0_25     \Device\Harddisk29\Partition1
ware_0_26     \Device\Harddisk41\Partition1
ware_0_27     \Device\Harddisk37\Partition1
ware_0_28     \Device\Harddisk49\Partition1
ware_0_29     \Device\Harddisk57\Partition1
ware_0_30     \Device\Harddisk65\Partition1
ware_0_31     \Device\Harddisk45\Partition1
ware_0_32     \Device\Harddisk53\Partition1
ware_0_33     \Device\Harddisk72\Partition1
ware_0_34     \Device\Harddisk61\Partition1
ware_0_35     \Device\Harddisk6\Partition1
ware_0_36     \Device\Harddisk10\Partition1
ware_0_37     \Device\Harddisk12\Partition1
ware_0_38     \Device\Harddisk22\Partition1
ware_0_39     \Device\Harddisk18\Partition1
ware_0_40     \Device\Harddisk30\Partition1
ware_0_41     \Device\Harddisk26\Partition1
ware_0_42     \Device\Harddisk38\Partition1
ware_0_43     \Device\Harddisk34\Partition1
ware_0_44     \Device\Harddisk46\Partition1
ware_0_45     \Device\Harddisk54\Partition1
ware_0_46     \Device\Harddisk62\Partition1
ware_0_47     \Device\Harddisk42\Partition1
ware_0_48     \Device\Harddisk50\Partition1
ware_0_49     \Device\Harddisk69\Partition1
ware_0_50     \Device\Harddisk58\Partition1
ware_0_51     \Device\Harddisk66\Partition1
ware_0_52     \Device\Harddisk7\Partition1
ware_0_53     \Device\Harddisk11\Partition1
ware_0_54     \Device\Harddisk13\Partition1
ware_0_55     \Device\Harddisk23\Partition1
ware_0_56     \Device\Harddisk19\Partition1
ware_0_57     \Device\Harddisk31\Partition1
ware_0_58     \Device\Harddisk27\Partition1
ware_0_59     \Device\Harddisk39\Partition1

```

```

ware_0_60     \Device\Harddisk35\Partition1
ware_0_61     \Device\Harddisk47\Partition1
ware_0_62     \Device\Harddisk55\Partition1
ware_0_63     \Device\Harddisk63\Partition1
ware_0_64     \Device\Harddisk43\Partition1
ware_0_65     \Device\Harddisk51\Partition1
ware_0_66     \Device\Harddisk70\Partition1
ware_0_67     \Device\Harddisk59\Partition1
ware_0_68     \Device\Harddisk67\Partition1
cust_0_0      \Device\Harddisk4\Partition2
cust_0_1      \Device\Harddisk8\Partition2
cust_0_2      \Device\Harddisk16\Partition2
cust_0_3      \Device\Harddisk14\Partition2
cust_0_4      \Device\Harddisk24\Partition2
cust_0_5      \Device\Harddisk20\Partition2
cust_0_6      \Device\Harddisk32\Partition2
cust_0_7      \Device\Harddisk28\Partition2
cust_0_8      \Device\Harddisk40\Partition2
cust_0_9      \Device\Harddisk36\Partition2
cust_0_10     \Device\Harddisk48\Partition2
cust_0_11     \Device\Harddisk56\Partition2
cust_0_12     \Device\Harddisk64\Partition2
cust_0_13     \Device\Harddisk44\Partition2
cust_0_14     \Device\Harddisk52\Partition2
cust_0_15     \Device\Harddisk71\Partition2
cust_0_16     \Device\Harddisk60\Partition2
cust_0_17     \Device\Harddisk68\Partition2
cust_0_18     \Device\Harddisk5\Partition2
cust_0_19     \Device\Harddisk9\Partition2
cust_0_20     \Device\Harddisk17\Partition2
cust_0_21     \Device\Harddisk15\Partition2
cust_0_22     \Device\Harddisk25\Partition2
cust_0_23     \Device\Harddisk21\Partition2
cust_0_24     \Device\Harddisk33\Partition2
cust_0_25     \Device\Harddisk29\Partition2
cust_0_26     \Device\Harddisk41\Partition2
cust_0_27     \Device\Harddisk37\Partition2
cust_0_28     \Device\Harddisk49\Partition2
cust_0_29     \Device\Harddisk57\Partition2
cust_0_30     \Device\Harddisk65\Partition2
cust_0_31     \Device\Harddisk45\Partition2
cust_0_32     \Device\Harddisk53\Partition2
cust_0_33     \Device\Harddisk72\Partition2
cust_0_34     \Device\Harddisk61\Partition2
cust_0_35     \Device\Harddisk6\Partition2
cust_0_36     \Device\Harddisk10\Partition2
cust_0_37     \Device\Harddisk12\Partition2
cust_0_38     \Device\Harddisk22\Partition2
cust_0_39     \Device\Harddisk18\Partition2
cust_0_40     \Device\Harddisk30\Partition2
cust_0_41     \Device\Harddisk26\Partition2
cust_0_42     \Device\Harddisk38\Partition2
cust_0_43     \Device\Harddisk34\Partition2
cust_0_44     \Device\Harddisk46\Partition2
cust_0_45     \Device\Harddisk54\Partition2
cust_0_46     \Device\Harddisk62\Partition2
cust_0_47     \Device\Harddisk42\Partition2
cust_0_48     \Device\Harddisk50\Partition2
cust_0_49     \Device\Harddisk69\Partition2
cust_0_50     \Device\Harddisk58\Partition2
cust_0_51     \Device\Harddisk66\Partition2
cust_0_52     \Device\Harddisk7\Partition2
cust_0_53     \Device\Harddisk11\Partition2

```

cust_0_54 \Device\Harddisk13\Partition2
 cust_0_55 \Device\Harddisk23\Partition2
 cust_0_56 \Device\Harddisk19\Partition2
 cust_0_57 \Device\Harddisk31\Partition2
 cust_0_58 \Device\Harddisk27\Partition2
 cust_0_59 \Device\Harddisk39\Partition2
 cust_0_60 \Device\Harddisk35\Partition2
 cust_0_61 \Device\Harddisk47\Partition2
 cust_0_62 \Device\Harddisk55\Partition2
 cust_0_63 \Device\Harddisk63\Partition2
 cust_0_64 \Device\Harddisk43\Partition2
 cust_0_65 \Device\Harddisk51\Partition2
 cust_0_66 \Device\Harddisk70\Partition2
 cust_0_67 \Device\Harddisk59\Partition2
 cust_0_68 \Device\Harddisk67\Partition2
 cust_0_69 \Device\Harddisk4\Partition3
 cust_0_70 \Device\Harddisk8\Partition3
 cust_0_71 \Device\Harddisk16\Partition3
 cust_0_72 \Device\Harddisk14\Partition3
 cust_0_73 \Device\Harddisk24\Partition3
 cust_0_74 \Device\Harddisk20\Partition3
 cust_0_75 \Device\Harddisk32\Partition3
 cust_0_76 \Device\Harddisk28\Partition3
 cust_0_77 \Device\Harddisk40\Partition3
 cust_0_78 \Device\Harddisk36\Partition3
 cust_0_79 \Device\Harddisk48\Partition3
 cust_0_80 \Device\Harddisk56\Partition3
 cust_0_81 \Device\Harddisk64\Partition3
 cust_0_82 \Device\Harddisk44\Partition3
 cust_0_83 \Device\Harddisk52\Partition3
 cust_0_84 \Device\Harddisk71\Partition3
 cust_0_85 \Device\Harddisk60\Partition3
 cust_0_86 \Device\Harddisk68\Partition3
 cust_0_87 \Device\Harddisk5\Partition3
 cust_0_88 \Device\Harddisk9\Partition3
 cust_0_89 \Device\Harddisk17\Partition3
 cust_0_90 \Device\Harddisk15\Partition3
 cust_0_91 \Device\Harddisk25\Partition3
 cust_0_92 \Device\Harddisk21\Partition3
 cust_0_93 \Device\Harddisk33\Partition3
 cust_0_94 \Device\Harddisk29\Partition3
 cust_0_95 \Device\Harddisk41\Partition3
 cust_0_96 \Device\Harddisk37\Partition3
 cust_0_97 \Device\Harddisk49\Partition3
 cust_0_98 \Device\Harddisk57\Partition3
 cust_0_99 \Device\Harddisk65\Partition3
 cust_0_100 \Device\Harddisk45\Partition3
 cust_0_101 \Device\Harddisk53\Partition3
 cust_0_102 \Device\Harddisk72\Partition3
 cust_0_103 \Device\Harddisk61\Partition3
 cust_0_104 \Device\Harddisk6\Partition3
 cust_0_105 \Device\Harddisk10\Partition3
 cust_0_106 \Device\Harddisk12\Partition3
 cust_0_107 \Device\Harddisk22\Partition3
 cust_0_108 \Device\Harddisk18\Partition3
 cust_0_109 \Device\Harddisk30\Partition3
 cust_0_110 \Device\Harddisk26\Partition3
 cust_0_111 \Device\Harddisk38\Partition3
 cust_0_112 \Device\Harddisk34\Partition3
 cust_0_113 \Device\Harddisk46\Partition3
 cust_0_114 \Device\Harddisk54\Partition3
 cust_0_115 \Device\Harddisk62\Partition3
 cust_0_116 \Device\Harddisk42\Partition3

cust_0_117 \Device\Harddisk50\Partition3
 cust_0_118 \Device\Harddisk69\Partition3
 cust_0_119 \Device\Harddisk58\Partition3
 cust_0_120 \Device\Harddisk66\Partition3
 cust_0_121 \Device\Harddisk7\Partition3
 cust_0_122 \Device\Harddisk11\Partition3
 cust_0_123 \Device\Harddisk13\Partition3
 cust_0_124 \Device\Harddisk23\Partition3
 cust_0_125 \Device\Harddisk19\Partition3
 cust_0_126 \Device\Harddisk31\Partition3
 cust_0_127 \Device\Harddisk27\Partition3
 cust_0_128 \Device\Harddisk39\Partition3
 cust_0_129 \Device\Harddisk35\Partition3
 cust_0_130 \Device\Harddisk47\Partition3
 cust_0_131 \Device\Harddisk55\Partition3
 cust_0_132 \Device\Harddisk63\Partition3
 cust_0_133 \Device\Harddisk43\Partition3
 cust_0_134 \Device\Harddisk51\Partition3
 cust_0_135 \Device\Harddisk70\Partition3
 cust_0_136 \Device\Harddisk59\Partition3
 cust_0_137 \Device\Harddisk67\Partition3
 cust_0_138 \Device\Harddisk4\Partition4
 cust_0_139 \Device\Harddisk8\Partition4
 cust_0_140 \Device\Harddisk16\Partition4
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 cust_0_142 \Device\Harddisk24\Partition4
 cust_0_143 \Device\Harddisk20\Partition4
 cust_0_144 \Device\Harddisk32\Partition4
 cust_0_145 \Device\Harddisk28\Partition4
 cust_0_146 \Device\Harddisk40\Partition4
 cust_0_147 \Device\Harddisk36\Partition4
 cust_0_148 \Device\Harddisk48\Partition4
 cust_0_149 \Device\Harddisk56\Partition4
 cust_0_150 \Device\Harddisk64\Partition4
 cust_0_151 \Device\Harddisk44\Partition4
 cust_0_152 \Device\Harddisk52\Partition4
 cust_0_153 \Device\Harddisk71\Partition4
 cust_0_154 \Device\Harddisk60\Partition4
 cust_0_155 \Device\Harddisk68\Partition4
 cust_0_156 \Device\Harddisk5\Partition4
 cust_0_157 \Device\Harddisk9\Partition4
 cust_0_158 \Device\Harddisk17\Partition4
 cust_0_159 \Device\Harddisk15\Partition4
 cust_0_160 \Device\Harddisk25\Partition4
 cust_0_161 \Device\Harddisk21\Partition4
 cust_0_162 \Device\Harddisk33\Partition4
 cust_0_163 \Device\Harddisk29\Partition4
 cust_0_164 \Device\Harddisk41\Partition4
 cust_0_165 \Device\Harddisk37\Partition4
 cust_0_166 \Device\Harddisk49\Partition4
 cust_0_167 \Device\Harddisk57\Partition4
 cust_0_168 \Device\Harddisk65\Partition4
 cust_0_169 \Device\Harddisk45\Partition4
 cust_0_170 \Device\Harddisk53\Partition4
 cust_0_171 \Device\Harddisk72\Partition4
 cust_0_172 \Device\Harddisk61\Partition4
 cust_0_173 \Device\Harddisk6\Partition4
 cust_0_174 \Device\Harddisk10\Partition4
 cust_0_175 \Device\Harddisk12\Partition4
 cust_0_176 \Device\Harddisk22\Partition4
 cust_0_177 \Device\Harddisk18\Partition4
 cust_0_178 \Device\Harddisk30\Partition4
 cust_0_179 \Device\Harddisk26\Partition4

cust_0_180 \Device\Harddisk38\Partition4
 cust_0_181 \Device\Harddisk34\Partition4
 cust_0_182 \Device\Harddisk46\Partition4
 cust_0_183 \Device\Harddisk54\Partition4
 cust_0_184 \Device\Harddisk62\Partition4
 cust_0_185 \Device\Harddisk42\Partition4
 cust_0_186 \Device\Harddisk50\Partition4
 cust_0_187 \Device\Harddisk69\Partition4
 cust_0_188 \Device\Harddisk58\Partition4
 cust_0_189 \Device\Harddisk66\Partition4
 cust_0_190 \Device\Harddisk7\Partition4
 cust_0_191 \Device\Harddisk11\Partition4
 cust_0_192 \Device\Harddisk13\Partition4
 cust_0_193 \Device\Harddisk23\Partition4
 cust_0_194 \Device\Harddisk19\Partition4
 cust_0_195 \Device\Harddisk31\Partition4
 cust_0_196 \Device\Harddisk27\Partition4
 cust_0_197 \Device\Harddisk39\Partition4
 cust_0_198 \Device\Harddisk35\Partition4
 cust_0_199 \Device\Harddisk47\Partition4
 cust_0_200 \Device\Harddisk55\Partition4
 cust_0_201 \Device\Harddisk63\Partition4
 cust_0_202 \Device\Harddisk43\Partition4
 cust_0_203 \Device\Harddisk51\Partition4
 cust_0_204 \Device\Harddisk70\Partition4
 cust_0_205 \Device\Harddisk59\Partition4
 cust_0_206 \Device\Harddisk67\Partition4
 dist_0_0 \Device\Harddisk4\Partition5
 dist_0_1 \Device\Harddisk8\Partition5
 dist_0_2 \Device\Harddisk16\Partition5
 dist_0_3 \Device\Harddisk14\Partition5
 dist_0_4 \Device\Harddisk24\Partition5
 dist_0_5 \Device\Harddisk20\Partition5
 dist_0_6 \Device\Harddisk32\Partition5
 dist_0_7 \Device\Harddisk28\Partition5
 dist_0_8 \Device\Harddisk40\Partition5
 dist_0_9 \Device\Harddisk36\Partition5
 dist_0_10 \Device\Harddisk48\Partition5
 dist_0_11 \Device\Harddisk56\Partition5
 dist_0_12 \Device\Harddisk64\Partition5
 dist_0_13 \Device\Harddisk44\Partition5
 dist_0_14 \Device\Harddisk52\Partition5
 dist_0_15 \Device\Harddisk71\Partition5
 dist_0_16 \Device\Harddisk60\Partition5
 dist_0_17 \Device\Harddisk68\Partition5
 dist_0_18 \Device\Harddisk5\Partition5
 dist_0_19 \Device\Harddisk9\Partition5
 dist_0_20 \Device\Harddisk17\Partition5
 dist_0_21 \Device\Harddisk15\Partition5
 dist_0_22 \Device\Harddisk25\Partition5
 dist_0_23 \Device\Harddisk21\Partition5
 dist_0_24 \Device\Harddisk33\Partition5
 dist_0_25 \Device\Harddisk29\Partition5
 dist_0_26 \Device\Harddisk41\Partition5
 dist_0_27 \Device\Harddisk37\Partition5
 dist_0_28 \Device\Harddisk49\Partition5
 dist_0_29 \Device\Harddisk57\Partition5
 dist_0_30 \Device\Harddisk65\Partition5
 dist_0_31 \Device\Harddisk45\Partition5
 dist_0_32 \Device\Harddisk53\Partition5
 dist_0_33 \Device\Harddisk72\Partition5
 dist_0_34 \Device\Harddisk61\Partition5
 dist_0_35 \Device\Harddisk6\Partition5

dist_0_36 \Device\Harddisk10\Partition5
 dist_0_37 \Device\Harddisk12\Partition5
 dist_0_38 \Device\Harddisk22\Partition5
 dist_0_39 \Device\Harddisk18\Partition5
 dist_0_40 \Device\Harddisk30\Partition5
 dist_0_41 \Device\Harddisk26\Partition5
 dist_0_42 \Device\Harddisk38\Partition5
 dist_0_43 \Device\Harddisk34\Partition5
 dist_0_44 \Device\Harddisk46\Partition5
 dist_0_45 \Device\Harddisk54\Partition5
 dist_0_46 \Device\Harddisk62\Partition5
 dist_0_47 \Device\Harddisk42\Partition5
 dist_0_48 \Device\Harddisk50\Partition5
 dist_0_49 \Device\Harddisk69\Partition5
 dist_0_50 \Device\Harddisk58\Partition5
 dist_0_51 \Device\Harddisk66\Partition5
 dist_0_52 \Device\Harddisk7\Partition5
 dist_0_53 \Device\Harddisk11\Partition5
 dist_0_54 \Device\Harddisk13\Partition5
 dist_0_55 \Device\Harddisk23\Partition5
 dist_0_56 \Device\Harddisk19\Partition5
 dist_0_57 \Device\Harddisk31\Partition5
 dist_0_58 \Device\Harddisk27\Partition5
 dist_0_59 \Device\Harddisk39\Partition5
 dist_0_60 \Device\Harddisk35\Partition5
 dist_0_61 \Device\Harddisk47\Partition5
 dist_0_62 \Device\Harddisk55\Partition5
 dist_0_63 \Device\Harddisk63\Partition5
 dist_0_64 \Device\Harddisk43\Partition5
 dist_0_65 \Device\Harddisk51\Partition5
 dist_0_66 \Device\Harddisk70\Partition5
 dist_0_67 \Device\Harddisk59\Partition5
 dist_0_68 \Device\Harddisk67\Partition5
 hist_0_0 \Device\Harddisk4\Partition6
 hist_0_1 \Device\Harddisk8\Partition6
 hist_0_2 \Device\Harddisk16\Partition6
 hist_0_3 \Device\Harddisk14\Partition6
 hist_0_4 \Device\Harddisk24\Partition6
 hist_0_5 \Device\Harddisk20\Partition6
 hist_0_6 \Device\Harddisk32\Partition6
 hist_0_7 \Device\Harddisk28\Partition6
 hist_0_8 \Device\Harddisk40\Partition6
 hist_0_9 \Device\Harddisk36\Partition6
 hist_0_10 \Device\Harddisk48\Partition6
 hist_0_11 \Device\Harddisk56\Partition6
 hist_0_12 \Device\Harddisk64\Partition6
 hist_0_13 \Device\Harddisk44\Partition6
 hist_0_14 \Device\Harddisk52\Partition6
 hist_0_15 \Device\Harddisk71\Partition6
 hist_0_16 \Device\Harddisk60\Partition6
 hist_0_17 \Device\Harddisk68\Partition6
 hist_0_18 \Device\Harddisk5\Partition6
 hist_0_19 \Device\Harddisk9\Partition6
 hist_0_20 \Device\Harddisk17\Partition6
 hist_0_21 \Device\Harddisk15\Partition6
 hist_0_22 \Device\Harddisk25\Partition6
 hist_0_23 \Device\Harddisk21\Partition6
 hist_0_24 \Device\Harddisk33\Partition6
 hist_0_25 \Device\Harddisk29\Partition6
 hist_0_26 \Device\Harddisk41\Partition6
 hist_0_27 \Device\Harddisk37\Partition6
 hist_0_28 \Device\Harddisk49\Partition6
 hist_0_29 \Device\Harddisk57\Partition6

hist_0_30 \Device\Harddisk65\Partition6
 hist_0_31 \Device\Harddisk45\Partition6
 hist_0_32 \Device\Harddisk53\Partition6
 hist_0_33 \Device\Harddisk72\Partition6
 hist_0_34 \Device\Harddisk61\Partition6
 hist_0_35 \Device\Harddisk6\Partition6
 hist_0_36 \Device\Harddisk10\Partition6
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 hist_0_40 \Device\Harddisk30\Partition6
 hist_0_41 \Device\Harddisk26\Partition6
 hist_0_42 \Device\Harddisk38\Partition6
 hist_0_43 \Device\Harddisk34\Partition6
 hist_0_44 \Device\Harddisk46\Partition6
 hist_0_45 \Device\Harddisk54\Partition6
 hist_0_46 \Device\Harddisk62\Partition6
 hist_0_47 \Device\Harddisk42\Partition6
 hist_0_48 \Device\Harddisk50\Partition6
 hist_0_49 \Device\Harddisk69\Partition6
 hist_0_50 \Device\Harddisk58\Partition6
 hist_0_51 \Device\Harddisk66\Partition6
 hist_0_52 \Device\Harddisk7\Partition6
 hist_0_53 \Device\Harddisk11\Partition6
 hist_0_54 \Device\Harddisk13\Partition6
 hist_0_55 \Device\Harddisk23\Partition6
 hist_0_56 \Device\Harddisk19\Partition6
 hist_0_57 \Device\Harddisk31\Partition6
 hist_0_58 \Device\Harddisk27\Partition6
 hist_0_59 \Device\Harddisk39\Partition6
 hist_0_60 \Device\Harddisk35\Partition6
 hist_0_61 \Device\Harddisk47\Partition6
 hist_0_62 \Device\Harddisk55\Partition6
 hist_0_63 \Device\Harddisk63\Partition6
 hist_0_64 \Device\Harddisk43\Partition6
 hist_0_65 \Device\Harddisk51\Partition6
 hist_0_66 \Device\Harddisk70\Partition6
 hist_0_67 \Device\Harddisk59\Partition6
 hist_0_68 \Device\Harddisk67\Partition6
 stok_0_0 \Device\Harddisk4\Partition7
 stok_0_1 \Device\Harddisk8\Partition7
 stok_0_2 \Device\Harddisk16\Partition7
 stok_0_3 \Device\Harddisk14\Partition7
 stok_0_4 \Device\Harddisk24\Partition7
 stok_0_5 \Device\Harddisk20\Partition7
 stok_0_6 \Device\Harddisk32\Partition7
 stok_0_7 \Device\Harddisk28\Partition7
 stok_0_8 \Device\Harddisk40\Partition7
 stok_0_9 \Device\Harddisk36\Partition7
 stok_0_10 \Device\Harddisk48\Partition7
 stok_0_11 \Device\Harddisk56\Partition7
 stok_0_12 \Device\Harddisk64\Partition7
 stok_0_13 \Device\Harddisk44\Partition7
 stok_0_14 \Device\Harddisk52\Partition7
 stok_0_15 \Device\Harddisk71\Partition7
 stok_0_16 \Device\Harddisk60\Partition7
 stok_0_17 \Device\Harddisk68\Partition7
 stok_0_18 \Device\Harddisk5\Partition7
 stok_0_19 \Device\Harddisk9\Partition7
 stok_0_20 \Device\Harddisk17\Partition7
 stok_0_21 \Device\Harddisk15\Partition7
 stok_0_22 \Device\Harddisk25\Partition7
 stok_0_23 \Device\Harddisk21\Partition7

stok_0_24 \Device\Harddisk33\Partition7
 stok_0_25 \Device\Harddisk29\Partition7
 stok_0_26 \Device\Harddisk41\Partition7
 stok_0_27 \Device\Harddisk37\Partition7
 stok_0_28 \Device\Harddisk49\Partition7
 stok_0_29 \Device\Harddisk57\Partition7
 stok_0_30 \Device\Harddisk65\Partition7
 stok_0_31 \Device\Harddisk45\Partition7
 stok_0_32 \Device\Harddisk53\Partition7
 stok_0_33 \Device\Harddisk72\Partition7
 stok_0_34 \Device\Harddisk61\Partition7
 stok_0_35 \Device\Harddisk6\Partition7
 stok_0_36 \Device\Harddisk10\Partition7
 stok_0_37 \Device\Harddisk12\Partition7
 stok_0_38 \Device\Harddisk22\Partition7
 stok_0_39 \Device\Harddisk18\Partition7
 stok_0_40 \Device\Harddisk30\Partition7
 stok_0_41 \Device\Harddisk26\Partition7
 stok_0_42 \Device\Harddisk38\Partition7
 stok_0_43 \Device\Harddisk34\Partition7
 stok_0_44 \Device\Harddisk46\Partition7
 stok_0_45 \Device\Harddisk54\Partition7
 stok_0_46 \Device\Harddisk62\Partition7
 stok_0_47 \Device\Harddisk42\Partition7
 stok_0_48 \Device\Harddisk50\Partition7
 stok_0_49 \Device\Harddisk69\Partition7
 stok_0_50 \Device\Harddisk58\Partition7
 stok_0_51 \Device\Harddisk66\Partition7
 stok_0_52 \Device\Harddisk7\Partition7
 stok_0_53 \Device\Harddisk11\Partition7
 stok_0_54 \Device\Harddisk13\Partition7
 stok_0_55 \Device\Harddisk23\Partition7
 stok_0_56 \Device\Harddisk19\Partition7
 stok_0_57 \Device\Harddisk31\Partition7
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 stok_0_62 \Device\Harddisk55\Partition7
 stok_0_63 \Device\Harddisk63\Partition7
 stok_0_64 \Device\Harddisk43\Partition7
 stok_0_65 \Device\Harddisk51\Partition7
 stok_0_66 \Device\Harddisk70\Partition7
 stok_0_67 \Device\Harddisk59\Partition7
 stok_0_68 \Device\Harddisk67\Partition7
 stok_0_69 \Device\Harddisk4\Partition8
 stok_0_70 \Device\Harddisk8\Partition8
 stok_0_71 \Device\Harddisk16\Partition8
 stok_0_72 \Device\Harddisk14\Partition8
 stok_0_73 \Device\Harddisk24\Partition8
 stok_0_74 \Device\Harddisk20\Partition8
 stok_0_75 \Device\Harddisk32\Partition8
 stok_0_76 \Device\Harddisk28\Partition8
 stok_0_77 \Device\Harddisk40\Partition8
 stok_0_78 \Device\Harddisk36\Partition8
 stok_0_79 \Device\Harddisk48\Partition8
 stok_0_80 \Device\Harddisk56\Partition8
 stok_0_81 \Device\Harddisk64\Partition8
 stok_0_82 \Device\Harddisk44\Partition8
 stok_0_83 \Device\Harddisk52\Partition8
 stok_0_84 \Device\Harddisk71\Partition8
 stok_0_85 \Device\Harddisk60\Partition8
 stok_0_86 \Device\Harddisk68\Partition8

stok_0_87 \Device\Harddisk5\Partition8
stok_0_88 \Device\Harddisk9\Partition8
stok_0_89 \Device\Harddisk17\Partition8
stok_0_90 \Device\Harddisk15\Partition8
stok_0_91 \Device\Harddisk25\Partition8
stok_0_92 \Device\Harddisk21\Partition8
stok_0_93 \Device\Harddisk33\Partition8
stok_0_94 \Device\Harddisk29\Partition8
stok_0_95 \Device\Harddisk41\Partition8
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stok_0_98 \Device\Harddisk57\Partition8
stok_0_99 \Device\Harddisk65\Partition8
stok_0_100 \Device\Harddisk45\Partition8
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stok_0_102 \Device\Harddisk72\Partition8
stok_0_103 \Device\Harddisk61\Partition8
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stok_0_105 \Device\Harddisk10\Partition8
stok_0_106 \Device\Harddisk12\Partition8
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stok_0_115 \Device\Harddisk62\Partition8
stok_0_116 \Device\Harddisk42\Partition8
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stok_0_118 \Device\Harddisk69\Partition8
stok_0_119 \Device\Harddisk58\Partition8
stok_0_120 \Device\Harddisk66\Partition8
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stok_0_125 \Device\Harddisk19\Partition8
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stok_0_129 \Device\Harddisk35\Partition8
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stok_0_132 \Device\Harddisk63\Partition8
stok_0_133 \Device\Harddisk43\Partition8
stok_0_134 \Device\Harddisk51\Partition8
stok_0_135 \Device\Harddisk70\Partition8
stok_0_136 \Device\Harddisk59\Partition8
stok_0_137 \Device\Harddisk67\Partition8
stok_0_138 \Device\Harddisk4\Partition9
stok_0_139 \Device\Harddisk8\Partition9
stok_0_140 \Device\Harddisk16\Partition9
stok_0_141 \Device\Harddisk14\Partition9
stok_0_142 \Device\Harddisk24\Partition9
stok_0_143 \Device\Harddisk20\Partition9
stok_0_144 \Device\Harddisk32\Partition9
stok_0_145 \Device\Harddisk28\Partition9
stok_0_146 \Device\Harddisk40\Partition9
stok_0_147 \Device\Harddisk36\Partition9
stok_0_148 \Device\Harddisk48\Partition9
stok_0_149 \Device\Harddisk56\Partition9

stok_0_150 \Device\Harddisk64\Partition9
stok_0_151 \Device\Harddisk44\Partition9
stok_0_152 \Device\Harddisk52\Partition9
stok_0_153 \Device\Harddisk71\Partition9
stok_0_154 \Device\Harddisk60\Partition9
stok_0_155 \Device\Harddisk68\Partition9
stok_0_156 \Device\Harddisk5\Partition9
stok_0_157 \Device\Harddisk9\Partition9
stok_0_158 \Device\Harddisk17\Partition9
stok_0_159 \Device\Harddisk15\Partition9
stok_0_160 \Device\Harddisk25\Partition9
stok_0_161 \Device\Harddisk21\Partition9
stok_0_162 \Device\Harddisk33\Partition9
stok_0_163 \Device\Harddisk29\Partition9
stok_0_164 \Device\Harddisk41\Partition9
stok_0_165 \Device\Harddisk37\Partition9
stok_0_166 \Device\Harddisk49\Partition9
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stok_0_168 \Device\Harddisk65\Partition9
stok_0_169 \Device\Harddisk45\Partition9
stok_0_170 \Device\Harddisk53\Partition9
stok_0_171 \Device\Harddisk72\Partition9
stok_0_172 \Device\Harddisk61\Partition9
stok_0_173 \Device\Harddisk6\Partition9
stok_0_174 \Device\Harddisk10\Partition9
stok_0_175 \Device\Harddisk12\Partition9
stok_0_176 \Device\Harddisk22\Partition9
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stok_0_180 \Device\Harddisk38\Partition9
stok_0_181 \Device\Harddisk34\Partition9
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stok_0_188 \Device\Harddisk58\Partition9
stok_0_189 \Device\Harddisk66\Partition9
stok_0_190 \Device\Harddisk7\Partition9
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stok_0_195 \Device\Harddisk31\Partition9
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stok_0_203 \Device\Harddisk51\Partition9
stok_0_204 \Device\Harddisk70\Partition9
stok_0_205 \Device\Harddisk59\Partition9
stok_0_206 \Device\Harddisk67\Partition9
stok_0_207 \Device\Harddisk4\Partition10
stok_0_208 \Device\Harddisk8\Partition10
stok_0_209 \Device\Harddisk16\Partition10
stok_0_210 \Device\Harddisk14\Partition10
stok_0_211 \Device\Harddisk24\Partition10
stok_0_212 \Device\Harddisk20\Partition10

stok_0_213 \Device\Harddisk32\Partition10
 stok_0_214 \Device\Harddisk28\Partition10
 stok_0_215 \Device\Harddisk40\Partition10
 stok_0_216 \Device\Harddisk36\Partition10
 stok_0_217 \Device\Harddisk48\Partition10
 stok_0_218 \Device\Harddisk56\Partition10
 stok_0_219 \Device\Harddisk64\Partition10
 stok_0_220 \Device\Harddisk44\Partition10
 stok_0_221 \Device\Harddisk52\Partition10
 stok_0_222 \Device\Harddisk71\Partition10
 stok_0_223 \Device\Harddisk60\Partition10
 stok_0_224 \Device\Harddisk68\Partition10
 stok_0_225 \Device\Harddisk5\Partition10
 stok_0_226 \Device\Harddisk9\Partition10
 stok_0_227 \Device\Harddisk17\Partition10
 stok_0_228 \Device\Harddisk15\Partition10
 stok_0_229 \Device\Harddisk25\Partition10
 stok_0_230 \Device\Harddisk21\Partition10
 stok_0_231 \Device\Harddisk33\Partition10
 stok_0_232 \Device\Harddisk29\Partition10
 stok_0_233 \Device\Harddisk41\Partition10
 stok_0_234 \Device\Harddisk37\Partition10
 stok_0_235 \Device\Harddisk49\Partition10
 stok_0_236 \Device\Harddisk57\Partition10
 stok_0_237 \Device\Harddisk65\Partition10
 stok_0_238 \Device\Harddisk45\Partition10
 stok_0_239 \Device\Harddisk53\Partition10
 stok_0_240 \Device\Harddisk72\Partition10
 stok_0_241 \Device\Harddisk61\Partition10
 stok_0_242 \Device\Harddisk6\Partition10
 stok_0_243 \Device\Harddisk10\Partition10
 stok_0_244 \Device\Harddisk12\Partition10
 stok_0_245 \Device\Harddisk22\Partition10
 stok_0_246 \Device\Harddisk18\Partition10
 stok_0_247 \Device\Harddisk30\Partition10
 stok_0_248 \Device\Harddisk26\Partition10
 stok_0_249 \Device\Harddisk38\Partition10
 stok_0_250 \Device\Harddisk34\Partition10
 stok_0_251 \Device\Harddisk46\Partition10
 stok_0_252 \Device\Harddisk54\Partition10
 stok_0_253 \Device\Harddisk62\Partition10
 stok_0_254 \Device\Harddisk42\Partition10
 stok_0_255 \Device\Harddisk50\Partition10
 stok_0_256 \Device\Harddisk69\Partition10
 stok_0_257 \Device\Harddisk58\Partition10
 stok_0_258 \Device\Harddisk66\Partition10
 stok_0_259 \Device\Harddisk7\Partition10
 stok_0_260 \Device\Harddisk11\Partition10
 stok_0_261 \Device\Harddisk13\Partition10
 stok_0_262 \Device\Harddisk23\Partition10
 stok_0_263 \Device\Harddisk19\Partition10
 stok_0_264 \Device\Harddisk31\Partition10
 stok_0_265 \Device\Harddisk27\Partition10
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 stok_0_267 \Device\Harddisk35\Partition10
 stok_0_268 \Device\Harddisk47\Partition10
 stok_0_269 \Device\Harddisk55\Partition10
 stok_0_270 \Device\Harddisk63\Partition10
 stok_0_271 \Device\Harddisk43\Partition10
 stok_0_272 \Device\Harddisk51\Partition10
 stok_0_273 \Device\Harddisk70\Partition10
 stok_0_274 \Device\Harddisk59\Partition10
 stok_0_275 \Device\Harddisk67\Partition10

item_0_0 \Device\Harddisk4\Partition11
 item_0_1 \Device\Harddisk8\Partition11
 item_0_2 \Device\Harddisk16\Partition11
 item_0_3 \Device\Harddisk14\Partition11
 item_0_4 \Device\Harddisk24\Partition11
 item_0_5 \Device\Harddisk20\Partition11
 item_0_6 \Device\Harddisk32\Partition11
 item_0_7 \Device\Harddisk28\Partition11
 item_0_8 \Device\Harddisk40\Partition11
 item_0_9 \Device\Harddisk36\Partition11
 item_0_10 \Device\Harddisk48\Partition11
 item_0_11 \Device\Harddisk56\Partition11
 item_0_12 \Device\Harddisk64\Partition11
 item_0_13 \Device\Harddisk44\Partition11
 item_0_14 \Device\Harddisk52\Partition11
 item_0_15 \Device\Harddisk71\Partition11
 item_0_16 \Device\Harddisk60\Partition11
 item_0_17 \Device\Harddisk68\Partition11
 item_0_18 \Device\Harddisk5\Partition11
 item_0_19 \Device\Harddisk9\Partition11
 item_0_20 \Device\Harddisk17\Partition11
 item_0_21 \Device\Harddisk15\Partition11
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 item_0_23 \Device\Harddisk21\Partition11
 item_0_24 \Device\Harddisk33\Partition11
 item_0_25 \Device\Harddisk29\Partition11
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 item_0_27 \Device\Harddisk37\Partition11
 item_0_28 \Device\Harddisk49\Partition11
 item_0_29 \Device\Harddisk57\Partition11
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 item_0_45 \Device\Harddisk54\Partition11
 item_0_46 \Device\Harddisk62\Partition11
 item_0_47 \Device\Harddisk42\Partition11
 item_0_48 \Device\Harddisk50\Partition11
 item_0_49 \Device\Harddisk69\Partition11
 item_0_50 \Device\Harddisk58\Partition11
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 item_0_52 \Device\Harddisk7\Partition11
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 item_0_54 \Device\Harddisk13\Partition11
 item_0_55 \Device\Harddisk23\Partition11
 item_0_56 \Device\Harddisk19\Partition11
 item_0_57 \Device\Harddisk31\Partition11
 item_0_58 \Device\Harddisk27\Partition11
 item_0_59 \Device\Harddisk39\Partition11
 item_0_60 \Device\Harddisk35\Partition11
 item_0_61 \Device\Harddisk47\Partition11
 item_0_62 \Device\Harddisk55\Partition11

item_0_63 \Device\Harddisk63\Partition11
 item_0_64 \Device\Harddisk43\Partition11
 item_0_65 \Device\Harddisk51\Partition11
 item_0_66 \Device\Harddisk70\Partition11
 item_0_67 \Device\Harddisk59\Partition11
 item_0_68 \Device\Harddisk67\Partition11
 ordr_0_0 \Device\Harddisk4\Partition12
 ordr_0_1 \Device\Harddisk8\Partition12
 ordr_0_2 \Device\Harddisk16\Partition12
 ordr_0_3 \Device\Harddisk14\Partition12
 ordr_0_4 \Device\Harddisk24\Partition12
 ordr_0_5 \Device\Harddisk20\Partition12
 ordr_0_6 \Device\Harddisk32\Partition12
 ordr_0_7 \Device\Harddisk28\Partition12
 ordr_0_8 \Device\Harddisk40\Partition12
 ordr_0_9 \Device\Harddisk36\Partition12
 ordr_0_10 \Device\Harddisk48\Partition12
 ordr_0_11 \Device\Harddisk56\Partition12
 ordr_0_12 \Device\Harddisk64\Partition12
 ordr_0_13 \Device\Harddisk44\Partition12
 ordr_0_14 \Device\Harddisk52\Partition12
 ordr_0_15 \Device\Harddisk71\Partition12
 ordr_0_16 \Device\Harddisk60\Partition12
 ordr_0_17 \Device\Harddisk68\Partition12
 ordr_0_18 \Device\Harddisk5\Partition12
 ordr_0_19 \Device\Harddisk9\Partition12
 ordr_0_20 \Device\Harddisk17\Partition12
 ordr_0_21 \Device\Harddisk15\Partition12
 ordr_0_22 \Device\Harddisk25\Partition12
 ordr_0_23 \Device\Harddisk21\Partition12
 ordr_0_24 \Device\Harddisk33\Partition12
 ordr_0_25 \Device\Harddisk29\Partition12
 ordr_0_26 \Device\Harddisk41\Partition12
 ordr_0_27 \Device\Harddisk37\Partition12
 ordr_0_28 \Device\Harddisk49\Partition12
 ordr_0_29 \Device\Harddisk57\Partition12
 ordr_0_30 \Device\Harddisk65\Partition12
 ordr_0_31 \Device\Harddisk45\Partition12
 ordr_0_32 \Device\Harddisk53\Partition12
 ordr_0_33 \Device\Harddisk72\Partition12
 ordr_0_34 \Device\Harddisk61\Partition12
 ordr_0_35 \Device\Harddisk6\Partition12
 ordr_0_36 \Device\Harddisk10\Partition12
 ordr_0_37 \Device\Harddisk12\Partition12
 ordr_0_38 \Device\Harddisk22\Partition12
 ordr_0_39 \Device\Harddisk18\Partition12
 ordr_0_40 \Device\Harddisk30\Partition12
 ordr_0_41 \Device\Harddisk26\Partition12
 ordr_0_42 \Device\Harddisk38\Partition12
 ordr_0_43 \Device\Harddisk34\Partition12
 ordr_0_44 \Device\Harddisk46\Partition12
 ordr_0_45 \Device\Harddisk54\Partition12
 ordr_0_46 \Device\Harddisk62\Partition12
 ordr_0_47 \Device\Harddisk42\Partition12
 ordr_0_48 \Device\Harddisk50\Partition12
 ordr_0_49 \Device\Harddisk69\Partition12
 ordr_0_50 \Device\Harddisk58\Partition12
 ordr_0_51 \Device\Harddisk66\Partition12
 ordr_0_52 \Device\Harddisk7\Partition12
 ordr_0_53 \Device\Harddisk11\Partition12
 ordr_0_54 \Device\Harddisk13\Partition12
 ordr_0_55 \Device\Harddisk23\Partition12
 ordr_0_56 \Device\Harddisk19\Partition12

ordr_0_57 \Device\Harddisk31\Partition12
 ordr_0_58 \Device\Harddisk27\Partition12
 ordr_0_59 \Device\Harddisk39\Partition12
 ordr_0_60 \Device\Harddisk35\Partition12
 ordr_0_61 \Device\Harddisk47\Partition12
 ordr_0_62 \Device\Harddisk55\Partition12
 ordr_0_63 \Device\Harddisk63\Partition12
 ordr_0_64 \Device\Harddisk43\Partition12
 ordr_0_65 \Device\Harddisk51\Partition12
 ordr_0_66 \Device\Harddisk70\Partition12
 ordr_0_67 \Device\Harddisk59\Partition12
 ordr_0_68 \Device\Harddisk67\Partition12
 ordr_0_69 \Device\Harddisk4\Partition23
 ordr_0_70 \Device\Harddisk6\Partition23
 ordr_0_71 \Device\Harddisk22\Partition23
 ordr_0_72 \Device\Harddisk24\Partition23
 ordr_0_73 \Device\Harddisk12\Partition23
 ordr_0_74 \Device\Harddisk14\Partition23
 ordr_0_75 \Device\Harddisk38\Partition23
 ordr_0_76 \Device\Harddisk40\Partition23
 ordr_0_77 \Device\Harddisk18\Partition23
 ordr_0_78 \Device\Harddisk20\Partition23
 ordr_0_79 \Device\Harddisk54\Partition23
 ordr_0_80 \Device\Harddisk56\Partition23
 ordr_0_81 \Device\Harddisk34\Partition23
 ordr_0_82 \Device\Harddisk36\Partition23
 ordr_0_83 \Device\Harddisk62\Partition23
 ordr_0_84 \Device\Harddisk64\Partition23
 ordr_0_85 \Device\Harddisk42\Partition23
 ordr_0_86 \Device\Harddisk44\Partition23
 ordr_0_87 \Device\Harddisk69\Partition23
 ordr_0_88 \Device\Harddisk71\Partition23
 ordr_0_89 \Device\Harddisk50\Partition23
 ordr_0_90 \Device\Harddisk52\Partition23
 ordr_0_91 \Device\Harddisk58\Partition23
 ordr_0_92 \Device\Harddisk5\Partition23
 ordr_0_93 \Device\Harddisk7\Partition23
 ordr_0_94 \Device\Harddisk23\Partition23
 ordr_0_95 \Device\Harddisk25\Partition23
 ordr_0_96 \Device\Harddisk13\Partition23
 ordr_0_97 \Device\Harddisk15\Partition23
 ordr_0_98 \Device\Harddisk39\Partition23
 ordr_0_99 \Device\Harddisk41\Partition23
 ordr_0_100 \Device\Harddisk19\Partition23
 ordr_0_101 \Device\Harddisk21\Partition23
 ordr_0_102 \Device\Harddisk55\Partition23
 ordr_0_103 \Device\Harddisk57\Partition23
 ordr_0_104 \Device\Harddisk35\Partition23
 ordr_0_105 \Device\Harddisk37\Partition23
 ordr_0_106 \Device\Harddisk63\Partition23
 ordr_0_107 \Device\Harddisk65\Partition23
 ordr_0_108 \Device\Harddisk43\Partition23
 nord_0_0 \Device\Harddisk4\Partition13
 nord_0_1 \Device\Harddisk8\Partition13
 nord_0_2 \Device\Harddisk16\Partition13
 nord_0_3 \Device\Harddisk14\Partition13
 nord_0_4 \Device\Harddisk24\Partition13
 nord_0_5 \Device\Harddisk20\Partition13
 nord_0_6 \Device\Harddisk32\Partition13
 nord_0_7 \Device\Harddisk28\Partition13
 nord_0_8 \Device\Harddisk40\Partition13
 nord_0_9 \Device\Harddisk36\Partition13
 nord_0_10 \Device\Harddisk48\Partition13

nord_0_11 \Device\Harddisk56\Partition13
 nord_0_12 \Device\Harddisk64\Partition13
 nord_0_13 \Device\Harddisk44\Partition13
 nord_0_14 \Device\Harddisk52\Partition13
 nord_0_15 \Device\Harddisk71\Partition13
 nord_0_16 \Device\Harddisk60\Partition13
 nord_0_17 \Device\Harddisk68\Partition13
 nord_0_18 \Device\Harddisk5\Partition13
 nord_0_19 \Device\Harddisk9\Partition13
 nord_0_20 \Device\Harddisk17\Partition13
 nord_0_21 \Device\Harddisk15\Partition13
 nord_0_22 \Device\Harddisk25\Partition13
 nord_0_23 \Device\Harddisk21\Partition13
 nord_0_24 \Device\Harddisk33\Partition13
 nord_0_25 \Device\Harddisk29\Partition13
 nord_0_26 \Device\Harddisk41\Partition13
 nord_0_27 \Device\Harddisk37\Partition13
 nord_0_28 \Device\Harddisk49\Partition13
 nord_0_29 \Device\Harddisk57\Partition13
 nord_0_30 \Device\Harddisk65\Partition13
 nord_0_31 \Device\Harddisk45\Partition13
 nord_0_32 \Device\Harddisk53\Partition13
 nord_0_33 \Device\Harddisk72\Partition13
 nord_0_34 \Device\Harddisk61\Partition13
 nord_0_35 \Device\Harddisk6\Partition13
 nord_0_36 \Device\Harddisk10\Partition13
 nord_0_37 \Device\Harddisk12\Partition13
 nord_0_38 \Device\Harddisk22\Partition13
 nord_0_39 \Device\Harddisk18\Partition13
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 nord_0_41 \Device\Harddisk26\Partition13
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 nord_0_43 \Device\Harddisk34\Partition13
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 nord_0_45 \Device\Harddisk54\Partition13
 nord_0_46 \Device\Harddisk62\Partition13
 nord_0_47 \Device\Harddisk42\Partition13
 nord_0_48 \Device\Harddisk50\Partition13
 nord_0_49 \Device\Harddisk69\Partition13
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 nord_0_51 \Device\Harddisk66\Partition13
 nord_0_52 \Device\Harddisk7\Partition13
 nord_0_53 \Device\Harddisk11\Partition13
 nord_0_54 \Device\Harddisk13\Partition13
 nord_0_55 \Device\Harddisk23\Partition13
 nord_0_56 \Device\Harddisk19\Partition13
 nord_0_57 \Device\Harddisk31\Partition13
 nord_0_58 \Device\Harddisk27\Partition13
 nord_0_59 \Device\Harddisk39\Partition13
 nord_0_60 \Device\Harddisk35\Partition13
 nord_0_61 \Device\Harddisk47\Partition13
 nord_0_62 \Device\Harddisk55\Partition13
 nord_0_63 \Device\Harddisk63\Partition13
 nord_0_64 \Device\Harddisk43\Partition13
 nord_0_65 \Device\Harddisk51\Partition13
 nord_0_66 \Device\Harddisk70\Partition13
 nord_0_67 \Device\Harddisk59\Partition13
 nord_0_68 \Device\Harddisk67\Partition13
 iware_0_0 \Device\Harddisk4\Partition14
 iware_0_1 \Device\Harddisk8\Partition14
 iware_0_2 \Device\Harddisk16\Partition14
 iware_0_3 \Device\Harddisk14\Partition14
 iware_0_4 \Device\Harddisk24\Partition14

iware_0_5 \Device\Harddisk20\Partition14
 iware_0_6 \Device\Harddisk32\Partition14
 iware_0_7 \Device\Harddisk28\Partition14
 iware_0_8 \Device\Harddisk40\Partition14
 iware_0_9 \Device\Harddisk36\Partition14
 iware_0_10 \Device\Harddisk48\Partition14
 iware_0_11 \Device\Harddisk56\Partition14
 iware_0_12 \Device\Harddisk64\Partition14
 iware_0_13 \Device\Harddisk44\Partition14
 iware_0_14 \Device\Harddisk52\Partition14
 iware_0_15 \Device\Harddisk71\Partition14
 iware_0_16 \Device\Harddisk60\Partition14
 iware_0_17 \Device\Harddisk68\Partition14
 iware_0_18 \Device\Harddisk5\Partition14
 iware_0_19 \Device\Harddisk9\Partition14
 iware_0_20 \Device\Harddisk17\Partition14
 iware_0_21 \Device\Harddisk15\Partition14
 iware_0_22 \Device\Harddisk25\Partition14
 iware_0_23 \Device\Harddisk21\Partition14
 iware_0_24 \Device\Harddisk33\Partition14
 iware_0_25 \Device\Harddisk29\Partition14
 iware_0_26 \Device\Harddisk41\Partition14
 iware_0_27 \Device\Harddisk37\Partition14
 iware_0_28 \Device\Harddisk49\Partition14
 iware_0_29 \Device\Harddisk57\Partition14
 iware_0_30 \Device\Harddisk65\Partition14
 iware_0_31 \Device\Harddisk45\Partition14
 iware_0_32 \Device\Harddisk53\Partition14
 iware_0_33 \Device\Harddisk72\Partition14
 iware_0_34 \Device\Harddisk61\Partition14
 iware_0_35 \Device\Harddisk6\Partition14
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 iware_0_37 \Device\Harddisk12\Partition14
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 iware_0_41 \Device\Harddisk26\Partition14
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 iware_0_45 \Device\Harddisk54\Partition14
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 iware_0_47 \Device\Harddisk42\Partition14
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 iware_0_49 \Device\Harddisk69\Partition14
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 iware_0_55 \Device\Harddisk23\Partition14
 iware_0_56 \Device\Harddisk19\Partition14
 iware_0_57 \Device\Harddisk31\Partition14
 iware_0_58 \Device\Harddisk27\Partition14
 iware_0_59 \Device\Harddisk39\Partition14
 iware_0_60 \Device\Harddisk35\Partition14
 iware_0_61 \Device\Harddisk47\Partition14
 iware_0_62 \Device\Harddisk55\Partition14
 iware_0_63 \Device\Harddisk63\Partition14
 iware_0_64 \Device\Harddisk43\Partition14
 iware_0_65 \Device\Harddisk51\Partition14
 iware_0_66 \Device\Harddisk70\Partition14
 iware_0_67 \Device\Harddisk59\Partition14

iware_0_68 \Device\Harddisk67\Partition14
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 icust1_0_1 \Device\Harddisk8\Partition15
 icust1_0_2 \Device\Harddisk16\Partition15
 icust1_0_3 \Device\Harddisk14\Partition15
 icust1_0_4 \Device\Harddisk24\Partition15
 icust1_0_5 \Device\Harddisk20\Partition15
 icust1_0_6 \Device\Harddisk32\Partition15
 icust1_0_7 \Device\Harddisk28\Partition15
 icust1_0_8 \Device\Harddisk40\Partition15
 icust1_0_9 \Device\Harddisk36\Partition15
 icust1_0_10 \Device\Harddisk48\Partition15
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 icust1_0_13 \Device\Harddisk44\Partition15
 icust1_0_14 \Device\Harddisk52\Partition15
 icust1_0_15 \Device\Harddisk71\Partition15
 icust1_0_16 \Device\Harddisk60\Partition15
 icust1_0_17 \Device\Harddisk68\Partition15
 icust1_0_18 \Device\Harddisk5\Partition15
 icust1_0_19 \Device\Harddisk9\Partition15
 icust1_0_20 \Device\Harddisk17\Partition15
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 icust1_0_22 \Device\Harddisk25\Partition15
 icust1_0_23 \Device\Harddisk21\Partition15
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 icust1_0_44 \Device\Harddisk46\Partition15
 icust1_0_45 \Device\Harddisk54\Partition15
 icust1_0_46 \Device\Harddisk62\Partition15
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 icust1_0_49 \Device\Harddisk69\Partition15
 icust1_0_50 \Device\Harddisk58\Partition15
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 icust1_0_59 \Device\Harddisk39\Partition15
 icust1_0_60 \Device\Harddisk35\Partition15
 icust1_0_61 \Device\Harddisk47\Partition15

icust1_0_62 \Device\Harddisk55\Partition15
 icust1_0_63 \Device\Harddisk63\Partition15
 icust1_0_64 \Device\Harddisk43\Partition15
 icust1_0_65 \Device\Harddisk51\Partition15
 icust1_0_66 \Device\Harddisk70\Partition15
 icust1_0_67 \Device\Harddisk59\Partition15
 icust1_0_68 \Device\Harddisk67\Partition15
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 icust2_0_15 \Device\Harddisk71\Partition16
 icust2_0_16 \Device\Harddisk60\Partition16
 icust2_0_17 \Device\Harddisk68\Partition16
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 icust2_0_19 \Device\Harddisk9\Partition16
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 icust2_0_45 \Device\Harddisk54\Partition16
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 icust2_0_55 \Device\Harddisk23\Partition16

icust2_0_56 \Device\Harddisk19\Partition16
 icust2_0_57 \Device\Harddisk31\Partition16
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 icust2_0_59 \Device\Harddisk39\Partition16
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 icust2_0_65 \Device\Harddisk51\Partition16
 icust2_0_66 \Device\Harddisk70\Partition16
 icust2_0_67 \Device\Harddisk59\Partition16
 icust2_0_68 \Device\Harddisk67\Partition16
 idist_0_0 \Device\Harddisk4\Partition17
 idist_0_1 \Device\Harddisk8\Partition17
 idist_0_2 \Device\Harddisk16\Partition17
 idist_0_3 \Device\Harddisk14\Partition17
 idist_0_4 \Device\Harddisk24\Partition17
 idist_0_5 \Device\Harddisk20\Partition17
 idist_0_6 \Device\Harddisk32\Partition17
 idist_0_7 \Device\Harddisk28\Partition17
 idist_0_8 \Device\Harddisk40\Partition17
 idist_0_9 \Device\Harddisk36\Partition17
 idist_0_10 \Device\Harddisk48\Partition17
 idist_0_11 \Device\Harddisk56\Partition17
 idist_0_12 \Device\Harddisk64\Partition17
 idist_0_13 \Device\Harddisk44\Partition17
 idist_0_14 \Device\Harddisk52\Partition17
 idist_0_15 \Device\Harddisk71\Partition17
 idist_0_16 \Device\Harddisk60\Partition17
 idist_0_17 \Device\Harddisk68\Partition17
 idist_0_18 \Device\Harddisk5\Partition17
 idist_0_19 \Device\Harddisk9\Partition17
 idist_0_20 \Device\Harddisk17\Partition17
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 idist_0_48 \Device\Harddisk50\Partition17
 idist_0_49 \Device\Harddisk69\Partition17

idist_0_50 \Device\Harddisk58\Partition17
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 idist_0_52 \Device\Harddisk7\Partition17
 idist_0_53 \Device\Harddisk11\Partition17
 idist_0_54 \Device\Harddisk13\Partition17
 idist_0_55 \Device\Harddisk23\Partition17
 idist_0_56 \Device\Harddisk19\Partition17
 idist_0_57 \Device\Harddisk31\Partition17
 idist_0_58 \Device\Harddisk27\Partition17
 idist_0_59 \Device\Harddisk39\Partition17
 idist_0_60 \Device\Harddisk35\Partition17
 idist_0_61 \Device\Harddisk47\Partition17
 idist_0_62 \Device\Harddisk55\Partition17
 idist_0_63 \Device\Harddisk63\Partition17
 idist_0_64 \Device\Harddisk43\Partition17
 idist_0_65 \Device\Harddisk51\Partition17
 idist_0_66 \Device\Harddisk70\Partition17
 idist_0_67 \Device\Harddisk59\Partition17
 idist_0_68 \Device\Harddisk67\Partition17
 istok_0_0 \Device\Harddisk4\Partition18
 istok_0_1 \Device\Harddisk8\Partition18
 istok_0_2 \Device\Harddisk16\Partition18
 istok_0_3 \Device\Harddisk14\Partition18
 istok_0_4 \Device\Harddisk24\Partition18
 istok_0_5 \Device\Harddisk20\Partition18
 istok_0_6 \Device\Harddisk32\Partition18
 istok_0_7 \Device\Harddisk28\Partition18
 istok_0_8 \Device\Harddisk40\Partition18
 istok_0_9 \Device\Harddisk36\Partition18
 istok_0_10 \Device\Harddisk48\Partition18
 istok_0_11 \Device\Harddisk56\Partition18
 istok_0_12 \Device\Harddisk64\Partition18
 istok_0_13 \Device\Harddisk44\Partition18
 istok_0_14 \Device\Harddisk52\Partition18
 istok_0_15 \Device\Harddisk71\Partition18
 istok_0_16 \Device\Harddisk60\Partition18
 istok_0_17 \Device\Harddisk68\Partition18
 istok_0_18 \Device\Harddisk5\Partition18
 istok_0_19 \Device\Harddisk9\Partition18
 istok_0_20 \Device\Harddisk17\Partition18
 istok_0_21 \Device\Harddisk15\Partition18
 istok_0_22 \Device\Harddisk25\Partition18
 istok_0_23 \Device\Harddisk21\Partition18
 istok_0_24 \Device\Harddisk33\Partition18
 istok_0_25 \Device\Harddisk29\Partition18
 istok_0_26 \Device\Harddisk41\Partition18
 istok_0_27 \Device\Harddisk37\Partition18
 istok_0_28 \Device\Harddisk49\Partition18
 istok_0_29 \Device\Harddisk57\Partition18
 istok_0_30 \Device\Harddisk65\Partition18
 istok_0_31 \Device\Harddisk45\Partition18
 istok_0_32 \Device\Harddisk53\Partition18
 istok_0_33 \Device\Harddisk72\Partition18
 istok_0_34 \Device\Harddisk61\Partition18
 istok_0_35 \Device\Harddisk6\Partition18
 istok_0_36 \Device\Harddisk10\Partition18
 istok_0_37 \Device\Harddisk12\Partition18
 istok_0_38 \Device\Harddisk22\Partition18
 istok_0_39 \Device\Harddisk18\Partition18
 istok_0_40 \Device\Harddisk30\Partition18
 istok_0_41 \Device\Harddisk26\Partition18
 istok_0_42 \Device\Harddisk38\Partition18
 istok_0_43 \Device\Harddisk34\Partition18

istok_0_44 \Device\Harddisk46\Partition18
 istok_0_45 \Device\Harddisk54\Partition18
 istok_0_46 \Device\Harddisk62\Partition18
 istok_0_47 \Device\Harddisk42\Partition18
 istok_0_48 \Device\Harddisk50\Partition18
 istok_0_49 \Device\Harddisk69\Partition18
 istok_0_50 \Device\Harddisk58\Partition18
 istok_0_51 \Device\Harddisk66\Partition18
 istok_0_52 \Device\Harddisk7\Partition18
 istok_0_53 \Device\Harddisk11\Partition18
 istok_0_54 \Device\Harddisk13\Partition18
 istok_0_55 \Device\Harddisk23\Partition18
 istok_0_56 \Device\Harddisk19\Partition18
 istok_0_57 \Device\Harddisk31\Partition18
 istok_0_58 \Device\Harddisk27\Partition18
 istok_0_59 \Device\Harddisk39\Partition18
 istok_0_60 \Device\Harddisk35\Partition18
 istok_0_61 \Device\Harddisk47\Partition18
 istok_0_62 \Device\Harddisk55\Partition18
 istok_0_63 \Device\Harddisk63\Partition18
 istok_0_64 \Device\Harddisk43\Partition18
 istok_0_65 \Device\Harddisk51\Partition18
 istok_0_66 \Device\Harddisk70\Partition18
 istok_0_67 \Device\Harddisk59\Partition18
 istok_0_68 \Device\Harddisk67\Partition18
 iitem_0_0 \Device\Harddisk4\Partition19
 iitem_0_1 \Device\Harddisk8\Partition19
 iitem_0_2 \Device\Harddisk16\Partition19
 iitem_0_3 \Device\Harddisk14\Partition19
 iitem_0_4 \Device\Harddisk24\Partition19
 iitem_0_5 \Device\Harddisk20\Partition19
 iitem_0_6 \Device\Harddisk32\Partition19
 iitem_0_7 \Device\Harddisk28\Partition19
 iitem_0_8 \Device\Harddisk40\Partition19
 iitem_0_9 \Device\Harddisk36\Partition19
 iitem_0_10 \Device\Harddisk48\Partition19
 iitem_0_11 \Device\Harddisk56\Partition19
 iitem_0_12 \Device\Harddisk64\Partition19
 iitem_0_13 \Device\Harddisk44\Partition19
 iitem_0_14 \Device\Harddisk52\Partition19
 iitem_0_15 \Device\Harddisk71\Partition19
 iitem_0_16 \Device\Harddisk60\Partition19
 iitem_0_17 \Device\Harddisk68\Partition19
 iitem_0_18 \Device\Harddisk5\Partition19
 iitem_0_19 \Device\Harddisk9\Partition19
 iitem_0_20 \Device\Harddisk17\Partition19
 iitem_0_21 \Device\Harddisk15\Partition19
 iitem_0_22 \Device\Harddisk25\Partition19
 iitem_0_23 \Device\Harddisk21\Partition19
 iitem_0_24 \Device\Harddisk33\Partition19
 iitem_0_25 \Device\Harddisk29\Partition19
 iitem_0_26 \Device\Harddisk41\Partition19
 iitem_0_27 \Device\Harddisk37\Partition19
 iitem_0_28 \Device\Harddisk49\Partition19
 iitem_0_29 \Device\Harddisk57\Partition19
 iitem_0_30 \Device\Harddisk65\Partition19
 iitem_0_31 \Device\Harddisk45\Partition19
 iitem_0_32 \Device\Harddisk53\Partition19
 iitem_0_33 \Device\Harddisk72\Partition19
 iitem_0_34 \Device\Harddisk61\Partition19
 iitem_0_35 \Device\Harddisk6\Partition19
 iitem_0_36 \Device\Harddisk10\Partition19
 iitem_0_37 \Device\Harddisk12\Partition19

iitem_0_38 \Device\Harddisk22\Partition19
 iitem_0_39 \Device\Harddisk18\Partition19
 iitem_0_40 \Device\Harddisk30\Partition19
 iitem_0_41 \Device\Harddisk26\Partition19
 iitem_0_42 \Device\Harddisk38\Partition19
 iitem_0_43 \Device\Harddisk34\Partition19
 iitem_0_44 \Device\Harddisk46\Partition19
 iitem_0_45 \Device\Harddisk54\Partition19
 iitem_0_46 \Device\Harddisk62\Partition19
 iitem_0_47 \Device\Harddisk42\Partition19
 iitem_0_48 \Device\Harddisk50\Partition19
 iitem_0_49 \Device\Harddisk69\Partition19
 iitem_0_50 \Device\Harddisk58\Partition19
 iitem_0_51 \Device\Harddisk66\Partition19
 iitem_0_52 \Device\Harddisk7\Partition19
 iitem_0_53 \Device\Harddisk11\Partition19
 iitem_0_54 \Device\Harddisk13\Partition19
 iitem_0_55 \Device\Harddisk23\Partition19
 iitem_0_56 \Device\Harddisk19\Partition19
 iitem_0_57 \Device\Harddisk31\Partition19
 iitem_0_58 \Device\Harddisk27\Partition19
 iitem_0_59 \Device\Harddisk39\Partition19
 iitem_0_60 \Device\Harddisk35\Partition19
 iitem_0_61 \Device\Harddisk47\Partition19
 iitem_0_62 \Device\Harddisk55\Partition19
 iitem_0_63 \Device\Harddisk63\Partition19
 iitem_0_64 \Device\Harddisk43\Partition19
 iitem_0_65 \Device\Harddisk51\Partition19
 iitem_0_66 \Device\Harddisk70\Partition19
 iitem_0_67 \Device\Harddisk59\Partition19
 iitem_0_68 \Device\Harddisk67\Partition19
 iordr2_0_0 \Device\Harddisk4\Partition20
 iordr2_0_1 \Device\Harddisk8\Partition20
 iordr2_0_2 \Device\Harddisk16\Partition20
 iordr2_0_3 \Device\Harddisk14\Partition20
 iordr2_0_4 \Device\Harddisk24\Partition20
 iordr2_0_5 \Device\Harddisk20\Partition20
 iordr2_0_6 \Device\Harddisk32\Partition20
 iordr2_0_7 \Device\Harddisk28\Partition20
 iordr2_0_8 \Device\Harddisk40\Partition20
 iordr2_0_9 \Device\Harddisk36\Partition20
 iordr2_0_10 \Device\Harddisk48\Partition20
 iordr2_0_11 \Device\Harddisk56\Partition20
 iordr2_0_12 \Device\Harddisk64\Partition20
 iordr2_0_13 \Device\Harddisk44\Partition20
 iordr2_0_14 \Device\Harddisk52\Partition20
 iordr2_0_15 \Device\Harddisk71\Partition20
 iordr2_0_16 \Device\Harddisk60\Partition20
 iordr2_0_17 \Device\Harddisk68\Partition20
 iordr2_0_18 \Device\Harddisk5\Partition20
 iordr2_0_19 \Device\Harddisk9\Partition20
 iordr2_0_20 \Device\Harddisk17\Partition20
 iordr2_0_21 \Device\Harddisk15\Partition20
 iordr2_0_22 \Device\Harddisk25\Partition20
 iordr2_0_23 \Device\Harddisk21\Partition20
 iordr2_0_24 \Device\Harddisk33\Partition20
 iordr2_0_25 \Device\Harddisk29\Partition20
 iordr2_0_26 \Device\Harddisk41\Partition20
 iordr2_0_27 \Device\Harddisk37\Partition20
 iordr2_0_28 \Device\Harddisk49\Partition20
 iordr2_0_29 \Device\Harddisk57\Partition20
 iordr2_0_30 \Device\Harddisk65\Partition20
 iordr2_0_31 \Device\Harddisk45\Partition20

iordr2_0_32 \Device\Harddisk53\Partition20
iordr2_0_33 \Device\Harddisk72\Partition20
iordr2_0_34 \Device\Harddisk61\Partition20
iordr2_0_35 \Device\Harddisk6\Partition20
iordr2_0_36 \Device\Harddisk10\Partition20
iordr2_0_37 \Device\Harddisk12\Partition20
iordr2_0_38 \Device\Harddisk22\Partition20
iordr2_0_39 \Device\Harddisk18\Partition20
iordr2_0_40 \Device\Harddisk30\Partition20
iordr2_0_41 \Device\Harddisk26\Partition20
iordr2_0_42 \Device\Harddisk38\Partition20
iordr2_0_43 \Device\Harddisk34\Partition20
iordr2_0_44 \Device\Harddisk46\Partition20
iordr2_0_45 \Device\Harddisk54\Partition20
iordr2_0_46 \Device\Harddisk62\Partition20
iordr2_0_47 \Device\Harddisk42\Partition20
iordr2_0_48 \Device\Harddisk50\Partition20
iordr2_0_49 \Device\Harddisk69\Partition20
iordr2_0_50 \Device\Harddisk58\Partition20
iordr2_0_51 \Device\Harddisk66\Partition20
iordr2_0_52 \Device\Harddisk7\Partition20
iordr2_0_53 \Device\Harddisk11\Partition20
iordr2_0_54 \Device\Harddisk13\Partition20
iordr2_0_55 \Device\Harddisk23\Partition20
iordr2_0_56 \Device\Harddisk19\Partition20
iordr2_0_57 \Device\Harddisk31\Partition20
iordr2_0_58 \Device\Harddisk27\Partition20
iordr2_0_59 \Device\Harddisk39\Partition20
iordr2_0_60 \Device\Harddisk35\Partition20
iordr2_0_61 \Device\Harddisk47\Partition20
iordr2_0_62 \Device\Harddisk55\Partition20
iordr2_0_63 \Device\Harddisk63\Partition20
iordr2_0_64 \Device\Harddisk43\Partition20
iordr2_0_65 \Device\Harddisk51\Partition20
iordr2_0_66 \Device\Harddisk70\Partition20
iordr2_0_67 \Device\Harddisk59\Partition20
iordr2_0_68 \Device\Harddisk67\Partition20
temp_0_0 \Device\Harddisk4\Partition21
temp_0_1 \Device\Harddisk8\Partition21
temp_0_2 \Device\Harddisk16\Partition21
temp_0_3 \Device\Harddisk14\Partition21
temp_0_4 \Device\Harddisk24\Partition21
temp_0_5 \Device\Harddisk20\Partition21
temp_0_6 \Device\Harddisk32\Partition21
temp_0_7 \Device\Harddisk28\Partition21
temp_0_8 \Device\Harddisk40\Partition21
temp_0_9 \Device\Harddisk36\Partition21
temp_0_10 \Device\Harddisk48\Partition21
temp_0_11 \Device\Harddisk56\Partition21
temp_0_12 \Device\Harddisk64\Partition21
temp_0_13 \Device\Harddisk44\Partition21
temp_0_14 \Device\Harddisk52\Partition21
temp_0_15 \Device\Harddisk71\Partition21
temp_0_16 \Device\Harddisk60\Partition21
temp_0_17 \Device\Harddisk68\Partition21
temp_0_18 \Device\Harddisk5\Partition21
temp_0_19 \Device\Harddisk9\Partition21
temp_0_20 \Device\Harddisk17\Partition21
temp_0_21 \Device\Harddisk15\Partition21
temp_0_22 \Device\Harddisk25\Partition21
temp_0_23 \Device\Harddisk21\Partition21
temp_0_24 \Device\Harddisk33\Partition21
temp_0_25 \Device\Harddisk29\Partition21

temp_0_26 \Device\Harddisk41\Partition21
temp_0_27 \Device\Harddisk37\Partition21
temp_0_28 \Device\Harddisk49\Partition21
temp_0_29 \Device\Harddisk57\Partition21
temp_0_30 \Device\Harddisk65\Partition21
temp_0_31 \Device\Harddisk45\Partition21
temp_0_32 \Device\Harddisk53\Partition21
temp_0_33 \Device\Harddisk72\Partition21
temp_0_34 \Device\Harddisk61\Partition21
temp_0_35 \Device\Harddisk6\Partition21
temp_0_36 \Device\Harddisk10\Partition21
temp_0_37 \Device\Harddisk12\Partition21
temp_0_38 \Device\Harddisk22\Partition21
temp_0_39 \Device\Harddisk18\Partition21
temp_0_40 \Device\Harddisk30\Partition21
temp_0_41 \Device\Harddisk26\Partition21
temp_0_42 \Device\Harddisk38\Partition21
temp_0_43 \Device\Harddisk34\Partition21
temp_0_44 \Device\Harddisk46\Partition21
temp_0_45 \Device\Harddisk54\Partition21
temp_0_46 \Device\Harddisk62\Partition21
temp_0_47 \Device\Harddisk42\Partition21
temp_0_48 \Device\Harddisk50\Partition21
temp_0_49 \Device\Harddisk69\Partition21
temp_0_50 \Device\Harddisk58\Partition21
temp_0_51 \Device\Harddisk66\Partition21
temp_0_52 \Device\Harddisk7\Partition21
temp_0_53 \Device\Harddisk11\Partition21
temp_0_54 \Device\Harddisk13\Partition21
temp_0_55 \Device\Harddisk23\Partition21
temp_0_56 \Device\Harddisk19\Partition21
temp_0_57 \Device\Harddisk31\Partition21
temp_0_58 \Device\Harddisk27\Partition21
temp_0_59 \Device\Harddisk39\Partition21
temp_0_60 \Device\Harddisk35\Partition21
temp_0_61 \Device\Harddisk47\Partition21
temp_0_62 \Device\Harddisk55\Partition21
temp_0_63 \Device\Harddisk63\Partition21
temp_0_64 \Device\Harddisk43\Partition21
temp_0_65 \Device\Harddisk51\Partition21
temp_0_66 \Device\Harddisk70\Partition21
temp_0_67 \Device\Harddisk59\Partition21
temp_0_68 \Device\Harddisk67\Partition21
resv1_0_4 \Device\Harddisk12\Partition22
resv1_0_5 \Device\Harddisk14\Partition22
resv1_0_6 \Device\Harddisk38\Partition22
resv1_0_7 \Device\Harddisk40\Partition22
resv1_0_8 \Device\Harddisk18\Partition22
resv1_0_9 \Device\Harddisk20\Partition22
resv1_0_10 \Device\Harddisk54\Partition22
resv1_0_11 \Device\Harddisk56\Partition22
resv1_0_12 \Device\Harddisk34\Partition22
resv1_0_13 \Device\Harddisk36\Partition22
resv1_0_14 \Device\Harddisk62\Partition22
resv1_0_15 \Device\Harddisk64\Partition22
resv1_0_16 \Device\Harddisk42\Partition22
resv1_0_17 \Device\Harddisk44\Partition22
resv1_0_18 \Device\Harddisk69\Partition22
resv1_0_19 \Device\Harddisk71\Partition22
resv1_0_20 \Device\Harddisk50\Partition22
resv1_0_21 \Device\Harddisk52\Partition22
resv1_0_22 \Device\Harddisk58\Partition22
resv1_0_24 \Device\Harddisk7\Partition22

```

resv1_0_25      \Device\Harddisk23\Partition22
resv1_0_26      \Device\Harddisk25\Partition22
resv1_0_27      \Device\Harddisk13\Partition22
resv1_0_28      \Device\Harddisk15\Partition22
resv1_0_29      \Device\Harddisk39\Partition22
resv1_0_30      \Device\Harddisk41\Partition22
resv1_0_31      \Device\Harddisk19\Partition22
resv1_0_32      \Device\Harddisk21\Partition22
resv1_0_33      \Device\Harddisk55\Partition22
resv1_0_34      \Device\Harddisk57\Partition22
resv1_0_35      \Device\Harddisk35\Partition22
resv1_0_36      \Device\Harddisk37\Partition22
resv1_0_37      \Device\Harddisk63\Partition22
resv1_0_38      \Device\Harddisk65\Partition22
resv1_0_39      \Device\Harddisk43\Partition22
resv1_0_40      \Device\Harddisk45\Partition22
resv1_0_41      \Device\Harddisk70\Partition22
resv1_0_42      \Device\Harddisk72\Partition22
resv1_0_43      \Device\Harddisk51\Partition22
resv1_0_44      \Device\Harddisk53\Partition22
resv1_0_45      \Device\Harddisk59\Partition22
resv1_0_46      \Device\Harddisk8\Partition22
resv1_0_47      \Device\Harddisk9\Partition22
resv1_0_48      \Device\Harddisk10\Partition22
resv1_0_49      \Device\Harddisk11\Partition22
resv1_0_50      \Device\Harddisk16\Partition22
resv1_0_51      \Device\Harddisk17\Partition22
resv1_0_52      \Device\Harddisk26\Partition22
resv1_0_53      \Device\Harddisk27\Partition22
resv1_0_54      \Device\Harddisk28\Partition22
resv1_0_55      \Device\Harddisk29\Partition22
resv1_0_56      \Device\Harddisk30\Partition22
resv1_0_57      \Device\Harddisk31\Partition22
resv1_0_58      \Device\Harddisk32\Partition22
resv1_0_59      \Device\Harddisk33\Partition22
resv1_0_60      \Device\Harddisk46\Partition22
resv1_0_61      \Device\Harddisk47\Partition22
resv1_0_62      \Device\Harddisk48\Partition22
resv1_0_63      \Device\Harddisk49\Partition22
resv1_0_64      \Device\Harddisk60\Partition22
resv1_0_65      \Device\Harddisk61\Partition22
resv1_0_66      \Device\Harddisk67\Partition22
resv1_0_67      \Device\Harddisk68\Partition22
resv1_0_68      \Device\Harddisk66\Partition22
resv2_0_40      \Device\Harddisk45\Partition23
resv2_0_41      \Device\Harddisk70\Partition23
resv2_0_42      \Device\Harddisk72\Partition23
resv2_0_43      \Device\Harddisk51\Partition23
resv2_0_44      \Device\Harddisk53\Partition23
resv2_0_45      \Device\Harddisk59\Partition23
resv2_0_46      \Device\Harddisk8\Partition23
resv2_0_47      \Device\Harddisk9\Partition23
resv2_0_48      \Device\Harddisk10\Partition23
resv2_0_49      \Device\Harddisk11\Partition23
resv2_0_50      \Device\Harddisk16\Partition23
resv2_0_51      \Device\Harddisk17\Partition23
resv2_0_52      \Device\Harddisk26\Partition23
resv2_0_53      \Device\Harddisk27\Partition23
resv2_0_54      \Device\Harddisk28\Partition23
resv2_0_55      \Device\Harddisk29\Partition23
resv2_0_56      \Device\Harddisk30\Partition23
resv2_0_57      \Device\Harddisk31\Partition23
resv2_0_58      \Device\Harddisk32\Partition23

```

```

resv2_0_59      \Device\Harddisk33\Partition23
resv2_0_60      \Device\Harddisk46\Partition23
resv2_0_61      \Device\Harddisk47\Partition23
resv2_0_62      \Device\Harddisk48\Partition23
resv2_0_63      \Device\Harddisk49\Partition23
resv2_0_64      \Device\Harddisk60\Partition23
resv2_0_65      \Device\Harddisk61\Partition23
resv2_0_66      \Device\Harddisk67\Partition23
resv2_0_67      \Device\Harddisk68\Partition23
resv2_0_68      \Device\Harddisk66\Partition23

```

createtable_cust.sql

```

/* created automatically by c:/tpcc48000/scripts/buildcreatetable.sh
Fri May 9 10:28:04 2003 */
set timing on
set sqlblanklines on
spool createtable_cust.log
set echo on
drop cluster custcluster including tables ;

create cluster custcluster (
  c_id number
, c_d_id number
, c_w_id number
)
single table
hashkeys 1440000000
hash is ( (c_id * ( 48000 * 10 ) + c_w_id * 10 + c_d_id) )
size 205
pctfree 0 initrans 3
storage ( buffer_pool recycle )
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 binary_double
, c_ytd_payment binary_double
, c_payment_cnt binary_float
, c_delivery_cnt binary_float
, 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 varchar2(500)
)
cluster custcluster (
  c_id
, c_d_id
, c_w_id
);

```

```

set echo off
spool off
exit sql.sqlcode;

```

createtable_hist.sql

```

/* created automatically by c:/tpcc48000/scripts/buildcreatetable.sh
Fri May 9 10:34:52 2003 */
set timing on
set sqlblanklines on
spool createtable_hist.log
set echo on
drop table hist ;

create table hist (
  h_c_id number
, h_c_d_id number
, h_c_w_id number
, h_d_id number
, h_w_id number
, h_date date
, h_amount binary_float
, h_data varchar2(24)
)
pctfree 5 initrans 4
storage ( buffer_pool recycle )
tablespace hist_0 ;
set echo off
spool off
exit sql.sqlcode;

```

createtable_nord.sql

```

/* created automatically by c:/tpcc48000/scripts/buildcreatetable.sh
Fri May 9 10:43:57 2003 */
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 480000
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_ordr.sql

```

/* created automatically by c:/tpcc48000/scripts/buildcreatetable.sh
Fri May 9 10:40:55 2003 */
set timing on
set sqlblanklines on
spool createtable_ordr.log
set echo on
drop cluster ordrccluster_queue including tables ;

create cluster ordrccluster_queue (
  o_w_id number
, o_d_id number
, o_id number SORT
, o_number number SORT
)

hashkeys 480000
hash is ( (o_w_id - 1) * 10 + o_d_id - 1 )
size 1490
tablespace ordr_0;

create table ordr (
  o_id number sort
, o_w_id number
, o_d_id number
, o_c_id number
, o_carrier_id number
, o_ol_cnt number
, o_all_local number
, o_entry_d date
, constraint ordr_uk primary key ( o_w_id
, o_d_id
, o_id )
)
cluster ordrccluster_queue (
  o_w_id
, o_d_id
, o_id
);
set echo off
spool off
exit sql.sqlcode;

```


createtable_ordl.sql

```
/* created automatically by c:/tpcc48000/scripts/buildcreatetable.sh
Fri May 9 10:42:38 2003 */
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 binary_float
, ol_supply_w_id number
, ol_quantity binary_float
, 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 c:/tpcc48000/scripts/buildcreatetable.sh
Fri May 9 10:35:51 2003 */
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 4800000000
hash is ( (s_i_id * 48000 + s_w_id) )
size 350
pctfree 0 initrans 3
storage ( buffer_pool keep )
tablespace stok_0;

create table stok (
    s_i_id number
, s_w_id number
, s_quantity binary_float
, s_ytd binary_double
, s_order_cnt binary_float
, s_remote_cnt binary_float
, 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_dist.sql

```
/* created automatically by c:/tpcc48000/scripts/buildcreatetable.sh
Fri May 9 10:32:23 2003 */
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 480000
hash is ( ((d_w_id * 10) + d_id) )

initrans 4
storage ( buffer_pool default )
tablespace dist_0;

create table dist (
    d_id number
, d_w_id number
, d_ytd binary_double
, 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_item.sql

```
/* created automatically by c:/tpcc48000/scripts/buildcreatetable.sh
Fri May 9 10:39:26 2003 */
set timing on
  set sqlblanklines on
  spool createtable_item.log
  set echo on
  drop cluster itemcluster including tables ;

create cluster itemcluster (
  i_id number(6,0)
)
single table
hashkeys 100000
hash is ( i_id )
size 120
pctfree 0  initrans 3
storage ( buffer_pool keep )
tablespace item_0;

create table item (
  i_id number(6,0)
, i_name varchar2(24)
, i_price binary_float
, i_data varchar2(50)
, i_im_id number
)
cluster itemcluster (
  i_id
);
  set echo off
  spool off
  exit sql.sqlcode;
```

createtable_ware.sql

```
/* created automatically by c:/tpcc48000/scripts/buildcreatetable.sh
Fri May 9 10:25:58 2003 */
set timing on
  set sqlblanklines on
  spool createtable_ware.log
  set echo on
  drop cluster warecluster including tables ;

create cluster warecluster (
  w_id number(5,0)
)
single table
hashkeys 48000
hash is ( (w_id) )

  initrans 2
  storage ( buffer_pool default )
  tablespace ware_0;

create table ware (
  w_id number(5,0)
, w_ytd binary_double
, 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;
```

createindex_iware.sql

```
/* created automatically by c:/tpcc48000/scripts/buildcreateindex.sh
Fri May 9 10:53:19 2003 */
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  initrans 3
storage ( buffer_pool default )
parallel
tablespace iware_0 ;
  set echo off
  spool off
  exit sql.sqlcode;
```

createindex_iitem.sql

```
/* created automatically by c:/tpcc48000/scripts/buildcreateindex.sh
Fri May 9 10:56:06 2003 */
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  initrans 4
storage ( buffer_pool default )
parallel
tablespace iitem_0 ;
  set echo off
  spool off
  exit sql.sqlcode;
```

createindex_idist.sql

```
/* created automatically by c:/tpcc48000/scripts/buildcreateindex.sh
Fri May 9 10:55:05 2003 */
```

```

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 initrans 3
storage ( buffer_pool default )
parallel
tablespace idist_0 ;
set echo off
spool off
exit sql.sqlcode;

```

createindex_iordl.sql

```

/* created automatically by c:/tpcc48000/scripts/buildcreateindex.sh
Fri May 9 10:57:48 2003 */
set timing on
exit 0;

```

createindex_icust1.sql

```

/* created automatically by c:/tpcc48000/scripts/buildcreateindex.sh
Fri May 9 10:53:45 2003 */
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 initrans 3
storage ( buffer_pool default )
parallel
tablespace icust1_0 ;
set echo off
spool off
exit sql.sqlcode;

```

createindex_icust2.sql

```

/* created automatically by c:/tpcc48000/scripts/buildcreateindex.sh
Fri May 9 10:54:20 2003 */
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_first
, c_id )
pctfree 1 initrans 3
storage ( buffer_pool default )
parallel
tablespace icust2_0 ;
set echo off
spool off
exit sql.sqlcode;

```

createindex_inord.sql

```

/* created automatically by c:/tpcc48000/scripts/buildcreateindex.sh
Fri May 9 10:58:28 2003 */
set timing on
exit 0;

```

createindex_iordr1.sql

```

/* created automatically by c:/tpcc48000/scripts/buildcreateindex.sh
Fri May 9 10:56:33 2003 */
set timing on
exit 0;

```

createindex_iordr2.sql

```

/* created automatically by c:/tpcc48000/scripts/buildcreateindex.sh
Fri May 9 10:57:08 2003 */
set timing on
set sqlblanklines on
spool createindex_iordr2.log ;
set echo on ;
drop index iordr2 ;
create unique index iordr2 on order ( o_c_id
, o_d_id
, o_w_id
, o_id )
pctfree 25 initrans 4
storage ( buffer_pool default )
parallel
tablespace iordr2_0 ;
set echo off
spool off
exit sql.sqlcode;

```

createindex_istok.sql

```

/* created automatically by c:/tpcc48000/scripts/buildcreateindex.sh
Fri May 9 10:55:35 2003 */
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 initrans 3
storage ( buffer_pool default )
parallel
tablespace istok_0 ;
        set echo off
        spool off
        exit sql.sqlcode;

```

dml.sql

```

REM=====+
REM          Copyright (c) 1996 Oracle Corp, Redwood Shores, CA |
REM          OPEN SYSTEMS PERFORMANCE GROUP |
REM          All Rights Reserved |
REM=====+
REM FILENAME
REM      dml.sql
REM DESCRIPTION
REM      Disable table locks for TPC-C tables.
REM USAGE
REM      sqlplus tpcc/tpcc dml.sql
REM=====+

```

```

connect tpcc/tpcc;
set echo on;

```

```

        alter table ware disable table lock;
        alter table dist disable table lock;
        alter table cust disable table lock;
        alter table hist disable table lock;
        alter table item disable table lock;
        alter table stok disable table lock;
        alter table ordr disable table lock;
        alter table nord disable table lock;
        alter table ordl disable table lock;

```

```

set echo off;

```

```

connect $oracle_dba/$oracle_dba_password;

```

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 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

```

```

# 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
    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 *.log `find $tpcc_bench/scripts -name '*.log'`
$tpcc_bench/log/
    else
        mv *.log $tpcc_bench/log/
    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
fi
done

if expr $dostep = f > /dev/null; then
    echo No such step: $1
    exit 1
fi

```

stepenv.sh

```

# forces any env variables we set to be exported
set -a
tpcc_kit=t
tpcc_bench=c:/tpcc48000
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
#if test -x /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.
if test -x /bin/ksh; then
tpcc_createts=$tpcc_scripts/createts.ksh
else
tpcc_createts=$tpcc_scripts/createts.sh
fi

tpcc_tabledata=$tpcc_scripts/taledata.sh
tpcc_load=$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_args=
tpcc_user_pass=
tpcc_sqlplus=sqlplus
tpcc_user_pass='tpcc/tpcc'

# import options generated by gui
. ${tpcc_bench}/options.sh

#8gb oracle filesize limit (in k)
tpcc_fsize_limit_k=8388608
#2gb - 1k oracle extent limit (in k)
tpcc_extent_limit_k=2097151

# 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=200M
tpcc_logfile_size=`$tpcc_bcexpr 20 + \( $tpcc_scale \)`M

tpcc_undo_size=`$tpcc_bcexpr 2 \* $tpcc_scale`
if test $tpcc_undo_size -gt 8096; then

```

```

    tpcc_undo_size=8096
fi
tpcc_undo_size="${tpcc_undo_size}M"

tpcc_undo_bs=8K

tpcc_statpack_size=`$tpcc_bcexpr 1 \* $tpcc_scale`
if test $tpcc_statpack_size -gt 2048; then
    tpcc_statpack_size=2048
fi
tpcc_statpack_size="${tpcc_statpack_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)
tpcc_table_list='ware cust dist hist stok item ord1 nord'
tpcc_index_list='iware icust1 icust2 idist istok item iord1 iord2
iord1 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=13
#tpcc_ord1_growth=660
tpcc_ord1_growth=900

#i started indices at 1/10th... need an exact figure
tpcc_iord1_growth=20
tpcc_iord2_growth=20
tpcc_iord1_growth=66
tpcc_inord_growth=2

tpcc_item_growth=0
tpcc_iitem_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_tempts_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
    tpcc_os=unix

    tpcc_stok_tsfileinc=64
    tpcc_cust_tsfileinc=64
    tpcc_iord12_tsfileinc=16
    tpcc_icust2_tsfileinc=16
    tpcc_iord1_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
    tpcc_stok_tsfileinc=
    tpcc_cust_tsfileinc=
    tpcc_iord12_tsfileinc=
    tpcc_icust2_tsfileinc=
    tpcc_iord1_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="buildcreatets buildcreatedb \
buildcreatetable-ware buildcreatetable-cust buildcreatetable-dist \
buildcreatetable-hist buildcreatetable-stok buildcreatetable-item \
buildcreatetable-ordr buildcreatetable-ordl buildcreatetable-nord \
buildloadware buildloadhist buildloaditem buildloadhist buildloadnord \
buildloadordrordl buildloadcust buildloadstok buildfixoo \
buildcreateindex-iware buildcreateindex-icust1 buildcreateindex-icust2 \
buildcreateindex-idist buildcreateindex-istok buildcreateindex-iitem \
buildcreateindex-iordr1 buildcreateindex-iordr2 buildcreateindex-iordl \
buildcreateindex-inord \
listfiles
"

tpcc_steps="runsqllocal-createdb shutdowndb startupdb-p_build \
createuser runscript-createts assigntemp ddview \
    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-loadhist runscript-loaditem runscript- \
loadhist runscript-loadnord runscript-loadordrordl runscript-loadcust \
runscript-loadstok \
    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 \
analyze runscript-loadfixordrordl createtstats createstoredprocs \
createspacestats createmisc"

# 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_tempt_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

```

createdb.sql

```

/* created automatically by c:/tpcc48000/scripts/buildcreatedb.sh Fri
May 9 10:25:42 2003 */
spool createdb.log

```

```

set echo on

shutdown abort

startup pfile=p_create.ora nomount
create database tpcc
    controlfile reuse
    maxinstances 1
    datafile '\\.\system_001' size 500M reuse
    logfile '\\.\log_1' size 73728M reuse,
        '\\.\log_2' size 73728M reuse
    sysaux datafile '\\.\tpccaux.df' size 120M reuse ;

create undo tablespace undo_ts datafile
    '\\.\roll01' size 8096M Reuse blocksize 8K;

set echo off
exit sql.sqlcode

```

addfile.sh

```
#!/bin/sh
# $1 = tablespace name
# $2 = filename
# $3 = size
# $4 = temporary ts (1) or not (0)
# global variable $tpcc_listfiles, does not execute sql

if expr x$tpcc_listfiles = xt > /dev/null; then
    echo $2 $3 >> $tpcc_bench/files.dat
    exit 0
fi

if expr $4 = 1 > /dev/null; then
    altersql="alter tablespace $1 add tempfile '$2' size $3 reuse;"
else
    altersql="alter tablespace $1 add datafile '$2' size $3 reuse
autoextend on;"
fi

$tpcc_sqlplus $tpcc_user_pass <<!
    spool addfile_$1.log
    set echo on
    $altersql
    set echo off
    spool off
    exit ;
!
```

addts.sh

```
#!/bin/sh
# $1 = tablespace name
# $2 = filename
# $3 = size
# $4 = uniform size
# $5 = block size
# $6 = temporary ts (1) or not (0)
# $7 = bitmapped manage (t) or not (f)
# global variable $tpcc_listfiles, does not execute sql

if expr x$tpcc_listfiles = xt > /dev/null; then
    echo $2 $3 >> $tpcc_bench/files.dat
    exit 0
fi

if expr $5 = auto > /dev/null; then
    bssql=
else
    bssql="blocksize $5"
fi

if expr $6 = 1 > /dev/null; then
```

```
    createsql="create temporary tablespace $1 tempfile '$2' size $3 reuse
extent management local uniform size $4;"
else
    if expr x$7 = xt > /dev/null; then
        autospace=auto
    else
        autospace=manual
    fi
    createsql="create tablespace $1 datafile '$2' size $3 reuse extent
management local uniform size $4 segment space management $autospace
$bssql nologging ;"
fi

$tpcc_sqlplus $tpcc_user_pass <<!
    spool createts_$1.log
    set echo on
    drop tablespace $1 including contents;
    $createsql
    set echo off
    spool off
    exit ;
!
```

addodr.sh

```
#!/bin/sh
date
sqlplus tpcc/tpcc <<!

alter tablespace odr_0 add datafile '\\\\.\\odr_0_69' size 2048M
reuse autoextend off;
alter tablespace odr_0 add datafile '\\\\.\\odr_0_70' size 2048M
reuse autoextend off;
alter tablespace odr_0 add datafile '\\\\.\\odr_0_71' size 2048M
reuse autoextend off;
alter tablespace odr_0 add datafile '\\\\.\\odr_0_72' size 2048M
reuse autoextend off;
alter tablespace odr_0 add datafile '\\\\.\\odr_0_73' size 2048M
reuse autoextend off;
alter tablespace odr_0 add datafile '\\\\.\\odr_0_74' size 2048M
reuse autoextend off;
alter tablespace odr_0 add datafile '\\\\.\\odr_0_75' size 2048M
reuse autoextend off;
alter tablespace odr_0 add datafile '\\\\.\\odr_0_76' size 2048M
reuse autoextend off;
alter tablespace odr_0 add datafile '\\\\.\\odr_0_77' size 2048M
reuse autoextend off;
alter tablespace odr_0 add datafile '\\\\.\\odr_0_78' size 2048M
reuse autoextend off;
alter tablespace odr_0 add datafile '\\\\.\\odr_0_79' size 2048M
reuse autoextend off;
alter tablespace odr_0 add datafile '\\\\.\\odr_0_80' size 2048M
reuse autoextend off;
alter tablespace odr_0 add datafile '\\\\.\\odr_0_81' size 2048M
reuse autoextend off;
alter tablespace odr_0 add datafile '\\\\.\\odr_0_82' size 2048M
reuse autoextend off;
alter tablespace odr_0 add datafile '\\\\.\\odr_0_83' size 2048M
```



```

reuse autoextend off;
alter tablespace ord_r_0 add datafile '\\\\.\\ord_r_0_84' size 2048M
reuse autoextend off;
alter tablespace ord_r_0 add datafile '\\\\.\\ord_r_0_85' size 2048M
reuse autoextend off;
alter tablespace ord_r_0 add datafile '\\\\.\\ord_r_0_86' size 2048M
reuse autoextend off;
alter tablespace ord_r_0 add datafile '\\\\.\\ord_r_0_87' size 2048M
reuse autoextend off;
alter tablespace ord_r_0 add datafile '\\\\.\\ord_r_0_88' size 2048M
reuse autoextend off;
alter tablespace ord_r_0 add datafile '\\\\.\\ord_r_0_89' size 2048M
reuse autoextend off;
alter tablespace ord_r_0 add datafile '\\\\.\\ord_r_0_90' size 2048M
reuse autoextend off;
alter tablespace ord_r_0 add datafile '\\\\.\\ord_r_0_91' size 2048M
reuse autoextend off;
alter tablespace ord_r_0 add datafile '\\\\.\\ord_r_0_92' size 2048M
reuse autoextend off;
alter tablespace ord_r_0 add datafile '\\\\.\\ord_r_0_93' size 2048M
reuse autoextend off;
alter tablespace ord_r_0 add datafile '\\\\.\\ord_r_0_94' size 2048M
reuse autoextend off;
alter tablespace ord_r_0 add datafile '\\\\.\\ord_r_0_95' size 2048M
reuse autoextend off;
alter tablespace ord_r_0 add datafile '\\\\.\\ord_r_0_96' size 2048M
reuse autoextend off;
alter tablespace ord_r_0 add datafile '\\\\.\\ord_r_0_97' size 2048M
reuse autoextend off;
alter tablespace ord_r_0 add datafile '\\\\.\\ord_r_0_98' size 2048M
reuse autoextend off;
alter tablespace ord_r_0 add datafile '\\\\.\\ord_r_0_99' size 2048M
reuse autoextend off;
alter tablespace ord_r_0 add datafile '\\\\.\\ord_r_0_100' size 2048M
reuse autoextend off;
alter tablespace ord_r_0 add datafile '\\\\.\\ord_r_0_101' size 2048M
reuse autoextend off;
alter tablespace ord_r_0 add datafile '\\\\.\\ord_r_0_102' size 2048M
reuse autoextend off;
alter tablespace ord_r_0 add datafile '\\\\.\\ord_r_0_103' size 2048M
reuse autoextend off;
alter tablespace ord_r_0 add datafile '\\\\.\\ord_r_0_104' size 2048M
reuse autoextend off;
alter tablespace ord_r_0 add datafile '\\\\.\\ord_r_0_105' size 2048M
reuse autoextend off;
alter tablespace ord_r_0 add datafile '\\\\.\\ord_r_0_106' size 2048M
reuse autoextend off;
alter tablespace ord_r_0 add datafile '\\\\.\\ord_r_0_107' size 2048M
reuse autoextend off;
alter tablespace ord_r_0 add datafile '\\\\.\\ord_r_0_108' size 2048M
reuse autoextend off;

exit;
!
date

```

options.sh

```

tpcc_os='nt'
tpcc_version='ttt'
tpcc_ldrive='69'
tpcc_scale='48000'
tpcc_np='1'
tpcc_cpu='32'
tpcc_memsize='512000'
tpcc_runlen='16'
tpcc_compress='f'
tpcc_overflow='t'
tpcc_defbs='2'

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'
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='3'
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='auto'
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_iord1_imp='none'
tpcc_iord1_size='8072'
tpcc_iord1_ext='calc'
tpcc_iord1_nf='calc'
tpcc_iord1_bs='auto'
tpcc_iord1_used='-1'
tpcc_iord1_free='5'
tpcc_iord1_trans='4'
tpcc_iord1_autospace='t'
tpcc_iord1_flg='43'
tpcc_iord1_fl='22'
tpcc_iord1_rsize='auto'
tpcc_iord1_hkey='auto'
tpcc_iord1_hash='auto'
tpcc_iord1_bpool='default'
tpcc_iord1_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_iorder2_fl='22'
tpcc_iorder2_rsize='auto'
tpcc_iorder2_hkey='auto'
tpcc_iorder2_hash='auto'
tpcc_iorder2_bpool='default'
tpcc_iorder2_indices=4-3-2-1-
```

```
tpcc_istok_imp='index'
tpcc_istok_size='2090'
tpcc_istok_ext='calc'
tpcc_istok_nf='calc'
tpcc_istok_bs='auto'
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
```

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=\\\\.\\
```

```
#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.
#tpcc_no_options=t
```

inittppcc.ora

ifile=C:\tpcc48000\run_thread.ora

run_thread.ora

```
compatible                = 10.1.0.0.0
control_files              = \\.\\control_001
remote_login_passwordfile=SHARED
pga_aggregate_target      = 0
db_block_checksum         = false
db_block_checking         = false
aq_tm_processes           = 0
log_checkpoint_interval = 0
sessions                  = 2500
processes                 = 2300
transactions              = 1000
db_keep_cache_size        = 300000M
db_16k_cache_size         = 35000M
db_recycle_cache_size     = 100000M
cursor_space_for_time     = TRUE
db_8k_cache_size          = 800M
db_block_size             = 2048
db_cache_size             = 41000M
db_files                  = 2000
db_name                   = tpcc
db_writer_processes       = 8
dml_locks                 = 500
fast_start_mttr_target    = 0
log_buffer                = 33554432
log_checkpoint_timeout    = 0
log_checkpoints_to_alert  = TRUE
parallel_max_servers      = 700
recovery_parallelism      = 32
shared_pool_size          = 1400M
```

```

statistics_level          = basic
timed_statistics          = FALSE
undo_management           = AUTO
undo_retention            = 0
undo_tablespace           = undo_ts

```

p_create.ora

```

compatible = 10.1.0.0.0
db_name = tpcc
control_files = \\.\control_001
db_block_size = 2048
db_cache_size = 10M
db_8k_cache_size = 10M
log_buffer = 1048576
db_16k_cache_size = 10M
undo_management = manual

```

loadware.sh

```

cd $tpcc_bench
$tpcc_load -M $tpcc_scale -w > loadware.log 2>&1

```

loaddist.sh

```

cd $tpcc_bench
$tpcc_load -M $tpcc_scale -d > loaddist.log 2>&1

```

loaditem.sh

```

cd $tpcc_bench
$tpcc_load -M $tpcc_scale -i > loaditem.log 2>&1

```

loadhist.sh

```

#created automatically by c:/tpcc48000/scripts/evenload.sh Fri May 9
10:45:02 2003
rm loadhist*.log
cd $tpcc_bench
allprocs=
$tpcc_load -M 48000 -h -b 1 -e 750 >> loadhist0.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 751 -e 1500 >> loadhist1.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 1501 -e 2250 >> loadhist2.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 2251 -e 3000 >> loadhist3.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 3001 -e 3750 >> loadhist4.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 3751 -e 4500 >> loadhist5.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 4501 -e 5250 >> loadhist6.log 2>&1 &

```

```

allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 5251 -e 6000 >> loadhist7.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 6001 -e 6750 >> loadhist8.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 6751 -e 7500 >> loadhist9.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 7501 -e 8250 >> loadhist10.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 8251 -e 9000 >> loadhist11.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 9001 -e 9750 >> loadhist12.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 9751 -e 10500 >> loadhist13.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 10501 -e 11250 >> loadhist14.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 11251 -e 12000 >> loadhist15.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 12001 -e 12750 >> loadhist16.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 12751 -e 13500 >> loadhist17.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 13501 -e 14250 >> loadhist18.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 14251 -e 15000 >> loadhist19.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 15001 -e 15750 >> loadhist20.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 15751 -e 16500 >> loadhist21.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 16501 -e 17250 >> loadhist22.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 17251 -e 18000 >> loadhist23.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 18001 -e 18750 >> loadhist24.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 18751 -e 19500 >> loadhist25.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 19501 -e 20250 >> loadhist26.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 20251 -e 21000 >> loadhist27.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 21001 -e 21750 >> loadhist28.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 21751 -e 22500 >> loadhist29.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 22501 -e 23250 >> loadhist30.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 23251 -e 24000 >> loadhist31.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 24001 -e 24750 >> loadhist32.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 24751 -e 25500 >> loadhist33.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 25501 -e 26250 >> loadhist34.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 26251 -e 27000 >> loadhist35.log 2>&1 &
allprocs="$allprocs ${!}"

