



Hewlett-Packard Company

TPC Benchmark™ C
Full Disclosure Report
for
ProLiant ML350T03 X2.8/533 512 SA641
using
IBM DB2 UDB Express Edition v8.1
and
Microsoft Windows Server 2003, Standard Edition

First Edition
April 2004

First Edition – April 2004

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Table of Contents

TABLE OF CONTENTS	III
PREFACE	V
TPC BENCHMARK C OVERVIEW	V
ABSTRACT	VI
OVERVIEW.....	VI
TPC BENCHMARK C METRICS	VI
STANDARD AND EXECUTIVE SUMMARY STATEMENTS	VI
AUDITOR	VI
GENERAL ITEMS.....	7
TEST SPONSOR.....	7
APPLICATION CODE AND DEFINITION STATEMENTS	7
PARAMETER SETTINGS	7
CONFIGURATION ITEMS	7
CLAUSE 1 RELATED ITEMS.....	9
TABLE DEFINITIONS	9
PHYSICAL ORGANIZATION OF DATABASE	9
<i>Benchmarked Configuration:</i>	9
PRICED CONFIGURATION VS. MEASURED CONFIGURATION:	10
INSERT AND DELETE OPERATIONS.....	10
PARTITIONING	10
REPLICATION, DUPLICATION OR ADDITIONS	10
CLAUSE 2 RELATED ITEMS.....	11
RANDOM NUMBER GENERATION.....	11
INPUT/OUTPUT SCREEN LAYOUT.....	11
PRICED TERMINAL FEATURE VERIFICATION.....	11
PRESENTATION MANAGER OR INTELLIGENT TERMINAL.....	11
TRANSACTION STATISTICS	11
QUEUEING MECHANISM	12
CLAUSE 3 RELATED ITEMS.....	13
TRANSACTION SYSTEM PROPERTIES (ACID)	13
ATOMICITY.....	13
<i>Completed Transactions</i>	13
<i>Aborted Transactions</i>	13
CONSISTENCY.....	13
ISOLATION.....	13
DURABILITY	14
<i>Loss of Data and Log</i>	14
<i>Instantaneous Interruption and Loss of Memory :</i>	14
CLAUSE 4 RELATED ITEMS.....	16
INITIAL CARDINALITY OF TABLES	16
DATABASE LAYOUT	16
TYPE OF DATABASE.....	17
DATABASE MAPPING.....	17
60 DAY SPACE.....	17
CLAUSE 5 RELATED ITEMS.....	18

THROUGHPUT	18
KEYING AND THINK TIMES.....	18
RESPONSE TIME FREQUENCY DISTRIBUTION CURVES AND OTHER GRAPHS	19
STEADY STATE DETERMINATION	24
WORK PERFORMED DURING STEADY STATE.....	24
MEASUREMENT PERIOD DURATION.....	24
REGULATION OF TRANSACTION MIX.....	25
TRANSACTION STATISTICS	25
CHECKPOINT COUNT AND LOCATION	26
CLAUSE 6 RELATED ITEMS	27
RTE DESCRIPTIONS.....	27
EMULATED COMPONENTS	27
FUNCTIONAL DIAGRAMS	27
NETWORKS	27
OPERATOR INTERVENTION	27
CLAUSE 7 RELATED ITEMS	28
SYSTEM PRICING	28
AVAILABILITY, THROUGHPUT, AND PRICE PERFORMANCE	28
COUNTRY SPECIFIC PRICING.....	28
USAGE PRICING	28
CLAUSE 9 RELATED ITEMS	29
AUDITOR'S REPORT.....	29
AVAILABILITY OF THE FULL DISCLOSURE REPORT.....	29

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 5.2, released December 2003.

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.

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

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

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

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

Abstract

Overview

This report documents the methodology and results of the TPC Benchmark C test conducted on the HP ProLiant ML350T03. The operating system used for the benchmark was Microsoft Windows Server 2003, Standard Edition. The DBMS used was IBM DB2 UDB Express Edition v8.1.

TPC Benchmark C Metrics

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

18,318.24 tpmC
\$1.68 per tpmC

The availability date is April 14, 2004.

Standard and Executive Summary Statements

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

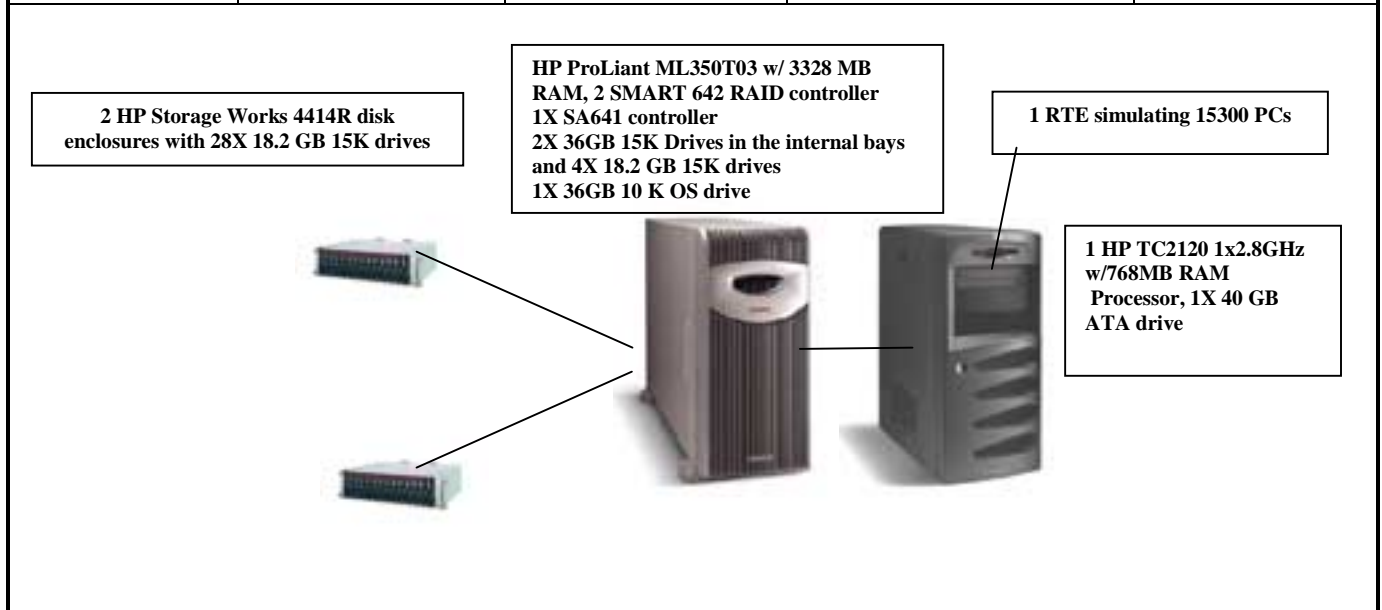
Auditor

The benchmark configuration, environment and methodology were audited by Tom Sawyer of Performance Metrics, Inc. to verify compliance with the relevant TPC specifications.

Hewlett Packard	ProLiant ML350T03 X2.8/533 512 SA641	TPC-C Rev. 5.2
Company	C/S with HP TC2120	Report Date: April 14, 2004

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
\$30,600	18,318.24	\$1.68	April 14, 2004

Processors	Database Manager	Operating System	Other Software	Number of Users
1 Intel Xeon 2.8 GHz – 512 K L3 cache – Server 1 Intel Xeon 2.8 GHz – Clients	IBM DB2 UDB Express Edition v8.1	Microsoft Windows Server 2003, Standard Edition	Microsoft Visual C++ Microsoft COM+	15300



	Server		Each Client	
System Components	Quantity	Description	Quantity	Description
Processor	1	2.8GHz Intel Xeon w/ 512 K Cache	1	2.8 GHz Intel Xeon w/ 512K cache
Memory	3	1GB DDR	1	256 MB DDR
	1	256MB DDR	1	512MB DDR
Disk Controllers	1	SA 641 Controller	1	IDE
	2	SMART 642 Array Controller		
	1	Internal SCSI Controller		
Disk Drives	3 32	36.4 GB SCSI Drives 18.2 GB SCSI Drives	1	40 GB ATA
Total Storage		691.6 GB		40GB
Backup Storage	1	DVD+R/DVD+RW		

Hewlett-Packard Company		ProLiant ML350T03 X2.8/533 512 SA641			TPC-C Rev. 5.2 Report Date: 14-Apr-04		
Description	Part Number	Third Party	Unit Price	Qty	Extended Price	3 yr. Maint. Price	
Server Hardware							
		Brand Pricing					
ML350T03 X2.80/533 512 SA641 US	311525-001		1,949	1	1,949		
1GB PC2100 DDR SDRAM DIMM WW	287497-B21		499	3	1,497		
256MB ECC PC2100 DDR SDRAM DIMM WW	287495-B21		149	1	149		
S5500 15" monitor	P9006A#ABA		119	1	119		
HP StorageWorks Modular Smart Array 30 Enclosure	302969-B21		2,978	2	5,956		
SmartArray642 U320 Intrl.RAID Ctrl. WW	291967-B21		649	2	1,298		
HP DVD writer dvd420i	Q2133A#ABA		180	1	180		
Pro UPS 500 127V US	136386-001		146	1	146		
18.2GB 15Krpm U320 UNI HDD	286775-B22		269	32	8,608		
18.2GB 15Krpm U320 UNI HDD (10% spares)	286775-B22		269	3		807	
36GB 15K U320 Pluggable Hard Drive WW	286776-B22		429	2	858		
36GB 10K Ultra320 NHP Hard Drive WW	271832-B21		259	1	259		
CarePaq Support Plus 24 HW & OS - 300 Series Servers 3Yr,7x24,4hr	239930-002		2,355	1		2,355	
FM-4E724-36 3YR 24X7/4HR EMPTY DISK ENCL	171242-002		157	2		314	
Subtotal					21,019	3,476	
Server Software							
Visual C++ .Net Standard	254-00170	Microsoft	109	2	109	Incl above	
Windows Server 2003, Standard Edition	P72-00264	Microsoft	738	2	738	Incl above	
IBM DB2 UDB Express Edition v8.1 (includes first year support)	D535PLL	IBM	4,874	3	4,874		
IBM DB2 UDB Exp. Ed. Maintenance renewal (annual)	E013SLL	IBM	975	3		1,950	
Subtotal					5,721	1,950	
Client Hardware							
tc2120 P2.8GHz 512KB 256MB 40GB ATA TWR US	335876-001		729	1	729		
NC1020 PCI Gigabit NIC 10/100/1000 WOL (Wake on LAN)	353377-B21		99	1	99		
Mini Desktop KVM Switch PS/2	3891817	AirLink	29	5	29		
HP CP 3Y 4H 24x7 HW TC2120 4-Hour 24 Hour x 7 Day Coverage 3 Years	321653-002		448	1		448	
Subtotal					857	448	
Client Software							
Microsoft Windows 2000 Server	C11-00821	Microsoft	738	2	738	Incl. Above	
Subtotal					738	0	
User Connectivity							
7ft CAT 5e Network Patch Cables	CBLC5C7	LanAdapters		4	3		
Subtotal					3	0	
Large Purchase and Net 30 discount (See Note 1)	14.0%			1			
Total					\$25,275	\$5,325	
Prices used in TPC benchmarks reflect the actual prices a customer would pay for a one-time purchase of the stated components. Individually negotiated discounts are not permitted. Special prices based on assumptions about past or future purchases are not permitted. All discounts reflect standard pricing policies for the listed components. For complete details, see the pricing sections of the TPC benchmark pricing specifications. If you find that the stated prices are not available according to these terms, please inform the TPC at pricing@tpc.org . Thank you.					Three-Year Cost of Ownership: \$30,600		
					tpmC Rating: 18,318.24		
					\$ / tpmC: \$1.68		
Pricing: 1=HP 2=Microsoft 3=IBM 4=LanAdapters.com 5=Outpost.com							
Note 1 = Discount based on HP Direct guidance with large purchase and Net 30 discount.							
Note:The benchmark results and test methodology were audited by Tom Sawyer of Performance Metrics, Inc.							

Numerical Quantities Summary

MQTH, Computed Maximum Qualified Throughput

18,318.24 tpmC

Response Times (in seconds)	Average	90%	Maximum
New-Order	0.99	1.64	8.51
Payment	0.72	1.31	9.18
Order-Status	0.95	1.59	7.23
Delivery (interactive portion)	0.11	0.11	1.95
Delivery (deferred portion)	1.58	2.32	4.39
Stock-Level	3.92	5.48	10.93
Menu	0.11	0.11	1.96

Transaction Mix, in percent of total transaction

New-Order	44.92%
Payment	43.02%
Order-Status	4.02%
Delivery	4.02%
Stock-Level	4.02%

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

Keying/Think Times (in seconds)	Min.	Average	Max.
New-Order	18.01/0.00	18.01/13.01	18.12/129.78
Payment	3.01/0.00	3.02/12.02	3.14/119.79
Order-Status	2.01/0.00	2.02/10.02	2.10/99.13
Delivery (interactive)	2.01/0.00	2.02/5.02	2.14/50.00
Stock-Level	2.01/0.00	2.02/5.02	2.14/49.87

Test Duration

Ramp-up time	104 minutes
Measurement interval	120 minutes
Transactions (all types) completed during measurement interval	2,198,189
Ramp down time	71 minutes

Checkpointing

Number of checkpoints	N/A
Checkpoint interval	N/A

General Items

Test Sponsor

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

This benchmark was sponsored by Hewlett-Packard Company. The benchmark was developed and engineered by Hewlett-Packard Company. Testing took place at HP benchmarking laboratories in Houston, Texas.

Application Code and Definition Statements

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

Appendix A contains all source code implemented in this benchmark.

Parameter Settings

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

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

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

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

Configuration Items

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

The configuration diagrams for both the tested and priced systems are included on the following pages.

Figure 1.1 Priced Configuration

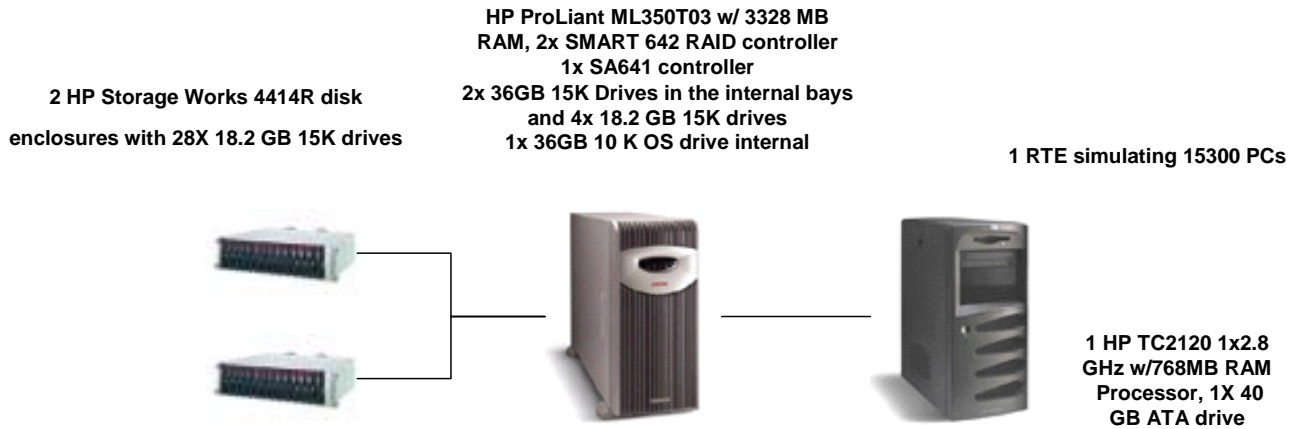
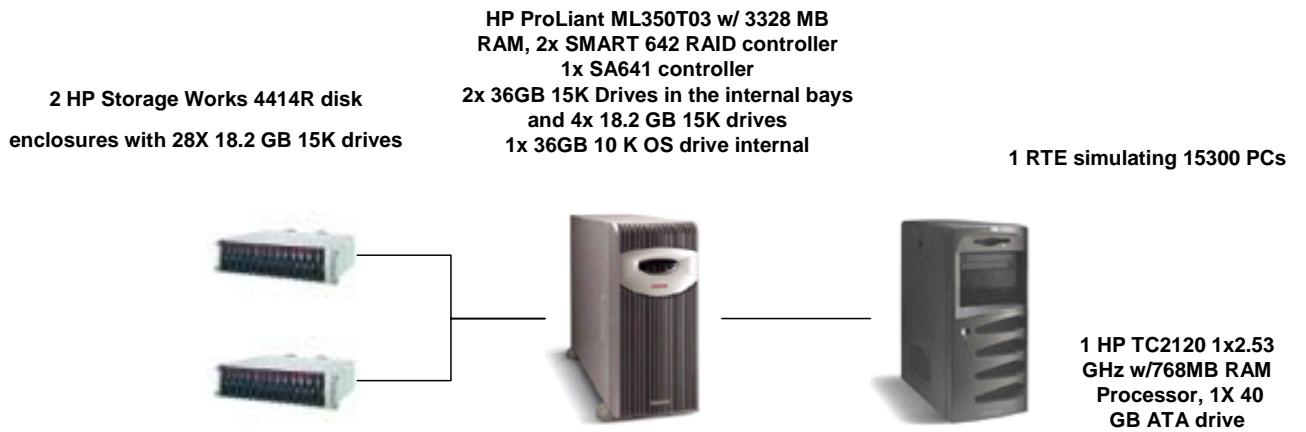


Figure 1.2 Benchmarked Configuration



Clause 1 Related Items

Table Definitions

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

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

Physical Organization of Database

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

The tested configuration consisted of: (28) 18.2 GB 15K drives for the database data connected to 2 SA642 RAID controllers and 1 SA641 controller with (2) 36.4 GB 15K drives and (4) 18.2 GB 15K drives for the transaction log and more database data. (1) 36.4 GB 15K drive connected to the embedded SCSI controller served as the operating system drive.

Benchmarked Configuration:

Integrated SCSI Controller

LOGICAL DRIVE C: Total Capacity = 34726 MB Standard SCSI partition
Microsoft Windows Server 2003 Standard Edition,

SA-641 Controller, Slot 1, Array A

LOGICAL DRIVE E: Total Capacity = 34726 MB RAID 0+1
Database Log

SA-641 Controller, Slot 1, Array B

LOGICAL DRIVE c:\part\orl Total Capacity = 57992 MB RAID 0
Ts_orderline_01

LOGICAL DRIVE c:\part\hist Total Capacity = 4291 MB RAID 0
Ts_history_01

LOGICAL DRIVE c:\part\ordi Total Capacity = 1992 MB RAID 0
Is_order_01

LOGICAL DRIVE c:\part\nori Total Capacity = 568 MB RAID 0
Is_neword_01

LOGICAL DRIVE c:\part\nor Total Capacity = 497 MB RAID 0
Ts_neword_01

LOGICAL DRIVE c:\part\item Total Capacity = 27 MB RAID 0
Ts_item_01

LOGICAL DRIVE c:\part\dist Total Capacity = 19 MB RAID 0
Ts_dist_01

LOGICAL DRIVE c:\part\ware Total Capacity = 19 MB RAID 0
Ts_ware_01

SA-642 Controller, Slot 2, Array A

LOGICAL DRIVE c:\part\stk1 Total Capacity = 26796 MB RAID 0
Ts_stock_01

LOGICAL DRIVE c:\part\cst1 Total Capacity = 19493 MB RAID 0
Ts_customer_01

LOGICAL DRIVE c:\part\esti Total Capacity = 2494 MB RAID 0
Is_customer_01

LOGICAL DRIVE c:\part\ord Total Capacity = 2290 MB RAID 0
Ts_order_01

<u>LOGICAL DRIVE T:</u> Backup	<u>Total Capacity = 178237 MB</u>	<u>RAID 5</u>
SA-642 Controller, Slot 3, Array A		
<u>LOGICAL DRIVE c:\part\stk1</u> Ts_stock_01	<u>Total Capacity = 26796 MB</u>	<u>RAID 0</u>
<u>LOGICAL DRIVE c:\part\cst1</u> Ts_customer_01	<u>Total Capacity = 19493 MB</u>	<u>RAID 0</u>
<u>LOGICAL DRIVE Z:</u> Backup	<u>Total Capacity = 182692 MB</u>	<u>RAID 5</u>

Priced Configuration vs. Measured Configuration:

The measured and priced configuration differ in that the measured configuration used disk drives for the database backup and the priced configuration used a DVD drive for backup. The measured system used a client with a 2.53GHz processor. This configuration became obsolete during the measurement period. The priced system substituted a 2.8GHz processor;

Insert and Delete Operations

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

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

Partitioning

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

No partitioning was used in this benchmark.

Replication, Duplication or Additions

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

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

Clause 2 Related Items

Random Number Generation

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

The srand(), getpid() and gettimeofday() functions are used to produce unique random seeds for each driver. The drivers use these seeds to seed the srand(), srand() and srand48() functions. Random numbers are produced using wrappers around the standard system random number generators. The negative exponential distribution uses the following function to generate the distribution. This function has the property of producing a negative exponential curve with a specified average and a maximum value 4 times the average.

```
const double RANDOM_4_Z = 0.89837799236185
const double RANDOM_4_K = 0.97249842407114
double neg_exp_4(double average {
    return - average * (1/RANDOM_4_Z * log (1 - RANDOM_4_K * drand48()));
}
```

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

Input/Output Screen Layout

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

All screen layouts followed the specifications exactly.

Priced Terminal Feature Verification

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

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

Presentation Manager or Intelligent Terminal

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

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

Transaction Statistics

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

Table 2.1 Transaction Statistics

Statistic		Value
New Order	Home warehouse order lines	99.00%
	Remote warehouse order lines	1.00%
	Rolled back transactions	1.00%

Statistic		Value
	Average items per order	10.00
Payment	Home warehouse payments	85.00%
	Remote warehouse payments	15.00%
	Accessed by last name	60.02%
Order Status	Accessed by last name	60.06%
Transaction Mix	New Order	44.92%
	Payment	43.02%
	Order status	4.02%
	Delivery	4.02%
	Stock level	4.02%

Queuing Mechanism

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

Microsoft COM+ on each client machine served as the queuing mechanism to the database. Each delivery request was submitted to Microsoft COM+ asynchronously with control being returned to the client process immediately and the deferred delivery part completing asynchronously.

The source code is listed in Appendix A.

Clause 3 Related Items

Transaction System Properties (ACID)

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

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

Atomicity

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

Completed Transactions

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

Aborted Transactions

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

Consistency

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

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

A run was executed under full load lasting over two hours.

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

Isolation

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

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

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

For Isolation test seven, case A was followed.

Durability

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

Loss of Data and Log

To demonstrate recovery from a permanent failure of durable medium containing DBMS logs and TPC-C tables, this test was executed on a fully scaled database of 1530 warehouses running at 10% of the reported tpmC rate with 15300 users. The following steps were executed:

- The total number of New Orders was determined by the sum of D_NEXT_O_ID of all rows in the DISTRICT table giving the beginning count.
- The RTE was started with 15300 users.
- The test was allowed to run for a minimum of 5 minutes.
- One log disk was removed from the drive cabinet.
- Since the disk was mirrored, processing was not interrupted. This was verified by checking the users status on the RTE.
- One of the data disks was removed from the drive cabinet.
- When IBM DB2 UDB Express Edition recorded errors about not being able to access the database, the RTE was shut down.
- A new log disk was inserted into the log drive cabinet. A new data disk was inserted into the data drive cabinet. After the RAID recovery process finished, the system was rebooted and IBM DB2 UDB Express Edition was started.
- The database was restored from backup and the transaction log was rolled forward.
- Consistency condition #3 was executed and verified.
- Step 2 was repeated and the difference between the first and second counts was noted.
- An RTE report was generated for the entire run time giving the number of NEW-ORDERS successfully returned to the RTE.
- The counts in step 13 and 14 were compared and the results verified that all committed transactions had been successfully recovered.
- Samples were taken from the RTE files and used to query the database to demonstrate successful transactions had corresponding rows in the ORDER table.

Instantaneous Interruption and Loss of Memory :

Because loss of power erases the contents of memory, the instantaneous interruption and the loss of memory tests were combined into a single test. This test was executed on a fully scaled database of 1530 warehouses under a full load of 15300 users. The following steps were executed:

- The full database was started.
- The total number of New Orders was determined by the sum of D_NEXT_O_ID of all rows in the DISTRICT table giving the beginning count.
- The RTE was started with 15300 users.
- The test was allowed to run for a minimum of 5 minutes.
- The system crash and loss of memory were induced by physically removing the power cord from the SUT. No battery backup or Uninterruptible Power Supply (UPS) were used to preserve the contents of memory.
- The RTE was shutdown.
- Power was restored and the system restarted.
- IBM DB2 UDB Express Edition v8.1 was restarted and performed an automatic recovery.
- Consistency condition #3 was executed and verified.
- Step 2 was repeated and the difference between the first and second counts was noted.
- An RTE report was generated for the entire run time giving the number of NEW-ORDERS successfully returned to the RTE.
- The counts in step 10 and 11 were compared and the results verified that all committed transactions had been successfully recovered.

- Samples were taken from the RTE files and used to query the database to demonstrate successful transactions had corresponding rows in the ORDER table.

Clause 4 Related Items

Initial Cardinality of Tables

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

Table 4.1 Number of Rows for Server

Table	Cardinality as built
Warehouse	1,530
District	15,300
Customer	45,900,000
History	45,900,000
Orders	45,900,000
New Order	13,770,000
Order Line	459,004,838
Stock	153,000,000
Item	100,000
Deleted Warehouses	0

Database Layout

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

The benchmarked configuration used 2 SA642 Array controllers with 2 SCSI channels and 1 SA641 controller. The SA642 controller is capable of accessing up to 14 disk drives per channel, and supports RAID 0, RAID 0+1, and RAID 5 per each logical volume configured.

Each SA642 controller had one array consisting of (14) 18.2GB 15k drives, with RAID 0 logical drives for storing data tables. The SA641 controller had two arrays. One array, containing RAID 0 volumes, consisting of (4) 18.2GB 15K drives for database data, and one array consisting of (2) 36.4 GB 15K drives with a RAID 0+1 logical volume for the database log. The Array Accelerators were not installed in the SA642 controllers. All RAID volumes used hardware RAID. The SA641 controller had cache on only for the RAID 0 volumes.

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

Type of Database

A statement must be provided that describes:

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

The database manager used for this testing was DB2 UDB 8.1. DB2 UDB is a relational DBMS. DB2 remote stored procedures and embedded SQL statements were used. The DB2 stored procedures were invoked via SQL CALL statements. Both the client application and stored procedures were written in embedded C code.

Database Mapping

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

The database was not replicated.

60 Day Space

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

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

- During steady state DB2 monitoring counters were reset
- 30 minutes later “Log pages written” DB2 counter was recorded
- The space used was divided by the number of NEW-ORDERS giving a space used per NEW-ORDER transaction.
- The space used per transaction was multiplied by the measured tpmC rate times 480 minutes.

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

Clause 5 Related Items

Throughput

Measured tpmC must be reported

Measured tpmC 18,318.24 tpmC
Price per tpmC \$1.68 per tpmC

Response Times

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

Table 5.2: Response Times

Type	Average	90 th %	Maximum
New-Order	0.99	1.64	8.51
Payment	0.72	1.31	9.18
Order-Status	0.95	1.59	7.23
Interactive Delivery	0.11	0.11	1.95
Deferred Delivery	1.58	2.32	4.39
Stock-Level	3.92	5.48	10.93
Menu	0.11	0.11	1.96

Keying and Think Times

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

Table 5.3: Keying Times

Type	Minimum	Average	Maximum
New-Order	18.01	18.01	18.12
Payment	3.01	3.02	3.14
Order-Status	2.01	2.02	2.10
Interactive Delivery	2.01	2.02	2.14
Stock-Level	2.01	2.02	2.14

Table 5.4: Think Times

Type	Minimum	Average	Maximum
New-Order	0.00	13.01	129.78
Payment	0.00	12.02	119.79
Order-Status	0.00	10.02	99.13
Interactive Delivery	0.00	5.02	50.00
Stock-Level	0.00	5.02	49.87

Response Time Frequency Distribution Curves and Other Graphs

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

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

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

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

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

Figure 3. New Order Response Time Distribution

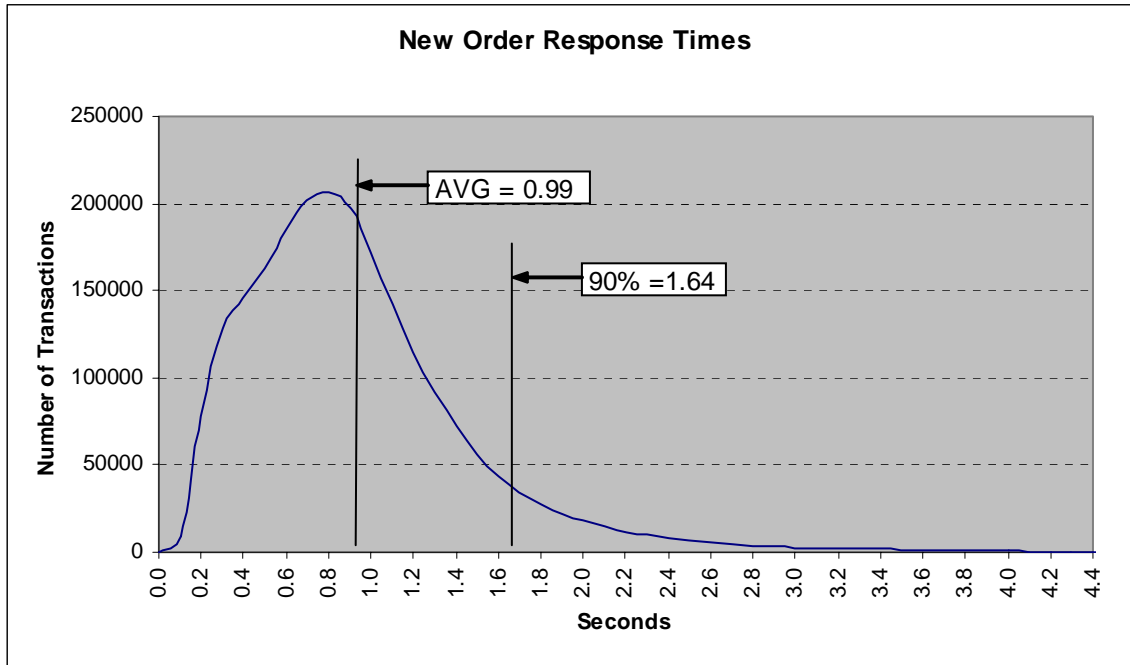


Figure 4. Payment Response Time Distribution

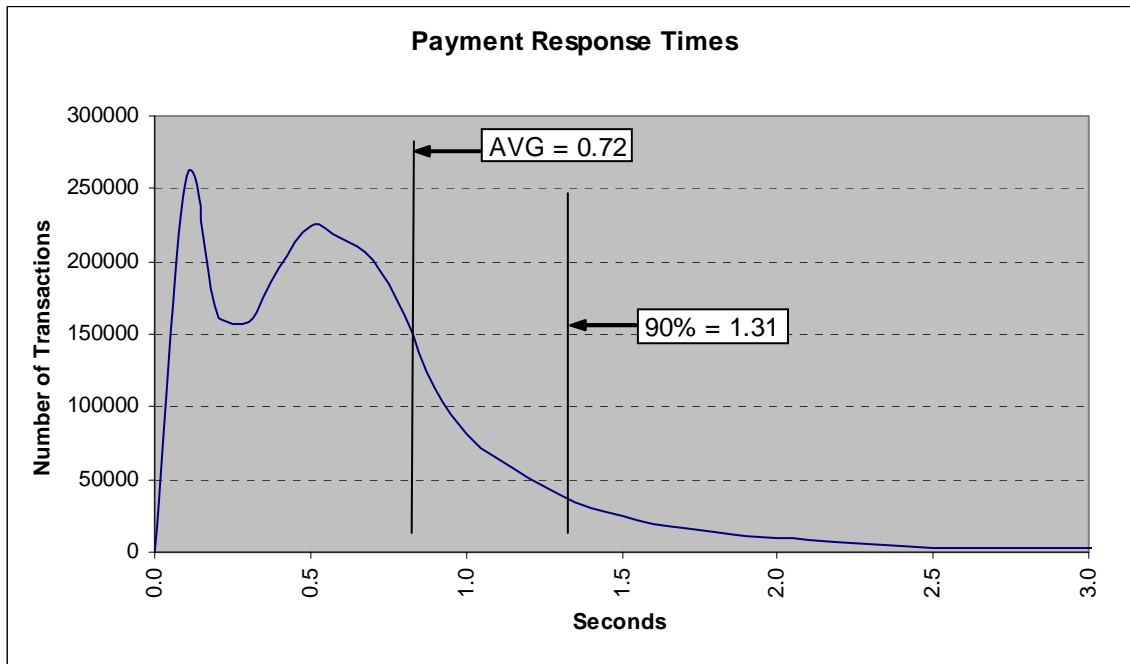


Figure 5. Order Status Response Time Distribution

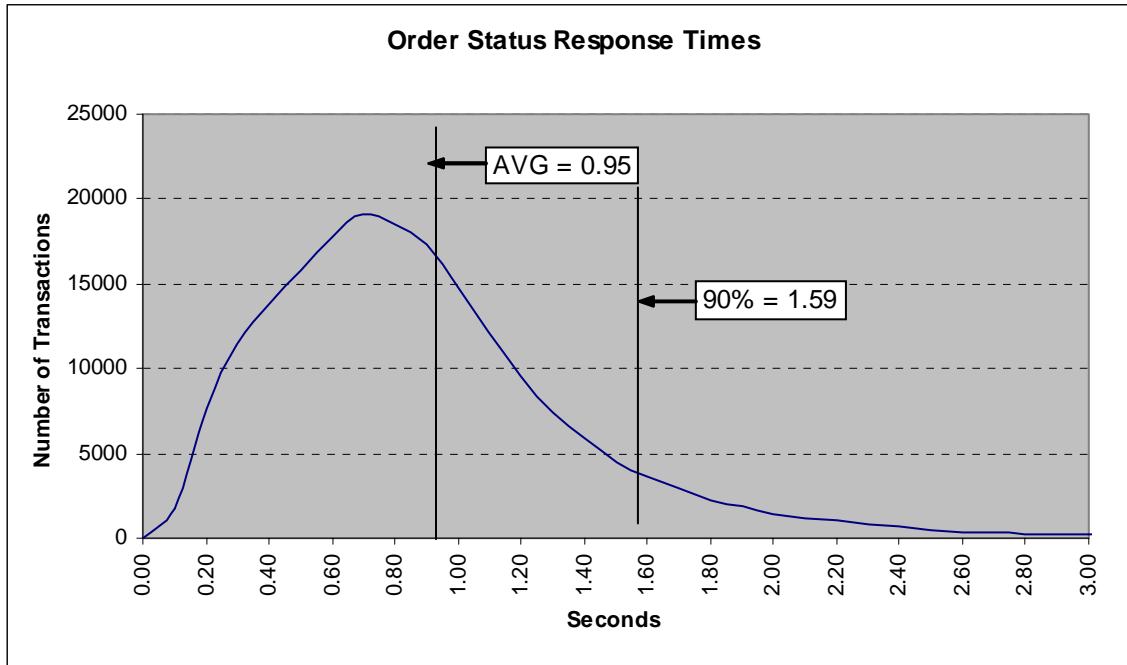


Figure 6. Delivery Response Time Distribution

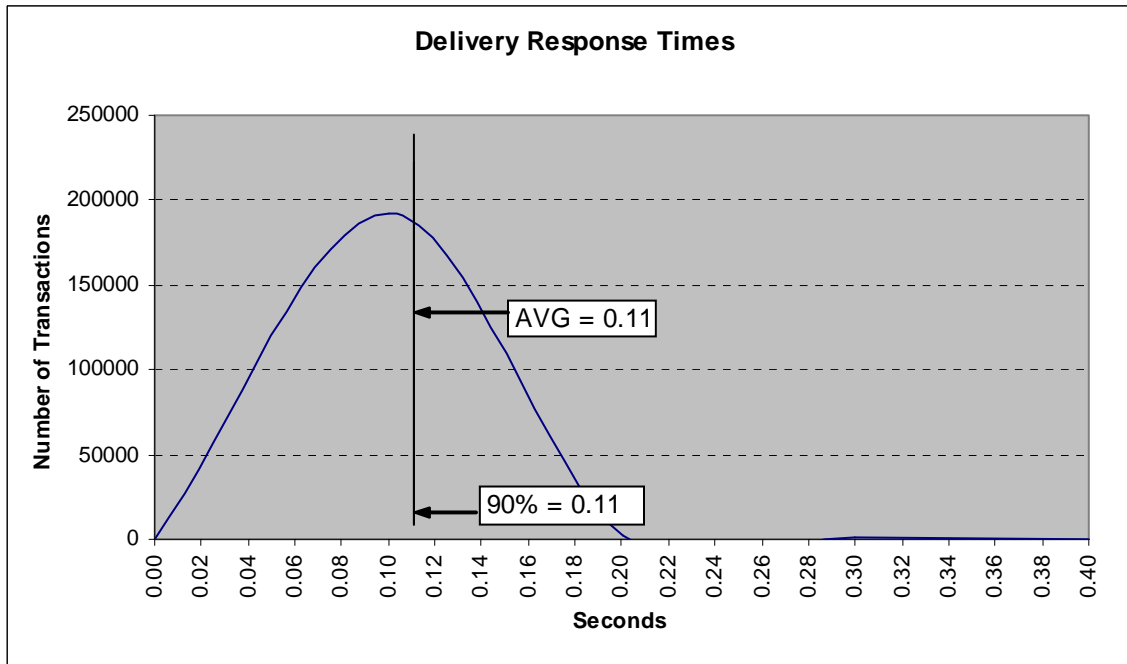


Figure 7. Stock Level Response Time Distribution

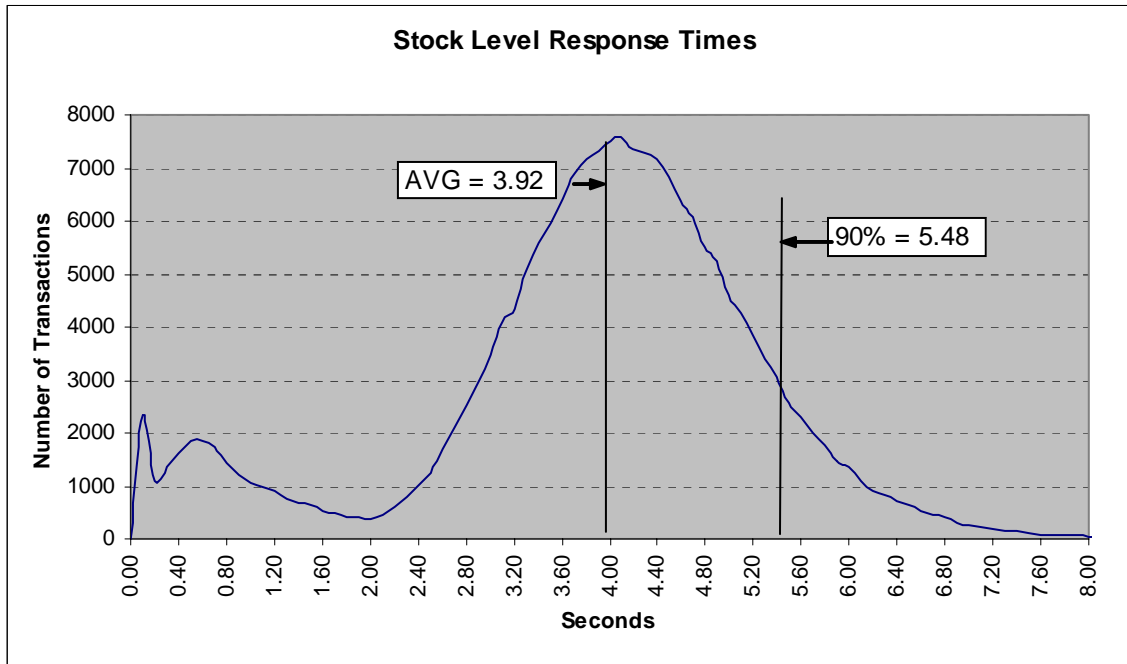


Figure 8. Response Time vs. Throughput

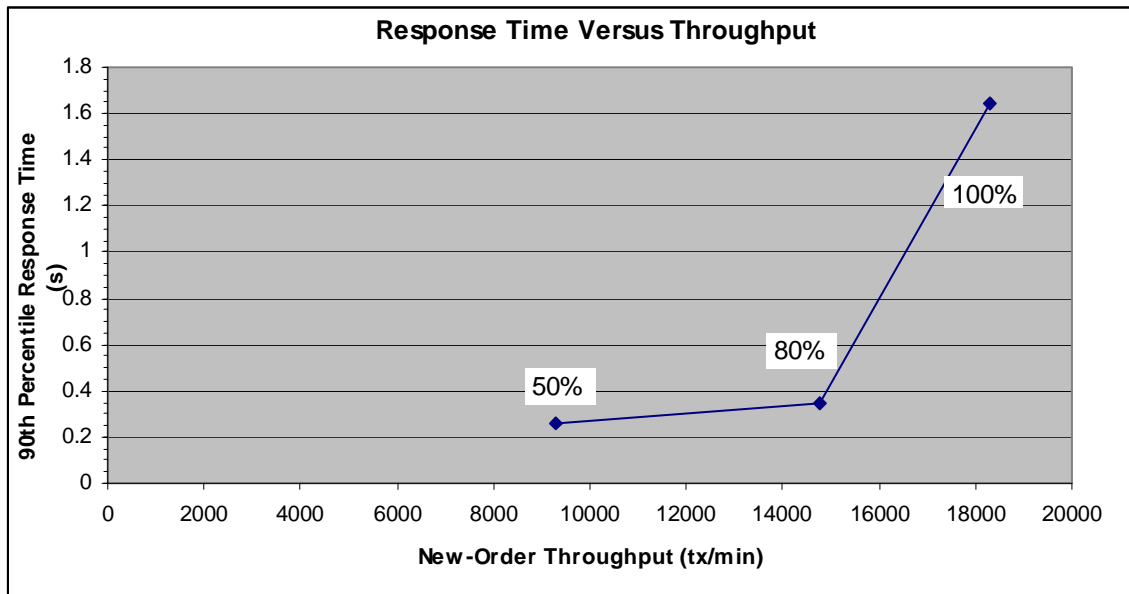
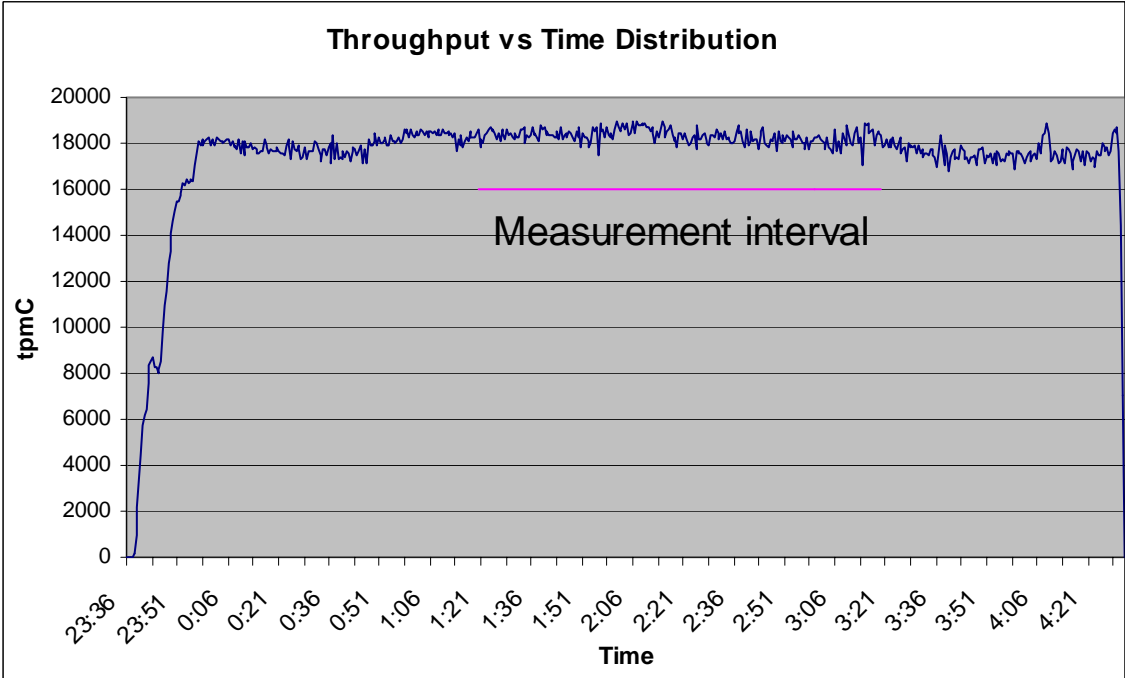


Figure 9. New Order Think Time Distribution



Figure 10. Throughput vs. Time Distribution



Steady State Determination

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

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

Work Performed During Steady State

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

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

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

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

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

Measurement Period Duration

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

The reported measured interval was exactly 120 minutes long.

Regulation of Transaction Mix

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

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

Transaction Statistics

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

Table 5.5: Transaction Statistics

Statistic		Value
New Order	Home warehouse order lines	99.00%
	Remote warehouse order lines	1.00%
	Rolled back transactions	1.00%
	Average items per order	10.00
Payment	Home warehouse payments	85.00%
	Remote warehouse payments	15.00%
	Accessed by last name	60.02
Delivery	Skipped transactions (interactive)	0
	Skipped transactions (deferred)	0
Order Status	Accessed by last name	60.06%
Transaction Mix	New Order	44.92%
	Payment	43.02%
	Order status	4.02%
	Delivery	4.02%
	Stock level	4.02%

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.

DB2 UDB uses a write-ahead-logging protocol to guarantee recovery. This protocol uses “Soft” checkpoint to write least-recently-used database pages to disk independent of transaction commit. However, enough log information to redo/undo the change to a database pages is committed to disk before the database page itself is written. This protocol therefore renders checkpoint unnecessary for DB2 UDB. For a more detailed description of the general principles of the write-ahead-logging protocol, see the IBM research paper, “ARIES: A Transaction Recovery Method Supporting Fine Granularity Locking and Partial Rollbacks Using Write-Ahead Logging,” by C. Mohan, Database Technology Institute, IBM Almaden Research Center.

(<http://portal.acm.org/citation.cfm?id=128770&coll=portal&dl=ACM&CFID=10343790&CFTOKEN=42047146>)

Clause 6 Related Items

RTE Descriptions

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

PRTE Software was used to simulate terminal users, generate random data and record response times. This package ran on systems that are distinct from the system under test. PRTE command file used is included in Appendix A.

Emulated Components

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

The driver system consisted of 1 HP ProLiant server. This driver machine emulated the users' web browsers.

Functional Diagrams

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

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

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

Networks

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

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

In the tested configuration, 1 driver (RTE) machine was connected through a crossover cable to the client machine at 1000Mbs, thus providing the path from the RTE to the client. The server (SUT) was connected to the client through a single Cat 5e Ethernet cable that was connected to the integrated Gigabit network cards in both the server and the client.

The priced configuration was connected in the same manner as the 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.

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

Clause 7 Related Items

System Pricing

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

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

Availability, Throughput, and Price Performance

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

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

- | | |
|---------------------------------------|------------------------|
| • Maximum Qualified Throughput | 18,318.24 tpmC |
| • Price per tpmC | \$1.68 per tpmC |
| • Availability | April 14, 2004 |

Country Specific Pricing

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

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

Usage Pricing

For any usage pricing, the sponsor must disclose:

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

The component pricing based on usage is shown below:

- 1 Microsoft Windows 2000 Server
- 1 Microsoft Server 2003 Standard Edition
- 1 IBM DB2 UDB Express Edition v8.1 (per processor)
- 1 Microsoft Visual C++
- HP Servers with 3 years of support.

Clause 9 Related Items

Auditor's Report

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

This implementation of the TPC Benchmark C was audited by Tom Sawyer of Performance Metrics, Inc.

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

Availability of the Full Disclosure Report

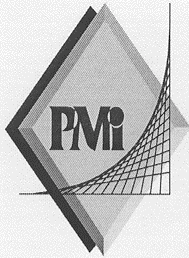
The Full Disclosure Report must be readily available to the public at a reasonable charge, similar to the charges for similar documents by the test sponsor. The report must be made available when results are made public. In order to use the phrase "TPC Benchmark™ C", the Full Disclosure Report must have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

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

Transaction Processing Performance Council
Presidio of San Francisco
Building 572B Rugar St. (surface)
P.O. Box 29920 (mail)
San Francisco, CA 94129-0920
Voice: 415-561-6272
Fax: 415-561-6120
Email: info@tpc.org
or

Hewlett-Packard Company
Database Performance Engineering
P.O. Box 692000
Houston, TX 77269-2000

TPC Benchmark C Full Disclosure Reports are also available at www.tpc.org



PERFORMANCE METRICS INC.
TPC Certified Auditors

April 12, 2004

Mr. Daniel Pol
Hewlett-Packard Company
Database Performance Lab
20555 SH 249
Houston, TX 77070

I have verified the TPC Benchmark™ C client/server for the following configuration:

Platform: HP ProLiant ML 350G3
Database Manager: IBM DB2 UDB Express Edition v8.1
Operating System: Microsoft Windows Server 2003 Standard Edition
Transaction Manager: Microsoft COM+

Server: ProLiant ML 350G3				
CPU	Memory	Disks	90% Response	tpmC
Intel Xeon™ @ 2.8GHz	Main: 3.3 GB cache: 512KB	32x 18GB 3x 36GB	1.64	18,318.24

Client: 1 HP tc2120		
CPU	Memory	Disks
1 Intel Xeon™ Processor @ 2.5 GHz	Main: 768 MB Cache: 512KB	1x 40GB

137 Yankton St. Suite 101, Folsom 95630
(916) 985-1131 fax: (916) 985-1185 email: Lorna@PerfMetrics.com

Page 1

PERFORMANCE METRICS INC.
TPC Certified Auditors

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

- The transactions were correctly implemented.
- The database was properly sized and populated.
- The database was properly scaled with 1,530 warehouses, all of which were used.
- The ACID properties were met.
- Input data was generated according to the specified percentages.
- Eight hours of mirrored log space was configured on the measured system.
- Eight hours of dynamic table growth space was configured on the measured system.
- The 60-day space calculation was verified; the measured system had sufficient storage.
- Measurement cycle times included a delay of 0.1 seconds.
- There were 15,300 user contexts present on the system.
- Each group of emulated users started with the same random number seed.
- The NURand constants used for database load and at run time were 173 and 88.
- The steady state portion of the test was 2 hours.
- db2 continually wrote to the recovery log.
- The system pricing was checked for major components and maintenance – see Auditor Notes.

Auditor Notes:

The measured system used a client with a 2.5GHz processor. This configuration became obsolete during the measurement period. The priced system substituted a 2.8GHz processor; the client configuration is otherwise identical (clock speed excepted). I believe the change would not affect the result negatively.

Sincerely,



Tom Sawyer
Auditor

Appendix A: Source Code

The client source code is listed below.

dlldata.c

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

DO NOT ALTER THIS FILE

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

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

*****
****/

#include <rpcproxy.h>

#ifdef __cplusplus
extern "C" {
#endif

EXTERN_PROXY_FILE( tpcc_com_ps )

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

DLLDATA_ROUTINES( aProxyFileList, GET_DLL_CLSID )

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

/* end of generated dlldata file */
```

error.h

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

#pragma once

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

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

//error message structure used in ErrorText routines
typedef struct _SERRORMSG
{
    int iError;
    char szMsg[256];
    //message to sent to browser
} SERRORMSG;

#define ERR_FATAL_LEVEL 1
#define ERR_WARNING_LEVEL 2
#define ERR_INFORMATION_LEVEL 3

#define ERR_TYPE_LOGIC -1
//logic error in program; internal error
#define ERR_SUCCESS 0
//success (a non-error error)
#define ERR_BAD_ITEM_ID 1
//expected abort record in txnRecord
#define ERR_TYPE_DELIVERY_POST 2
//expected delivery post failed
#define ERR_TYPE_WEBDLL 3
//tpcc web generated error
#define ERR_TYPE_SQL 4
//sql server generated error
```

```
#define ERR_TYPE_DBLIB 5
//dblib generated error
#define ERR_TYPE_ODBC 6
//odbc generated error
#define ERR_TYPE_SOCKET 7
//error on communication socket client rte
only
#define ERR_TYPE_DEADLOCK 8
//dblib and odbc only deadlock condition
#define ERR_TYPE_COM 9
//error from COM call
#define ERR_TYPE_TUXEDO 10
//tuxedo error
#define ERR_TYPE_OS 11
//operating system error
#define ERR_TYPE_MEMORY 12
//memory allocation error
#define ERR_TYPE_TPCC_ODBC 13
//error from tpcc odbc txn module
#define ERR_TYPE_TPCC_DBLIB 14
//error from tpcc dblib txn module
#define ERR_TYPE_DELISRV 15
//delivery server error
#define ERR_TYPE_TXNLOG 16
//txn log error
#define ERR_TYPE_BCONN 17
//Benchcraft connection class
#define ERR_TYPE_TPCC_CONN 18
//Benchcraft connection class
#define ERR_TYPE_ENCINA 19
//Encina error
#define ERR_TYPE_COMPONENT 20
//error from COM component
#define ERR_TYPE_RTE 21
//Benchcraft rte
#define ERR_TYPE_AUTOMATION 22
//Benchcraft automation errors

class CBaseErr
{
public:
    char *m_szApp;
    char *m_szMsg;
```

```

char *m_szLoc; // code location where
the error occurred
int m_idMsg;

CBaseErr(void)
{
    m_idMsg = 0;
    m_szMsg = new
char[m_szMsg_size];
    m_szApp = new
char[m_szApp_size];
    m_szLoc = NULL;
    m_szMsg[0] = 0;
    m_szApp[0] = 0;

    GetModuleFileName(GetModuleHandle(NULL),
m_szApp, m_szApp_size);
}

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

CBaseErr(int idMsg)
{
    m_idMsg = idMsg;
    m_szApp = new
char[m_szApp_size];
    m_szMsg = new
char[m_szMsg_size];
    m_szLoc = NULL;

    GetModuleFileName(GetModuleHandle(NULL),
m_szApp, m_szApp_size);
    LoadString(GetModuleHandle(NULL),
idMsg, m_szMsg, m_szMsg_size);
}

CBaseErr(LPCTSTR szMsg)
{
    m_idMsg = 0;
    m_szApp = new
char[m_szApp_size];
    m_szMsg = new
char[m_szMsg_size];
    m_szLoc = NULL;

    GetModuleFileName(GetModuleHandle(NULL),
m_szApp, m_szApp_size);
    strcpy(m_szMsg, szMsg);
}

```

```

void SetError(char *szMsg, LPCTSTR
szLocation)
{
    if (szMsg != NULL)
        strcpy(m_szMsg, szMsg);
    else
        m_szMsg[0] = 0;

    if (szLocation != NULL)
    {
        delete [] m_szLoc;
        m_szLoc = new
char[strlen(szLocation)+1];
        strcpy(m_szLoc,
szLocation);
    }
    else
    {
        delete [] m_szLoc;
        m_szLoc = NULL;
    }
}

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

    if (szStr)
        j = sprintf(szTmp,
"%s\n",szStr);
    if (m_szLoc)
        j += sprintf(szTmp+j,
"Location=%s\n",m_szLoc);
    if (m_szMsg)
        j += sprintf(szTmp+j,
"%s\n", m_szMsg);

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

char *GetApp(void) { return m_szApp; }
char *GetMsg(void) { return m_szMsg; }
char *GetLocation(void) { return m_szLoc; }

virtual int ErrorType() = 0; // a value
which distinguishes the kind of error that occurred
virtual int ErrorNum() = 0; //
an error value specific to the error type
virtual char *ErrorText() = 0; //
a string (i.e., human readable) representation of the
error
};

class CSocketErr : public CBaseErr
{
public:
    enum Action
    {
        eNone,
        eSend,
        eSocket,
        eConnect
    };

    CSocketErr(Action eAction, LPCTSTR
szLocation);
    CSocketErr(int iError) { m_errId = iError;
};

    int m_errId;
    Action m_eAction;

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

class CSystemErr : public CBaseErr
{
public:
    enum Action
    {
        eNone,
        eTransactNamedPipe,
        eWaitNamedPipe,
        eSetNamedPipeHandleState,
        eCreateFile,
        eCreateProcess,
        eCallNamedPipe,
        eCreateEvent,
        eCreateThread,
        eVirtualAlloc,
        eReadFile,
        eWriteFile,
        eMapViewOfFile,
        eCreateFileMapping,
        eInitializeSecurityDescriptor,
        eSetSecurityDescriptorDacl,
        eCreateNamedPipe,
        eConnectNamedPipe,
        eWaitForSingleObject,
        eRegOpenKeyEx,
        eRegQueryValueEx,
    };

    CSystemErr(Action eAction, LPCTSTR
szLocation);

    void Draw(HWND hwnd, LPCTSTR szStr = NULL);

    int m_errId;
    Action m_eAction;

    int ErrorType() { return ERR_TYPE_OS;};
    int ErrorNum() { return m_errId;};
    char *ErrorText() { return m_szMsg; };
};

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

```

```

eNone,
eSend,
eSocket,
eConnect
};

CSocketErr(Action eAction, LPCTSTR
szLocation);
CSocketErr(int iError) { m_errId = iError;
};

int m_errId;
Action m_eAction;

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

class CSystemErr : public CBaseErr
{
public:
    enum Action
    {
        eNone,
        eTransactNamedPipe,
        eWaitNamedPipe,
        eSetNamedPipeHandleState,
        eCreateFile,
        eCreateProcess,
        eCallNamedPipe,
        eCreateEvent,
        eCreateThread,
        eVirtualAlloc,
        eReadFile,
        eWriteFile,
        eMapViewOfFile,
        eCreateFileMapping,
        eInitializeSecurityDescriptor,
        eSetSecurityDescriptorDacl,
        eCreateNamedPipe,
        eConnectNamedPipe,
        eWaitForSingleObject,
        eRegOpenKeyEx,
        eRegQueryValueEx,
    };

    CSystemErr(Action eAction, LPCTSTR
szLocation);

    void Draw(HWND hwnd, LPCTSTR szStr = NULL);

    int m_errId;
    Action m_eAction;

    int ErrorType() { return ERR_TYPE_OS;};
    int ErrorNum() { return m_errId;};
    char *ErrorText() { return m_szMsg; };
};

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

```

```

int ErrorType() { return ERR_TYPE_MEMORY;}
int ErrorNum() { return 0;}
char *ErrorText() { return "Insufficient
Memory to continue.";}
};

```

Methods.h

```

/* FILE: METHODS.H
* Microsoft TPC-C Kit Ver. 4.20.000
* Copyright Microsoft, 1999
* All Rights Reserved
*
* not yet audited
*
* PURPOSE: Header file for COM components.
*
* Change history:
* 4.20.000 - first version
*/
enum COMPONENT_ERROR
{
    ERR_MISSING_REGISTRY_ENTRIES = 1,
    ERR_LOADDLL_FAILED,
    ERR_GETPROCADDR_FAILED,
    ERR_UNKNOWN_DB_PROTOCOL
};
class CCOMPONENT_ERR : public CBaseErr
{
public:
    CCOMPONENT_ERR(COMPONENT_ERROR Err)
    {
        m_Error = Err;
        m_szTextDetail = NULL;
        m_SystemErr = 0;
        m_szErrorText = NULL;
    };
    CCOMPONENT_ERR(COMPONENT_ERROR Err, char
        *szTextDetail, DWORD dwSystemErr)
    {
        m_Error = Err;
        m_szTextDetail = new
            char[strlen(szTextDetail)+1];
        strcpy( m_szTextDetail,
            szTextDetail );
        m_SystemErr = dwSystemErr;
        m_szErrorText = NULL;
    };
    ~CCOMPONENT_ERR()
    {
        if (m_szTextDetail != NULL)
            delete []
                m_szTextDetail;
        if (m_szErrorText != NULL)
            delete []
                m_szErrorText;
    };
    COMPONENT_ERROR m_Error;
    char *m_szTextDetail;
};

```

```

char *m_szErrorText;
DWORD m_SystemErr;
int ErrorType() {return
ERR_TYPE_COMPONENT};
int ErrorNum() {return m_Error};
char *ErrorText();
};
static void WriteMessageToEventLog(LPTSTR lpszMsg);
////////////////////////////////////
////////////////////////////////////
////////////////////////////////////
// CTPCC_Common
class CTPCC_Common :
public ITPCC,
public IObjectControl,
public IObjectConstruct,
public CComObjectRootEx<CComSingleThreadModel>
{
public:
    BEGIN_COM_MAP(CTPCC_Common)
        COM_INTERFACE_ENTRY(ITPCC)
    COM_INTERFACE_ENTRY(IObjectControl)
    COM_INTERFACE_ENTRY(IObjectConstruct)
        END_COM_MAP()
        CTPCC_Common();
        ~CTPCC_Common();
        // ITPCC
public:
    HRESULT __stdcall NewOrder( VARIANT txn_in,
        VARIANT* txn_out);
    HRESULT __stdcall Payment( VARIANT txn_in,
        VARIANT* txn_out);
    HRESULT __stdcall Delivery( VARIANT txn_in,
        VARIANT* txn_out) {return
E_NOTIMPL;}
    HRESULT __stdcall StockLevel( VARIANT
        txn_in, VARIANT*
            txn_out);
    HRESULT __stdcall OrderStatus( VARIANT
        txn_in,
            VARIANT* txn_out);
    HRESULT __stdcall CallSetComplete();
    // IObjectControl
    STDMETHODCALLTYPE CanBePooled() { return
m_bCanBePooled;
    }
    STDMETHODCALLTYPE Activate() { return S_OK; } //
we don't support COM Services transactions (no
enlistment)
    STDMETHODCALLTYPE Deactivate() { /*
nothing to do */ }
    // IObjectConstruct
    STDMETHODCALLTYPE Construct(IDispatch * pUnk);
    // helper methods
private:
    BOOL m_bCanBePooled;
    CTPCC_BASE *m_pTxn;
    struct COM_DATA
    {
        int retval;
        int error;
};
};