```

```

$tpcc_load -M 48000 -h -b 27001 -e 27750 >> loadhist36.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 27751 -e 28500 >> loadhist37.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 28501 -e 29250 >> loadhist38.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 29251 -e 30000 >> loadhist39.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 30001 -e 30750 >> loadhist40.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 30751 -e 31500 >> loadhist41.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 31501 -e 32250 >> loadhist42.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 32251 -e 33000 >> loadhist43.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 33001 -e 33750 >> loadhist44.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 33751 -e 34500 >> loadhist45.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 34501 -e 35250 >> loadhist46.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 35251 -e 36000 >> loadhist47.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 36001 -e 36750 >> loadhist48.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 36751 -e 37500 >> loadhist49.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 37501 -e 38250 >> loadhist50.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 38251 -e 39000 >> loadhist51.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 39001 -e 39750 >> loadhist52.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 39751 -e 40500 >> loadhist53.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 40501 -e 41250 >> loadhist54.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 41251 -e 42000 >> loadhist55.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 42001 -e 42750 >> loadhist56.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 42751 -e 43500 >> loadhist57.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 43501 -e 44250 >> loadhist58.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 44251 -e 45000 >> loadhist59.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 45001 -e 45750 >> loadhist60.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 45751 -e 46500 >> loadhist61.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 46501 -e 47250 >> loadhist62.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -h -b 47251 -e 48000 >> loadhist63.log 2>&1 &
allprocs="$allprocs ${!}"
error=0
for curproc in $allprocs; do
    wait $curproc

```

```

    error=`expr $? + $error`
done
exit `expr $error != 0`

```

loadnord.sh

```

#created automatically by c:/tpcc48000/scripts/evenload.sh Fri May 9
10:46:22 2003
rm loadnord*.log
cd $tpcc_bench
allprocs=
$tpcc_load -M 48000 -n -b 1 -e 750 >> loadnord0.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 751 -e 1500 >> loadnord1.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 1501 -e 2250 >> loadnord2.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 2251 -e 3000 >> loadnord3.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 3001 -e 3750 >> loadnord4.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 3751 -e 4500 >> loadnord5.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 4501 -e 5250 >> loadnord6.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 5251 -e 6000 >> loadnord7.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 6001 -e 6750 >> loadnord8.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 6751 -e 7500 >> loadnord9.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 7501 -e 8250 >> loadnord10.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 8251 -e 9000 >> loadnord11.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 9001 -e 9750 >> loadnord12.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 9751 -e 10500 >> loadnord13.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 10501 -e 11250 >> loadnord14.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 11251 -e 12000 >> loadnord15.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 12001 -e 12750 >> loadnord16.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 12751 -e 13500 >> loadnord17.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 13501 -e 14250 >> loadnord18.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 14251 -e 15000 >> loadnord19.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 15001 -e 15750 >> loadnord20.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 15751 -e 16500 >> loadnord21.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 16501 -e 17250 >> loadnord22.log 2>&1 &
allprocs="$allprocs ${!}"

```

```

$tpcc_load -M 48000 -n -b 17251 -e 18000 >> loadnord23.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 18001 -e 18750 >> loadnord24.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 18751 -e 19500 >> loadnord25.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 19501 -e 20250 >> loadnord26.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 20251 -e 21000 >> loadnord27.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 21001 -e 21750 >> loadnord28.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 21751 -e 22500 >> loadnord29.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 22501 -e 23250 >> loadnord30.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 23251 -e 24000 >> loadnord31.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 24001 -e 24750 >> loadnord32.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 24751 -e 25500 >> loadnord33.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 25501 -e 26250 >> loadnord34.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 26251 -e 27000 >> loadnord35.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 27001 -e 27750 >> loadnord36.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 27751 -e 28500 >> loadnord37.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 28501 -e 29250 >> loadnord38.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 29251 -e 30000 >> loadnord39.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 30001 -e 30750 >> loadnord40.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 30751 -e 31500 >> loadnord41.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 31501 -e 32250 >> loadnord42.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 32251 -e 33000 >> loadnord43.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 33001 -e 33750 >> loadnord44.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 33751 -e 34500 >> loadnord45.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 34501 -e 35250 >> loadnord46.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 35251 -e 36000 >> loadnord47.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 36001 -e 36750 >> loadnord48.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 36751 -e 37500 >> loadnord49.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 37501 -e 38250 >> loadnord50.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 38251 -e 39000 >> loadnord51.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 39001 -e 39750 >> loadnord52.log 2>&1 &

```

```

allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 39751 -e 40500 >> loadnord53.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 40501 -e 41250 >> loadnord54.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 41251 -e 42000 >> loadnord55.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 42001 -e 42750 >> loadnord56.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 42751 -e 43500 >> loadnord57.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 43501 -e 44250 >> loadnord58.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 44251 -e 45000 >> loadnord59.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 45001 -e 45750 >> loadnord60.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 45751 -e 46500 >> loadnord61.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 46501 -e 47250 >> loadnord62.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -n -b 47251 -e 48000 >> loadnord63.log 2>&1 &
allprocs="$allprocs ${!}"
error=0
for curproc in $allprocs; do
    wait $curproc
    error=`expr $? + $error`
done
exit `expr $error != 0`

```

loadordrordl.sh

```

#created automatically by c:/tpcc48000/scripts/evenload.sh Sun Jun 22
20:28:43 JST 2003
rm loadordrordl*.log
cd $tpcc bench
allprocs=
$tpcc_load -M 48000 -o \\\dummy0.dat -b 1 -e 3000 >>
loadordrordl0.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -o \\\dummy1.dat -b 3001 -e 6000 >>
loadordrordl1.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -o \\\dummy2.dat -b 6001 -e 9000 >>
loadordrordl2.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -o \\\dummy3.dat -b 9001 -e 12000 >>
loadordrordl3.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -o \\\dummy4.dat -b 12001 -e 15000 >>
loadordrordl4.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -o \\\dummy5.dat -b 15001 -e 18000 >>
loadordrordl5.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -o \\\dummy6.dat -b 18001 -e 21000 >>
loadordrordl6.log 2>&1 &

```

```

allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -o \\\dummy7.dat -b 21001 -e 24000 >>
loadordrordl7.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -o \\\dummy8.dat -b 24001 -e 27000 >>
loadordrordl8.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -o \\\dummy9.dat -b 27001 -e 30000 >>
loadordrordl9.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -o \\\dummy10.dat -b 30001 -e 33000 >>
loadordrordl10.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -o \\\dummy11.dat -b 33001 -e 36000 >>
loadordrordl11.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -o \\\dummy12.dat -b 36001 -e 39000 >>
loadordrordl12.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -o \\\dummy13.dat -b 39001 -e 42000 >>
loadordrordl13.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -o \\\dummy14.dat -b 42001 -e 45000 >>
loadordrordl14.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -o \\\dummy15.dat -b 45001 -e 48000 >>
loadordrordl15.log 2>&1 &
allprocs="$allprocs ${!}"
error=0
for curproc in $allprocs; do
    wait $curproc
    error=`expr $? + $error`
done
exit `expr $error != 0`

```

loadcust.sh

```

#created automatically by c:/tpcc48000/scripts/evenload.sh Fri May 9
10:49:14 2003
rm loadcust*.log
cd $tpcc_bench
allprocs=
$tpcc_load -M 48000 -c -b 1 -e 750 >> loadcust0.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 751 -e 1500 >> loadcust1.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 1501 -e 2250 >> loadcust2.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 2251 -e 3000 >> loadcust3.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 3001 -e 3750 >> loadcust4.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 3751 -e 4500 >> loadcust5.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 4501 -e 5250 >> loadcust6.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 5251 -e 6000 >> loadcust7.log 2>&1 &

```

```

allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 6001 -e 6750 >> loadcust8.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 6751 -e 7500 >> loadcust9.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 7501 -e 8250 >> loadcust10.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 8251 -e 9000 >> loadcust11.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 9001 -e 9750 >> loadcust12.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 9751 -e 10500 >> loadcust13.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 10501 -e 11250 >> loadcust14.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 11251 -e 12000 >> loadcust15.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 12001 -e 12750 >> loadcust16.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 12751 -e 13500 >> loadcust17.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 13501 -e 14250 >> loadcust18.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 14251 -e 15000 >> loadcust19.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 15001 -e 15750 >> loadcust20.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 15751 -e 16500 >> loadcust21.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 16501 -e 17250 >> loadcust22.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 17251 -e 18000 >> loadcust23.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 18001 -e 18750 >> loadcust24.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 18751 -e 19500 >> loadcust25.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 19501 -e 20250 >> loadcust26.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 20251 -e 21000 >> loadcust27.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 21001 -e 21750 >> loadcust28.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 21751 -e 22500 >> loadcust29.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 22501 -e 23250 >> loadcust30.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 23251 -e 24000 >> loadcust31.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 24001 -e 24750 >> loadcust32.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 24751 -e 25500 >> loadcust33.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 25501 -e 26250 >> loadcust34.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 26251 -e 27000 >> loadcust35.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 27001 -e 27750 >> loadcust36.log 2>&1 &
allprocs="$allprocs ${!}"

```



```

$tpcc_load -M 48000 -c -b 27751 -e 28500 >> loadcust37.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 28501 -e 29250 >> loadcust38.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 29251 -e 30000 >> loadcust39.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 30001 -e 30750 >> loadcust40.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 30751 -e 31500 >> loadcust41.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 31501 -e 32250 >> loadcust42.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 32251 -e 33000 >> loadcust43.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 33001 -e 33750 >> loadcust44.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 33751 -e 34500 >> loadcust45.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 34501 -e 35250 >> loadcust46.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 35251 -e 36000 >> loadcust47.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 36001 -e 36750 >> loadcust48.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 36751 -e 37500 >> loadcust49.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 37501 -e 38250 >> loadcust50.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 38251 -e 39000 >> loadcust51.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 39001 -e 39750 >> loadcust52.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 39751 -e 40500 >> loadcust53.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 40501 -e 41250 >> loadcust54.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 41251 -e 42000 >> loadcust55.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 42001 -e 42750 >> loadcust56.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 42751 -e 43500 >> loadcust57.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 43501 -e 44250 >> loadcust58.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 44251 -e 45000 >> loadcust59.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 45001 -e 45750 >> loadcust60.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 45751 -e 46500 >> loadcust61.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 46501 -e 47250 >> loadcust62.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -c -b 47251 -e 48000 >> loadcust63.log 2>&1 &
allprocs="$allprocs ${!}"
error=0
for curproc in $allprocs; do
    wait $curproc
    error=`expr $? + $error`
done

```

```
exit `expr $error != 0`
```

loadstok.sh

```

#created automatically by c:/tpcc48000/scripts/evenload.sh Fri May 9
10:50:32 2003
rm loadstok*.log
cd $tpcc_bench
allprocs=
$tpcc_load -M 48000 -S -j 1 -k 1562 >> loadstok0.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 1563 -k 3124 >> loadstok1.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 3125 -k 4686 >> loadstok2.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 4687 -k 6248 >> loadstok3.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 6249 -k 7810 >> loadstok4.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 7811 -k 9372 >> loadstok5.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 9373 -k 10934 >> loadstok6.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 10935 -k 12496 >> loadstok7.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 12497 -k 14058 >> loadstok8.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 14059 -k 15620 >> loadstok9.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 15621 -k 17182 >> loadstok10.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 17183 -k 18744 >> loadstok11.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 18745 -k 20306 >> loadstok12.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 20307 -k 21868 >> loadstok13.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 21869 -k 23430 >> loadstok14.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 23431 -k 24992 >> loadstok15.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 24993 -k 26554 >> loadstok16.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 26555 -k 28116 >> loadstok17.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 28117 -k 29678 >> loadstok18.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 29679 -k 31240 >> loadstok19.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 31241 -k 32802 >> loadstok20.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 32803 -k 34364 >> loadstok21.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 34365 -k 35926 >> loadstok22.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 35927 -k 37488 >> loadstok23.log 2>&1 &
allprocs="$allprocs ${!}"

```

```

$tpcc_load -M 48000 -S -j 37489 -k 39050 >> loadstok24.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 39051 -k 40612 >> loadstok25.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 40613 -k 42174 >> loadstok26.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 42175 -k 43736 >> loadstok27.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 43737 -k 45298 >> loadstok28.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 45299 -k 46860 >> loadstok29.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 46861 -k 48422 >> loadstok30.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 48423 -k 49984 >> loadstok31.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 49985 -k 51547 >> loadstok32.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 51548 -k 53110 >> loadstok33.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 53111 -k 54673 >> loadstok34.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 54674 -k 56236 >> loadstok35.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 56237 -k 57799 >> loadstok36.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 57800 -k 59362 >> loadstok37.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 59363 -k 60925 >> loadstok38.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 60926 -k 62488 >> loadstok39.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 62489 -k 64051 >> loadstok40.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 64052 -k 65614 >> loadstok41.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 65615 -k 67177 >> loadstok42.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 67178 -k 68740 >> loadstok43.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 68741 -k 70303 >> loadstok44.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 70304 -k 71866 >> loadstok45.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 71867 -k 73429 >> loadstok46.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 73430 -k 74992 >> loadstok47.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 74993 -k 76555 >> loadstok48.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 76556 -k 78118 >> loadstok49.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 78119 -k 79681 >> loadstok50.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 79682 -k 81244 >> loadstok51.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 81245 -k 82807 >> loadstok52.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 82808 -k 84370 >> loadstok53.log 2>&1 &

```

```

allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 84371 -k 85933 >> loadstok54.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 85934 -k 87496 >> loadstok55.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 87497 -k 89059 >> loadstok56.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 89060 -k 90622 >> loadstok57.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 90623 -k 92185 >> loadstok58.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 92186 -k 93748 >> loadstok59.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 93749 -k 95311 >> loadstok60.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 95312 -k 96874 >> loadstok61.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 96875 -k 98437 >> loadstok62.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_load -M 48000 -S -j 98438 -k 100000 >> loadstok63.log 2>&1 &
allprocs="$allprocs ${!}"
error=0
for curproc in $allprocs; do
    wait $curproc
    error=`expr $? + $error`
done
exit `expr $error != 0`

```

loadfixordrordl.sh

```

#created automatically by c:/tpcc48000/scripts/evenload.sh Sun Jun 22
20:28:54 JST 2003
rm loadfixordrordl*.log
cd $tpcc_bench
allprocs=
$tpcc_updateordrordl -M 48000 -o -b 1 -e 3000 >> loadfixordrordl0.log
2>&1 &
allprocs="$allprocs ${!}"
$tpcc_updateordrordl -M 48000 -o -b 3001 -e 6000 >>
loadfixordrordl1.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_updateordrordl -M 48000 -o -b 6001 -e 9000 >>
loadfixordrordl2.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_updateordrordl -M 48000 -o -b 9001 -e 12000 >>
loadfixordrordl3.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_updateordrordl -M 48000 -o -b 12001 -e 15000 >>
loadfixordrordl4.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_updateordrordl -M 48000 -o -b 15001 -e 18000 >>
loadfixordrordl5.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_updateordrordl -M 48000 -o -b 18001 -e 21000 >>
loadfixordrordl6.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_updateordrordl -M 48000 -o -b 21001 -e 24000 >>

```

```

loadfixordrordl7.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_updateordrordl -M 48000 -o -b 24001 -e 27000 >>
loadfixordrordl8.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_updateordrordl -M 48000 -o -b 27001 -e 30000 >>
loadfixordrordl9.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_updateordrordl -M 48000 -o -b 30001 -e 33000 >>
loadfixordrordl10.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_updateordrordl -M 48000 -o -b 33001 -e 36000 >>
loadfixordrordl11.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_updateordrordl -M 48000 -o -b 36001 -e 39000 >>
loadfixordrordl12.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_updateordrordl -M 48000 -o -b 39001 -e 42000 >>
loadfixordrordl13.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_updateordrordl -M 48000 -o -b 42001 -e 45000 >>
loadfixordrordl14.log 2>&1 &
allprocs="$allprocs ${!}"
$tpcc_updateordrordl -M 48000 -o -b 45001 -e 48000 >>
loadfixordrordl15.log 2>&1 &
allprocs="$allprocs ${!}"
error=0
for curproc in $allprocs; do
    wait $curproc
    error=`expr $? + $error`
done
exit `expr $error != 0`

```

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: dict manage ]

name=$1
fileno=$2
noofts=$3
filesize=$4
extsize=$5
ver=$6
isTemp=$7
filecount=$8
para=`expr $9 \* 2`
blocksize=`echo $@ | cut -d' ' -f10`
autospace=`echo $@ | cut -d' ' -f11`

addts=$tpcc_scripts/addts.sh

```

```

addfile=$tpcc_scripts/addfile.sh

if test $ver = unix;
then
    fileaddr=$tpcc_disks_location/;
elif test $ver = nt;
then
    fileaddr=\\\\.\\;
fi

i=0
while test $i -lt $noofts; do

    filecount=`expr $filecount + 1`;

    $addts $name\_ $i $fileaddr$name\_ $i\_0 $filesize $extsize $blocksize
$isTemp $autospace \> junk$filecount 2\>\&1 \&;
    eval "proc$filecount=$!"

    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'$k`
            eval "proc$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'$k`
        eval "proc$k=$?"
        k=`expr $k + 1`
    done
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`;
    $addfile $name\_ $i $fileaddr$name\_ $i\_ `expr $j + 1` $filesize
    $isTemp \> junk$filecount 2\>\&1 \&;
    eval "proc$filecount=$!"

    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'$k`
            eval "proc$k=$?"
            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 $filecount; do
        wait `eval echo '$proc'$k`
        eval "proc$k=$?"
        k=`expr $k + 1`;
    done
fi
fi

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`

if test $out -ne 0
then
    exit 1;
else

```

```

    exit 0;
fi

```

create_cache_views.sql

```

rem This script creates four views that when queried will return
rem the total number of buffers in the buffer cache and the total
rem number of cloned buffers from each of the database's tablespaces.
rem
rem This assumes that each table and index is in its own tablespace.
rem If this is not the case, another query can be used which uses the
rem database's object tables to decipher the different objects.
rem However,
rem this query is slower.
rem
rem This script assumes 7.3.x. If you are using V7.2.x or below,
rem please
rem replace svrmgr1 with sqldba lmode=y.
rem
rem Modification History:
rem
rem wbattist      16-Jun-1996      Create two additional views to keep
rem                               track of the number of clones in each
rem                               tablespace.
rem
rem wbattist      24-May-1995      Add the state check for the cbf view
rem                               to ensure that cloned blocks are not
rem                               counted.
rem
connect $oracle_dba/$oracle_dba_password;
set echo on;
drop view cbf;
create view cbf as
    select distinct(dbarfil) file#, count(1) blocks
    from x$bh
    where dbarfil > 0 and state <> 3
    group by dbarfil;
drop view cbt;
create view cbt as
    select ts$.name name,sum(cbf.blocks) buffers
    from cbf, file$, ts$
    where cbf.file#=file$.file# and file$.ts#=ts$.ts#
    group by file$.ts#, ts$.name;
drop view cbfcln;
create view cbfcln as
    select distinct(dbarfil) file#, count(1) blocks
    from x$bh
    where dbarfil > 0
    group by dbarfil;
drop view cbtcln;
create view cbtcln as
    select ts$.name name,sum(cbfcln.blocks) buffers
    from cbfcln, file$, ts$
    where cbfcln.file#=file$.file# and file$.ts#=ts$.ts#
    group by file$.ts#, ts$.name;

```

```
set echo off;
```

extent.sql

```
REM          Copyright (c) 1994 Oracle Corp, Belmont, CA      |
REM          OPEN SYSTEMS PERFORMANCE GROUP                  |
REM          All Rights Reserved                              |
REM=====+
REM FILENAME
REM          extent.sql
REM DESCRIPTION
REM          List all extents in all the TPCC tablespaces.
REM
REM Usage: sqlplus 'sys/change_on_install as sysdba' @extent
REM=====+*/
      set space 2
      set pagesize 2000
      set echo off
      set termout off
      set verify off
      set feedback off
      spool extent.rpt
      select substr(e.tablespace_name,1,8) tspace,
             substr(segment_name,1,11) segment, substr(segment_type,1,15)
type,
             substr(extent_id,1,5) eid, substr(file_id,1,5) fid, blocks,
             blocks * t.block_size / 1048576 size_MB
      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 = t.tablespace_name
      order by e.tablespace_name, segment_name, extent_id, file_id;

      select substr(e.tablespace_name,1,8) tspace,
             substr(segment_name,1,11) segment,
             sum(blocks) tot_blk, sum(blocks) * t.block_size / 1048576
size_MB
      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 = t.tablespace_name
      group by e.tablespace_name, segment_name, t.block_size
      order by e.tablespace_name, segment_name;
      spool off;
```

pst_c.sql

```
rem
rem
rem=====+
rem          Copyright (c) 1992 Oracle Corp, Belmont, CA      |
```

```
rem          OPEN SYSTEMS PERFORMANCE GROUP                  |
rem          All Rights Reserved                              |
rem=====+
rem FILENAME
rem          pst_c.sql
rem DESCRIPTION
rem          Create Table for OS Specific Process Stats
rem
rem=====+*/
rem
rem Tables for Unix-specific process statistics
rem
rem Usage: sqlplus internal/internal @pst_c
rem
```

```
connect tpcc/tpcc;
set echo on;
DROP TABLE proc_resource;
DROP TABLE os_stat;
```

```
rem
rem Resource usage for a process.
rem
```

```
CREATE TABLE proc_resource
(
    config          VARCHAR2(10),
    run             NUMBER,
    proc            NUMBER,
    child           NUMBER,
    user_cpu_ms     NUMBER,
    system_cpu_ms   NUMBER,
    maxrss          NUMBER,
    pagein          NUMBER,
    reclaim         NUMBER,
    zerofill        NUMBER,
    pffincr         NUMBER,
    pffdecr         NUMBER,
    swap            NUMBER,
    syscall         NUMBER,
    volcsw          NUMBER,
    involcsw        NUMBER,
    signal          NUMBER,
    lread           NUMBER,
    lwrite          NUMBER,
    bread           NUMBER,
    bwrite          NUMBER,
    phread          NUMBER,
    phwrite         NUMBER
);
```

```
rem
rem OS statistics.
rem These results are from the measurement interval only.
rem
```

```
CREATE TABLE os_stat
(
    config          VARCHAR2(10),
```

```

run          NUMBER,
hid          NUMBER,
syscall     NUMBER,
intr        NUMBER,
cswitch     NUMBER,
pagefault   NUMBER,
usr         NUMBER,
sys         NUMBER,
idl         NUMBER,
wio         NUMBER
);

set echo off;

```

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_totospace;

insert into tpcc_data
select substr(segment_name,1,11), 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 =
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 =
'SYSTEM'
       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 'ROLL%' 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 = 'ORDR' OR
       segment = 'IORDL';

insert into tpcc_space
select substr(ex$.name,1,11), sum(sp$.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,1,11), sum(blocks), t.block_size, 0,
0, 0, 0
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;

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)
        from   tpcc_data
        where  tpcc_data.segment = tpcc_space.segment
    )
where segment in ('HIST', 'ORDR', '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(11),
    type       varchar2(15),
    blocks     number,
    block_size number,
    five_pct   number,
    daily_grow number,

```

```

        total        number
    );
create table tpcc_space (
    segment    varchar2(11),
    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 itpcc_data on tpcc_data (segment);
create unique index itpcc_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;

```

analyze.sh

```
#!/bin/sh
$tpcc_sqlplus $tpcc_user_pass @${tpcc_sql_dir}/analyze >
$tpcc_log_dir/junk 2>&1

# this one tends to fail if indices aren't made, which is legal, so
# always exit without error.

exit 0
```

analyze.sql

```
spool analyze.log;
set echo on;

connect tpcc/tpcc;

execute dbms_stats.GATHER_TABLE_STATS (OWNNAME=>'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 (OWNNAME=>'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 (OWNNAME=>'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 (OWNNAME=>'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 (OWNNAME=>'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 (OWNNAME=>'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 (OWNNAME=>'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 (OWNNAME=>'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 (OWNNAME=>'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;
```

createstoredprocs.sh

```
#!/bin/sh
$tpcc_sqlplus $tpcc_user_pass @$tpcc_sql_dir/createstoredprocs > junk
2>&1

if test $? -ne 0
then
    exit 1;
else
    exit 0;
fi
```

createstoredprocs.sql

```
spool createstoredprocs.log
@scripts/sql/tkvcinin.sql
spool off
exit sql.sqlcode;
```

tkvcinin.sql

```
-- The initnew package for storing variables used in the
-- New Order anonymous block

CREATE OR REPLACE PACKAGE inittpcc
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;
    idxlarr         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 inittpcc;
/
show errors;

CREATE OR REPLACE PACKAGE BODY inittpcc AS
    PROCEDURE init_no (idxarr intarray)
```

```
IS
BEGIN
    -- initialize null date
    nulldate := TO_DATE('01-01-1811', 'MM-DD-YYYY');
    idxlarr := 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 inittpcc;
/
show errors
exit
```

createspacestats.sh

```
#!/bin/sh
$tpcc_sqlplus $tpcc_dba_user_pass @$tpcc_sql_dir/createspacestats >
junk 2>&1

if test $? -ne 0
then
    exit 1;
else
    exit 0;
fi
```

createspacestats.sql

```
spool createspacestats.log
@scripts/sql/space_init
@scripts/sql/space_get 12 10
@scripts/sql/space_rpt
spool off
exit sql.sqlcode;
```

createuser.sh

```
#!/bin/sh

echo Creating user tpcc...
$tpcc_sqlplus $tpcc_dba_user_pass @$tpcc_sql_dir/createuser > junk 2>&1
```

```

if test $? -ne 0
then
    exit 1;
else
    exit 0;
fi

```

createuser.sql

```

spool createusertpcc.log;

set echo on;

create user tpcc identified by tpcc;

grant dba to tpcc;

set echo off;
spool off;

exit ;

```

assigntemp.sh

```

#!/bin/sh

echo Assigning temporary tablespace to user tpcc...
$tpcc_sqlplus $tpcc_dba_user_pass @$tpcc_sql_dir/assigntemp > junk 2>&1
if test $? -ne 0
then
    exit 1;
else
    exit 0;
fi

```

assigntemp.sql

```

spool assigntemp.log;

set echo on;

alter user tpcc temporary tablespace temp_0;

set echo off;
spool off;

exit ;

```

shutdowndb.sh

```

#!/bin/sh

```

```

echo "Shutting down database..."

$tpcc_sqlplus $tpcc_sqlplus_args << !
$tpcc_internal_connect

spool shutdowndb.log;

set echo on;

alter system switch logfile;
alter system switch logfile;

shutdown immediate;

set echo off;
spool off;

exit
!

```

startupdb.sh

```

#!/bin/sh

echo "Starting up database using $1..."

$tpcc_sqlplus $tpcc_sqlplus_args << !
$tpcc_internal_connect

spool startdb.log

set echo on

startup pfile=${1}.ora open

spool off
set echo off
exit sql.sqlcode

```

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 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;

```

ddview.sh

```

#!/bin/sh

$tpcc_sqlplus $tpcc_sqlplus_args << !
$tpcc_internal_connect

spool ddview.log

REM
REM In an ade/nde view we might need to run standard.sql and dbmsstdx
manually
REM catalog and catproc suppose to take care of it
REM

@$ORACLE_HOME/plsql/admin/standard
@$ORACLE_HOME/rdbms/admin/dbmsstdx

@$ORACLE_HOME/rdbms/admin/catalog
@$ORACLE_HOME/rdbms/admin/catproc

REM
REM In an ade/nde view we might need to run pupbld manually
REM catalog and catproc suppose to take care of it
REM

connect system/manager
REM @$ORACLE_HOME/sqlplus/admin/pupbld

REM
REM Oracle
REM

REM if test $NUMBER_ORACLE_NODE -gt 1
REM then

```

```

@$ORACLE_HOME/rdbms/admin/catparr

REM fi

spool off
!

```

createmisc.sh

```

#!/bin/sh

$tpcc_sqlplus $tpcc_sqlplus_args << !
$tpcc_internal_connect

spool createmisc.log
set echo on;
alter user tpcc temporary tablespace system;
grant execute on dbms_lock to public;
grant execute on dbms_pipe to public;
grant select on v_\$parameter to public;

REM
REM begin plsql_mon.sql
REM

connect tpcc/tpcc;
set echo on;
CREATE OR REPLACE PACKAGE plsql_mon_pack
IS
    PROCEDURE print
    (
        info          VARCHAR2
    );
END;
/
show errors;

CREATE OR REPLACE PACKAGE BODY plsql_mon_pack
IS
    PROCEDURE print
    (
        info          VARCHAR2
    )
    IS
        s              NUMBER;
    BEGIN
        dbms_pipe.pack_message (info);
        s := dbms_pipe.send_message ('plsql_mon');
        IF (s <> 0) THEN
            raise_application_error (-20000, 'Error:' || to_char(s) ||
                ' sending on pipe');
        END IF;
    END;
END;
/
show errors;

```

```

set echo off;

REM
REM end plsql_mon.sql
REM

REM
REM begin cre_tab.sql
REM

connect tpcc/tpcc;
set echo on;

drop table temp_o1;
drop table temp_no;
drop table temp_o2;
drop table temp_o1;
drop table tpcc_audit_tab;

create table temp_o1 (
    o_w_id integer,
    o_d_id integer,
    o_o_id integer);

create table temp_no (
    no_w_id integer,
    no_d_id integer,
    no_o_id integer);

create table temp_o2 (
    o_w_id integer,
    o_d_id integer,
    o_count integer);

create table temp_o1 (
    ol_w_id integer,
    ol_d_id integer,
    ol_count integer);

create table tpcc_audit_tab (starttime date);

delete from tpcc_audit_tab;

set echo off;

REM
REM end cre_tab.sql
REM

REM
REM begin views.sql
REM

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 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;

REM
REM end views.sql
REM

REM
REM begin dml.sql
REM

connect tpcc/tpcc;
set echo on;

alter table ware disable table lock;
alter table dist disable table lock;
alter table cust disable table lock;
alter table hist disable table lock;
alter table item disable table lock;
alter table stok disable table lock;
alter table ordr disable table lock;
alter table nord disable table lock;
alter table ordl disable table lock;

set echo off;

REM
REM end dml.sql
REM

REM
REM begin extent.sql
REM

SYS_CONNECTION_STRING

```

```

@${tpcc_sql_dir}/extent

@${tpcc_sql_dir}/freeext

exit sql.sqlcode;

!

```

createstats.sh

```

#!/bin/sh

$tpcc_sqlplus $tpcc_sqlplus_args << !
$tpcc_internal_connect

REM
REM create tablespace for statspack user sp begin
REM

spool createstats.log

set echo on
drop tablespace sp_0 including contents;
create tablespace sp_0 datafile '\\\\.\sp_0' size 500M reuse
autoextend on extent management local uniform size 1M nologging ;
spool off

REM
REM create tablespace for statspack user sp end
REM

REM
REM begin now call spcreate to create statspack sp package
REM

$tpcc_internal_connect

define default_tablespace='sp_0'

define temporary_tablespace='temp_0'

@$ORACLE_HOME/rdbms/admin/spcreate
perfstat

REM note that the last thing (after spcreate) is the perfstat password.
REM since we're not worried about security, perfstat will do.

REM
REM tpcc stat table for NT, it is not working so I comment it out
REM shui.lau@oracle.com it is better to use perfmon
REM

@${tpcc_sql_dir}/cs_tpcc
@${tpcc_sql_dir}/cs_cpu
@${tpcc_sql_dir}/cs_os
@${tpcc_sql_dir}/cs_proc

```

```

@${tpcc_sql_dir}/cs_thread

REM
REM tpcc result table for unix and NT
REM

@${tpcc_sql_dir}/c_stat
@${tpcc_sql_dir}/pst_c

!

```

createts.sh

```

#created automatically by c:/tpcc48000/scripts/buildcreatets.sh Fri May
9 10:12:32 2003
# Tablespace ware, ts size 118M (120000K)
# each file 1739K (1739K)
# extents 1488K (1488K)
# 69 files
$tpcc_createts ware 69 1 1739K 1488K nt 0 0 32 auto t
if expr $? != 0 > /dev/null; then
    echo Creating tablespace for ware failed. Exiting.
    exit 0
fi
# Tablespace cust, ts size (1494140625K)
# each file 7040M (7208960K)
# extents 1800960K (1800960K)
# 207 files
$tpcc_createts cust 207 1 7040M 300M nt 0 69 32 auto t
if expr $? != 0 > /dev/null; then
    echo Creating tablespace for cust failed. Exiting.
    exit 0
fi
# Tablespace dist, ts size 2G (1200000K)
# each file 17M (17408K)
# extents 15565K (15565K)
# 69 files
$tpcc_createts dist 69 1 17M 15565K nt 0 276 32 auto t
if expr $? != 0 > /dev/null; then
    echo Creating tablespace for dist failed. Exiting.
    exit 0
fi
# Tablespace hist, ts size 104G (108096480K)
# each file 1530M (1566720K)
# extents 96832K (96832K)
# 69 files
$tpcc_createts hist 69 1 1530M 96832K nt 0 345 32 auto t
if expr $? != 0 > /dev/null; then
    echo Creating tablespace for hist failed. Exiting.
    exit 0
fi
# Tablespace stok, ts size (2050781250K)
# each file 7250M (7424000K)
# extents 1854720K (1854720K)
# 276 files
$tpcc_createts stok 276 1 7250M 400M nt 0 414 32 auto t
if expr $? != 0 > /dev/null; then

```

```

        echo Creating tablespace for stok failed.  Exiting.
        exit 0
    fi
# Tablespace item, ts size 16M (15868K)
# each file 1M (1024K)
# extents 876K (876K)
# 69 files
$tpcc_createts item 69 1          1M 876K nt 0          690 32 auto t
    if expr $? != 0 > /dev/null; then
        echo Creating tablespace for item failed.  Exiting.
        exit 0
    fi
# Tablespace ordr, ts size (1390528800K)
# each file 19600M (20070400K)
# extents 101370K (101370K)
# 69 files
$tpcc_createts ordr 69 1          19600M 101370K nt 0      759 32 16K t
    if expr $? != 0 > /dev/null; then
        echo Creating tablespace for ordr failed.  Exiting.
        exit 0
    fi
# Tablespace nord, ts size 11G (10842240K)
# each file 195M
# extents 33100K
# 69 files
$tpcc_createts nord 69 1          195M 33100K nt 0          828 32 auto t
    if expr $? != 0 > /dev/null; then
        echo Creating tablespace for nord failed.  Exiting.
        exit 0
    fi
# Tablespace iware, ts size 59M (60000K)
# each file 1M (1024K)
# extents 10K (10K)
# 69 files
$tpcc_createts iware 69 1          1M 10K nt 0          897 32 auto t
    if expr $? != 0 > /dev/null; then
        echo Creating tablespace for iware failed.  Exiting.
        exit 0
    fi
# Tablespace icust1, ts size 43G (44160000K)
# each file 625M (640000K)
# extents 297K (297K)
# 69 files
$tpcc_createts icust1 69 1          625M 297K nt 0          966 32 auto t
    if expr $? != 0 > /dev/null; then
        echo Creating tablespace for icust1 failed.  Exiting.
        exit 0
    fi
# Tablespace icust2, ts size 263G (275460000K)
# each file 3890M (3983360K)
# extents 1847K (1847K)
# 69 files
$tpcc_createts icust2 69 1          3890M 1847K nt 0      1035 32 auto t
    if expr $? != 0 > /dev/null; then
        echo Creating tablespace for icust2 failed.  Exiting.
        exit 0
    fi
# Tablespace idist, ts size 235M (240000K)
# each file 3478K (3478K)

```

```

# extents 23K (23K)
# 69 files
$tpcc_createts idist 69 1          3478K 23K nt 0          1104 32 auto t
    if expr $? != 0 > /dev/null; then
        echo Creating tablespace for idist failed.  Exiting.
        exit 0
    fi
# Tablespace istok, ts size 120G (125400000K)
# each file 1770M (1812480K)
# extents 840K (840K)
# 69 files
$tpcc_createts istok 69 1          1770M 840K nt 0          1173 32 auto t
    if expr $? != 0 > /dev/null; then
        echo Creating tablespace for istok failed.  Exiting.
        exit 0
    fi
# Tablespace iitem, ts size 3M (2560K)
# each file 1M (1024K)
# extents 10K (10K)
# 69 files
$tpcc_createts iitem 69 1          1M 10K nt 0          1242 32 auto t
    if expr $? != 0 > /dev/null; then
        echo Creating tablespace for iitem failed.  Exiting.
        exit 0
    fi
# Tablespace iordr2, ts size 66G (68349600K)
# each file 968M (991232K)
# extents 459K (459K)
# 69 files
$tpcc_createts iordr2 69 1          968M 459K nt 0          1311 32 auto t
    if expr $? != 0 > /dev/null; then
        echo Creating tablespace for iordr2 failed.  Exiting.
        exit 0
    fi
# Tablespace temp, ts size 526G (550920000K)
# each file 7790M (7976960K)
# extents 1992960K (1992960K)
# 69 files
$tpcc_createts temp 69 1          7790M 1992960K nt 1      1380 32 auto t
    if expr $? != 0 > /dev/null; then
        echo Creating tablespace for temp failed.  Exiting.
        exit 0
    fi

```

freeext.sql

```

REM=====+
REM          Copyright (c) 1994  Oracle Corp, Belmont, CA          |
REM          OPEN SYSTEMS PERFORMANCE GROUP                        |
REM          All Rights Reserved                                    |
REM=====+
REM FILENAME
REM    freeext.sql
REM DESCRIPTION
REM    List all free extents in all the TPCC tablespace
REM
REM    Usage: sqlplus 'sys/change_on_install as sysdba' @freeext

```

```

REM=====*/
set space 2
set pagesize 2000
set echo off
set termout off
set verify off
set feedback off
spool freeextent.rpt
select substr(e.tablespace_name,1,8) tspace, file_id, block_id,
blocks,
        blocks * t.block_size / 1048576 size_MB
from dba_free_space e, dba_tablespaces t
where e.tablespace_name = t.tablespace_name
order by e.tablespace_name, file_id, block_id;

select substr(e.tablespace_name,1,8) tspace, sum(blocks) tot_blk,
        sum(blocks) * t.block_size / 1048576 size_MB
from dba_free_space e, dba_tablespaces t
where e.tablespace_name = t.tablespace_name
group by e.tablespace_name, t.block_size
order by e.tablespace_name;

```

plsql_mon.sql

```

rem
rem =====+
rem          Copyright (c) 1995 Oracle Corp, Redwood Shores, CA |
rem          OPEN SYSTEMS PERFORMANCE GROUP |
rem          All Rights Reserved |
rem =====+
rem FILENAME
rem   plsql_mon.sql
rem DESCRIPTION
rem   SQL script to create a stored package for PL/SQL stored
rem   procedures to dump messages.
rem =====
rem
rem Usage:  sqlplus tpcc/tpcc @plsql_mon
rem
connect tpcc/tpcc;
set echo on;
CREATE OR REPLACE PACKAGE plsql_mon_pack
IS
    PROCEDURE print
    (
        info          VARCHAR2
    );
END;
/
show errors;

CREATE OR REPLACE PACKAGE BODY plsql_mon_pack
IS
    PROCEDURE print
    (
        info          VARCHAR2

```

```

)
IS
    s          NUMBER;
BEGIN
    dbms_pipe.pack_message (info);
    s := dbms_pipe.send_message ('plsql_mon');
    IF (s <> 0) THEN
        raise_application_error (-20000, 'Error:' || to_char(s) ||
        ' sending on pipe');
    END IF;
END;
END;
/
show errors;

set echo off;

```

cre_tab.sql

```

rem
rem =====+
rem          Copyright (c) 1995 Oracle Corp, Redwood Shores, CA |
rem          OPEN SYSTEMS PERFORMANCE GROUP |
rem          All Rights Reserved |
rem =====+
rem FILENAME
rem   cre_tab.sql
rem DESCRIPTION
rem   Create temporary tables for consistency tests.
rem =====
rem
rem Usage:  sqlplus tpcc/tpcc @cre_tab
rem
connect tpcc/tpcc;
set echo on;

drop table temp_o1;
drop table temp_no;
drop table temp_o2;
drop table temp_o1;
drop table tpcc_audit_tab;

create table temp_o1 (
    o_w_id integer,
    o_d_id integer,
    o_o_id integer);

create table temp_no (
    no_w_id integer,
    no_d_id integer,
    no_o_id integer);

create table temp_o2 (
    o_w_id integer,
    o_d_id integer,
    o_count integer);

```

```

create table temp_ol (
  ol_w_id integer,
  ol_d_id integer,
  ol_count integer);

create table tpcc_audit_tab (starttime date);

delete from tpcc_audit_tab;

set echo off;

```

cs_cpu.sql

```

rem
rem
rem=====+
rem      Copyright (c) 1997  Oracle Corp, Redwood Shores, CA      |
rem      All Rights Reserved                                     |
rem=====+
rem FILENAME
rem      cs_cpu.sql
rem DESCRIPTION
rem      Create Table for CPU Specific Process Stat
rem=====+
rem usage: sqlplus tpcc/tpcc @cs_cpu.sql

connect tpcc/tpcc
set echo on

DROP TABLE pre_cpu_stats;
DROP TABLE post_cpu_stats;
DROP TABLE cpu_stats;

rem
rem CPU statistics.
rem

      CREATE TABLE cpu_stats
      (
        runname          VARCHAR2(20),
        cpu_id           NUMBER,
        dpc_cpu          NUMBER,
        interrupt_cpu    NUMBER,
        priv_cpu         NUMBER,
        processor_cpu    NUMBER,
        user_cpu         NUMBER,
        interrupt_rate   NUMBER
      );

rem
rem Save Begining CPU Stat Values
rem

```

```

      CREATE TABLE pre_cpu_stats
      (
        runname          VARCHAR2(20),

```

```

        cpu_id          NUMBER,
        dpc_cpu         NUMBER,
        interrupt_cpu   NUMBER,
        priv_cpu        NUMBER,
        processor_cpu   NUMBER,
        user_cpu        NUMBER,
        interrupt_rate  NUMBER
      );

```

```

rem
rem Save Ending CPU Stat Values
rem

```

```

      CREATE TABLE post_cpu_stats
      (
        runname          VARCHAR2(20),
        cpu_id           NUMBER,
        dpc_cpu          NUMBER,
        interrupt_cpu    NUMBER,
        priv_cpu         NUMBER,
        processor_cpu    NUMBER,
        user_cpu         NUMBER,
        interrupt_rate   NUMBER
      );

commit;
set echo off;

```

cs_os.sql

```

rem
rem
rem=====+
rem      Copyright (c) 1997  Oracle Corp, Redwood Shores, CA      |
rem      All Rights Reserved                                     |
rem=====+
rem FILENAME
rem      cs_os.sql
rem DESCRIPTION
rem      Create Table for OS Specific Process Stat
rem=====+
rem usage: sqlplus tpcc/tpcc @cs_os.sql

connect tpcc/tpcc
set echo on

DROP TABLE pre_os_stats;
DROP TABLE post_os_stats;
DROP TABLE os_stats;

rem
rem OS statistics.
rem

```

```

      CREATE TABLE os_stats
      (
        runname          VARCHAR2(20),

```



```

time            NUMBER,
syscall         NUMBER,
intr            NUMBER,
cswitch         NUMBER,
freads          NUMBER,
fwrites         NUMBER,
fcontrolops     NUMBER,
priv_cpu        NUMBER,
user_cpu        NUMBER,
processor_cpu   NUMBER,
interrupt_cpu   NUMBER
);

rem
rem Save Begining OS Stat Values
rem

CREATE TABLE pre_os_stats
(
  runname        VARCHAR2(20),
  time           NUMBER,
  syscall        NUMBER,
  intr           NUMBER,
  cswitch        NUMBER,
  freads         NUMBER,
  fwrites        NUMBER,
  fcontrolops    NUMBER,
  priv_cpu       NUMBER,
  user_cpu       NUMBER,
  processor_cpu  NUMBER,
  interrupt_cpu  NUMBER
);

rem
rem Save Ending OS Stat Values
rem

CREATE TABLE post_os_stats
(
  runname        VARCHAR2(20),
  time           NUMBER,
  syscall        NUMBER,
  intr           NUMBER,
  cswitch        NUMBER,
  freads         NUMBER,
  fwrites        NUMBER,
  fcontrolops    NUMBER,
  priv_cpu       NUMBER,
  user_cpu       NUMBER,
  processor_cpu  NUMBER,
  interrupt_cpu  NUMBER
);

commit;
set echo off;

```

cs_thread.sql

```

rem
rem
rem=====+
rem      Copyright (c) 1997  Oracle Corp, Redwood Shores, CA      |
rem                        All Rights Reserved                    |
rem=====+
rem FILENAME
rem   cs_thread.sql
rem DESCRIPTION
rem   Create Table for thread statistics
rem=====+
rem Usage: sqlplus tpcc/tpcc @cs_thread.sql

connect tpcc/tpcc
set echo on

DROP TABLE thread_stats;
DROP TABLE pre_thread_stats;
DROP TABLE post_thread_stats;

rem
rem Resource usage for a thread.
rem

CREATE TABLE thread_stats
(
  runname        VARCHAR2(20),
  thread_id      VARCHAR2(10),
  user_cpu       NUMBER,
  priv_cpu       NUMBER,
  processor_cpu  NUMBER,
  ctxswitch      NUMBER
);

rem
rem Save Begining Resource Values for a thread.
rem

CREATE TABLE pre_thread_stats
(
  runname        VARCHAR2(20),
  thread_id      VARCHAR2(10),
  user_cpu       NUMBER,
  priv_cpu       NUMBER,
  processor_cpu  NUMBER,
  ctxswitch      NUMBER
);

rem
rem Save Ending Resource Values for a thread.
rem

CREATE TABLE post_thread_stats
(
  runname        VARCHAR2(20),

```

```

        thread_id      VARCHAR2(10),
        user_cpu        NUMBER,
        priv_cpu        NUMBER,
        processor_cpu   NUMBER,
        ctxswitch       NUMBER
    );
commit;
set echo off

```

cs_proc.sql

```

rem
rem
rem=====+
rem      Copyright (c) 1997  Oracle Corp, Redwood Shores, CA  |
rem                        All Rights Reserved                |
rem=====+
rem FILENAME
rem      cs_proc.sql
rem DESCRIPTION
rem      Create Table for OS Specific Process Stats
rem=====
rem Usage: sqlplus tpcc/tpcc @cs_proc.sql

connect tpcc/tpcc
set echo on

DROP TABLE process_stats;
DROP TABLE pre_process_stats;
DROP TABLE post_process_stats;

rem
rem      Resource usage for a process.
rem

```

```

CREATE TABLE process_stats
(
    runname      VARCHAR2(20),
    user_cpu     NUMBER,
    priv_cpu     NUMBER,
    processor_cpu NUMBER,
    pagefaults   NUMBER
);

```

```

rem
rem      Save Begining Resource Values for a process.
rem

```

```

CREATE TABLE pre_process_stats
(
    runname      VARCHAR2(20),
    user_cpu     NUMBER,
    priv_cpu     NUMBER,
    processor_cpu NUMBER,
    pagefaults   NUMBER

```

```

    );

rem
rem      Save Ending Resource Values for a process.
rem

```

```

CREATE TABLE post_process_stats
(
    runname      VARCHAR2(20),
    user_cpu     NUMBER,
    priv_cpu     NUMBER,
    processor_cpu NUMBER,
    pagefaults   NUMBER
);

```

```

commit;
set echo off

```

cs_tpcc.sql

```

rem
rem
rem=====+
rem      Copyright (c) 1997  Oracle Corp, Redwood Shores, CA  |
rem                        All Rights Reserved                |
rem=====+
rem FILENAME
rem      cs_tpcc.sql
rem DESCRIPTION
rem      Create tables for saving TPC-C results.
rem=====
rem      Usage: sqlplus user/password @cs_tpcc.sql
rem      spool cs_tpcc.log

```

```

connect tpcc/tpcc;
set echo on

```

```

DROP TABLE tpcc_run_desc;
DROP TABLE tpcc_run_int;
DROP TABLE bench_run_int;
DROP TABLE tpcc_back_res;
DROP TABLE tpcc_user_res;
DROP TABLE bench_user_res;
DROP TABLE tpcc_tpm;
DROP TABLE tpcc_new_res;
DROP TABLE bench_new_res;
DROP TABLE tpcc_pay_res;
DROP TABLE bench_pay_res;
DROP TABLE tpcc_ord_res;
DROP TABLE bench_ord_res;
DROP TABLE tpcc_del_res;
DROP TABLE bench_del_res;
DROP TABLE tpcc_sto_res;
DROP TABLE bench_sto_res;

```

```

rem
rem      description of a run

```

```

rem
CREATE TABLE tpcc_run_desc
(
    run_name          VARCHAR2(20),
    rundate           DATE,
    time              NUMBER,
    rampup             NUMBER,
    rampdown           NUMBER,
    warehouses         NUMBER,
    customers          NUMBER,
    users              NUMBER,
    driver             VARCHAR2(40),
    commnt            VARCHAR2(80)
);

rem
rem throughput of new order transactions
rem
CREATE TABLE tpcc_run_int
(
    run_name          VARCHAR2(20),
    interval           NUMBER,
    interval_count     NUMBER,
    response_time      NUMBER,
    think_time         NUMBER
);

rem
rem throughput of new order transactions
rem
CREATE TABLE bench_run_int
(
    run_name          VARCHAR2(20),
    proc_no           NUMBER,
    interval           NUMBER,
    interval_count     NUMBER,
    response_time      NUMBER,
    think_time         NUMBER
);

rem
rem Results from delivery servers
rem
CREATE TABLE tpcc_back_res
(
    run_name          VARCHAR2(20),
    in_timing_int      NUMBER,
    fast               NUMBER,
    resp_time          NUMBER,
    retries            NUMBER
);

rem
rem Aggregate results for all generators.
rem These results are from the measurement interval only.
rem These results are used to calculate the TPS rate over
rem the measurement interval.
rem
CREATE TABLE tpcc_user_res
(
    run_name          VARCHAR2(20),
    no_men            NUMBER,
    fast_men          NUMBER,
    in_flight_men     NUMBER,
    retry_men         NUMBER,
    min_time_men      NUMBER,
    max_time_men      NUMBER,
    sum_time_men      NUMBER,
    ninety_per_men    NUMBER,
    think_min_men     NUMBER,
    think_max_men     NUMBER,
    think_sum_men     NUMBER,
    key_min_men       NUMBER,
    key_max_men       NUMBER,
    key_sum_men       NUMBER,
    no_new            NUMBER,
    fast_new          NUMBER,
    in_flight_new     NUMBER,
    retry_new         NUMBER,
    min_time_new      NUMBER,
    max_time_new      NUMBER,
    sum_time_new      NUMBER,
    ninety_per_new    NUMBER,
    think_min_new     NUMBER,
    think_max_new     NUMBER,
    think_sum_new     NUMBER,
    key_min_new       NUMBER,
    key_max_new       NUMBER,
    key_sum_new       NUMBER,
    remote_new        NUMBER,
    rollback_new      NUMBER,
    sum_ol_new        NUMBER,
    remote_ol_new     NUMBER,
    allrollback_new   NUMBER,
    no_pay            NUMBER,
    fast_pay          NUMBER,
    in_flight_pay     NUMBER,
    retry_pay         NUMBER,
    min_time_pay      NUMBER,
    max_time_pay      NUMBER,
    sum_time_pay      NUMBER,
    ninety_per_pay    NUMBER,
    think_min_pay     NUMBER,
    think_max_pay     NUMBER,
    think_sum_pay     NUMBER,
    key_min_pay       NUMBER,
    key_max_pay       NUMBER,
    key_sum_pay       NUMBER,
    remote_pay        NUMBER,
    bylast_pay        NUMBER,
    no_ord            NUMBER,
    fast_ord          NUMBER,
    in_flight_ord     NUMBER,
    retry_ord         NUMBER,
    min_time_ord      NUMBER,
    max_time_ord      NUMBER,
    sum_time_ord      NUMBER,
    ninety_per_ord    NUMBER,

```

```

think_min_ord  NUMBER,
think_max_ord  NUMBER,
think_sum_ord  NUMBER,
key_min_ord    NUMBER,
key_max_ord    NUMBER,
key_sum_ord    NUMBER,
bylast_ord     NUMBER,
no_del         NUMBER,
fast_del       NUMBER,
in_flight_del  NUMBER,
retry_del      NUMBER,
min_time_del   NUMBER,
max_time_del   NUMBER,
sum_time_del   NUMBER,
ninety_per_del NUMBER,
think_min_del  NUMBER,
think_max_del  NUMBER,
think_sum_del  NUMBER,
key_min_del    NUMBER,
key_max_del    NUMBER,
key_sum_del    NUMBER,
no_sto         NUMBER,
fast_sto       NUMBER,
in_flight_sto  NUMBER,
retry_sto      NUMBER,
min_time_sto   NUMBER,
max_time_sto   NUMBER,
sum_time_sto   NUMBER,
ninety_per_sto NUMBER,
think_min_sto  NUMBER,
think_max_sto  NUMBER,
think_sum_sto  NUMBER,
key_min_sto    NUMBER,
key_max_sto    NUMBER,
key_sum_sto    NUMBER,
cpu_time       NUMBER,
deadlocks      NUMBER
);

rem
rem Results from individual generators.
rem These results are from the measurement interval only.
rem These results are used to calculate the TPS rate over
rem the measurement interval.
rem

```

```

CREATE TABLE bench_user_res
(
  run_name      VARCHAR2(20),
  audit_str     VARCHAR2(10),
  proc_no       NUMBER,
  hid           NUMBER,
  no_men        NUMBER,
  fast_men      NUMBER,
  in_flight_men NUMBER,
  retry_men     NUMBER,
  min_time_men  NUMBER,
  max_time_men  NUMBER,
  sum_time_men  NUMBER,
  ninety_per_men NUMBER,

```

```

think_min_men  NUMBER,
think_max_men  NUMBER,
think_sum_men  NUMBER,
key_min_men    NUMBER,
key_max_men    NUMBER,
key_sum_men    NUMBER,
no_new         NUMBER,
fast_new       NUMBER,
in_flight_new  NUMBER,
retry_new      NUMBER,
min_time_new   NUMBER,
max_time_new   NUMBER,
sum_time_new   NUMBER,
ninety_per_new NUMBER,
think_min_new  NUMBER,
think_max_new  NUMBER,
think_sum_new  NUMBER,
key_min_new    NUMBER,
key_max_new    NUMBER,
key_sum_new    NUMBER,
remote_new     NUMBER,
rollback_new   NUMBER,
sum_ol_new     NUMBER,
remote_ol_new  NUMBER,
allrollback_new NUMBER,
no_pay         NUMBER,
fast_pay       NUMBER,
in_flight_pay  NUMBER,
retry_pay      NUMBER,
min_time_pay   NUMBER,
max_time_pay   NUMBER,
sum_time_pay   NUMBER,
ninety_per_pay NUMBER,
think_min_pay  NUMBER,
think_max_pay  NUMBER,
think_sum_pay  NUMBER,
key_min_pay    NUMBER,
key_max_pay    NUMBER,
key_sum_pay    NUMBER,
remote_pay     NUMBER,
bylast_pay     NUMBER,
no_ord         NUMBER,
fast_ord       NUMBER,
in_flight_ord  NUMBER,
retry_ord      NUMBER,
min_time_ord   NUMBER,
max_time_ord   NUMBER,
sum_time_ord   NUMBER,
ninety_per_ord NUMBER,
think_min_ord  NUMBER,
think_max_ord  NUMBER,
think_sum_ord  NUMBER,
key_min_ord    NUMBER,
key_max_ord    NUMBER,
key_sum_ord    NUMBER,
bylast_ord     NUMBER,
no_del         NUMBER,
fast_del       NUMBER,
in_flight_del  NUMBER,

```

```

        retry_del          NUMBER,
        min_time_del       NUMBER,
        max_time_del       NUMBER,
        sum_time_del       NUMBER,
        ninety_per_del     NUMBER,
        think_min_del      NUMBER,
        think_max_del      NUMBER,
        think_sum_del      NUMBER,
        key_min_del        NUMBER,
        key_max_del        NUMBER,
        key_sum_del        NUMBER,
        no_sto             NUMBER,
        fast_sto           NUMBER,
        in_flight_sto      NUMBER,
        retry_sto          NUMBER,
        min_time_sto       NUMBER,
        max_time_sto       NUMBER,
        sum_time_sto       NUMBER,
        ninety_per_sto     NUMBER,
        think_min_sto      NUMBER,
        think_max_sto      NUMBER,
        think_sum_sto      NUMBER,
        key_min_sto        NUMBER,
        key_max_sto        NUMBER,
        key_sum_sto        NUMBER,
        cpu_time           NUMBER,
        deadlocks          NUMBER
    );

rem
rem Aggregate results for generators on each host.
rem These results are from the measurement interval only.
rem These results are used to calculate the TPM rate over
rem the measurement interval.
rem
    CREATE TABLE tpcc_tpm
    (
        run_name          VARCHAR2(20),
        hid               NUMBER,
        no_new             NUMBER
    );

rem
rem Aggregate results for new order transactions.
rem These results are from the measurement interval only.
rem
    CREATE TABLE tpcc_new_res
    (
        run_name          VARCHAR2(20),
        repl              NUMBER,
        rep2              NUMBER,
        rep3              NUMBER,
        rep4              NUMBER,
        rep5              NUMBER,
        rep6              NUMBER,
        rep7              NUMBER,
        rep8              NUMBER,
        rep9              NUMBER,
        rep10             NUMBER,

```

```

        rep11            NUMBER,
        rep12            NUMBER,
        rep13            NUMBER,
        rep14            NUMBER,
        rep15            NUMBER,
        rep16            NUMBER,
        rep17            NUMBER,
        rep18            NUMBER,
        rep19            NUMBER,
        rep20            NUMBER,
        rep21            NUMBER,
        rep22            NUMBER,
        rep23            NUMBER,
        rep24            NUMBER,
        rep25            NUMBER,
        rep26            NUMBER,
        rep27            NUMBER,
        rep28            NUMBER,
        rep29            NUMBER,
        rep30            NUMBER,
        rep31            NUMBER,
        rep32            NUMBER,
        rep33            NUMBER,
        rep34            NUMBER,
        rep35            NUMBER,
        rep36            NUMBER,
        rep37            NUMBER,
        rep38            NUMBER,
        rep39            NUMBER,
        rep40            NUMBER,
        rep41            NUMBER,
        rep42            NUMBER,
        rep43            NUMBER,
        rep44            NUMBER,
        rep45            NUMBER,
        rep46            NUMBER,
        rep47            NUMBER,
        rep48            NUMBER,
        rep49            NUMBER,
        rep50            NUMBER,
        rep51            NUMBER,
        rep52            NUMBER,
        rep53            NUMBER,
        rep54            NUMBER,
        rep55            NUMBER,
        rep56            NUMBER,
        rep57            NUMBER,
        rep58            NUMBER,
        rep59            NUMBER,
        rep60            NUMBER,
        rep61            NUMBER,
        rep62            NUMBER,
        rep63            NUMBER,
        rep64            NUMBER,
        rep65            NUMBER,
        rep66            NUMBER,
        rep67            NUMBER,
        rep68            NUMBER,
        rep69            NUMBER,

```

```

rep70      NUMBER,
rep71      NUMBER,
rep72      NUMBER,
rep73      NUMBER,
rep74      NUMBER,
rep75      NUMBER,
rep76      NUMBER,
rep77      NUMBER,
rep78      NUMBER,
rep79      NUMBER,
rep80      NUMBER,
rep81      NUMBER,
rep82      NUMBER,
rep83      NUMBER,
rep84      NUMBER,
rep85      NUMBER,
rep86      NUMBER,
rep87      NUMBER,
rep88      NUMBER,
rep89      NUMBER,
rep90      NUMBER,
rep91      NUMBER,
rep92      NUMBER,
rep93      NUMBER,
rep94      NUMBER,
rep95      NUMBER,
rep96      NUMBER,
rep97      NUMBER,
rep98      NUMBER,
rep99      NUMBER,
rep100     NUMBER,
thk1       NUMBER,
thk2       NUMBER,
thk3       NUMBER,
thk4       NUMBER,
thk5       NUMBER,
thk6       NUMBER,
thk7       NUMBER,
thk8       NUMBER,
thk9       NUMBER,
thk10      NUMBER,
thk11      NUMBER,
thk12      NUMBER,
thk13      NUMBER,
thk14      NUMBER,
thk15      NUMBER,
thk16      NUMBER,
thk17      NUMBER,
thk18      NUMBER,
thk19      NUMBER,
thk20      NUMBER,
thk21      NUMBER,
thk22      NUMBER,
thk23      NUMBER,
thk24      NUMBER,
thk25      NUMBER,
key1       NUMBER,
key2       NUMBER,
key3       NUMBER,

```

```

key4       NUMBER,
key5       NUMBER,
key6       NUMBER,
key7       NUMBER,
key8       NUMBER,
key9       NUMBER,
key10      NUMBER
);

rem
rem Results for new order transactions.
rem These results are from the measurement interval only.
rem
CREATE TABLE bench_new_res
(
    run_name      VARCHAR2(20),
    audit_str     VARCHAR2(10),
    proc_no       NUMBER,
    repl         NUMBER,
    rep2         NUMBER,
    rep3         NUMBER,
    rep4         NUMBER,
    rep5         NUMBER,
    rep6         NUMBER,
    rep7         NUMBER,
    rep8         NUMBER,
    rep9         NUMBER,
    rep10        NUMBER,
    repl1        NUMBER,
    repl2        NUMBER,
    repl3        NUMBER,
    repl4        NUMBER,
    repl5        NUMBER,
    repl6        NUMBER,
    repl7        NUMBER,
    repl8        NUMBER,
    repl9        NUMBER,
    rep20        NUMBER,
    rep21        NUMBER,
    rep22        NUMBER,
    rep23        NUMBER,
    rep24        NUMBER,
    rep25        NUMBER,
    rep26        NUMBER,
    rep27        NUMBER,
    rep28        NUMBER,
    rep29        NUMBER,
    rep30        NUMBER,
    rep31        NUMBER,
    rep32        NUMBER,
    rep33        NUMBER,
    rep34        NUMBER,
    rep35        NUMBER,
    rep36        NUMBER,
    rep37        NUMBER,
    rep38        NUMBER,
    rep39        NUMBER,
    rep40        NUMBER,
    rep41        NUMBER,

```

```

rep42      NUMBER,
rep43      NUMBER,
rep44      NUMBER,
rep45      NUMBER,
rep46      NUMBER,
rep47      NUMBER,
rep48      NUMBER,
rep49      NUMBER,
rep50      NUMBER,
rep51      NUMBER,
rep52      NUMBER,
rep53      NUMBER,
rep54      NUMBER,
rep55      NUMBER,
rep56      NUMBER,
rep57      NUMBER,
rep58      NUMBER,
rep59      NUMBER,
rep60      NUMBER,
rep61      NUMBER,
rep62      NUMBER,
rep63      NUMBER,
rep64      NUMBER,
rep65      NUMBER,
rep66      NUMBER,
rep67      NUMBER,
rep68      NUMBER,
rep69      NUMBER,
rep70      NUMBER,
rep71      NUMBER,
rep72      NUMBER,
rep73      NUMBER,
rep74      NUMBER,
rep75      NUMBER,
rep76      NUMBER,
rep77      NUMBER,
rep78      NUMBER,
rep79      NUMBER,
rep80      NUMBER,
rep81      NUMBER,
rep82      NUMBER,
rep83      NUMBER,
rep84      NUMBER,
rep85      NUMBER,
rep86      NUMBER,
rep87      NUMBER,
rep88      NUMBER,
rep89      NUMBER,
rep90      NUMBER,
rep91      NUMBER,
rep92      NUMBER,
rep93      NUMBER,
rep94      NUMBER,
rep95      NUMBER,
rep96      NUMBER,
rep97      NUMBER,
rep98      NUMBER,
rep99      NUMBER,
rep100     NUMBER,

```

```

thk1      NUMBER,
thk2      NUMBER,
thk3      NUMBER,
thk4      NUMBER,
thk5      NUMBER,
thk6      NUMBER,
thk7      NUMBER,
thk8      NUMBER,
thk9      NUMBER,
thk10     NUMBER,
thk11     NUMBER,
thk12     NUMBER,
thk13     NUMBER,
thk14     NUMBER,
thk15     NUMBER,
thk16     NUMBER,
thk17     NUMBER,
thk18     NUMBER,
thk19     NUMBER,
thk20     NUMBER,
thk21     NUMBER,
thk22     NUMBER,
thk23     NUMBER,
thk24     NUMBER,
thk25     NUMBER,
key1      NUMBER,
key2      NUMBER,
key3      NUMBER,
key4      NUMBER,
key5      NUMBER,
key6      NUMBER,
key7      NUMBER,
key8      NUMBER,
key9      NUMBER,
key10     NUMBER

```

```
);
```

```

rem
rem Aggregate results for payment transactions.
rem These results are from the measurement interval only.
rem

```

```

CREATE TABLE tpcc_pay_res
(
    run_name      VARCHAR2(20),
    rep1          NUMBER,
    rep2          NUMBER,
    rep3          NUMBER,
    rep4          NUMBER,
    rep5          NUMBER,
    rep6          NUMBER,
    rep7          NUMBER,
    rep8          NUMBER,
    rep9          NUMBER,
    rep10         NUMBER,
    rep11         NUMBER,
    rep12         NUMBER,
    rep13         NUMBER,
    rep14         NUMBER,
    rep15         NUMBER,

```

rep16	NUMBER,
rep17	NUMBER,
rep18	NUMBER,
rep19	NUMBER,
rep20	NUMBER,
rep21	NUMBER,
rep22	NUMBER,
rep23	NUMBER,
rep24	NUMBER,
rep25	NUMBER,
rep26	NUMBER,
rep27	NUMBER,
rep28	NUMBER,
rep29	NUMBER,
rep30	NUMBER,
rep31	NUMBER,
rep32	NUMBER,
rep33	NUMBER,
rep34	NUMBER,
rep35	NUMBER,
rep36	NUMBER,
rep37	NUMBER,
rep38	NUMBER,
rep39	NUMBER,
rep40	NUMBER,
rep41	NUMBER,
rep42	NUMBER,
rep43	NUMBER,
rep44	NUMBER,
rep45	NUMBER,
rep46	NUMBER,
rep47	NUMBER,
rep48	NUMBER,
rep49	NUMBER,
rep50	NUMBER,
rep51	NUMBER,
rep52	NUMBER,
rep53	NUMBER,
rep54	NUMBER,
rep55	NUMBER,
rep56	NUMBER,
rep57	NUMBER,
rep58	NUMBER,
rep59	NUMBER,
rep60	NUMBER,
rep61	NUMBER,
rep62	NUMBER,
rep63	NUMBER,
rep64	NUMBER,
rep65	NUMBER,
rep66	NUMBER,
rep67	NUMBER,
rep68	NUMBER,
rep69	NUMBER,
rep70	NUMBER,
rep71	NUMBER,
rep72	NUMBER,
rep73	NUMBER,
rep74	NUMBER,

rep75	NUMBER,
rep76	NUMBER,
rep77	NUMBER,
rep78	NUMBER,
rep79	NUMBER,
rep80	NUMBER,
rep81	NUMBER,
rep82	NUMBER,
rep83	NUMBER,
rep84	NUMBER,
rep85	NUMBER,
rep86	NUMBER,
rep87	NUMBER,
rep88	NUMBER,
rep89	NUMBER,
rep90	NUMBER,
rep91	NUMBER,
rep92	NUMBER,
rep93	NUMBER,
rep94	NUMBER,
rep95	NUMBER,
rep96	NUMBER,
rep97	NUMBER,
rep98	NUMBER,
rep99	NUMBER,
rep100	NUMBER,
thk1	NUMBER,
thk2	NUMBER,
thk3	NUMBER,
thk4	NUMBER,
thk5	NUMBER,
thk6	NUMBER,
thk7	NUMBER,
thk8	NUMBER,
thk9	NUMBER,
thk10	NUMBER,
thk11	NUMBER,
thk12	NUMBER,
thk13	NUMBER,
thk14	NUMBER,
thk15	NUMBER,
thk16	NUMBER,
thk17	NUMBER,
thk18	NUMBER,
thk19	NUMBER,
thk20	NUMBER,
thk21	NUMBER,
thk22	NUMBER,
thk23	NUMBER,
thk24	NUMBER,
thk25	NUMBER,
key1	NUMBER,
key2	NUMBER,
key3	NUMBER,
key4	NUMBER,
key5	NUMBER,
key6	NUMBER,
key7	NUMBER,
key8	NUMBER,


```

        key9          NUMBER,
        key10         NUMBER
    );

rem
rem Results for payment transactions.
rem These results are from the measurement interval only.
rem
    CREATE TABLE bench_pay_res
    (
        run_name      VARCHAR2(20),
        audit_str     VARCHAR2(10),
        proc_no       NUMBER,
        rep1          NUMBER,
        rep2          NUMBER,
        rep3          NUMBER,
        rep4          NUMBER,
        rep5          NUMBER,
        rep6          NUMBER,
        rep7          NUMBER,
        rep8          NUMBER,
        rep9          NUMBER,
        rep10         NUMBER,
        rep11         NUMBER,
        rep12         NUMBER,
        rep13         NUMBER,
        rep14         NUMBER,
        rep15         NUMBER,
        rep16         NUMBER,
        rep17         NUMBER,
        rep18         NUMBER,
        rep19         NUMBER,
        rep20         NUMBER,
        rep21         NUMBER,
        rep22         NUMBER,
        rep23         NUMBER,
        rep24         NUMBER,
        rep25         NUMBER,
        rep26         NUMBER,
        rep27         NUMBER,
        rep28         NUMBER,
        rep29         NUMBER,
        rep30         NUMBER,
        rep31         NUMBER,
        rep32         NUMBER,
        rep33         NUMBER,
        rep34         NUMBER,
        rep35         NUMBER,
        rep36         NUMBER,
        rep37         NUMBER,
        rep38         NUMBER,
        rep39         NUMBER,
        rep40         NUMBER,
        rep41         NUMBER,
        rep42         NUMBER,
        rep43         NUMBER,
        rep44         NUMBER,
        rep45         NUMBER,
        rep46         NUMBER,

```

```

        rep47         NUMBER,
        rep48         NUMBER,
        rep49         NUMBER,
        rep50         NUMBER,
        rep51         NUMBER,
        rep52         NUMBER,
        rep53         NUMBER,
        rep54         NUMBER,
        rep55         NUMBER,
        rep56         NUMBER,
        rep57         NUMBER,
        rep58         NUMBER,
        rep59         NUMBER,
        rep60         NUMBER,
        rep61         NUMBER,
        rep62         NUMBER,
        rep63         NUMBER,
        rep64         NUMBER,
        rep65         NUMBER,
        rep66         NUMBER,
        rep67         NUMBER,
        rep68         NUMBER,
        rep69         NUMBER,
        rep70         NUMBER,
        rep71         NUMBER,
        rep72         NUMBER,
        rep73         NUMBER,
        rep74         NUMBER,
        rep75         NUMBER,
        rep76         NUMBER,
        rep77         NUMBER,
        rep78         NUMBER,
        rep79         NUMBER,
        rep80         NUMBER,
        rep81         NUMBER,
        rep82         NUMBER,
        rep83         NUMBER,
        rep84         NUMBER,
        rep85         NUMBER,
        rep86         NUMBER,
        rep87         NUMBER,
        rep88         NUMBER,
        rep89         NUMBER,
        rep90         NUMBER,
        rep91         NUMBER,
        rep92         NUMBER,
        rep93         NUMBER,
        rep94         NUMBER,
        rep95         NUMBER,
        rep96         NUMBER,
        rep97         NUMBER,
        rep98         NUMBER,
        rep99         NUMBER,
        rep100        NUMBER,
        thk1          NUMBER,
        thk2          NUMBER,
        thk3          NUMBER,
        thk4          NUMBER,
        thk5          NUMBER,

```

```

        thk6          NUMBER,
        thk7          NUMBER,
        thk8          NUMBER,
        thk9          NUMBER,
        thk10         NUMBER,
        thk11         NUMBER,
        thk12         NUMBER,
        thk13         NUMBER,
        thk14         NUMBER,
        thk15         NUMBER,
        thk16         NUMBER,
        thk17         NUMBER,
        thk18         NUMBER,
        thk19         NUMBER,
        thk20         NUMBER,
        thk21         NUMBER,
        thk22         NUMBER,
        thk23         NUMBER,
        thk24         NUMBER,
        thk25         NUMBER,
        key1          NUMBER,
        key2          NUMBER,
        key3          NUMBER,
        key4          NUMBER,
        key5          NUMBER,
        key6          NUMBER,
        key7          NUMBER,
        key8          NUMBER,
        key9          NUMBER,
        key10         NUMBER
    );

rem
rem  Aggregate results for order status transactions.
rem  These results are from the measurement interval only.
rem
    CREATE TABLE tpcc_ord_res
    (
        run_name      VARCHAR2(20),
        rep1          NUMBER,
        rep2          NUMBER,
        rep3          NUMBER,
        rep4          NUMBER,
        rep5          NUMBER,
        rep6          NUMBER,
        rep7          NUMBER,
        rep8          NUMBER,
        rep9          NUMBER,
        rep10         NUMBER,
        rep11         NUMBER,
        rep12         NUMBER,
        rep13         NUMBER,
        rep14         NUMBER,
        rep15         NUMBER,
        rep16         NUMBER,
        rep17         NUMBER,
        rep18         NUMBER,
        rep19         NUMBER,
        rep20         NUMBER,

        rep21         NUMBER,
        rep22         NUMBER,
        rep23         NUMBER,
        rep24         NUMBER,
        rep25         NUMBER,
        rep26         NUMBER,
        rep27         NUMBER,
        rep28         NUMBER,
        rep29         NUMBER,
        rep30         NUMBER,
        rep31         NUMBER,
        rep32         NUMBER,
        rep33         NUMBER,
        rep34         NUMBER,
        rep35         NUMBER,
        rep36         NUMBER,
        rep37         NUMBER,
        rep38         NUMBER,
        rep39         NUMBER,
        rep40         NUMBER,
        rep41         NUMBER,
        rep42         NUMBER,
        rep43         NUMBER,
        rep44         NUMBER,
        rep45         NUMBER,
        rep46         NUMBER,
        rep47         NUMBER,
        rep48         NUMBER,
        rep49         NUMBER,
        rep50         NUMBER,
        rep51         NUMBER,
        rep52         NUMBER,
        rep53         NUMBER,
        rep54         NUMBER,
        rep55         NUMBER,
        rep56         NUMBER,
        rep57         NUMBER,
        rep58         NUMBER,
        rep59         NUMBER,
        rep60         NUMBER,
        rep61         NUMBER,
        rep62         NUMBER,
        rep63         NUMBER,
        rep64         NUMBER,
        rep65         NUMBER,
        rep66         NUMBER,
        rep67         NUMBER,
        rep68         NUMBER,
        rep69         NUMBER,
        rep70         NUMBER,
        rep71         NUMBER,
        rep72         NUMBER,
        rep73         NUMBER,
        rep74         NUMBER,
        rep75         NUMBER,
        rep76         NUMBER,
        rep77         NUMBER,
        rep78         NUMBER,
        rep79         NUMBER
    );

```

```

rep80      NUMBER,
rep81      NUMBER,
rep82      NUMBER,
rep83      NUMBER,
rep84      NUMBER,
rep85      NUMBER,
rep86      NUMBER,
rep87      NUMBER,
rep88      NUMBER,
rep89      NUMBER,
rep90      NUMBER,
rep91      NUMBER,
rep92      NUMBER,
rep93      NUMBER,
rep94      NUMBER,
rep95      NUMBER,
rep96      NUMBER,
rep97      NUMBER,
rep98      NUMBER,
rep99      NUMBER,
rep100     NUMBER,
thk1       NUMBER,
thk2       NUMBER,
thk3       NUMBER,
thk4       NUMBER,
thk5       NUMBER,
thk6       NUMBER,
thk7       NUMBER,
thk8       NUMBER,
thk9       NUMBER,
thk10      NUMBER,
thk11      NUMBER,
thk12      NUMBER,
thk13      NUMBER,
thk14      NUMBER,
thk15      NUMBER,
thk16      NUMBER,
thk17      NUMBER,
thk18      NUMBER,
thk19      NUMBER,
thk20      NUMBER,
thk21      NUMBER,
thk22      NUMBER,
thk23      NUMBER,
thk24      NUMBER,
thk25      NUMBER,
key1       NUMBER,
key2       NUMBER,
key3       NUMBER,
key4       NUMBER,
key5       NUMBER,
key6       NUMBER,
key7       NUMBER,
key8       NUMBER,
key9       NUMBER,
key10      NUMBER
);

```

```
rem
```

```

rem Results for order status transactions.
rem These results are from the measurement interval only.
rem

```

```

CREATE TABLE bench_ord_res
(
    run_name      VARCHAR2(20),
    audit_str     VARCHAR2(10),
    proc_no       NUMBER,
    rep1          NUMBER,
    rep2          NUMBER,
    rep3          NUMBER,
    rep4          NUMBER,
    rep5          NUMBER,
    rep6          NUMBER,
    rep7          NUMBER,
    rep8          NUMBER,
    rep9          NUMBER,
    rep10         NUMBER,
    rep11         NUMBER,
    rep12         NUMBER,
    rep13         NUMBER,
    rep14         NUMBER,
    rep15         NUMBER,
    rep16         NUMBER,
    rep17         NUMBER,
    rep18         NUMBER,
    rep19         NUMBER,
    rep20         NUMBER,
    rep21         NUMBER,
    rep22         NUMBER,
    rep23         NUMBER,
    rep24         NUMBER,
    rep25         NUMBER,
    rep26         NUMBER,
    rep27         NUMBER,
    rep28         NUMBER,
    rep29         NUMBER,
    rep30         NUMBER,
    rep31         NUMBER,
    rep32         NUMBER,
    rep33         NUMBER,
    rep34         NUMBER,
    rep35         NUMBER,
    rep36         NUMBER,
    rep37         NUMBER,
    rep38         NUMBER,
    rep39         NUMBER,
    rep40         NUMBER,
    rep41         NUMBER,
    rep42         NUMBER,
    rep43         NUMBER,
    rep44         NUMBER,
    rep45         NUMBER,
    rep46         NUMBER,
    rep47         NUMBER,
    rep48         NUMBER,
    rep49         NUMBER,
    rep50         NUMBER,
    rep51         NUMBER,

```

```

rep52      NUMBER,
rep53      NUMBER,
rep54      NUMBER,
rep55      NUMBER,
rep56      NUMBER,
rep57      NUMBER,
rep58      NUMBER,
rep59      NUMBER,
rep60      NUMBER,
rep61      NUMBER,
rep62      NUMBER,
rep63      NUMBER,
rep64      NUMBER,
rep65      NUMBER,
rep66      NUMBER,
rep67      NUMBER,
rep68      NUMBER,
rep69      NUMBER,
rep70      NUMBER,
rep71      NUMBER,
rep72      NUMBER,
rep73      NUMBER,
rep74      NUMBER,
rep75      NUMBER,
rep76      NUMBER,
rep77      NUMBER,
rep78      NUMBER,
rep79      NUMBER,
rep80      NUMBER,
rep81      NUMBER,
rep82      NUMBER,
rep83      NUMBER,
rep84      NUMBER,
rep85      NUMBER,
rep86      NUMBER,
rep87      NUMBER,
rep88      NUMBER,
rep89      NUMBER,
rep90      NUMBER,
rep91      NUMBER,
rep92      NUMBER,
rep93      NUMBER,
rep94      NUMBER,
rep95      NUMBER,
rep96      NUMBER,
rep97      NUMBER,
rep98      NUMBER,
rep99      NUMBER,
rep100     NUMBER,
thk1       NUMBER,
thk2       NUMBER,
thk3       NUMBER,
thk4       NUMBER,
thk5       NUMBER,
thk6       NUMBER,
thk7       NUMBER,
thk8       NUMBER,
thk9       NUMBER,
thk10      NUMBER,

```

```

thk11      NUMBER,
thk12      NUMBER,
thk13      NUMBER,
thk14      NUMBER,
thk15      NUMBER,
thk16      NUMBER,
thk17      NUMBER,
thk18      NUMBER,
thk19      NUMBER,
thk20      NUMBER,
thk21      NUMBER,
thk22      NUMBER,
thk23      NUMBER,
thk24      NUMBER,
thk25      NUMBER,
key1       NUMBER,
key2       NUMBER,
key3       NUMBER,
key4       NUMBER,
key5       NUMBER,
key6       NUMBER,
key7       NUMBER,
key8       NUMBER,
key9       NUMBER,
key10      NUMBER
);

```

```

rem
rem Aggregate results for delivery transactions.
rem These results are from the measurement interval only.
rem

```

```

CREATE TABLE tpcc_del_res
(
    run_name      VARCHAR2(20),
    rep1          NUMBER,
    rep2          NUMBER,
    rep3          NUMBER,
    rep4          NUMBER,
    rep5          NUMBER,
    rep6          NUMBER,
    rep7          NUMBER,
    rep8          NUMBER,
    rep9          NUMBER,
    rep10         NUMBER,
    rep11         NUMBER,
    rep12         NUMBER,
    rep13         NUMBER,
    rep14         NUMBER,
    rep15         NUMBER,
    rep16         NUMBER,
    rep17         NUMBER,
    rep18         NUMBER,
    rep19         NUMBER,
    rep20         NUMBER,
    rep21         NUMBER,
    rep22         NUMBER,
    rep23         NUMBER,
    rep24         NUMBER,
    rep25         NUMBER,

```

rep26 NUMBER,
 rep27 NUMBER,
 rep28 NUMBER,
 rep29 NUMBER,
 rep30 NUMBER,
 rep31 NUMBER,
 rep32 NUMBER,
 rep33 NUMBER,
 rep34 NUMBER,
 rep35 NUMBER,
 rep36 NUMBER,
 rep37 NUMBER,
 rep38 NUMBER,
 rep39 NUMBER,
 rep40 NUMBER,
 rep41 NUMBER,
 rep42 NUMBER,
 rep43 NUMBER,
 rep44 NUMBER,
 rep45 NUMBER,
 rep46 NUMBER,
 rep47 NUMBER,
 rep48 NUMBER,
 rep49 NUMBER,
 rep50 NUMBER,
 rep51 NUMBER,
 rep52 NUMBER,
 rep53 NUMBER,
 rep54 NUMBER,
 rep55 NUMBER,
 rep56 NUMBER,
 rep57 NUMBER,
 rep58 NUMBER,
 rep59 NUMBER,
 rep60 NUMBER,
 rep61 NUMBER,
 rep62 NUMBER,
 rep63 NUMBER,
 rep64 NUMBER,
 rep65 NUMBER,
 rep66 NUMBER,
 rep67 NUMBER,
 rep68 NUMBER,
 rep69 NUMBER,
 rep70 NUMBER,
 rep71 NUMBER,
 rep72 NUMBER,
 rep73 NUMBER,
 rep74 NUMBER,
 rep75 NUMBER,
 rep76 NUMBER,
 rep77 NUMBER,
 rep78 NUMBER,
 rep79 NUMBER,
 rep80 NUMBER,
 rep81 NUMBER,
 rep82 NUMBER,
 rep83 NUMBER,
 rep84 NUMBER,

rep85 NUMBER,
 rep86 NUMBER,
 rep87 NUMBER,
 rep88 NUMBER,
 rep89 NUMBER,
 rep90 NUMBER,
 rep91 NUMBER,
 rep92 NUMBER,
 rep93 NUMBER,
 rep94 NUMBER,
 rep95 NUMBER,
 rep96 NUMBER,
 rep97 NUMBER,
 rep98 NUMBER,
 rep99 NUMBER,
 rep100 NUMBER,
 thk1 NUMBER,
 thk2 NUMBER,
 thk3 NUMBER,
 thk4 NUMBER,
 thk5 NUMBER,
 thk6 NUMBER,
 thk7 NUMBER,
 thk8 NUMBER,
 thk9 NUMBER,
 thk10 NUMBER,
 thk11 NUMBER,
 thk12 NUMBER,
 thk13 NUMBER,
 thk14 NUMBER,
 thk15 NUMBER,
 thk16 NUMBER,
 thk17 NUMBER,
 thk18 NUMBER,
 thk19 NUMBER,
 thk20 NUMBER,
 thk21 NUMBER,
 thk22 NUMBER,
 thk23 NUMBER,
 thk24 NUMBER,
 thk25 NUMBER,
 key1 NUMBER,
 key2 NUMBER,
 key3 NUMBER,
 key4 NUMBER,
 key5 NUMBER,
 key6 NUMBER,
 key7 NUMBER,
 key8 NUMBER,
 key9 NUMBER,
 key10 NUMBER

);

rem
 rem Results for delivery transactions.
 rem These results are from the measurement interval only.
 rem
 CREATE TABLE bench_del_res
 (

run_name	VARCHAR2(20),
audit_str	VARCHAR2(10),
proc_no	NUMBER,
rep1	NUMBER,
rep2	NUMBER,
rep3	NUMBER,
rep4	NUMBER,
rep5	NUMBER,
rep6	NUMBER,
rep7	NUMBER,
rep8	NUMBER,
rep9	NUMBER,
rep10	NUMBER,
rep11	NUMBER,
rep12	NUMBER,
rep13	NUMBER,
rep14	NUMBER,
rep15	NUMBER,
rep16	NUMBER,
rep17	NUMBER,
rep18	NUMBER,
rep19	NUMBER,
rep20	NUMBER,
rep21	NUMBER,
rep22	NUMBER,
rep23	NUMBER,
rep24	NUMBER,
rep25	NUMBER,
rep26	NUMBER,
rep27	NUMBER,
rep28	NUMBER,
rep29	NUMBER,
rep30	NUMBER,
rep31	NUMBER,
rep32	NUMBER,
rep33	NUMBER,
rep34	NUMBER,
rep35	NUMBER,
rep36	NUMBER,
rep37	NUMBER,
rep38	NUMBER,
rep39	NUMBER,
rep40	NUMBER,
rep41	NUMBER,
rep42	NUMBER,
rep43	NUMBER,
rep44	NUMBER,
rep45	NUMBER,
rep46	NUMBER,
rep47	NUMBER,
rep48	NUMBER,
rep49	NUMBER,
rep50	NUMBER,
rep51	NUMBER,
rep52	NUMBER,
rep53	NUMBER,
rep54	NUMBER,
rep55	NUMBER,
rep56	NUMBER,

rep57	NUMBER,
rep58	NUMBER,
rep59	NUMBER,
rep60	NUMBER,
rep61	NUMBER,
rep62	NUMBER,
rep63	NUMBER,
rep64	NUMBER,
rep65	NUMBER,
rep66	NUMBER,
rep67	NUMBER,
rep68	NUMBER,
rep69	NUMBER,
rep70	NUMBER,
rep71	NUMBER,
rep72	NUMBER,
rep73	NUMBER,
rep74	NUMBER,
rep75	NUMBER,
rep76	NUMBER,
rep77	NUMBER,
rep78	NUMBER,
rep79	NUMBER,
rep80	NUMBER,
rep81	NUMBER,
rep82	NUMBER,
rep83	NUMBER,
rep84	NUMBER,
rep85	NUMBER,
rep86	NUMBER,
rep87	NUMBER,
rep88	NUMBER,
rep89	NUMBER,
rep90	NUMBER,
rep91	NUMBER,
rep92	NUMBER,
rep93	NUMBER,
rep94	NUMBER,
rep95	NUMBER,
rep96	NUMBER,
rep97	NUMBER,
rep98	NUMBER,
rep99	NUMBER,
rep100	NUMBER,
thk1	NUMBER,
thk2	NUMBER,
thk3	NUMBER,
thk4	NUMBER,
thk5	NUMBER,
thk6	NUMBER,
thk7	NUMBER,
thk8	NUMBER,
thk9	NUMBER,
thk10	NUMBER,
thk11	NUMBER,
thk12	NUMBER,
thk13	NUMBER,
thk14	NUMBER,
thk15	NUMBER,

```

        thk16          NUMBER,
        thk17          NUMBER,
        thk18          NUMBER,
        thk19          NUMBER,
        thk20          NUMBER,
        thk21          NUMBER,
        thk22          NUMBER,
        thk23          NUMBER,
        thk24          NUMBER,
        thk25          NUMBER,
        key1           NUMBER,
        key2           NUMBER,
        key3           NUMBER,
        key4           NUMBER,
        key5           NUMBER,
        key6           NUMBER,
        key7           NUMBER,
        key8           NUMBER,
        key9           NUMBER,
        key10          NUMBER
    );

rem
rem Aggregate results for stock level transactions.
rem These results are from the measurement interval only.
rem

```

```

CREATE TABLE tpcc_sto_res
(
    run_name          VARCHAR2(20),
    rep1              NUMBER,
    rep2              NUMBER,
    rep3              NUMBER,
    rep4              NUMBER,
    rep5              NUMBER,
    rep6              NUMBER,
    rep7              NUMBER,
    rep8              NUMBER,
    rep9              NUMBER,
    rep10             NUMBER,
    rep11             NUMBER,
    rep12             NUMBER,
    rep13             NUMBER,
    rep14             NUMBER,
    rep15             NUMBER,
    rep16             NUMBER,
    rep17             NUMBER,
    rep18             NUMBER,
    rep19             NUMBER,
    rep20             NUMBER,
    rep21             NUMBER,
    rep22             NUMBER,
    rep23             NUMBER,
    rep24             NUMBER,
    rep25             NUMBER,
    rep26             NUMBER,
    rep27             NUMBER,
    rep28             NUMBER,
    rep29             NUMBER,
    rep30             NUMBER,

```

```

    rep31             NUMBER,
    rep32             NUMBER,
    rep33             NUMBER,
    rep34             NUMBER,
    rep35             NUMBER,
    rep36             NUMBER,
    rep37             NUMBER,
    rep38             NUMBER,
    rep39             NUMBER,
    rep40             NUMBER,
    rep41             NUMBER,
    rep42             NUMBER,
    rep43             NUMBER,
    rep44             NUMBER,
    rep45             NUMBER,
    rep46             NUMBER,
    rep47             NUMBER,
    rep48             NUMBER,
    rep49             NUMBER,
    rep50             NUMBER,
    rep51             NUMBER,
    rep52             NUMBER,
    rep53             NUMBER,
    rep54             NUMBER,
    rep55             NUMBER,
    rep56             NUMBER,
    rep57             NUMBER,
    rep58             NUMBER,
    rep59             NUMBER,
    rep60             NUMBER,
    rep61             NUMBER,
    rep62             NUMBER,
    rep63             NUMBER,
    rep64             NUMBER,
    rep65             NUMBER,
    rep66             NUMBER,
    rep67             NUMBER,
    rep68             NUMBER,
    rep69             NUMBER,
    rep70             NUMBER,
    rep71             NUMBER,
    rep72             NUMBER,
    rep73             NUMBER,
    rep74             NUMBER,
    rep75             NUMBER,
    rep76             NUMBER,
    rep77             NUMBER,
    rep78             NUMBER,
    rep79             NUMBER,
    rep80             NUMBER,
    rep81             NUMBER,
    rep82             NUMBER,
    rep83             NUMBER,
    rep84             NUMBER,
    rep85             NUMBER,
    rep86             NUMBER,
    rep87             NUMBER,
    rep88             NUMBER,
    rep89             NUMBER,

```

```

rep90      NUMBER,
rep91      NUMBER,
rep92      NUMBER,
rep93      NUMBER,
rep94      NUMBER,
rep95      NUMBER,
rep96      NUMBER,
rep97      NUMBER,
rep98      NUMBER,
rep99      NUMBER,
rep100     NUMBER,
thk1       NUMBER,
thk2       NUMBER,
thk3       NUMBER,
thk4       NUMBER,
thk5       NUMBER,
thk6       NUMBER,
thk7       NUMBER,
thk8       NUMBER,
thk9       NUMBER,
thk10      NUMBER,
thk11      NUMBER,
thk12      NUMBER,
thk13      NUMBER,
thk14      NUMBER,
thk15      NUMBER,
thk16      NUMBER,
thk17      NUMBER,
thk18      NUMBER,
thk19      NUMBER,
thk20      NUMBER,
thk21      NUMBER,
thk22      NUMBER,
thk23      NUMBER,
thk24      NUMBER,
thk25      NUMBER,
key1       NUMBER,
key2       NUMBER,
key3       NUMBER,
key4       NUMBER,
key5       NUMBER,
key6       NUMBER,
key7       NUMBER,
key8       NUMBER,
key9       NUMBER,
key10      NUMBER
);

rem
rem Results for stock level transactions.
rem These results are from the measurement interval only.
rem
CREATE TABLE bench_sto_res
(
run_name    VARCHAR2(20),
audit_str   VARCHAR2(10),
proc_no     NUMBER,
repl        NUMBER,
rep2        NUMBER,

```

```

rep3       NUMBER,
rep4       NUMBER,
rep5       NUMBER,
rep6       NUMBER,
rep7       NUMBER,
rep8       NUMBER,
rep9       NUMBER,
rep10      NUMBER,
rep11      NUMBER,
rep12      NUMBER,
rep13      NUMBER,
rep14      NUMBER,
rep15      NUMBER,
rep16      NUMBER,
rep17      NUMBER,
rep18      NUMBER,
rep19      NUMBER,
rep20      NUMBER,
rep21      NUMBER,
rep22      NUMBER,
rep23      NUMBER,
rep24      NUMBER,
rep25      NUMBER,
rep26      NUMBER,
rep27      NUMBER,
rep28      NUMBER,
rep29      NUMBER,
rep30      NUMBER,
rep31      NUMBER,
rep32      NUMBER,
rep33      NUMBER,
rep34      NUMBER,
rep35      NUMBER,
rep36      NUMBER,
rep37      NUMBER,
rep38      NUMBER,
rep39      NUMBER,
rep40      NUMBER,
rep41      NUMBER,
rep42      NUMBER,
rep43      NUMBER,
rep44      NUMBER,
rep45      NUMBER,
rep46      NUMBER,
rep47      NUMBER,
rep48      NUMBER,
rep49      NUMBER,
rep50      NUMBER,
rep51      NUMBER,
rep52      NUMBER,
rep53      NUMBER,
rep54      NUMBER,
rep55      NUMBER,
rep56      NUMBER,
rep57      NUMBER,
rep58      NUMBER,
rep59      NUMBER,
rep60      NUMBER,
rep61      NUMBER,

```



```

rep62      NUMBER,
rep63      NUMBER,
rep64      NUMBER,
rep65      NUMBER,
rep66      NUMBER,
rep67      NUMBER,
rep68      NUMBER,
rep69      NUMBER,
rep70      NUMBER,
rep71      NUMBER,
rep72      NUMBER,
rep73      NUMBER,
rep74      NUMBER,
rep75      NUMBER,
rep76      NUMBER,
rep77      NUMBER,
rep78      NUMBER,
rep79      NUMBER,
rep80      NUMBER,
rep81      NUMBER,
rep82      NUMBER,
rep83      NUMBER,
rep84      NUMBER,
rep85      NUMBER,
rep86      NUMBER,
rep87      NUMBER,
rep88      NUMBER,
rep89      NUMBER,
rep90      NUMBER,
rep91      NUMBER,
rep92      NUMBER,
rep93      NUMBER,
rep94      NUMBER,
rep95      NUMBER,
rep96      NUMBER,
rep97      NUMBER,
rep98      NUMBER,
rep99      NUMBER,
rep100     NUMBER,
thk1       NUMBER,
thk2       NUMBER,
thk3       NUMBER,
thk4       NUMBER,
thk5       NUMBER,
thk6       NUMBER,
thk7       NUMBER,
thk8       NUMBER,
thk9       NUMBER,
thk10      NUMBER,
thk11      NUMBER,
thk12      NUMBER,
thk13      NUMBER,
thk14      NUMBER,
thk15      NUMBER,
thk16      NUMBER,
thk17      NUMBER,
thk18      NUMBER,
thk19      NUMBER,
thk20      NUMBER,

```

```

thk21      NUMBER,
thk22      NUMBER,
thk23      NUMBER,
thk24      NUMBER,
thk25      NUMBER,
key1       NUMBER,
key2       NUMBER,
key3       NUMBER,
key4       NUMBER,
key5       NUMBER,
key6       NUMBER,
key7       NUMBER,
key8       NUMBER,
key9       NUMBER,
key10      NUMBER

```

```

);
commit;
set echo off;
rem spool off;
rem exit;

```

require_vars.sh

```

#!/bin/sh
# make sure each environment variable argument is defined.

for var in $* ; do
    if test -z "`eval echo \\\$var`"; then
        echo Missing variable: $var - exiting.
        exit 0
    fi
done
exit 1

```

lcm.sh

```

#!/bin/sh
# echo the lcm of two numbers

if expr $2 \> $1 > /dev/null; then
    set $2 $1
# now $1 is guaranteed to be bigger
fi

lcm=$1
while expr \( \( $lcm % $1 \) + \( $lcm % $2 \) \) \> 0 > /dev/null; do
    lcm=`expr $lcm + $1`
done

echo $lcm

```

tokilobytes.sh

```
#!/bin/sh
# convert k, m, g, t into kilobytes, echo result
# no units means kilobytes is assumed.

amount=`echo $1 | sed -e's/^(\.*\)\(.\)/\1/'`
unit=`echo $1 | sed -e's/^.*\(\.\)/\1/'`
if expr $unit = k \|| $unit = K> /dev/null; then
    result=$amount
elif expr $unit = m \|| $unit = M> /dev/null; then
    result=`$tpcc_bcexpr $amount \* 1024`
elif expr $unit = g \|| $unit = G> /dev/null; then
    result=`$tpcc_bcexpr $amount \* 1024 \* 1024`
elif expr $unit = t \|| $unit = T> /dev/null; then
    result=`$tpcc_bcexpr $amount \* 1024 \* 1024 \* 1024`
else
    #assume it's already correct.
    result=$result
fi

if test -n "$result"; then
    echo $result
else
    #check if it's still valid
    echo $1
    expr $1 + 0 > /dev/null
    exit $?
fi
```

fromkilobytes.sh

```
#!/bin/sh
# round up to k, m, g, t from number of kilobytes.

amount=$1
if $tpcc_isneg ` $tpcc_bcexpr $amount - 1024 `; then
    echo ${amount}K
    exit 0;
fi;
amount=`$tpcc_bcexpr \(` $amount + 1023 \) / 1024`
if $tpcc_isneg ` $tpcc_bcexpr $amount - 1024 `; then
    echo ${amount}M
    exit 0;
fi;
amount=`$tpcc_bcexpr \(` $amount + 1023 \) / 1024`
if $tpcc_isneg ` $tpcc_bcexpr $amount - 1024 `; then
    echo ${amount}G
    exit 0;
fi;
amount=`$tpcc_bcexpr \(` $amount + 1023 \) / 1024`
```

estsize.sh

```
#!/bin/sh
# round down closest k or m from number of kilobytes.
```

```
# fairly small, doesn't really matter
amount=$1
if $tpcc_isneg ` $tpcc_bcexpr $amount - 10000 `; then
    echo ${amount}K
    exit 0;
fi;

# convert to megs, then trunc to nearest 100
amount=`$tpcc_bcexpr \(` $amount + 900 \) / 1024`
multiplier=1
while $tpcc_isneg ` $tpcc_bcexpr 1000 - $amount `; do
    amount=`$tpcc_bcexpr $amount / 10`
    multiplier=`$tpcc_bcexpr 10 \* $multiplier`
done
amount=`$tpcc_bcexpr $amount \* $multiplier`

echo ${amount}M
exit 0;
```

notneg.sh

```
#!/bin/sh
# echo the first and second params provided $2 is greater than -1.

if expr $2 \> -1 > /dev/null; then
    echo $1 $2
else
    echo
fi
```

isneg.sh

```
#!/bin/sh
# exit true if negative, else false

if test ` $tpcc_bcexpr "$*" | cut -b1 ` = -; then
    exit 0
else
    exit 1
fi
```

bcexpr.sh

```
#!/bin/sh
# send command line to bc
echo "$*" | bc
```

tabledata.sh

```
# tabledata- (not a script) data and functions for
# getting columns and info for creating tables and indices.
```

```

# forces any env variables we set to be exported
set -a

# note- clustcols will be an option- move to stepenv file!

#tp- get table param. (that is, $tpcc_tablename_tableparam)
tp(){
    eval echo \"\"$tpcc_$1_$2\""
}

#nullauto- check if $1 null or auto, if not echo it, otherwise echo $2.
nullauto(){
    if expr "x$1" = x \|| "x$1" = xauto \|| "x$1" = xno > /dev/null; then
        echo "$2"
    else
        echo "$1"
    fi
}

tpcc_item_warecol=none
tpcc_item_clustcols=t
tpcc_item_hkey="`nullauto "$tpcc_item_hkey" 100000`"
tpcc_item_hash="`nullauto "$tpcc_item_hash" i_id`"
tpcc_item_rsize="`nullauto "$tpcc_item_rsize" 120`"
#The actual size of item needs to be a little bigger just because
#it's around boundary size for hash clusters.
tpcc_item_csize=130

tpcc_item_cols=`cat <<|
i_id-number(6,0)
i_name-varchar2(24)
i_price-number
i_data-varchar2(50)
i_im_id-number
!
\`

tpcc_iitem_cols=$tpcc_item_cols
tpcc_iitem_warecol=none
tpcc_iitem_indexon=item

if expr x$tpcc_compress = xt > /dev/null; then
    tpcc_stok_compress=fffffffftttttttttt
    tpcc_stok_rsize="`nullauto "$tpcc_stok_rsize" 256`"
tpcc_stok_cols=`cat <<|
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-varchar2(24)
s_dist_02-varchar2(24)
s_dist_03-varchar2(24)
s_dist_04-varchar2(24)
s_dist_05-varchar2(24)
s_dist_06-varchar2(24)
s_dist_07-varchar2(24)

```

```

s_dist_08-varchar2(24)
s_dist_09-varchar2(24)
s_dist_10-varchar2(24)
!
\`
else
tpcc_stok_rsize="`nullauto "$tpcc_stok_rsize" 350`"
tpcc_stok_cols=`cat <<|
s_i_id-number
s_w_id-number
s_quantity-number
s_ytd-number
s_order_cnt-number
s_remote_cnt-number
s_data-varchar2(50)
s_dist_01-char(24)
s_dist_02-char(24)
s_dist_03-char(24)
s_dist_04-char(24)
s_dist_05-char(24)
s_dist_06-char(24)
s_dist_07-char(24)
s_dist_08-char(24)
s_dist_09-char(24)
s_dist_10-char(24)
!
\`
fi
tpcc_stok_clustcols=tt
tpcc_stok_hkey_def=`$tpcc_bcexpr 100000 \\\* $tpcc_scale`
tpcc_stok_hkey="`nullauto "$tpcc_stok_hkey" "$tpcc_stok_hkey_def`"
if expr $tpcc_stok_imp = parttable \|| $tpcc_stok_imp = partiot >
/dev/null; then
    tmpdiv="$tpcc_scale/$tpcc_np"
    tpcc_stok_hash_def="(abs(s_i_id - 1) * $tmpdiv + mod((s_w_id - 1),
$tmpdiv) + trunc((s_w_id - 1) / $tmpdiv) * $tmpdiv * 100000)"
else
    tpcc_stok_hash_def="(s_i_id * $tpcc_scale + s_w_id)"
fi
tpcc_stok_hash="`nullauto "$tpcc_stok_hash" "$tpcc_stok_hash_def`"

tpcc_stok_warecol=s_w_id

tpcc_istok_cols=$tpcc_stok_cols
tpcc_istok_warecol=$tpcc_stok_warecol
tpcc_istok_indexon=stok

tpcc_ware_clustcols=t
tpcc_ware_hkey="`nullauto "$tpcc_ware_hkey" "$tpcc_scale`"
tpcc_ware_hash="`nullauto "$tpcc_ware_hash" '(w_id)``"
#now we want default for ware to be auto (one block always)
#tpcc_ware_rsize="`nullauto "$tpcc_ware_rsize" 1536`"
tpcc_ware_rsize="`nullauto "$tpcc_ware_rsize" auto`"

tpcc_ware_warecol=none
tpcc_ware_cols=`cat <<|
w_id-number(5,0)
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)
!
\

tpcc_iware_cols=$tpcc_ware_cols
tpcc_iware_warecol=none
tpcc_iware_indexon=ware

tpcc_dist_clustcols=tt
tpcc_dist_hkey_def=`$tpcc_bcexpr 10 \* $tpcc_scale`
tpcc_dist_hkey=""nullauto "$tpcc_dist_hkey" $tpcc_dist_hkey_def`
tpcc_dist_hash=""nullauto "$tpcc_dist_hash" '((d_w_id * 10) + d_id)`"
#tpcc_dist_rsize=""nullauto "$tpcc_dist_rsize" 1536`"
tpcc_dist_rsize=""nullauto "$tpcc_dist_rsize" auto`"
tpcc_dist_warecol=d_w_id
tpcc_dist_cols=`cat <<!
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)
!
\

tpcc_idist_cols=$tpcc_dist_cols
tpcc_idist_warecol=d_w_id
tpcc_idist_indexon=dist

#NOTE- needs to change SQL code
tpcc_ordr_clustcols=ttttffffft
tpcc_ordr_queuesort=2t-3t-1tt-9tt-
tpcc_ordr_queueenames=2-3-1-
#NOTE- check if this is right for hash keys
tpcc_ordr_hkey_def=`$tpcc_bcexpr 10 \* $tpcc_scale`
tpcc_ordr_hkey=""nullauto "$tpcc_ordr_hkey" "$tpcc_ordr_hkey_def""
tpcc_ordr_hash=""nullauto "$tpcc_ordr_hash" '(o_w_id - 1) * 10 + o_d_id
- 1`,`"
tpcc_ordr_rsize=""nullauto "$tpcc_ordr_rsize" 1490`"
tpcc_ordr_warecol=o_w_id

if expr $tpcc_ordr_imp = queue > /dev/null; then
tpcc_ordr_qcols=`cat <<!
o_id-number
o_w_id-number
o_d_id-number
o_c_id-number
o_carrier_id-number
o_ol_cnt-number

```

```

o_all_local-number
o_entry_d-date
o_number-number
!
\

tpcc_ordr_cols=`cat <<!
o_id-number-sort
o_w_id-number
o_d_id-number
o_c_id-number
o_carrier_id-number
o_ol_cnt-number
o_all_local-number
o_entry_d-date
!
\

else
tpcc_ordr_cols=`cat <<!
o_id-number
o_w_id-number
o_d_id-number
o_c_id-number
o_carrier_id-number
o_ol_cnt-number
o_all_local-number
o_entry_d-date
!
\

fi

tpcc_iordr1_warecol=$tpcc_ordr_warecol
tpcc_iordr1_cols=$tpcc_ordr_cols
tpcc_iordr1_indexon=ordr

tpcc_iordr2_warecol=$tpcc_ordr_warecol
tpcc_iordr2_cols=$tpcc_ordr_cols
tpcc_iordr2_indexon=ordr

#ordr uses ordr's cluster, so we represent this
#with another variable
tpcc_ordl_usecluster=', constraint ordl_uk primary key (ol_w_id,
ol_d_id, ol_o_id, ol_number )) CLUSTER ordrcluster_queue(ol_w_id,
ol_d_id, ol_o_id, ol_number)`
tpcc_ordl_othercluster=ordr

tpcc_ordl_warecol=ol_w_id
if test $tpcc_ordl_imp = queue; then
tpcc_ordl_cols=`cat <<!
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)

```

```

! \
else
tpcc_ordl_cols=`cat <<|
    ol_w_id-number
    ol_d_id-number
    ol_o_id-number
    ol_number-number
    ol_i_id-number
    ol_delivery_d-date
    ol_amount-number
    ol_supply_w_id-number
    ol_quantity-number
    ol_dist_info-char(24)
! \
fi

tpcc_iordl_cols=$tpcc_ordl_cols
tpcc_iordl_warecol=$tpcc_ordl_warecol
tpcc_iordl_indexon=ordl

tpcc_nord_clustcols=ttt
tpcc_nord_queuesort=1t-2t-3tt-
tpcc_nord_queueenames=1-2-3-
#NOTE- check if this is right for hash keys
tpcc_nord_hkey_def=`$tpcc_bcexpr 10 \* $tpcc_scale`
tpcc_nord_hkey=""`nullauto "$tpcc_nord_hkey" "$tpcc_nord_hkey_def""
tpcc_nord_hash=""`nullauto "$tpcc_nord_hash" '(no_w_id - 1) * 10 +
no_d_id - 1'""
tpcc_nord_rsize=""`nullauto "$tpcc_nord_rsize" 190`"
tpcc_nord_warecol=no_w_id
tpcc_nord_qcols=`cat <<|
    no_w_id-number
    no_d_id-number
    no_o_id-number
! \

tpcc_nord_cols=`cat <<|
    no_w_id-number
    no_d_id-number
    no_o_id-number-sort
! \

tpcc_inord_cols=$tpcc_nord_cols
tpcc_inord_warecol=$tpcc_nord_warecol
tpcc_inord_indexon=nord

#we regardless of overflow or compress we always want the
#size calculation for cust to be the same.
tpcc_cust_rsize=850

if expr x$tpcc_overflow = xt > /dev/null; then
    if expr x$tpcc_compress = xt > /dev/null; then
        tpcc_cust_compress=ffffffffftttfffff
        tpcc_cust_rsize=""`nullauto "$tpcc_cust_rsize" 180`"

```

```

else
    tpcc_cust_rsize=""`nullauto "$tpcc_cust_rsize" 350`"
fi

tpcc_cust_cols=`cat <<|
    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-varchar2(500)
! \
else
    tpcc_cust_rsize=""`nullauto "$tpcc_cust_rsize" 850`"
tpcc_cust_cols=`cat <<|
    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-varchar2(500)
! \
fi

tpcc_cust_clustcols=ttt
tpcc_cust_hkey_def=`$tpcc_bcexpr 30000 \* $tpcc_scale`
tpcc_cust_hkey=""`nullauto "$tpcc_cust_hkey" "$tpcc_cust_hkey_def""

```

```

if expr $tpcc_np \> 1 > /dev/null; then
    tpcc_cust_hash_def='(c_w_id * 30000 + c_id * 10 + c_d_id - 30011)'
else
    tpcc_cust_hash_def="(c_id * ( $tpcc_scale * 10 ) + c_w_id * 10 +
c_d_id)"
fi
tpcc_cust_hash=""nullauto "$tpcc_cust_hash" "$tpcc_cust_hash_def""
tpcc_cust_warecol=c_w_id

tpcc_icust1_cols=$tpcc_cust_cols
tpcc_icust1_warecol=$tpcc_cust_warecol
tpcc_icust1_indexon=cust

tpcc_icust2_cols=$tpcc_cust_cols
tpcc_icust2_warecol=$tpcc_cust_warecol
tpcc_icust2_indexon=cust

tpcc_hist_warecol=h_w_id
tpcc_hist_cols=`cat <<!
    h_c_id-number
    h_c_d_id-number
    h_c_w_id-number
    h_d_id-number
    h_w_id-number
    h_date-date
    h_amount-number
    h_data-varchar2(24)
!
`

set +a

#indexnames- with colums for table $1, pull out the desired indices
#and echo each. Also allowed in format, two characters after the
#index specifying if type and SORT should be listed as well-
#example 1t-4t-2tt-3tt gives the type on each, but only SORT on the
#two entries.
#echos blank if cannot index.
indexnames(){
    tabcols=`tp $1 cols`
    if expr x$2 = xno \|| x$2 = x > /dev/null; then
        echo ""
    else
        colsleft=$2
        addcomma=
        while test -n "$colsleft"; do
            desiredcol=`echo $colsleft | cut -f1 -d-`
            yestype=x`echo $desiredcol | cut -b2`
            yessort=x`echo $desiredcol | cut -b3`
            desiredcol=`echo $desiredcol | cut -b1`

            desiredcol=`echo $tabcols | cut -d' ' -f$desiredcol`
            if expr $yestype = xt > /dev/null; then
                firstcol=`echo $desiredcol | cut -f1 -d-`
                desiredcol="$firstcol`echo $desiredcol | cut -f2 -d-`"
            else
                desiredcol=`echo $desiredcol | cut -f1 -d-`

```

```

fi
if expr $yessort = xt > /dev/null; then
    desiredcol="$desiredcol SORT"
fi

    echo $addcomma `echo $desiredcol | cut -f1 -d-`
    addcomma=
# on some systems, we have "lastcol" instead of "lastcol-" like we want
due to cut's behavior.
# we can make it work on these systems by making sure the - is in.
    colsleft=`echo $colsleft | grep -`
    colsleft=`echo $colsleft | cut -f2- -d-`
done
fi
}

#colize- get columns desired for table $1, print with commas between.
#second argument is a string like ttffft, representing
#which columns are to be displayed.
# $3 true if only name should be printed, otherwise name and value are
printed
# $4 has all columns that need to have SORT after them (for queue)
# $5 has all the columns that need to have compress after them (for
hash tables)
colize(){
    if expr $2 = all > /dev/null; then
        allcols=t
    else
        enabledcols=$2
    fi
    sortcols=$4
    compresscols=$5

    tabcols=`tp $1 cols`
    addcomma=
    for curcol in $tabcols ; do
        if expr x`echo $sortcols | cut -b1` = xt > /dev/null; then
            sortsql=SQL
        else
            sortsql=
        fi

        if expr x`echo $compresscols | cut -b1` = xt > /dev/null; then
            compresssql=compress
        else
            compresssql=
        fi

        if expr x`echo $enabledcols | cut -b1` = xt \|| x$allcols = xt >
/dev/null; then
            if expr x$3 = xt > /dev/null; then
                echo $addcomma `echo $curcol | cut -f1 -d-`
            else
                if expr x$allcols = xt > /dev/null; then
                    echo $addcomma `echo $curcol | cut -f1 -d-` `echo $curcol |
cut -f2 -d-` `echo $curcol | cut -f3 -d- | tr . ' ' ` $sortsql
$compresssql
                else
                    echo $addcomma `echo $curcol | cut -f1 -d-` `echo $curcol |

```

```

cut -f2 -d-` $sortsql $compresssql
    fi
fi
fi
addcomma=,
enabledcols=`echo $enabledcols | cut -b2-`
sortcols=`echo $sortcols | cut -b2-`
compresscols=`echo $compresscols | cut -b2-`
done
}

#createpart- create the sql to generate partitions based on warehouse.
createpart(){
    warecol=`tp $1 warecol`

    #check if unavailable for partitioning
    if test -z "$warecol"; then
        exit 1
    fi
    if expr $warecol = none > /dev/null; then
        exit 1
    fi

    echo "partition by range( $warecol ) ("

    partcount=0
    waredivide=0
    wareinc=`expr $tpcc_scale / $tpcc_np`
    wareextra=`expr $tpcc_scale \% $tpcc_np`
    addcomma=
    while expr $partcount \< $tpcc_np > /dev/null; do
        waredivide=`expr $wareinc + $waredivide + \( $wareextra / $tpcc_np`
    \)`

    echo $addcomma partition ${1} $partcount values less than \( `expr
1 + $waredivide` \) tablespace ${1}_${partcount}
    addcomma=,

    wareextra=`expr $wareextra + 1`
    partcount=`expr $partcount + 1`
done
echo ')'
}

#createindexpart- create the sql to generate partitions based on
warehouse,
# this time for indices (so no calculation is required.)
createindexpart(){
    echo 'local ('
    partcount=0
    addcomma=
    while expr $partcount \< $tpcc_np > /dev/null; do
        echo $addcomma partition ${1}_${partcount} tablespace ${1}_${partcount}
        addcomma=,
        partcount=`expr $partcount + 1`
    done
    echo ')'
}

```

evenload.sh

```

#!/bin/sh
#evenly load using tpcc load, following parameters:
#$1 name of the table to load- this is used to choose where to log.
#$2 the number of things to load
#$3 the starting flag (usually b or j)
#$4 the ending flag (usually e or k)
#$5 the flag to load (h for history , c for cust, S for stock, etc.
#$6 if true, add dummy (only used for -o so far.)
#$7 the command to be used, if not $tpcc_load

command=$7
if test -z "$command"; then
    command='$tpcc_load'
fi

tablename=$1
# write out to file to load later
loadout=$tpcc_genscripts_dir/load${tablename}.sh
rm ${loadout}
echo \#created automatically by $0 `date` > $loadout
echo "rm load${tablename}.log" >> $loadout
echo 'cd $tpcc_bench' >> $loadout

numloaders=`$tpcc_bcexpr 2 \* $tpcc_cpu`
if expr $numloaders \> $2 > /dev/null; then
    numloaders=$2
fi

echo "allprocs=" >> $loadout
curstuff=1
stuffextra=`expr $2 \% $numloaders`
stuffinc=`expr $2 / $numloaders`
curloader=0
while expr $curloader \< $numloaders > /dev/null; do
    newstuff=`expr $curstuff + $stuffinc + \( $stuffextra / $numloaders`
\)`
    if expr x$6 = xt > /dev/null; then
        if expr $tpcc_os = unix > /dev/null; then
            adddummy=$tpcc_disks_location/dummy${curloader}.dat
        else
            # is this what we actually want to do? check nt stuff
            adddummy=\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\dummy${curloader}.dat
        fi
    else
        adddummy=
    fi
    echo "$command -M $tpcc_scale -$5 $adddummy -$3 $curstuff -$4 `expr
$newstuff - 1` >> load${tablename}${curloader}.log 2>&1 &" >> $loadout
    echo 'allprocs="$allprocs ${!}"' >> $loadout
    curstuff=$newstuff

    stuffextra=`expr $stuffextra + 1`
    curloader=`expr 1 + $curloader`
done

```

```

cat >> $loadout <<!
error=0
for curproc in \allprocs; do
    wait \scurproc
    error=\`expr \ $? + \error\`
done
exit \`expr \error != 0\`
!

exit 0

```

listfiles.sh

```

#!/bin/sh
# Write out tablespace files to files.dat so the person in
# charge of the test can relink them.

#automatically export
set -a
tpcc_listfiles=t

rm $tpcc_bench/files.dat
cd $tpcc_bench
echo "#generated automaticall by files.dat `date`" >>
$tpcc_bench/files.dat
$tpcc_scripts/runscript.sh createts
echo "$tpcc_disks_location/system_001" $tpcc_system_size >>
$tpcc_bench/files.dat
echo "$tpcc_disks_location/log_1" $tpcc_logfile_size >>
$tpcc_bench/files.dat
echo "$tpcc_disks_location/log_2" $tpcc_logfile_size >>
$tpcc_bench/files.dat
echo "$tpcc_disks_location/aux.df" $tpcc_sysaux_size >>
$tpcc_bench/files.dat
echo "$tpcc_disks_location/roll01" $tpcc_undo_size >>
$tpcc_bench/files.dat
echo "$tpcc_disks_location/sp_0" $tpcc_statspack_size >>
$tpcc_bench/files.dat

tpcc_listfiles=f
#automatic export off
set +a

echo List of files written to $tpcc_bench/files.dat.  Stopping driver.

exit 99

```

runscript.sh

```

#!/bin/sh
# run a script from the script directory.
# go to log directory so we don't leave a mess in the bench dir.
cd $tpcc_bench/log
/bin/sh $tpcc_genscripts_dir/${1}.sh
exit $?

```

updateordrordl.sh

```

#!/bin/sh
$tpcc_sqlplus $tpcc_user_pass <<!
set serveroutput on size 200000

declare
    wid number;
    did number;
    oid number;
begin
    for wid in ${5}..${7} loop
        for did in 1..10 loop
            for oid in 1..2100 loop
                update ordr set o_entry_d=sysdate
                    where o_w_id = wid and o_d_id = did and o_id =
oid;
                update ordl set ol_delivery_d = sysdate
                    where ol_w_id = wid and ol_d_id = did and ol_o_id
= oid;
                commit;
            end loop;
        end loop;
        dbms_output.put_line(wid || 'warehouses finished');
    end loop;
end;
/

exit 0
!

```

B2. Loader Source Code

dpbcpu.c

```

/* Copyright (c) Oracle Corporation 1993.  All Rights Reserved. */

/*
NAME      DPBTIME.C

DESCRIPTION
    Get time in seconds.

NOTES
    Desktop Performance Group

MODIFIED      (MM/DD/YY)
    bmoriart   05/10/95 -  V4.7 Convert from double to clock_t
    MBHULLAR   02/06/95 -  V4.5
*/

#ifdef ORA_NT
#include <windows.h>

```



```
# include < time.h>

clock_t dpbcpu(void)
{
    clock_t begin_cpu;

    begin_cpu = clock();
    return(begin_cpu);
}
#endif /* ORA_NT */
```

dpbetime.c

```
/* Copyright (c) Oracle Corporation 1995. All Rights Reserved. */
/*
NAME      DPBETIME.C

DESCRIPTION
    Get elapsed time in 10ths of milliseconds as a clock_t.

NOTES
    Desktop Performance Group

MODIFIED      (MM/DD/YY)
    B Moriarty 06/02/95 - V4.8 Initial Version
*/

#ifdef ORA_OS2
#endif /* ORA_OS2 */

#ifdef ORA_NT
#include <windows.h>
#include <sys\types.h>
#include <time.h>
#include <stdio.h>

BOOL First = TRUE;
LARGE_INTEGER ICount;          /* Initial Time */
LARGE_INTEGER Tptms;           /* Ticks per tenth of millisecond */
#endif /* ORA_NT */

#ifdef __STDC__
clock_t dpbetime(void)
# else
clock_t dpbetime()
# endif /* __STDC__ */
{

#ifdef ORA_NT

    LARGE_INTEGER PFreq;          /* Ticks per Second */
    LARGE_INTEGER PCount;         /* Ticks Since 1970 */
    clock_t etime;                /* Elapsed time in tenths of milliseconds */

    if (First) {
```

```
        if (!QueryPerformanceFrequency(&PFreq))
            return((clock_t)-1);
        if (!QueryPerformanceCounter(&ICount))
            return((clock_t)-1);
        Tptms.QuadPart = PFreq.QuadPart / 10000;
        First = FALSE;
        return((clock_t)0);
    }
    if (!QueryPerformanceCounter(&PCount))
        return((clock_t)-1);
    etime = (clock_t) ((PCount.QuadPart - ICount.QuadPart) /
Tptms.QuadPart);
    return(etime);
}

#endif /* ORA_NT */
```

dpbfsync.c

```
/* Copyright (c) Oracle Corporation 1993, 1992. All Rights Reserved.
*/

/*
NAME      DPBFSYNC.C

DESCRIPTION

    Flush o/s buffers to disk for a file.

    Calling fclose() or fflush() is not enough. These calls will only
flush
the buffer in the FILE structure by making a write() call to the o/s,
and
the o/s will probably place these data in its own disk buffers.
dpbfsync() will cause the o/s disk buffers for a file to be written
to disk.

    This function should normally be called *after* an fflush() is done,
or you
will miss the data that is buffered in the FILE structure.

NOTES
    Desktop Performance Group

MODIFIED      (MM/DD/YY)
    C Kelly    02/24/94 - V4.4 initial version
*/

#include <stdio.h>

#ifdef ORA_OS2
int dpbfsync(FILE *fp)
{
```

```

    return 0;
}
#endif /* ORA_OS2 */

```

```

#ifdef ORA_NT
# include <windows.h>

```

```

int dpbfsync(FILE *fp)
{
    if (FlushFileBuffers((HANDLE) (fp->_file)) == FALSE)
    {
        return 1;
    };

    return 0;
}
#endif /* ORA_NT */

```

```

#ifdef ORA_AUX

```

```

int dpbfsync(fp)
FILE *fp;
{
    if (fsync(fp->_file) == -1)
    {
        return 1;
    };

    return 0;
}
#endif /* ORA_AUX */

```

```

#ifdef ORA_NW
int dpbfsync(FILE *fp)
{
    return 0;
}
#endif /* ORA_NW */

```

```

#ifdef ORA_DOS
int dpbfsync(FILE *fp)
{
    return 0;
}
#endif /* ORA_DOS */

```

```

#ifdef ORA_MAC
#endif /* ORA_MAC */

```

dpbinpgm.c

```

/* Copyright (c) Oracle Corporation 1994. All Rights Reserved. */

```

```

/*
NAME      DPBINPGM.C

```

```

DESCRIPTION
    Routine that performs any o/s specific program initialization.

```

```

NOTES
    Desktop Performance Group

```

```

MODIFIED      (MM/DD/YY)
C Kelly       04/21/94 - V4.4 created to support Netware NLMs

```

```

*/

```

```

#ifdef ORA_NW
#include <process.h>
#include <library.h>

```

```

extern int samtid;
extern int samtgid;

```

```

#else /* ORA_NW */
#endif /* ORA_NW */

```

```

#ifdef __STDC__
void dpbinpgm(void)
#else
void dpbinpgm()
#endif /* __STDC__ */
{
# ifdef ORA_NW

```

```

    samtid = GetThreadID();      /* get this program's thread id
*/
    samtgid = GetThreadGroupID(); /* get this program's thread group id
*/

```

```

# else /* ORA_NW */

```

```

    return;                      /* do nothing for everything else */

```

```

# endif /* ORA_NW */
}

```

dpboradt.c

```
/* Copyright (c) Oracle Corporation 1993. All Rights Reserved. */
```

```
/*  
NAME      DPBORADT.C
```

DESCRIPTION

```
Get System Date and Time and  
Return in Oracle External SQLT_DAT (Date) Format  
Returns 1-JAN-2000 00:00:00  
when not implemented or when conversion fails
```

NOTES

```
Desktop Performance Group
```

```
MODIFIED      (MM/DD/YY)  
bmoriart      05/26/95 - V4.8 Created  
*/
```

```
#ifdef ORA_NT  
# include <windows.h>  
#endif /* ORA_NT */
```

```
#ifdef __STDC__  
void dpboradt(char *oradt)  
#else  
void dpboradt(oradt)  
unsigned char *oradt;  
#endif /* __STDC__ */  
{  
    char cnvrtOK=TRUE;
```

```
# ifdef ORA_NT  
    SYSTEMTIME lpst;
```

```
    GetLocalTime(&lpst);  
    *oradt = (unsigned char)(lpst.wYear / 100) + 100;  
    if (*oradt < 119 || *oradt > 120) cnvrtOK=FALSE;  
    *(++oradt) = (unsigned char)(lpst.wYear % 100) + 100;  
    if (*oradt < 100 || *oradt > 199) cnvrtOK=FALSE;  
    *(++oradt) = (unsigned char)(lpst.wMonth);  
    if (*oradt < 1 || *oradt > 12) cnvrtOK=FALSE;  
    *(++oradt) = (unsigned char)(lpst.wDay);  
    if (*oradt < 1 || *oradt > 31) cnvrtOK=FALSE;  
    *(++oradt) = (unsigned char)(lpst.wHour) + 1;  
    if (*oradt < 1 || *oradt > 24) cnvrtOK=FALSE;  
    *(++oradt) = (unsigned char)(lpst.wMinute) + 1;  
    if (*oradt < 1 || *oradt > 60) cnvrtOK=FALSE;  
    *(++oradt) = (unsigned char)(lpst.wSecond) + 1;  
    if (*oradt < 1 || *oradt > 60) cnvrtOK=FALSE;  
#else /* ORA_NT */  
    cnvrtOK = FALSE;  
#endif /* ORA_NT */
```

```
    if(!cnvrtOK) { /* Use 1-JAN-2000 00:00:00 */  
        *oradt++ = 120;  
        *oradt++ = 100;  
        *oradt++ = 1;  
        *oradt++ = 1;  
        *oradt++ = 1;
```

```
        *oradt++ = 1;  
        *oradt++ = 1;  
    }  
    return; /* do nothing for everything else */  
}
```

dpbpchk.c

```
/* Copyright (c) Oracle Corporation 1993, 1992. All Rights Reserved.  
*/
```

```
/*  
NAME      DPBPCHK.C
```

DESCRIPTION

```
Check New Process
```

NOTES

```
Desktop Performance Group
```

```
MODIFIED      (MM/DD/YY)  
W Brumiller    02/08/93 - Correct error handling for NT  
R Keller       01/08/92 - Initial version
```

```
*/
```

```
#include "dpbpctl.h"
```

```
#ifdef ORA_OS2 /* IBM OS/2 2.0  
*/  
# define INCL_DOSPROCESS /*  
*/  
# include <os2.h> /*  
*/
```

```
unsigned long dpbpchk(pcntl *info)  
{  
    ULONG pid;  
    APIRET rc;  
  
    rc = DosWaitChild(DCWA_PROCESS,  
                     DCWW_WAIT,  
                     &info->rcodes,  
                     &pid,  
                     0);  
  
    return(info->rcodes.codeResult);  
};  
#endif /* ORA_OS2 */
```

```

#ifdef ORA_NT
# include <windows.h>

int dpbpchk(pcntl *info)
{
    DWORD rc;

    if (WaitForSingleObject(info->proc_info.hProcess, INFINITE) ==
        0xFFFFFFFF)
    {
        return -1;
    };

    if (GetExitCodeProcess(info->proc_info.hProcess, &rc) == FALSE)
    {
        return -1;
    };

    (void)CloseHandle(info->proc_info.hProcess);
    (void)CloseHandle(info->proc_info.hThread);

    return((int)rc);
}
#endif /* ORA_NT */

#ifdef ORA_AUX
# include <errno.h>

int dpbpchk(info)
pcntl *info;
{
    extern int errno;
    int byte_mask;
    int status;
    int high_byte;
    int child;
    int i;

    byte_mask = 255;          /* low order 8 bits are 1, bits 8..31 are 0
    */

    do
    {
        child = wait(&status);
        if (errno != ECHILD)
        {
            high_byte = ((status & (byte_mask << 8)) >> 8);
        };
    } while (errno != ECHILD);

    return high_byte;
}
#endif /* ORA_AUX */

```

dpbproc.c

```

/* Copyright (c) Oracle Corporation 1993, 1992. All Rights Reserved.
*/

/*
NAME      DPBPROC.C

DESCRIPTION
    Create New Process

NOTES
    Desktop Performance Group

MODIFIED      (MM/DD/YY)
    W Brumiller 02/08/93 - Add flags for minimized window under NT
    R Keller    01/08/92 - Initial version
*/

#include "dpbpcntl.h"

#ifdef ORA_OS2                                /* IBM OS/2 2.0
*/
# define INCL_DOSPROCESS
# include <os2.h>                                /*
*/
# include <stdlib.h>                                /*
*/
# include <string.h>                                /*
*/

unsigned long dpbproc(char *i_argv[], pcntl *info)
{
    char *args;
    char *args2;
    char load_error[100];
    char pgm[44];
    APIRET rc;
    int i;

    args2 = args = (char *)malloc(128);

    strcpy(args, i_argv[0]);
    strcpy(pgm, i_argv[0]);
    strcat(pgm, ".exe");

    args2 += strlen(args) + 1;

    if (i_argv[1] != NULL)
    {
        strcpy(args2, i_argv[1]);
        for (i = 2; i_argv[i] != NULL; i++)
        {

```

```

        strcat(args2, " ");
        strcat(args2, i_argv[i]);
    };
}
else
{
    *args2 = '\0';
};

rc = DosExecPgm(load_error,          /* spawn process
*/
                sizeof(load_error),
                EXEC_ASYNCRESULT,
                args,
                0,
                &info->rcores,
                pgm);

free(args);

return rc;
}
#endif /* ORA_OS2 */

#ifdef ORA_NT                /* Microsoft Windows NT
*/
#include <windows.h>
#include <stdlib.h>          /*
*/
#include <string.h>          /*
*/

int dpbproc(char *i_argv[], pcentl *info)
{
    BOOL rc;
    int i;
    char *args;
    STARTUPINFO start_info;

    args = (char *)malloc(128);

    memset(&start_info, 0x0, sizeof(STARTUPINFO));
    start_info.cb_ = sizeof(STARTUPINFO);
    start_info.lpTitle = i_argv[0];
    start_info.dwFlags = STARTF_USESHOWWINDOW;
    start_info.wShowWindow = SW_SHOWMINNOACTIVE;

    strcpy(args, i_argv[0]);          /* get first str
*/

    for (i = 1; i_argv[i] != NULL; i++)
    {
        strcat(args, " ");
        strcat(args, i_argv[i]);
    };

    if ((rc = CreateProcess(NULL,          /* image name
                                args,          /* command line

```

```

                                NULL,          /* process security
                                attr
                                NULL,          /* thread security attr
                                TRUE,          /* inherit handles
                                CREATE_NEW_CONSOLE, /* creation flags
                                NULL,          /* environment blocks
                                NULL,          /* current directory
                                &start_info,
                                &info->proc_info)) == FALSE)

    {
        return rc;
    };

    return 0;
};

#endif /* ORA_NT */

#ifdef ORA_AUX
#include <stdio.h>
#include <stdlib.h>
#include <sys/types.h>

int dpbproc(arg_list, info)
char *arg_list[];
pcentl *info;
{
    char *path = (char *)malloc(strlen(arg_list[0]) + 3);
    pid_t child;

    sprintf(path, "%s", arg_list[0]);

    if ((child = fork()) == (pid_t)-1)
    {
        free(path);
        return -1;
    }
    else if (child == (pid_t)0)
    {
        return execv(path, arg_list);
    }
    else
    {
        free(path);
        return 0;
    };
}
#endif /* ORA_AUX */

```

dpbprty.c

/* Copyright (c) Oracle Corporation 1993. All Rights Reserved. */

```

/*
NAME    DPBPRTY.C

```

DESCRIPTION
Set O/S Priority.

NOTES
Desktop Performance Group

MODIFIED	(MM/DD/YY)	
MBHULLAR	03/25/94	- Change prty_str[1] to case statement
B Moriarty	11/11/93	- Add Get Priority
R Keller	10/18/93	- Redesign
R Keller	10/16/93	- Iniital version

*/

```
#ifdef ORA_OS2
#include <string.h>
#include <sys\types.h>
#endif /* ORA_OS2 */
```

```
#ifdef ORA_NW
#endif /* ORA_NW */
```

```
#ifdef ORA_NT
# include <windows.h>
# include <string.h>
# define REALCLASS 'R'
# define HIGHCLASS 'H'
# define NORMALCLASS 'N'
# define IDLECLASS 'I'
#endif /* ORA_NT */
```

```
#ifdef ORA_AUX
#endif /* ORA_AUX */
```

```
#ifdef __STDC__
int dpbprty(char *prty_str)
#else
int dpbprty(prty_str)
char *prty_str;
#endif
{
#ifdef ORA_OS2
return 0;
#endif /* ORA_OS2 */
```

```
#ifdef ORA_AUX
return 0;
#endif /* ORA_AUX */
```

```
#ifdef ORA_NW
return 0;
#endif /* ORA_NW */
```

```
#ifdef ORA_NT
```

```
HANDLE this_process, this_thread;
```

```
DWORD class;
```

```
int prios;
```

```
if ( (strlen(prty_str) > 2) || prty_str[0] == '0')
{
return(0); /* return if invalid length or 0 */
};
```

```
this_process = GetCurrentProcess();
```

```
switch (prty_str[0])
{
case IDLECLASS:
case 'i':
class = IDLE_PRIORITY_CLASS;
break;
```

```
case NORMALCLASS:
case 'n':
class = NORMAL_PRIORITY_CLASS;
break;
```

```
case HIGHCLASS:
case 'h':
class = HIGH_PRIORITY_CLASS;
break;
```

```
case REALCLASS:
case 'r':
class = REALTIME_PRIORITY_CLASS;
break;
};
```

```
if (!SetPriorityClass(this_process, class))
{
return(1);
};
```

```
this_thread = GetCurrentThread();
```

```
switch(prty_str[1])
{
case '1':
prios = THREAD_PRIORITY_IDLE;
break;

case '2':
prios = THREAD_PRIORITY_LOWEST;
break;

case '3':
prios = THREAD_PRIORITY_BELOW_NORMAL;
break;
```

```
case '4':
prios = THREAD_PRIORITY_NORMAL;
```

```

break;

case '5':
prios = THREAD_PRIORITY_ABOVE_NORMAL;
break;

case '6':
prios = THREAD_PRIORITY_HIGHEST;
break;

case '7':
prios = THREAD_PRIORITY_TIME_CRITICAL;
break;

default:
break;
} /* End of switch statement */

if (!SetThreadPriority(this_thread, prios))
{
return(2);
}

return 0;

# endif /* ORA_NT */
}

#ifdef __STDC__
int dpbgetprty(char *os_pri, char *prty_str, int os_pri_len)
#else
int dpbgetprty(os_pri, prty_str, os_pri_len)
char *os_pri;
char *prty_str;
int os_pri_len;
#endif /* __STDC__ */
{
#ifdef ORA_OS2
strncpy(os_pri,prty_str,(size_t)os_pri_len);
return 0;
#endif /* ORA_OS2 */

#ifdef ORA_AUX
strncpy(os_pri,prty_str,os_pri_len);
return 0;
#endif /* ORA_AUX */

#ifdef ORA_NW
strncpy(os_pri, prty_str, os_pri_len);
return 0;
#endif /* ORA_NW */

#ifdef ORA_NT

```

```

HANDLE this_process, this_thread;
DWORD pclass;
int tpri;

this_process = GetCurrentProcess();
pclass = GetPriorityClass(this_process);

switch (pclass)
{
case IDLE_PRIORITY_CLASS:
strcpy(os_pri,"I");
break;

case NORMAL_PRIORITY_CLASS:
strcpy(os_pri,"N");
break;

case HIGH_PRIORITY_CLASS:
strcpy(os_pri,"H");
break;

case REALTIME_PRIORITY_CLASS:
strcpy(os_pri,"R");
break;

default:
strcpy(os_pri,"?");
break;
};

this_thread=GetCurrentThread();
tpri=GetThreadPriority(this_thread);
switch (tpri)
{
case THREAD_PRIORITY_IDLE:
strcat(os_pri,"1");
break;

case THREAD_PRIORITY_LOWEST:
strcat(os_pri,"2");
break;

case THREAD_PRIORITY_BELOW_NORMAL:
strcat(os_pri,"3");
break;

case THREAD_PRIORITY_NORMAL:
strcat(os_pri,"4");
break;

case THREAD_PRIORITY_ABOVE_NORMAL:
strcat(os_pri,"5");
break;

case THREAD_PRIORITY_HIGHEST:
strcat(os_pri,"6");
break;

case THREAD_PRIORITY_TIME_CRITICAL:

```

```

        strcat(os_pri,"7");
        break;

default:
        strcat(os_pri,"?");
        break;
};

return 0;

#endif /* ORA_NT */
}

```

dpbtimef.c

```

/* Copyright (c) Oracle Corporation 1993, 1992. All Rights Reserved.
*/

/*
NAME      DPBTIMEF.C

DESCRIPTION
    Get time in seconds as a clock_t.

NOTES
    Desktop Performance Group

MODIFIED      (MM/DD/YY)
    B Moriarty 02/14/95 - V4.6 fix NT & OS/2
    C Kelly    01/20/94 - V4.4 added Netware support
    C Kelly    02/05/93 - V3.1 added A/UX support
    R Keller    03/02/92 - V3.0

*/

#ifdef ORA_OS2
# define ORA_PC
#endif /* ORA_OS2 */

#ifdef ORA_NT
# define ORA_PC
#endif /* ORA_NT */

#ifdef ORA_PC
# include <sys/types.h>
# include <sys/timeb.h>
# include <stdio.h>
# include <time.h>

# ifdef __STDC__
clock_t dpbtimef(void)
# else
clock_t dpbtimef()
# endif /* __STDC__ */
{
    struct timeb buf;

```

```

        ftime(&buf);
        return((clock_t) (buf.time));
}
#endif /* ORA_PC */

#ifdef ORA_AUX
# include <sys/time.h>
double dpbtimef()
{
    struct timeval t;
    int rc;

    do
    {
        rc = gettimeofday(&t, (struct timezone *)0);
    } while (rc != 0);

    return (((double)t.tv_sec) + (((double)t.tv_usec)/1000000));
}
#endif

#ifdef ORA_NW
# include <time.h>
double dpbtimef()
{
    return (double)time(NULL); /* there is no function with greater
precision */
}
#endif /* ORA_NW */

#ifdef ORA_MAC
# include <types.h>
# include <OSUtils.h>

double dpbtimef()
{
    unsigned long secs;
    GetDateTime(&secs);
    return((double) secs);
}
#endif /* ORA_MAC */

```

dpbwait.c

```

/* Copyright (c) Oracle Corporation 1993. All Rights Reserved. */

/*
NAME      DPBWAIT.C

DESCRIPTION

```



```

        Wait for n milliseconds.

NOTES
    Desktop Performance Group

MODIFIED      (MM/DD/YY)
    R Keller    03/02/92 -   V3.0
*/

#ifdef ORA_OS2
# define INCL_DOS
# include <os2.h>
# include <time.h>

void dpbwait(clock_t i)
{
    DosSleep(i);
}
#endif /* ORA_OS2 */

#ifdef ORA_NW
# include <process.h>
void dpbwait(long i)
{
    delay((unsigned)i);
};
#endif /* ORA_NW */

#ifdef ORA_AUX
void dpbwait(wait_time)
long wait_time;
{
    unsigned secs = (unsigned)(wait_time / 1000);

    while (secs)
    {
        secs = sleep(secs);
    };
}
#endif /* ORA_AUX */

#ifdef ORA_NT
# include <windows.h>

void dpbwait(long i)
{
    Sleep(i);
}
#endif /* ORA_NT */

#ifdef ORA_DOS
# include <time.h>

```

```

void dpbwait(long i)
{
    long current_time;
    long target_time;

    current_time = time(NULL);
    target_time = current_time + i/1000;

    while (current_time < target_time)
    {
        current_time = time(NULL);
    };
}
#endif /* ORA_DOS */

```

dpbxtpgm.c

```

/* Copyright (c) Oracle Corporation 1994. All Rights Reserved. */

/*
NAME      DPBXTPGM.C

DESCRIPTION
    Routine that performs any o/s specific program exit operations.

NOTES
    Desktop Performance Group

MODIFIED      (MM/DD/YY)
    C Kelly    04/21/94 -   V4.4 created to support Netware NLMS
*/

#ifdef ORA_NW
#include <process.h>
#include <library.h>

extern int samtid;
extern int samtgid;

#else /* ORA_NW */
#endif /* ORA_NW */

#ifdef __STDC__
void dpbxtpgm(void)
#else
void dpbxtpgm()
#endif /* __STDC__ */
{
#ifdef ORA_NW

/*
** Cleanup code for NetWare.

```

```

** This routine will cleanup any Oracle connection should the module
** be unexpectedly unloaded.
*/

int oldtgid;

oldtgid = SetThreadGroupID(samtgid); /* switch to this NLM's thread
group */
OraClientExit(samtid); /* cleanup Oracle connection
*/
SetThreadGroupID(oldtgid); /* reset the thread group
*/

#else /* ORA_NW */

return; /* do nothing for everything else */

#endif /* ORA_NW */
}

```

gettime.c

```

#ifdef RCSID
static char *RCSid =
    "$Header: gettime.c 7030100.1 96/05/21 15:31:36 plai Generic<base>
$ Copyr (c) 1993 Oracle";
#endif /* RCSID */

/*=====+
| Copyright (c) 1996 Oracle Corp, Redwood Shores, CA |
| OPEN SYSTEMS PERFORMANCE GROUP |
| All Rights Reserved |
+=====+
| FILENAME |
| gettime.c |
| ROUTINES |
| gettime |
| getcpu |
| DESCRIPTION |
| get wall clock time. |
| get cpu time. |
| NOTES |
| Both routines return time in seconds as a double. |
+=====+*/
/*
** Options:
** TIME_W_TIMES: implement gettime() with times().
** TIME_W_GETTIME: implement gettime() with gettimeofday().
** CPU_W_TIMES: implement getcpu() with times().
** CPU_W_GETTRU: implement getcpu() with getrusage().
** GETRU_STATS: collect getrusage statistics
** GET_P_STATS: collect get_process_stats statistics
*/

#ifdef sequent || defined(SEQ_PSX)

```

```

#define GET_P_STATS
#endif /* sequent */

#ifdef aix || defined(AIXRIOS)
#define TIME_W_GETTIME
#define CPU_W_TIMES
#define GETRU_STATS
#endif /* AIXRIOS */

#ifdef a_osf || defined(A_OSF)
#define TIME_W_GETTIME
#define CPU_W_GETTRU
#define GETRU_STATS
#endif /* AIXRIOS */

#ifdef !defined(TIME_W_GETTIME) && !defined(TIME_W_TIMES)
#define TIME_W_TIMES
#endif

#ifdef !defined(CPU_W_GETTRU) && !defined(CPU_W_TIMES)
#define CPU_W_TIMES
#endif

#ifdef GET_P_STATS
#ifdef GETRU_STATS
#undef GETRU_STATS
#endif
#endif

#ifdef TIME_W_GETTIME || defined(CPU_W_GETTRU) ||
defined(GETRU_STATS)
#include <sys/time.h>
#endif /* TIME_W_GETTIME || CPU_W_GETTRU || GETRU_STATS */

#ifdef CPU_W_GETTRU || defined(GETRU_STATS)
#include <sys/resource.h>
#endif /* CPU_W_GETTRU || GETRU_STATS */

#ifdef TIME_W_TIMES || defined(CPU_W_TIMES)
#include <sys/types.h>
#include <sys/times.h>
#include <sys/param.h> /* most systems define HZ here */
#endif /* TIME_W_TIMES or CPU_W_TIMES */

#ifdef GET_P_STATS
#include <sys/types.h>
#include <sys/procstats.h>
#endif /* GET_P_STATS */

#include <stdio.h>

#ifdef GETRU_STATS
struct rusage selfru;
struct rusage kidsru;
#endif /* GETRU_STATS */

#ifdef GET_P_STATS
struct process_stats selfru;
struct process_stats kidsru;

```

```

#endif /* GET_P_STATS */

void getwait(clock_t secs)
{
    printf("sleep = %lu\n", (secs/1000) / HZ);
    printf("hz = %lu\n", HZ);
    sleep((secs/1000) / HZ);
}

clock_t getetime()
{
    struct tms buf;

    return ((times (&buf) / HZ)*10000);
}

double gettime ()
{
    #ifdef TIME_W_GETTIME
        struct timeval tv;

        (void) gettimeofday (&tv, (struct timezone *) 0);
        return ((double) tv.tv_sec + (1.0e-6 * (double) tv.tv_usec));
    #endif /* TIME_W_GETTIME */

    #ifdef TIME_W_TIMES
        struct tms buf;

        return ((double) times (&buf) / HZ);
    #endif /* TIME_W_TIMES */
}

double getcpu ()
{
    #ifdef CPU_W_TIMES
        struct tms buf;

        (void) times (&buf);
        return (((double) buf.tms_utime + (double) buf.tms_stime) / HZ);
    #endif /* CPU_W_TIMES */

    #ifdef CPU_W_GETRU
        struct rusage ru;
        double usecs;

        (void) getrusage (0, &ru);
        usecs = 1.0e-6 * (double) (ru.ru_utime.tv_usec +
ru.ru_stime.tv_usec);
        return ((double) (ru.ru_utime.tv_sec + ru.ru_stime.tv_sec) + usecs);
    #endif /* CPU_W_GETRU */
}

```

```

#endif /* CPU_W_GETRU */

}

getru (fp, kids, config, runname, proc_no)

FILE *fp;
int kids;
char *config;
char *runname;
int proc_no;

{
    #ifdef GETRU_STATS
        struct rusage ru;

        fprintf (fp, "%-10.10s %-10.10s %10d %10d ", config, runname, proc_no,
kids);
        getrusage (kids ? RUSAGE_CHILDREN : RUSAGE_SELF, &ru);
        print_ru (fp, &ru);
        fprintf (fp, "\n");
    #endif /* GETRU_STATS */

    #ifdef GET_P_STATS
        timeval_t tv;
        struct process_stats ru;

        fprintf (fp, "%-10.10s %-10.10s %10d %10d ", config, runname, proc_no,
kids);
        if (kids)
            get_process_stats (&tv, PS_SELF, (struct process_stats *) 0,
&ru);
        else
            get_process_stats (&tv, PS_SELF, &ru, (struct process_stats *)
0);
        print_ru (fp, &ru);
        fprintf (fp, "\n");
    #endif /* GET_P_STATS */
}

getrul (kids)

int kids;

{
    #ifdef GETRU_STATS
        if (kids) {
            memset (&kidsru, 0, sizeof (kidsru));
            getrusage (RUSAGE_CHILDREN, &kidsru);
        }
        else {
            memset (&selfru, 0, sizeof (selfru));
        }
    #endif /* GETRU_STATS */
}

```

```

        getrusage (RUSAGE_SELF, &selfru);
    }
#endif /* GETRU_STATS */

#ifdef GET_P_STATS
    timeval_t tv;

    if (kids) {
        memset (&kidsru, 0, sizeof (kidsru));
        get_process_stats (&tv, PS_SELF, (struct process_stats *) 0,
&kidsru);
    }
    else {
        memset (&selfru, 0, sizeof (selfru));
        get_process_stats (&tv, PS_SELF, &selfru, (struct process_stats
*) 0);
    }
#endif /* GET_P_STATS */
}

```

```

getru2 (fp, kids, config, runname, proc_no)

```

```

FILE *fp;
int kids;
char *config;
char *runname;
int proc_no;

{
#ifdef GETRU_STATS
    struct rusage ru;

    fprintf (fp, "%-10.10s %-10.10s %10d %10d ", config, runname,
proc_no, kids);
    getrusage (kids ? RUSAGE_CHILDREN : RUSAGE_SELF, &ru);
    if (kids)
        diffru (&ru, &kidsru);
    else
        diffru (&ru, &selfru);
    print_ru (fp, &ru);
    fprintf (fp, "\n");
#endif /* GETRU_STATS */

#ifdef GET_P_STATS
    timeval_t tv;
    struct process_stats ru;

    fprintf (fp, "%-10.10s %-10.10s %10d %10d ", config, runname,
proc_no, kids);
    if (kids)
        get_process_stats (&tv, PS_SELF, (struct process_stats *) 0,
&ru);
    else
        get_process_stats (&tv, PS_SELF, &ru, (struct process_stats *)
0);

```

```

    if (kids)
        diffru (&ru, &kidsru);
    else
        diffru (&ru, &selfru);
    print_ru (fp, &ru);
    fprintf (fp, "\n");
#endif /* GET_P_STATS */
}

#ifdef GETRU_STATS

print_ru (fp, ru)

FILE *fp;
struct rusage *ru;

{

    fprintf (fp, "%10ld ", ru->ru_etime.tv_sec * 1000 +
(ru->ru_etime.tv_usec/1000));
    fprintf (fp, "%10ld ", ru->ru_stime.tv_sec * 1000 +
(ru->ru_stime.tv_usec/1000));

    fprintf (fp, "%10ld ", ru->ru_maxrss);
    fprintf (fp, "%10ld ", ru->ru_majflt);
    fprintf (fp, "%10ld ", ru->ru_minflt);
    fprintf (fp, "%10ld ", 0);
    fprintf (fp, "%10ld ", 0);
    fprintf (fp, "%10ld ", 0);
    fprintf (fp, "%10ld ", ru->ru_nswap);
    fprintf (fp, "%10ld ", 0);
    fprintf (fp, "%10ld ", ru->ru_nvcsw);
    fprintf (fp, "%10ld ", ru->ru_nivcsw);
    fprintf (fp, "%10ld ", ru->ru_nsignals);
    fprintf (fp, "%10ld ", 0);
    fprintf (fp, "%10ld ", 0);
    fprintf (fp, "%10ld ", ru->ru_inblock);
    fprintf (fp, "%10ld ", ru->ru_oublock);
    fprintf (fp, "%10ld ", 0);
    fprintf (fp, "%10ld", 0);

}

diffru (ru2, ru)

struct rusage *ru2;
struct rusage *ru;

{

    ru2->ru_etime.tv_sec -= ru->ru_etime.tv_sec;
    ru2->ru_etime.tv_usec -= ru->ru_etime.tv_usec;
    ru2->ru_stime.tv_sec -= ru->ru_stime.tv_sec;
    ru2->ru_stime.tv_usec -= ru->ru_stime.tv_usec;
    ru2->ru_maxrss -= ru->ru_maxrss;

```

```

ru2->ru_ixrss -= ru->ru_ixrss;
ru2->ru_idrss -= ru->ru_idrss;
ru2->ru_minflt -= ru->ru_minflt;
ru2->ru_majflt -= ru->ru_majflt;
ru2->ru_nswap -= ru->ru_nswap;
ru2->ru_inblock -= ru->ru_inblock;
ru2->ru_oublock -= ru->ru_oublock;
ru2->ru_msgsnd -= ru->ru_msgsnd;
ru2->ru_msgrcv -= ru->ru_msgrcv;
ru2->ru_nsignals -= ru->ru_nsignals;
ru2->ru_nvcsw -= ru->ru_nvcsw;
ru2->ru_nivcsw -= ru->ru_nivcsw;
}

#endif /* GETRU_STATS */

#ifdef GET_P_STATS

print_ru (fp, ps)

FILE *fp;
struct process_stats *ps;

{
    fprintf (fp, "%lu ", ps->ps_ftime.tv_sec * 1000 +
              (ps->ps_ftime.tv_usec/1000));
    fprintf (fp, "%lu ", ps->ps_stime.tv_sec * 1000 +
              (ps->ps_stime.tv_usec/1000));
    fprintf (fp, "%lu ", ps->ps_maxrss);
    fprintf (fp, "%lu ", ps->ps_pagein);
    fprintf (fp, "%lu ", ps->ps_reclaim);
    fprintf (fp, "%lu ", ps->ps_zerofill);
    fprintf (fp, "%lu ", ps->ps_pffincr);
    fprintf (fp, "%lu ", ps->ps_pffdecr);
    fprintf (fp, "%lu ", ps->ps_swap);
    fprintf (fp, "%lu ", ps->ps_syscall);
    fprintf (fp, "%lu ", ps->ps_volcsw);
    fprintf (fp, "%lu ", ps->ps_involcsw);
    fprintf (fp, "%lu ", ps->ps_signal);
    fprintf (fp, "%lu ", ps->ps_lread);
    fprintf (fp, "%lu ", ps->ps_lwrite);
    fprintf (fp, "%lu ", ps->ps_bread);
    fprintf (fp, "%lu ", ps->ps_bwrite);
    fprintf (fp, "%lu ", ps->ps_phread);
    fprintf (fp, "%lu", ps->ps_phwrite);
}

diffru (ru2, ru)

struct process_stats *ru2;
struct process_stats *ru;

```

```

{
    ru2->ps_ftime.tv_sec -= ru->ps_ftime.tv_sec;
    ru2->ps_ftime.tv_usec -= ru->ps_ftime.tv_usec;
    ru2->ps_stime.tv_sec -= ru->ps_stime.tv_sec;
    ru2->ps_stime.tv_usec -= ru->ps_stime.tv_usec;
    ru2->ps_maxrss -= ru->ps_maxrss;
    ru2->ps_pagein -= ru->ps_pagein;
    ru2->ps_reclaim -= ru->ps_reclaim;
    ru2->ps_zerofill -= ru->ps_zerofill;
    ru2->ps_pffincr -= ru->ps_pffincr;
    ru2->ps_pffdecr -= ru->ps_pffdecr;
    ru2->ps_swap -= ru->ps_swap;
    ru2->ps_syscall -= ru->ps_syscall;
    ru2->ps_volcsw -= ru->ps_volcsw;
    ru2->ps_involcsw -= ru->ps_involcsw;
    ru2->ps_signal -= ru->ps_signal;
    ru2->ps_lread -= ru->ps_lread;
    ru2->ps_lwrite -= ru->ps_lwrite;
    ru2->ps_bread -= ru->ps_bread;
    ru2->ps_bwrite -= ru->ps_bwrite;
    ru2->ps_phread -= ru->ps_phread;
    ru2->ps_phwrite -= ru->ps_phwrite;
}

#endif /* GET_P_STATS */

```

tpccload.c

```

#ifdef RCSID
static char *RCSid =
    "$Header: tpccload.c 7030100.1 96/05/13 16:20:36 plai Generic<base>"
    $ Copyr (c) 1993 Oracle";
#endif /* RCSID */

/*=====+
|          Copyright (c) 1994  Oracle Corp, Redwood Shores, CA          |
|                                OPEN SYSTEMS PERFORMANCE GROUP          |
|                                All Rights Reserved                      |
+=====+
| FILENAME                                                                |
|   tpccload.c                                                            |
| DESCRIPTION                                                              |
|   Load or generate TPC-C database tables.                             |
|   Usage: tpccload -M <# of wares> [options]                            |
|           options: -A  load all tables                                 |
|                   -w  load ware table                                  |
|                   -d  load dist table                                  |
|                   -c  load cust table                                  |
|                   -i  load item table                                  |
|                   -s  load stok table (cluster around s_w_id)          |
|                   -S  load stok table (cluster around s_i_id)          |
|                   -h  load hist table                                  |
|                   -n  load new-order table                             |
|                   -o <oline file> load order and order-line            |
| table                                                                    |

```

```

|           -b <ware#>  beginning ware number
|           -e <ware#>  ending ware number
|           -j <item#>  beginning item number (with -S)
|           -k <item#>  ending item number (with -S)
|           -g generate rows to standard output
+=====*/

#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <time.h>
#include <sys/types.h>
#include "tpcc.h"

#ifdef ORA_NT
#undef boolean
#include <process.h>
#include "dpbcore.h"
# define gettime dpbtimef
# define getcpu  dpbcpu
#define lrand48() ((long)rand() <<15 | rand())
#ifdef __STDC__
# define PROTO(args)  args
#else
# define PROTO(args)  ()
#endif
#endif

#define DISTARR 10          /* dist insert array size */
#define CUSTARR 100        /* cust insert array size */
#define STOCARR 100        /* stok insert array size */
#define ITEMARR 100        /* item insert array size */
#define HISTARR 100        /* hist insert array size */
#define ORDEARR 100        /* order insert array size */
#define NEWOARR 100        /* new order insert array size */

#define DISTFAC 10          /* max. dist id */
#define CUSTFAC 3000        /* max. cust id */
#define STOCFAC 100000      /* max. stok id */
#define ITEMFAC 100000      /* max. item id */
#define HISTFAC 30000       /* history / warehouse */
#define ORDEFAC 3000        /* order / district */
#define NEWOFAC 900         /* new order / district */

#define C 0                 /* constant in non-uniform dist. eqt. */
#define CNUM1 1             /* first constant in non-uniform dist. eqt. */
#define CNUM2 2             /* second constant in non-uniform dist. eqt. */
#define CNUM3 3             /* third constant in non-uniform dist. eqt. */

#define SEED 2              /* seed for random functions */

#define NOT_SERIALIZABLE 8177 /* ORA-08177: transaction not serializable */
#define SNAPSHOT_TOO_OLD 1555 /* ORA-01555: snapshot too old */
#define RECOVERERR -10

#define IRRECERR -20

#define SQLTXTW "INSERT INTO ware (w_id, w_ytd, w_tax, w_name, w_street_1, w_street_2, w_city, w_state, w_zip) VALUES (:w_id, 30000000, :w_tax, :w_name, :w_street_1, \ :w_street_2, :w_city, :w_state, :w_zip)"

#define SQLXTXD "INSERT INTO dist (d_id, d_w_id, d_ytd, d_tax, d_next_o_id, d_name, d_street_1, d_street_2, d_city, d_state, d_zip) VALUES (:d_id, :d_w_id,3000000, :d_tax, \ 3001, :d_name, :d_street_1, :d_street_2, :d_city, :d_state, :d_zip)"

#define SQLTXTC "INSERT INTO cust (C_ID, C_D_ID, C_W_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_YTD_PAYMENT, C_PAYMENT_CNT, C_DELIVERY_CNT, C_DATA) VALUES (:c_id, :c_d_id, :c_w_id, \ :c_first, 'OE', :c_last, :c_street_1, :c_street_2, :c_city, :c_state, \ :c_zip, :c_phone, SYSDATE, :c_credit, 5000000, :c_discount, -1000, 1000, 1, \ 0, :c_data)"

#define SQLTXTH "INSERT INTO hist (h_c_id, h_c_d_id, h_c_w_id, h_d_id, h_w_id, h_date, h_amount, h_data) VALUES (:h_c_id, :h_c_d_id, :h_c_w_id, \ :h_d_id, :h_w_id, SYSDATE, 1000, :h_data)"

#define SQLXTS "INSERT INTO stok (s_i_id, s_w_id, s_quantity, 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, s_ytd, s_order_cnt, s_remote_cnt, s_data) \ VALUES (:s_i_id, :s_w_id, :s_quantity, \ :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, 0, 0, 0, :s_data)"

#define SQLXTXI "INSERT INTO item (I_ID, I_IM_ID, I_NAME, I_PRICE, I_DATA) VALUES (:i_id, :i_im_id, :i_name, :i_price, \ :i_data)"

#define SQLXTXO1 "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, :o_d_id, :o_w_id, :o_c_id, \ SYSDATE, :o_carrier_id, :o_ol_cnt, 1)"

#define SQLXTXO2 "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, :o_d_id, :o_w_id, :o_c_id, \ SYSDATE, 11, :o_ol_cnt, 1)"

#define SQLXTXOL1 "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, :ol_d_id, \ :ol_w_id, :ol_number, SYSDATE, :ol_i_id, :ol_supply_w_id, 5, 0, \ :ol_dist_info)"

```

```

#define SQLTXTOL2 "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, :ol_d_id, \
:ol_w_id, :ol_number, to_date('01-Jan-
1811'), :ol_i_id, :ol_supply_w_id, 5, :ol_amount, \
:ol_dist_info)"

#define SQLTXTNO "INSERT INTO nord (no_o_id, no_d_id, no_w_id) VALUES
(:no_o_id, :no_d_id, :no_w_id)"

#define SQLTXTENHA "alter session set \"_enable_hash_overflow\"=true"
#define SQLTXTDIHA "alter session set \"_enable_hash_overflow\"=false"

static char *lastname[] = {
    "BAR",
    "OUGHT",
    "ABLE",
    "PRI",
    "PRES",
    "ESE",
    "ANTI",
    "CALLY",
    "ATION",
    "EING"
};

char num9[10];
char num16[17];
char str2[3];
char str24[15][25];
int randperm3000[3000];

void initperm();
void randstr();
void randdatastr();
void randnum();
void randlastname (char*, int);
int NURand();
void sysdate();

OCISrv *tpcenv;
OCIServer *tpcsrv;
OCIError *errhp;
OCISvcCtx *tpcsvc;
OCISession *tpcusr;

OCISmt *curw;
OCISmt *curd;
OCISmt *curc;
OCISmt *curh;
OCISmt *curs;
OCISmt *curs;
OCISmt *curo1;
OCISmt *curo2;
OCISmt *curo11;
OCISmt *curo12;
OCISmt *curno;

```

```

OCIBind *w_id_bp = (OCIBind *) 0;
OCIBind *w_name_bp = (OCIBind *) 0;
OCIBind *w_street1_bp = (OCIBind *) 0;
OCIBind *w_street2_bp = (OCIBind *) 0;
OCIBind *w_city_bp = (OCIBind *) 0;
OCIBind *w_state_bp = (OCIBind *) 0;
OCIBind *w_zip_bp = (OCIBind *) 0;
OCIBind *w_tax_bp = (OCIBind *) 0;

OCIBind *d_id_bp = (OCIBind *) 0;
OCIBind *d_w_id_bp = (OCIBind *) 0;
OCIBind *d_name_bp = (OCIBind *) 0;
OCIBind *d_street1_bp = (OCIBind *) 0;
OCIBind *d_street2_bp = (OCIBind *) 0;
OCIBind *d_city_bp = (OCIBind *) 0;
OCIBind *d_state_bp = (OCIBind *) 0;
OCIBind *d_zip_bp = (OCIBind *) 0;
OCIBind *d_tax_bp = (OCIBind *) 0;

OCIBind *c_id_bp = (OCIBind *) 0;
OCIBind *c_d_id_bp = (OCIBind *) 0;
OCIBind *c_w_id_bp = (OCIBind *) 0;
OCIBind *c_first_bp = (OCIBind *) 0;
OCIBind *c_last_bp = (OCIBind *) 0;
OCIBind *c_street1_bp = (OCIBind *) 0;
OCIBind *c_street2_bp = (OCIBind *) 0;
OCIBind *c_city_bp = (OCIBind *) 0;
OCIBind *c_state_bp = (OCIBind *) 0;
OCIBind *c_zip_bp = (OCIBind *) 0;
OCIBind *c_phone_bp = (OCIBind *) 0;
OCIBind *c_discount_bp = (OCIBind *) 0;
OCIBind *c_credit_bp = (OCIBind *) 0;
OCIBind *c_data_bp = (OCIBind *) 0;

OCIBind *i_id_bp = (OCIBind *) 0;
OCIBind *i_im_id_bp = (OCIBind *) 0;
OCIBind *i_name_bp = (OCIBind *) 0;
OCIBind *i_price_bp = (OCIBind *) 0;
OCIBind *i_data_bp = (OCIBind *) 0;

OCIBind *s_i_id_bp = (OCIBind *) 0;
OCIBind *s_w_id_bp = (OCIBind *) 0;
OCIBind *s_quantity_bp = (OCIBind *) 0;
OCIBind *s_dist_01_bp = (OCIBind *) 0;
OCIBind *s_dist_02_bp = (OCIBind *) 0;
OCIBind *s_dist_03_bp = (OCIBind *) 0;
OCIBind *s_dist_04_bp = (OCIBind *) 0;
OCIBind *s_dist_05_bp = (OCIBind *) 0;
OCIBind *s_dist_06_bp = (OCIBind *) 0;
OCIBind *s_dist_07_bp = (OCIBind *) 0;
OCIBind *s_dist_08_bp = (OCIBind *) 0;
OCIBind *s_dist_09_bp = (OCIBind *) 0;
OCIBind *s_dist_10_bp = (OCIBind *) 0;
OCIBind *s_data_bp = (OCIBind *) 0;

OCIBind *h_c_id_bp = (OCIBind *) 0;
OCIBind *h_c_d_id_bp = (OCIBind *) 0;
OCIBind *h_c_w_id_bp = (OCIBind *) 0;
OCIBind *h_d_id_bp = (OCIBind *) 0;

```

```

OCIBind *h_w_id_bp = (OCIBind *) 0;
OCIBind *h_data_bp = (OCIBind *) 0;

OCIBind *ol_o_id_bp = (OCIBind *) 0;
OCIBind *ol_d_id_bp = (OCIBind *) 0;
OCIBind *ol_w_id_bp = (OCIBind *) 0;
OCIBind *ol_i_id_bp = (OCIBind *) 0;
OCIBind *ol_number_bp = (OCIBind *) 0;
OCIBind *ol_supply_w_id_bp = (OCIBind *) 0;
OCIBind *ol_dist_info_bp = (OCIBind *) 0;
OCIBind *ol_amount_bp = (OCIBind *) 0;

OCIBind *o_id_bp = (OCIBind *) 0;
OCIBind *o_d_id_bp = (OCIBind *) 0;
OCIBind *o_w_id_bp = (OCIBind *) 0;
OCIBind *o_c_id_bp = (OCIBind *) 0;
OCIBind *o_carrier_id_bp = (OCIBind *) 0;
OCIBind *o_ol_cnt_bp = (OCIBind *) 0;
OCIBind *o_ocnt_bp = (OCIBind *) 0;
OCIBind *o_olcnt_bp = (OCIBind *) 0;

OCIBind *no_o_id_bp = (OCIBind *) 0;
OCIBind *no_d_id_bp = (OCIBind *) 0;
OCIBind *no_w_id_bp = (OCIBind *) 0;

void myusage()
{
    fprintf (stderr, "\n");
    fprintf (stderr, "Usage:\t\ttpccload -M <multiplier> [options]\n");
    fprintf (stderr, "options:\n");
    fprintf (stderr, "\t-A :\tload all tables\n");
    fprintf (stderr, "\t-w :\tload ware table\n");
    fprintf (stderr, "\t-d :\tload dist table\n");
    fprintf (stderr, "\t-c :\tload cust table\n");
    fprintf (stderr, "\t-i :\tload item table\n");
    fprintf (stderr, "\t-s :\tload stok table (cluster around
s_w_id)\n");
    fprintf (stderr, "\t-S :\tload stok table (cluster around
s_i_id)\n");
    fprintf (stderr, "\t-h :\tload hist table\n");
    fprintf (stderr, "\t-n :\tload new-order table\n");
    fprintf (stderr, "\t-o <oline file> :\tload order and order-line
table\n");
    fprintf (stderr, "\t-b <ware#> :\tbeginning ware number\n");
    fprintf (stderr, "\t-e <ware#> :\tending ware number\n");
    fprintf (stderr, "\t-j <item#> :\tbeginning item number (with -
S)\n");
    fprintf (stderr, "\t-k <item#> :\tending item number (with -S)\n");
    fprintf (stderr, "\t-g :\tgenerate rows to standard output\n");
    fprintf (stderr, "\t\t$tpcc_bench must be set to the location of the
kit\n");
    fprintf (stderr, "\n");
    exit(1);
}

int sqlfile(fnam,linebuf)
char *fnam;
text *linebuf;

```

```

{
    FILE *fd;
    int nulpt = 0;
    char realfile[512];

    sprintf(realfile,"%s",fnam);
    fd = fopen(realfile,"r");
    if (!fd)
    {
        return (0);
    }
    while (fgets((char *)linebuf+nulpt, SQL_BUF_SIZE, fd))
    {
        nulpt = strlen((char *)linebuf);
    }
    return(nulpt);
}

void quit()
{
    OCIERROR(errhp,OCISessionEnd ( tpcsvc,errhp, tpcusr, OCI_DEFAULT));
    OCIERROR(errhp,OCIServerDetach ( tpcsrv, errhp, OCI_DEFAULT));
    OCIHandleFree((dvoid *)tpcusr, OCI_HTYPE_SESSION);
    OCIHandleFree((dvoid *)tpcsvc, OCI_HTYPE_SVCCTX);
    OCIHandleFree((dvoid *)errhp, OCI_HTYPE_ERROR);
    OCIHandleFree((dvoid *)tpcsrv, OCI_HTYPE_SERVER);
    OCIHandleFree((dvoid *)tpcenv, OCI_HTYPE_ENV);
}

int main (argc, argv)
int argc;
char *argv[];
{
    char *uid="tpcc";
    char *pwd="tpcc";
    int scale=0;
    int i, j;
    int loop;
    int loopcount;
    int cid;
    int dwid;
    int cdid;
    int cwid;
    int sid;
    int swid;
    int olcnt;
    int nrows;
    int row;

    int w_id;
    char w_name[11];
    char w_street_1[21];
    char w_street_2[21];
    char w_city[21];
    char w_state[2];
    char w_zip[9];
    float w_tax;

    int d_id[10];

```



```

int d_w_id[10];
char d_name[10][11];
char d_street_1[10][21];
char d_street_2[10][21];
char d_city[10][21];
char d_state[10][2];
char d_zip[10][9];
float d_tax[10];

int c_id[100];
int c_d_id[100];
int c_w_id[100];
char c_first[100][17];
char c_last[100][17];
char c_street_1[100][21];
char c_street_2[100][21];
char c_city[100][21];
char c_state[100][2];
char c_zip[100][9];
char c_phone[100][16];
char c_credit[100][2];
float c_discount[100];
char c_data[100][501];

int i_id[100];
int i_im_id[100];
int i_price[100];
char i_name[100][25];
char i_data[100][51];

int s_i_id[100];
int s_w_id[100];
int s_quantity[100];
char s_dist_01[100][24];
char s_dist_02[100][24];
char s_dist_03[100][24];
char s_dist_04[100][24];
char s_dist_05[100][24];
char s_dist_06[100][24];
char s_dist_07[100][24];
char s_dist_08[100][24];
char s_dist_09[100][24];
char s_dist_10[100][24];
char s_data[100][51];

int h_w_id[100];
int h_d_id[100];
int h_c_id[100];
char h_data[100][25];

int o_id[100];
int o_d_id[100];
int o_w_id[100];
int o_c_id[100];
int o_carrier_id[100];
int o_ol_cnt[100];

int ol_o_id[1500];
int ol_d_id[1500];

```

```

int ol_w_id[1500];
int ol_number[1500];
int ol_i_id[1500];
int ol_supply_w_id[1500];
int ol_amount[1500];
char ol_dist_info[1500][24];
int o_cnt;
int ol_cnt;

ub2 ol_o_id_len[1500];
ub2 ol_d_id_len[1500];
ub2 ol_w_id_len[1500];
ub2 ol_number_len[1500];
ub2 ol_i_id_len[1500];
ub2 ol_supply_w_id_len[1500];
ub2 ol_dist_info_len[1500];
ub2 ol_amount_len[1500];

ub4 ol_o_id_clen;
ub4 ol_d_id_clen;
ub4 ol_w_id_clen;
ub4 ol_number_clen;
ub4 ol_i_id_clen;
ub4 ol_supply_w_id_clen;
ub4 ol_dist_info_clen;
ub4 ol_amount_clen;

ub2 o_id_len[100];
ub2 o_d_id_len[100];
ub2 o_w_id_len[100];
ub2 o_c_id_len[100];
ub2 o_carrier_id_len[100];
ub2 o_ol_cnt_len[100];

ub4 o_id_clen;
ub4 o_d_id_clen;
ub4 o_w_id_clen;
ub4 o_c_id_clen;
ub4 o_carrier_id_clen;
ub4 o_ol_cnt_clen;

text stmbuf[16*1024];

int no_o_id[100];
int no_d_id[100];
int no_w_id[100];

char sdate[30];

#ifdef ORA_NT
clock_t begin_time, end_time;
clock_t begin_cpu, end_cpu;

char *arg_ptr, **end_args;
#else
double begin_time, end_time;
double begin_cpu, end_cpu;
double gettime(), getcpu();

```

```

/*  extern int getopt(); */
extern char *optarg;
extern int optind, opterr;
int opt;
#endif

char *argstr="M:AwdcisShno:b:e:j:k:g";
int do_A=0;
int do_w=0;
int do_d=0;
int do_i=0;
int do_c=0;
int do_s=0;
int do_S=0;
int do_h=0;
int do_o=0;
int do_n=0;
int gen=0;
int bware=1;
int eware=0;
int bitem=1;
int eitem=0;

FILE *olfp=NULL;
char olfname[100];
char* basename;
int status;
#ifdef ORA_NT
char fname[100];
FILE *logfile;
#endif /* ORA_NT */

/*-----+
| Parse command line -- look for scale factor.
+-----*/

printf("argc = %d\n", argc);
if (argc == 1) {
    myusage ();
}

#ifdef ORA_NT
end_args = argv + argc;
for (++argv; argv < end_args; )
{
    arg_ptr = *argv++;

    if (*arg_ptr != '-')
    {
        myusage ();
    } else
    {
        switch (arg_ptr[1]) {
        case '?': myusage ();
            break;
        case 'M': scale = atoi (*argv++);
            break;
        case 'A': do_A = 1;
            break;
        }
    }
}

```

```

case 'w': do_w = 1;
    break;
case 'd': do_d = 1;
    break;
case 'c': do_c = 1;
    break;
case 'i': do_i = 1;
    break;
case 's': do_s = 1;
    break;
case 'S': do_S = 1;
    break;
case 'h': do_h = 1;
    break;
case 'n': do_n = 1;
    break;
case 'o': do_o = 1;
    strcpy (olfname, *argv++);
    break;
case 'b': bware = atoi (*argv++);
    break;
case 'e': eware = atoi (*argv++);
    break;
case 'j': bitem = atoi (*argv++);
    break;
case 'k': eitem = atoi (*argv++);
    break;
case 'g': gen = 1;
    strcpy (fname, *argv++);
    break;
case 'l': logfile=fopen(*argv++,"w");
    break;
default: fprintf (stderr, "THIS SHOULD NEVER HAPPEN!!!\n");
    fprintf (stderr, "(reached default case in getopt
    ())\n");
    myusage ();
}
}

#else

while ((opt = getopt (argc, argv, argstr)) != -1) {
    switch (opt) {
    case '?': myusage ();
        break;
    case 'M': scale = atoi (optarg);
        break;
    case 'A': do_A = 1;
        break;
    case 'w': do_w = 1;
        break;
    case 'd': do_d = 1;
        break;
    case 'c': do_c = 1;
        break;
    case 'i': do_i = 1;
        break;

```

```

    case 's': do_s = 1;
                break;
    case 'S': do_S = 1;
                break;
    case 'h': do_h = 1;
                break;
    case 'n': do_n = 1;
                break;
    case 'o': do_o = 1;
                strcpy (olfname, optarg);
                break;
    case 'b': bware = atoi (optarg);
                break;
    case 'e': eware = atoi (optarg);
                break;
    case 'j': bitem = atoi (optarg);
                break;
    case 'k': eitem = atoi (optarg);
                break;
    case 'g': gen = 1;
                break;
    default: fprintf (stderr, "THIS SHOULD NEVER HAPPEN!!!\n");
             fprintf (stderr, "(reached default case in getopt
())\n");

        myusage ();
    }
}

# endif /* ORA_NT */

/*-----*|
|      Rudimentary error checking      |
|-----*/

if (scale < 1) {
    fprintf (stderr, "Invalid scale factor: '%d'\n", scale);
    myusage ();
}

if (!(do_A || do_w || do_d || do_c || do_i || do_s || do_S || do_h
|| do_o ||
    do_n)) {
    fprintf (stderr, "What should I load???\n");
    myusage ();
}

if (gen && (do_A || (do_w + do_d + do_c + do_i + do_s + do_S + do_h
+ do_o +
    do_n > 1))) {
    fprintf (stderr, "Can only generate table one at a time\n");
    myusage ();
}

if (do_S && (do_A || do_s)) {
    fprintf (stderr, "Cluster stock table around s_w_id or
s_i_id?\n");
    myusage ();
}

```

```

    if (eware <= 0)
        eware = scale;
    if (eitem <= 0)
        eitem = STOCFAC;

    if (do_S) {
        if ((bitem < 1) || (bitem > STOCFAC)) {
            fprintf (stderr, "Invalid beginning item number: '%d'\n",
bitem);
            myusage ();
        }

        if ((eitem < bitem) || (eitem > STOCFAC)) {
            fprintf (stderr, "Invalid ending item number: '%d'\n", eitem);
            myusage ();
        }
    }

    if (do_o) {
        if ((basename = getenv ("tpcc_bench")) == NULL)
        {
            fprintf (stderr, "$tpcc_bench is not set");
            myusage ();
        }
    }

    if ((bware < 1) || (bware > scale)) {
        fprintf (stderr, "Invalid beginning warehouse number: '%d'\n",
bware);
        myusage ();
    }

    if ((eware < bware) || (eware > scale)) {
        fprintf (stderr, "Invalid ending warehouse number: '%d'\n",
eware);
        myusage ();
    }

    if (gen && do_o) {
        if ((olfp = fopen (olfname, "w")) == NULL) {
            fprintf (stderr, "Can't open '%s' for writing order lines\n",
olfname);
            myusage ();
        }
    }

}

/*-----+
| Prepare to insert into database.      |
|-----*/

sysdate (sdate);
if (!gen) {

    /* log on to Oracle */

    OCIInitialize(OCI_DEFAULT|OCI_OBJECT, (dvoid *)0,0,0,0);
    OCIEnvInit(&tpcenv, OCI_DEFAULT, 0, (dvoid **)0);
    OCIHandleAlloc((dvoid *)tpcenv, (dvoid **)&tpcsrv,

```

```

OCI_HTYPE_SERVER, 0 , (dvoid **)0);
    OCIHandleAlloc((dvoid *)tpcenv, (dvoid **)&errhp, OCI_HTYPE_ERROR,
0 , (dvoid **)0);
    OCIHandleAlloc((dvoid *)tpcenv, (dvoid **)&tpcsvc,
OCI_HTYPE_SVCCTX, 0 , (dvoid **)0);
    OCI_SrvAttach(tpcsrv, errhp, (text *)0,0,OCI_DEFAULT);
    OCIAttrSet((dvoid *)tpcsvc, OCI_HTYPE_SVCCTX, (dvoid *)tpcsrv,
        (ub4)0,OCI_ATTR_SERVER, errhp);
    OCIHandleAlloc((dvoid *)tpcenv, (dvoid **)&tpcusr,
OCI_HTYPE_SESSION, 0 , (dvoid **)0);
    OCIAttrSet((dvoid *)tpcusr, OCI_HTYPE_SESSION, (dvoid *)uid,
        (ub4)strlen(uid),OCI_ATTR_USERNAME, errhp);
    OCIAttrSet((dvoid *)tpcusr, OCI_HTYPE_SESSION, (dvoid *)pwd,
(ub4)strlen(pwd),
        OCI_ATTR_PASSWORD, errhp);
    OCIERROR(errhp,OCISessionBegin(tpcsvc, errhp, tpcusr,
OCI_CRED_RDBMS, OCI_DEFAULT));

    OCIAttrSet(tpcsvc, OCI_HTYPE_SVCCTX, tpcusr, 0, OCI_ATTR_SESSION,
errhp);

    fprintf (stderr, "\nConnected to Oracle userid '%s/%s'.\n", uid,
pwd);

    /* open cursors and parse statement */
    if (do_A || do_w) {
        OCIERROR(errhp,OCIHandleAlloc(tpcenv, (dvoid **)&curw),
OCI_HTYPE_STMT, 0, (dvoid**)0));
        OCIERROR(errhp,OCIStmtPrepare(curw, errhp, (text *)SQLTXTW,
            strlen((char *)SQLTXTW), (ub4) OCI_NTV_SYNTAX,
(ub4) OCI_DEFAULT));
    }

    if (do_A || do_d) {
        OCIERROR(errhp,OCIHandleAlloc(tpcenv, (dvoid **)&curd),
OCI_HTYPE_STMT, 0, (dvoid**)0));
        OCIERROR(errhp,OCIStmtPrepare(curd, errhp, (text *)SQLTXTD,
            strlen((char *)SQLTXTD), (ub4) OCI_NTV_SYNTAX,
(ub4) OCI_DEFAULT));
    }

    if (do_A || do_c) {
        OCIERROR(errhp,OCIHandleAlloc(tpcenv, (dvoid **)&curc),
OCI_HTYPE_STMT, 0, (dvoid**)0));
        OCIERROR(errhp,OCIStmtPrepare(curc, errhp, (text *)SQLTXTC,
            strlen((char *)SQLTXTC), (ub4) OCI_NTV_SYNTAX,
(ub4) OCI_DEFAULT));
    }

    if (do_A || do_h) {
        OCIERROR(errhp,OCIHandleAlloc(tpcenv, (dvoid **)&curh),
OCI_HTYPE_STMT, 0, (dvoid**)0));
        OCIERROR(errhp,OCIStmtPrepare(curh, errhp, (text *)SQLTXTH,
            strlen((char *)SQLTXTH), (ub4) OCI_NTV_SYNTAX,
(ub4) OCI_DEFAULT));
    }

    if (do_A || do_s || do_S) {
        OCIERROR(errhp,OCIHandleAlloc(tpcenv, (dvoid **)&curs),

```

```

OCI_HTYPE_STMT, 0, (dvoid**)0));
        OCIERROR(errhp,OCIStmtPrepare(curs, errhp, (text *)SQLXTS,
            strlen((char *)SQLXTS), (ub4) OCI_NTV_SYNTAX,
(ub4) OCI_DEFAULT));
    }

    if (do_A || do_i) {
        OCIERROR(errhp,OCIHandleAlloc(tpcenv, (dvoid **)&curi),
OCI_HTYPE_STMT, 0, (dvoid**)0));
        OCIERROR(errhp,OCIStmtPrepare(curi, errhp, (text *)SQLXTXI,
            strlen((char *)SQLXTXI), (ub4) OCI_NTV_SYNTAX,
(ub4) OCI_DEFAULT));
    }

    if (do_A || do_o) {
        int stat;
        char fname[160];
        OCIERROR(errhp,OCIHandleAlloc(tpcenv, (dvoid **)&curol),
OCI_HTYPE_STMT, 0, (dvoid**)0));
        DISCARD strcpy(fname,basename);
        DISCARD strcat(fname, "/");
        DISCARD strcat(fname, "benchrun/blocks/load_ordordl.sql");
        stat = sqlfile(fname, stmbuf);
        if (!stat)
        {
            fprintf (stderr, "unable to open %s \n",fname);
            quit();
            exit(1);
        }
        OCIERROR(errhp,OCIStmtPrepare(curol, errhp, stmbuf,
            strlen((char *)stmbuf), (ub4) OCI_NTV_SYNTAX,
(ub4) OCI_DEFAULT));
    }

    if (do_A || do_n) {
        OCIERROR(errhp,OCIHandleAlloc(tpcenv, (dvoid **)&curno),
OCI_HTYPE_STMT, 0, (dvoid**)0));
        OCIERROR(errhp,OCIStmtPrepare(curno, errhp, (text *)SQLXTXNO,
            strlen((char *)SQLXTXNO), (ub4) OCI_NTV_SYNTAX,
(ub4) OCI_DEFAULT));
    }

    /* bind variables */

    /* warehouse */

    if (do_A || do_w) {
        OCIERROR(errhp, OCIBindByName(curw, &w_id_bp, errhp, (text
*)(":w_id"), strlen(":w_id"),
            (ub1 *)&w_id, sizeof(w_id), SQLT_INT, (dvoid *)
0, (ub2 *)0, (ub2 *)0,
            (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

        OCIERROR(errhp, OCIBindByName(curw, &w_name_bp, errhp, (text
*)":w_name", strlen(":w_name"),
            (ub1 *)w_name, 11, SQLT_STR, (dvoid *) 0, (ub2
*)0, (ub2 *)0,
            (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
    }

```

```

OCIERROR(errhp, OCIBindByName(curw, &w_street1_bp, errhp,
(text *)":w_street_1",
        strlen(":w_street_1"), (ub1 *)w_street_1, 21,
SQLT_STR,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

OCIERROR(errhp, OCIBindByName(curw, &w_street2_bp, errhp,
(text *)":w_street_2",
        strlen(":w_street_2"), (ub1 *)w_street_2, 21,
SQLT_STR,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

OCIERROR(errhp, OCIBindByName(curw, &w_city_bp, errhp, (text
*)":w_city",
        strlen(":w_city"), (ub1 *)w_city, 21, SQLT_STR,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

OCIERROR(errhp, OCIBindByName(curw, &w_state_bp, errhp, (text
*)":w_state",
        strlen(":w_state"), (ub1 *)w_state, 2, SQLT_CHR,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

OCIERROR(errhp, OCIBindByName(curw, &w_zip_bp, errhp, (text
*)":w_zip",
        strlen(":w_zip"), (ub1 *)w_zip, 9, SQLT_CHR,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

OCIERROR(errhp, OCIBindByName(curw, &w_tax_bp, errhp, (text
*)":w_tax",
        strlen(":w_tax"), (ub1 *) & w_tax, sizeof(w_tax),
SQLT_FLT,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
}

/* district */

if (do_A || do_d) {
OCIERROR(errhp, OCIBindByName(curw, &d_id_bp, errhp, (text
*)":d_id",
        strlen(":d_id"), (ub1 *)d_id, sizeof(int),
SQLT_INT,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

OCIERROR(errhp, OCIBindByName(curw, &d_w_id_bp, errhp, (text
*)":d_w_id",
        strlen(":d_w_id"), (ub1 *)d_w_id, sizeof(int),
SQLT_INT,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

OCIERROR(errhp, OCIBindByName(curw, &d_name_bp, errhp, (text
*)":d_name",

```

```

        strlen(":d_name"), (ub1 *)d_name, 11, SQLT_STR,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

OCIERROR(errhp, OCIBindByName(curd, &d_street1_bp, errhp,
(text *)":d_street_1",
        strlen(":d_street_1"), (ub1 *)d_street_1, 21,
SQLT_STR,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

OCIERROR(errhp, OCIBindByName(curd, &d_street2_bp, errhp,
(text *)":d_street_2",
        strlen(":d_street_2"), (ub1 *)d_street_2, 21,
SQLT_STR,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

OCIERROR(errhp, OCIBindByName(curd, &d_city_bp, errhp, (text
*)":d_city",
        strlen(":d_city"), (ub1 *)d_city, 21, SQLT_STR,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

OCIERROR(errhp, OCIBindByName(curd, &d_state_bp, errhp, (text
*)":d_state",
        strlen(":d_state"), (ub1 *)d_state, 2, SQLT_CHR,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

OCIERROR(errhp, OCIBindByName(curd, &d_zip_bp, errhp, (text
*)":d_zip",
        strlen(":d_zip"), (ub1 *)d_zip, 9, SQLT_CHR,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

OCIERROR(errhp, OCIBindByName(curd, &d_tax_bp, errhp, (text
*)":d_tax",
        strlen(":d_tax"), (ub1 *)d_tax, sizeof(float),
SQLT_FLT,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
}

/* customer */

if (do_A || do_c) {
OCIERROR(errhp, OCIBindByName(curd, &c_id_bp, errhp, (text
*)":c_id",
        strlen(":c_id"), (ub1 *)c_id, sizeof(int),
SQLT_INT,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

OCIERROR(errhp, OCIBindByName(curd, &c_d_id_bp, errhp, (text
*)":c_d_id",
        strlen(":c_d_id"), (ub1 *)c_d_id, sizeof(int),
SQLT_INT,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,

```

```

        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

    OCIERROR(errhp, OCIBindByName(curc, &c_w_id_bp, errhp, (text
*)":c_w_id",
        strlen(":c_w_id"), (ub1 *)c_w_id, sizeof(int),
SQLT_INT,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

    OCIERROR(errhp, OCIBindByName(curc, &c_first_bp, errhp, (text
*)":c_first",
        strlen(":c_first"), (ub1 *)c_first, 17, SQLT_STR,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

    OCIERROR(errhp, OCIBindByName(curc, &c_last_bp, errhp, (text
*)":c_last",
        strlen(":c_last"), (ub1 *)c_last, 17, SQLT_STR,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

    OCIERROR(errhp, OCIBindByName(curc, &c_street1_bp, errhp,
(text *)":c_street_1",
        strlen(":c_street_1"), (ub1 *)c_street_1, 21,
SQLT_STR,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

    OCIERROR(errhp, OCIBindByName(curc, &c_street2_bp, errhp,
(text *)":c_street_2",
        strlen(":c_street_2"), (ub1 *)c_street_2, 21,
SQLT_STR,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

    OCIERROR(errhp, OCIBindByName(curc, &c_city_bp, errhp, (text
*)":c_city",
        strlen(":c_city"), (ub1 *)c_city, 21, SQLT_STR,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

    OCIERROR(errhp, OCIBindByName(curc, &c_state_bp, errhp, (text
*)":c_state",
        strlen(":c_state"), (ub1 *)c_state, 2, SQLT_CHR,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

    OCIERROR(errhp, OCIBindByName(curc, &c_zip_bp, errhp, (text
*)":c_zip",
        strlen(":c_zip"), (ub1 *)c_zip, 9, SQLT_CHR,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

    OCIERROR(errhp, OCIBindByName(curc, &c_phone_bp, errhp, (text
*)":c_phone",
        strlen(":c_phone"), (ub1 *)c_phone, 16, SQLT_CHR,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

```

```

    OCIERROR(errhp, OCIBindByName(curc, &c_credit_bp, errhp, (text
*)":c_credit",
        strlen(":c_credit"), (ub1 *)c_credit, 2, SQLT_CHR,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

    OCIERROR(errhp, OCIBindByName(curc, &c_discount_bp, errhp,
(text *)":c_discount",
        strlen(":c_discount"), (ub1 *)c_discount,
sizeof(float), SQLT_FLT,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

    OCIERROR(errhp, OCIBindByName(curc, &c_data_bp, errhp, (text
*)":c_data",
        strlen(":c_data"), (ub1 *)c_data, 501, SQLT_STR,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
}

/* item */

if (do_A || do_i) {
    OCIERROR(errhp, OCIBindByName(curi, &i_id_bp, errhp, (text
*)":i_id",
        strlen(":i_id"), (ub1 *)i_id, sizeof(int),
SQLT_INT,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

    OCIERROR(errhp, OCIBindByName(curi, &i_im_id_bp, errhp, (text
*)":i_im_id",
        strlen(":i_im_id"), (ub1 *)i_im_id, sizeof(int),
SQLT_INT,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

    OCIERROR(errhp, OCIBindByName(curi, &i_name_bp, errhp, (text
*)":i_name",
        strlen(":i_name"), (ub1 *)i_name, 25, SQLT_STR,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

    OCIERROR(errhp, OCIBindByName(curi, &i_price_bp, errhp, (text
*)":i_price",
        strlen(":i_price"), (ub1 *)i_price, sizeof(int),
SQLT_INT,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

    OCIERROR(errhp, OCIBindByName(curi, &i_data_bp, errhp, (text
*)":i_data",
        strlen(":i_data"), (ub1 *)i_data, 51, SQLT_STR,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
}

/* stock */

```

```

        if (do_A || do_s || do_S) {
            OCIERROR(errhp, OCIBindByName(curs, &s_i_id_bp, errhp, (text
*)":s_i_id",
                strlen(":s_i_id"), (ub1 *)s_i_id, sizeof(int),
SQLT_INT,
                (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

            OCIERROR(errhp, OCIBindByName(curs, &s_w_id_bp, errhp, (text
*)":s_w_id",
                strlen(":s_w_id"), (ub1 *)s_w_id, sizeof(int),
SQLT_INT,
                (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

            OCIERROR(errhp, OCIBindByName(curs, &s_quantity_bp, errhp,
(text *)":s_quantity",
                strlen(":s_quantity"), (ub1 *)s_quantity,
sizeof(int), SQLT_INT,
                (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

            OCIERROR(errhp, OCIBindByName(curs, &s_dist_01_bp, errhp,
(text *)":s_dist_01",
                strlen(":s_dist_01"), (ub1 *)s_dist_01, 24,
SQLT_CHR,
                (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

            OCIERROR(errhp, OCIBindByName(curs, &s_dist_02_bp, errhp,
(text *)":s_dist_02",
                strlen(":s_dist_02"), (ub1 *)s_dist_02, 24,
SQLT_CHR,
                (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

            OCIERROR(errhp, OCIBindByName(curs, &s_dist_03_bp, errhp,
(text *)":s_dist_03",
                strlen(":s_dist_03"), (ub1 *)s_dist_03, 24,
SQLT_CHR,
                (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

            OCIERROR(errhp, OCIBindByName(curs, &s_dist_04_bp, errhp,
(text *)":s_dist_04",
                strlen(":s_dist_04"), (ub1 *)s_dist_04, 24,
SQLT_CHR,
                (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

            OCIERROR(errhp, OCIBindByName(curs, &s_dist_05_bp, errhp,
(text *)":s_dist_05",
                strlen(":s_dist_05"), (ub1 *)s_dist_05, 24,
SQLT_CHR,
                (dvoid *) 0, (ub2 *)0, (ub2 *)0,

```

```

                (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

            OCIERROR(errhp, OCIBindByName(curs, &s_dist_06_bp, errhp,
(text *)":s_dist_06",
                strlen(":s_dist_06"), (ub1 *)s_dist_06, 24,
SQLT_CHR,
                (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

            OCIERROR(errhp, OCIBindByName(curs, &s_dist_07_bp, errhp,
(text *)":s_dist_07",
                strlen(":s_dist_07"), (ub1 *)s_dist_07, 24,
SQLT_CHR,
                (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

            OCIERROR(errhp, OCIBindByName(curs, &s_dist_08_bp, errhp,
(text *)":s_dist_08",
                strlen(":s_dist_08"), (ub1 *)s_dist_08, 24,
SQLT_CHR,
                (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

            OCIERROR(errhp, OCIBindByName(curs, &s_dist_09_bp, errhp,
(text *)":s_dist_09",
                strlen(":s_dist_09"), (ub1 *)s_dist_09, 24,
SQLT_CHR,
                (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

            OCIERROR(errhp, OCIBindByName(curs, &s_dist_10_bp, errhp,
(text *)":s_dist_10",
                strlen(":s_dist_10"), (ub1 *)s_dist_10, 24,
SQLT_CHR,
                (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

            OCIERROR(errhp, OCIBindByName(curs, &s_data_bp, errhp, (text
*)":s_data",
                strlen(":s_data"), (ub1 *)s_data, 51, SQLT_STR,
                (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
        }

        /* history */

        if (do_A || do_h) {
            OCIERROR(errhp, OCIBindByName(curs, &h_c_id_bp, errhp, (text
*)":h_c_id",
                strlen(":h_c_id"), (ub1 *)h_c_id, sizeof(int),
SQLT_INT,
                (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
        }

```

```

OCIERROR(errhp, OCIBindByName(curh, &h_c_d_id_bp, errhp, (text
*)":h_c_d_id",
                                strlen(":h_c_d_id"), (ub1 *)h_d_id, sizeof(int),
SQLT_INT,
                                (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                                (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

OCIERROR(errhp, OCIBindByName(curh, &h_c_w_id_bp, errhp, (text
*)":h_c_w_id",
                                strlen(":h_c_w_id"), (ub1 *)h_w_id, sizeof(int),
SQLT_INT,
                                (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                                (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

OCIERROR(errhp, OCIBindByName(curh, &h_d_id_bp, errhp, (text
*)":h_d_id",
                                strlen(":h_d_id"), (ub1 *)h_d_id, sizeof(int),
SQLT_INT,
                                (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                                (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

OCIERROR(errhp, OCIBindByName(curh, &h_w_id_bp, errhp, (text
*)":h_w_id",
                                strlen(":h_w_id"), (ub1 *)h_w_id, sizeof(int),
SQLT_INT,
                                (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                                (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

OCIERROR(errhp, OCIBindByName(curh, &h_data_bp, errhp, (text
*)":h_data",
                                strlen(":h_data"), (ub1 *)h_data, 25, SQLT_STR,
                                (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                                (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

}

/* order and order_line (delivered) */

if (do_A || do_o) {
    for (i = 0; i < ORDEARR; i++) {
        o_id_len[i] = sizeof(int);
        o_d_id_len[i] = sizeof(int);
        o_w_id_len[i] = sizeof(int);
        o_c_id_len[i] = sizeof(int);
        o_carrier_id_len[i] = sizeof(int);
        o_ol_cnt_len[i] = sizeof(int);
    }

    OCIERROR(errhp, OCIBindByName(curo1, &ol_o_id_bp, errhp, (text
*)":ol_o_id",
                                strlen(":ol_o_id"), (ub1 *)ol_o_id, sizeof(int),
SQLT_INT,
                                (dvoid *) 0, (ub2 *)ol_o_id_len, (ub2 *)0,
                                (ub4) 15*ORDEARR, (ub4 *)&ol_o_id_clen, (ub4)
OCI_DEFAULT));

    OCIERROR(errhp, OCIBindByName(curo1, &ol_d_id_bp, errhp, (text
*)":ol_d_id",

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```

                                strlen(":ol_d_id"), (ub1 *)ol_d_id, sizeof(int),
SQLT_INT,
                                (dvoid *) 0, (ub2 *)ol_d_id_len, (ub2 *)0,
                                (ub4) 15*ORDEARR, (ub4 *) &ol_d_id_clen, (ub4)
OCI_DEFAULT));

    OCIERROR(errhp, OCIBindByName(curo1, &ol_w_id_bp, errhp, (text
*)":ol_w_id",
                                strlen(":ol_w_id"), (ub1 *)ol_w_id, sizeof(int),
SQLT_INT,
                                (dvoid *) 0, (ub2 *)ol_w_id_len, (ub2 *)0,
                                (ub4) 15*ORDEARR, (ub4 *) &ol_w_id_clen, (ub4)
OCI_DEFAULT));

    OCIERROR(errhp, OCIBindByName(curo1, &ol_number_bp, errhp,
(text *)":ol_number",
                                strlen(":ol_number"), (ub1 *)ol_number,
sizeof(int), SQLT_INT,
                                (dvoid *) 0, (ub2 *)ol_number_len, (ub2 *)0,
                                (ub4) 15*ORDEARR, (ub4 *) &ol_number_clen, (ub4)
OCI_DEFAULT));

    OCIERROR(errhp, OCIBindByName(curo1, &ol_i_id_bp, errhp, (text
*)":ol_i_id",
                                strlen(":ol_i_id"), (ub1 *)ol_i_id, sizeof(int),
SQLT_INT,
                                (dvoid *) 0, (ub2 *)ol_i_id_len, (ub2 *)0,
                                (ub4) 15*ORDEARR, (ub4 *) &ol_i_id_clen, (ub4)
OCI_DEFAULT));

    OCIERROR(errhp, OCIBindByName(curo1, &ol_supply_w_id_bp, errhp,
(text *)":ol_supply_w_id",
                                strlen(":ol_supply_w_id"), (ub1 *)ol_supply_w_id,
sizeof(int), SQLT_INT,
                                (dvoid *) 0, (ub2 *)ol_supply_w_id_len, (ub2 *)0,
                                (ub4) 15*ORDEARR, (ub4 *) &ol_supply_w_id_clen,
(ub4) OCI_DEFAULT));

    OCIERROR(errhp, OCIBindByName(curo1, &ol_dist_info_bp, errhp,
(text *)":ol_dist_info",
                                strlen(":ol_dist_info"), (ub1 *)ol_dist_info, 24,
SQLT_CHR,
                                (dvoid *) 0, (ub2 *)ol_dist_info_len, (ub2 *)0,
                                (ub4) 15*ORDEARR, (ub4 *) &ol_dist_info_clen,
(ub4) OCI_DEFAULT));

    OCIERROR(errhp, OCIBindByName(curo1, &ol_amount_bp, errhp,
(text *)":ol_amount",
                                strlen(":ol_amount"), (ub1 *)ol_amount,
sizeof(int), SQLT_INT,
                                (dvoid *) 0, (ub2 *)ol_amount_len, (ub2 *)0,
                                (ub4) 15*ORDEARR, (ub4 *) &ol_amount_clen, (ub4)
OCI_DEFAULT));

    OCIERROR(errhp, OCIBindByName(curo1, &o_id_bp, errhp, (text
*)":o_id",
                                strlen(":o_id"), (ub1 *)o_id, sizeof(int),
SQLT_INT,
                                (dvoid *) 0, (ub2 *)o_id_len, (ub2 *)0,

```



```

        (ub4) ORDEARR, (ub4 *) &o_id_clen, (ub4)
OCI_DEFAULT));

        OCIERROR(errhp, OCIBindByName(curo1, &o_d_id_bp, errhp, (text
*)":o_d_id",
        strlen(":o_d_id"), (ub1 *)o_d_id, sizeof(int),
SQLT_INT,
        (dvoid *) 0, (ub2 *)o_d_id_len, (ub2 *)0,
        (ub4) ORDEARR, (ub4 *) &o_d_id_clen, (ub4)
OCI_DEFAULT));

        OCIERROR(errhp, OCIBindByName(curo1, &o_w_id_bp, errhp, (text
*)":o_w_id",
        strlen(":o_w_id"), (ub1 *)o_w_id, sizeof(int),
SQLT_INT,
        (dvoid *) 0, (ub2 *)o_w_id_len, (ub2 *)0,
        (ub4) ORDEARR, (ub4 *) &o_w_id_clen, (ub4)
OCI_DEFAULT));

        OCIERROR(errhp, OCIBindByName(curo1, &o_c_id_bp, errhp, (text
*)":o_c_id",
        strlen(":o_c_id"), (ub1 *)o_c_id, sizeof(int),
SQLT_INT,
        (dvoid *) 0, (ub2 *)o_c_id_len, (ub2 *)0,
        (ub4) ORDEARR, (ub4 *) &o_c_id_clen, (ub4)
OCI_DEFAULT));

        OCIERROR(errhp, OCIBindByName(curo1, &o_carrier_id_bp, errhp,
(text *)":o_carrier_id",
        strlen(":o_carrier_id"), (ub1 *)o_carrier_id,
sizeof(int), SQLT_INT,
        (dvoid *) 0, (ub2 *)o_carrier_id_len, (ub2 *)0,
        (ub4) ORDEARR, (ub4 *) &o_carrier_id_clen, (ub4)
OCI_DEFAULT));

        OCIERROR(errhp, OCIBindByName(curo1, &o_ol_cnt_bp, errhp,
(text *)":o_ol_cnt",
        strlen(":o_ol_cnt"), (ub1 *)o_ol_cnt, sizeof(int),
SQLT_INT,
        (dvoid *) 0, (ub2 *)o_ol_cnt_len, (ub2 *)0,
        (ub4) ORDEARR, (ub4 *) &o_ol_cnt_clen, (ub4)
OCI_DEFAULT));

        OCIERROR(errhp, OCIBindByName(curo1, &o_ocnt_bp, errhp, (text
*)":order_rows",
        strlen(":order_rows"), (ub1 *)o_ocnt, sizeof(int),
SQLT_INT,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

        OCIERROR(errhp, OCIBindByName(curo1, &o_olcnt_bp, errhp, (text
*)":ordl_rows",
        strlen(":ordl_rows"), (ub1 *)o_olcnt, sizeof(int),
SQLT_INT,
        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
    }

    /* new order */

```

```

        if (do_A || do_n) {
            OCIERROR(errhp, OCIBindByName(curno, &no_o_id_bp, errhp, (text
*)":no_o_id",
            strlen(":no_o_id"), (ub1 *)no_o_id, sizeof(int),
SQLT_INT,
            (dvoid *) 0, (ub2 *)0, (ub2 *)0,
            (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

            OCIERROR(errhp, OCIBindByName(curno, &no_d_id_bp, errhp, (text
*)":no_d_id",
            strlen(":no_d_id"), (ub1 *)no_d_id, sizeof(int),
SQLT_INT,
            (dvoid *) 0, (ub2 *)0, (ub2 *)0,
            (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

            OCIERROR(errhp, OCIBindByName(curno, &no_w_id_bp, errhp, (text
*)":no_w_id",
            strlen(":no_w_id"), (ub1 *)no_w_id, sizeof(int),
SQLT_INT,
            (dvoid *) 0, (ub2 *)0, (ub2 *)0,
            (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
        }
    }

    /*-----+
    | Initialize random number generator                      |
    +-----*/

    srand (SEED);
#ifdef ORA_NT
    srand48 (SEED);
#endif
    initperm ();

    /*-----+
    | Load the WAREHOUSE table.                              |
    +-----*/

    if (do_A || do_w) {
        nrows = eware - bware + 1;

        fprintf (stderr, "Loading/generating warehouse: w%d - w%d (%d
rows)\n",
                bware, eware, nrows);

        begin_time = gettime ();
        begin_cpu = getcpu ();

        for (loop = bware; loop <= eware; loop++) {

            w_tax = (float) ((lrand48 () % 2001) * 0.0001);
            randstr (w_name, 6, 10);
            randstr (w_street_1, 10, 20);
            randstr (w_street_2, 10, 20);
            randstr (w_city, 10, 20);
            randstr (str2, 2, 2);
            randnum (num9, 9);

```

```

num9[4] = num9[5] = num9[6] = num9[7] = num9[8] = '1';

if (gen) {
    printf ("%d 30000000 %6.4f %s %s %s %s %s %s\n", loop,
w_tax,
        w_name, w_street_1, w_street_2, w_city, str2,
num9);
    fflush (stdout);
}
else {
    w_id = loop;
    strncpy (w_state, str2, 2);
    strncpy (w_zip, num9, 9);

    status = OCISstmtExecute(tpcsvc, curw, errhp, (ub4) 1, (ub4)
0,
        (CONST OCISnapshot*) 0, (OCISnapshot*) 0,
        (ub4) OCI_DEFAULT | OCI_COMMIT_ON_SUCCESS);
    if (status != OCI_SUCCESS) {
        fprintf (stderr, "Error at ware %d\n", loop);
        OCIERROR(errhp, status);
        quit ();
        exit (1);
    }
}

end_time = gettimeofday ();
end_cpu = getcpu ();
fprintf (stderr, "Done.  %d rows loaded/generated in %10.2f sec.
(%10.2f cpu)\n\n",
    nrows, end_time - begin_time, end_cpu - begin_cpu);
}