```

```

union
{
    NEW_ORDER_DATA
NewOrder;
    PAYMENT_DATA Payment;
    DELIVERY_DATA Delivery;
    STOCK_LEVEL_DATA
ORDER_STATUS_DATA
};
};
};
////////////////////////////////////
////////////////////////////////////
////////////////////////////////////
// CTPCC
class CTPCC :
public CTPCC_Common,
public CComCoClass<CTPCC, &CLSID_TPCC>
{
public:
    DECLARE_REGISTRY_RESOURCEID(IDR_TPCC)
    BEGIN_COM_MAP(CTPCC)
        COM_INTERFACE_ENTRY2(IUnknown,
CComObjectRootEx)
        COM_INTERFACE_ENTRY_CHAIN(CTPCC_Common)
        END_COM_MAP()
};
////////////////////////////////////
////////////////////////////////////
////////////////////////////////////
// CNewOrder
class CNewOrder :
public CTPCC_Common,
public CComCoClass<CNewOrder, &CLSID_NewOrder>
{
public:
    DECLARE_REGISTRY_RESOURCEID(IDR_NEWORDER)
    BEGIN_COM_MAP(CNewOrder)
        COM_INTERFACE_ENTRY2(IUnknown,
CComObjectRootEx)
        COM_INTERFACE_ENTRY_CHAIN(CTPCC_Common)
        END_COM_MAP()
        // ITPCC
public:
    // HRESULT __stdcall NewOrder( VARIANT
        txn_in,VARIANT* txn_out) {return E_NOTIMPL;}
    HRESULT __stdcall Payment( VARIANT txn_in,
        VARIANT* txn_out) {return
E_NOTIMPL;}
    HRESULT __stdcall StockLevel( VARIANT
        txn_in, VARIANT*
            txn_out) {return E_NOTIMPL;}
    HRESULT __stdcall OrderStatus( VARIANT
        txn_in,
            VARIANT* txn_out) {return
E_NOTIMPL;}
};
////////////////////////////////////
////////////////////////////////////

```

```

////////////////////////////////////
// COrderStatus
class COrderStatus :
public CTPCC_Common,
public CComCoClass<COrderStatus, &CLSID_OrderStatus>
{
public:
    DECLARE_REGISTRY_RESOURCEID(IDR_ORDERSTATUS
)
        BEGIN_COM_MAP(COrderStatus)
        COM_INTERFACE_ENTRY2(IUnknown,
CComObjectRootEx)
        COM_INTERFACE_ENTRY_CHAIN(CTPCC_Common)
        END_COM_MAP()
        // ITPCC

public:
    HRESULT __stdcall NewOrder( VARIANT txn_in,
        VARIANT* txn_out) {return
E_NOTIMPL;}
    HRESULT __stdcall Payment( VARIANT txn_in,
        VARIANT* txn_out) {return
E_NOTIMPL;}
    HRESULT __stdcall StockLevel( VARIANT
        txn_in, VARIANT*
        txn_out) {return E_NOTIMPL;}
        // HRESULT __stdcall OrderStatus( VARIANT
        txn_in, VARIANT* txn_out) {return E_NOTIMPL;}
};
////////////////////////////////////
////////////////////////////////////
// CPayment
class CPayment :
public CTPCC_Common,
public CComCoClass<CPayment, &CLSID_Payment>
{
public:
    DECLARE_REGISTRY_RESOURCEID(IDR_PAYMENT)
        BEGIN_COM_MAP(CPayment)
        COM_INTERFACE_ENTRY2(IUnknown,
CComObjectRootEx)
        COM_INTERFACE_ENTRY_CHAIN(CTPCC_Common)
        END_COM_MAP()
        // ITPCC

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

```

```

// CStockLevel
class CStockLevel :
public CTPCC_Common,
public CComCoClass<CStockLevel, &CLSID_StockLevel>
{
public:
    DECLARE_REGISTRY_RESOURCEID(IDR_STOCKLEVEL)
        BEGIN_COM_MAP(CStockLevel)
        COM_INTERFACE_ENTRY2(IUnknown,
CComObjectRootEx)
        COM_INTERFACE_ENTRY_CHAIN(CTPCC_Common)
        END_COM_MAP()
        // ITPCC

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

```

ReadRegistry.c pp

```

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

/* FUNCTION: ReadTPCCRegistrySettings
 *
 * PURPOSE: This function reads the NT
 * registry for startup parameters. There parameters are
 * under the TPCC key.
 *
 * RETURNS FALSE = no errors

```

```

* TRUE = error reading
registry
*/
BOOL ReadTPCCRegistrySettings( TPCCREGISTRYDATA *pReg
)
{
    HKEY hKey;
    DWORD size;
    DWORD type;
    DWORD dwTmp;
    char szTmp[256];

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

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

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

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

```

```

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

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

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

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

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

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

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

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

RegCloseKey(hKey);

return FALSE;
}

```

ReadRegistry.h

```

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

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

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

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

BOOL ReadTPCCRegistrySettings( TPCCREGISTRYDATA *pReg
);

```

resource.h

```

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

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

```

```

#define _APS_NEXT_SYMED_VALUE 101
#endif
#endif

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

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

#include <sqltypes.h>

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

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

#include "txnlog.h"

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

// Txn monitor layer includes

```

```

#include "..\..\tm_com_dll\src\tpcc_com.h"
// COM Services implementation on
TPC-C txns

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

#define LEN_ERR_STRING 256

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

char
    szMyComputerName[MAX_COMPUTERNAME_LENGTH+1]
;

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

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

static CRITICAL_SECTION
    TermCriticalSection;

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

TYPE_CTPCC_DBLIB *pCTPCC_DBLIB_new;
TYPE_CTPCC_COM *pCTPCC_COM_new;

// For deferred Delivery txns:
CTxnLog
    *txnDelilog = NULL;
//used to log delivery transaction
information

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

// configuration settings from registry
TPCCREGISTRYDATA Reg;

```

```

DWORD
    dwNumDeliveryThreads = 4;
CRITICAL_SECTION DelBuffCriticalSection;
//critical section for delivery
transactions cache
DELIVERY_TRANSACTION *pDelBuff
    = NULL;

DWORD
    dwDelBuffSize = 100;
// size of circular buffer for delivery

txns
DWORD
    dwDelBuffFreeCount;
// number of buffers free

DWORD
    dwDelBuffBusyIndex = 0; //
index position of entry waiting to be delivered
DWORD
    dwDelBuffFreeIndex = 0; //
index position of unused entry

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

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

BOOL WINAPI DllMain(HANDLE hModule, DWORD
ul_reason_for_call, LPVOID lpReserved)
{
    DWORD i;
    char szEvent[LEN_ERR_STRING] = "\0";
    char szLogFile[128];
    char szDllName[128];

    // debugging...
    // DebugBreak();

    try
    {
        switch( ul_reason_for_call )

```

```

case
DLL_PROCESS_ATTACH:
{
    DWORD dwSize = MAX_COMPUTERNAME_LENGTH+1;
    GetComputerName(szMyComputerName, &dwSize);
    szMyComputerName[dwSize] = 0;
}

DisableThreadLibraryCalls((HMODULE)hModule)
;

InitializeCriticalSection(&TermCriticalSection);

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

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

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

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

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

```



```

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

            // get function pointer to wrapper for
class constructor
            pCTPCC_DBLIB_new = (TYPE_CTPCC_DBLIB*)
GetProcAddress(hLibInstanceDb, "CTPCC_DBLIB_new");
            if (pCTPCC_DBLIB_new == NULL)
                throw new CWBCLNT_ERR(
ERR_GETPROCADDR_FAILED, szDllName, GetLastError() );
        }
    }
(dwNumDeliveryThreads)
    {
        //
for deferred delivery txns:
        hDoneEvent = CreateEvent( NULL, TRUE /*
manual reset */, FALSE /* initially not signalled */,
NULL );
        InitializeCriticalSection(&DelBuffCriticalS
ection);
        hWorkerSemaphore = CreateSemaphore( NULL,
0, dwDelBuffSize, NULL );
        dwDelBuffFreeCount = dwDelBuffSize;

//
create unique log file name based on delilog-yyymmdd-
hhmm.log
        SYSTEMTIME Time;
        GetLocalTime( &Time );
        wsprintf( szLogFile, "%sdelivery-
%2.2d%2.2d%2.2d-%2.2d%2.2d.log",

```

```

Reg.szPath, Time.wYear % 100,
Time.wMonth, Time.wDay, Time.wHour, Time.wMinute );
        txnDelilog = new CTxnLog(szLogFile);

        //write event into txn log for START

        if(txnDelilog-
>WriteCtrlRecToLog(TXN_EVENT_START, szMyComputerName,
sizeof(szMyComputerName)))
            throw CBaseErr("Cannot open delivery log");
//we could not write to the delivery so stop now

//
allocate structures for delivery buffers and thread
mgmt
        pDeliHandles = new
HANDLE[dwNumDeliveryThreads];
        pDelBuff = new
DELIVERY_TRANSACTION(dwDelBuffSize);
//
launch DeliveryWorkerThread to perform actual
delivery txns
        for(i=0; i<dwNumDeliveryThreads; i++)
        {
            pDeliHandles[i] = (HANDLE) _beginthread(
DeliveryWorkerThread, 0, NULL );
            if (pDeliHandles[i] ==
INVALID_HANDLE_VALUE)
                throw new CWBCLNT_ERR(
ERR_DELIVERY_THREAD_FAILED );
        }
        break;
    case
DLL_PROCESS_DETACH:
        if
(dwNumDeliveryThreads)
        {
            if
(txnDelilog != NULL)
            {
                //write event into txn log for STOP
                txnDelilog-
>WriteCtrlRecToLog(TXN_EVENT_STOP, szMyComputerName,
sizeof(szMyComputerName));

```

```

// This will do a clean shutdown of the
delivery log file
        CTxnLog *txnDelilogLocal = txnDelilog;
        txnDelilog= NULL;
        delete txnDelilogLocal;
    }

    delete [] pDeliHandles;
    delete [] pDelBuff;

    CloseHandle( hWorkerSemaphore );
    CloseHandle( hDoneEvent );
    DeleteCriticalSection(&DelBuffCriticalSecti
on);
    DeleteCriticalSection(&TermCriticalSection)
;
    if
(hLibInstanceTm != NULL)
        FreeLibrary( hLibInstanceTm );
        hLibInstanceTm = NULL;
    if
(hLibInstanceDb != NULL)
        FreeLibrary( hLibInstanceDb );
        hLibInstanceDb = NULL;
        Sleep(500);
        break;
    default:
        /* nothing
*/;
}
}
catch (CBaseErr *e)
{
    WriteMessageToEventLog( e-
>ErrorText() );
    delete e;
    TerminateExtension(0);
    return FALSE;
}
catch (...)
{

```

```

        WriteMessageToEventLog(TEXT("Unhandled
exception. DLL could not load.));
        TerminateExtension(0);
        return FALSE;
    }

    return TRUE;
}

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

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

    return TRUE;
}

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

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

    TermDeleteAll();
    return TRUE;
}

/* FUNCTION: HttpExtensionProc

```

```

*
* PURPOSE: This function is the main entry
point for the TPC DLL. The internet service
*
* ARGUMENTS: EXTENSION_CONTROL_BLOCK
*pECB structure pointer to passed in
internet
*
* RETURNS: service information.
DWORD
HSE_STATUS_SUCCESS
connection can be dropped if
error
*
* ARGUMENTS: HSE_STATUS_SUCCESS_AND_KEEP_CONN
keep connect valid comment sent
*
* COMMENTS: None
*/

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

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

    //DebugBreak();

#ifdef ICECAP
    StartCAP();
#endif

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

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

```

```

        WriteMessageToEventLog( szTmp );
        throw new
CWEBCLNT_ERR( ERR_INVALID_TERMID );
    }

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

switch(iCmd)
{
    case 0:
        WelcomeForm(pECB,
szBuffer);
        break;
    case 1:
        switch( FormId )
        {
            case
WELCOME_FORM:
            case
MAIN_MENU_FORM:
                break;
            case
NEW_ORDER_FORM:
                ProcessNewOrderForm(pECB, TermId,
szBuffer);
                break;
            case
PAYMENT_FORM:
                ProcessPaymentForm(pECB, TermId, szBuffer);
                break;
            case
DELIVERY_FORM:
                ProcessDeliveryForm(pECB, TermId,
szBuffer);
                break;
            case
ORDER_STATUS_FORM:
                ProcessOrderStatusForm(pECB, TermId,
szBuffer);
                break;
        }
    }
}

```

```

                                case
STOCK_LEVEL_FORM:
    ProcessStockLevelForm(pECB, TermId,
szBuffer);
    break;
    }
    case 2:
        // new-order selected
from menu; display new-order input form
        MakeNewOrderForm(TermId, NULL, INPUT_FORM,
szBuffer);
        break;
    case 3:
        // payment selected
from menu; display payment input form
        MakePaymentForm(TermId,
NULL, INPUT_FORM, szBuffer);
        break;
    case 4:
        // delivery selected
from menu; display delivery input form
        MakeDeliveryForm(TermId, NULL, INPUT_FORM,
szBuffer);
        break;
    case 5:
        // order-status
selected from menu; display order-status input form
        MakeOrderStatusForm(TermId, NULL,
INPUT_FORM, szBuffer);
        break;
    case 6:
        // stock-level selected
from menu; display stock-level input form
        MakeStockLevelForm(TermId, NULL,
INPUT_FORM, szBuffer);
        break;
    case 7:
        // ExitCmd
        TermDelete(TermId);
        WelcomeForm(pECB,
szBuffer);
        break;
    case 8:
        SubmitCmd(pECB,
szBuffer);
        break;
    case 9:
        // menu
        MakeMainMenuForm(TermId,
Term.pClientData[TermId].iSyncId, szBuffer);
        break;
    case 10:
        // CMD=Clear

```

```

                                // resets all
connections; should only be used when no other
connections are active
                                TermDeleteAll();
                                TermInit();
                                WelcomeForm(pECB,
szBuffer);
                                break;
                                case 11: // CMD=Stats
                                StatsCmd(pECB,
szBuffer);
                                break;
                                }
                                catch (CBaseErr *e)
                                {
                                    ErrorForm( pECB, e->ErrorType(),
e->ErrorNum(), TermId, iSyncId, e->ErrorText(),
szBuffer );
                                    delete e;
                                }
                                catch (...)
                                {
                                    ErrorForm( pECB, ERR_TYPE_WEBDLL,
0, TermId, iSyncId, "Error: Unhandled exception in
Web Client.", szBuffer );
                                }
#ifdef ICECAP
                                StopCAP();
#endif
                                lpbSize = strlen(szBuffer);
                                wsprintf(szHeader1,
                                "Content-Type:
text/html\r\n"
                                "Content-Length:
%d\r\n"
                                "Connection: Keep-
Alive\r\n\r\n", lpbSize);
                                strcat( szHeader1, szBuffer );
                                (*pECB->ServerSupportFunction)(pECB-
>ConnID, HSE_REQ_SEND_RESPONSE_HEADER, szHeader,
(LPDWORD) &dwSize, (LPDWORD)szHeader1);
                                //finish up and keep connection
                                pECB->dwHttpStatusCode = 200;
                                return HSE_STATUS_SUCCESS_AND_KEEP_CONN;
                                }
void WriteMessageToEventLog(LPTSTR lpszMsg)
{
    TCHAR    szMsg[256];
    HANDLE   hEventSource;
    LPTSTR   lpszStrings[2];
    // Use event logging to log the error.
    //
    hEventSource = RegisterEventSource(NULL,
TEXT("TPCC.DLL"));

```

```

    _stprintf(szMsg, TEXT("Error in TPCC.DLL: "));
    lpszStrings[0] = szMsg;
    lpszStrings[1] = lpszMsg;
    if (hEventSource != NULL)
    {
        ReportEvent(hEventSource, // handle of event
source
        EVENTLOG_ERROR_TYPE, // event type
        0, // event category
        0, // event ID
        NULL, // current user's
SID
        2, // strings in
lpszStrings
        0, // no bytes of raw
data
        (LPCTSTR *)lpszStrings, // array of
error strings
        NULL); // no raw data
        (VOID) DeregisterEventSource(hEventSource);
    }
}
/* FUNCTION: DeliveryWorkerThread
*
* PURPOSE: This function processes deferred
delivery txns. There are typically several
* threads running this
routine. The number of threads is determined by an
entry
* read from the registry.
The thread waits for work by waiting on semaphore.
* When a delivery txn is
posted, the semaphore is released. After processing
* the delivery txn,
information is logged to record the txn status and
execution
* time.
*/
/*static*/ void DeliveryWorkerThread(void *ptr)
{
    CTPCC_BASE *pTxn = NULL;
    DELIVERY_TRANSACTION
delivery;
    PDELIVERY_DATA
pDeliveryData;
    TXN_RECORD_TPCC_DELIV_DEF txnDeliRec;
    DWORD
index;
    HANDLE
handles[2];
    __int64 trans_end;
    //delivery transaction finished time
    __int64 trans_start;
    //delivery transaction start time

```

```

assert(txnDeliLog != NULL);

try
{
    if (Reg.eDB_Protocol == DBLIB)
        pTxn =
pCTPCC_DBLIB_new( Reg.szDbUser, Reg.szDbPassword,
Reg.szDbName );
    pDeliveryData = pTxn-
>BuffAddr_Delivery();
}
catch (CBaseErr *e)
{
    char szTmp[1024];
    wsprintf( szTmp, "Error in
Delivery Txn thread. Could not connect to database.
"
"%s.
Server=%s, User=%s, Password=%s, Database=%s",
e-
>ErrorText(), Reg.szDbServer, Reg.szDbUser,
Reg.szDbPassword, Reg.szDbName );
    WriteMessageToEventLog( szTmp );
    delete e;
    goto ErrorExit;
}
catch (...)
{
    WriteMessageToEventLog(TEXT("Unhandled
exception caught in DeliveryWorkerThread.));
    goto ErrorExit;
}

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

            ZeroMemory(&txnDeliRec,
sizeof(txnDeliRec));

```

```

// make a
local copy of current entry from delivery buffer and
increment buffer index

EnterCriticalSection(&DelBuffCriticalSectio
n);
    delivery =
*(pDelBuff+dwDelBuffBusyIndex);
    dwDelBuffFreeCount++;
    dwDelBuffBusyIndex++;
    if
(dwDelBuffBusyIndex == dwDelBuffSize) // wrap-
around if at end of buffer
        dwDelBuffBusyIndex = 0;

LeaveCriticalSection(&DelBuffCriticalSectio
n);

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

    txnDeliRec.TxnStartT0=delivery.queue;
    trans_start=GetCurrentTime();
    pTxn-
>Delivery();
    trans_end=GetCurrentTime();
    //log txn

    txnDeliRec.TxnStatus = ERR_SUCCESS;
    for (int i=0;
i<10; i++)
        txnDeliRec.o_id[i] = pDeliveryData-
>o_id[i];
    txnDeliRec.DeltaT4 = trans_end -
txnDeliRec.TxnStartT0;
    txnDeliRec.DeltaTxnExec = trans_end -
trans_start;
    if
(txnDeliLog != NULL)
        txnDeliLog->WriteToLog(&txnDeliRec);
    }
    catch (CDBLIBERR *e)
    {
        char szTmp[1024];

```

```

wsprintf( szTmp, "Error
in Delivery Txn thread. %s", e->ErrorText() );
WriteMessageToEventLog(
szTmp );

// log the error txn
txnDeliRec.TxnStatus =
e->ErrorType();
    if (txnDeliLog != NULL)
        txnDeliLog-
>WriteToLog(&txnDeliRec);
    delete e;
    catch (...)
    {
        // unhandled exception;
        shouldn't happen; not much we can do...
        WriteMessageToEventLog(TEXT("Unhandled
exception caught in DeliveryWorkerThread.));
    }
}
ErrorExit:
    delete pTxn;
    _endthread();
}

/* FUNCTION: PostDeliveryInfo
*
* PURPOSE: This function enters the delivery
txn into the deferred delivery buffer.
*
* RETURNS: BOOL FALSE
           delivery information posted successfully
           TRUE error cannot post delivery info
*/
BOOL PostDeliveryInfo(short w_id, short o_carrier_id)
{
    BOOL bError;

    EnterCriticalSection(&DelBuffCriticalSectio
n);
    if (dwDelBuffFreeCount > 0)
    {
        bError = FALSE;
        (pDelBuff+dwDelBuffFreeIndex)-
= w_id;
        (pDelBuff+dwDelBuffFreeIndex)-
= o_carrier_id;
        (pDelBuff+dwDelBuffFreeIndex)-
>queue=GetCurrentTime();
        dwDelBuffFreeCount--;
        dwDelBuffFreeIndex++;
        if (dwDelBuffFreeIndex ==
dwDelBuffSize)
            dwDelBuffFreeIndex = 0;
        // wrap-around if at end of
buffer

```

```

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

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

        return bError;
    }

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

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

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

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

    // if no params (i.e., empty query string),
then return login screen

```

```

        if (strlen(pECB->lpszQueryString) == 0)
            return;

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

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

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

/* FUNCTION: void WelcomeForm
 *
 *
 */

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

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

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

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

    "Compiled:  __DATE__ ,  __TIME__ <BR>"

    "Source:  __FILE__ (  __TIMESTAMP__ )"

    <BR>"

    "</PRE></font>"

    "<FORM ACTION=\"tpcc.dll\" METHOD=\"GET\""

    "<INPUT TYPE=\"hidden\" NAME=\"STATUSID\""
VALUE=\"0\">"

```

```

    "<INPUT TYPE=\"hidden\" NAME=\"ERROR\""
VALUE=\"0\">"

    "<INPUT TYPE=\"hidden\" NAME=\"FORMID\""
VALUE=\"1\">"

    "<INPUT TYPE=\"hidden\" NAME=\"TERMDID\""
VALUE=\"0\">"

    "<INPUT TYPE=\"hidden\" NAME=\"SYNCID\""
VALUE=\"0\">"

    "<INPUT TYPE=\"hidden\" NAME=\"VERSION\""
VALUE=\" " WEBCLIENT_VERSION "\>"
);

    sprintf( szTmp,
    "Configuration
Settings: <BR><font face=\"Courier New\""
color=\"blue\"><PRE>"

    "Txn Monitor           = <B>%s</B><BR>"

    "Database protocol     = <B>%s</B><BR>"

    "Max Connections      = <B>%d</B><BR>"
    "#

    "of Delivery Threads = <B>%d</B><BR>"

    "Max Pending Deliveries = <B>%d</B><BR>"

    szTxnMonNames[Reg.eTxnMon],
    szDBNames[Reg.eDB_Protocol],
    Reg.dwMaxConnections,
    dwNumDeliveryThreads, dwDelBuffSize );
    strcat( szBuffer, szTmp);

    if (Reg.eTxnMon == COM)
    {
        sprintf( szTmp,
        "COM Single
Pool           = <B>%s</B><BR>",
        Reg.bCOM_SinglePool ?
        "YES" : "NO" );
        strcat( szBuffer, szTmp);
    }
    strcat( szBuffer, "</PRE></font>");

    if (Reg.eTxnMon == None)
        // connection options may be
specified when not using a txn monitor
        sprintf( szTmp, "Please enter
your database options for this connection:<BR>"

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

        "DB Server      = <INPUT NAME=\"db_server\""
SIZE=20 VALUE=\"%s\"><BR>"

        "DB User ID     = <INPUT NAME=\"db_user\""
SIZE=20 VALUE=\"%s\"><BR>"

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        "DB Password = <INPUT NAME=\"db_passwd\"
SIZE=20 VALUE=\"%s\"><BR>"

        "DB Name = <INPUT NAME=\"db_name\"
SIZE=20 VALUE=\"%s\"><BR>"

        "</PRE></font>"

        ,
        Reg.szDbServer, Reg.szDbUser, Reg.szDbPassword,
        Reg.szDbName );
        else
            // if using a txn monitor,
            connection options are determined from registry;
            can't
            // set per user. show options
            fyi
            sprintf( szTmp, "Database
options which will be used by the transaction
monitor:<BR>"

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

        "DB Server = <B>%s</B><BR>"

        "DB User ID = <B>%s</B><BR>"

        "DB Password = <B>%s</B><BR>"

        "DB Name = <B>%s</B><BR>"

        "</PRE></font>"

        ,
        Reg.szDbServer, Reg.szDbUser, Reg.szDbPassword,
        Reg.szDbName );
        strcat( szBuffer, szTmp);

        sprintf( szTmp, "Please enter your
Warehouse and District for this session:<BR>"

        "<font face=\"Courier New\"
color=\"blue\"><PRE>" );
        strcat( szBuffer, szTmp);
        strcat( szBuffer, "Warehouse ID = <INPUT
NAME=\"w_id\" SIZE=4><BR>"

        "District ID = <INPUT NAME=\"d_id\"
SIZE=2><BR>"

        "</PRE></font><HR>"

        "<INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"Submit\">"

        "</FORM></BODY></HTML>");
    }

/* FUNCTION: SubmitCmd
*
* PURPOSE: This function allocated a new
terminal id in the Term structure array.
*

```

```

*/

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

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

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

    if (Reg.eTxnMon == None)
    {
        // parse Server name
        GetKeyValue(&ptr, "db_server",
szServer, sizeof(szServer), ERR_NO_SERVER_SPECIFIED);
        // parse User name
        GetKeyValue(&ptr, "db_user",
szUser, sizeof(szUser), NO_ERR);
        // parse Password
        GetKeyValue(&ptr, "db_passwd",
szPassword, sizeof(szPassword), NO_ERR);
        // parse Database name
        GetKeyValue(&ptr, "db_name",
szDatabase, sizeof(szDatabase), NO_ERR);
    }

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

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

    iNewTerm = TermAdd();

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

    try
    {

```

```

        if (Reg.eTxnMon == COM)

            Term.pClientData[iNewTerm].pTxn =
pCTPCC_COM_new( Reg.bCOM_SinglePool );
            else if (Reg.eDB_Protocol ==
DBLIB)

                Term.pClientData[iNewTerm].pTxn =
pCTPCC_DBLIB_new( szUser, szPassword, szDatabase );
    }
    catch (...)
    {
        TermDelete(iNewTerm);
        throw; // pass
        exception upward
    }

    MakeMainMenuForm(iNewTerm,
Term.pClientData[iNewTerm].iSyncId, szBuffer);
}

/* FUNCTION: StatsCmd
*
* PURPOSE: This function returns to the
browser the total number of active terminal ids.
*
* This routine is for
development/debugging purposes.
*
*/

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

    EnterCriticalSection(&TermCriticalSection);

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

    LeaveCriticalSection(&TermCriticalSection);

    wsprintf( szBuffer,

        "<HTML><HEAD><TITLE>TPC-C Web Client
Stats</TITLE></HEAD>"

        "<BODY><B><BIG> Total
Active Connections: %d </BIG></B><BR></BODY></HTML>"
        , iTotals );
}

char *CWEBCLNT_ERR::ErrorText()
{
    static SERRORMSG errorMsgs[] =
    {
        { ERR_COMMAND_UNDEFINED,

```

```

"Command undefined."
    {
        ERR_D_ID_INVALID,
    },
    "Invalid District ID Must be 1 to 10."
    {
    },
    ERR_DELIVERY_CARRIER_ID_RANGE,
    "Delivery Carrier ID out of range
must be 1 - 10."
    },
    {
        ERR_DELIVERY_CARRIER_INVALID,
        "Delivery Carrier ID invalid must be
numeric 1 - 10."
    },
    {
        ERR_DELIVERY_MISSING_OCD_KEY,
        "Delivery missing Carrier ID key \"OCD*\"."
    },
    {
    },
    ERR_DELIVERY_THREAD_FAILED,
    "Could not start delivery worker
thread."
    },
    {
        ERR_GETPROCADDR_FAILED,
        "Could not map proc in DLL. GetProcAddr
error. DLL="
    },
    {
        ERR_HTML_ILL_FORMED,
        "Required key field is missing from HTML
string."
    },
    {
        ERR_INVALID_SYNC_CONNECTION,
        "Invalid Terminal Sync ID."
    },
    {
        ERR_INVALID_TERMID,
        "Invalid Terminal ID."
    },
    {
        ERR_LOADDLL_FAILED,
        "Load of DLL failed. DLL="
    },
    {
    },
    ERR_MAX_CONNECTIONS_EXCEEDED,
    "No connections available. Max Connections
is probably too low."
    },
    {
        ERR_MISSING_REGISTRY_ENTRIES,
        "Required registry entries are missing.
Rerun INSTALL to correct."
    },
    {
        ERR_NEWORDER_CUSTOMER_INVALID,
        "New Order customer id invalid
data type, range = 1 to 3000."
    },

```

```

    {
        ERR_NEWORDER_CUSTOMER_KEY,
        "New Order missing Customer key
\"CID*\"."
    },
    {
    },
    ERR_NEWORDER_DISTRICT_INVALID,
    "New Order District ID Invalid
range 1 - 10."
    },
    {
    },
    ERR_NEWORDER_FORM_MISSING_DID,
    "New Order missing District key
\"DID*\"."
    },
    {
    },
    ERR_NEWORDER_ITEMID_INVALID,
    "New Order Item Id is wrong data type, must
be numeric."
    },
    {
    },
    ERR_NEWORDER_ITEMID_RANGE,
    "New Order Item Id is out of
range. Range = 1 to 999999."
    },
    {
    },
    ERR_NEWORDER_ITEMID_WITHOUT_SUPPW,
    "New Order ItemId field entered without a
corresponding Supp_W."
    },
    {
    },
    ERR_NEWORDER_MISSING_IID_KEY,
    "New Order missing Item Id key \"IID*\"."
    },
    {
    },
    {
    },
    ERR_NEWORDER_MISSING_QTY_KEY,
    "New Order Missing Qty key \"Qty##*\"."
    },
    {
    },
    {
    },
    ERR_NEWORDER_MISSING_SUPPW_KEY,
    "New Order missing Supp_W key
\"SP##*\"."
    },
    {
    },
    {
    },
    ERR_NEWORDER_NOITEMS_ENTERED,
    "New Order No order lines entered."
    },
    {
    },
    {
    },
    ERR_NEWORDER_QTY_INVALID,
    "New Order Qty invalid must be
numeric range 1 - 99."
    },
    {
    },
    {
        ERR_NEWORDER_QTY_RANGE,
        "New Order Qty is out of range. Range = 1
to 99."
    },
    {
    },
    {
    },
    ERR_NEWORDER_QTY_WITHOUT_SUPPW,
    "New Order Qty field entered
without a corresponding Supp_W."
    },
    {
    },
    {
    },
    ERR_NEWORDER_SUPPW_INVALID,
    "New Order Supp_W invalid data

```

```

type must be numeric."
    },
    {
    },
    ERR_NO_SERVER_SPECIFIED,
    "No Server name specified."
    },
    {
    },
    {
    },
    ERR_ORDERSTATUS_CID_AND_CLT,
    "Order Status Only Customer ID or Last Name
may be entered, not both."
    },
    {
    },
    ERR_ORDERSTATUS_CID_INVALID,
    "Order Status Customer ID invalid, range
must be numeric 1 - 3000."
    },
    {
    },
    ERR_ORDERSTATUS_CLT_RANGE,
    "Order Status Customer last name
longer than 16 characters."
    },
    {
    },
    ERR_ORDERSTATUS_DID_INVALID,
    "Order Status District invalid, value must
be numeric 1 - 10."
    },
    {
    },
    ERR_ORDERSTATUS_MISSING_CID_CLT,
    "Order Status Either Customer ID or Last
Name must be entered."
    },
    {
    },
    ERR_ORDERSTATUS_MISSING_CID_KEY,
    "Order Status missing Customer key
\"CID*\"."
    },
    {
    },
    {
    },
    ERR_ORDERSTATUS_MISSING_CLT_KEY,
    "Order Status missing Customer Last Name
key \"CLT*\"."
    },
    {
    },
    {
    },
    ERR_ORDERSTATUS_MISSING_DID_KEY,
    "Order Status missing District key
\"DID*\"."
    },
    {
    },
    {
    },
    ERR_PAYMENT_CDI_INVALID,
    "Payment Customer district
invalid must be numeric."
    },
    {
    },
    {
    },
    ERR_PAYMENT_CID_AND_CLT,
    "Payment Only Customer ID or Last
Name may be entered, not both."
    },
    {
    },
    ERR_PAYMENT_CUSTOMER_INVALID,
    "Payment Customer data type invalid, must
be numeric."
    },
    {
    },
    {
    },
    ERR_PAYMENT_CWI_INVALID,
    "Payment Customer Warehouse
invalid, must be numeric."
    },
    {
    },
    {
    },
    ERR_PAYMENT_DISTRICT_INVALID,
    "Payment District ID is invalid, must be 1
- 10."
    },

```

```

        {
            ERR_PAYMENT_HAM_INVALID,
            "Payment Amount invalid data type
must be numeric."
        },
        {
            ERR_PAYMENT_HAM_RANGE,
            "Payment Amount out of range, 0 - 9999.99."
        },
        {
            ERR_PAYMENT_LAST_NAME_TO_LONG,
            "Payment Customer last name
longer than 16 characters."
        },
        {
            ERR_PAYMENT_MISSING_CDI_KEY,
            "Payment missing Customer district key
\"CDI*\"."
        },
        {
            ERR_PAYMENT_MISSING_CID_CLT,
            "Payment Either Customer ID or Last Name
must be entered."
        },
        {
            ERR_PAYMENT_MISSING_CID_KEY,
            "Payment missing Customer Key \"CID*\"."
        },
        {
            ERR_PAYMENT_MISSING_CLT_KEY,
            "Payment missing Customer Last Name key
\"CLT*\"."
        },
        {
            ERR_PAYMENT_MISSING_CWI_KEY,
            "Payment missing Customer Warehouse key
\"CWI*\"."
        },
        {
            ERR_PAYMENT_MISSING_DID_KEY,
            "Payment missing District Key \"DID*\"."
        },
        {
            ERR_PAYMENT_MISSING_HAM_KEY,
            "Payment missing Amount key \"HAM*\"."
        },
        {
            ERR_STOCKLEVEL_MISSING_THRESHOLD_KEY,
            "Stock Level; missing Threshold key
\"TT*\"."
        },
        {
            ERR_STOCKLEVEL_THRESHOLD_INVALID,
            "Stock Level; Threshold value must be in
the range = 1 - 99."
        },
        {
            ERR_STOCKLEVEL_THRESHOLD_RANGE,
            "Stock Level Threshold out of
range, range must be 1 - 99."
        },
    },

```

```

        {
            ERR_VERSION_MISMATCH,
            "Invalid version field. RTE and Web Client
are probably out of sync."
        },
        {
            ERR_W_ID_INVALID,
            "Invalid Warehouse ID."
        },
        {
            0,
            ""
        }
    };
    char szTmp[256];
    int i = 0;
    while (TRUE)
    {
        if (errorMsgs[i].szMsg[0] == 0)
        {
            strcpy( szTmp, "Unknown
error number." );
            break;
        }
        if (m_Error ==
errorMsgs[i].iError)
        {
            strcpy( szTmp,
errorMsgs[i].szMsg );
            break;
        }
        i++;
    }
    if (m_szTextDetail)
        strcat( szTmp, m_szTextDetail );
    if (m_SystemErr)
        sprintf( szTmp+strlen(szTmp), "
Error=%d", m_SystemErr );
    m_szErrorText = new char[strlen(szTmp)+1];
    strcpy( m_szErrorText, szTmp );
    return m_szErrorText;
}
/* FUNCTION: GetKeyValue
*
* PURPOSE: This function parses a http
formatted string for specific key values.
*
* ARGUMENTS: char
*pQueryString http string from client
browser char key
value to look for char
*pValue

```

```

character array into which to place key's
value
* int
* iMax
* maximum length of key value array.
* WEBERROR
* err
* error value to throw
*
* RETURNS: nothing.
*
* ERROR: if (the pKey value is not found)
then
* if
* (err == 0)
* return (empty string)
*
* else
* throw CWEBCLNT_ERR(err)
*
* COMMENTS: http keys are formatted either
KEY=value& or KEY=value\0. This DLL formats
* TPC-C input
fields in such a manner that the keys can be
extracted in the
* above manner.
*/
void GetKeyValue(char **pQueryString, char *pKey,
char *pValue, int iMax, WEBERROR err)
{
    char *ptr;
    if ( !(ptr=strstr(*pQueryString, pKey)) )
        goto ErrorExit;
    ptr += strlen(pKey);
    if ( *ptr != '=' )
        goto ErrorExit;
    ptr++;
    iMax--; // one position is for terminating
null
    while( *ptr && *ptr != '&' && iMax)
    {
        *pValue++ = *ptr++;
        iMax--;
    }
    *pValue = 0; // terminating null
    *pQueryString = ptr;
    return;
ErrorExit:
    if (err != NO_ERR)
        throw new CWEBCLNT_ERR( err );
    *pValue = 0; // return empty result string
}
/* FUNCTION: GetIntKeyValue
*

```



```

* PURPOSE:      This function parses a http
formatted string for a specific key value.
*
* ARGUMENTS:   char
               *pQueryString      http string from client
browser
*
               char               key
value to look for *pKey
*
               WEBERROR           error value to throw if
NoKeyErr
key not found
*
               WEBERROR           error value to throw if
NotIntErr
value not numeric
*
* RETURNS:     integer
*
* ERROR:       if (the pKey value is not found)
then
*
               if
(NoKeyErr != NO_ERR)
*
               throw CWBCLNT_ERR(err)
*
               else
*
               return 0
*
               else if (non-
numeric char found) then
*
               if
(NotIntErr != NO_ERR) then
*
               throw CWBCLNT_ERR(err)
*
               else
*
               return 0
*
* COMMENTS:    http keys are formatted either
KEY=value& or KEY=value\0. This DLL formats
*
               TPC-C input
fields in such a manner that the keys can be
extracted in the
*
               above manner.
*/

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

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

    ptr0 = ptr;          // remember
starting point

```

```

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

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

*pQueryString = ptr;
return atoi(ptr0);

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

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

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

    Term.iMasterSyncId = 1;
    Term.iNumEntries =
Reg.dwMaxConnections+1;

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

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

    Term.iFreeList =
Term.iNumEntries-1;
    // build free list

```

```

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

LeaveCriticalSection(&TermCriticalSection);
}

/* FUNCTION: TermDeleteAll
*
* PURPOSE:      This function frees allocated
resources associated with the terminal structure.
*
* ARGUMENTS:    none
*
* RETURNS:      None
*
* COMMENTS:     This function is called only when
the inet service unloads the TPCC.DLL
*
*/

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

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

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

    LeaveCriticalSection(&TermCriticalSection);
}

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

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

```

```

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

    EnterCriticalSection(&TermCriticalSection);
    if (Term.iFreeList != 0)
    {
        // position is available
        iNewTerm = Term.iFreeList;
        Term.iFreeList =
Term.pClientData[iNewTerm].iNextFree;

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

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

        LeaveCriticalSection(&TermCriticalSection);
        return iNewTerm;
    }

/* FUNCTION: TermDelete
*
* PURPOSE:      This function makes a terminal
entry in the Term array available for reuse.
*

```

```

* ARGUMENTS:      int
                  id
                  Terminal id of client exiting
*
*/

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

        // put onto free list

        EnterCriticalSection(&TermCriticalSection);

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

        LeaveCriticalSection(&TermCriticalSection);
    }

/* FUNCTION: MakeErrorForm
*
*/

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

```

```

"    <INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\".Exit..\">"
"</FORM></BODY></HTML>"
, iType, iErrorNum,
MAIN_MENU_FORM, iTermId, iSyncId, szErrorText );
}

/* FUNCTION: MakeMainMenuForm
*/

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

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

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

```

```

int      c;

c = sprintf(szForm,
            "HTML<HEAD><TITLE>TPC-C Stock
Level</TITLE></HEAD><FORM ACTION=\"tpcc.dll\"
METHOD=\"GET\">"
            "<INPUT TYPE=\"hidden\"
NAME=\"STATUSID\" VALUE=\"0\">"
            "<INPUT TYPE=\"hidden\"
NAME=\"ERROR\" VALUE=\"0\">"
            "<INPUT TYPE=\"hidden\"
NAME=\"FORMID\" VALUE=\"%d\">"
            "<INPUT TYPE=\"hidden\"
NAME=\"TERMINID\" VALUE=\"%d\">"
            "<INPUT TYPE=\"hidden\"
NAME=\"SYNCID\" VALUE=\"%d\">"
            "<PRE><font face=\"Courier\">
Stock-Level<BR>"
            "%2.2d<BR> <BR>",
            Warehouse: %4.4d District:
            %2.2d<BR> <BR>",
            STOCK_LEVEL_FORM, iTermId,
            Term.pClientData[iTermId].iSyncId,
            Term.pClientData[iTermId].w_id,
            Term.pClientData[iTermId].d_id);

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

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

void MakeNewOrderForm(int iTermId, NEW_ORDER_DATA
*pNewOrderData, BOOL bInput, char *szForm)
{
    int      i, c;
    BOOL     bValid;
    static   char szBR[] = " <BR> <BR> <BR>
<BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR> <BR>
<BR> <BR>";

/*
if (!bInput)
assert( pNewOrderData->exec_status_code == eOK || pNewOrderData->exec_status_code == eInvalidItem );
*/
bValid = (bInput || (pNewOrderData->exec_status_code == eOK));

c = sprintf(szForm,
            "HTML<HEAD><TITLE>TPC-C New
Order</TITLE></HEAD><BODY>"
            "<FORM ACTION=\"tpcc.dll\"
METHOD=\"GET\">"
            "<INPUT TYPE=\"hidden\"
NAME=\"STATUSID\" VALUE=\"%d\">"
            "<INPUT TYPE=\"hidden\"
NAME=\"ERROR\" VALUE=\"0\">"
            "<INPUT TYPE=\"hidden\"
NAME=\"FORMID\" VALUE=\"%d\">"
            "<INPUT TYPE=\"hidden\"
NAME=\"TERMINID\" VALUE=\"%d\">"
            "<INPUT TYPE=\"hidden\"
NAME=\"SYNCID\" VALUE=\"%d\">"
            "<PRE><font face=\"Courier\">
New Order<BR>"
            " , bValid ? 0 : ERR_BAD_ITEM_ID,
NEW_ORDER_FORM, iTermId,
Term.pClientData[iTermId].iSyncId);

if ( bInput )
{
    c += sprintf(szForm+c,
                "Warehouse: %4.4d ", Term.pClientData[iTermId].w_id
                );
    strcpy( szForm+c,

```

```

            "District: <INPUT
NAME=\"DID*\" SIZE=1>
Date:<BR>"
            "Customer: <INPUT
NAME=\"CID*\" SIZE=4> Name:
Credit: %Disc:<BR>"
            "Order Number:
Number of Lines: W_tax: D_tax:<BR>
<BR>"
            " Supp_W Item_Id Item
Name Qty Stock B/G Price
Amount<BR>"
            "<INPUT
NAME=\"SP00*\" SIZE=4> <INPUT NAME=\"IID00*\"
SIZE=6> <INPUT
NAME=\"Qty00*\" SIZE=1><BR>"
            "<INPUT
NAME=\"SP01*\" SIZE=4> <INPUT NAME=\"IID01*\"
SIZE=6> <INPUT
NAME=\"Qty01*\" SIZE=1><BR>"
            "<INPUT
NAME=\"SP02*\" SIZE=4> <INPUT NAME=\"IID02*\"
SIZE=6> <INPUT
NAME=\"Qty02*\" SIZE=1><BR>"
            "<INPUT
NAME=\"SP03*\" SIZE=4> <INPUT NAME=\"IID03*\"
SIZE=6> <INPUT
NAME=\"Qty03*\" SIZE=1><BR>"
            "<INPUT
NAME=\"SP04*\" SIZE=4> <INPUT NAME=\"IID04*\"
SIZE=6> <INPUT
NAME=\"Qty04*\" SIZE=1><BR>"
            "<INPUT
NAME=\"SP05*\" SIZE=4> <INPUT NAME=\"IID05*\"
SIZE=6> <INPUT
NAME=\"Qty05*\" SIZE=1><BR>"
            "<INPUT
NAME=\"SP06*\" SIZE=4> <INPUT NAME=\"IID06*\"
SIZE=6> <INPUT
NAME=\"Qty06*\" SIZE=1><BR>"
            "<INPUT
NAME=\"SP07*\" SIZE=4> <INPUT NAME=\"IID07*\"
SIZE=6> <INPUT
NAME=\"Qty07*\" SIZE=1><BR>"
            "<INPUT
NAME=\"SP08*\" SIZE=4> <INPUT NAME=\"IID08*\"
SIZE=6> <INPUT
NAME=\"Qty08*\" SIZE=1><BR>"
            "<INPUT
NAME=\"SP09*\" SIZE=4> <INPUT NAME=\"IID09*\"
SIZE=6> <INPUT
NAME=\"Qty09*\" SIZE=1><BR>"
            "<INPUT
NAME=\"SP10*\" SIZE=4> <INPUT NAME=\"IID10*\"
SIZE=6> <INPUT
NAME=\"Qty10*\" SIZE=1><BR>"
            "<INPUT
NAME=\"SP11*\" SIZE=4> <INPUT NAME=\"IID11*\"
SIZE=6> <INPUT
NAME=\"Qty11*\" SIZE=1><BR>"
            "<INPUT
NAME=\"SP12*\" SIZE=4> <INPUT NAME=\"IID12*\"

```

```

SIZE=6>                                <INPUT
NAME="\Qty12*" SIZE=1><BR>"
" <INPUT
NAME="\SP13*" SIZE=4> <INPUT NAME="\IID13*"
SIZE=6>                                <INPUT
NAME="\Qty13*" SIZE=1><BR>"
" <INPUT
NAME="\SP14*" SIZE=4> <INPUT NAME="\IID14*"
SIZE=6>                                <INPUT
NAME="\Qty14*" SIZE=1><BR>"
"Execution Status:
Total:<BR>"
" </font></PRE><HR>"
" <INPUT TYPE="submit"
NAME="\CMD\" VALUE="\Process">"
" <INPUT TYPE="submit"
NAME="\CMD\" VALUE="\Menu">"
" </FORM></HTML>"
}
else
{
c += sprintf(szForm+c,
"Warehouse: %4.4d District: %2.2d
Date: ",
pNewOrderData->w_id,
pNewOrderData->d_id);
if ( bValid )
{
c += sprintf(szForm+c,
"%2.2d-%2.2d-%4.4d %2.2d:%2.2d:%2.2d",
pNewOrderData->o_entry_d.day,
pNewOrderData->o_entry_d.month,
pNewOrderData->o_entry_d.year,
pNewOrderData->o_entry_d.hour,
pNewOrderData->o_entry_d.minute,
pNewOrderData->o_entry_d.second);
}
c += sprintf(szForm+c,
"<BR>Customer: %4.4d Name: %-16s Credit: %-2s
",
pNewOrderData->c_id,
pNewOrderData->c_last, pNewOrderData->c_credit);
if ( bValid )
{
c += sprintf(szForm+c,
"%Disc: %5.2f <BR>"
"Order Number: %8.8d Number of Lines:
%2.2d W_tax: %5.2f D_tax: %5.2f <BR> <BR>"
" Supp_W Item_Id Item Name
Qty Stock B/G Price Amount<BR>",

```

```

//MIC tax already converted
pNewOrderData->c_discount,
pNewOrderData->o_id,
pNewOrderData->o_ol_cnt,
pNewOrderData->w_tax,
pNewOrderData->d_tax);
for(i=0; i<pNewOrderData->o_ol_cnt; i++)
{
c +=
sprintf(szForm+c, " %4.4d %6.6d %-24s %2.2d
%3.3d %1.1s %6.2f %7.2f <BR>",
pNewOrderData->OL[i].ol_supply_w_id,
pNewOrderData->OL[i].ol_i_id,
pNewOrderData->OL[i].ol_i_name,
pNewOrderData->OL[i].ol_quantity,
pNewOrderData->OL[i].ol_stock,
pNewOrderData->OL[i].ol_brand_generic,
pNewOrderData->OL[i].ol_i_price,
pNewOrderData->OL[i].ol_amount );
}
else
{
c += sprintf(szForm+c,
Number: %8.8d Number of Lines: W_tax:
D_tax:<BR> <BR>"
" Supp_W
Item_Id Item Name Qty Stock B/G
Price Amount<BR>"
pNewOrderData->o_id);
i = 0;
strcpy( szForm+c, szBR, (15-i)*5 );
c += (15-i)*5;
if ( bValid )
c += sprintf(szForm+c,
"Execution Status: Transaction committed.
Total: %8.2f ",
pNewOrderData->total_amount);

```

```

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

```

```

        c += sprintf(szForm+c, "%2.2d-
%2.2d-%4.4d %2.2d:%2.2d:%2.2d",
        pPaymentData-
>h_date.day,
        pPaymentData-
>h_date.month,
        pPaymentData-
>h_date.year,
        pPaymentData-
>h_date.hour,
        pPaymentData-
>h_date.minute,
        pPaymentData-
>h_date.second);
    }
    if ( bInput )
    {
        c += sprintf(szForm+c,
        "Cust-Warehouse:
%4.4d
District: <INPUT NAME=\"DID*\" SIZE=1><BR> <BR> <BR>
<BR> <BR>
NAME=\"CID*\" SIZE=4>
Customer: <INPUT
NAME=\"CWI*\" SIZE=4>
Cust-Warehouse: <INPUT
NAME=\"CDI*\" SIZE=1><BR>
Name:
<INPUT NAME=\"CLT*\" SIZE=16>
Since:<BR>
Credit:<BR>
Disc:<BR>
Phone:<BR> <BR>
$<INPUT NAME=\"HAM*\" SIZE=7>
New Cust-
Balance:<BR>
Credit Limit:<BR>
Cust-Data: <BR> <BR> <BR>
<BR></font></PRE><HR>
" <INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"Process\"><INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"Menu\">
" </BODY></FORM></HTML>
",
        Term.pClientData[iTermId].w_id);
    }
    else
    {
        if(pPaymentData->c_id==0)
        {
            c+=sprintf(szForm+c,"<BR> <BR> INVALID
CUSTOMER <BR><BR>");
            else if(pPaymentData-
>exec_status_code==eSqlError)
            {
                c+=sprintf(szForm+c,"<BR> <BR> INVALID

```

```

C_ID=%d OR D_ID=%d OR W_ID=%d<BR><BR> ",pPaymentData-
>c_id,pPaymentData->c_w_id,pPaymentData->c_d_id);
    }
    else
    {
        c += sprintf(szForm+c,
        "Cust-Warehouse:
%4.4d
District: %2.2d<BR>
" %20s
" %20s
" %20s
" %20s
" %20s %2s %5.5s-%4.4s
Cust-District: %2.2d<BR>
Customer: %4.4d Cust-
Warehouse: %4.4d Cust-District: %2.2d<BR>
Name: %16s %2s %16s
Since: %2.2d-%2.2d-%4.4d<BR>
Credit: %2s<BR>
Term.pClientData[iTermId].w_id, pPaymentData->d_id
, pPaymentData-
>w_street_1, pPaymentData->d_street_1
, pPaymentData-
>w_street_2, pPaymentData->d_street_2
, pPaymentData->w_city,
pPaymentData->w_state, pPaymentData->w_zip,
pPaymentData->w_zip+5
, pPaymentData->d_city,
pPaymentData->d_state, pPaymentData->d_zip,
pPaymentData->d_zip+5
, pPaymentData->c_id,
pPaymentData->c_d_id
, pPaymentData-
>c_first, pPaymentData->c_middle, pPaymentData-
>c_last
, pPaymentData-
>c_since.day, pPaymentData->c_since.month,
pPaymentData->c_since.year
, pPaymentData-
>c_street_1, pPaymentData->c_credit
);
        c += sprintf(szForm+c,
        " %20s
" %20s
pPaymentData-
>c_street_2, pPaymentData->c_discount);
        c += sprintf(szForm+c,
        " %20s %2s
" %20s %2s %5.5s-%4.4s
Phone: %6.6s-%3.3s-%3.3s-%4.4s<BR>
<BR>
pPaymentData->c_city,
pPaymentData->c_zip,
pPaymentData->c_zip+5,
pPaymentData->c_phone,
pPaymentData->c_phone+6, pPaymentData->c_phone+9,
pPaymentData->c_phone+12 );
        c += sprintf(szForm+c,

```

```

        "Amount Paid:
$%7.2f New Cust-Balance: $%14.2f<BR>
"Credit Limit:
$%13.2f<BR> <BR>
", pPaymentData-
>h_amount, pPaymentData->c_balance
, pPaymentData-
>c_credit_lim
);
    }
    if ( pPaymentData->c_credit[0] ==
'B' && pPaymentData->c_credit[1] == 'C' )
    {
        c += sprintf(szForm+c,
        "Cust-Data: %50.50s<BR>
50.50s<BR>
50.50s<BR>
",
        pPaymentData->c_data, pPaymentData-
>c_data+50, pPaymentData->c_data+100, pPaymentData-
>c_data+150 );
        else
        {
            strcpy(szForm+c, "Cust-
Data: <BR> <BR> <BR> <BR>");
            strcat(szForm,
            "
" <INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"..NewOrder..\">
" <INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"..Payment..\">
" <INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"..Delivery..\">
" <INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"..Order-Status..\">
" <INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"..Stock-Level..\">
" <INPUT TYPE=\"submit\" NAME=\"CMD\"
VALUE=\"..Exit..\">
" </BODY></FORM></HTML>");
        }
    }
}
/* FUNCTION: MakeOrderStatusForm
*
* COMMENTS: The internal client buffer is
created when the terminal id is assigned and should
not
* be freed
* except when the client terminal id is no longer
needed.
*/

```



```

int      c;

c = sprintf(szForm,
            "<HTML><HEAD><TITLE>TPC-C
Delivery</TITLE></HEAD><BODY>"
            "<FORM ACTION=\"tpcc.dll\"
METHOD=\"GET\">"
            "<INPUT TYPE=\"hidden\"
NAME=\"STATUSID\" VALUE=\"%d\">"
            "<INPUT TYPE=\"hidden\"
NAME=\"ERROR\" VALUE=\"0\">"
            "<INPUT TYPE=\"hidden\"
NAME=\"FORMID\" VALUE=\"%d\">"
            "<INPUT TYPE=\"hidden\"
NAME=\"TERMINID\" VALUE=\"%d\">"
            "<INPUT TYPE=\"hidden\"
NAME=\"SYNCID\" VALUE=\"%d\">"
            "<PRE><font face=\"Courier\">
Delivery<BR>"
            "Warehouse: %4.4d<BR> <BR>",
            (!bInput && (pDeliveryData-
>exec_status_code != eOK)) ? ERR_TYPE_DELIVERY_POST :
0,
            DELIVERY_FORM, iTermId,
Term.pClientData[iTermId].iSyncId,
Term.pClientData[iTermId].w_id);

if ( bInput )
{
    strcpy( szForm+c,
            "Carrier Number: <INPUT
NAME=\"OCD*\" SIZE=1<BR> <BR>"
            "Execution Status: <BR>
<BR> <BR> <BR> <BR> <BR> <BR> <BR>"
            "<BR> <BR> <BR> <BR> </font></PRE><HR>"
            "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"Process\">"
            "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"Menu\">"
            "</BODY></FORM></HTML>"
    );
}
else
{
    sprintf( szForm+c,
            "Carrier Number:
%2.2d<BR> <BR>"
            "Execution Status: %s
<BR> <BR> <BR> <BR> <BR> <BR> <BR>"
            "<BR> <BR> <BR> <BR> </font></PRE>"
            "<HR><INPUT
TYPE=\"submit\" NAME=\"CMD\" VALUE=\"..NewOrder..\">"
            "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Payment..\">"
            "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Delivery..\">"
            "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Order-Status..\">"
            "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Stock-Level..\">"
    );
}
}

```

```

            "<INPUT TYPE=\"submit\"
NAME=\"CMD\" VALUE=\"..Exit..\">"
            "</BODY></FORM></HTML>"
            , pDeliveryData-
            (pDeliveryData-
>exec_status_code == eOK) ? "Delivery has been
queued." : "Delivery Post Failed"
            );
    }
}

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

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

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

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

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

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

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

```

```

*
*/

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

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

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

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

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

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

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

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

```

```

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

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

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

    PDELIVERY_DATA    pDelivery;

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

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

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

```

```

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

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

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

    PSTOCK_LEVEL_DATA    pStockLevel;

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

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

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

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

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

```

```

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

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

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

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

    for(i=0, items=0; i<MAX_OL_NEW_ORDER_ITEMS;
i++)
    {
        GetKeyValue(&ptr, szSP[i], szTmp,
sizeof(szTmp), ERR_NEWORDER_MISSING_SUPPW_KEY);
        if ( szTmp[0] )

```



```

        {
            if ( !IsNumeric(szTmp)
                throw new
                CWBCLNT_ERR( ERR_NEWORDER_SUPPW_INVALID );
                pNewOrderData->
                >OL[items].ol_supply_w_id = (short)atoi(szTmp);

                ol_i_id =
                pNewOrderData->OL[items].ol_i_id =

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

                ol_quantity =
                pNewOrderData->OL[items].ol_quantity =

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

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

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

            }
        }
        if ( items == 0 )
            throw new CWBCLNT_ERR(
            ERR_NEWORDER_NOITEMS_ENTERED );

        pNewOrderData->o_ol_cnt = items;
    }

    /* FUNCTION: GetPaymentData
    *

```

```

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

    void GetPaymentData(LPSTR lpszQueryString,
    PAYMENT_DATA *pPaymentData)
    {
        char    szTmp[26];
        char    *ptr = lpszQueryString;
        BOOL    bCustIdBlank;

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

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

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

        if( ( pPaymentData->c_w_id == 0 ) || (
        pPaymentData->c_d_id == 0 ) )
            throw new CWBCLNT_ERR(
            ERR_PAYMENT_CUSTOMER_INVALID );

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

```

```

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

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

/* FUNCTION: GetOrderStatusData
*
* PURPOSE:      This function extracts and
validates the payment form data from an http command
string.
*
*/
void GetOrderStatusData(LPSTR lpszQueryString,
ORDER_STATUS_DATA *pOrderStatusData)
{
    char    szTmp[26];
    char    *ptr = lpszQueryString;

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

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

        _strupr( szTmp );
        if ( strlen(pOrderStatusData->
        >c_last) > LAST_NAME_LEN )

```

```

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

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

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

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

/* FUNCTION: BOOL IsDecimal(char *ptr)
*
* PURPOSE:      This function determines if a
string is a non-negative decimal value.
*              It fails if any characters other than a
series of numbers followed by
*              a decimal point,
another series of numbers, and a null terminator are
present.
*
* ARGUMENTS:   char
               *ptr
               pointer to string to check.
*

```

```

* RETURNS:     BOOL      FALSE    if
string is not a valid non-negative decimal value
*              TRUE      if string is OK
*/

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

    if ( *ptr == 0 )
        return FALSE;

    // find decimal point
    dotpctr = strchr( ptr, '.' );
    if (dotpctr == NULL)

        // no decimal point, so just
check for numeric
        return IsNumeric(ptr);
    *dotpctr = 0; // temporarily replace
decimal with a terminator

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

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

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

```

tpcc.def

LIBRARY TPCC.DLL

EXPORTS

```

    GetExtensionVersion @1
    HttpExtensionProc  @2
    TerminateExtension @3

```

tpcc.h

```

/*      FILE:      TPCC.H
*
*      TPC-C Kit Ver. 4.20.000
*
*      Microsoft, 1999
*
*      All Rights Reserved
*
Microsoft
Copyright

```

```

*
*              Version
4.10.000 audited by Richard Gimarc, Performance
Metrics, 3/17/99
*
*      PURPOSE:   Header file for ISAPI TPCC.DLL,
defines structures and functions used in the isapi
tpcc.dll.
*
*/

//VERSION RESOURCE DEFINES

#define _APS_NEXT_RESOURCE_VALUE
101
#define _APS_NEXT_COMMAND_VALUE
40001
#define _APS_NEXT_CONTROL_VALUE
1000
#define _APS_NEXT_SYMED_VALUE
101

#define TP_MAX_RETRIES
50

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

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

//This structure defines the data necessary to keep
distinct for each terminal or client connection.
typedef struct _CLIENTIDATA
{

```

```

        int                iNextFree;
next free element or -1 if this entry in use.
        int                w_id;
id assigned at welcome form
        int                d_id;
assigned at welcome form
        int                iSyncId;
        int                iTickCount;
last access:
        CTPCC_BASE         *pTxn;
} CLIENTDATA, *PCLIENTDATA;

//This structure is used to define the operational
interface for terminal id support
typedef struct _TERM
{
        int                iNumEntries;
//total allocated terminal array entries
        int                iFreeList;

//next available terminal array element or
-1 if none
        int                iMasterSyncId;
        CLIENTDATA         *pClientData;
allocated client data
} TERM;

typedef TERM *PTERM;

terminal structure type

enum WEBERROR
{
        NO_ERR,
        ERR_COMMAND_UNDEFINED,
        ERR_D_ID_INVALID,
        ERR_DELIVERY_CARRIER_ID_RANGE,
        ERR_DELIVERY_CARRIER_INVALID,
        ERR_DELIVERY_MISSING_OCD_KEY,
        ERR_DELIVERY_THREAD_FAILED,
        ERR_GETPROCADDR_FAILED,
        ERR_HTML_ILL_FORMED,
        ERR_INVALID_SYNC_CONNECTION,
        ERR_INVALID_TERMID,
        ERR_LOADDLL_FAILED,
        ERR_MAX_CONNECTIONS_EXCEEDED,
        ERR_MEM_ALLOC_FAILED,
        ERR_MISSING_REGISTRY_ENTRIES,
        ERR_NEWORDER_CUSTOMER_INVALID,

```

```

        ERR_NEWORDER_CUSTOMER_KEY,
        ERR_NEWORDER_DISTRICT_INVALID,
        ERR_NEWORDER_FORM_MISSING_DID,
        ERR_NEWORDER_ITEMID_INVALID,
        ERR_NEWORDER_ITEMID_RANGE,

        ERR_NEWORDER_ITEMID_WITHOUT_SUPPW,
        ERR_NEWORDER_MISSING_IID_KEY,
        ERR_NEWORDER_MISSING_QTY_KEY,
        ERR_NEWORDER_MISSING_SUPPW_KEY,
        ERR_NEWORDER_NOITEMS_ENTERED,
        ERR_NEWORDER_QTY_INVALID,
        ERR_NEWORDER_QTY_RANGE,
        ERR_NEWORDER_QTY_WITHOUT_SUPPW,
        ERR_NEWORDER_SUPPW_INVALID,
        ERR_NO_SERVER_SPECIFIED,
        ERR_ORDERSTATUS_CID_AND_CLT,
        ERR_ORDERSTATUS_CID_INVALID,
        ERR_ORDERSTATUS_CLT_RANGE,
        ERR_ORDERSTATUS_DID_INVALID,
        ERR_ORDERSTATUS_MISSING_CID_CLT,
        ERR_ORDERSTATUS_MISSING_CID_KEY,
        ERR_ORDERSTATUS_MISSING_CLT_KEY,
        ERR_ORDERSTATUS_MISSING_DID_KEY,
        ERR_PAYMENT_CDI_INVALID,
        ERR_PAYMENT_CID_AND_CLT,
        ERR_PAYMENT_CUSTOMER_INVALID,
        ERR_PAYMENT_CWI_INVALID,
        ERR_PAYMENT_DISTRICT_INVALID,
        ERR_PAYMENT_HAM_INVALID,
        ERR_PAYMENT_HAM_RANGE,
        ERR_PAYMENT_LAST_NAME_TO_LONG,
        ERR_PAYMENT_MISSING_CDI_KEY,
        ERR_PAYMENT_MISSING_CID_CLT,
        ERR_PAYMENT_MISSING_CID_KEY,
        ERR_PAYMENT_MISSING_CLT,
        ERR_PAYMENT_MISSING_CLT_KEY,
        ERR_PAYMENT_MISSING_CWI_KEY,
        ERR_PAYMENT_MISSING_DID_KEY,
        ERR_PAYMENT_MISSING_HAM_KEY,

        ERR_STOCKLEVEL_MISSING_THRESHOLD_KEY,
        ERR_STOCKLEVEL_THRESHOLD_INVALID,
        ERR_STOCKLEVEL_THRESHOLD_RANGE,
        ERR_VERSION_MISMATCH,
        ERR_W_ID_INVALID
};

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

        CWEBCLNT_ERR(WEBERROR Err, char
        *szTextDetail, DWORD dwSystemErr)
        {