/*-----+
| Load the DISTRICT table.                                |
+-----*/

if (do_A || do_d) {
    nrows = (eware - bware + 1) * DISTFAC;

    fprintf (stderr, "Loading/generating district: w%d - w%d (%d
rows)\n",
        bware, eware, nrows);

    begin_time = gettimeofday ();
    begin_cpu = getcpu ();

    dwid = bware - 1;

    for (row = 0; row < nrows; ) {
        dwid++;

        for (i = 0; i < DISTARR; i++, row++) {
            d_tax[i] = (float) ((lrand48 () % 2001) * 0.0001);
            randstr (d_name[i], 6, 10);
            randstr (d_street_1[i], 10, 20);
            randstr (d_street_2[i], 10, 20);
            randstr (d_city[i], 10, 20);

```

```

            randstr (str2, 2, 2);
            randnum (num9, 9);
            num9[4] = num9[5] = num9[6] = num9[7] = num9[8] = '1';

            if (gen) {
                printf ("%d %d 3000000 %6.4f 3001 %s %s %s %s %s %s\n",
                    i + 1, dwid, d_tax[i], d_name[i], d_street_1[i],
                    d_street_2[i], d_city[i], str2, num9);
            }
            else {
                d_id[i] = i + 1;
                d_w_id[i] = dwid;
                strncpy (d_state[i], str2, 2);
                strncpy (d_zip[i], num9, 9);
            }
        }
    }

    if (gen) {
        fflush (stdout);
    }
    else {
        status = OCISstmtExecute(tpcsvc, curd, errhp, (ub4) DISTARR,
(ub4) 0,
            (CONST OCISnapshot*) 0, (OCISnapshot*) 0,
            (ub4) OCI_DEFAULT | OCI_COMMIT_ON_SUCCESS);
        if (status != OCI_SUCCESS) {
            fprintf (stderr, "Aborted at ware %d, dist 1\n",
dwid);
            OCIERROR(errhp, status);
            quit ();
            exit (1);
        }
    }
}

end_time = gettimeofday ();
end_cpu = getcpu ();
fprintf (stderr, "Done.  %d rows loaded/generated in %10.2f sec.
(%10.2f cpu)\n\n",
    nrows, end_time - begin_time, end_cpu - begin_cpu);
}

/*-----+
| Load the CUSTOMER table.                                |
+-----*/

if (do_A || do_c) {
    nrows = (eware - bware + 1) * CUSTFAC * DISTFAC;

    fprintf (stderr, "Loading/generating customer: w%d - w%d (%d
rows)\n ",
        bware, eware, nrows);

    if (getenv("tpcc_hash_overflow")) {
        fprintf(stderr, "Hash overflow is enabled\n");
        OCIHandleAlloc(tpcenv, (dvoid **) &curi, OCI_HTYPE_STMT, 0,
(dvoid**) 0);
        sprintf ((char *) stmbuf, SQLTXTENHA);
    }

```

```

        OCISmtPrepare(curi, errhp, stmbuf, strlen((char *)stmbuf),
                      OCI_NTV_SYNTAX, OCI_DEFAULT);
        OCIERROR(errhp, OCISmtExecute(tpcsvc, curi,
errhp, 1, 0, 0, 0, OCI_DEFAULT));
        OCIHandleFree(curi, OCI_HTYPE_STMT);
        fprintf(stderr, "Customer loaded for horizontal
partitioning\n");
    }
    else
    {
        fprintf(stderr, "Customer not loaded for horizontal
partitioning\n");
    }
    begin_time = gettimeofday();
    begin_cpu = getcpu();

    cid = 0;
    cdid = 1;
    cwid = bware;
    loopcount = 0;

    for (row = 0; row < nrows; ) {
        for (i = 0; i < CUSTARR; i++, row++) {
            cid++;
            if (cid > CUSTFAC) {
                /* cycle cust id */
                cid = 1;
                /* cheap mod */
                cdid++;
                /* shift dist cycle */
                if (cdid > DISTFAC) {
                    cdid = 1;
                    cwid++;
                    /* shift ware cycle */
                }
            }
            c_id[i] = cid;
            c_d_id[i] = cdid;
            c_w_id[i] = cwid;
            if (cid <= 1000)
                randlastname(c_last[i], cid - 1);
            else
                randlastname(c_last[i], NURand(255, 0, 999, CNUM1));
            c_credit[i][1] = 'C';
            if (lrand48() % 10)
                c_credit[i][0] = 'G';
            else
                c_credit[i][0] = 'B';
            c_discount[i] = (float)((lrand48() % 5001) * 0.0001);
            randstr(c_first[i], 8, 16);
            randstr(c_street_1[i], 10, 20);
            randstr(c_street_2[i], 10, 20);
            randstr(c_city[i], 10, 20);
            randstr(str2, 2, 2);
            randnum(num9, 9);
            num9[4] = num9[5] = num9[6] = num9[7] = num9[8] = '1';
            randnum(num16, 16);
            randstr(c_data[i], 300, 500);

            if (gen) {
                printf("%d %d %d %s OE %s %s %s %s %s %s %s %s %cC
5000000 %6.4f -1000 1000 1 0 %s\n",
                    cid, cdid, cwid, c_first[i], c_last[i],

```

```

c_street_1[i], c_street_2[i], c_city[i], str2,
num9,
num16, sdate, c_credit[i][0], c_discount[i],
c_data[i]);
        }
        else {
            strncpy(c_state[i], str2, 2);
            strncpy(c_zip[i], num9, 9);
            strncpy(c_phone[i], num16, 16);
        }
    }

    if (gen) {
        fflush(stdout);
    }
    else {
        status = OCISmtExecute(tpcsvc, curc, errhp, (ub4) CUSTARR,
(ub4) 0,
                                (CONST OCISnapshot*) 0, (OCISnapshot*) 0,
                                (ub4) OCI_DEFAULT | OCI_COMMIT_ON_SUCCESS);

        if (status != OCI_SUCCESS) {
            fprintf(stderr, "Aborted at w_id %d, d_id %d,
c_id %d\n",
                                c_w_id[0], c_d_id[0], c_id[0]);
            OCIERROR(errhp, status);
            quit();
            exit(1);
        }
    }

    if ((++loopcount) % 50)
        fprintf(stderr, ".");
    else
        fprintf(stderr, " %d rows committed\n", row);
}

end_time = gettimeofday();
end_cpu = getcpu();
fprintf(stderr, "Done. %d rows loaded/generated in %10.2f sec.
(%10.2f cpu)\n\n",
        nrows, end_time - begin_time, end_cpu - begin_cpu);
if (getenv("tpcc_hash_overflow")) {
    fprintf(stderr, "Hash overflow is disabled\n");
    OCIHandleAlloc(tpcenv, (dvoid **)&curi, OCI_HTYPE_STMT, 0,
(dvoid**)0);
    sprintf((char *)stmbuf, SQLTXTDIHA);
    OCISmtPrepare(curi, errhp, stmbuf, strlen((char *)stmbuf),
OCI_NTV_SYNTAX, OCI_DEFAULT);
    OCIERROR(errhp, OCISmtExecute(tpcsvc, curi,
errhp, 1, 0, 0, 0, OCI_DEFAULT));
    OCIHandleFree(curi, OCI_HTYPE_STMT);
}

/*-----
| Load the ITEM table.
+-----*/

```

```

if (do_A || do_i) {
    nrows = ITEMFAC;

    fprintf (stderr, "Loading/generating item: (%d rows)\n    ",
nrows);

    begin_time = gettime ();
    begin_cpu = getcpu ();

    loopcount = 0;

    for (row = 0; row < nrows; ) {
        for (i = 0; i < ITEMARR; i++, row++) {
            i_im_id[i] = (lrand48 () % 10000) + 1;
            i_price[i] = ((lrand48 () % 9901) + 100);
            randstr (i_name[i], 14, 24);
            randdatastr (i_data[i], 26, 50);

            if (gen) {
                printf ("%d %d %s %d %s\n", row + 1, i_im_id[i],
i_name[i],
                    i_price[i], i_data[i]);
            }
            else {
                i_id[i] = row + 1;
            }
        }

        if (gen) {
            fflush (stdout);
        }
        else {
            status = OCISmtExecute(tpcsvc, curi, errhp, (ub4) ITEMARR,
(ub4) 0,
                (CONST OCISnapshot*) 0, (OCISnapshot*) 0,
                (ub4) OCI_DEFAULT | OCI_COMMIT_ON_SUCCESS);
            if (status != OCI_SUCCESS) {
                fprintf (stderr, "Aborted at i_id %d\n", i_id[0]);
                OCIERROR(errhp, status);
                quit ();
                exit (1);
            }
        }

        if ((++loopcount) % 50)
            fprintf (stderr, ".");
        else
            fprintf (stderr, " %d rows committed\n    ", row);
    }

    end_time = gettime ();
    end_cpu = getcpu ();
    fprintf (stderr, "Done.   %d rows loaded/generated in %10.2f sec.
(%10.2f cpu)\n\n",
        nrows, end_time - begin_time, end_cpu - begin_cpu);
}

```

```

/*-----+
| Load the STOCK table.                               |
+-----*/

if (do_A || do_s) {

    nrows = (eware - bware + 1) * STOCFAC;

    fprintf (stderr, "Loading/generating stock: w%d - w%d (%d rows)\n
",
        bware, eware, nrows);

    begin_time = gettime ();
    begin_cpu = getcpu ();

    sid = 0;
    swid = bware;
    loopcount = 0;

    for (row = 0; row < nrows; ) {
        /* added row < nrows condition on next line - alex.ni */
        for (i = 0; (i < STOCARR) && (row < nrows); i++, row++) {
            if (++sid > STOCFAC) { /* cheap mod */
                sid = 1;
                swid++;
            }
            s_quantity[i] = (lrand48 () % 91) + 10;
            randstr (str24[0], 24, 24);
            randstr (str24[1], 24, 24);
            randstr (str24[2], 24, 24);
            randstr (str24[3], 24, 24);
            randstr (str24[4], 24, 24);
            randstr (str24[5], 24, 24);
            randstr (str24[6], 24, 24);
            randstr (str24[7], 24, 24);
            randstr (str24[8], 24, 24);
            randstr (str24[9], 24, 24);
            randdatastr (s_data[i], 26, 50);

            if (gen) {
                printf ("%d %d %d %s %s %s %s %s %s %s %s %s 0 0
0 %s\n",
                    sid, swid, s_quantity[i], str24[0], str24[1],
                        str24[3], str24[4], str24[5], str24[6], str24[7],
                        str24[8], str24[9], s_data[i]);
            }
            else {
                s_i_id[i] = sid;
                s_w_id[i] = swid;
                strncpy (s_dist_01[i], str24[0], 24);
                strncpy (s_dist_02[i], str24[1], 24);
                strncpy (s_dist_03[i], str24[2], 24);
                strncpy (s_dist_04[i], str24[3], 24);
                strncpy (s_dist_05[i], str24[4], 24);
                strncpy (s_dist_06[i], str24[5], 24);
                strncpy (s_dist_07[i], str24[6], 24);
                strncpy (s_dist_08[i], str24[7], 24);
                strncpy (s_dist_09[i], str24[8], 24);
            }
        }
    }
}

```

```

        strncpy (s_dist_10[i], str24[9], 24);
    }
}

if (gen) {
    fflush (stdout);
}
else {
    /* Changed to STOCKARR to i - alex.ni */
    status = OCISstmtExecute(tpcsvc, curs, errhp, (ub4) i, (ub4)
0,
        (CONST OCISnapshot*) 0, (OCISnapshot*) 0,
        (ub4) OCI_DEFAULT | OCI_COMMIT_ON_SUCCESS);
    if (status != OCI_SUCCESS) {
        fprintf (stderr, "Aborted at w_id %d, s_i_id %d\n",
s_w_id[0], s_i_id[0]);
        OCIERROR(errhp, status);
        quit ();
        exit (1);
    }
}

if ((++loopcount) % 50)
    fprintf (stderr, ".");
else
    fprintf (stderr, " %d rows committed\n", row);
}

end_time = gettimeofday ();
end_cpu = getcpu ();
fprintf (stderr, "Done.  %d rows loaded/generated in %10.2f sec.
(%10.2f cpu)\n\n",
        nrows, end_time - begin_time, end_cpu - begin_cpu);
}

/*-----+
| Load the STOCK table (cluster around s_i_id).      |
+-----*/

if (do_S) {

    nrows = (eitem - bitem + 1) * (eware - bware + 1);

    fprintf (stderr, "Loading/generating stock: i%d - i%d, w%d - w%d
(%d rows)\n",
        bitem, eitem, bware, eware, nrows);

    begin_time = gettimeofday ();
    begin_cpu = getcpu ();

    sid = bitem;
    swid = bware - 1;
    loopcount = 0;

    for (row = 0; row < nrows; ) {
        for (i = 0; i < STOCARR; i++, row++) {
            if (++swid > eware) {
                swid = bware;
                sid++;
            }
        }
    }
}

```

```

    }
    s_quantity[i] = (lrand48 () % 91) + 10;
    randstr (str24[0], 24, 24);
    randstr (str24[1], 24, 24);
    randstr (str24[2], 24, 24);
    randstr (str24[3], 24, 24);
    randstr (str24[4], 24, 24);
    randstr (str24[5], 24, 24);
    randstr (str24[6], 24, 24);
    randstr (str24[7], 24, 24);
    randstr (str24[8], 24, 24);
    randstr (str24[9], 24, 24);
    randdatastr (s_data[i], 26, 50);

    if (gen) {
        printf ("%d %d %d %s %s %s %s %s %s %s %s %s %s 0 0
0 %s\n",
            sid, swid, s_quantity[i], str24[0], str24[1],
            str24[3], str24[4], str24[5], str24[6], str24[7],
            str24[8], str24[9], s_data[i]);
    }
    else {
        s_i_id[i] = sid;
        s_w_id[i] = swid;
        strncpy (s_dist_01[i], str24[0], 24);
        strncpy (s_dist_02[i], str24[1], 24);
        strncpy (s_dist_03[i], str24[2], 24);
        strncpy (s_dist_04[i], str24[3], 24);
        strncpy (s_dist_05[i], str24[4], 24);
        strncpy (s_dist_06[i], str24[5], 24);
        strncpy (s_dist_07[i], str24[6], 24);
        strncpy (s_dist_08[i], str24[7], 24);
        strncpy (s_dist_09[i], str24[8], 24);
        strncpy (s_dist_10[i], str24[9], 24);
    }
}

if (gen) {
    fflush (stdout);
}
else {
    status = OCISstmtExecute(tpcsvc, curs, errhp, (ub4) STOCARR,
(ub4) 0,
        (CONST OCISnapshot*) 0, (OCISnapshot*) 0,
        (ub4) OCI_DEFAULT | OCI_COMMIT_ON_SUCCESS);
    if (status != OCI_SUCCESS) {
        fprintf (stderr, "Aborted at w_id %d, s_i_id %d\n",
s_w_id[0], s_i_id[0]);
        OCIERROR(errhp, status);
        quit ();
        exit (1);
    }
}

if ((++loopcount) % 50)
    fprintf (stderr, ".");
else
    fprintf (stderr, " %d rows committed\n", row);
}

```

```

    }

    end_time = gettimeofday ();
    end_cpu = getcpu ();
    fprintf (stderr, "Done.  %d rows loaded/generated in %10.2f sec.
(%10.2f cpu)\n\n",
            nrows, end_time - begin_time, end_cpu - begin_cpu);
}

/*-----+
| Load the HISTORY table.                                |
+-----*/

if (do_A || do_h) {
    nrows = (eware - bware + 1) * HISTFAC;

    fprintf (stderr, "Loading/generating history: w%d - w%d (%d
rows)\n  ",
            bware, eware, nrows);

    begin_time = gettimeofday ();
    begin_cpu = getcpu ();

    cid = 0;
    cdid = 1;
    cwid = bware;
    loopcount = 0;

    for (row = 0; row < nrows; ) {
        for (i = 0; i < HISTARR; i++, row++) {
            cid++;
            if (cid > CUSTFAC) {          /* cycle cust id */
                cid = 1;
                /* cheap mod */
                cdid++;
                /* shift district cycle */
                if (cdid > DISTFAC) {
                    cdid = 1;
                    cwid++;
                    /* shift warehouse cycle */
                }
            }
            h_c_id[i] = cid;
            h_d_id[i] = cdid;
            h_w_id[i] = cwid;
            randstr (h_data[i], 12, 24);
            if (gen) {
                printf ("%d %d %d %d %d %s 1000 %s\n", cid, cdid, cwid,
cdid,
                        cwid, sdate, h_data[i]);
            }
        }

        if (gen) {
            fflush (stdout);
        }
        else {
            status = OCISmtExecute(tpcsvc, curh, errhp, (ub4) HISTARR,
(ub4) 0,
                                (CONST OCISnapshot*) 0, (OCISnapshot*) 0,
                                (ub4) OCI_DEFAULT | OCI_COMMIT_ON_SUCCESS);
            if (status != OCI_SUCCESS) {

```

```

                                fprintf (stderr, "Aborted at w_id %d, d_id %d,
c_id %d\n",
                                            h_w_id[0], h_d_id[0], h_c_id[0]);
                                OCIERROR(errhp, status);
                                quit ();
                                exit (1);
                            }
                        }

                        if ((++loopcount) % 50)
                            fprintf (stderr, ".");
                        else
                            fprintf (stderr, " %d rows committed\n  ", row);
                    }

                    end_time = gettimeofday ();
                    end_cpu = getcpu ();
                    fprintf (stderr, "Done.  %d rows loaded/generated in %10.2f sec.
(%10.2f cpu)\n\n",
                            nrows, end_time - begin_time, end_cpu - begin_cpu);
                }

/*-----+
| Load the ORDERS and ORDER-LINE table.                    |
+-----*/

if (do_A || do_o) {
    int batch_olcnt;

    nrows = (eware - bware + 1) * ORDEFAC * DISTFAC;

    fprintf (stderr, "Loading/generating orders and order-line: w%d -
w%d (%d ord, ~%d ordl)\n  ",
            bware, eware, nrows, nrows * 10);

    begin_time = gettimeofday ();
    begin_cpu = getcpu ();

    cid = 0;
    cdid = 1;
    cwid = bware;
    loopcount = 0;

    for (row = 0; row < nrows; ) {
        batch_olcnt = 0;

        for (i = 0; i < ORDEARR; i++, row++) {
            cid++;
            if (cid > ORDEFAC) {          /* cycle cust id */
                cid = 1;
                /* cheap mod */
                cdid++;
                /* shift district cycle */
                if (cdid > DISTFAC) {
                    cdid = 1;
                    cwid++;
                    /* shift warehouse cycle */
                }
            }
            o_carrier_id[i] = lrand48 () % 10 + 1;

```

```

o_ol_cnt[i] = olcnt = lrand48 () % 11 + 5;

if (gen) {
    if (cid < 2101) {
        printf ("%d %d %d %d %s %d %d 1\n", cid, cdid, cwid,
            randperm3000[cid - 1], sdate, o_carrier_id[i],
            o_ol_cnt[i]);
    }
    else {
        /* set carrierid to 11 instead of null */
        printf ("%d %d %d %d %s 11 %d 1\n", cid, cdid, cwid,
            randperm3000[cid - 1], sdate, o_ol_cnt[i]);
    }
}
else {
    o_id[i] = cid;
    o_d_id[i] = cdid;
    o_w_id[i] = cwid;
    o_c_id[i] = randperm3000[cid - 1];
    if (cid >= 2101 ) {
        o_carrier_id[i] = 11;
    }
}

for (j = 0; j < o_ol_cnt[i]; j++, batch_olcnt++) {
    ol_i_id[batch_olcnt] = sid = lrand48 () % 100000 + 1;
    if (cid < 2101)
        ol_amount[batch_olcnt] = 0;
    else
        ol_amount[batch_olcnt] = (lrand48 () % 999999 + 1) ;
    randstr (str24[j], 24, 24);

    if (gen) {
        if (cid < 2101) {
            fprintf (olfp, "%d %d %d %d %s %d %d 5 %ld %s\n",
cid,
                                cdid, cwid, j + 1, sdate,
ol_i_id[batch_olcnt], cwid,
                                ol_amount[batch_olcnt], str24[j]);
        }
        else {
            /* Insert a default date instead of null date */
            fprintf (olfp, "%d %d %d %d 01-Jan-1811 %d %d
5 %ld %s\n", cid,
                                cdid, cwid, j + 1, ol_i_id[batch_olcnt],
cid,
                                ol_amount[batch_olcnt], str24[j]);
        }
    }
    else {
        ol_o_id[batch_olcnt] = cid;
        ol_d_id[batch_olcnt] = cdid;
        ol_w_id[batch_olcnt] = cwid;
        ol_number[batch_olcnt] = j + 1;
        ol_supply_w_id[batch_olcnt] = cwid;
        strncpy (ol_dist_info[batch_olcnt], str24[j], 24);
    }
}
if (gen) {

```

```

        fflush (olfp);
    }
}

o_cnt = ORDEARR;
ol_cnt = batch_olcnt;

for (j = 0; j < batch_olcnt; j++) {
    ol_o_id_len[j] = sizeof(int);
    ol_d_id_len[j] = sizeof(int);
    ol_w_id_len[j] = sizeof(int);
    ol_number_len[j] = sizeof(int);
    ol_i_id_len[j] = sizeof(int);
    ol_supply_w_id_len[j] = sizeof(int);
    ol_dist_info_len[j] = 24;
    ol_amount_len[j] = sizeof(int);
}

for (j = batch_olcnt; j < 15*ORDEARR; j++) {
    ol_o_id_len[j] = 0;
    ol_d_id_len[j] = 0;
    ol_w_id_len[j] = 0;
    ol_number_len[j] = 0;
    ol_i_id_len[j] = 0;
    ol_supply_w_id_len[j] = 0;
    ol_dist_info_len[j] = 0;
    ol_amount_len[j] = 0;
}

o_id_clen = ORDEARR;
o_d_id_clen = ORDEARR;
o_w_id_clen = ORDEARR;
o_c_id_clen = ORDEARR;
o_carrier_id_clen = ORDEARR;
o_ol_cnt_clen = ORDEARR;

ol_o_id_clen = batch_olcnt;
ol_d_id_clen = batch_olcnt;
ol_w_id_clen = batch_olcnt;
ol_number_clen = batch_olcnt;
ol_i_id_clen = batch_olcnt;
ol_supply_w_id_clen = batch_olcnt;
ol_dist_info_clen = batch_olcnt;
ol_amount_clen = batch_olcnt;

OCIERROR(errhp, OCISstmtExecute(tpcsvc, curol, errhp, (ub4) 1,
(ub4) 0,
                                (CONST OCISnapshot*) 0, (OCISnapshot*) 0,
                                (ub4) OCI_DEFAULT |
OCI_COMMIT_ON_SUCCESS ));

    if ((++loopcount) % 50) {
        fprintf (stderr, ".");
    } else {
        fprintf (stderr, " %d orders committed\n", row);
    }
}

end_time = gettime ();
end_cpu = getcpu ();

```

```

        fprintf (stderr, "Done.  %d orders loaded/generated in %10.2f sec.
(%10.2f cpu)\n\n",
                nrows, end_time - begin_time, end_cpu - begin_cpu);
    }

/*-----+
| Load the NEW-ORDER table.                  |
+-----*/

    if (do_A || do_n) {
        nrows = (eware - bware + 1) * NEWOFAC * DISTFAC;

        fprintf (stderr, "Loading/generating new-order: w%d - w%d (%d
rows)\n  ",
                bware, eware, nrows);

        begin_time = gettime ();
        begin_cpu = getcpu ();

        cid = 0;
        cdid = 1;
        cwid = bware;
        loopcount = 0;

        for (row = 0; row < nrows; ) {
            for (i = 0; i < NEWOARR; i++, row++) {
                cid++;
                if (cid > NEWOFAC) {
                    cid = 1;
                    cdid++;
                    if (cdid > DISTFAC) {
                        cdid = 1;
                        cwid++;
                    }
                }

                if (gen) {
                    printf ("%d %d %d\n", cid + 2100, cdid, cwid);
                }
                else {
                    no_o_id[i] = cid + 2100;
                    no_d_id[i] = cdid;
                    no_w_id[i] = cwid;
                }
            }

            if (gen) {
                fflush (stdout);
            }
            else {
                status = OCISmttExecute(tpcsvc, curno, errhp, (ub4) NEWOARR,
(ub4) 0,
                (CONST OCISnapshot*) 0,
                (ub4) OCI_DEFAULT |
OCI_COMMIT_ON_SUCCESS);
                if (status != OCI_SUCCESS) {
                    fprintf (stderr, "Aborted at w_id %d, d_id %d,
o_id %d\n", cwid, cdid, cid + 2100);

```

```

OCIERROR(errhp, status);
                quit ();
                exit (1);
            }
        }

        if ((++loopcount) % 45)
            fprintf (stderr, ".");
        else
            fprintf (stderr, " %d rows committed\n  ", row);
    }

    end_time = gettime ();
    end_cpu = getcpu ();
    fprintf (stderr, "Done.  %d rows loaded/generated in %10.2f sec.
(%10.2f cpu)\n\n",
            nrows, end_time - begin_time, end_cpu - begin_cpu);
}

/*-----+
| clean up and exit.                        |
+-----*/

    if (olfp)
        fclose (olfp);
    if (!gen)
        quit ();
    return (0);
}

void initperm ()
{
    int i;
    int pos;
    int temp;

    /* init randperm3000 */

    for (i = 0; i < 3000; i++)
        randperm3000[i] = i + 1;
    for (i = 3000; i > 0; i--) {
        pos = lrand48 () % i;
        temp = randperm3000[i - 1];
        randperm3000[i - 1] = randperm3000[pos];
        randperm3000[pos] = temp;
    }
}

void randstr (str, x, y)
char *str;
int x;
int y;
{
    int i, j;
    int len;

    len = (lrand48 () % (y - x + 1)) + x;
    for (i = 0; i < len; i++) {

```



```

        j = lrand48 () % 62;
        if (j < 26)
            str[i] = (char) (j + 'a');
        else if (j < 52)
            str[i] = (char) (j - 26 + 'A');
        else
            str[i] = (char) (j - 52 + '0');
    }
    str[len] = '\0';
}

```

```

void randdatastr (str, x, y)
char *str;
int x;
int y;
{
    int i, j;
    int len;
    int pos;

    len = (lrand48 () % (y - x + 1)) + x;
    for (i = 0; i < len; i++) {
        j = lrand48 () % 62;
        if (j < 26)
            str[i] = (char) (j + 'a');
        else if (j < 52)
            str[i] = (char) (j - 26 + 'A');
        else
            str[i] = (char) (j - 52 + '0');
    }
    str[len] = '\0';
    if ((lrand48 () % 10) == 0) {
        pos = (lrand48 () % (len - 8));
        str[pos] = 'O';
        str[pos + 1] = 'R';
        str[pos + 2] = 'I';
        str[pos + 3] = 'G';
        str[pos + 4] = 'I';
        str[pos + 5] = 'N';
        str[pos + 6] = 'A';
        str[pos + 7] = 'L';
    }
}

```

```

void randnum (str, len)
char *str;
int len;
{
    int i;

    for (i = 0; i < len; i++)
        str[i] = (char) (lrand48 () % 10 + '0');
    str[len] = '\0';
}

```

```

void randlastname (str, id)
char *str;

```

```

int id;
{
    id = id % 1000;
    strcpy (str, lastname[id / 100]);
    strcat (str, lastname[(id / 10) % 10]);
    strcat (str, lastname[id % 10]);
}

int NURand (A, x, y, cnum)
int A, x, y, cnum;
{
    int a, b;

    a = lrand48 () % (A + 1);
    b = (lrand48 () % (y - x + 1)) + x;
    return (((a | b) + cnum) % (y - x + 1)) + x;
}

```

```

void sysdate (sdate)
char *sdate;
{
    time_t tp;
    struct tm *tmptr;

    time (&tp);
    tmptr = localtime (&tp);
    strftime (sdate, 29, "%d-%b-%Y", tmptr);
}

```

```

int ocierror(fname, lineno, errhp, status)
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:
            fprintf(stderr, "Module %s Line %d\n", fname, lineno);
            fprintf(stderr, "Error - OCI_SUCCESS_WITH_INFO\n");
            lstat = OCIErrorGet (errhp, recno++, (text *) NULL, &errcode,
errbuf,
                                (ub4) sizeof(errbuf), OCI_HTYPE_ERROR);
            fprintf(stderr, "Error - %s\n", errbuf);
            break;
        case OCI_NEED_DATA:
            fprintf(stderr, "Module %s Line %d\n", fname, lineno);
            fprintf(stderr, "Error - OCI_NEED_DATA\n");
            return (IRRECERR);
        case OCI_NO_DATA:
            fprintf(stderr, "Module %s Line %d\n", fname, lineno);
            fprintf(stderr, "Error - OCI_NO_DATA\n");

```

```

    return (IRRECERR);
case OCI_ERROR:
    lstat = OCIErrGet (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)
    {
        fprintf(stderr,"Module %s Line %d\n", fname, lineno);
        fprintf(stderr,"Error - %s\n", errbuf);
        lstat = OCIErrGet (errhp, recno++, (text *) NULL, &errcode,
errbuf,
            (ub4) sizeof(errbuf), OCI_HTYPE_ERROR);
    }
    return (errcode);
case OCI_INVALID_HANDLE:
    fprintf(stderr,"Module %s Line %d\n", fname, lineno);
    fprintf(stderr,"Error - OCI_INVALID_HANDLE\n");
    exit(-1);
case OCI_STILL_EXECUTING:
    fprintf(stderr,"Module %s Line %d\n", fname, lineno);
    fprintf(stderr,"Error - OCI_STILL_EXECUTE\n");
    return (IRRECERR);
case OCI_CONTINUE:
    fprintf(stderr,"Module %s Line %d\n", fname, lineno);
    fprintf(stderr,"Error - OCI_CONTINUE\n");
    return (IRRECERR);
default:
    fprintf(stderr,"Module %s Line %d\n", fname, lineno);
    fprintf(stderr,"Status - %s\n", status);
    return (IRRECERR);
}
return (RECOVERERR);
}

```

tstetime.c

```

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

clock_t dpbetime();

main()
{
    clock_t begin, middle, end;

    begin = dpbetime();
    Sleep(2000);
    middle = dpbetime();
    Sleep(2000);
    end = dpbetime();
    printf(" begin = %lu\n middle = %lu\n end
= %lu\n",begin,middle,end);
}

```

dpbcore.h

```

/* Copyright (c) Oracle Corporation 1993, 1992. All Rights Reserved.
*/

/*
NAME      DPBCORE.H

DESCRIPTION
    Header for CORE function

NOTES
    Desktop Performance Group

MODIFIED      (MM/DD/YY)
    B Moriarty 06/02/95 - add dpbetime() for accurate elapsed time
measure
    B Moriarty 05/26/95 - add dpboradt() for new reporting
    B Moriarty 05/10/95 - add dpbcpu() for tpcc
    C Kelly    04/21/94 - add dpbinpgm() and dpbxtpgm() for Netware
NLMs
    C Kelly    02/24/93 - add dpbfsync()
    B Moriarty 11/12/93 - add dpbgetprty()
    R Keller   10/18/93 - add dpbprty()
    R Keller   03/06/92 - initial version

*/

#ifndef __dpbcore__
# define __dpbcore__

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

#ifdef __STDC__
/* ANSI C
*/
int      dpbfsync(FILE *);          /* fsync for ACID
*/
int      dpbgetprty(char *,char *,int); /* get O/S priority
*/
void      dpbinpgm(void);           /* pgm. init. function
*/
unsigned long dpbpchk(pcntl *);     /* check on forked
process */
unsigned long dpbproc(char *[], pcntl *); /* spawn/fork new
process */
int      dpbprty(char *);           /* set O/S priority
*/
clock_t  dpbtimef(void);            /* get time
*/
clock_t  dpbcpu(void);              /* get CPU time
*/
void      dpbwait(clock_t);         /* wait routine in
millisec */
void      dpbxtpgm(void);           /* pgm exit routine
*/

```

```

*/
int          dpboradt(char *);          /* sys date time in ora
form*/
clock_t      dpbetime(void);           /* elapsed time
*/
#else
/* K&R C
*/
int          dpbfsync();               /* fsync for ACID
*/
int          dpbgetprty();             /* get O/S priority
*/
void         dpbinpgm();               /* pgm. init. function
*/
unsigned long dpbpchk();               /* check on forked
process */
unsigned long dpbproc();               /* spawn/fork new
process */
int          dpbppty();                /* set O/S priority
*/
clock_t      dpbtimef();               /* get time
*/
clock_t      dpbcpu();                /* get cpu time
*/
void         dpbwait();                /* wait routine in
millisec */
void         dpbxtpgm();               /* pgm exit routine
*/
int          dpboradt();               /* sys date time in ora
form*/
clock_t      dpbetime();               /* elapsed time
*/
#endif /* __STDC__ */

#endif /* __dpbcore__ */

```

dpbpctl.h

```

/* Copyright (c) Oracle Corporation 1993, 1992. All Rights Reserved.
*/

```

```

/*
NAME      DPBPCNTL.H

```

```

DESCRIPTION
    OSD structures for process control

```

```

NOTES
    Desktop Performance Group

```

```

MODIFIED      (MM/DD/YY)
R Keller      02/03/93 - initial version

```

```

*/
#ifndef __dpbpctl__
#define __dpbpctl__

```

```

#ifdef ORA_OS2
/* IBM OS/2 2.x
*/
#define INCL_DOSPROCESS
#include <os2.h>
typedef struct _pcntl
{
    RESULTCODES rcodes;
} pcntl;
#endif /* ORA_OS2 */
/* IBM OS/2 2.x

#ifdef ORA_NT
/* Microsoft Windows NT
*/
#include <windows.h>
/*
typedef struct _pcntl
{
    PROCESS_INFORMATION proc_info;
} pcntl;
#endif /* ORA_NT */
/* Microsoft Windows NT

#ifdef ORA_AUX
/* Apple A/UX
*/
typedef struct _pcntl
{
    int dummy;
} pcntl;
#endif /* ORA_AUX */
/* Apple A/UX

#ifdef ORA_NW
/* Novell Netware
*/
typedef struct _pcntl
{
    int dummy;
} pcntl;
#endif /* ORA_NW */
/* Novell Netware

#endif /* __dpbpctl__ */

```

dpbmake.nt

```

#
#      Copyright (c) 1997 Oracle Corp, Redwood Shores, CA
#      All Rights Reserved

```

```

# FILE:      makefile.intel
# DESCRIPTION: builds dpb library for tools and application
# CREATED:   02 July 97
#

CPU=i386
!include <win32.mak>

CL_OPTS = /nologo /c /W3 /DORA_NT /Ox $(cvars)

.c.obj:
    @cl $(CL_OPTS) $<

OBJS = dpbfsync.obj \
        dpbinpgm.obj \
        dpbpchk.obj \
        dpbproc.obj \
        dpbppty.obj \
        dpbtimef.obj \
        dpbcpu.obj \
        dpbwait.obj \
        dpbxtpgm.obj \
        dpboradt.obj \
        dpbetime.obj

dpbnt.lib: $(OBJS)
    @lib /out:$@ $?

clean:
    @for %f in ( *.obj *.lib ) do if exist %f del %f

```

Appendix C : Tunable Parameters

RTE input parameter

The following parameters were used with NEC proprietary RTE.

```

=====
RTE MASTER DRIVER -- master.exe
=====

```

Help message:

Parameter	Default

General test parameters	
-u Ramp Up Time (sec)	600
-s Steady State Time (sec)	1200
-d Ramp Down Time (sec)	120
-c Number of Connections	10
-w Number of Warehouses	1
-n C value for NURand	66

```

Reporting/Logging options
-R Name of Report File (txt format)      report.txt
-X Name of Report File (xlt format)      report.xlt
-P Name of NewOrder Troughput Curve File thrput.xlt
-l Enable Statistics Logging.
-L Name of Statistics Log File           slog
-o Generate 'success' File for Durability Test
-O Name of 'success' File                succ

```

```

Misc
-C Connect Rate of a Client Driver (users/min) 1000
-S Start Rate of a Client Driver (users/min) 1000
-v Verbose Mode (experimental)

```

```

Tunable parameters
-W Comma Separated List of Distribution Weights
                                4480
(NewOrder)                      4308
(Payment)                       404
(OrderStatus)                   404
(Delivery)                      404
(StockLevel)
    -T Comma Separated List of Think Times (sec) 12.05
(NewOrder)                      12.05
(Payment)                       10.05
(OrderStatus)                   5.05
(Delivery)                      5.05
(StockLevel)
    -K Comma Separated List of Keying Times (sec) 18.01
(NewOrder)                      3.01
(Payment)                       2.01
(OrderStatus)                   2.01
(Delivery)                      2.01
(StockLevel)
    -D Web Browser Delay Time (sec) 0.10

```

Command-line parameters:

```

master -u10800 -s10800 -d300 -c437100 -w43710 -C500 -S100 -n66 -
T12.07,12.07,10.07,5.07,5.07

```

```

=====
RTE SLAVE DRIVER -- client7.exe
=====

```

Help message:

Parameter	Default
-M Master Driver Servername	.
-I HTTP Servername	.
-p HTTP Server Port	80
-c Number of Connections	10
-o Starting User ID	1
-d Disable HTTP Keep-Alive	

Following is the script file used to launch all 437,100 users
(= 1550 users * 6 slave drivers * 47 RTE machines)

```
if %COMPUTERNAME%==RTE01 (
start cmd /k c:\client7 -Mbmater -Iacl01 -o1 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl012 -o1551 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl01 -o3101 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl012 -o4651 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl01 -o6201 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl012 -o7751 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE02 (
start cmd /k c:\client7 -Mbmater -Iacl02 -o9301 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl022 -o10851 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl02 -o12401 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl022 -o13951 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl02 -o15501 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl022 -o17051 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE03 (
start cmd /k c:\client7 -Mbmater -Iacl03 -o18601 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl032 -o20151 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl03 -o21701 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl032 -o23251 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl03 -o24801 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl032 -o26351 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE04 (
start cmd /k c:\client7 -Mbmater -Iacl04 -o27901 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl042 -o29451 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl04 -o31001 -c1550
sleep 200
)
```

```
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl042 -o32551 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl04 -o34101 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl042 -o35651 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE05 (
start cmd /k c:\client7 -Mbmater -Iacl05 -o37201 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl052 -o38751 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl05 -o40301 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl052 -o41851 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl05 -o43401 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl052 -o44951 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE06 (
start cmd /k c:\client7 -Mbmater -Iacl06 -o46501 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl062 -o48051 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl06 -o49601 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl062 -o51151 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl06 -o52701 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl062 -o54251 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE07 (
start cmd /k c:\client7 -Mbmater -Iacl07 -o55801 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl072 -o57351 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl07 -o58901 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl072 -o60451 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl07 -o62001 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl072 -o63551 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE08 (
start cmd /k c:\client7 -Mbmater -Iacl08 -o65101 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl082 -o66651 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl08 -o68201 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl082 -o69751 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl08 -o71301 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl082 -o72851 -c1550
sleep 200
)
```

```

)
if %COMPUTERNAME%==RTE10 (
start cmd /k c:\client7 -Mbmater -Iacl10 -o74401 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl102 -o75951 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl10 -o77501 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl102 -o79051 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl10 -o80601 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl102 -o82151 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE11 (
start cmd /k c:\client7 -Mbmater -Iacl11 -o83701 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl112 -o85251 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl11 -o86801 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl112 -o88351 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl11 -o89901 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl112 -o91451 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE12 (
start cmd /k c:\client7 -Mbmater -Iacl12 -o93001 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl122 -o94551 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl12 -o96101 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl122 -o97651 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl12 -o99201 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl122 -o100751 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE13 (
start cmd /k c:\client7 -Mbmater -Iacl13 -o102301 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl132 -o103851 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl13 -o105401 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl132 -o106951 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl13 -o108501 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl132 -o110051 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE14 (
start cmd /k c:\client7 -Mbmater -Iacl14 -o111601 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl142 -o113151 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl14 -o114701 -c1550

```

```

sleep 200
start cmd /k c:\client7 -Mbmater -Iacl142 -o116251 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl14 -o117801 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl142 -o119351 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE15 (
start cmd /k c:\client7 -Mbmater -Iacl15 -o120901 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl152 -o122451 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl15 -o124001 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl152 -o125551 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl15 -o127101 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl152 -o128651 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE16 (
start cmd /k c:\client7 -Mbmater -Iacl16 -o130201 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl162 -o131751 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl16 -o133301 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl162 -o134851 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl16 -o136401 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl162 -o137951 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE17 (
start cmd /k c:\client7 -Mbmater -Iacl17 -o139501 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl172 -o141051 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl17 -o142601 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl172 -o144151 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl17 -o145701 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl172 -o147251 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE18 (
start cmd /k c:\client7 -Mbmater -Iacl18 -o148801 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl182 -o150351 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl18 -o151901 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl182 -o153451 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl18 -o155001 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl182 -o156551 -c1550
sleep 200

```

```

)
if %COMPUTERNAME%==RTE19 (
start cmd /k c:\client7 -Mbmater -Iacl19 -o158101 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl192 -o159651 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl19 -o161201 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl192 -o162751 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl19 -o164301 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl192 -o165851 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE20 (
start cmd /k c:\client7 -Mbmater -Iacl20 -o167401 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl202 -o168951 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl20 -o170501 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl202 -o172051 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl20 -o173601 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl202 -o175151 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE21 (
start cmd /k c:\client7 -Mbmater -Iacl21 -o176701 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl212 -o178251 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl21 -o179801 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl212 -o181351 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl21 -o182901 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl212 -o184451 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE22 (
start cmd /k c:\client7 -Mbmater -Iacl22 -o186001 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl222 -o187551 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl22 -o189101 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl222 -o190651 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl22 -o192201 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl222 -o193751 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE23 (
start cmd /k c:\client7 -Mbmater -Iacl23 -o195301 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl232 -o196851 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl23 -o198401 -c1550

```

```

sleep 200
start cmd /k c:\client7 -Mbmater -Iacl232 -o199951 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl23 -o201501 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl232 -o203051 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE24 (
start cmd /k c:\client7 -Mbmater -Iacl24 -o204601 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl242 -o206151 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl24 -o207701 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl242 -o209251 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl24 -o210801 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl242 -o212351 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE25 (
start cmd /k c:\client7 -Mbmater -Iacl25 -o213901 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl252 -o215451 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl25 -o217001 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl252 -o218551 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl25 -o220101 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl252 -o221651 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE26 (
start cmd /k c:\client7 -Mbmater -Iacl26 -o223201 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl262 -o224751 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl26 -o226301 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl262 -o227851 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl26 -o229401 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl262 -o230951 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE27 (
start cmd /k c:\client7 -Mbmater -Iacl27 -o232501 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl272 -o234051 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl27 -o235601 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl272 -o237151 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl27 -o238701 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl272 -o240251 -c1550
sleep 200

```

```

)
if %COMPUTERNAME%==RTE28 (
start cmd /k c:\client7 -Mbmater -Iacl28 -o241801 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl282 -o243351 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl28 -o244901 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl282 -o246451 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl28 -o248001 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl282 -o249551 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE29 (
start cmd /k c:\client7 -Mbmater -Iacl29 -o251101 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl292 -o252651 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl29 -o254201 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl292 -o255751 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl29 -o257301 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl292 -o258851 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE33 (
start cmd /k c:\client7 -Mbmater -Iacl33 -o260401 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl332 -o261951 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl33 -o263501 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl332 -o265051 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl33 -o266601 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl332 -o268151 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE34 (
start cmd /k c:\client7 -Mbmater -Iacl34 -o269701 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl342 -o271251 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl34 -o272801 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl342 -o274351 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl34 -o275901 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl342 -o277451 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE35 (
start cmd /k c:\client7 -Mbmater -Iacl35 -o279001 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl352 -o280551 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl35 -o282101 -c1550

```

```

sleep 200
start cmd /k c:\client7 -Mbmater -Iacl352 -o283651 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl35 -o285201 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl352 -o286751 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE36 (
start cmd /k c:\client7 -Mbmater -Iacl36 -o288301 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl362 -o289851 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl36 -o291401 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl362 -o292951 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl36 -o294501 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl362 -o296051 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE37 (
start cmd /k c:\client7 -Mbmater -Iacl37 -o297601 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl372 -o299151 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl37 -o300701 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl372 -o302251 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl37 -o303801 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl372 -o305351 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE38 (
start cmd /k c:\client7 -Mbmater -Iacl38 -o306901 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl382 -o308451 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl38 -o310001 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl382 -o311551 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl38 -o313101 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl382 -o314651 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE39 (
start cmd /k c:\client7 -Mbmater -Iacl39 -o316201 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl392 -o317751 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl39 -o319301 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl392 -o320851 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl39 -o322401 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl392 -o323951 -c1550
sleep 200

```



```

)
if %COMPUTERNAME%==RTE40 (
start cmd /k c:\client7 -Mbmater -Iacl40 -o325501 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl402 -o327051 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl40 -o328601 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl402 -o330151 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl40 -o331701 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl402 -o333251 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE41 (
start cmd /k c:\client7 -Mbmater -Iacl41 -o334801 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl412 -o336351 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl41 -o337901 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl412 -o339451 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl41 -o341001 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl412 -o342551 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE42 (
start cmd /k c:\client7 -Mbmater -Iacl42 -o344101 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl422 -o345651 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl42 -o347201 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl422 -o348751 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl42 -o350301 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl422 -o351851 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE43 (
start cmd /k c:\client7 -Mbmater -Iacl43 -o353401 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl432 -o354951 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl43 -o356501 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl432 -o358051 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl43 -o359601 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl432 -o361151 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE44 (
start cmd /k c:\client7 -Mbmater -Iacl44 -o362701 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl442 -o364251 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl44 -o365801 -c1550

```

```

sleep 200
start cmd /k c:\client7 -Mbmater -Iacl442 -o367351 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl44 -o368901 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl442 -o370451 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE45 (
start cmd /k c:\client7 -Mbmater -Iacl45 -o372001 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl452 -o373551 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl45 -o375101 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl452 -o376651 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl45 -o378201 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl452 -o379751 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE46 (
start cmd /k c:\client7 -Mbmater -Iacl46 -o381301 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl462 -o382851 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl46 -o384401 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl462 -o385951 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl46 -o387501 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl462 -o389051 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE47 (
start cmd /k c:\client7 -Mbmater -Iacl47 -o390601 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl472 -o392151 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl47 -o393701 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl472 -o395251 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl47 -o396801 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl472 -o398351 -c1550
sleep 200
)
if %COMPUTERNAME%==RTE48 (
start cmd /k c:\client7 -Mbmater -Iacl48 -o399901 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl482 -o401451 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl48 -o403001 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl482 -o404551 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl48 -o406101 -c1550
sleep 200
start cmd /k c:\client7 -Mbmater -Iacl482 -o407651 -c1550
sleep 200

```


Processor ia64 Family 31 Model 1 Stepping 5 GenuineIntel ~1500 Mhz
Processor ia64 Family 31 Model 1 Stepping 5 GenuineIntel ~1500 Mhz
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Processor ia64 Family 31 Model 1 Stepping 5 GenuineIntel ~1500 Mhz
Processor ia64 Family 31 Model 1 Stepping 5 GenuineIntel ~1500 Mhz
BIOS Version/Date Phoenix Technologies LTD 6.0.0306, 3/14/2003
SMBIOS Version 2.3
Windows Directory C:\WINDOWS
System Directory C:\WINDOWS\system32
Boot Device \Device\HarddiskVolume102
Locale United States
Hardware Abstraction Layer Version = "5.2.3790.0 (srv03_rtm.030324-2048)"
User Name ASAMA\Administrator
Time Zone Tokyo Standard Time
Total Physical Memory 32.12 MB
Available Physical Memory 485.24 GB
Total Virtual Memory 1.03 TB
Available Virtual Memory 1,000.23 GB
Page File Space 537.67 GB
Page File C:\pagefile.sys

[Hardware Resources]

[Conflicts/Sharing]

Resource	Device	
I/O Port 0x00001F00-0x00001FFF	PCI bus	
I/O Port 0x00001F00-0x00001FFF	QLogic QLA23xx PCI Fibre Channel Adapter	
I/O Port 0x00000000-0x000003AF	PCI bus	
I/O Port 0x00000000-0x000003AF	Direct memory access controller	
I/O Port 0x00002600-0x000026FF	PCI bus	
I/O Port 0x00002600-0x000026FF	Intel(R) PRO/1000 XT Server Adapter	
I/O Port 0x00001B00-0x00001BFF	PCI bus	
I/O Port 0x00001B00-0x00001BFF	QLogic QLA23xx PCI Fibre Channel Adapter	
I/O Port 0x000003C0-0x000003DF	PCI bus	
I/O Port 0x000003C0-0x000003DF	Standard VGA Graphics Adapter	
I/O Port 0x00002200-0x000022FF	PCI bus	
I/O Port 0x00002200-0x000022FF	QLogic QLA23xx PCI Fibre Channel Adapter	
I/O Port 0x00002000-0x000020FF	PCI bus	
I/O Port 0x00002000-0x000020FF	QLogic QLA23xx PCI Fibre Channel Adapter	
I/O Port 0x00001700-0x000017FF	PCI bus	
I/O Port 0x00001700-0x000017FF	Intel(R) PRO/1000 XT Server Adapter #2	
I/O Port 0x00001300-0x000013FF	PCI bus	
I/O Port 0x00001300-0x000013FF	QLogic QLA23xx PCI Fibre Channel Adapter	
I/O Port 0x00001A00-0x00001AFF	PCI bus	
I/O Port 0x00001A00-0x00001AFF	QLogic QLA23xx PCI Fibre Channel Adapter	
I/O Port 0x00002100-0x000021FF	PCI bus	
I/O Port 0x00002100-0x000021FF	QLogic QLA23xx PCI Fibre Channel Adapter	
I/O Port 0x00001600-0x000016FF	PCI bus	
I/O Port 0x00001600-0x000016FF	QLogic QLA23xx PCI Fibre Channel Adapter	
I/O Port 0x00001D00-0x00001DFF	PCI bus	
I/O Port 0x00001D00-0x00001DFF	QLogic QLA23xx PCI Fibre Channel Adapter	
I/O Port 0x00002400-0x000024FF	PCI bus	
I/O Port 0x00002400-0x000024FF	QLogic QLA23xx PCI Fibre Channel Adapter	
I/O Port 0x00001900-0x000019FF	PCI bus	
I/O Port 0x00001900-0x000019FF	QLogic QLA23xx PCI Fibre Channel Adapter	
I/O Port 0x00002800-0x0000FFFF	PCI bus	
I/O Port 0x00002800-0x0000FFFF	QLogic QLA23xx PCI Fibre Channel Adapter	

I/O Port 0x00002700-0x000027FF	PCI bus
I/O Port 0x00002700-0x000027FF	QLogic QLA23xx PCI Fibre Channel Adapter
I/O Port 0x00001C00-0x00001CFF	PCI bus
I/O Port 0x00001C00-0x00001CFF	QLogic QLA23xx PCI Fibre Channel Adapter
I/O Port 0x00002300-0x000023FF	PCI bus
I/O Port 0x00002300-0x000023FF	QLogic QLA23xx PCI Fibre Channel Adapter
I/O Port 0x00001800-0x000018FF	PCI bus
I/O Port 0x00001800-0x000018FF	QLogic QLA23xx PCI Fibre Channel Adapter
I/O Port 0x00001400-0x000015FF	PCI bus
I/O Port 0x00001400-0x000015FF	Adaptec SCSI Card 39160 - Ultra160 SCSI
Memory Address 0xA0000-0xBFFFF	PCI bus
Memory Address 0xA0000-0xBFFFF	Standard VGA Graphics Adapter
I/O Port 0x00001200-0x000012FF	PCI bus
I/O Port 0x00001200-0x000012FF	QLogic QLA23xx PCI Fibre Channel Adapter
I/O Port 0x000003B0-0x000003BB	PCI bus
I/O Port 0x000003B0-0x000003BB	Standard VGA Graphics Adapter
I/O Port 0x00001E00-0x00001EFF	PCI bus
I/O Port 0x00001E00-0x00001EFF	QLogic QLA23xx PCI Fibre Channel Adapter
I/O Port 0x00002500-0x000025FF	PCI bus
I/O Port 0x00002500-0x000025FF	QLogic QLA23xx PCI Fibre Channel Adapter
I/O Port 0x00000D00-0x000011FF	PCI bus
I/O Port 0x00000D00-0x000011FF	Extended IO Bus

[DMA]

Resource	Device	Status
Channel 4	Direct memory access controller	OK

[Forced Hardware]

Device	PNP Device ID
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[I/O]

Resource	Device	Status
0x00000000-0x000003AF	PCI bus	OK
0x00000000-0x000003AF	Direct memory access controller	OK
0x000003B0-0x000003BB	PCI bus	OK
0x000003B0-0x000003BB	Standard VGA Graphics Adapter	OK
0x000003BC-0x000003BF	PCI bus	OK
0x000003C0-0x000003DF	PCI bus	OK
0x000003C0-0x000003DF	Standard VGA Graphics Adapter	OK
0x000003E0-0x00000CF7	PCI bus	OK
0x00000D00-0x000011FF	PCI bus	OK
0x00000D00-0x000011FF	Extended IO Bus	OK
0x00000080-0x0000008F	Direct memory access controller	OK
0x000000C0-0x000000DF	Direct memory access controller	OK
0x00000020-0x00000021	Programmable interrupt controller	OK
0x000000A0-0x000000A1	Programmable interrupt controller	OK
0x00000040-0x00000043	System timer	OK
0x00000061-0x00000061	System speaker	OK
0x00000070-0x00000071	System CMOS/real time clock	OK
0x000000F0-0x000000FF	Numeric data processor	OK
0x000000B2-0x000000B3	Generic Bus	OK
0x00000E00-0x00000E3F	Generic Bus	OK
0x00000092-0x00000092	Motherboard resources	OK
0x000004D0-0x000004D1	Motherboard resources	OK
0x00000D80-0x00000D80	Motherboard resources	OK
0x00000D81-0x00000D81	Motherboard resources	OK
0x00000CA0-0x00000CA1	Motherboard resources	OK
0x00000CA4-0x00000CA7	Motherboard resources	OK
0x0000002E-0x0000002F	Motherboard resources	OK
0x00000060-0x00000060	Standard 101/102-Key or Microsoft Natural PS/2 Keyboard	OK
0x00000064-0x00000064	Standard 101/102-Key or Microsoft Natural PS/2 Keyboard	OK
0x000003F8-0x000003FF	Communications Port (COM1)	OK

0x00000C00-0x00000C03 Extended IO Bus OK
0x00000F00-0x00000F7F Extended IO Bus OK
0x00000F80-0x00000FFF Extended IO Bus OK
0x00000CA2-0x00000CA2 OK
0x00000CA3-0x00000CA3 OK
0x00001120-0x0000112F Intel(r) IA64 Bus Master IDE Controller OK
0x000001F0-0x000001F7 Primary IDE Channel OK
0x000003F6-0x000003F6 Primary IDE Channel OK
0x00001100-0x0000111F Intel(r) 82372FB PCI to USB Universal Host Controller OK

0x00001000-0x000010FF Standard VGA Graphics Adapter OK
0x00001200-0x000012FF PCI bus OK
0x00001200-0x000012FF QLogic QLA23xx PCI Fibre Channel Adapter OK
0x00001300-0x000013FF PCI bus OK
0x00001300-0x000013FF QLogic QLA23xx PCI Fibre Channel Adapter OK
0x00001400-0x000015FF PCI bus OK
0x00001400-0x000015FF Adaptec SCSI Card 39160 - Ultra160 SCSI OK
0x00001500-0x000015FF Adaptec SCSI Card 39160 - Ultra160 SCSI OK
0x00001600-0x000016FF PCI bus OK
0x00001600-0x000016FF QLogic QLA23xx PCI Fibre Channel Adapter OK
0x00001700-0x000017FF PCI bus OK
0x00001700-0x000017FF Intel(R) PRO/1000 XT Server Adapter #2 OK
0x00001800-0x000018FF PCI bus OK
0x00001800-0x000018FF QLogic QLA23xx PCI Fibre Channel Adapter OK
0x00001900-0x000019FF PCI bus OK
0x00001900-0x000019FF QLogic QLA23xx PCI Fibre Channel Adapter OK
0x00001A00-0x00001AFF PCI bus OK
0x00001A00-0x00001AFF QLogic QLA23xx PCI Fibre Channel Adapter OK
0x00001B00-0x00001BFF PCI bus OK
0x00001B00-0x00001BFF QLogic QLA23xx PCI Fibre Channel Adapter OK
0x00001C00-0x00001CFF PCI bus OK
0x00001C00-0x00001CFF QLogic QLA23xx PCI Fibre Channel Adapter OK
0x00001D00-0x00001DFF PCI bus OK
0x00001D00-0x00001DFF QLogic QLA23xx PCI Fibre Channel Adapter OK
0x00001E00-0x00001EFF PCI bus OK
0x00001E00-0x00001EFF QLogic QLA23xx PCI Fibre Channel Adapter OK
0x00001F00-0x00001FFF PCI bus OK
0x00001F00-0x00001FFF QLogic QLA23xx PCI Fibre Channel Adapter OK
0x00002000-0x000020FF PCI bus OK
0x00002000-0x000020FF QLogic QLA23xx PCI Fibre Channel Adapter OK
0x00002100-0x000021FF PCI bus OK
0x00002100-0x000021FF QLogic QLA23xx PCI Fibre Channel Adapter OK
0x00002200-0x000022FF PCI bus OK
0x00002200-0x000022FF QLogic QLA23xx PCI Fibre Channel Adapter OK
0x00002300-0x000023FF PCI bus OK
0x00002300-0x000023FF QLogic QLA23xx PCI Fibre Channel Adapter OK
0x00002400-0x000024FF PCI bus OK
0x00002400-0x000024FF QLogic QLA23xx PCI Fibre Channel Adapter OK
0x00002500-0x000025FF PCI bus OK
0x00002500-0x000025FF QLogic QLA23xx PCI Fibre Channel Adapter OK
0x00002600-0x000026FF PCI bus OK
0x00002600-0x000026FF Intel(R) PRO/1000 XT Server Adapter OK
0x00002700-0x000027FF PCI bus OK
0x00002700-0x000027FF QLogic QLA23xx PCI Fibre Channel Adapter OK
0x00002800-0x0000FFFF PCI bus OK
0x00002800-0x0000FFFF QLogic QLA23xx PCI Fibre Channel Adapter OK

[IRQs]

Resource	Device	Status
IRQ 9	Microsoft ACPI-Compliant System	OK
IRQ 0	System timer	OK
IRQ 8	System CMOS/real time clock	OK
IRQ 13	Numeric data processor	OK
IRQ 1	Standard 101/102-Key or Microsoft Natural PS/2 Keyboard	OK
IRQ 12	PS/2 Compatible Mouse	OK
IRQ 4	Communications Port (COM1)	OK
IRQ 11	OK	
IRQ 14	Primary IDE Channel	OK
IRQ 19	Intel(r) 82372FB PCI to USB Universal Host Controller	OK
IRQ 20	QLogic QLA23xx PCI Fibre Channel Adapter	OK
IRQ 64	QLogic QLA23xx PCI Fibre Channel Adapter	OK
IRQ 68	Adaptec SCSI Card 39160 - Ultra160 SCSI	OK
IRQ 67	Adaptec SCSI Card 39160 - Ultra160 SCSI	OK
IRQ 73	QLogic QLA23xx PCI Fibre Channel Adapter	OK
IRQ 78	Intel(R) PRO/1000 XT Server Adapter #2	OK
IRQ 84	QLogic QLA23xx PCI Fibre Channel Adapter	OK
IRQ 86	QLogic QLA23xx PCI Fibre Channel Adapter	OK
IRQ 90	QLogic QLA23xx PCI Fibre Channel Adapter	OK

IRQ	Device	Status
IRQ 91	QLogic QLA23xx PCI Fibre Channel Adapter	OK
IRQ 95	QLogic QLA23xx PCI Fibre Channel Adapter	OK
IRQ 100	QLogic QLA23xx PCI Fibre Channel Adapter	OK
IRQ 150	QLogic QLA23xx PCI Fibre Channel Adapter	OK
IRQ 152	QLogic QLA23xx PCI Fibre Channel Adapter	OK
IRQ 156	QLogic QLA23xx PCI Fibre Channel Adapter	OK
IRQ 157	QLogic QLA23xx PCI Fibre Channel Adapter	OK
IRQ 166	QLogic QLA23xx PCI Fibre Channel Adapter	OK
IRQ 172	QLogic QLA23xx PCI Fibre Channel Adapter	OK
IRQ 174	QLogic QLA23xx PCI Fibre Channel Adapter	OK
IRQ 178	QLogic QLA23xx PCI Fibre Channel Adapter	OK
IRQ 179	Intel(R) PRO/1000 XT Server Adapter	OK
IRQ 183	QLogic QLA23xx PCI Fibre Channel Adapter	OK
IRQ 188	QLogic QLA23xx PCI Fibre Channel Adapter	OK

[Memory]

Resource	Device	Status
0xA0000-0xBFFFF	PCI bus	OK
0xA0000-0xBFFFF	Standard VGA Graphics Adapter	OK
0xC0000-0xC3FFF	PCI bus	OK
0xC4000-0xC7FFF	PCI bus	OK
0xC8000-0xCBFFF	PCI bus	OK
0xCC000-0xCFFFF	PCI bus	OK
0xD0000-0xD3FFF	PCI bus	OK
0xD4000-0xD7FFF	PCI bus	OK
0xD8000-0xDBFFF	PCI bus	OK
0xDC000-0xDFFFF	PCI bus	OK
0xE0000-0xE3FFF	PCI bus	OK
0xE4000-0xE7FFF	PCI bus	OK
0xE8000-0xEBFFF	PCI bus	OK
0xEC000-0xEFFFF	PCI bus	OK
0xF0000-0xFFFF	PCI bus	OK
0xFBC00000-0xFDFFFFFF	PCI bus	OK
0xFC000000-0xFCFFFFFF	Standard VGA Graphics Adapter	OK
0xFDFFF000-0xFDFFFFFF	Standard VGA Graphics Adapter	OK
0xFB800000-0xFBBFFFFF	PCI bus	OK
0xFBBFF000-0xFBBFFFFF	QLogic QLA23xx PCI Fibre Channel Adapter	OK
0xFB400000-0xFB7FFFFF	PCI bus	OK
0xFB7FF000-0xFB7FFFFF	QLogic QLA23xx PCI Fibre Channel Adapter	OK
0xFB000000-0xFB3FFFFF	PCI bus	OK
0xFB3FF000-0xFB3FFFFF	Adaptec SCSI Card 39160 - Ultra160 SCSI	OK
0xFB3FE000-0xFB3FEFFF	Adaptec SCSI Card 39160 - Ultra160 SCSI	OK
0xFAC00000-0xFAFFFFFF	PCI bus	OK
0xFAFFF000-0xFAFFFFFF	QLogic QLA23xx PCI Fibre Channel Adapter	OK
0xFA800000-0xFABFFFFF	PCI bus	OK
0xFABCF000-0xFABDFFFF	Intel(R) PRO/1000 XT Server Adapter #2	OK
0xFABE0000-0xFABEFFFF	Intel(R) PRO/1000 XT Server Adapter #2	OK
0xFA400000-0xFA7FFFFF	PCI bus	OK
0xFA7FF000-0xFA7FFFFF	QLogic QLA23xx PCI Fibre Channel Adapter	OK
0xFA000000-0xFA3FFFFF	PCI bus	OK
0xFA3FF000-0xFA3FFFFF	QLogic QLA23xx PCI Fibre Channel Adapter	OK
0xF9C00000-0xF9FFFFFF	PCI bus	OK
0xF9FFF000-0xF9FFFFFF	QLogic QLA23xx PCI Fibre Channel Adapter	OK
0xF9800000-0xF9BFFFFF	PCI bus	OK
0xF9BFF000-0xF9BFFFFF	QLogic QLA23xx PCI Fibre Channel Adapter	OK
0xF9400000-0xF97FFFFF	PCI bus	OK
0xF97FF000-0xF97FFFFF	QLogic QLA23xx PCI Fibre Channel Adapter	OK
0xF9000000-0xF93FFFFF	PCI bus	OK
0xF93FF000-0xF93FFFFF	QLogic QLA23xx PCI Fibre Channel Adapter	OK
0xF8C00000-0xF8FFFFFF	PCI bus	OK
0xF8FFF000-0xF8FFFFFF	QLogic QLA23xx PCI Fibre Channel Adapter	OK
0xF8800000-0xF8BFFFFF	PCI bus	OK
0xF8BFF000-0xF8BFFFFF	QLogic QLA23xx PCI Fibre Channel Adapter	OK
0xF8400000-0xF87FFFFF	PCI bus	OK
0xF87FF000-0xF87FFFFF	QLogic QLA23xx PCI Fibre Channel Adapter	OK
0xF8000000-0xF83FFFFF	PCI bus	OK
0xF83FF000-0xF83FFFFF	QLogic QLA23xx PCI Fibre Channel Adapter	OK
0xF7C00000-0xF7FFFFFF	PCI bus	OK
0xF7FFF000-0xF7FFFFFF	QLogic QLA23xx PCI Fibre Channel Adapter	OK
0xF7800000-0xF7BFFFFF	PCI bus	OK
0xF7BFF000-0xF7BFFFFF	QLogic QLA23xx PCI Fibre Channel Adapter	OK
0xF7400000-0xF77FFFFF	PCI bus	OK
0xF77FF000-0xF77FFFFF	QLogic QLA23xx PCI Fibre Channel Adapter	OK
0xF7000000-0xF73FFFFF	PCI bus	OK
0xF73FF000-0xF73FFFFF	QLogic QLA23xx PCI Fibre Channel Adapter	OK
0xF6C00000-0xF6FFFFFF	PCI bus	OK
0xF6FC0000-0xF6FDFFFF	Intel(R) PRO/1000 XT Server Adapter	OK
0xF6FE0000-0xF6FFFFFF	Intel(R) PRO/1000 XT Server Adapter	OK

0xF6800000-0xF6BFFFFF PCI bus OK
0xF6BFF000-0xF6BFFFFF QLogic QLA23xx PCI Fibre Channel Adapter OK
0xE0000000-0xF67FFFFF PCI bus OK
0xF67FF000-0xF67FFFFF QLogic QLA23xx PCI Fibre Channel Adapter OK

[Components]

[Multimedia]

[Audio Codecs]

CODEC	Manufacturer Creation Date	Description	Status	File	Version	Size
c:\windows\system32\msg711.acm	Microsoft Corporation		OK			
C:\WINDOWS\system32\MSG711.ACM	5.2.3790.0 (srv03_rtm.030324-2048)					33.00
KB (33,792 bytes)	3/25/2003 9:00 PM					
c:\windows\system32\tssoft32.acm	DSP GROUP, INC.		OK			
C:\WINDOWS\system32\tSSOFT32.ACM	1.01	29.00 KB (29,696 bytes)				
3/25/2003 9:00 PM						
c:\windows\system32\imaadp32.acm	Microsoft Corporation		OK			
C:\WINDOWS\system32\IMAADP32.ACM	5.2.3790.0 (srv03_rtm.030324-2048)					55.00
KB (56,320 bytes)	3/25/2003 9:00 PM					
c:\windows\system32\msadp32.acm	Microsoft Corporation		OK			
C:\WINDOWS\system32\MSADP32.ACM	5.2.3790.0 (srv03_rtm.030324-2048)					49.00
KB (50,176 bytes)	3/25/2003 9:00 PM					
c:\windows\system32\msgsm32.acm	Microsoft Corporation		OK			
C:\WINDOWS\system32\MSGSM32.ACM	5.2.3790.0 (srv03_rtm.030324-2048)					66.50
KB (68,096 bytes)	3/25/2003 9:00 PM					

[Video Codecs]

CODEC	Manufacturer Creation Date	Description	Status	File	Version	Size
c:\windows\system32\msvidc32.dll	Microsoft Corporation		OK			
C:\WINDOWS\system32\MSVIDC32.DLL	5.2.3790.0 (srv03_rtm.030324-2048)					67.00
KB (68,608 bytes)	3/25/2003 9:00 PM					
c:\windows\system32\msrle32.dll	Microsoft Corporation		OK			
C:\WINDOWS\system32\MSRLE32.DLL	5.2.3790.0 (srv03_rtm.030324-2048)					24.50
KB (25,088 bytes)	3/25/2003 9:00 PM					

[CD-ROM]

Item	Value
Drive D:	
Description	CD-ROM Drive
Media Loaded	No
Media Type	CD-ROM
Name	NEC DVD-ROM DV-5800A
Manufacturer	(Standard CD-ROM drives)
Status	OK
Transfer Rate	Not Available
SCSI Target ID	0
PNP Device ID	IDE\CDROM_NEC_DVD-ROM_DV-5800A_1.42_5&8F26A51&0&0.0.0
Driver	c:\windows\system32\drivers\cdrom.sys (5.2.3790.0 (srv03_rtm.030324-2048), 143.50 KB (146,944 bytes), 3/25/2003 9:00 PM)

[Sound Device]

Item	Value
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[Display]

Item	Value
Name	Standard VGA Graphics Adapter
PNP Device ID	PCI\VEN_1002&DEV_4752&SUBSYS_80EB1033&REV_27\3&267A616A&0&20
Adapter Type	ATI MACH64, (Standard display types) compatible
Adapter Description	Standard VGA Graphics Adapter
Adapter RAM	4.00 MB (4,194,304 bytes)
Installed Drivers	vga.dll, framebuf.dll, vga256, vga64k
Driver Version	5.2.3790.0
INF File	display.inf (vga section)
Color Planes	1
Color Table Entries	16777216
Resolution	1024 x 768 x 1 hertz

Item	Value
Bits/Pixel	24
Memory Address	0xFC000000-0xFCFFFFFF
I/O Port	0x00001000-0x000010FF
Memory Address	0xFDFEF000-0xFDFEFFFF
I/O Port	0x000003B0-0x000003BB
I/O Port	0x000003C0-0x000003DF
Memory Address	0xA0000-0xBFFFF
Driver	c:\windows\system32\drivers\vgapnp.sys (5.2.3790.0 (srv03_rtm.030324-2048), 68.50 KB (70,144 bytes), 8/1/2003 5:01 PM)

[Infrared]

Item	Value
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[Input]

[Keyboard]

Item	Value
Description	Standard 101/102-Key or Microsoft Natural PS/2 Keyboard
Name	Enhanced (101- or 102-key)
Layout	00000409
PNP Device ID	ACPI\PNP0303\2
Number of Function Keys	12
I/O Port	0x00000060-0x00000060
I/O Port	0x00000064-0x00000064
IRQ Channel	IRQ 1
Driver	c:\windows\system32\drivers\i8042prt.sys (5.2.3790.0 (srv03_rtm.030324-2048), 136.50 KB (139,776 bytes), 3/25/2003 9:00 PM)

[Pointing Device]

Item	Value
Hardware Type	PS/2 Compatible Mouse
Number of Buttons	2
Status	OK
PNP Device ID	ACPI\PNP0F13\2
Power Management Supported	No
Double Click Threshold	6
Handedness	Right Handed Operation
IRQ Channel	IRQ 12
Driver	c:\windows\system32\drivers\i8042prt.sys (5.2.3790.0 (srv03_rtm.030324-2048), 136.50 KB (139,776 bytes), 3/25/2003 9:00 PM)

[Modem]

Item	Value
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[Network]

[Adapter]

Item	Value
Name	[00000001] Intel(R) PRO/1000 XT Server Adapter
Adapter Type	Ethernet 802.3
Product Type	Intel(R) PRO/1000 XT Server Adapter
Installed Yes	
PNP Device ID	PCI\VEN_8086&DEV_1008&SUBSYS_11078086&REV_02\3&32C5B1AC&0&10
Last Reset	8/27/2003 7:46 AM
Index	1
Service Name	E1000
IP Address	10.1.1.223
IP Subnet	255.255.255.0
Default IP Gateway	10.1.1.254
DHCP Enabled	No
DHCP Server	Not Available
DHCP Lease Expires	Not Available
DHCP Lease Obtained	Not Available
MAC Address	00:02:B3:CC:50:86
Memory Address	0xF6FC0000-0xF6FDFFFF
Memory Address	0xF6FE0000-0xF6FFFFFF
I/O Port	0x00002600-0x000026FF
IRQ Channel	IRQ 179
Driver	c:\windows\system32\drivers\e1000645.sys (6.3.6.31 built by: WinDDK, 363.00 KB (371,712 bytes), 8/1/2003 5:01 PM)

Name [00000002] Intel(R) PRO/1000 XT Server Adapter
 Adapter Type Ethernet 802.3
 Product Type Intel(R) PRO/1000 XT Server Adapter
 Installed Yes
 PNP Device ID PCI\VEN_8086&DEV_1008&SUBSYS_11078086&REV_02\3&20FEA912&0&10
 Last Reset 8/27/2003 7:46 AM
 Index 2
 Service Name E1000
 IP Address 10.1.1.222
 IP Subnet 255.255.255.0
 Default IP Gateway 10.1.1.254
 DHCP Enabled No
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address 00:02:B3:CC:50:EA
 Memory Address 0xFABC0000-0xFABDFFFF
 Memory Address 0xFABE0000-0xFABFFFFFFF
 I/O Port 0x00001700-0x000017FF
 IRQ Channel IRQ 78
 Driver c:\windows\system32\drivers\e1000645.sys (6.3.6.31 built by: WinDDK, 363.00 KB (371,712 bytes), 8/1/2003 5:01 PM)

Name [00000003] RAS Async Adapter
 Adapter Type Not Available
 Product Type RAS Async Adapter
 Installed Yes
 PNP Device ID Not Available
 Last Reset 8/27/2003 7:46 AM
 Index 3
 Service Name AsyncMac
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled No
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address Not Available

Name [00000004] WAN Miniport (L2TP)
 Adapter Type Not Available
 Product Type WAN Miniport (L2TP)
 Installed Yes
 PNP Device ID ROOT\MS_L2TPMINIPORT\0000
 Last Reset 8/27/2003 7:46 AM
 Index 4
 Service Name Rasl2tp
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled No
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address Not Available

Name [00000005] WAN Miniport (PPTP)
 Adapter Type Wide Area Network (WAN)
 Product Type WAN Miniport (PPTP)
 Installed Yes
 PNP Device ID ROOT\MS_PPTPMINIPORT\0000
 Last Reset 8/27/2003 7:46 AM
 Index 5
 Service Name PptpMiniport
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled No
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address 50:50:54:50:30:30

Name [00000006] WAN Miniport (PPPOE)
 Adapter Type Wide Area Network (WAN)
 Product Type WAN Miniport (PPPOE)
 Installed Yes

PNP Device ID ROOT\MS_PPPOEMINIPORT\0000
 Last Reset 8/27/2003 7:46 AM
 Index 6
 Service Name RasPppoe
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled No
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address 33:50:6F:45:30:30

Name [00000007] Direct Parallel
 Adapter Type Not Available
 Product Type Direct Parallel
 Installed Yes
 PNP Device ID ROOT\MS_PTMINIPORT\0000
 Last Reset 8/27/2003 7:46 AM
 Index 7
 Service Name Raspti
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled No
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address Not Available

Name [00000008] WAN Miniport (IP)
 Adapter Type Not Available
 Product Type WAN Miniport (IP)
 Installed Yes
 PNP Device ID ROOT\MS_NDISWANIP\0000
 Last Reset 8/27/2003 7:46 AM
 Index 8
 Service Name NdisWan
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled No
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address Not Available

[Protocol]

Item	Value
Name	MSAFD Tcpip [TCP/IP]
Connectionless Service	No
Guarantees Delivery	Yes
Guarantees Sequencing	Yes
Maximum Address Size	16 bytes
Maximum Message Size	0 bytes
Message Oriented	No
Minimum Address Size	16 bytes
Pseudo Stream Oriented	No
Supports Broadcasting	No
Supports Connect Data	No
Supports Disconnect Data	No
Supports Encryption	No
Supports Expedited Data	Yes
Supports Graceful Closing	Yes
Supports Guaranteed Bandwidth	No
Supports Multicasting	No

Name	MSAFD Tcpip [UDP/IP]
Connectionless Service	Yes
Guarantees Delivery	No
Guarantees Sequencing	No
Maximum Address Size	16 bytes
Maximum Message Size	63.93 KB (65,467 bytes)
Message Oriented	Yes
Minimum Address Size	16 bytes
Pseudo Stream Oriented	No
Supports Broadcasting	Yes
Supports Connect Data	No

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

Name	RSVP UDP Service Provider
Connectionless Service	Yes
Guarantees Delivery	No
Guarantees Sequencing	No
Maximum Address Size	16 bytes
Maximum Message Size	63.93 KB (65,467 bytes)
Message Oriented	Yes
Minimum Address Size	16 bytes
Pseudo Stream Oriented	No
Supports Broadcasting	Yes
Supports Connect Data	No
Supports Disconnect Data	No
Supports Encryption	Yes
Supports Expedited Data	No
Supports Graceful Closing	No
Supports Guaranteed Bandwidth	No
Supports Multicasting	Yes

Name	RSVP TCP Service Provider
Connectionless Service	No
Guarantees Delivery	Yes
Guarantees Sequencing	Yes
Maximum Address Size	16 bytes
Maximum Message Size	0 bytes
Message Oriented	No
Minimum Address Size	16 bytes
Pseudo Stream Oriented	No
Supports Broadcasting	No
Supports Connect Data	No
Supports Disconnect Data	No
Supports Encryption	Yes
Supports Expedited Data	Yes
Supports Graceful Closing	Yes
Supports Guaranteed Bandwidth	No
Supports Multicasting	No

[WinSock]

Item	Value
File	c:\windows\system32\wssock32.dll
Size	23.00 KB (23,552 bytes)
Version	5.2.3790.0 (srv03_rtm.030324-2048)

[Ports]

[Serial]

Item	Value
Name	Communications Port (COM1)
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
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	0x00003F8-0x000003FF
IRQ Channel	IRQ 4
Driver	c:\windows\system32\drivers\serial.sys (5.2.3790.0 (srv03_rtm.030324-2048), 174.50 KB (178,688 bytes), 3/25/2003 9:00 PM)

[Parallel]

Item	Value
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[Storage]

[Drives]

Item	Value
Drive	C:
Description	Local Fixed Disk
Compressed	No
File System	NTFS
Size	67.37 GB (72,333,111,296 bytes)
Free Space	15.54 GB (16,688,058,368 bytes)
Volume Name	
Volume Serial Number	A045038B

Drive	D:
Description	CD-ROM Disc

Drive	Z:
Description	Local Fixed Disk
Compressed	No
File System	NTFS
Size	31.81 GB (34,159,554,560 bytes)
Free Space	31.75 GB (34,087,477,248 bytes)
Volume Name	juncOrc
Volume Serial Number	447D23B9

[Disks]

Item	Value
Description	Disk drive
Manufacturer	(Standard disk drives)
Model	HITACHI DK32DJ-72MC SCSI Disk Device
Bytes/Sector	512
Media Loaded	No
Media Type	Fixed hard disk
Partitions	Not Available
SCSI Bus	0
SCSI Logical Unit	0
SCSI Port	21
SCSI Target ID	14
Sectors/Track	63
Size	68.17 GB (73,196,766,720 bytes)
Total Cylinders	8,899
Total Sectors	142,962,435
Total Tracks	2,269,245
Tracks/Cylinder	255
Partition Disk #73,	Partition #0
Partition Size	698.11 MB (732,017,664 bytes)
Partition Starting Offset	32,256 bytes
Partition Disk #73,	Partition #1

Partition Size 67.37 GB (72,333,112,320 bytes)
Partition Starting Offset 863,654,400 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model NEC iStorage 2000 SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 24
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 19
SCSI Target ID 0
Sectors/Track 63
Size 498.92 GB (535,712,486,400 bytes)
Total Cylinders 65,130
Total Sectors 1,046,313,450
Total Tracks 16,608,150
Tracks/Cylinder 255
Partition Disk #69, Partition #0
Partition Size 2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 8,257,536 bytes
Partition Disk #69, Partition #1
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 2,163,280,896 bytes
Partition Disk #69, Partition #2
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 10,224,055,296 bytes
Partition Disk #69, Partition #3
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 18,284,829,696 bytes
Partition Disk #69, Partition #4
Partition Size 517.69 MB (542,836,224 bytes)
Partition Starting Offset 26,345,604,096 bytes
Partition Disk #69, Partition #5
Partition Size 2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 26,888,472,576 bytes
Partition Disk #69, Partition #6
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 29,043,495,936 bytes
Partition Disk #69, Partition #7
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 37,104,270,336 bytes
Partition Disk #69, Partition #8
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 45,165,044,736 bytes
Partition Disk #69, Partition #9
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 53,225,819,136 bytes
Partition Disk #69, Partition #10
Partition Size 109.79 MB (115,121,664 bytes)
Partition Starting Offset 61,286,593,536 bytes
Partition Disk #69, Partition #11
Partition Size 20.00 GB (21,476,173,824 bytes)
Partition Starting Offset 61,401,747,456 bytes
Partition Disk #69, Partition #12
Partition Size 211.76 MB (222,050,304 bytes)
Partition Starting Offset 82,877,953,536 bytes
Partition Disk #69, Partition #13
Partition Size 109.79 MB (115,121,664 bytes)
Partition Starting Offset 83,100,036,096 bytes
Partition Disk #69, Partition #14
Partition Size 823.61 MB (863,622,144 bytes)
Partition Starting Offset 83,215,190,016 bytes
Partition Disk #69, Partition #15
Partition Size 4.01 GB (4,301,789,184 bytes)
Partition Starting Offset 84,078,844,416 bytes
Partition Disk #69, Partition #16
Partition Size 3.50 GB (3,758,920,704 bytes)
Partition Starting Offset 88,380,665,856 bytes
Partition Disk #69, Partition #17
Partition Size 2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 92,139,618,816 bytes
Partition Disk #69, Partition #18
Partition Size 109.79 MB (115,121,664 bytes)
Partition Starting Offset 94,294,642,176 bytes
Partition Disk #69, Partition #19
Partition Size 1.00 GB (1,077,479,424 bytes)

Partition Starting Offset 94,409,796,096 bytes
Partition Disk #69, Partition #20
Partition Size 8.01 GB (8,595,385,344 bytes)
Partition Starting Offset 95,487,307,776 bytes
Partition Disk #69, Partition #21
Partition Size 2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 104,082,725,376 bytes
Partition Disk #69, Partition #22
Partition Size 2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 106,772,391,936 bytes
Partition Disk #69, Partition #23
Partition Size 396.98 GB (426,250,427,904 bytes)
Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model NEC iStorage 2000 SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 24
SCSI Bus 0
SCSI Logical Unit 1
SCSI Port 19
SCSI Target ID 0
Sectors/Track 63
Size 498.92 GB (535,712,486,400 bytes)
Total Cylinders 65,130
Total Sectors 1,046,313,450
Total Tracks 16,608,150
Tracks/Cylinder 255
Partition Disk #70, Partition #0
Partition Size 2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 8,257,536 bytes
Partition Disk #70, Partition #1
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 2,163,280,896 bytes
Partition Disk #70, Partition #2
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 10,224,055,296 bytes
Partition Disk #70, Partition #3
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 18,284,829,696 bytes
Partition Disk #70, Partition #4
Partition Size 517.69 MB (542,836,224 bytes)
Partition Starting Offset 26,345,604,096 bytes
Partition Disk #70, Partition #5
Partition Size 2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 26,888,472,576 bytes
Partition Disk #70, Partition #6
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 29,043,495,936 bytes
Partition Disk #70, Partition #7
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 37,104,270,336 bytes
Partition Disk #70, Partition #8
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 45,165,044,736 bytes
Partition Disk #70, Partition #9
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 53,225,819,136 bytes
Partition Disk #70, Partition #10
Partition Size 109.79 MB (115,121,664 bytes)
Partition Starting Offset 61,286,593,536 bytes
Partition Disk #70, Partition #11
Partition Size 20.00 GB (21,476,173,824 bytes)
Partition Starting Offset 61,401,747,456 bytes
Partition Disk #70, Partition #12
Partition Size 211.76 MB (222,050,304 bytes)
Partition Starting Offset 82,877,953,536 bytes
Partition Disk #70, Partition #13
Partition Size 109.79 MB (115,121,664 bytes)
Partition Starting Offset 83,100,036,096 bytes
Partition Disk #70, Partition #14
Partition Size 823.61 MB (863,622,144 bytes)
Partition Starting Offset 83,215,190,016 bytes
Partition Disk #70, Partition #15
Partition Size 4.01 GB (4,301,789,184 bytes)
Partition Starting Offset 84,078,844,416 bytes

Partition Disk #70, Partition #16
 Partition Size 3.50 GB (3,758,920,704 bytes)
 Partition Starting Offset 88,380,665,856 bytes
 Partition Disk #70, Partition #17
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 92,139,618,816 bytes
 Partition Disk #70, Partition #18
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 94,294,642,176 bytes
 Partition Disk #70, Partition #19
 Partition Size 1.00 GB (1,077,479,424 bytes)
 Partition Starting Offset 94,409,796,096 bytes
 Partition Disk #70, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
 Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #70, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #70, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #70, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 19
 SCSI Target ID 1
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #71, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #71, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #71, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #71, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #71, Partition #4
 Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes
 Partition Disk #71, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #71, Partition #6
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 29,043,495,936 bytes
 Partition Disk #71, Partition #7
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 37,104,270,336 bytes
 Partition Disk #71, Partition #8
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 45,165,044,736 bytes
 Partition Disk #71, Partition #9
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 53,225,819,136 bytes
 Partition Disk #71, Partition #10
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 61,286,593,536 bytes
 Partition Disk #71, Partition #11
 Partition Size 20.00 GB (21,476,173,824 bytes)
 Partition Starting Offset 61,401,747,456 bytes
 Partition Disk #71, Partition #12

Partition Size 211.76 MB (222,050,304 bytes)
 Partition Starting Offset 82,877,953,536 bytes
 Partition Disk #71, Partition #13
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 83,100,036,096 bytes
 Partition Disk #71, Partition #14
 Partition Size 823.61 MB (863,622,144 bytes)
 Partition Starting Offset 83,215,190,016 bytes
 Partition Disk #71, Partition #15
 Partition Size 4.01 GB (4,301,789,184 bytes)
 Partition Starting Offset 84,078,844,416 bytes
 Partition Disk #71, Partition #16
 Partition Size 3.50 GB (3,758,920,704 bytes)
 Partition Starting Offset 88,380,665,856 bytes
 Partition Disk #71, Partition #17
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 92,139,618,816 bytes
 Partition Disk #71, Partition #18
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 94,294,642,176 bytes
 Partition Disk #71, Partition #19
 Partition Size 1.00 GB (1,077,479,424 bytes)
 Partition Starting Offset 94,409,796,096 bytes
 Partition Disk #71, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
 Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #71, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #71, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #71, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 1
 SCSI Port 19
 SCSI Target ID 1
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #72, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #72, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #72, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #72, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #72, Partition #4
 Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes
 Partition Disk #72, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #72, Partition #6
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 29,043,495,936 bytes
 Partition Disk #72, Partition #7
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 37,104,270,336 bytes
 Partition Disk #72, Partition #8
 Partition Size 7.51 GB (8,060,742,144 bytes)

Partition Starting Offset 45,165,044,736 bytes
 Partition Disk #72, Partition #9
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 53,225,819,136 bytes
 Partition Disk #72, Partition #10
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 61,286,593,536 bytes
 Partition Disk #72, Partition #11
 Partition Size 20.00 GB (21,476,173,824 bytes)
 Partition Starting Offset 61,401,747,456 bytes
 Partition Disk #72, Partition #12
 Partition Size 211.76 MB (222,050,304 bytes)
 Partition Starting Offset 82,877,953,536 bytes
 Partition Disk #72, Partition #13
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 83,100,036,096 bytes
 Partition Disk #72, Partition #14
 Partition Size 823.61 MB (863,622,144 bytes)
 Partition Starting Offset 83,215,190,016 bytes
 Partition Disk #72, Partition #15
 Partition Size 4.01 GB (4,301,789,184 bytes)
 Partition Starting Offset 84,078,844,416 bytes
 Partition Disk #72, Partition #16
 Partition Size 3.50 GB (3,758,920,704 bytes)
 Partition Starting Offset 88,380,665,856 bytes
 Partition Disk #72, Partition #17
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 92,139,618,816 bytes
 Partition Disk #72, Partition #18
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 94,294,642,176 bytes
 Partition Disk #72, Partition #19
 Partition Size 1.00 GB (1,077,479,424 bytes)
 Partition Starting Offset 94,409,796,096 bytes
 Partition Disk #72, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
 Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #72, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #72, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #72, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 16
 SCSI Target ID 0
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #58, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #58, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #58, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #58, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #58, Partition #4
 Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes

Partition Disk #58, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #58, Partition #6
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 29,043,495,936 bytes
 Partition Disk #58, Partition #7
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 37,104,270,336 bytes
 Partition Disk #58, Partition #8
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 45,165,044,736 bytes
 Partition Disk #58, Partition #9
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 53,225,819,136 bytes
 Partition Disk #58, Partition #10
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 61,286,593,536 bytes
 Partition Disk #58, Partition #11
 Partition Size 20.00 GB (21,476,173,824 bytes)
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 Partition Disk #58, Partition #12
 Partition Size 211.76 MB (222,050,304 bytes)
 Partition Starting Offset 82,877,953,536 bytes
 Partition Disk #58, Partition #13
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 83,100,036,096 bytes
 Partition Disk #58, Partition #14
 Partition Size 823.61 MB (863,622,144 bytes)
 Partition Starting Offset 83,215,190,016 bytes
 Partition Disk #58, Partition #15
 Partition Size 4.01 GB (4,301,789,184 bytes)
 Partition Starting Offset 84,078,844,416 bytes
 Partition Disk #58, Partition #16
 Partition Size 3.50 GB (3,758,920,704 bytes)
 Partition Starting Offset 88,380,665,856 bytes
 Partition Disk #58, Partition #17
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 92,139,618,816 bytes
 Partition Disk #58, Partition #18
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 94,294,642,176 bytes
 Partition Disk #58, Partition #19
 Partition Size 1.00 GB (1,077,479,424 bytes)
 Partition Starting Offset 94,409,796,096 bytes
 Partition Disk #58, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
 Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #58, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #58, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #58, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 1
 SCSI Port 16
 SCSI Target ID 0
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #59, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #59, Partition #1

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Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 2,163,280,896 bytes
Partition Disk #59, Partition #2
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 10,224,055,296 bytes
Partition Disk #59, Partition #3
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 18,284,829,696 bytes
Partition Disk #59, Partition #4
Partition Size      517.69 MB (542,836,224 bytes)
Partition Starting Offset 26,345,604,096 bytes
Partition Disk #59, Partition #5
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 26,888,472,576 bytes
Partition Disk #59, Partition #6
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 29,043,495,936 bytes
Partition Disk #59, Partition #7
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 37,104,270,336 bytes
Partition Disk #59, Partition #8
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 45,165,044,736 bytes
Partition Disk #59, Partition #9
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 53,225,819,136 bytes
Partition Disk #59, Partition #10
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset 61,286,593,536 bytes
Partition Disk #59, Partition #11
Partition Size      20.00 GB (21,476,173,824 bytes)
Partition Starting Offset 61,401,747,456 bytes
Partition Disk #59, Partition #12
Partition Size      211.76 MB (222,050,304 bytes)
Partition Starting Offset 82,877,953,536 bytes
Partition Disk #59, Partition #13
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset 83,100,036,096 bytes
Partition Disk #59, Partition #14
Partition Size      823.61 MB (863,622,144 bytes)
Partition Starting Offset 83,215,190,016 bytes
Partition Disk #59, Partition #15
Partition Size      4.01 GB (4,301,789,184 bytes)
Partition Starting Offset 84,078,844,416 bytes
Partition Disk #59, Partition #16
Partition Size      3.50 GB (3,758,920,704 bytes)
Partition Starting Offset 88,380,665,856 bytes
Partition Disk #59, Partition #17
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 92,139,618,816 bytes
Partition Disk #59, Partition #18
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset 94,294,642,176 bytes
Partition Disk #59, Partition #19
Partition Size      1.00 GB (1,077,479,424 bytes)
Partition Starting Offset 94,409,796,096 bytes
Partition Disk #59, Partition #20
Partition Size      8.01 GB (8,595,385,344 bytes)
Partition Starting Offset 95,487,307,776 bytes
Partition Disk #59, Partition #21
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 104,082,725,376 bytes
Partition Disk #59, Partition #22
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 106,772,391,936 bytes
Partition Disk #59, Partition #23
Partition Size      396.98 GB (426,250,427,904 bytes)
Partition Starting Offset 109,462,058,496 bytes

```

```

Description      Disk drive
Manufacturer      (Standard disk drives)
Model      NEC iStorage 2000 SCSI Disk Device
Bytes/Sector      512
Media Loaded      Yes
Media Type      Fixed hard disk
Partitions      24
SCSI Bus      0
SCSI Logical Unit      0
SCSI Port      16

```

```

SCSI Target ID      1
Sectors/Track      63
Size      498.92 GB (535,712,486,400 bytes)
Total Cylinders      65,130
Total Sectors      1,046,313,450
Total Tracks      16,608,150
Tracks/Cylinder      255
Partition Disk #60, Partition #0
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 8,257,536 bytes
Partition Disk #60, Partition #1
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 2,163,280,896 bytes
Partition Disk #60, Partition #2
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 10,224,055,296 bytes
Partition Disk #60, Partition #3
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 18,284,829,696 bytes
Partition Disk #60, Partition #4
Partition Size      517.69 MB (542,836,224 bytes)
Partition Starting Offset 26,345,604,096 bytes
Partition Disk #60, Partition #5
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 26,888,472,576 bytes
Partition Disk #60, Partition #6
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 29,043,495,936 bytes
Partition Disk #60, Partition #7
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 37,104,270,336 bytes
Partition Disk #60, Partition #8
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 45,165,044,736 bytes
Partition Disk #60, Partition #9
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 53,225,819,136 bytes
Partition Disk #60, Partition #10
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset 61,286,593,536 bytes
Partition Disk #60, Partition #11
Partition Size      20.00 GB (21,476,173,824 bytes)
Partition Starting Offset 61,401,747,456 bytes
Partition Disk #60, Partition #12
Partition Size      211.76 MB (222,050,304 bytes)
Partition Starting Offset 82,877,953,536 bytes
Partition Disk #60, Partition #13
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset 83,100,036,096 bytes
Partition Disk #60, Partition #14
Partition Size      823.61 MB (863,622,144 bytes)
Partition Starting Offset 83,215,190,016 bytes
Partition Disk #60, Partition #15
Partition Size      4.01 GB (4,301,789,184 bytes)
Partition Starting Offset 84,078,844,416 bytes
Partition Disk #60, Partition #16
Partition Size      3.50 GB (3,758,920,704 bytes)
Partition Starting Offset 88,380,665,856 bytes
Partition Disk #60, Partition #17
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 92,139,618,816 bytes
Partition Disk #60, Partition #18
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset 94,294,642,176 bytes
Partition Disk #60, Partition #19
Partition Size      1.00 GB (1,077,479,424 bytes)
Partition Starting Offset 94,409,796,096 bytes
Partition Disk #60, Partition #20
Partition Size      8.01 GB (8,595,385,344 bytes)
Partition Starting Offset 95,487,307,776 bytes
Partition Disk #60, Partition #21
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 104,082,725,376 bytes
Partition Disk #60, Partition #22
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 106,772,391,936 bytes
Partition Disk #60, Partition #23
Partition Size      396.98 GB (426,250,427,904 bytes)
Partition Starting Offset 109,462,058,496 bytes

```

Description	Disk drive
Manufacturer	(Standard disk drives)
Model	NEC iStorage 2000 SCSI Disk Device
Bytes/Sector	512
Media Loaded	Yes
Media Type	Fixed hard disk
Partitions	24
SCSI Bus	0
SCSI Logical Unit	1
SCSI Port 16	
SCSI Target ID	1
Sectors/Track	63
Size	498.92 GB (535,712,486,400 bytes)
Total Cylinders	65,130
Total Sectors	1,046,313,450
Total Tracks	16,608,150
Tracks/Cylinder	255
Partition Disk #61, Partition #0	
Partition Size	2.01 GB (2,154,991,104 bytes)
Partition Starting Offset	8,257,536 bytes
Partition Disk #61, Partition #1	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	2,163,280,896 bytes
Partition Disk #61, Partition #2	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	10,224,055,296 bytes
Partition Disk #61, Partition #3	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	18,284,829,696 bytes
Partition Disk #61, Partition #4	
Partition Size	517.69 MB (542,836,224 bytes)
Partition Starting Offset	26,345,604,096 bytes
Partition Disk #61, Partition #5	
Partition Size	2.01 GB (2,154,991,104 bytes)
Partition Starting Offset	26,888,472,576 bytes
Partition Disk #61, Partition #6	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	29,043,495,936 bytes
Partition Disk #61, Partition #7	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	37,104,270,336 bytes
Partition Disk #61, Partition #8	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	45,165,044,736 bytes
Partition Disk #61, Partition #9	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	53,225,819,136 bytes
Partition Disk #61, Partition #10	
Partition Size	109.79 MB (115,121,664 bytes)
Partition Starting Offset	61,286,593,536 bytes
Partition Disk #61, Partition #11	
Partition Size	20.00 GB (21,476,173,824 bytes)
Partition Starting Offset	61,401,747,456 bytes
Partition Disk #61, Partition #12	
Partition Size	211.76 MB (222,050,304 bytes)
Partition Starting Offset	82,877,953,536 bytes
Partition Disk #61, Partition #13	
Partition Size	109.79 MB (115,121,664 bytes)
Partition Starting Offset	83,100,036,096 bytes
Partition Disk #61, Partition #14	
Partition Size	823.61 MB (863,622,144 bytes)
Partition Starting Offset	83,215,190,016 bytes
Partition Disk #61, Partition #15	
Partition Size	4.01 GB (4,301,789,184 bytes)
Partition Starting Offset	84,078,844,416 bytes
Partition Disk #61, Partition #16	
Partition Size	3.50 GB (3,758,920,704 bytes)
Partition Starting Offset	88,380,665,856 bytes
Partition Disk #61, Partition #17	
Partition Size	2.01 GB (2,154,991,104 bytes)
Partition Starting Offset	92,139,618,816 bytes
Partition Disk #61, Partition #18	
Partition Size	109.79 MB (115,121,664 bytes)
Partition Starting Offset	94,294,642,176 bytes
Partition Disk #61, Partition #19	
Partition Size	1.00 GB (1,077,479,424 bytes)
Partition Starting Offset	94,409,796,096 bytes
Partition Disk #61, Partition #20	

Partition Size	8.01 GB (8,595,385,344 bytes)
Partition Starting Offset	95,487,307,776 bytes
Partition Disk #61, Partition #21	
Partition Size	2.50 GB (2,689,634,304 bytes)
Partition Starting Offset	104,082,725,376 bytes
Partition Disk #61, Partition #22	
Partition Size	2.50 GB (2,689,634,304 bytes)
Partition Starting Offset	106,772,391,936 bytes
Partition Disk #61, Partition #23	
Partition Size	396.98 GB (426,250,427,904 bytes)
Partition Starting Offset	109,462,058,496 bytes

Description	Disk drive
Manufacturer	(Standard disk drives)
Model	NEC iStorage 2000 SCSI Disk Device
Bytes/Sector	512
Media Loaded	Yes
Media Type	Fixed hard disk
Partitions	24
SCSI Bus	0
SCSI Logical Unit	0
SCSI Port 2	
SCSI Target ID	0
Sectors/Track	63
Size	498.92 GB (535,712,486,400 bytes)
Total Cylinders	65,130
Total Sectors	1,046,313,450
Total Tracks	16,608,150
Tracks/Cylinder	255
Partition Disk #4, Partition #0	
Partition Size	2.01 GB (2,154,991,104 bytes)
Partition Starting Offset	8,257,536 bytes
Partition Disk #4, Partition #1	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	2,163,280,896 bytes
Partition Disk #4, Partition #2	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	10,224,055,296 bytes
Partition Disk #4, Partition #3	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	18,284,829,696 bytes
Partition Disk #4, Partition #4	
Partition Size	517.69 MB (542,836,224 bytes)
Partition Starting Offset	26,345,604,096 bytes
Partition Disk #4, Partition #5	
Partition Size	2.01 GB (2,154,991,104 bytes)
Partition Starting Offset	26,888,472,576 bytes
Partition Disk #4, Partition #6	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	29,043,495,936 bytes
Partition Disk #4, Partition #7	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	37,104,270,336 bytes
Partition Disk #4, Partition #8	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	45,165,044,736 bytes
Partition Disk #4, Partition #9	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	53,225,819,136 bytes
Partition Disk #4, Partition #10	
Partition Size	109.79 MB (115,121,664 bytes)
Partition Starting Offset	61,286,593,536 bytes
Partition Disk #4, Partition #11	
Partition Size	20.00 GB (21,476,173,824 bytes)
Partition Starting Offset	61,401,747,456 bytes
Partition Disk #4, Partition #12	
Partition Size	211.76 MB (222,050,304 bytes)
Partition Starting Offset	82,877,953,536 bytes
Partition Disk #4, Partition #13	
Partition Size	109.79 MB (115,121,664 bytes)
Partition Starting Offset	83,100,036,096 bytes
Partition Disk #4, Partition #14	
Partition Size	823.61 MB (863,622,144 bytes)
Partition Starting Offset	83,215,190,016 bytes
Partition Disk #4, Partition #15	
Partition Size	4.01 GB (4,301,789,184 bytes)
Partition Starting Offset	84,078,844,416 bytes
Partition Disk #4, Partition #16	
Partition Size	3.50 GB (3,758,920,704 bytes)

```

Partition Starting Offset      88,380,665,856 bytes
Partition Disk #4, Partition #17
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset      92,139,618,816 bytes
Partition Disk #4, Partition #18
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset      94,294,642,176 bytes
Partition Disk #4, Partition #19
Partition Size      1.00 GB (1,077,479,424 bytes)
Partition Starting Offset      94,409,796,096 bytes
Partition Disk #4, Partition #20
Partition Size      8.01 GB (8,595,385,344 bytes)
Partition Starting Offset      95,487,307,776 bytes
Partition Disk #4, Partition #21
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset      104,082,725,376 bytes
Partition Disk #4, Partition #22
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset      106,772,391,936 bytes
Partition Disk #4, Partition #23
Partition Size      396.98 GB (426,250,427,904 bytes)
Partition Starting Offset      109,462,058,496 bytes

```

```

Description      Disk drive
Manufacturer      (Standard disk drives)
Model      NEC iStorage 2000 SCSI Disk Device
Bytes/Sector      512
Media Loaded      Yes
Media Type      Fixed hard disk
Partitions      24
SCSI Bus      0
SCSI Logical Unit      1
SCSI Port      2
SCSI Target ID      0
Sectors/Track      63
Size      498.92 GB (535,712,486,400 bytes)
Total Cylinders      65,130
Total Sectors      1,046,313,450
Total Tracks      16,608,150
Tracks/Cylinder      255
Partition Disk #5, Partition #0
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset      8,257,536 bytes
Partition Disk #5, Partition #1
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      2,163,280,896 bytes
Partition Disk #5, Partition #2
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      10,224,055,296 bytes
Partition Disk #5, Partition #3
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      18,284,829,696 bytes
Partition Disk #5, Partition #4
Partition Size      517.69 MB (542,836,224 bytes)
Partition Starting Offset      26,345,604,096 bytes
Partition Disk #5, Partition #5
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset      26,888,472,576 bytes
Partition Disk #5, Partition #6
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      29,043,495,936 bytes
Partition Disk #5, Partition #7
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      37,104,270,336 bytes
Partition Disk #5, Partition #8
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      45,165,044,736 bytes
Partition Disk #5, Partition #9
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      53,225,819,136 bytes
Partition Disk #5, Partition #10
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset      61,286,593,536 bytes
Partition Disk #5, Partition #11
Partition Size      20.00 GB (21,476,173,824 bytes)
Partition Starting Offset      61,401,747,456 bytes
Partition Disk #5, Partition #12
Partition Size      211.76 MB (222,050,304 bytes)
Partition Starting Offset      82,877,953,536 bytes

```

```

Partition Disk #5, Partition #13
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset      83,100,036,096 bytes
Partition Disk #5, Partition #14
Partition Size      823.61 MB (863,622,144 bytes)
Partition Starting Offset      83,215,190,016 bytes
Partition Disk #5, Partition #15
Partition Size      4.01 GB (4,301,789,184 bytes)
Partition Starting Offset      84,078,844,416 bytes
Partition Disk #5, Partition #16
Partition Size      3.50 GB (3,758,920,704 bytes)
Partition Starting Offset      88,380,665,856 bytes
Partition Disk #5, Partition #17
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset      92,139,618,816 bytes
Partition Disk #5, Partition #18
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset      94,294,642,176 bytes
Partition Disk #5, Partition #19
Partition Size      1.00 GB (1,077,479,424 bytes)
Partition Starting Offset      94,409,796,096 bytes
Partition Disk #5, Partition #20
Partition Size      8.01 GB (8,595,385,344 bytes)
Partition Starting Offset      95,487,307,776 bytes
Partition Disk #5, Partition #21
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset      104,082,725,376 bytes
Partition Disk #5, Partition #22
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset      106,772,391,936 bytes
Partition Disk #5, Partition #23
Partition Size      396.98 GB (426,250,427,904 bytes)
Partition Starting Offset      109,462,058,496 bytes

```

```

Description      Disk drive
Manufacturer      (Standard disk drives)
Model      NEC iStorage 2000 SCSI Disk Device
Bytes/Sector      512
Media Loaded      Yes
Media Type      Fixed hard disk
Partitions      24
SCSI Bus      0
SCSI Logical Unit      0
SCSI Port      2
SCSI Target ID      1
Sectors/Track      63
Size      498.92 GB (535,712,486,400 bytes)
Total Cylinders      65,130
Total Sectors      1,046,313,450
Total Tracks      16,608,150
Tracks/Cylinder      255
Partition Disk #6, Partition #0
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset      8,257,536 bytes
Partition Disk #6, Partition #1
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      2,163,280,896 bytes
Partition Disk #6, Partition #2
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      10,224,055,296 bytes
Partition Disk #6, Partition #3
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      18,284,829,696 bytes
Partition Disk #6, Partition #4
Partition Size      517.69 MB (542,836,224 bytes)
Partition Starting Offset      26,345,604,096 bytes
Partition Disk #6, Partition #5
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset      26,888,472,576 bytes
Partition Disk #6, Partition #6
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      29,043,495,936 bytes
Partition Disk #6, Partition #7
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      37,104,270,336 bytes
Partition Disk #6, Partition #8
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      45,165,044,736 bytes
Partition Disk #6, Partition #9

```

```

Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 53,225,819,136 bytes
Partition Disk #6, Partition #10
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset 61,286,593,536 bytes
Partition Disk #6, Partition #11
Partition Size      20.00 GB (21,476,173,824 bytes)
Partition Starting Offset 61,401,747,456 bytes
Partition Disk #6, Partition #12
Partition Size      211.76 MB (222,050,304 bytes)
Partition Starting Offset 82,877,953,536 bytes
Partition Disk #6, Partition #13
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset 83,100,036,096 bytes
Partition Disk #6, Partition #14
Partition Size      823.61 MB (863,622,144 bytes)
Partition Starting Offset 83,215,190,016 bytes
Partition Disk #6, Partition #15
Partition Size      4.01 GB (4,301,789,184 bytes)
Partition Starting Offset 84,078,844,416 bytes
Partition Disk #6, Partition #16
Partition Size      3.50 GB (3,758,920,704 bytes)
Partition Starting Offset 88,380,665,856 bytes
Partition Disk #6, Partition #17
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 92,139,618,816 bytes
Partition Disk #6, Partition #18
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset 94,294,642,176 bytes
Partition Disk #6, Partition #19
Partition Size      1.00 GB (1,077,479,424 bytes)
Partition Starting Offset 94,409,796,096 bytes
Partition Disk #6, Partition #20
Partition Size      8.01 GB (8,595,385,344 bytes)
Partition Starting Offset 95,487,307,776 bytes
Partition Disk #6, Partition #21
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 104,082,725,376 bytes
Partition Disk #6, Partition #22
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 106,772,391,936 bytes
Partition Disk #6, Partition #23
Partition Size      396.98 GB (426,250,427,904 bytes)
Partition Starting Offset 109,462,058,496 bytes

```

```

Description      Disk drive
Manufacturer      (Standard disk drives)
Model      NEC iStorage 2000 SCSI Disk Device
Bytes/Sector      512
Media Loaded      Yes
Media Type      Fixed hard disk
Partitions      24
SCSI Bus      0
SCSI Logical Unit      1
SCSI Port 2
SCSI Target ID      1
Sectors/Track      63
Size      498.92 GB (535,712,486,400 bytes)
Total Cylinders      65,130
Total Sectors      1,046,313,450
Total Tracks      16,608,150
Tracks/Cylinder      255
Partition Disk #7, Partition #0
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 8,257,536 bytes
Partition Disk #7, Partition #1
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 2,163,280,896 bytes
Partition Disk #7, Partition #2
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 10,224,055,296 bytes
Partition Disk #7, Partition #3
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 18,284,829,696 bytes
Partition Disk #7, Partition #4
Partition Size      517.69 MB (542,836,224 bytes)
Partition Starting Offset 26,345,604,096 bytes
Partition Disk #7, Partition #5
Partition Size      2.01 GB (2,154,991,104 bytes)

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```

Partition Starting Offset 26,888,472,576 bytes
Partition Disk #7, Partition #6
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 29,043,495,936 bytes
Partition Disk #7, Partition #7
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 37,104,270,336 bytes
Partition Disk #7, Partition #8
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 45,165,044,736 bytes
Partition Disk #7, Partition #9
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 53,225,819,136 bytes
Partition Disk #7, Partition #10
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset 61,286,593,536 bytes
Partition Disk #7, Partition #11
Partition Size      20.00 GB (21,476,173,824 bytes)
Partition Starting Offset 61,401,747,456 bytes
Partition Disk #7, Partition #12
Partition Size      211.76 MB (222,050,304 bytes)
Partition Starting Offset 82,877,953,536 bytes
Partition Disk #7, Partition #13
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset 83,100,036,096 bytes
Partition Disk #7, Partition #14
Partition Size      823.61 MB (863,622,144 bytes)
Partition Starting Offset 83,215,190,016 bytes
Partition Disk #7, Partition #15
Partition Size      4.01 GB (4,301,789,184 bytes)
Partition Starting Offset 84,078,844,416 bytes
Partition Disk #7, Partition #16
Partition Size      3.50 GB (3,758,920,704 bytes)
Partition Starting Offset 88,380,665,856 bytes
Partition Disk #7, Partition #17
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 92,139,618,816 bytes
Partition Disk #7, Partition #18
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset 94,294,642,176 bytes
Partition Disk #7, Partition #19
Partition Size      1.00 GB (1,077,479,424 bytes)
Partition Starting Offset 94,409,796,096 bytes
Partition Disk #7, Partition #20
Partition Size      8.01 GB (8,595,385,344 bytes)
Partition Starting Offset 95,487,307,776 bytes
Partition Disk #7, Partition #21
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 104,082,725,376 bytes
Partition Disk #7, Partition #22
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 106,772,391,936 bytes
Partition Disk #7, Partition #23
Partition Size      396.98 GB (426,250,427,904 bytes)
Partition Starting Offset 109,462,058,496 bytes

```

```

Description      Disk drive
Manufacturer      (Standard disk drives)
Model      NEC iStorage 2000 SCSI Disk Device
Bytes/Sector      512
Media Loaded      Yes
Media Type      Fixed hard disk
Partitions      24
SCSI Bus      0
SCSI Logical Unit      0
SCSI Port 10
SCSI Target ID      0
Sectors/Track      63
Size      498.92 GB (535,712,486,400 bytes)
Total Cylinders      65,130
Total Sectors      1,046,313,450
Total Tracks      16,608,150
Tracks/Cylinder      255
Partition Disk #34, Partition #0
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 8,257,536 bytes
Partition Disk #34, Partition #1
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 2,163,280,896 bytes

```

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Partition Disk #34, Partition #2
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 10,224,055,296 bytes
Partition Disk #34, Partition #3
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 18,284,829,696 bytes
Partition Disk #34, Partition #4
Partition Size 517.69 MB (542,836,224 bytes)
Partition Starting Offset 26,345,604,096 bytes
Partition Disk #34, Partition #5
Partition Size 2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 26,888,472,576 bytes
Partition Disk #34, Partition #6
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 29,043,495,936 bytes
Partition Disk #34, Partition #7
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 37,104,270,336 bytes
Partition Disk #34, Partition #8
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 45,165,044,736 bytes
Partition Disk #34, Partition #9
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 53,225,819,136 bytes
Partition Disk #34, Partition #10
Partition Size 109.79 MB (115,121,664 bytes)
Partition Starting Offset 61,286,593,536 bytes
Partition Disk #34, Partition #11
Partition Size 20.00 GB (21,476,173,824 bytes)
Partition Starting Offset 61,401,747,456 bytes
Partition Disk #34, Partition #12
Partition Size 211.76 MB (222,050,304 bytes)
Partition Starting Offset 82,877,953,536 bytes
Partition Disk #34, Partition #13
Partition Size 109.79 MB (115,121,664 bytes)
Partition Starting Offset 83,100,036,096 bytes
Partition Disk #34, Partition #14
Partition Size 823.61 MB (863,622,144 bytes)
Partition Starting Offset 83,215,190,016 bytes
Partition Disk #34, Partition #15
Partition Size 4.01 GB (4,301,789,184 bytes)
Partition Starting Offset 84,078,844,416 bytes
Partition Disk #34, Partition #16
Partition Size 3.50 GB (3,758,920,704 bytes)
Partition Starting Offset 88,380,665,856 bytes
Partition Disk #34, Partition #17
Partition Size 2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 92,139,618,816 bytes
Partition Disk #34, Partition #18
Partition Size 109.79 MB (115,121,664 bytes)
Partition Starting Offset 94,294,642,176 bytes
Partition Disk #34, Partition #19
Partition Size 1.00 GB (1,077,479,424 bytes)
Partition Starting Offset 94,409,796,096 bytes
Partition Disk #34, Partition #20
Partition Size 8.01 GB (8,595,385,344 bytes)
Partition Starting Offset 95,487,307,776 bytes
Partition Disk #34, Partition #21
Partition Size 2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 104,082,725,376 bytes
Partition Disk #34, Partition #22
Partition Size 2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 106,772,391,936 bytes
Partition Disk #34, Partition #23
Partition Size 396.98 GB (426,250,427,904 bytes)
Partition Starting Offset 109,462,058,496 bytes

```

```

Description Disk drive
Manufacturer (Standard disk drives)
Model NEC iStorage 2000 SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 24
SCSI Bus 0
SCSI Logical Unit 1
SCSI Port 10
SCSI Target ID 0
Sectors/Track 63

```

```

Size 498.92 GB (535,712,486,400 bytes)
Total Cylinders 65,130
Total Sectors 1,046,313,450
Total Tracks 16,608,150
Tracks/Cylinder 255
Partition Disk #35, Partition #0
Partition Size 2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 8,257,536 bytes
Partition Disk #35, Partition #1
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 2,163,280,896 bytes
Partition Disk #35, Partition #2
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 10,224,055,296 bytes
Partition Disk #35, Partition #3
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 18,284,829,696 bytes
Partition Disk #35, Partition #4
Partition Size 517.69 MB (542,836,224 bytes)
Partition Starting Offset 26,345,604,096 bytes
Partition Disk #35, Partition #5
Partition Size 2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 26,888,472,576 bytes
Partition Disk #35, Partition #6
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 29,043,495,936 bytes
Partition Disk #35, Partition #7
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 37,104,270,336 bytes
Partition Disk #35, Partition #8
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 45,165,044,736 bytes
Partition Disk #35, Partition #9
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 53,225,819,136 bytes
Partition Disk #35, Partition #10
Partition Size 109.79 MB (115,121,664 bytes)
Partition Starting Offset 61,286,593,536 bytes
Partition Disk #35, Partition #11
Partition Size 20.00 GB (21,476,173,824 bytes)
Partition Starting Offset 61,401,747,456 bytes
Partition Disk #35, Partition #12
Partition Size 211.76 MB (222,050,304 bytes)
Partition Starting Offset 82,877,953,536 bytes
Partition Disk #35, Partition #13
Partition Size 109.79 MB (115,121,664 bytes)
Partition Starting Offset 83,100,036,096 bytes
Partition Disk #35, Partition #14
Partition Size 823.61 MB (863,622,144 bytes)
Partition Starting Offset 83,215,190,016 bytes
Partition Disk #35, Partition #15
Partition Size 4.01 GB (4,301,789,184 bytes)
Partition Starting Offset 84,078,844,416 bytes
Partition Disk #35, Partition #16
Partition Size 3.50 GB (3,758,920,704 bytes)
Partition Starting Offset 88,380,665,856 bytes
Partition Disk #35, Partition #17
Partition Size 2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 92,139,618,816 bytes
Partition Disk #35, Partition #18
Partition Size 109.79 MB (115,121,664 bytes)
Partition Starting Offset 94,294,642,176 bytes
Partition Disk #35, Partition #19
Partition Size 1.00 GB (1,077,479,424 bytes)
Partition Starting Offset 94,409,796,096 bytes
Partition Disk #35, Partition #20
Partition Size 8.01 GB (8,595,385,344 bytes)
Partition Starting Offset 95,487,307,776 bytes
Partition Disk #35, Partition #21
Partition Size 2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 104,082,725,376 bytes
Partition Disk #35, Partition #22
Partition Size 2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 106,772,391,936 bytes
Partition Disk #35, Partition #23
Partition Size 396.98 GB (426,250,427,904 bytes)
Partition Starting Offset 109,462,058,496 bytes

```

```

Description Disk drive

```

```

Manufacturer      (Standard disk drives)
Model             NEC iStorage 2000 SCSI Disk Device
Bytes/Sector      512
Media Loaded      Yes
Media Type        Fixed hard disk
Partitions        24
SCSI Bus          0
SCSI Logical Unit  0
SCSI Port         10
SCSI Target ID    1
Sectors/Track     63
Size              498.92 GB (535,712,486,400 bytes)
Total Cylinders    65,130
Total Sectors      1,046,313,450
Total Tracks       16,608,150
Tracks/Cylinder    255
Partition Disk #36, Partition #0
Partition Size     2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 8,257,536 bytes
Partition Disk #36, Partition #1
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 2,163,280,896 bytes
Partition Disk #36, Partition #2
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 10,224,055,296 bytes
Partition Disk #36, Partition #3
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 18,284,829,696 bytes
Partition Disk #36, Partition #4
Partition Size     517.69 MB (542,836,224 bytes)
Partition Starting Offset 26,345,604,096 bytes
Partition Disk #36, Partition #5
Partition Size     2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 26,888,472,576 bytes
Partition Disk #36, Partition #6
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 29,043,495,936 bytes
Partition Disk #36, Partition #7
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 37,104,270,336 bytes
Partition Disk #36, Partition #8
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 45,165,044,736 bytes
Partition Disk #36, Partition #9
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 53,225,819,136 bytes
Partition Disk #36, Partition #10
Partition Size     109.79 MB (115,121,664 bytes)
Partition Starting Offset 61,286,593,536 bytes
Partition Disk #36, Partition #11
Partition Size     20.00 GB (21,476,173,824 bytes)
Partition Starting Offset 61,401,747,456 bytes
Partition Disk #36, Partition #12
Partition Size     211.76 MB (222,050,304 bytes)
Partition Starting Offset 82,877,953,536 bytes
Partition Disk #36, Partition #13
Partition Size     109.79 MB (115,121,664 bytes)
Partition Starting Offset 83,100,036,096 bytes
Partition Disk #36, Partition #14
Partition Size     823.61 MB (863,622,144 bytes)
Partition Starting Offset 83,215,190,016 bytes
Partition Disk #36, Partition #15
Partition Size     4.01 GB (4,301,789,184 bytes)
Partition Starting Offset 84,078,844,416 bytes
Partition Disk #36, Partition #16
Partition Size     3.50 GB (3,758,920,704 bytes)
Partition Starting Offset 88,380,665,856 bytes
Partition Disk #36, Partition #17
Partition Size     2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 92,139,618,816 bytes
Partition Disk #36, Partition #18
Partition Size     109.79 MB (115,121,664 bytes)
Partition Starting Offset 94,294,642,176 bytes
Partition Disk #36, Partition #19
Partition Size     1.00 GB (1,077,479,424 bytes)
Partition Starting Offset 94,409,796,096 bytes
Partition Disk #36, Partition #20
Partition Size     8.01 GB (8,595,385,344 bytes)
Partition Starting Offset 95,487,307,776 bytes

```

```

Partition Disk #36, Partition #21
Partition Size     2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 104,082,725,376 bytes
Partition Disk #36, Partition #22
Partition Size     2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 106,772,391,936 bytes
Partition Disk #36, Partition #23
Partition Size     396.98 GB (426,250,427,904 bytes)
Partition Starting Offset 109,462,058,496 bytes

```

```

Description       Disk drive
Manufacturer      (Standard disk drives)
Model             NEC iStorage 2000 SCSI Disk Device
Bytes/Sector      512
Media Loaded      Yes
Media Type        Fixed hard disk
Partitions        24
SCSI Bus          0
SCSI Logical Unit  1
SCSI Port         10
SCSI Target ID    1
Sectors/Track     63
Size              498.92 GB (535,712,486,400 bytes)
Total Cylinders    65,130
Total Sectors      1,046,313,450
Total Tracks       16,608,150
Tracks/Cylinder    255
Partition Disk #37, Partition #0
Partition Size     2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 8,257,536 bytes
Partition Disk #37, Partition #1
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 2,163,280,896 bytes
Partition Disk #37, Partition #2
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 10,224,055,296 bytes
Partition Disk #37, Partition #3
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 18,284,829,696 bytes
Partition Disk #37, Partition #4
Partition Size     517.69 MB (542,836,224 bytes)
Partition Starting Offset 26,345,604,096 bytes
Partition Disk #37, Partition #5
Partition Size     2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 26,888,472,576 bytes
Partition Disk #37, Partition #6
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 29,043,495,936 bytes
Partition Disk #37, Partition #7
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 37,104,270,336 bytes
Partition Disk #37, Partition #8
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 45,165,044,736 bytes
Partition Disk #37, Partition #9
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 53,225,819,136 bytes
Partition Disk #37, Partition #10
Partition Size     109.79 MB (115,121,664 bytes)
Partition Starting Offset 61,286,593,536 bytes
Partition Disk #37, Partition #11
Partition Size     20.00 GB (21,476,173,824 bytes)
Partition Starting Offset 61,401,747,456 bytes
Partition Disk #37, Partition #12
Partition Size     211.76 MB (222,050,304 bytes)
Partition Starting Offset 82,877,953,536 bytes
Partition Disk #37, Partition #13
Partition Size     109.79 MB (115,121,664 bytes)
Partition Starting Offset 83,100,036,096 bytes
Partition Disk #37, Partition #14
Partition Size     823.61 MB (863,622,144 bytes)
Partition Starting Offset 83,215,190,016 bytes
Partition Disk #37, Partition #15
Partition Size     4.01 GB (4,301,789,184 bytes)
Partition Starting Offset 84,078,844,416 bytes
Partition Disk #37, Partition #16
Partition Size     3.50 GB (3,758,920,704 bytes)
Partition Starting Offset 88,380,665,856 bytes
Partition Disk #37, Partition #17

```


Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 92,139,618,816 bytes
 Partition Disk #37, Partition #18
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 94,294,642,176 bytes
 Partition Disk #37, Partition #19
 Partition Size 1.00 GB (1,077,479,424 bytes)
 Partition Starting Offset 94,409,796,096 bytes
 Partition Disk #37, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
 Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #37, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #37, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #37, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 14
 SCSI Target ID 0
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #50, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #50, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #50, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #50, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #50, Partition #4
 Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes
 Partition Disk #50, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #50, Partition #6
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 29,043,495,936 bytes
 Partition Disk #50, Partition #7
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 37,104,270,336 bytes
 Partition Disk #50, Partition #8
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 45,165,044,736 bytes
 Partition Disk #50, Partition #9
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 53,225,819,136 bytes
 Partition Disk #50, Partition #10
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 61,286,593,536 bytes
 Partition Disk #50, Partition #11
 Partition Size 20.00 GB (21,476,173,824 bytes)
 Partition Starting Offset 61,401,747,456 bytes
 Partition Disk #50, Partition #12
 Partition Size 211.76 MB (222,050,304 bytes)
 Partition Starting Offset 82,877,953,536 bytes
 Partition Disk #50, Partition #13
 Partition Size 109.79 MB (115,121,664 bytes)

Partition Starting Offset 83,100,036,096 bytes
 Partition Disk #50, Partition #14
 Partition Size 823.61 MB (863,622,144 bytes)
 Partition Starting Offset 83,215,190,016 bytes
 Partition Disk #50, Partition #15
 Partition Size 4.01 GB (4,301,789,184 bytes)
 Partition Starting Offset 84,078,844,416 bytes
 Partition Disk #50, Partition #16
 Partition Size 3.50 GB (3,758,920,704 bytes)
 Partition Starting Offset 88,380,665,856 bytes
 Partition Disk #50, Partition #17
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 92,139,618,816 bytes
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 Partition Size 109.79 MB (115,121,664 bytes)
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 Partition Disk #50, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
 Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #50, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #50, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #50, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 1
 SCSI Port 14
 SCSI Target ID 0
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #51, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #51, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #51, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #51, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #51, Partition #4
 Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes
 Partition Disk #51, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #51, Partition #6
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 29,043,495,936 bytes
 Partition Disk #51, Partition #7
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 37,104,270,336 bytes
 Partition Disk #51, Partition #8
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 45,165,044,736 bytes
 Partition Disk #51, Partition #9
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 53,225,819,136 bytes

Partition Disk #51, Partition #10
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 61,286,593,536 bytes
 Partition Disk #51, Partition #11
 Partition Size 20.00 GB (21,476,173,824 bytes)
 Partition Starting Offset 61,401,747,456 bytes
 Partition Disk #51, Partition #12
 Partition Size 211.76 MB (222,050,304 bytes)
 Partition Starting Offset 82,877,953,536 bytes
 Partition Disk #51, Partition #13
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 83,100,036,096 bytes
 Partition Disk #51, Partition #14
 Partition Size 823.61 MB (863,622,144 bytes)
 Partition Starting Offset 83,215,190,016 bytes
 Partition Disk #51, Partition #15
 Partition Size 4.01 GB (4,301,789,184 bytes)
 Partition Starting Offset 84,078,844,416 bytes
 Partition Disk #51, Partition #16
 Partition Size 3.50 GB (3,758,920,704 bytes)
 Partition Starting Offset 88,380,665,856 bytes
 Partition Disk #51, Partition #17
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 92,139,618,816 bytes
 Partition Disk #51, Partition #18
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 94,294,642,176 bytes
 Partition Disk #51, Partition #19
 Partition Size 1.00 GB (1,077,479,424 bytes)
 Partition Starting Offset 94,409,796,096 bytes
 Partition Disk #51, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
 Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #51, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #51, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #51, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 14
 SCSI Target ID 1
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #52, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #52, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #52, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #52, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #52, Partition #4
 Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes
 Partition Disk #52, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #52, Partition #6

Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 29,043,495,936 bytes
 Partition Disk #52, Partition #7
 Partition Size 7.51 GB (8,060,742,144 bytes)
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 Partition Disk #52, Partition #8
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 45,165,044,736 bytes
 Partition Disk #52, Partition #9
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 53,225,819,136 bytes
 Partition Disk #52, Partition #10
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 61,286,593,536 bytes
 Partition Disk #52, Partition #11
 Partition Size 20.00 GB (21,476,173,824 bytes)
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 Partition Disk #52, Partition #12
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 Partition Disk #52, Partition #13
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 83,100,036,096 bytes
 Partition Disk #52, Partition #14
 Partition Size 823.61 MB (863,622,144 bytes)
 Partition Starting Offset 83,215,190,016 bytes
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 Partition Size 4.01 GB (4,301,789,184 bytes)
 Partition Starting Offset 84,078,844,416 bytes
 Partition Disk #52, Partition #16
 Partition Size 3.50 GB (3,758,920,704 bytes)
 Partition Starting Offset 88,380,665,856 bytes
 Partition Disk #52, Partition #17
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 92,139,618,816 bytes
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 Partition Disk #52, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
 Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #52, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #52, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #52, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 1
 SCSI Port 14
 SCSI Target ID 1
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #53, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #53, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #53, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)

```

Partition Starting Offset    10,224,055,296 bytes
Partition Disk #53, Partition #3
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset    18,284,829,696 bytes
Partition Disk #53, Partition #4
Partition Size      517.69 MB (542,836,224 bytes)
Partition Starting Offset    26,345,604,096 bytes
Partition Disk #53, Partition #5
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset    26,888,472,576 bytes
Partition Disk #53, Partition #6
Partition Size      7.51 GB (8,060,742,144 bytes)
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Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset    53,225,819,136 bytes
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Partition Size     109.79 MB (115,121,664 bytes)
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Partition Size     823.61 MB (863,622,144 bytes)
Partition Starting Offset    83,215,190,016 bytes
Partition Disk #53, Partition #15
Partition Size      4.01 GB (4,301,789,184 bytes)
Partition Starting Offset    84,078,844,416 bytes
Partition Disk #53, Partition #16
Partition Size      3.50 GB (3,758,920,704 bytes)
Partition Starting Offset    88,380,665,856 bytes
Partition Disk #53, Partition #17
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset    92,139,618,816 bytes
Partition Disk #53, Partition #18
Partition Size     109.79 MB (115,121,664 bytes)
Partition Starting Offset    94,294,642,176 bytes
Partition Disk #53, Partition #19
Partition Size      1.00 GB (1,077,479,424 bytes)
Partition Starting Offset    94,409,796,096 bytes
Partition Disk #53, Partition #20
Partition Size      8.01 GB (8,595,385,344 bytes)
Partition Starting Offset    95,487,307,776 bytes
Partition Disk #53, Partition #21
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset   104,082,725,376 bytes
Partition Disk #53, Partition #22
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset   106,772,391,936 bytes
Partition Disk #53, Partition #23
Partition Size     396.98 GB (426,250,427,904 bytes)
Partition Starting Offset   109,462,058,496 bytes

```

```

Description      Disk drive
Manufacturer      (Standard disk drives)
Model            NEC iStorage 2000 SCSI Disk Device
Bytes/Sector      512
Media Loaded      Yes
Media Type        Fixed hard disk
Partitions        24
SCSI Bus          0
SCSI Logical Unit  0
SCSI Port 12
SCSI Target ID    0
Sectors/Track     63
Size              498.92 GB (535,712,486,400 bytes)
Total Cylinders    65,130

```

```

Total Sectors      1,046,313,450
Total Tracks       16,608,150
Tracks/Cylinder    255
Partition Disk #42, Partition #0
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset    8,257,536 bytes
Partition Disk #42, Partition #1
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset    2,163,280,896 bytes
Partition Disk #42, Partition #2
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset    10,224,055,296 bytes
Partition Disk #42, Partition #3
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset    18,284,829,696 bytes
Partition Disk #42, Partition #4
Partition Size      517.69 MB (542,836,224 bytes)
Partition Starting Offset    26,345,604,096 bytes
Partition Disk #42, Partition #5
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset    26,888,472,576 bytes
Partition Disk #42, Partition #6
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset    29,043,495,936 bytes
Partition Disk #42, Partition #7
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset    37,104,270,336 bytes
Partition Disk #42, Partition #8
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset    45,165,044,736 bytes
Partition Disk #42, Partition #9
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset    53,225,819,136 bytes
Partition Disk #42, Partition #10
Partition Size     109.79 MB (115,121,664 bytes)
Partition Starting Offset    61,286,593,536 bytes
Partition Disk #42, Partition #11
Partition Size     20.00 GB (21,476,173,824 bytes)
Partition Starting Offset    61,401,747,456 bytes
Partition Disk #42, Partition #12
Partition Size     211.76 MB (222,050,304 bytes)
Partition Starting Offset    82,877,953,536 bytes
Partition Disk #42, Partition #13
Partition Size     109.79 MB (115,121,664 bytes)
Partition Starting Offset    83,100,036,096 bytes
Partition Disk #42, Partition #14
Partition Size     823.61 MB (863,622,144 bytes)
Partition Starting Offset    83,215,190,016 bytes
Partition Disk #42, Partition #15
Partition Size      4.01 GB (4,301,789,184 bytes)
Partition Starting Offset    84,078,844,416 bytes
Partition Disk #42, Partition #16
Partition Size      3.50 GB (3,758,920,704 bytes)
Partition Starting Offset    88,380,665,856 bytes
Partition Disk #42, Partition #17
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset    92,139,618,816 bytes
Partition Disk #42, Partition #18
Partition Size     109.79 MB (115,121,664 bytes)
Partition Starting Offset    94,294,642,176 bytes
Partition Disk #42, Partition #19
Partition Size      1.00 GB (1,077,479,424 bytes)
Partition Starting Offset    94,409,796,096 bytes
Partition Disk #42, Partition #20
Partition Size      8.01 GB (8,595,385,344 bytes)
Partition Starting Offset    95,487,307,776 bytes
Partition Disk #42, Partition #21
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset   104,082,725,376 bytes
Partition Disk #42, Partition #22
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset   106,772,391,936 bytes
Partition Disk #42, Partition #23
Partition Size     396.98 GB (426,250,427,904 bytes)
Partition Starting Offset   109,462,058,496 bytes

```

```

Description      Disk drive
Manufacturer      (Standard disk drives)
Model            NEC iStorage 2000 SCSI Disk Device

```

```

Bytes/Sector      512
Media Loaded      Yes
Media Type        Fixed hard disk
Partitions        24
SCSI Bus          0
SCSI Logical Unit 1
SCSI Port 12
SCSI Target ID    0
Sectors/Track     63
Size              498.92 GB (535,712,486,400 bytes)
Total Cylinders    65,130
Total Sectors      1,046,313,450
Total Tracks       16,608,150
Tracks/Cylinder    255
Partition Disk #43, Partition #0
Partition Size     2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 8,257,536 bytes
Partition Disk #43, Partition #1
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 2,163,280,896 bytes
Partition Disk #43, Partition #2
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 10,224,055,296 bytes
Partition Disk #43, Partition #3
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 18,284,829,696 bytes
Partition Disk #43, Partition #4
Partition Size     517.69 MB (542,836,224 bytes)
Partition Starting Offset 26,345,604,096 bytes
Partition Disk #43, Partition #5
Partition Size     2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 26,888,472,576 bytes
Partition Disk #43, Partition #6
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 29,043,495,936 bytes
Partition Disk #43, Partition #7
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 37,104,270,336 bytes
Partition Disk #43, Partition #8
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 45,165,044,736 bytes
Partition Disk #43, Partition #9
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 53,225,819,136 bytes
Partition Disk #43, Partition #10
Partition Size     109.79 MB (115,121,664 bytes)
Partition Starting Offset 61,286,593,536 bytes
Partition Disk #43, Partition #11
Partition Size     20.00 GB (21,476,173,824 bytes)
Partition Starting Offset 61,401,747,456 bytes
Partition Disk #43, Partition #12
Partition Size     211.76 MB (222,050,304 bytes)
Partition Starting Offset 82,877,953,536 bytes
Partition Disk #43, Partition #13
Partition Size     109.79 MB (115,121,664 bytes)
Partition Starting Offset 83,100,036,096 bytes
Partition Disk #43, Partition #14
Partition Size     823.61 MB (863,622,144 bytes)
Partition Starting Offset 83,215,190,016 bytes
Partition Disk #43, Partition #15
Partition Size     4.01 GB (4,301,789,184 bytes)
Partition Starting Offset 84,078,844,416 bytes
Partition Disk #43, Partition #16
Partition Size     3.50 GB (3,758,920,704 bytes)
Partition Starting Offset 88,380,665,856 bytes
Partition Disk #43, Partition #17
Partition Size     2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 92,139,618,816 bytes
Partition Disk #43, Partition #18
Partition Size     109.79 MB (115,121,664 bytes)
Partition Starting Offset 94,294,642,176 bytes
Partition Disk #43, Partition #19
Partition Size     1.00 GB (1,077,479,424 bytes)
Partition Starting Offset 94,409,796,096 bytes
Partition Disk #43, Partition #20
Partition Size     8.01 GB (8,595,385,344 bytes)
Partition Starting Offset 95,487,307,776 bytes
Partition Disk #43, Partition #21
Partition Size     2.50 GB (2,689,634,304 bytes)

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Partition Starting Offset 104,082,725,376 bytes
Partition Disk #43, Partition #22
Partition Size     2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 106,772,391,936 bytes
Partition Disk #43, Partition #23
Partition Size     396.98 GB (426,250,427,904 bytes)
Partition Starting Offset 109,462,058,496 bytes

```

```

Description      Disk drive
Manufacturer      (Standard disk drives)
Model             NEC iStorage 2000 SCSI Disk Device
Bytes/Sector      512
Media Loaded      Yes
Media Type        Fixed hard disk
Partitions        24
SCSI Bus          0
SCSI Logical Unit 0
SCSI Port 12
SCSI Target ID    1
Sectors/Track     63
Size              498.92 GB (535,712,486,400 bytes)
Total Cylinders    65,130
Total Sectors      1,046,313,450
Total Tracks       16,608,150
Tracks/Cylinder    255
Partition Disk #44, Partition #0
Partition Size     2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 8,257,536 bytes
Partition Disk #44, Partition #1
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 2,163,280,896 bytes
Partition Disk #44, Partition #2
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 10,224,055,296 bytes
Partition Disk #44, Partition #3
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 18,284,829,696 bytes
Partition Disk #44, Partition #4
Partition Size     517.69 MB (542,836,224 bytes)
Partition Starting Offset 26,345,604,096 bytes
Partition Disk #44, Partition #5
Partition Size     2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 26,888,472,576 bytes
Partition Disk #44, Partition #6
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 29,043,495,936 bytes
Partition Disk #44, Partition #7
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 37,104,270,336 bytes
Partition Disk #44, Partition #8
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 45,165,044,736 bytes
Partition Disk #44, Partition #9
Partition Size     7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 53,225,819,136 bytes
Partition Disk #44, Partition #10
Partition Size     109.79 MB (115,121,664 bytes)
Partition Starting Offset 61,286,593,536 bytes
Partition Disk #44, Partition #11
Partition Size     20.00 GB (21,476,173,824 bytes)
Partition Starting Offset 61,401,747,456 bytes
Partition Disk #44, Partition #12
Partition Size     211.76 MB (222,050,304 bytes)
Partition Starting Offset 82,877,953,536 bytes
Partition Disk #44, Partition #13
Partition Size     109.79 MB (115,121,664 bytes)
Partition Starting Offset 83,100,036,096 bytes
Partition Disk #44, Partition #14
Partition Size     823.61 MB (863,622,144 bytes)
Partition Starting Offset 83,215,190,016 bytes
Partition Disk #44, Partition #15
Partition Size     4.01 GB (4,301,789,184 bytes)
Partition Starting Offset 84,078,844,416 bytes
Partition Disk #44, Partition #16
Partition Size     3.50 GB (3,758,920,704 bytes)
Partition Starting Offset 88,380,665,856 bytes
Partition Disk #44, Partition #17
Partition Size     2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 92,139,618,816 bytes

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Partition Disk #44, Partition #18
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 94,294,642,176 bytes
 Partition Disk #44, Partition #19
 Partition Size 1.00 GB (1,077,479,424 bytes)
 Partition Starting Offset 94,409,796,096 bytes
 Partition Disk #44, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
 Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #44, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #44, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #44, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 1
 SCSI Port 12
 SCSI Target ID 1
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #45, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #45, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #45, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #45, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #45, Partition #4
 Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes
 Partition Disk #45, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #45, Partition #6
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 29,043,495,936 bytes
 Partition Disk #45, Partition #7
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 37,104,270,336 bytes
 Partition Disk #45, Partition #8
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 45,165,044,736 bytes
 Partition Disk #45, Partition #9
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 53,225,819,136 bytes
 Partition Disk #45, Partition #10
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 61,286,593,536 bytes
 Partition Disk #45, Partition #11
 Partition Size 20.00 GB (21,476,173,824 bytes)
 Partition Starting Offset 61,401,747,456 bytes
 Partition Disk #45, Partition #12
 Partition Size 211.76 MB (222,050,304 bytes)
 Partition Starting Offset 82,877,953,536 bytes
 Partition Disk #45, Partition #13
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 83,100,036,096 bytes
 Partition Disk #45, Partition #14

Partition Size 823.61 MB (863,622,144 bytes)
 Partition Starting Offset 83,215,190,016 bytes
 Partition Disk #45, Partition #15
 Partition Size 4.01 GB (4,301,789,184 bytes)
 Partition Starting Offset 84,078,844,416 bytes
 Partition Disk #45, Partition #16
 Partition Size 3.50 GB (3,758,920,704 bytes)
 Partition Starting Offset 88,380,665,856 bytes
 Partition Disk #45, Partition #17
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 92,139,618,816 bytes
 Partition Disk #45, Partition #18
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 94,294,642,176 bytes
 Partition Disk #45, Partition #19
 Partition Size 1.00 GB (1,077,479,424 bytes)
 Partition Starting Offset 94,409,796,096 bytes
 Partition Disk #45, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
 Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #45, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #45, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #45, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 3
 SCSI Target ID 0
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #8, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #8, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #8, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #8, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #8, Partition #4
 Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes
 Partition Disk #8, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #8, Partition #6
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 29,043,495,936 bytes
 Partition Disk #8, Partition #7
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 37,104,270,336 bytes
 Partition Disk #8, Partition #8
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 45,165,044,736 bytes
 Partition Disk #8, Partition #9
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 53,225,819,136 bytes
 Partition Disk #8, Partition #10
 Partition Size 109.79 MB (115,121,664 bytes)

```

Partition Starting Offset      61,286,593,536 bytes
Partition Disk #8, Partition #11
Partition Size      20.00 GB (21,476,173,824 bytes)
Partition Starting Offset      61,401,747,456 bytes
Partition Disk #8, Partition #12
Partition Size      211.76 MB (222,050,304 bytes)
Partition Starting Offset      82,877,953,536 bytes
Partition Disk #8, Partition #13
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset      83,100,036,096 bytes
Partition Disk #8, Partition #14
Partition Size      823.61 MB (863,622,144 bytes)
Partition Starting Offset      83,215,190,016 bytes
Partition Disk #8, Partition #15
Partition Size      4.01 GB (4,301,789,184 bytes)
Partition Starting Offset      84,078,844,416 bytes
Partition Disk #8, Partition #16
Partition Size      3.50 GB (3,758,920,704 bytes)
Partition Starting Offset      88,380,665,856 bytes
Partition Disk #8, Partition #17
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset      92,139,618,816 bytes
Partition Disk #8, Partition #18
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset      94,294,642,176 bytes
Partition Disk #8, Partition #19
Partition Size      1.00 GB (1,077,479,424 bytes)
Partition Starting Offset      94,409,796,096 bytes
Partition Disk #8, Partition #20
Partition Size      8.01 GB (8,595,385,344 bytes)
Partition Starting Offset      95,487,307,776 bytes
Partition Disk #8, Partition #21
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset      104,082,725,376 bytes
Partition Disk #8, Partition #22
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset      106,772,391,936 bytes
Partition Disk #8, Partition #23
Partition Size      396.98 GB (426,250,427,904 bytes)
Partition Starting Offset      109,462,058,496 bytes

```

```

Description      Disk drive
Manufacturer      (Standard disk drives)
Model      NEC iStorage 2000 SCSI Disk Device
Bytes/Sector      512
Media Loaded      Yes
Media Type      Fixed hard disk
Partitions      24
SCSI Bus      0
SCSI Logical Unit      1
SCSI Port      3
SCSI Target ID      0
Sectors/Track      63
Size      498.92 GB (535,712,486,400 bytes)
Total Cylinders      65,130
Total Sectors      1,046,313,450
Total Tracks      16,608,150
Tracks/Cylinder      255
Partition Disk #9, Partition #0
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset      8,257,536 bytes
Partition Disk #9, Partition #1
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      2,163,280,896 bytes
Partition Disk #9, Partition #2
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      10,224,055,296 bytes
Partition Disk #9, Partition #3
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      18,284,829,696 bytes
Partition Disk #9, Partition #4
Partition Size      517.69 MB (542,836,224 bytes)
Partition Starting Offset      26,345,604,096 bytes
Partition Disk #9, Partition #5
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset      26,888,472,576 bytes
Partition Disk #9, Partition #6
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      29,043,495,936 bytes

```

```

Partition Disk #9, Partition #7
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      37,104,270,336 bytes
Partition Disk #9, Partition #8
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      45,165,044,736 bytes
Partition Disk #9, Partition #9
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      53,225,819,136 bytes
Partition Disk #9, Partition #10
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset      61,286,593,536 bytes
Partition Disk #9, Partition #11
Partition Size      20.00 GB (21,476,173,824 bytes)
Partition Starting Offset      61,401,747,456 bytes
Partition Disk #9, Partition #12
Partition Size      211.76 MB (222,050,304 bytes)
Partition Starting Offset      82,877,953,536 bytes
Partition Disk #9, Partition #13
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset      83,100,036,096 bytes
Partition Disk #9, Partition #14
Partition Size      823.61 MB (863,622,144 bytes)
Partition Starting Offset      83,215,190,016 bytes
Partition Disk #9, Partition #15
Partition Size      4.01 GB (4,301,789,184 bytes)
Partition Starting Offset      84,078,844,416 bytes
Partition Disk #9, Partition #16
Partition Size      3.50 GB (3,758,920,704 bytes)
Partition Starting Offset      88,380,665,856 bytes
Partition Disk #9, Partition #17
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset      92,139,618,816 bytes
Partition Disk #9, Partition #18
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset      94,294,642,176 bytes
Partition Disk #9, Partition #19
Partition Size      1.00 GB (1,077,479,424 bytes)
Partition Starting Offset      94,409,796,096 bytes
Partition Disk #9, Partition #20
Partition Size      8.01 GB (8,595,385,344 bytes)
Partition Starting Offset      95,487,307,776 bytes
Partition Disk #9, Partition #21
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset      104,082,725,376 bytes
Partition Disk #9, Partition #22
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset      106,772,391,936 bytes
Partition Disk #9, Partition #23
Partition Size      396.98 GB (426,250,427,904 bytes)
Partition Starting Offset      109,462,058,496 bytes

```

```

Description      Disk drive
Manufacturer      (Standard disk drives)
Model      NEC iStorage 2000 SCSI Disk Device
Bytes/Sector      512
Media Loaded      Yes
Media Type      Fixed hard disk
Partitions      24
SCSI Bus      0
SCSI Logical Unit      0
SCSI Port      3
SCSI Target ID      1
Sectors/Track      63
Size      498.92 GB (535,712,486,400 bytes)
Total Cylinders      65,130
Total Sectors      1,046,313,450
Total Tracks      16,608,150
Tracks/Cylinder      255
Partition Disk #10, Partition #0
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset      8,257,536 bytes
Partition Disk #10, Partition #1
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      2,163,280,896 bytes
Partition Disk #10, Partition #2
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      10,224,055,296 bytes
Partition Disk #10, Partition #3

```

```

Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 18,284,829,696 bytes
Partition Disk #10, Partition #4
Partition Size      517.69 MB (542,836,224 bytes)
Partition Starting Offset 26,345,604,096 bytes
Partition Disk #10, Partition #5
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 26,888,472,576 bytes
Partition Disk #10, Partition #6
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 29,043,495,936 bytes
Partition Disk #10, Partition #7
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 37,104,270,336 bytes
Partition Disk #10, Partition #8
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 45,165,044,736 bytes
Partition Disk #10, Partition #9
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 53,225,819,136 bytes
Partition Disk #10, Partition #10
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset 61,286,593,536 bytes
Partition Disk #10, Partition #11
Partition Size      20.00 GB (21,476,173,824 bytes)
Partition Starting Offset 61,401,747,456 bytes
Partition Disk #10, Partition #12
Partition Size      211.76 MB (222,050,304 bytes)
Partition Starting Offset 82,877,953,536 bytes
Partition Disk #10, Partition #13
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset 83,100,036,096 bytes
Partition Disk #10, Partition #14
Partition Size      823.61 MB (863,622,144 bytes)
Partition Starting Offset 83,215,190,016 bytes
Partition Disk #10, Partition #15
Partition Size      4.01 GB (4,301,789,184 bytes)
Partition Starting Offset 84,078,844,416 bytes
Partition Disk #10, Partition #16
Partition Size      3.50 GB (3,758,920,704 bytes)
Partition Starting Offset 88,380,665,856 bytes
Partition Disk #10, Partition #17
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 92,139,618,816 bytes
Partition Disk #10, Partition #18
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset 94,294,642,176 bytes
Partition Disk #10, Partition #19
Partition Size      1.00 GB (1,077,479,424 bytes)
Partition Starting Offset 94,409,796,096 bytes
Partition Disk #10, Partition #20
Partition Size      8.01 GB (8,595,385,344 bytes)
Partition Starting Offset 95,487,307,776 bytes
Partition Disk #10, Partition #21
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 104,082,725,376 bytes
Partition Disk #10, Partition #22
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 106,772,391,936 bytes
Partition Disk #10, Partition #23
Partition Size      396.98 GB (426,250,427,904 bytes)
Partition Starting Offset 109,462,058,496 bytes

```

```

Description      Disk drive
Manufacturer      (Standard disk drives)
Model      NEC iStorage 2000 SCSI Disk Device
Bytes/Sector      512
Media Loaded      Yes
Media Type      Fixed hard disk
Partitions      24
SCSI Bus      0
SCSI Logical Unit  1
SCSI Port      3
SCSI Target ID    1
Sectors/Track     63
Size      498.92 GB (535,712,486,400 bytes)
Total Cylinders    65,130
Total Sectors      1,046,313,450
Total Tracks      16,608,150

```

```

Tracks/Cylinder    255
Partition Disk #11, Partition #0
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 8,257,536 bytes
Partition Disk #11, Partition #1
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 2,163,280,896 bytes
Partition Disk #11, Partition #2
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 10,224,055,296 bytes
Partition Disk #11, Partition #3
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 18,284,829,696 bytes
Partition Disk #11, Partition #4
Partition Size      517.69 MB (542,836,224 bytes)
Partition Starting Offset 26,345,604,096 bytes
Partition Disk #11, Partition #5
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 26,888,472,576 bytes
Partition Disk #11, Partition #6
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 29,043,495,936 bytes
Partition Disk #11, Partition #7
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 37,104,270,336 bytes
Partition Disk #11, Partition #8
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 45,165,044,736 bytes
Partition Disk #11, Partition #9
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 53,225,819,136 bytes
Partition Disk #11, Partition #10
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset 61,286,593,536 bytes
Partition Disk #11, Partition #11
Partition Size      20.00 GB (21,476,173,824 bytes)
Partition Starting Offset 61,401,747,456 bytes
Partition Disk #11, Partition #12
Partition Size      211.76 MB (222,050,304 bytes)
Partition Starting Offset 82,877,953,536 bytes
Partition Disk #11, Partition #13
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset 83,100,036,096 bytes
Partition Disk #11, Partition #14
Partition Size      823.61 MB (863,622,144 bytes)
Partition Starting Offset 83,215,190,016 bytes
Partition Disk #11, Partition #15
Partition Size      4.01 GB (4,301,789,184 bytes)
Partition Starting Offset 84,078,844,416 bytes
Partition Disk #11, Partition #16
Partition Size      3.50 GB (3,758,920,704 bytes)
Partition Starting Offset 88,380,665,856 bytes
Partition Disk #11, Partition #17
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 92,139,618,816 bytes
Partition Disk #11, Partition #18
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset 94,294,642,176 bytes
Partition Disk #11, Partition #19
Partition Size      1.00 GB (1,077,479,424 bytes)
Partition Starting Offset 94,409,796,096 bytes
Partition Disk #11, Partition #20
Partition Size      8.01 GB (8,595,385,344 bytes)
Partition Starting Offset 95,487,307,776 bytes
Partition Disk #11, Partition #21
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 104,082,725,376 bytes
Partition Disk #11, Partition #22
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 106,772,391,936 bytes
Partition Disk #11, Partition #23
Partition Size      396.98 GB (426,250,427,904 bytes)
Partition Starting Offset 109,462,058,496 bytes

```

```

Description      Disk drive
Manufacturer      (Standard disk drives)
Model      NEC iStorage 2000 SCSI Disk Device
Bytes/Sector      512
Media Loaded      Yes

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```

Media Type          Fixed hard disk
Partitions          24
SCSI Bus            0
SCSI Logical Unit   0
SCSI Port 17
SCSI Target ID      0
Sectors/Track       63
Size                498.92 GB (535,712,486,400 bytes)
Total Cylinders      65,130
Total Sectors        1,046,313,450
Total Tracks         16,608,150
Tracks/Cylinder      255

Description          Disk drive
Manufacturer          (Standard disk drives)
Model                 NEC iStorage 2000 SCSI Disk Device
Bytes/Sector          512
Media Loaded          Yes
Media Type            Fixed hard disk
Partitions            24
SCSI Bus              0
SCSI Logical Unit     1
SCSI Port 17
SCSI Target ID        0
Sectors/Track         63
Size                  498.92 GB (535,712,486,400 bytes)
Total Cylinders        65,130
Total Sectors          1,046,313,450
Total Tracks           16,608,150
Tracks/Cylinder        255
Partition Disk #63, Partition #0
Partition Size         2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 8,257,536 bytes
Partition Disk #63, Partition #1
Partition Size         7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 2,163,280,896 bytes
Partition Disk #63, Partition #2
Partition Size         7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 10,224,055,296 bytes
Partition Disk #63, Partition #3
Partition Size         7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 18,284,829,696 bytes
Partition Disk #63, Partition #4
Partition Size         517.69 MB (542,836,224 bytes)
Partition Starting Offset 26,345,604,096 bytes
Partition Disk #63, Partition #5
Partition Size         2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 26,888,472,576 bytes
Partition Disk #63, Partition #6
Partition Size         7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 29,043,495,936 bytes
Partition Disk #63, Partition #7
Partition Size         7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 37,104,270,336 bytes
Partition Disk #63, Partition #8
Partition Size         7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 45,165,044,736 bytes
Partition Disk #63, Partition #9
Partition Size         7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 53,225,819,136 bytes
Partition Disk #63, Partition #10
Partition Size         109.79 MB (115,121,664 bytes)
Partition Starting Offset 61,286,593,536 bytes
Partition Disk #63, Partition #11
Partition Size         20.00 GB (21,476,173,824 bytes)
Partition Starting Offset 61,401,747,456 bytes
Partition Disk #63, Partition #12
Partition Size         211.76 MB (222,050,304 bytes)
Partition Starting Offset 82,877,953,536 bytes
Partition Disk #63, Partition #13
Partition Size         109.79 MB (115,121,664 bytes)
Partition Starting Offset 83,100,036,096 bytes
Partition Disk #63, Partition #14
Partition Size         823.61 MB (863,622,144 bytes)
Partition Starting Offset 83,215,190,016 bytes
Partition Disk #63, Partition #15
Partition Size         4.01 GB (4,301,789,184 bytes)
Partition Starting Offset 84,078,844,416 bytes
Partition Disk #63, Partition #16

```

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Partition Size       3.50 GB (3,758,920,704 bytes)
Partition Starting Offset 88,380,665,856 bytes
Partition Disk #63, Partition #17
Partition Size       2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 92,139,618,816 bytes
Partition Disk #63, Partition #18
Partition Size       109.79 MB (115,121,664 bytes)
Partition Starting Offset 94,294,642,176 bytes
Partition Disk #63, Partition #19
Partition Size       1.00 GB (1,077,479,424 bytes)
Partition Starting Offset 94,409,796,096 bytes
Partition Disk #63, Partition #20
Partition Size       8.01 GB (8,595,385,344 bytes)
Partition Starting Offset 95,487,307,776 bytes
Partition Disk #63, Partition #21
Partition Size       2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 104,082,725,376 bytes
Partition Disk #63, Partition #22
Partition Size       2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 106,772,391,936 bytes
Partition Disk #63, Partition #23
Partition Size       396.98 GB (426,250,427,904 bytes)
Partition Starting Offset 109,462,058,496 bytes

Description          Disk drive
Manufacturer          (Standard disk drives)
Model                 NEC iStorage 2000 SCSI Disk Device
Bytes/Sector          512
Media Loaded          Yes
Media Type            Fixed hard disk
Partitions            24
SCSI Bus              0
SCSI Logical Unit     0
SCSI Port 17
SCSI Target ID        1
Sectors/Track         63
Size                  498.92 GB (535,712,486,400 bytes)
Total Cylinders        65,130
Total Sectors          1,046,313,450
Total Tracks           16,608,150
Tracks/Cylinder        255
Partition Disk #64, Partition #0
Partition Size         2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 8,257,536 bytes
Partition Disk #64, Partition #1
Partition Size         7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 2,163,280,896 bytes
Partition Disk #64, Partition #2
Partition Size         7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 10,224,055,296 bytes
Partition Disk #64, Partition #3
Partition Size         7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 18,284,829,696 bytes
Partition Disk #64, Partition #4
Partition Size         517.69 MB (542,836,224 bytes)
Partition Starting Offset 26,345,604,096 bytes
Partition Disk #64, Partition #5
Partition Size         2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 26,888,472,576 bytes
Partition Disk #64, Partition #6
Partition Size         7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 29,043,495,936 bytes
Partition Disk #64, Partition #7
Partition Size         7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 37,104,270,336 bytes
Partition Disk #64, Partition #8
Partition Size         7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 45,165,044,736 bytes
Partition Disk #64, Partition #9
Partition Size         7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 53,225,819,136 bytes
Partition Disk #64, Partition #10
Partition Size         109.79 MB (115,121,664 bytes)
Partition Starting Offset 61,286,593,536 bytes
Partition Disk #64, Partition #11
Partition Size         20.00 GB (21,476,173,824 bytes)
Partition Starting Offset 61,401,747,456 bytes
Partition Disk #64, Partition #12
Partition Size         211.76 MB (222,050,304 bytes)

```



```

Partition Starting Offset      82,877,953,536 bytes
Partition Disk #64, Partition #13
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset      83,100,036,096 bytes
Partition Disk #64, Partition #14
Partition Size      823.61 MB (863,622,144 bytes)
Partition Starting Offset      83,215,190,016 bytes
Partition Disk #64, Partition #15
Partition Size      4.01 GB (4,301,789,184 bytes)
Partition Starting Offset      84,078,844,416 bytes
Partition Disk #64, Partition #16
Partition Size      3.50 GB (3,758,920,704 bytes)
Partition Starting Offset      88,380,665,856 bytes
Partition Disk #64, Partition #17
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset      92,139,618,816 bytes
Partition Disk #64, Partition #18
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset      94,294,642,176 bytes
Partition Disk #64, Partition #19
Partition Size      1.00 GB (1,077,479,424 bytes)
Partition Starting Offset      94,409,796,096 bytes
Partition Disk #64, Partition #20
Partition Size      8.01 GB (8,595,385,344 bytes)
Partition Starting Offset      95,487,307,776 bytes
Partition Disk #64, Partition #21
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset      104,082,725,376 bytes
Partition Disk #64, Partition #22
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset      106,772,391,936 bytes
Partition Disk #64, Partition #23
Partition Size      396.98 GB (426,250,427,904 bytes)
Partition Starting Offset      109,462,058,496 bytes

```

```

Description      Disk drive
Manufacturer      (Standard disk drives)
Model      NEC iStorage 2000 SCSI Disk Device
Bytes/Sector      512
Media Loaded      Yes
Media Type      Fixed hard disk
Partitions      24
SCSI Bus      0
SCSI Logical Unit      1
SCSI Port      17
SCSI Target ID      1
Sectors/Track      63
Size      498.92 GB (535,712,486,400 bytes)
Total Cylinders      65,130
Total Sectors      1,046,313,450
Total Tracks      16,608,150
Tracks/Cylinder      255
Partition Disk #65, Partition #0
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset      8,257,536 bytes
Partition Disk #65, Partition #1
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      2,163,280,896 bytes
Partition Disk #65, Partition #2
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      10,224,055,296 bytes
Partition Disk #65, Partition #3
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      18,284,829,696 bytes
Partition Disk #65, Partition #4
Partition Size      517.69 MB (542,836,224 bytes)
Partition Starting Offset      26,345,604,096 bytes
Partition Disk #65, Partition #5
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset      26,888,472,576 bytes
Partition Disk #65, Partition #6
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      29,043,495,936 bytes
Partition Disk #65, Partition #7
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      37,104,270,336 bytes
Partition Disk #65, Partition #8
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      45,165,044,736 bytes

```

```

Partition Disk #65, Partition #9
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      53,225,819,136 bytes
Partition Disk #65, Partition #10
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset      61,286,593,536 bytes
Partition Disk #65, Partition #11
Partition Size      20.00 GB (21,476,173,824 bytes)
Partition Starting Offset      61,401,747,456 bytes
Partition Disk #65, Partition #12
Partition Size      211.76 MB (222,050,304 bytes)
Partition Starting Offset      82,877,953,536 bytes
Partition Disk #65, Partition #13
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset      83,100,036,096 bytes
Partition Disk #65, Partition #14
Partition Size      823.61 MB (863,622,144 bytes)
Partition Starting Offset      83,215,190,016 bytes
Partition Disk #65, Partition #15
Partition Size      4.01 GB (4,301,789,184 bytes)
Partition Starting Offset      84,078,844,416 bytes
Partition Disk #65, Partition #16
Partition Size      3.50 GB (3,758,920,704 bytes)
Partition Starting Offset      88,380,665,856 bytes
Partition Disk #65, Partition #17
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset      92,139,618,816 bytes
Partition Disk #65, Partition #18
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset      94,294,642,176 bytes
Partition Disk #65, Partition #19
Partition Size      1.00 GB (1,077,479,424 bytes)
Partition Starting Offset      94,409,796,096 bytes
Partition Disk #65, Partition #20
Partition Size      8.01 GB (8,595,385,344 bytes)
Partition Starting Offset      95,487,307,776 bytes
Partition Disk #65, Partition #21
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset      104,082,725,376 bytes
Partition Disk #65, Partition #22
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset      106,772,391,936 bytes
Partition Disk #65, Partition #23
Partition Size      396.98 GB (426,250,427,904 bytes)
Partition Starting Offset      109,462,058,496 bytes

```

```

Description      Disk drive
Manufacturer      (Standard disk drives)
Model      NEC iStorage 2000 SCSI Disk Device
Bytes/Sector      512
Media Loaded      Yes
Media Type      Fixed hard disk
Partitions      24
SCSI Bus      0
SCSI Logical Unit      0
SCSI Port      7
SCSI Target ID      0
Sectors/Track      63
Size      498.92 GB (535,712,486,400 bytes)
Total Cylinders      65,130
Total Sectors      1,046,313,450
Total Tracks      16,608,150
Tracks/Cylinder      255
Partition Disk #22, Partition #0
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset      8,257,536 bytes
Partition Disk #22, Partition #1
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      2,163,280,896 bytes
Partition Disk #22, Partition #2
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      10,224,055,296 bytes
Partition Disk #22, Partition #3
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      18,284,829,696 bytes
Partition Disk #22, Partition #4
Partition Size      517.69 MB (542,836,224 bytes)
Partition Starting Offset      26,345,604,096 bytes
Partition Disk #22, Partition #5

```

```

Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 26,888,472,576 bytes
Partition Disk #22, Partition #6
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 29,043,495,936 bytes
Partition Disk #22, Partition #7
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 37,104,270,336 bytes
Partition Disk #22, Partition #8
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 45,165,044,736 bytes
Partition Disk #22, Partition #9
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 53,225,819,136 bytes
Partition Disk #22, Partition #10
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset 61,286,593,536 bytes
Partition Disk #22, Partition #11
Partition Size      20.00 GB (21,476,173,824 bytes)
Partition Starting Offset 61,401,747,456 bytes
Partition Disk #22, Partition #12
Partition Size      211.76 MB (222,050,304 bytes)
Partition Starting Offset 82,877,953,536 bytes
Partition Disk #22, Partition #13
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset 83,100,036,096 bytes
Partition Disk #22, Partition #14
Partition Size      823.61 MB (863,622,144 bytes)
Partition Starting Offset 83,215,190,016 bytes
Partition Disk #22, Partition #15
Partition Size      4.01 GB (4,301,789,184 bytes)
Partition Starting Offset 84,078,844,416 bytes
Partition Disk #22, Partition #16
Partition Size      3.50 GB (3,758,920,704 bytes)
Partition Starting Offset 88,380,665,856 bytes
Partition Disk #22, Partition #17
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 92,139,618,816 bytes
Partition Disk #22, Partition #18
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset 94,294,642,176 bytes
Partition Disk #22, Partition #19
Partition Size      1.00 GB (1,077,479,424 bytes)
Partition Starting Offset 94,409,796,096 bytes
Partition Disk #22, Partition #20
Partition Size      8.01 GB (8,595,385,344 bytes)
Partition Starting Offset 95,487,307,776 bytes
Partition Disk #22, Partition #21
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 104,082,725,376 bytes
Partition Disk #22, Partition #22
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 106,772,391,936 bytes
Partition Disk #22, Partition #23
Partition Size      396.98 GB (426,250,427,904 bytes)
Partition Starting Offset 109,462,058,496 bytes

```

```

Description      Disk drive
Manufacturer      (Standard disk drives)
Model      NEC iStorage 2000 SCSI Disk Device
Bytes/Sector      512
Media Loaded      Yes
Media Type      Fixed hard disk
Partitions      24
SCSI Bus      0
SCSI Logical Unit      1
SCSI Port      7
SCSI Target ID      0
Sectors/Track      63
Size      498.92 GB (535,712,486,400 bytes)
Total Cylinders      65,130
Total Sectors      1,046,313,450
Total Tracks      16,608,150
Tracks/Cylinder      255
Partition Disk #23, Partition #0
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 8,257,536 bytes
Partition Disk #23, Partition #1
Partition Size      7.51 GB (8,060,742,144 bytes)

```

```

Partition Starting Offset 2,163,280,896 bytes
Partition Disk #23, Partition #2
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 10,224,055,296 bytes
Partition Disk #23, Partition #3
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 18,284,829,696 bytes
Partition Disk #23, Partition #4
Partition Size      517.69 MB (542,836,224 bytes)
Partition Starting Offset 26,345,604,096 bytes
Partition Disk #23, Partition #5
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 26,888,472,576 bytes
Partition Disk #23, Partition #6
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 29,043,495,936 bytes
Partition Disk #23, Partition #7
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 37,104,270,336 bytes
Partition Disk #23, Partition #8
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Partition Starting Offset 45,165,044,736 bytes
Partition Disk #23, Partition #9
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 53,225,819,136 bytes
Partition Disk #23, Partition #10
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset 61,286,593,536 bytes
Partition Disk #23, Partition #11
Partition Size      20.00 GB (21,476,173,824 bytes)
Partition Starting Offset 61,401,747,456 bytes
Partition Disk #23, Partition #12
Partition Size      211.76 MB (222,050,304 bytes)
Partition Starting Offset 82,877,953,536 bytes
Partition Disk #23, Partition #13
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset 83,100,036,096 bytes
Partition Disk #23, Partition #14
Partition Size      823.61 MB (863,622,144 bytes)
Partition Starting Offset 83,215,190,016 bytes
Partition Disk #23, Partition #15
Partition Size      4.01 GB (4,301,789,184 bytes)
Partition Starting Offset 84,078,844,416 bytes
Partition Disk #23, Partition #16
Partition Size      3.50 GB (3,758,920,704 bytes)
Partition Starting Offset 88,380,665,856 bytes
Partition Disk #23, Partition #17
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 92,139,618,816 bytes
Partition Disk #23, Partition #18
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset 94,294,642,176 bytes
Partition Disk #23, Partition #19
Partition Size      1.00 GB (1,077,479,424 bytes)
Partition Starting Offset 94,409,796,096 bytes
Partition Disk #23, Partition #20
Partition Size      8.01 GB (8,595,385,344 bytes)
Partition Starting Offset 95,487,307,776 bytes
Partition Disk #23, Partition #21
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 104,082,725,376 bytes
Partition Disk #23, Partition #22
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 106,772,391,936 bytes
Partition Disk #23, Partition #23
Partition Size      396.98 GB (426,250,427,904 bytes)
Partition Starting Offset 109,462,058,496 bytes

```

```

Description      Disk drive
Manufacturer      (Standard disk drives)
Model      NEC iStorage 2000 SCSI Disk Device
Bytes/Sector      512
Media Loaded      Yes
Media Type      Fixed hard disk
Partitions      24
SCSI Bus      0
SCSI Logical Unit      0
SCSI Port      7
SCSI Target ID      1

```

Sectors/Track	63
Size	498.92 GB (535,712,486,400 bytes)
Total Cylinders	65,130
Total Sectors	1,046,313,450
Total Tracks	16,608,150
Tracks/Cylinder	255
Partition Disk #24, Partition #0	
Partition Size	2.01 GB (2,154,991,104 bytes)
Partition Starting Offset	8,257,536 bytes
Partition Disk #24, Partition #1	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	2,163,280,896 bytes
Partition Disk #24, Partition #2	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	10,224,055,296 bytes
Partition Disk #24, Partition #3	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	18,284,829,696 bytes
Partition Disk #24, Partition #4	
Partition Size	517.69 MB (542,836,224 bytes)
Partition Starting Offset	26,345,604,096 bytes
Partition Disk #24, Partition #5	
Partition Size	2.01 GB (2,154,991,104 bytes)
Partition Starting Offset	26,888,472,576 bytes
Partition Disk #24, Partition #6	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	29,043,495,936 bytes
Partition Disk #24, Partition #7	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	37,104,270,336 bytes
Partition Disk #24, Partition #8	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	45,165,044,736 bytes
Partition Disk #24, Partition #9	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	53,225,819,136 bytes
Partition Disk #24, Partition #10	
Partition Size	109.79 MB (115,121,664 bytes)
Partition Starting Offset	61,286,593,536 bytes
Partition Disk #24, Partition #11	
Partition Size	20.00 GB (21,476,173,824 bytes)
Partition Starting Offset	61,401,747,456 bytes
Partition Disk #24, Partition #12	
Partition Size	211.76 MB (222,050,304 bytes)
Partition Starting Offset	82,877,953,536 bytes
Partition Disk #24, Partition #13	
Partition Size	109.79 MB (115,121,664 bytes)
Partition Starting Offset	83,100,036,096 bytes
Partition Disk #24, Partition #14	
Partition Size	823.61 MB (863,622,144 bytes)
Partition Starting Offset	83,215,190,016 bytes
Partition Disk #24, Partition #15	
Partition Size	4.01 GB (4,301,789,184 bytes)
Partition Starting Offset	84,078,844,416 bytes
Partition Disk #24, Partition #16	
Partition Size	3.50 GB (3,758,920,704 bytes)
Partition Starting Offset	88,380,665,856 bytes
Partition Disk #24, Partition #17	
Partition Size	2.01 GB (2,154,991,104 bytes)
Partition Starting Offset	92,139,618,816 bytes
Partition Disk #24, Partition #18	
Partition Size	109.79 MB (115,121,664 bytes)
Partition Starting Offset	94,294,642,176 bytes
Partition Disk #24, Partition #19	
Partition Size	1.00 GB (1,077,479,424 bytes)
Partition Starting Offset	94,409,796,096 bytes
Partition Disk #24, Partition #20	
Partition Size	8.01 GB (8,595,385,344 bytes)
Partition Starting Offset	95,487,307,776 bytes
Partition Disk #24, Partition #21	
Partition Size	8.10 GB (8,702,313,984 bytes)
Partition Starting Offset	104,082,725,376 bytes
Partition Disk #24, Partition #22	
Partition Size	2.50 GB (2,689,634,304 bytes)
Partition Starting Offset	112,785,071,616 bytes
Partition Disk #24, Partition #23	
Partition Size	391.38 GB (420,237,748,224 bytes)
Partition Starting Offset	115,474,738,176 bytes

Description	Disk drive
Manufacturer	(Standard disk drives)
Model	NEC iStorage 2000 SCSI Disk Device
Bytes/Sector	512
Media Loaded	Yes
Media Type	Fixed hard disk
Partitions	24
SCSI Bus	0
SCSI Logical Unit	1
SCSI Port	7
SCSI Target ID	1
Sectors/Track	63
Size	498.92 GB (535,712,486,400 bytes)
Total Cylinders	65,130
Total Sectors	1,046,313,450
Total Tracks	16,608,150
Tracks/Cylinder	255
Partition Disk #25, Partition #0	
Partition Size	2.01 GB (2,154,991,104 bytes)
Partition Starting Offset	8,257,536 bytes
Partition Disk #25, Partition #1	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	2,163,280,896 bytes
Partition Disk #25, Partition #2	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	10,224,055,296 bytes
Partition Disk #25, Partition #3	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	18,284,829,696 bytes
Partition Disk #25, Partition #4	
Partition Size	517.69 MB (542,836,224 bytes)
Partition Starting Offset	26,345,604,096 bytes
Partition Disk #25, Partition #5	
Partition Size	2.01 GB (2,154,991,104 bytes)
Partition Starting Offset	26,888,472,576 bytes
Partition Disk #25, Partition #6	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	29,043,495,936 bytes
Partition Disk #25, Partition #7	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	37,104,270,336 bytes
Partition Disk #25, Partition #8	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	45,165,044,736 bytes
Partition Disk #25, Partition #9	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	53,225,819,136 bytes
Partition Disk #25, Partition #10	
Partition Size	109.79 MB (115,121,664 bytes)
Partition Starting Offset	61,286,593,536 bytes
Partition Disk #25, Partition #11	
Partition Size	20.00 GB (21,476,173,824 bytes)
Partition Starting Offset	61,401,747,456 bytes
Partition Disk #25, Partition #12	
Partition Size	211.76 MB (222,050,304 bytes)
Partition Starting Offset	82,877,953,536 bytes
Partition Disk #25, Partition #13	
Partition Size	109.79 MB (115,121,664 bytes)
Partition Starting Offset	83,100,036,096 bytes
Partition Disk #25, Partition #14	
Partition Size	823.61 MB (863,622,144 bytes)
Partition Starting Offset	83,215,190,016 bytes
Partition Disk #25, Partition #15	
Partition Size	4.01 GB (4,301,789,184 bytes)
Partition Starting Offset	84,078,844,416 bytes
Partition Disk #25, Partition #16	
Partition Size	3.50 GB (3,758,920,704 bytes)
Partition Starting Offset	88,380,665,856 bytes
Partition Disk #25, Partition #17	
Partition Size	2.01 GB (2,154,991,104 bytes)
Partition Starting Offset	92,139,618,816 bytes
Partition Disk #25, Partition #18	
Partition Size	109.79 MB (115,121,664 bytes)
Partition Starting Offset	94,294,642,176 bytes
Partition Disk #25, Partition #19	
Partition Size	1.00 GB (1,077,479,424 bytes)
Partition Starting Offset	94,409,796,096 bytes
Partition Disk #25, Partition #20	
Partition Size	8.01 GB (8,595,385,344 bytes)

Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #25, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #25, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #25, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 11
 SCSI Target ID 0
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #38, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #38, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #38, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #38, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #38, Partition #4
 Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes
 Partition Disk #38, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #38, Partition #6
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 29,043,495,936 bytes
 Partition Disk #38, Partition #7
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 37,104,270,336 bytes
 Partition Disk #38, Partition #8
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 45,165,044,736 bytes
 Partition Disk #38, Partition #9
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 53,225,819,136 bytes
 Partition Disk #38, Partition #10
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 61,286,593,536 bytes
 Partition Disk #38, Partition #11
 Partition Size 20.00 GB (21,476,173,824 bytes)
 Partition Starting Offset 61,401,747,456 bytes
 Partition Disk #38, Partition #12
 Partition Size 211.76 MB (222,050,304 bytes)
 Partition Starting Offset 82,877,953,536 bytes
 Partition Disk #38, Partition #13
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 83,100,036,096 bytes
 Partition Disk #38, Partition #14
 Partition Size 823.61 MB (863,622,144 bytes)
 Partition Starting Offset 83,215,190,016 bytes
 Partition Disk #38, Partition #15
 Partition Size 4.01 GB (4,301,789,184 bytes)
 Partition Starting Offset 84,078,844,416 bytes
 Partition Disk #38, Partition #16
 Partition Size 3.50 GB (3,758,920,704 bytes)
 Partition Starting Offset 88,380,665,856 bytes

Partition Disk #38, Partition #17
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 92,139,618,816 bytes
 Partition Disk #38, Partition #18
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 94,294,642,176 bytes
 Partition Disk #38, Partition #19
 Partition Size 1.00 GB (1,077,479,424 bytes)
 Partition Starting Offset 94,409,796,096 bytes
 Partition Disk #38, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
 Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #38, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #38, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #38, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 1
 SCSI Port 11
 SCSI Target ID 0
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #39, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #39, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #39, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #39, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #39, Partition #4
 Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes
 Partition Disk #39, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #39, Partition #6
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 29,043,495,936 bytes
 Partition Disk #39, Partition #7
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 37,104,270,336 bytes
 Partition Disk #39, Partition #8
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 45,165,044,736 bytes
 Partition Disk #39, Partition #9
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 53,225,819,136 bytes
 Partition Disk #39, Partition #10
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 61,286,593,536 bytes
 Partition Disk #39, Partition #11
 Partition Size 20.00 GB (21,476,173,824 bytes)
 Partition Starting Offset 61,401,747,456 bytes
 Partition Disk #39, Partition #12
 Partition Size 211.76 MB (222,050,304 bytes)
 Partition Starting Offset 82,877,953,536 bytes
 Partition Disk #39, Partition #13

```

Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset  83,100,036,096 bytes
Partition Disk #39, Partition #14
Partition Size      823.61 MB (863,622,144 bytes)
Partition Starting Offset  83,215,190,016 bytes
Partition Disk #39, Partition #15
Partition Size      4.01 GB (4,301,789,184 bytes)
Partition Starting Offset  84,078,844,416 bytes
Partition Disk #39, Partition #16
Partition Size      3.50 GB (3,758,920,704 bytes)
Partition Starting Offset  88,380,665,856 bytes
Partition Disk #39, Partition #17
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset  92,139,618,816 bytes
Partition Disk #39, Partition #18
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset  94,294,642,176 bytes
Partition Disk #39, Partition #19
Partition Size      1.00 GB (1,077,479,424 bytes)
Partition Starting Offset  94,409,796,096 bytes
Partition Disk #39, Partition #20
Partition Size      8.01 GB (8,595,385,344 bytes)
Partition Starting Offset  95,487,307,776 bytes
Partition Disk #39, Partition #21
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset  104,082,725,376 bytes
Partition Disk #39, Partition #22
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset  106,772,391,936 bytes
Partition Disk #39, Partition #23
Partition Size      396.98 GB (426,250,427,904 bytes)
Partition Starting Offset  109,462,058,496 bytes

```

```

Description      Disk drive
Manufacturer      (Standard disk drives)
Model      NEC iStorage 2000 SCSI Disk Device
Bytes/Sector      512
Media Loaded      Yes
Media Type      Fixed hard disk
Partitions      24

```

```

SCSI Bus      0
SCSI Logical Unit  0
SCSI Port 11
SCSI Target ID  1
Sectors/Track  63
Size      498.92 GB (535,712,486,400 bytes)
Total Cylinders  65,130
Total Sectors  1,046,313,450
Total Tracks  16,608,150
Tracks/Cylinder  255
Partition Disk #40, Partition #0
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset  8,257,536 bytes
Partition Disk #40, Partition #1
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  2,163,280,896 bytes
Partition Disk #40, Partition #2
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  10,224,055,296 bytes
Partition Disk #40, Partition #3
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  18,284,829,696 bytes
Partition Disk #40, Partition #4
Partition Size      517.69 MB (542,836,224 bytes)
Partition Starting Offset  26,345,604,096 bytes
Partition Disk #40, Partition #5
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset  26,888,472,576 bytes
Partition Disk #40, Partition #6
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  29,043,495,936 bytes
Partition Disk #40, Partition #7
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  37,104,270,336 bytes
Partition Disk #40, Partition #8
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  45,165,044,736 bytes
Partition Disk #40, Partition #9
Partition Size      7.51 GB (8,060,742,144 bytes)

```

```

Partition Starting Offset  53,225,819,136 bytes
Partition Disk #40, Partition #10
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset  61,286,593,536 bytes
Partition Disk #40, Partition #11
Partition Size      20.00 GB (21,476,173,824 bytes)
Partition Starting Offset  61,401,747,456 bytes
Partition Disk #40, Partition #12
Partition Size      211.76 MB (222,050,304 bytes)
Partition Starting Offset  82,877,953,536 bytes
Partition Disk #40, Partition #13
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset  83,100,036,096 bytes
Partition Disk #40, Partition #14
Partition Size      823.61 MB (863,622,144 bytes)
Partition Starting Offset  83,215,190,016 bytes
Partition Disk #40, Partition #15
Partition Size      4.01 GB (4,301,789,184 bytes)
Partition Starting Offset  84,078,844,416 bytes
Partition Disk #40, Partition #16
Partition Size      3.50 GB (3,758,920,704 bytes)
Partition Starting Offset  88,380,665,856 bytes
Partition Disk #40, Partition #17
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset  92,139,618,816 bytes
Partition Disk #40, Partition #18
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset  94,294,642,176 bytes
Partition Disk #40, Partition #19
Partition Size      1.00 GB (1,077,479,424 bytes)
Partition Starting Offset  94,409,796,096 bytes
Partition Disk #40, Partition #20
Partition Size      8.01 GB (8,595,385,344 bytes)
Partition Starting Offset  95,487,307,776 bytes
Partition Disk #40, Partition #21
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset  104,082,725,376 bytes
Partition Disk #40, Partition #22
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset  106,772,391,936 bytes
Partition Disk #40, Partition #23
Partition Size      396.98 GB (426,250,427,904 bytes)
Partition Starting Offset  109,462,058,496 bytes

```

```

Description      Disk drive
Manufacturer      (Standard disk drives)
Model      NEC iStorage 2000 SCSI Disk Device
Bytes/Sector      512
Media Loaded      Yes
Media Type      Fixed hard disk
Partitions      24

```

```

SCSI Bus      0
SCSI Logical Unit  1
SCSI Port 11
SCSI Target ID  1
Sectors/Track  63
Size      498.92 GB (535,712,486,400 bytes)
Total Cylinders  65,130
Total Sectors  1,046,313,450
Total Tracks  16,608,150
Tracks/Cylinder  255
Partition Disk #41, Partition #0
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset  8,257,536 bytes
Partition Disk #41, Partition #1
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  2,163,280,896 bytes
Partition Disk #41, Partition #2
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  10,224,055,296 bytes
Partition Disk #41, Partition #3
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  18,284,829,696 bytes
Partition Disk #41, Partition #4
Partition Size      517.69 MB (542,836,224 bytes)
Partition Starting Offset  26,345,604,096 bytes
Partition Disk #41, Partition #5
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset  26,888,472,576 bytes

```

```

Partition Disk #41, Partition #6
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  29,043,495,936 bytes
Partition Disk #41, Partition #7
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  37,104,270,336 bytes
Partition Disk #41, Partition #8
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  45,165,044,736 bytes
Partition Disk #41, Partition #9
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  53,225,819,136 bytes
Partition Disk #41, Partition #10
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset  61,286,593,536 bytes
Partition Disk #41, Partition #11
Partition Size      20.00 GB (21,476,173,824 bytes)
Partition Starting Offset  61,401,747,456 bytes
Partition Disk #41, Partition #12
Partition Size      211.76 MB (222,050,304 bytes)
Partition Starting Offset  82,877,953,536 bytes
Partition Disk #41, Partition #13
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset  83,100,036,096 bytes
Partition Disk #41, Partition #14
Partition Size      823.61 MB (863,622,144 bytes)
Partition Starting Offset  83,215,190,016 bytes
Partition Disk #41, Partition #15
Partition Size      4.01 GB (4,301,789,184 bytes)
Partition Starting Offset  84,078,844,416 bytes
Partition Disk #41, Partition #16
Partition Size      3.50 GB (3,758,920,704 bytes)
Partition Starting Offset  88,380,665,856 bytes
Partition Disk #41, Partition #17
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset  92,139,618,816 bytes
Partition Disk #41, Partition #18
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset  94,294,642,176 bytes
Partition Disk #41, Partition #19
Partition Size      1.00 GB (1,077,479,424 bytes)
Partition Starting Offset  94,409,796,096 bytes
Partition Disk #41, Partition #20
Partition Size      8.01 GB (8,595,385,344 bytes)
Partition Starting Offset  95,487,307,776 bytes
Partition Disk #41, Partition #21
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset  104,082,725,376 bytes
Partition Disk #41, Partition #22
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset  106,772,391,936 bytes
Partition Disk #41, Partition #23
Partition Size      396.98 GB (426,250,427,904 bytes)
Partition Starting Offset  109,462,058,496 bytes

```

```

Description      Disk drive
Manufacturer      (Standard disk drives)
Model      NEC iStorage 2000 SCSI Disk Device
Bytes/Sector      512
Media Loaded      Yes
Media Type      Fixed hard disk
Partitions      24
SCSI Bus      0
SCSI Logical Unit  0
SCSI Port      4
SCSI Target ID    0
Sectors/Track     63
Size      498.92 GB (535,712,486,400 bytes)
Total Cylinders    65,130
Total Sectors      1,046,313,450
Total Tracks       16,608,150
Tracks/Cylinder    255
Partition Disk #12, Partition #0
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset  8,257,536 bytes
Partition Disk #12, Partition #1
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  2,163,280,896 bytes
Partition Disk #12, Partition #2

```

```

Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  10,224,055,296 bytes
Partition Disk #12, Partition #3
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  18,284,829,696 bytes
Partition Disk #12, Partition #4
Partition Size      517.69 MB (542,836,224 bytes)
Partition Starting Offset  26,345,604,096 bytes
Partition Disk #12, Partition #5
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset  26,888,472,576 bytes
Partition Disk #12, Partition #6
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  29,043,495,936 bytes
Partition Disk #12, Partition #7
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  37,104,270,336 bytes
Partition Disk #12, Partition #8
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  45,165,044,736 bytes
Partition Disk #12, Partition #9
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  53,225,819,136 bytes
Partition Disk #12, Partition #10
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset  61,286,593,536 bytes
Partition Disk #12, Partition #11
Partition Size      20.00 GB (21,476,173,824 bytes)
Partition Starting Offset  61,401,747,456 bytes
Partition Disk #12, Partition #12
Partition Size      211.76 MB (222,050,304 bytes)
Partition Starting Offset  82,877,953,536 bytes
Partition Disk #12, Partition #13
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset  83,100,036,096 bytes
Partition Disk #12, Partition #14
Partition Size      823.61 MB (863,622,144 bytes)
Partition Starting Offset  83,215,190,016 bytes
Partition Disk #12, Partition #15
Partition Size      4.01 GB (4,301,789,184 bytes)
Partition Starting Offset  84,078,844,416 bytes
Partition Disk #12, Partition #16
Partition Size      3.50 GB (3,758,920,704 bytes)
Partition Starting Offset  88,380,665,856 bytes
Partition Disk #12, Partition #17
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset  92,139,618,816 bytes
Partition Disk #12, Partition #18
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset  94,294,642,176 bytes
Partition Disk #12, Partition #19
Partition Size      1.00 GB (1,077,479,424 bytes)
Partition Starting Offset  94,409,796,096 bytes
Partition Disk #12, Partition #20
Partition Size      8.01 GB (8,595,385,344 bytes)
Partition Starting Offset  95,487,307,776 bytes
Partition Disk #12, Partition #21
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset  104,082,725,376 bytes
Partition Disk #12, Partition #22
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset  106,772,391,936 bytes
Partition Disk #12, Partition #23
Partition Size      396.98 GB (426,250,427,904 bytes)
Partition Starting Offset  109,462,058,496 bytes

```

```

Description      Disk drive
Manufacturer      (Standard disk drives)
Model      NEC iStorage 2000 SCSI Disk Device
Bytes/Sector      512
Media Loaded      Yes
Media Type      Fixed hard disk
Partitions      24
SCSI Bus      0
SCSI Logical Unit  1
SCSI Port      4
SCSI Target ID    0
Sectors/Track     63
Size      498.92 GB (535,712,486,400 bytes)

```

Total Cylinders	65,130
Total Sectors	1,046,313,450
Total Tracks	16,608,150
Tracks/Cylinder	255
Partition Disk #13, Partition #0	
Partition Size	2.01 GB (2,154,991,104 bytes)
Partition Starting Offset	8,257,536 bytes
Partition Disk #13, Partition #1	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	2,163,280,896 bytes
Partition Disk #13, Partition #2	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	10,224,055,296 bytes
Partition Disk #13, Partition #3	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	18,284,829,696 bytes
Partition Disk #13, Partition #4	
Partition Size	517.69 MB (542,836,224 bytes)
Partition Starting Offset	26,345,604,096 bytes
Partition Disk #13, Partition #5	
Partition Size	2.01 GB (2,154,991,104 bytes)
Partition Starting Offset	26,888,472,576 bytes
Partition Disk #13, Partition #6	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	29,043,495,936 bytes
Partition Disk #13, Partition #7	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	37,104,270,336 bytes
Partition Disk #13, Partition #8	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	45,165,044,736 bytes
Partition Disk #13, Partition #9	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	53,225,819,136 bytes
Partition Disk #13, Partition #10	
Partition Size	109.79 MB (115,121,664 bytes)
Partition Starting Offset	61,286,593,536 bytes
Partition Disk #13, Partition #11	
Partition Size	20.00 GB (21,476,173,824 bytes)
Partition Starting Offset	61,401,747,456 bytes
Partition Disk #13, Partition #12	
Partition Size	211.76 MB (222,050,304 bytes)
Partition Starting Offset	82,877,953,536 bytes
Partition Disk #13, Partition #13	
Partition Size	109.79 MB (115,121,664 bytes)
Partition Starting Offset	83,100,036,096 bytes
Partition Disk #13, Partition #14	
Partition Size	823.61 MB (863,622,144 bytes)
Partition Starting Offset	83,215,190,016 bytes
Partition Disk #13, Partition #15	
Partition Size	4.01 GB (4,301,789,184 bytes)
Partition Starting Offset	84,078,844,416 bytes
Partition Disk #13, Partition #16	
Partition Size	3.50 GB (3,758,920,704 bytes)
Partition Starting Offset	88,380,665,856 bytes
Partition Disk #13, Partition #17	
Partition Size	2.01 GB (2,154,991,104 bytes)
Partition Starting Offset	92,139,618,816 bytes
Partition Disk #13, Partition #18	
Partition Size	109.79 MB (115,121,664 bytes)
Partition Starting Offset	94,294,642,176 bytes
Partition Disk #13, Partition #19	
Partition Size	1.00 GB (1,077,479,424 bytes)
Partition Starting Offset	94,409,796,096 bytes
Partition Disk #13, Partition #20	
Partition Size	8.01 GB (8,595,385,344 bytes)
Partition Starting Offset	95,487,307,776 bytes
Partition Disk #13, Partition #21	
Partition Size	2.50 GB (2,689,634,304 bytes)
Partition Starting Offset	104,082,725,376 bytes
Partition Disk #13, Partition #22	
Partition Size	2.50 GB (2,689,634,304 bytes)
Partition Starting Offset	106,772,391,936 bytes
Partition Disk #13, Partition #23	
Partition Size	396.98 GB (426,250,427,904 bytes)
Partition Starting Offset	109,462,058,496 bytes
Description	Disk drive
Manufacturer	(Standard disk drives)

Model	NEC iStorage 2000 SCSI Disk Device
Bytes/Sector	512
Media Loaded	Yes
Media Type	Fixed hard disk
Partitions	24
SCSI Bus	0
SCSI Logical Unit	0
SCSI Port	4
SCSI Target ID	1
Sectors/Track	63
Size	498.92 GB (535,712,486,400 bytes)
Total Cylinders	65,130
Total Sectors	1,046,313,450
Total Tracks	16,608,150
Tracks/Cylinder	255
Partition Disk #14, Partition #0	
Partition Size	2.01 GB (2,154,991,104 bytes)
Partition Starting Offset	8,257,536 bytes
Partition Disk #14, Partition #1	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	2,163,280,896 bytes
Partition Disk #14, Partition #2	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	10,224,055,296 bytes
Partition Disk #14, Partition #3	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	18,284,829,696 bytes
Partition Disk #14, Partition #4	
Partition Size	517.69 MB (542,836,224 bytes)
Partition Starting Offset	26,345,604,096 bytes
Partition Disk #14, Partition #5	
Partition Size	2.01 GB (2,154,991,104 bytes)
Partition Starting Offset	26,888,472,576 bytes
Partition Disk #14, Partition #6	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	29,043,495,936 bytes
Partition Disk #14, Partition #7	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	37,104,270,336 bytes
Partition Disk #14, Partition #8	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	45,165,044,736 bytes
Partition Disk #14, Partition #9	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	53,225,819,136 bytes
Partition Disk #14, Partition #10	
Partition Size	109.79 MB (115,121,664 bytes)
Partition Starting Offset	61,286,593,536 bytes
Partition Disk #14, Partition #11	
Partition Size	20.00 GB (21,476,173,824 bytes)
Partition Starting Offset	61,401,747,456 bytes
Partition Disk #14, Partition #12	
Partition Size	211.76 MB (222,050,304 bytes)
Partition Starting Offset	82,877,953,536 bytes
Partition Disk #14, Partition #13	
Partition Size	109.79 MB (115,121,664 bytes)
Partition Starting Offset	83,100,036,096 bytes
Partition Disk #14, Partition #14	
Partition Size	823.61 MB (863,622,144 bytes)
Partition Starting Offset	83,215,190,016 bytes
Partition Disk #14, Partition #15	
Partition Size	4.01 GB (4,301,789,184 bytes)
Partition Starting Offset	84,078,844,416 bytes
Partition Disk #14, Partition #16	
Partition Size	3.50 GB (3,758,920,704 bytes)
Partition Starting Offset	88,380,665,856 bytes
Partition Disk #14, Partition #17	
Partition Size	2.01 GB (2,154,991,104 bytes)
Partition Starting Offset	92,139,618,816 bytes
Partition Disk #14, Partition #18	
Partition Size	109.79 MB (115,121,664 bytes)
Partition Starting Offset	94,294,642,176 bytes
Partition Disk #14, Partition #19	
Partition Size	1.00 GB (1,077,479,424 bytes)
Partition Starting Offset	94,409,796,096 bytes
Partition Disk #14, Partition #20	
Partition Size	8.01 GB (8,595,385,344 bytes)
Partition Starting Offset	95,487,307,776 bytes
Partition Disk #14, Partition #21	

Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #14, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #14, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 1
 SCSI Port 4
 SCSI Target ID 1
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #15, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #15, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #15, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #15, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #15, Partition #4
 Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes
 Partition Disk #15, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #15, Partition #6
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 29,043,495,936 bytes
 Partition Disk #15, Partition #7
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 37,104,270,336 bytes
 Partition Disk #15, Partition #8
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 45,165,044,736 bytes
 Partition Disk #15, Partition #9
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 53,225,819,136 bytes
 Partition Disk #15, Partition #10
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 61,286,593,536 bytes
 Partition Disk #15, Partition #11
 Partition Size 20.00 GB (21,476,173,824 bytes)
 Partition Starting Offset 61,401,747,456 bytes
 Partition Disk #15, Partition #12
 Partition Size 211.76 MB (222,050,304 bytes)
 Partition Starting Offset 82,877,953,536 bytes
 Partition Disk #15, Partition #13
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 83,100,036,096 bytes
 Partition Disk #15, Partition #14
 Partition Size 823.61 MB (863,622,144 bytes)
 Partition Starting Offset 83,215,190,016 bytes
 Partition Disk #15, Partition #15
 Partition Size 4.01 GB (4,301,789,184 bytes)
 Partition Starting Offset 84,078,844,416 bytes
 Partition Disk #15, Partition #16
 Partition Size 3.50 GB (3,758,920,704 bytes)
 Partition Starting Offset 88,380,665,856 bytes
 Partition Disk #15, Partition #17
 Partition Size 2.01 GB (2,154,991,104 bytes)

Partition Starting Offset 92,139,618,816 bytes
 Partition Disk #15, Partition #18
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 94,294,642,176 bytes
 Partition Disk #15, Partition #19
 Partition Size 1.00 GB (1,077,479,424 bytes)
 Partition Starting Offset 94,409,796,096 bytes
 Partition Disk #15, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
 Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #15, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #15, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #15, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 5
 SCSI Target ID 0
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #16, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #16, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #16, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #16, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #16, Partition #4
 Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes
 Partition Disk #16, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #16, Partition #6
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 29,043,495,936 bytes
 Partition Disk #16, Partition #7
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 37,104,270,336 bytes
 Partition Disk #16, Partition #8
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 45,165,044,736 bytes
 Partition Disk #16, Partition #9
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 53,225,819,136 bytes
 Partition Disk #16, Partition #10
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 61,286,593,536 bytes
 Partition Disk #16, Partition #11
 Partition Size 20.00 GB (21,476,173,824 bytes)
 Partition Starting Offset 61,401,747,456 bytes
 Partition Disk #16, Partition #12
 Partition Size 211.76 MB (222,050,304 bytes)
 Partition Starting Offset 82,877,953,536 bytes
 Partition Disk #16, Partition #13
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 83,100,036,096 bytes

Partition Disk #16, Partition #14
 Partition Size 823.61 MB (863,622,144 bytes)
 Partition Starting Offset 83,215,190,016 bytes
 Partition Disk #16, Partition #15
 Partition Size 4.01 GB (4,301,789,184 bytes)
 Partition Starting Offset 84,078,844,416 bytes
 Partition Disk #16, Partition #16
 Partition Size 3.50 GB (3,758,920,704 bytes)
 Partition Starting Offset 88,380,665,856 bytes
 Partition Disk #16, Partition #17
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 92,139,618,816 bytes
 Partition Disk #16, Partition #18
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 94,294,642,176 bytes
 Partition Disk #16, Partition #19
 Partition Size 1.00 GB (1,077,479,424 bytes)
 Partition Starting Offset 94,409,796,096 bytes
 Partition Disk #16, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
 Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #16, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #16, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #16, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 1
 SCSI Port 5
 SCSI Target ID 0
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #17, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #17, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #17, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #17, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #17, Partition #4
 Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes
 Partition Disk #17, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #17, Partition #6
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 29,043,495,936 bytes
 Partition Disk #17, Partition #7
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 37,104,270,336 bytes
 Partition Disk #17, Partition #8
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 45,165,044,736 bytes
 Partition Disk #17, Partition #9
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 53,225,819,136 bytes
 Partition Disk #17, Partition #10

Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 61,286,593,536 bytes
 Partition Disk #17, Partition #11
 Partition Size 20.00 GB (21,476,173,824 bytes)
 Partition Starting Offset 61,401,747,456 bytes
 Partition Disk #17, Partition #12
 Partition Size 211.76 MB (222,050,304 bytes)
 Partition Starting Offset 82,877,953,536 bytes
 Partition Disk #17, Partition #13
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 83,100,036,096 bytes
 Partition Disk #17, Partition #14
 Partition Size 823.61 MB (863,622,144 bytes)
 Partition Starting Offset 83,215,190,016 bytes
 Partition Disk #17, Partition #15
 Partition Size 4.01 GB (4,301,789,184 bytes)
 Partition Starting Offset 84,078,844,416 bytes
 Partition Disk #17, Partition #16
 Partition Size 3.50 GB (3,758,920,704 bytes)
 Partition Starting Offset 88,380,665,856 bytes
 Partition Disk #17, Partition #17
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 92,139,618,816 bytes
 Partition Disk #17, Partition #18
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 94,294,642,176 bytes
 Partition Disk #17, Partition #19
 Partition Size 1.00 GB (1,077,479,424 bytes)
 Partition Starting Offset 94,409,796,096 bytes
 Partition Disk #17, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
 Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #17, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #17, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #17, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 15
 SCSI Target ID 0
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #54, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #54, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #54, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #54, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #54, Partition #4
 Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes
 Partition Disk #54, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #54, Partition #6
 Partition Size 7.51 GB (8,060,742,144 bytes)

```

Partition Starting Offset      29,043,495,936 bytes
Partition Disk #54, Partition #7
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      37,104,270,336 bytes
Partition Disk #54, Partition #8
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      45,165,044,736 bytes
Partition Disk #54, Partition #9
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      53,225,819,136 bytes
Partition Disk #54, Partition #10
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset      61,286,593,536 bytes
Partition Disk #54, Partition #11
Partition Size      20.00 GB (21,476,173,824 bytes)
Partition Starting Offset      61,401,747,456 bytes
Partition Disk #54, Partition #12
Partition Size      211.76 MB (222,050,304 bytes)
Partition Starting Offset      82,877,953,536 bytes
Partition Disk #54, Partition #13
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset      83,100,036,096 bytes
Partition Disk #54, Partition #14
Partition Size      823.61 MB (863,622,144 bytes)
Partition Starting Offset      83,215,190,016 bytes
Partition Disk #54, Partition #15
Partition Size      4.01 GB (4,301,789,184 bytes)
Partition Starting Offset      84,078,844,416 bytes
Partition Disk #54, Partition #16
Partition Size      3.50 GB (3,758,920,704 bytes)
Partition Starting Offset      88,380,665,856 bytes
Partition Disk #54, Partition #17
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset      92,139,618,816 bytes
Partition Disk #54, Partition #18
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset      94,294,642,176 bytes
Partition Disk #54, Partition #19
Partition Size      1.00 GB (1,077,479,424 bytes)
Partition Starting Offset      94,409,796,096 bytes
Partition Disk #54, Partition #20
Partition Size      8.01 GB (8,595,385,344 bytes)
Partition Starting Offset      95,487,307,776 bytes
Partition Disk #54, Partition #21
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset      104,082,725,376 bytes
Partition Disk #54, Partition #22
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset      106,772,391,936 bytes
Partition Disk #54, Partition #23
Partition Size      396.98 GB (426,250,427,904 bytes)
Partition Starting Offset      109,462,058,496 bytes

```

```

Description      Disk drive
Manufacturer      (Standard disk drives)
Model      NEC iStorage 2000 SCSI Disk Device
Bytes/Sector      512
Media Loaded      Yes
Media Type      Fixed hard disk
Partitions      24
SCSI Bus      0
SCSI Logical Unit      1
SCSI Port      15
SCSI Target ID      0
Sectors/Track      63
Size      498.92 GB (535,712,486,400 bytes)
Total Cylinders      65,130
Total Sectors      1,046,313,450
Total Tracks      16,608,150
Tracks/Cylinder      255
Partition Disk #55, Partition #0
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset      8,257,536 bytes
Partition Disk #55, Partition #1
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      2,163,280,896 bytes
Partition Disk #55, Partition #2
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      10,224,055,296 bytes

```

```

Partition Disk #55, Partition #3
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      18,284,829,696 bytes
Partition Disk #55, Partition #4
Partition Size      517.69 MB (542,836,224 bytes)
Partition Starting Offset      26,345,604,096 bytes
Partition Disk #55, Partition #5
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset      26,888,472,576 bytes
Partition Disk #55, Partition #6
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      29,043,495,936 bytes
Partition Disk #55, Partition #7
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      37,104,270,336 bytes
Partition Disk #55, Partition #8
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      45,165,044,736 bytes
Partition Disk #55, Partition #9
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      53,225,819,136 bytes
Partition Disk #55, Partition #10
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset      61,286,593,536 bytes
Partition Disk #55, Partition #11
Partition Size      20.00 GB (21,476,173,824 bytes)
Partition Starting Offset      61,401,747,456 bytes
Partition Disk #55, Partition #12
Partition Size      211.76 MB (222,050,304 bytes)
Partition Starting Offset      82,877,953,536 bytes
Partition Disk #55, Partition #13
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset      83,100,036,096 bytes
Partition Disk #55, Partition #14
Partition Size      823.61 MB (863,622,144 bytes)
Partition Starting Offset      83,215,190,016 bytes
Partition Disk #55, Partition #15
Partition Size      4.01 GB (4,301,789,184 bytes)
Partition Starting Offset      84,078,844,416 bytes
Partition Disk #55, Partition #16
Partition Size      3.50 GB (3,758,920,704 bytes)
Partition Starting Offset      88,380,665,856 bytes
Partition Disk #55, Partition #17
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset      92,139,618,816 bytes
Partition Disk #55, Partition #18
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset      94,294,642,176 bytes
Partition Disk #55, Partition #19
Partition Size      1.00 GB (1,077,479,424 bytes)
Partition Starting Offset      94,409,796,096 bytes
Partition Disk #55, Partition #20
Partition Size      8.01 GB (8,595,385,344 bytes)
Partition Starting Offset      95,487,307,776 bytes
Partition Disk #55, Partition #21
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset      104,082,725,376 bytes
Partition Disk #55, Partition #22
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset      106,772,391,936 bytes
Partition Disk #55, Partition #23
Partition Size      396.98 GB (426,250,427,904 bytes)
Partition Starting Offset      109,462,058,496 bytes

```