```

```

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

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

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

        int ErrorType() {return
ERR_TYPE_WEBDLL;};

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

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

//function prototypes

BOOL APIENTRY DllMain(HANDLE hModule, DWORD
ul_reason_for_call, LPVOID lpReserved);
void WriteMessageToEventLog(LPTSTR lpszMsg);
void ProcessQueryString(EXTENSION_CONTROL_BLOCK
*pECB, int *pCmd, int *pFormId, int *pTermId, int
*pSyncId);
void WelcomeForm(EXTENSION_CONTROL_BLOCK *pECB, char
*szBuffer);
void SubmitCmd(EXTENSION_CONTROL_BLOCK *pECB, char
*szBuffer);
void BeginCmd(EXTENSION_CONTROL_BLOCK *pECB, int
iFormId, int iTermId);
void ProcessCmd(EXTENSION_CONTROL_BLOCK *pECB, int
iFormId, int iTermId);
void StatsCmd(EXTENSION_CONTROL_BLOCK *pECB, char
*szBuffer);

```

```

void ErrorMessage(EXTENSION_CONTROL_BLOCK *pECB, int
iError, int iErrorType, char *szMsg, int iTermId);
void GetKeyValue(char **pQueryString, char *pKey,
char *pValue, int iMax, WEBERROR err);
int GetIntKeyValue(char **pQueryString, char *pKey,
WEBERROR NoKeyErr, WEBERROR NotIntErr);
void TermInit(void);
void TermDeleteAll(void);
int TermAdd(void);
void TermDelete(int id);
void ErrorForm(EXTENSION_CONTROL_BLOCK *pECB, int
iType, int iErrorNum, int iTermId, int iSyncId, char
*szErrorText, char *szBuffer );
void MakeMainMenuForm(int iTermId, int iSyncId, char
*szForm);
void MakeStockLevelForm(int iTermId, STOCK_LEVEL_DATA
*pStockLevelData, BOOL bInput, char *szForm);
void MakeNewOrderForm(int iTermId, NEW_ORDER_DATA
*pNewOrderData, BOOL bInput, char *szForm);
void MakePaymentForm(int iTermId, PAYMENT_DATA
*pPaymentData, BOOL bInput, char *szForm);
void MakeOrderStatusForm(int iTermId,
ORDER_STATUS_DATA *pOrderStatusData, BOOL bInput,
char *szForm);
void MakeDeliveryForm(int iTermId, DELIVERY_DATA
*pDeliveryData, BOOL bInput, char *szForm);
void ProcessNewOrderForm(EXTENSION_CONTROL_BLOCK
*pECB, int iTermId, char *szBuffer);
void ProcessPaymentForm(EXTENSION_CONTROL_BLOCK
*pECB, int iTermId, char *szBuffer);
void ProcessOrderStatusForm(EXTENSION_CONTROL_BLOCK
*pECB, int iTermId, char *szBuffer);
void ProcessDeliveryForm(EXTENSION_CONTROL_BLOCK
*pECB, int iTermId, char *szBuffer);
void ProcessStockLevelForm(EXTENSION_CONTROL_BLOCK
*pECB, int iTermId, char *szBuffer);
void GetNewOrderData(LPSTR lpszQueryString,
NEW_ORDER_DATA *pNewOrderData);
void GetPaymentData(LPSTR lpszQueryString,
PAYMENT_DATA *pPaymentData);
void GetOrderStatusData(LPSTR lpszQueryString,
ORDER_STATUS_DATA *pOrderStatusData);
BOOL PostDeliveryInfo(short w_id, short
o_carrier_id);
BOOL IsNumeric(char *ptr);
BOOL IsDecimal(char *ptr);
void DeliveryWorkerThread(void *ptr);

```

tpcc.rc

```

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

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

```

```

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

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

```

```

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

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

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

#endif // APSTUDIO_INVOKED

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

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

```



```

        HRESULT hr = m_pNewOrder->NewOrder(m_vTxn,
&vTxn_out);
        if (FAILED(hr))
            throw new CCOMERR( hr );
        memcpy(m_pTxn, (void *)vTxn_out.parray-
>pvData, vTxn_out.parray->rgsabound[0].cElements);
        SafeArrayDestroy(vTxn_out.parray);

        if ( m_pTxn->ErrorType != ERR_SUCCESS )
            throw new CCOMERR( m_pTxn-
>ErrorType, m_pTxn->error );
    }

void CTPCC_COM::Payment()
{
    VARIANT    vTxn_out;

    HRESULT hr = m_pPayment->Payment(m_vTxn,
&vTxn_out);
    if (FAILED(hr))
        throw new CCOMERR( hr );
    memcpy(m_pTxn, (void *)vTxn_out.parray-
>pvData, vTxn_out.parray->rgsabound[0].cElements);
    SafeArrayDestroy(vTxn_out.parray);

    if ( m_pTxn->ErrorType != ERR_SUCCESS )
        throw new CCOMERR( m_pTxn-
>ErrorType, m_pTxn->error );
}

void CTPCC_COM::StockLevel()
{
    VARIANT    vTxn_out;

    HRESULT hr = m_pStockLevel-
>StockLevel(m_vTxn, &vTxn_out);
    if (FAILED(hr))
        throw new CCOMERR( hr );
    memcpy(m_pTxn, (void *)vTxn_out.parray-
>pvData, vTxn_out.parray->rgsabound[0].cElements);
    SafeArrayDestroy(vTxn_out.parray);

    if ( m_pTxn->ErrorType != ERR_SUCCESS )
        throw new CCOMERR( m_pTxn-
>ErrorType, m_pTxn->error );
}

void CTPCC_COM::OrderStatus()
{
    VARIANT    vTxn_out;

    HRESULT hr = m_pOrderStatus-
>OrderStatus(m_vTxn, &vTxn_out);
    if (FAILED(hr))
        throw new CCOMERR( hr );
    memcpy(m_pTxn, (void *)vTxn_out.parray-
>pvData, vTxn_out.parray->rgsabound[0].cElements);
    SafeArrayDestroy(vTxn_out.parray);

    if ( m_pTxn->ErrorType != ERR_SUCCESS )
        throw new CCOMERR( m_pTxn-
>ErrorType, m_pTxn->error );
}

```

tpcc_com.h

```

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

#pragma once

#include <stdio.h>
#include "..\..\tpcc_com_ps\src\tpcc_com_ps.h"

// need to declare functions for import, unless
define has already been created
// by the DLL's .cpp module for export.
#ifdef DllDecl
#define DllDecl __declspec( dllimport )
#endif

class CCOMERR : public CBaseErr
{
private:
    char m_szErrorText[64];

public:
    // use this interface for genuine
    COM errors
    CCOMERR( HRESULT hr )
    {
        m_hr = hr;
        m_iErrorType = 0;
        m_iError = 0;
    }

    // use this interface to
    impersonate a non-COM error type
    CCOMERR( int iErrorType, int
iError )
    {
        m_iErrorType =
iErrorType;
        m_iError = iError;
        m_hr = S_OK;
    }

    int            m_hr;
    int            m_iErrorType;
    int            m_iError;
}

```

```

// A CCOMERR class can
impersonate another
class, which happens if the error
// was not actually a COM
Services error, but was simply transmitted back via
COM.

    int ErrorType()
    {
        if (m_iErrorType == 0)
            return
ERR_TYPE_COM;
        else
            return
m_iErrorType;
    }

    int ErrorNum() {return m_hr;}

    char *ErrorText()
    {
        if (m_hr == S_OK)
            sprintf(
m_szErrorText, "Error: Class %d, error # %d",
m_iErrorType, m_iError );
        else
            sprintf(
m_szErrorText, "Error: COM HRESULT %x", m_hr );
        return m_szErrorText;
    }
};

class DllDecl CTPCC_COM : public CTPCC_BASE
{
private:
    BOOL m_bSinglePool;

    // COM Interface pointers
    ITPCC*
m_pNewOrder;
    ITPCC*
m_pPayment;
    ITPCC*
m_pStockLevel;
    ITPCC*
m_pOrderStatus;

    struct COM_DATA
    {
        int ErrorType;
        int error;
        union
        {
            NEW_ORDER_DATA    NewOrder;
            PAYMENT_DATA      Payment;
            DELIVERY_DATA     Delivery;
            STOCK_LEVEL_DATA  StockLevel;
            ORDER_STATUS_DATA OrderStatus;
        } u;
    } *m_pTxn;
}

```

```

        VARIANT m_vTxn;
public:
    CTPCC_COM(BOOL bSinglePool);
    ~CTPCC_COM(void);

    inline PNEW_ORDER_DATA
    BuffAddr_NewOrder() { return
&m_pTxn->u.NewOrder; };
    inline PPAYMENT_DATA
    BuffAddr_Payment() { return
&m_pTxn->u.Payment; };
    inline PDELIVERY_DATA
    BuffAddr_Delivery() { return
&m_pTxn->u.Delivery; };
    inline PSTOCK_LEVEL_DATA
    BuffAddr_StockLevel() { return
&m_pTxn->u.StockLevel; };
    inline PORDER_STATUS_DATA
    BuffAddr_OrderStatus() { return
&m_pTxn->u.OrderStatus; };

    void NewOrder        ();
    void Payment         ();
    void StockLevel     ();
    void OrderStatus    ();
    void Delivery        ();
{ throw new CCOMERR(E_NOTIMPL); } // not supported
};

inline void ReleaseInterface(IUnknown *pUnk)
{
    if (pUnk)
    {
        pUnk->Release();
        pUnk = NULL;
    }
}

// wrapper routine for class constructor
extern "C" __declspec(dllexport) CTPCC_COM*
CTPCC_COM_new(BOOL);

```

tpcc_com_all.c

pp

```

/* FILE: TPCC_COM_ALL.CPP
* Microsoft TPC-C Kit Ver. 4.20.000
* Copyright Microsoft, 1999
* All Rights Reserved
*
* Version 4.10.000 audited by Richard Gimarc,
Performance Metrics, 3/17/99
*
* PURPOSE: Implementation for TPC-C Tuxedo class.
* Contact: Charles Levine (clevine@microsoft.com)

```

```

*
* Change history:
* 4.20.000 - updated rev number to match kit
*/
#define STRICT
#define _WIN32_WINNT 0x0400
#define _ATL_APARTMENT_THREADED
#include <stdio.h>
#include <atlbase.h>
//You may derive a class from CComModule and use it
if you want to override
//something, but do not change the name of _Module
extern CComModule _Module;
#include <atlcom.h>
#include <initguid.h>
#include <transact.h>
#include <atimpl.cpp>
#include <comsvcs.h>
#include <sqltypes.h>
#include <sql.h>
#include <sqlext.h>
#include "tpcc_com_ps.h"
#include "..\..\common\src\trans.h" //tpckit
//transaction header contains definitions of
structures specific to TPC-C
#include "..\..\common\src\txn_base.h"
#include "..\..\common\src\error.h"
#include "..\..\common\src\ReadRegistry.h"
#include "..\..\db_dblib_dll\src\tpcc_dblib.h" //
DBLIB implementation ofTPC-C txns
#include "resource.h"
#include "tpcc_com_all.h"
#include "tpcc_com_all.i.c"
#include "Methods.h"
#include "..\..\tpcc_com_ps\src\tpcc_com_ps.i.c"
#include "..\..\common\src\ReadRegistry.cpp"
CComModule _Module;
//CatlComModule _Module;
BEGIN_OBJECT_MAP(ObjectMap)
OBJECT_ENTRY(CLSID_TPCC, CTPCC)
OBJECT_ENTRY(CLSID_NewOrder, CNewOrder)
OBJECT_ENTRY(CLSID_OrderStatus, COrderStatus)
OBJECT_ENTRY(CLSID_Payment, CPayment)
OBJECT_ENTRY(CLSID_StockLevel, CStockLevel)
END_OBJECT_MAP()
// configuration settings from registry
TPCCREGISTRYDATA Reg;
char szMyComputerName[MAX_COMPUTERNAME_LENGTH+1];
static HINSTANCE hLibInstanceDb = NULL;
TYPE_CTPCC_DBLIB *pCTPCC_DBLIB_new;
////////////////////////////////////
////////////////////////////////////
// DLL Entry Point
extern "C"
BOOL WINAPI DllMain(HINSTANCE hInstance, DWORD
dwReason, LPVOID /*lpReserved*/)
{
    char szDllName[128];
    //DebugBreak();
    try
    {
        if (dwReason ==
DLL_PROCESS_ATTACH)

```

```

{
    _Module.Init(ObjectMap,
hInstance);

    DisableThreadLibraryCalls(hInstance);
    DWORD dwSize =
MAX_COMPUTERNAME_LENGTH+1;
    GetComputerName(szMyComputerName, &dwSize);
    szMyComputerName[dwSize] = 0;
    if (
ReadTPCCRegistrySettings( &Reg )
throw new
CCOMPONENT_ERR(
ERR_MISSING_REGISTRY_ENTRIES );
if (Reg.eDB_Protocol ==
DBLIB)
{
    strcpy(
szDllName, Reg.szPath );
    strcat(
szDllName, "tpcc_dblib.dll");
    hLibInstanceDb = LoadLibrary( szDllName );
    if
(hLibInstanceDb == NULL)
throw new CCOMPONENT_ERR(
ERR_LOADDLL_FAILED, szDllName,
GetLastError() );
// get
function pointer to wrapper for class constructor
pCTPCC_DBLIB_new = (TYPE_CTPCC_DBLIB*)
GetProcAddress(hLibInstanceDb, "CTPCC_DBLIB_
new");
if
(pCTPCC_DBLIB_new == NULL)
throw new CCOMPONENT_ERR(
ERR_GETPROCADDR_FAILED, szDllName,
GetLastError() );
}
else
throw new
CCOMPONENT_ERR( ERR_UNKNOWN_DB_PROTOCOL
);
}
else if (dwReason ==
DLL_PROCESS_DETACH)
_Module.Term();
}
catch (CBaseErr *e)
{
    WriteMessageToEventLog(e-
>ErrorText());
    delete e;
    return FALSE;
}
}

```

```

    }
    catch (...)
    {
        WriteMessageToEventLog(TEXT("Unhandled
exception in object DllMain"));
        return FALSE;
    }
    return TRUE; // OK
}
// Used to determine whether the DLL can be unloaded
by OLE
STDAPI DllCanUnloadNow(void)
{
    return (_Module.GetLockCount()==0) ? S_OK :
S_FALSE;
}
// Returns a class factory to create an object of the
requested type
STDAPI DllGetClassObject(REFCLSID rclsid, REFIID
riid, LPVOID* ppv)
{
    return _Module.GetClassObject(rclsid, riid,
ppv);
}
// DllRegisterServer - Adds entries to the system
registry
STDAPI DllRegisterServer(void)
{
    // registers object, typelib and all
interfaces in typelib
    return _Module.RegisterServer(TRUE);
}
// DllUnregisterServer - Removes entries from the
system registry
STDAPI DllUnregisterServer(void)
{
    _Module.UnregisterServer();
    return S_OK;
}
static void WriteMessageToEventLog(LPTSTR lpszMsg)
{
    TCHAR szMsg[256];
    HANDLE hEventSource;
    LPTSTR lpszStrings[2];
    // Use event logging to log the error.
    //
    hEventSource = RegisterEventSource(NULL,
TEXT("tpcc_com_all.dll"));
    _stprintf(szMsg, TEXT("Error in COM+ TPC-C
Component: "));
    lpszStrings[0] = szMsg;
    lpszStrings[1] = lpszMsg;
}

```

```

    if (hEventSource != NULL)
    {
        ReportEvent(hEventSource, //
handle of event source
        EVENTLOG_ERROR_TYPE, //
event type
        0, // event category
        0, // event ID
        NULL, // current user's
SID
        2, // strings in
lpszStrings
        0, // no bytes of raw
data
        (LPCTSTR *)lpszStrings,
// array of error strings
        NULL); // no raw data
        (VOID)
DeregisterEventSource(hEventSource);
}
inline void ReleaseInterface(IUnknown *pUnk)
{
    if (pUnk)
    {
        pUnk->Release();
        pUnk = NULL;
    }
}
/* FUNCTION: CCOMPONENT_ERR::ErrorText
*
*/
char* CCOMPONENT_ERR::ErrorText(void)
{
    static SERRORMSG errorMsgs[] =
    {
        { ERR_MISSING_REGISTRY_ENTRIES,
"Required entries missing from registry." },
        { ERR_LOADDLL_FAILED, "Load of
DLL failed. DLL=" },
        { ERR_GETPROCADDR_FAILED, "Could
not map proc in DLL. GetProcAddr error. DLL=" },
        { ERR_UNKNOWN_DB_PROTOCOL,
"Unknown database protocol specified in registry." },
        { 0, "" }
    };
    char szTmp[256];
    int i = 0;
    while (TRUE)
    {
        if (errorMsgs[i].szMsg[0] == 0)
        {
            strcpy( szTmp, "Unknown
error number. ");
            break;
        }
        if (m_Error ==
errorMsgs[i].iError)
        {
            strcpy( szTmp,
errorMsgs[i].szMsg );
            break;
        }
    }
}

```

```

        i++;
    }
    if (m_szTextDetail)
        strcat( szTmp, m_szTextDetail );
    if (m_SystemErr)
        wsprintf( szTmp+strlen(szTmp), "
Error=%d", m_SystemErr );
    m_szErrorText = new char[strlen(szTmp)+1];
    strcpy( m_szErrorText, szTmp );
    return m_szErrorText;
}
CTPCC_Common::CTPCC_Common()
{
    m_pTxn = NULL;
    m_bCanBePooled = TRUE;
}
CTPCC_Common::~CTPCC_Common()
{
    if (m_pTxn)
        delete m_pTxn;
}
HRESULT CTPCC_Common::CallSetComplete()
{
    IObjectContext* pObjectContext = NULL;
    // get our object context
    HRESULT hr = CoGetObjectContext(
IID_IObjectContext, (void **)&pObjectContext
);
    pObjectContext->SetComplete();
    ReleaseInterface(pObjectContext);
    return hr;
}
//
// called by the ctor activator
//
STDMETHODIMP CTPCC_Common::Construct(IDispatch *
pUnk)
{
    // Code to access construction string, if
needed later...
    // if (!pUnk)
    // return E_UNEXPECTED;
    // IObjectContextString * pString = NULL;
    // HRESULT hr = pUnk-
>QueryInterface(IID_IObjectContextString, (void
**)&pString);
    // pString->Release();
    // DebugBreak();
    try
    {
        if (Reg.eDB_Protocol == DBLIB)
            m_pTxn =
pCTPCC_DBLIB_new( Reg.szDbUser, Reg.szDbPassword,
Reg.szDbName );
    }
    catch (CBaseErr *e)
    {
        WriteMessageToEventLog(e-
>ErrorText());
        delete e;
        return E_FAIL;
    }
    catch (...)

```



```

    {
        WriteMessageToEventLog(TEXT("Unhandled
exception in object ::Construct"));
        return E_FAIL;
    }
    return S_OK;
}
HRESULT CTPCC_Common::NewOrder(VARIANT txn_in,
VARIANT* txn_out)
{
    PNEW_ORDER_DATA pNewOrder;
    COM_DATA *pData;
    try
    {
        pData = (COM_DATA*)txn_in.parray-
>pvData;
        pNewOrder = m_pTxn-
>BuffAddr_NewOrder();
        memcpy(pNewOrder, &pData-
>u.NewOrder, sizeof(NEW_ORDER_DATA));
        m_pTxn->NewOrder(); // do the
actual txn
        VariantInit(txn_out);
        txn_out->vt = VT_SAFEARRAY;
        txn_out->parray =
SafeArrayCreateVector(VT_UI1,
        txn_in.parray-
>rgsabound->cElements,
        txn_in.parray-
>rgsabound->cElements);
        pData = (COM_DATA*) txn_out-
>parray->pvData;
        memcpy( &pData->u.NewOrder,
pNewOrder, sizeof(NEW_ORDER_DATA));
        pData->retval = ERR_SUCCESS;
        pData->error = 0;
        return S_OK;
    }
    catch (CDBLIBERR *e)
    {
        // check for lost database
connection; if yes, component is toast
ERR_TYPE_DBLIB) &&
        ((e->ErrorNum() ==
ERR_ATTACH) || (e->ErrorNum() ==
ERR_DETACH)) )
        m_bCanBePooled = FALSE;
        pData->retval = e->ErrorType();
        pData->error = e->ErrorNum();
        delete e;
        return E_FAIL;
    }
    catch (...)
    {
        WriteMessageToEventLog(TEXT("Unhandled
exception."));
        pData->retval = ERR_TYPE_LOGIC;
        pData->error = 0;
        m_bCanBePooled = FALSE;
        return E_FAIL;
    }
}

```

```

    }
}
HRESULT CTPCC_Common::Payment(VARIANT txn_in,
VARIANT* txn_out)
{
    PPAYMENT_DATA pPayment;
    COM_DATA *pData;
    try
    {
        pData = (COM_DATA*)txn_in.parray-
>pvData;
        pPayment = m_pTxn-
>BuffAddr_Payment();
        memcpy(pPayment, &pData-
>u.Payment, sizeof(PAYMENT_DATA));
        m_pTxn->Payment(); // do the
actual txn
        VariantInit(txn_out);
        txn_out->vt = VT_SAFEARRAY;
        txn_out->parray =
SafeArrayCreateVector( VT_UI1,
        txn_in.parray-
>rgsabound->cElements,
        txn_in.parray-
>rgsabound->cElements);
        pData = (COM_DATA*) txn_out-
>parray->pvData;
        memcpy( &pData->u.Payment,
pPayment, sizeof(PAYMENT_DATA));
        pData->retval = ERR_SUCCESS;
        pData->error = 0;
        return S_OK;
    }
    catch (CDBLIBERR *e)
    {
        // check for lost database
connection; if yes, component is toast
ERR_TYPE_DBLIB) &&
        ((e->ErrorNum() ==
ERR_ATTACH) || (e->ErrorNum() ==
ERR_DETACH)) )
        m_bCanBePooled = FALSE;
        pData->retval = e->ErrorType();
        pData->error = e->ErrorNum();
        delete e;
        return E_FAIL;
    }
    catch (...)
    {
        WriteMessageToEventLog(TEXT("Unhandled
exception."));
        pData->retval = ERR_TYPE_LOGIC;
        pData->error = 0;
        m_bCanBePooled = FALSE;
        return E_FAIL;
    }
}
}
HRESULT CTPCC_Common::StockLevel(VARIANT txn_in,
VARIANT* txn_out)
{
    PSTOCK_LEVEL_DATA pStockLevel;
    COM_DATA *pData;

```

```

    try
    {
        pData = (COM_DATA*)txn_in.parray-
>pvData;
        pStockLevel = m_pTxn-
>BuffAddr_StockLevel();
        memcpy(pStockLevel, &pData-
>u.StockLevel, sizeof(STOCK_LEVEL_DATA));
        m_pTxn->StockLevel();
        VariantInit(txn_out);
        txn_out->vt = VT_SAFEARRAY;
        txn_out->parray =
SafeArrayCreateVector( VT_UI1,
        txn_in.parray-
>rgsabound->cElements,
        txn_in.parray-
>rgsabound->cElements);
        pData = (COM_DATA*)txn_out-
>parray->pvData;
        memcpy( &pData->u.StockLevel,
pStockLevel, sizeof(STOCK_LEVEL_DATA));
        pData->retval = ERR_SUCCESS;
        pData->error = 0;
        return S_OK;
    }
    //catch (CBaseErr *e)
    catch (CDBLIBERR *e)
    {
        // check for lost database
connection; if yes, component is toast
ERR_TYPE_DBLIB) &&
        ((e->ErrorNum() ==
ERR_ATTACH) || (e->ErrorNum() ==
ERR_DETACH)) )
        m_bCanBePooled = FALSE;
        pData->retval = e->ErrorType();
        pData->error = e->ErrorNum();
        delete e;
        return E_FAIL;
    }
    catch (...)
    {
        WriteMessageToEventLog(TEXT("Unhandled
exception."));
        pData->retval = ERR_TYPE_LOGIC;
        pData->error = 0;
        m_bCanBePooled = FALSE;
        return E_FAIL;
    }
}
}
HRESULT CTPCC_Common::OrderStatus(VARIANT txn_in,
VARIANT* txn_out)
{
    PORDER_STATUS_DATA pOrderStatus;
    COM_DATA *pData;
    try
    {
        pData = (COM_DATA*)txn_in.parray-
>pvData;
        pOrderStatus = m_pTxn-
>BuffAddr_OrderStatus();

```

```

        memcpy(pOrderStatus, &pData-
>u.OrderStatus,
        sizeof(ORDER_STATUS_DATA));
        m_pTxn->OrderStatus();
        VariantInit(txn_out);
        txn_out->vt = VT_SAFEARRAY;
        txn_out->parray =
SafeArrayCreateVector( VT_UI1,
        txn_in.parray-
>rgsabound->cElements,
        txn_in.parray-
>rgsabound->cElements);
        pData = (COM_DATA*)txn_out-
>parray->pvData;
        memcpy( &pData->u.OrderStatus,
pOrderStatus,
        sizeof(ORDER_STATUS_DATA));
        pData->retval = ERR_SUCCESS;
        pData->error = 0;
        return S_OK;
    }
    catch (CDBLIBERR *e)
    {
        // check for lost database
connection; if yes, component is toast
        if ( ((e->ErrorType() ==
ERR_TYPE_DBLIB) &&
        ((e->ErrorNum() ==
ERR_ATTACH) || (e->ErrorNum() == ERR_DETACH)) )
            m_bCanBePooled = FALSE;
        pData->retval = e->ErrorType();
        pData->error = e->ErrorNum();
        delete e;
        return E_FAIL;
    }
    catch (...)
    {
        WriteMessageToEventLog(TEXT("Unhandled
exception."));
        pData->retval = ERR_TYPE_LOGIC;
        pData->error = 0;
        m_bCanBePooled = FALSE;
        return E_FAIL;
    }
}

```

tpcc_com_all.d **ef**

```

; tpcc_com_all.def : Declares the module parameters.
LIBRARY "tpcc_com_all.dll"
EXPORTS
DllCanUnloadNow @1 PRIVATE
DllGetClassObject @2 PRIVATE
DllRegisterServer @3 PRIVATE
DllUnregisterServer @4 PRIVATE

```

tpcc_com_all.h

/* this ALWAYS GENERATED file contains the definitions for the interfaces */

```

/* File created by MIDL compiler version 5.01.0164 */
/* at Sun Apr 11 18:18:41 2004
*/
/* Compiler settings for .\src\tpcc_com_all.idl:
Oicf (OptLev=i2), Wl, Zp8, env=Win32, ms_ext,
c_ext
error checks: allocation ref bounds_check enum
stub_data
*/
/**@MIDL_FILE_HEADING( )

/* verify that the <rpcndr.h> version is high enough
to compile this file*/
#ifdef __REQUIRED_RPCNDR_H_VERSION__
#define __REQUIRED_RPCNDR_H_VERSION__ 440
#endif

#include "rpc.h"
#include "rpcndr.h"

#ifdef __tpcc_com_all_h__
#define __tpcc_com_all_h__

#ifdef __cplusplus
extern "C"{
#endif

/* Forward Declarations */

#ifdef __TPCC_FWD_DEFINED__
#define __TPCC_FWD_DEFINED__

#ifdef __cplusplus
typedef class TPCC TPCC;
#else
typedef struct TPCC TPCC;
#endif /* __cplusplus */
#endif /* __TPCC_FWD_DEFINED__ */

#ifdef __NewOrder_FWD_DEFINED__
#define __NewOrder_FWD_DEFINED__

#ifdef __cplusplus
typedef class NewOrder NewOrder;
#else
typedef struct NewOrder NewOrder;
#endif /* __cplusplus */
#endif /* __NewOrder_FWD_DEFINED__ */

```

```

#ifdef __OrderStatus_FWD_DEFINED__
#define __OrderStatus_FWD_DEFINED__

#ifdef __cplusplus
typedef class OrderStatus OrderStatus;
#else
typedef struct OrderStatus OrderStatus;
#endif /* __cplusplus */

#endif /* __OrderStatus_FWD_DEFINED__ */

#ifdef __Payment_FWD_DEFINED__
#define __Payment_FWD_DEFINED__

#ifdef __cplusplus
typedef class Payment Payment;
#else
typedef struct Payment Payment;
#endif /* __cplusplus */

#endif /* __Payment_FWD_DEFINED__ */

#ifdef __StockLevel_FWD_DEFINED__
#define __StockLevel_FWD_DEFINED__

#ifdef __cplusplus
typedef class StockLevel StockLevel;
#else
typedef struct StockLevel StockLevel;
#endif /* __cplusplus */

#endif /* __StockLevel_FWD_DEFINED__ */

/* header files for imported files */
#include "oaidl.h"
#include "ocidl.h"
#include "tpcc_com_ps.h"

void __RPC_FAR * __RPC_USER
MIDL_user_allocate(size_t);
void __RPC_USER MIDL_user_free( void __RPC_FAR * );

/* interface __MIDL_itf_tpcc_com_all_0000 */
/* [local] */

extern RPC_IF_HANDLE
__MIDL_itf_tpcc_com_all_0000_v0_0_c_ifspec;
extern RPC_IF_HANDLE
__MIDL_itf_tpcc_com_all_0000_v0_0_s_ifspec;

#ifdef __TPCClib_LIBRARY_DEFINED__
#define __TPCClib_LIBRARY_DEFINED__

```

```

/* library TPCCLib */
/* [helpstring][version][uuid] */

EXTERN_C const IID LIBID_TPCCLib;

EXTERN_C const CLSID CLSID_TPCC;

#ifdef __cplusplus

class DECLSPEC_UUID("122A3128-2520-11D3-BA71-00C04FBFE08B")
TPCC;
#endif

EXTERN_C const CLSID CLSID_NewOrder;

#ifdef __cplusplus

class DECLSPEC_UUID("975BAABF-84A7-11D2-BA47-00C04FBFE08B")
NewOrder;
#endif

EXTERN_C const CLSID CLSID_OrderStatus;

#ifdef __cplusplus

class DECLSPEC_UUID("266836AD-A50D-11D2-BA4E-00C04FBFE08B")
OrderStatus;
#endif

EXTERN_C const CLSID CLSID_Payment;

#ifdef __cplusplus

class DECLSPEC_UUID("CD02F7EF-A4FA-11D2-BA4E-00C04FBFE08B")
Payment;
#endif

EXTERN_C const CLSID CLSID_StockLevel;

#ifdef __cplusplus

class DECLSPEC_UUID("2668369E-A50D-11D2-BA4E-00C04FBFE08B")
StockLevel;
#endif
#endif /* __cplusplus */

/* Additional Prototypes for ALL interfaces */

/* end of Additional Prototypes */

#ifdef __cplusplus
}
#endif
#endif

```

tpcc_com_all.i dl

```

/* FILE: TPCC.IDL
* Microsoft TPC-C Kit Ver. 4.20.000
* Copyright Microsoft, 1999
* All Rights Reserved
*
* not yet audited
*
* PURPOSE: IDL source for TPCC.dll. This file is
processed by the MIDL tool to
* produce the type library (TPCC.tlb) and
marshalling code.
*
* Change history:
* 4.20.000 - first version
*/
interface TPCC;
interface NewOrder;
interface OrderStatus;
interface Payment;
interface StockLevel;
import "oaidl.idl";
import "ocidl.idl";
import "..\tpcc_com_ps\src\tpcc_com_ps.idl";
[
  uuid(122A3117-2520-11D3-BA71-00C04FBFE08B),
  version(1.0),
  helpstring("TPC-C 1.0 Type Library")
]
library TPCCLib
{
  importlib("stdole32.tlb");
  importlib("stdole2.tlb");
  [
    uuid(122A3128-2520-11D3-BA71-00C04FBFE08B),
    helpstring("All Txns Class")
  ]
  coclass TPCC
  {
    [default] interface ITPCC;
  };
  [
    uuid(975BAABF-84A7-11D2-BA47-00C04FBFE08B),
    helpstring("NewOrder Class")
  ]
  coclass NewOrder
  {
    [default] interface ITPCC;
  };
  [
    uuid(266836AD-A50D-11D2-BA4E-00C04FBFE08B),
    helpstring("OrderStatus Class")
  ]
  coclass OrderStatus
  {
    [default] interface ITPCC;
  };

```

```

[
  uuid(CD02F7EF-A4FA-11D2-BA4E-00C04FBFE08B),
  helpstring("Payment Class")
]
coclass Payment
{
  [default] interface ITPCC;
};
[
  uuid(2668369E-A50D-11D2-BA4E-00C04FBFE08B),
  helpstring("StockLevel Class")
]
coclass StockLevel
{
  [default] interface ITPCC;
};
};

```

tpcc_com_all.r c

```

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

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

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

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

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

#ifdef _MAC
////////////////////////////////////
////////////////////////////////////
// Version
//
VS_VERSION_INFO VERSIONINFO
FILEVERSION 1,0,0,1

```

```

PRODUCTVERSION 1,0,0,1
FILEFLAGSMASK 0x3fL
#ifdef _DEBUG
FILEFLAGS 0x1L
#else
FILEFLAGS 0x0L
#endif
FILEOS 0x40004L
FILETYPE 0x2L
FILESUBTYPE 0x0L
BEGIN
    BLOCK "StringFileInfo"
    BEGIN
        BLOCK "040904b0"
        BEGIN
            VALUE "Comments", "\0"
            VALUE "CompanyName", "\0"
            VALUE "FileDescription", "tpcc_dblib\0"
            VALUE "FileVersion", "1, 0, 0, 1\0"
            VALUE "InternalName", "tpcc_dblib\0"
            VALUE "LegalCopyright", "Copyright ©
2004\0"
            VALUE "LegalTrademarks", "\0"
            VALUE "OriginalFilename",
"tpcc_dblib.dll\0"
            VALUE "PrivateBuild", "\0"
            VALUE "ProductName", " tpcc_dblib\0"
            VALUE "ProductVersion", "1, 0, 0, 1\0"
            VALUE "SpecialBuild", "\0"
        END
    END
    BLOCK "VarFileInfo"
    BEGIN
        VALUE "Translation", 0x409, 1200
    END
END

#ifdef !_MAC

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

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

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

```

```

END

#endif // APSTUDIO_INVOKED

////////////////////////////////////
////////////////////////////////////
//
// REGISTRY
//
IDR_TPCC                REGISTRY DISCARDABLE
"tpcc_com_all.rgs"
IDR_PAYMENT             REGISTRY DISCARDABLE
"tpcc_com_pay.rgs"
IDR_STOCKLEVEL         REGISTRY DISCARDABLE
"tpcc_com_sl.rgs"
IDR_ORDERSTATUS        REGISTRY DISCARDABLE
"tpcc_com_os.rgs"
IDR_NEWORDER           REGISTRY DISCARDABLE
"tpcc_com_no.rgs"

////////////////////////////////////
////////////////////////////////////
//
// String Table
//

STRINGTABLE DISCARDABLE
BEGIN
    IDS_PROJNAME        "tpcc_com_all"
END

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

#ifdef APSTUDIO_INVOKED
////////////////////////////////////
////////////////////////////////////
//
// Generated from the TEXTINCLUDE 3 resource.
//

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



---


tpcc_com_all.r
gs


---


HKCR
{
    TPCC.AllTxns.1 = s 'All Txns Class'
    {

```

```

        CLSID = s '{122A3128-2520-11D3-
BA71-00C04FBFE08B}'
    }
    TPCC.AllTxns = s 'TPCC Class'
    {
        CurVer = s 'TPCC.AllTxns.1'
    }
    NoRemove CLSID
    {
        ForceRemove {122A3128-2520-11D3-
BA71-00C04FBFE08B} = s 'TPCC Class'
        {
            ProgID = s
'TPCC.AllTxns.1'
            VersionIndependentProgID = s 'TPCC.AllTxns'
            InprocServer32 = s
'%MODULE%'
            {
                val
ThreadingModel = s 'Both'
            }
        }
    }
}



---


tpcc_com_all.i
C


---


/* this file contains the actual definitions of */
/* the IIDs and CLSIDs */

/* link this file in with the server and any clients
*/

/* File created by MIDL compiler version 5.01.0164 */
/* at Sun Apr 11 18:18:41 2004
*/
/* Compiler settings for .\src\tpcc_com_all.idl:
    Oicf (OptLev=i2), Wl, Zp8, env=Win32, ms_ext,
c_ext
    error checks: allocation ref bounds_check enum
stub_data
*/
//@@MIDL_FILE_HEADING( )
#ifdef __cplusplus
extern "C"{
#endif

#ifdef __IID_DEFINED__
#define __IID_DEFINED__

typedef struct _IID
{
    unsigned long x;
    unsigned short s1;
    unsigned short s2;
    unsigned char c[8];

```

```

} IID;

#endif // __IID_DEFINED__

#ifndef CLSID_DEFINED
#define CLSID_DEFINED
typedef IID CLSID;
#endif // CLSID_DEFINED

const IID LIBID_TPCCLib =
{0x122A3117, 0x2520, 0x11D3, {0xBA, 0x71, 0x00, 0xC0, 0x4F, 0
xBF, 0xE0, 0x8B}};

const CLSID CLSID_TPCC =
{0x122A3128, 0x2520, 0x11D3, {0xBA, 0x71, 0x00, 0xC0, 0x4F, 0
xBF, 0xE0, 0x8B}};

const CLSID CLSID_NewOrder =
{0x975BAABF, 0x84A7, 0x11D2, {0xBA, 0x47, 0x00, 0xC0, 0x4F, 0
xBF, 0xE0, 0x8B}};

const CLSID CLSID_OrderStatus =
{0x266836AD, 0xA50D, 0x11D2, {0xBA, 0x4E, 0x00, 0xC0, 0x4F, 0
xBF, 0xE0, 0x8B}};

const CLSID CLSID_Payment =
{0xCD02F7EF, 0xA4FA, 0x11D2, {0xBA, 0x4E, 0x00, 0xC0, 0x4F, 0
xBF, 0xE0, 0x8B}};

const CLSID CLSID_StockLevel =
{0x2668369E, 0xA50D, 0x11D2, {0xBA, 0x4E, 0x00, 0xC0, 0x4F, 0
xBF, 0xE0, 0x8B}};

#ifdef __cplusplus
}
#endif

```

tpcc_com_no.rgs

```

HKCR
{
    TPCC.NewOrder.1 = s 'NewOrder Class'
    {
        CLSID = s '{975BAABF-84A7-11D2-BA47-00C04FBFE08B}'
    }
    TPCC.NewOrder = s 'NewOrder Class'
    {
        CurVer = s 'TPCC.NewOrder.1'
    }
    NoRemove CLSID
    {

```

```

ForceRemove {975BAABF-84A7-11D2-BA47-00C04FBFE08B} =
s 'NewOrder
Class'
{
    ProgID = s 'TPCC.NewOrder.1'
    VersionIndependentProgID = s 'TPCC.NewOrder'
    InprocServer32 = s '%MODULE%'
    {
        val ThreadingModel = s 'Both'
    }
}
}

```

tpcc_com_os.rgs

```

HKCR
{
    TPCC.OrderStatus.1 = s 'OrderStatus Class'
    {
        CLSID = s '{266836AD-A50D-11D2-BA4E-00C04FBFE08B}'
    }
    TPCC.OrderStatus = s 'OrderStatus Class'
    {
        CurVer = s 'TPCC.OrderStatus.1'
    }
    NoRemove CLSID
    {
        ForceRemove {266836AD-A50D-11D2-BA4E-00C04FBFE08B} =
s 'OrderStatus
Class'
        {
            ProgID = s 'TPCC.OrderStatus.1'
            VersionIndependentProgID = s 'TPCC.OrderStatus'
            InprocServer32 = s '%MODULE%'
            {
                val ThreadingModel = s 'Both'
            }
        }
    }
}

```

tpcc_com_pay.rgs

```

HKCR
{
    TPCC.Payment.1 = s 'Payment Class'
    {
        CLSID = s '{CD02F7EF-A4FA-11D2-BA4E-00C04FBFE08B}'
    }
    TPCC.Payment = s 'Payment Class'
    {
        CurVer = s 'TPCC.Payment.1'
    }
    NoRemove CLSID

```

```

{
    ForceRemove {CD02F7EF-A4FA-11D2-BA4E-00C04FBFE08B} =
s 'Payment
Class'
    {
        ProgID = s 'TPCC.Payment.1'
        VersionIndependentProgID = s 'TPCC.Payment'
        InprocServer32 = s '%MODULE%'
        {
            val ThreadingModel = s 'Both'
        }
    }
}

```

tpcc_com_ps.def

```

LIBRARY "tpcc_com_ps"

DESCRIPTION 'Proxy/Stub DLL'

EXPORTS
    DllGetClassObject @1 PRIVATE
    DllCanUnloadNow @2 PRIVATE
    GetProxyDllInfo @3 PRIVATE
    DllRegisterServer @4
    PRIVATE
    DllUnregisterServer @5
    PRIVATE

```

tpcc_com_ps.h

/* this ALWAYS GENERATED file contains the definitions for the interfaces */

```

/* File created by MIDL compiler version 5.01.0164 */
/* at Sun Apr 11 18:18:51 2004
*/
/* Compiler settings for .\src\tpcc_com_ps.idl:
    Oicf (OptLev=i2), Wl, Zp8, env=Win32, ms_ext,
c_ext
    error checks: allocation ref bounds_check enum
stub_data
*/
//@@MIDL_FILE_HEADING( )

```

/* verify that the <rpcndr.h> version is high enough to compile this file*/

```

#ifndef __REQUIRED_RPCNDR_H_VERSION__
#define __REQUIRED_RPCNDR_H_VERSION__ 440
#endif

```

```

#include "rpc.h"
#include "rpcndr.h"

```

```

#ifndef __RPCNDR_H_VERSION__
#error this stub requires an updated version of
<rpcnldr.h>
#endif // __RPCNDR_H_VERSION__

#ifndef COM_NO_WINDOWS_H
#include "windows.h"
#include "ole2.h"
#endif /*COM_NO_WINDOWS_H*/

#ifndef __tpcc_com_ps_h__
#define __tpcc_com_ps_h__

#ifdef __cplusplus
extern "C"{
#endif

/* Forward Declarations */

#ifndef __ITPCC_FWD_DEFINED__
#define __ITPCC_FWD_DEFINED__
typedef interface ITPCC ITPCC;
#endif /* __ITPCC_FWD_DEFINED__ */

/* header files for imported files */
#include "oaidl.h"
#include "ocidl.h"

void __RPC_FAR * __RPC_USER
MIDL_user_allocate(size_t);
void __RPC_USER MIDL_user_free( void __RPC_FAR * );

/* interface __MIDL_itf_tpcc_com_ps_0000 */
/* [local] */

extern RPC_IF_HANDLE
__MIDL_itf_tpcc_com_ps_0000_v0_0_c_ifspec;
extern RPC_IF_HANDLE
__MIDL_itf_tpcc_com_ps_0000_v0_0_s_ifspec;

#ifndef __ITPCC_INTERFACE_DEFINED__
#define __ITPCC_INTERFACE_DEFINED__

/* interface ITPCC */
/* [unique][helpstring][uuid][oleautomation][object] */

EXTERN_C const IID IID_ITPCC;

#if defined(__cplusplus) && !defined(CINTERFACE)

    MIDL_INTERFACE("FEEB6A2-84B1-11d2-BA47-00C04FBFE08B")
    ITPCC : public IUnknown
    {
    public:
        virtual HRESULT STDMETHODCALLTYPE NewOrder(
            /* [in] */ VARIANT txn_in,

```

```

            /* [out] */ VARIANT __RPC_FAR *txn_out) =
0;

        virtual HRESULT STDMETHODCALLTYPE Payment(
            /* [in] */ VARIANT txn_in,
            /* [out] */ VARIANT __RPC_FAR *txn_out) =
0;

        virtual HRESULT STDMETHODCALLTYPE Delivery(
            /* [in] */ VARIANT txn_in,
            /* [out] */ VARIANT __RPC_FAR *txn_out) =
0;

        virtual HRESULT STDMETHODCALLTYPE StockLevel(
            /* [in] */ VARIANT txn_in,
            /* [out] */ VARIANT __RPC_FAR *txn_out) =
0;

        virtual HRESULT STDMETHODCALLTYPE OrderStatus(
            /* [in] */ VARIANT txn_in,
            /* [out] */ VARIANT __RPC_FAR *txn_out) =
0;

        virtual HRESULT STDMETHODCALLTYPE CallSetComplete(
            void) = 0;
    };

#else /* C style interface */

    typedef struct ITPCCVtbl
    {
        BEGIN_INTERFACE

        HRESULT ( STDMETHODCALLTYPE __RPC_FAR
*QueryInterface )(
            ITPCC __RPC_FAR * This,
            /* [in] */ REFIID riid,
            /* [iid_is][out] */ void __RPC_FAR
*_RPC_FAR *ppvObject);

        ULONG ( STDMETHODCALLTYPE __RPC_FAR *AddRef
)();

        ULONG ( STDMETHODCALLTYPE __RPC_FAR *Release
)();

        ITPCC __RPC_FAR * This;

        HRESULT ( STDMETHODCALLTYPE __RPC_FAR *NewOrder )(
            ITPCC __RPC_FAR * This,
            /* [in] */ VARIANT txn_in,
            /* [out] */ VARIANT __RPC_FAR *txn_out);

        HRESULT ( STDMETHODCALLTYPE __RPC_FAR *Payment )(
            ITPCC __RPC_FAR * This,
            /* [in] */ VARIANT txn_in,
            /* [out] */ VARIANT __RPC_FAR *txn_out);

        HRESULT ( STDMETHODCALLTYPE __RPC_FAR *Delivery )(
            ITPCC __RPC_FAR * This,
            /* [in] */ VARIANT txn_in,
            /* [out] */ VARIANT __RPC_FAR *txn_out);

```

```

        HRESULT ( STDMETHODCALLTYPE __RPC_FAR *StockLevel )(
            ITPCC __RPC_FAR * This,
            /* [in] */ VARIANT txn_in,
            /* [out] */ VARIANT __RPC_FAR *txn_out);

        HRESULT ( STDMETHODCALLTYPE __RPC_FAR *OrderStatus )(
            ITPCC __RPC_FAR * This,
            /* [in] */ VARIANT txn_in,
            /* [out] */ VARIANT __RPC_FAR *txn_out);

        HRESULT ( STDMETHODCALLTYPE __RPC_FAR
*CallSetComplete )(
            ITPCC __RPC_FAR * This);

        END_INTERFACE
    } ITPCCVtbl;

    interface ITPCC
    {
        CONST_VTBL struct ITPCCVtbl __RPC_FAR
*lpVtbl;
    };

#ifdef COBJMACROS

#define ITPCC_QueryInterface(This,riid,ppvObject) \
(This)->lpVtbl -> QueryInterface(This,riid,ppvObject)

#define ITPCC_AddRef(This) \
(This)->lpVtbl -> AddRef(This)

#define ITPCC_Release(This) \
(This)->lpVtbl -> Release(This)

#define ITPCC_NewOrder(This,txn_in,txn_out) \
(This)->lpVtbl -> NewOrder(This,txn_in,txn_out)

#define ITPCC_Payment(This,txn_in,txn_out) \
(This)->lpVtbl -> Payment(This,txn_in,txn_out)

#define ITPCC_Delivery(This,txn_in,txn_out) \
(This)->lpVtbl -> Delivery(This,txn_in,txn_out)

#define ITPCC_StockLevel(This,txn_in,txn_out) \
(This)->lpVtbl -> StockLevel(This,txn_in,txn_out)

#define ITPCC_OrderStatus(This,txn_in,txn_out) \
(This)->lpVtbl -> OrderStatus(This,txn_in,txn_out)

#define ITPCC_CallSetComplete(This) \
(This)->lpVtbl -> CallSetComplete(This)

#endif /* COBJMACROS */

#endif /* C style interface */

```

```

HRESULT __stdcall ITPCC_NewOrder_Proxy(
    ITPCC __RPC_FAR * This,
    /* [in] */ VARIANT txn_in,
    /* [out] */ VARIANT __RPC_FAR *txn_out);

void __RPC_STUB ITPCC_NewOrder_Stub(
    IRpcStubBuffer *This,
    IRpcChannelBuffer *pRpcChannelBuffer,
    PRPC_MESSAGE _pRpcMessage,
    DWORD *_pdwStubPhase);

HRESULT __stdcall ITPCC_Payment_Proxy(
    ITPCC __RPC_FAR * This,
    /* [in] */ VARIANT txn_in,
    /* [out] */ VARIANT __RPC_FAR *txn_out);

void __RPC_STUB ITPCC_Payment_Stub(
    IRpcStubBuffer *This,
    IRpcChannelBuffer *pRpcChannelBuffer,
    PRPC_MESSAGE _pRpcMessage,
    DWORD *_pdwStubPhase);

HRESULT __stdcall ITPCC_Delivery_Proxy(
    ITPCC __RPC_FAR * This,
    /* [in] */ VARIANT txn_in,
    /* [out] */ VARIANT __RPC_FAR *txn_out);

void __RPC_STUB ITPCC_Delivery_Stub(
    IRpcStubBuffer *This,
    IRpcChannelBuffer *pRpcChannelBuffer,
    PRPC_MESSAGE _pRpcMessage,
    DWORD *_pdwStubPhase);

HRESULT __stdcall ITPCC_StockLevel_Proxy(
    ITPCC __RPC_FAR * This,
    /* [in] */ VARIANT txn_in,
    /* [out] */ VARIANT __RPC_FAR *txn_out);

void __RPC_STUB ITPCC_StockLevel_Stub(
    IRpcStubBuffer *This,
    IRpcChannelBuffer *pRpcChannelBuffer,
    PRPC_MESSAGE _pRpcMessage,
    DWORD *_pdwStubPhase);

HRESULT __stdcall ITPCC_OrderStatus_Proxy(
    ITPCC __RPC_FAR * This,
    /* [in] */ VARIANT txn_in,
    /* [out] */ VARIANT __RPC_FAR *txn_out);

void __RPC_STUB ITPCC_OrderStatus_Stub(
    IRpcStubBuffer *This,

```

```

    IRpcChannelBuffer *pRpcChannelBuffer,
    PRPC_MESSAGE _pRpcMessage,
    DWORD *_pdwStubPhase);

HRESULT __stdcall ITPCC_CallSetComplete_Proxy(
    ITPCC __RPC_FAR * This);

void __RPC_STUB ITPCC_CallSetComplete_Stub(
    IRpcStubBuffer *This,
    IRpcChannelBuffer *pRpcChannelBuffer,
    PRPC_MESSAGE _pRpcMessage,
    DWORD *_pdwStubPhase);

#endif /* __ITPCC_INTERFACE_DEFINED__ */

/* Additional Prototypes for ALL interfaces */

unsigned long             __RPC_USER
VARIANT_UserSize(        unsigned long __RPC_FAR *,
                        unsigned long   , VARIANT __RPC_FAR * );
unsigned char             __RPC_USER
VARIANT_UserMarshal(    unsigned long __RPC_FAR *,
                        unsigned char   __RPC_FAR *, VARIANT __RPC_FAR * );
unsigned char             __RPC_USER
VARIANT_UserUnmarshal(unsigned long __RPC_FAR *,
                        unsigned char   __RPC_FAR *, VARIANT __RPC_FAR * );
void                     __RPC_USER
VARIANT_UserFree(       unsigned long __RPC_FAR *,
                        VARIANT __RPC_FAR * );

/* end of Additional Prototypes */

#ifdef __cplusplus
}
#endif

#endif



---


tpcc_com_ps.i
dl


---


/* FILE: ITPCC.IDL
 *
 * TPC-C Kit Ver. 4.20.000 Microsoft
 * Copyright
 * Microsoft, 1999
 * All Rights Reserved
 *
 * not yet
 * audited
 *
 * PURPOSE: Defines the interface used by
 * TPCC. This interface can be implemented by C++
 * components.
 *

```

```

 * Change history:
 *
 * 4.20.000 - first version
 */

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

[
    object,
    oleautomation,
    uuid(FEEE6AA2-84B1-11d2-BA47-
00C04FBFE08B),
    helpstring("ITPCC Interface"),
    pointer_default(unique)
]
interface ITPCC : IUnknown
{
    HRESULT __stdcall NewOrder
    (
        [in] VARIANT txn_in,
        [out] VARIANT *txn_out
    );

    HRESULT __stdcall Payment
    (
        [in] VARIANT txn_in,
        [out] VARIANT *txn_out
    );

    HRESULT __stdcall Delivery
    (
        [in] VARIANT txn_in,
        [out] VARIANT *txn_out
    );

    HRESULT __stdcall StockLevel
    (
        [in] VARIANT txn_in,
        [out] VARIANT *txn_out
    );

    HRESULT __stdcall OrderStatus
    (

```

```

[in] VARIANT txn_in,
[out] VARIANT *txn_out
);
HRESULT _stdcall CallSetComplete
(
);
}; // interface ITPCC

```

tpcc_com_ps_i .c

```

/* this file contains the actual definitions of */
/* the IIDs and CLSIDs */

/* link this file in with the server and any clients */

/* File created by MIDL compiler version 5.01.0164 */
/* at Sun Apr 11 18:18:51 2004 */
/*
/* Compiler settings for .\src\tpcc_com_ps.idl:
Oicf (OptLev=i2), Wl, Zp8, env=Win32, ms_ext,
c_ext
error checks: allocation ref bounds_check enum
stub_data
*/
//@@MIDL_FILE_HEADING( )
#ifdef __cplusplus
extern "C"{
#endif

#ifdef __IID_DEFINED__
#define __IID_DEFINED__

typedef struct _IID
{
    unsigned long x;
    unsigned short s1;
    unsigned short s2;
    unsigned char c[8];
} IID;

#endif // __IID_DEFINED__

#ifdef CLSID_DEFINED
#define CLSID_DEFINED
typedef IID CLSID;
#endif // CLSID_DEFINED

```

```

const IID IID_ITPCC =
{0xFEFE6AA2,0x84B1,0x11d2,{0xBA,0x47,0x00,0xC0,0x4F,0
xBF,0xE0,0x8B}};

```

```

#ifdef __cplusplus
}
#endif

```

tpcc_com_ps p.c

```

/* this ALWAYS GENERATED file contains the proxy stub
code */

```

```

/* File created by MIDL compiler version 5.01.0164 */
/* at Sun Apr 11 18:18:51 2004 */

```

```

/*
/* Compiler settings for .\src\tpcc_com_ps.idl:
Oicf (OptLev=i2), Wl, Zp8, env=Win32, ms_ext,
c_ext
error checks: allocation ref bounds_check enum
stub_data
*/
//@@MIDL_FILE_HEADING( )

```

```

#define USE_STUBLESS_PROXY

```

```

/* verify that the <rpcproxy.h> version is high
enough to compile this file*/
#ifdef __REDQ_RPCPROXY_H_VERSION__
#define __REQUIRED_RPCPROXY_H_VERSION__ 440
#endif

```

```

#include "rpcproxy.h"
#ifdef __RPCPROXY_H_VERSION__
#error this stub requires an updated version of
<rpcproxy.h>
#endif // __RPCPROXY_H_VERSION__

```

```

#include "tpcc_com_ps.h"

```

```

#define TYPE_FORMAT_STRING_SIZE 1025
#define PROC_FORMAT_STRING_SIZE 193

```

```

typedef struct _MIDL_TYPE_FORMAT_STRING
{
    short Pad;
    unsigned char Format[ TYPE_FORMAT_STRING_SIZE ];
} MIDL_TYPE_FORMAT_STRING;

```

```

typedef struct _MIDL_PROC_FORMAT_STRING
{
    short Pad;
    unsigned char Format[ PROC_FORMAT_STRING_SIZE ];
}

```

```

} MIDL_PROC_FORMAT_STRING;

```

```

extern const MIDL_TYPE_FORMAT_STRING
__MIDL_TypeFormatString;
extern const MIDL_PROC_FORMAT_STRING
__MIDL_ProcFormatString;

```

```

/* Standard interface: __MIDL_itf_tpcc_com_ps_0000,
ver. 0.0,

```

```

GUID={0x00000000,0x0000,0x0000,{0x00,0x00,0x00,0x00,0
x00,0x00,0x00,0x00}} */

```

```

/* Object interface: IUnknown, ver. 0.0,

```

```

GUID={0x00000000,0x0000,0x0000,{0xC0,0x00,0x00,0x00,0
x00,0x00,0x00,0x46}} */

```

```

/* Object interface: ITPCC, ver. 0.0,

```

```

GUID={0xFEFE6AA2,0x84B1,0x11d2,{0xBA,0x47,0x00,0xC0,0
x4F,0xBF,0xE0,0x8B}} */

```

```

extern const MIDL_STUB_DESC Object_StubDesc;

```

```

extern const MIDL_SERVER_INFO ITPCC_ServerInfo;

```

```

#pragma code_seg(".orpc")
extern const USER_MARSHAL_ROUTINE_QUADRUPLE
UserMarshalRoutines[1];

```

```

static const MIDL_STUB_DESC Object_StubDesc =

```

```

{
    0,
    NdrOleAllocate,
    NdrOleFree,
    0,
    0,
    0,
    0,
    0,
    0,
    0,
    __MIDL_TypeFormatString.Format,
    1, /* -error bounds_check flag */
    0x20000, /* Ndr library version */
    0,
    0x50100a4, /* MIDL Version 5.1.164 */
    0,
    UserMarshalRoutines,
    0, /* notify & notify_flag routine table */
    1, /* Flags */
    0, /* Reserved3 */
    0, /* Reserved4 */
    0 /* Reserved5 */
};

```

```

static const unsigned short
ITPCC_FormatStringOffsetTable[] =

```



```

{
0,
34,
68,
102,
136,
170
};

static const MIDL_SERVER_INFO ITPCC_ServerInfo =
{
    &Object_StubDesc,
    0,
    __MIDL_ProcFormatString.Format,
    &ITPCC_FormatStringOffsetTable[-3],
    0,
    0,
    0,
    0
};

static const MIDL_STUBLESS_PROXY_INFO ITPCC_ProxyInfo
=
{
    &Object_StubDesc,
    __MIDL_ProcFormatString.Format,
    &ITPCC_FormatStringOffsetTable[-3],
    0,
    0,
    0
};

CINTERFACE_PROXY_VTABLE(9) _ITPCCProxyVtbl =
{
    &ITPCC_ProxyInfo,
    &IID_ITPCC,
    IUnknown_QueryInterface_Proxy,
    IUnknown_AddRef_Proxy,
    IUnknown_Release_Proxy,
    (void *)-1 /* ITPCC::NewOrder */ ,
    (void *)-1 /* ITPCC::Payment */ ,
    (void *)-1 /* ITPCC::Delivery */ ,
    (void *)-1 /* ITPCC::StockLevel */ ,
    (void *)-1 /* ITPCC::OrderStatus */ ,
    (void *)-1 /* ITPCC::CallSetComplete */
};

const CInterfaceStubVtbl _ITPCCStubVtbl =
{
    &IID_ITPCC,
    &ITPCC_ServerInfo,
    9,
    0, /* pure interpreted */
    CStdStubBuffer_METHODS
};

#pragma data_seg(".rdata")

static const USER_MARSHAL_ROUTINE_QUADRUPLE
UserMarshalRoutines[1] =
{
    {

```

```

        VARIANT_UserSize
        ,VARIANT_UserMarshal
        ,VARIANT_UserUnmarshal
        ,VARIANT_UserFree
    }
};

#if !defined(__RPC_WIN32__)
#error Invalid build platform for this stub.
#endif

#if !(TARGET_IS_NT40_OR_LATER)
#error You need a Windows NT 4.0 or later to run this
stub because it uses these features:
#error -Oif or -Oicf, [wire_marshall] or
[user_marshall] attribute, more than 32 methods in the
interface.
#error However, your C/C++ compilation flags indicate
you intend to run this app on earlier systems.
#error This app will die there with the
RPC_X_WRONG_STUB_VERSION error.
#endif

static const MIDL_PROC_FORMAT_STRING
__MIDL_ProcFormatString =
{
    0,
    {
        /* Procedure NewOrder */
        FC_AUTO_HANDLE /* 0x33, */
        /* 0x6c, */
        Old Flags: object, Oi2 /*
        /* 2 */ NdrFcLong( 0x0 ), /* 0 */
        /* 6 */ NdrFcShort( 0x3 ), /* 3 */
        #ifndef _ALPHA_
        #if !defined(_MIPS_) && !defined(_PPC_)
        /* 8 */ NdrFcShort( 0x1c ), /* x86 Stack
        size/offset = 28 */
        #else
        NdrFcShort( 0x20 ), /*
        MIPS & PPC Stack size/offset = 32 */
        #endif
        #else
        NdrFcShort( 0x28 ), /*
        Alpha Stack size/offset = 40 */
        #endif
        /* 10 */ NdrFcShort( 0x0 ), /* 0 */
        /* 12 */ NdrFcShort( 0x8 ), /* 8 */
        /* 14 */ 0x7, /* Oi2 Flags: srv must
        size, clt must size, has return, */
        3 /* 0x3, */
        /* Parameter txn_in */
        /* 16 */ NdrFcShort( 0x8b ), /* Flags: must size,
        must free, in, by val, */

```

```

#ifdef _ALPHA_
#if !defined(_MIPS_) && !defined(_PPC_)
/* 18 */ NdrFcShort( 0x4 ), /* x86 Stack
size/offset = 4 */
#else
NdrFcShort( 0x8 ), /*
MIPS & PPC Stack size/offset = 8 */
#endif
#else
NdrFcShort( 0x8 ), /*
Alpha Stack size/offset = 8 */
#endif
/* 20 */ NdrFcShort( 0x3e4 ), /* Type
Offset=996 */
/* Parameter txn_out */
/* 22 */ NdrFcShort( 0x4113 ), /* Flags:
must size, must free, out, simple ref, srv alloc
size=16 */
#ifdef _ALPHA_
#if !defined(_MIPS_) && !defined(_PPC_)
/* 24 */ NdrFcShort( 0x14 ), /* x86 Stack
size/offset = 20 */
#else
NdrFcShort( 0x18 ), /*
MIPS & PPC Stack size/offset = 24 */
#endif
#else
NdrFcShort( 0x18 ), /*
Alpha Stack size/offset = 24 */
#endif
/* 26 */ NdrFcShort( 0x3f6 ), /* Type
Offset=1014 */
/* Return value */
/* 28 */ NdrFcShort( 0x70 ), /* Flags: out, return,
base type, */
#ifdef _ALPHA_
#if !defined(_MIPS_) && !defined(_PPC_)
/* 30 */ NdrFcShort( 0x18 ), /* x86 Stack
size/offset = 24 */
#else
NdrFcShort( 0x1c ), /*
MIPS & PPC Stack size/offset = 28 */
#endif
#else
NdrFcShort( 0x20 ), /*
Alpha Stack size/offset = 32 */
#endif
/* 32 */ 0x8, /* FC_LONG */
0x0, /*
0 */
/* Procedure Payment */
/* 34 */ 0x33, /* FC_AUTO_HANDLE */
0x6c, /*
Old Flags: object, Oi2 */
/* 36 */ NdrFcLong( 0x0 ), /* 0 */
/* 40 */ NdrFcShort( 0x4 ), /* 4 */
#ifdef _ALPHA_