```

Description      Disk drive
Manufacturer      (Standard disk drives)
Model      NEC iStorage 2000 SCSI Disk Device
Bytes/Sector      512
Media Loaded      Yes
Media Type      Fixed hard disk
Partitions      24
SCSI Bus      0
SCSI Logical Unit      0
SCSI Port      15
SCSI Target ID      1
Sectors/Track      63
Size      498.92 GB (535,712,486,400 bytes)
Total Cylinders      65,130
Total Sectors      1,046,313,450

```

Total Tracks	16,608,150
Tracks/Cylinder	255
Partition Disk #56, Partition #0	
Partition Size	2.01 GB (2,154,991,104 bytes)
Partition Starting Offset	8,257,536 bytes
Partition Disk #56, Partition #1	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	2,163,280,896 bytes
Partition Disk #56, Partition #2	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	10,224,055,296 bytes
Partition Disk #56, Partition #3	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	18,284,829,696 bytes
Partition Disk #56, Partition #4	
Partition Size	517.69 MB (542,836,224 bytes)
Partition Starting Offset	26,345,604,096 bytes
Partition Disk #56, Partition #5	
Partition Size	2.01 GB (2,154,991,104 bytes)
Partition Starting Offset	26,888,472,576 bytes
Partition Disk #56, Partition #6	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	29,043,495,936 bytes
Partition Disk #56, Partition #7	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	37,104,270,336 bytes
Partition Disk #56, Partition #8	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	45,165,044,736 bytes
Partition Disk #56, Partition #9	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	53,225,819,136 bytes
Partition Disk #56, Partition #10	
Partition Size	109.79 MB (115,121,664 bytes)
Partition Starting Offset	61,286,593,536 bytes
Partition Disk #56, Partition #11	
Partition Size	20.00 GB (21,476,173,824 bytes)
Partition Starting Offset	61,401,747,456 bytes
Partition Disk #56, Partition #12	
Partition Size	211.76 MB (222,050,304 bytes)
Partition Starting Offset	82,877,953,536 bytes
Partition Disk #56, Partition #13	
Partition Size	109.79 MB (115,121,664 bytes)
Partition Starting Offset	83,100,036,096 bytes
Partition Disk #56, Partition #14	
Partition Size	823.61 MB (863,622,144 bytes)
Partition Starting Offset	83,215,190,016 bytes
Partition Disk #56, Partition #15	
Partition Size	4.01 GB (4,301,789,184 bytes)
Partition Starting Offset	84,078,844,416 bytes
Partition Disk #56, Partition #16	
Partition Size	3.50 GB (3,758,920,704 bytes)
Partition Starting Offset	88,380,665,856 bytes
Partition Disk #56, Partition #17	
Partition Size	2.01 GB (2,154,991,104 bytes)
Partition Starting Offset	92,139,618,816 bytes
Partition Disk #56, Partition #18	
Partition Size	109.79 MB (115,121,664 bytes)
Partition Starting Offset	94,294,642,176 bytes
Partition Disk #56, Partition #19	
Partition Size	1.00 GB (1,077,479,424 bytes)
Partition Starting Offset	94,409,796,096 bytes
Partition Disk #56, Partition #20	
Partition Size	8.01 GB (8,595,385,344 bytes)
Partition Starting Offset	95,487,307,776 bytes
Partition Disk #56, Partition #21	
Partition Size	2.50 GB (2,689,634,304 bytes)
Partition Starting Offset	104,082,725,376 bytes
Partition Disk #56, Partition #22	
Partition Size	2.50 GB (2,689,634,304 bytes)
Partition Starting Offset	106,772,391,936 bytes
Partition Disk #56, Partition #23	
Partition Size	396.98 GB (426,250,427,904 bytes)
Partition Starting Offset	109,462,058,496 bytes

Description	Disk drive
Manufacturer	(Standard disk drives)
Model	NEC iStorage 2000 SCSI Disk Device
Bytes/Sector	512

Media Loaded	Yes
Media Type	Fixed hard disk
Partitions	24
SCSI Bus	0
SCSI Logical Unit	1
SCSI Port	15
SCSI Target ID	1
Sectors/Track	63
Size	498.92 GB (535,712,486,400 bytes)
Total Cylinders	65,130
Total Sectors	1,046,313,450
Total Tracks	16,608,150
Tracks/Cylinder	255
Partition Disk #57, Partition #0	
Partition Size	2.01 GB (2,154,991,104 bytes)
Partition Starting Offset	8,257,536 bytes
Partition Disk #57, Partition #1	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	2,163,280,896 bytes
Partition Disk #57, Partition #2	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	10,224,055,296 bytes
Partition Disk #57, Partition #3	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	18,284,829,696 bytes
Partition Disk #57, Partition #4	
Partition Size	517.69 MB (542,836,224 bytes)
Partition Starting Offset	26,345,604,096 bytes
Partition Disk #57, Partition #5	
Partition Size	2.01 GB (2,154,991,104 bytes)
Partition Starting Offset	26,888,472,576 bytes
Partition Disk #57, Partition #6	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	29,043,495,936 bytes
Partition Disk #57, Partition #7	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	37,104,270,336 bytes
Partition Disk #57, Partition #8	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	45,165,044,736 bytes
Partition Disk #57, Partition #9	
Partition Size	7.51 GB (8,060,742,144 bytes)
Partition Starting Offset	53,225,819,136 bytes
Partition Disk #57, Partition #10	
Partition Size	109.79 MB (115,121,664 bytes)
Partition Starting Offset	61,286,593,536 bytes
Partition Disk #57, Partition #11	
Partition Size	20.00 GB (21,476,173,824 bytes)
Partition Starting Offset	61,401,747,456 bytes
Partition Disk #57, Partition #12	
Partition Size	211.76 MB (222,050,304 bytes)
Partition Starting Offset	82,877,953,536 bytes
Partition Disk #57, Partition #13	
Partition Size	109.79 MB (115,121,664 bytes)
Partition Starting Offset	83,100,036,096 bytes
Partition Disk #57, Partition #14	
Partition Size	823.61 MB (863,622,144 bytes)
Partition Starting Offset	83,215,190,016 bytes
Partition Disk #57, Partition #15	
Partition Size	4.01 GB (4,301,789,184 bytes)
Partition Starting Offset	84,078,844,416 bytes
Partition Disk #57, Partition #16	
Partition Size	3.50 GB (3,758,920,704 bytes)
Partition Starting Offset	88,380,665,856 bytes
Partition Disk #57, Partition #17	
Partition Size	2.01 GB (2,154,991,104 bytes)
Partition Starting Offset	92,139,618,816 bytes
Partition Disk #57, Partition #18	
Partition Size	109.79 MB (115,121,664 bytes)
Partition Starting Offset	94,294,642,176 bytes
Partition Disk #57, Partition #19	
Partition Size	1.00 GB (1,077,479,424 bytes)
Partition Starting Offset	94,409,796,096 bytes
Partition Disk #57, Partition #20	
Partition Size	8.01 GB (8,595,385,344 bytes)
Partition Starting Offset	95,487,307,776 bytes
Partition Disk #57, Partition #21	
Partition Size	2.50 GB (2,689,634,304 bytes)
Partition Starting Offset	104,082,725,376 bytes

Partition Disk #57, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #57, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 0
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #26, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #26, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #26, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #26, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #26, Partition #4
 Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes
 Partition Disk #26, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #26, Partition #6
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 29,043,495,936 bytes
 Partition Disk #26, Partition #7
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 37,104,270,336 bytes
 Partition Disk #26, Partition #8
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 45,165,044,736 bytes
 Partition Disk #26, Partition #9
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 53,225,819,136 bytes
 Partition Disk #26, Partition #10
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 61,286,593,536 bytes
 Partition Disk #26, Partition #11
 Partition Size 20.00 GB (21,476,173,824 bytes)
 Partition Starting Offset 61,401,747,456 bytes
 Partition Disk #26, Partition #12
 Partition Size 211.76 MB (222,050,304 bytes)
 Partition Starting Offset 82,877,953,536 bytes
 Partition Disk #26, Partition #13
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 83,100,036,096 bytes
 Partition Disk #26, Partition #14
 Partition Size 823.61 MB (863,622,144 bytes)
 Partition Starting Offset 83,215,190,016 bytes
 Partition Disk #26, Partition #15
 Partition Size 4.01 GB (4,301,789,184 bytes)
 Partition Starting Offset 84,078,844,416 bytes
 Partition Disk #26, Partition #16
 Partition Size 3.50 GB (3,758,920,704 bytes)
 Partition Starting Offset 88,380,665,856 bytes
 Partition Disk #26, Partition #17
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 92,139,618,816 bytes
 Partition Disk #26, Partition #18

Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 94,294,642,176 bytes
 Partition Disk #26, Partition #19
 Partition Size 1.00 GB (1,077,479,424 bytes)
 Partition Starting Offset 94,409,796,096 bytes
 Partition Disk #26, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
 Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #26, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #26, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #26, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 1
 SCSI Port 8
 SCSI Target ID 0
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #27, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #27, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #27, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #27, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #27, Partition #4
 Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes
 Partition Disk #27, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #27, Partition #6
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 29,043,495,936 bytes
 Partition Disk #27, Partition #7
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 37,104,270,336 bytes
 Partition Disk #27, Partition #8
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 45,165,044,736 bytes
 Partition Disk #27, Partition #9
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 53,225,819,136 bytes
 Partition Disk #27, Partition #10
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 61,286,593,536 bytes
 Partition Disk #27, Partition #11
 Partition Size 20.00 GB (21,476,173,824 bytes)
 Partition Starting Offset 61,401,747,456 bytes
 Partition Disk #27, Partition #12
 Partition Size 211.76 MB (222,050,304 bytes)
 Partition Starting Offset 82,877,953,536 bytes
 Partition Disk #27, Partition #13
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 83,100,036,096 bytes
 Partition Disk #27, Partition #14
 Partition Size 823.61 MB (863,622,144 bytes)

Partition Starting Offset 83,215,190,016 bytes
 Partition Disk #27, Partition #15
 Partition Size 4.01 GB (4,301,789,184 bytes)
 Partition Starting Offset 84,078,844,416 bytes
 Partition Disk #27, Partition #16
 Partition Size 3.50 GB (3,758,920,704 bytes)
 Partition Starting Offset 88,380,665,856 bytes
 Partition Disk #27, Partition #17
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 92,139,618,816 bytes
 Partition Disk #27, Partition #18
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 94,294,642,176 bytes
 Partition Disk #27, Partition #19
 Partition Size 1.00 GB (1,077,479,424 bytes)
 Partition Starting Offset 94,409,796,096 bytes
 Partition Disk #27, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
 Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #27, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #27, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #27, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 8
 SCSI Target ID 1
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #28, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #28, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #28, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #28, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #28, Partition #4
 Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes
 Partition Disk #28, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #28, Partition #6
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 29,043,495,936 bytes
 Partition Disk #28, Partition #7
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 37,104,270,336 bytes
 Partition Disk #28, Partition #8
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 45,165,044,736 bytes
 Partition Disk #28, Partition #9
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 53,225,819,136 bytes
 Partition Disk #28, Partition #10
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 61,286,593,536 bytes

Partition Disk #28, Partition #11
 Partition Size 20.00 GB (21,476,173,824 bytes)
 Partition Starting Offset 61,401,747,456 bytes
 Partition Disk #28, Partition #12
 Partition Size 211.76 MB (222,050,304 bytes)
 Partition Starting Offset 82,877,953,536 bytes
 Partition Disk #28, Partition #13
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 83,100,036,096 bytes
 Partition Disk #28, Partition #14
 Partition Size 823.61 MB (863,622,144 bytes)
 Partition Starting Offset 83,215,190,016 bytes
 Partition Disk #28, Partition #15
 Partition Size 4.01 GB (4,301,789,184 bytes)
 Partition Starting Offset 84,078,844,416 bytes
 Partition Disk #28, Partition #16
 Partition Size 3.50 GB (3,758,920,704 bytes)
 Partition Starting Offset 88,380,665,856 bytes
 Partition Disk #28, Partition #17
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 92,139,618,816 bytes
 Partition Disk #28, Partition #18
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 94,294,642,176 bytes
 Partition Disk #28, Partition #19
 Partition Size 1.00 GB (1,077,479,424 bytes)
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 Partition Disk #28, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
 Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #28, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #28, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #28, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 1
 SCSI Port 8
 SCSI Target ID 1
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #29, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #29, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #29, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #29, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #29, Partition #4
 Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes
 Partition Disk #29, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #29, Partition #6
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 29,043,495,936 bytes
 Partition Disk #29, Partition #7

```

Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  37,104,270,336 bytes
Partition Disk #29, Partition #8
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  45,165,044,736 bytes
Partition Disk #29, Partition #9
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  53,225,819,136 bytes
Partition Disk #29, Partition #10
Partition Size      109.79 MB (115,121,664 bytes)
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Partition Disk #29, Partition #11
Partition Size      20.00 GB (21,476,173,824 bytes)
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Partition Size      211.76 MB (222,050,304 bytes)
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Partition Disk #29, Partition #13
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset  83,100,036,096 bytes
Partition Disk #29, Partition #14
Partition Size      823.61 MB (863,622,144 bytes)
Partition Starting Offset  83,215,190,016 bytes
Partition Disk #29, Partition #15
Partition Size      4.01 GB (4,301,789,184 bytes)
Partition Starting Offset  84,078,844,416 bytes
Partition Disk #29, Partition #16
Partition Size      3.50 GB (3,758,920,704 bytes)
Partition Starting Offset  88,380,665,856 bytes
Partition Disk #29, Partition #17
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset  92,139,618,816 bytes
Partition Disk #29, Partition #18
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset  94,294,642,176 bytes
Partition Disk #29, Partition #19
Partition Size      1.00 GB (1,077,479,424 bytes)
Partition Starting Offset  94,409,796,096 bytes
Partition Disk #29, Partition #20
Partition Size      8.01 GB (8,595,385,344 bytes)
Partition Starting Offset  95,487,307,776 bytes
Partition Disk #29, Partition #21
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset  104,082,725,376 bytes
Partition Disk #29, Partition #22
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset  106,772,391,936 bytes
Partition Disk #29, Partition #23
Partition Size      396.98 GB (426,250,427,904 bytes)
Partition Starting Offset  109,462,058,496 bytes

```

```

Description      Disk drive
Manufacturer      (Standard disk drives)
Model      NEC iStorage 2000 SCSI Disk Device
Bytes/Sector      512
Media Loaded      Yes
Media Type      Fixed hard disk
Partitions      24
SCSI Bus      0
SCSI Logical Unit      0
SCSI Port      6
SCSI Target ID      0
Sectors/Track      63
Size      498.92 GB (535,712,486,400 bytes)
Total Cylinders      65,130
Total Sectors      1,046,313,450
Total Tracks      16,608,150
Tracks/Cylinder      255
Partition Disk #18, Partition #0
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset  8,257,536 bytes
Partition Disk #18, Partition #1
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  2,163,280,896 bytes
Partition Disk #18, Partition #2
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  10,224,055,296 bytes
Partition Disk #18, Partition #3
Partition Size      7.51 GB (8,060,742,144 bytes)

```

```

Partition Starting Offset  18,284,829,696 bytes
Partition Disk #18, Partition #4
Partition Size      517.69 MB (542,836,224 bytes)
Partition Starting Offset  26,345,604,096 bytes
Partition Disk #18, Partition #5
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset  26,888,472,576 bytes
Partition Disk #18, Partition #6
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  29,043,495,936 bytes
Partition Disk #18, Partition #7
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  37,104,270,336 bytes
Partition Disk #18, Partition #8
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  45,165,044,736 bytes
Partition Disk #18, Partition #9
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset  53,225,819,136 bytes
Partition Disk #18, Partition #10
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset  61,286,593,536 bytes
Partition Disk #18, Partition #11
Partition Size      20.00 GB (21,476,173,824 bytes)
Partition Starting Offset  61,401,747,456 bytes
Partition Disk #18, Partition #12
Partition Size      211.76 MB (222,050,304 bytes)
Partition Starting Offset  82,877,953,536 bytes
Partition Disk #18, Partition #13
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset  83,100,036,096 bytes
Partition Disk #18, Partition #14
Partition Size      823.61 MB (863,622,144 bytes)
Partition Starting Offset  83,215,190,016 bytes
Partition Disk #18, Partition #15
Partition Size      4.01 GB (4,301,789,184 bytes)
Partition Starting Offset  84,078,844,416 bytes
Partition Disk #18, Partition #16
Partition Size      3.50 GB (3,758,920,704 bytes)
Partition Starting Offset  88,380,665,856 bytes
Partition Disk #18, Partition #17
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset  92,139,618,816 bytes
Partition Disk #18, Partition #18
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset  94,294,642,176 bytes
Partition Disk #18, Partition #19
Partition Size      1.00 GB (1,077,479,424 bytes)
Partition Starting Offset  94,409,796,096 bytes
Partition Disk #18, Partition #20
Partition Size      8.01 GB (8,595,385,344 bytes)
Partition Starting Offset  95,487,307,776 bytes
Partition Disk #18, Partition #21
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset  104,082,725,376 bytes
Partition Disk #18, Partition #22
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset  106,772,391,936 bytes
Partition Disk #18, Partition #23
Partition Size      396.98 GB (426,250,427,904 bytes)
Partition Starting Offset  109,462,058,496 bytes

```

```

Description      Disk drive
Manufacturer      (Standard disk drives)
Model      NEC iStorage 2000 SCSI Disk Device
Bytes/Sector      512
Media Loaded      Yes
Media Type      Fixed hard disk
Partitions      24
SCSI Bus      0
SCSI Logical Unit      1
SCSI Port      6
SCSI Target ID      0
Sectors/Track      63
Size      498.92 GB (535,712,486,400 bytes)
Total Cylinders      65,130
Total Sectors      1,046,313,450
Total Tracks      16,608,150
Tracks/Cylinder      255

```

Partition Disk #19, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #19, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #19, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #19, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #19, Partition #4
 Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes
 Partition Disk #19, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #19, Partition #6
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 29,043,495,936 bytes
 Partition Disk #19, Partition #7
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 37,104,270,336 bytes
 Partition Disk #19, Partition #8
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 45,165,044,736 bytes
 Partition Disk #19, Partition #9
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 53,225,819,136 bytes
 Partition Disk #19, Partition #10
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 61,286,593,536 bytes
 Partition Disk #19, Partition #11
 Partition Size 20.00 GB (21,476,173,824 bytes)
 Partition Starting Offset 61,401,747,456 bytes
 Partition Disk #19, Partition #12
 Partition Size 211.76 MB (222,050,304 bytes)
 Partition Starting Offset 82,877,953,536 bytes
 Partition Disk #19, Partition #13
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 83,100,036,096 bytes
 Partition Disk #19, Partition #14
 Partition Size 823.61 MB (863,622,144 bytes)
 Partition Starting Offset 83,215,190,016 bytes
 Partition Disk #19, Partition #15
 Partition Size 4.01 GB (4,301,789,184 bytes)
 Partition Starting Offset 84,078,844,416 bytes
 Partition Disk #19, Partition #16
 Partition Size 3.50 GB (3,758,920,704 bytes)
 Partition Starting Offset 88,380,665,856 bytes
 Partition Disk #19, Partition #17
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 92,139,618,816 bytes
 Partition Disk #19, Partition #18
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 94,294,642,176 bytes
 Partition Disk #19, Partition #19
 Partition Size 1.00 GB (1,077,479,424 bytes)
 Partition Starting Offset 94,409,796,096 bytes
 Partition Disk #19, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
 Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #19, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #19, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #19, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk

Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 6
 SCSI Target ID 1
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #20, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #20, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #20, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #20, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #20, Partition #4
 Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes
 Partition Disk #20, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #20, Partition #6
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 29,043,495,936 bytes
 Partition Disk #20, Partition #7
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 37,104,270,336 bytes
 Partition Disk #20, Partition #8
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 45,165,044,736 bytes
 Partition Disk #20, Partition #9
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 53,225,819,136 bytes
 Partition Disk #20, Partition #10
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 61,286,593,536 bytes
 Partition Disk #20, Partition #11
 Partition Size 20.00 GB (21,476,173,824 bytes)
 Partition Starting Offset 61,401,747,456 bytes
 Partition Disk #20, Partition #12
 Partition Size 211.76 MB (222,050,304 bytes)
 Partition Starting Offset 82,877,953,536 bytes
 Partition Disk #20, Partition #13
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 83,100,036,096 bytes
 Partition Disk #20, Partition #14
 Partition Size 823.61 MB (863,622,144 bytes)
 Partition Starting Offset 83,215,190,016 bytes
 Partition Disk #20, Partition #15
 Partition Size 4.01 GB (4,301,789,184 bytes)
 Partition Starting Offset 84,078,844,416 bytes
 Partition Disk #20, Partition #16
 Partition Size 3.50 GB (3,758,920,704 bytes)
 Partition Starting Offset 88,380,665,856 bytes
 Partition Disk #20, Partition #17
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 92,139,618,816 bytes
 Partition Disk #20, Partition #18
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 94,294,642,176 bytes
 Partition Disk #20, Partition #19
 Partition Size 1.00 GB (1,077,479,424 bytes)
 Partition Starting Offset 94,409,796,096 bytes
 Partition Disk #20, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
 Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #20, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #20, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)

Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #20, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 1
 SCSI Port 6
 SCSI Target ID 1
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #21, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #21, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #21, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #21, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #21, Partition #4
 Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes
 Partition Disk #21, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #21, Partition #6
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 29,043,495,936 bytes
 Partition Disk #21, Partition #7
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 37,104,270,336 bytes
 Partition Disk #21, Partition #8
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 45,165,044,736 bytes
 Partition Disk #21, Partition #9
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 53,225,819,136 bytes
 Partition Disk #21, Partition #10
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 61,286,593,536 bytes
 Partition Disk #21, Partition #11
 Partition Size 20.00 GB (21,476,173,824 bytes)
 Partition Starting Offset 61,401,747,456 bytes
 Partition Disk #21, Partition #12
 Partition Size 211.76 MB (222,050,304 bytes)
 Partition Starting Offset 82,877,953,536 bytes
 Partition Disk #21, Partition #13
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 83,100,036,096 bytes
 Partition Disk #21, Partition #14
 Partition Size 823.61 MB (863,622,144 bytes)
 Partition Starting Offset 83,215,190,016 bytes
 Partition Disk #21, Partition #15
 Partition Size 4.01 GB (4,301,789,184 bytes)
 Partition Starting Offset 84,078,844,416 bytes
 Partition Disk #21, Partition #16
 Partition Size 3.50 GB (3,758,920,704 bytes)
 Partition Starting Offset 88,380,665,856 bytes
 Partition Disk #21, Partition #17
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 92,139,618,816 bytes
 Partition Disk #21, Partition #18
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 94,294,642,176 bytes

Partition Disk #21, Partition #19
 Partition Size 1.00 GB (1,077,479,424 bytes)
 Partition Starting Offset 94,409,796,096 bytes
 Partition Disk #21, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
 Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #21, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #21, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #21, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 18
 SCSI Target ID 0
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #66, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #66, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #66, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #66, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #66, Partition #4
 Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes
 Partition Disk #66, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #66, Partition #6
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 29,043,495,936 bytes
 Partition Disk #66, Partition #7
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 37,104,270,336 bytes
 Partition Disk #66, Partition #8
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 45,165,044,736 bytes
 Partition Disk #66, Partition #9
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 53,225,819,136 bytes
 Partition Disk #66, Partition #10
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 61,286,593,536 bytes
 Partition Disk #66, Partition #11
 Partition Size 20.00 GB (21,476,173,824 bytes)
 Partition Starting Offset 61,401,747,456 bytes
 Partition Disk #66, Partition #12
 Partition Size 211.76 MB (222,050,304 bytes)
 Partition Starting Offset 82,877,953,536 bytes
 Partition Disk #66, Partition #13
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 83,100,036,096 bytes
 Partition Disk #66, Partition #14
 Partition Size 823.61 MB (863,622,144 bytes)
 Partition Starting Offset 83,215,190,016 bytes
 Partition Disk #66, Partition #15

Partition Size 4.01 GB (4,301,789,184 bytes)
 Partition Starting Offset 84,078,844,416 bytes
 Partition Disk #66, Partition #16
 Partition Size 3.50 GB (3,758,920,704 bytes)
 Partition Starting Offset 88,380,665,856 bytes
 Partition Disk #66, Partition #17
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 92,139,618,816 bytes
 Partition Disk #66, Partition #18
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 94,294,642,176 bytes
 Partition Disk #66, Partition #19
 Partition Size 1.00 GB (1,077,479,424 bytes)
 Partition Starting Offset 94,409,796,096 bytes
 Partition Disk #66, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
 Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #66, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #66, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #66, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 18
 SCSI Target ID 1
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #67, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #67, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #67, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #67, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #67, Partition #4
 Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes
 Partition Disk #67, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #67, Partition #6
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 29,043,495,936 bytes
 Partition Disk #67, Partition #7
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 37,104,270,336 bytes
 Partition Disk #67, Partition #8
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 45,165,044,736 bytes
 Partition Disk #67, Partition #9
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 53,225,819,136 bytes
 Partition Disk #67, Partition #10
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 61,286,593,536 bytes
 Partition Disk #67, Partition #11
 Partition Size 20.00 GB (21,476,173,824 bytes)

Partition Starting Offset 61,401,747,456 bytes
 Partition Disk #67, Partition #12
 Partition Size 211.76 MB (222,050,304 bytes)
 Partition Starting Offset 82,877,953,536 bytes
 Partition Disk #67, Partition #13
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 83,100,036,096 bytes
 Partition Disk #67, Partition #14
 Partition Size 823.61 MB (863,622,144 bytes)
 Partition Starting Offset 83,215,190,016 bytes
 Partition Disk #67, Partition #15
 Partition Size 4.01 GB (4,301,789,184 bytes)
 Partition Starting Offset 84,078,844,416 bytes
 Partition Disk #67, Partition #16
 Partition Size 3.50 GB (3,758,920,704 bytes)
 Partition Starting Offset 88,380,665,856 bytes
 Partition Disk #67, Partition #17
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 92,139,618,816 bytes
 Partition Disk #67, Partition #18
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 94,294,642,176 bytes
 Partition Disk #67, Partition #19
 Partition Size 1.00 GB (1,077,479,424 bytes)
 Partition Starting Offset 94,409,796,096 bytes
 Partition Disk #67, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
 Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #67, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #67, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #67, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 1
 SCSI Port 18
 SCSI Target ID 1
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #68, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #68, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #68, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #68, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #68, Partition #4
 Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes
 Partition Disk #68, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #68, Partition #6
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 29,043,495,936 bytes
 Partition Disk #68, Partition #7
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 37,104,270,336 bytes

Partition Disk #68, Partition #8
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 45,165,044,736 bytes
 Partition Disk #68, Partition #9
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 53,225,819,136 bytes
 Partition Disk #68, Partition #10
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 61,286,593,536 bytes
 Partition Disk #68, Partition #11
 Partition Size 20.00 GB (21,476,173,824 bytes)
 Partition Starting Offset 61,401,747,456 bytes
 Partition Disk #68, Partition #12
 Partition Size 211.76 MB (222,050,304 bytes)
 Partition Starting Offset 82,877,953,536 bytes
 Partition Disk #68, Partition #13
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 83,100,036,096 bytes
 Partition Disk #68, Partition #14
 Partition Size 823.61 MB (863,622,144 bytes)
 Partition Starting Offset 83,215,190,016 bytes
 Partition Disk #68, Partition #15
 Partition Size 4.01 GB (4,301,789,184 bytes)
 Partition Starting Offset 84,078,844,416 bytes
 Partition Disk #68, Partition #16
 Partition Size 3.50 GB (3,758,920,704 bytes)
 Partition Starting Offset 88,380,665,856 bytes
 Partition Disk #68, Partition #17
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 92,139,618,816 bytes
 Partition Disk #68, Partition #18
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 94,294,642,176 bytes
 Partition Disk #68, Partition #19
 Partition Size 1.00 GB (1,077,479,424 bytes)
 Partition Starting Offset 94,409,796,096 bytes
 Partition Disk #68, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
 Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #68, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #68, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #68, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 13
 SCSI Target ID 0
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #46, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #46, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #46, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #46, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #46, Partition #4

Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes
 Partition Disk #46, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #46, Partition #6
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 29,043,495,936 bytes
 Partition Disk #46, Partition #7
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 37,104,270,336 bytes
 Partition Disk #46, Partition #8
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 45,165,044,736 bytes
 Partition Disk #46, Partition #9
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 53,225,819,136 bytes
 Partition Disk #46, Partition #10
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 61,286,593,536 bytes
 Partition Disk #46, Partition #11
 Partition Size 20.00 GB (21,476,173,824 bytes)
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 Partition Disk #46, Partition #12
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 Partition Disk #46, Partition #13
 Partition Size 109.79 MB (115,121,664 bytes)
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 Partition Disk #46, Partition #14
 Partition Size 823.61 MB (863,622,144 bytes)
 Partition Starting Offset 83,215,190,016 bytes
 Partition Disk #46, Partition #15
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 Partition Starting Offset 84,078,844,416 bytes
 Partition Disk #46, Partition #16
 Partition Size 3.50 GB (3,758,920,704 bytes)
 Partition Starting Offset 88,380,665,856 bytes
 Partition Disk #46, Partition #17
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 92,139,618,816 bytes
 Partition Disk #46, Partition #18
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 94,294,642,176 bytes
 Partition Disk #46, Partition #19
 Partition Size 1.00 GB (1,077,479,424 bytes)
 Partition Starting Offset 94,409,796,096 bytes
 Partition Disk #46, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
 Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #46, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #46, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #46, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 1
 SCSI Port 13
 SCSI Target ID 0
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #47, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)

```

Partition Starting Offset      8,257,536 bytes
Partition Disk #47, Partition #1
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      2,163,280,896 bytes
Partition Disk #47, Partition #2
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      10,224,055,296 bytes
Partition Disk #47, Partition #3
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      18,284,829,696 bytes
Partition Disk #47, Partition #4
Partition Size      517.69 MB (542,836,224 bytes)
Partition Starting Offset      26,345,604,096 bytes
Partition Disk #47, Partition #5
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset      26,888,472,576 bytes
Partition Disk #47, Partition #6
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      29,043,495,936 bytes
Partition Disk #47, Partition #7
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      37,104,270,336 bytes
Partition Disk #47, Partition #8
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      45,165,044,736 bytes
Partition Disk #47, Partition #9
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      53,225,819,136 bytes
Partition Disk #47, Partition #10
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset      61,286,593,536 bytes
Partition Disk #47, Partition #11
Partition Size      20.00 GB (21,476,173,824 bytes)
Partition Starting Offset      61,401,747,456 bytes
Partition Disk #47, Partition #12
Partition Size      211.76 MB (222,050,304 bytes)
Partition Starting Offset      82,877,953,536 bytes
Partition Disk #47, Partition #13
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset      83,100,036,096 bytes
Partition Disk #47, Partition #14
Partition Size      823.61 MB (863,622,144 bytes)
Partition Starting Offset      83,215,190,016 bytes
Partition Disk #47, Partition #15
Partition Size      4.01 GB (4,301,789,184 bytes)
Partition Starting Offset      84,078,844,416 bytes
Partition Disk #47, Partition #16
Partition Size      3.50 GB (3,758,920,704 bytes)
Partition Starting Offset      88,380,665,856 bytes
Partition Disk #47, Partition #17
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset      92,139,618,816 bytes
Partition Disk #47, Partition #18
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset      94,294,642,176 bytes
Partition Disk #47, Partition #19
Partition Size      1.00 GB (1,077,479,424 bytes)
Partition Starting Offset      94,409,796,096 bytes
Partition Disk #47, Partition #20
Partition Size      8.01 GB (8,595,385,344 bytes)
Partition Starting Offset      95,487,307,776 bytes
Partition Disk #47, Partition #21
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset      104,082,725,376 bytes
Partition Disk #47, Partition #22
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset      106,772,391,936 bytes
Partition Disk #47, Partition #23
Partition Size      396.98 GB (426,250,427,904 bytes)
Partition Starting Offset      109,462,058,496 bytes

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```

Description      Disk drive
Manufacturer      (Standard disk drives)
Model      NEC iStorage 2000 SCSI Disk Device
Bytes/Sector      512
Media Loaded      Yes
Media Type      Fixed hard disk
Partitions      24
SCSI Bus      0

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SCSI Logical Unit      0
SCSI Port      13
SCSI Target ID      1
Sectors/Track      63
Size      498.92 GB (535,712,486,400 bytes)
Total Cylinders      65,130
Total Sectors      1,046,313,450
Total Tracks      16,608,150
Tracks/Cylinder      255
Partition Disk #48, Partition #0
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset      8,257,536 bytes
Partition Disk #48, Partition #1
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      2,163,280,896 bytes
Partition Disk #48, Partition #2
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      10,224,055,296 bytes
Partition Disk #48, Partition #3
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      18,284,829,696 bytes
Partition Disk #48, Partition #4
Partition Size      517.69 MB (542,836,224 bytes)
Partition Starting Offset      26,345,604,096 bytes
Partition Disk #48, Partition #5
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset      26,888,472,576 bytes
Partition Disk #48, Partition #6
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      29,043,495,936 bytes
Partition Disk #48, Partition #7
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      37,104,270,336 bytes
Partition Disk #48, Partition #8
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      45,165,044,736 bytes
Partition Disk #48, Partition #9
Partition Size      7.51 GB (8,060,742,144 bytes)
Partition Starting Offset      53,225,819,136 bytes
Partition Disk #48, Partition #10
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset      61,286,593,536 bytes
Partition Disk #48, Partition #11
Partition Size      20.00 GB (21,476,173,824 bytes)
Partition Starting Offset      61,401,747,456 bytes
Partition Disk #48, Partition #12
Partition Size      211.76 MB (222,050,304 bytes)
Partition Starting Offset      82,877,953,536 bytes
Partition Disk #48, Partition #13
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset      83,100,036,096 bytes
Partition Disk #48, Partition #14
Partition Size      823.61 MB (863,622,144 bytes)
Partition Starting Offset      83,215,190,016 bytes
Partition Disk #48, Partition #15
Partition Size      4.01 GB (4,301,789,184 bytes)
Partition Starting Offset      84,078,844,416 bytes
Partition Disk #48, Partition #16
Partition Size      3.50 GB (3,758,920,704 bytes)
Partition Starting Offset      88,380,665,856 bytes
Partition Disk #48, Partition #17
Partition Size      2.01 GB (2,154,991,104 bytes)
Partition Starting Offset      92,139,618,816 bytes
Partition Disk #48, Partition #18
Partition Size      109.79 MB (115,121,664 bytes)
Partition Starting Offset      94,294,642,176 bytes
Partition Disk #48, Partition #19
Partition Size      1.00 GB (1,077,479,424 bytes)
Partition Starting Offset      94,409,796,096 bytes
Partition Disk #48, Partition #20
Partition Size      8.01 GB (8,595,385,344 bytes)
Partition Starting Offset      95,487,307,776 bytes
Partition Disk #48, Partition #21
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset      104,082,725,376 bytes
Partition Disk #48, Partition #22
Partition Size      2.50 GB (2,689,634,304 bytes)
Partition Starting Offset      106,772,391,936 bytes
Partition Disk #48, Partition #23

```

Partition Size 396.98 GB (426,250,427,904 bytes)
Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model NEC iStorage 2000 SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 24
SCSI Bus 0
SCSI Logical Unit 1
SCSI Port 13
SCSI Target ID 1
Sectors/Track 63
Size 498.92 GB (535,712,486,400 bytes)
Total Cylinders 65,130
Total Sectors 1,046,313,450
Total Tracks 16,608,150
Tracks/Cylinder 255
Partition Disk #49, Partition #0
Partition Size 2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 8,257,536 bytes
Partition Disk #49, Partition #1
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 2,163,280,896 bytes
Partition Disk #49, Partition #2
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 10,224,055,296 bytes
Partition Disk #49, Partition #3
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 18,284,829,696 bytes
Partition Disk #49, Partition #4
Partition Size 517.69 MB (542,836,224 bytes)
Partition Starting Offset 26,345,604,096 bytes
Partition Disk #49, Partition #5
Partition Size 2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 26,888,472,576 bytes
Partition Disk #49, Partition #6
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 29,043,495,936 bytes
Partition Disk #49, Partition #7
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 37,104,270,336 bytes
Partition Disk #49, Partition #8
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 45,165,044,736 bytes
Partition Disk #49, Partition #9
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 53,225,819,136 bytes
Partition Disk #49, Partition #10
Partition Size 109.79 MB (115,121,664 bytes)
Partition Starting Offset 61,286,593,536 bytes
Partition Disk #49, Partition #11
Partition Size 20.00 GB (21,476,173,824 bytes)
Partition Starting Offset 61,401,747,456 bytes
Partition Disk #49, Partition #12
Partition Size 211.76 MB (222,050,304 bytes)
Partition Starting Offset 82,877,953,536 bytes
Partition Disk #49, Partition #13
Partition Size 109.79 MB (115,121,664 bytes)
Partition Starting Offset 83,100,036,096 bytes
Partition Disk #49, Partition #14
Partition Size 823.61 MB (863,622,144 bytes)
Partition Starting Offset 83,215,190,016 bytes
Partition Disk #49, Partition #15
Partition Size 4.01 GB (4,301,789,184 bytes)
Partition Starting Offset 84,078,844,416 bytes
Partition Disk #49, Partition #16
Partition Size 3.50 GB (3,758,920,704 bytes)
Partition Starting Offset 88,380,665,856 bytes
Partition Disk #49, Partition #17
Partition Size 2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 92,139,618,816 bytes
Partition Disk #49, Partition #18
Partition Size 109.79 MB (115,121,664 bytes)
Partition Starting Offset 94,294,642,176 bytes
Partition Disk #49, Partition #19
Partition Size 1.00 GB (1,077,479,424 bytes)

Partition Starting Offset 94,409,796,096 bytes
Partition Disk #49, Partition #20
Partition Size 8.01 GB (8,595,385,344 bytes)
Partition Starting Offset 95,487,307,776 bytes
Partition Disk #49, Partition #21
Partition Size 2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 104,082,725,376 bytes
Partition Disk #49, Partition #22
Partition Size 2.50 GB (2,689,634,304 bytes)
Partition Starting Offset 106,772,391,936 bytes
Partition Disk #49, Partition #23
Partition Size 396.98 GB (426,250,427,904 bytes)
Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model NEC iStorage 2000 SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 24
SCSI Bus 0
SCSI Logical Unit 0
SCSI Port 9
SCSI Target ID 0
Sectors/Track 63
Size 498.92 GB (535,712,486,400 bytes)
Total Cylinders 65,130
Total Sectors 1,046,313,450
Total Tracks 16,608,150
Tracks/Cylinder 255
Partition Disk #30, Partition #0
Partition Size 2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 8,257,536 bytes
Partition Disk #30, Partition #1
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 2,163,280,896 bytes
Partition Disk #30, Partition #2
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 10,224,055,296 bytes
Partition Disk #30, Partition #3
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 18,284,829,696 bytes
Partition Disk #30, Partition #4
Partition Size 517.69 MB (542,836,224 bytes)
Partition Starting Offset 26,345,604,096 bytes
Partition Disk #30, Partition #5
Partition Size 2.01 GB (2,154,991,104 bytes)
Partition Starting Offset 26,888,472,576 bytes
Partition Disk #30, Partition #6
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 29,043,495,936 bytes
Partition Disk #30, Partition #7
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 37,104,270,336 bytes
Partition Disk #30, Partition #8
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 45,165,044,736 bytes
Partition Disk #30, Partition #9
Partition Size 7.51 GB (8,060,742,144 bytes)
Partition Starting Offset 53,225,819,136 bytes
Partition Disk #30, Partition #10
Partition Size 109.79 MB (115,121,664 bytes)
Partition Starting Offset 61,286,593,536 bytes
Partition Disk #30, Partition #11
Partition Size 20.00 GB (21,476,173,824 bytes)
Partition Starting Offset 61,401,747,456 bytes
Partition Disk #30, Partition #12
Partition Size 211.76 MB (222,050,304 bytes)
Partition Starting Offset 82,877,953,536 bytes
Partition Disk #30, Partition #13
Partition Size 109.79 MB (115,121,664 bytes)
Partition Starting Offset 83,100,036,096 bytes
Partition Disk #30, Partition #14
Partition Size 823.61 MB (863,622,144 bytes)
Partition Starting Offset 83,215,190,016 bytes
Partition Disk #30, Partition #15
Partition Size 4.01 GB (4,301,789,184 bytes)
Partition Starting Offset 84,078,844,416 bytes

Partition Disk #30, Partition #16
 Partition Size 3.50 GB (3,758,920,704 bytes)
 Partition Starting Offset 88,380,665,856 bytes
 Partition Disk #30, Partition #17
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 92,139,618,816 bytes
 Partition Disk #30, Partition #18
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 94,294,642,176 bytes
 Partition Disk #30, Partition #19
 Partition Size 1.00 GB (1,077,479,424 bytes)
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 Partition Disk #30, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
 Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #30, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #30, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #30, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 1
 SCSI Port 9
 SCSI Target ID 0
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #31, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #31, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #31, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #31, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #31, Partition #4
 Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes
 Partition Disk #31, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #31, Partition #6
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 29,043,495,936 bytes
 Partition Disk #31, Partition #7
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 37,104,270,336 bytes
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 Partition Size 7.51 GB (8,060,742,144 bytes)
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 Partition Disk #31, Partition #11
 Partition Size 20.00 GB (21,476,173,824 bytes)
 Partition Starting Offset 61,401,747,456 bytes
 Partition Disk #31, Partition #12

Partition Size 211.76 MB (222,050,304 bytes)
 Partition Starting Offset 82,877,953,536 bytes
 Partition Disk #31, Partition #13
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 83,100,036,096 bytes
 Partition Disk #31, Partition #14
 Partition Size 823.61 MB (863,622,144 bytes)
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 Partition Size 3.50 GB (3,758,920,704 bytes)
 Partition Starting Offset 88,380,665,856 bytes
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 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 92,139,618,816 bytes
 Partition Disk #31, Partition #18
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 94,294,642,176 bytes
 Partition Disk #31, Partition #19
 Partition Size 1.00 GB (1,077,479,424 bytes)
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 Partition Disk #31, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
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 Partition Disk #31, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #31, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #31, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 0
 SCSI Port 9
 SCSI Target ID 1
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #32, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #32, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #32, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #32, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #32, Partition #4
 Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes
 Partition Disk #32, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #32, Partition #6
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 29,043,495,936 bytes
 Partition Disk #32, Partition #7
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 37,104,270,336 bytes
 Partition Disk #32, Partition #8
 Partition Size 7.51 GB (8,060,742,144 bytes)

Partition Starting Offset 45,165,044,736 bytes
 Partition Disk #32, Partition #9
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 53,225,819,136 bytes
 Partition Disk #32, Partition #10
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 61,286,593,536 bytes
 Partition Disk #32, Partition #11
 Partition Size 20.00 GB (21,476,173,824 bytes)
 Partition Starting Offset 61,401,747,456 bytes
 Partition Disk #32, Partition #12
 Partition Size 211.76 MB (222,050,304 bytes)
 Partition Starting Offset 82,877,953,536 bytes
 Partition Disk #32, Partition #13
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 83,100,036,096 bytes
 Partition Disk #32, Partition #14
 Partition Size 823.61 MB (863,622,144 bytes)
 Partition Starting Offset 83,215,190,016 bytes
 Partition Disk #32, Partition #15
 Partition Size 4.01 GB (4,301,789,184 bytes)
 Partition Starting Offset 84,078,844,416 bytes
 Partition Disk #32, Partition #16
 Partition Size 3.50 GB (3,758,920,704 bytes)
 Partition Starting Offset 88,380,665,856 bytes
 Partition Disk #32, Partition #17
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 92,139,618,816 bytes
 Partition Disk #32, Partition #18
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 94,294,642,176 bytes
 Partition Disk #32, Partition #19
 Partition Size 1.00 GB (1,077,479,424 bytes)
 Partition Starting Offset 94,409,796,096 bytes
 Partition Disk #32, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
 Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #32, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #32, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #32, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 24
 SCSI Bus 0
 SCSI Logical Unit 1
 SCSI Port 9
 SCSI Target ID 1
 Sectors/Track 63
 Size 498.92 GB (535,712,486,400 bytes)
 Total Cylinders 65,130
 Total Sectors 1,046,313,450
 Total Tracks 16,608,150
 Tracks/Cylinder 255
 Partition Disk #33, Partition #0
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #33, Partition #1
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 2,163,280,896 bytes
 Partition Disk #33, Partition #2
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 10,224,055,296 bytes
 Partition Disk #33, Partition #3
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 18,284,829,696 bytes
 Partition Disk #33, Partition #4
 Partition Size 517.69 MB (542,836,224 bytes)
 Partition Starting Offset 26,345,604,096 bytes

Partition Disk #33, Partition #5
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 26,888,472,576 bytes
 Partition Disk #33, Partition #6
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 29,043,495,936 bytes
 Partition Disk #33, Partition #7
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 37,104,270,336 bytes
 Partition Disk #33, Partition #8
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 45,165,044,736 bytes
 Partition Disk #33, Partition #9
 Partition Size 7.51 GB (8,060,742,144 bytes)
 Partition Starting Offset 53,225,819,136 bytes
 Partition Disk #33, Partition #10
 Partition Size 109.79 MB (115,121,664 bytes)
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 Partition Disk #33, Partition #13
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 83,100,036,096 bytes
 Partition Disk #33, Partition #14
 Partition Size 823.61 MB (863,622,144 bytes)
 Partition Starting Offset 83,215,190,016 bytes
 Partition Disk #33, Partition #15
 Partition Size 4.01 GB (4,301,789,184 bytes)
 Partition Starting Offset 84,078,844,416 bytes
 Partition Disk #33, Partition #16
 Partition Size 3.50 GB (3,758,920,704 bytes)
 Partition Starting Offset 88,380,665,856 bytes
 Partition Disk #33, Partition #17
 Partition Size 2.01 GB (2,154,991,104 bytes)
 Partition Starting Offset 92,139,618,816 bytes
 Partition Disk #33, Partition #18
 Partition Size 109.79 MB (115,121,664 bytes)
 Partition Starting Offset 94,294,642,176 bytes
 Partition Disk #33, Partition #19
 Partition Size 1.00 GB (1,077,479,424 bytes)
 Partition Starting Offset 94,409,796,096 bytes
 Partition Disk #33, Partition #20
 Partition Size 8.01 GB (8,595,385,344 bytes)
 Partition Starting Offset 95,487,307,776 bytes
 Partition Disk #33, Partition #21
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 104,082,725,376 bytes
 Partition Disk #33, Partition #22
 Partition Size 2.50 GB (2,689,634,304 bytes)
 Partition Starting Offset 106,772,391,936 bytes
 Partition Disk #33, Partition #23
 Partition Size 396.98 GB (426,250,427,904 bytes)
 Partition Starting Offset 109,462,058,496 bytes

Description Disk drive
 Manufacturer (Standard disk drives)
 Model NEC iStorage 2000 SCSI Disk Device
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 2
 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 201.00 GB (215,823,089,664 bytes)
 Partition Starting Offset 8,257,536 bytes
 Partition Disk #0, Partition #1

Partition Size 31.81 GB (34,159,555,584 bytes)
Partition Starting Offset 215,831,379,456 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model NEC iStorage 2000 SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 1
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 #1, Partition #0
Partition Size 201.00 GB (215,823,089,664 bytes)
Partition Starting Offset 8,257,536 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model NEC iStorage 2000 SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 2
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 #2, Partition #0
Partition Size 232.81 GB (249,982,677,504 bytes)
Partition Starting Offset 8,257,536 bytes

Description Disk drive
Manufacturer (Standard disk drives)
Model NEC iStorage 2000 SCSI Disk Device
Bytes/Sector 512
Media Loaded Yes
Media Type Fixed hard disk
Partitions 1
SCSI Bus 0
SCSI Logical Unit 3
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 #3, Partition #0
Partition Size 232.81 GB (249,982,677,504 bytes)
Partition Starting Offset 8,257,536 bytes

[SCSI]

Item	Value
Name	QLogic QLA23xx PCI Fibre Channel Adapter
Manufacturer	QLogic
Status	OK
PNP Device ID	PCI\VEN_1077&DEV_2312&SUBSYS_01001077&REV_02\3&13C0B0C5&0&10
I/O Port	0x00001200-0x000012FF
Memory Address	0xFB7FF000-0xFB7FFFFF
IRQ Channel	IRQ 20
Driver	c:\windows\system32\drivers\ql2300.sys (8.2.2.10 (W64 VI), 690.75 KB (707,328 bytes), 8/23/2003 12:45 AM)

Name	QLogic QLA23xx PCI Fibre Channel Adapter
Manufacturer	QLogic
Status	OK
PNP Device ID	PCI\VEN_1077&DEV_2312&SUBSYS_01001077&REV_02\3&1070020&0&10
I/O Port	0x00001300-0x000013FF
Memory Address	0xFB7FF000-0xFB7FFFFF
IRQ Channel	IRQ 64
Driver	c:\windows\system32\drivers\ql2300.sys (8.2.2.10 (W64 VI), 690.75 KB (707,328 bytes), 8/23/2003 12:45 AM)

Name	Adaptec SCSI Card 39160 - Ultra160 SCSI
Manufacturer	Adaptec
Status	OK
PNP Device ID	PCI\VEN_9005&DEV_00C0&SUBSYS_F6209005&REV_01\3&29E81982&0&10
I/O Port	0x00001400-0x000015FF
Memory Address	0xFB3FF000-0xFB3FFFFF
IRQ Channel	IRQ 68
Driver	c:\windows\system32\drivers\adpu160m.sys (RTC_XP07 (lab01_n(storbuild).010917-1859), 319.88 KB (327,552 bytes), 3/25/2003 9:00 PM)

Name	Adaptec SCSI Card 39160 - Ultra160 SCSI
Manufacturer	Adaptec
Status	OK
PNP Device ID	PCI\VEN_9005&DEV_00C0&SUBSYS_F6209005&REV_01\3&29E81982&0&11
I/O Port	0x00001500-0x000015FF
Memory Address	0xFB3FE000-0xFB3FEFFF
IRQ Channel	IRQ 67
Driver	c:\windows\system32\drivers\adpu160m.sys (RTC_XP07 (lab01_n(storbuild).010917-1859), 319.88 KB (327,552 bytes), 3/25/2003 9:00 PM)

Name	QLogic QLA23xx PCI Fibre Channel Adapter
Manufacturer	QLogic
Status	OK
PNP Device ID	PCI\VEN_1077&DEV_2312&SUBSYS_01001077&REV_02\3&474B838&0&10
I/O Port	0x00001600-0x000016FF
Memory Address	0xFAFFF000-0xFAFFFFF
IRQ Channel	IRQ 73
Driver	c:\windows\system32\drivers\ql2300.sys (8.2.2.10 (W64 VI), 690.75 KB (707,328 bytes), 8/23/2003 12:45 AM)

Name	QLogic QLA23xx PCI Fibre Channel Adapter
Manufacturer	QLogic
Status	OK
PNP Device ID	PCI\VEN_1077&DEV_2312&SUBSYS_01001077&REV_02\3&AD74055&0&10
I/O Port	0x00001800-0x000018FF
Memory Address	0xFA7FF000-0xFA7FFFFF
IRQ Channel	IRQ 84
Driver	c:\windows\system32\drivers\ql2300.sys (8.2.2.10 (W64 VI), 690.75 KB (707,328 bytes), 8/23/2003 12:45 AM)

Name	QLogic QLA23xx PCI Fibre Channel Adapter
Manufacturer	QLogic
Status	OK
PNP Device ID	PCI\VEN_1077&DEV_2312&SUBSYS_01001077&REV_02\3&23C0707C&0&10
I/O Port	0x00001900-0x000019FF
Memory Address	0xFA3FF000-0xFA3FFFFF
IRQ Channel	IRQ 86
Driver	c:\windows\system32\drivers\ql2300.sys (8.2.2.10 (W64 VI), 690.75 KB (707,328 bytes), 8/23/2003 12:45 AM)

Name	QLogic QLA23xx PCI Fibre Channel Adapter
Manufacturer	QLogic
Status	OK
PNP Device ID	PCI\VEN_1077&DEV_2312&SUBSYS_01001077&REV_02\3&1106BFD7&0&10
I/O Port	0x00001A00-0x00001AFF
Memory Address	0xF9FFF000-0xF9FFFFF
IRQ Channel	IRQ 90
Driver	c:\windows\system32\drivers\ql2300.sys (8.2.2.10 (W64 VI), 690.75 KB (707,328 bytes), 8/23/2003 12:45 AM)

Name	QLogic QLA23xx PCI Fibre Channel Adapter
Manufacturer	QLogic
Status	OK
PNP Device ID	PCI\VEN_1077&DEV_2312&SUBSYS_01001077&REV_02\3&1B2F0CE&0&10
I/O Port	0x00001B00-0x00001BFF
Memory Address	0xF9BFF000-0xF9BFFFFF
IRQ Channel	IRQ 91
Driver	c:\windows\system32\drivers\ql2300.sys (8.2.2.10 (W64 VI), 690.75 KB (707,328 bytes), 8/23/2003 12:45 AM)

Name QLogic QLA23xx PCI Fibre Channel Adapter
Manufacturer QLogic
Status OK
PNP Device ID PCI\VEN_1077&DEV_2312&SUBSYS_01001077&REV_02\3&146CA173&0&10
I/O Port 0x00001C00-0x00001CFF
Memory Address 0xF97FF000-0xF97FFFFF
IRQ Channel IRQ 95
Driver c:\windows\system32\drivers\ql2300.sys (8.2.2.10 (W64 VI), 690.75 KB (707,328 bytes), 8/23/2003 12:45 AM)

Name QLogic QLA23xx PCI Fibre Channel Adapter
Manufacturer QLogic
Status OK
PNP Device ID PCI\VEN_1077&DEV_2312&SUBSYS_01001077&REV_02\3&39E002BD&0&10
I/O Port 0x00001D00-0x00001DFF
Memory Address 0xF93FF000-0xF93FFFFF
IRQ Channel IRQ 100
Driver c:\windows\system32\drivers\ql2300.sys (8.2.2.10 (W64 VI), 690.75 KB (707,328 bytes), 8/23/2003 12:45 AM)

Name QLogic QLA23xx PCI Fibre Channel Adapter
Manufacturer QLogic
Status OK
PNP Device ID PCI\VEN_1077&DEV_2312&SUBSYS_01001077&REV_02\3&1D521019&0&10
I/O Port 0x00001E00-0x00001EFF
Memory Address 0xF8FFF000-0xF8FFFFFFF
IRQ Channel IRQ 150
Driver c:\windows\system32\drivers\ql2300.sys (8.2.2.10 (W64 VI), 690.75 KB (707,328 bytes), 8/23/2003 12:45 AM)

Name QLogic QLA23xx PCI Fibre Channel Adapter
Manufacturer QLogic
Status OK
PNP Device ID PCI\VEN_1077&DEV_2312&SUBSYS_01001077&REV_02\3&300BC0BE&0&10
I/O Port 0x00001F00-0x00001FFF
Memory Address 0xF8BFF000-0xF8BFFFFF
IRQ Channel IRQ 152
Driver c:\windows\system32\drivers\ql2300.sys (8.2.2.10 (W64 VI), 690.75 KB (707,328 bytes), 8/23/2003 12:45 AM)

Name QLogic QLA23xx PCI Fibre Channel Adapter
Manufacturer QLogic
Status OK
PNP Device ID PCI\VEN_1077&DEV_2312&SUBSYS_01001077&REV_02\3&72AA75C&0&10
I/O Port 0x00002000-0x000020FF
Memory Address 0xF87FF000-0xF87FFFFF
IRQ Channel IRQ 156
Driver c:\windows\system32\drivers\ql2300.sys (8.2.2.10 (W64 VI), 690.75 KB (707,328 bytes), 8/23/2003 12:45 AM)

Name QLogic QLA23xx PCI Fibre Channel Adapter
Manufacturer QLogic
Status OK
PNP Device ID PCI\VEN_1077&DEV_2312&SUBSYS_01001077&REV_02\3&19E45801&0&10
I/O Port 0x00002100-0x000021FF
Memory Address 0xF83FF000-0xF83FFFFF
IRQ Channel IRQ 157
Driver c:\windows\system32\drivers\ql2300.sys (8.2.2.10 (W64 VI), 690.75 KB (707,328 bytes), 8/23/2003 12:45 AM)

Name QLogic QLA23xx PCI Fibre Channel Adapter
Manufacturer QLogic
Status OK
PNP Device ID PCI\VEN_1077&DEV_2312&SUBSYS_01001077&REV_02\3&36B90202&0&10
I/O Port 0x00002200-0x000022FF
Memory Address 0xF7FFF000-0xF7FFFFFFF
IRQ Channel IRQ 166
Driver c:\windows\system32\drivers\ql2300.sys (8.2.2.10 (W64 VI), 690.75 KB (707,328 bytes), 8/23/2003 12:45 AM)

Name QLogic QLA23xx PCI Fibre Channel Adapter
Manufacturer QLogic
Status OK
PNP Device ID PCI\VEN_1077&DEV_2312&SUBSYS_01001077&REV_02\3&1145A0B8&0&10
I/O Port 0x00002300-0x000023FF
Memory Address 0xF7BFF000-0xF7BFFFFF
IRQ Channel IRQ 172
Driver c:\windows\system32\drivers\ql2300.sys (8.2.2.10 (W64 VI), 690.75 KB (707,328 bytes),

8/23/2003 12:45 AM)

Name QLogic QLA23xx PCI Fibre Channel Adapter
Manufacturer QLogic
Status OK
PNP Device ID PCI\VEN_1077&DEV_2312&SUBSYS_01001077&REV_02\3&D525062&0&10
I/O Port 0x00002400-0x000024FF
Memory Address 0xF77FF000-0xF77FFFFF
IRQ Channel IRQ 174
Driver c:\windows\system32\drivers\ql2300.sys (8.2.2.10 (W64 VI), 690.75 KB (707,328 bytes), 8/23/2003 12:45 AM)

Name QLogic QLA23xx PCI Fibre Channel Adapter
Manufacturer QLogic
Status OK
PNP Device ID PCI\VEN_1077&DEV_2312&SUBSYS_01001077&REV_02\3&200C0107&0&10
I/O Port 0x00002500-0x000025FF
Memory Address 0xF73FF000-0xF73FFFFF
IRQ Channel IRQ 178
Driver c:\windows\system32\drivers\ql2300.sys (8.2.2.10 (W64 VI), 690.75 KB (707,328 bytes), 8/23/2003 12:45 AM)

Name QLogic QLA23xx PCI Fibre Channel Adapter
Manufacturer QLogic
Status OK
PNP Device ID PCI\VEN_1077&DEV_2312&SUBSYS_01001077&REV_02\3&7B03F9A&0&10
I/O Port 0x00002700-0x000027FF
Memory Address 0xF6BFF000-0xF6BFFFFF
IRQ Channel IRQ 183
Driver c:\windows\system32\drivers\ql2300.sys (8.2.2.10 (W64 VI), 690.75 KB (707,328 bytes), 8/23/2003 12:45 AM)

Name QLogic QLA23xx PCI Fibre Channel Adapter
Manufacturer QLogic
Status OK
PNP Device ID PCI\VEN_1077&DEV_2312&SUBSYS_01001077&REV_02\3&1DD7A857&0&10
I/O Port 0x00002800-0x000028FF
Memory Address 0xF67FF000-0xF67FFFFF
IRQ Channel IRQ 188
Driver c:\windows\system32\drivers\ql2300.sys (8.2.2.10 (W64 VI), 690.75 KB (707,328 bytes), 8/23/2003 12:45 AM)

[IDE]

Item	Value
Name	Intel(r) IA64 Bus Master IDE Controller
Manufacturer	Intel
Status	OK
PNP Device ID	PCI\VEN_8086&DEV_7601&SUBSYS_01061033&REV_01\3&267A616A&0&11
I/O Port	0x00001120-0x0000112F
Driver	c:\windows\system32\drivers\intelide.sys (5.2.3790.0 (srv03_rtm.030324-2048), 11.50 KB (11,776 bytes), 3/25/2003 9:00 PM)

Name Primary IDE Channel
Manufacturer (Standard IDE ATA/ATAPI controllers)
Status OK
PNP Device ID PCI\VEN_8086&DEV_7601&SUBSYS_01061033&REV_01\3&267A616A&0&11
I/O Port 0x00001F00-0x00001F7F
I/O Port 0x000003F6-0x000003F6
IRQ Channel IRQ 14
Driver c:\windows\system32\drivers\atapi.sys (5.2.3790.0 (srv03_rtm.030324-2048), 281.50 KB (288,256 bytes), 3/25/2003 9:00 PM)

[Printing]

Name	Driver	Port Name	Server Name
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[Problem Devices]

Device	PNP Device ID	Error Code
System Interrupt Controller	PCI\VEN_1033&DEV_00FE&SUBSYS_00FE1033&REV_00\3&267A616A&0&08	The drivers for this device are not installed.
Not Available	ACPI\NEC4171\0	The drivers for this device are not installed.
System Interrupt Controller	PCI\VEN_1033&DEV_00FD&SUBSYS_00FD1033&REV_00\3&267A616A&0&70	The drivers for this device are not installed.
System Interrupt Controller	PCI\VEN_1033&DEV_00FE&SUBSYS_00FE1033&REV_00\3&1070020&0&08	The drivers for this device are not installed.
System Interrupt Controller	PCI\VEN_1033&DEV_00FE&SUBSYS_00FE1033&REV_00\3&172E68DD&0&08	The drivers for this device are not installed.

System Interrupt Controller PCI\VEN_1033&DEV_00FE&SUBSYS_00FE1033&REV_00\3&E44F86D&0&08 The drivers for this device are not installed.

System Interrupt Controller PCI\VEN_1033&DEV_00FE&SUBSYS_00FE1033&REV_00\3&33B859B7&0&08 The drivers for this device are not installed.

System Interrupt Controller PCI\VEN_1033&DEV_00FE&SUBSYS_00FE1033&REV_00\3&23C0707C&0&08 The drivers for this device are not installed.

System Interrupt Controller PCI\VEN_1033&DEV_00FE&SUBSYS_00FE1033&REV_00\3&1B2F0CE&0&08 The drivers for this device are not installed.

System Interrupt Controller PCI\VEN_1033&DEV_00FE&SUBSYS_00FE1033&REV_00\3&27265218&0&08 The drivers for this device are not installed.

System Interrupt Controller PCI\VEN_1033&DEV_00FE&SUBSYS_00FE1033&REV_00\3&A985F74&0&08 The drivers for this device are not installed.

System Interrupt Controller PCI\VEN_1033&DEV_00FE&SUBSYS_00FE1033&REV_00\3&300BC0BE&0&08 The drivers for this device are not installed.

System Interrupt Controller PCI\VEN_1033&DEV_00FE&SUBSYS_00FE1033&REV_00\3&19E45801&0&08 The drivers for this device are not installed.

System Interrupt Controller PCI\VEN_1033&DEV_00FE&SUBSYS_00FE1033&REV_00\3&3BCE44&0&08 The drivers for this device are not installed.

System Interrupt Controller PCI\VEN_1033&DEV_00FE&SUBSYS_00FE1033&REV_00\3&23FF515D&0&08 The drivers for this device are not installed.

System Interrupt Controller PCI\VEN_1033&DEV_00FE&SUBSYS_00FE1033&REV_00\3&D525062&0&08 The drivers for this device are not installed.

System Interrupt Controller PCI\VEN_1033&DEV_00FE&SUBSYS_00FE1033&REV_00\3&32C5B1AC&0&08 The drivers for this device are not installed.

System Interrupt Controller PCI\VEN_1033&DEV_00FE&SUBSYS_00FE1033&REV_00\3&309158FC&0&08 The drivers for this device are not installed.

[USB]

Device PNP Device ID
Intel(r) 82372FB PCI to USB Universal Host Controller
PCI\VEN_8086&DEV_7602&SUBSYS_01061033&REV_01\3&267A616A&0&12
USB Root Hub USB\ROOT_HUB\4&5C3BD33&0

[Software Environment]

[System Drivers]

Name	Description	File	Type	Started	Start Mode	State
abiosdsk	Status Error Control		Accept Pause		Accept Stop	
acpi	Microsoft ACPI Driver	c:\windows\system32\drivers\acpi.sys	Kernel Driver	Yes	Running	OK
acpiec	ACPIEC	c:\windows\system32\drivers\acpiec.sys	Kernel Driver	No	Disabled	Stopped
adpu160m	adpu160m	c:\windows\system32\drivers\adpu160m.sys	Kernel Driver	Yes	Running	OK
adpu320	adpu320	c:\windows\system32\drivers\adpu320.sys	Kernel Driver	No	Disabled	Stopped
afcnt	afcnt	c:\windows\system32\drivers\afcnt.sys	Kernel Driver	No	Disabled	Stopped
afd	AFD Networking Support Environment	c:\windows\system32\drivers\afd.sys	Kernel Driver	Yes	Running	OK
aic78u2	aic78u2	c:\windows\system32\drivers\aic78u2.sys	Kernel Driver	No	Disabled	Stopped
aic78xx	aic78xx	c:\windows\system32\drivers\aic78xx.sys	Kernel Driver	No	Disabled	Stopped
aliide	AliIde	c:\windows\system32\drivers\aliide.sys	Kernel Driver	No	Disabled	Stopped
asynccmac	RAS Asynchronous Media Driver	c:\windows\system32\drivers\asynccmac.sys	Kernel Driver	No	Manual	Stopped
atapi	Standard IDE/ESDI Hard Disk Controller	c:\windows\system32\drivers\atapi.sys	Kernel Driver	Yes	Running	OK
atdisk	Atdisk	c:\windows\system32\drivers\atdisk.sys	Kernel Driver	No	Disabled	Stopped
atmarpc	ATM ARP Client Protocol	c:\windows\system32\drivers\atmarpc.sys	Kernel Driver	No	Manual	Stopped
audstub	Audio Stub Driver	c:\windows\system32\drivers\audstub.sys	Kernel Driver	Yes	Running	OK
beep	Beep	c:\windows\system32\drivers\beep.sys	Kernel Driver	Yes	Running	OK
cbidf2k	cbidf2k	c:\windows\system32\drivers\cbidf2k.sys	Kernel Driver	No	Disabled	Stopped

cdfs	Cdfs	c:\windows\system32\drivers\cdfs.sys	File System Driver	Yes
cdrom	CD-ROM Driver	c:\windows\system32\drivers\cdrom.sys	Kernel Driver	Yes
changer	System Changer	c:\windows\system32\drivers\changer.sys	System	Stopped
clusdisk	Cluster Disk Driver	c:\windows\system32\drivers\clusdisk.sys	Kernel Driver	No
cmdide	CmdIde	c:\windows\system32\drivers\cmdide.sys	Kernel Driver	No
cpqarry2	cpqarry2	c:\windows\system32\drivers\cpqarry2.sys	Kernel Driver	No
cpqcissm	cpqcissm	c:\windows\system32\drivers\cpqcissm.sys	Kernel Driver	No
cpqfcalm	cpqfcalm	c:\windows\system32\drivers\cpqfcalm.sys	Kernel Driver	No
crcdisk	CRC Disk Filter Driver	c:\windows\system32\drivers\crcdisk.sys	Kernel Driver	Yes
dfsdriver	DfsDriver	c:\windows\system32\drivers\dfs.sys	File System Driver	Yes
disk	Disk Driver	c:\windows\system32\drivers\disk.sys	Kernel Driver	Yes
dmbboot	dmbboot	c:\windows\system32\drivers\dmbboot.sys	Kernel Driver	No
dmio	Logical Disk Manager Driver	c:\windows\system32\drivers\dmio.sys	Kernel Driver	Yes
dmload	dmload	c:\windows\system32\drivers\dmload.sys	Kernel Driver	Yes
e1000	Intel(R) PRO/1000 Device Driver	c:\windows\system32\drivers\e1000645.sys	Kernel Driver	Yes
em	em	c:\windows\system32\drivers\em.sys	Kernel Driver	No
fastfat	Fastfat	c:\windows\system32\drivers\fastfat.sys	File System Driver	Yes
fdc	Fdc	c:\windows\system32\drivers\fdc.sys	Kernel Driver	No
fips	Fips	c:\windows\system32\drivers\fips.sys	Kernel Driver	Yes
flpydisk	Flpydisk	c:\windows\system32\drivers\flpydisk.sys	Kernel Driver	No
ftdisk	Volume Manager Driver	c:\windows\system32\drivers\ftdisk.sys	Kernel Driver	Yes
gpc	Generic Packet Classifier	c:\windows\system32\drivers\msgpc.sys	Kernel Driver	Yes
hpn	hpn	c:\windows\system32\drivers\hpn.sys	Kernel Driver	No
http	HTTP	c:\windows\system32\drivers\http.sys	Kernel Driver	No
i2omgmt	i2omgmt	c:\windows\system32\drivers\i2omgmt.sys	Kernel Driver	No
i8042prt	i8042 Keyboard and PS/2 Mouse Port Driver	c:\windows\system32\drivers\i8042prt.sys	Kernel Driver	Yes
imapi	CD-Burning Filter Driver	c:\windows\system32\drivers\imapi.sys	Kernel Driver	No
intelide	IntelIde	c:\windows\system32\drivers\intelide.sys	Kernel Driver	Yes
ipfilterdriver	IP Traffic Filter Driver	c:\windows\system32\drivers\ipfltdrv.sys	Kernel Driver	No
ipinip	IP in IP Tunnel Driver	c:\windows\system32\drivers\ipinip.sys	Kernel Driver	No
ipnat	IP Network Address Translator	c:\windows\system32\drivers\ipnat.sys	Kernel Driver	No
ipsec	IPSEC driver	c:\windows\system32\drivers\ipsec.sys	Kernel Driver	Yes
isapnp	PnP ISA/EISA Bus Driver	c:\windows\system32\drivers\isapnp.sys	Kernel Driver	Yes
kbdclass	Keyboard Class Driver	c:\windows\system32\drivers\kbdclass.sys	Kernel Driver	Yes
ksecdd	KSecDD	c:\windows\system32\drivers\ksecdd.sys	Kernel Driver	Yes
lp6nds35	lp6nds35	c:\windows\system32\drivers\lp6nds35.sys	Kernel Driver	No
mnmdm	mnmdm	c:\windows\system32\drivers\mnmdm.sys	Kernel Driver	No
modem	Modem	c:\windows\system32\drivers\modem.sys	Kernel Driver	No

	Manual	Stopped	OK	Ignore	No	No				Kernel Driver	Yes	Boot	Running	OK	Normal	No	Yes
mouclass	Mouse Class Driver	c:\windows\system32\drivers\mouclass.sys								Kernel Driver							
Yes	System	Running	OK	Normal	No	Yes			rasacd	Remote Access Auto Connection Driver	c:\windows\system32\drivers\rasacd.sys				Normal	No	Yes
mountmgr	Mount Point Manager	c:\windows\system32\drivers\mountmgr.sys							Kernel Driver	Kernel Driver	Yes	System	Running	OK			
Yes	Boot	Running	OK	Normal	No	Yes											
mraid35x	mraid35x	Not Available		Kernel Driver	No	Disabled	Stopped	OK	rasl2tp	WAN Miniport (L2TP)	c:\windows\system32\drivers\rasl2tp.sys				Kernel Driver		Yes
Normal	No	No							Manual	Running	OK	Normal	No	Yes			
mrxdav	WebDav Client Redirector	c:\windows\system32\drivers\mrxdav.sys							raspppoe	Remote Access PPPOE Driver	c:\windows\system32\drivers\raspppoe.sys				Normal	No	Yes
Driver	No	Manual	Stopped	OK	Normal	No	No		Kernel Driver	Yes	Manual	Running	OK				
mrxsmmb	MRXSMB	c:\windows\system32\drivers\mrxsmmb.sys															
System	Running	OK	Normal	No	Yes				raspti	Direct Parallel	c:\windows\system32\drivers\raspti.sys				Kernel Driver		Yes
msfs	Msfs	c:\windows\system32\drivers\msfs.sys							Normal	Running	OK	Normal	No	Yes			
System	Running	OK	Normal	No	Yes				rdbss	Rdbss	c:\windows\system32\drivers\rdbss.sys				File System Driver	Yes	
mup	Mup	c:\windows\system32\drivers\mup.sys							System	Running	OK	Normal	No	Yes			
Running	OK	Normal	No	Yes					rdpcdd	RDPCDD	c:\windows\system32\drivers\rdpcdd.sys				Kernel Driver	Yes	
ndis	NDIS System Driver	c:\windows\system32\drivers\ndis.sys							System	Running	OK	Ignore	No	Yes			
Boot	Running	OK	Normal	No	Yes				rdpdr	Terminal Server Device Redirector Driver	c:\windows\system32\drivers\rdpdr.sys				Kernel Driver	Yes	Manual
ndistapi	Remote Access NDIS TAPI Driver	c:\windows\system32\drivers\ndistapi.sys							Running	OK	Normal	No	Yes				
Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes		rdpwd	RDPWD	c:\windows\system32\drivers\rdpwd.sys				Kernel Driver		No
									Manual	Stopped	OK	Ignore	No	No			
ndisuiio	NDIS Usermode I/O Protocol	c:\windows\system32\drivers\ndisuiio.sys							redbook	Digital CD Audio Playback Filter Driver	c:\windows\system32\drivers\redbook.sys				Normal	No	Yes
Yes	Manual	Running	OK	Normal	No	Yes			Kernel Driver	Yes	System	Running	OK				
ndiswan	Remote Access NDIS WAN Driver	c:\windows\system32\drivers\ndiswan.sys															
Yes	Manual	Running	OK	Normal	No	Yes			serenum	Serenum Filter Driver	c:\windows\system32\drivers\serenum.sys				Kernel Driver		
ndproxy	NDIS Proxy	c:\windows\system32\drivers\ndproxy.sys							Yes	Manual	Running	OK	Normal	No	Yes		
Manual	Running	OK	Normal	No	Yes				serial	Serial port driver	c:\windows\system32\drivers\serial.sys				Kernel Driver	Yes	
netbios	NetBIOS Interface	c:\windows\system32\drivers\netbios.sys							System	Running	OK	Ignore	No	Yes			
System	Running	OK	Normal	No	Yes				sfloppy	Sfloppy	c:\windows\system32\drivers\sfloppy.sys				Kernel Driver		No
netbt	NetBios over Tcpip	c:\windows\system32\drivers\netbt.sys							System	Stopped	OK	Ignore	No	No			
System	Running	OK	Normal	No	Yes				simbad	Simbad	Not Available		Kernel Driver	No	Disabled	Stopped	OK
nfrd960	nfrd960	Not Available		Kernel Driver	No	Disabled	Stopped	OK	Normal	No	No						
Normal	No	No							srv	Srv	c:\windows\system32\drivers\srv.sys				File System Driver	Yes	
npfs	Npfs	c:\windows\system32\drivers\npfs.sys							Manual	Running	OK	Normal	No	Yes			
System	Running	OK	Normal	No	Yes				swenum	Software Bus Driver	c:\windows\system32\drivers\swenum.sys				Kernel Driver		Yes
ntfs	Ntfs	c:\windows\system32\drivers\ntfs.sys							Manual	Running	OK	Normal	No	Yes			
Disabled	Running	OK	Normal	No	Yes				symc8xx	symc8xx	Not Available		Kernel Driver	No	Disabled	Stopped	OK
null	Null	c:\windows\system32\drivers\null.sys							Normal	No	No						
System	Running	OK	Normal	No	Yes				symmpi	symmpi	Not Available		Kernel Driver	No	Disabled	Stopped	OK
partmgr	Partition Manager	c:\windows\system32\drivers\partmgr.sys							Normal	No	No						
Boot	Running	OK	Normal	No	Yes				sym_hi	sym_hi	Not Available		Kernel Driver	No	Disabled	Stopped	OK
pci	PCI Bus Driver	c:\windows\system32\drivers\pci.sys							Normal	No	No						
Boot	Running	OK	Critical	No	Yes				sym_u3	sym_u3	Not Available		Kernel Driver	No	Disabled	Stopped	OK
pciide	PCIIde	Not Available		Kernel Driver	No	Disabled	Stopped	OK	Normal	No	No						
Normal	No	No							tbs	tbs	\\?c:\windows\system32\drivers\tbs.sys				Kernel Driver		No
pcmcia	Pcmcia	c:\windows\system32\drivers\pcmcia.sys							Manual	Stopped	OK	Normal	No	No			
Disabled	Stopped	OK	Normal	No	Yes				tcipip	TCP/IP Protocol Driver	c:\windows\system32\drivers\tcipip.sys				Kernel Driver		
pdcomp	PDCOMP	Not Available		Kernel Driver	No	Manual	Stopped	OK	Yes	System	Running	OK	Normal	No	Yes		
Ignore	No	No							tdpipe	TdPIPE	c:\windows\system32\drivers\tdpipe.sys				Kernel Driver		No
pdframe	PDFRAME	Not Available		Kernel Driver	No	Manual	Stopped	OK	Manual	Stopped	OK	Ignore	No	No			
Ignore	No	No							tdtcp	TDTCP	c:\windows\system32\drivers\tdtcp.sys				Kernel Driver		No
pdreli	PDRELI	Not Available		Kernel Driver	No	Manual	Stopped	OK	Manual	Stopped	OK	Ignore	No	No			
Ignore	No	No							termdd	Terminal Device Driver	c:\windows\system32\drivers\termdd.sys				Kernel Driver		
pdrframe	PDRFRAME	Not Available		Kernel Driver	No	Manual	Stopped	OK	Yes	System	Running	OK	Normal	No	Yes		
Ignore	No	No							TosIde	Not Available		Kernel Driver	No	Disabled	Stopped	OK	
pptpminiport	WAN Miniport (PPTP)	c:\windows\system32\drivers\rasppptp.sys							Normal	No	No						
Yes	Manual	Running	OK	Normal	No	Yes			udfs	Udfs	c:\windows\system32\drivers\udfs.sys				File System Driver	No	
Processor	Processor Driver	c:\windows\system32\drivers\processr.sys							Disabled	Stopped	OK	Normal	No	No			
Yes	Manual	Running	OK	Normal	No	Yes			usbhubb	USB2 Enabled Hub	c:\windows\system32\drivers\usbhubb.sys				Kernel Driver		Yes
ptilink	Direct Parallel Link Driver	c:\windows\system32\drivers\ptilink.sys							Micro	Running	OK	Normal	No	Yes			
Yes	Manual	Running	OK	Normal	No	Yes			usbuhci	Microsoft USB Universal Host Controller Miniport Driver	c:\windows\system32\drivers\usbuhci.sys				Kernel Driver	Yes	Manual
q11080	q11080	Not Available		Kernel Driver	No	Disabled	Stopped	OK	Running	OK	Normal	No	Yes				
Normal	No	No							vga	vga	c:\windows\system32\drivers\vgapnp.sys				Kernel Driver	Yes	
q110wnt	q110wnt	Not Available		Kernel Driver	No	Disabled	Stopped	OK	Manual	Running	OK	Ignore	No	Yes			
Normal	No	No							vgasave	VGA Display Controller.	c:\windows\system32\drivers\vga.sys				Kernel Driver		
q112160	q112160	Not Available		Kernel Driver	No	Disabled	Stopped	OK	No	System	Stopped	OK	Ignore	No	No		
Normal	No	No							viaide	ViaIde	Not Available		Kernel Driver	No	Disabled	Stopped	OK
q11240	q11240	Not Available		Kernel Driver	No	Disabled	Stopped	OK	Normal	No	No						
Normal	No	No							volsnap	Storage volumes	c:\windows\system32\drivers\volsnap.sys				Kernel Driver		Yes
q11280	q11280	Not Available		Kernel Driver	No	Disabled	Stopped	OK	Boot	Running	OK	Normal	No	Yes			
Normal	No	No							wanarp	Remote Access IP ARP Driver	c:\windows\system32\drivers\wanarp.sys				Kernel Driver		
q12100	q12100	Not Available		Kernel Driver	No	Disabled	Stopped	OK	Yes	Manual	Running	OK	Normal	No	Yes		
Normal	No	No							wdica	WDICA	Not Available		Kernel Driver	No	Manual	Stopped	OK
q12200	q12200	Not Available		Kernel Driver	No	Disabled	Stopped	OK	Ignore	No	No						
Normal	No	No							wlbs	Network Load Balancing	c:\windows\system32\drivers\wlbs.sys				Kernel Driver		
q12300	q12300	c:\windows\system32\drivers\q12300.sys							No	Manual	Stopped	OK	Normal	No	No		
Running	OK	Normal	No	Yes					[Signed Drivers]								
qldirect	qldirect	c:\windows\system32\drivers\qldirect.sys															
Boot	Running	OK	Normal	No	Yes												
qlperf	QLogic Performance Filter Driver	c:\windows\system32\drivers\qlperf.sys															

Device Name	Signed Manufacturer	Device Class INF Name	Driver Name	Driver Version	Driver Date	Device ID
[Environment Variables]						
Variable	Value	User Name				
ClusterLog	C:\WINDOWS\Cluster\cluster.log	<SYSTEM>				
ComSpec	%SystemRoot%\system32\cmd.exe	<SYSTEM>				
NUMBER_OF_PROCESSORS	32	<SYSTEM>				
ORACLE_HOME	C:\oracle	<SYSTEM>				
ORACLE_SID	tpcc	<SYSTEM>				
OS	Windows_NT	<SYSTEM>				
Path	C:\oracle\bin;%SystemRoot%\system32;%SystemRoot%;%SystemRoot%\System32\Wbem	<SYSTEM>				
PATHEXT	.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH	<SYSTEM>				
PROCESSOR_ARCHITECTURE	IA64	<SYSTEM>				
PROCESSOR_IDENTIFIER	ia64 Family 31 Model 1 Stepping 5, GenuineIntel	<SYSTEM>				
PROCESSOR_LEVEL	31	<SYSTEM>				
PROCESSOR_REVISION	0105	<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	ASAMA\Administrator				
TMP	%USERPROFILE%\Local Settings\Temp	ASAMA\Administrator				

[Print Jobs]

Document Time	Size Elapsed Time	Owner	Notify Pages Printed	Status	Time Submitted	Start Time	Until
	Driver	Print Processor	Host Print Queue		Job ID	Priority Parameters	

[Network Connections]

Local Name	Remote Name	Type	Status	User Name
Y:	\\bmaster\j\$	Disk	Persistent	Connection

[Running Tasks]

Name	Path	Process ID	Priority	Min Working Set	Max Working Set	Start Time
system idle process	Not Available	Not Available	0	0	Not Available	Not Available
system	Not Available	4	8	0	2826240	Not Available
Available	Not Available	Not Available	11	409600	2826240	8/27/2003 7:54 AM
smss.exe	Not Available	572	13	Not Available	Not Available	Not Available
Available	Not Available	Not Available	13	Not Available	Not Available	Not Available
csrss.exe	Not Available	620	13	Not Available	Not Available	Not Available
winlogon.exe	c:\windows\system32\winlogon.exe	644	13	409600	618.00 KB	8/27/2003 7:54 AM
(632,832 bytes)	3/25/2003 9:00 PM					
services.exe	c:\windows\system32\services.exe	688	9	409600	286.00 KB	8/27/2003 7:54 AM
(292,864 bytes)	3/25/2003 9:00 PM					
lsass.exe	c:\windows\system32\lsass.exe	700	9	409600	2826240	8/27/2003 7:54 AM
AM	5.2.3790.0 (srv03_rtm.030324-2048)			15.00 KB (15,360 bytes)		3/25/2003 9:00 PM
svchost.exe	c:\windows\system32\svchost.exe	868	8	409600	32.50 KB	8/27/2003 7:54 AM
(33,280 bytes)	3/25/2003 9:00 PM					
svchost.exe	c:\windows\system32\svchost.exe	932	8	409600	32.50 KB	8/27/2003 7:55 AM
(33,280 bytes)	3/25/2003 9:00 PM					
svchost.exe	Not Available	1132	8	Not Available	Not Available	Not Available
svchost.exe	8/27/2003 8:01 AM	Not Available	8	Not Available	Not Available	Not Available
svchost.exe	Not Available	1152	8	Not Available	Not Available	Not Available
svchost.exe	8/27/2003 8:01 AM	Not Available	8	Not Available	Not Available	Not Available
svchost.exe	c:\windows\system32\svchost.exe	1176	8	409600	32.50 KB	8/27/2003 8:01 AM
(33,280 bytes)	3/25/2003 9:00 PM					
svchost.exe	c:\windows\system32\svchost.exe	1492	8	409600	32.50 KB	8/27/2003 8:02 AM
(33,280 bytes)	3/25/2003 9:00 PM					

(33,280 bytes)	3/25/2003 9:00 PM					
svchost.exe	Not Available	1524	8	Not Available	Not Available	Not Available
dfssvc.exe	8/27/2003 8:02 AM	Not Available	Not Available	Not Available	Not Available	Not Available
(452,608 bytes)	8/27/2003 8:02 AM	5.2.3790.0 (srv03_rtm.030324-2048)	2012	8	409600	442.00 KB
explorer.exe	c:\windows\explorer.exe	352	8	409600	2826240	8/27/2003 8:02 AM
(1.63 MB (1,704,960 bytes))	3/25/2003 9:00 PM					
wmiprvse.exe	Not Available	552	8	Not Available	Not Available	Not Available
taskmgr.exe	c:\windows\system32\taskmgr.exe	1296	13	409600	311.50 KB	8/27/2003 8:03 AM
(318,976 bytes)	8/27/2003 8:03 AM	5.2.3790.0 (srv03_rtm.030324-2048)				
mmc.exe	c:\windows\system32\mmc.exe	1420	8	409600	2826240	8/27/2003 8:03 AM
AM	5.2.3790.0 (srv03_rtm.030324-2048)			2.48 MB (2,598,912 bytes)		3/25/2003 9:00 PM
vds.exe	c:\windows\system32\vds.exe	1464	8	409600	2826240	8/27/2003 8:03 AM
AM	5.2.3790.0 (srv03_rtm.030324-2048)			543.50 KB (556,544 bytes)		3/25/2003 9:00 PM
dmadmin.exe	c:\windows\system32\dmadmin.exe	1600	8	409600	643.50 KB	8/27/2003 8:03 AM
(658,944 bytes)	8/27/2003 8:03 AM	5.2.3790.0 (srv03_rtm.030324-2048)				
helpctr.exe	c:\windows\pchealth\helpctr\binaries\helpctr.exe	1144	8	409600	1.97	8/27/2003 8:03 AM
MB (2,066,432 bytes)	8/27/2003 8:03 AM	5.2.3790.0 (srv03_rtm.030324-2048)				
wmiprvse.exe	Not Available	596	8	Not Available	Not Available	Not Available
helpsvc.exe	c:\windows\pchealth\helpctr\binaries\helpsvc.exe	160	8	409600	2.18	8/27/2003 8:27 AM
MB (2,289,152 bytes)	8/27/2003 8:27 AM	5.2.3790.0 (srv03_rtm.030324-2048)				
cmd.exe	c:\windows\system32\cmd.exe	756	8	409600	2826240	8/27/2003 8:27 AM
AM	5.2.3790.0 (srv03_rtm.030324-2048)			493.50 KB (505,344 bytes)		3/25/2003 9:00 PM
tnslsnr.exe	c:\oracle\bin\tnslsnr.exe	464	8	409600	2826240	8/27/2003 9:14 AM
sh.exe	c:\cygwin\bin\sh.exe	1380	8	409600	2826240	8/27/2003 9:14 AM
AM	Not Available	68.00 KB (69,632 bytes)		8/1/2003 9:29 PM		
mmc.exe	c:\windows\system32\mmc.exe	2236	8	409600	2826240	8/27/2003 9:29 PM
AM	5.2.3790.0 (srv03_rtm.030324-2048)			2.48 MB (2,598,912 bytes)		3/25/2003 9:00 PM
oracle.exe	c:\oracle\bin\oracle.exe	2640	8	409600	2826240	8/27/2003 10:06 AM
AM	8/27/2003 10:06 AM	Not Available		124.09 MB (130,115,072 bytes)		8/26/2003 3:51
sqlplus.exe	c:\oracle\bin\sqlplus.exe	2808	8	409600	2826240	8/27/2003 10:06 AM
AM	8/27/2003 10:06 AM	Not Available		1.32 MB (1,379,840 bytes)		8/26/2003 3:51
tail.exe	c:\cygwin\bin\tail.exe	2928	8	409600	2826240	8/27/2003 10:07 AM
cmd.exe	Not Available	32.50 KB (33,280 bytes)		8/1/2003 9:29 PM		
AM	c:\windows\system32\cmd.exe	3040	8	409600	2826240	8/27/2003 10:22 AM
AM	5.2.3790.0 (srv03_rtm.030324-2048)			493.50 KB (505,344 bytes)		3/25/2003 9:00 PM
notepad.exe	c:\windows\system32\notepad.exe	3064	8	409600	129.50 KB	8/27/2003 10:25 AM
(132,608 bytes)	3/25/2003 9:00 PM					
regedit.exe	c:\windows\regedit.exe	3092	8	409600	2826240	8/27/2003 10:25 AM
(341.00 KB (349,184 bytes))	8/27/2003 10:25 AM	5.2.3790.0 (srv03_rtm.030324-2048)				

[Loaded Modules]

Name	Version	Size	File Date	Manufacturer	Path
winlogon	5.2.3790.0 (srv03_rtm.030324-2048)	618.00 KB (632,832 bytes)			3/25/2003 9:00
PM	Microsoft Corporation	c:\windows\system32\winlogon.exe			
ntdll	5.2.3790.0 (srv03_rtm.030324-2048)	1.45 MB (1,524,224 bytes)			3/25/2003 9:00
PM	Microsoft Corporation	c:\windows\system32\ntdll.dll			
kernel32	5.2.3790.0 (srv03_rtm.030324-2048)	1.76 MB (1,850,368 bytes)			3/25/2003 9:00
PM	Microsoft Corporation	c:\windows\system32\kernel32.dll			
msvcrt	7.0.3790.0 (srv03_rtm.030324-2048)	873.50 KB (894,464 bytes)			3/25/2003 9:00
PM	Microsoft Corporation	c:\windows\system32\msvcrt.dll			
advapi32	5.2.3790.0 (srv03_rtm.030324-2048)	1.32 MB (1,383,424 bytes)			3/25/2003 9:00
PM	Microsoft Corporation	c:\windows\system32\advapi32.dll			
rpcrt4	5.2.3790.0 (srv03_rtm.030324-2048)	2.03 MB (2,127,872 bytes)			3/25/2003 9:00
PM	Microsoft Corporation	c:\windows\system32\rpcrt4.dll			
user32	5.2.3790.0 (srv03_rtm.030324-2048)	1.31 MB (1,372,672 bytes)			3/25/2003 9:00
PM	Microsoft Corporation	c:\windows\system32\user32.dll			
gdi32	5.2.3790.0 (srv03_rtm.030324-2048)	783.00 KB (801,792 bytes)			3/25/2003 9:00
PM	Microsoft Corporation	c:\windows\system32\gdi32.dll			

userenv	5.2.3790.0 (srv03_rtm.030324-2048)	1.46 MB (1,536,000 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\netui0.dll	
PM	Microsoft Corporation	c:\windows\system32\userenv.dll		netui1	5.2.3790.0 (srv03_rtm.030324-2048)	482.00 KB (493,568 bytes)	3/25/2003 9:00
nddeapi	5.2.3790.0 (srv03_rtm.030324-2048)	39.50 KB (40,448 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\netui1.dll	
PM	Microsoft Corporation	c:\windows\system32\nddeapi.dll		davclnt	5.2.3790.0 (srv03_rtm.030324-2048)	59.00 KB (60,416 bytes)	3/25/2003 9:00
crypt32	5.131.3790.0 (srv03_rtm.030324-2048)	1.50 MB (1,576,448 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\davclnt.dll	
PM	Microsoft Corporation	c:\windows\system32\crypt32.dll		mprui	5.2.3790.0 (srv03_rtm.030324-2048)	97.00 KB (99,328 bytes)	3/25/2003 9:00
msasn1	5.2.3790.0 (srv03_rtm.030324-2048)	153.50 KB (157,184 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\mprui.dll	
PM	Microsoft Corporation	c:\windows\system32\msasn1.dll		netui2	5.2.3790.0 (srv03_rtm.030324-2048)	761.50 KB (779,776 bytes)	3/25/2003 9:00
secur32	5.2.3790.0 (srv03_rtm.030324-2048)	166.50 KB (170,496 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\netui2.dll	
PM	Microsoft Corporation	c:\windows\system32\secur32.dll		cmdlg32	6.00.3790.0 (srv03_rtm.030324-2048)	706.00 KB (722,944 bytes)	3/25/2003 9:00
winsta	5.2.3790.0 (srv03_rtm.030324-2048)	138.50 KB (141,824 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\cmdlg32.dll	
PM	Microsoft Corporation	c:\windows\system32\winsta.dll		netmsg	5.2.3790.0 (srv03_rtm.030324-2048)	177.50 KB (181,760 bytes)	3/25/2003 9:00
netapi32	5.2.3790.0 (srv03_rtm.030324-2048)	832.00 KB (851,968 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\netmsg.dll	
PM	Microsoft Corporation	c:\windows\system32\netapi32.dll		oleaut32	5.2.3790.0	3.57 MB (3,739,136 bytes)	3/25/2003 9:00
profmap	5.2.3790.0 (srv03_rtm.030324-2048)	55.50 KB (56,832 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\oleaut32.dll	Microsoft
PM	Microsoft Corporation	c:\windows\system32\profmap.dll		clbcatq	2001.12.4720.0 (srv03_rtm.030324-2048)	1.23 MB (1,292,800 bytes)	8/1/2003 8:06
regapi	5.2.3790.0 (srv03_rtm.030324-2048)	124.00 KB (126,976 bytes)	3/25/2003 9:00	AM	Microsoft Corporation	c:\windows\system32\clbcatq.dll	
PM	Microsoft Corporation	c:\windows\system32\regapi.dll		comres	2001.12.4720.0 (srv03_rtm.030324-2048)	779.50 KB (798,208 bytes)	3/25/2003 9:00
ws2_32	5.2.3790.0 (srv03_rtm.030324-2048)	228.50 KB (233,984 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\comres.dll	
PM	Microsoft Corporation	c:\windows\system32\ws2_32.dll		ntmarta	5.2.3790.0 (srv03_rtm.030324-2048)	343.50 KB (351,744 bytes)	3/25/2003 9:00
ws2help	5.2.3790.0 (srv03_rtm.030324-2048)	49.50 KB (50,688 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\ntmarta.dll	
PM	Microsoft Corporation	c:\windows\system32\ws2help.dll		wbemprox	5.2.3790.0 (srv03_rtm.030324-2048)	46.00 KB (47,104 bytes)	8/1/2003 8:06
msgina	5.2.3790.0 (srv03_rtm.030324-2048)	1.35 MB (1,417,728 bytes)	3/25/2003 9:00	AM	Microsoft Corporation	c:\windows\system32\wbem\wbemprox.dll	
PM	Microsoft Corporation	c:\windows\system32\msgina.dll		wbemcomn	5.2.3790.0 (srv03_rtm.030324-2048)	598.50 KB (612,864 bytes)	3/25/2003 9:00
shsvcs	6.00.3790.0 (srv03_rtm.030324-2048)	321.50 KB (329,216 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\wbem\wbemcomn.dll	
PM	Microsoft Corporation	c:\windows\system32\shsvcs.dll		wbemsvc	5.2.3790.0 (srv03_rtm.030324-2048)	62.50 KB (64,000 bytes)	8/1/2003 8:06
shlwapi	6.00.3790.0 (srv03_rtm.030324-2048)	722.00 KB (739,328 bytes)	3/25/2003 9:00	AM	Microsoft Corporation	c:\windows\system32\wbem\wbemsvc.dll	
PM	Microsoft Corporation	c:\windows\system32\shlwapi.dll		fastprox	5.2.3790.0 (srv03_rtm.030324-2048)	1.51 MB (1,580,544 bytes)	8/1/2003 8:06
sfc	5.2.3790.0 (srv03_rtm.030324-2048)	7.50 KB (7,680 bytes)	3/25/2003 9:00	AM	Microsoft Corporation	c:\windows\system32\wbem\fastprox.dll	
PM	Microsoft Corporation	c:\windows\system32\sfc.dll		msvcpc60	6.10.2240.8	941.50 KB (964,096 bytes)	3/25/2003 9:00
sfc_os	5.2.3790.0 (srv03_rtm.030324-2048)	257.00 KB (263,168 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\msvcpc60.dll	Microsoft
PM	Microsoft Corporation	c:\windows\system32\sfc_os.dll		ntdsapi	5.2.3790.0 (srv03_rtm.030324-2048)	181.50 KB (185,856 bytes)	3/25/2003 9:00
wintrust	5.131.3790.0 (srv03_rtm.030324-2048)	451.50 KB (462,336 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\ntdsapi.dll	
PM	Microsoft Corporation	c:\windows\system32\wintrust.dll		dnsapi	5.2.3790.0 (srv03_rtm.030324-2048)	404.00 KB (413,696 bytes)	3/25/2003 9:00
ole32	5.2.3790.0 (srv03_rtm.030324-2048)	3.38 MB (3,549,184 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\dnsapi.dll	
PM	Microsoft Corporation	c:\windows\system32\ole32.dll		services	5.2.3790.0 (srv03_rtm.030324-2048)	286.00 KB (292,864 bytes)	3/25/2003 9:00
imagehlp	5.2.3790.0 (srv03_rtm.030324-2048)	128.50 KB (131,584 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\services.exe	
PM	Microsoft Corporation	c:\windows\system32\imagehlp.dll		scesrv	5.2.3790.0 (srv03_rtm.030324-2048)	765.00 KB (783,360 bytes)	3/25/2003 9:00
comctl32	6.0 (srv03_rtm.030324-2048)	2.18 MB (2,285,056 bytes)	8/1/2003 4:49 PM	PM	Microsoft Corporation	c:\windows\system32\scesrv.dll	
PM	Microsoft Corporation	c:\windows\winsxs\ia64_microsoft.windows.common-		authz	5.2.3790.0 (srv03_rtm.030324-2048)	202.50 KB (207,360 bytes)	3/25/2003 9:00
controls	6595b64144ccf1df 6.0.100.0 x-ww b3722bab\comctl32.dll			PM	Microsoft Corporation	c:\windows\system32\authz.dll	
version	5.2.3790.0 (srv03_rtm.030324-2048)	44.00 KB (45,056 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\version.dll	
PM	Microsoft Corporation	c:\windows\system32\version.dll		umpnpgmr	5.2.3790.0 (srv03_rtm.030324-2048)	314.50 KB (322,048 bytes)	3/25/2003 9:00
winscard	5.2.3790.0 (srv03_rtm.030324-2048)	291.50 KB (298,496 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\umpnpgmr.dll	
PM	Microsoft Corporation	c:\windows\system32\wincard.dll		ncobjapi	5.2.3790.0 (srv03_rtm.030324-2048)	118.50 KB (121,344 bytes)	3/25/2003 9:00
wtsapi32	5.2.3790.0 (srv03_rtm.030324-2048)	47.50 KB (48,640 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\ncobjapi.dll	
PM	Microsoft Corporation	c:\windows\system32\wtsapi32.dll		eventlog	5.2.3790.0 (srv03_rtm.030324-2048)	157.00 KB (160,768 bytes)	3/25/2003 9:00
sxs	5.2.3790.0 (srv03_rtm.030324-2048)	1.77 MB (1,860,608 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\eventlog.dll	
PM	Microsoft Corporation	c:\windows\system32\sxs.dll		psapi	5.2.3790.0 (srv03_rtm.030324-2048)	48.00 KB (49,152 bytes)	3/25/2003 9:00
winmm	5.2.3790.0 (srv03_rtm.030324-2048)	404.00 KB (413,696 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\psapi.dll	
PM	Microsoft Corporation	c:\windows\system32\winmm.dll		lsass	5.2.3790.0 (srv03_rtm.030324-2048)	15.00 KB (15,360 bytes)	3/25/2003 9:00
wldap32	5.2.3790.0 (srv03_rtm.030324-2048)	412.50 KB (422,400 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\lsass.exe	
PM	Microsoft Corporation	c:\windows\system32\wldap32.dll		lsasrv	5.2.3790.0 (srv03_rtm.030324-2048)	1.94 MB (2,033,664 bytes)	3/25/2003 9:00
cscdll	5.2.3790.0 (srv03_rtm.030324-2048)	211.00 KB (216,064 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\lsasrv.dll	
PM	Microsoft Corporation	c:\windows\system32\cscdll.dll		samsrv	5.2.3790.0 (srv03_rtm.030324-2048)	1,005.00 KB (1,029,120 bytes)	3/25/2003 9:00
wlnotify	5.2.3790.0 (srv03_rtm.030324-2048)	218.00 KB (223,232 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\samsrv.dll	
PM	Microsoft Corporation	c:\windows\system32\wlnotify.dll		cryptdll	5.2.3790.0 (srv03_rtm.030324-2048)	61.00 KB (62,464 bytes)	3/25/2003 9:00
winspool	5.2.3790.0 (srv03_rtm.030324-2048)	399.50 KB (409,088 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\cryptdll.dll	
PM	Microsoft Corporation	c:\windows\system32\winspool.drv		msprvs	5.2.3790.0 (srv03_rtm.030324-2048)	46.00 KB (47,104 bytes)	3/25/2003 9:00
setupapi	5.2.3790.0 (srv03_rtm.030324-2048)	1.90 MB (1,991,168 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\msprvs.dll	
PM	Microsoft Corporation	c:\windows\system32\setupapi.dll		kerberos	5.2.3790.0 (srv03_rtm.030324-2048)	876.00 KB (897,024 bytes)	3/25/2003 9:00
mpr	5.2.3790.0 (srv03_rtm.030324-2048)	163.00 KB (166,912 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\kerberos.dll	
PM	Microsoft Corporation	c:\windows\system32\mpr.dll		msv1_0	5.2.3790.0 (srv03_rtm.030324-2048)	333.50 KB (341,504 bytes)	3/25/2003 9:00
shell32	6.00.3790.0 (srv03_rtm.030324-2048)	12.35 MB (12,953,088 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\msv1_0.dll	
PM	Microsoft Corporation	c:\windows\system32\shell32.dll		netlogon	5.2.3790.0 (srv03_rtm.030324-2048)	936.50 KB (958,976 bytes)	3/25/2003 9:00
comctl32	5.82 (srv03_rtm.030324-2048)	1.55 MB (1,621,504 bytes)	8/1/2003 4:49 PM	PM	Microsoft Corporation	c:\windows\system32\netlogon.dll	
PM	Microsoft Corporation	c:\windows\winsxs\ia64_microsoft.windows.common-		w32time	5.2.3790.0 (srv03_rtm.030324-2048)	540.50 KB (553,472 bytes)	3/25/2003 9:00
controls	6595b64144ccf1df 5.82.0.0 x-ww b9c4a0a5\comctl32.dll			PM	Microsoft Corporation	c:\windows\system32\w32time.dll	
uxtheme	6.00.3790.0 (srv03_rtm.030324-2048)	527.50 KB (540,160 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\iphlpapi.dll	3/25/2003 9:00
PM	Microsoft Corporation	c:\windows\system32\uxtheme.dll		schannel	5.2.3790.0 (srv03_rtm.030324-2048)	468.50 KB (479,744 bytes)	3/25/2003 9:00
samlib	5.2.3790.0 (srv03_rtm.030324-2048)	106.00 KB (108,544 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\schannel.dll	
PM	Microsoft Corporation	c:\windows\system32\samlib.dll		wdigest	5.2.3790.0 (srv03_rtm.030324-2048)	161.50 KB (165,376 bytes)	3/25/2003 9:00
cscui	5.2.3790.0 (srv03_rtm.030324-2048)	574.00 KB (587,776 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\wdigest.dll	
PM	Microsoft Corporation	c:\windows\system32\cscui.dll		rsaenh	5.2.3790.0 (srv03_rtm.030324-2048)	371.83 KB (380,752 bytes)	3/25/2003 9:00
drprov	5.2.3790.0 (srv03_rtm.030324-2048)	26.50 KB (27,136 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\rsaenh.dll	
PM	Microsoft Corporation	c:\windows\system32\drprov.dll		rasfsm	5.2.3790.0 (srv03_rtm.030324-2048)	56.00 KB (57,344 bytes)	3/25/2003 9:00
ntlanman	5.2.3790.0 (srv03_rtm.030324-2048)	108.00 KB (110,592 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\rasfsm.dll	
PM	Microsoft Corporation	c:\windows\system32\ntlanman.dll		kdcsvc	5.2.3790.0 (srv03_rtm.030324-2048)	571.50 KB (585,216 bytes)	3/25/2003 9:00
netui0	5.2.3790.0 (srv03_rtm.030324-2048)	181.50 KB (185,856 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\kdcsvc.dll	

ntdsa	5.2.3790.0 (srv03_rtm.030324-2048)	3.82 MB (4,008,448 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\dmserver.dll	
PM	Microsoft Corporation	c:\windows\system32\ntdsa.dll		es	2001.12.4720.0 (srv03_rtm.030324-2048)	637.50 KB (652,800 bytes)	3/25/2003 9:00
ntdsatq	5.2.3790.0 (srv03_rtm.030324-2048)	80.50 KB (82,432 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\es.dll	
PM	Microsoft Corporation	c:\windows\system32\ntdsatq.dll		pchsvc	5.2.3790.0 (srv03_rtm.030324-2048)	94.50 KB (96,768 bytes)	8/1/2003 8:09
mswsock	5.2.3790.0 (srv03_rtm.030324-2048)	671.00 KB (687,104 bytes)	3/25/2003 9:00	AM	Microsoft Corporation	c:\windows\pchealth\helpctr\binaries\pchsvc.dll	
PM	Microsoft Corporation	c:\windows\system32\mswsock.dll		srvsvc	5.2.3790.0 (srv03_rtm.030324-2048)	188.00 KB (192,512 bytes)	3/25/2003 9:00
esent	5.2.3790.0 (srv03_rtm.030324-2048)	2.48 MB (2,605,056 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\srvsvc.dll	
PM	Microsoft Corporation	c:\windows\system32\esent.dll		sacsvr	5.2.3790.0 (srv03_rtm.030324-2048)	27.50 KB (28,160 bytes)	3/25/2003 9:00
scecli	5.2.3790.0 (srv03_rtm.030324-2048)	467.50 KB (478,720 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\sacsvr.dll	
PM	Microsoft Corporation	c:\windows\system32\scecli.dll		seclogon	5.2.3790.0 (srv03_rtm.030324-2048)	41.50 KB (42,496 bytes)	3/25/2003 9:00
wshtcpip	5.2.3790.0 (srv03_rtm.030324-2048)	38.00 KB (38,912 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\seclogon.dll	
PM	Microsoft Corporation	c:\windows\system32\wshtcpip.dll		trkwns	5.2.3790.0 (srv03_rtm.030324-2048)	246.00 KB (251,904 bytes)	3/25/2003 9:00
ipsecsvc	5.2.3790.0 (srv03_rtm.030324-2048)	410.50 KB (420,352 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\trkwns.dll	
PM	Microsoft Corporation	c:\windows\system32\ipsecsvc.dll		wmivsc	5.2.3790.0 (srv03_rtm.030324-2048)	408.50 KB (418,304 bytes)	8/1/2003 8:06
oakley	5.2.3790.0 (srv03_rtm.030324-2048)	493.50 KB (505,344 bytes)	3/25/2003 9:00	AM	Microsoft Corporation	c:\windows\system32\wbem\wmivsc.dll	
PM	Microsoft Corporation	c:\windows\system32\oakley.dll		sens	5.2.3790.0 (srv03_rtm.030324-2048)	90.50 KB (92,672 bytes)	3/25/2003 9:00
winipsec	5.2.3790.0 (srv03_rtm.030324-2048)	78.50 KB (80,384 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\sens.dll	
PM	Microsoft Corporation	c:\windows\system32\winipsec.dll		comsvcs	2001.12.4720.0 (srv03_rtm.030324-2048)	2.96 MB (3,106,816 bytes)	8/1/2003 8:06
pstorsvc	5.2.3790.0 (srv03_rtm.030324-2048)	56.00 KB (57,344 bytes)	3/25/2003 9:00	AM	Microsoft Corporation	c:\windows\system32\comsvcs.dll	
PM	Microsoft Corporation	c:\windows\system32\pstorsvc.dll		browser	5.2.3790.0 (srv03_rtm.030324-2048)	187.00 KB (191,488 bytes)	3/25/2003 9:00
psbase	5.2.3790.0 (srv03_rtm.030324-2048)	162.50 KB (166,400 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\browser.dll	
PM	Microsoft Corporation	c:\windows\system32\psbase.dll		netrap	5.2.3790.0 (srv03_rtm.030324-2048)	30.00 KB (30,720 bytes)	3/25/2003 9:00
dsenh	5.2.3790.0 (srv03_rtm.030324-2048)	319.33 KB (326,992 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\netrap.dll	
PM	Microsoft Corporation	c:\windows\system32\dsenh.dll		wiarpc	5.2.3790.0 (srv03_rtm.030324-2048)	67.50 KB (69,120 bytes)	3/25/2003 9:00
wlbcstrl	5.2.3790.0 (srv03_rtm.030324-2048)	194.50 KB (199,168 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\wiarpc.dll	
PM	Microsoft Corporation	c:\windows\system32\wlbcstrl.dll		netman	5.2.3790.0 (srv03_rtm.030324-2048)	591.00 KB (605,184 bytes)	3/25/2003 9:00
svchost	5.2.3790.0 (srv03_rtm.030324-2048)	32.50 KB (33,280 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\netman.dll	
PM	Microsoft Corporation	c:\windows\system32\svchost.exe		wzcsapi	5.2.3790.0 (srv03_rtm.030324-2048)	49.50 KB (50,688 bytes)	3/25/2003 10:19
rpcss	5.2.3790.0 (srv03_rtm.030324-2048)	645.00 KB (660,480 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\wzcsapi.dll	
PM	Microsoft Corporation	c:\windows\system32\rpcss.dll		netshell	5.2.3790.0 (srv03_rtm.030324-2048)	2.65 MB (2,779,648 bytes)	3/25/2003 9:00
termsrv	5.2.3790.0 (srv03_rtm.030324-2048)	607.00 KB (621,568 bytes)	8/1/2003 8:06	PM	Microsoft Corporation	c:\windows\system32\netshell.dll	
AM	Microsoft Corporation	c:\windows\system32\termsrv.dll		clusapi	5.2.3790.0 (srv03_rtm.030324-2048)	165.50 KB (169,472 bytes)	3/25/2003 9:00
icaapi	5.2.3790.0 (srv03_rtm.030324-2048)	27.00 KB (27,648 bytes)	8/1/2003 8:06	PM	Microsoft Corporation	c:\windows\system32\clusapi.dll	
AM	Microsoft Corporation	c:\windows\system32\icaapi.dll		hnetcfg	5.2.3790.0 (srv03_rtm.030324-2048)	764.00 KB (782,336 bytes)	3/25/2003 9:00
mstlsapi	5.2.3790.0 (srv03_rtm.030324-2048)	311.00 KB (318,464 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\hnetcfg.dll	
PM	Microsoft Corporation	c:\windows\system32\mstlsapi.dll		wininet	6.00.3790.0 (srv03_rtm.030324-2048)	1.43 MB (1,500,672 bytes)	3/25/2003 9:00
activeds	5.2.3790.0 (srv03_rtm.030324-2048)	543.50 KB (556,544 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\wininet.dll	
PM	Microsoft Corporation	c:\windows\system32\activeds.dll		wbemcore	5.2.3790.0 (srv03_rtm.030324-2048)	1.64 MB (1,723,904 bytes)	8/1/2003 8:06
adslrpc	5.2.3790.0 (srv03_rtm.030324-2048)	312.00 KB (319,488 bytes)	3/25/2003 9:00	AM	Microsoft Corporation	c:\windows\system32\wbem\wbemcore.dll	
PM	Microsoft Corporation	c:\windows\system32\adslrpc.dll		esscli	5.2.3790.0 (srv03_rtm.030324-2048)	919.50 KB (941,568 bytes)	8/1/2003 8:06
credui	5.2.3790.0 (srv03_rtm.030324-2048)	288.00 KB (294,912 bytes)	3/25/2003 9:00	AM	Microsoft Corporation	c:\windows\system32\wbem\esscli.dll	
PM	Microsoft Corporation	c:\windows\system32\credui.dll		wmiutils	5.2.3790.0 (srv03_rtm.030324-2048)	285.00 KB (291,840 bytes)	8/1/2003 8:06
atl	3.00.2282 348.00 KB (356,352 bytes)	3/25/2003 9:00 PM	Microsoft Corporation	AM	Microsoft Corporation	c:\windows\system32\wbem\wmiutils.dll	
	c:\windows\system32\atl.dll			repdrvfs	5.2.3790.0 (srv03_rtm.030324-2048)	595.50 KB (609,792 bytes)	8/1/2003 8:06
wzcsvc	5.2.3790.0 (srv03_rtm.030324-2048)	608.50 KB (623,104 bytes)	3/25/2003 10:19	AM	Microsoft Corporation	c:\windows\system32\wbem\repdrvfs.dll	
PM	Microsoft Corporation	c:\windows\system32\wzcsvc.dll		wmiprvsd	5.2.3790.0 (srv03_rtm.030324-2048)	1.38 MB (1,443,328 bytes)	8/1/2003 8:06
rtutils	5.2.3790.0 (srv03_rtm.030324-2048)	81.50 KB (83,456 bytes)	3/25/2003 9:00	AM	Microsoft Corporation	c:\windows\system32\wbem\wmiprvsd.dll	
PM	Microsoft Corporation	c:\windows\system32\rtutils.dll		wbemess	5.2.3790.0 (srv03_rtm.030324-2048)	976.50 KB (999,936 bytes)	8/1/2003 8:06
wmi	5.2.3790.0 (srv03_rtm.030324-2048)	5.00 KB (5,120 bytes)	3/25/2003 9:00	AM	Microsoft Corporation	c:\windows\system32\wbem\wbemess.dll	
PM	Microsoft Corporation	c:\windows\system32\wmi.dll		ncprov	5.2.3790.0 (srv03_rtm.030324-2048)	133.50 KB (136,704 bytes)	8/1/2003 8:06
dhcpcsvc	5.2.3790.0 (srv03_rtm.030324-2048)	279.50 KB (286,208 bytes)	3/25/2003 9:00	AM	Microsoft Corporation	c:\windows\system32\wbem\ncprov.dll	
PM	Microsoft Corporation	c:\windows\system32\dhcpcsvc.dll		rasdlg	5.2.3790.0 (srv03_rtm.030324-2048)	1.35 MB (1,420,800 bytes)	3/25/2003 9:00
rastls	5.2.3790.0 (srv03_rtm.030324-2048)	346.00 KB (354,304 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\rasdlg.dll	
PM	Microsoft Corporation	c:\windows\system32\rastls.dll		rasadhlp	5.2.3790.0 (srv03_rtm.030324-2048)	13.00 KB (13,312 bytes)	3/25/2003 9:00
cryptui	5.131.3790.0 (srv03_rtm.030324-2048)	1.04 MB (1,094,656 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\rasadhlp.dll	
PM	Microsoft Corporation	c:\windows\system32\cryptui.dll		ntlapi	5.2.3790.0 (srv03_rtm.030324-2048)	14.50 KB (14,848 bytes)	3/25/2003 9:00
mprapi	5.2.3790.0 (srv03_rtm.030324-2048)	238.00 KB (243,712 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\ntlapi.dll	
PM	Microsoft Corporation	c:\windows\system32\mprapi.dll		ersvc	5.2.3790.0 (srv03_rtm.030324-2048)	61.00 KB (62,464 bytes)	3/25/2003 9:00
rasapi32	5.2.3790.0 (srv03_rtm.030324-2048)	589.50 KB (603,648 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\ersvc.dll	
PM	Microsoft Corporation	c:\windows\system32\rasapi32.dll		dfssvc	5.2.3790.0 (srv03_rtm.030324-2048)	442.00 KB (452,608 bytes)	3/25/2003 9:00
rasman	5.2.3790.0 (srv03_rtm.030324-2048)	154.50 KB (158,208 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\dfssvc.exe	
PM	Microsoft Corporation	c:\windows\system32\rasman.dll		resutils	5.2.3790.0 (srv03_rtm.030324-2048)	147.50 KB (151,040 bytes)	3/25/2003 9:00
tapi32	5.2.3790.0 (srv03_rtm.030324-2048)	493.00 KB (504,832 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\resutils.dll	
PM	Microsoft Corporation	c:\windows\system32\tapi32.dll		mfc42u	6.00.3014.0	3.34 MB (3,506,176 bytes)	3/25/2003 9:00 PM
raschap	5.2.3790.0 (srv03_rtm.030324-2048)	200.00 KB (204,800 bytes)	3/25/2003 9:00	Corporation	c:\windows\system32\mfc42u.dll		Microsoft
PM	Microsoft Corporation	c:\windows\system32\raschap.dll		wsock32	5.2.3790.0 (srv03_rtm.030324-2048)	23.00 KB (23,552 bytes)	3/25/2003 9:00
schedsvc	5.2.3790.0 (srv03_rtm.030324-2048)	527.50 KB (540,160 bytes)	8/1/2003 8:08	PM	Microsoft Corporation	c:\windows\system32\wsock32.dll	
AM	Microsoft Corporation	c:\windows\system32\schedsvc.dll		explorer	6.00.3790.0 (srv03_rtm.030324-2048)	1.63 MB (1,704,960 bytes)	3/25/2003 9:00
msidle	6.00.3790.0 (srv03_rtm.030324-2048)	8.50 KB (8,704 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\explorer.exe	
PM	Microsoft Corporation	c:\windows\system32\msidle.dll		browseui	6.00.3790.0 (srv03_rtm.030324-2048)	2.42 MB (2,536,960 bytes)	3/25/2003 9:00
wkssvc	5.2.3790.0 (srv03_rtm.030324-2048)	304.00 KB (311,296 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\browseui.dll	
PM	Microsoft Corporation	c:\windows\system32\wkssvc.dll		shdocvw	6.00.3790.0 (srv03_rtm.030324-2048)	3.20 MB (3,359,744 bytes)	3/25/2003 9:00
cryptsvc	5.2.3790.0 (srv03_rtm.030324-2048)	126.00 KB (129,024 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\shdocvw.dll	
PM	Microsoft Corporation	c:\windows\system32\cryptsvc.dll		apphelp	5.2.3790.0 (srv03_rtm.030324-2048)	262.50 KB (268,800 bytes)	3/25/2003 9:00
certcli	5.2.3790.0 (srv03_rtm.030324-2048)	586.00 KB (600,064 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\apphelp.dll	
PM	Microsoft Corporation	c:\windows\system32\certcli.dll		themeui	6.00.3790.0 (srv03_rtm.030324-2048)	823.00 KB (842,752 bytes)	3/25/2003 9:00
vssapi	5.2.3790.0 (srv03_rtm.030324-2048)	1.28 MB (1,339,904 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\themeui.dll	
PM	Microsoft Corporation	c:\windows\system32\vssapi.dll		msimg32	5.2.3790.0 (srv03_rtm.030324-2048)	7.00 KB (7,168 bytes)	3/25/2003 9:00
dmserver	5.2.3790.0 (srv03_rtm.030324-2048)	45.50 KB (46,592 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\msimg32.dll	

linkinfo	5.2.3790.0 (srv03_rtm.030324-2048)	42.00 KB (43,008 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\osuninst.dll	
PM	Microsoft Corporation	c:\windows\system32\linkinfo.dll					
ntshrui	6.00.3790.0 (srv03_rtm.030324-2048)	233.50 KB (239,104 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\ntshrui.dll	
PM	Microsoft Corporation	c:\windows\system32\ntshrui.dll					
webcheck	6.00.3790.0 (srv03_rtm.030324-2048)	664.50 KB (680,448 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\webcheck.dll	
PM	Microsoft Corporation	c:\windows\system32\webcheck.dll					
stobject	5.2.3790.0 (srv03_rtm.030324-2048)	178.00 KB (182,272 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\stobject.dll	
PM	Microsoft Corporation	c:\windows\system32\stobject.dll					
batmeter	6.00.3790.0 (srv03_rtm.030324-2048)	55.50 KB (56,832 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\batmeter.dll	
PM	Microsoft Corporation	c:\windows\system32\batmeter.dll					
powrprof	6.00.3790.0 (srv03_rtm.030324-2048)	36.00 KB (36,864 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\powrprof.dll	
PM	Microsoft Corporation	c:\windows\system32\powrprof.dll					
printui	5.2.3790.0 (srv03_rtm.030324-2048)	1.09 MB (1,142,784 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\printui.dll	
PM	Microsoft Corporation	c:\windows\system32\printui.dll					
cfgmgr32	5.2.3790.0 (srv03_rtm.030324-2048)	16.00 KB (16,384 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\cfgmgr32.dll	
PM	Microsoft Corporation	c:\windows\system32\cfgmgr32.dll					
urlmon	6.00.3790.0 (srv03_rtm.030324-2048)	1.21 MB (1,271,296 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\urlmon.dll	
PM	Microsoft Corporation	c:\windows\system32\urlmon.dll					
browsei	6.00.3790.0 (srv03_rtm.030324-2048)	61.50 KB (62,976 bytes)	3/25/2003 9:00	AM	Microsoft Corporation	c:\windows\system32\browsei.dll	
PM	Microsoft Corporation	c:\windows\system32\browsei.dll					
shdoclc	6.00.3790.0 (srv03_rtm.030324-2048)	588.00 KB (602,112 bytes)	3/25/2003 9:00	AM	Microsoft Corporation	c:\windows\system32\shdoclc.dll	
PM	Microsoft Corporation	c:\windows\system32\shdoclc.dll					
shimgvw	6.00.3790.0 (srv03_rtm.030324-2048)	847.50 KB (867,840 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\shimgvw.dll	
PM	Microsoft Corporation	c:\windows\system32\shimgvw.dll					
gdiplus	5.2.3790.0 (srv03_rtm.030324-2048)	4.56 MB (4,783,104 bytes)	8/1/2003 4:49	PM	Microsoft Corporation	c:\windows\winsxs\ia64_microsoft.windows.gdiplus_6595b64144ccf1df_1.0.100.0_x-ww_3c7a8634-gdiplus.dll	
PM	Microsoft Corporation	c:\windows\winsxs\ia64_microsoft.windows.gdiplus_6595b64144ccf1df_1.0.100.0_x-ww_3c7a8634-gdiplus.dll					
actxprxy	6.00.3790.0 (srv03_rtm.030324-2048)	230.00 KB (235,520 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\actxprxy.dll	
PM	Microsoft Corporation	c:\windows\system32\actxprxy.dll					
mscms	5.2.3790.0 (srv03_rtm.030324-2048)	209.00 KB (214,016 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\mscms.dll	
PM	Microsoft Corporation	c:\windows\system32\mscms.dll					
mydocs	6.00.3790.0 (srv03_rtm.030324-2048)	129.00 KB (132,096 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\mydocs.dll	
PM	Microsoft Corporation	c:\windows\system32\mydocs.dll					
taskmgr	5.2.3790.0 (srv03_rtm.030324-2048)	311.50 KB (318,976 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\taskmgr.exe	
PM	Microsoft Corporation	c:\windows\system32\taskmgr.exe					
util.dll	5.2.3790.0 (srv03_rtm.030324-2048)	63.00 KB (64,512 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\util.dll	
PM	Microsoft Corporation	c:\windows\system32\util.dll					
mmc	5.2.3790.0 (srv03_rtm.030324-2048)	2.48 MB (2,598,912 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\mmc.exe	
PM	Microsoft Corporation	c:\windows\system32\mmc.exe					
oleacc	4.2.5406.0 (srv03_rtm.030324-2048)	485.00 KB (496,640 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\oleacc.dll	
PM	Microsoft Corporation	c:\windows\system32\oleacc.dll					
mmcbase	5.2.3790.0 (srv03_rtm.030324-2048)	139.00 KB (142,336 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\mmcbase.dll	
PM	Microsoft Corporation	c:\windows\system32\mmcbase.dll					
mmcnmgr	5.2.3790.0 (srv03_rtm.030324-2048)	3.10 MB (3,248,640 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\mmcnmgr.dll	
PM	Microsoft Corporation	c:\windows\system32\mmcnmgr.dll					
msxml3	8.40.9419.0	3.42 MB (3,590,656 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\msxml3.dll	
PM	Microsoft Corporation	c:\windows\system32\msxml3.dll					
dmksmgr	5.2.3790.0 (srv03_rtm.030324-2048)	515.00 KB (527,360 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\dmksmgr.dll	
PM	Microsoft Corporation	c:\windows\system32\dmksmgr.dll					
ntmsapi	5.2.3790.0 (srv03_rtm.030324-2048)	118.00 KB (120,832 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\ntmsapi.dll	
PM	Microsoft Corporation	c:\windows\system32\ntmsapi.dll					
dmutil	5.2.3790.0 (srv03_rtm.030324-2048)	71.50 KB (73,216 bytes)	3/25/2003 5:50	PM	Microsoft Corporation	c:\windows\system32\dmutil.dll	
PM	Microsoft Corporation	c:\windows\system32\dmutil.dll					
dmkskres	5.2.3790.0 (srv03_rtm.030324-2048)	115.00 KB (117,760 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\dmkskres.dll	
PM	Microsoft Corporation	c:\windows\system32\dmkskres.dll					
dmldgs	5.2.3790.0 (srv03_rtm.030324-2048)	670.50 KB (686,592 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\dmldgs.dll	
PM	Microsoft Corporation	c:\windows\system32\dmldgs.dll					
dmview	5.2.3790.0 (srv03_rtm.030324-2048)	207.00 KB (211,968 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\dmview.ocx	
PM	Microsoft Corporation	c:\windows\system32\dmview.ocx					
vdps_ps	5.2.3790.0 (srv03_rtm.030324-2048)	31.00 KB (31,744 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\vdps_ps.dll	
PM	Microsoft Corporation	c:\windows\system32\vdps_ps.dll					
dmvdsitf	5.2.3790.0 (srv03_rtm.030324-2048)	321.00 KB (328,704 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\dmvdsitf.dll	
PM	Microsoft Corporation	c:\windows\system32\dmvdsitf.dll					
mlang	6.00.3790.0 (srv03_rtm.030324-2048)	799.00 KB (818,176 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\mlang.dll	
PM	Microsoft Corporation	c:\windows\system32\mlang.dll					
rshx32	5.2.3790.0 (srv03_rtm.030324-2048)	101.50 KB (103,936 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\rshx32.dll	
PM	Microsoft Corporation	c:\windows\system32\rshx32.dll					
vssui	5.2.3790.0 (srv03_rtm.030324-2048)	350.50 KB (358,912 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\vssui.dll	
PM	Microsoft Corporation	c:\windows\system32\vssui.dll					
twext	6.00.3790.0 (srv03_rtm.030324-2048)	147.00 KB (150,528 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\twext.dll	
PM	Microsoft Corporation	c:\windows\system32\twext.dll					
diskquoui	5.2.3790.0 (srv03_rtm.030324-2048)	412.00 KB (421,888 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\diskquoui.dll	
PM	Microsoft Corporation	c:\windows\system32\diskquoui.dll					
dfsshlex	5.2.3790.0 (srv03_rtm.030324-2048)	71.50 KB (73,216 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\dfsshlex.dll	
PM	Microsoft Corporation	c:\windows\system32\dfsshlex.dll					
vdps	5.2.3790.0 (srv03_rtm.030324-2048)	543.50 KB (556,544 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\vdps.exe	
PM	Microsoft Corporation	c:\windows\system32\vdps.exe					
osuninst	5.2.3790.0 (srv03_rtm.030324-2048)	6.50 KB (6,656 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\osuninst.dll	
PM	Microsoft Corporation	c:\windows\system32\osuninst.dll					
vdpsutil	5.2.3790.0 (srv03_rtm.030324-2048)	98.00 KB (100,352 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\vdpsutil.dll	
PM	Microsoft Corporation	c:\windows\system32\vdpsutil.dll					
vdpsbas	5.2.3790.0 (srv03_rtm.030324-2048)	321.50 KB (329,216 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\vdpsbas.dll	
PM	Microsoft Corporation	c:\windows\system32\vdpsbas.dll					
fmifs	5.2.3790.0 (srv03_rtm.030324-2048)	53.00 KB (54,272 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\fmifs.dll	
PM	Microsoft Corporation	c:\windows\system32\fmifs.dll					
ulib	5.2.3790.0 (srv03_rtm.030324-2048)	448.50 KB (459,264 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\ulib.dll	
PM	Microsoft Corporation	c:\windows\system32\ulib.dll					
ifsutil	5.2.3790.0 (srv03_rtm.030324-2048)	214.00 KB (219,136 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\ifsutil.dll	
PM	Microsoft Corporation	c:\windows\system32\ifsutil.dll					
vdpsdyndr	5.2.3790.0 (srv03_rtm.030324-2048)	710.50 KB (727,552 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\vdpsdyndr.dll	
PM	Microsoft Corporation	c:\windows\system32\vdpsdyndr.dll					
dmintf	5.2.3790.0 (srv03_rtm.030324-2048)	25.00 KB (25,600 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\dmintf.dll	
PM	Microsoft Corporation	c:\windows\system32\dmintf.dll					
dmadmin	5.2.3790.0 (srv03_rtm.030324-2048)	643.50 KB (658,944 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\dmadmin.exe	
PM	Microsoft Corporation	c:\windows\system32\dmadmin.exe					
helpctr	5.2.3790.0 (srv03_rtm.030324-2048)	1.97 MB (2,066,432 bytes)	8/1/2003 8:08	AM	Microsoft Corporation	c:\windows\system32\helpctr\binaries\helpctr.exe	
PM	Microsoft Corporation	c:\windows\system32\helpctr\binaries\helpctr.exe					
hcappres	5.2.3790.0 (srv03_rtm.030324-2048)	6.00 KB (6,144 bytes)	8/1/2003 8:08	AM	Microsoft Corporation	c:\windows\system32\hcappres.dll	
PM	Microsoft Corporation	c:\windows\system32\hcappres.dll					
itss	5.2.3790.0 (srv03_rtm.030324-2048)	349.00 KB (357,376 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\itss.dll	
PM	Microsoft Corporation	c:\windows\system32\itss.dll					
pchshell	5.2.3790.0 (srv03_rtm.030324-2048)	277.50 KB (284,160 bytes)	8/1/2003 8:09	AM	Microsoft Corporation	c:\windows\system32\pchshell\binaries\pchshell.dll	
PM	Microsoft Corporation	c:\windows\system32\pchshell\binaries\pchshell.dll					
mshtml	6.00.3790.0 (srv03_rtm.030324-2048)	7.83 MB (8,208,384 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\mshtml.dll	
PM	Microsoft Corporation	c:\windows\system32\mshtml.dll					
msimtf	5.2.3790.0 (srv03_rtm.030324-2048)	528.00 KB (540,672 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\msimtf.dll	
PM	Microsoft Corporation	c:\windows\system32\msimtf.dll					
msctf	5.2.3790.0 (srv03_rtm.030324-2048)	924.50 KB (946,688 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\msctf.dll	
PM	Microsoft Corporation	c:\windows\system32\msctf.dll					
jscrip	5.6.0.8515	1.21 MB (1,268,736 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\jscrip.dll	
PM	Microsoft Corporation	c:\windows\system32\jscrip.dll					
msls31	3.10.349.0	448.00 KB (458,752 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\msls31.dll	
PM	Microsoft Corporation	c:\windows\system32\msls31.dll					
imm32	5.2.3790.0 (srv03_rtm.030324-2048)	307.50 KB (314,880 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\imm32.dll	
PM	Microsoft Corporation	c:\windows\system32\imm32.dll					
mshtml	6.00.3790.0 (srv03_rtm.030324-2048)	1.34 MB (1,408,512 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\mshtml.dll	
PM	Microsoft Corporation	c:\windows\system32\mshtml.dll					
vbscript	5.6.0.8515	1.06 MB (1,110,016 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\vbscript.dll	
PM	Microsoft Corporation	c:\windows\system32\vbscript.dll					
mfc42	6.00.3014.0	3.36 MB (3,526,656 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\mfc42.dll	
PM	Microsoft Corporation	c:\windows\system32\mfc42.dll					
msinfo	5.2.3790.0 (srv03_rtm.030324-2048)	1.20 MB (1,257,984 bytes)	8/1/2003 8:09	AM	Microsoft Corporation	c:\windows\system32\msinfo.dll	
PM	Microsoft Corporation	c:\windows\system32\msinfo.dll					
riched32	5.2.3790.0 (srv03_rtm.030324-2048)	5.00 KB (5,120 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\riched32.dll	
PM	Microsoft Corporation	c:\windows\system32\riched32.dll					
riched20	5.31.23.1218	1.25 MB (1,313,280 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\riched20.dll	
PM	Microsoft Corporation	c:\windows\system32\riched20.dll					
helpsvc	5.2.3790.0 (srv03_rtm.030324-2048)	2.18 MB (2,289,152 bytes)	8/1/2003 8:09	AM	Microsoft Corporation	c:\windows\system32\helpsvc\binaries\helpsvc.exe	
PM	Microsoft Corporation	c:\windows\system32\helpsvc\binaries\helpsvc.exe					
cmd	5.2.3790.0 (srv03_rtm.030324-2048)	493.50 KB (505,344 bytes)	3/25/2003 9:00	PM	Microsoft Corporation	c:\windows\system32\cmd.exe	
PM	Microsoft Corporation	c:\windows\system32\cmd.exe					
tnslsnr	Not Available	384.50 KB (393,728 bytes)	8/26/2003 3:51	AM	Not Available	c:\oracle\bin\tnslsnr.exe	
PM	Not Available	c:\oracle\bin\tnslsnr.exe					
oransgr10	9.2.0.1.0 Production	70.00 KB (71,680 bytes)	8/26/2003 3:51	AM	Oracle Corporation	c:\oracle\bin\oransgr10.dll	
PM	Oracle Corporation	c:\oracle\bin\oransgr10.dll					
oran10	9.2.0.1.0 Production	2.69 MB (2,823,680 bytes)	8/26/2003 3:51	AM	Oracle Corporation	c:\oracle\bin\oran10.dll	
PM	Oracle Corporation	c:\oracle\bin\oran10.dll					
oran110	9.2.0.1.0 Production	480.50 KB (492,032 bytes)	8/26/2003 3:51	AM	Oracle Corporation	c:\oracle\bin\oran110.dll	
PM	Oracle Corporation	c:\oracle\bin\oran110.dll					
orandlap10	9.2.0.1.0 Production	120.00 KB (122,880 bytes)	8/26/2003 3:51	AM	Oracle Corporation	c:\oracle\bin\orandlap10.dll	
PM	Oracle Corporation	c:\oracle\bin\orandlap10.dll					
orannzsb10	9.2.0.1.0 Production	2.83 MB (2,962,432 bytes)	8/26/2003 3:51	AM	Oracle Corporation	c:\oracle\bin\orannzsb10.dll	
PM	Oracle Corporation	c:\oracle\bin\orannzsb10.dll					
oracore10	10.1.0.0.0 BETA	1.98 MB (2,072,576 bytes)	8/26/2003 3:51	AM	Oracle Corporation	c:\oracle\bin\oracore10.dll	
PM	Oracle Corporation	c:\oracle\bin\oracore10.dll					
orans10	10.0.0.0.0 Production	1.40 MB (1,469,952 bytes)	8/26/2003 3:51	AM	Oracle Corporation	c:\oracle\	

oraclient10	5.35 MB (5,611,520 bytes)	8/26/2003 3:51 AM	Oracle
Corporation	c:\oracle\bin\oraclient10.dll		
oravsn10	18.00 KB (18,432 bytes)	8/26/2003 3:51 AM	Oracle Corporation
	c:\oracle\bin\oravsn10.dll		
orancrypt10	9.2.0.1.0 Production 184.50 KB (188,928 bytes)	8/26/2003 3:51 AM	
AM	Oracle Corporation c:\oracle\bin\orancrypt10.dll		
oranrol10	9.2.0.1.0 Production 794.50 KB (813,568 bytes)	8/26/2003 3:51 AM	
	Oracle Corporation c:\oracle\bin\oranrol10.dll		
orapls10	9.2.0.0.0 Beta 7.86 MB (8,243,712 bytes)	8/26/2003 3:51 AM	Oracle
Corporation	c:\oracle\bin\orapls10.dll		
oraslax10	8 38.50 KB (39,424 bytes)	8/26/2003 3:51 AM	Oracle Corporation
	c:\oracle\bin\oraslax10.dll		
oraplp10	9.2.0.0.0 Beta 1.45 MB (1,523,200 bytes)	8/26/2003 3:51 AM	Oracle
Corporation	c:\oracle\bin\oraplp10.dll		
orasql10	9.2.0.1.0 Production 601.00 KB (615,424 bytes)	8/26/2003 3:51 AM	
	Oracle Corporation c:\oracle\bin\orasql10.dll		
oraxml10	2.26 MB (2,370,048 bytes)	8/26/2003 3:51 AM	Oracle Corporation
	c:\oracle\bin\oraxml10.dll		
orantcp10	9.2.0.1.0 Production 135.50 KB (138,752 bytes)	8/26/2003 3:51 AM	
	Oracle Corporation c:\oracle\bin\orantcp10.dll		
oraxsd10	514.50 KB (526,848 bytes)	8/26/2003 3:51 AM	Oracle Corporation
	c:\oracle\bin\oraxsd10.dll		
orahasgen10	10.0.0.0.0 494.00 KB (505,856 bytes)	8/26/2003 3:51 AM	
	Oracle Corporation c:\oracle\bin\orahasgen10.dll		
oraocr10	10.0.0.0.0 234.00 KB (239,616 bytes)	8/26/2003 3:51 AM	Oracle
Corporation	c:\oracle\bin\oraocr10.dll		
oraocrb10	10.0.0.0.0 138.00 KB (141,312 bytes)	8/26/2003 3:51 AM	Oracle
Corporation	c:\oracle\bin\oraocrb10.dll		
oraldapclnt10	10.0.0.0.0 754.00 KB (772,096 bytes)	8/26/2003 3:51 AM	
	Oracle Corporation c:\oracle\bin\oraldapclnt10.dll		
oranhst10	9.2.0.1.0 Production 21.50 KB (22,016 bytes)	8/26/2003 3:51 AM	
AM	Oracle Corporation c:\oracle\bin\oranhst10.dll		
oranoname10	9.2.0.1.0 Production 20.50 KB (20,992 bytes)	8/26/2003 3:51 AM	
AM	Oracle Corporation c:\oracle\bin\oranoname10.dll		
orancds10	9.2.0.1.0 Production 17.50 KB (17,920 bytes)	8/26/2003 3:51 AM	
	Oracle Corporation c:\oracle\bin\orancds10.dll		
orantns10	9.2.0.1.0 Production 29.00 KB (29,696 bytes)	8/26/2003 3:51 AM	
	Oracle Corporation c:\oracle\bin\orantns10.dll		
oranms	9.2.0.0.0 36.50 KB (37,376 bytes)	8/26/2003 3:51 AM	Oracle Corporation
	c:\oracle\bin\oranms.dll		
oranmsp	9.2.0.0.0 151.00 KB (154,624 bytes)	8/26/2003 3:51 AM	Oracle Corporation
	c:\oracle\bin\oranmsp.dll		
oranipc10	9.2.0.1.0 Production 55.00 KB (56,320 bytes)	8/26/2003 3:51 AM	
	Oracle Corporation c:\oracle\bin\oranipc10.dll		
oranbeq10	9.2.0.1.0 Production 49.50 KB (50,688 bytes)	8/26/2003 3:51 AM	
	Oracle Corporation c:\oracle\bin\oranbeq10.dll		
sh	Not Available 68.00 KB (69,632 bytes)	8/1/2003 9:29 PM	Not Available
	c:\cygwin\bin\sh.exe		
wow64	5.2.3790.0 (srv03_rtm.030324-2048) 438.50 KB (449,024 bytes)	3/25/2003 9:00	
PM	Microsoft Corporation c:\windows\system32\wow64.dll		
wow64win	5.2.3790.0 (srv03_rtm.030324-2048) 514.50 KB (526,848 bytes)	3/25/2003 9:00	
PM	Microsoft Corporation c:\windows\system32\wow64win.dll		
wow64cpu	5.2.3790.0 (srv03_rtm.030324-2048) 38.00 KB (38,912 bytes)	3/25/2003 9:00	
PM	Microsoft Corporation c:\windows\system32\wow64cpu.dll		
filemgmt	5.2.3790.0 (srv03_rtm.030324-2048) 914.00 KB (935,936 bytes)	3/25/2003 9:00	
PM	Microsoft Corporation c:\windows\system32\filemgmt.dll		
snmpsnap	5.2.3790.0 (srv03_rtm.030324-2048) 540.50 KB (553,472 bytes)	3/25/2003 9:00	
PM	Microsoft Corporation c:\windows\system32\snmpsnap.dll		
servdeps	5.2.3790.0 (srv03_rtm.030324-2048) 139.50 KB (142,848 bytes)	8/1/2003 8:06	
AM	Microsoft Corporation c:\windows\system32\servdeps.dll		
mmfutil	5.2.3790.0 (srv03_rtm.030324-2048) 25.00 KB (25,600 bytes)	8/1/2003 8:06	
AM	Microsoft Corporation c:\windows\system32\mmfutil.dll		
imgutil	5.2.3790.0 (srv03_rtm.030324-2048) 101.00 KB (103,424 bytes)	3/25/2003 9:00	
PM	Microsoft Corporation c:\windows\system32\imgutil.dll		
oracle	Not Available 124.09 MB (130,115,072 bytes)	8/26/2003 3:51 AM	Not Available
	c:\oracle\bin\oracle.exe		
oraodm10	10.1.0.0.0 20.00 KB (20,480 bytes)	8/26/2003 3:51 AM	Oracle
Corporation	c:\oracle\bin\oraodm10.dll		
orajox10	Not Available 10.20 MB (10,696,704 bytes)	8/26/2003 3:51 AM	Not Available
	c:\oracle\bin\orajox10.dll		
oraimr10	10, 0, 0, 1 111.00 KB (113,664 bytes)	8/26/2003 3:51 AM	Oracle
Corporation	c:\oracle\bin\oraimr10.dll		
dbghelp	5.2.3790.0 (srv03_rtm.030324-2048) 2.11 MB (2,216,448 bytes)	3/25/2003 9:00	
PM	Microsoft Corporation c:\windows\system32\dbghelp.dll		
winnr	5.2.3790.0 (srv03_rtm.030324-2048) 39.00 KB (39,936 bytes)	3/25/2003 9:00	
PM	Microsoft Corporation c:\windows\system32\winnr.dll		
sqlplus	Not Available 1.32 MB (1,379,840 bytes)	8/26/2003 3:51 AM	Not Available
	c:\oracle\bin\sqlplus.exe		
tail	Not Available 32.50 KB (33,280 bytes)	8/1/2003 9:29 PM	Not Available

notepad	c:\cygwin\bin\tail.exe		
PM	5.2.3790.0 (srv03_rtm.030324-2048) 129.50 KB (132,608 bytes)	3/25/2003 9:00	
	Microsoft Corporation c:\windows\system32\notepad.exe		
regedit	5.2.3790.0 (srv03_rtm.030324-2048) 341.00 KB (349,184 bytes)	3/25/2003 9:00	
PM	Microsoft Corporation c:\windows\regedit.exe		
accli	5.2.3790.0 (srv03_rtm.030324-2048) 276.00 KB (282,624 bytes)	3/25/2003 9:00	
PM	Microsoft Corporation c:\windows\system32\accli.dll		
clb	5.2.3790.0 (srv03_rtm.030324-2048) 25.00 KB (25,600 bytes)	3/25/2003 9:00	
PM	Microsoft Corporation c:\windows\system32\clb.dll		

[Services]

Display Name	Name	State	Start Mode	Service Type	Path	Error
Control	Start Name	Tag ID				
Alerter	Alerter	Stopped	Disabled	Share Process	c:\windows\system32\svchost.exe -k	
localservice	Normal	NT AUTHORITY\LocalService	0			
Application Layer Gateway Service	ALG	Stopped	Manual	Own Process		
	c:\windows\system32\alg.exe	Normal	NT AUTHORITY\LocalService	0		
Application Management	AppMgmt	Stopped	Manual	Share Process		
	c:\windows\system32\svchost.exe -k netsvcs	Normal	LocalSystem		0	
Windows Audio	AudioSrv	Stopped	Disabled	Share Process		
	c:\windows\system32\svchost.exe -k netsvcs	Normal	LocalSystem		0	
Background Intelligent Transfer Service BITS		Stopped	Manual	Share Process		
	c:\windows\system32\svchost.exe -k netsvcs	Normal	LocalSystem		0	
Computer Browser	Browser	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\dllhost.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	
Distributed File System	Dfs	Running	Auto	Own Process		
	c:\windows\system32\dfsrv.exe	Normal	LocalSystem	0		
DHCP Client	Dhcp	Stopped	Manual	Share Process		
	c:\windows\system32\svchost.exe -k networkservice	Normal	NT			
AUTHORITY\NetworkService	0					
Logical Disk Manager Administrative Service	dmdmadmin	Running	Manual	Share Process		
	c:\windows\system32\dmdmadmin.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			
	Normal	LocalSystem	0			
COM+ Event System	EventSystem	Running	Manual	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\syswow64\svchost.exe -k iasjet	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
Distributed Transaction Coordinator	MSDTC	Stopped	Manual	Own Process
	c:\windows\system32\msdtc.exe	Normal	NT AUTHORITY\NetworkService	0
Windows Installer	MSIServer	Stopped	Manual	Share Process
	c:\windows\system32\msiexec.exe /v	Normal	LocalSystem	0
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
OracleServiceTpc	OracleServiceTpc	Running	Manual	Own Process
	c:\oracle\bin\oracle.exe tpc	Normal	LocalSystem	0
OracleTNSListener	OracleTNSListener	Running	Manual	Own Process
	c:\oracle\bin\tnslsnr	Normal	LocalSystem	0
OracleTNSListenerListenerTpc	OracleTNSListenerListenerTpc	Stopped	Manual	Own Process
	c:\oracle\bin\tnslsnr	Normal	LocalSystem	0
Plug and Play	PlugPlay	Running	Auto	Share Process
	c:\windows\system32\services.exe	Normal	LocalSystem	0
IPSEC Services	PolicyAgent	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	RDSSessMgr	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	Running	Auto	Share 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	LocalSystem	0
Resultant Set of Policy Provider	RSOPProv	Stopped	Manual	Share Process
	c:\windows\system32\rsopprov.exe	Normal	LocalSystem	0
Special Administration Console Helper	sacsvr	Running	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
Shell Hardware Detection	ShellHWDetection	Running	Auto	Share Process
	c:\windows\system32\svchost.exe -k netsvcs	Ignore	LocalSystem	0
Print Spooler	Spooler	Stopped	Manual	Own Process
	c:\windows\system32\spoolsv.exe	Normal	LocalSystem	0
Windows Image Acquisition (WIA)	stisvc	Stopped	Disabled	Share Process
	c:\windows\system32\svchost.exe -k imsvc	Normal	NT AUTHORITY\LocalService	0
Microsoft Software Shadow Copy Provider	swprv	Stopped	Manual	Own Process
	c:\windows\system32\svchost.exe -k swprv	Normal	LocalSystem	0
Performance Logs and Alerts	SysmonLog	Stopped	Manual	Own Process
	c:\windows\system32\smlogsvc.exe	Normal	NT Authority\NetworkService	0
Telephony Tapisrv	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
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
Upload Manager	uploadmgr	Stopped	Disabled	Share Process
	c:\windows\system32\svchost.exe -k netsvcs	Normal	LocalSystem	0
Uninterruptible Power Supply	UPS	Stopped	Manual	Own Process
	c:\windows\system32\ups.exe	Normal	NT AUTHORITY\LocalService	0
Virtual Disk Service	vds	Running	Manual	Own Process
	c:\windows\system32\vds.exe	Normal	LocalSystem	0
Volume Shadow Copy VSS	VSS	Stopped	Manual	Own Process
	c:\windows\system32\vssvc.exe	Normal	LocalSystem	0
Windows Time	W32Time	Running	Auto	Share Process
	c:\windows\system32\svchost.exe -k netsvcs	Normal	LocalSystem	0
WebClient	WebClient	Stopped	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
Windows Management Instrumentation Driver Extensions			Wmi	Stopped
	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	Stopped	Manual	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
[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
Cygwin	All Users:Cygwin	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	ASAMA\Administrator:Accessories	ASAMA\Administrator
Accessories\Accessibility	ASAMA\Administrator:Accessories\Accessibility	
ASAMA\Administrator		
Accessories\Entertainment	ASAMA\Administrator:Accessories\Entertainment	
ASAMA\Administrator		
Administrative Tools	ASAMA\Administrator:Administrative Tools	
ASAMA\Administrator		
Startup	ASAMA\Administrator:Startup	ASAMA\Administrator

[Startup Programs]

Program	Command	User Name	Location
desktop	desktop.ini		NT AUTHORITY\SYSTEM Startup
desktop	desktop.ini		ASAMA\Administrator Startup
desktop	desktop.ini		.DEFAULT Startup
desktop	desktop.ini		All Users Common Startup

[OLE Registration]

Object	Local Server
Sound (OLE2)	sndrec32.exe
Media Clip	mplay32.exe
Video Clip	mplay32.exe /avi
MIDI Sequence	mplay32.exe /mid
Sound	Not Available
Media Clip	Not Available
WordPad Document	"%programfiles%\windows nt\accessories\wordpad.exe"
Bitmap Image	mspaint.exe

[Windows Error Reporting]

Time	Type	Details
8/3/2003 10:23 AM	Application Error	Faulting application oracle.exe, version 0.0.0.0, faulting module ntdll.dll, version 5.2.3790.0, fault address 0x0000000000064c00.6#x000d;6#x000a;
8/3/2003 10:14 AM	Application Error	Faulting application oracle.exe, version 0.0.0.0, faulting module ntdll.dll, version 5.2.3790.0, fault address 0x0000000000064c00.6#x000d;6#x000a;
8/2/2003 8:03 PM	Application Error	Faulting application oracle.exe, version 0.0.0.0, faulting module ntdll.dll, version 5.2.3790.0, fault address 0x0000000000064c00.6#x000d;6#x000a;
8/2/2003 12:45 PM	Application Error	Faulting application oracle.exe, version 0.0.0.0, faulting module ntdll.dll, version 5.2.3790.0, fault address 0x0000000000064c00.6#x000d;6#x000a;
8/2/2003 12:44 PM	Application Error	Faulting application oracle.exe, version 0.0.0.0, faulting module ntdll.dll, version 5.2.3790.0, fault address 0x0000000000064c00.6#x000d;6#x000a;
8/2/2003 12:43 PM	Application Error	Faulting application oracle.exe, version 0.0.0.0, faulting module ntdll.dll, version 5.2.3790.0, fault address 0x0000000000064c00.6#x000d;6#x000a;
8/2/2003 12:22 PM	Application Error	Faulting application oracle.exe, version 0.0.0.0, faulting module ntdll.dll, version 5.2.3790.0, fault address 0x0000000000064c00.6#x000d;6#x000a;
8/25/2003 1:37 PM	Application Hang	Hanging application wordpad.exe, version 5.2.3790.0, hang module kernel32.dll, version 5.2.3790.0, hang address 0x0000000000054de0.6#x000d;6#x000a;
8/24/2003 9:18 AM	Application Hang	Hanging application wordpad.exe, version 5.2.3790.0, hang module kernel32.dll, version 5.2.3790.0, hang address 0x00000000000990d0.6#x000d;6#x000a;
8/22/2003 10:18 AM	Application Hang	Hanging application wordpad.exe, version 5.2.3790.0, hang module kernel32.dll, version 5.2.3790.0, hang address 0x0000000000054de0.6#x000d;6#x000a;
8/16/2003 8:50 PM	Application Hang	Hanging application HelpCtr.exe, version 5.2.3790.0, hang module kernel32.dll, version 5.2.3790.0, hang address 0x00000000000990d0.6#x000d;6#x000a;
8/15/2003 6:18 AM	Application Hang	Hanging application mmc.exe, version 5.2.3790.0, hang module kernel32.dll, version 5.2.3790.0, hang address 0x00000000000990d0.6#x000d;6#x000a;
8/8/2003 9:18 PM	Application Hang	Hanging application mmc.exe, version 5.2.3790.0, hang module user32.dll, version 5.2.3790.0, hang address 0x000000000002d3c0.6#x000d;6#x000a;

8/8/2003 9:18 PM	Application Hang	Hanging application mmc.exe, version 5.2.3790.0, hang module kernel32.dll, version 5.2.3790.0, hang address 0x00000000000990d0.6#x000d;6#x000a;
8/4/2003 3:07 PM	Application Hang	Hanging application mmc.exe, version 5.2.3790.0, hang module kernel32.dll, version 5.2.3790.0, hang address 0x00000000000990d0.6#x000d;6#x000a;
8/4/2003 1:10 PM	Application Hang	Hanging application mmc.exe, version 5.2.3790.0, hang module kernel32.dll, version 5.2.3790.0, hang address 0x00000000000990d0.6#x000d;6#x000a;
8/4/2003 7:13 AM	Application Hang	Hanging application mmc.exe, version 5.2.3790.0, hang module kernel32.dll, version 5.2.3790.0, hang address 0x00000000000990d0.6#x000d;6#x000a;
8/1/2003 3:44 PM	Application Hang	Hanging application HelpCtr.exe, version 5.2.3790.0, hang module kernel32.dll, version 5.2.3790.0, hang address 0x00000000000990d0.6#x000d;6#x000a;
8/1/2003 1:14 PM	Application Hang	Hanging application mmc.exe, version 5.2.3790.0, hang module comctl32.dll, version 5.82.3790.0, hang address 0x00000000000f2ba0.6#x000d;6#x000a;
8/1/2003 9:30 AM	Application Hang	Hanging application mmc.exe, version 5.2.3790.0, hang module kernel32.dll, version 5.2.3790.0, hang address 0x00000000000990d0.6#x000d;6#x000a;

[Internet Settings]

[Internet Explorer]

[Following are sub-categories of this main category]
[Summary]

Item	Value
Version	6.0.3790.0
Build	63790
Application Path	C:\Program Files\Internet Explorer
Language	English (United States)
Active Printer	Not Available
Cipher Strength	128-bit
Content Advisor	Disabled
IEAK Install	No

[File Versions]

File	Version	Size	Date	Path	Company
actxprxy.dll	6.0.3790.0	230 KB	3/25/2003 9:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
advpack.dll	6.0.3790.0	240 KB	3/25/2003 9:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
asctrls.ocx	6.0.3790.0	219 KB	3/25/2003 9:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
browsecl.dll	6.0.3790.0	62 KB	3/25/2003 9:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
browseui.dll	6.0.3790.0	2,478 KB	3/25/2003 9:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
cdfview.dll	6.0.3790.0	292 KB	3/25/2003 9:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
comctl32.dll	5.82.3790.0	1,584 KB	3/25/2003 9:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
dxtrans.dll	6.3.3790.0	562 KB	3/25/2003 9:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
dxtmsft.dll	6.3.3790.0	918 KB	3/25/2003 9:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
iecont.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
iecontlc.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
iedkcs32.dll	16.0.3790.0	676 KB	3/25/2003 9:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
iepeers.dll	6.0.3790.0	652 KB	3/25/2003 9:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
iesetup.dll	6.0.3790.0	89 KB	3/25/2003 9:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
ieuinit.inf	Not Available	20 KB	3/25/2003 9:00:00 PM	C:\WINDOWS\system32	Not Available
iexplore.exe	6.0.3790.0	102 KB	3/25/2003 9:00:00 PM	C:\Program Files\Internet Explorer	Microsoft Corporation
imgutil.dll	5.2.3790.0	101 KB	3/25/2003 9:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
inetcp1.cpl	6.0.3790.0	589 KB	3/25/2003 9:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
inetcp1c.dll	6.0.3790.0	108 KB	3/25/2003 9:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation
inseng.dll	6.0.3790.0	213 KB	3/25/2003 9:00:00 PM	C:\WINDOWS\system32	Microsoft Corporation

C:\WINDOWS\system32 Microsoft Corporation				
mlang.dll 6.0.3790.0	799 KB	3/25/2003 9:00:00 PM	C:\WINDOWS\system32	
Microsoft Corporation				
msencode.dll	<File Missing>	Not Available	Not Available	Not Available
Not Available				
mshta.exe 6.0.3790.0	59 KB	3/25/2003 9:00:00 PM	C:\WINDOWS\system32	
Microsoft Corporation				
mshtml.dll 6.0.3790.0	8,016 KB	3/25/2003 9:00:00 PM		
C:\WINDOWS\system32 Microsoft Corporation				
mshtml.tlb 6.0.3790.0	1,319 KB	3/25/2003 9:00:00 PM		
C:\WINDOWS\system32 Microsoft Corporation				
mshtml.dll 6.0.3790.0	1,376 KB	3/25/2003 9:00:00 PM		
C:\WINDOWS\system32 Microsoft Corporation				
mshtml.dll 6.0.3790.0	56 KB	3/25/2003 9:00:00 PM		
C:\WINDOWS\system32 Microsoft Corporation				
msident.dll 6.0.3790.0	128 KB	3/25/2003 9:00:00 PM		
C:\WINDOWS\system32 Microsoft Corporation				
msident.dll 6.0.3790.0	14 KB	3/25/2003 9:00:00 PM		
C:\WINDOWS\system32 Microsoft Corporation				
msieftp.dll 6.0.3790.0	536 KB	3/25/2003 9:00:00 PM		
C:\WINDOWS\system32 Microsoft Corporation				
msrating.dll 6.0.3790.0	379 KB	3/25/2003 9:00:00 PM		
C:\WINDOWS\system32 Microsoft Corporation				
mstime.dll 6.0.3790.0	1,621 KB	3/25/2003 9:00:00 PM		
C:\WINDOWS\system32 Microsoft Corporation				
occache.dll 6.0.3790.0	201 KB	3/25/2003 9:00:00 PM		
C:\WINDOWS\system32 Microsoft Corporation				
proctexe.ocx	<File Missing>	Not Available	Not Available	Not Available
Not Available				
sendmail.dll 6.0.3790.0	97 KB	3/25/2003 9:00:00 PM		
C:\WINDOWS\system32 Microsoft Corporation				
shdoclc.dll 6.0.3790.0	588 KB	3/25/2003 9:00:00 PM		
C:\WINDOWS\system32 Microsoft Corporation				
shdocvw.dll 6.0.3790.0	3,281 KB	3/25/2003 9:00:00 PM		
C:\WINDOWS\system32 Microsoft Corporation				
shfolder.dll 6.0.3790.0	37 KB	3/25/2003 9:00:00 PM		
C:\WINDOWS\system32 Microsoft Corporation				
shlwapi.dll 6.0.3790.0	722 KB	3/25/2003 9:00:00 PM		
C:\WINDOWS\system32 Microsoft Corporation				
tdc.ocx 1.3.0.3130	177 KB	3/25/2003 9:00:00 PM	C:\WINDOWS\system32	
Microsoft Corporation				
url.dll 6.0.3790.0	45 KB	3/25/2003 9:00:00 PM	C:\WINDOWS\system32	
Microsoft Corporation				
urlmon.dll 6.0.3790.0	1,242 KB	3/25/2003 9:00:00 PM		
C:\WINDOWS\system32 Microsoft Corporation				
webcheck.dll 6.0.3790.0	665 KB	3/25/2003 9:00:00 PM		
C:\WINDOWS\system32 Microsoft Corporation				
wininet.dll 6.0.3790.0	1,466 KB	3/25/2003 9:00:00 PM		
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
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	Medium
Internet High	
Restricted sites	Custom

Oracle Registry Information

<Oracle Registry >

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Session Manager\Memory Management]
"NonPagedPoolMaximumPercent"=dword:00000001

[HKEY_LOCAL_MACHINE\SOFTWARE\ORACLE]
"ORA_tpcc_PWFIL"=hex(2):63,00,3a,00,5c,00,6f,00,72,00,61,00,63,00,6c,00,65,00,5c,00,62,00,69,00,6e,00,5c,00,44,00,41,00,54,00,41,00,42,00,41,00,53,00,45,00,5c,00,50,00,57,00,44,00,74,00,70,00,63,00,63,00,2e,00,4f,00,52,00,41,00,00,00
"ORA_tpcc_CWD"=hex(2):63,00,3a,00,5c,00,6f,00,72,00,61,00,63,00,6c,00,65,00,5c,00,64,00,61,00,74,00,61,00,62,00,61,00,73,00,65,00,00,00
"ORA_tpcc_XCPT"=hex(2):30,00,78,00,46,00,46,00,00,00
"DBA_AUTHORIZATION"=hex(2):6f,00,72,00,61,00,63,00,6c,00,65,00,00,00
"OSAUTH_PREFIX_DOMAIN"=hex(2):54,00,52,00,55,00,45,00,00,00
"ORA_ORCL_PWFIL"=hex(2):63,00,3a,00,5c,00,6f,00,72,00,61,00,63,00,6c,00,65,00,5c,00,62,00,69,00,6e,00,5c,00,44,00,41,00,54,00,41,00,42,00,41,00,53,00,45,00,5c,00,50,00,57,00,44,00,4f,00,52,00,43,00,4c,00,2e,00,4f,00,52,00,41,00,00,00
"ORA_ORCL_CWD"=hex(2):63,00,3a,00,5c,00,6f,00,72,00,61,00,63,00,6c,00,65,00,5c,00,64,00,61,00,74,00,61,00,62,00,61,00,73,00,65,00,00,00
"ORA_ORCL_XCPT"=hex(2):30,00,78,00,46,00,46,00,00,00

[HKEY_LOCAL_MACHINE\SOFTWARE\ORACLE\FIBER]
"NumContextSwitchesBeforePolling"="0"

[HKEY_LOCAL_MACHINE\SOFTWARE\ORACLE\HOMEORCL]
"ORACLE_HOME"=hex(2):63,00,3a,00,5c,00,6f,00,72,00,61,00,63,00,6c,00,65,00,00,00,00
"NLS_LANG"=hex(2):41,00,4d,00,45,00,52,00,49,00,43,00,41,00,4e,00,5f,00,41,00,4d,00,45,00,52,00,49,00,43,00,41,00,2e,00,57,00,45,00,38,00,49,00,53,00,4f,00,38,00,38,00,35,00,39,00,50,00,31,00,00,00
"MSHELP_TOOLS"=hex(2):63,00,3a,00,5c,00,6f,00,72,00,61,00,63,00,6c,00,65,00,5c,00,4d,00,53,00,48,00,45,00,4c,00,50,00,00,00

"VS"=hex(2):63,00,3a,00,5c,00,6f,00,72,00,61,00,63,00,6c,00,65,00,5c,00,56,00,\
53,00,00,00
"RDBMS_CONTROL"=hex(2):63,00,3a,00,5c,00,6f,00,72,00,61,00,63,00,6c,00,65,00,\
5c,00,44,00,41,00,54,00,41,00,42,00,41,00,53,00,45,00,00,00
"RDBMS_ARCHIVE"=hex(2):63,00,3a,00,5c,00,6f,00,72,00,61,00,63,00,6c,00,65,00,\
5c,00,44,00,41,00,54,00,41,00,42,00,41,00,53,00,45,00,5c,00,41,00,52,00,43,\
00,48,00,49,00,56,00,45,00,00,00
"ORACLE_SID"=hex(2):54,00,50,00,43,00,43,00,00,00
"ORA_SHUTDOWN"=hex(2):46,00,41,00,4c,00,53,00,45,00,00,00
"SQLPATH"=hex(2):63,00,3a,00,5c,00,6f,00,72,00,61,00,63,00,6c,00,65,00,5c,00,\
44,00,42,00,53,00,00,00
"SQLPLUS"=hex(2):63,00,3a,00,5c,00,6f,00,72,00,61,00,63,00,6c,00,65,00,5c,00,\
73,00,71,00,6c,00,70,00,6c,00,75,00,73,00,5c,00,6d,00,65,00,73,00,67,00,00,\
00
"ORA_ORCL_CWD"=hex(2):63,00,3a,00,5c,00,6f,00,72,00,61,00,63,00,6c,00,65,00,5c,\
00,64,00,61,00,74,00,61,00,62,00,61,00,73,00,65,00,5c,00,4f,00,52,00,43,00,\
4c,00,00,00
"ORA_ORCL_XCPT"=hex(2):30,00,78,00,46,00,46,00,00,00
"DBA_AUTHORIZATION"=hex(2):6f,00,72,00,61,00,63,00,6c,00,65,00,00,00
"OSAUTH_PREFIX_DOMAIN"=hex(2):46,00,41,00,4c,00,53,00,45,00,00,00
"ORA_TPCC_AUTOSTART"=hex(2):46,00,41,00,4c,00,53,00,45,00,00,00
"ORA_TPCC_SHUTDOWN"=hex(2):54,00,52,00,55,00,45,00,00,00
"ORA_TPCC_SHUTDOWNTYPE"=hex(2):69,00,00,00
"ORA_TPCC_SHUTDOWN_TIMEOUT"=hex(2):33,00,30,00,00,00

[HKEY_LOCAL_MACHINE\SOFTWARE\ORACLE\HOMETpcc]
"ORACLE_HOME"=hex(2):63,00,3a,00,5c,00,6f,00,72,00,61,00,63,00,6c,00,65,00,00,\
00
"NLS_LANG"=hex(2):41,00,4d,00,45,00,52,00,49,00,43,00,41,00,4e,00,5f,00,41,00,\
4d,00,45,00,52,00,49,00,43,00,41,00,2e,00,57,00,45,00,38,00,49,00,53,00,4f,\
00,38,00,38,00,35,00,39,00,50,00,31,00,00,00
"MSHELP_TOOLS"=hex(2):63,00,3a,00,5c,00,6f,00,72,00,61,00,63,00,6c,00,65,00,5c,\
00,4d,00,53,00,48,00,45,00,4c,00,50,00,00,00
"VS"=hex(2):63,00,3a,00,5c,00,6f,00,72,00,61,00,63,00,6c,00,65,00,5c,00,56,00,\
53,00,00,00
"RDBMS_CONTROL"=hex(2):63,00,3a,00,5c,00,6f,00,72,00,61,00,63,00,6c,00,65,00,\
5c,00,44,00,41,00,54,00,41,00,42,00,41,00,53,00,45,00,00,00
"RDBMS_ARCHIVE"=hex(2):63,00,3a,00,5c,00,6f,00,72,00,61,00,63,00,6c,00,65,00,\
5c,00,44,00,41,00,54,00,41,00,42,00,41,00,53,00,45,00,5c,00,41,00,52,00,43,\
00,48,00,49,00,56,00,45,00,00,00
"ORACLE_SID"=hex(2):54,00,50,00,43,00,43,00,00,00
"ORA_SHUTDOWN"=hex(2):46,00,41,00,4c,00,53,00,45,00,00,00
"SQLPATH"=hex(2):63,00,3a,00,5c,00,6f,00,72,00,61,00,63,00,6c,00,65,00,5c,00,\
44,00,42,00,53,00,00,00
"SQLPLUS"=hex(2):63,00,3a,00,5c,00,6f,00,72,00,61,00,63,00,6c,00,65,00,5c,00,\
73,00,71,00,6c,00,70,00,6c,00,75,00,73,00,5c,00,6d,00,65,00,73,00,67,00,00,\
00
"ORA_tpcc_CWD"=hex(2):63,00,3a,00,5c,00,6f,00,72,00,61,00,63,00,6c,00,65,00,5c,\
00,64,00,61,00,74,00,61,00,62,00,61,00,73,00,65,00,5c,00,4f,00,52,00,43,00,\
4c,00,00,00
"ORA_tpcc_XCPT"=hex(2):30,00,78,00,46,00,46,00,00,00
"DBA_AUTHORIZATION"=hex(2):6f,00,72,00,61,00,63,00,6c,00,65,00,00,00
"OSAUTH_PREFIX_DOMAIN"=hex(2):46,00,41,00,4c,00,53,00,45,00,00,00
"ORA_tpcc_AUTOSTART"=hex(2):46,00,41,00,4c,00,53,00,45,00,00,00
"ORA_tpcc_SHUTDOWN"=hex(2):54,00,52,00,55,00,45,00,00,00
"ORA_tpcc_SHUTDOWNTYPE"=hex(2):69,00,00,00
"ORA_tpcc_SHUTDOWN_TIMEOUT"=hex(2):33,00,30,00,00,00
"ORA_LPENABLE"="1"
"ORA_LPSIZE"="128"

[HKEY_LOCAL_MACHINE\SOFTWARE\ORACLE\SECURITY]
"ORA_ORCTPCC_STARTMODE"=hex(2):54,00,52,00,55,00,45,00,00,00
"ORA_ORCORCL_STARTMODE"=hex(2):54,00,52,00,55,00,45,00,00,00

Client Configuration (common to all clients)

Client configuration information

System Information report written at: 08/27/2003 12:09:28 PM
[System Information]

[Following are sub-categories of this main category]

[System Summary]

Item Value
OS Name Microsoft Windows 2000 Server
Version 5.0.2195 Service Pack 2 Build 2195
OS Manufacturer Microsoft Corporation
System Name ACL38
System Manufacturer NEC
System Model Express5800/120Rf-2 [N8100-878]
System Type X86-based PC
Processor x86 Family 15 Model 2 Stepping 7 GenuineIntel ~1994 Mhz
Processor x86 Family 15 Model 2 Stepping 7 GenuineIntel ~1994 Mhz
BIOS Version SWV25 v3.00
Windows Directory C:\WINNT
System Directory C:\WINNT\System32
Boot Device \Device\Harddisk0\Partition1
Locale United States
User Name ACL38\Administrator
Total Physical Memory 2,096,412 KB
Available Physical Memory 1,793,092 KB
Total Virtual Memory 6,131,992 KB
Available Virtual Memory 5,673,544 KB
Page File Space 4,035,580 KB
Page File C:\pagefile.sys

[Hardware Resources]

[Following are sub-categories of this main category]

[Conflicts/Sharing]

Resource Device
No conflicted/shared resources

[DMA]

Channel Device Status
4 Direct memory access controller OK
2 Standard floppy disk controller OK

[Forced Hardware]

Device PNP Device ID
No Forced Hardware

[I/O]

Address Range Device Status
0x0000-0x0CF7 PCI bus OK
0x0000-0x0CF7 Direct memory access controller OK
0x0D00-0xFFFF PCI bus OK
0x2000-0x4FFF Intel(R) E7000 Series Hub Interface C PCI-to-PCI Bridge - 2545 OK
0x2000-0x4FFF P64H2 PCI Bridge - 1460 OK
0x2000-0x4FFF Intel(R) PRO/100+ PCI Adapter OK
0x3000-0x4FFF P64H2 PCI Bridge - 1460 OK
0x3000-0x4FFF Adaptec AIC-7902 - Ultra320 SCSI OK
0x3800-0x38FF Adaptec AIC-7902 - Ultra320 SCSI OK
0x4000-0x40FF Adaptec AIC-7902 - Ultra320 SCSI OK
0x3400-0x34FF Adaptec AIC-7902 - Ultra320 SCSI OK
0x2080-0x20BF Intel(R) 82546EB Based Dual Port Network Connection OK
0x2040-0x207F Intel(R) 82546EB Based Dual Port Network Connection #2 OK
0x5020-0x503F Intel(R) 82801CA/CAM USB Universal Host Controller - 2482 OK
0x5000-0x501F Intel(R) 82801CA/CAM USB Universal Host Controller - 2484 OK
0x1000-0x10FF ATI Technologies Inc. RAGE XL PCI OK
0x03B0-0x03BB ATI Technologies Inc. RAGE XL PCI OK
0x03C0-0x03DF ATI Technologies Inc. RAGE XL PCI OK
0x0A79-0x0A79 ISAPNP Read Data Port OK
0x0279-0x0279 ISAPNP Read Data Port OK
0x0274-0x0277 ISAPNP Read Data Port OK
0x0092-0x0092 Motherboard resources OK
0x00B2-0x00B3 Motherboard resources OK
0x03F0-0x03F1 Motherboard resources OK
0x0400-0x04BF Motherboard resources OK
0x04D0-0x04D1 Motherboard resources OK

0x0010-0x001F	Motherboard resources	OK	
0x040B-0x040B	Motherboard resources	OK	
0x04D6-0x04D6	Motherboard resources	OK	
0x0C14-0x0C14	Motherboard resources	OK	
0x0C49-0x0C49	Motherboard resources	OK	
0x0C52-0x0C52	Motherboard resources	OK	
0x0C6C-0x0C6C	Motherboard resources	OK	
0x0C6F-0x0C6F	Motherboard resources	OK	
0x0F50-0x0F57	Motherboard resources	OK	
0x0C00-0x0C01	Motherboard resources	OK	
0x0C98-0x0C98	Motherboard resources	OK	
0x0CD6-0x0CD7	Motherboard resources	OK	
0x002E-0x002F	Motherboard resources	OK	
0x0530-0x0531	Motherboard resources	OK	
0x0500-0x052F	Motherboard resources	OK	
0x0532-0x053F	Motherboard resources	OK	
0x0540-0x055F	Motherboard resources	OK	
0x0560-0x057F	Motherboard resources	OK	
0x05A0-0x05BF	Motherboard resources	OK	
0x0020-0x0021	Programmable interrupt controller	OK	
0x00A0-0x00A1	Programmable interrupt controller	OK	
0x0024-0x0025	Programmable interrupt controller	OK	
0x0028-0x0029	Programmable interrupt controller	OK	
0x002C-0x002D	Programmable interrupt controller	OK	
0x0030-0x0031	Programmable interrupt controller	OK	
0x0034-0x0035	Programmable interrupt controller	OK	
0x0038-0x0039	Programmable interrupt controller	OK	
0x003C-0x003D	Programmable interrupt controller	OK	
0x0050-0x0052	Programmable interrupt controller	OK	
0x00A4-0x00A5	Programmable interrupt controller	OK	
0x00A8-0x00A9	Programmable interrupt controller	OK	
0x00AC-0x00AD	Programmable interrupt controller	OK	
0x00B0-0x00B1	Programmable interrupt controller	OK	
0x00B4-0x00B5	Programmable interrupt controller	OK	
0x00B8-0x00B9	Programmable interrupt controller	OK	
0x00BC-0x00BD	Programmable interrupt controller	OK	
0x0080-0x0080	Direct memory access controller	OK	
0x0081-0x0083	Direct memory access controller	OK	
0x0084-0x0086	Direct memory access controller	OK	
0x0087-0x0087	Direct memory access controller	OK	
0x0088-0x0088	Direct memory access controller	OK	
0x0089-0x008B	Direct memory access controller	OK	
0x008C-0x008E	Direct memory access controller	OK	
0x008F-0x008F	Direct memory access controller	OK	
0x0090-0x0091	Direct memory access controller	OK	
0x0093-0x009F	Direct memory access controller	OK	
0x00C0-0x00DF	Direct memory access controller	OK	
0x0040-0x0043	System timer	OK	
0x0070-0x0071	System CMOS/real time clock	OK	
0x0072-0x0073	System CMOS/real time clock	OK	
0x0074-0x0075	System CMOS/real time clock	OK	
0x0076-0x0077	System CMOS/real time clock	OK	
0x0061-0x0061	System speaker	OK	
0x00F0-0x00FF	Numeric data processor	OK	
0x0060-0x0060	Standard 101/102-Key or Microsoft Natural PS/2 Keyboard	OK	
0x0064-0x0064	Standard 101/102-Key or Microsoft Natural PS/2 Keyboard	OK	
0x0CA6-0x0CA6	Microsoft ACPI-Compliant Embedded Controller	OK	
0x0CA7-0x0CA7	Microsoft ACPI-Compliant Embedded Controller	OK	
0x03F2-0x03F3	Standard floppy disk controller	OK	
0x03F4-0x03F5	Standard floppy disk controller	OK	
0x03F7-0x03F7	Standard floppy disk controller	OK	
0x03F8-0x03FF	Communications Port (COM1)	OK	
0x02F8-0x02FF	Communications Port (COM2)	OK	
0x03A0-0x03AF	Intel(R) 82801CA Ultra ATA Storage Controller - 248B	OK	
0x01F0-0x01F7	Primary IDE Channel	OK	
0x03F6-0x03F6	Primary IDE Channel	OK	
0x0170-0x0177	Secondary IDE Channel	OK	
0x0376-0x0376	Secondary IDE Channel	OK	
0x0580-0x059F	Intel(R) 82801CA/CAM SMBus Controller - 2483	OK	

[IRQs]

IRQ Number	Device
9	Microsoft ACPI-Compliant System
50	Adaptec AIC-7902 - Ultra320 SCSI
49	Adaptec AIC-7902 - Ultra320 SCSI
30	Intel(R) 82546EB Based Dual Port Network Connection
31	Intel(R) 82546EB Based Dual Port Network Connection #2
24	Intel(R) PRO/100+ PCI Adapter

16	Intel(R) 82801CA/CAM USB Universal Host Controller - 2482
19	Intel(R) 82801CA/CAM USB Universal Host Controller - 2484
17	ATI Technologies Inc. RAGE XL PCI
8	System CMOS/real time clock
13	Numeric data processor
12	Logitech PS/2 Port Mouse
1	Standard 101/102-Key or Microsoft Natural PS/2 Keyboard
6	Standard floppy disk controller
4	Communications Port (COM1)
3	Communications Port (COM2)
14	Primary IDE Channel
15	Secondary IDE Channel

[Memory]

Range	Device	Status
0xA0000-0xBFFFF	PCI bus	OK
0xA0000-0xBFFFF	ATI Technologies Inc. RAGE XL PCI	OK
0x80000000-0xFFFFFFFF	PCI bus	OK
0xFE200000-0xFEAF0FFF	Intel(R) E7000 Series Hub Interface C PCI-to-PCI Bridge - 2545	
0xFE200000-0xFEAF0FFF	OK	
0xFE200000-0xFEAF0FFF	P64H2 PCI Bridge - 1460	OK
0xFBD00000-0xFBFFFFFF	Intel(R) E7000 Series Hub Interface C PCI-to-PCI Bridge - 2545	
0xFBD00000-0xFBFFFFFF	OK	
0xFBD00000-0xFBFFFFFF	P64H2 PCI Bridge - 1460	OK
0xFEAE0000-0xFEAE0FFF	P64H2 I/O Advanced Programmable Interrupt Controller - 1461	OK
0xFE700000-0xFE9FFFFF	P64H2 PCI Bridge - 1460	OK
0xFBE00000-0xFBEFFFFF	P64H2 PCI Bridge - 1460	OK
0xFE9E0000-0xFE9E1FFF	Adaptec AIC-7902 - Ultra320 SCSI	OK
0xFE9F0000-0xFE9F1FFF	Adaptec AIC-7902 - Ultra320 SCSI	OK
0xFE6C0000-0xFE6CFFFF	P64H2 I/O Advanced Programmable Interrupt Controller - 1461	OK
0xFE6A0000-0xFE6BFFFF	Intel(R) 82546EB Based Dual Port Network Connection	OK
0xFE6C0000-0xFE6DFFFF	Intel(R) 82546EB Based Dual Port Network Connection #2	OK
0xFE6E0000-0xFE6E0FFF	Intel(R) PRO/100+ PCI Adapter	OK
0xFE300000-0xFE3FFFFF	Intel(R) PRO/100+ PCI Adapter	OK
0xFD000000-0xFDFFFFFF	ATI Technologies Inc. RAGE XL PCI	OK
0xFE1F0000-0xFE1F0FFF	ATI Technologies Inc. RAGE XL PCI	OK
0xFFE00000-0xFFEFFFFF	Intel(r) 82802 Firmware Hub Device	OK
0xFFE00000-0xFFEFFFFF	Intel(r) 82802 Firmware Hub Device	OK
0xFFD00000-0xFFDFFFFF	Intel(r) 82802 Firmware Hub Device	OK
0xFFC00000-0xFFCFFFFF	Intel(r) 82802 Firmware Hub Device	OK
0xFFBF0000-0xFFBFFFFF	Intel(R) 82801CA Ultra ATA Storage Controller - 248B	OK

[Components]

[Following are sub-categories of this main category]

[Multimedia]

[Following are sub-categories of this main category]

[Audio Codecs]

Codec	Manufacturer	Description	Status	File	Version	Size
c:\winnt\system32\msadp32.acm	Microsoft Corporation				OK	
C:\WINNT\System32\MSADP32.ACM	5.00.2134.1			14.77 KB	(15,120 bytes)	
12/8/1999 5:00:00 AM						
c:\winnt\system32\imaadp32.acm	Microsoft Corporation				OK	
C:\WINNT\System32\IMAADP32.ACM	5.00.2134.1			16.27 KB	(16,656 bytes)	
12/8/1999 5:00:00 AM						
c:\winnt\system32\tssoft32.acm	DSP GROUP, INC.				OK	
C:\WINNT\System32\TSSOFT32.ACM	1.01			9.27 KB	(9,488 bytes)	
12/8/1999 5:00:00 AM						
c:\winnt\system32\msgsm32.acm	Microsoft Corporation				OK	
C:\WINNT\System32\MSGSM32.ACM	5.00.2134.1			22.27 KB	(22,800 bytes)	
12/8/1999 5:00:00 AM						
c:\winnt\system32\msg711.acm	Microsoft Corporation				OK	
C:\WINNT\System32\MSG711.ACM	5.00.2134.1			10.27 KB	(10,512 bytes)	
12/8/1999 5:00:00 AM						
c:\winnt\system32\iac25_32.ac	Intel Corporation	Indeo® audio software			OK	
C:\WINNT\System32\IAC25_32.AX	2.05.53			195.00 KB	(199,680 bytes)	12/8/1999
5:00:00 AM						
c:\winnt\system32\msg723.acm	Microsoft Corporation				OK	
C:\WINNT\System32\MSG723.ACM	4.4.3385			106.77 KB	(109,328 bytes)	6/25/2003
2:42:57 PM						
c:\winnt\system32\lhacm.acm	Microsoft Corporation				OK	
C:\WINNT\System32\LHACM.ACM	4.4.3385			33.27 KB	(34,064 bytes)	6/25/2003
2:42:58 PM						

[Video Codecs]

Codec	Manufacturer	Description	Status	File	Version	Size
c:\winnt\system32\ir50_32.dll	Intel Corporation	Indeo® video	5.10	OK		
	C:\WINNT\System32\IR50_32.DLL	R.5.10.15.2.55	737.50 KB (755,200 bytes)			
	12/8/1999 5:00:00 AM					
c:\winnt\system32\msh263.drv	Microsoft Corporation		OK			
	C:\WINNT\System32\MSH263.DRV	4.4.3385	252.27 KB (258,320 bytes)		6/25/2003	
2:42:35 PM						
c:\winnt\system32\msh261.drv	Microsoft Corporation		OK			
	C:\WINNT\System32\MSH261.DRV	4.4.3385	163.77 KB (167,696 bytes)		6/25/2003	
2:42:57 PM						
c:\winnt\system32\msrle32.dll	Microsoft Corporation		OK			
	C:\WINNT\System32\MSRLE32.DLL	5.00.2134.1	10.77 KB (11,024 bytes)			
	12/8/1999 5:00:00 AM					
c:\winnt\system32\iccvid.dll	Radius Inc.		OK			
	C:\WINNT\System32\ICCVID.DLL	1.10.0.6	108.00 KB (110,592 bytes)		12/8/1999	
5:00:00 AM						
c:\winnt\system32\msvidc32.dll	Microsoft Corporation		OK			
	C:\WINNT\System32\MSVIDC32.DLL	5.00.2134.1	27.27 KB (27,920 bytes)			
	12/8/1999 5:00:00 AM					
c:\winnt\system32\ir32_32.dll	Intel(R) Corporation		OK			
	C:\WINNT\System32\IR32_32.DLL	Not Available	194.50 KB (199,168 bytes)			
	12/8/1999 5:00:00 AM					

[CD-ROM]

Item	Value
Drive	D:
Description	CD-ROM Drive
Media Loaded	False
Media Type	CD-ROM
Name	MITSUMI CD-ROM SR244W
Manufacturer	(Standard CD-ROM drives)
Status	OK
Transfer Rate	Not Available
SCSI Target ID	0
PNP Device ID	IDE\CDROMMITSUMI_CD-ROM_SR244W
	T01A\5&2C4DDEAA&0&0.0.0

[Sound Device]

Item	Value
No sound devices	

[Display]

Item	Value
Name	ATI Technologies Inc. RAGE XL PCI
PNP Device ID	PCI\VEN_1002&DEV_4752&SUBSYS_81B41033&REV_27\4&27A7C225&0&60F0
Adapter Type	ATI RAGE XL PCI, ATI Technologies Inc. compatible
Adapter Description	ATI Technologies Inc. RAGE XL PCI
Adapter RAM	8.00 MB (8,388,608 bytes)
Installed Drivers	atidrab.dll
Driver Version	5.00.2179.1
INF File	display.inf (atirage3 section)
Color Planes	1
Color Table Entries	65536
Resolution	1024 x 768 x 60 hertz
Bits/Pixel	16

[Infrared]

Item	Value
No infrared devices	

[Input]

[Following are sub-categories of this main category]

[Keyboard]

Item	Value
Description	Standard 101/102-Key or Microsoft Natural PS/2 Keyboard
Name	Enhanced (101- or 102-key)

Layout	00000409
PNP Device ID	ACPI\PNP0303\4&1E30281&0
NumberOfFunctionKeys	12

[Pointing Device]

Item	Value
Hardware Type	Logitech PS/2 Port Mouse
Number of Buttons	5
Status	OK
PNP Device ID	ACPI\PNP0F12\4&1E30281&0
Power Management Supported	False
Double Click Threshold	6
Handedness	Right Handed Operation

[Modem]

Item	Value
No modems	

[Network]

[Following are sub-categories of this main category]

[Adapter]

Item	Value
Name	[00000000] Intel(R) PRO/100+ PCI Adapter
Adapter Type	Ethernet 802.3
Product Name	Intel(R) PRO/100+ PCI Adapter
Installed True	
PNP Device ID	PCI\VEN_8086&DEV_1229&SUBSYS_000B8086&REV_08\5&279870C6&0&40F818
Last Reset	Not Available
Index	0
Service Name	E100B
IP Address	10.10.38.250
IP Subnet	255.255.255.0
Default IP Gateway	Not Available
DHCP Enabled	False
DHCP Server	Not Available
DHCP Lease Expires	Not Available
DHCP Lease Obtained	Not Available
MAC Address	00:07:E9:0F:D0:6D
Service Name	E100B
IRQ Number	24
I/O Port	0x2000-0x4FFF
Driver	c:\winnt\system32\drivers\e100bnt5.sys (85776, 4.02.38.0000)

Name	Value
[00000002] RAS Async Adapter	
Adapter Type	Not Available
Product Name	RAS Async Adapter
Installed True	
PNP Device ID	Not Available
Last Reset	Not Available
Index	2
Service Name	AsyncMac
IP Address	Not Available
IP Subnet	Not Available
Default IP Gateway	Not Available
DHCP Enabled	False
DHCP Server	Not Available
DHCP Lease Expires	Not Available
DHCP Lease Obtained	Not Available
MAC Address	Not Available
Service Name	Not Available

Name	Value
[00000003] WAN Miniport (L2TP)	
Adapter Type	Not Available
Product Name	WAN Miniport (L2TP)
Installed True	
PNP Device ID	ROOT\MS_L2TPMINIPORT\0000
Last Reset	Not Available
Index	3
Service Name	Rasl2tp
IP Address	Not Available
IP Subnet	Not Available
Default IP Gateway	Not Available

DHCP Enabled False
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address Not Available
 Service Name Rsl2tp
 Driver c:\winnt\system32\drivers\rsl2tp.sys (50800, 5.00.2179.1)

Name [00000004] WAN Miniport (PPTP)
 Adapter Type Wide Area Network (WAN)
 Product Name WAN Miniport (PPTP)
 Installed True
 PNP Device ID ROOT\MS_PPTP\MINIPORT\0000
 Last Reset Not Available
 Index 4
 Service Name PptpMiniport
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled False
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address 50:50:54:50:30:30
 Service Name PptpMiniport
 Driver c:\winnt\system32\drivers\raspptp.sys (47856, 5.00.2160.1)

Name [00000005] Direct Parallel
 Adapter Type Not Available
 Product Name Direct Parallel
 Installed True
 PNP Device ID ROOT\MS_PT\MINIPORT\0000
 Last Reset Not Available
 Index 5
 Service Name Raspti
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled False
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address Not Available
 Service Name Raspti
 Driver c:\winnt\system32\drivers\raspti.sys (16880, 5.00.2146.1)

Name [00000006] WAN Miniport (IP)
 Adapter Type Not Available
 Product Name WAN Miniport (IP)
 Installed True
 PNP Device ID ROOT\MS_NDISWANIP\0000
 Last Reset Not Available
 Index 6
 Service Name NdisWan
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled False
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address Not Available
 Service Name NdisWan
 Driver c:\winnt\system32\drivers\ndiswan.sys (90096, 5.00.2195.2779)

Name [00000007] Intel(R) 82546EB Based Dual Port Network Connection
 Adapter Type Ethernet 802.3
 Product Name Intel(R) 82546EB Based Dual Port Network Connection
 Installed True
 PNP Device ID PCI\VEN_8086&DEV_1010&SUBSYS_81B41033&REV_01\5&279870C6&0&38F818
 Last Reset Not Available
 Index 7
 Service Name E1000
 IP Address 10.1.1.38
 IP Subnet 255.255.255.0
 Default IP Gateway Not Available
 DHCP Enabled False
 DHCP Server Not Available
 DHCP Lease Expires Not Available

DHCP Lease Obtained Not Available
 MAC Address 00:07:E9:06:6D:28
 Service Name E1000
 IRQ Number 30
 I/O Port 0x2080-0x20BF
 Driver c:\winnt\system32\drivers\e1000nt5.sys (103680, 6.2.21.0)

Name [00000008] Intel(R) 82546EB Based Dual Port Network Connection
 Adapter Type Ethernet 802.3
 Product Name Intel(R) 82546EB Based Dual Port Network Connection
 Installed True
 PNP Device ID PCI\VEN_8086&DEV_1010&SUBSYS_81B41033&REV_01\5&279870C6&0&39F818
 Last Reset Not Available
 Index 8
 Service Name E1000
 IP Address 10.20.38.250
 IP Subnet 255.255.255.0
 Default IP Gateway Not Available
 DHCP Enabled False
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address 00:07:E9:06:6D:29
 Service Name E1000
 IRQ Number 31
 I/O Port 0x2040-0x207F
 Driver c:\winnt\system32\drivers\e1000nt5.sys (103680, 6.2.21.0)

[Protocol]

Item	Value
Name	MSAFD Tcpip [TCP/IP]
ConnectionlessService	False
GuaranteesDelivery	True
GuaranteesSequencing	True
MaximumAddressSize	16 bytes
MaximumMessageSize	0 bytes
MessageOriented	False
MinimumAddressSize	16 bytes
PseudoStreamOriented	False
SupportsBroadcasting	False
SupportsConnectData	False
SupportsDisconnectData	False
SupportsEncryption	False
SupportsExpeditedData	True
SupportsGracefulClosing	True
SupportsGuaranteedBandwidth	False
SupportsMulticasting	False

Name	MSAFD Tcpip [UDP/IP]
ConnectionlessService	True
GuaranteesDelivery	False
GuaranteesSequencing	False
MaximumAddressSize	16 bytes
MaximumMessageSize	65467 bytes
MessageOriented	True
MinimumAddressSize	16 bytes
PseudoStreamOriented	False
SupportsBroadcasting	True
SupportsConnectData	False
SupportsDisconnectData	False
SupportsEncryption	False
SupportsExpeditedData	False
SupportsGracefulClosing	False
SupportsGuaranteedBandwidth	False
SupportsMulticasting	True

Name	RSVP UDP Service Provider
ConnectionlessService	True
GuaranteesDelivery	False
GuaranteesSequencing	False
MaximumAddressSize	16 bytes
MaximumMessageSize	65467 bytes
MessageOriented	True
MinimumAddressSize	16 bytes
PseudoStreamOriented	False
SupportsBroadcasting	True
SupportsConnectData	False

SupportsDisconnectData	False
SupportsEncryption	True
SupportsExpeditedData	False
SupportsGracefulClosing	False
SupportsGuaranteedBandwidth	False
SupportsMulticasting	True

Name	RSVP TCP Service Provider
ConnectionlessService	False
GuaranteesDelivery	True
GuaranteesSequencing	True
MaximumAddressSize	16 bytes
MaximumMessageSize	0 bytes
MessageOriented	False
MinimumAddressSize	16 bytes
PseudoStreamOriented	False
SupportsBroadcasting	False
SupportsConnectData	False
SupportsDisconnectData	False
SupportsEncryption	True
SupportsExpeditedData	True
SupportsGracefulClosing	True
SupportsGuaranteedBandwidth	False
SupportsMulticasting	False

Name	MSAFD NetBIOS [\Device\NetBT_Tcpip_{4E393916-75A8-4E81-ADEC-2A619C864118}]	SEQPACKET 5
ConnectionlessService	False	
GuaranteesDelivery	True	
GuaranteesSequencing	True	
MaximumAddressSize	20 bytes	
MaximumMessageSize	64000 bytes	
MessageOriented	True	
MinimumAddressSize	20 bytes	
PseudoStreamOriented	False	
SupportsBroadcasting	False	
SupportsConnectData	False	
SupportsDisconnectData	False	
SupportsEncryption	False	
SupportsExpeditedData	False	
SupportsGracefulClosing	False	
SupportsGuaranteedBandwidth	False	
SupportsMulticasting	False	

Name	MSAFD NetBIOS [\Device\NetBT_Tcpip_{4E393916-75A8-4E81-ADEC-2A619C864118}]	DATAGRAM 5
ConnectionlessService	True	
GuaranteesDelivery	False	
GuaranteesSequencing	False	
MaximumAddressSize	20 bytes	
MaximumMessageSize	64000 bytes	
MessageOriented	True	
MinimumAddressSize	20 bytes	
PseudoStreamOriented	False	
SupportsBroadcasting	True	
SupportsConnectData	False	
SupportsDisconnectData	False	
SupportsEncryption	False	
SupportsExpeditedData	False	
SupportsGracefulClosing	False	
SupportsGuaranteedBandwidth	False	
SupportsMulticasting	False	

Name	MSAFD NetBIOS [\Device\NetBT_Tcpip_{8BFB6BFC-C76D-4A35-9EED-CB59DDACD760}]	SEQPACKET 4
ConnectionlessService	False	
GuaranteesDelivery	True	
GuaranteesSequencing	True	
MaximumAddressSize	20 bytes	
MaximumMessageSize	64000 bytes	
MessageOriented	True	
MinimumAddressSize	20 bytes	
PseudoStreamOriented	False	
SupportsBroadcasting	False	
SupportsConnectData	False	
SupportsDisconnectData	False	
SupportsEncryption	False	
SupportsExpeditedData	False	
SupportsGracefulClosing	False	
SupportsGuaranteedBandwidth	False	

SupportsMulticasting	False
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Name	MSAFD NetBIOS [\Device\NetBT_Tcpip_{8BFB6BFC-C76D-4A35-9EED-CB59DDACD760}]	DATAGRAM 4
ConnectionlessService	True	
GuaranteesDelivery	False	
GuaranteesSequencing	False	
MaximumAddressSize	20 bytes	
MaximumMessageSize	64000 bytes	
MessageOriented	True	
MinimumAddressSize	20 bytes	
PseudoStreamOriented	False	
SupportsBroadcasting	True	
SupportsConnectData	False	
SupportsDisconnectData	False	
SupportsEncryption	False	
SupportsExpeditedData	False	
SupportsGracefulClosing	False	
SupportsGuaranteedBandwidth	False	
SupportsMulticasting	False	

Name	MSAFD NetBIOS [\Device\NetBT_Tcpip_{B88A1850-BF5A-4A98-949C-44F6F36A4AE3}]	SEQPACKET 0
ConnectionlessService	False	
GuaranteesDelivery	True	
GuaranteesSequencing	True	
MaximumAddressSize	20 bytes	
MaximumMessageSize	64000 bytes	
MessageOriented	True	
MinimumAddressSize	20 bytes	
PseudoStreamOriented	False	
SupportsBroadcasting	False	
SupportsConnectData	False	
SupportsDisconnectData	False	
SupportsEncryption	False	
SupportsExpeditedData	False	
SupportsGracefulClosing	False	
SupportsGuaranteedBandwidth	False	
SupportsMulticasting	False	

Name	MSAFD NetBIOS [\Device\NetBT_Tcpip_{B88A1850-BF5A-4A98-949C-44F6F36A4AE3}]	DATAGRAM 0
ConnectionlessService	True	
GuaranteesDelivery	False	
GuaranteesSequencing	False	
MaximumAddressSize	20 bytes	
MaximumMessageSize	64000 bytes	
MessageOriented	True	
MinimumAddressSize	20 bytes	
PseudoStreamOriented	False	
SupportsBroadcasting	True	
SupportsConnectData	False	
SupportsDisconnectData	False	
SupportsEncryption	False	
SupportsExpeditedData	False	
SupportsGracefulClosing	False	
SupportsGuaranteedBandwidth	False	
SupportsMulticasting	False	

Name	MSAFD NetBIOS [\Device\NetBT_Tcpip_{94640080-3071-4DFF-8168-ED5356F6EAF6}]	SEQPACKET 2
ConnectionlessService	False	
GuaranteesDelivery	True	
GuaranteesSequencing	True	
MaximumAddressSize	20 bytes	
MaximumMessageSize	64000 bytes	
MessageOriented	True	
MinimumAddressSize	20 bytes	
PseudoStreamOriented	False	
SupportsBroadcasting	False	
SupportsConnectData	False	
SupportsDisconnectData	False	
SupportsEncryption	False	
SupportsExpeditedData	False	
SupportsGracefulClosing	False	
SupportsGuaranteedBandwidth	False	
SupportsMulticasting	False	

Name	MSAFD NetBIOS [\Device\NetBT_Tcpip_{94640080-3071-4DFF-8168-ED5356F6EAF6}]	DATAGRAM 2
ConnectionlessService	True	
GuaranteesDelivery	False	

GuaranteesSequencing	False
MaximumAddressSize	20 bytes
MaximumMessageSize	64000 bytes
MessageOriented	True
MinimumAddressSize	20 bytes
PseudoStreamOriented	False
SupportsBroadcasting	True
SupportsConnectData	False
SupportsDisconnectData	False
SupportsEncryption	False
SupportsExpeditedData	False
SupportsGracefulClosing	False
SupportsGuaranteedBandwidth	False
SupportsMulticasting	False

Name	MSAFD NetBIOS [\Device\NetBT_Tcpip_{4D18B572-23C6-428C-9227-3FC6771C8CA6}] SEQPACKET 3
ConnectionlessService	False
GuaranteesDelivery	True
GuaranteesSequencing	True
MaximumAddressSize	20 bytes
MaximumMessageSize	64000 bytes
MessageOriented	True
MinimumAddressSize	20 bytes
PseudoStreamOriented	False
SupportsBroadcasting	False
SupportsConnectData	False
SupportsDisconnectData	False
SupportsEncryption	False
SupportsExpeditedData	False
SupportsGracefulClosing	False
SupportsGuaranteedBandwidth	False
SupportsMulticasting	False

Name	MSAFD NetBIOS [\Device\NetBT_Tcpip_{4D18B572-23C6-428C-9227-3FC6771C8CA6}] DATAGRAM 3
ConnectionlessService	True
GuaranteesDelivery	False
GuaranteesSequencing	False
MaximumAddressSize	20 bytes
MaximumMessageSize	64000 bytes
MessageOriented	True
MinimumAddressSize	20 bytes
PseudoStreamOriented	False
SupportsBroadcasting	True
SupportsConnectData	False
SupportsDisconnectData	False
SupportsEncryption	False
SupportsExpeditedData	False
SupportsGracefulClosing	False
SupportsGuaranteedBandwidth	False
SupportsMulticasting	False

[WinSock]

Item	Value
File	c:\winnt\system32\winsock.dll
Version	3.10
Size	2.80 KB (2,864 bytes)
File	c:\winnt\system32\wsock32.dll
Version	5.00.2195.2871
Size	21.27 KB (21,776 bytes)

[Ports]

[Following are sub-categories of this main category]

[Serial]

Item	Value
Name	COM1
Status	OK
PNP Device ID	ACPI\PNP0501\1
Maximum Input Buffer Size	0
Maximum Output Buffer Size	False
Settable Baud Rate	True
Settable Data Bits	True

Settable Flow Control	True
Settable Parity	True
Settable Parity Check	True
Settable Stop Bits	True
Settable RLSD	True
Supports RLSD	True
Supports 16 Bit Mode	False
Supports Special Characters	False
Baud Rate	9600
Bits/Byte	8
Stop Bits	1
Parity	None
Busy	0
Abort Read/Write on Error	0
Binary Mode Enabled	-1
Continue XMit on XOff	0
CTS Outflow Control	0
Discard NULL Bytes	0
DSR Outflow Control	0
DSR Sensitivity	0
DTR Flow Control Type	Enable
EOF Character	0
Error Replace Character	0
Error Replacement Enabled	0
Event Character	0
Parity Check Enabled	0
RTS Flow Control Type	Enable
XOff Character	19
XOffXMit Threshold	512
XOn Character	17
XOnXMit Threshold	2048
XOnXOff InFlow Control	0
XOnXOff OutFlow Control	0
IRQ Number	4
I/O Port	0x03F8-0x03FF
Driver	c:\winnt\system32\drivers\serial.sys (62416, 5.00.2195.2780)

Name	COM2
Status	OK
PNP Device ID	ACPI\PNP0501\2
Maximum Input Buffer Size	0
Maximum Output Buffer Size	False
Settable Baud Rate	True
Settable Data Bits	True
Settable Flow Control	True
Settable Parity	True
Settable Parity Check	True
Settable Stop Bits	True
Settable RLSD	True
Supports RLSD	True
Supports 16 Bit Mode	False
Supports Special Characters	False
Baud Rate	9600
Bits/Byte	8
Stop Bits	1
Parity	None
Busy	0
Abort Read/Write on Error	0
Binary Mode Enabled	-1
Continue XMit on XOff	0
CTS Outflow Control	0
Discard NULL Bytes	0
DSR Outflow Control	0
DSR Sensitivity	0
DTR Flow Control Type	Enable
EOF Character	0
Error Replace Character	0
Error Replacement Enabled	0
Event Character	0
Parity Check Enabled	0
RTS Flow Control Type	Enable
XOff Character	19
XOffXMit Threshold	512
XOn Character	17
XOnXMit Threshold	2048
XOnXOff InFlow Control	0
XOnXOff OutFlow Control	0
IRQ Number	3
I/O Port	0x02F8-0x02FF

Driver c:\winnt\system32\drivers\serial.sys (62416, 5.00.2195.2780)

[Parallel]

Item Value
No parallel port information

[Storage]

[Following are sub-categories of this main category]

[Drives]

Item Value
Drive A:
Description 3 1/2 Inch Floppy Drive

Drive C:
Description Local Fixed Disk
Compressed False
File System NTFS
Size 33.87 GB (36,363,927,552 bytes)
Free Space 30.33 GB (32,562,434,048 bytes)
Volume Name
Volume Serial Number B4E064E1
Partition Disk #0, Partition #0
Partition Size 33.87 GB (36,363,930,624 bytes)
Starting Offset 32256 bytes
Drive Description Disk drive
Drive Manufacturer (Standard disk drives)
Drive Model MAXTOR ATLASU320_36_SCA SCSI Disk Device
Drive BytesPerSector 512
Drive MediaLoaded True
Drive MediaType Fixed hard disk media
Drive Partitions 1
Drive SCSIbus 0
Drive SCSILogicalUnit 0
Drive SCSIPort 3
Drive SCsITargetId 0
Drive SectorsPerTrack 63
Drive Size 36372188160 bytes
Drive TotalCylinders 4422
Drive TotalSectors 71039430
Drive TotalTracks 1127610
Drive TracksPerCylinder 255

Drive E:
Description Network Connection
Provider Name \\bmaster\c\$

[SCSI]

Item Value
Name Adaptec AIC-7902 - Ultra320 SCSI
Caption Adaptec AIC-7902 - Ultra320 SCSI
Driver adpu320
Status OK
PNP Device ID PCI\VEN_9005&DEV_801F&SUBSYS_81B41033&REV_03\5&36D4E837&0&38E818
Device ID PCI\VEN_9005&DEV_801F&SUBSYS_81B41033&REV_03\5&36D4E837&0&38E818
Device Map Not Available
Index Not Available
Max Number Controlled Not Available
IRQ Number 50
I/O Port 0x3800-0x38FF
I/O Port 0x4000-0x40FF
Driver c:\winnt\system32\drivers\adpu320.sys (120995, 1.1.000.000)

Name Adaptec AIC-7902 - Ultra320 SCSI
Caption Adaptec AIC-7902 - Ultra320 SCSI
Driver adpu320
Status OK
PNP Device ID PCI\VEN_9005&DEV_801F&SUBSYS_81B41033&REV_03\5&36D4E837&0&39E818
Device ID PCI\VEN_9005&DEV_801F&SUBSYS_81B41033&REV_03\5&36D4E837&0&39E818
Device Map Not Available
Index Not Available
Max Number Controlled Not Available
IRQ Number 49

I/O Port 0x3000-0x4FFF
I/O Port 0x3400-0x34FF
Driver c:\winnt\system32\drivers\adpu320.sys (120995, 1.1.000.000)

[Printing]

Name Port Name Server Name
No printing information

[Problem Devices]

Device PNP Device ID Error Code
No Problem Devices

[USB]

Device PNP Device ID
Intel(R) 82801CA/CAM USB Universal Host Controller - 2482
PCI\VEN_8086&DEV_2482&SUBSYS_81B41033&REV_02\3&267A616A&0&E8
USB Root Hub USB\ROOT_HUB\4&42B666F&0
Intel(R) 82801CA/CAM USB Universal Host Controller - 2484
PCI\VEN_8086&DEV_2484&SUBSYS_81B41033&REV_02\3&267A616A&0&E9
USB Root Hub USB\ROOT_HUB\4&396CDB1C&0

[Software Environment]

[Following are sub-categories of this main category]

[Drivers]

Name	Description	File	Type	Started	Start Mode	State
	Status	Error Control	Accept Pause	Accept Stop		
abiosdsk	Abiosdsk	Not Available	Kernel Driver	False	Disabled	Stopped OK
abp480n5	abp480n5	Not Available	Kernel Driver	False	Disabled	Stopped OK
acpi	Microsoft ACPI Driver	True	c:\winnt\system32\drivers\acpi.sys	Normal	True	Kernel Driver
acpiec	Microsoft Embedded Controller	True	c:\winnt\system32\drivers\acpiec.sys	Normal	True	Kernel Driver
adpu160m	adpu160m	Not Available	Kernel Driver	False	Disabled	Stopped True OK
adpu320	adpu320	c:\winnt\system32\drivers\adpu320.sys	Kernel Driver	True	Boot	True
afd	AFD Networking Support Environment	True	c:\winnt\system32\drivers\afd.sys	Running	Normal	True
ahal54x	Ahal54x	Not Available	Kernel Driver	False	Disabled	Stopped True OK
aicl16x	aicl16x	Not Available	Kernel Driver	False	Disabled	Stopped OK
aic78u2	aic78u2	Not Available	Kernel Driver	False	Disabled	Stopped OK
aic78xx	aic78xx	Not Available	Kernel Driver	False	Disabled	Stopped OK
ami0nt	ami0nt	Not Available	Kernel Driver	False	Disabled	Stopped OK
amsint	amsint	Not Available	Kernel Driver	False	Disabled	Stopped OK
asc	asc	Not Available	Kernel Driver	False	Disabled	Stopped OK
asc3350p	asc3350p	Not Available	Kernel Driver	False	Disabled	Stopped OK
asc3550	asc3550	Not Available	Kernel Driver	False	Disabled	Stopped OK
asynccmac	RAS Asynchronous Media Driver	True	c:\winnt\system32\drivers\asynccmac.sys	Manual	Stopped	Kernel Driver
atapi	Standard IDE/ESDI Hard Disk Controller	True	c:\winnt\system32\drivers\atapi.sys	Normal	True	Kernel Driver
atdisk	Atdisk	Not Available	Kernel Driver	False	Disabled	Stopped True OK
atirage3	atirage3	c:\winnt\system32\drivers\atimpab.sys	Kernel Driver	True	True	True
atmarpc	ATM ARP Client Protocol	True	c:\winnt\system32\drivers\atmarpc.sys	Manual	Stopped	Kernel Driver
audstub	Audio Stub Driver	c:\winnt\system32\drivers\audstub.sys	Kernel Driver	True	True	True
beep	Beep	c:\winnt\system32\drivers\beep.sys	Kernel Driver	True	True	True
	System	Running	OK	Normal	False	True

buslogic	BusLogic	Not Available	Kernel Driver	False	Disabled	Stopped	OK	isapnp	PnP ISA/EISA Bus Driver	c:\winnt\system32\drivers\isapnp.sys	Kernel Driver				
cd20xrnt	Normal	False	False					True	Boot	Running	OK	Critical	False	True	
	cd20xrnt	Not Available	Kernel Driver	False	Disabled	Stopped	OK	kbdclass	Keyboard Class Driver	c:\winnt\system32\drivers\kbdclass.sys	Kernel Driver				
cdaudio	Normal	False	False					True	System	Running	OK	Normal	False	True	
	Cdaudio	c:\winnt\system32\drivers\cdaudio.sys	Kernel Driver	False				ksecdd	KSecDD	c:\winnt\system32\drivers\ksecdd.sys	Kernel Driver	True	Boot		
cdfs	System	Stopped	OK	Ignore	False			Running	OK	Normal	False	True			
	Cdfs	c:\winnt\system32\drivers\cdfs.sys	File System Driver	True				lbrtfdc	lbrtfdc	Not Available	Kernel Driver	False	System	Stopped	OK
cdrom	Disabled	Running	OK	Normal	False			True							
	CD-ROM Driver	c:\winnt\system32\drivers\cdrom.sys	Kernel Driver	True				lp6nds35	lp6nds35	Not Available	Kernel Driver	False	Disabled	Stopped	OK
changer	System	Running	OK	Normal	False			True							
	Changer	Not Available	Kernel Driver	False	System	Stopped	OK	mnmdm	mnmdm	c:\winnt\system32\drivers\mnmdm.sys	Kernel Driver	True			
cpqarray	Ignore	False	False					System	Running	OK	Ignore	False	True		
	Cpqarray	Not Available	Kernel Driver	False	Disabled	Stopped	OK	modem	Modem	c:\winnt\system32\drivers\modem.sys	Kernel Driver	False			
cpqarry2	Normal	False	False					Manual	Stopped	OK	Ignore	False	False		
	cpqarry2	Not Available	Kernel Driver	False	Disabled	Stopped	OK	mouclass	Mouse Class Driver	c:\winnt\system32\drivers\mouclass.sys	Kernel Driver	True			
cpqfcalm	Normal	False	False					System	Running	OK	Normal	False	True		
	cpqfcalm	Not Available	Kernel Driver	False	Disabled	Stopped	OK	mountmgr	MountMgr	c:\winnt\system32\drivers\mountmgr.sys	Kernel Driver	True	Boot		
cpqfws2e	Normal	False	False					Running	OK	Normal	False	True			
	cpqfws2e	Not Available	Kernel Driver	False	Disabled	Stopped	OK	mraid35x	mraid35x	Not Available	Kernel Driver	False	Disabled	Stopped	OK
dac960nt	Normal	False	False					Normal	False	False					
	dac960nt	Not Available	Kernel Driver	False	Disabled	Stopped	OK	mrxsmb	MRXSMB	c:\winnt\system32\drivers\mrxsmb.sys	File System Driver	True			
deckzpsx	Normal	False	False					Running	OK	Normal	False	True			
	deckzpsx	Not Available	Kernel Driver	False	Disabled	Stopped	OK	msfs	Msfs	c:\winnt\system32\drivers\msfs.sys	File System Driver	True			
dfsdriver	Normal	False	False					System	Running	OK	Normal	False	True		
	DfsDriver	c:\winnt\system32\drivers\dfs.sys	File System Driver	True				mskssrv	Microsoft Streaming Service Proxy	c:\winnt\system32\drivers\mskssrv.sys					
disk	Running	OK	Normal	False	True			Kernel Driver	False	Manual	Stopped	OK	Normal	False	False
	Disk Driver	c:\winnt\system32\drivers\disk.sys	Kernel Driver	True				mspclock	Microsoft Streaming Clock Proxy	c:\winnt\system32\drivers\mspclock.sys					
diskperf	Boot	Running	OK	Normal	False	True		Kernel Driver	False	Manual	Stopped	OK	Normal	False	False
	Diskperf	c:\winnt\system32\drivers\diskperf.sys	Kernel Driver	True				mspqm	Microsoft Streaming Quality Manager Proxy	c:\winnt\system32\drivers\mspqm.sys					
dmboot	Running	OK	Normal	False	True			Kernel Driver	False	Manual	Stopped	OK	Normal	False	False
	dmbboot	c:\winnt\system32\drivers\dmbboot.sys	Kernel Driver	False				mup	Mup	c:\winnt\system32\drivers\mup.sys	File System Driver	True	Boot		
dmio	Disabled	Stopped	OK	Normal	False	False		Running	OK	Normal	False	True			
	Logical Disk Manager Driver	c:\winnt\system32\drivers\dmio.sys	Kernel Driver	True				ncrc710	Ncrc710	Not Available	Kernel Driver	False	Disabled	Stopped	OK
dmload	True	Boot	Running	OK	Normal	False	True	Normal	False	False					
	dmload	c:\winnt\system32\drivers\dmload.sys	Kernel Driver	True				ndis	NDIS System Driver	c:\winnt\system32\drivers\ndis.sys	Kernel Driver	True			
e1000	Running	OK	Normal	False	True			Boot	Running	OK	Normal	False	True		
	Intel(R) PRO/1000 Adapter Driver	c:\winnt\system32\drivers\e1000nt5.sys	Kernel Driver	True				ndistapi	Remote Access NDIS TAPI Driver	c:\winnt\system32\drivers\ndistapi.sys					
e100b	Kernel Driver	True	Manual	Running	OK	Normal	False	Kernel Driver	True	Manual	Running	OK	Normal	False	True
	Intel PRO Adapter Driver	c:\winnt\system32\drivers\e100bnt5.sys	Kernel Driver	True				ndiswan	Remote Access NDIS WAN Driver	c:\winnt\system32\drivers\ndiswan.sys	Kernel Driver	True			
efs	True	Manual	Running	OK	Normal	False	True	True	Manual	Running	OK	Normal	False	True	
	EFS	c:\winnt\system32\drivers\efs.sys	File System Driver	True				ndproxy	NDIS Proxy	c:\winnt\system32\drivers\ndproxy.sys	Kernel Driver	True			
explog	Disabled	Running	OK	Normal	False	True		Manual	Running	OK	Normal	False	True		
	ExpLog	c:\winnt\system32\drivers\explog.sys	Kernel Driver	True				nechwid	nechwid	c:\winnt\system32\drivers\nechwid.sys	Kernel Driver	False			
fastfat	System	Running	OK	Normal	False	True		Manual	Stopped	OK	Normal	False	False		
	Fastfat	c:\winnt\system32\drivers\fastfat.sys	File System Driver	True				necras	NEC Baseboard Management Controller	c:\winnt\system32\drivers\necras.sys					
fd16_700	Disabled	Running	OK	Normal	False	True		Kernel Driver	True	System	Running	OK	Normal	False	True
	Fd16_700	Not Available	Kernel Driver	False	Disabled	Stopped	OK	netbios	NetBIOS Interface	c:\winnt\system32\drivers\netbios.sys	File System Driver	True			
fdc	Normal	False	False					System	Running	OK	Normal	False	True		
	Floppy Disk Controller Driver	c:\winnt\system32\drivers\fdc.sys	Kernel Driver	True				netbt	NetBios over Tcpip	c:\winnt\system32\drivers\netbt.sys	Kernel Driver	True			
fips	True	Manual	Running	OK	Normal	False	True	System	Running	OK	Normal	False	True		
	Fips	c:\winnt\system32\drivers\fips.sys	Kernel Driver	True				netdetect	NetDetect	c:\winnt\system32\drivers\netdetect.sys	Kernel Driver	False			
fireport	Running	OK	Normal	False	True			Manual	Stopped	OK	Normal	False	False		
	fireport	Not Available	Kernel Driver	False	Disabled	Stopped	OK	npfs	Npfs	c:\winnt\system32\drivers\npfs.sys	File System Driver	True			
flashpnt	Normal	False	False					System	Running	OK	Normal	False	True		
	flashpnt	Not Available	Kernel Driver	False	Disabled	Stopped	OK	ntfs	Ntfs	c:\winnt\system32\drivers\ntfs.sys	File System Driver	True			
flpydisk	Normal	False	False					Disabled	Running	OK	Normal	False	True		
	Floppy Disk Driver	c:\winnt\system32\drivers\flpydisk.sys	Kernel Driver	True				null	Null	c:\winnt\system32\drivers\null.sys	Kernel Driver	True			
ftdisk	Manual	Running	OK	Normal	False	True		System	Running	OK	Normal	False	True		
	Volume Manager Driver	c:\winnt\system32\drivers\ftdisk.sys	Kernel Driver	True				nwlkflt	IPX Traffic Filter Driver	c:\winnt\system32\drivers\nwlkflt.sys	Kernel Driver				
gpc	True	Boot	Running	OK	Normal	False	True	False	Manual	Stopped	OK	Normal	False	False	
	Generic Packet Classifier	c:\winnt\system32\drivers\msgpc.sys	Kernel Driver	True				nwlkfwd	IPX Traffic Forwarder Driver	c:\winnt\system32\drivers\nwlkfwd.sys	Kernel Driver				
i8042prt	True	Manual	Running	OK	Normal	False	True	False	Manual	Stopped	OK	Normal	False	False	
	i8042 Keyboard and PS/2 Mouse Port Driver	c:\winnt\system32\drivers\i8042prt.sys	Kernel Driver	True	System			parallel	Parallel	c:\winnt\system32\drivers\parallel.sys	Kernel Driver	False	Auto		
ini910u	Running	OK	Normal	False	True			Stopped	OK	Ignore	False	False			
	ini910u	Not Available	Kernel Driver	False	Disabled	Stopped	OK	parport	Parport	c:\winnt\system32\drivers\parport.sys	Kernel Driver	False	Auto		
intelide	Normal	False	False					Stopped	OK	Ignore	False	False			
	IntelIde	Not Available	Kernel Driver	False	Disabled	Stopped	OK	partmgr	PartMgr	c:\winnt\system32\drivers\partmgr.sys	Kernel Driver	True	Boot		
ipfilterdriver	Normal	False	False					Running	OK	Normal	False	True			
	IP Traffic Filter Driver	c:\winnt\system32\drivers\ipfltdrv.sys						parvdm	ParVdm	c:\winnt\system32\drivers\parvdm.sys	Kernel Driver	False	Auto		
ipinip	Stopped	OK	Normal	False	False			Stopped	OK	Ignore	False	False			
	Kernel Driver	False	Manual	Stopped	OK	Normal	False	pci	PCI Bus Driver	c:\winnt\system32\drivers\pci.sys	Kernel Driver	True			
ipnat	False	Manual	Stopped	OK	Normal	False	False	Boot	Running	OK	Critical	False	True		
	IP Network Address Translator	c:\winnt\system32\drivers\ipnat.sys	Kernel Driver	True				pcidump	PCIDump	Not Available	Kernel Driver	False	System	Stopped	OK
ipsec	False	Manual	Stopped	OK	Normal	False	False	Ignore	False	False					
	IPSEC driver	c:\winnt\system32\drivers\ipsec.sys	Kernel Driver	True				pciide	PCIIde	c:\winnt\system32\drivers\pciide.sys	Kernel Driver	True	Boot		
ipsraidn	Manual	Running	OK	Normal	False	True		Running	OK	Normal	False	True			
	ipsraidn	Not Available	Kernel Driver	False	Disabled	Stopped	OK	pcmcia	Pcmcia	c:\winnt\system32\drivers\pcmcia.sys	Kernel Driver	False			
	Normal	False	False					Disabled	Stopped	OK	Normal	False	False		
								pdcomp	PDCOMP	Not Available	Kernel Driver	False	Manual	Stopped	OK

pdframe	Ignore	False	False	Kernel Driver	False	Manual	Stopped	OK
	PDFFRAME	Not Available						
pdreli	Ignore	False	False	Kernel Driver	False	Manual	Stopped	OK
	PDRELI	Not Available						
pdrframe	Ignore	False	False	Kernel Driver	False	Manual	Stopped	OK
	PDRFRAME	Not Available						
pptpminiport	True	WAN Miniport (PPTP)	c:\winnt\system32\drivers\raspttp.sys	Kernel Driver	True			
	True	Manual	Running	OK	Normal	False		
ptilink	Direct	Parallel Link Driver	c:\winnt\system32\drivers\ptilink.sys	Kernel Driver	True			
	True	Manual	Running	OK	Normal	False		
ql1080	ql1080	Not Available	Kernel Driver	False	Disabled	Stopped	OK	
	Normal	False						
ql10wnt	ql10wnt	Not Available	Kernel Driver	False	Disabled	Stopped	OK	
	Normal	False						
ql1240	ql1240	Not Available	Kernel Driver	False	Disabled	Stopped	OK	
	Normal	False						
ql2100	ql2100	Not Available	Kernel Driver	False	Disabled	Stopped	OK	
	Normal	False						
rasacd	Remote Access Auto Connection Driver	c:\winnt\system32\drivers\rasacd.sys	Kernel Driver	True				
	Kernel Driver	True	System	Running	OK	Normal	False	True
rasl2tp	WAN Miniport (L2TP)	c:\winnt\system32\drivers\rasl2tp.sys	Kernel Driver	True				
	Manual	Running	OK	Normal	False			
raspti	Direct	Parallel	c:\winnt\system32\drivers\raspti.sys	Kernel Driver	True			
	Manual	Running	OK	Normal	False			
rca	Microsoft Streaming Network Raw Channel Access	c:\winnt\system32\drivers\rca.sys	Kernel Driver	True				
	Kernel Driver	False	Manual	Stopped	OK	Normal	False	False
rdcss	Rdcss	c:\winnt\system32\drivers\rdcss.sys	File System Driver	True				
	System	Running	OK	Normal	False			
rdpwd	RDPWD	c:\winnt\system32\drivers\rdpwd.sys	Kernel Driver	False				
	Manual	Stopped	OK	Ignore	False			
redbook	Digital CD Audio Playback Filter Driver	c:\winnt\system32\drivers\redbook.sys	Kernel Driver	False				
	Kernel Driver	False	System	Stopped	OK	Normal	False	False
serenum	Serenum Filter Driver	c:\winnt\system32\drivers\serenum.sys	Kernel Driver	True				
	True	Manual	Running	OK	Normal	False		
serial	Serial port driver	c:\winnt\system32\drivers\serial.sys	Kernel Driver	True				
	System	Running	OK	Ignore	False			
sfloppy	Sfloppy	c:\winnt\system32\drivers\sfloppy.sys	Kernel Driver	False				
	System	Stopped	OK	Ignore	False			
sglfb	sglfb	Not Available	Kernel Driver	False	System	Stopped	OK	
	Normal	False						
simbad	Simbad	Not Available	Kernel Driver	False	Disabled	Stopped	OK	
	Normal	False						
sparrow	Sparrow	Not Available	Kernel Driver	False	Disabled	Stopped	OK	
	Normal	False						
spud	Special Purpose Utility Driver	c:\winnt\system32\drivers\spud.sys	Kernel Driver	True				
	Kernel Driver	True	Manual	Running	OK	Normal	False	True
srv	Srv	c:\winnt\system32\drivers\srv.sys	File System Driver	True				
	Manual	Running	OK	Normal	False			
swenum	Software Bus Driver	c:\winnt\system32\drivers\swenum.sys	Kernel Driver	True				
	Manual	Running	OK	Normal	False			
symc810	symc810	Not Available	Kernel Driver	False	Disabled	Stopped	OK	
	Normal	False						
symc8xx	symc8xx	Not Available	Kernel Driver	False	Disabled	Stopped	OK	
	Normal	False						
sym_hi	sym_hi	Not Available	Kernel Driver	False	Disabled	Stopped	OK	
	Normal	False						
tcipip	TCP/IP Protocol Driver	c:\winnt\system32\drivers\tcipip.sys	Kernel Driver	True				
	True	System	Running	OK	Normal	False		
tdasync	TDASYN	c:\winnt\system32\drivers\tdasync.sys	Kernel Driver	False				
	Manual	Stopped	OK	Ignore	False			
tdipx	TDIPX	c:\winnt\system32\drivers\tdipx.sys	Kernel Driver	False				
	Manual	Stopped	OK	Ignore	False			
tdnetb	TDNETB	c:\winnt\system32\drivers\tdnetb.sys	Kernel Driver	False				
	Manual	Stopped	OK	Ignore	False			
tdpipe	TDPIPE	c:\winnt\system32\drivers\tdpipe.sys	Kernel Driver	False				
	Manual	Stopped	OK	Ignore	False			
tdspix	TDSPX	c:\winnt\system32\drivers\tdspix.sys	Kernel Driver	False				
	Manual	Stopped	OK	Ignore	False			
tdtcp	TDTCP	c:\winnt\system32\drivers\tdtcp.sys	Kernel Driver	False				
	Manual	Stopped	OK	Ignore	False			
termdd	Terminal Device Driver	c:\winnt\system32\drivers\termdd.sys	Kernel Driver	False				
	False	Disabled	Stopped	OK	Normal	False		
tga	tga	Not Available	Kernel Driver	False	System	Stopped	OK	
	Ignore	False						
udfs	Udfs	c:\winnt\system32\drivers\udfs.sys	File System Driver	False				
	Disabled	Stopped	OK	Normal	False			
uhcd	Microsoft USB Universal Host Controller Driver	c:\winnt\system32\drivers\uhcd.sys	Kernel Driver	True				
	Kernel Driver	True	Manual	Running	OK	Normal	False	True

ultra66	ultra66	Not Available	Kernel Driver	False	Disabled	Stopped	OK
	Normal	False					
update	Microcode Update Driver	c:\winnt\system32\drivers\update.sys	Kernel Driver	True	Manual	Running	OK
	True	Manual	Running	OK	Normal	False	True
usbhub	Microsoft USB Standard Hub Driver	c:\winnt\system32\drivers\usbhub.sys	Kernel Driver	True	Manual	Running	OK
	Kernel Driver	True	Manual	Running	OK	Normal	False
usbstor	USB Mass Storage Driver	c:\winnt\system32\drivers\usbstor.sys	Kernel Driver	False	Manual	Stopped	OK
	False	Manual	Stopped	OK	Normal	False	False
vgasave	VgaSave	c:\winnt\system32\drivers\vga.sys	Kernel Driver	True	System	Running	OK
	System	Running	OK	Ignore	False		
wanarp	Remote Access IP ARP Driver	c:\winnt\system32\drivers\wanarp.sys	Kernel Driver	True	Manual	Running	OK
	True	Manual	Running	OK	Normal	False	True
wdica	WDICA	Not Available	Kernel Driver	False	Manual	Stopped	OK
	Ignore	False					

[Environment Variables]

Variable	Value	User Name
ComSpec	%SystemRoot%\system32\cmd.exe	<SYSTEM>
LOCAL	ASAMA	<SYSTEM>
NUMBER_OF_PROCESSORS	2	<SYSTEM>
ORACLE_HOME	C:\oracle10_32	<SYSTEM>
OS	Windows_NT	<SYSTEM>
Os2LibPath	%SystemRoot%\system32\os2\dll;	<SYSTEM>
Path	%SystemRoot%\system32;%SystemRoot%;%SystemRoot%\System32\Wbem;c:\oracle10_32\bin;;C:\PROGRA~1\BEASYS~1\TUXEDO\bin	<SYSTEM>
PATHEXT	.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH	<SYSTEM>
PROCESSOR_ARCHITECTURE	x86	<SYSTEM>
PROCESSOR_IDENTIFIER	x86 Family 15 Model 2 Stepping 7, GenuineIntel	<SYSTEM>
PROCESSOR_LEVEL	15	<SYSTEM>
PROCESSOR_REVISION	0207	<SYSTEM>
TEMP	%SystemRoot%\TEMP	<SYSTEM>
TMCCONTEXTS	1	<SYSTEM>
TMP	%SystemRoot%\TEMP	<SYSTEM>
TUXCONFIG	C:\inetpub\wwwroot\tuxconfig	<SYSTEM>
TUXDIR	C:\PROGRA~1\BEASYS~1\TUXEDO	<SYSTEM>
windir	%SystemRoot%	<SYSTEM>
TEMP	%USERPROFILE%\Local Settings\Temp	ACL38\Administrator
TMP	%USERPROFILE%\Local Settings\Temp	ACL38\Administrator

[Jobs]

[Following are sub-categories of this main category]

[Print]

Document	Size	Owner	Notify	Status	Time Submitted	Start Time	Until
Time	Elapsed Time	Pages Printed	Job ID	Priority	Parameters		
No print jobs	Driver Name	Print Processor	Host	Print Queue	Data Type	Name	

[Network Connections]

Local Name	Remote Name	Type	Status	User Name
E:	\\bmaster\c\$	Disk	OK	ACL38\Administrator

[Running Tasks]

Name	Path	Process ID	Priority	Min Working Set	Max Working Set	Start
Time	Version	Size	File Date			
system	idle	process	Not Available	Unknown	Unknown	Not Available
system	Not Available	Unknown	Unknown	Unknown	Unknown	Not Available
smss.exe	c:\winnt\system32\smss.exe	164	11	204800	1413120	8/27/2003
12:02:16 PM	5.00.2195.2901	44.27 KB	(45,328 bytes)			12/8/1999 5:00:00 AM
csrss.exe	Not Available	192	13	Not Available		Not Available
8/27/2003 12:02:20 PM		Unknown	Unknown	Unknown		
winlogon.exe	c:\winnt\system32\winlogon.exe	212	13	204800	173.77 KB	(177,936 bytes)
1413120	8/27/2003 12:02:22 PM	5.00.2195.2953				
12/8/1999 5:00:00 AM						
services.exe	c:\winnt\system32\services.exe	240	9	204800	86.77 KB	(88,848 bytes)
1413120	8/27/2003 12:02:23 PM	5.00.2195.2780				
12/8/1999 5:00:00 AM						
lsass.exe	c:\winnt\system32\lsass.exe	252	9	204800	1413120	8/27/2003
12:02:23 PM	5.00.2195.2964	32.77 KB	(33,552 bytes)			12/8/1999 5:00:00 AM
svchost.exe	c:\winnt\system32\svchost.exe	420	8	204800	1413120	

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      8/27/2003 12:02:25 PM          5.00.2134.1          7.77 KB (7,952 bytes)
12/8/1999 5:00:00 AM
spoolsv.exe c:\winnt\system32\spoolsv.exe 452      8      204800      1413120
8/27/2003 12:02:26 PM          5.00.2161.1          43.77 KB (44,816 bytes)
6/25/2003 11:25:10 PM
msdtc.exe c:\winnt\system32\msdtc.exe 480      8      204800      1413120      8/27/2003
12:02:26 PM          1999.9.3421.3      6.77 KB (6,928 bytes)
svchost.exe c:\winnt\system32\svchost.exe 604      8      204800      1413120
8/27/2003 12:02:26 PM          5.00.2134.1          7.77 KB (7,952 bytes)
12/8/1999 5:00:00 AM
llssrv.exe c:\winnt\system32\llssrv.exe 624      9      204800      1413120
8/27/2003 12:02:26 PM          5.00.2195.2649      114.27 KB (117,008 bytes)
5/4/2001 12:05:02 PM
regsvc.exe c:\winnt\system32\regsvc.exe 688      8      204800      1413120
8/27/2003 12:02:27 PM          5.00.2195.2104      65.27 KB (66,832 bytes)
6/25/2003 3:27:00 PM
mstask.exe c:\winnt\system32\mstask.exe 712      8      204800      1413120
8/27/2003 12:02:27 PM          4.71.2195.1      115.27 KB (118,032 bytes)
6/25/2003 3:26:55 PM
tuxipc.exe c:\program\beasys-1\tuxedo\bin\tuxipc.exe 772      8
204800      1413120      12/8/2003 12:02:27 PM      Not Available      12.50 KB
(12,800 bytes)
winmgmt.exe c:\winnt\system32\wbem\winmgmt.exe 872      8      204800
1413120      8/27/2003 12:02:37 PM          1.50.1085.0029      192.08 KB (196,685 bytes)
6/25/2003 3:27:08 PM
inetinfo.exe c:\winnt\system32\inetrv\inetinfo.exe 884      8      204800
1413120      8/27/2003 12:02:37 PM          5.00.0984      14.27 KB (14,608 bytes)
6/25/2003 3:28:30 PM
dfssvc.exe c:\winnt\system32\dfssvc.exe 960      8      204800      1413120
8/27/2003 12:02:39 PM          5.00.2195.2841      88.27 KB (90,384 bytes)
6/25/2003 3:26:46 PM
svchost.exe c:\winnt\system32\svchost.exe 1084      8      204800      1413120
8/27/2003 12:03:03 PM          5.00.2134.1          7.77 KB (7,952 bytes)
12/8/1999 5:00:00 AM
explorer.exe c:\winnt\explorer.exe 1212      8      204800      1413120
8/27/2003 12:06:26 PM          5.00.3315.2846      237.27 KB (242,960 bytes)
6/25/2003 3:27:05 PM
taskmgr.exe c:\winnt\system32\taskmgr.exe 1200      13      204800      1413120
8/27/2003 12:06:40 PM          5.00.2137.1          85.77 KB (87,824 bytes)
12/8/1999 5:00:00 AM
mmc.exe c:\winnt\system32\mmc.exe 1064      8      204800
12:07:48 PM          5.00.2195.2301      589.27 KB (603,408 bytes)
rsvp.exe c:\winnt\system32\rsvp.exe 1340      8      204800
12:09:14 PM          5.00.2167.1          172.77 KB (176,912 bytes)
12/8/1999 5:00:00 AM

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[Loaded Modules]

Name	Version	Size	File Date	Manufacturer	Path
traffic.dll	5.00.2139.1	30.77 KB (31,504 bytes)	12/8/1999 5:00:00 AM	Microsoft Corporation	c:\winnt\system32\traffic.dll
rsvp.exe	5.00.2167.1	172.77 KB (176,912 bytes)	12/8/1999 5:00:00 AM	Microsoft Corporation	c:\winnt\system32\rsvp.exe
wbemprox.dll	1.50.1085.0045	40.08 KB (41,040 bytes)	6/25/2003 3:27:08 PM	Microsoft Corporation	c:\winnt\system32\wbem\wbemprox.dll
mlang.dll	5.00.3103.1000	510.77 KB (523,024 bytes)	6/25/2003 3:26:51 PM	Microsoft Corporation	c:\winnt\system32\mlang.dll
cabinet.dll	5.00.2147.1	54.77 KB (56,080 bytes)	12/8/1999 5:00:00 AM	Microsoft Corporation	c:\winnt\system32\cabinet.dll
msinfo32.dll	5.00.2177.1	312.27 KB (319,760 bytes)	6/25/2003 2:42:54 PM	Microsoft Corporation	c:\program files\common files\microsoft
shared\msinfo\msinfo32.dll					
mmcnmdmgr.dll	5.00.2178.1	815.27 KB (834,832 bytes)	12/8/1999 5:00:00 AM	Microsoft Corporation	c:\winnt\system32\mmcnmdmgr.dll
mmc.exe	5.00.2195.2301	589.27 KB (603,408 bytes)	6/25/2003 3:26:51 PM	Microsoft Corporation	c:\winnt\system32\mmc.exe
util.dll	5.00.2153.1	25.77 KB (26,384 bytes)	12/8/1999 5:00:00 AM	Microsoft Corporation	c:\winnt\system32\util.dll
vdmdbg.dll	5.00.2134.1	29.27 KB (29,968 bytes)	12/8/1999 5:00:00 AM	Microsoft Corporation	c:\winnt\system32\vdmdbg.dll
taskmgr.exe	5.00.2137.1	85.77 KB (87,824 bytes)	12/8/1999 5:00:00 AM	Microsoft Corporation	c:\winnt\system32\taskmgr.exe
shdoclc.dll	5.00.3315.2879	324.50 KB (332,288 bytes)	6/25/2003 3:27:01 PM	Microsoft Corporation	c:\winnt\system32\shdoclc.dll
msi.dll	1.11.2405.0	1.69 MB (1,767,184 bytes)	6/25/2003 3:26:53 PM	Microsoft Corporation	c:\winnt\system32\msi.dll
wininet.dll	5.00.3315.1000	456.77 KB (467,728 bytes)	6/25/2003 3:27:04 PM	Microsoft Corporation	c:\winnt\system32\wininet.dll
linkinfo.dll	5.00.2134.1	15.77 KB (16,144 bytes)	12/8/1999 5:00:00 AM	Microsoft Corporation	c:\winnt\system32\linkinfo.dll

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powrprof.dll 5.00.3103.1000      13.27 KB (13,584 bytes)      6/25/2003 3:26:59 PM
Microsoft Corporation c:\winnt\system32\powrprof.dll
batmeter.dll 5.00.3103.1000      20.27 KB (20,752 bytes)      6/25/2003 3:26:43 PM
Microsoft Corporation c:\winnt\system32\batmeter.dll
stobject.dll 5.00.2195.2780      79.27 KB (81,168 bytes)      6/25/2003 3:27:03 PM
Microsoft Corporation c:\winnt\system32\stobject.dll
webcheck.dll 5.00.3315.1000      251.77 KB (257,808 bytes)      6/25/2003 3:27:04 PM
Microsoft Corporation c:\winnt\system32\webcheck.dll
ntshrui.dll 5.00.2134.1          46.77 KB (47,888 bytes)      12/8/1999 5:00:00 AM
Microsoft Corporation c:\winnt\system32\ntshrui.dll
mydocs.dll 5.00.2920.0000      55.77 KB (57,104 bytes)      12/8/1999 5:00:00 AM
Microsoft Corporation c:\winnt\system32\mydocs.dll
browseui.dll 5.00.3315.2846      788.77 KB (807,696 bytes)      6/25/2003 3:26:43 PM
Microsoft Corporation c:\winnt\system32\browseui.dll
shdocvw.dll 5.00.3315.2879      1.05 MB (1,104,144 bytes)      6/25/2003 3:27:02 PM
Microsoft Corporation c:\winnt\system32\shdocvw.dll
explorer.exe 5.00.3315.2846      237.27 KB (242,960 bytes)      6/25/2003 3:27:05 PM
Microsoft Corporation c:\winnt\explorer.exe
tapisrv.dll 5.00.2195.2955      169.27 KB (173,328 bytes)      6/25/2003 3:27:03 PM
Microsoft Corporation c:\winnt\system32\tapisrv.dll
dfssvc.exe 5.00.2195.2841      88.27 KB (90,384 bytes)      6/25/2003 3:26:46 PM
Microsoft Corporation c:\winnt\system32\dfssvc.exe
iislog.dll 5.00.0984 75.27 KB (77,072 bytes)      6/25/2003 3:28:25 PM
Microsoft Corporation c:\winnt\system32\inetrv\iislog.dll
ntlsapi.dll 5.00.2134.1          6.77 KB (6,928 bytes)      12/8/1999 5:00:00 AM
Microsoft Corporation c:\winnt\system32\ntlsapi.dll
httpext.dll 0.9.3940.21          435.27 KB (445,712 bytes)      6/25/2003 3:28:32 PM
Microsoft Corporation c:\winnt\system32\inetrv\httpext.dll
md5filt.dll 5.00.0984 32.77 KB (33,552 bytes)      6/25/2003 3:28:13 PM
Microsoft Corporation c:\winnt\system32\inetrv\md5filt.dll
gzip.dll 5.00.0984 30.27 KB (30,992 bytes)      6/25/2003 3:28:00 PM      Microsoft
Corporation c:\winnt\system32\inetrv\gzip.dll
compfilt.dll 5.00.0984 22.77 KB (23,312 bytes)      6/25/2003 3:28:31 PM
Microsoft Corporation c:\winnt\system32\inetrv\compfilt.dll
sspicfilt.dll 5.00.0984 43.27 KB (44,304 bytes)      6/25/2003 3:28:03 PM
Microsoft Corporation c:\winnt\system32\inetrv\sspicfilt.dll
iscomlog.dll 5.00.0984 24.77 KB (25,360 bytes)      6/25/2003 3:28:27 PM
Microsoft Corporation c:\winnt\system32\inetrv\iscomlog.dll
lonsint.dll 5.00.0984 11.77 KB (12,048 bytes)      6/25/2003 3:28:02 PM
Microsoft Corporation c:\winnt\system32\inetrv\lonsint.dll
inetsloc.dll 5.00.0984 20.27 KB (20,752 bytes)      6/25/2003 3:28:31 PM
Microsoft Corporation c:\winnt\system32\inetsloc.dll
iisfecnv.dll 5.00.0984 7.27 KB (7,440 bytes)      8/22/2003 4:53:41 AM
Microsoft Corporation c:\winnt\system32\inetrv\iisfecnv.dll
isatq.dll 5.00.0984 60.27 KB (61,712 bytes)      6/25/2003 3:28:07 PM      Microsoft
Corporation c:\winnt\system32\inetrv\isatq.dll
infocomm.dll 5.00.0984 238.27 KB (243,984 bytes)      6/25/2003 3:28:31 PM
Microsoft Corporation c:\winnt\system32\inetrv\infocomm.dll
w3svc.dll 5.00.0984 343.27 KB (351,504 bytes)      6/25/2003 3:28:09 PM      Microsoft
Corporation c:\winnt\system32\inetrv\w3svc.dll
security.dll 5.00.2154.1          5.77 KB (5,904 bytes)      12/8/1999 5:00:00 AM
Microsoft Corporation c:\winnt\system32\security.dll
svcxext.dll 5.00.0984 39.77 KB (40,720 bytes)      6/25/2003 3:28:15 PM
Microsoft Corporation c:\winnt\system32\inetrv\svcxext.dll
admexs.dll 5.00.0984 27.77 KB (28,432 bytes)      6/25/2003 3:28:32 PM
Microsoft Corporation c:\winnt\system32\inetrv\admexs.dll
wamreg.dll 5.00.0984 45.77 KB (46,864 bytes)      6/25/2003 3:28:13 PM
Microsoft Corporation c:\winnt\system32\inetrv\wamreg.dll
metadata.dll 5.00.0984 68.77 KB (70,416 bytes)      6/25/2003 3:28:19 PM
Microsoft Corporation c:\winnt\system32\inetrv\metadata.dll
iismap.dll 5.00.0984 55.77 KB (57,104 bytes)      6/25/2003 3:28:25 PM
Microsoft Corporation c:\winnt\system32\iismap.dll
nsepm.dll 5.00.0984 43.27 KB (44,304 bytes)      6/25/2003 3:28:05 PM      Microsoft
Corporation c:\winnt\system32\inetrv\nsepm.dll
coadmin.dll 5.00.0984 39.27 KB (40,208 bytes)      6/25/2003 3:28:31 PM
Microsoft Corporation c:\winnt\system32\inetrv\coadmin.dll
iisadmin.dll 5.00.0984 15.27 KB (15,632 bytes)      6/25/2003 3:28:26 PM
Microsoft Corporation c:\winnt\system32\inetrv\iisadmin.dll
rpcpref.dll 5.00.0984 4.27 KB (4,368 bytes)      6/25/2003 3:28:16 PM
Microsoft Corporation c:\winnt\system32\inetrv\rpcpref.dll
iisrtl.dll 5.00.0984 119.77 KB (122,640 bytes)      6/25/2003 3:28:25 PM
Microsoft Corporation c:\winnt\system32\iisrtl.dll
inetinfo.exe 5.00.0984 14.27 KB (14,608 bytes)      6/25/2003 3:28:30 PM
Microsoft Corporation c:\winnt\system32\inetrv\inetinfo.exe
perfos.dll 5.00.2155.1          21.27 KB (21,776 bytes)      12/8/1999 5:00:00 AM
Microsoft Corporation c:\winnt\system32\perfos.dll
wshnetbs.dll 5.00.2134.1          7.77 KB (7,952 bytes)      12/8/1999 5:00:00 AM
Microsoft Corporation c:\winnt\system32\wshnetbs.dll
ntmarta.dll 5.00.2195.2862      98.77 KB (101,136 bytes)      6/25/2003 3:26:57 PM

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provthrd.dll	Microsoft Corporation	c:\winnt\system32\ntmarta.dll	
1.50.1085.0000	68.07 KB (69,708 bytes)	6/25/2003 2:42:48 PM	
ntevt.dll	Microsoft Corporation	c:\winnt\system32\wbem\provthrd.dll	
1.50.1085.0000	192.06 KB (196,669 bytes)	12/8/1999 5:00:00 AM	
psapi.dll	Microsoft Corporation	c:\winnt\system32\wbem\ntevt.dll	
5.00.2134.1	28.27 KB (28,944 bytes)	12/8/1999 5:00:00 AM	
framedyn.dll	Microsoft Corporation	c:\winnt\system32\psapi.dll	
1.50.1085.0000	164.05 KB (167,992 bytes)	12/8/1999 5:00:00 AM	
cimwin32.dll	Microsoft Corporation	c:\winnt\system32\wbem\framedyn.dll	
1.50.1085.0038	1.02 MB (1,073,232 bytes)	6/25/2003 3:27:07 PM	
wbemsvcs.dll	Microsoft Corporation	c:\winnt\system32\wbem\cimwin32.dll	
1.50.1085.0007	40.07 KB (41,036 bytes)	6/25/2003 3:27:08 PM	
wbemess.dll	Microsoft Corporation	c:\winnt\system32\wbem\wbemsvcs.dll	
1.50.1085.0039	364.07 KB (372,804 bytes)	6/25/2003 3:27:08 PM	
fastprox.dll	Microsoft Corporation	c:\winnt\system32\wbem\wbemess.dll	
1.50.1085.0037	144.08 KB (147,536 bytes)	6/25/2003 3:27:08 PM	
wbemcore.dll	Microsoft Corporation	c:\winnt\system32\wbem\fastprox.dll	
1.50.1085.0036	628.07 KB (643,140 bytes)	6/25/2003 3:27:08 PM	
wbemcomm.dll	Microsoft Corporation	c:\winnt\system32\wbem\wbemcore.dll	
1.50.1085.0021	692.07 KB (708,675 bytes)	6/25/2003 3:27:08 PM	
winmgmt.exe	Microsoft Corporation	c:\winnt\system32\wbem\wbemcomm.dll	
1.50.1085.0029	192.08 KB (196,685 bytes)	6/25/2003 3:27:08 PM	
libgp.dll	Not Available	303.50 KB (310,784 bytes)	8/19/2003 1:45:29 PM Not
Available c:\progra~1\beasys-1\tuxedo\bin\libgp.dll			
tuxipc.exe	Not Available	12.50 KB (12,800 bytes)	8/19/2003 1:45:30 PM
msidle.dll	Not Available	6.27 KB (6,416 bytes)	12/8/1999 5:00:00 AM
msidl.dll	Microsoft Corporation	c:\winnt\system32\msidle.dll	
4.71.2195.1	115.27 KB (118,032 bytes)	6/25/2003 3:26:55 PM	
mstask.exe	Microsoft Corporation	c:\winnt\system32\mstask.exe	
5.00.2195.2104	65.27 KB (66,832 bytes)	6/25/2003 3:27:00 PM	
regsvc.exe	Microsoft Corporation	c:\winnt\system32\regsvc.exe	
5.00.2149.1	45.77 KB (46,864 bytes)	12/8/1999 5:00:00 AM	
llsrpc.dll	Microsoft Corporation	c:\winnt\system32\llsrpc.dll	
5.00.2195.2649	114.27 KB (117,008 bytes)	5/4/2001 12:05:02 PM	
llssrv.exe	Microsoft Corporation	c:\winnt\system32\llssrv.exe	
5.00.2195.2779	457.27 KB (468,240 bytes)	6/25/2003 3:26:56 PM	
netshell.dll	Microsoft Corporation	c:\winnt\system32\netshell.dll	
5.00.2195.2779	89.27 KB (91,408 bytes)	6/25/2003 3:26:56 PM	
netman.dll	Microsoft Corporation	c:\winnt\system32\netman.dll	
5.00.2195.2779	167.27 KB (171,280 bytes)	6/25/2003 3:26:57 PM	
ntmsdba.dll	Microsoft Corporation	c:\winnt\system32\ntmsdba.dll	
5.00.2195.2671	514.27 KB (526,608 bytes)	12/8/1999 5:00:00 AM	
rasdlg.dll	Microsoft Corporation	c:\winnt\system32\rasdlg.dll	
5.00.2195.2228	534.77 KB (547,600 bytes)	6/25/2003 3:26:56 PM	
netcfgx.dll	Microsoft Corporation	c:\winnt\system32\netcfgx.dll	
5.00.2195.2728	147.27 KB (150,800 bytes)	6/25/2003 3:27:00 PM	
rasmans.dll	Microsoft Corporation	c:\winnt\system32\rasmans.dll	
5.00.2163.1	36.77 KB (37,648 bytes)	12/8/1999 5:00:00 AM	
sens.dll	Microsoft Corporation	c:\winnt\system32\sens.dll	
5.00.2195.2779	391.27 KB (400,656 bytes)	6/25/2003 3:26:57 PM	
ntmssvc.dll	Microsoft Corporation	c:\winnt\system32\ntmssvc.dll	
2000.2.3471.1	222.27 KB (227,600 bytes)	6/25/2003 3:26:47 PM	
es.dll	Microsoft Corporation	c:\winnt\system32\es.dll	
2000.2.3471.1	101.77 KB (104,208 bytes)	6/25/2003 3:26:56 PM	
mtxoci.dll	Microsoft Corporation	c:\winnt\system32\mtxoci.dll	
5.00.2195.2787	39.77 KB (40,720 bytes)	6/25/2003 3:27:00 PM	
resutils.dll	Microsoft Corporation	c:\winnt\system32\resutils.dll	
5.00.2195.2104	54.27 KB (55,568 bytes)	6/25/2003 3:26:44 PM	
clusapi.dll	Microsoft Corporation	c:\winnt\system32\clusapi.dll	
5.00.7051.552.50 KB	(565,760 bytes)	12/8/1999 5:00:00 AM	
msvcpc50.dll	Microsoft Corporation	c:\winnt\system32\msvcpc50.dll	
1999.9.3421.3	17.27 KB (17,680 bytes)	6/25/2003 11:39:06 PM	
xolehlp.dll	Microsoft Corporation	c:\winnt\system32\xolehlp.dll	
1999.9.3421.3	89.77 KB (91,920 bytes)	6/25/2003 11:39:06 PM	
msdtclog.dll	Microsoft Corporation	c:\winnt\system32\msdtclog.dll	
2000.2.3471.1	51.27 KB (52,496 bytes)	6/25/2003 3:26:56 PM	
mtxclu.dll	Microsoft Corporation	c:\winnt\system32\mtxclu.dll	
2000.2.3471.1	665.77 KB (681,744 bytes)	6/25/2003 3:26:52 PM	
msdtcprx.dll	Microsoft Corporation	c:\winnt\system32\msdtcprx.dll	
2000.2.3471.1	374.27 KB (383,248 bytes)	6/25/2003 3:27:03 PM	
txfaux.dll	Microsoft Corporation	c:\winnt\system32\txfaux.dll	
2000.2.3471.1	1.07 MB (1,120,528 bytes)	6/25/2003 3:26:52 PM	
msdtctm.dll	Microsoft Corporation	c:\winnt\system32\msdtctm.dll	
1999.9.3421.3	6.77 KB (6,928 bytes)	6/25/2003 11:39:06 PM	
msdtc.exe	Microsoft Corporation	c:\winnt\system32\msdtc.exe	
5.00.2191.1	6.27 KB (6,416 bytes)	12/8/1999 5:00:00 AM	
wmi.dll	Microsoft Corporation	c:\winnt\system32\wmi.dll	

admwxprox.dll	Microsoft Corporation	8/22/2003 4:53:41 AM	
5.00.2195.2842	65.27 KB (66,832 bytes)	6/25/2003 3:26:49 PM	
inetpp.dll	Microsoft Corporation	c:\winnt\system32\inetpp.dll	
5.00.2195.2780	92.27 KB (94,480 bytes)	12/8/1999 5:00:00 AM	
win32spl.dll	Microsoft Corporation	c:\winnt\system32\win32spl.dll	
5.00.2195.2780	11.27 KB (11,536 bytes)	6/25/2003 3:27:04 PM	
usbmon.dll	Microsoft Corporation	c:\winnt\system32\usbmon.dll	
5.00.2195.2780	40.77 KB (41,744 bytes)	6/25/2003 3:27:03 PM	
tcpmon.dll	Microsoft Corporation	c:\winnt\system32\tcpmon.dll	
5.00.2165.1	12.77 KB (13,072 bytes)	12/1/1999 8:39:36 AM	
pjlmon.dll	Microsoft Corporation	c:\winnt\system32\pjlmon.dll	
5.00.2134.1	43.77 KB (44,816 bytes)	12/1/1999 8:38:48 AM	
cnbjmon.dll	Microsoft Corporation	c:\winnt\system32\cnbjmon.dll	
5.00.2195.2793	246.77 KB (252,688 bytes)	12/8/1999 5:00:00 AM	
localspl.dll	Microsoft Corporation	c:\winnt\system32\localspl.dll	
5.00.2161.1	61.77 KB (63,248 bytes)	6/25/2003 11:25:10 PM	
spoolss.dll	Microsoft Corporation	c:\winnt\system32\spoolss.dll	
5.00.2161.1	43.77 KB (44,816 bytes)	6/25/2003 11:25:10 PM	
spoolsv.exe	Microsoft Corporation	c:\winnt\system32\spoolsv.exe	
5.00.2195.2815	231.27 KB (236,816 bytes)	6/25/2003 3:27:01 PM	
rpcss.dll	Microsoft Corporation	c:\winnt\system32\rpcss.dll	
5.00.2134.1	7.77 KB (7,952 bytes)	12/8/1999 5:00:00 AM	
svchost.exe	Microsoft Corporation	c:\winnt\system32\svchost.exe	
5.00.2195.2228	142.77 KB (146,192 bytes)	6/25/2003 3:27:38 PM	
dssenh.dll	Microsoft Corporation	c:\winnt\system32\dssenh.dll	
5.00.2195.2785	378.77 KB (387,856 bytes)	6/25/2003 3:26:57 PM	
oakley.dll	Microsoft Corporation	c:\winnt\system32\oakley.dll	
6.00.8665.0	972.05 KB (995,384 bytes)	12/8/1999 5:00:00 AM	
mfc42u.dll	Microsoft Corporation	c:\winnt\system32\mfc42u.dll	
5.00.2183.1	108.27 KB (110,864 bytes)	12/8/1999 5:00:00 AM	
polagent.dll	Microsoft Corporation	c:\winnt\system32\polagent.dll	
5.00.2195.2780	105.27 KB (107,792 bytes)	6/25/2003 3:27:01 PM	
scecli.dll	Microsoft Corporation	c:\winnt\system32\scecli.dll	
57.56 KB (58,938 bytes)	12/8/1999 5:00:00 AM	Microsoft	
atl.dll	Microsoft Corporation	c:\winnt\system32\atl.dll	
3.00.8449	130.77 KB (133,904 bytes)	6/25/2003 3:26:44 PM	
certcli.dll	Microsoft Corporation	c:\winnt\system32\certcli.dll	
6.0.3940.13	1.08 MB (1,135,376 bytes)	6/25/2003 3:26:47 PM	
esent.dll	Microsoft Corporation	c:\winnt\system32\esent.dll	
5.00.2195.2878	31.27 KB (32,016 bytes)	6/25/2003 3:26:57 PM	
ntdsatq.dll	Microsoft Corporation	c:\winnt\system32\ntdsatq.dll	
5.00.2195.2899	990.77 KB (1,014,544 bytes)	6/25/2003 3:26:56 PM	
ntdsa.dll	Microsoft Corporation	c:\winnt\system32\ntdsa.dll	
5.00.2195.2878	137.77 KB (141,072 bytes)	6/25/2003 3:26:50 PM	
kdcsvc.dll	Microsoft Corporation	c:\winnt\system32\kdcsvc.dll	
5.00.2134.1	38.77 KB (39,696 bytes)	12/8/1999 5:00:00 AM	
sfmapi.dll	Microsoft Corporation	c:\winnt\system32\sfmapi.dll	
5.00.2195.2671	21.27 KB (21,776 bytes)	6/25/2003 3:27:00 PM	
rassfm.dll	Microsoft Corporation	c:\winnt\system32\rassfm.dll	
5.00.2195.2228	128.27 KB (131,344 bytes)	5/4/2001 12:05:02 PM	
rsabase.dll	Microsoft Corporation	c:\winnt\system32\rsabase.dll	
5.00.2195.2922	138.27 KB (141,584 bytes)	5/4/2001 12:05:02 PM	
schannel.dll	Microsoft Corporation	c:\winnt\system32\schannel.dll	
5.00.2195.2865	357.77 KB (366,352 bytes)	6/25/2003 3:26:56 PM	
netlogon.dll	Microsoft Corporation	c:\winnt\system32\netlogon.dll	
5.00.2195.2900	111.77 KB (114,448 bytes)	12/8/1999 5:00:00 AM	
msvl_0.dll	Microsoft Corporation	c:\winnt\system32\msvl_0.dll	
5.00.2195.2913	198.77 KB (203,536 bytes)	6/25/2003 3:26:50 PM	
kerberos.dll	Microsoft Corporation	c:\winnt\system32\kerberos.dll	
5.00.2154.1	41.50 KB (42,496 bytes)	12/8/1999 5:00:00 AM	
msprivs.dll	Microsoft Corporation	c:\winnt\system32\msprivs.dll	
5.00.2195.2918	369.77 KB (378,640 bytes)	12/8/1999 5:00:00 AM	
samsrv.dll	Microsoft Corporation	c:\winnt\system32\samsrv.dll	
5.00.2195.2964	492.77 KB (504,592 bytes)	12/8/1999 5:00:00 AM	
lsasrv.dll	Microsoft Corporation	c:\winnt\system32\lsasrv.dll	
5.00.2195.2964	32.77 KB (33,552 bytes)	12/8/1999 5:00:00 AM	
lsass.exe	Microsoft Corporation	c:\winnt\system32\lsass.exe	
5.00.2195.2842	72.27 KB (74,000 bytes)	6/25/2003 3:27:05 PM	
wmicore.dll	Microsoft Corporation	c:\winnt\system32\wmicore.dll	
5.00.2168.1	7.27 KB (7,440 bytes)	12/8/1999 5:00:00 AM	
rasadhlp.dll	Microsoft Corporation	c:\winnt\system32\rasadhlp.dll	
5.00.2160.1	18.77 KB (19,216 bytes)	12/8/1999 5:00:00 AM	
winrnr.dll	Microsoft Corporation	c:\winnt\system32\winrnr.dll	
5.00.2195.2871	35.77 KB (36,624 bytes)	6/25/2003 3:27:00 PM	
rnr20.dll	Microsoft Corporation	c:\winnt\system32\rnr20.dll	
5.00.2195.2104	17.27 KB (17,680 bytes)	6/25/2003 3:27:05 PM	
wshtcpip.dll	Microsoft Corporation	c:\winnt\system32\wshtcpip.dll	
5.00.2195.2779	106.77 KB (109,328 bytes)	6/25/2003 3:26:51 PM	
msafid.dll			

msocket.dll	Microsoft Corporation	c:\winnt\system32\msafd.dll	62.77 KB (64,272 bytes)	6/25/2003 3:26:55 PM
msgsvcs.dll	Microsoft Corporation	c:\winnt\system32\msgsvcs.dll	34.27 KB (35,088 bytes)	12/8/1999 5:00:00 AM
browser.dll	Microsoft Corporation	c:\winnt\system32\browser.dll	48.27 KB (49,424 bytes)	6/25/2003 3:26:43 PM
alrsvcs.dll	Microsoft Corporation	c:\winnt\system32\alrsvcs.dll	17.77 KB (18,192 bytes)	12/8/1999 5:00:00 AM
trkwks.dll	Microsoft Corporation	c:\winnt\system32\trkwks.dll	88.77 KB (90,896 bytes)	12/8/1999 5:00:00 AM
seclogon.dll	Microsoft Corporation	c:\winnt\system32\seclogon.dll	15.77 KB (16,144 bytes)	12/8/1999 5:00:00 AM
psbase.dll	Microsoft Corporation	c:\winnt\system32\psbase.dll	111.77 KB (114,448 bytes)	6/25/2003 3:27:00 PM
cryptsvc.dll	Microsoft Corporation	c:\winnt\system32\cryptsvc.dll	61.77 KB (63,248 bytes)	12/8/1999 5:00:00 AM
cryptdll.dll	Microsoft Corporation	c:\winnt\system32\cryptdll.dll	41.27 KB (42,256 bytes)	12/8/1999 5:00:00 AM
wkssvc.dll	Microsoft Corporation	c:\winnt\system32\wkssvc.dll	95.27 KB (97,552 bytes)	12/8/1999 5:00:00 AM
srsvcs.dll	Microsoft Corporation	c:\winnt\system32\srsvcs.dll	79.27 KB (81,168 bytes)	12/8/1999 5:00:00 AM
cfgmgr32.dll	Microsoft Corporation	c:\winnt\system32\cfgmgr32.dll	16.77 KB (17,168 bytes)	12/8/1999 5:00:00 AM
dmserver.dll	Microsoft Corporation	c:\winnt\system32\dmserver.dll	11.77 KB (12,048 bytes)	6/25/2003 3:26:46 PM
winsta.dll	VERITAS Software Corp.	c:\winnt\system32\winsta.dll	36.77 KB (37,648 bytes)	6/25/2003 3:27:05 PM
lmhsvc.dll	Microsoft Corporation	c:\winnt\system32\lmhsvc.dll	9.77 KB (10,000 bytes)	12/8/1999 5:00:00 AM
dnssrslvr.dll	Microsoft Corporation	c:\winnt\system32\dnssrslvr.dll	88.77 KB (90,896 bytes)	6/25/2003 3:26:46 PM
tapi32.dll	Microsoft Corporation	c:\winnt\system32\tapi32.dll	123.27 KB (126,224 bytes)	12/8/1999 5:00:00 AM
rasman.dll	Microsoft Corporation	c:\winnt\system32\rasman.dll	54.77 KB (56,080 bytes)	12/8/1999 5:00:00 AM
rasapi32.dll	Microsoft Corporation	c:\winnt\system32\rasapi32.dll	189.77 KB (194,320 bytes)	12/8/1999 5:00:00 AM
rtutils.dll	Microsoft Corporation	c:\winnt\system32\rtutils.dll	43.77 KB (44,816 bytes)	12/8/1999 5:00:00 AM
adslsdp.dll	Microsoft Corporation	c:\winnt\system32\adslsdp.dll	127.27 KB (130,320 bytes)	6/25/2003 3:26:42 PM
activeds.dll	Microsoft Corporation	c:\winnt\system32\activeds.dll	174.77 KB (178,960 bytes)	6/25/2003 3:26:38 PM
mprapi.dll	Microsoft Corporation	c:\winnt\system32\mprapi.dll	79.27 KB (81,168 bytes)	12/8/1999 5:00:00 AM
iphlpapi.dll	Microsoft Corporation	c:\winnt\system32\iphlpapi.dll	67.77 KB (69,392 bytes)	12/8/1999 5:00:00 AM
icmp.dll	Microsoft Corporation	c:\winnt\system32\icmp.dll	7.27 KB (7,440 bytes)	12/8/1999 5:00:00 AM
dhcpcsvc.dll	Microsoft Corporation	c:\winnt\system32\dhcpcsvc.dll	88.77 KB (90,896 bytes)	12/8/1999 5:00:00 AM
eventlog.dll	Microsoft Corporation	c:\winnt\system32\eventlog.dll	43.77 KB (44,816 bytes)	12/8/1999 5:00:00 AM
ntdsapi.dll	Microsoft Corporation	c:\winnt\system32\ntdsapi.dll	55.77 KB (57,104 bytes)	6/25/2003 3:26:57 PM
scsersv.dll	Microsoft Corporation	c:\winnt\system32\scsersv.dll	226.27 KB (231,696 bytes)	6/25/2003 3:27:01 PM
umppnmgm.dll	Microsoft Corporation	c:\winnt\system32\umppnmgm.dll	86.27 KB (88,336 bytes)	12/8/1999 5:00:00 AM
services.exe	Microsoft Corporation	c:\winnt\system32\services.exe	86.77 KB (88,848 bytes)	12/8/1999 5:00:00 AM
clbcatq.dll	Microsoft Corporation	c:\winnt\system32\clbcatq.dll	496.77 KB (508,688 bytes)	6/25/2003 3:26:44 PM
oleaut32.dll	Microsoft Corporation	c:\winnt\system32\oleaut32.dll	152.50 KB (156,160 bytes)	12/8/1999 5:00:00 AM
netmsg.dll	Microsoft Corporation	c:\winnt\system32\netmsg.dll	236.77 KB (242,448 bytes)	12/8/1999 5:00:00 AM
comdlg32.dll	Microsoft Corporation	c:\winnt\system32\comdlg32.dll	280.27 KB (286,992 bytes)	12/8/1999 5:00:00 AM
netui2.dll	Microsoft Corporation	c:\winnt\system32\netui2.dll	56.080 KB (56,080 bytes)	6/25/2003 3:26:51 PM
mprui.dll	Microsoft Corporation	c:\winnt\system32\mprui.dll	210.27 KB (215,312 bytes)	12/8/1999 5:00:00 AM
netui1.dll	Microsoft Corporation	c:\winnt\system32\netui1.dll	70.27 KB (71,952 bytes)	12/8/1999 5:00:00 AM
netui0.dll	Microsoft Corporation	c:\winnt\system32\netui0.dll		

ntlanman.dll	Microsoft Corporation	c:\winnt\system32\ntlanman.dll	35.27 KB (36,112 bytes)	12/8/1999 5:00:00 AM
mpr.dll	Microsoft Corporation	c:\winnt\system32\mpr.dll	54.544 KB (54,544 bytes)	6/25/2003 3:26:51 PM
cscui.dll	Microsoft Corporation	c:\winnt\system32\cscui.dll	228.27 KB (233,744 bytes)	6/25/2003 3:26:45 PM
winspool.drv	Microsoft Corporation	c:\winnt\system32\winspool.drv	109.77 KB (112,400 bytes)	12/8/1999 5:00:00 AM
winscard.dll	Microsoft Corporation	c:\winnt\system32\winscard.dll	77.27 KB (79,120 bytes)	12/8/1999 5:00:00 AM
wlnotify.dll	Microsoft Corporation	c:\winnt\system32\wlnotify.dll	53.77 KB (55,056 bytes)	6/25/2003 3:27:05 PM
cscdll.dll	Microsoft Corporation	c:\winnt\system32\cscdll.dll	98.27 KB (100,624 bytes)	6/25/2003 3:26:45 PM
lz32.dll	Microsoft Corporation	c:\winnt\system32\lz32.dll	9.77 KB (10,000 bytes)	12/8/1999 5:00:00 AM
version.dll	Microsoft Corporation	c:\winnt\system32\version.dll	15.77 KB (16,144 bytes)	12/8/1999 5:00:00 AM
rsaenh.dll	Microsoft Corporation	c:\winnt\system32\rsaenh.dll	130.77 KB (133,904 bytes)	6/25/2003 3:27:38 PM
mscat32.dll	Microsoft Corporation	c:\winnt\system32\mscat32.dll	7.77 KB (7,952 bytes)	12/8/1999 5:00:00 AM
ole32.dll	Microsoft Corporation	c:\winnt\system32\ole32.dll	969.77 KB (993,040 bytes)	6/25/2003 3:26:59 PM
imagehlp.dll	Microsoft Corporation	c:\winnt\system32\imagehlp.dll	125.77 KB (128,784 bytes)	5/4/2001 12:05:02 PM
msasn1.dll	Microsoft Corporation	c:\winnt\system32\msasn1.dll	51.27 KB (52,496 bytes)	12/8/1999 5:00:00 AM
crypt32.dll	Microsoft Corporation	c:\winnt\system32\crypt32.dll	451.27 KB (462,096 bytes)	6/25/2003 3:26:45 PM
wintrust.dll	Microsoft Corporation	c:\winnt\system32\wintrust.dll	162.27 KB (166,160 bytes)	6/25/2003 3:27:05 PM
setupapi.dll	Microsoft Corporation	c:\winnt\system32\setupapi.dll	555.77 KB (569,104 bytes)	12/8/1999 5:00:00 AM
winmm.dll	Microsoft Corporation	c:\winnt\system32\winmm.dll	184.77 KB (189,200 bytes)	12/8/1999 5:00:00 AM
comctl32.dll	Microsoft Corporation	c:\winnt\system32\comctl32.dll	537.77 KB (550,672 bytes)	12/8/1999 5:00:00 AM
shlwapi.dll	Microsoft Corporation	c:\winnt\system32\shlwapi.dll	282.77 KB (289,552 bytes)	6/25/2003 3:27:02 PM
shell32.dll	Microsoft Corporation	c:\winnt\system32\shell32.dll	2.25 MB (2,359,056 bytes)	6/25/2003 3:27:02 PM
msgina.dll	Microsoft Corporation	c:\winnt\system32\msgina.dll	324.27 KB (332,048 bytes)	12/8/1999 5:00:00 AM
wsock32.dll	Microsoft Corporation	c:\winnt\system32\wsock32.dll	21.27 KB (21,776 bytes)	6/25/2003 3:27:05 PM
dnsapi.dll	Microsoft Corporation	c:\winnt\system32\dnsapi.dll	130.77 KB (133,904 bytes)	6/25/2003 3:26:46 PM
wldap32.dll	Microsoft Corporation	c:\winnt\system32\wldap32.dll	125.27 KB (128,272 bytes)	6/25/2003 3:27:05 PM
ws2help.dll	Microsoft Corporation	c:\winnt\system32\ws2help.dll	17.77 KB (18,192 bytes)	12/8/1999 5:00:00 AM
ws2_32.dll	Microsoft Corporation	c:\winnt\system32\ws2_32.dll	67.77 KB (69,392 bytes)	6/25/2003 3:27:05 PM
samlib.dll	Microsoft Corporation	c:\winnt\system32\samlib.dll	49.77 KB (50,960 bytes)	12/8/1999 5:00:00 AM
netrap.dll	Microsoft Corporation	c:\winnt\system32\netrap.dll	11.27 KB (11,536 bytes)	12/8/1999 5:00:00 AM
netapi32.dll	Microsoft Corporation	c:\winnt\system32\netapi32.dll	303.77 KB (311,056 bytes)	6/25/2003 3:26:56 PM
profmap.dll	Microsoft Corporation	c:\winnt\system32\profmap.dll	29.27 KB (29,968 bytes)	12/8/1999 5:00:00 AM
secur32.dll	Microsoft Corporation	c:\winnt\system32\secur32.dll	46.77 KB (47,888 bytes)	6/25/2003 3:27:01 PM
sfc.dll	Microsoft Corporation	c:\winnt\system32\sfc.dll	92.11 KB (94,320 bytes)	6/25/2003 3:27:01 PM
nddeapi.dll	Microsoft Corporation	c:\winnt\system32\nddeapi.dll	15.27 KB (15,632 bytes)	12/8/1999 5:00:00 AM
userenv.dll	Microsoft Corporation	c:\winnt\system32\userenv.dll	361.77 KB (370,448 bytes)	12/8/1999 5:00:00 AM
user32.dll	Microsoft Corporation	c:\winnt\system32\user32.dll	392.77 KB (402,192 bytes)	12/8/1999 5:00:00 AM
gdi32.dll	Microsoft Corporation	c:\winnt\system32\gdi32.dll	228.77 KB (234,256 bytes)	12/8/1999 5:00:00 AM
rpcrt4.dll	Microsoft Corporation	c:\winnt\system32\rpcrt4.dll	437.27 KB (447,760 bytes)	6/25/2003 3:27:00 PM
advapi32.dll	Microsoft Corporation	c:\winnt\system32\advapi32.dll	351.77 KB (360,208 bytes)	12/8/1999 5:00:00 AM
kernel32.dll	Microsoft Corporation	c:\winnt\system32\kernel32.dll	714.77 KB (731,920 bytes)	12/8/1999 5:00:00 AM

msvcrt.dll	Microsoft Corporation	c:\winnt\system32\kernel32.dll	284.05 KB (290,869 bytes)	5/4/2001 12:05:02 PM
winlogon.exe	Microsoft Corporation	c:\winnt\system32\msvcrt.dll	173.77 KB (177,936 bytes)	12/8/1999 5:00:00 AM
sfcfiles.dll	Microsoft Corporation	c:\winnt\system32\winlogon.exe	948.27 KB (971,024 bytes)	6/25/2003 3:27:01 PM
ntdll.dll	Microsoft Corporation	c:\winnt\system32\sfcfiles.dll	478.77 KB (490,256 bytes)	5/4/2001 12:05:02 PM
smss.exe	Microsoft Corporation	c:\winnt\system32\ntdll.dll	44.27 KB (45,328 bytes)	12/8/1999 5:00:00 AM
	Microsoft Corporation	c:\winnt\system32\smss.exe		

[Services]

Display Name	Name	State	Start Mode	Service Type	Path	Error
Control	Start Name	Tag ID				
Alerter	Alerter	Running	Auto	Share Process	c:\winnt\system32\services.exe	
	Normal	LocalSystem	0			
Application Management	AppMgmt	Stopped	Manual	Share Process		
	c:\winnt\system32\services.exe		Normal	LocalSystem	0	
Computer Browser	Browser	Running	Auto	Share Process		
	c:\winnt\system32\services.exe		Normal	LocalSystem	0	
Indexing Service	cisvc	Stopped	Manual	Share Process		
	c:\winnt\system32\cisvc.exe		Normal	LocalSystem	0	
ClipBook	ClipSrv	Stopped	Manual	Own Process	c:\winnt\system32\clipsrv.exe	
	Normal	LocalSystem	0			
Distributed File System	Dfs	Running	Auto	Own Process		
	c:\winnt\system32\dfssvc.exe		Normal	LocalSystem	0	
DHCP Client	Dhcp	Running	Auto	Share Process		
	c:\winnt\system32\services.exe		Normal	LocalSystem	0	
Logical Disk Manager Administrative Service	dmadmin	Stopped	Manual	Share Process		
	c:\winnt\system32\dmadmin.exe		Normal	LocalSystem	0	
Logical Disk Manager	dmserver	Running	Auto	Share Process		
	c:\winnt\system32\services.exe		Normal	LocalSystem	0	
DNS Client	Dnscache	Running	Auto	Share Process		
	c:\winnt\system32\services.exe		Normal	LocalSystem	0	
Event Log	Eventlog	Running	Auto	Share Process	c:\winnt\system32\services.exe	
	Normal	LocalSystem	0			
COM+ Event System	EventSystem	Running	Manual	Share Process		
	c:\winnt\system32\svchost.exe		Normal	LocalSystem	0	
Fax Service	Fax	Stopped	Manual	Own Process		
	c:\winnt\system32\faxsvc.exe		Normal	LocalSystem	0	
IIS Admin Service	IISADMIN	Running	Auto	Share Process		
	c:\winnt\system32\inetnsrv\inetinfo.exe		Normal	LocalSystem	0	
Inter-site Messaging	IsmServ	Stopped	Disabled	Own Process		
	c:\winnt\system32\ismsserv.exe		Normal	LocalSystem	0	
Kerberos Key Distribution Center	kdc	Stopped	Disabled	Share Process		
	c:\winnt\system32\lsass.exe		Normal	LocalSystem	0	
Server	lanmanserver	Running	Auto	Share Process		
	c:\winnt\system32\services.exe		Normal	LocalSystem	0	
Workstation	lanmanworkstation	Running	Auto	Share Process		
	c:\winnt\system32\services.exe		Normal	LocalSystem	0	
License Logging Service	LicenseService	Running	Auto	Own Process		
	c:\winnt\system32\llssrv.exe		Normal	LocalSystem	0	
TCP/IP NetBIOS Helper Service	LmHosts	Running	Auto	Share Process		
	c:\winnt\system32\services.exe		Normal	LocalSystem	0	
Messenger	Messenger	Running	Auto	Share Process	c:\winnt\system32\services.exe	
	Normal	LocalSystem	0			
NetMeeting Remote Desktop Sharing	mnmsrvc	Stopped	Manual	Own Process		
	c:\winnt\system32\mnmsrvc.exe		Normal	LocalSystem	0	
Distributed Transaction Coordinator	MSDTC	Running	Auto	Own Process		
	c:\winnt\system32\msdtc.exe		Normal	LocalSystem	0	
Windows Installer	MSIServer	Stopped	Manual	Share Process		
	c:\winnt\system32\msiexec.exe		Normal	LocalSystem	0	
Network DDE	NetDDE	Stopped	Manual	Share Process		
	c:\winnt\system32\netdde.exe		Normal	LocalSystem	0	
Network DDE DSDM	NetDDEdsdm	Stopped	Manual	Share Process		
	c:\winnt\system32\netdde.exe		Normal	LocalSystem	0	
Net Logon	Netlogon	Stopped	Manual	Share Process	c:\winnt\system32\lsass.exe	
	Normal	LocalSystem	0			
Network Connections	Netman	Running	Manual	Share Process		
	c:\winnt\system32\svchost.exe		Normal	LocalSystem	0	
File Replication	NtFrs	Stopped	Manual	Own Process		
	c:\winnt\system32\ntfrs.exe		Ignore	LocalSystem	0	
NT LM Security Support Provider	NtLmSep	Stopped	Manual	Share Process		
	c:\winnt\system32\lsass.exe		Normal	LocalSystem	0	
Removable Storage	NtmsSvc	Running	Auto	Share Process		
	c:\winnt\system32\svchost.exe		Normal	LocalSystem	0	
Plug and Play	PlugPlay	Running	Auto	Share Process		

c:\winnt\system32\services.exe	Normal	LocalSystem	0
IPSEC Policy Agent	PolicyAgent	Running	Auto
	c:\winnt\system32\lsass.exe	Normal	LocalSystem
Protected Storage	ProtectedStorage	Running	Auto
	c:\winnt\system32\services.exe	Normal	LocalSystem
PsShutdown	PsShutdownSvc	Stopped	Manual
	c:\winnt\system32\psdsvcs.exe	Normal	LocalSystem
Remote Access Auto Connection Manager	RasAuto	Stopped	Manual
	c:\winnt\system32\svchost.exe	Normal	LocalSystem
Remote Access Connection Manager	RasMan	Stopped	Manual
	c:\winnt\system32\svchost.exe	Normal	LocalSystem
Routing and Remote Access	RemoteAccess	Stopped	Disabled
	c:\winnt\system32\svchost.exe	Normal	LocalSystem
Remote Registry Service	RemoteRegistry	Running	Auto
	c:\winnt\system32\regsvc.exe	Normal	LocalSystem
Remote Procedure Call (RPC) Locator	RpcLocator	Stopped	Manual
	c:\winnt\system32\locator.exe	Normal	LocalSystem
Remote Procedure Call (RPC)	RpcSs	Running	Auto
	c:\winnt\system32\svchost.exe	Normal	LocalSystem
QoS RSVP	RSVP	Running	Manual
	Normal	LocalSystem	0
Security Accounts Manager	SamSs	Running	Auto
	c:\winnt\system32\lsass.exe	Normal	LocalSystem
Smart Card Helper	SCardDrv	Stopped	Manual
	c:\winnt\system32\scardsvr.exe	Ignore	LocalSystem
Smart Card	SCardSvr	Stopped	Manual
	c:\winnt\system32\scardsvr.exe	Ignore	LocalSystem
Task Scheduler	Schedule	Running	Auto
	c:\winnt\system32\mtask.exe	Normal	LocalSystem
RunAs Service	seclogon	Running	Auto
	c:\winnt\system32\services.exe	Ignore	LocalSystem
System Event Notification	SENS	Running	Auto
	c:\winnt\system32\svchost.exe	Normal	LocalSystem
Internet Connection Sharing	SharedAccess	Stopped	Manual
	c:\winnt\system32\svchost.exe	Normal	LocalSystem
Print Spooler	Spooler	Running	Auto
	c:\winnt\system32\spoolsv.exe	Normal	LocalSystem
Performance Logs and Alerts	SysmonLog	Stopped	Manual
	c:\winnt\system32\smlogsvc.exe	Normal	LocalSystem
Telephony	TapiSrv	Running	Manual
	Normal	LocalSystem	0
Terminal Services	TermService	Stopped	Disabled
	c:\winnt\system32\termsrv.exe	Normal	LocalSystem
Telnet	TlntSvr	Stopped	Manual
	Normal	LocalSystem	0
Distributed Link Tracking Server	TrkSvr	Stopped	Manual
	c:\winnt\system32\services.exe	Normal	LocalSystem
Distributed Link Tracking Client	TrkWks	Running	Auto
	c:\winnt\system32\services.exe	Normal	LocalSystem
TUXEDO IPC Helper	TUXEDO IPC Helper	Running	Auto
	c:\progra-1\beasys-1\tuxedo\bin\tuxipc.exe	Normal	LocalSystem
TListen (Port: 3050)	TUXEDO Listener on Port 3050	Stopped	Manual
	c:\progra-1\beasys-1\tuxedo\bin\listen.exe	Normal	LocalSystem
Uninterruptible Power Supply	UPS	Stopped	Manual
	c:\winnt\system32\ups.exe	Normal	LocalSystem
Utility Manager	UtilMan	Stopped	Manual
	c:\winnt\system32\utilman.exe	Normal	LocalSystem
Windows Time	W32Time	Stopped	Manual
	c:\winnt\system32\services.exe	Normal	LocalSystem
World Wide Web Publishing Service	W3SVC	Running	Auto
	c:\winnt\system32\inetnsrv\inetinfo.exe	Normal	LocalSystem
Windows Management Instrumentation	WinMgmt	Running	Auto
	c:\winnt\system32\wbem\winmgmt.exe	Ignore	LocalSystem
Windows Management Instrumentation Driver Extensions			Wmi
Process	c:\winnt\system32\services.exe	Normal	LocalSystem

[Program Groups]

Group Name	Name	User Name	Default User
Accessories	Default	User:Accessories	Default User
Accessories\Accessibility	Default	User:Accessories\Accessibility	Default User
Accessories\Entertainment	Default	User:Accessories\Entertainment	Default User
Accessories\System Tools	Default	User:Accessories\System Tools	Default User
Startup	Default	User:Startup	Default User
Accessories	All Users	User:Accessories	All Users
Accessories\Accessibility	All Users	User:Accessories\Accessibility	All Users
Accessories\Communications	All Users	User:Accessories\Communications	All Users
Accessories\Entertainment	All Users	User:Accessories\Entertainment	All Users
Accessories\Games	All Users	User:Accessories\Games	All Users

Accessories\Microsoft Script Debugger	All Users:Accessories\Microsoft Script Debugger	All Users
Accessories\System Tools	All Users:Accessories\System Tools	All Users
Administrative Tools	All Users:Administrative Tools	All Users
BEA TUXEDO System v6.5p	All Users:BEA TUXEDO System v6.5p	All Users
BEA TUXEDO v6.5 CTS	All Users:BEA TUXEDO v6.5 CTS	All Users
Startup	All Users:Startup	All Users
Accessories	ACL38\Administrator:Accessories	ACL38\Administrator
Accessories\Accessibility	ACL38\Administrator:Accessories\Accessibility	
ACL38\Administrator		
Accessories\Entertainment	ACL38\Administrator:Accessories\Entertainment	
ACL38\Administrator		
Accessories\System Tools	ACL38\Administrator:Accessories\System Tools	
ACL38\Administrator		
Startup	ACL38\Administrator:Startup	ACL38\Administrator

[Startup Programs]

Program	Command	User Name	Location
No startup program information			

[OLE Registration]

Object	Local Server
Sound (OLE2)	sndrec32.exe
Media Clip	mplay32.exe
Video Clip	mplay32.exe /avi
MIDI Sequence	mplay32.exe /mid
Sound	Not Available
Media Clip	Not Available
Image Document	"C:\Program Files\Windows NT\Accessories\ImageVue\KodakImg.exe"
WordPad Document	"%ProgramFiles%\Windows NT\Accessories\WORDPAD.EXE"
Windows Media Services DRM Storage object	Not Available
Bitmap Image	mspaint.exe

[Internet Explorer 5]

[Following are sub-categories of this main category]

[Summary]

Item	Value
Version	5.00.3315.1000
Build	53315.1000
Product ID	51876-335-5517307-05245
Application Path	C:\Program Files\Internet Explorer
Language	English (United States)
Active Printer	Not Available
Cipher Strength	168-bit
Content Advisor	Disabled
IEAK Install	No

[File Versions]

File	Version	Size	Date	Path	Company
advapi32.dll	5.0.2195.2867	352 KB	5/4/2001 12:05:02 PM		
C:\WINNT\system32	Microsoft Corporation				
advpack.dll	5.0.3103.1000	87 KB	5/4/2001 12:05:02 PM		
C:\WINNT\system32	Microsoft Corporation				
browsecl.dll	5.0.3315.2846	35 KB	5/4/2001 12:05:02 PM		
C:\WINNT\system32	Microsoft Corporation				
browseui.dll	5.0.3315.2846	789 KB	5/4/2001 12:05:02 PM		
C:\WINNT\system32	Microsoft Corporation				
ckcnv.exe	5.0.2189.1	9 KB	12/8/1999 5:00:00 AM		C:\WINNT\system32
Microsoft Corporation					
comctl32.dll	5.81.3103.1000	538 KB	5/4/2001 12:05:02 PM		
C:\WINNT\system32	Microsoft Corporation				
crypt32.dll	5.131.2195.2833	451 KB	5/4/2001 12:05:02 PM		
C:\WINNT\system32	Microsoft Corporation				
enhsig.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
Not Available					
iemigrat.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
Not Available					
iesetup.dll	5.0.3103.1000	57 KB	5/4/2001 12:05:02 PM		
C:\WINNT\system32	Microsoft Corporation				
ieexplore.exe	5.0.2920.0	59 KB	12/8/1999 5:00:00 AM		C:\Program
Files\Internet Explorer	Microsoft Corporation				
imagehlp.dll	5.0.2195.2778	126 KB	5/4/2001 12:05:02 PM		

C:\WINNT\system32	Microsoft Corporation				
imghelp.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
Not Available					
inseng.dll	5.0.3103.1000	72 KB	5/4/2001 12:05:02 PM		
C:\WINNT\system32	Microsoft Corporation				
jobexec.dll	5.0.0.1	47 KB	12/8/1999 5:00:00 AM		C:\WINNT\system32
Microsoft Corporation					
jscript.dll	5.1.0.5907	476 KB	5/4/2001 12:05:02 PM		
C:\WINNT\system32	Microsoft Corporation				
jsproxy.dll	5.0.2920.0	13 KB	12/8/1999 5:00:00 AM		
C:\WINNT\system32	Microsoft Corporation				
msaahtml.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
Not Available					
mshtml.dll	5.0.3315.2870	2290 KB	5/4/2001 12:05:02 PM		
C:\WINNT\system32	Microsoft Corporation				
msjava.dll	5.0.3802.0	923 KB	5/4/2001 12:05:02 PM		
C:\WINNT\system32	Microsoft Corporation				
msoss.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
Available					
msxml.dll	8.0.5718.1	493 KB	5/4/2001 12:05:02 PM		C:\WINNT\system32
Microsoft Corporation					
occache.dll	5.0.3103.1000	86 KB	5/4/2001 12:05:02 PM		
C:\WINNT\system32	Microsoft Corporation				
ole32.dll	5.0.2195.2887	970 KB	5/4/2001 12:05:02 PM		C:\WINNT\system32
Microsoft Corporation					
oleaut32.dll	2.40.4517.0	612 KB	5/4/2001 12:05:02 PM		
C:\WINNT\system32	Microsoft Corporation				
olepro32.dll	5.0.4517.0	160 KB	5/4/2001 12:05:02 PM		
C:\WINNT\system32	Microsoft Corporation				
rsabase.dll	5.0.2195.2228	128 KB	5/4/2001 12:05:02 PM		
C:\WINNT\system32	Microsoft Corporation				
rsaenh.dll	5.0.2195.2228	131 KB	5/4/2001 12:05:02 PM		
C:\WINNT\system32	Microsoft Corporation				
rsapi32.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
Not Available					
rsasig.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
Not Available					
schannel.dll	5.1.2195.0	138 KB	5/4/2001 12:05:02 PM		
C:\WINNT\system32	Microsoft Corporation				
shdoc401.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
Not Available					
shdocvw.dll	5.0.3315.2879	1078 KB	5/4/2001 12:05:02 PM		
C:\WINNT\system32	Microsoft Corporation				
shell32.dll	5.0.3315.2902	2304 KB	5/4/2001 12:05:02 PM		
C:\WINNT\system32	Microsoft Corporation				
shlwapi.dll	5.0.3315.1000	283 KB	5/4/2001 12:05:02 PM		
C:\WINNT\system32	Microsoft Corporation				
url.dll	5.0.2920.0	82 KB	12/8/1999 5:00:00 AM		C:\WINNT\system32
Microsoft Corporation					
urlmon.dll	5.0.3315.1000	441 KB	5/4/2001 12:05:02 PM		
C:\WINNT\system32	Microsoft Corporation				
vbscript.dll	5.1.0.5907	428 KB	5/4/2001 12:05:02 PM		
C:\WINNT\system32	Microsoft Corporation				
webcheck.dll	5.0.3315.1000	252 KB	5/4/2001 12:05:02 PM		
C:\WINNT\system32	Microsoft Corporation				
win.com	5.0.2134.1	24 KB	12/8/1999 5:00:00 AM		C:\WINNT\system32
Microsoft Corporation					
wininet.dll	5.0.3315.1000	457 KB	5/4/2001 12:05:02 PM		
C:\WINNT\system32	Microsoft Corporation				
winsock.dll	3.10.0.103	3 KB	12/8/1999 5:00:00 AM		
C:\WINNT\system32	Microsoft Corporation				
wintrust.dll	5.131.2195.2779	162 KB	5/4/2001 12:05:02 PM		
C:\WINNT\system32	Microsoft Corporation				
wsock.vxd	<File Missing>	Not Available	Not Available	Not Available	Not Available
Available					
wsock32.dll	5.0.2195.2871	21 KB	5/4/2001 12:05:02 PM		
C:\WINNT\system32	Microsoft Corporation				
wsock32n.dll	<File Missing>	Not Available	Not Available	Not Available	Not Available
Not Available					

[Connectivity]

Item	Value
Connection Preference	Never dial
EnableHttp1.1	1
ProxyHttp1.1	0
LAN Settings	