```

```

#if !defined(_MIPS_) && !defined(_PPC_)
/* 42 */ NdrFcShort( 0x1c ), /* x86 Stack
size/offset = 28 */
#else
NdrFcShort( 0x20 ), /*
MIPS & PPC Stack size/offset = 32 */
#endif
#else
NdrFcShort( 0x28 ), /*
Alpha Stack size/offset = 40 */
#endif
/* 44 */ NdrFcShort( 0x0 ), /* 0 */
/* 46 */ NdrFcShort( 0x8 ), /* 8 */
/* 48 */ 0x7, /* Oi2 Flags: srv must
size, clt must size, has return, */
0x3, /*
3 */

/* Parameter txn_in */

/* 50 */ NdrFcShort( 0x8b ), /* Flags: must size,
must free, in, by val, */
#ifdef _ALPHA_
#if !defined(_MIPS_) && !defined(_PPC_)
/* 52 */ NdrFcShort( 0x4 ), /* x86 Stack
size/offset = 4 */
#else
NdrFcShort( 0x8 ), /*
MIPS & PPC Stack size/offset = 8 */
#endif
#else
NdrFcShort( 0x8 ), /*
Alpha Stack size/offset = 8 */
#endif
/* 54 */ NdrFcShort( 0x3e4 ), /* Type
Offset=996 */

/* Parameter txn_out */

/* 56 */ NdrFcShort( 0x4113 ), /* Flags:
must size, must free, out, simple ref, srv alloc
size=16 */
#ifdef _ALPHA_
#if !defined(_MIPS_) && !defined(_PPC_)
/* 58 */ NdrFcShort( 0x14 ), /* x86 Stack
size/offset = 20 */
#else
NdrFcShort( 0x18 ), /*
MIPS & PPC Stack size/offset = 24 */
#endif
#else
NdrFcShort( 0x18 ), /*
Alpha Stack size/offset = 24 */
#endif
/* 60 */ NdrFcShort( 0x3f6 ), /* Type
Offset=1014 */

/* Return value */

/* 62 */ NdrFcShort( 0x70 ), /* Flags: out, return,
base type, */
#ifdef _ALPHA_
#if !defined(_MIPS_) && !defined(_PPC_)

```

```

/* 64 */ NdrFcShort( 0x18 ), /* x86 Stack
size/offset = 24 */
#else
NdrFcShort( 0x1c ), /*
MIPS & PPC Stack size/offset = 28 */
#endif
#else
NdrFcShort( 0x20 ), /*
Alpha Stack size/offset = 32 */
#endif
/* 66 */ 0x8, /* FC_LONG */
0x0, /*
0 */

/* Procedure Delivery */

/* 68 */ 0x33, /* FC_AUTO_HANDLE */
0x6c, /*
Old Flags: object, Oi2 */
/* 70 */ NdrFcLong( 0x0 ), /* 0 */
/* 74 */ NdrFcShort( 0x5 ), /* 5 */
#ifdef _ALPHA_
#if !defined(_MIPS_) && !defined(_PPC_)
/* 76 */ NdrFcShort( 0x1c ), /* x86 Stack
size/offset = 28 */
#else
NdrFcShort( 0x20 ), /*
MIPS & PPC Stack size/offset = 32 */
#endif
#else
NdrFcShort( 0x28 ), /*
Alpha Stack size/offset = 40 */
#endif
/* 78 */ NdrFcShort( 0x0 ), /* 0 */
/* 80 */ NdrFcShort( 0x8 ), /* 8 */
/* 82 */ 0x7, /* Oi2 Flags: srv must
size, clt must size, has return, */
0x3, /*
3 */

/* Parameter txn_in */

/* 84 */ NdrFcShort( 0x8b ), /* Flags: must size,
must free, in, by val, */
#ifdef _ALPHA_
#if !defined(_MIPS_) && !defined(_PPC_)
/* 86 */ NdrFcShort( 0x4 ), /* x86 Stack
size/offset = 4 */
#else
NdrFcShort( 0x8 ), /*
MIPS & PPC Stack size/offset = 8 */
#endif
#else
NdrFcShort( 0x8 ), /*
Alpha Stack size/offset = 8 */
#endif
/* 88 */ NdrFcShort( 0x3e4 ), /* Type
Offset=996 */

/* Parameter txn_out */

```

```

/* 90 */ NdrFcShort( 0x4113 ), /* Flags:
must size, must free, out, simple ref, srv alloc
size=16 */
#ifdef _ALPHA_
#if !defined(_MIPS_) && !defined(_PPC_)
/* 92 */ NdrFcShort( 0x14 ), /* x86 Stack
size/offset = 20 */
#else
NdrFcShort( 0x18 ), /*
MIPS & PPC Stack size/offset = 24 */
#endif
#else
NdrFcShort( 0x18 ), /*
Alpha Stack size/offset = 24 */
#endif
/* 94 */ NdrFcShort( 0x3f6 ), /* Type
Offset=1014 */

/* Return value */

/* 96 */ NdrFcShort( 0x70 ), /* Flags: out, return,
base type, */
#ifdef _ALPHA_
#if !defined(_MIPS_) && !defined(_PPC_)
/* 98 */ NdrFcShort( 0x18 ), /* x86 Stack
size/offset = 24 */
#else
NdrFcShort( 0x1c ), /*
MIPS & PPC Stack size/offset = 28 */
#endif
#else
NdrFcShort( 0x20 ), /*
Alpha Stack size/offset = 32 */
#endif
/* 100 */ 0x8, /* FC_LONG */
0x0, /*
0 */

/* Procedure StockLevel */

/* 102 */ 0x33, /* FC_AUTO_HANDLE */
0x6c, /*
Old Flags: object, Oi2 */
/* 104 */ NdrFcLong( 0x0 ), /* 0 */
/* 108 */ NdrFcShort( 0x6 ), /* 6 */
#ifdef _ALPHA_
#if !defined(_MIPS_) && !defined(_PPC_)
/* 110 */ NdrFcShort( 0x1c ), /* x86 Stack
size/offset = 28 */
#else
NdrFcShort( 0x20 ), /*
MIPS & PPC Stack size/offset = 32 */
#endif
#else
NdrFcShort( 0x28 ), /*
Alpha Stack size/offset = 40 */
#endif
/* 112 */ NdrFcShort( 0x0 ), /* 0 */
/* 114 */ NdrFcShort( 0x8 ), /* 8 */
/* 116 */ 0x7, /* Oi2 Flags: srv must
size, clt must size, has return, */
0x3, /*
3 */

```

```

        /* Parameter txn_in */

/* 118 */ NdrFcShort( 0x8b ), /* Flags: must size,
must free, in, by val, */
#ifdef _ALPHA_
#if !defined(_MIPS_) && !defined(_PPC_)
/* 120 */ NdrFcShort( 0x4 ), /* x86 Stack
size/offset = 4 */
#else
        NdrFcShort( 0x8 ), /*
MIPS & PPC Stack size/offset = 8 */
#endif
#else
        NdrFcShort( 0x8 ), /*
Alpha Stack size/offset = 8 */
#endif
/* 122 */ NdrFcShort( 0x3e4 ), /* Type
Offset=996 */

        /* Parameter txn_out */

/* 124 */ NdrFcShort( 0x4113 ), /* Flags:
must size, must free, out, simple ref, srv alloc
size=16 */
#ifdef _ALPHA_
#if !defined(_MIPS_) && !defined(_PPC_)
/* 126 */ NdrFcShort( 0x14 ), /* x86 Stack
size/offset = 20 */
#else
        NdrFcShort( 0x18 ), /*
MIPS & PPC Stack size/offset = 24 */
#endif
#else
        NdrFcShort( 0x18 ), /*
Alpha Stack size/offset = 24 */
#endif
/* 128 */ NdrFcShort( 0x3f6 ), /* Type
Offset=1014 */

        /* Return value */

/* 130 */ NdrFcShort( 0x70 ), /* Flags: out, return,
base type, */
#ifdef _ALPHA_
#if !defined(_MIPS_) && !defined(_PPC_)
/* 132 */ NdrFcShort( 0x18 ), /* x86 Stack
size/offset = 24 */
#else
        NdrFcShort( 0x1c ), /*
MIPS & PPC Stack size/offset = 28 */
#endif
#else
        NdrFcShort( 0x20 ), /*
Alpha Stack size/offset = 32 */
#endif
/* 134 */ 0x8, /* FC_LONG */
        0x0, /*
0 */

        /* Procedure OrderStatus */

/* 136 */ 0x33, /* FC_AUTO_HANDLE */

```

```

        0x6c, /*
Old Flags: object, Oi2 */
/* 138 */ NdrFcLong( 0x0 ), /* 0 */
/* 142 */ NdrFcShort( 0x7 ), /* 7 */
#ifdef _ALPHA_
#if !defined(_MIPS_) && !defined(_PPC_)
/* 144 */ NdrFcShort( 0x1c ), /* x86 Stack
size/offset = 28 */
#else
        NdrFcShort( 0x20 ), /*
MIPS & PPC Stack size/offset = 32 */
#endif
#else
        NdrFcShort( 0x28 ), /*
Alpha Stack size/offset = 40 */
#endif
/* 146 */ NdrFcShort( 0x0 ), /* 0 */
/* 148 */ NdrFcShort( 0x8 ), /* 8 */
/* 150 */ 0x7, /* Oi2 Flags: srv must
size, clt must size, has return, */
        0x3, /*
3 */

        /* Parameter txn_in */

/* 152 */ NdrFcShort( 0x8b ), /* Flags: must size,
must free, in, by val, */
#ifdef _ALPHA_
#if !defined(_MIPS_) && !defined(_PPC_)
/* 154 */ NdrFcShort( 0x4 ), /* x86 Stack
size/offset = 4 */
#else
        NdrFcShort( 0x8 ), /*
MIPS & PPC Stack size/offset = 8 */
#endif
#else
        NdrFcShort( 0x8 ), /*
Alpha Stack size/offset = 8 */
#endif
/* 156 */ NdrFcShort( 0x3e4 ), /* Type
Offset=996 */

        /* Parameter txn_out */

/* 158 */ NdrFcShort( 0x4113 ), /* Flags:
must size, must free, out, simple ref, srv alloc
size=16 */
#ifdef _ALPHA_
#if !defined(_MIPS_) && !defined(_PPC_)
/* 160 */ NdrFcShort( 0x14 ), /* x86 Stack
size/offset = 20 */
#else
        NdrFcShort( 0x18 ), /*
MIPS & PPC Stack size/offset = 24 */
#endif
#else
        NdrFcShort( 0x18 ), /*
Alpha Stack size/offset = 24 */
#endif
/* 162 */ NdrFcShort( 0x3f6 ), /* Type
Offset=1014 */

        /* Return value */

```

```

/* 164 */ NdrFcShort( 0x70 ), /* Flags: out, return,
base type, */
#ifdef _ALPHA_
#if !defined(_MIPS_) && !defined(_PPC_)
/* 166 */ NdrFcShort( 0x18 ), /* x86 Stack
size/offset = 24 */
#else
        NdrFcShort( 0x1c ), /*
MIPS & PPC Stack size/offset = 28 */
#endif
#else
        NdrFcShort( 0x20 ), /*
Alpha Stack size/offset = 32 */
#endif
/* 168 */ 0x8, /* FC_LONG */
        0x0, /*
0 */

        /* Procedure CallSetComplete */

/* 170 */ 0x33, /* FC_AUTO_HANDLE */
        0x6c, /*
Old Flags: object, Oi2 */
/* 172 */ NdrFcLong( 0x0 ), /* 0 */
/* 176 */ NdrFcShort( 0x8 ), /* 8 */
#ifdef _ALPHA_
/* 178 */ NdrFcShort( 0x8 ), /* x86, MIPS, PPC Stack
size/offset = 8 */
#else
        NdrFcShort( 0x10 ), /*
Alpha Stack size/offset = 16 */
#endif
/* 180 */ NdrFcShort( 0x0 ), /* 0 */
/* 182 */ NdrFcShort( 0x8 ), /* 8 */
/* 184 */ 0x4, /* Oi2 Flags: has
return, */
        0x1, /*
1 */

        /* Return value */

/* 186 */ NdrFcShort( 0x70 ), /* Flags: out, return,
base type, */
#ifdef _ALPHA_
/* 188 */ NdrFcShort( 0x4 ), /* x86, MIPS, PPC Stack
size/offset = 4 */
#else
        NdrFcShort( 0x8 ), /*
Alpha Stack size/offset = 8 */
#endif
/* 190 */ 0x8, /* FC_LONG */
        0x0, /*
0 */

        }
};

static const MIDL_TYPE_FORMAT_STRING
__MIDL_TypeFormatString =
{
    0,

```

```

    {
0 /*                                NdrFcShort( 0x0 ), /*
/* 2 */                                /*
FC_UP /*                                0x12, 0x0, /*
/* 4 */ NdrFcShort( 0x3cc ), /* Offset=
972 (976) */                                /*
/* 6 */                                /*
FC_NON_ENCAPSULATED_UNION /*            0x2b, /*
/*                                0x9, /*
FC_ULONG /*                                /*
/* 8 */ 0x7, /* Corr desc: FC_USHORT
/*                                0x0, /*
/* 10 */ NdrFcShort( 0xffff8 ), /* -8 */
/* 12 */ NdrFcShort( 0x2 ), /* Offset= 2 (14) */
/* 14 */ NdrFcShort( 0x10 ), /* 16 */
/* 16 */ NdrFcShort( 0x2f ), /* 47 */
/* 18 */ NdrFcLong( 0x14 ), /* 20 */
/* 22 */ NdrFcShort( 0x800b ), /* Simple arm
type: FC_HYPER */
/* 24 */ NdrFcLong( 0x3 ), /* 3 */
/* 28 */ NdrFcShort( 0x8008 ), /* Simple arm
type: FC_LONG */
/* 30 */ NdrFcLong( 0x11 ), /* 17 */
/* 34 */ NdrFcShort( 0x8001 ), /* Simple arm
type: FC_BYTE */
/* 36 */ NdrFcLong( 0x2 ), /* 2 */
/* 40 */ NdrFcShort( 0x8006 ), /* Simple arm
type: FC_SHORT */
/* 42 */ NdrFcLong( 0x4 ), /* 4 */
/* 46 */ NdrFcShort( 0x800a ), /* Simple arm
type: FC_FLOAT */
/* 48 */ NdrFcLong( 0x5 ), /* 5 */
/* 52 */ NdrFcShort( 0x800c ), /* Simple arm
type: FC_DOUBLE */
/* 54 */ NdrFcLong( 0xb ), /* 11 */
/* 58 */ NdrFcShort( 0x8006 ), /* Simple arm
type: FC_SHORT */
/* 60 */ NdrFcLong( 0xa ), /* 10 */
/* 64 */ NdrFcShort( 0x8008 ), /* Simple arm
type: FC_LONG */
/* 66 */ NdrFcLong( 0x6 ), /* 6 */
/* 70 */ NdrFcShort( 0xe8 ), /* Offset= 232 (302) */
/* 72 */ NdrFcLong( 0x7 ), /* 7 */
/* 76 */ NdrFcShort( 0x800c ), /* Simple arm
type: FC_DOUBLE */
/* 78 */ NdrFcLong( 0x8 ), /* 8 */
/* 82 */ NdrFcShort( 0xe2 ), /* Offset= 226 (308) */
/* 84 */ NdrFcLong( 0xd ), /* 13 */
/* 88 */ NdrFcShort( 0xf4 ), /* Offset= 244 (332) */
/* 90 */ NdrFcLong( 0x9 ), /* 9 */
/* 94 */ NdrFcShort( 0x100 ), /* Offset=
256 (350) */
/* 96 */ NdrFcLong( 0x2000 ), /* 8192 */
/* 100 */ NdrFcShort( 0x10c ), /* Offset=
268 (368) */
/* 102 */ NdrFcLong( 0x24 ), /* 36 */
/* 106 */ NdrFcShort( 0x31a ), /* Offset=
794 (900) */

```

```

/* 108 */ NdrFcLong( 0x4024 ), /* 16420 */
/* 112 */ NdrFcShort( 0x314 ), /* Offset=
788 (900) */
/* 114 */ NdrFcLong( 0x4011 ), /* 16401 */
/* 118 */ NdrFcShort( 0x312 ), /* Offset=
786 (904) */
/* 120 */ NdrFcLong( 0x4002 ), /* 16386 */
/* 124 */ NdrFcShort( 0x310 ), /* Offset=
784 (908) */
/* 126 */ NdrFcLong( 0x4003 ), /* 16387 */
/* 130 */ NdrFcShort( 0x30e ), /* Offset=
782 (912) */
/* 132 */ NdrFcLong( 0x4014 ), /* 16404 */
/* 136 */ NdrFcShort( 0x30c ), /* Offset=
780 (916) */
/* 138 */ NdrFcLong( 0x4004 ), /* 16388 */
/* 142 */ NdrFcShort( 0x30a ), /* Offset=
778 (920) */
/* 144 */ NdrFcLong( 0x4005 ), /* 16389 */
/* 148 */ NdrFcShort( 0x308 ), /* Offset=
776 (924) */
/* 150 */ NdrFcLong( 0x400b ), /* 16395 */
/* 154 */ NdrFcShort( 0x2f2 ), /* Offset=
754 (908) */
/* 156 */ NdrFcLong( 0x400a ), /* 16394 */
/* 160 */ NdrFcShort( 0x2f0 ), /* Offset=
752 (912) */
/* 162 */ NdrFcLong( 0x4006 ), /* 16390 */
/* 166 */ NdrFcShort( 0x2fa ), /* Offset=
762 (928) */
/* 168 */ NdrFcLong( 0x4007 ), /* 16391 */
/* 172 */ NdrFcShort( 0x2f0 ), /* Offset=
752 (924) */
/* 174 */ NdrFcLong( 0x4008 ), /* 16392 */
/* 178 */ NdrFcShort( 0x2f2 ), /* Offset=
754 (932) */
/* 180 */ NdrFcLong( 0x400d ), /* 16397 */
/* 184 */ NdrFcShort( 0x2f0 ), /* Offset=
752 (936) */
/* 186 */ NdrFcLong( 0x4009 ), /* 16393 */
/* 190 */ NdrFcShort( 0x2ee ), /* Offset=
750 (940) */
/* 192 */ NdrFcLong( 0x6000 ), /* 24576 */
/* 196 */ NdrFcShort( 0x2ec ), /* Offset=
748 (944) */
/* 198 */ NdrFcLong( 0x400c ), /* 16396 */
/* 202 */ NdrFcShort( 0x2ea ), /* Offset=
746 (948) */
/* 204 */ NdrFcLong( 0x10 ), /* 16 */
/* 208 */ NdrFcShort( 0x8002 ), /* Simple arm
type: FC_CHAR */
/* 210 */ NdrFcLong( 0x12 ), /* 18 */
/* 214 */ NdrFcShort( 0x8006 ), /* Simple arm
type: FC_SHORT */
/* 216 */ NdrFcLong( 0x13 ), /* 19 */
/* 220 */ NdrFcShort( 0x8008 ), /* Simple arm
type: FC_LONG */
/* 222 */ NdrFcLong( 0x15 ), /* 21 */
/* 226 */ NdrFcShort( 0x800b ), /* Simple arm
type: FC_HYPER */
/* 228 */ NdrFcLong( 0x16 ), /* 22 */
/* 232 */ NdrFcShort( 0x8008 ), /* Simple arm
type: FC_LONG */

```

```

/* 234 */ NdrFcLong( 0x17 ), /* 23 */
/* 238 */ NdrFcShort( 0x8008 ), /* Simple arm
type: FC_LONG */
/* 240 */ NdrFcLong( 0xe ), /* 14 */
/* 244 */ NdrFcShort( 0x2c8 ), /* Offset=
712 (956) */
/* 246 */ NdrFcLong( 0x400e ), /* 16398 */
/* 250 */ NdrFcShort( 0x2ce ), /* Offset=
718 (968) */
/* 252 */ NdrFcLong( 0x4010 ), /* 16400 */
/* 256 */ NdrFcShort( 0x2cc ), /* Offset=
716 (972) */
/* 258 */ NdrFcLong( 0x4012 ), /* 16402 */
/* 262 */ NdrFcShort( 0x286 ), /* Offset=
646 (908) */
/* 264 */ NdrFcLong( 0x4013 ), /* 16403 */
/* 268 */ NdrFcShort( 0x284 ), /* Offset=
644 (912) */
/* 270 */ NdrFcLong( 0x4015 ), /* 16405 */
/* 274 */ NdrFcShort( 0x282 ), /* Offset=
642 (916) */
/* 276 */ NdrFcLong( 0x4016 ), /* 16406 */
/* 280 */ NdrFcShort( 0x278 ), /* Offset=
632 (912) */
/* 282 */ NdrFcLong( 0x4017 ), /* 16407 */
/* 286 */ NdrFcShort( 0x272 ), /* Offset=
626 (912) */
/* 288 */ NdrFcLong( 0x0 ), /* 0 */
/* 292 */ NdrFcShort( 0x0 ), /* Offset= 0 (292) */
/* 294 */ NdrFcLong( 0x1 ), /* 1 */
/* 298 */ NdrFcShort( 0x0 ), /* Offset= 0 (298) */
/* 300 */ NdrFcShort( 0xffffffff ), /* Offset= -1
(299) */
/* 302 */
FC_STRUCT /*                                0x15, /*
/*                                0x7, /*
7 /*
/* 304 */ NdrFcShort( 0x8 ), /* 8 */
/* 306 */ 0xb, /* FC_HYPER */
/*                                0x5b, /*
FC_END /*
/* 308 */
FC_UP /*                                0x12, 0x0, /*
/* 310 */ NdrFcShort( 0xc ), /* Offset= 12 (322) */
/* 312 */
FC_CARRAY /*                                0x1b, /*
/*                                0x1, /*
1 /*
/* 314 */ NdrFcShort( 0x2 ), /* 2 */
/* 316 */ 0x9, /* Corr desc: FC_ULONG
/*
/*                                0x0, /*
/* 318 */ NdrFcShort( 0xffffc ), /* -4 */
/* 320 */ 0x6, /* FC_SHORT */
/*                                0x5b, /*
FC_END /*
/* 322 */
FC_CSTRUCT /*                                0x17, /*

```

```

                                0x3,          /*
3 */
/* 324 */ NdrFcShort( 0x8 ), /* 8 */
/* 326 */ NdrFcShort( 0xffffffff2 ), /* Offset= -
14 (312) */
/* 328 */ 0x8, /* FC_LONG */
                                0x8,          /*
FC_LONG */
/* 330 */ 0x5c, /* FC_PAD */
                                0x5b,          /*
FC_END */
/* 332 */
                                0x2f,          /*
FC_IP */
                                0x5a,          /*
FC_CONSTANT_IID */
/* 334 */ NdrFcLong( 0x0 ), /* 0 */
/* 338 */ NdrFcShort( 0x0 ), /* 0 */
/* 340 */ NdrFcShort( 0x0 ), /* 0 */
/* 342 */ 0xc0, /* 192 */
                                0x0,          /*
0 */
/* 344 */ 0x0, /* 0 */
                                0x0,          /*
0 */
/* 346 */ 0x0, /* 0 */
                                0x0,          /*
0 */
/* 348 */ 0x0, /* 0 */
                                0x46,          /*
70 */
/* 350 */
                                0x2f,          /*
FC_IP */
                                0x5a,          /*
FC_CONSTANT_IID */
/* 352 */ NdrFcLong( 0x20400 ), /* 132096 */
/* 356 */ NdrFcShort( 0x0 ), /* 0 */
/* 358 */ NdrFcShort( 0x0 ), /* 0 */
/* 360 */ 0xc0, /* 192 */
                                0x0,          /*
0 */
/* 362 */ 0x0, /* 0 */
                                0x0,          /*
0 */
/* 364 */ 0x0, /* 0 */
                                0x0,          /*
0 */
/* 366 */ 0x0, /* 0 */
                                0x46,          /*
70 */
/* 368 */
                                0x12, 0x10,          /*
FC_UP */
/* 370 */ NdrFcShort( 0x2 ), /* Offset= 2 (372) */
/* 372 */
                                0x12, 0x0,          /*
FC_UP */
/* 374 */ NdrFcShort( 0x1fc ), /* Offset=
508 (882) */
/* 376 */
                                0x2a,          /*
FC_ENCAPSULATED_UNION */

```

```

                                0x49,          /*
73 */
/* 378 */ NdrFcShort( 0x18 ), /* 24 */
/* 380 */ NdrFcShort( 0xa ), /* 10 */
/* 382 */ NdrFcLong( 0x8 ), /* 8 */
/* 386 */ NdrFcShort( 0x58 ), /* Offset= 88 (474) */
/* 388 */ NdrFcLong( 0xd ), /* 13 */
/* 392 */ NdrFcShort( 0x78 ), /* Offset= 120 (512) */
/* 394 */ NdrFcLong( 0x9 ), /* 9 */
/* 398 */ NdrFcShort( 0x94 ), /* Offset= 148 (546) */
/* 400 */ NdrFcLong( 0xc ), /* 12 */
/* 404 */ NdrFcShort( 0xbc ), /* Offset= 188 (592) */
/* 406 */ NdrFcLong( 0x24 ), /* 36 */
/* 410 */ NdrFcShort( 0x114 ), /* Offset=
276 (686) */
/* 412 */ NdrFcLong( 0x800d ), /* 32781 */
/* 416 */ NdrFcShort( 0x130 ), /* Offset=
304 (720) */
/* 418 */ NdrFcLong( 0x10 ), /* 16 */
/* 422 */ NdrFcShort( 0x148 ), /* Offset=
328 (750) */
/* 424 */ NdrFcLong( 0x2 ), /* 2 */
/* 428 */ NdrFcShort( 0x160 ), /* Offset=
352 (780) */
/* 430 */ NdrFcLong( 0x3 ), /* 3 */
/* 434 */ NdrFcShort( 0x178 ), /* Offset=
376 (810) */
/* 436 */ NdrFcLong( 0x14 ), /* 20 */
/* 440 */ NdrFcShort( 0x190 ), /* Offset=
400 (840) */
/* 442 */ NdrFcShort( 0xffffffff ), /* Offset= -1
(441) */
/* 444 */
                                0x1b,          /*
FC_CARRAY */
                                0x3,          /*
3 */
/* 446 */ NdrFcShort( 0x4 ), /* 4 */
/* 448 */ 0x19, /* Corr desc: field
pointer, FC_ULONG */
                                0x0,          /*
*/
/* 450 */ NdrFcShort( 0x0 ), /* 0 */
/* 452 */
                                0x4b,          /*
FC_PP */
                                0x5c,          /*
FC_PAD */
/* 454 */
                                0x48,          /*
FC_VARIABLE_REPEAT */
                                0x49,          /*
FC_FIXED_OFFSET */
/* 456 */ NdrFcShort( 0x4 ), /* 4 */
/* 458 */ NdrFcShort( 0x0 ), /* 0 */
/* 460 */ NdrFcShort( 0x1 ), /* 1 */
/* 462 */ NdrFcShort( 0x0 ), /* 0 */
/* 464 */ NdrFcShort( 0x0 ), /* 0 */
/* 466 */ 0x12, 0x0, /* FC_UP */
/* 468 */ NdrFcShort( 0xffffffff6e ), /* Offset= -
146 (322) */
/* 470 */

```

```

                                0x5b,          /*
FC_END */
                                0x8,          /*
FC_LONG */
/* 472 */ 0x5c, /* FC_PAD */
                                0x5b,          /*
FC_END */
/* 474 */
                                0x16,          /*
FC_PSTRUCT */
                                0x3,          /*
3 */
/* 476 */ NdrFcShort( 0x8 ), /* 8 */
/* 478 */
                                0x4b,          /*
FC_PP */
                                0x5c,          /*
FC_PAD */
/* 480 */
                                0x46,          /*
FC_NO_REPEAT */
                                0x5c,          /*
FC_PAD */
/* 482 */ NdrFcShort( 0x4 ), /* 4 */
/* 484 */ NdrFcShort( 0x4 ), /* 4 */
/* 486 */ 0x11, 0x0, /* FC_RP */
/* 488 */ NdrFcShort( 0xffffffffd4 ), /* Offset= -
44 (444) */
/* 490 */
                                0x5b,          /*
FC_END */
                                0x8,          /*
FC_LONG */
/* 492 */ 0x8, /* FC_LONG */
                                0x5b,          /*
FC_END */
/* 494 */
                                0x21,          /*
FC_BOGUS_ARRAY */
                                0x3,          /*
3 */
/* 496 */ NdrFcShort( 0x0 ), /* 0 */
/* 498 */ 0x19, /* Corr desc: field
pointer, FC_ULONG */
                                0x0,          /*
*/
/* 500 */ NdrFcShort( 0x0 ), /* 0 */
/* 502 */ NdrFcLong( 0xffffffff ), /* -1 */
/* 506 */ 0x4c, /* FC_EMBEDDED_COMPLEX
*/
                                0x0,          /*
0 */
/* 508 */ NdrFcShort( 0xffffffff50 ), /* Offset= -
176 (332) */
/* 510 */ 0x5c, /* FC_PAD */
                                0x5b,          /*
FC_END */
/* 512 */
                                0x1a,          /*
FC_BOGUS_STRUCT */

```

```

0x3, /*
3 */
/* 514 */ NdrFcShort( 0x8 ), /* 8 */
/* 516 */ NdrFcShort( 0x0 ), /* 0 */
/* 518 */ NdrFcShort( 0x6 ), /* Offset= 6 (524) */
/* 520 */ 0x8, /* FC_LONG */
0x36, /*
FC_POINTER */
/* 522 */ 0x5c, /* FC_PAD */
0x5b, /*
FC_END */
/* 524 */
0x11, 0x0, /*
FC_RP */
/* 526 */ NdrFcShort( 0xffffffe0 ), /* Offset= -
32 (494) */
/* 528 */
0x21, /*
FC_BOGUS_ARRAY */
0x3, /*
3 */
/* 530 */ NdrFcShort( 0x0 ), /* 0 */
/* 532 */ 0x19, /* Corr desc: field
pointer, FC_ULONG */
0x0, /*
*/
/* 534 */ NdrFcShort( 0x0 ), /* 0 */
/* 536 */ NdrFcLong( 0xffffffff ), /* -1 */
/* 540 */ 0x4c, /* FC_EMBEDDED_COMPLEX
*/
0x0, /*
0 */
/* 542 */ NdrFcShort( 0xffffff40 ), /* Offset= -
192 (350) */
/* 544 */ 0x5c, /* FC_PAD */
0x5b, /*
FC_END */
/* 546 */
0x1a, /*
FC_BOGUS_STRUCT */
0x3, /*
3 */
/* 548 */ NdrFcShort( 0x8 ), /* 8 */
/* 550 */ NdrFcShort( 0x0 ), /* 0 */
/* 552 */ NdrFcShort( 0x6 ), /* Offset= 6 (558) */
/* 554 */ 0x8, /* FC_LONG */
0x36, /*
FC_POINTER */
/* 556 */ 0x5c, /* FC_PAD */
0x5b, /*
FC_END */
/* 558 */
0x11, 0x0, /*
FC_RP */
/* 560 */ NdrFcShort( 0xffffffe0 ), /* Offset= -
32 (528) */
/* 562 */
0x1b, /*
FC_CARRAY */
0x3, /*
3 */
/* 564 */ NdrFcShort( 0x4 ), /* 4 */

```

```

/* 566 */ 0x19, /* Corr desc: field
pointer, FC_ULONG */
0x0, /*
*/
/* 568 */ NdrFcShort( 0x0 ), /* 0 */
/* 570 */
0x4b, /*
FC_PP */
0x5c, /*
FC_PAD */
/* 572 */
0x48, /*
FC_VARIABLE_REPEAT */
0x49, /*
FC_FIXED_OFFSET */
/* 574 */ NdrFcShort( 0x4 ), /* 4 */
/* 576 */ NdrFcShort( 0x0 ), /* 0 */
/* 578 */ NdrFcShort( 0x1 ), /* 1 */
/* 580 */ NdrFcShort( 0x0 ), /* 0 */
/* 582 */ NdrFcShort( 0x0 ), /* 0 */
/* 584 */ 0x12, 0x0, /* FC_UP */
/* 586 */ NdrFcShort( 0xfffffdb6 ), /* Offset= -
586 (0) */
/* 588 */
0x5b, /*
FC_END */
0x8, /*
FC_LONG */
/* 590 */ 0x5c, /* FC_PAD */
0x5b, /*
FC_END */
/* 592 */
0x1a, /*
FC_BOGUS_STRUCT */
0x3, /*
3 */
/* 594 */ NdrFcShort( 0x8 ), /* 8 */
/* 596 */ NdrFcShort( 0x0 ), /* 0 */
/* 598 */ NdrFcShort( 0x6 ), /* Offset= 6 (604) */
/* 600 */ 0x8, /* FC_LONG */
0x36, /*
FC_POINTER */
/* 602 */ 0x5c, /* FC_PAD */
0x5b, /*
FC_END */
/* 604 */
0x11, 0x0, /*
FC_RP */
/* 606 */ NdrFcShort( 0xffffffd4 ), /* Offset= -
44 (562) */
/* 608 */
0x2E, /*
FC_IP */
0x5a, /*
FC_CONSTANT_IID */
/* 610 */ NdrFcLong( 0x2f ), /* 47 */
/* 614 */ NdrFcShort( 0x0 ), /* 0 */
/* 616 */ NdrFcShort( 0x0 ), /* 0 */
/* 618 */ 0xc0, /* 192 */
0x0, /*
0 */
/* 620 */ 0x0, /* 0 */

```

```

0x0, /*
0 */
/* 622 */ 0x0, /* 0 */
0x0, /*
0 */
/* 624 */ 0x0, /* 0 */
0x46, /*
70 */
/* 626 */
0x1b, /*
FC_CARRAY */
0x0, /*
0 */
/* 628 */ NdrFcShort( 0x1 ), /* 1 */
/* 630 */ 0x19, /* Corr desc: field
pointer, FC_ULONG */
0x0, /*
*/
/* 632 */ NdrFcShort( 0x4 ), /* 4 */
/* 634 */ 0x1, /* FC_BYTE */
0x5b, /*
FC_END */
/* 636 */
0x1a, /*
FC_BOGUS_STRUCT */
0x3, /*
3 */
/* 638 */ NdrFcShort( 0x10 ), /* 16 */
/* 640 */ NdrFcShort( 0x0 ), /* 0 */
/* 642 */ NdrFcShort( 0xa ), /* Offset= 10 (652) */
/* 644 */ 0x8, /* FC_LONG */
0x8, /*
FC_LONG */
/* 646 */ 0x4c, /* FC_EMBEDDED_COMPLEX
*/
0x0, /*
0 */
/* 648 */ NdrFcShort( 0xffffffd8 ), /* Offset= -
40 (608) */
/* 650 */ 0x36, /* FC_POINTER */
0x5b, /*
FC_END */
/* 652 */
0x12, 0x0, /*
FC_UP */
/* 654 */ NdrFcShort( 0xfffffe4 ), /* Offset= -
28 (626) */
/* 656 */
0x1b, /*
FC_CARRAY */
0x3, /*
3 */
/* 658 */ NdrFcShort( 0x4 ), /* 4 */
/* 660 */ 0x19, /* Corr desc: field
pointer, FC_ULONG */
0x0, /*
*/
/* 662 */ NdrFcShort( 0x0 ), /* 0 */
/* 664 */
0x4b, /*
FC_PP */
0x5c, /*
FC_PAD */

```

```

/* 666 */
FC_VARIABLE_REPEAT */          0x48,          /*
FC_FIXED_OFFSET */            0x49,          /*
/* 668 */ NdrFcShort( 0x4 ), /* 4 */
/* 670 */ NdrFcShort( 0x0 ), /* 0 */
/* 672 */ NdrFcShort( 0x1 ), /* 1 */
/* 674 */ NdrFcShort( 0x0 ), /* 0 */
/* 676 */ NdrFcShort( 0x0 ), /* 0 */
/* 678 */ 0x12, 0x0,        /* FC_UP */
/* 680 */ NdrFcShort( 0xfffffd4 ), /* Offset= -
44 (636) */
/* 682 */
FC_END */                      0x5b,          /*
FC_LONG */                     0x8,           /*
/* 684 */ 0x5c,              /* FC_PAD */
FC_END */                      0x5b,          /*
/* 686 */
FC_BOGUS_STRUCT */            0x1a,          /*
FC_BOGUS_STRUCT */            0x3,           /*
3 */
/* 688 */ NdrFcShort( 0x8 ), /* 8 */
/* 690 */ NdrFcShort( 0x0 ), /* 0 */
/* 692 */ NdrFcShort( 0x6 ), /* Offset= 6 (698) */
/* 694 */ 0x8,              /* FC_LONG */
FC_POINTER */                  0x36,          /*
/* 696 */ 0x5c,              /* FC_PAD */
FC_END */                      0x5b,          /*
/* 698 */
FC_RP */                       0x11, 0x0,     /*
/* 700 */ NdrFcShort( 0xfffffd4 ), /* Offset= -
44 (656) */
/* 702 */
FC_SMPARRAY */                0x1d,          /*
FC_SMPARRAY */                0x0,           /*
0 */
/* 704 */ NdrFcShort( 0x8 ), /* 8 */
/* 706 */ 0x1,              /* FC_BYTE */
FC_END */                      0x5b,          /*
/* 708 */
FC_STRUCT */                   0x15,          /*
FC_STRUCT */                   0x3,           /*
3 */
/* 710 */ NdrFcShort( 0x10 ), /* 16 */
/* 712 */ 0x8,              /* FC_LONG */
FC_SHORT */                    0x6,           /*
/* 714 */ 0x6,              /* FC_SHORT */
FC_EMBEDDED_COMPLEX */        0x4c,          /*
/* 716 */ 0x0,              /* 0 */

```

```

),          /* Offset= -15 (702) */
FC_END */          0x5b,          /*
/* 720 */
FC_BOGUS_STRUCT */    0x1a,          /*
FC_BOGUS_STRUCT */    0x3,           /*
3 */
/* 722 */ NdrFcShort( 0x18 ), /* 24 */
/* 724 */ NdrFcShort( 0x0 ), /* 0 */
/* 726 */ NdrFcShort( 0xa ), /* Offset= 10 (736) */
/* 728 */ 0x8,          /* FC_LONG */
FC_POINTER */          0x36,          /*
/* 730 */ 0x4c,          /* FC_EMBEDDED_COMPLEX
*/
0 */
/* 732 */ NdrFcShort( 0xffffffe8 ), /* Offset= -
24 (708) */
/* 734 */ 0x5c,          /* FC_PAD */
FC_END */              0x5b,          /*
/* 736 */
FC_RP */               0x11, 0x0,     /*
FC_RP */               0x11, 0x0,     /*
/* 738 */ NdrFcShort( 0xfffff0c ), /* Offset= -
244 (494) */
/* 740 */
FC_CARRAY */           0x1b,          /*
FC_CARRAY */           0x0,           /*
0 */
/* 742 */ NdrFcShort( 0x1 ), /* 1 */
/* 744 */ 0x19,          /* Corr desc: field
pointer, FC_ULONG */
/* 746 */ NdrFcShort( 0x0 ), /* 0 */
/* 748 */ 0x1,          /* FC_BYTE */
FC_END */              0x5b,          /*
/* 750 */
FC_PSTRUCT */          0x16,          /*
FC_PSTRUCT */          0x3,           /*
3 */
/* 752 */ NdrFcShort( 0x8 ), /* 8 */
/* 754 */
FC_PP */                0x4b,          /*
FC_PP */                0x5c,          /*
FC_PAD */               0x46,          /*
/* 756 */
FC_NO_REPEAT */        0x5c,          /*
FC_NO_REPEAT */        0x5c,          /*
FC_PAD */               0x46,          /*
/* 758 */ NdrFcShort( 0x4 ), /* 4 */
/* 760 */ NdrFcShort( 0x4 ), /* 4 */
/* 762 */ 0x12, 0x0,     /* FC_UP */

```

```

/* 764 */ NdrFcShort( 0xffffffe8 ), /* Offset= -
24 (740) */
/* 766 */
FC_END */              0x5b,          /*
FC_END */              0x8,           /*
FC_LONG */             0x8,           /*
/* 768 */ 0x8,          /* FC_LONG */
FC_END */              0x5b,          /*
/* 770 */
FC_CARRAY */           0x1b,          /*
FC_CARRAY */           0x1,          /*
1 */
/* 772 */ NdrFcShort( 0x2 ), /* 2 */
/* 774 */ 0x19,          /* Corr desc: field
pointer, FC_ULONG */
/* 776 */ NdrFcShort( 0x0 ), /* 0 */
/* 778 */ 0x6,          /* FC_SHORT */
FC_END */              0x5b,          /*
/* 780 */
FC_PSTRUCT */          0x16,          /*
FC_PSTRUCT */          0x3,           /*
3 */
/* 782 */ NdrFcShort( 0x8 ), /* 8 */
/* 784 */
FC_PP */                0x4b,          /*
FC_PP */                0x5c,          /*
FC_PAD */               0x46,          /*
/* 786 */
FC_NO_REPEAT */        0x5c,          /*
FC_NO_REPEAT */        0x5c,          /*
FC_PAD */               0x46,          /*
/* 788 */ NdrFcShort( 0x4 ), /* 4 */
/* 790 */ NdrFcShort( 0x4 ), /* 4 */
/* 792 */ 0x12, 0x0,     /* FC_UP */
/* 794 */ NdrFcShort( 0xffffffe8 ), /* Offset= -
24 (770) */
/* 796 */
FC_END */              0x5b,          /*
FC_END */              0x8,           /*
FC_LONG */             0x8,           /*
/* 798 */ 0x8,          /* FC_LONG */
FC_END */              0x5b,          /*
/* 800 */
FC_CARRAY */           0x1b,          /*
FC_CARRAY */           0x3,          /*
3 */
/* 802 */ NdrFcShort( 0x4 ), /* 4 */
/* 804 */ 0x19,          /* Corr desc: field
pointer, FC_ULONG */

```

```

0x0, /*
/* 806 */ NdrFcShort( 0x0 ), /* 0 */
/* 808 */ 0x8, /* FC_LONG */
0x5b, /*
FC_END */
/* 810 */
0x16, /*
FC_PSTRUCT */
0x3, /*
3 */
/* 812 */ NdrFcShort( 0x8 ), /* 8 */
/* 814 */
0x4b, /*
FC_PP */
0x5c, /*
FC_PAD */
/* 816 */
0x46, /*
FC_NO_REPEAT */
0x5c, /*
FC_PAD */
/* 818 */ NdrFcShort( 0x4 ), /* 4 */
/* 820 */ NdrFcShort( 0x4 ), /* 4 */
/* 822 */ 0x12, 0x0, /* FC_UP */
/* 824 */ NdrFcShort( 0xffffffe8 ), /* Offset= -
24 (800) */
/* 826 */
0x5b, /*
FC_END */
0x8, /*
FC_LONG */
/* 828 */ 0x8, /* FC_LONG */
0x5b, /*
FC_END */
/* 830 */
0x1b, /*
FC_CARRAY */
0x7, /*
7 */
/* 832 */ NdrFcShort( 0x8 ), /* 8 */
/* 834 */ 0x19, /* Corr desc: field
pointer, FC_ULONG */
0x0, /*
*/
/* 836 */ NdrFcShort( 0x0 ), /* 0 */
/* 838 */ 0xb, /* FC_HYPER */
0x5b, /*
FC_END */
/* 840 */
0x16, /*
FC_PSTRUCT */
0x3, /*
3 */
/* 842 */ NdrFcShort( 0x8 ), /* 8 */
/* 844 */
0x4b, /*
FC_PP */
0x5c, /*
FC_PAD */
/* 846 */

```

```

0x46, /*
FC_NO_REPEAT */
0x5c, /*
FC_PAD */
/* 848 */ NdrFcShort( 0x4 ), /* 4 */
/* 850 */ NdrFcShort( 0x4 ), /* 4 */
/* 852 */ 0x12, 0x0, /* FC_UP */
/* 854 */ NdrFcShort( 0xffffffe8 ), /* Offset= -
24 (830) */
/* 856 */
0x5b, /*
FC_END */
0x8, /*
FC_LONG */
/* 858 */ 0x8, /* FC_LONG */
0x5b, /*
FC_END */
/* 860 */
0x15, /*
FC_STRUCT */
0x3, /*
3 */
/* 862 */ NdrFcShort( 0x8 ), /* 8 */
/* 864 */ 0x8, /* FC_LONG */
0x8, /*
FC_LONG */
/* 866 */ 0x5c, /* FC_PAD */
0x5b, /*
FC_END */
/* 868 */
0x1b, /*
FC_CARRAY */
0x3, /*
3 */
/* 870 */ NdrFcShort( 0x8 ), /* 8 */
/* 872 */ 0x7, /* Corr desc: FC_USHORT
*/
0x0, /*
*/
/* 874 */ NdrFcShort( 0xffd8 ), /* -40 */
/* 876 */ 0x4c, /* FC_EMBEDDED_COMPLEX
*/
0x0, /*
0 */
/* 878 */ NdrFcShort( 0xfffffee ), /* Offset= -
18 (860) */
/* 880 */ 0x5c, /* FC_PAD */
0x5b, /*
FC_END */
/* 882 */
0x1a, /*
FC_BOGUS_STRUCT */
0x3, /*
3 */
/* 884 */ NdrFcShort( 0x28 ), /* 40 */
/* 886 */ NdrFcShort( 0xfffffee ), /* Offset= -
18 (868) */
/* 888 */ NdrFcShort( 0x0 ), /* Offset= 0 (888) */
/* 890 */ 0x6, /* FC_SHORT */
0x6, /*
FC_SHORT */
/* 892 */ 0x38, /* FC_ALIGN4 */

```

```

0x8, /*
FC_LONG */
/* 894 */ 0x8, /* FC_LONG */
0x4c, /*
FC_EMBEDDED_COMPLEX */
/* 896 */ 0x0, /* 0 */
NdrFcShort( 0xfffffd7
), /* Offset= -521 (376) */
0x5b, /*
FC_END */
/* 900 */
0x12, 0x0, /*
FC_UP */
/* 902 */ NdrFcShort( 0xfffffe6 ), /* Offset= -
266 (636) */
/* 904 */
0x12, 0x8, /*
FC_UP [simple_pointer] */
/* 906 */ 0x1, /* FC_BYTE */
0x5c, /*
FC_PAD */
/* 908 */
0x12, 0x8, /*
FC_UP [simple_pointer] */
/* 910 */ 0x6, /* FC_SHORT */
0x5c, /*
FC_PAD */
/* 912 */
0x12, 0x8, /*
FC_UP [simple_pointer] */
/* 914 */ 0x8, /* FC_LONG */
0x5c, /*
FC_PAD */
/* 916 */
0x12, 0x8, /*
FC_UP [simple_pointer] */
/* 918 */ 0xb, /* FC_HYPER */
0x5c, /*
FC_PAD */
/* 920 */
0x12, 0x8, /*
FC_UP [simple_pointer] */
/* 922 */ 0xa, /* FC_FLOAT */
0x5c, /*
FC_PAD */
/* 924 */
0x12, 0x8, /*
FC_UP [simple_pointer] */
/* 926 */ 0xc, /* FC_DOUBLE */
0x5c, /*
FC_PAD */
/* 928 */
0x12, 0x0, /*
FC_UP */
/* 930 */ NdrFcShort( 0xfffffd8c ), /* Offset= -
628 (302) */
/* 932 */
0x12, 0x10, /*
FC_UP */
/* 934 */ NdrFcShort( 0xfffffd8e ), /* Offset= -
626 (308) */
/* 936 */

```



```

                                0x12, 0x10,      /*
FC_UP */
/* 938 */ NdrFcShort( 0xffffda2 ), /* Offset= -
606 (332) */
/* 940 */
                                0x12, 0x10,      /*
FC_UP */
/* 942 */ NdrFcShort( 0xffffdb0 ), /* Offset= -
592 (350) */
/* 944 */
                                0x12, 0x10,      /*
FC_UP */
/* 946 */ NdrFcShort( 0xffffdbe ), /* Offset= -
578 (368) */
/* 948 */
                                0x12, 0x10,      /*
FC_UP */
/* 950 */ NdrFcShort( 0x2 ), /* Offset= 2 (952) */
/* 952 */
                                0x12, 0x0,       /*
FC_UP */
/* 954 */ NdrFcShort( 0xffffc46 ), /* Offset= -
954 (0) */
/* 956 */
                                0x15,          /*
FC_STRUCT */
                                0x7,          /*
7 */
/* 958 */ NdrFcShort( 0x10 ), /* 16 */
/* 960 */ 0x6,
                                0x1,          /*
FC_BYTE */
/* 962 */ 0x1, /* FC_BYTE */
                                0x38,        /*
FC_ALIGNM4 */
/* 964 */ 0x8, /* FC_LONG */
                                0x39,        /*
FC_ALIGNM8 */
/* 966 */ 0xb, /* FC_HYPER */
                                0x5b,        /*
FC_END */
/* 968 */
                                0x12, 0x0,      /*
FC_UP */
/* 970 */ NdrFcShort( 0xfffffff2 ), /* Offset= -
14 (956) */
/* 972 */
                                0x12, 0x8,      /*
FC_UP [simple_pointer] */
/* 974 */ 0x2, /* FC_CHAR */
                                0x5c,        /*
FC_PAD */
/* 976 */
                                0x1a,          /*
FC_BOGUS_STRUCT */
                                0x7,          /*
7 */
/* 978 */ NdrFcShort( 0x20 ), /* 32 */
/* 980 */ NdrFcShort( 0x0 ), /* 0 */
/* 982 */ NdrFcShort( 0x0 ), /* Offset= 0 (982) */
/* 984 */ 0x8, /* FC_LONG */
                                0x8,          /*
FC_LONG */

```

```

/* 986 */ 0x6, /* FC_SHORT */
                                0x6,          /*
FC_SHORT */
/* 988 */ 0x6, /* FC_SHORT */
                                0x6,          /*
FC_SHORT */
/* 990 */ 0x4c, /* FC_EMBEDDED_COMPLEX
*/
                                0x0,          /*
0 */
/* 992 */ NdrFcShort( 0xfffffc26 ), /* Offset= -
986 (6) */
/* 994 */ 0x5c, /* FC_PAD */
                                0x5b,        /*
FC_END */
/* 996 */ 0xb4, /* FC_USER_MARSHAL */
                                0x83,        /*
131 */
/* 998 */ NdrFcShort( 0x0 ), /* 0 */
/* 1000 */ NdrFcShort( 0x10 ), /* 16 */
/* 1002 */ NdrFcShort( 0x0 ), /* 0 */
/* 1004 */ NdrFcShort( 0xfffffc16 ), /*
Offset=-1002 (2) */
/* 1006 */
                                0x11, 0x4,      /*
FC_RP [allocated_on_stack] */
/* 1008 */ NdrFcShort( 0x6 ), /* Offset= 6
(1014) */
/* 1010 */
                                0x13, 0x0,      /*
FC_OP */
/* 1012 */ NdrFcShort( 0xfffffcdc ), /*
Offset=-36 (976) */
/* 1014 */ 0xb4, /*
FC_USER_MARSHAL */
                                0x83,        /*
131 */
/* 1016 */ NdrFcShort( 0x0 ), /* 0 */
/* 1018 */ NdrFcShort( 0x10 ), /* 16 */
/* 1020 */ NdrFcShort( 0x0 ), /* 0 */
/* 1022 */ NdrFcShort( 0xfffffff4 ), /*
Offset=-12 (1010) */
                                0x0
};

const CInterfaceProxyVtbl *
_tpcc_com_ps_ProxyVtblList[] =
{
    ( CInterfaceProxyVtbl * ) &ITPCCProxyVtbl,
    0
};

const CInterfaceStubVtbl *
_tpcc_com_ps_StubVtblList[] =
{
    ( CInterfaceStubVtbl * ) &ITPCCStubVtbl,
    0
};

PCInterfaceName const
_tpcc_com_ps_InterfaceNamesList[] =

```

```

{
    "ITPCC",
    0
};

#define _tpcc_com_ps_CHECK_IID(n)
IID_GENERIC_CHECK_IID( _tpcc_com_ps, pIID,
n)

int __stdcall _tpcc_com_ps_IID_Lookup( const IID *
pIID, int * pIndex )
{
    if(!_tpcc_com_ps_CHECK_IID(0))
    {
        *pIndex = 0;
        return 1;
    }
    return 0;
}

const ExtendedProxyFileInfo tpcc_com_ps_ProxyFileInfo
=
{
    (PCInterfaceProxyVtblList *) &
_tpcc_com_ps_ProxyVtblList,
    (PCInterfaceStubVtblList *) &
_tpcc_com_ps_StubVtblList,
    (const PCInterfaceName *) &
_tpcc_com_ps_InterfaceNamesList,
    0, // no delegation
    &_tpcc_com_ps_IID_Lookup,
    1,
    2,
    0, /* table of [async_uuid] interfaces */
    0, /* Filler1 */
    0, /* Filler2 */
    0 /* Filler3 */
};

```

tpcc_com_sl.rg

S

```

HKCR
{
    TPCC.StockLevel.1 = s 'StockLevel Class'
    {
        CLSID = s '{2668369E-A50D-11D2-BA4E-00C04FBFE08B}'
    }
    TPCC.StockLevel = s 'StockLevel Class'
    {
        CurVer = s 'TPCC.StockLevel.1'
    }
    NoRemove CLSID
    {
        ForceRemove {2668369E-A50D-11D2-BA4E-00C04FBFE08B} =
s 'StockLevel
Class'

```

```

{
ProgID = s 'TPCC.StockLevel.1'
VersionIndependentProgID = s 'TPCC.StockLevel'
InprocServer32 = s '%MODULE%'
{
val ThreadingModel = s 'Both'
}
}
}

```

tpcc_dblib.cpp

```

#include <windows.h>
#include <stdio.h>
#include <time.h>
#define DBNTWIN32

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

#include "..\..\common\src\error.h"
#include "..\..\common\src\trans.h"
#include "..\..\common\src\txn_base.h"
#include "tpcc_dblib.h"

static CRITICAL_SECTION
DBLIBCriticalSection;

BOOL APIENTRY DllMain(HMODULE hModule, DWORD
ul_reason_for_call, LPVOID lpReserved)
{
// DebugBreak();
switch( ul_reason_for_call )
{
case DLL_PROCESS_ATTACH:
DisableThreadLibraryCalls(hModule);

InitializeCriticalSection(&DBLIBCriticalSec
tion);
break;
case DLL_PROCESS_DETACH:

DeleteCriticalSection(&DBLIBCriticalSection);
break;
default:
/* nothing */;
}
return TRUE;
}

// wrapper routine for class constructor
__declspec(dllexport) CTPCC_DBLIB* CTPCC_DBLIB_new(
LPCSTR szUser, // user name for login
LPCSTR szPassword, // password for login
LPCSTR szDatabase ) // name of database to use
{

```

```

return new CTPCC_DBLIB( szUser, szPassword,
szDatabase );
}

CTPCC_DBLIB::CTPCC_DBLIB (
LPCSTR szUser, // user name
for login
LPCSTR szPassword,
// password for login
LPCSTR szDatabase )
// name of database to use
{
EnterCriticalSection(&DBLIBCriticalSection);
int rc = connect_to_TM_auth((char *) szDatabase,
(char *) szUser,(char *) szPassword);
if(rc != 0)
{
/* throw error */
throw CDBLIBERR( "DBLIB: CONNECT
TO DB2" );
}

if ( ( rc = get_context(&connection_ctx) != 0)
{
/*throw error */
throw CDBLIBERR( "DBLIB: GET CTX"
);
}

if ( ( rc = detach_context(connection_ctx)
!= 0)
{
/* throw error */
throw CDBLIBERR( "DBLIB: CONNECT
TO DB2" );
}

LeaveCriticalSection(&DBLIBCriticalSection);
}

CTPCC_DBLIB::~CTPCC_DBLIB( void )
{
// close db connection and deallocate resources
EnterCriticalSection(&DBLIBCriticalSection);

int rc = attach_context(connection_ctx);
if(rc != 0)
{
throw CDBLIBERR( "DBLIB:
DESTRUCTOR ATTACH" );
}
disconnect_from_TM();
LeaveCriticalSection(&DBLIBCriticalSection);
}
}

```

```

#define STR_COPY(target, source) memcpy(target,source,
sizeof(source)); \
target[sizeof(source)-1]='\0'

#define int_to_dbl(i,d) d=(double)(i/100.0)

#define SQL_TIMESTAMP(ts,pts,dr) dr = localtime (
((long *)pts) ); \
ts.year = dr->tm_year+1900; \
ts.month = ++(dr->tm_mon); \
ts.day = dr->tm_mday; \
ts.hour = dr->tm_hour; \
ts.minute = dr->tm_min; \
ts.second = dr->tm_sec;

/*
The mapping
year = daterec->tm_year+1900; //years since 1900
month = ++(daterec->tm_mon); //0-11
day = daterec->tm_mday; //1-31
hour = daterec->tm_hour; //0-23
minute = daterec->tm_min; //0-59
second = daterec->tm_sec; //0-59

*/

#define SET0(s) ZeroMemory(&s, sizeof(s))

void CTPCC_DBLIB::StockLevel()
{
int rc = attach_context(connection_ctx);
if(rc != 0)
{
//throw error;
throw CDBLIBERR( "DBLIB: ATTACH
STK" );
}
SET0(m_in_txn.stk);
SET0(m_out_txn.stk);

m_in_txn.stk.s_W_ID=m_txn.StockLevel.w_id;
m_in_txn.stk.s_D_ID=m_txn.StockLevel.d_id;

m_in_txn.stk.s_threshold=m_txn.StockLevel.threshold;

stocklev_sql(&m_in_txn.stk, &m_out_txn.stk);

m_txn.StockLevel.low_stock=m_out_txn.stk.s_low_stock;

ASSIGN_STATUS(m_txn.StockLevel.exec_status_code,m_out
_txn.stk.s_transtatus);

rc = detach_context(connection_ctx);
if(rc != 0)
{
//throw error
throw CDBLIBERR( "DBLIB: DETACH
STK" );
}
}

```

```

    }
    return;
}

void CTPCC_DBLIB::NewOrder()
{
    int i;
    tm *daterec;

    int rc = attach_context(connection_ctx);
    if(rc != 0)
    {
        //throw error;
        throw CDBLIBERR( "DBLIB: ATTACH
NO" );
    }

    //zero out the new ord struct, takes care of
    unused items
        SET0(m_in_txn.no);
        SET0(m_out_txn.no);

    m_in_txn.no.s_W_ID=m_txn.NewOrder.w_id;
    m_in_txn.no.s_D_ID=m_txn.NewOrder.d_id;
    m_in_txn.no.s_C_ID=m_txn.NewOrder.c_id;
    m_in_txn.no.s_O_OL_CNT=m_txn.NewOrder.o_ol_cnt;

    for (i = 0; i<m_in_txn.no.s_O_OL_CNT; i++)
    {
        m_in_txn.no.in_item[i].s_OL_I_ID=m_txn.NewOrder.OL[i].ol_i_id;

        m_in_txn.no.in_item[i].s_OL_SUPPLY_W_ID=m_txn.NewOrder.OL[i].ol_supply_w_id;

        m_in_txn.no.in_item[i].s_OL_QUANTITY=m_txn.NewOrder.OL[i].ol_quantity;
    }

    //call new order
    neword_sql(&m_in_txn.no,&m_out_txn.no);

    STR_COPY(m_txn.NewOrder.c_last,m_out_txn.no.s_C_LAST);
    STR_COPY(m_txn.NewOrder.c_credit,m_out_txn.no.s_C_CREDIT);

    int_to_dbl(m_out_txn.no.s_C_DISCOUNT,m_txn.NewOrder.c_discount);

    int_to_dbl(m_out_txn.no.s_W_TAX,m_txn.NewOrder.w_tax);

    int_to_dbl(m_out_txn.no.s_D_TAX,m_txn.NewOrder.d_tax);

```

```

    m_txn.NewOrder.o_id=m_out_txn.no.s_O_ID;

    SQL_TIMESTAMP( m_txn.NewOrder.o_entry_d,
&m_out_txn.no.s_O_ENTRY_D_time,daterec)

    int_to_dbl(m_out_txn.no.s_total_amount,m_txn.NewOrder.total_amount);

    m_txn.NewOrder.o_ol_cnt=m_in_txn.no.s_O_OL_CNT;

    for (i = 0; i<m_txn.NewOrder.o_ol_cnt; i++)
    {
        m_txn.NewOrder.OL[i].ol_i_id=m_in_txn.no.in_item[i].s_OL_I_ID;

        m_txn.NewOrder.OL[i].ol_supply_w_id=m_in_txn.no.in_item[i].s_OL_SUPPLY_W_ID;

        m_txn.NewOrder.OL[i].ol_quantity=m_in_txn.no.in_item[i].s_OL_QUANTITY;

        STR_COPY(m_txn.NewOrder.OL[i].ol_i_name,
m_out_txn.no.item[i].s_I_NAME);

        STR_COPY(m_txn.NewOrder.OL[i].ol_brand_generic,
&m_out_txn.no.item[i].s_brand_generic);

        int_to_dbl(m_out_txn.no.item[i].s_I_PRICE,m_txn.NewOrder.OL[i].ol_i_price);

        int_to_dbl(m_out_txn.no.item[i].s_OL_AMOUNT,m_txn.NewOrder.OL[i].ol_amount);
        m_txn.NewOrder.OL[i].ol_stock =
m_out_txn.no.item[i].s_S_QUANTITY;
    }

    ASSIGN_STATUS(m_txn.NewOrder.exec_status_code,m_out_txn.no.s_transtatus);

    rc = detach_context(connection_ctx);
    if(rc != 0)
    {
        //throw error
        throw CDBLIBERR( "DBLIB: DETACH
NO" );
    }
    return;
}

void CTPCC_DBLIB::Payment()
{
    tm *daterec;
    int rc = attach_context(connection_ctx);
    if(rc != 0)
    {

```

```

        //throw error;
        throw CDBLIBERR( "DBLIB: ATTACH
PMT" );
    }

    SET0(m_in_txn.pay);
    SET0(m_out_txn.pay);

    m_in_txn.pay.s_W_ID=m_txn.Payment.w_id;
    m_in_txn.pay.s_D_ID=m_txn.Payment.d_id;
    m_in_txn.pay.s_C_ID=m_txn.Payment.c_id;
    m_in_txn.pay.s_C_D_ID=m_txn.Payment.c_d_id;
    m_in_txn.pay.s_C_W_ID=m_txn.Payment.c_w_id;

    m_in_txn.pay.s_H_AMOUNT=(__int64)(m_txn.Payment.h_amount*100);
    // if customer id is zero, then payment is
    by name if (m_txn.Payment.c_id == 0) {
        memcpy(m_in_txn.pay.s_C_LAST,m_txn.Payment.c_last,sizeof(m_txn.Payment.c_last));
    }
    payment_sql(&m_in_txn.pay, &m_out_txn.pay);

    SQL_TIMESTAMP(m_txn.Payment.h_date,&m_out_txn.pay.s_H_DATE_time,daterec)

    STR_COPY(m_txn.Payment.w_street_1,m_out_txn.pay.s_W_STREET_1);
    STR_COPY(m_txn.Payment.w_street_2,m_out_txn.pay.s_W_STREET_2);
    STR_COPY(m_txn.Payment.w_city,m_out_txn.pay.s_W_CITY);
    STR_COPY(m_txn.Payment.w_state,m_out_txn.pay.s_W_STATE);
    STR_COPY(m_txn.Payment.w_zip,m_out_txn.pay.s_W_ZIP);
    STR_COPY(m_txn.Payment.d_street_1,m_out_txn.pay.s_D_STREET_1);
    STR_COPY(m_txn.Payment.d_street_2,m_out_txn.pay.s_D_STREET_2);
    STR_COPY(m_txn.Payment.d_city,m_out_txn.pay.s_D_CITY);
    STR_COPY(m_txn.Payment.d_state,m_out_txn.pay.s_D_STATE);
    STR_COPY(m_txn.Payment.d_zip,m_out_txn.pay.s_D_ZIP);
    STR_COPY(m_txn.Payment.c_first,m_out_txn.pay.s_C_FIRST);
    STR_COPY(m_txn.Payment.c_middle,m_out_txn.pay.s_C_MIDDLE);
    // if customer id is zero, then payment is
    by name if (m_in_txn.pay.s_C_ID != 0){
        STR_COPY(m_txn.Payment.c_last,m_out_txn.pay.s_C_LAST);
    }