```
AutoConfigProxy      wininet.dll
AutoProxyDetectMode Enabled
AutoConfigURL
Proxy      Disabled
ProxyServer
ProxyOverride
```

```
[Cache]
```

```
[ Following are sub-categories of this main category ]
```

```
[Summary]
```

Item	Value
Page Refresh Type	Automatic
Temporary Internet Files Folder	C:\Documents and Settings\Administrator\Local
Settings\Temporary Internet Files	
Total Disk Space	34679 MB
Available Disk Space	31053 MB
Maximum Cache Size	1083 MB
Available Cache Size	1084 MB

```
[List of Objects]
```

Program File	Status	CodeBase
No cached object information available		

```
[Content]
```

```
[ Following are sub-categories of this main category ]
```

```
[Summary]
```

Item	Value
Content Advisor	Disabled

```
[Personal Certificates]
```

Issued To	Issued By	Validity	Signature Algorithm
Administrator	Administrator	6/25/2003 to 6/1/2103	sha1RSA

```
[Other People Certificates]
```

Issued To	Issued By	Validity	Signature Algorithm
No other people certificate information available			

```
[Publishers]
```

Name
No publisher information available

```
[Security]
```

Zone	Security Level
Local intranet	Medium-low
Trusted sites	Low
Internet Medium	
Restricted sites	High

Client Resistry infromation

<Inet Information Server Registry >

```
Windows Registry Editor Version 5.00
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\InetInfo]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\InetInfo\Parameters]
"ListenBackLog"=dword:000000fa
"DispatchEntries"=hex(7):4c,00,44,00,41,00,50,00,53,00,56,00,43,00,00,00,53,00,\
4d,00,54,00,50,00,53,00,56,00,43,00,00,00,00,00
"PoolThreadLimit"=dword:00000320
"ThreadTimeout"=dword:00015180
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\InetInfo\Performance]
"Library"="Infoctrs.dll"
```

```
"Open"="OpenINFOPerformanceData"
"Close"="CloseINFOPerformanceData"
"Collect"="CollectINFOPerformanceData"
"Last Counter"=dword:00000842
"Last Help"=dword:00000843
"First Counter"=dword:00000802
"First Help"=dword:00000803
"Library Validation Code"=hex:08,19,a2,cd,58,b6,c2,01,10,25,00,00,00,00,00,00
"WbemAdapFileTime"=hex:00,c3,bb,02,47,d4,c0,01
"WbemAdapFileSize"=dword:00002510
"WbemAdapStatus"=dword:00000000
```

<WWW Service Registry>

```
Windows Registry Editor Version 5.00
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC]
"Type"=dword:00000020
"Start"=dword:00000002
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):43,00,3a,00,5c,00,57,00,49,00,4e,00,4e,00,54,00,5c,00,53,00,\
79,00,73,00,74,00,65,00,6d,00,33,00,32,00,5c,00,69,00,6e,00,65,00,74,00,73,\
00,72,00,76,00,5c,00,69,00,6e,00,65,00,74,00,69,00,6e,00,66,00,6f,00,2e,00,\
65,00,78,00,65,00,00,00
"DisplayName"="World Wide Web Publishing Service"
"DependOnService"=hex(7):49,00,49,00,53,00,41,00,44,00,4d,00,49,00,4e,00,00,00,\
00,00
"DependOnGroup"=hex(7):00,00
"ObjectName"="LocalSystem"
"Description"="Provides Web connectivity and administration through the Internet Information
Services snap-in."
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\ASP]
"NOTE"="This is for backward compatibility only."
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\ASP\Parameters]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Parameters]
"MajorVersion"=dword:00000005
"MinorVersion"=dword:00000000
"InstallPath"="C:\\WINNT\\System32\\inetrv"
"CertMapList"="C:\\WINNT\\System32\\inetrv\\iisrmap.dll"
"AccessDeniedMessage"="Error: Access is Denied."
"Filter DLLs"=""
"LogFileDirectory"="C:\\WINNT\\System32\\LogFiles"
"AcceptExOutstanding"=dword:000003e8
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Parameters\ADCLaunch]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Parameters\ADCLaunch\AdvancedDataFa
ctory]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Parameters\ADCLaunch\RDSServer.Data
FactoFy]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Parameters\Script Map]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Parameters\Virtual Roots]
"/"="C:\\inetpub\\wwwroot,,205"
"/Scripts"="c:\\inetpub\\scripts,,204"
"/IISHelp"="c:\\winnt\\help\\iishelp,,201"
"/IISAdmin"="C:\\WINNT\\System32\\inetrv\\iisadmin,,201"
"/IISSamples"="c:\\inetpub\\iissamples,,201"
"/MSADC"="c:\\program files\\common files\\system\\msadc,,205"
"/_vti_bin"="C:\\Program Files\\Common Files\\Microsoft Shared\\Web Server
Extensions\\40\\isapi,,205"
"/Printers"="C:\\WINNT\\web\\printers,,201"
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Performance]
"Library"="w3ctrs.dll"
"Open"="OpenW3PerformanceData"
"Close"="CloseW3PerformanceData"
"Collect"="CollectW3PerformanceData"
"Last Counter"=dword:000008e6
"Last Help"=dword:000008e7
"First Counter"=dword:00000844
```

```
"First Help"=dword:00000845
"Library Validation Code"=hex:58,49,e1,d1,58,b6,c2,01,10,3d,00,00,00,00,00,00
"WbemAdapFileTime"=hex:00,c3,bb,02,47,d4,c0,01
"WbemAdapFileSize"=dword:00001d10
"WbemAdapStatus"=dword:00000000
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Security]
"Security"=hex:01,00,14,80,a0,00,00,00,ac,00,00,00,14,00,00,00,30,00,00,00,02,\
00,1c,00,01,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,00,01,00,00,\
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00,01,01,00,00,00,00,\
05,12,00,00,00,74,00,6f,00,00,00,1c,00,ff,01,0f,00,01,02,00,00,00,00,00,05,\
20,00,00,00,20,02,00,00,72,00,73,00,00,00,18,00,8d,01,02,00,01,01,00,00,00,\
00,00,05,0b,00,00,00,20,02,00,00,00,1c,00,fd,01,02,00,01,02,00,00,00,00,\
00,05,20,00,00,00,23,02,00,00,72,00,73,00,01,01,00,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,00,05,12,00,00,00
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Enum]
"0"="Root\LEGACY_W3SVC\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001
```

<Web Client APP>

Windows Registry Editor Version 5.00

```
[HKEY_LOCAL_MACHINE\SOFTWARE\ORACLE\tpcc]
"MaxConnections"="20000"
"MaximumWarehouses"="48000"
"NumberOfDeliveryThreads"="10"
```

Tuxedo Configuration

```
### TUXEDO UBBCONFIG FILE ###
# Copyright (c) 1994 Unix System Laboratories, Inc.
# All rights reserved
#
# THIS IS UNPUBLISHED PROPRIETARY
# SOURCE CODE OF Unix System Laboratories, Inc.
# The copyright notice above does not
# evidence any actual or intended
# publication of such source code.
#
#ident "@(#) apps/rpcsimp/ubbconfig $Revision: 1.1 $"
*RESOURCES
IPCKEY 200033
MAXACCESSERS 2000
#MAXGTT 2048
MAXSERVERS 100
MAXSERVICES 1200
MODEL SHM
MASTER ACL33
LDBAL Y
SCANUNIT 15
BLOCKTIME 60
BBLQUERY 60

*MACHINES
DEFAULT:
"ACL33"
LMID=ACL33
TUXDIR="C:\PROGRA~1\BEASYS~1\TUXEDO"
APPPDIR="C:\inetPub\wwwroot"
TUXCONFIG="c:\inetpub\wwwroot\tuxconfig"
```

```
ULOGPFX="C:\InetPub\wwwroot\ULOG"
TYPE="WinNT"
UID= 0
GID= 0
```

```
*GROUPS
GROUPGEN1
LMID=ACL33
GRPNO=1
OPENINFO=NONE
```

```
GROUPGEN2
LMID=ACL33
GRPNO=2
OPENINFO=NONE
```

```
GROUPGEN3
LMID=ACL33
GRPNO=3
OPENINFO=NONE
```

```
GROUPGEN4
LMID=ACL33
GRPNO=4
OPENINFO=NONE
```

```
*SERVERS
DEFAULT:
GENERIC SRVGRP=GROUPGEN1
SRVID=100
MIN=4 MAX=4
REPLYQ=Y
RQADDR=OPSTUXSERVER1
CLOPT="-s OPSTUXSERVER:OPSTUXSERVER"
```

```
GENERIC SRVGRP=GROUPGEN2
SRVID=200
MIN=4 MAX=4
REPLYQ=Y
RQADDR=OPSTUXSERVER2
CLOPT="-s OPSTUXSERVER:OPSTUXSERVER"
```

```
GENERIC SRVGRP=GROUPGEN3
SRVID=300
MIN=4 MAX=4
REPLYQ=Y
RQADDR=OPSTUXSERVER3
CLOPT="-s OPSTUXSERVER:OPSTUXSERVER"
```

```
GENERIC SRVGRP=GROUPGEN4
SRVID=400
MIN=4 MAX=4
REPLYQ=Y
RQADDR=OPSTUXSERVER4
CLOPT="-s OPSTUXSERVER:OPSTUXSERVER"
```

```
*SERVICES
#OPSTUXSERVER
```

```
### TUXEDO IPC RESOURCE REGISTRY ###
```

```
Windows Registry Editor Version 5.00
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems]
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO]
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5]
"Install_Date"="6-2-2003"
"Major_Version"=dword:00000006
"Minor_Version"=dword:00000005
"Volume_Number"=dword:00000001
"User_Name"="nec"
"Company_Name"="nec"
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5\Developer]
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5\Developer\Libraries]
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5\Developer\Libraries\All]
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5\Developer\Libraries\All\libfml.lib]
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5\Developer\Libraries\All\libfml32.lib]
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5\Developer\Libraries\All\libgpp.lib]
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5\Developer\Libraries\Client]
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5\Developer\Libraries\Client\libbuft.lib]
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5\Developer\Libraries\Client\libtux.lib]
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5\Developer\Libraries\Client\libtux2.lib]
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5\Developer\Libraries\Server]
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5\Developer\Libraries\Server\libbuft.lib]
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5\Developer\Libraries\Server\libtux.lib]
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5\Developer\Libraries\Server\libtux2.lib]
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5\Developer\Libraries\Workstation]
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5\Developer\Libraries\Workstation\libbuft.lib]
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5\Developer\Libraries\Workstation\libnwi.lib]
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5\Developer\Libraries\Workstation\libnws.lib]
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5\Developer\Libraries\Workstation\libwsc.lib]
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5\Environment]
```

```
"TUXDIR"="C:\\Program Files\\BEA Systems\\TUXEDO"
"NLSPATH"="C:\\Program Files\\BEA Systems\\TUXEDO\\locale\\C"
"ULOGDIR"="C:\\Program Files\\BEA Systems\\TUXEDO"
"ULOGPEX"="C:\\ULOG"
"ULOGOUT"=dword:00000002
"TUXIPC_MSG_BYTES"=dword:00010000
"TUXIPC_MSG_HDRS"=dword:00002000
"TUXIPC_MSG_QUEUES"=dword:00002ee0
"TUXIPC_MSG_QUEUE_BYTES"=dword:00010000
"TUXIPC_MSG_SEG_BYTES"=dword:00000400
"TUXIPC_MSG_SEGS"=dword:00007fff
"TUXIPC_PROC"=dword:00002328
"TUXIPC_SEM"=dword:00002328
"TUXIPC_SEM_IDS"=dword:00000fa0
"TUXIPC_SEM_UNDO"=dword:00000fa0
"TUXIPC_SHM_PROCS"=dword:002191c0
"TUXIPC_SHM_SEGS"=dword:00003a98
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5\Environment\Services]
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5\Environment\Services\3050]
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5\IPCResources]
"CurrentResource"="tpcc2000"
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5\IPCResources\tpcc]
"TUXIPC_MSG_BYTES"=dword:00010000
"TUXIPC_MSG_HDRS"=dword:00002000
"TUXIPC_MSG_QUEUES"=dword:00002ee0
"TUXIPC_MSG_QUEUE_BYTES"=dword:00010000
"TUXIPC_MSG_SEG_BYTES"=dword:00000400
"TUXIPC_MSG_SEGS"=dword:00007fff
"TUXIPC_PROC"=dword:00002ee0
"TUXIPC_SEM"=dword:00002ee0
"TUXIPC_SEM_IDS"=dword:00002ee0
"TUXIPC_SEM_UNDO"=dword:00002ee0
"TUXIPC_SHM_PROCS"=dword:005b8d80
"TUXIPC_SHM_SEGS"=dword:00002ee0
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5\IPCResources\tpcc2000]
```

```
"TUXIPC_MSG_BYTES"=dword:00010000
"TUXIPC_MSG_HDRS"=dword:00002000
"TUXIPC_MSG_QUEUES"=dword:00002ee0
"TUXIPC_MSG_QUEUE_BYTES"=dword:00010000
"TUXIPC_MSG_SEG_BYTES"=dword:00000400
"TUXIPC_MSG_SEGS"=dword:00007fff
"TUXIPC_PROC"=dword:00002328
"TUXIPC_SEM"=dword:00002328
"TUXIPC_SEM_IDS"=dword:00000fa0
"TUXIPC_SEM_UNDO"=dword:00000fa0
"TUXIPC_SHM_PROCS"=dword:002191c0
"TUXIPC_SHM_SEGS"=dword:00003a98
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5\IPCResources\tpcc4000]
```

```
"TUXIPC_MSG_BYTES"=dword:00010000
"TUXIPC_MSG_HDRS"=dword:00002000
"TUXIPC_MSG_QUEUES"=dword:00002ee0
"TUXIPC_MSG_QUEUE_BYTES"=dword:00010000
"TUXIPC_MSG_SEG_BYTES"=dword:00000400
"TUXIPC_MSG_SEGS"=dword:00007fff
"TUXIPC_PROC"=dword:00002328
"TUXIPC_SEM"=dword:00002328
"TUXIPC_SEM_IDS"=dword:00001388
"TUXIPC_SEM_UNDO"=dword:00001388
"TUXIPC_SHM_PROCS"=dword:002dc6c0
"TUXIPC_SHM_SEGS"=dword:00003a98
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\BEA Systems\TUXEDO\6.5\SECURITY]
```

Appendix D : Space Calculation

60 Day Space

TPM	521440.53
Warehouses	43710

SEGMENT	TYPE	BLOCK_SIZE	BLOCKS	FIVE_PCT	DAILY_GROW	BLOCKS (MB)	FIVE_PCT (MB)	DAILY_GROW (MB)
CUSTCLUSTER	CLUSTER	2048	509644800	25482240	0	995,400	49,770	0
DB_STAT	SYS	2048	256000	0	0	500	0	0
DISTCLUSTER	CLUSTER	2048	482546	24127	0	942	47	0
HIST	TABLE	2048	46382528	0	8061910	90,591	0	15,746
ICUST1	INDEX	2048	17665440	883272	0	34,503	1,725	0
ICUST2	INDEX	2048	39209940	1960497	0	76,582	3,829	0
IDIST	INDEX	2048	5112	256	0	10	1	0
IITEM	INDEX	2048	935	47	0	2	0	0
IORDR2	INDEX	2048	28827050	1441353	0	56,303	2,815	0
ISTOK	INDEX	2048	53062800	2653140	0	103,638	5,182	0
ITEMCLUSTER	CLUSTER	2048	7008	350	0	14	1	0
IWARE	INDEX	2048	435	22	0	1	0	0
NORDCLUSTER_QUEUE	CLUSTER	2048	5395300	269765	0	10,538	527	0
ORDRCLUSTER_QUEUE	CLUSTER	16384	77882112	0	13536963	1,216,908	0	211,515
ROLL_SEG	SYS	8192	1036288	0	0	8,096	0	0
STOKCLUSTER	CLUSTER	2048	961126400	48056320	0	1,877,200	93,860	0
SYSAUX	SYS	2048	61440	0	0	120	0	0
SYSTEM	SYS	2048	256000	0	0	500	0	0
WARECLUSTER	CLUSTER	2048	49104	2455	0	96	5	0
Total						4471943.137	157761.4141	227260.9648

Dynamic space (MB)	1307498.88	Initial MB for (Hist+Ordrccluster)
Static space (MB)	3322205.68	
Free space (MB)	227260.96	
Daily growth (MB)	227260.96	
Daily spread (MB)	0.00	Oracle may be configured such that daily spread is 0
60-day space (MB)	16957863.57	
60-day space (GB)	16560.41	
Log used (KB)	449033035.05	
Log used/N_O txn. (KB)	4.77	Log used per New-Order transactions
8-hour log (GB)	1139.43	

os,file,swap	72
--------------	----

	Disk size(GB)	Priced Qty	Priced(GB)	Needed(GB)	Extra(GB)
Database, sys	33.259	1035	34423.07	16560.41	17862.65
	68.05	1	68.05		
Mirrored log	33.258	70	2328.06	2278.86	49.20

Appendix E : Price Quotation



THE ECOMMERCE TRANSACTION PLATFORM

August 21, 2003

Mr. Hirohito Iseki
Middle Software Division
NEC Corporation
4-14-22, Shibaura, Minato-ku
Tokyo, 108-8558, Japan

Per your request I am enclosing the pricing information regarding TUXEDO 6.5 that you requested. This pricing applies to Tuxedo 6.4, 6.5, 7.1.8.0 and 8.1. Please note that Tuxedo 8.1 is our most recent version of Tuxedo. Core functionality services (CFS)-R pricing is appropriate for your activities. NEC systems are classified as either a Tier 1, 2, 3, 4 or 5 systems depending on the performance and CPU capacity of the system. The NEC Express 5800/120rf-2 are Tier 1 machines – price is \$1,200 per server (License), eligible for a 5% discount = \$1,140 per server + \$252 per server (7x24) for support – support is non discountable. This quote is valid for 60 days from the date of this letter.

Tuxedo Core Functionality Services (CFS-R) Program Product Pricing and Description

TUX-CFS-R provides a basic level of middleware support for distributed computing, and is best used by organizations with substantial resources and knowledge for advanced distributed computing implementations.

TUX-CFS-R prices are server only and are based on the overall performance characteristics of the server and uses the same five tier computer classification as TUXEDO 6.4, 6.5, 7.1.8.0, and 8.1. Prices range from \$1,200 for Tier 1 to \$100,000 for Tier 5. Under this pricing option EVERY system running TUX-CFS-R at the user site must have a TUXEDO license installed and pay the appropriate per server license fees.

Very Truly Yours,

Rob Gieringer,
Worldwide Pricing Manager

08/21/2003

BEA SYSTEMS, INC.

BEA Tux/CFS-R Unlimited User License Fees Per Server

Unlimited User License fees per server	Number of Users	Dollar Amount	Maintenance (5 x 9) per year	Maintenance (7 x 24) per year
Tier 1 -- PC Servers with 1 or 2 CPUs, entry level RISC Uni-processor workstations and servers	Unlimited	\$1,200.00	\$216	\$252
Tier 2 - PC Servers with 3 or 4 CPUs, Midrange RISC Uni-processor servers and workstations with up to 2 CPUs	Unlimited	\$4,800.00	\$864	\$1,008
Tier 3 - Midrange Multiprocessors, up to 8 CPUs per system capacity	Unlimited	\$12,000.00	\$2,160	\$2,520
Tier 4 - Large (more than 8, less than 32 CPUs)	Unlimited	\$40,000.00	\$7,200	\$8,400
Tier 5 - Massively Parallel Systems, > 32 processors	Unlimited	\$100,000.00	\$18,000	\$21,000

September 3, 2003

NEC Corporation
Hirohito Iseki
4-14-22, Shibaura
Minato-ku
Tokyo, 1088558

Iseki-san:

Here is the information you requested regarding pricing for several Microsoft products to be used in conjunction with your TPC-C benchmark testing.

All pricing shown is in US Dollars (\$).

Part Number	Description	Unit Price	Quantity	Price
C11-00821	Windows 2000 Server <i>Server license only - No CALs</i> <i>Discount Schedule: Open Program - No Level</i> <i>Unit Price reflects a 8% discount from the</i> <i>retail unit price of \$799.</i>	\$738	47	\$34,686
254-00170	Visual C++ Standard <i>No discounts applied</i>	\$109	1	\$109
PRO-PRORS-16U-01	Database Server Support Package <i>1 Year Term</i>	\$1,950	3	\$5,850

All products are currently orderable through Microsoft's normal distribution channels.

This quote is valid for the next 90 days.

If we can be of any further assistance, please contact Jamie Reding at
(425) 703-0510 or jamiere@microsoft.com.

Reference ID: PChiis0303098487

Please include this Reference ID in any correspondence regarding this price quote.

From: MaryBeth Pierantoni <mary.beth.pierantoni@oracle.com>
To: h-iseki@ak.jp.nec.com
Subject: Oracle Pricing for NEC/Oracle TPC-C 32p benchmark
Date: Thu, 04 Sep 2003 17:55:11 -0700

September 4, 2003

Product	Price	Quantity	Extended Price
Oracle Database 10g Enterprise Edition for 3 years, Unlimited Users	\$20,000	32	\$640,000
Oracle Database Server Support Package for 3 years	\$6,000	1	\$6,000
Oracle Mandatory E-Business Discount			<\$129,200>
Oracle Total			\$516,800

Oracle Pricing Contact: MaryBeth Pierantoni, mary.beth.pierantoni@oracle.com, 650-506-2118

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3	Hitachi 73.9GB Ultrastar DK32E1 Series Hard Disk Drive	489474	1-2 Weeks	\$649.24	\$1,947.72
3	Intel PRO/100+ Adapter 20 pack	263768	4-6 Days	\$549.15	\$1,647.45
4	Intel PRO/1000 XT Server Adapter	324653	Same Day	\$138.21	\$552.84
4	Linksys Gigabit 8-Port Workgroup Switch	481324	Same Day	\$178.16	\$712.64
48	NEC AccuSync 50	192126	Same Day	\$129.22	\$6,202.56
21	QLogic SANblade 2340 2Gb 133MHz PCI-X Single Channel HBA	408081	4-6 Days	\$1,256.02	\$26,376.42
62	Tripp Lite CAT5e RJ-45M to RJ-45M molded 25' patch cable	324516	1-2 Weeks	\$7.32	\$453.84
104	Tripp Lite CAT5e RJ-45M to RJ45M Cross-Over 10' cable gray	324527	4-6 Days	\$6.39	\$664.56
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2003/08/28