```

```

        STR_CPY(m_txn.Payment.c_street_1,m_out_txn.
pay.s_C_STREET_1);
        STR_CPY(m_txn.Payment.c_street_2,m_out_txn.
pay.s_C_STREET_2);
        STR_CPY(m_txn.Payment.c_city,m_out_txn.pay.
s_C_CITY);
        STR_CPY(m_txn.Payment.c_state,m_out_txn.pay
.s_C_STATE);
        STR_CPY(m_txn.Payment.c_zip,m_out_txn.pay.s
_C_ZIP);
        STR_CPY(m_txn.Payment.c_phone,m_out_txn.pay
.s_C_PHONE);

        SQL_TIMESTAMP(m_txn.Payment.c_since,&m_out_
txn.pay.s_C_SINCE_time,daterec)

STR_CPY(m_txn.Payment.c_credit,m_out_txn.pay.s_C_CRED
IT);
        if (m_in_txn.pay.s_C_ID == 0){
            m_txn.Payment.c_id=m_out_txn.pay.s_C_ID;
        }
        int_to_dbl(m_out_txn.pay.s_C_CREDIT_LIM,m_t
xn.Payment.c_credit_lim);
        int_to_dbl(m_out_txn.pay.s_C_DISCOUNT,m_txn
.Payment.c_discount);
        int_to_dbl(m_out_txn.pay.s_C_BALANCE,m_txn.
Payment.c_balance);
        STR_CPY(m_txn.Payment.c_data,m_out_txn.pay.
s_C_DATA);

        ASSIGN_STATUS(m_txn.Payment.exec_status_cod
e,m_out_txn.pay.s_transtatus);

        rc = detach_context(connection_ctx);
        if(rc != 0)
        {
            //throw error
            throw CDBLIBERR( "DBLIB: DETACH
PMT" );
        }

        /*if (m_txn.Payment.c_id == 0)
            throw CDBLIBERR( "DBLIB: INVALID
CUSTOMER PMT" );
            taken care of in isapi*/

        return;
    }

void CTPCC_DBLIB::OrderStatus()
{
    int i;
    tm* daterec;
    int rc = attach_context(connection_ctx);
    if(rc != 0)
    {
        //throw error;

```

```

        throw CDBLIBERR( "DBLIB: ATTACH
OS" );
    }

    SET0(m_in_txn.os);
    SET0(m_out_txn.os);

    m_in_txn.os.s_W_ID=m_txn.OrderStatus.w_id;
    m_in_txn.os.s_D_ID=m_txn.OrderStatus.d_id;
    m_in_txn.os.s_C_ID=m_txn.OrderStatus.c_id;
    //look up by last
    if(m_txn.OrderStatus.c_id == 0){
        memcpy(m_in_txn.os.s_C_LAST,
m_txn.OrderStatus.c_last,sizeof(m_txn.OrderStatus.c_l
ast));
    }
    ordstat_sql(&m_in_txn.os,&m_out_txn.os);

    STR_CPY(m_txn.OrderStatus.c_first,m_out_txn
.os.s_C_FIRST);
    STR_CPY(m_txn.OrderStatus.c_middle,m_out_tx
n.os.s_C_MIDDLE);
    if(m_txn.OrderStatus.c_id != 0){
        STR_CPY(m_txn.OrderStatus.c_last,m_out_txn.
os.s_C_LAST);
    }
    else {
        m_txn.OrderStatus.c_id=m_out_txn.os.s_C_ID;
    }
    int_to_dbl(m_out_txn.os.s_C_BALANCE,m_txn.O
rderStatus.c_balance);
    m_txn.OrderStatus.o_id=m_out_txn.os.s_O_ID;
    SQL_TIMESTAMP(m_txn.OrderStatus.o_entry_d,&
m_out_txn.os.s_O_ENTRY_D_time,daterec)

    m_txn.OrderStatus.o_carrier_id=m_out_txn.os
.s_O_CARRIER_ID;
    m_txn.OrderStatus.o_ol_cnt=m_out_txn.os.s_o
l_cnt;

    for (i=0; i < m_out_txn.os.s_ol_cnt; i++) {
        m_txn.OrderStatus.OL[i].ol_i_id=m_out_txn.o
s.item[i].s_OL_I_ID;

        m_txn.OrderStatus.OL[i].ol_supply_w_id=m_ou
t_txn.os.item[i].s_OL_SUPPLY_W_ID;

        m_txn.OrderStatus.OL[i].ol_quantity=m_out_t
xn.os.item[i].s_OL_QUANTITY;

        int_to_dbl(m_out_txn.os.item[i].s_OL_AMOUNT
,m_txn.OrderStatus.OL[i].ol_amount);
        if
(m_out_txn.os.item[i].s_OL_DELIVERY_D_time != 0 ){
            SQL_TIMESTAMP(m_txn.OrderStatus.OL[i].ol_de
livery_d,&m_out_txn.os.item[i].s_OL_DELIVERY_D_time,d
aterec)
        }

```

```

        else
            m_txn.OrderStatus.OL[i].ol_delivery_d_year=
0;
    }

    rc = detach_context(connection_ctx);
    if(rc != 0)
    {
        //throw error
        throw CDBLIBERR( "DBLIB: DETACH
OS" );
    }

    ASSIGN_STATUS(m_txn.OrderStatus.exec_status
_code,m_out_txn.os.s_transtatus);
    /* if (m_txn.OrderStatus.o_ol_cnt == 0)
        throw CDBLIBERR( "DBLIB: ERR NO
SUCH ORDER OS" );
        else if (m_txn.OrderStatus.c_id == 0 &&
m_txn.OrderStatus.c_last[0] == 0)
            throw CDBLIBERR( "DBLIB: INVALID
CUSTOMER OS" );
    */

    return;
}

void CTPCC_DBLIB::Delivery()
{
    int i;
    int rc = attach_context(connection_ctx);
    if(rc != 0)
    {
        //throw error;
        throw CDBLIBERR( "DBLIB: ATTACH
DEL" );
    }

    SET0(m_in_txn.del);
    SET0(m_out_txn.del);

    m_in_txn.del.s_W_ID=m_txn.Delivery.w_id;
    m_in_txn.del.s_O_CARRIER_ID=m_txn.Delivery.
o_carrier_id;
    delivery_sql(&m_in_txn.del,&m_out_txn.del);

    for (i=0; i<10; i++)
    {
        m_txn.Delivery.o_id[i] =
m_out_txn.del.s_O_ID[i];
    }

    ASSIGN_STATUS(m_txn.Delivery.exec_status_co
de, m_out_txn.del.s_transtatus);

```

```

rc = detach_context(connection_ctx);
if(rc != 0)
{
    //throw error
    throw CDBLIBERR( "DBLIB: DETACH
DEL" );
}
return;
}

```

tpcc_dblib.h

```
#pragma once
```

```

// need to declare functions for import, unless
define has already been created
// by the DLL's .cpp module for export.
#ifdef DllDecl
#define DllDecl __declspec( dllimport )
#endif

```

```

#define ERR_ATTACH 1
#define ERR_DETACH 2
#define ERR_CONNECT 3
#define ERR_GET_CTX 4
#define ERR_DEST 5

```

```

class CDBLIBERR : public CBaseErr
{
public:
    CDBLIBERR(char * dberrstr)
    {
        m_dberror=0;
        m_dberrstr = dberrstr;
        if (strstr(m_dberrstr,"DETACH"))
            m_dberror=ERR_DETACH;
        else
            m_dberror=ERR_ATTACH;
        if(strstr(m_dberrstr,"CONNECT"))
            m_dberror=ERR_CONNECT;
        else if(strstr(m_dberrstr,"GET
CTX"))
            m_dberror=ERR_GET_CTX;
        else if
(strstr(m_dberrstr,"DESTRUCTOR"))
            m_dberror=ERR_DEST;
    };
    ~CDBLIBERR()
    {
        delete [] m_dberrstr;
    };
}

```

```

int ErrorType() {return ERR_TYPE_DBLIB;};
int ErrorNum() {return m_dberror;};
char *ErrorText() {return m_dberrstr;};

private:
char *m_dberrstr;
int m_dberror;
};

class DllDecl CTPCC_DBLIB : public CTPCC_BASE
{
private:
    void *connection_ctx;
    //connection context

    union
    {
        NEW_ORDER_DATA
NewOrder;
        PAYMENT_DATA
Payment;
        DELIVERY_DATA
Delivery;
        STOCK_LEVEL_DATA StockLevel;
        ORDER_STATUS_DATA OrderStatus;
        m_txn;
    }

    union
    {
        in_neword_struct no;
        in_payment_struct pay;
        in_delivery_struct del;
        in_stocklev_struct stk;
        in_ordstat_struct os;
        m_in_txn;
    }

    union
    {
        out_neword_struct no;
        out_payment_struct pay;
        out_delivery_struct del;
        out_stocklev_struct stk;
        out_ordstat_struct os;
        m_out_txn;
    }

public:
    CTPCC_DBLIB(LPCSTR szUser, LPCSTR
szPassword, LPCSTR szDatabase );
    ~CTPCC_DBLIB(void);

    inline PNEW_ORDER_DATA
BuffAddr_NewOrder() { return
&m_txn.NewOrder; };
}

```

```

inline PPAYMENT_DATA
BuffAddr_Payment() { return
&m_txn.Payment; };
inline PDELIVERY_DATA
BuffAddr_Delivery() { return
&m_txn.Delivery; };
inline PSTOCK_LEVEL_DATA
BuffAddr_StockLevel() { return
&m_txn.StockLevel; };
inline PORDER_STATUS_DATA
BuffAddr_OrderStatus() { return
&m_txn.OrderStatus; };

void NewOrder ();
void Payment ();
void Delivery ();
void StockLevel ();
void OrderStatus ();
};

```

```

extern "C" DllDecl CTPCC_DBLIB* CTPCC_DBLIB_new
( LPCSTR szUser, LPCSTR szPassword, LPCSTR
szDatabase );

```

```

typedef CTPCC_DBLIB* (TYPE_CTPCC_DBLIB)( LPCSTR,
LPCSTR, LPCSTR);

```

trans.h

```

/* FILE: TRANS.H Microsoft
* Copyright
* TPC-C Kit Ver. 4.20.000
* Microsoft, 1999
* All Rights Reserved
* Version
* 4.10.000 audited by Richard Gimarc, Performance
Metrics, 3/17/99
* PURPOSE: Header file for TPC-C structure
templates.
* Change history:
* 4.20.000 - updated rev number to
match kit
*/
#pragma once

#include "db2tpcc.h"

// String length constants
#define SERVER_NAME_LEN 20
#define DATABASE_NAME_LEN 20
#define USER_NAME_LEN 20
#define PASSWORD_LEN 20
#define TABLE_NAME_LEN 20
#define I_DATA_LEN 50
#define I_NAME_LEN 24
#define BRAND_LEN 1

```

```

#define LAST_NAME_LEN      16
#define W_NAME_LEN        10
#define ADDRESS_LEN       20
#define STATE_LEN         2
#define ZIP_LEN           9
#define S_DIST_LEN        24
#define S_DATA_LEN        50
#define D_NAME_LEN        10
#define FIRST_NAME_LEN    16
#define MIDDLE_NAME_LEN   2
#define PHONE_LEN         16
#define DATETIME_LEN      30
#define CREDIT_LEN        2
#define C_DATA_LEN        250
#define H_DATA_LEN        24
#define DIST_INFO_LEN     24
#define MAX_OL_NEW_ORDER_ITEMS 15
#define MAX_OL_ORDER_STATUS_ITEMS 15
#define STATUS_LEN        25
#define OL_DIST_INFO_LEN  24

// TIMESTAMP_STRUCT is provided by the ODBC header
// file sqltypes.h, but is not available
// when compiling with dblib, so redefined here.
// Note: we are using the symbol "__SQLTYPES"
// (declared in sqltypes.h) as a way to determine if
// TIMESTAMP_STRUCT has been declared.
#ifndef __SQLTYPES
typedef struct
{
    /* SQLSMALLINT */
    short year;
    /* SQLSMALLINT */
    unsigned short month;
    /* SQLSMALLINT */
    unsigned short day;
    /* SQLSMALLINT */
    unsigned short hour;
    /* SQLSMALLINT */
    unsigned short minute;
    /* SQLSMALLINT */
    unsigned short second;
    /* SQLINTEGER */
    unsigned long fraction;
} TIMESTAMP_STRUCT;
#endif

// possible values for exec_status_code after
// transaction completes
enum EXEC_STATUS
{
    eSqlError = -1, // -1
    "Sql error."
    eOK = 0, // 0
    "Transaction committed."
    eDeliveryFailed = 1, // 1 "Delivery
    Post Failed."
    eInvalidItem = 100 // 100 "Item number
    is not valid."
};

#define ASSIGN_STATUS(es, i) switch (i) {

```

```

        case -1: es=eSqlError; break;
        \
        case 0: es=eOK; break;
        \
        case 1: es=eDeliveryFailed;
        break; \
        case 100: es=eInvalidItem; break;
    }

// transaction structures
typedef struct
{
    // input params
    short ol_supply_w_id;
    long ol_i_id;
    short ol_quantity;

    // output params
    char ol_i_name[I_NAME_LEN+1];
    char ol_brand_generic[BRAND_LEN+1];
    double ol_i_price;
    double ol_amount;
    short ol_stock;
} OL_NEW_ORDER_DATA;

typedef struct
{
    // input params
    short w_id;
    short d_id;
    long c_id;
    short o_ol_cnt;

    // output params
    EXEC_STATUS exec_status_code;
    char c_last[LAST_NAME_LEN+1];
    char c_credit[CREDIT_LEN+1];
    double c_discount;
    double w_tax;
    double d_tax;
    long o_id;
    short o_commit_flag;
    TIMESTAMP_STRUCT o_entry_d;
    short o_all_local;
    double total_amount;
    OL_NEW_ORDER_DATA OL[MAX_OL_NEW_ORDER_ITEMS];
} NEW_ORDER_DATA, *PNEW_ORDER_DATA;

```

```

typedef struct
{
    // input params
    short w_id;
    short d_id;
    long c_id;
    short c_d_id;
    short c_w_id;
    double h_amount;
    char c_last[LAST_NAME_LEN+1];

    // output params
    EXEC_STATUS exec_status_code;
    TIMESTAMP_STRUCT h_date;
    char w_street_1[ADDRESS_LEN+1];
    char w_street_2[ADDRESS_LEN+1];
    char w_city[ADDRESS_LEN+1];
    char w_state[STATE_LEN+1];
    char w_zip[ZIP_LEN+1];
    char d_street_1[ADDRESS_LEN+1];
    char d_street_2[ADDRESS_LEN+1];
    char d_city[ADDRESS_LEN+1];
    char d_state[STATE_LEN+1];
    char d_zip[ZIP_LEN+1];
    char c_first[FIRST_NAME_LEN+1];
    char c_middle[MIDDLE_NAME_LEN + 1];
    char c_street_1[ADDRESS_LEN+1];
    char c_street_2[ADDRESS_LEN+1];
    char c_city[ADDRESS_LEN+1];
    char c_state[STATE_LEN+1];
    char c_zip[ZIP_LEN+1];
    char c_phone[PHONE_LEN+1];
    TIMESTAMP_STRUCT c_since;
    char c_credit[CREDIT_LEN+1];
    double c_credit_lim;
}

```

```

        double
c_discount;
        double
c_balance;
        char
c_data[200+1];
    } PAYMENT_DATA, *PPAYMENT_DATA;

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

typedef struct
{
        // input params
        short
        short
        long
        char
c_last[LAST_NAME_LEN+1];

        // output params
        EXEC_STATUS
exec_status_code;
        char
c_first[FIRST_NAME_LEN+1];
        char
c_middle[MIDDLE_NAME_LEN+1];
        double
        long
        TIMESTAMP_STRUCT
        short
        OL_ORDER_STATUS_DATA
OL[MAX_OL_ORDER_STATUS_ITEMS];
        short
        short
    } ORDER_STATUS_DATA, *PORDER_STATUS_DATA;

typedef struct
{
        // input params
        short
        short
        // output params
        EXEC_STATUS
exec_status_code;
        SYSTEMTIME
        long
        o_id[10];
orders for districts 1 to 10
    } DELIVERY_DATA, *PDELIVERY_DATA;

//This structure is used for posting delivery
transactions and for writing them to the delivery
server.

```

```

typedef struct _DELIVERY_TRANSACTION
{
        __int64 queue;
        //time delivery transaction queued
        short
        //delivery warehouse
        short
        //carrier id
    } DELIVERY_TRANSACTION;

typedef struct
{
        // input params
        short
        w_id;
        short
        d_id;
        short
        threshold;

        // output params
        EXEC_STATUS
exec_status_code;
        long
        low_stock;
    } STOCK_LEVEL_DATA, *PSTOCK_LEVEL_DATA;

txn_base.h
/* FILE: TXN_BASE.H Microsoft
 * TPC-C Kit Ver. 4.20.000 Copyright
 * Microsoft, 1999 All Rights Reserved
 * Version
 * 4.10.000 audited by Richard Gimarc, Performance
 * Metrics, 3/17/99
 * PURPOSE: Header file for TPC-C txn class
 * implementation.
 * Change history:
 * 4.20.000 - updated rev number to
 * match kit
 */
#pragma once

// need to declare functions for import, unless
define has already been created
// by the DLL's .cpp module for export.
#ifdef DllDecl
#define DllDecl __declspec( dllimport )
#endif

class DllDecl CTPCC_BASE
{
        public:
                CTPCC_BASE(void) {};
                virtual ~CTPCC_BASE(void) {};

```

```

                virtual PNEW_ORDER_DATA
                BuffAddr_NewOrder() = 0;
                virtual PPAYMENT_DATA
                BuffAddr_Payment() = 0;
                virtual PDELIVERY_DATA
                BuffAddr_Delivery() = 0;
                virtual PSTOCK_LEVEL_DATA
                BuffAddr_StockLevel() = 0;
                virtual PORDER_STATUS_DATA
                BuffAddr_OrderStatus() = 0;

                virtual void NewOrder
                () = 0;
                virtual void Payment
                () = 0;
                virtual void Delivery
                () = 0;
                virtual void StockLevel
                () = 0;
                virtual void OrderStatus
                ()
= 0;
};

```

txnlog.h

```

#include <fstream.h>

#define LOG_START "Start of Delivery Log"
#define LOG_END "End of Delivery Log"

#define TXN_EVENT_START 2
#define TXN_EVENT_STOP 4

typedef struct _TXN_RECORD_TPCC_DELIV_DEF
{
        __int64 TxnStartT0;
        int // start of txn
        DeltaT4; // response time (ms)
        int
        DeltaTxnExec; // execution time (ms)
        WORD w_id;
        BYTE // warehouse ID
        TxnStatus;
        BYTE // completion status for txn to
        short
        // carrier id
        long
        o_id[10];
        // returned delivery transaction ids
    } TXN_RECORD_TPCC_DELIV_DEF,
    *PTXN_RECORD_TPCC_DELIV_DEF;

typedef struct _TXN_LOG_HEADER
{
        char
        Start[sizeof(LOG_START)];
        //
        begin string

```

```

        char
        Host[MAX_COMPUTERNAME_LENGTH+1]; // which
computer this log is from
        __int64          BeginLog;
//
timestamp of log start
        __int64          BeginCTLog;

        // clock ticks in ms
        __int64          iRecCount;

        // number of records in log file
        __int64          iFileSize;

        // file size in bytes
} TXN_LOG_HEADER;

class CTxnLog
{
private:
        __int64          BeginLog;
        // timestamp of log start
        __int64          BeginCTLog;
        // clock ticks in ms
        int
iRecCount;          // number of records in
log file
        int
iFileSize;          // size of the log so
far
        TXN_LOG_HEADER  lh;
        // log header
        ofstream         log;
        // log file
        CRITICAL_SECTION LogCriticalSection;

public:
        CTxnLog(LPCTSTR szFileName);
        ~CTxnLog(void);

        int WriteToLog(PTXN_RECORD_TPCC_DELIV_DEF
pTxnRcrd);
        int WriteCtrlRecToLog(BYTE SubType, LPTSTR
lpStr, DWORD dwLen);
};

CTxnLog::CTxnLog(LPCTSTR szFileName){
        log.open(szFileName,ios::out|ios::binary);
        memset(&lh, sizeof(TXN_LOG_HEADER),0);
        memcpy(&lh.Start,LOG_START,sizeof(LOG_START
));
        InitializeCriticalSection(&LogCriticalSecti
on);
}

CTxnLog::WriteCtrlRecToLog(BYTE type, LPTSTR lpStr,
DWORD dwLen){
        if (type == TXN_EVENT_START ){
                strcpy(lh.Host,lpStr);
                iFileSize=sizeof(TXN_LOG_HEADER);

```

```

                BeginLog=time(NULL);
                //get start date time
                BeginCTLog=GetCurrentTime();
//get start clock ticks
                iRecCount=0;

                log.write((char*)&lh,sizeof(TXN_LOG_HEADER
));

                return 0;
        }else if( type == TXN_EVENT_STOP) {
                lh.BeginLog=BeginLog;
                lh.BeginCTLog=BeginCTLog;
                lh.iFileSize=iFileSize;
                lh.iRecCount=iRecCount;
                log.seekp(0); //go to the front
of the file

                log.write((char*)&lh,sizeof(TXN_LOG_HEADER
));

                log.flush(); //flush any
outstanding ios

                return 0;
        }
        return 1;
}

CTxnLog::~CTxnLog(){
        log.close();
}

CTxnLog::WriteToLog(PTXN_RECORD_TPCC_DELIV_DEF
pTxnRcrd){
        EnterCriticalSection(&LogCriticalSection);

        log.write((char
*)pTxnRcrd,sizeof(TXN_RECORD_TPCC_DELIV_DEF));

        //log accounting
        iFileSize+=sizeof(TXN_RECORD_TPCC_DELIV_DEF
);

        ++iRecCount;

        LeaveCriticalSection(&LogCriticalSection);
        return 0;
}

```


Appendix B: Database Design

The TPC-C database was created with the following scripts:

alter_bufferpool.ddl

```
connect to tpcc;
alter bufferpool IBMDEFAULTBP size 50000;
alter bufferpool IBM8KBP size 75000;
alter bufferpool IBM16KBP size 128;

create bufferpool WD size 512 pagesize 4096;
create bufferpool I size 1250 pagesize 8192;
create bufferpool STK size 400000 pagesize 4096;
create bufferpool CST size 40000 pagesize 4096;

alter tablespace ts_customer_01 bufferpool cst;
alter tablespace ts_stock_01 bufferpool stk;
alter tablespace ts_stock_01 bufferpool stk;
alter tablespace ts_ware_01 bufferpool wd;
alter tablespace ts_dist_01 bufferpool wd;
alter tablespace ts_item_01 bufferpool i;

connect reset;
```

ALTTBSP_PF_0.ddl

```
connect to TPCC;
alter tablespace is_customer_01 prefetchsize 0;
alter tablespace is_neword_01 prefetchsize 0;
alter tablespace is_order_01 prefetchsize 0;
alter tablespace ts_customer_01 prefetchsize 0;
alter tablespace ts_dist_01 prefetchsize 0;
alter tablespace ts_history_01 prefetchsize 0;
alter tablespace ts_item_01 prefetchsize 0;
alter tablespace ts_neword_01 prefetchsize 0;
alter tablespace ts_order_01 prefetchsize 0;
alter tablespace ts_orderline_01 prefetchsize 0;
alter tablespace ts_stock_01 prefetchsize 0;
alter tablespace ts_ware_01 prefetchsize 0;
connect reset;
```

cat-func.ddl

```
-- Licensed Materials - Property of IBM
--
-- Governed under the terms of the International
-- License Agreement for Non-Warranted Sample Code.
--
-- (C) COPYRIGHT International Business Machines Corp. 1996 - 2004
-- All Rights Reserved.
--
-- US Government Users Restricted Rights - Use, duplication or
-- disclosure restricted by GSA ADP Schedule Contract with IBM Corp.
-----
--
-- cat-func.ddl - Create table functions
--
--
-- DELIVERY
--
CREATE FUNCTION DEL( W_ID          INTEGER
                   , D_ID          SMALLINT
                   , CARRIER_ID   SMALLINT
                   , DELIVERY_D    BIGINT
                   )
RETURNS TABLE ( O_ID INTEGER )
SPECIFIC DELIVERY
MODIFIES SQL DATA DETERMINISTIC NO EXTERNAL ACTION LANGUAGE SQL
VAR: BEGIN ATOMIC

  DECLARE O_ID   INTEGER ;
  DECLARE C_ID   INTEGER ;
  DECLARE AMOUNT INTEGER ;

  SET VAR.O_ID = ( SELECT NO_O_ID

                   FROM OLD TABLE ( DELETE

                                     FROM ( SELECT NO_O_ID

                                             FROM NEW_ORDER

                                             WHERE NO_W_ID = DEL.W_ID
                                                  AND NO_D_ID = DEL.D_ID

                                             ORDER BY NO_O_ID ASC

                                             FETCH FIRST 1 ROW ONLY
                                           ) AS NEW_ORDER
                                     ) AS D
                   )
  ;

  SET VAR.C_ID = ( SELECT O_C_ID

                   FROM OLD TABLE ( UPDATE ORDERS

                                     SET O_CARRIER_ID = DEL.CARRIER_ID

                                     WHERE O_W_ID = DEL.W_ID
```

```

                AND O_D_ID = DEL.D_ID
                AND O_ID = VAR.O_ID
            ) AS U
        );
SET VAR.AMOUNT = ( SELECT SUM( OL_AMOUNT )
                   FROM OLD TABLE ( UPDATE ORDER_LINE
                                     SET OL_DELIVERY_D = DEL.DELIVERY_D
                                     WHERE OL_W_ID = DEL.W_ID
                                     AND OL_D_ID = DEL.D_ID
                                     AND OL_O_ID = VAR.O_ID
                                     ) AS U
                   );
UPDATE CUSTOMER
SET C_BALANCE = C_BALANCE + VAR.AMOUNT
  , C_DELIVERY_CNT = C_DELIVERY_CNT + SMALLINT( 1 )
WHERE C_W_ID = DEL.W_ID
  AND C_D_ID = DEL.D_ID
  AND C_ID = VAR.C_ID
;
RETURN VALUES VAR.O_ID ;
END
$
--
-- ORDER STATUS
--
CREATE FUNCTION ORD_C_LAST( W_ID INTEGER
                          , D_ID SMALLINT
                          , C_LAST VARCHAR(16)
                          )
RETURNS TABLE( O_ID INTEGER
               , O_CARRIER_ID SMALLINT
               , O_ENTRY_D BIGINT
               , C_BALANCE BIGINT
               , C_FIRST VARCHAR(16)
               , C_MIDDLE CHAR(2)
               , C_ID INTEGER
               )
SPECIFIC ORD_C_LAST
READS SQL DATA NO EXTERNAL ACTION DETERMINISTIC LANGUAGE SQL
VAR: BEGIN ATOMIC
DECLARE C_BALANCE BIGINT ;
DECLARE C_FIRST VARCHAR(16) ;
DECLARE C_MIDDLE CHAR(2) ;
DECLARE C_ID INTEGER ;

```

```

DECLARE O_ID INTEGER;
DECLARE O_CARRIER_ID SMALLINT;
DECLARE O_ENTRY_D BIGINT;
SET ( C_BALANCE, C_FIRST, C_MIDDLE, C_ID )
= ( SELECT C_BALANCE, C_FIRST, C_MIDDLE , C_ID
    FROM ( SELECT C_ID
           , C_BALANCE
           , C_FIRST
           , C_MIDDLE
           , COUNT(*) OVER() AS COUNT
           , ROWNUMBER() OVER (ORDER BY C_FIRST) AS NUM
           FROM CUSTOMER
           WHERE C_W_ID = ORD_C_LAST.W_ID
           AND C_D_ID = ORD_C_LAST.D_ID
           AND C_LAST = ORD_C_LAST.C_LAST
           ) AS V1
    WHERE NUM = (COUNT + BIGINT( 1 ) ) / BIGINT( 2 )
    );
SET ( O_ID , O_CARRIER_ID , O_ENTRY_D )
= ( SELECT O_ID
    , O_CARRIER_ID
    , O_ENTRY_D
    FROM ORDERS
    WHERE O_W_ID = ORD_C_LAST.W_ID
    AND O_D_ID = ORD_C_LAST.D_ID
    AND O_C_ID = VAR.C_ID
    ORDER BY O_ID DESC
    FETCH FIRST 1 ROW ONLY
    );
RETURN VALUES ( VAR.O_ID
               , VAR.O_CARRIER_ID
               , VAR.O_ENTRY_D
               , VAR.C_BALANCE
               , VAR.C_FIRST
               , VAR.C_MIDDLE
               , VAR.C_ID
               );
END $
CREATE FUNCTION ORD_C_ID( W_ID INTEGER
                        , D_ID SMALLINT
                        , C_ID INTEGER
                        )
RETURNS TABLE( O_ID INTEGER

```

```

        , O_CARRIER_ID SMALLINT
        , O_ENTRY_D    BIGINT
        , C_BALANCE    BIGINT
        , C_FIRST      VARCHAR(16)
        , C_MIDDLE     CHAR(2)
        , C_LAST       VARCHAR(16)
    )

SPECIFIC ORD_C_ID

READS SQL DATA NO EXTERNAL ACTION DETERMINISTIC LANGUAGE SQL

VAR: BEGIN ATOMIC

DECLARE C_BALANCE    BIGINT ;
DECLARE C_FIRST      VARCHAR(16) ;
DECLARE C_MIDDLE     CHAR(2) ;
DECLARE C_LAST       VARCHAR(16) ;
DECLARE O_ID         INTEGER;
DECLARE O_CARRIER_ID SMALLINT;
DECLARE O_ENTRY_D    BIGINT;

SET ( C_BALANCE, C_FIRST, C_MIDDLE, C_LAST )

= ( SELECT C_BALANCE, C_FIRST, C_MIDDLE, C_LAST

    FROM CUSTOMER

    WHERE C_ID = ORD_C_ID.C_ID
      AND C_W_ID = ORD_C_ID.W_ID
      AND C_D_ID = ORD_C_ID.D_ID
    )
;

SET (O_ID, O_CARRIER_ID, O_ENTRY_D)

= ( SELECT O_ID
    , O_CARRIER_ID
    , O_ENTRY_D

    FROM ORDERS

    WHERE O_W_ID = ORD_C_ID.W_ID
      AND O_D_ID = ORD_C_ID.D_ID
      AND O_C_ID = ORD_C_ID.C_ID

    ORDER BY O_ID DESC
    FETCH FIRST 1 ROW ONLY
    )
;

RETURN VALUES ( VAR.O_ID
    , VAR.O_CARRIER_ID
    , VAR.O_ENTRY_D
    , VAR.C_BALANCE
    , VAR.C_FIRST
    , VAR.C_MIDDLE
    , VAR.C_LAST
    ) ;

END $

```

```

--
-- PAYMENT
--

CREATE FUNCTION PAY_C_LAST( W_ID INTEGER
    , D_ID SMALLINT
    , C_W_ID INTEGER
    , C_D_ID SMALLINT
    , C_LAST VARCHAR(16)
    , H_DATE BIGINT
    , H_AMOUNT BIGINT
    , BAD_CREDIT_PREFIX VARCHAR(28)
    )

RETURNS TABLE( W_STREET_1 CHAR(20)
    , W_STREET_2 CHAR(20)
    , W_CITY CHAR(20)
    , W_STATE CHAR(2)
    , W_ZIP CHAR(9)
    , D_STREET_1 CHAR(20)
    , D_STREET_2 CHAR(20)
    , D_CITY CHAR(20)
    , D_STATE CHAR(2)
    , D_ZIP CHAR(9)
    , C_ID INTEGER
    , C_FIRST VARCHAR(16)
    , C_MIDDLE CHAR(2)
    , C_STREET_1 VARCHAR(20)
    , C_STREET_2 VARCHAR(20)
    , C_CITY VARCHAR(20)
    , C_STATE CHAR(2)
    , C_ZIP CHAR(9)
    , C_PHONE CHAR(16)
    , C_SINCE BIGINT
    , C_CREDIT CHAR(2)
    , C_CREDIT_LIM BIGINT
    , C_DISCOUNT INTEGER
    , C_BALANCE BIGINT
    , C_DATA CHAR(200)
    )

SPECIFIC PAY_C_LAST

MODIFIES SQL DATA DETERMINISTIC NO EXTERNAL ACTION LANGUAGE SQL

VAR: BEGIN ATOMIC

DECLARE W_NAME CHAR(10) ;
DECLARE D_NAME CHAR(10) ;

DECLARE W_STREET_1 CHAR(20) ;
DECLARE W_STREET_2 CHAR(20) ;
DECLARE W_CITY CHAR(20) ;
DECLARE W_STATE CHAR(2) ;
DECLARE W_ZIP CHAR(9) ;

DECLARE D_STREET_1 CHAR(20) ;
DECLARE D_STREET_2 CHAR(20) ;
DECLARE D_CITY CHAR(20) ;
DECLARE D_STATE CHAR(2) ;
DECLARE D_ZIP CHAR(9) ;

```

```

DECLARE C_ID INTEGER ;

DECLARE C_FIRST VARCHAR(16) ;
DECLARE C_MIDDLE CHAR(2) ;
DECLARE C_STREET_1 VARCHAR(20) ;
DECLARE C_STREET_2 VARCHAR(20) ;
DECLARE C_CITY VARCHAR(20) ;
DECLARE C_STATE CHAR(2) ;
DECLARE C_ZIP CHAR(9) ;
DECLARE C_PHONE CHAR(16) ;
DECLARE C_SINCE BIGINT ;
DECLARE C_CREDIT CHAR(2) ;
DECLARE C_CREDIT_LIM BIGINT ;
DECLARE C_DISCOUNT INTEGER ;
DECLARE C_BALANCE BIGINT ;
DECLARE C_DATA CHAR(200) ;

SET ( D_NAME, D_STREET_1, D_STREET_2, D_CITY, D_STATE, D_ZIP)
= ( SELECT D_NAME, D_STREET_1, D_STREET_2, D_CITY, D_STATE, D_ZIP
    FROM OLD TABLE ( UPDATE DISTRICT
        SET D_YTD = D_YTD + PAY_C_LAST.H_AMOUNT
        WHERE D_W_ID = PAY_C_LAST.W_ID
        AND D_ID = PAY_C_LAST.D_ID
    ) AS U
) ;

SET ( C_ID )
= ( SELECT C_ID
    FROM ( SELECT C_ID
        , COUNT(*) OVER() AS COUNT
        , ROWNUMBER() OVER (ORDER BY C_FIRST) AS NUM
        FROM CUSTOMER
        WHERE C_LAST = PAY_C_LAST.C_LAST
        AND C_W_ID = PAY_C_LAST.C_W_ID
        AND C_D_ID = PAY_C_LAST.C_D_ID
    ) AS T
    WHERE NUM = (COUNT + BIGINT( 1 ) ) / BIGINT( 2 )
) ;

SET ( C_ID, C_FIRST, C_MIDDLE, C_STREET_1, C_STREET_2
, C_CITY, C_STATE, C_ZIP, C_PHONE, C_SINCE, C_CREDIT, C_CREDIT_LIM
, C_DISCOUNT, C_BALANCE, C_DATA )
= ( SELECT C_ID, C_FIRST, C_MIDDLE, C_STREET_1, C_STREET_2
, C_CITY, C_STATE, C_ZIP, C_PHONE, C_SINCE, C_CREDIT, C_CREDIT_LIM
, C_DISCOUNT, C_BALANCE
, CASE WHEN C_CREDIT = 'BC' THEN SUBSTR(C_DATA, 1, 200) ELSE NULL END
AS C_DATA
    FROM NEW TABLE ( UPDATE CUSTOMER
        SET C_BALANCE = C_BALANCE - PAY_C_LAST.H_AMOUNT

```

```

, C_YTD_PAYMENT = C_YTD_PAYMENT +
PAY_C_LAST.H_AMOUNT , C_PAYMENT_CNT = C_PAYMENT_CNT + SMALLINT( 1 )
, C_DATA = CASE WHEN C_CREDIT = 'BC'
THEN CHAR( C_ID ) -
- 11 bytes long || BAD_CREDIT_PREFIX -
- 28 bytes long || SUBSTR( C_DATA, 1, 461 ) -
- 461 + 39 = 500 ELSE C_DATA
END
WHERE C_W_ID = PAY_C_LAST.C_W_ID
AND C_D_ID = PAY_C_LAST.C_D_ID
AND C_ID = VAR.C_ID
) AS U
) ;

SET ( W_NAME, W_STREET_1, W_STREET_2, W_CITY, W_STATE, W_ZIP )
= ( SELECT W_NAME, W_STREET_1, W_STREET_2, W_CITY, W_STATE, W_ZIP
    FROM OLD TABLE ( UPDATE WAREHOUSE
        SET W_YTD = W_YTD + PAY_C_LAST.H_AMOUNT
        WHERE W_ID = PAY_C_LAST.W_ID
    ) AS U
) ;

INSERT
INTO HISTORY ( H_C_ID, H_C_D_ID, H_C_W_ID, H_D_ID, H_W_ID, H_DATA, H_DATE,
H_AMOUNT )
VALUES ( VAR.C_ID
, PAY_C_LAST.C_D_ID
, PAY_C_LAST.C_W_ID
, PAY_C_LAST.D_ID
, PAY_C_LAST.W_ID
, VAR.W_NAME || CHAR( ' ', 4 ) || VAR.D_NAME
, PAY_C_LAST.H_DATE
, PAY_C_LAST.H_AMOUNT
) ;

RETURN VALUES ( W_STREET_1, W_STREET_2, W_CITY, W_STATE, W_ZIP
, D_STREET_1, D_STREET_2, D_CITY, D_STATE, D_ZIP
, C_ID, C_FIRST, C_MIDDLE, C_STREET_1, C_STREET_2
, C_CITY, C_STATE, C_ZIP, C_PHONE, C_SINCE, C_CREDIT, C_CREDIT_LIM
, C_DISCOUNT, C_BALANCE, C_DATA
) ;

END
$

CREATE FUNCTION PAY_C_ID( W_ID INTEGER
, D_ID SMALLINT

```

```

        , C_W_ID INTEGER
        , C_D_ID SMALLINT
        , C_ID INTEGER
        , H_DATE BIGINT
        , H_AMOUNT BIGINT
        , BAD_CREDIT_PREFIX VARCHAR(34)
    )

RETURNS TABLE( W_STREET_1 CHAR(20)
                , W_STREET_2 CHAR(20)
                , W_CITY CHAR(20)
                , W_STATE CHAR(2)
                , W_ZIP CHAR(9)
                , D_STREET_1 CHAR(20)
                , D_STREET_2 CHAR(20)
                , D_CITY CHAR(20)
                , D_STATE CHAR(2)
                , D_ZIP CHAR(9)
                , C_LAST VARCHAR(16)
                , C_FIRST VARCHAR(16)
                , C_MIDDLE CHAR(2)
                , C_STREET_1 VARCHAR(20)
                , C_STREET_2 VARCHAR(20)
                , C_CITY VARCHAR(20)
                , C_STATE CHAR(2)
                , C_ZIP CHAR(9)
                , C_PHONE CHAR(16)
                , C_SINCE BIGINT
                , C_CREDIT CHAR(2)
                , C_CREDIT_LIM BIGINT
                , C_DISCOUNT INTEGER
                , C_BALANCE BIGINT
                , C_DATA CHAR(200)
    )

SPECIFIC PAY_C_ID

MODIFIES SQL DATA DETERMINISTIC NO EXTERNAL ACTION LANGUAGE SQL

VAR: BEGIN ATOMIC

    DECLARE W_NAME CHAR(10) ;
    DECLARE D_NAME CHAR(10) ;

    DECLARE W_STREET_1 CHAR(20) ;
    DECLARE W_STREET_2 CHAR(20) ;
    DECLARE W_CITY CHAR(20) ;
    DECLARE W_STATE CHAR(2) ;
    DECLARE W_ZIP CHAR(9) ;

    DECLARE D_STREET_1 CHAR(20) ;
    DECLARE D_STREET_2 CHAR(20) ;
    DECLARE D_CITY CHAR(20) ;
    DECLARE D_STATE CHAR(2) ;
    DECLARE D_ZIP CHAR(9) ;

    DECLARE C_LAST VARCHAR(16) ;

    DECLARE C_FIRST VARCHAR(16) ;
    DECLARE C_MIDDLE CHAR(2) ;
    DECLARE C_STREET_1 VARCHAR(20) ;
    DECLARE C_STREET_2 VARCHAR(20) ;
    DECLARE C_CITY VARCHAR(20) ;
    DECLARE C_STATE CHAR(2) ;
    DECLARE C_ZIP CHAR(9) ;

```

```

    DECLARE C_ZIP CHAR(9) ;
    DECLARE C_PHONE CHAR(16) ;
    DECLARE C_SINCE BIGINT ;
    DECLARE C_CREDIT CHAR(2) ;
    DECLARE C_CREDIT_LIM BIGINT ;
    DECLARE C_DISCOUNT INTEGER ;
    DECLARE C_BALANCE BIGINT ;
    DECLARE C_DATA CHAR(200) ;

    SET ( D_NAME, D_STREET_1, D_STREET_2, D_CITY, D_STATE, D_ZIP )
        = ( SELECT D_NAME, D_STREET_1, D_STREET_2, D_CITY, D_STATE, D_ZIP
            FROM OLD TABLE ( UPDATE DISTRICT
                                SET D_YTD = D_YTD + PAY_C_ID.H_AMOUNT
                                WHERE D_W_ID = PAY_C_ID.W_ID
                                  AND D_ID = PAY_C_ID.D_ID
                                ) AS U
            ) ;

    SET ( C_LAST, C_FIRST, C_MIDDLE, C_STREET_1, C_STREET_2
          , C_CITY, C_STATE, C_ZIP, C_PHONE, C_SINCE, C_CREDIT, C_CREDIT_LIM
          , C_DISCOUNT, C_BALANCE, C_DATA )
        = ( SELECT C_LAST, C_FIRST, C_MIDDLE, C_STREET_1, C_STREET_2
            , C_CITY, C_STATE, C_ZIP, C_PHONE, C_SINCE, C_CREDIT, C_CREDIT_LIM
            , C_DISCOUNT, C_BALANCE
            , CASE WHEN C_CREDIT = 'BC' THEN SUBSTR(C_DATA, 1, 200) ELSE NULL END
            AS C_DATA
            FROM NEW TABLE ( UPDATE CUSTOMER
                                SET C_BALANCE = C_BALANCE - PAY_C_ID.H_AMOUNT
                                  , C_YTD_PAYMENT = C_YTD_PAYMENT +
                                PAY_C_ID.H_AMOUNT
                                  , C_PAYMENT_CNT = C_PAYMENT_CNT + SMALLINT( 1 )
                                  , C_DATA = CASE WHEN C_CREDIT = 'BC'
                                                THEN BAD_CREDIT_PREFIX
                                                ELSE C_DATA
                                            END
                                WHERE C_W_ID = PAY_C_ID.C_W_ID
                                  AND C_D_ID = PAY_C_ID.C_D_ID
                                  AND C_ID = PAY_C_ID.C_ID
                                ) AS U
            ) ;

    SET ( W_NAME, W_STREET_1, W_STREET_2, W_CITY, W_STATE, W_ZIP )
        = ( SELECT W_NAME, W_STREET_1, W_STREET_2, W_CITY, W_STATE, W_ZIP
            FROM OLD TABLE ( UPDATE WAREHOUSE
                                SET W_YTD = W_YTD + PAY_C_ID.H_AMOUNT

```

```

        WHERE W_ID = PAY_C_ID.W_ID
    ) AS U
;
)
;
INSERT
INTO HISTORY ( H_C_ID, H_C_D_ID, H_C_W_ID, H_D_ID, H_W_ID, H_DATA, H_DATE,
H_AMOUNT )
VALUES (
    PAY_C_ID.C_ID
  , PAY_C_ID.C_D_ID
  , PAY_C_ID.C_W_ID
  , PAY_C_ID.D_ID
  , PAY_C_ID.W_ID
  , VAR.W_NAME || CHAR( ' ', 4 ) || VAR.D_NAME
  , PAY_C_ID.H_DATE
  , PAY_C_ID.H_AMOUNT
)
;
RETURN VALUES (
    W_STREET_1, W_STREET_2, W_CITY, W_STATE, W_ZIP
  , D_STREET_1, D_STREET_2, D_CITY, D_STATE, D_ZIP
  , C_LAST, C_FIRST, C_MIDDLE, C_STREET_1, C_STREET_2
  , C_CITY, C_STATE, C_ZIP, C_PHONE, C_SINCE, C_CREDIT, C_CREDIT_LIM
  , C_DISCOUNT, C_BALANCE, C_DATA
)
;
END
$
--
-- NEW ORDER
--
CREATE FUNCTION NEW_OL_ALL(
    I_ID      INT
  , I_QTY    SMALLINT
  , W_ID     INT
  , SUPP_W_ID INT
  , O_ID     INT
  , D_ID     SMALLINT
)
RETURNS TABLE(
    I_PRICE    INTEGER
  , I_NAME     CHAR(24)
  , I_DATA     VARCHAR(50)
  , OL_DIST_INFO CHAR(24)
  , S_DATA     VARCHAR(50)
  , S_QUANTITY SMALLINT
)
;
SPECIFIC NEW_OL_ALL
MODIFIES SQL DATA DETERMINISTIC NO EXTERNAL ACTION LANGUAGE SQL
VAR: BEGIN ATOMIC
DECLARE I_PRICE    INTEGER ;
DECLARE I_NAME     CHAR(24) ;
DECLARE I_DATA     VARCHAR(50) ;
DECLARE OL_DIST_INFO CHAR(24) ;

```

```

DECLARE S_DATA     VARCHAR(50) ;
DECLARE S_QUANTITY SMALLINT ;
SET ( I_PRICE , I_NAME , I_DATA )
= ( SELECT
    I_PRICE
  , I_NAME
  , I_DATA
FROM ITEM
WHERE ITEM.I_ID = NEW_OL_ALL.I_ID
) ;
SET ( OL_DIST_INFO , S_DATA , S_QUANTITY )
= ( SELECT
    OL_DIST_INFO
  , S_DATA
  , S_QUANTITY
FROM NEW TABLE (
    UPDATE STOCK
INCLUDE ( OL_DIST_INFO CHAR( 24 ) )
SET S_QUANTITY = CASE WHEN S_QUANTITY -
NEW_OL_ALL.I_QTY >= 10
THEN S_QUANTITY -
NEW_OL_ALL.I_QTY
ELSE S_QUANTITY -
NEW_OL_ALL.I_QTY + 91
END
, S_ORDER_CNT = S_ORDER_CNT +
SMALLINT( 1 )
, S_YTD = S_YTD +
NEW_OL_ALL.I_QTY
, S_REMOTE_CNT = CASE WHEN
NEW_OL_ALL.SUPP_W_ID = NEW_OL_ALL.W_ID
THEN
S_REMOTE_CNT
ELSE
S_REMOTE_CNT + SMALLINT( 1 )
END
, OL_DIST_INFO = CASE D_ID WHEN
SMALLINT( 1 ) THEN S_DIST_01
SMALLINT( 2 ) THEN S_DIST_02
SMALLINT( 3 ) THEN S_DIST_03
SMALLINT( 4 ) THEN S_DIST_04
SMALLINT( 5 ) THEN S_DIST_05
SMALLINT( 6 ) THEN S_DIST_06
SMALLINT( 7 ) THEN S_DIST_07
WHEN
WHEN
WHEN
WHEN
WHEN
WHEN
WHEN

```

```

SMALLINT( 8 ) THEN S_DIST_08
SMALLINT( 9 ) THEN S_DIST_09
SMALLINT( 10 ) THEN S_DIST_10
                                END
                                WHERE S_I_ID = NEW_OL_ALL.I_ID
                                AND S_W_ID = NEW_OL_ALL.SUPP_W_ID
                                ) AS U
;
RETURN VALUES( VAR.I_PRICE
               , VAR.I_NAME
               , VAR.I_DATA
               , VAR.OL_DIST_INFO
               , VAR.S_DATA
               , VAR.S_QUANTITY
               )
;
END
$
CREATE FUNCTION NEW_OL_LOCAL( I_ID      INT
                             , I_QTY    SMALLINT
                             , W_ID     INT
                             , O_ID     INT
                             , D_ID     SMALLINT
                             )
RETURNS TABLE( I_PRICE    INTEGER
               , I_NAME    CHAR(24)
               , I_DATA    VARCHAR(50)
               , OL_DIST_INFO CHAR(24)
               , S_DATA    VARCHAR(50)
               , S_QUANTITY SMALLINT
               )
SPECIFIC NEW_OL_LOCAL
MODIFIES SQL DATA DETERMINISTIC NO EXTERNAL ACTION LANGUAGE SQL
VAR: BEGIN ATOMIC
DECLARE I_PRICE    INTEGER ;
DECLARE I_NAME    CHAR(24) ;
DECLARE I_DATA    VARCHAR(50) ;
DECLARE OL_DIST_INFO CHAR(24) ;
DECLARE S_DATA    VARCHAR(50) ;
DECLARE S_QUANTITY SMALLINT ;
SET ( I_PRICE , I_NAME , I_DATA )
= ( SELECT
    I_PRICE
    , I_NAME
    , I_DATA
FROM ITEM

```

```

WHEN
WHEN
WHEN

```

```

WHERE ITEM.I_ID = NEW_OL_LOCAL.I_ID
) ;
SET ( OL_DIST_INFO , S_DATA , S_QUANTITY )
= ( SELECT OL_DIST_INFO
        , S_DATA
        , S_QUANTITY
FROM NEW TABLE ( UPDATE STOCK
INCLUDE ( OL_DIST_INFO CHAR( 24 ) )
SET S_QUANTITY = CASE WHEN S_QUANTITY -
NEW_OL_LOCAL.I_QTY >= 10 THEN S_QUANTITY -
NEW_OL_LOCAL.I_QTY ELSE S_QUANTITY -
NEW_OL_LOCAL.I_QTY + 91
END
, S_ORDER_CNT = S_ORDER_CNT +
, S_YTD = S_YTD +
, OL_DIST_INFO = CASE D_ID WHEN
SMALLINT( 1 ) THEN S_DIST_01 WHEN
SMALLINT( 2 ) THEN S_DIST_02 WHEN
SMALLINT( 3 ) THEN S_DIST_03 WHEN
SMALLINT( 4 ) THEN S_DIST_04 WHEN
SMALLINT( 5 ) THEN S_DIST_05 WHEN
SMALLINT( 6 ) THEN S_DIST_06 WHEN
SMALLINT( 7 ) THEN S_DIST_07 WHEN
SMALLINT( 8 ) THEN S_DIST_08 WHEN
SMALLINT( 9 ) THEN S_DIST_09 WHEN
SMALLINT( 10 ) THEN S_DIST_10 WHEN
WHERE S_I_ID = NEW_OL_LOCAL.I_ID
AND S_W_ID = NEW_OL_LOCAL.W_ID
) AS U
)
;
RETURN VALUES( VAR.I_PRICE
               , VAR.I_NAME
               , VAR.I_DATA
               , VAR.OL_DIST_INFO
               , VAR.S_DATA
               , VAR.S_QUANTITY
               )
;

```

```

END
$

CREATE FUNCTION NEW_WH ( O_ID      INTEGER
                        , W_ID      INTEGER
                        , D_ID      SMALLINT
                        , C_ID      INTEGER
                        , O_ENTRY_D BIGINT
                        , O_OL_CNT  SMALLINT
                        , O_ALL_LOCAL SMALLINT
                        )

RETURNS TABLE ( W_TAX      INTEGER
                , C_DISCOUNT INTEGER
                , C_LAST     VARCHAR(16)
                , C_CREDIT  CHAR(2)
                )

SPECIFIC NEW_WH

MODIFIES SQL DATA DETERMINISTIC NO EXTERNAL ACTION LANGUAGE SQL

VAR: BEGIN ATOMIC

DECLARE C_DISCOUNT INTEGER ;
DECLARE C_LAST     VARCHAR(16) ;
DECLARE C_CREDIT  CHAR(2) ;
DECLARE W_TAX     INTEGER ;

INSERT

    INTO NEW_ORDER ( NO_O_ID, NO_D_ID, NO_W_ID )

        VALUES ( O_ID
                , D_ID
                , W_ID
                )
;

INSERT

    INTO ORDERS ( O_C_ID, O_ENTRY_D, O_CARRIER_ID, O_OL_CNT, O_ALL_LOCAL, O_ID,
O_W_ID, O_D_ID )

        VALUES ( C_ID
                , O_ENTRY_D
                , 0
                , O_OL_CNT
                , O_ALL_LOCAL
                , O_ID
                , W_ID
                , D_ID
                )
;

SET ( C_DISCOUNT, C_LAST, C_CREDIT )

= ( SELECT C_DISCOUNT, C_LAST, C_CREDIT

    FROM CUSTOMER

    WHERE C_ID = NEW_WH.C_ID

```

```

        AND C_W_ID = W_ID
        AND C_D_ID = D_ID
    )
;

SET W_TAX
= ( SELECT W_TAX

    FROM WAREHOUSE

    WHERE W_ID = NEW_WH.W_ID
)
;

RETURN VALUES ( W_TAX , C_DISCOUNT , C_LAST , C_CREDIT ) ;

END
$

```

cat-proc.ddl

```

CREATE PROCEDURE news
    (in new_in  varchar(270) FOR BIT DATA,
    out new_out varchar(662) FOR BIT DATA)
LANGUAGE C
PARAMETER STYLE GENERAL
EXTERNAL NAME 'C:\Progra-1\IBM\SQLLIB\function\lrpctpcc!news'
not fenced;

CREATE PROCEDURE ords
    (in ord_in  varchar(42) FOR BIT DATA,
    out ord_out varchar(446) FOR BIT DATA)
LANGUAGE C
PARAMETER STYLE GENERAL
EXTERNAL NAME 'C:\Progra-1\IBM\SQLLIB\function\lrpctpcc!ords'
not fenced;

CREATE PROCEDURE dels
    (in del_in  varchar(22) FOR BIT DATA,
    out del_out varchar(50) FOR BIT DATA)
LANGUAGE C
PARAMETER STYLE GENERAL
EXTERNAL NAME 'C:\Progra-1\IBM\SQLLIB\function\lrpctpcc!dels'
not fenced;

```

create_database.ddl

```

drop database tpcc;
create database tpcc collate using identity;

```

create_tablespace.ddl

```

connect to tpcc;
drop bufferpool IBM8KBP;
create bufferpool IBM8KBP size 40000 pagesize 8K;
drop bufferpool IBM16KBP;
create bufferpool IBM16KBP size 20000 pagesize 16K;

```



```

drop tablespace ts_ware_01;
create regular tablespace ts_ware_01 pagesize 4K
  managed by database using ( device 'C:\PART\WARE' 16032K)
  extentsize 256
  prefetchsize 512;

drop tablespace ts_dist_01;
create regular tablespace ts_dist_01 pagesize 4K
  managed by database using ( device 'C:\PART\DIST' 16032K)
  extentsize 256
  prefetchsize 512;

drop tablespace ts_item_01;
create regular tablespace ts_item_01 pagesize 8K
  managed by database using ( device 'C:\PART\ITEM' 24064K )
  extentsize 256
  prefetchsize 512
  bufferpool IBM8KBP;

drop tablespace ts_stock_01;
create regular tablespace ts_stock_01 pagesize 4K
  managed by database using ( device 'C:\PART\STK1' 27438988K, device
'C:\PART\STK2' 27438988K)
  extentsize 256
  prefetchsize 512;

drop tablespace ts_customer_01;
create regular tablespace ts_customer_01 pagesize 4K
  managed by database using ( device 'C:\PART\CST1' 19960728K, device
'C:\PART\CST2' 19960728K)
  extentsize 256
  prefetchsize 512;

drop tablespace is_customer_01;
create regular tablespace is_customer_01 pagesize 8K
  managed by database using ( device 'C:\PART\CSTI' 2433816K)
  extentsize 256
  prefetchsize 512
  bufferpool IBM8KBP;

drop tablespace ts_history_01;
create regular tablespace ts_history_01 pagesize 16K
  managed by database using ( device 'C:\PART\HIST' 4305388K )
  extentsize 256
  prefetchsize 512
  bufferpool IBM16KBP;

drop tablespace ts_order_01;
create regular tablespace ts_order_01 pagesize 8K
  managed by database using ( device 'C:\PART\ORD' 2208904K)
  extentsize 256
  prefetchsize 512
  bufferpool IBM8KBP;

drop tablespace is_order_01;
create regular tablespace is_order_01 pagesize 8K
  managed by database using ( device 'C:\PART\ORDI' 1943832K)
  extentsize 256
  prefetchsize 512
  bufferpool IBM8KBP;

drop tablespace ts_orderline_01;

```

```

create regular tablespace ts_orderline_01 pagesize 8K
  managed by database using ( device 'C:\PART\ORL' 59054908K)
  extentsize 256
  prefetchsize 512
  bufferpool IBM8KBP;

drop tablespace ts_neword_01;
create regular tablespace ts_neword_01 pagesize 4K
  managed by database using ( device 'C:\PART\NOR' 481916K)
  extentsize 256
  prefetchsize 512;

drop tablespace is_neword_01;
create regular tablespace is_neword_01 pagesize 8K
  managed by database using ( device 'C:\PART\NORI' 562240K )
  extentsize 256
  prefetchsize 512
  bufferpool IBM8KBP;

commit;
connect reset;

```

CRIDX_CUST_IDXB.ddl

```

connect to TPCC in share mode;
DROP INDEX CUST_IDXB;
CREATE INDEX CUST_IDXB
      ON CUSTOMER(C_LAST, C_W_ID, C_D_ID, C_FIRST, C_ID) PCTFREE
0;
connect reset;

```

CRIDX_NU_ORD_IDXA.ddl

```

connect to TPCC in share mode;
DROP INDEX NU_ORD_IDXA;
CREATE UNIQUE INDEX NU_ORD_IDXA
      ON NEW_ORDER(NO_W_ID, NO_D_ID, NO_O_ID) PCTFREE 20 LEVEL2
PCTFREE 20 PAGE SPLIT HIGH;
connect reset;

```

CRIDX_ORDR_IDXB.ddl

```

connect to TPCC in share mode;
DROP INDEX ORDR_IDXB;
CREATE INDEX ORDR_IDXB
      ON ORDERS(O_C_ID, O_W_ID, O_D_ID, O_ID DESC) PCTFREE 20
LEVEL2 PCTFREE 20;
connect reset;

```

CRTB_CUSTOMER.ddl

```

connect to TPCC in share mode;
DROP TABLE CUSTOMER;
CREATE TABLE CUSTOMER
(
  C_ID          INTEGER      NOT NULL,
  C_STATE      CHAR(2)      NOT NULL,
  C_ZIP        CHAR(9)      NOT NULL,

```

```

C_PHONE          CHAR(16)      NOT NULL,
C_SINCE          BIGINT        NOT NULL,
C_CREDIT_LIM    BIGINT        NOT NULL,
C_MIDDLE        CHAR(2)       NOT NULL,
C_CREDIT        CHAR(2)       NOT NULL,
C_DISCOUNT     INTEGER       NOT NULL,
C_DATA          VARCHAR(500)   NOT NULL,
C_LAST          VARCHAR(16)    NOT NULL,
C_FIRST         VARCHAR(16)    NOT NULL,
C_STREET_1      VARCHAR(20)    NOT NULL,
C_STREET_2      VARCHAR(20)    NOT NULL,
C_CITY          VARCHAR(20)    NOT NULL,
C_D_ID          SMALLINT      NOT NULL,
C_W_ID          INTEGER       NOT NULL,
C_DELIVERY_CNT  INTEGER       NOT NULL,
C_BALANCE       BIGINT        NOT NULL,
C_YTD_PAYMENT  BIGINT        NOT NULL,
C_PAYMENT_CNT   INTEGER       NOT NULL
)
IN ts_customer_01
INDEX IN is_customer_01
ORGANIZE BY KEY SEQUENCE (
  C_ID STARTING FROM 1 ENDING AT 3000,
  C_W_ID STARTING FROM 1 ENDING AT 1530,
  C_D_ID STARTING FROM 1 ENDING AT 10
)
ALLOW OVERFLOW;

```

connect reset;

CRTB_DISTRICT.ddl

```

connect to TPCC in share mode;
DROP TABLE DISTRICT;
CREATE TABLE DISTRICT
(
  D_NEXT_O_ID INTEGER      NOT NULL,
  D_TAX        INTEGER      NOT NULL,
  D_YTD        BIGINT       NOT NULL,
  D_NAME       CHAR(10)     NOT NULL,
  D_STREET_1   CHAR(20)     NOT NULL,
  D_STREET_2   CHAR(20)     NOT NULL,
  D_CITY       CHAR(20)     NOT NULL,
  D_STATE      CHAR(2)      NOT NULL,
  D_ZIP        CHAR(9)      NOT NULL,
  D_ID         SMALLINT     NOT NULL,
  D_W_ID       INTEGER      NOT NULL
)
IN ts_dist_01
INDEX IN ts_dist_01
ORGANIZE BY KEY SEQUENCE (
  D_ID STARTING FROM 1 ENDING AT 10,
  D_W_ID STARTING FROM 1 ENDING AT 1530
)
ALLOW OVERFLOW;

```

connect reset;

CRTB_HISTORY.ddl

```

connect to TPCC in share mode;
DROP TABLE HISTORY;
CREATE TABLE HISTORY

```

```

(
  H_C_ID        INTEGER      NOT NULL,
  H_C_D_ID      SMALLINT     NOT NULL,
  H_C_W_ID      INTEGER      NOT NULL,
  H_D_ID        SMALLINT     NOT NULL,
  H_W_ID        INTEGER      NOT NULL,
  H_DATE        BIGINT       NOT NULL,
  H_AMOUNT      INTEGER      NOT NULL,
  H_DATA        CHAR(24)     NOT NULL
)
IN ts_history_01
INDEX IN ts_history_01;

```

```

ALTER TABLE HISTORY APPEND ON;
connect reset;

```

CRTB_ITEM.ddl

```

connect to TPCC in share mode;
DROP TABLE ITEM;
CREATE TABLE ITEM

```

```

(
  I_NAME        CHAR(24)     NOT NULL,
  I_PRICE       INTEGER      NOT NULL,
  I_DATA        VARCHAR(50)  NOT NULL,
  I_IM_ID       INTEGER      NOT NULL,
  I_ID          INTEGER      NOT NULL
)
IN ts_item_01
INDEX IN ts_item_01
ORGANIZE BY KEY SEQUENCE (
  I_ID STARTING FROM 1 ENDING AT 100000
)
ALLOW OVERFLOW;

```

```

ALTER TABLE ITEM LOCKSIZE TABLE;
connect reset;

```

CRTB_NEW_ORDER.ddl

```

connect to TPCC in share mode;
DROP TABLE NEW_ORDER;
CREATE TABLE NEW_ORDER

```

```

(
  NO_O_ID       INTEGER      NOT NULL,
  NO_D_ID       SMALLINT     NOT NULL,
  NO_W_ID       INTEGER      NOT NULL
)
IN ts_neword_01
INDEX IN is_neword_01;

```

```

ALTER TABLE NEW_ORDER APPEND ON;
connect reset;

```

CRTB_ORDER_LINE.ddl

```

connect to TPCC in share mode;
DROP TABLE ORDER_LINE;
CREATE TABLE ORDER_LINE

```

```

(
  OL_DELIVERY_D BIGINT       NOT NULL,
  OL_AMOUNT      INTEGER      NOT NULL,

```

```

OL_I_ID          INTEGER    NOT NULL,
OL_SUPPLY_W_ID  INTEGER    NOT NULL,
OL_QUANTITY      SMALLINT  NOT NULL,
OL_DIST_INFO    CHAR(24)   NOT NULL,
OL_O_ID         INTEGER    NOT NULL,
OL_D_ID         SMALLINT  NOT NULL,
OL_W_ID         INTEGER    NOT NULL,
OL_NUMBER       SMALLINT  NOT NULL
)
IN ts_orderline_01
INDEX IN ts_orderline_01
ORGANIZE BY KEY SEQUENCE (
  OL_W_ID STARTING FROM 1 ENDING AT 1530,
  OL_D_ID STARTING FROM 1 ENDING AT 10,
  OL_O_ID STARTING FROM 1 ENDING AT 3597,
  OL_NUMBER STARTING FROM 1 ENDING AT 15
)
)
ALLOW OVERFLOW;

```

connect reset;

CRTB_ORDERS.ddl

```

connect to TPCC in share mode;
DROP TABLE ORDERS;
CREATE TABLE ORDERS

```

```

(
  O_C_ID          INTEGER    NOT NULL,
  O_ENTRY_D       BIGINT     NOT NULL,
  O_CARRIER_ID   SMALLINT  NOT NULL,
  O_OL_CNT        SMALLINT  NOT NULL,
  O_ALL_LOCAL     SMALLINT  NOT NULL,
  O_ID            INTEGER    NOT NULL,
  O_W_ID          INTEGER    NOT NULL,
  O_D_ID          SMALLINT  NOT NULL
)
IN ts_order_01
INDEX IN is_order_01
ORGANIZE BY KEY SEQUENCE (
  O_ID STARTING FROM 1 ENDING AT 3597,
  O_W_ID STARTING FROM 1 ENDING AT 1530,
  O_D_ID STARTING FROM 1 ENDING AT 10
)
)
ALLOW OVERFLOW;

```

connect reset;

CRTB_STOCK.ddl

```

connect to TPCC in share mode;
DROP TABLE STOCK;
CREATE TABLE STOCK

```

```

(
  S_REMOTE_CNT    INTEGER    NOT NULL,
  S_QUANTITY      INTEGER    NOT NULL,
  S_ORDER_CNT     INTEGER    NOT NULL,
  S_YTD           INTEGER    NOT NULL,
  S_DATA          VARCHAR(50) NOT NULL,
  S_DIST_01       CHAR(24)   NOT NULL,
  S_DIST_02       CHAR(24)   NOT NULL,
  S_DIST_03       CHAR(24)   NOT NULL,
  S_DIST_04       CHAR(24)   NOT NULL,
  S_DIST_05       CHAR(24)   NOT NULL,

```

```

S_DIST_06        CHAR(24)   NOT NULL,
S_DIST_07        CHAR(24)   NOT NULL,
S_DIST_08        CHAR(24)   NOT NULL,
S_DIST_09        CHAR(24)   NOT NULL,
S_DIST_10        CHAR(24)   NOT NULL,
S_I_ID           INTEGER    NOT NULL,
S_W_ID           INTEGER    NOT NULL
)
IN ts_stock_01
INDEX IN ts_stock_01
ORGANIZE BY KEY SEQUENCE (
  S_I_ID STARTING FROM 1 ENDING AT 100000,
  S_W_ID STARTING FROM 1 ENDING AT 1530
)
)
ALLOW OVERFLOW;

```

connect reset;

CRTB_WAREHOUSE.ddl

```

connect to TPCC in share mode;
DROP TABLE WAREHOUSE;
CREATE TABLE WAREHOUSE

```

```

(
  W_NAME          CHAR(10)   NOT NULL,
  W_STREET_1      CHAR(20)   NOT NULL,
  W_STREET_2      CHAR(20)   NOT NULL,
  W_CITY          CHAR(20)   NOT NULL,
  W_STATE         CHAR(2)    NOT NULL,
  W_ZIP          CHAR(9)     NOT NULL,
  W_TAX           INTEGER    NOT NULL,
  W_YTD          BIGINT     NOT NULL,
  W_ID            INTEGER    NOT NULL
)
IN ts_ware_01
INDEX IN ts_ware_01
ORGANIZE BY KEY SEQUENCE (
  W_ID STARTING FROM 1 ENDING AT 1530
)
)
ALLOW OVERFLOW;

```

connect reset;

db2tpcc.h

```

/*****
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*****/

/*
 * db2tpcc.h - Macros and Miscellany
 */

#ifdef __DB2TPCC_H

```

```

#define __DB2TPCC_H

#include <sys/types.h>
typedef __int16 int16_t;
typedef __int32 int32_t;
typedef __int64 int64_t;

#include "lval.h"

#define INVALID_ITEM          100
#define TRAN_OK              0
#define FATAL_SQLERROR      -1

#define INVALID_ITEM_ID (2 * ITEMS) + 1
#define UNUSED_ITEM_ID 0

#define MIN_WAREHOUSE 1
#define MAX_WAREHOUSE WAREHOUSES

#define C_C_LAST_RUN          88
#define C_C_LAST_LOAD        173
#define C_C_ID                319
#define C_OL_I_ID            3849
#define A_C_LAST              255
#define A_C_ID                1023
#define A_OL_I_ID            8191

#define CLIENT_SQL           0
#define NEWORD_SQL          1
#define PAYMENT_SQL         2
#define ORDSTAT_SQL         3
#define DELIVERY_SQL        4
#define STOCKLEV_SQL        5

#define SPGENERAL_PAD 3
#define SPGENERAL_ADJUST sizeof(int16_t)

struct in_neword_struct {
    int16_t len;
    int16_t pad[SPGENERAL_PAD];
    struct in_items_struct {
        int32_t s_OL_I_ID;
        int32_t s_OL_SUPPLY_W_ID;
        int16_t s_OL_QUANTITY;
        int16_t pad1[3];
    } in_item[15];
    int64_t s_O_ENTRY_D_time;
    int32_t s_C_ID;
    int32_t s_W_ID;
    int16_t s_D_ID;
    int16_t s_O_OL_CNT;
    int16_t s_all_local;
    int16_t duplicate_items;
};

struct out_neword_struct {
    int16_t len;
    int16_t pad[SPGENERAL_PAD];
    struct items_struct {
        int32_t s_I_PRICE;
        int32_t s_OL_AMOUNT;
        int16_t s_S_QUANTITY;
        int16_t pad2;

```

```

        char s_I_NAME[25];
        char s_brand_generic;
    } item[15];
    int64_t s_O_ENTRY_D_time;
    int32_t s_W_TAX;
    int32_t s_D_TAX;
    int32_t s_C_DISCOUNT;
    int32_t s_total_amount;
    int32_t s_O_ID;
    int16_t s_O_OL_CNT;
    int16_t s_transtatus;
    int16_t deadlocks;
    char s_C_LAST[17];
    char s_C_CREDIT[3];
};

struct in_payment_struct {
    int16_t len;
    int16_t pad[SPGENERAL_PAD];
    int64_t s_H_DATE_time;
    int64_t s_H_AMOUNT;
    int32_t s_W_ID;
    int32_t s_C_W_ID;
    int32_t s_C_ID;
    int16_t s_C_D_ID;
    int16_t s_D_ID;
    char s_C_LAST[17];
};

struct out_payment_struct {
    int16_t len;
    int16_t pad[SPGENERAL_PAD];
    int64_t s_H_DATE_time;
    int64_t s_C_SINCE_time;
    int64_t s_C_CREDIT_LIM;
    int64_t s_C_BALANCE;
    int32_t s_C_DISCOUNT;
    int32_t s_C_ID;
    int16_t s_transtatus;
    int16_t deadlocks;
    char s_W_STREET_1[21];
    char s_W_STREET_2[21];
    char s_W_CITY[21];
    char s_W_STATE[3];
    char s_W_ZIP[10];
    char s_D_STREET_1[21];
    char s_D_STREET_2[21];
    char s_D_CITY[21];
    char s_D_STATE[3];
    char s_D_ZIP[10];
    char s_C_FIRST[17];
    char s_C_MIDDLE[3];
    char s_C_LAST[17];
    char s_C_STREET_1[21];
    char s_C_STREET_2[21];
    char s_C_CITY[21];
    char s_C_STATE[3];
    char s_C_ZIP[10];
    char s_C_PHONE[17];
    char s_C_CREDIT[3];
    char s_C_DATA[201];
};

```

```

struct in_ordstat_struct {
    int16_t len;
    int16_t pad[SPGENERAL_PAD];
    int32_t s_C_ID;
    int32_t s_W_ID;
    int16_t s_D_ID;
    int16_t pad1[3];
    char s_C_LAST[17];
};

struct out_ordstat_struct {
    int16_t len;
    int16_t pad[SPGENERAL_PAD];
    int64_t s_C_BALANCE;
    int64_t s_O_ENTRY_D_time;
    int32_t s_C_ID;
    int32_t s_O_ID;
    int16_t s_O_CARRIER_ID;
    int16_t s_ol_cnt;
    int16_t pad1[2];
    struct oitems_struct {
        int64_t s_OL_DELIVERY_D_time;
        int32_t s_OL_AMOUNT;
        int32_t s_OL_I_ID;
        int32_t s_OL_SUPPLY_W_ID;
        int16_t s_OL_QUANTITY;
        int16_t pad2;
    } item[15];
    int16_t s_transtatus;
    int16_t deadlocks;
    char s_C_FIRST[17];
    char s_C_MIDDLE[3];
    char s_C_LAST[17];
};

struct in_delivery_struct {
    int16_t len;
    int16_t pad[SPGENERAL_PAD];
    int64_t s_O_DELIVERY_D_time;
    int32_t s_W_ID;
    int16_t s_O_CARRIER_ID;
};

struct out_delivery_struct {
    int16_t len;
    int16_t pad[SPGENERAL_PAD];
    int32_t s_O_ID[10];
    int16_t s_transtatus;
    int16_t deadlocks;
};

struct in_stocklev_struct {
    int16_t len;
    int16_t pad[SPGENERAL_PAD];
    int32_t s_threshold;
    int32_t s_W_ID;
    int16_t s_D_ID;
};

struct out_stocklev_struct {
    int16_t len;
    int16_t pad[SPGENERAL_PAD];
    int32_t s_low_stock;
};

```

```

    int16_t s_transtatus;
    int16_t deadlocks;
};

#ifdef __cplusplus
extern "C" {
#endif

extern int neword_sql(struct in_neword_struct*, struct out_neword_struct*);
extern int payment_sql(struct in_payment_struct*, struct out_payment_struct*);
extern int ordstat_sql(struct in_ordstat_struct*, struct out_ordstat_struct*);
extern int delivery_sql(struct in_delivery_struct*, struct out_delivery_struct*);
extern int stocklev_sql(struct in_stocklev_struct*, struct out_stocklev_struct*);

#ifdef __cplusplus
}
#endif

#ifdef __cplusplus
extern "C" {
#endif

extern int connect_to_TM(char*);
extern int connect_to_TM_auth(char*, char*, char*);
extern int disconnect_from_TM(void);

extern int create_context(void);
extern int destroy_context(void);
extern int get_context(void**);
extern int attach_context(void*);
extern int detach_context(void*);

#ifdef __cplusplus
}
#endif

#endif // __DB2TPCC_H



---


gendata.c


---


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*****/

/*
 * gendata.c - Generate data for TPC-C database
 */

#include <stdlib.h>
#include <stdio.h>
#include <string.h>
#include <sqlutil.h>
#include <windows.h>

```



```

if (outtype1 == 0 || outname1 == NULL || strcmp(outname1,"") == 0)
{
    fprintf(stderr,"gendata: Invalid 1st output file/pipe specified.\n");
    exit(-1);
}
if (option == 9 && (outtype2 == 0 || outname2 == NULL || strcmp(outname2,"") ==
0))
{
    fprintf(stderr,"gendata: Invalid 2nd output file/pipe specified.\n");
    exit(-1);
}
if (option == 9)
{
    if (outtype1 == IOH_FILE) outtype1 = IOH_FILE_APPEND;
    if (outtype2 == IOH_FILE) outtype2 = IOH_FILE_APPEND;
}

if (ware_start <= 0 || ware_start > WAREHOUSES) {
    fprintf(stderr,"gendata: Invalid range starting value: %d\n",ware_start);
    exit(-1);
}
if (ware_end <= 0 || ware_end > WAREHOUSES || ware_end < ware_start) {
    fprintf(stderr,"gendata: Invalid range ending value: %d\n",ware_end);
    exit(-1);
}

switch (option) {
case 3:
    gen_ware_tbl();
    break;
case 4:
    gen_dist_tbl();
    break;
case 5:
    gen_item_tbl();
    break;
case 6:
    gen_stock_tbl();
    break;
case 7:
    gen_cust_tbl();
    break;
case 8:
    gen_hist_tbl();
    break;
case 9:
    gen_ordr_tbl();
    break;
case 11:
    gen_nu_ord_tbl();
    break;
case 2:
case 10:
default:
    fprintf(stderr, "Error: invalid option = %d \n",(option));
    break;
}
return 0;
}

void gen_item_tbl( void )
{
    sqlint32 item_num = 0 ;

```

```

sqlint32 item_im_id ;
char item_name[25] ;
sqlint32 item_price ;
char item_data[51] ;

IOH_NUM numBytes;
ioHandle hnd;
char Buffer[1024];

initialize_random(13,42);
timestamp1 = current_time();

rc = GenericOpen(&hnd, outtype1, outname1);
if (rc != 0) { goto item_done; }

for(item_num = 1; item_num <= ITEMS; item_num++)
{
    item_im_id = rand_integer( 1, 10000 ) ;
    create_random_a_string( item_name, 14, 24);
    item_price = rand_integer( 100, 10000 ) ;
    create_a_string_with_original( item_data, 26, 50, 10) ;

    numBytes = sprintf(Buffer, fmtItem,
                        item_name,
                        item_price,
                        item_data,
                        item_im_id,
                        item_num);

    rc = GenericWrite(&hnd, Buffer, numBytes);
    if (rc != 0) { goto item_done; }

} /* end for... */

rc = GenericClose(&hnd);

item_done:

timestamp2 = current_time();
elapse = timestamp2 - timestamp1;
if (rc == 0) {
    fprintf(stdout, "\nITEM table generated in %8.2f seconds.\n\n",elapse);
    fflush(stdout);
} else {
    fprintf(stderr, "\nITEM table FAILED at (I %d) after %8.2f
seconds.\n\n",item_num,elapse);
    fflush(stderr);
}
}

/*-----*/
/* generate stock table */
/*-----*/
void gen_stock_tbl( void )
{
    sqlint32 ware_num = 0 ;
    sqlint32 stock_num = 0 ;
    sqlint32 stock_quant;
    sqlint32 s_ytd;
    sqlint32 s_order_cnt, s_remote_cnt;
    char stock_dist_01[25] ;
    char stock_dist_02[25] ;
    char stock_dist_03[25] ;

```

```

char stock_dist_04[25] ;
char stock_dist_05[25] ;
char stock_dist_06[25] ;
char stock_dist_07[25] ;
char stock_dist_08[25] ;
char stock_dist_09[25] ;
char stock_dist_10[25] ;
char stock_data[51] ;

IOH_NUM numBytes;
ioHandle hnd;
char Buffer[1024];

initialize_random(7,11);
timestamp1 = current_time();

rc = GenericOpen(&hnd, outtypel, outname1);
if (rc != 0) { goto stock_done; }

for (stock_num = 1; stock_num <= STOCK_PER_WAREHOUSE; stock_num++)
{
    if (!quiet_mode && (stock_num%500 == 0))
    {
        fprintf(stdout, "STOCK for Item #%d\n",stock_num);
        fflush(stdout);
    }
    for (ware_num = ware_start; ware_num <= ware_end; ware_num++)
    {
        stock_quant = rand_integer( 10, 100 );
        create_random_a_string( stock_dist_01, 24, 24);
        create_random_a_string( stock_dist_02, 24, 24);
        create_random_a_string( stock_dist_03, 24, 24);
        create_random_a_string( stock_dist_04, 24, 24);
        create_random_a_string( stock_dist_05, 24, 24);
        create_random_a_string( stock_dist_06, 24, 24);
        create_random_a_string( stock_dist_07, 24, 24);
        create_random_a_string( stock_dist_08, 24, 24);
        create_random_a_string( stock_dist_09, 24, 24);
        create_random_a_string( stock_dist_10, 24, 24);

        create_a_string_with_original( stock_data, 26, 50, 10 );
        s_ytd = s_order_cnt = s_remote_cnt = 0;

        numBytes = sprintf(Buffer, fmtStock,
            s_remote_cnt,
            stock_quant,
            s_order_cnt,
            s_ytd,
            stock_data,
            stock_dist_01,
            stock_dist_02,
            stock_dist_03,
            stock_dist_04,
            stock_dist_05,
            stock_dist_06,
            stock_dist_07,
            stock_dist_08,
            stock_dist_09,
            stock_dist_10,
            stock_num,
            ware_num);

        rc = GenericWrite(&hnd, Buffer, numBytes);
    }
}

```

```

        if (rc != 0) { goto stock_done; }
    } /* end for... */
} /* end for... */

rc = GenericClose(&hnd);

stock_done:

timestamp2 = current_time();
elapse = timestamp2 - timestamp1;
if (rc == 0) {
    fprintf(stdout, "\nSTOCK table generated in %8.2f seconds.\n\n",elapse);
    fflush(stdout);
} else {
    fprintf(stderr, "\nSTOCK table FAILED at (S %d W %d) after %8.2f
seconds.\n\n",stock_num, ware_num, elapse);
    fflush(stderr);
}
}

/*-----*/
/* generate warehouse table */
/*-----*/
void gen_ware_tbl( void )
{
    sqlint32 ware_num = 0 ;
    char ware_name[11] ;
    char ware_street_1[21] ;
    char ware_street_2[21] ;
    char ware_city[21] ;
    char ware_state[3] ;
    char ware_zip[10] ;
    sqlint32 ware_tax ;
    sqlint64 ware_YTD ;

    IOH_NUM numBytes;
    ioHandle hnd;
    char Buffer[1024];

    initialize_random(23,111);
    timestamp1 = current_time();

    rc = GenericOpen(&hnd, outtypel, outname1);
    if (rc != 0) { goto ware_done; }

    for (ware_num = ware_start; ware_num <= ware_end; ware_num++)
    {
        if (!quiet_mode && ((ware_num % 500) == 0)) {
            fprintf(stdout, "Warehouse #%d\n", ware_num);
            fflush(stdout);
        }

        create_random_a_string( ware_name, 6,10) ;
        create_random_a_string( ware_street_1, 10,20) ;
        create_random_a_string( ware_street_2, 10,20) ;
        create_random_a_string( ware_city, 10,20) ;
        create_random_a_string( ware_state, 2,2) ;
        create_random_n_string( ware_zip, 4,4) ;
        strcat(ware_zip, "11111");

        ware_tax = rand_integer(0, 2000);
        ware_YTD = 30000000;
    }
}

```



```

numBytes = sprintf(Buffer, fmtWare,
    ware_name,
    ware_street_1,
    ware_street_2,
    ware_city,
    ware_state,
    ware_zip,
    ware_tax,
    ware_YTD,
    ware_num);

rc = GenericWrite(&hnd, Buffer, numBytes);
if (rc != 0) { goto ware_done; }

} /* end for */

rc = GenericClose(&hnd);

ware_done:

timestamp2 = current_time();
elapsed = timestamp2 - timestamp1;
if (rc == 0) {
    fprintf(stdout, "\nWAREHOUSE table generated in %8.2f seconds.\n", elapsed);
    fflush(stdout);
} else {
    fprintf(stderr, "\nWAREHOUSE table FAILED at (W %d) after %8.2f
seconds.\n", ware_num, elapsed);
    fflush(stderr);
}

}

/*-----*/
/* generate dist table */
/*-----*/
void gen_dist_tbl( void )
{
    sqlint32 ware_num = 0 ;
    sqlint32 dist_num = 0 ;
    char dist_name[11];
    char dist_street_1[21];
    char dist_street_2[21];
    char dist_city[21];
    char dist_state[3];
    char dist_zip[10];
    sqlint32 dist_tax;
    sqlint32 next_o_id;
    sqlint64 dist_YTD;

    IOH_NUM numBytes;
    ioHandle hnd;
    char Buffer[1024];

    next_o_id = CUSTOMERS_PER_DISTRICT + 1;
    initialize_random(44,73);
    timestamp1 = current_time();

    rc = GenericOpen(&hnd, outtype1, outname1);
    if (rc != 0) { goto dist_done; }

    for (ware_num = ware_start; ware_num <= ware_end; ware_num++)
    {

```

```

if (!quiet_mode) {
    fprintf(stdout, "DISTRICT for Warehouse #%d\n", ware_num);
    fflush(stdout);
}
for (dist_num = 1; dist_num <= DISTRICTS_PER_WAREHOUSE; dist_num++)
{
    create_random_a_string( dist_name, 6,10) ;
    create_random_a_string( dist_street_1, 10,20) ;
    create_random_a_string( dist_street_2, 10,20) ;
    create_random_a_string( dist_city, 10,20) ;
    create_random_a_string( dist_state, 2,2) ;
    create_random_n_string( dist_zip, 4,4) ;
    strcat(dist_zip, "11111");
    dist_tax = rand_integer(0, 2000);
    dist_YTD = 3000000;

    numBytes = sprintf(Buffer, fmtDist,
        next_o_id,
        dist_tax,
        dist_YTD,
        dist_name,
        dist_street_1,
        dist_street_2,
        dist_city,
        dist_state,
        dist_zip,
        dist_num,
        ware_num);

    rc = GenericWrite(&hnd, Buffer, numBytes);
    if (rc != 0) { goto dist_done; }

} /* end for... */
} /* end for... */

rc = GenericClose(&hnd);

dist_done:

timestamp2 = current_time();
elapsed = timestamp2 - timestamp1;
if (rc == 0) {
    fprintf(stdout, "\nDISTRICT table generated in %8.2f seconds.\n", elapsed);
    fflush(stdout);
} else {
    fprintf(stderr, "\nDISTRICT table FAILED at (W %d D %d) after %8.2f
seconds.\n", ware_num, dist_num, elapsed);
    fflush(stderr);
}

}

/*-----*/
/* generate customer table */
/*-----*/
void gen_cust_tbl( void )
{
    sqlint32 ware_num = 0 ;
    sqlint32 dist_num = 0 ;
    sqlint32 cust_num = 0 ;
    char cust_last[17];
    char cust_middle[3];
    char cust_first[17];
    char cust_street_1[21];

```

```

char cust_street_2[21];
char cust_city[21];
char cust_state[3];
char cust_zip[10];
char cust_phone[17];
char cust_credit[3];
char cust_data[501];
sqlint32 cust_discount;
sqlint64 currtmstp;
sqlint64 cust_balance;
sqlint64 cust_YTD_payment;
sqlint64 cust_credit_lim;

IOH_NUM numBytes;
ioHandle hnd;
char Buffer[1024];
int len, pos;

initialize_random(10,64);
timestamp1 = current_time();

rc = GenericOpen(&hnd, outtypel, outnamel);
if (rc != 0) { goto cust_done; }

strcpy(cust_middle, "OE");
currtmstp = time(NULL);

for (cust_num = 1; cust_num <= CUSTOMERS_PER_DISTRICT; cust_num++)
{
    if (!quiet_mode) {
        fprintf(stdout, "CUSTOMER #&d:\n", cust_num);
        fflush(stdout);
    }

    for (ware_num = ware_start; ware_num <= ware_end; ware_num++)
    {
        for (dist_num = 1; dist_num <= DISTRICTS_PER_WAREHOUSE; dist_num++)
        {
            if (cust_num <= 1000)
                create_random_last_name( cust_last, cust_num);
            else
                create_random_last_name( cust_last, 0);
            create_random_a_string( cust_first,      8,16 );
            create_random_a_string( cust_street_1, 10,20 );
            create_random_a_string( cust_street_2, 10,20 );
            create_random_a_string( cust_city,      10,20 );
            create_random_a_string( cust_state,     2,2 );
            create_random_n_string( cust_zip,       4,4 );
            strcat(cust_zip, "1111");

            create_random_n_string( cust_phone, 16,16 );
            if ( rand_integer( 1, 100 ) <= 10 )
                strcpy( cust_credit, "BC" );
            else
                strcpy( cust_credit, "GC" );

            cust_discount = rand_integer(0, 5000);

            create_random_a_string(cust_data, 300, 500);

            if (using_rctload == 0) {
                for (pos=strlen(cust_data); pos<500; pos++)
                    cust_data[pos] = ' ';
            }
        }
    }
}

```

```

        cust_data[500] = '\0';
    }

    cust_credit_lim = 5000000;
    cust_balance = -1000;
    cust_YTD_payment = 1000;

    numBytes = sprintf(Buffer, fmtCust,
        cust_num,
        cust_state,
        cust_zip,
        cust_phone,
        currtmstp,
        cust_credit_lim,
        cust_middle,
        cust_credit,
        cust_discount,
        cust_data,
        cust_last,
        cust_first,
        cust_street_1,
        cust_street_2,
        cust_city,
        dist_num,
        ware_num,
        0,
        cust_balance,
        cust_YTD_payment,
        1);

    rc = GenericWrite(&hnd, Buffer, numBytes);
    if (rc != 0) { goto cust_done; }

}
}

rc = GenericClose(&hnd);

cust_done:

timestamp2 = current_time();
elapsed = timestamp2 - timestamp1;
if (rc == 0) {
    fprintf(stdout, "\nCUSTOMER table generated in %8.2f seconds.\n\n", elapsed);
    fflush(stdout);
} else {
    fprintf(stderr, "\nCUSTOMER table FAILED at (W %d D %d C %d) after %8.2f
seconds.\n\n", ware_num, dist_num, cust_num, elapsed);
    fflush(stderr);
}

/*-----*/
/* generate hist table */
/*-----*/
void gen_hist_tbl( void )
{
    sqlint32 ware_num = 0 ;
    sqlint32 dist_num = 0 ;
    sqlint32 cust_num = 0 ;
    char hist_data[25] ;
    sqlint64 currtmstp;
}

```

```

IOH_NUM numBytes;
ioHandle hnd;
char Buffer[1024];

initialize_random(15,63);
timestamp1 = current_time();

rc = GenericOpen(&hnd, outtypel, outnamel);
if (rc != 0) { goto hist_done; }

currtmstp = time(NULL);

for (ware_num = ware_start; ware_num <= ware_end; ware_num++)
{
    if (!quiet_mode) {
        fprintf(stdout, "HISTORY for Warehouse #d:\n", ware_num);
        fflush(stdout);
    }
    for (dist_num = 1; dist_num <= DISTRICTS_PER_WAREHOUSE; dist_num++)
    {
        for (cust_num = 1; cust_num <= CUSTOMERS_PER_DISTRICT; cust_num++)
        {
            create_random_a_string( hist_data, 12,24) ;

            numBytes = sprintf(Buffer, fmtHist,
                                cust_num,
                                dist_num,
                                ware_num,
                                dist_num,
                                ware_num,
                                currtmstp,
                                1000,
                                hist_data);

            rc = GenericWrite(&hnd, Buffer, numBytes);
            if (rc != 0) { goto hist_done; }
        }
    }
}

rc = GenericClose(&hnd);

hist_done:

timestamp2 = current_time();
elapsed = timestamp2 - timestamp1;
if (rc == 0) {
    fprintf(stdout, "\nHISTORY table generated in %8.2f seconds.\n\n", elapsed);
    fflush(stdout);
} else {
    fprintf(stderr, "\nHISTORY table FAILED at (W %d D %d C %d) after %8.2f
seconds.\n\n", ware_num, dist_num, cust_num, elapsed);
    fflush(stderr);
}

/*-----*/
/* generate nu_ord table */
/*-----*/
void gen_nu_ord_tbl( void )
{

```

```

sqlint32 ware_num = 0 ;
sqlint32 dist_num = 0 ;
sqlint32 nu_ord_id = 0 ;
int nu_ord_hi ;

IOH_NUM numBytes;
ioHandle hnd;
char Buffer[1024];

nu_ord_hi = CUSTOMERS_PER_DISTRICT - NU_ORDERS_PER_DISTRICT + 1;
if (nu_ord_hi < 0) {
    nu_ord_hi = CUSTOMERS_PER_DISTRICT - (CUSTOMERS_PER_DISTRICT / 3) + 1;
    fprintf(stderr, "\n**** WARNING **** NU_ORDERS_PER_DISTRICT is >
CUSTOMERS_PER_DISTRICT\n");
    fprintf(stderr, "                Check the values in file lval.h\n");
    fprintf(stderr, "                Loading New-Order with 1/3 of
CUSTOMERS_PER_DISTRICT\n");
}
initialize_random(99,37);
timestamp1 = current_time();

rc = GenericOpen(&hnd, outtypel, outnamel);
if (rc != 0) { goto neword_done; }

for (nu_ord_id = nu_ord_hi;
     nu_ord_id <= CUSTOMERS_PER_DISTRICT;
     nu_ord_id++)
{
    if (!quiet_mode) {
        fprintf(stdout, "NEW_ORDER for Customer #d:\n", nu_ord_id);
        fflush(stdout);
    }
    for (ware_num = ware_start; ware_num <= ware_end; ware_num++)
    {
        for (dist_num = 1; dist_num <= DISTRICTS_PER_WAREHOUSE; dist_num++)
        {
            numBytes = sprintf(Buffer, fmtNewOrd,
                                nu_ord_id,
                                dist_num,
                                ware_num);

            rc = GenericWrite(&hnd, Buffer, numBytes);
            if (rc != 0) { goto neword_done; }
        }
    }
} /* end for... */
} /* end for... */
} /* end for... */

rc = GenericClose(&hnd);

neword_done:

timestamp2 = current_time();
elapsed = timestamp2 - timestamp1;
if (rc == 0) {
    fprintf(stdout, "\nNEW_ORDER table generated in %8.2f seconds.\n\n", elapsed);
    fflush(stdout);
} else {
    fprintf(stderr, "\nNEW_ORDER table FAILED at (W %d D %d O %d) after %8.2f
seconds.\n\n", ware_num, dist_num, nu_ord_id, elapsed);
    fflush(stderr);
}
}

```

```

/*-----*/
/* generate order and order_line tables */
/*-----*/
void gen_ordr_tbl( void )
{
    sqlint32 ware_num = 0 ;
    sqlint32 dist_num = 0 ;
    sqlint32 cust_num = 0 ;
    sqlint32 ord_num = 0 ;
    sqlint32 ordr_carrier_id;
    sqlint32 ordr_ol_cnt;
    sqlint32 oline_ol_num;
    sqlint32 oline_item_num;

    sqlint32 oline_amount;
    char oline_dist_info[25];
    sqlint64 nulltmstmp = 0;
    sqlint64 currtmstmp;

    IOH_NUM numBytes;
    ioHandle hndl, hnd2;
    char Buffer[1024];

    oline_dist_info[24] = '\0';
    initialize_random(42,13);
    timestamp1 = current_time();

    rc1 = GenericOpen(&hndl, outtype1, outname1);
    if (rc1 != 0) { goto ool_done; }
    rc2 = GenericOpen(&hnd2, outtype2, outname2);
    if (rc2 != 0) { goto ool_done; }

    currtmstmp = time(NULL);

    for (ware_num = ware_start; ware_num <= ware_end; ware_num++)
    {
        if (!quiet_mode) {
            fprintf(stdout, "ORDERS & ORDER_LINE for Warehouse #d\n", ware_num);
            fflush(stdout);
        }
        for (dist_num = 1; dist_num <= DISTRICTS_PER_WAREHOUSE; dist_num++)
        {
            if (!quiet_mode) {
                fprintf(stdout, "District #d\t", dist_num);
                fflush(stdout);
            }

            seed_1_3000();

            for (ord_num = 1; ord_num <= CUSTOMERS_PER_DISTRICT; ord_num++)
            {
                if (ord_num < 2101)
                    ordr_carrier_id = rand_integer( 1, 10 ) ;
                else
                    ordr_carrier_id = 0;

                cust_num = random_1_3000();
                ordr_ol_cnt = rand_integer(MIN_OL_PER_ORDER,MAX_OL_PER_ORDER);

                numBytes = sprintf(Buffer, fmtOrdr,
                                    cust_num,
                                    currtmstmp,

```

```

                                ordr_carrier_id,
                                ordr_ol_cnt,
                                1,
                                ord_num,
                                ware_num,
                                dist_num);

                rc1 = GenericWrite(&hndl, Buffer, numBytes);
                if (rc1 != 0) { goto ool_done; }

                for ( oline_ol_num = 1; oline_ol_num <= ordr_ol_cnt; oline_ol_num++ )
                {
                    oline_item_num = rand_integer(1, ITEMS) ;
                    create_random_a_string( oline_dist_info, 24, 24) ;

                    numBytes = sprintf(Buffer, fmtOLine,
                                        ((ord_num < 2101) ? currtmstmp : nulltmstmp),
                                        ((ord_num < 2101) ? 0 : rand_integer(1,999999)),
                                        oline_item_num,
                                        ware_num,
                                        5,
                                        oline_dist_info,
                                        ord_num,
                                        dist_num,
                                        ware_num,
                                        oline_ol_num);

                    rc2 = GenericWrite(&hnd2, Buffer, numBytes);
                    if (rc2 != 0) { goto ool_done; }

                }
            }
        }

        rc1 = GenericClose(&hnd2);
        rc2 = GenericClose(&hndl);

ool_done:

        timestamp2 = current_time();
        elapse = timestamp2 - timestamp1;
        if (rc1 == 0 && rc2 == 0) {
            fprintf(stdout, "\nORDERS & ORDER_LINE table(s) generated in %8.2f
seconds.\n\n", elapse);
            fflush(stdout);
        } else {
            fprintf(stderr, "\nORDERS & ORDER_LINE table(s) FAILED at (W %d D %d O %d OL
%d) after %8.2f seconds.\n\n", ware_num, dist_num, ord_num, oline_ol_num, elapse);
            fflush(stderr);
        }
    }

void InitFormatStrings(char delim)
{
    char *p;

    if (delim == '|' ) return;

    while (p = strchr(fmtWare, '|')) { *p = delim; }
    while (p = strchr(fmtDist, '|')) { *p = delim; }
    while (p = strchr(fmtItem, '|')) { *p = delim; }
    while (p = strchr(fmtStock, '|')) { *p = delim; }

```

```

while (p = strchr(fmtCust, '|')) { *p = delim; }
while (p = strchr(fmtHist, '|')) { *p = delim; }
while (p = strchr(fmtOrdr, '|')) { *p = delim; }
while (p = strchr(fmtOLine, '|')) { *p = delim; }
while (p = strchr(fmtNewOrd, '|')) { *p = delim; }
}

```

```

void ScalingReport(void)
{
    fprintf(stdout, "Scaling Values in Use\n");
    fprintf(stdout, "-----\n");
    fprintf(stdout, "Warehouses:      %d\n", WAREHOUSES);
    fprintf(stdout, "Districts/Warehouse: %d\n", DISTRICTS_PER_WAREHOUSE);
    fprintf(stdout, "Customers/District:  %d\n", CUSTOMERS_PER_DISTRICT);
    fprintf(stdout, "Items:                %d\n", ITEMS);
    fprintf(stdout, "Stock/Warehouse:     %d\n", STOCK_PER_WAREHOUSE);
    fprintf(stdout, "Min Order Lines/Order: %d\n", MIN_OL_PER_ORDER);
    fprintf(stdout, "Max Order Lines/Order: %d\n", MAX_OL_PER_ORDER);
    fprintf(stdout, "New Orders/District:  %d\n", NU_ORDERS_PER_DISTRICT);
    fprintf(stdout, "-----\n");
}

```

LOAD_CUSTOMER_1.ddl

```

CONNECT TO TPCC IN SHARE MODE;
IMPORT FROM Z:\flat\customer_1.dat OF DEL MODIFIED BY COLDEL| KEEPBLANKS COMPOUND=50
ALLOW WRITE ACCESS COMMITCOUNT 1000 INSERT INTO CUSTOMER;
COMMIT WORK;
CONNECT RESET;

```

LOAD_DISTRICT_1.ddl

```

CONNECT TO TPCC IN SHARE MODE;
IMPORT FROM Z:\flat\district_1.dat OF DEL MODIFIED BY COLDEL| KEEPBLANKS COMPOUND=50
ALLOW WRITE ACCESS COMMITCOUNT 1000 INSERT INTO DISTRICT;
COMMIT WORK;
CONNECT RESET;

```

LOAD_HISTORY.ddl

```

connect to TPCC in share mode;
LOAD FROM Z:\flat\history_1.dat OF DEL MODIFIED BY COLDEL| KEEPBLANKS FASTPARSE
REPLACE INTO HISTORY NONRECOVERABLE DATA BUFFER 16000 CPU_PARALLELISM 4 ;
connect reset;

```

LOAD_ITEM_1.ddl

```

CONNECT TO TPCC IN SHARE MODE;
IMPORT FROM Z:\flat\item_1.dat OF DEL MODIFIED BY COLDEL| KEEPBLANKS COMPOUND=50
COMMITCOUNT 1000 INSERT INTO ITEM;
COMMIT WORK;
CONNECT RESET;

```

LOAD_NEW_ORDER.ddl

```

connect to TPCC in share mode;

```

```

LOAD FROM Z:\flat\neworder_1.dat OF DEL MODIFIED BY COLDEL| KEEPBLANKS FASTPARSE
REPLACE INTO NEW_ORDER NONRECOVERABLE DATA BUFFER 16000 CPU_PARALLELISM 4 ;
connect reset;

```

LOAD_ORDER_LINE_1.ddl

```

CONNECT TO TPCC IN SHARE MODE;
IMPORT FROM Z:\flat\orderline_1.dat OF DEL MODIFIED BY COLDEL| KEEPBLANKS
COMPOUND=50 ALLOW WRITE ACCESS COMMITCOUNT 1000 INSERT INTO ORDER_LINE;
COMMIT WORK;
CONNECT RESET;

```

LOAD_ORDERS_1.ddl

```

CONNECT TO TPCC IN SHARE MODE;
IMPORT FROM Z:\flat\orders_1.dat OF DEL MODIFIED BY COLDEL| KEEPBLANKS COMPOUND=50
ALLOW WRITE ACCESS COMMITCOUNT 1000 INSERT INTO ORDERS;
COMMIT WORK;
CONNECT RESET;

```

LOAD_STOCK_1.ddl

```

CONNECT TO TPCC IN SHARE MODE;
IMPORT FROM Z:\flat\stock_1.dat OF DEL MODIFIED BY COLDEL| KEEPBLANKS COMPOUND=50
ALLOW WRITE ACCESS COMMITCOUNT 1000 INSERT INTO STOCK;
COMMIT WORK;
CONNECT RESET;

```

LOAD_WAREHOUSE_1.ddl

```

CONNECT TO TPCC IN SHARE MODE;
IMPORT FROM Z:\flat\warehouse_1.dat OF DEL MODIFIED BY COLDEL| KEEPBLANKS
COMPOUND=50 ALLOW WRITE ACCESS COMMITCOUNT 1000 INSERT INTO WAREHOUSE;
COMMIT WORK;
CONNECT RESET;

```

lval.h

```

/* lval.h - generated automatically at 20040402.1419 */

```

```

#ifndef __LVAL_H
#define __LVAL_H
#define WAREHOUSES 10
#define DISTRICTS_PER_WAREHOUSE 10
#define CUSTOMERS_PER_DISTRICT 3000
#define ITEMS 100000
#define STOCK_PER_WAREHOUSE 100000
#define MIN_OL_PER_ORDER 5
#define MAX_OL_PER_ORDER 15
#define NU_ORDERS_PER_DISTRICT 900
#endif // __LVAL_H

```

Dbgen.Makefile

```

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```

```

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#####

# Makefile - Build gendata tool
#

!include $(TPCC_ROOT)/Makefile.config

# #####
# Preprocessor, Compiler and Linker Flags
# #####

INCLUDES =      -I$(TPCC_SQLLIB)$(SLASH)include -I$(TPCC_ROOT)$(SLASH)include

CFLAGS = $(INCLUDES) $(CFLAGS_OS) -DLINT_ARGS -DSQLA_NOLINES \
          -D$(DB2EDITION) -D$(DB2VERSION) $(CFLAGS_DEBUG)

LDLFLAGS = $(LDLFLAGS_EXEC) $(LDLFLAGS_LIB)

# #####
# File Collections
# #####

OBJS =          tpccrnd$(OBJEXT) \
                $(TPCC_ROOT)/Src.Common/tpccmisc$(OBJEXT)
OBJ_EEE = $(TPCC_ROOT)/Src.Common/tpcc1wh$(OBJEXT)
EXEC =          gendata$(BINEXT)

# #####
# End-User Targets
# #####

all:            $(EXEC)

clean:          - $(ERASE) *$(OBJEXT) $(EXEC)

# #####
# Build Rules
# #####

.SUFFIXES:
.SUFFIXES:      $(OBJEXT) .c

$(EXEC):
$(LD_EXEC) $(LDLFLAGS) $(OBJS) $*$(OBJEXT) $(LDLFLAGS_OUT)$(*)

# #####
# Dependencies
# #####

# Link Dependencies
gendata$(BINEXT): $(OBJS) gendata$(OBJEXT)

```

```

# Build Dependencies
# Source
gendata$(OBJEXT):  gendata.c

# Headers
gendata.c:         $(TPCC_ROOT)/include/tpccrnd.h $(TPCC_ROOT)/include/lval.h

```

SrcSrv.Makefile

```

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#####

#
# Makefile - Makefile for Src.Srv
#

!include $(TPCC_ROOT)/Makefile.config

# #####
# Preprocessor, Compiler and Linker Flags
# #####

BND_OPTS =      GRANT PUBLIC \
                 MESSAGE $(*).bnd.msg
PRP_OPTS =      BINDFILE \
                 EXPLAIN ALL \
                 MESSAGE $(*).prep.msg

INCLUDES =      -I$(TPCC_SQLLIB)$(SLASH)include -I$(TPCC_ROOT)$(SLASH)include

CFLAGS = $(CFLAGS_OS) $(INCLUDES) $(CFLAGS_DEBUG) \
          -D$(DB2EDITION) -D$(DB2VERSION) \
          -DSQLA_NOLINES -DLINT_ARGS

LDLFLAGS = $(LDLFLAGS_STORP) $(LDLFLAGS_LIB)

# #####
# File Collections
# #####

STORED_PROCS = new ord del

UTIL_OBJ =      $(TPCC_ROOT)/Src.Common/tpccmisc$(OBJEXT) \
                $(TPCC_ROOT)/Src.Common/tpccdbg$(OBJEXT)

DLL =           rpctpcc$(SHLIBEXT)

# #####
# User Targets
# #####

all:            connect explain catalog $(DLL) install plan disconnect

```

```

clean:    connect uncatalog unexplain disconnect
         - $(ERASE) $(TPCC_SPDIR)$(SLASH)rpctppc$(SHLIBEXT)
         - $(ERASE) *.bnd *.msg *.out *$(OBJEXT) $(DLL) tpcc_all_sql.c
         - $(ERASE) TPCC_ALL.*.plan

#####
# Helper Targets
#####

catalog: uncatalog
         - perl $(TPCC_ROOT)$(SLASH)utils$(SLASH)genproc.pl $(STORED_PROCS)
         - db2 -tvf cat-proc.ddl +o -z cat-proc.out
         - db2 -td$$ -vf cat-func.ddl +o -z cat-func.out

uncatalog:
         - perl $(TPCC_ROOT)$(SLASH)utils$(SLASH)genproc.pl $(STORED_PROCS)
         - db2 -td$$ -vf uncat-func.ddl +o -z uncat-func.out
         - db2 -tvf uncat-proc.ddl +o -z uncat-proc.out

explain:
         - perl $(TPCC_ROOT)$(SLASH)utils$(SLASH)fixup_explain.pl
         - db2 -tvf $(TPCC_ROOT)$(SLASH)utils$(SLASH)EXPLAIN.DDL +o -z EXPLAIN.out

unexplain:
         - db2 -tvf $(TPCC_ROOT)$(SLASH)utils$(SLASH)UNEXPLAIN.DDL +o -z
UNEXPLAIN.out

connect:
         - db2 connect to $(TPCC_DBNAME)

disconnect:
         - db2 connect reset
         - db2 terminate

DB2EXPLN_BUFFER=300000

plan:
         - db2exfmt -d $(TPCC_DBNAME) -e $(TPCC_SCHEMA) -s $(TPCC_SCHEMA) -w -1 -n
TPCC_ALL -g -# 0 -o TPCC_ALL.exfmt.plan
         - db2expln -d $(TPCC_DBNAME) -c $(TPCC_SCHEMA) -p TPCC_ALL -s 0 -g -o
TPCC_ALL.expln.plan

rebind:  connect catalog
         db2 bind tpcc_all_sql.bnd $(BND_OPTS) QUERYOPT 7

#####
# Install Targets
#####

install: $(DLL)
         - mkdir $(TPCC_SPDIR)
         $(COPY) $(DLL) $(TPCC_SPDIR)

#####
# Build Rules
#####

.SUFFIXES: $(OBJEXT) .c .sqc

tpcc_all_sql.c:
         @echo "Prepping $*.sqc"
         -db2 prep $*.sqc $(PRP_OPTS) ISOLATION RR

```

```

         @echo "Binding $*.bnd"
         db2 bind $*.bnd $(BND_OPTS) QUERYOPT 7

tpcc_all_sql$(OBJEXT):
         $(CC) -c tpcc_all_sql.c $(CFLAGS) -D$(TPCC_SPTYPE) $(CFLAGS_OUT)$@

$(DLL): $(UTIL_OBJ) tpcc_all_sql$(OBJEXT)
         $(LD_STORP) $(LD_FLAGS) $(UTIL_OBJ) tpcc_all_sql$(OBJEXT) $(LD_FLAGS_OUT)$@

#####
# Dependencies
#####

$(DLL): $(UTIL_OBJ) tpcc_all_sql$(OBJEXT)

tpcc_all_sql$(OBJEXT): tpcc_all_sql.c

tpcc_all_sql.c:      $(TPCC_ROOT)/include/db2tpcc.h

```

SrcCli.Makefile

```

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#####

#
# Makefile - Makefile for Src.Cli (RTE/Driver Interface)
#

include $(TPCC_ROOT)/Makefile.config

BND_OPTS =          GRANT PUBLIC \
                   MESSAGES $*.bnd.msg
PRP_OPTS =          BINDFILE \
                   ISOLATION RR \
                   EXPLAIN ALL \
                   MESSAGES $*.prep.msg \
                   LEVEL $(TPCC_VERSION) \
                   NOLINEMACRO

INCLUDES =          -I$(TPCC_SQLLIB)/include -I$(TPCC_ROOT)/include

CFLAGS =            $(CFLAGS_OS) $(INCLUDES) $(CFLAGS_DEBUG) \
                   $(UOPTS) -D$(DB2EDITION) -D$(DB2VERSION) -D$(TPCC_SPTYPE)

OBJS =              $(TPCC_ROOT)/Src.Common/tpccmisc$(OBJEXT) \
                   $(TPCC_ROOT)/Src.Common/tpccdbg$(OBJEXT) \
                   $(TPCC_ROOT)/Src.Common/tpccctx$(OBJEXT) \
                   tpcccli$(OBJEXT)

LIBS =              tpcccli$(LIBEXT)

```

```

all:    connect $(OBJS) plan $(LIBS) disconnect
        $(AR) $(ARFLAGS) $(ARFLAGS_OUT)tpcccli$(LIBEXT) $(OBJS) $(ARFLAGS_LIB)
        @echo "-----"
        @echo "Please copy lval.h, db2tpcc.h, and tpcccli$(LIBEXT) to"
        @echo "a place where they can be #included and linked with the"
        @echo "RTE/driver code."
        @echo "-----"

clean:
- $(ERASE) *.msg *.bnd *.plan *$(OBJEXT) *$(LIBEXT) tpcccli.c

connect:
- db2 connect to $(TPCC_DBNAME)

disconnect:
- db2 connect reset
- db2 terminate

plan:
- db2exfmt -d $(TPCC_DBNAME) -e $(TPCC_SCHEMA) -s $(TPCC_SCHEMA) -w -1 -n
TPCCCLI -g -# 0 -o TPCCCLI.exfmt.plan
- db2expln -d $(TPCC_DBNAME) -c $(TPCC_SCHEMA) -p TPCCCLI -s 0 -g -o
TPCCCLI.expln.plan

rebind:  connect
        db2 bind tpcccli.bnd $(BND_OPTS) QUERYOPT 7

.SUFFIXES:
.SUFFIXES: $(OBJEXT) .c .sqc

tpcccli.c:
        @echo "Prepping $*.sqc"
        -db2 prep $*.sqc $(PRP_OPTS) ISOLATION RR
        @echo "Binding $*.bnd"
        db2 bind $*.bnd $(BND_OPTS) QUERYOPT 7

tpcccli$(LIBEXT):  $(OBJS)

tpcc_all_sql$(OBJEXT):          tpcc_all_sql.c

tpcc_all_sql.c:                $(TPCC_ROOT)/include/db2tpcc.h
$(TPCC_ROOT)/include/lval.h

```

SrcCommon.Makefile

```

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#####

#
# Makefile - Makefile for Src.Common
#

```

```

!include $(TPCC_ROOT)/Makefile.config

# #####
# Preprocessor, Compiler and Linker Flags
# #####

BND_OPTS =          GRANT PUBLIC \
                    MESSAGES $*.bnd.msg
PRP_OPTS =          BINDFILE \
                    OPTLEVEL 1 \
                    ISOLATION RR \
                    MESSAGES $*.prep.msg \
                    LEVEL $(TPCC_VERSION) \
                    NOLINEMACRO

INCLUDES =          -I$(TPCC_SQLLIB)$(SLASH)include -I$(TPCC_ROOT)$(SLASH)include

CFLAGS =  $(CFLAGS_OS) $(CFLAGS_DEBUG) $(INCLUDES) \
          -DSQLA_NOLINES -D$(DB2EDITION) -D$(DB2VERSION) \
          -D$(TPCC_SPTYPE)

UTIL_OBJ =          tpccmisc$(OBJEXT) tpccdbg$(OBJEXT) tpccctx$(OBJEXT)

# #####
# User Targets
# #####

all:    connect $(UTIL_OBJ) disconnect

clean:
- $(ERASE) *$(OBJEXT) *.bnd *.msg tpccctx.c

# #####
# Helper Targets
# #####

connect:
- db2 connect to $(TPCC_DBNAME)

disconnect:
- db2 connect reset
- db2 terminate

rebind:
        db2 bind tpccctx.bnd $(BND_OPTS)

# #####
# Build Rules
# #####

.SUFFIXES:
.SUFFIXES: $(OBJEXT) .c .sqc

.sqc.c:
        @echo "Prepping $*.sqc"
        -db2 prep $*.sqc $(PRP_OPTS)
        @echo "Binding $*.bnd"
        db2 bind $*.bnd $(BND_OPTS)

# #####
# Dependencies
# #####

```



```

# Source
tpccdbg$(OBJEXT): tpccdbg.c
tpccctx$(OBJEXT): tpccctx.c
tpccmisc$(OBJEXT): tpccmisc.c

# Headers
tpccdbg.c: $(TPCC_ROOT)/include/db2tpcc.h

```

Makefile.config

```

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#####

#
# Makefile.config - NT/Win2000 Makefile Configuration
#

MAKE=nmake.exe

CC=cl.exe
CFLAGS_OS=-DSQLWINT -MT -J -Zp8 -DREG_KIT_METHOD
CFLAGS_OUT=/Fo
CFLAGS_DEBUG=

LD_EXEC=link.exe
LD_STORP=link.exe
LD_FLAGS_EXEC=
LD_FLAGS_SHLIB=/DLL
LD_FLAGS_STORP=$(LD_FLAGS_SHLIB) /DEF:rpctpc.def
LD_FLAGS_LIB=/LIBPATH:$(TPCC_SQLLIB)\lib /LIBPATH:"C:\Program Files\Microsoft Visual
Studio\VC98\Lib" db2api.lib winmm.lib
LD_FLAGS_OUT=/OUT:

AR=lib.exe
AR_FLAGS=
AR_FLAGS_LIB=
AR_FLAGS_OUT=/OUT:

ERASE=del /F
ERASEDIR=rmdir /S
MOVE=MOVE
COPY=COPY

OBJEXT=.obj
LIBEXT=.lib
SHLIBEXT=.dll
BINEXT=.exe
SLASH=\\
CMDSEP=&

```

platform.h

```

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*****/

/*
 * platform.h - Platform Isolation Layer
 */

#ifndef __PLATFORM_H
#define __PLATFORM_H

#define GEN_ERRCODE GetLastError()

#ifndef INVALID_HANDLE_VALUE
#define INVALID_HANDLE_VALUE ((DWORD)-1)
#endif

#ifndef INVALID_SET_FILE_POINTER
#define INVALID_SET_FILE_POINTER ((DWORD)-1)
#endif

#define IOH_INIT(hnd, type, name) \
    hnd->fd = INVALID_HANDLE_VALUE; \
    hnd->type = type; \
    hnd->name = name;

#define IOH_CREATE(hnd) \
    if (hnd->type == IOH_PIPE) { \
        DWORD timeout = 1000; \
        hnd->fd = CreateNamedPipe(hnd->name, PIPE_ACCESS_OUTBOUND, \
            PIPE_TYPE_BYTE | PIPE_READMODE_BYTE | PIPE_WAIT, \
            1, 0, 0, timeout, NULL); \
        rc = (hnd->fd == INVALID_HANDLE_VALUE) ? -1 : 0; \
    } else { \
        rc = 0; \
    }

#define IOH_OPEN(hnd) \
    if (hnd->type == IOH_PIPE) { \
        rc = (ConnectNamedPipe(hnd->fd, NULL) != 0) ? 0 : -1; \
    } else { \
        hnd->fd = CreateFile(hnd->name, GENERIC_WRITE, FILE_SHARE_WRITE, \
            NULL, OPEN_ALWAYS, FILE_ATTRIBUTE_NORMAL, NULL); \
        rc = (hnd->fd == INVALID_HANDLE_VALUE) ? -1 : 0; \
        if (rc == 0 && hnd->type == IOH_FILE_APPEND) { \
            rc = SetFilePointer(hnd->fd, 0, 0, FILE_END); \
            if (rc == INVALID_SET_FILE_POINTER) { \
                rc = (GetLastError() == NO_ERROR) ? 0 : -1; \
            } else { \
                rc = 0; \
            } \
        } \
    }

```

```

    }
}
#define IOH_WRITE(hnd, buff, num, num2)
    rc = (WriteFile(hnd->fd, buff, num, &num2, NULL) != 0) ? 0 : -1;
#define IOH_FLUSH(hnd)
    if (hnd->type == IOH_PIPE) {
        rc = (FlushFileBuffers(hnd->fd) != 0) ? 0 : -1;
    } else {
        rc = 0;
    }
#define IOH_DELETE(hnd)                rc = 0;
#define IOH_CLOSE(hnd)
    if (hnd->type == IOH_PIPE) {
        rc = (DisconnectNamedPipe(hnd->fd) != 0) ? 0 : -1;
        IOH_ERRMSG(hnd, "disconnecting");
        rc = (CloseHandle(hnd->fd) != 0) ? 0 : -1;
    }
typedef DWORD IOH_NUM;
typedef HANDLE IOH_HND;
#define SEM_HANDLE HANDLE
#define SEM_INIT(hnd, x, name)
    hnd = CreateSemaphore(NULL, x, 1, NULL);
    if (hnd == NULL)
        API_ERROR(__LINE__, "CreateSemaphore", (rc=GEN_ERRCODE));
#define SEM_WAIT(hnd)
    if ((rc=WaitForSingleObject(hnd, INFINITE)) == WAIT_FAILED)
        API_ERROR(__LINE__, "WaitForSingleObject", (rc=GEN_ERRCODE));
#define SEM_FREE(hnd)
    ReleaseSemaphore(hnd, 1, NULL)
#define SEM_DESTROY(hnd)
    if ((rc=CloseHandle(hnd)) == 0)
        API_ERROR(__LINE__, "CloseHandle", (rc=GEN_ERRCODE));
#define IOH_FILE 1
#define IOH_PIPE 2
#define IOH_FILE_APPEND 3
#define IOH_ERRMSG(hnd, msg)
    if (rc != 0) {
        fprintf(stderr, "Error %d %s fd %d (%d, %s)\n", GEN_ERRCODE, msg,
            hnd->fd, hnd->type, hnd->name);
    }
    return rc;
}
struct _ioh {
    IOH_HND fd;
    int type;
    char *name;
};
typedef struct _ioh ioHandle;

```

```

int GenericOpen(ioHandle *hnd, int type, char *name);
int GenericWrite(ioHandle *hnd, char *Buffer, unsigned int numBytes);
int GenericClose(ioHandle *hnd);
int GenericOpen(ioHandle *hnd, int type, char *name)
{
    int rc = 0;
    IOH_INIT(hnd, type, name)
    IOH_CREATE(hnd)
    IOH_ERRMSG(hnd, "creating")
    IOH_OPEN(hnd)
    IOH_ERRMSG(hnd, "opening")
    return rc;
}
int GenericWrite(ioHandle *hnd, char *Buffer, unsigned int numBytes)
{
    int rc = 0;
    int numBytesWritten = -1;
    IOH_WRITE(hnd, Buffer, numBytes, numBytesWritten)
    IOH_ERRMSG(hnd, "writing")
    if (numBytes != numBytesWritten) {
        fprintf(stderr, "Truncated data writing to fd %d (%d, %s)\n", hnd->fd, hnd-
>type, hnd->name);
        rc = -1;
    }
    return rc;
}
int GenericClose(ioHandle *hnd)
{
    int rc = 0;
    IOH_FLUSH(hnd)
    IOH_ERRMSG(hnd, "flushing")
    IOH_CLOSE(hnd)
    IOH_ERRMSG(hnd, "closing")
    IOH_DELETE(hnd)
    IOH_ERRMSG(hnd, "deleting")
    return rc;
}
#endif // __PLATFORM_H

```

RNST_CUSTOMER.ddl

```

connect to TPCC in share mode;
RUNSTATS ON TABLE db2admin.CUSTOMER AND INDEXES ALL;
COMMIT WORK;
connect reset;

```

RNST_DISTRICT.ddl

```
connect to TPCC in share mode;
RUNSTATS ON TABLE db2admin.DISTRICT AND INDEXES ALL;
COMMIT WORK;
connect reset;
```

RNST_HISTORY.ddl

```
connect to TPCC in share mode;
RUNSTATS ON TABLE db2admin.HISTORY AND INDEXES ALL;
COMMIT WORK;
connect reset;
```

RNST_ITEM.ddl

```
connect to TPCC in share mode;
RUNSTATS ON TABLE db2admin.ITEM AND INDEXES ALL;
COMMIT WORK;
connect reset;
```

RNST_NEW_ORDER.ddl

```
connect to TPCC in share mode;
RUNSTATS ON TABLE db2admin.NEW_ORDER AND INDEXES ALL;
COMMIT WORK;
connect reset;
```

RNST_ORDER_LINE.ddl

```
connect to TPCC in share mode;
RUNSTATS ON TABLE db2admin.ORDER_LINE AND INDEXES ALL;
COMMIT WORK;
connect reset;
```

RNST_ORDERS.ddl

```
connect to TPCC in share mode;
RUNSTATS ON TABLE db2admin.ORDERS AND INDEXES ALL;
COMMIT WORK;
connect reset;
```

RNST_STOCK.ddl

```
connect to TPCC in share mode;
RUNSTATS ON TABLE db2admin.STOCK AND INDEXES ALL;
COMMIT WORK;
connect reset;
```

RNST_WAREHOUSE.ddl

```
connect to TPCC in share mode;
RUNSTATS ON TABLE db2admin.WAREHOUSE AND INDEXES ALL;
COMMIT WORK;
connect reset;
```

uncat-proc.ddl

```
DROP PROCEDURE news
      (varchar(270),varchar(662));

DROP PROCEDURE news;

DROP PROCEDURE pays;

DROP PROCEDURE ords
      (varchar(42),varchar(446));

DROP PROCEDURE ords;

DROP PROCEDURE dels
      (varchar(22),varchar(50));

DROP PROCEDURE dels;

DROP PROCEDURE stks
      (varchar(18),varchar(14));

DROP PROCEDURE stks;
```

uncat-func.ddl

```
-----
-- Licensed Materials - Property of IBM
--
-- Governed under the terms of the International
-- License Agreement for Non-Warranted Sample Code.
--
-- (C) COPYRIGHT International Business Machines Corp. 1996 - 2002
-- All Rights Reserved.
--
-- US Government Users Restricted Rights - Use, duplication or
-- disclosure restricted by GSA ADP Schedule Contract with IBM Corp.
-----
--
-- uncat-func.ddl - Drop table function DDL
--
-- Change Activity:
-- defect Date      Who Description
-- =====
-- 262565 2002/11/27 mte Initial Drop
-- 265265 2003/01/14 mte Merge SQL changes, type conversions for new schema
-- 267940 2003/01/27 mte Remove NEW_OL_ALL2, NEW_OL_REMOTE
--
-- STOCK LEVEL
DROP SPECIFIC FUNCTION STOCK_LEVEL $
-- DELIVERY
DROP SPECIFIC FUNCTION DELIVERY $
-- ORDER STATUS
DROP SPECIFIC FUNCTION ORD_C_LAST $
DROP SPECIFIC FUNCTION ORD_C_ID $
-- PAYMENT
```

```
DROP SPECIFIC FUNCTION PAY_C_LAST $
DROP SPECIFIC FUNCTION PAY_C_ID $
-- NEW ORDER
DROP SPECIFIC FUNCTION NEW_OL_ALL $
DROP SPECIFIC FUNCTION NEW_OL_LOCAL $
DROP SPECIFIC FUNCTION NEW_WH $
```

Appendix C: Tunable Parameters

IBM DB2 Configuration Parameters

Database Manager Configuration

Node type = Database Server with local and remote clients

Database manager configuration release level = 0x0a00

Maximum total of files open (MAXTOTFILOP) = 16000

CPU speed (millisec/instruction) (CPUSPEED) = 2.204273e-007

Max number of concurrently active databases (NUMDB) = 1

Data Links support (DATA LINKS) = NO

Federated Database System Support (FEDERATED) = NO

Transaction processor monitor name (TP_MON_NAME) =

Default charge-back account (DFT_ACCOUNT_STR) =

Java Development Kit installation path (JDK_PATH) =

Diagnostic error capture level (DIAGLEVEL) = 1

Notify Level (NOTIFYLEVEL) = 3

Diagnostic data directory path (DIAGPATH) =

Default database monitor switches

Buffer pool (DFT_MON_BUFPOOL) = OFF

Lock (DFT_MON_LOCK) = OFF

Sort (DFT_MON_SORT) = OFF

Statement (DFT_MON_STMT) = OFF

Table (DFT_MON_TABLE) = OFF

Timestamp (DFT_MON_TIMESTAMP) = OFF

Unit of work (DFT_MON_UOW) = OFF

Monitor health of instance and databases (HEALTH_MON) = OFF

SYSADM group name (SYSADM_GROUP) = STAFF

SYSCTRL group name (SYSCTRL_GROUP) =

SYSMAINT group name (SYSMAINT_GROUP) =

SYSMON group name (SYSMON_GROUP) =

Database manager authentication (AUTHENTICATION) = CLIENT

Cataloging allowed without authority (CATALOG_NOAUTH) = NO

Trust all clients (TRUST_ALLCLNTS) = YES

Trusted client authentication (TRUST_CLNTAUTH) = CLIENT

Bypass federated authentication (FED_NOAUTH) = NO

Default database path (DFTDBPATH) = C:

Database monitor heap size (4KB) (MON_HEAP_SZ) = 4096

Java Virtual Machine heap size (4KB) (JAVA_HEAP_SZ) = 512

Audit buffer size (4KB) (AUDIT_BUF_SZ) = 0

Size of instance shared memory (4KB) (INSTANCE_MEMORY) = AUTOMATIC

Backup buffer default size (4KB) (BACKBUFSZ) = 1024

Restore buffer default size (4KB) (RESTBUFSZ) = 1024

Agent stack size (AGENT_STACK_SZ) = 16

Minimum committed private memory (4KB) (MIN_PRIV_MEM) = 32

Private memory threshold (4KB) (PRIV_MEM_THRESH) = 20000

Sort heap threshold (4KB) (SHEAPTHRES) = 10000

Directory cache support (DIR_CACHE) = YES

Application support layer heap size (4KB) (ASLHEAPSZ) = 15

Max requester I/O block size (bytes) (RQRIOLBK) = 4096

DOS requester I/O block size (bytes) (DOS_RQRIOLBK) = 4096

Query heap size (4KB)
(QUERY_HEAP_SZ) = 1000

DRDA services heap size (4KB)
(DRDA_HEAP_SZ) = 128

Workload impact by throttled
utilities(UTIL_IMPACT_LIM) = 100

Priority of agents
(AGENTPRI) = SYSTEM

Max number of existing agents
(MAXAGENTS) = 320

Agent pool size
(NUM_POOLAGENTS) = 320

Initial number of agents in pool
(NUM_INITAGENTS) = 300

Max number of coordinating agents
(MAX_COORDAGENTS) = MAXAGENTS

Max no. of concurrent coordinating agents
(MAXCAGENTS) = MAX_COORDAGENTS

Max number of client connections
(MAX_CONNECTIONS) = MAX_COORDAGENTS

Keep fenced process
(KEEPPENCED) = YES

Number of pooled fenced processes
(FENCED_POOL) = MAX_COORDAGENTS

Initial number of fenced processes
(NUM_INITFENCED) = 0

Index re-creation time
(INDEXREC) = ACCESS

Transaction manager database name
(TM_DATABASE) = 1ST_CONN

Transaction resync interval (sec)
(RESYNC_INTERVAL) = 180

SPM name
(SPM_NAME) =

SPM log size
(SPM_LOG_FILE_SZ) = 256

SPM resync agent limit
(SPM_MAX_RESYNC) = 20

SPM log path
(SPM_LOG_PATH) =

NetBIOS Workstation name
(NNAME) =

TCP/IP Service name
(SVCENAME) = DB2_tpcc

Discovery mode
(DISCOVER) = SEARCH

Discover server instance
(DISCOVER_INST) = ENABLE

Maximum query degree of parallelism
(MAX_QUERYDEGREE) = ANY

Enable intra-partition parallelism
(INTRA_PARALLEL) = NO

No. of int. communication
buffers(4KB)(FCM_NUM_BUFFERS) = 1024

Number of FCM request blocks
(FCM_NUM_RQB) = AUTOMATIC

Number of FCM connection entries
(FCM_NUM_CONNECT) = AUTOMATIC

Number of FCM message anchors
(FCM_NUM_ANCHORS) = AUTOMATIC

Database Configuration for Database tpcc

Database configuration release level
= 0x0a00

Database release level
= 0x0a00

Database territory
= US

Database code page
= 1252

Database code set
= IBM-1252

Database country/region code
= 1

Dynamic SQL Query management
(DYN_QUERY_MGMT) = DISABLE

Discovery support for this database
(DISCOVER_DB) = ENABLE

Default query optimization class
(DFT_QUERYOPT) = 5

Degree of parallelism
(DFT_DEGREE) = 1

Continue upon arithmetic exceptions
(DFT_SQLMATHWARN) = NO

Default refresh age
(DFT_REFRESH_AGE) = 0

Number of frequent values retained
(NUM_FREVALUES) = 10

Number of quantiles retained
(NUM_QUANTILES) = 20

Backup pending
= NO

Database is consistent
= NO

Rollforward pending
= NO

Restore pending
= NO

Multi-page file allocation enabled
= NO

Log retain for recovery status
= RECOVERY

User exit for logging status
= NO

Data Links Token Expiry Interval (sec)
(DL_EXPINT) = 60

Data Links Write Token Init Expiry
Intvl(DL_WT_IEXPINT) = 60

Data Links Number of Copies
(DL_NUM_COPIES) = 1

Data Links Time after Drop (days)
(DL_TIME_DROP) = 1

Data Links Token in Uppercase
(DL_UPPER) = NO

Data Links Token Algorithm
(DL_TOKEN) = MACO

Database heap (4KB)
(DBHEAP) = 1024

Size of database shared memory (4KB)
(DATABASE_MEMORY) = AUTOMATIC

Catalog cache size (4KB)
(CATALOGCACHE_SZ) = (MAXAPPLS*4)

Log buffer size (4KB)
(LOGBUFSZ) = 512

Utilities heap size (4KB)
(UTIL_HEAP_SZ) = 16

Buffer pool size (pages)
(BUFFPAGE) = 250

Extended storage segments size (4KB)
(ESTORE_SEG_SZ) = 16000

Number of extended storage segments
(NUM_ESTORE_SEGS) = 0

Max storage for lock list (4KB)
(LOCKLIST) = 5000

Max size of appl. group mem set (4KB)
(APPGROUP_MEM_SZ) = 30000

Percent of mem for appl. group heap
(GROUPHEAP_RATIO) = 70

Max appl. control heap size (4KB)
(APP_CTL_HEAP_SZ) = 128

Sort heap thres for shared sorts (4KB)
(SHEAPTHRES_SHR) = (SHEAPTHRES)

Sort list heap (4KB)
(SORTHEAP) = 16

SQL statement heap (4KB)
(STMTHEAP) = 16384

Default application heap (4KB)
(APPLHEAPSZ) = 224

Package cache size (4KB)
(PCKCACHESZ) = 1000

Statistics heap size (4KB)
(STAT_HEAP_SZ) = 1096

Interval for checking deadlock (ms)
(DLCHKTIME) = 3000

Percent. of lock lists per application
(MAXLOCKS) = 100

Lock timeout (sec)
(LOCKTIMEOUT) = -1

Changed pages threshold
(CHNGPGS_THRESH) = 99

Number of asynchronous page cleaners
(NUM_IOCLEANERS) = 8

Number of I/O servers
(NUM_IOSERVERS) = 1

Index sort flag
(INDEXSORT) = YES

Sequential detect flag
(SEQDETECT) = NO

Default prefetch size (pages)
(DFT_PREFETCH_SZ) = 16

Track modified pages
(TRACKMOD) = OFF

Default number of containers
= 1

Default tablespace extentsize (pages)
(DFT_EXTENT_SZ) = 32

Max number of active applications
(MAXAPPLS) = 320

Average number of active applications
(AVG_APPLS) = 1

Max DB files open per application
(MAXFILOP) = 800

Log file size (4KB)
(LOGFILSIZ) = 65535

Number of primary log files
(LOGPRIMARY) = 32

Number of secondary log files
(LOGSECOND) = 0

Changed path to log files
(NEWLOGPATH) =

Path to log files
= \\.\e:

Overflow log path
(OVERFLOWLOGPATH) =

Mirror log path
(MIRRORLOGPATH) =

First active log file
= S0000043.LOG

Block log on disk full
(BLK_LOG_DSK_FUL) = NO

Percent of max active log space by
transaction(MAX_LOG) = 0

Num. of active log files for 1 active
UOW(NUM_LOG_SPAN) = 0

Group commit count
(MINCOMMIT) = 3


```

# defined above in the "PRTE internal variables"
section.
#
# NOTE: The order of the connect statements is
relevant since it determines
# the order in which prte user id's get
assigned. All connect statements
# for tpcc users (web_user, unix_user) should
come first, followed by
# the connect statement for reduce, followed by
the connect
# statement for tpcc_master.
#

connect /home/tpcc/bin/web_user
localhost 1530 danil
connect /home/tpcc/bin/web_user
localhost 1530 danil
connect /home/tpcc/bin/web_user
localhost 1530 danil
connect /home/tpcc/bin/web_user
localhost 1530 danil
connect /home/tpcc/bin/web_user
localhost 1530 danil
connect /home/tpcc/bin/web_user
localhost 1530 danil
connect /home/tpcc/bin/web_user
localhost 1530 danil
connect /home/tpcc/bin/web_user
localhost 1530 danil
connect /home/tpcc/bin/web_user
localhost 1530 danil
connect /home/tpcc/bin/web_user
localhost 1530 danil
connect /home/tpcc/bin/web_user
localhost 1530 danil
connect /home/tpcc/bin/web_user
localhost 1530 danil
connect /home/tpcc/bin/web_user
localhost 1530 danil
connect /home/tpcc/bin/reduce localhost 1
localhost
#connect /home/tpcc/bin/aide localhost 1
localhost
connect /home/tpcc/bin/tpcc_master localhost 1
localhost

# NOTE: timeout MUST be set after the
connect statements for it to
# take effect.
#
# timeout is how long prte will wait for an
outstanding command to
# return its expected prompt before
timing out.
#

set timeout 180

echo

#####
#####

```

```

#
# Setting PRTE network variables.
#
#####
#####
noecho

#####
#####
# PRTE network variables.
#
# set network_variable {name} {val}
#
#####
#####
# FRONT END NETWORK VARIABLES #
#
# FE_NAMES A comma seperated list of the front
end network node names.
#
# FE_USER_COUNTS A comma seperated list of the users
to run on each front end.
# NOTE: The order of counts in this
list should match the order
# of names in FE_NAMES.
# ADMIN_USER_COUNT is the number of aides to run.
#
# ADMIN_FE_NAMES is a comma seperated list of FEs on
which the aides will
# operated.

set network_variable FE_NAMES danil
set network_variable FE_USER_COUNTS 15300

set network_variable ADMIN_USER_COUNT 0
set network_variable ADMIN_FE_NAMES localhost

#####
#####
# REDUCER NETWORK VARIABLES #
#####
#

```

```

# REDUCER_UPDATE_INTERVAL The interval, in
seconds, between updates
# displayed on the
console.
#
# REDUCER_HEADER_INTERVAL Every
REDUCER_HEADER_INTERVAL updates the
# column headers will
be displayed on the
# console.
#

set network_variable REDUCER_UPDATE_INTERVAL 30
set network_variable REDUCER_HEADER_INTERVAL 6

#####
#
# TPCC USER NETWORK VARIABLES #
#
#####
# TPCC_USER_LOG_TYPE controls what information the
prte users log to thier
# respective files. This is a bit
mask.
#
# 0 - no logging
# 1 - timer logging (required for
ascii data reduction)
# 2 - sut data logging (required
for durability)
# 4 - script logging (required by
the tpcc user script)
# 8 - user sut data logging
(required by web users for
# error checking)
#
# In general, leave this at 12 for
web clients doing binary
# data reduction, and 13 for web
clients doing ascii data
# reduction.
#
# TPCC_USER_FLUSH_LOG is whether or not to flush
every write to the log.
#
# DURABILITY_LOGGING is whether or not to parse new
order response pages for
# durability data (to be sent to
reducer). This variable
# is a boolean so legal values
are 0,f,F and 1,t,T.
#
# C_LAST is the constant value used for customer
last names.
# This value must be chosen with
care. It must be based on
# the value you used when
populating your database.

set network_variable TPCC_USER_LOG_TYPE 0

```

```

set network_variable TPCC_USER_FLUSH_LOG      0
set network_variable DURABILITY_LOGGING      0
set network_variable C_LAST                   88

#####
# CONFIGURATION NETWORK VARIABLES #
#####
# CGI_SCRIPT_NAME is the name of the application to
run on the front ends.
# LOAD_DLL_TIMEOUT is how long master should wait (in
seconds) for the dll
#                to initially load before
timing out.
#
set network_variable CGI_SCRIPT_NAME      /tpcc.dll
set network_variable LOAD_DLL_TIMEOUT    300

#####
# TEST CONTROL NETWORK VARIABLES #
#####
# LOOPBACK_MODE
#           0 - Full end-to-end runs.
#           1 - Back end loopback runs (not
implemented yet)
#           2 - Front end loopback runs
#           3 - RTE loopback runs
#
# RUN_NUMBER is used to tag all output files
with the run number.
#
#           1 - the primary measurement run.
#           2 - the repeatability run.
#           5 - the 50% run.
#           8 - the 80% run.
#
#           If you are unsure which run
this really will end up being,
#           just leave it at 1, and you can
rename files later if you
#           need to.
#
# VERSION_NUMBER is used to tag all output files
with the version number.
#           This is used if you submit
files to the auditor, and then
#           need to rerun the test, and
resubmit files to the auditor,
#           for some reason. For example,
you submit a repeatability
#           run (RUN_NUMBER 2,
VERSION_NUMBER 1) and the auditor finds
#           a problem and asks you to re-
run the test (RUN_NUMBER 1,
#           VERSION_NUMBER 2).

```

```

# Under normal circumstances,
this can just be left at 1.
#
# TEST_RESULTS_DIR is the full directory path
where the test's run directory
# will be created. All files
(data, log, etc) will be
# put into the run directory.
#
# WARMUP_TIME is the time in seconds to warm
up. This is the period
# of time after all users have
started doing transactions
# and before the measurement
interval begins.
# STEADY_STATE_TIME is the time for which the test is
considered to be
# in a steady running
state. It is during this time
# that all data for
measurement intervals will be
# collected.
# MEASUREMENT_INTERVAL defines the length of a
test period within the
# STEADY_STATE_TIME. The
steady state time may have 1
# or more measurement
intervals. Each measurement
# interval can be thought
of as a separate measurement
# run.
#
# COOLDOWN_TIME is the length of time the test
will continue to run
# after the measurement interval
is over. This time can
# be used for doing various types
of data collection by
# hand if desired that might
otherwise have a negative
# impact on the measured test
results. Even if you are
# not collecting any extra data
by hand, it is recommended
# that you keep this value at
something like 300 or 600
# to avoid "clipping" effects at
the end of the measurement
# interval.
#
# CHECKPOINT_INTERVAL is the total time
between the start of each
# checkpoint command.
#
# CKPT_PROXIMITY_ADDITIONAL_OFFSET This value
will be added to any
# required proximity time
to give the actual start
# time of the first
checkpoint in the measurement
# interval.

```

```

#
# LOGIN_DELAY is the delay between logins on
a per front end basis.
# NOTE: This is similar to the
prte internal variable
# resume_interval (tpcc users
start, then immediately
# pause, so the act of logging in
is just a resume) but
# not exactly the same.
#
# RESUME_DELAY is the delay between resumes on
a per front end basis.
# NOTE: This is similar to the
prte internal variable
# resume_interval but not exactly
the same.
#
# STOP_DELAY is the delay between stops on a
per front end basis.
# NOTE: This is similar to the
prte internal variable
# stop_interval but not exactly
the same.
#
# SYNC_OFFSET how many users we'll
allow to have outstanding
# when doing crowd
control.
#
# SYNC_UPDATE how often user
login/resume/stop progress is printed
# out to the console
(heartbeat of user synchronization
# effectively).
#
# MSG_TIMEOUT how long we'll wait for
status and sync messages.
#
set network_variable LOOPBACK_MODE      0
set network_variable RUN_NUMBER          1
set network_variable VERSION_NUMBER      1
set network_variable TEST_RESULTS_DIR    /home/tpcc/results
set network_variable WARMUP_TIME         2400.0
set network_variable STEADY_STATE_TIME   14400.0
set network_variable MEASUREMENT_INTERVAL 14400.0
set network_variable COOLDOWN_TIME       600.0
set network_variable CHECKPOINT_INTERVAL 0
set network_variable CKPT_PROXIMITY_ADDITIONAL_OFFSET 0
set network_variable LOGIN_DELAY         0.001
set network_variable RESUME_DELAY        0.001
set network_variable STOP_DELAY          0.001

```

```

set network_variable SYNC_OFFSET          200
set network_variable SYNC_UPDATE         500

set network_variable MSG_TIMEOUT         300.0

set network_variable NO_THINK_TIME_UPDATE_INTERVAL 10.0

set network_variable NO_THINK_TIME       80.0

# In general, the SEED network variable should not be
# set. A random value
# based on process id and the current time will be
# used. This variable is
# really only exposed in case you want to exactly
# reproduce a previous run
# using that previous run's seed.
#set network_variable SEED
#      123127777

#####
#####
# AUDIT UTILITIES -- these are the replacement for
# the audit
# shell scripts -- they currently only work for
# Oracle on DUNIX.
# They do the following:
#   Collect logspace info
#   Write data to audit table for later use in
#   runcheck
#   Collect checkpoint info
#   Run optional custom scripts on back-end before
#   or after the test
#   For Oracle, collect bstat/estat (optional)
#####
#####
# GET_ALL_AUDIT_FILES if True (or 1) will create the
# following:
#                               Audit table for doing
#   runcheck later
#                               mllog.v1 -- a before &
#   after snapshot of the logsize
#
# BE_NAMES          Comma-separated list of back-
# ends
#
# BE_USERNAME       Username to use when logging
# into back-ends
#
#                   NOTE: you must have .rhosts
#   configured so no password
#                   is needed.
#
# DATABASE_TYPE     Oracle, Sybase or MsSql
#
# DATABASE_USERNAME Username and password for
# database.

```

```

# DATABASE_PASSWORD Defaults are: tpcc/tpcc for
# Oracle and sa/<no-passwd>
#                               for Sybase and MsSql
#
# Optional variables -- if you don't want them,
# comment them out or set to ""
#
# ORACLE_STATS_SCRIPT_PATH
#                               Path to directory on back-end
# containing Oracle's
#                               orst_<xxx>.sql files.
#                               For example:
# ORACLE_HOME/bench/gen/sql
#
# CUSTOM_BEFORE_TEST_SCRIPT
# CUSTOM_AFTER_TEST_SCRIPT
#                               Path of executable file on back-
# end to be run before/after
#                               the test. For example, if you
# wanted to run processor
#                               affinity and load some stored
# procedures before a test,
#                               you could put the commands in a
# shell script on the BE
#                               and call put the path to that
# shell script into the
#                               CUSTOM_BEFORE_TEST_SCRIPT
# variable
#####
#####
set network_variable GET_ALL_AUDIT_FILES FALSE

set network_variable BE_NAMES          be1, be2, be3
set network_variable BE_USERNAME       oracle

set network_variable DATABASE_TYPE     MSSQL
set network_variable DATABASE_USERNAME db2admin
set network_variable DATABASE_PASSWORD blue

set network_variable MAX_W_ID          1530
set network_variable BASE_W_ID         1

set network_variable ORACLE_STATS_SCRIPT_PATH ""
set network_variable CUSTOM_BEFORE_TEST_SCRIPT ""
set network_variable CUSTOM_AFTER_TEST_SCRIPT ""

#####
#####
# now start all the users. delay between each user
# being started is controled
# by start_interval defined above in the "PRTE
# internal variables" section.
#

```

```

echo

#####
#####
#
#
# Starting all PRTE users (may take a while,
# depending on the number of users) #
#
#
#####
#####

noecho

#start

```

Internet Information Server Registry Parameters

Windows Registry Editor Version 5.00

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\InetInfo]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\InetInfo\Parameters]
"ListenBackLog"=dword:00000019
"DispatchEntries"=hex(7):4c,00,44,00,41,00,50,00,53,0
0,56,00,43,00,00,00,00,00
"PoolThreadLimit"=dword:000003fe
"ThreadTimeout"=dword:00015180
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\InetInfo\Performance]
"Library"="infoctrls.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:06,5f,96,d8,da,92,c1,01,10,25,00,00,00,00,
0,00
"WbemAdapFileTime"=hex:00,c8,12,f8,b2,40,bf,01
"WbemAdapFileSize"=dword:00002510
"WbemAdapStatus"=dword:00000000
```

World Wide Web Service Registry Parameters

Windows Registry Editor Version 5.00

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC]
"Type"=dword:00000020
"Start"=dword:00000002
"ErrorControl"=dword:00000001
"ImagePath"=hex(2):43,00,3a,00,5c,00,57,00,49,00,4e,0
0,4e,00,54,00,5c,00,53,00,\
```

```
79,00,73,00,74,00,65,00,6d,00,33,00,32,00,5c,00,69,00
,6e,00,65,00,74,00,73,\
```

```
00,72,00,76,00,5c,00,69,00,6e,00,65,00,74,00,69,00,6e
,00,66,00,6f,00,2e,00,\
65,00,78,00,65,00,00,00
```

```
"DisplayName"="World Wide Web Publishing Service"
"DependOnService"=hex(7):49,00,49,00,53,00,41,00,44,0
0,4d,00,49,00,4e,00,00,00,\
00,00
```

```
"DependOnGroup"=hex(7):00,00
"ObjectName"="LocalSystem"
"Description"="Provides Web connectivity and
administration through the Internet Information
Services snap-in."
"FailureActions"=hex:ff,ff,ff,ff,00,00,00,00,00,00,00
,00,03,00,00,00,20,f2,0f,\
```

```
00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
,00,00,00,00,00,00
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\ASP]
"NOTE"="This is for backward compatibility only."
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\ASP\Parameters]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Parameters]
"MajorVersion"=dword:00000005
"MinorVersion"=dword:00000000
"InstallPath"="C:\\WINNT\\System32\\inetsrv"
"CertMapList"="C:\\WINNT\\System32\\inetsrv\\iisrcmap
.dll"
"AccessDeniedMessage"="Error: Access is Denied."
"Filter DLLs"=""
"LogFileDirectory"="C:\\WINNT\\System32\\LogFiles"
"AcceptExOutstanding"=dword:00000028
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Parameters\ADCLaunch]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Parameters\ADCLaunch\AdvancedDataFactory]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Parameters\ADCLaunch\RDSSTServer.DataFactory]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Parameters\Script Map]
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Parameters\Virtual Roots]
"/"="c:\\inetpub\\wwwroot,,207"
"/Scripts"="c:\\inetpub\\scripts,,204"
"/IISHelp"="c:\\winnt\\help\\iishelp,,201"
"/IISAdmin"="C:\\WINNT\\System32\\inetsrv\\iisadmin,,
201"
"/IISSamples"="c:\\inetpub\\iissamples,,201"
"/MSADC"="c:\\program files\\common
files\\system\\msadc,,205"
"/Printers"="C:\\WINNT\\web\\printers,,201"
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Performance]
"Library"="w3ctrts.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:54,2b,4c,db,da,92,c1,01,10,3d,00,00,00,00,0
0,00
"WbemAdapFileTime"=hex:00,c8,12,f8,b2,40,bf,01
"WbemAdapFileSize"=dword:00003d10
"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,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00
,00,00,00,01,00,00,\
```

```
00,00,02,00,70,00,04,00,00,00,00,00,18,00,fd,01,02,00
,01,01,00,00,00,00,00,\
```

```
05,12,00,00,00,74,00,6f,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,00,00,00,20,02,00,00,00,00,1c,00,fd,01,02
,00,01,02,00,00,00,00,\
```

```
00,05,20,00,00,00,23,02,00,00,72,00,73,00,01,01,00,00
,00,00,00,05,12,00,00,\
00,01,01,00,00,00,00,05,12,00,00,00
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Enum]
"0"="Root\LEGACY_W3SVC\0000"
"Count"=dword:00000001
"NextInstance"=dword:00000001
```

TPCC Application Registry Parameters

Windows Registry Editor Version 5.00

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\TPCC]
"Path"="c:\\inetpub\\wwwroot\\"
"MaxConnections"=dword:00007530
"MaxPendingDeliveries"=dword:00000bb8
"DB_Protocol"="DBLIB"
"TxnMonitor"="COM"
"DbServer"="BLUE"
"DbName"="TPCC"
"DbUser"="db2admin"
"DbPassword"="blue"
"COM_SinglePool"="YES"
"NumberOfDeliveryThreads"=dword:0000003c
```

Server Bus Performance Driver Registry Parameters

Windows Registry Editor Version 5.00

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\hpgcissb]
"Type"=dword:00000001
"Start"=dword:00000000
"ErrorControl"=dword:00000001
"Tag"=dword:00000102
"ImagePath"=hex(2):73,00,79,00,73,00,74,00,65,00,6d,0
0,33,00,32,00,5c,00,44,00,\
52,00,49,00,56,00,45,00,52,00,53,00,5c,00,68,00,70,00
,71,00,63,00,69,00,73,\
00,73,00,62,00,2e,00,73,00,79,00,73,00,00,00
"DisplayName"="Smart Array Controllers Non-Miniport
Bus Driver"
"Group"="port"
```

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\hpcqissb\Parameters]
"CompletionMode"=dword:00000001
"CosTimerRate"=dword:00000002

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\hpcqissb\Parameters\Controller0]
"CompletionMode"=dword:00000001

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\hpcqissb\Security]
"Security"=hex:01,00,14,80,90,00,00,00,9c,00,00,00,14,00,00,00,30,00,00,00,02,\

00,1c,00,01,00,00,00,02,80,14,00,ff,01,0f,00,01,01,00,00,00,00,01,00,00,\

00,00,02,00,60,00,04,00,00,00,00,00,14,00,fd,01,02,00,01,01,00,00,00,00,\

05,12,00,00,00,00,18,00,ff,01,0f,00,01,02,00,00,00,00,00,05,20,00,00,00,\

20,02,00,00,00,00,14,00,8d,01,02,00,01,01,00,00,00,00,00,05,0b,00,00,00,00,\

00,18,00,fd,01,02,00,01,02,00,00,00,00,00,05,20,00,00,00,23,02,00,00,01,01,\

00,00,00,00,00,05,12,00,00,00,01,01,00,00,00,00,00,05,12,00,00,00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\hpcqissb\Enum]
"0"="PCI\VEN_0E11&DEV_0046&SUBSYS_409B0E11&REV_01\3&13c0b0c5&0&08"
"Count"=dword:00000003
"NextInstance"=dword:00000003
"1"="PCI\VEN_0E11&DEV_0046&SUBSYS_409B0E11&REV_01\3&13c0b0c5&0&10"
"2"="PCI\VEN_0E11&DEV_0046&SUBSYS_409B0E11&REV_01\3&1070020&0&08"

System Summary

System Information report written at: 04/06/04 14:21:34
System Name: BLUE
[System Summary]

Item	Value
OS Name	Microsoft(R) Windows(R) Server 2003, Standard Edition
Version	5.2.3790 Build 3790
OS Manufacturer	Microsoft Corporation
System Name	BLUE
System Manufacturer	Compaq

System Model ProLiant ML350 G3
System Type X86-based PC
Processor x86 Family 15 Model 2 Stepping 7
GenuineIntel ~2790 Mhz
Processor x86 Family 15 Model 2 Stepping 7
GenuineIntel ~2790 Mhz
BIOS Version/Date Compaq D14, 2/24/2004
SMBIOS Version 2.3
Windows Directory C:\WINDOWS
System Directory C:\WINDOWS\system32
Boot Device \Device\HarddiskVolume18
Locale United States
Hardware Abstraction Layer Version = "5.2.3790.0 (srv03_rtm.030324-2048)"
User Name BLUE\db2admin
Time Zone Central Daylight Time
Total Physical Memory 3,328.00 MB
Available Physical Memory 2.99 GB
Total Virtual Memory 8.37 GB
Available Virtual Memory 7.91 GB
Page File Space 5.12 GB
Page File C:\pagefile.sys

[Hardware Resources]

[Conflicts/Sharing]

Resource	Device
I/O Port 0x00000000-0x00000CFF	PCI bus
I/O Port 0x00000000-0x00000CFF	PCI bus
I/O Port 0x00000000-0x00000CFF	Direct memory access controller

IRQ 31 Compaq 64-bit/66MHz Dual Channel Wide Ultra3 SCSI Adapter
IRQ 31 Compaq 64-bit/66MHz Dual Channel Wide Ultra3 SCSI Adapter

I/O Port 0x000003C0-0x000003DF	PCI bus
I/O Port 0x000003C0-0x000003DF	RAGE XL PCI Family (Microsoft Corporation)

Memory Address 0xF7E00000-0xF7EFFFFF	PCI bus
Memory Address 0xF7E00000-0xF7EFFFFF	Smart Array 642 Controller (Non-Miniport)

I/O Port 0x00003000-0x000034FF	PCI bus
I/O Port 0x00003000-0x000034FF	Smart Array 641 Controller (Non-Miniport)

Memory Address 0xA0000-0xBFFFFF	PCI bus
Memory Address 0xA0000-0xBFFFFF	RAGE XL PCI Family (Microsoft Corporation)

I/O Port 0x000003B0-0x000003BB	PCI bus
I/O Port 0x000003B0-0x000003BB	RAGE XL PCI Family (Microsoft Corporation)

I/O Port 0x00004000-0x000040FF	PCI bus
I/O Port 0x00004000-0x000040FF	Smart Array 642 Controller (Non-Miniport)

[DMA]

Resource	Device	Status
Channel 7	Direct memory access controller	OK
Channel 2	Standard floppy disk controller	OK

[Forced Hardware]

Device	PNP Device ID
--------	---------------

[I/O]

Resource	Device	Status
0x00000000-0x00000CFF	PCI bus	OK
0x00000000-0x00000CFF	PCI bus	OK
0x00000000-0x00000CFF	Direct memory access controller	OK
0x000003B0-0x000003BB	PCI bus	OK
0x000003B0-0x000003BB	RAGE XL PCI Family (Microsoft Corporation)	OK
0x000003C0-0x000003DF	PCI bus	OK
0x000003C0-0x000003DF	RAGE XL PCI Family (Microsoft Corporation)	OK
0x00002400-0x000024FF	Compaq 64-bit/66MHz Dual Channel Wide Ultra3 SCSI Adapter	OK
0x00002800-0x000028FF	Compaq 64-bit/66MHz Dual Channel Wide Ultra3 SCSI Adapter	OK
0x00002C00-0x00002CFF	RAGE XL PCI Family (Microsoft Corporation)	OK
0x00001800-0x000018FF	Compaq Advanced System Management Controller	OK
0x00000A79-0x00000A79	ISAPNP Read Data Port	OK
0x00000279-0x00000279	ISAPNP Read Data Port	OK
0x00000274-0x00000277	ISAPNP Read Data Port	OK
0x00000F50-0x00000F58	Motherboard resources	OK
0x00000408-0x0000040F	Motherboard resources	OK
0x00000092-0x00000092	Motherboard resources	OK
0x00000900-0x00000903	Motherboard resources	OK
0x00000904-0x00000904	Motherboard resources	OK
0x00000910-0x00000911	Motherboard resources	OK
0x00000920-0x00000923	Motherboard resources	OK
0x00000930-0x00000937	Motherboard resources	OK
0x00000940-0x00000947	Motherboard resources	OK
0x00000950-0x00000957	Motherboard resources	OK
0x00000C06-0x00000C08	Motherboard resources	OK

0x00000C14-0x00000C14 Motherboard resources
 OK
 0x00000C49-0x00000C4A Motherboard resources
 OK
 0x00000C50-0x00000C52 Motherboard resources
 OK
 0x00000C6C-0x00000C6F Motherboard resources
 OK
 0x00000010-0x0000001F Motherboard resources
 OK
 0x00000230-0x00000233 Motherboard resources
 OK
 0x00000260-0x00000267 Motherboard resources
 OK
 0x000004D0-0x000004D1 Motherboard resources
 OK
 0x00000700-0x0000070F Motherboard resources
 OK
 0x00000800-0x0000081F Motherboard resources
 OK
 0x00000C80-0x00000C83 Motherboard resources
 OK
 0x00000CD4-0x00000CD7 Motherboard resources
 OK
 0x00000CF9-0x00000CF9 Motherboard resources
 OK
 0x00000020-0x00000021 Programmable interrupt controller OK
 0x000000A0-0x000000A1 Programmable interrupt controller OK
 0x00000C00-0x00000C01 Programmable interrupt controller OK
 0x00000040-0x00000043 System timer OK
 0x00000080-0x0000008F Direct memory access controller OK
 0x000000C0-0x000000DF Direct memory access controller OK
 0x0000040B-0x0000040B Direct memory access controller OK
 0x000004D6-0x000004D6 Direct memory access controller OK
 0x00000061-0x00000061 System speaker 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
 0x0000002E-0x0000002F Extended IO Bus OK
 0x00000220-0x00000223 Extended IO Bus OK
 0x00000240-0x0000025F Extended IO Bus OK
 0x00000070-0x00000073 Extended IO Bus OK
 0x00000378-0x0000037F Printer Port (LPT1) OK
 0x000003F8-0x000003FF Communications Port (COM1) OK
 0x000003F2-0x000003F5 Standard floppy disk controller OK

0x000003F7-0x000003F7 Standard floppy disk controller OK
 0x00002000-0x0000200F CSB5 IDE Controller OK
 0x000001F0-0x000001F7 Primary IDE Channel OK
 0x000003F6-0x000003F6 Primary IDE Channel OK
 0x00000170-0x00000177 Secondary IDE Channel OK
 0x00000376-0x00000376 Secondary IDE Channel OK
 0x00003000-0x000034FF PCI bus OK
 0x00003000-0x000034FF Smart Array 641 Controller (Non-Miniport) OK
 0x00003400-0x000034FF Smart Array 642 Controller (Non-Miniport) OK
 0x00004000-0x000040FF PCI bus OK
 0x00004000-0x000040FF Smart Array 642 Controller (Non-Miniport) OK
 [IRQs]
 Resource Device Status
 IRQ 9 Microsoft ACPI-Compliant System OK
 IRQ 31 Compaq 64-bit/66MHz Dual Channel Wide Ultra3 SCSI Adapter OK
 IRQ 31 Compaq 64-bit/66MHz Dual Channel Wide Ultra3 SCSI Adapter OK
 IRQ 28 HP NC7760 Gigabit Server Adapter OK
 IRQ 10 Compaq Advanced System Management Controller OK
 IRQ 0 System timer 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 6 Standard floppy disk controller OK
 IRQ 14 Primary IDE Channel OK
 IRQ 5 ServerWorks (RCC) PCI to USB Open Host Controller OK
 IRQ 26 Smart Array 641 Controller (Non-Miniport) OK
 IRQ 24 Smart Array 642 Controller (Non-Miniport) OK
 IRQ 22 Smart Array 642 Controller (Non-Miniport) OK
 [Memory]
 Resource Device Status
 0xA0000-0xBFFFF PCI bus OK
 0xA0000-0xBFFFF RAGE XL PCI Family (Microsoft Corporation) OK
 0xF5F00000-0xF7DFFFF PCI bus OK
 0xF7DF0000-0xF7DF0FFF Compaq 64-bit/66MHz Dual Channel Wide Ultra3 SCSI Adapter OK
 0xF7DE0000-0xF7DE0FFF Compaq 64-bit/66MHz Dual Channel Wide Ultra3 SCSI Adapter OK

0xF6000000-0xF6FFFFFF RAGE XL PCI Family (Microsoft Corporation) OK
 0xF5F00000-0xF5FFFFF RAGE XL PCI Family (Microsoft Corporation) OK
 0xF5FE0000-0xF5FEFFFF HP NC7760 Gigabit Server Adapter OK
 0xF5FD0000-0xF5FD0FFF Compaq Advanced System Management Controller OK
 0xF5FC0000-0xF5FC0FFF ServerWorks (RCC) PCI to USB Open Host Controller OK
 0xF7E00000-0xF7EFFFFF PCI bus OK
 0xF7E00000-0xF7EFFFFF Smart Array 642 Controller (Non-Miniport) OK
 0xF7EF0000-0xF7EF1FFF Smart Array 641 Controller (Non-Miniport) OK
 0xF7E80000-0xF7EBFFFF Smart Array 641 Controller (Non-Miniport) OK
 0xF7E70000-0xF7E71FFF Smart Array 642 Controller (Non-Miniport) OK
 0xF7F00000-0xF7FFFFFF PCI bus OK
 0xF7FF0000-0xF7FF1FFF Smart Array 642 Controller (Non-Miniport) OK
 0xF7F80000-0xF7FBFFFF Smart Array 642 Controller (Non-Miniport) OK
 [Components]
 [Multimedia]
 [Audio Codecs]
 CODEC Manufacturer Description
 Status File Version Size
 Creation Date
 c:\windows\system32\msgsm32.acm Microsoft Corporation OK
 C:\WINDOWS\system32\MSGSM32.ACM
 5.2.3790.0 (srv03_rtm.030324-2048)
 20.50 KB (20,992 bytes) 3/25/2003
 6:00 AM
 c:\windows\system32\sl_anet.acm Sipro Lab Telecom Inc. Sipro Lab Telecom Audio Codec OK
 C:\WINDOWS\system32\SL_ANET.ACM
 3.02 84.00 KB (86,016 bytes)
 3/25/2003 6:00 AM
 c:\windows\system32\msg711.acm Microsoft Corporation OK
 C:\WINDOWS\system32\MSG711.ACM
 5.2.3790.0 (srv03_rtm.030324-2048)
 10.00 KB (10,240 bytes) 3/25/2003
 6:00 AM
 c:\windows\system32\msg723.acm Microsoft Corporation OK
 C:\WINDOWS\system32\MSG723.ACM
 4.4.4000 116.00 KB (118,784 bytes)
 2/19/2004 12:02 PM
 c:\windows\system32\msaud32.acm Microsoft Corporation Windows Media Audio Codec OK
 C:\WINDOWS\system32\MSAUD32.ACM

```

8.00.00.4487      288.00 KB (294,912
bytes) 3/25/2003 6:00 AM
c:\windows\system32\imaadp32.acm      Microsoft
Corporation      OK
C:\WINDOWS\system32\IMAADP32.ACM
5.2.3790.0 (srv03_rtm.030324-2048)
15.50 KB (15,872 bytes)      3/25/2003
6:00 AM
c:\windows\system32\tsoft32.acm      DSP GROUP,
INC.      OK
C:\WINDOWS\system32\TSSOFT32.ACM
1.01      9.50 KB (9,728 bytes)
3/25/2003 6:00 AM
c:\windows\system32\l3codeca.acm      Fraunhofer
Institut Integrierte Schaltungen IIS      Fraunhofer
IIS MPEG Layer-3 Codec      OK
C:\WINDOWS\system32\L3CODECA.ACM      1,
9, 0, 0305      284.00 KB (290,816 bytes)
3/25/2003 6:00 AM
c:\windows\system32\msadp32.acm      Microsoft
Corporation      OK
C:\WINDOWS\system32\MSADP32.ACM
5.2.3790.0 (srv03_rtm.030324-2048)
14.50 KB (14,848 bytes)      3/25/2003
6:00 AM

[Video Codecs]

CODEC      Manufacturer      Description
Status      File      Version      Size
Creation Date
c:\windows\system32\msh263.drv      Microsoft
Corporation      OK
C:\WINDOWS\system32\MSH263.DRV
4.4.4000      284.00 KB (290,816 bytes)
3/24/2003 7:46 PM
c:\windows\system32\tsbvuv.dll      Microsoft
Corporation      OK
C:\WINDOWS\system32\TSBYUV.DLL
5.2.3790.0 (srv03_rtm.030324-2048)
8.00 KB (8,192 bytes)      3/24/2003
7:50 PM
c:\windows\system32\mrle32.dll      Microsoft
Corporation      OK
C:\WINDOWS\system32\MSRLE32.DLL
5.2.3790.0 (srv03_rtm.030324-2048)
10.50 KB (10,752 bytes)      3/25/2003
6:00 AM
c:\windows\system32\iyuv_32.dll      Microsoft
Corporation      OK
C:\WINDOWS\system32\IYUV_32.DLL
5.2.3790.0 (srv03_rtm.030324-2048)
45.00 KB (46,080 bytes)      3/24/2003
7:49 PM
c:\windows\system32\msh261.drv      Microsoft
Corporation      OK
C:\WINDOWS\system32\MSH261.DRV
4.4.4000      180.00 KB (184,320 bytes)
2/19/2004 12:02 PM
c:\windows\system32\msyuv.dll      Microsoft Corporation
OK
C:\WINDOWS\system32\MSYUV.DLL 5.2.3790.0

```

```

(srv03_rtm.030324-2048)      16.50 KB (16,896 bytes)
3/24/2003 7:49 PM
c:\windows\system32\msvidc32.dll      Microsoft
Corporation      OK
C:\WINDOWS\system32\MSVIDC32.DLL
5.2.3790.0 (srv03_rtm.030324-2048)
26.50 KB (27,136 bytes)      3/25/2003
6:00 AM

[CD-ROM]

Item      Value
Drive      D:
Description      CD-ROM Drive
Media Loaded      No
Media Type      CD-ROM
Name      COMPAQ CD-ROM LTN486S
Manufacturer      (Standard CD-ROM drives)
Status      OK
Transfer Rate      Not Available
SCSI Target ID      0
PNP Device ID      IDE\CDROMCOMPAQ_CD-
ROM_LTN486S_YQSK\5\FB0C83D&0&0.
0.0
Driver      c:\windows\system32\drivers\cdrom.sys
(5.2.3790.0 (srv03_rtm.030324-2048), 49.50 KB (50,688
bytes), 3/25/2003 6:00 AM)

[Sound Device]

Item      Value
Name      RAGE XL PCI Family (Microsoft Corporation)

PNP Device ID
PCI\VEN_1002&DEV_4752&SUBSYS_001E0E11&REV_2
7\3&267A616A&0&18
Adapter Type      ATI RAGE XL PCI (B41), ATI
Technologies Inc. compatible
Adapter Description      RAGE XL PCI Family (Microsoft
Corporation)
Adapter RAM      8.00 MB (8,388,608 bytes)
Installed Drivers      ati2drad.dll
Driver Version      5.10.3663.6013
INF File      atiixpad.inf (ati2mpad section)
Color Planes      1
Color Table Entries      65536
Resolution      1024 x 768 x 60 hertz
Bits/Pixel      16
Memory Address      0xF6000000-0xF6FFFFFF
I/O Port      0x00002C00-0x00002CFF
Memory Address      0xF5FF0000-0xF5FF0FFF
I/O Port      0x000003B0-0x000003BB
I/O Port      0x000003C0-0x000003DF
Memory Address      0xA0000-0xBFFFF
Driver      c:\windows\system32\drivers\ati2mpad.sys
(5.10.3663.6013, 335.38 KB (343,424 bytes), 2/19/2004
5:47 AM)

[Infrared]

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Item      Value
[Input]

[Keyboard]

Item      Value
Description      Standard 101/102-Key or Microsoft
Natural PS/2 Keyboard
Name      Enhanced (101- or 102-key)
Layout      00000409
PNP Device ID      ACPI\PNP0303\4&35118DFF&0
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), 68.50 KB (70,144
bytes), 3/25/2003 6:00 AM)

[Pointing Device]

Item      Value
Hardware Type      PS/2 Compatible Mouse
Number of Buttons      5
Status      OK
PNP Device ID      ACPI\PNP0F13\4&35118DFF&0
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), 68.50 KB (70,144
bytes), 3/25/2003 6:00 AM)

[Modem]

Item      Value
Name      Sportster 33600 Fax PC Plug and Play
Description      Sportster 33600 Fax PC Plug and
Play
Device ID      SERENUM\USR2003\6&14F79827&0&0000
Device Type      External Modem
Attached To      COM1
Answer Mode      Not Available
PNP Device ID      SERENUM\USR2003\6&14F79827&0&0000

Provider Name      Microsoft
Modem INF Path      mcmusrsp.inf
Modem INF Section      Modem29
Blind Off X4
Blind On X3
Compression Off      &K0
Compression On      &K1
Error Control Forced      &M5
Error Control Off      &M0
Error Control On      &M4
Flow Control Hard      &H1&R2&I0
Flow Control Off      &H0&I0&R1
Flow Control Soft      &H2&I2&R1

```

```

DCB      &#x001c;
Default  <
Inactivity Timeout  0
Modulation Bell     B1
Modulation CITT     B0
Prefix  AT
Pulse   P
Reset   ATZ<cr>
Responses Key Name  Sportster 33600 Fax PC Plug and
Play:3Com::Microsoft
Speaker Mode Dial   M1
Speaker Mode Off    M0
Speaker Mode On     M2
Speaker Mode Setup  M3
Speaker Volume High L3
Speaker Volume Low  L0
Speaker Volume Med  L2
String Format       Not Available
Terminator         <cr>
Tone              T

[Network]

[Adapter]

Item      Value
Name      [00000001] HP NC7760 Gigabit Server Adapter

Adapter Type      Ethernet 802.3
Product Type      HP NC7760 Gigabit Server Adapter

Installed Yes
PNP Device ID     PCI\VEN_14E4&DEV_16A6&SUBSYS_00BB0E11&REV_0
2\3&267A616A&0&20
Last Reset        4/6/2004 2:18 PM
Index            1
Service Name      q57w2k
IP Address        130.168.211.6
IP Subnet 255.255.0.0
Default IP Gateway Not Available
DHCP Enabled      No
DHCP Server       Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address       00:08:02:EF:B3:63
Memory Address    0xF5FE0000-0xF5FEFFFF
IRQ Channel       IRQ 28
Driver            c:\windows\system32\drivers\q57xp32.sys
(6.64.0.0 built by: WinDDK, 171.00 KB (175,104
bytes), 3/25/2004 10:12 AM)

Name      [00000002] RAS Async Adapter
Adapter Type      Wide Area Network (WAN)
Product Type      RAS Async Adapter
Installed Yes
PNP Device ID     SW\{EEAB7790-C514-11D1-B42B-
00805FC1270E}\ASYNCMAC
Last Reset        4/6/2004 2:18 PM
Index            2
Service Name      AsyncMac

```

```

IP Address        Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled      No
DHCP Server       Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address       20:41:53:59:4E:FF
Driver            c:\windows\system32\drivers\asyncmac.sys
(5.2.3790.0 (srv03_rtm.030324-2048), 16.00 KB (16,384
bytes), 3/25/2003 6:00 AM)

Name      [00000003] WAN Miniport (L2TP)
Adapter Type      Not Available
Product Type      WAN Miniport (L2TP)
Installed Yes
PNP Device ID     ROOT\MS_L2TPMINIPOINT\0000
Last Reset        4/6/2004 2:18 PM
Index            3
Service Name      Rasl2tp
IP Address        Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled      No
DHCP Server       Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address       Not Available
Driver            c:\windows\system32\drivers\rasl2tp.sys
(5.2.3790.0 (srv03_rtm.030324-2048), 77.00 KB (78,848
bytes), 3/25/2003 6:00 AM)

Name      [00000004] WAN Miniport (PPTP)
Adapter Type      Wide Area Network (WAN)
Product Type      WAN Miniport (PPTP)
Installed Yes
PNP Device ID     ROOT\MS_PPTPMINIPOINT\0000
Last Reset        4/6/2004 2:18 PM
Index            4
Service Name      PptpMiniport
IP Address        Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled      No
DHCP Server       Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address       50:50:54:50:30:30
Driver            c:\windows\system32\drivers\raspptp.sys
(5.2.3790.0 (srv03_rtm.030324-2048), 70.50 KB (72,192
bytes), 3/25/2003 6:00 AM)

Name      [00000005] WAN Miniport (PPPOE)
Adapter Type      Wide Area Network (WAN)
Product Type      WAN Miniport (PPPOE)
Installed Yes
PNP Device ID     ROOT\MS_PPPOEMINIPOINT\0000
Last Reset        4/6/2004 2:18 PM
Index            5
Service Name      Rasppoe
IP Address        Not Available
IP Subnet Not Available
Default IP Gateway Not Available

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DHCP Enabled      No
DHCP Server       Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address       33:50:6F:45:30:30
Driver            c:\windows\system32\drivers\rasppoe.sys
(5.2.3790.0 (srv03_rtm.030324-2048), 38.00 KB (38,912
bytes), 3/25/2003 6:00 AM)

Name      [00000006] Direct Parallel
Adapter Type      Not Available
Product Type      Direct Parallel
Installed Yes
PNP Device ID     ROOT\MS_PTMINIPOINT\0000
Last Reset        4/6/2004 2:18 PM
Index            6
Service Name      Raspti
IP Address        Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled      No
DHCP Server       Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address       Not Available
Driver            c:\windows\system32\drivers\raspti.sys
(5.2.3790.0 (srv03_rtm.030324-2048), 18.50 KB (18,944
bytes), 3/25/2003 6:00 AM)

Name      [00000007] WAN Miniport (IP)
Adapter Type      Not Available
Product Type      WAN Miniport (IP)
Installed Yes
PNP Device ID     ROOT\MS_NDISWANIP\0000
Last Reset        4/6/2004 2:18 PM
Index            7
Service Name      NdisWan
IP Address        Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled      No
DHCP Server       Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address       Not Available
Driver            c:\windows\system32\drivers\ndiswan.sys
(5.2.3790.0 (srv03_rtm.030324-2048), 96.50 KB (98,816
bytes), 3/25/2003 6:00 AM)

[Protocol]

Item      Value
Name      MSAPFD Tcpiip [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

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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
 Minimum Address Size 16 bytes
 Maximum Address 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
 Minimum Address Size 16 bytes
 Maximum Address 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
 Minimum Address Size 16 bytes
 Maximum Address Size 16 bytes
 Maximum Message Size 0 bytes
 Message Oriented No
 Minimum Address Size 16 bytes
 Pseudo Stream Oriented No
 Supports Broadcasting No
 Supports Connect Data No
 Supports Disconnect Data No
 Supports Encryption Yes
 Supports Expedited Data Yes
 Supports Graceful Closing Yes
 Supports Guaranteed Bandwidth No
 Supports Multicasting No

Name MSAFD NetBIOS
 [\Device\NetBT_Tcpip_{4B27F4E2-4F7B-4DE4-B0AB-45E757383942}] SEQUENCE 0
 Connectionless Service No
 Guarantees Delivery Yes
 Guarantees Sequencing Yes
 Maximum Address Size 20 bytes
 Maximum Message Size 62.50 KB (64,000 bytes)

Message Oriented Yes
 Minimum Address Size 20 bytes
 Pseudo Stream Oriented No
 Supports Broadcasting No
 Supports Connect Data No
 Supports Disconnect Data No
 Supports Encryption No
 Supports Expedited Data No
 Supports Graceful Closing No
 Supports Guaranteed Bandwidth No
 Supports Multicasting No

Name MSAFD NetBIOS
 [\Device\NetBT_Tcpip_{4B27F4E2-4F7B-4DE4-B0AB-45E757383942}] DATAGRAM 0
 Connectionless Service Yes
 Guarantees Delivery No
 Guarantees Sequencing No
 Maximum Address Size 20 bytes
 Maximum Message Size 62.50 KB (64,000 bytes)

Message Oriented Yes
 Minimum Address Size 20 bytes
 Pseudo Stream Oriented No
 Supports Broadcasting Yes
 Supports Connect Data No
 Supports Disconnect Data No
 Supports Encryption No
 Supports Expedited Data No
 Supports Graceful Closing No
 Supports Guaranteed Bandwidth No
 Supports Multicasting No

Name MSAFD NetBIOS
 [\Device\NetBT_Tcpip_{E3E594B1-5CE3-4465-97E1-9E7EFA27B53A}] SEQUENCE 1
 Connectionless Service No
 Guarantees Delivery Yes
 Guarantees Sequencing Yes
 Minimum Address Size 20 bytes
 Maximum Message Size 62.50 KB (64,000 bytes)

Message Oriented Yes
 Minimum Address Size 20 bytes
 Pseudo Stream Oriented No
 Supports Broadcasting No
 Supports Connect Data No
 Supports Disconnect Data No
 Supports Encryption No
 Supports Expedited Data No
 Supports Graceful Closing No
 Supports Guaranteed Bandwidth No
 Supports Multicasting No

Name MSAFD NetBIOS
 [\Device\NetBT_Tcpip_{E3E594B1-5CE3-4465-97E1-9E7EFA27B53A}] DATAGRAM 1
 Connectionless Service Yes
 Guarantees Delivery No
 Guarantees Sequencing No
 Maximum Address Size 20 bytes
 Maximum Message Size 62.50 KB (64,000 bytes)

Message Oriented Yes
 Minimum Address Size 20 bytes
 Pseudo Stream Oriented No
 Supports Broadcasting Yes
 Supports Connect Data No
 Supports Disconnect Data No
 Supports Encryption No
 Supports Expedited Data No
 Supports Graceful Closing No
 Supports Guaranteed Bandwidth No
 Supports Multicasting No

Name MSAFD NetBIOS
 [\Device\NetBT_Tcpip_{BAC7E866-2338-4727-AD9B-68C0268B7D9E}] SEQUENCE 2
 Connectionless Service No
 Guarantees Delivery Yes
 Guarantees Sequencing Yes
 Maximum Address Size 20 bytes
 Maximum Message Size 62.50 KB (64,000 bytes)

Message Oriented Yes
 Minimum Address Size 20 bytes
 Pseudo Stream Oriented No
 Supports Broadcasting No
 Supports Connect Data No
 Supports Disconnect Data No
 Supports Encryption No
 Supports Expedited Data No
 Supports Graceful Closing No
 Supports Guaranteed Bandwidth No
 Supports Multicasting No

Name MSAFD NetBIOS
 [\Device\NetBT_Tcpip_{BAC7E866-2338-4727-AD9B-68C0268B7D9E}] DATAGRAM 2
 Connectionless Service Yes
 Guarantees Delivery No
 Guarantees Sequencing No
 Minimum Address Size 20 bytes
 Maximum Message Size 62.50 KB (64,000 bytes)

Message Oriented Yes
 Minimum Address Size 20 bytes
 Pseudo Stream Oriented No
 Supports Broadcasting Yes
 Supports Connect Data No
 Supports Disconnect Data No
 Supports Encryption No
 Supports Expedited Data No
 Supports Graceful Closing No
 Supports Guaranteed Bandwidth No
 Supports Multicasting No

Name MSAFD NetBIOS
 [\Device\NetBT_Tcpip_{1EE3FC97-6BA1-4042-B2B3-57539B002820}] SEQPACKE 3
 Connectionless Service No
 Guarantees Delivery Yes
 Guarantees Sequencing Yes
 Maximum Address Size 20 bytes
 Maximum Message Size 62.50 KB (64,000 bytes)

Message Oriented Yes
 Minimum Address Size 20 bytes
 Pseudo Stream Oriented No
 Supports Broadcasting No
 Supports Connect Data No
 Supports Disconnect Data No
 Supports Encryption No
 Supports Expedited Data No
 Supports Graceful Closing No
 Supports Guaranteed Bandwidth No
 Supports Multicasting No

Name MSAFD NetBIOS
 [\Device\NetBT_Tcpip_{1EE3FC97-6BA1-4042-B2B3-57539B002820}] DATAGRAM 3
 Connectionless Service Yes
 Guarantees Delivery No
 Guarantees Sequencing No
 Maximum Address Size 20 bytes
 Maximum Message Size 62.50 KB (64,000 bytes)

Message Oriented Yes
 Minimum Address Size 20 bytes
 Pseudo Stream Oriented No
 Supports Broadcasting Yes
 Supports Connect Data No
 Supports Disconnect Data No
 Supports Encryption No
 Supports Expedited Data No
 Supports Graceful Closing No
 Supports Guaranteed Bandwidth No
 Supports Multicasting No

Name MSAFD NetBIOS
 [\Device\NetBT_Tcpip_{7CAEFC96-EE72-47F6-9CE1-E1A1AE107429}] SEQPACKE 4
 Connectionless Service No
 Guarantees Delivery Yes
 Guarantees Sequencing Yes
 Maximum Address Size 20 bytes
 Maximum Message Size 62.50 KB (64,000 bytes)

Message Oriented Yes
 Minimum Address Size 20 bytes
 Pseudo Stream Oriented No
 Supports Broadcasting No
 Supports Connect Data No
 Supports Disconnect Data No
 Supports Encryption No
 Supports Expedited Data No
 Supports Graceful Closing No
 Supports Guaranteed Bandwidth No
 Supports Multicasting No

Name MSAFD NetBIOS
 [\Device\NetBT_Tcpip_{7CAEFC96-EE72-47F6-9CE1-E1A1AE107429}] DATAGRAM 4
 Connectionless Service Yes
 Guarantees Delivery No
 Guarantees Sequencing No
 Maximum Address Size 20 bytes
 Maximum Message Size 62.50 KB (64,000 bytes)

Message Oriented Yes
 Minimum Address Size 20 bytes
 Pseudo Stream Oriented No
 Supports Broadcasting Yes
 Supports Connect Data No
 Supports Disconnect Data No
 Supports Encryption No
 Supports Expedited Data No
 Supports Graceful Closing No
 Supports Guaranteed Bandwidth No
 Supports Multicasting No

[WinSock]

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

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

[Ports]

[Serial]

Item Value
 Name Communications Port (COM1)
 Status OK
 PNP Device ID ACPI\PNP0501\0
 Maximum Input Buffer Size Not Available
 Maximum Output Buffer Size Not Available
 Settable Baud Rate Not Available
 Settable Data Bits Not Available
 Settable Flow Control Not Available
 Settable Parity Not Available
 Settable Parity Check Not Available
 Settable Stop Bits Not Available
 Settable RLSD Not Available
 Supports RLSD Not Available
 Supports 16 Bit Mode Not Available
 Supports Special Characters Not Available
 Baud Rate 9600
 Bits/Byte 8
 Stop Bits 1
 Parity None
 Busy Yes
 Abort Read/Write on Error Not Available
 Binary Mode Enabled Not Available
 Continue XMit on Xoff Not Available
 CTS Outflow Control Not Available

Discard NULL Bytes Not Available
 DSR Outflow Control Not Available
 DSR Sensitivity Not Available
 DTR Flow Control Type Not Available
 EOF Character Not Available
 Error Replace Character Not Available
 Error Replacement Enabled Not Available
 Event Character Not Available
 Parity Check Enabled Yes
 RTS Flow Control Type Not Available
 XOff Character 19
 XOffXmit Threshold 512
 XOn Character 17
 XOnXmit Threshold 2048
 XOnXoff InFlow Control Not Available
 XOnXoff OutFlow Control Not Available
 IRQ Channel IRQ 4
 I/O Port 0x000003F8-0x000003FF
 Driver c:\windows\system32\drivers\serial.sys
 (5.2.3790.0 (srv03_rtm.030324-2048), 76.00 KB (77,824 bytes), 3/25/2003 6:00 AM)

[Parallel]

Item Value
 Name LPT1
 PNP Device ID ACPI\PNP0400\5&13237358&0
 I/O Port 0x00000378-0x0000037F
 Driver c:\windows\system32\drivers\parport.sys
 (5.2.3790.0 (srv03_rtm.030324-2048), 76.50 KB (78,336 bytes), 3/24/2003 5:04 PM)

[Storage]

[Drives]

Item Value
 Drive A:
 Description 3 1/2 Inch Floppy Drive
 Drive C:
 Description Local Fixed Disk
 Compressed No
 File System NTFS
 Size 16.94 GB (18,194,284,544 bytes)
 Free Space 11.77 GB (12,639,059,968 bytes)
 Volume Name
 Volume Serial Number 28F9E634
 Drive D:
 Description CD-ROM Disc
 Drive E:
 Description Local Fixed Disk
 Compressed Not Available
 File System Not Available
 Size Not Available
 Free Space Not Available
 Volume Name Not Available
 Volume Serial Number Not Available

Drive T:
 Description Local Fixed Disk
 Compressed No
 File System NTFS
 Size 174.06 GB (186,894,778,368 bytes)
 Free Space 173.99 GB (186,821,427,200 bytes)

Volume Name New Volume
 Volume Serial Number 74BC66B7

Drive X:
 Description Local Fixed Disk
 Compressed No
 File System NTFS
 Size 178.41 GB (191,566,737,408 bytes)
 Free Space 32.62 GB (35,025,977,344 bytes)

Volume Name New Volume
 Volume Serial Number 90AA19A3

Drive Y:
 Description Network Connection
 Provider Name \\danil\c\$

[Disks]

Item Value
 Description \\.\PHYSICALDRIVE14
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus Not Available
 SCSI Logical Unit Not Available
 SCSI Port Not Available
 SCSI Target ID Not Available
 Sectors/Track 63
 Size 26.17 GB (28,097,556,480 bytes)
 Total Cylinders 3,416
 Total Sectors 54,878,040
 Total Tracks 871,080
 Tracks/Cylinder 255
 Partition Disk #14, Partition #0
 Partition Size 26.17 GB (28,097,524,224 bytes)

Partition Starting Offset 32,256 bytes

Description \\.\PHYSICALDRIVE15
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus Not Available
 SCSI Logical Unit Not Available
 SCSI Port Not Available
 SCSI Target ID Not Available
 Sectors/Track 63
 Size 19.04 GB (20,439,820,800 bytes)

Total Cylinders 2,485
 Total Sectors 39,921,525
 Total Tracks 633,675
 Tracks/Cylinder 255
 Partition Disk #15, Partition #0
 Partition Size 19.04 GB (20,439,788,544 bytes)

Partition Starting Offset 32,256 bytes

Description \\.\PHYSICALDRIVE16
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus Not Available
 SCSI Logical Unit Not Available
 SCSI Port Not Available
 SCSI Target ID Not Available
 Sectors/Track 63
 Size 178.41 GB (191,566,771,200 bytes)
 Total Cylinders 23,290
 Total Sectors 374,153,850
 Total Tracks 5,938,950
 Tracks/Cylinder 255
 Partition Disk #16, Partition #0
 Partition Size 178.41 GB (191,566,738,944 bytes)

Partition Starting Offset 32,256 bytes

Description \\.\PHYSICALDRIVE9
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus Not Available
 SCSI Logical Unit Not Available
 SCSI Port Not Available
 SCSI Target ID Not Available
 Sectors/Track 63
 Size 26.17 GB (28,097,556,480 bytes)
 Total Cylinders 3,416
 Total Sectors 54,878,040
 Total Tracks 871,080
 Tracks/Cylinder 255
 Partition Disk #9, Partition #0
 Partition Size 26.17 GB (28,097,524,224 bytes)

Partition Starting Offset 32,256 bytes

Description \\.\PHYSICALDRIVE10
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus Not Available
 SCSI Logical Unit Not Available
 SCSI Port Not Available

SCSI Target ID Not Available
 Sectors/Track 63
 Size 19.04 GB (20,439,820,800 bytes)
 Total Cylinders 2,485
 Total Sectors 39,921,525
 Total Tracks 633,675
 Tracks/Cylinder 255
 Partition Disk #10, Partition #0
 Partition Size 19.04 GB (20,439,788,544 bytes)

Partition Starting Offset 32,256 bytes

Description \\.\PHYSICALDRIVE11
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus Not Available
 SCSI Logical Unit Not Available
 SCSI Port Not Available
 SCSI Target ID Not Available
 Sectors/Track 63
 Size 2.44 GB (2,615,639,040 bytes)
 Total Cylinders 318
 Total Sectors 5,108,670
 Total Tracks 81,090
 Tracks/Cylinder 255
 Partition Disk #11, Partition #0
 Partition Size 2.44 GB (2,615,606,784 bytes)
 Partition Starting Offset 32,256 bytes

Description \\.\PHYSICALDRIVE12
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus Not Available
 SCSI Logical Unit Not Available
 SCSI Port Not Available
 SCSI Target ID Not Available
 Sectors/Track 63
 Size 2.24 GB (2,410,007,040 bytes)
 Total Cylinders 293
 Total Sectors 4,707,045
 Total Tracks 74,715
 Tracks/Cylinder 255
 Partition Disk #12, Partition #0
 Partition Size 2.24 GB (2,401,749,504 bytes)
 Partition Starting Offset 32,256 bytes

Description \\.\PHYSICALDRIVE13
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus Not Available
 SCSI Logical Unit Not Available

SCSI Port Not Available
 SCSI Target ID Not Available
 Sectors/Track 63
 Size 174.07 GB (186,903,037,440 bytes)
 Total Cylinders 22,723
 Total Sectors 365,044,995
 Total Tracks 5,794,365
 Tracks/Cylinder 255
 Partition Disk #13, Partition #0
 Partition Size 174.06 GB (186,894,779,904 bytes)

Partition Starting Offset 32,256 bytes

Description \\.\PHYSICALDRIVE0
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus Not Available
 SCSI Logical Unit Not Available
 SCSI Port Not Available
 SCSI Target ID Not Available
 Sectors/Track 63
 Size 33.91 GB (36,413,314,560 bytes)
 Total Cylinders 4,427
 Total Sectors 71,119,755
 Total Tracks 1,128,885
 Tracks/Cylinder 255
 Partition Disk #0, Partition #0
 Partition Size 33.91 GB (36,413,282,304 bytes)

Partition Starting Offset 32,256 bytes

Description \\.\PHYSICALDRIVE1
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus Not Available
 SCSI Logical Unit Not Available
 SCSI Port Not Available
 SCSI Target ID Not Available
 Sectors/Track 63
 Size 56.64 GB (60,817,720,320 bytes)
 Total Cylinders 7,394
 Total Sectors 118,784,610
 Total Tracks 1,885,470
 Tracks/Cylinder 255
 Partition Disk #1, Partition #0
 Partition Size 56.63 GB (60,809,462,784 bytes)

Partition Starting Offset 32,256 bytes

Description \\.\PHYSICALDRIVE2
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk

Partitions 1
 SCSI Bus Not Available
 SCSI Logical Unit Not Available
 SCSI Port Not Available
 SCSI Target ID Not Available
 Sectors/Track 63
 Size 4.20 GB (4,507,453,440 bytes)
 Total Cylinders 548
 Total Sectors 8,803,620
 Total Tracks 139,740
 Tracks/Cylinder 255
 Partition Disk #2, Partition #0
 Partition Size 4.19 GB (4,499,195,904 bytes)
 Partition Starting Offset 32,256 bytes

Description \\.\PHYSICALDRIVE3
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus Not Available
 SCSI Logical Unit Not Available
 SCSI Port Not Available
 SCSI Target ID Not Available
 Sectors/Track 63
 Size 1.95 GB (2,089,221,120 bytes)
 Total Cylinders 254
 Total Sectors 4,080,510
 Total Tracks 64,770
 Tracks/Cylinder 255
 Partition Disk #3, Partition #0
 Partition Size 1.95 GB (2,089,188,864 bytes)
 Partition Starting Offset 32,256 bytes

Description \\.\PHYSICALDRIVE4
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus Not Available
 SCSI Logical Unit Not Available
 SCSI Port Not Available
 SCSI Target ID Not Available
 Sectors/Track 32
 Size 569.00 MB (596,639,744 bytes)
 Total Cylinders 569
 Total Sectors 1,165,312
 Total Tracks 36,416
 Tracks/Cylinder 64
 Partition Disk #4, Partition #0
 Partition Size 567.98 MB (595,574,784 bytes)
 Partition Starting Offset 16,384 bytes

Description \\.\PHYSICALDRIVE5
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk

Partitions 1
 SCSI Bus Not Available
 SCSI Logical Unit Not Available
 SCSI Port Not Available
 SCSI Target ID Not Available
 Sectors/Track 32
 Size 498.00 MB (522,190,848 bytes)
 Total Cylinders 498
 Total Sectors 1,019,904
 Total Tracks 31,872
 Tracks/Cylinder 64
 Partition Disk #5, Partition #0
 Partition Size 496.98 MB (521,125,888 bytes)
 Partition Starting Offset 16,384 bytes

Description \\.\PHYSICALDRIVE6
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus Not Available
 SCSI Logical Unit Not Available
 SCSI Port Not Available
 SCSI Target ID Not Available
 Sectors/Track 32
 Size 27.00 MB (28,311,552 bytes)
 Total Cylinders 27
 Total Sectors 55,296
 Total Tracks 1,728
 Tracks/Cylinder 64
 Partition Disk #6, Partition #0
 Partition Size 26.98 MB (28,295,168 bytes)
 Partition Starting Offset 16,384 bytes

Description \\.\PHYSICALDRIVE7
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk
 Partitions 1
 SCSI Bus Not Available
 SCSI Logical Unit Not Available
 SCSI Port Not Available
 SCSI Target ID Not Available
 Sectors/Track 32
 Size 19.00 MB (19,922,944 bytes)
 Total Cylinders 19
 Total Sectors 38,912
 Total Tracks 1,216
 Tracks/Cylinder 64
 Partition Disk #7, Partition #0
 Partition Size 18.98 MB (19,906,560 bytes)
 Partition Starting Offset 16,384 bytes

Description \\.\PHYSICALDRIVE8
 Manufacturer Not Available
 Model Not Available
 Bytes/Sector 512
 Media Loaded Yes
 Media Type Fixed hard disk

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Partitions          1
SCSI Bus           Not Available
SCSI Logical Unit  Not Available
SCSI Port          Not Available
SCSI Target ID    Not Available
Sectors/Track     32
Size              19.00 MB (19,922,944 bytes)
Total Cylinders   19
Total Sectors     38,912
Total Tracks     1,216
Tracks/Cylinder   64
Partition Disk #8, Partition #0
Partition Size    18.98 MB (19,906,560 bytes)
Partition Starting Offset 16,384 bytes

Description        Disk drive
Manufacturer       (Standard disk drives)
Model              COMPAQ BD03695CC8 SCSI Disk Device
Bytes/Sector       512
Media Loaded       Yes
Media Type         Fixed hard disk
Partitions         1
SCSI Bus          0
SCSI Logical Unit 0
SCSI Port         2
SCSI Target ID   0
Sectors/Track    63
Size             33.91 GB (36,413,314,560 bytes)
Total Cylinders  4,427
Total Sectors    71,119,755
Total Tracks     1,128,885
Tracks/Cylinder  255
Partition Disk #17, Partition #0
Partition Size   16.94 GB (18,194,287,104 bytes)

Partition Starting Offset 32,256 bytes

[SCSI]

Item      Value
Name      Compaq 64-bit/66MHz Dual Channel Wide
Ultra3 SCSI Adapter
Manufacturer      Adaptec
Status            OK
PNP Device ID    PCI\VEN_9005&DEV_00C0&SUBSYS_F6200E11&REV_0
1\3&267A616A&0&10
I/O Port        0x00002400-0x000024FF
Memory Address  0xF7DF0000-0xF7DF0FFF
IRQ Channel     IRQ 31
Driver          c:\windows\system32\drivers\adpu160m.sys
(RTC_XP07 (lab01_n(storbuild).010917-1031), 99.63 KB
(102,016 bytes), 3/25/2003 6:00 AM)

Name        Compaq 64-bit/66MHz Dual Channel Wide
Ultra3 SCSI Adapter
Manufacturer      Adaptec
Status            OK
PNP Device ID    PCI\VEN_9005&DEV_00C0&SUBSYS_F6200E11&REV_0
1\3&267A616A&0&11
I/O Port        0x00002800-0x000028FF
Memory Address  0xF7DE0000-0xF7DE0FFF

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```

IRQ Channel        IRQ 31
Driver             c:\windows\system32\drivers\adpu160m.sys
(RTC_XP07 (lab01_n(storbuild).010917-1031), 99.63 KB
(102,016 bytes), 3/25/2003 6:00 AM)

Name              Smart Array 641 Controller (Non-Miniport)

Manufacturer      Hewlett-Packard
Status            OK
PNP Device ID    PCI\VEN_0E11&DEV_0046&SUBSYS_409A0E11&REV_0
1\3&13C0B0C5&0&08
Memory Address    0xF7EF0000-0xF7EF1FFF
I/O Port         0x00003000-0x000034FF
Memory Address    0xF7E80000-0xF7EBFFFF
IRQ Channel       IRQ 26
Driver            c:\windows\system32\drivers\hpcqciissb.sys
(5.6.2.32 built by: WinDDK, 38.00 KB (38,912 bytes),
2/24/2004 10:21 AM)

Name              Smart Array 642 Controller (Non-Miniport)

Manufacturer      Hewlett-Packard
Status            OK
PNP Device ID    PCI\VEN_0E11&DEV_0046&SUBSYS_409B0E11&REV_0
1\3&13C0B0C5&0&10
Memory Address    0xF7E70000-0xF7E71FFF
I/O Port         0x00003400-0x000034FF
Memory Address    0xF7E00000-0xF7EFFFFF
IRQ Channel       IRQ 24
Driver            c:\windows\system32\drivers\hpcqciissb.sys
(5.6.2.32 built by: WinDDK, 38.00 KB (38,912 bytes),
2/24/2004 10:21 AM)

Name              Smart Array 642 Controller (Non-Miniport)

Manufacturer      Hewlett-Packard
Status            OK
PNP Device ID    PCI\VEN_0E11&DEV_0046&SUBSYS_409B0E11&REV_0
1\3&1070020&0&08
Memory Address    0xF7FF0000-0xF7FF1FFF
I/O Port         0x00004000-0x000040FF
Memory Address    0xF7F80000-0xF7FBFFFF
IRQ Channel       IRQ 22
Driver            c:\windows\system32\drivers\hpcqciissb.sys
(5.6.2.32 built by: WinDDK, 38.00 KB (38,912 bytes),
2/24/2004 10:21 AM)

[IDE]

Item      Value
Name      CSB5 IDE Controller
Manufacturer      ServerWorks
Status            OK
PNP Device ID    PCI\VEN_1166&DEV_0212&SUBSYS_02121166&REV_9
3\3&267A616A&0&79
I/O Port        0x00002000-0x0000200F
Driver          c:\windows\system32\drivers\pciide.sys
(5.2.3790.0 (srv03_rtm.030324-2048), 5.50 KB (5,632
bytes), 3/25/2003 6:00 AM)

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Name              Primary IDE Channel
Manufacturer      (Standard IDE ATA/ATAPI
controllers)
Status            OK
PNP Device ID    PCIIDE\IDECHANNEL\4&1024D5C6&0&0

I/O Port        0x000001F0-0x000001F7
I/O Port        0x000003F6-0x000003F6
IRQ Channel       IRQ 14
Driver          c:\windows\system32\drivers\atapi.sys
(5.2.3790.0 (srv03_rtm.030324-2048), 89.00 KB (91,136
bytes), 3/25/2003 6:00 AM)

Name              Secondary IDE Channel
Manufacturer      (Standard IDE ATA/ATAPI
controllers)
Status            OK
PNP Device ID    PCIIDE\IDECHANNEL\4&1024D5C6&0&1

I/O Port        0x00000170-0x00000177
I/O Port        0x00000376-0x00000376
Driver          c:\windows\system32\drivers\atapi.sys
(5.2.3790.0 (srv03_rtm.030324-2048), 89.00 KB (91,136
bytes), 3/25/2003 6:00 AM)

[Printing]

Name      Driver      Port Name Server Name

[Problem Devices]

Device    PNP Device ID      Error Code

[USB]

Device    PNP Device ID
ServerWorks (RCC) PCI to USB Open Host Controller
PCI\VEN_1166&DEV_0220&SUBSYS_02201166&REV_0
5\3&267A616A&0&7A
USB Root Hub      USB\ROOT_HUB\4&AF5358C&0

[Software Environment]

[System Drivers]

Name      Description      File      Type
Started   Start Mode      State
Status   Error Control    Accept Pause
abiosdsk Abiosdsk      Not Available      Kernel Driver
No      Disabled Stopped      OK
Ignore   No      No
acpi      Microsoft ACPI Driver
c:\windows\system32\drivers\acpi.sys
Kernel Driver      Yes      Boot
Running      OK      Normal      No      Yes
acpiec   ACPIEC
c:\windows\system32\drivers\acpiec.sys
Kernel Driver      No      Disabled

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		Stopped	OK	Normal	No	No
adpu160m	adpu160m					
	c:\windows\system32\drivers\adpu160m.sys					
	Kernel Driver	Yes	Boot			
	Running	OK	Normal	No	Yes	
adpu320	adpu320	Not Available		Kernel Driver		
	No	Disabled	Stopped	OK		
	Normal	No	No			
afcnt	afcnt	Not Available		Kernel Driver		
	No	Disabled	Stopped	OK		
	Normal	No	No			
afd	AFD Networking Support Environment					
	c:\windows\system32\drivers\afd.sys					
	Kernel Driver	Yes	Auto			
	Running	OK	Normal	No	Yes	
ahal54x	Ahal54x	Not Available		Kernel Driver		
	No	Disabled	Stopped	OK		
	Normal	No	No			
aic78u2	aic78u2	Not Available		Kernel Driver		
	No	Disabled	Stopped	OK		
	Normal	No	No			
aic78xx	aic78xx	Not Available		Kernel Driver		
	No	Disabled	Stopped	OK		
	Normal	No	No			
aliide	AliIde	Not Available		Kernel Driver		
	No	Disabled	Stopped	OK		
	Normal	No	No			
asynctmac	RAS Asynchronous Media Driver					
	c:\windows\system32\drivers\asynctmac.sys					
	Kernel Driver	Yes	Manual			
	Running	OK	Normal	No	Yes	
atapi	Standard IDE/ESDI Hard Disk Controller					
	c:\windows\system32\drivers\atapi.sys					
	Kernel Driver	Yes	Boot			
	Running	OK	Normal	No	Yes	
atdisk	Atdisk	Not Available		Kernel Driver		
	No	Disabled	Stopped	OK		
	Ignore	No	No			
ati2mpad	ati2mpad					
	c:\windows\system32\drivers\ati2mpad.sys					
	Kernel Driver	Yes	Manual			
	Running	OK	Ignore	No	Yes	
atmarpc	ATM ARP Client Protocol					
	c:\windows\system32\drivers\atmarpc.sys					
	Kernel Driver	No	Manual			
	Stopped	OK	Normal	No	No	
audstub	Audio Stub Driver					
	c:\windows\system32\drivers\audstub.sys					
	Kernel Driver	Yes	Manual			
	Running	OK	Normal	No	Yes	
b57w2k	BCM5703 Gigabit Ethernet					
	c:\windows\system32\drivers\b57xp32.sys					
	Kernel Driver	No	Manual			
	Stopped	OK	Normal	No	No	

beep	Beep					
	c:\windows\system32\drivers\beep.sys					
	Kernel Driver	Yes	System			
	Running	OK	Normal	No	Yes	
cbidf2k	cbidf2k					
	c:\windows\system32\drivers\cbidf2k.sys					
	Kernel Driver	No	Disabled			
	Stopped	OK	Normal	No	No	
cd20xrnt	cd20xrnt	Not Available		Kernel Driver		
	No	Disabled	Stopped	OK		
	Normal	No	No			
cdfs	Cdfs					
	c:\windows\system32\drivers\cdfs.sys					
	File System Driver	Yes	Disabled			
	Running	OK	Normal	No	Yes	
cdrom	CD-ROM Driver					
	c:\windows\system32\drivers\cdrom.sys					
	Kernel Driver	Yes	System			
	Running	OK	Normal	No	Yes	
changer	Changer	Not Available		Kernel Driver		
	No	System	Stopped	OK		
	Ignore	No	No			
clusdisk	Cluster Disk Driver					
	c:\windows\system32\drivers\clusdisk.sys					
	Kernel Driver	No	Disabled			
	Stopped	OK	Normal	No	No	
cmdide	CmdIde	Not Available		Kernel Driver		
	No	Disabled	Stopped	OK		
	Normal	No	No			
cpqarray	Cpqarray	Not Available		Kernel Driver		
	No	Disabled	Stopped	OK		
	Normal	No	No			
cpqarray2	cpqarray2	Not Available		Kernel Driver		
	No	Disabled	Stopped	OK		
	Normal	No	No			
cpqcissm	cpqcissm					
	c:\windows\system32\drivers\cpqcissm.sys					
	Kernel Driver	Yes	Boot			
	Running	OK	Normal	No	Yes	
cpqfcalm	cpqfcalm	Not Available		Kernel Driver		
	No	Disabled	Stopped	OK		
	Normal	No	No			
crccdsk	CRC Disk Filter Driver					
	c:\windows\system32\drivers\crccdsk.sys					
	Kernel Driver	Yes	Boot			
	Running	OK	Normal	No	Yes	
dac960nt	dac960nt	Not Available		Kernel Driver		
	No	Disabled	Stopped	OK		
	Normal	No	No			
dellcerc	dellcerc	Not Available		Kernel Driver		
	No	Disabled	Stopped	OK		
	Normal	No	No			
dfsdriver	DfsDriver					
	c:\windows\system32\drivers\dfs.sys					
	File System Driver	Yes	Boot			

Running	OK	Normal	No	Yes		
disk	Disk Driver					
	c:\windows\system32\drivers\disk.sys					
	Kernel Driver	Yes	Boot			
	Running	OK	Normal	No	Yes	
dmboot	dmboot					
	c:\windows\system32\drivers\dmboot.sys					
	Kernel Driver	No	Disabled			
	Stopped	OK	Normal	No	No	
dmio	Logical Disk Manager Driver					
	c:\windows\system32\drivers\dmio.sys					
	Kernel Driver	Yes	Boot			
	Running	OK	Normal	No	Yes	
dmload	dmload					
	c:\windows\system32\drivers\dmload.sys					
	Kernel Driver	Yes	Boot			
	Running	OK	Normal	No	Yes	
dpti2o	dpti2o	Not Available		Kernel Driver		
	No	Disabled	Stopped	OK		
	Normal	No	No			
fastfat	Fastfat					
	c:\windows\system32\drivers\fastfat.sys					
	File System Driver	No	Disabled			
	Stopped	OK	Normal	No	No	
fdc	Floppy Disk Controller Driver					
	c:\windows\system32\drivers\fdc.sys					
	Kernel Driver	Yes	Manual			
	Running	OK	Normal	No	Yes	
fips	Fips					
	c:\windows\system32\drivers\fips.sys					
	Kernel Driver	Yes	System			
	Running	OK	Normal	No	Yes	
flpydisk	Floppy Disk Driver					
	c:\windows\system32\drivers\flpydisk.sys					
	Kernel Driver	Yes	Manual			
	Running	OK	Normal	No	Yes	
ftdisk	Volume Manager Driver					
	c:\windows\system32\drivers\ftdisk.sys					
	Kernel Driver	Yes	Boot			
	Running	OK	Normal	No	Yes	
gpc	Generic Packet Classifier					
	c:\windows\system32\drivers\msgpc.sys					
	Kernel Driver	Yes	Manual			
	Running	OK	Normal	No	Yes	
hpn	hpn	Not Available		Kernel Driver		
	No	Disabled	Stopped	OK		
	Normal	No	No			
hpqcissb	Smart Array Controllers Non-Miniport Bus Driver					
	c:\windows\system32\drivers\hpqcissb.sys					
	Kernel Driver	Yes	Boot			
	Running	OK	Normal	No	Yes	

hpgcissd	Smart Array Controllers Non-Miniport Disk Driver	c:\windows\system32\drivers\hpgcissd.sys	Kernel Driver	Yes	Boot	Running	OK	Normal	No	Yes
hpt3xx	hpt3xx	Not Available	Kernel Driver	No	Disabled	Stopped	OK			
http	HTTP	c:\windows\system32\drivers\http.sys	Kernel Driver	No	Manual	Stopped	OK	Normal	No	No
i2omgmt	i2omgmt	Not Available	Kernel Driver	No	System	Stopped	OK			
i2omp	i2omp	Not Available	Kernel Driver	No	Disabled	Stopped	OK			
i8042prt	i8042 Keyboard and PS/2 Mouse Port Driver	c:\windows\system32\drivers\i8042prt.sys	Kernel Driver	Yes	System	Running	OK	Normal	No	Yes
iirsp	iirsp	Not Available	Kernel Driver	No	Disabled	Stopped	OK			
imapi	CD-Burning Filter Driver	c:\windows\system32\drivers\imapi.sys	Kernel Driver	No	System	Stopped	OK	Normal	No	No
intelide	IntelIde	Not Available	Kernel Driver	No	Disabled	Stopped	OK			
ipfilterdriver	IP Traffic Filter Driver	c:\windows\system32\drivers\ipfltdrv.sys	Kernel Driver	No	Manual	Stopped	OK	Normal	No	No
ipinip	IP in IP Tunnel Driver	c:\windows\system32\drivers\ipinip.sys	Kernel Driver	No	Manual	Stopped	OK	Normal	No	No
ipnat	IP Network Address Translator	c:\windows\system32\drivers\ipnat.sys	Kernel Driver	No	Manual	Stopped	OK	Normal	No	No
ipsec	IPSEC driver	c:\windows\system32\drivers\ipsec.sys	Kernel Driver	Yes	System	Running	OK	Normal	No	Yes
ipsraidn	ipsraidn	Not Available	Kernel Driver	No	Disabled	Stopped	OK			
irenum	IR Enumerator Service	c:\windows\system32\drivers\irenum.sys	Kernel Driver	No	Manual	Stopped	OK	Normal	No	No

isapnp	PnP ISA/EISA Bus Driver	c:\windows\system32\drivers\isapnp.sys	Kernel Driver	Yes	Boot	Running	OK	Critical	No	Yes
kbdclass	Keyboard Class Driver	c:\windows\system32\drivers\kbdclass.sys	Kernel Driver	Yes	System	Running	OK	Normal	No	Yes
ksecdd	KSecDD	c:\windows\system32\drivers\ksecdd.sys	Kernel Driver	Yes	Boot	Running	OK	Normal	No	Yes
lp6nds35	lp6nds35	Not Available	Kernel Driver	No	Disabled	Stopped	OK			
mmdd	mmdd	c:\windows\system32\drivers\mmdd.sys	Kernel Driver	Yes	System	Running	OK	Ignore	No	Yes
modem	Modem	c:\windows\system32\drivers\modem.sys	Kernel Driver	Yes	Manual	Running	OK	Ignore	No	Yes
mouclass	Mouse Class Driver	c:\windows\system32\drivers\mouclass.sys	Kernel Driver	Yes	System	Running	OK	Normal	No	Yes
mountmgr	Mount Point Manager	c:\windows\system32\drivers\mountmgr.sys	Kernel Driver	Yes	Boot	Running	OK	Normal	No	Yes
mraid35x	mraid35x	Not Available	Kernel Driver	No	Disabled	Stopped	OK			
mrxdav	WebDav Client Redirector	c:\windows\system32\drivers\mrxdav.sys	File System Driver	No	Manual	Stopped	OK	Normal	No	No
mrxsmb	MRXSMB	c:\windows\system32\drivers\mrxsmb.sys	File System Driver	Yes	System	Running	OK	Normal	No	Yes
msfs	Msfs	c:\windows\system32\drivers\msfs.sys	File System Driver	Yes	System	Running	OK	Normal	No	Yes
mup	Mup	c:\windows\system32\drivers\mup.sys	File System Driver	Yes	Boot	Running	OK	Normal	No	Yes
ndis	NDIS System Driver	c:\windows\system32\drivers\ndis.sys								

	Kernel Driver	Yes	Boot	Running	OK	Normal	No	Yes		
ndistapi	Remote Access NDIS TAPI Driver	c:\windows\system32\drivers\ndistapi.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes
ndisuiio	NDIS Usermode I/O Protocol	c:\windows\system32\drivers\ndisuiio.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes
ndiswan	Remote Access NDIS WAN Driver	c:\windows\system32\drivers\ndiswan.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes
ndproxy	NDIS Proxy	c:\windows\system32\drivers\ndproxy.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes
netbios	NetBIOS Interface	c:\windows\system32\drivers\netbios.sys	File System Driver	Yes	System	Running	OK	Normal	No	Yes
netbt	NetBios over Tcpip	c:\windows\system32\drivers\netbt.sys	Kernel Driver	Yes	System	Running	OK	Normal	No	Yes
nfrd960	nfrd960	Not Available	Kernel Driver	No	Disabled	Stopped	OK			
npfs	Npfs	c:\windows\system32\drivers\npfs.sys	File System Driver	Yes	System	Running	OK	Normal	No	Yes
ntfs	Ntfs	c:\windows\system32\drivers\ntfs.sys	File System Driver	Yes	Disabled	Running	OK	Normal	No	Yes
null	Null	c:\windows\system32\drivers\null.sys	Kernel Driver	Yes	System	Running	OK	Normal	No	Yes
parport	Parallel port driver	c:\windows\system32\drivers\parport.sys	Kernel Driver	Yes	Manual	Running	OK	Normal	No	Yes
partmgr	Partition Manager	c:\windows\system32\drivers\partmgr.sys	Kernel Driver	Yes	Boot	Running	OK	Normal	No	Yes
parvdm	Parvdm	c:\windows\system32\drivers\parvdm.sys								

	Kernel Driver	Yes	Auto		
	Running	OK	Ignore	No	Yes
pci	PCI Bus Driver				
	c:\windows\system32\drivers\pci.sys				
	Kernel Driver	Yes	Boot		
	Running	OK	Critical	No	Yes
pciide	PCIIde				
	c:\windows\system32\drivers\pciide.sys				
	Kernel Driver	Yes	Boot		
	Running	OK	Normal	No	Yes
pcmcia	Pcmcia				
	c:\windows\system32\drivers\pcmcia.sys				
	Kernel Driver	No	Disabled		
	Stopped	OK	Normal	No	No
pdcomp	PDCOMP	Not Available		Kernel Driver	
	No	Manual	Stopped	OK	
	Ignore	No	No		
pdframe	PDFFRAME	Not Available		Kernel Driver	
	No	Manual	Stopped	OK	
	Ignore	No	No		
pdreli	PDRELI	Not Available		Kernel Driver	
	No	Manual	Stopped	OK	
	Ignore	No	No		
pdrframe	PDRFRAME	Not Available		Kernel Driver	
	No	Manual	Stopped	OK	
	Ignore	No	No		
perc2	perc2	Not Available		Kernel Driver	
	No	Disabled	Stopped	OK	
	Normal	No	No		
perc2hib	perc2hib	Not Available		Kernel Driver	
	No	Disabled	Stopped	OK	
	Normal	No	No		
pptpminiport	WAN Miniport (PPTP)				
	c:\windows\system32\drivers\raspttp.sys				
	Kernel Driver	Yes	Manual		
	Running	OK	Normal	No	Yes
processor	Processor Driver				
	c:\windows\system32\drivers\processr.sys				
	Kernel Driver	Yes	Manual		
	Running	OK	Normal	No	Yes
ptilink	Direct Parallel Link Driver				
	c:\windows\system32\drivers\ptilink.sys				
	Kernel Driver	Yes	Manual		
	Running	OK	Normal	No	Yes
q57w2k	HP NC7760 Gigabit Server Adapter				
	c:\windows\system32\drivers\q57xp32.sys				
	Kernel Driver	Yes	Manual		
	Running	OK	Normal	No	Yes
ql1080	ql1080	Not Available		Kernel Driver	
	No	Disabled	Stopped	OK	
	Normal	No	No		
ql10wnt	ql10wnt	Not Available		Kernel Driver	
	No	Disabled	Stopped	OK	
	Normal	No	No		

ql12160	ql12160	Not Available		Kernel Driver	
	No	Disabled	Stopped	OK	
	Normal	No	No		
ql1240	ql1240	Not Available		Kernel Driver	
	No	Disabled	Stopped	OK	
	Normal	No	No		
ql1280	ql1280	Not Available		Kernel Driver	
	No	Disabled	Stopped	OK	
	Normal	No	No		
ql2100	ql2100	Not Available		Kernel Driver	
	No	Disabled	Stopped	OK	
	Normal	No	No		
ql2200	ql2200	Not Available		Kernel Driver	
	No	Disabled	Stopped	OK	
	Normal	No	No		
ql2300	ql2300	Not Available		Kernel Driver	
	No	Disabled	Stopped	OK	
	Normal	No	No		
rasacd	Remote Access Auto Connection Driver				
	c:\windows\system32\drivers\rasacd.sys				
	Kernel Driver	Yes	System		
	Running	OK	Normal	No	Yes
rasl2tp	WAN Miniport (L2TP)				
	c:\windows\system32\drivers\rasl2tp.sys				
	Kernel Driver	Yes	Manual		
	Running	OK	Normal	No	Yes
raspppoe	Remote Access PPPOE Driver				
	c:\windows\system32\drivers\raspppoe.sys				
	Kernel Driver	Yes	Manual		
	Running	OK	Normal	No	Yes
raspti	Direct Parallel				
	c:\windows\system32\drivers\raspti.sys				
	Kernel Driver	Yes	Manual		
	Running	OK	Normal	No	Yes
rdbss	Rdbss				
	c:\windows\system32\drivers\rdbss.sys				
	File System Driver	Yes	System		
	Running	OK	Normal	No	Yes
rdpcdd	RDPDCC				
	c:\windows\system32\drivers\rdpcdd.sys				
	Kernel Driver	Yes	System		
	Running	OK	Ignore	No	Yes
rdpdr	Terminal Server Device Redirector Driver				
	c:\windows\system32\drivers\rdpdr.sys				
	Kernel Driver	Yes	Manual		
	Running	OK	Normal	No	Yes
rdpwd	RDPWD				
	c:\windows\system32\drivers\rdpwd.sys				
	Kernel Driver	Yes	Manual		
	Running	OK	Ignore	No	Yes
redbook	Digital CD Audio Playback Filter Driver				
	c:\windows\system32\drivers\redbook.sys				
	Kernel Driver	Yes	System		
	Running	OK	Normal	No	Yes

secdrv	Secdrv				
	c:\windows\system32\drivers\secdrv.sys				
	Kernel Driver	No	Manual		
	Stopped	OK	Normal	No	No
serenum	Serenum Filter Driver				
	c:\windows\system32\drivers\serenum.sys				
	Kernel Driver	Yes	Manual		
	Running	OK	Normal	No	Yes
serial	Serial port driver				
	c:\windows\system32\drivers\serial.sys				
	Kernel Driver	Yes	System		
	Running	OK	Ignore	No	Yes
sfloppy	Sfloppy				
	c:\windows\system32\drivers\sfloppy.sys				
	Kernel Driver	No	System		
	Stopped	OK	Ignore	No	No
simbad	Simbad	Not Available		Kernel Driver	
	No	Disabled	Stopped	OK	
	Normal	No	No		
sparrow	Sparrow	Not Available		Kernel Driver	
	No	Disabled	Stopped	OK	
	Normal	No	No		
srv	Srv				
	c:\windows\system32\drivers\srv.sys				
	File System Driver	Yes	Manual		
	Running	OK	Normal	No	Yes
swenum	Software Bus Driver				
	c:\windows\system32\drivers\swenum.sys				
	Kernel Driver	Yes	Manual		
	Running	OK	Normal	No	Yes
symc810	symc810	Not Available		Kernel Driver	
	No	Disabled	Stopped	OK	
	Normal	No	No		
symc8xx	symc8xx	Not Available		Kernel Driver	
	No	Disabled	Stopped	OK	
	Normal	No	No		
symmpi	symmpi	Not Available		Kernel Driver	
	No	Disabled	Stopped	OK	
	Normal	No	No		
sym_hi	sym_hi	Not Available		Kernel Driver	
	No	Disabled	Stopped	OK	
	Normal	No	No		
sym_u3	sym_u3	Not Available		Kernel Driver	
	No	Disabled	Stopped	OK	
	Normal	No	No		
tcpip	TCP/IP Protocol Driver				
	c:\windows\system32\drivers\tcpip.sys				
	Kernel Driver	Yes	System		
	Running	OK	Normal	No	Yes
tdpipe	TDPIPE				
	c:\windows\system32\drivers\tdpipe.sys				
	Kernel Driver	No	Manual		
	Stopped	OK	Ignore	No	No
tdtcp	TDTCP				
	c:\windows\system32\drivers\tdtcp.sys				

	Kernel Driver	Yes	Manual		
	Running	OK	Ignore	No	Yes
termdd	Terminal Device Driver				
	c:\windows\system32\drivers\termdd.sys				
	Kernel Driver	Yes	System		
	Running	OK	Normal	No	Yes
toside	Toside Not Available Kernel Driver				
	No	Disabled	Stopped	OK	
	Normal	No	No		
udfs	Udfs				
	c:\windows\system32\drivers\udfs.sys				
	File System Driver	No	Disabled		
	Stopped	OK	Normal	No	No
ultra	ultra Not Available Kernel Driver				
	No	Disabled	Stopped	OK	
	Normal	No	No		
update	Microcode Update Driver				
	c:\windows\system32\drivers\update.sys				
	Kernel Driver	Yes	Manual		
	Running	OK	Normal	No	Yes
usbhub	USB2 Enabled Hub				
	c:\windows\system32\drivers\usbhub.sys				
	Kernel Driver	Yes	Manual		
	Running	OK	Normal	No	Yes
usbohci	Microsoft USB Open Host Controller Miniport				
Driver	c:\windows\system32\drivers\usbohci.sys				
	Kernel Driver	Yes	Manual		
	Running	OK	Normal	No	Yes
vgasave	VGA Display Controller.				
	c:\windows\system32\drivers\vga.sys				
	Kernel Driver	Yes	System		
	Running	OK	Ignore	No	Yes
viaide	ViaIde Not Available Kernel Driver				
	No	Disabled	Stopped	OK	
	Normal	No	No		
volsnap	Storage volumes				
	c:\windows\system32\drivers\volsnap.sys				
	Kernel Driver	Yes	Boot		
	Running	OK	Normal	No	Yes
wanarp	Remote Access IP ARP Driver				
	c:\windows\system32\drivers\wanarp.sys				
	Kernel Driver	Yes	Manual		
	Running	OK	Normal	No	Yes
wdica	WDICA Not Available Kernel Driver				
	No	Manual	Stopped	OK	
	Ignore	No	No		
wlbs	Network Load Balancing				
	c:\windows\system32\drivers\wlbs.sys				
	Kernel Driver	No	Manual		
	Stopped	OK	Normal	No	No

[Signed Drivers]

Device Name	Signed	Device Class
Driver Version		Driver Date
Manufacturer		INF Name
Device ID		Driver Name
Not Available	Not Available	Not Available
Not Available	Not Available	Not Available
Available	Not Available	Not Available
HTREE\ROOT\0		
ACPI Multiprocessor PC	Yes	COMPUTER
5.2.3790.0	10/1/2002	(Standard
computers)	hal.inf	Not Available
ROOT\ACPI_HAL\0000		
Microsoft	ACPI-Compliant System	Yes
SYSTEM	5.2.3790.0	10/1/2002
Microsoft acpi.inf	Not Available	
ACPI_HAL\PNP0C08\0		
Processor	Yes	PROCESSOR 5.2.3790.0
10/1/2002	(Standard processor types)	
cpu.inf	Not Available	
ACPI\GENUINEINTEL_-		
_X86_FAMILY_15_MODEL_2_2		
Processor	Yes	PROCESSOR 5.2.3790.0
10/1/2002	(Standard processor types)	
cpu.inf	Not Available	
ACPI\GENUINEINTEL_-		
_X86_FAMILY_15_MODEL_2_3		
PCI bus	Yes	SYSTEM 5.2.3790.0
10/1/2002	(Standard system devices)	
machine.inf	Not Available	
ACPI\PNP0A03\0		
ServerWorks (RCC) CMIC_LE Processor to PCI Bridge(*)	Yes	SYSTEM 5.2.3790.0
10/1/2002	ServerWorks (RCC) machine.inf	
Not Available		
PCI\VEN_1166&DEV_0014&SUBSYS_00000000&REV_3		
1\3&267A616A&0&00		
ServerWorks (RCC) CMIC_LE Processor to PCI Bridge(*)	Yes	SYSTEM 5.2.3790.0
10/1/2002	ServerWorks (RCC) machine.inf	
Not Available		
PCI\VEN_1166&DEV_0014&SUBSYS_00000000&REV_0		
0\3&267A616A&0&01		
ServerWorks (RCC) CMIC_LE Processor to PCI Bridge(*)	Yes	SYSTEM 5.2.3790.0
10/1/2002	ServerWorks (RCC) machine.inf	
Not Available		
PCI\VEN_1166&DEV_0014&SUBSYS_00000000&REV_0		
0\3&267A616A&0&02		
Compaq 64-bit/66MHz Dual Channel Wide Ultra3 SCSI	Yes	SCSIADAPTER 5.2.3790.0
Adapter	10/1/2002	Adaptec pnpscsi.inf
Not Available		Not
PCI\VEN_9005&DEV_00C0&SUBSYS_F6200E11&REV_0		
1\3&267A616A&0&10		
Disk drive	Yes	DISKDRIVE 5.2.3790.0
10/1/2002	(Standard disk drives)	
disk.inf	Not Available	
SCSI\DISK&VEN_COMPAQ&PROD_BD03695CC8&REV_HP		
B6\4&E88F65D&0&000		
Compaq 64-bit/66MHz Dual Channel Wide Ultra3 SCSI	Yes	SCSIADAPTER 5.2.3790.0
Adapter	10/1/2002	Adaptec pnpscsi.inf
Not Available		Not

Device Name	Signed	Device Class
PCI\VEN_9005&DEV_00C0&SUBSYS_F6200E11&REV_0		
1\3&267A616A&0&11		
RAGE XL PCI Family (Microsoft Corporation)	Yes	
DISPLAY	5.10.2600.6014	8/8/2001
Technologies Inc. atixpad.inf	Not Available	
PCI\VEN_1002&DEV_4752&SUBSYS_001E0E11&REV_2		
7\3&267A616A&0&18		
Plug and Play Monitor	Yes	MONITOR
5.1.2001.0	6/6/2001	(Standard
monitor types)	monitor.inf	Not Available
DISPLAY\AV00402\4&89B5141&0&80000001&00&03		
HP NC7760 Gigabit Server Adapter	Yes	NET
6.64.0.0	5/21/2003	Hewlett-Packard Company
oem3.inf	Not Available	
PCI\VEN_14E4&DEV_16A6&SUBSYS_00BB0E11&REV_0		
2\3&267A616A&0&20		
Compaq Advanced System Management Controller	Yes	
SYSTEM	5.2.3790.0	10/1/2002
Compaq machine.inf	Not Available	
PCI\VEN_0E11&DEV_A0F0&SUBSYS_B0F30E11&REV_0		
0\3&267A616A&0&28		
PCI standard ISA bridge	Yes	SYSTEM
5.2.3790.0	10/1/2002	(Standard
system devices)	machine.inf	Not Available
PCI\VEN_1166&DEV_0201&SUBSYS_00000000&REV_9		
3\3&267A616A&0&78		
ISAPNP Read Data Port	Yes	SYSTEM
5.2.3790.0	10/1/2002	(Standard
system devices)	machine.inf	Not Available
ISAPNP\READDATAPORT\0		
Motherboard resources	Yes	SYSTEM
5.2.3790.0	10/1/2002	(Standard
system devices)	machine.inf	Not Available
ACPI\PNP0C02\0		
Programmable interrupt controller	Yes	
SYSTEM	5.2.3790.0	10/1/2002
(Standard system devices)		machine.inf
Not Available		
ACPI\PNP0000\4&35118DFF&0		
System timer	Yes	SYSTEM 5.2.3790.0
10/1/2002	(Standard system devices)	
machine.inf	Not Available	
ACPI\PNP0100\4&35118DFF&0		
Direct memory access controller	Yes	
SYSTEM	5.2.3790.0	10/1/2002
(Standard system devices)		machine.inf
Not Available		
ACPI\PNP0200\4&35118DFF&0		
System speaker	Yes	SYSTEM 5.2.3790.0
10/1/2002	(Standard system devices)	
machine.inf	Not Available	
ACPI\PNP0800\4&35118DFF&0		
Standard 101/102-Key or Microsoft Natural PS/2	Yes	
Keyboard	Yes	KEYBOARD 5.2.3790.0
10/1/2002	(Standard keyboards)	
keyboard.inf	Not Available	
ACPI\PNP0303\4&35118DFF&0		
PS/2 Compatible Mouse	Yes	MOUSE
5.2.3790.0	10/1/2002	Microsoft
msmouse.inf	Not Available	
ACPI\PNP0F13\4&35118DFF&0		

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Extended IO Bus Yes SYSTEM 5.2.3790.0
10/1/2002 (Standard system devices)
machine.inf Not Available
ACPI\PNP0A06\4&35118DFF&0
Printer Port Yes PORTS 5.2.3790.0
10/1/2002 (Standard port types)
msports.inf Not Available
ACPI\PNP0400\5&13237358&0
Printer Port Logical Interface Yes
SYSTEM 5.2.3790.0 10/1/2002
(Standard system devices) machine.inf
Not Available
LPTENUM\MICROSOFTRAWPORT\6&BCCF519&0\LPT1
Communications Port Yes PORTS 5.2.3790.0
10/1/2002 (Standard port types)
msports.inf Not Available
ACPI\PNP0501\0
Sportster 33600 Fax PC Plug and Play Yes
MODEM 5.2.3790.0 3/9/2000
3Com mdmusrsp.inf Not Available
SERENUM\USR2003\6&14F79827&0&0000
Standard floppy disk controller Yes FDC
5.2.3790.0 10/1/2002 (Standard
floppy disk controllers) fdc.inf Not Available
ACPI\PNP0700\5&13237358&0
Floppy disk drive Yes FLOPPYDISK
5.2.3790.0 10/1/2002 (Standard
floppy disk drives) flpydisk.inf Not Available
FDC\GENERIC_FLOPPY_DRIVE\6&1C650E5D&0&0
CSB5 IDE Controller Yes HDC 5.2.3790.0
10/1/2002 ServerWorks mshdc.inf Not
Available
PCI\VEN_1166&DEV_0212&SUBSYS_02121166&REV_9
3\3&267A616A&0&79
Primary IDE Channel Yes HDC 5.2.3790.0
10/1/2002 (Standard IDE ATA/ATAPI
controllers) mshdc.inf Not Available
PCI\IDE\IDECHANNEL\4&1024D5C6&0&0
CD-ROM Drive Yes CDROM 5.2.3790.0
10/1/2002 (Standard CD-ROM drives)
cdrom.inf Not Available
IDE\CDROMCOMPAQ_CD-
ROM_LTN486S_____YQSK_____\5\FB0C83D&0&0.
0.0
Secondary IDE Channel Yes HDC
5.2.3790.0 10/1/2002 (Standard IDE
ATA/ATAPI controllers) mshdc.inf Not Available
PCI\IDE\IDECHANNEL\4&1024D5C6&0&1
ServerWorks (RCC) PCI to USB Open Host Controller Yes
USB 5.2.3790.0 10/1/2002
ServerWorks (RCC) usbport.inf Not
Available
PCI\VEN_1166&DEV_0220&SUBSYS_02201166&REV_0
5\3&267A616A&0&7A
USB Root Hub Yes USB 5.2.3790.0
10/1/2002 (Standard USB Host Controller)
usbport.inf Not Available
USB\ROOT_HUB\4&AF5358C&0
Serverworks Champion CSB5 - SouthBridge 5 LPC Yes
SYSTEM 5.2.3790.0 10/1/2002
ServerWorks (RCC) machine.inf Not
Available

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PCI\VEN_1166&DEV_0225&SUBSYS_00000000&REV_0
0\3&267A616A&0&7B
ServerWorks Grand Champion CIOB_X2 - I/O Bridge 133
Mhz Yes SYSTEM 5.2.3790.0
10/1/2002 ServerWorks (RCC) machine.inf
Not Available
PCI\VEN_1166&DEV_0101&SUBSYS_00000000&REV_0
3\3&267A616A&0&88
ServerWorks Grand Champion CIOB_X2 - I/O Bridge 133
Mhz Yes SYSTEM 5.2.3790.0
10/1/2002 ServerWorks (RCC) machine.inf
Not Available
PCI\VEN_1166&DEV_0101&SUBSYS_00000000&REV_0
3\3&267A616A&0&8A
PCI bus Yes SYSTEM 5.2.3790.0
10/1/2002 (Standard system devices)
machine.inf Not Available
ACPI\PNP0A03\1
Smart Array 641 Controller (Non-Miniport) No
SCSIADAPTER 5.6.59.32 4/8/2003
Hewlett-Packard oem1.inf Not Available
PCI\VEN_0E11&DEV_0046&SUBSYS_409A0E11&REV_0
1\3&13C0B0C5&0&08
Smart Array Logical Volume No DISKDRIVE
5.6.56.32 4/8/2003 Hewlett-Packard
oem2.inf Not Available
HPQCISS\DISK&VEN_HP&PROD_LOGICAL_VOLUME\4&2
42FC3D1&0&0000004000000000
Smart Array Logical Volume No DISKDRIVE
5.6.56.32 4/8/2003 Hewlett-Packard
oem2.inf Not Available
HPQCISS\DISK&VEN_HP&PROD_LOGICAL_VOLUME\4&2
42FC3D1&0&0100004000000000
Smart Array Logical Volume No DISKDRIVE
5.6.56.32 4/8/2003 Hewlett-Packard
oem2.inf Not Available
HPQCISS\DISK&VEN_HP&PROD_LOGICAL_VOLUME\4&2
42FC3D1&0&0200004000000000
Smart Array Logical Volume No DISKDRIVE
5.6.56.32 4/8/2003 Hewlett-Packard
oem2.inf Not Available
HPQCISS\DISK&VEN_HP&PROD_LOGICAL_VOLUME\4&2
42FC3D1&0&0300004000000000
Smart Array Logical Volume No DISKDRIVE
5.6.56.32 4/8/2003 Hewlett-Packard
oem2.inf Not Available
HPQCISS\DISK&VEN_HP&PROD_LOGICAL_VOLUME\4&2
42FC3D1&0&0400004000000000
Smart Array Logical Volume No DISKDRIVE
5.6.56.32 4/8/2003 Hewlett-Packard
oem2.inf Not Available
HPQCISS\DISK&VEN_HP&PROD_LOGICAL_VOLUME\4&2
42FC3D1&0&0500004000000000
Smart Array Logical Volume No DISKDRIVE
5.6.56.32 4/8/2003 Hewlett-Packard
oem2.inf Not Available
HPQCISS\DISK&VEN_HP&PROD_LOGICAL_VOLUME\4&2
42FC3D1&0&0600004000000000
Smart Array Logical Volume No DISKDRIVE
5.6.56.32 4/8/2003 Hewlett-Packard
oem2.inf Not Available
HPQCISS\DISK&VEN_HP&PROD_LOGICAL_VOLUME\4&2
42FC3D1&0&0700004000000000

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Smart Array Logical Volume No DISKDRIVE
5.6.56.32 4/8/2003 Hewlett-Packard
oem2.inf Not Available
HPQCISS\DISK&VEN_HP&PROD_LOGICAL_VOLUME\4&2
42FC3D1&0&0800004000000000
Smart Array 642 Controller (Non-Miniport) No
SCSIADAPTER 5.6.59.32 4/8/2003
Hewlett-Packard oem1.inf Not Available
PCI\VEN_0E11&DEV_0046&SUBSYS_409B0E11&REV_0
1\3&13C0B0C5&0&10
Smart Array Logical Volume No DISKDRIVE
5.6.56.32 4/8/2003 Hewlett-Packard
oem2.inf Not Available
HPQCISS\DISK&VEN_HP&PROD_LOGICAL_VOLUME\4&2
2AA0D66&0&0000004000000000
Smart Array Logical Volume No DISKDRIVE
5.6.56.32 4/8/2003 Hewlett-Packard
oem2.inf Not Available
HPQCISS\DISK&VEN_HP&PROD_LOGICAL_VOLUME\4&2
2AA0D66&0&0100004000000000
Smart Array Logical Volume No DISKDRIVE
5.6.56.32 4/8/2003 Hewlett-Packard
oem2.inf Not Available
HPQCISS\DISK&VEN_HP&PROD_LOGICAL_VOLUME\4&2
2AA0D66&0&0200004000000000
Smart Array Logical Volume No DISKDRIVE
5.6.56.32 4/8/2003 Hewlett-Packard
oem2.inf Not Available
HPQCISS\DISK&VEN_HP&PROD_LOGICAL_VOLUME\4&2
2AA0D66&0&0300004000000000
Smart Array Logical Volume No DISKDRIVE
5.6.56.32 4/8/2003 Hewlett-Packard
oem2.inf Not Available
HPQCISS\DISK&VEN_HP&PROD_LOGICAL_VOLUME\4&2
2AA0D66&0&0400004000000000
PCI bus Yes SYSTEM 5.2.3790.0
10/1/2002 (Standard system devices)
machine.inf Not Available
ACPI\PNP0A03\2
Smart Array 642 Controller (Non-Miniport) No
SCSIADAPTER 5.6.59.32 4/8/2003
Hewlett-Packard oem1.inf Not Available
PCI\VEN_0E11&DEV_0046&SUBSYS_409B0E11&REV_0
1\3&1070020&0&08
Smart Array Logical Volume No DISKDRIVE
5.6.56.32 4/8/2003 Hewlett-Packard
oem2.inf Not Available
HPQCISS\DISK&VEN_HP&PROD_LOGICAL_VOLUME\4&1
C1F000E&0&0000004000000000
Smart Array Logical Volume No DISKDRIVE
5.6.56.32 4/8/2003 Hewlett-Packard
oem2.inf Not Available
HPQCISS\DISK&VEN_HP&PROD_LOGICAL_VOLUME\4&1
C1F000E&0&0100004000000000
Smart Array Logical Volume No DISKDRIVE
5.6.56.32 4/8/2003 Hewlett-Packard
oem2.inf Not Available
HPQCISS\DISK&VEN_HP&PROD_LOGICAL_VOLUME\4&1
C1F000E&0&0200004000000000
ACPI Thermal Zone Yes SYSTEM 5.2.3790.0
10/1/2002 (Standard system devices)
machine.inf Not Available
ACPI\THERMALZONE\THM0

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ACPI Fixed Feature Button	Yes	SYSTEM	
5.2.3790.0	10/1/2002	(Standard	
system devices)	machine.inf	Not Available	
ACPI\FIXEDBUTTON\2&DABA3FF&0			
Logical Disk Manager	Yes	SYSTEM	
5.2.3790.0	10/1/2002	(Standard	
system devices)	machine.inf	Not Available	
ROOT\DMIO\0000			
Volume Manager	Yes	SYSTEM	5.2.3790.0
10/1/2002	(Standard	system devices)	
machine.inf	Not Available		
ROOT\FTDISK\0000			
Generic volume	Yes	VOLUME	5.2.3790.0
10/1/2002	Microsoft	volume.inf	Not
Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE23869A			
77OFFSET7E00LENGT87A669800			
Generic volume	Yes	VOLUME	5.2.3790.0
10/1/2002	Microsoft	volume.inf	Not
Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATUREF11B82			
02OFFSET7E00LENGT87A669800			
Generic volume	Yes	VOLUME	5.2.3790.0
10/1/2002	Microsoft	volume.inf	Not
Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATUREF11B82			
03OFFSET7E00LENGT10C2C4800			
Generic volume	Yes	VOLUME	5.2.3790.0
10/1/2002	Microsoft	volume.inf	Not
Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATUREF11B82			
00OFFSET7E00LENGT7C867E00			
Generic volume	Yes	VOLUME	5.2.3790.0
10/1/2002	Microsoft	volume.inf	Not
Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATUREF11B82			
01OFFSET4000LENGT237FC000			
Generic volume	Yes	VOLUME	5.2.3790.0
10/1/2002	Microsoft	volume.inf	Not
Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATUREF11B82			
0FOFFSET4000LENGT1F0FC000			
Generic volume	Yes	VOLUME	5.2.3790.0
10/1/2002	Microsoft	volume.inf	Not
Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURED9D514			
6DOFFSET4000LENGT1AF0000			
Generic volume	Yes	VOLUME	5.2.3790.0
10/1/2002	Microsoft	volume.inf	Not
Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURED9D514			
6FOFFSET4000LENGT12FC000			
Generic volume	Yes	VOLUME	5.2.3790.0
10/1/2002	Microsoft	volume.inf	Not
Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE330CF7			
23OFFSET7E00LENGT68ABE3200			

Generic volume	Yes	VOLUME	5.2.3790.0
10/1/2002	Microsoft	volume.inf	Not
Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATURE330CF7			
21OFFSET7E00LENGT4C24E6C00			
Generic volume	Yes	VOLUME	5.2.3790.0
10/1/2002	Microsoft	volume.inf	Not
Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATUREF11B82			
08OFFSET7E00LENGT9BE6FE00			
Generic volume	Yes	VOLUME	5.2.3790.0
10/1/2002	Microsoft	volume.inf	Not
Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATUREF11B82			
09OFFSET7E00LENGT8F27CA00			
Generic volume	Yes	VOLUME	5.2.3790.0
10/1/2002	Microsoft	volume.inf	Not
Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATUREF11B82			
17OFFSET7E00LENGT2B83CC0600			
Generic volume	Yes	VOLUME	5.2.3790.0
10/1/2002	Microsoft	volume.inf	Not
Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATUREFE7D93			
B7OFFSET7E00LENGT68ABE3200			
Generic volume	Yes	VOLUME	5.2.3790.0
10/1/2002	Microsoft	volume.inf	Not
Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATUREFE7D93			
B6OFFSET7E00LENGT4C24E6C00			
Generic volume	Yes	VOLUME	5.2.3790.0
10/1/2002	Microsoft	volume.inf	Not
Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATUREF11B82			
12OFFSET7E00LENGT2C9A447600			
Generic volume	Yes	VOLUME	5.2.3790.0
10/1/2002	Microsoft	volume.inf	Not
Available			
STORAGE\VOLUME\1&30A96598&0&SIGNATUREA19EA1			
9EOFFSET7E00LENGT43C76CA00			
AFD Networking Support Environment	Not Available		
LEGACYDRIVER	Not Available	Not	
Available	Not Available	Not Available	Not
Available	ROOT\LEGACY_AFD\0000		
Beep	Not Available	LEGACYDRIVER	Not
Available	Not Available	Not Available	Not
Available	Not Available	ROOT\LEGACY_BEEP\0000	
CRC Disk Filter Driver	Not Available		
LEGACYDRIVER	Not Available	Not	
Available	Not Available	Not Available	Not
Available	ROOT\LEGACY_CRCDISK\0000		
dmbboot	Not Available	LEGACYDRIVER	Not
Available	Not Available	Not Available	Not
Available	Not Available	ROOT\LEGACY_DMBOOT\0000	
dmload	Not Available	LEGACYDRIVER	Not
Available	Not Available	Not Available	Not
Available	Not Available	ROOT\LEGACY_DMLOAD\0000	
Fips	Not Available	LEGACYDRIVER	Not
Available	Not Available	Not Available	Not

Available	Not Available		ROOT\LEGACY_FIPS\0000
Generic Packet Classifier	Not Available		
LEGACYDRIVER	Not Available	Not	
Available	Not Available	Not Available	Not
Available	ROOT\LEGACY_GPC\0000		
IP Traffic Filter Driver	Not Available		
LEGACYDRIVER	Not Available	Not	
Available	Not Available	Not Available	Not
Available	ROOT\LEGACY_IPFILTERDRIVER\0000		
IPSEC driver	Not Available	LEGACYDRIVER	
Not Available	Not Available	Not Available	Not
Available	Not Available	Not Available	Not
Available	ROOT\LEGACY_IPSEC\0000		
ksecdd	Not Available	LEGACYDRIVER	Not
Available	Not Available	Not Available	Not
Available	Not Available	ROOT\LEGACY_KSECCDD\0000	
mnmdd	Not Available	LEGACYDRIVER	Not
Available	Not Available	Not Available	Not
Available	Not Available	ROOT\LEGACY_MNMDD\0000	
mountmgr	Not Available	LEGACYDRIVER	Not
Available	Not Available	Not Available	Not
Available	Not Available	Not Available	Not
Available	ROOT\LEGACY_MOUNTGR\0000		
NDIS System Driver	Not Available	LEGACYDRIVER	
Not Available	Not Available	Not Available	Not
Available	Not Available	Not Available	Not
Available	ROOT\LEGACY_NDIS\0000		
Remote Access NDIS TAPI Driver	Not Available		
LEGACYDRIVER	Not Available	Not	
Available	Not Available	Not Available	Not
Available	ROOT\LEGACY_NDIS\0000		
NDIS Usermode I/O Protocol	Not Available		
LEGACYDRIVER	Not Available	Not	
Available	Not Available	Not Available	Not
Available	ROOT\LEGACY_NDISUIO\0000		
NDProxy	Not Available	LEGACYDRIVER	Not
Available	Not Available	Not Available	Not
Available	Not Available	Not Available	Not
Available	ROOT\LEGACY_NDPROXY\0000		
NetBios over Tcpip	Not Available	LEGACYDRIVER	
Not Available	Not Available	Not Available	Not
Available	Not Available	Not Available	Not
Available	Not Available	Not Available	Not
Available	ROOT\LEGACY_NETBT\0000		
Null	Not Available	LEGACYDRIVER	Not
Available	Not Available	Not Available	Not
Available	Not Available	Not Available	Not
Available	Not Available	ROOT\LEGACY_NULL\0000	
Partition Manager	Not Available	LEGACYDRIVER	
Not Available	Not Available	Not Available	Not
Available	Not Available	Not Available	Not
Available	Not Available	Not Available	Not
Available	ROOT\LEGACY_PARTMGR\0000		
Parvdm	Not Available	LEGACYDRIVER	Not
Available	Not Available	Not Available	Not
Available	Not Available	Not Available	Not
Available	Not Available	ROOT\LEGACY_PARVDM\0000	
Remote Access Auto Connection Driver	Not Available		
LEGACYDRIVER	Not Available	Not	
Available	Not Available	Not Available	Not
Available	Not Available	Not Available	Not
Available	ROOT\LEGACY_RASACD\0000		

```

RDPCCD Not Available LEGACYDRIVER Not
Available Not Available Not
Available Not Available ROOT\LEGACY_RDPCCD\0000

RDPWD Not Available LEGACYDRIVER Not
Available Not Available Not
Available Not Available ROOT\LEGACY_RDPWD\0000

TCP/IP Protocol Driver Not Available
LEGACYDRIVER Not Available Not
Available Not Available Not Available Not
Available ROOT\LEGACY_TCPIP\0000

TDTCP Not Available LEGACYDRIVER Not
Available Not Available Not Available Not
Available Not Available ROOT\LEGACY_TDTCP\0000

VGA Display Controller. Not Available
LEGACYDRIVER Not Available Not
Available Not Available Not Available Not
Available ROOT\LEGACY_VGASAVE\0000
volsnap Not Available LEGACYDRIVER Not
Available Not Available Not Available Not
Available Not Available
ROOT\LEGACY_VOLSNAP\0000
Remote Access IP ARP Driver Not Available
LEGACYDRIVER Not Available Not
Available Not Available Not Available Not
Available ROOT\LEGACY_WANARP\0000
Audio Codecs Yes MEDIA 5.2.3790.0
10/1/2002 (Standard system devices)
wave.inf Not Available
ROOT\MEDIA\MS_MMCM
Legacy Audio Drivers Yes MEDIA
5.2.3790.0 10/1/2002 (Standard
system devices) wave.inf Not Available
ROOT\MEDIA\MS_MMDRV
Media Control Devices Yes MEDIA
5.2.3790.0 10/1/2002 (Standard
system devices) wave.inf Not Available
ROOT\MEDIA\MS_MMMCI
Legacy Video Capture Devices Yes MEDIA
5.2.3790.0 10/1/2002 (Standard
system devices) wave.inf Not Available
ROOT\MEDIA\MS_MMVCD
Video Codecs Yes MEDIA 5.2.3790.0
10/1/2002 (Standard system devices)
wave.inf Not Available
ROOT\MEDIA\MS_MMVID
WAN Miniport (L2TP) Yes NET 5.2.3790.0
10/1/2002 Microsoft netrasa.inf Not
Available ROOT\MS_L2TPMINIPORT\0000
WAN Miniport (IP) Yes NET 5.2.3790.0
10/1/2002 Microsoft netrasa.inf Not
Available ROOT\MS_NDISWANIP\0000
WAN Miniport (PPPOE) Yes NET
5.2.3790.0 10/1/2002 Microsoft
netrasa.inf Not Available
ROOT\MS_PPPOEMINIPORT\0000
WAN Miniport (PPTP) Yes NET 5.2.3790.0
10/1/2002 Microsoft netrasa.inf Not
Available ROOT\MS_PPTPMINIPORT\0000

```

```

Direct Parallel Yes NET 5.2.3790.0
10/1/2002 Microsoft netrasa.inf Not
Available ROOT\MS_PTMINIPORT\0000
Terminal Server Device Redirector Yes
SYSTEM 5.2.3790.0 10/1/2002
(Standard system devices) machine.inf
Not Available ROOT\RDPDR\0000
Terminal Server Keyboard Driver Yes
SYSTEM 5.2.3790.0 10/1/2002
(Standard system devices) machine.inf
Not Available ROOT\RDP_KBD\0000
Terminal Server Mouse Driver Yes
5.2.3790.0 10/1/2002 (Standard
system devices) machine.inf Not Available
ROOT\RDP_MOUSE\0000
Plug and Play Software Device Enumerator Yes
SYSTEM 5.2.3790.0 10/1/2002
(Standard system devices) machine.inf
Not Available ROOT\SYSTEM\0000
RAS Async Adapter Yes NET 5.2.3790.0
10/1/2002 Microsoft netrasa.inf Not
Available SW\{EEAB7790-C514-11D1-B42B-
00805FC1270E}\ASYNCMAC
Microcode Update Device Yes
5.2.3790.0 10/1/2002 (Standard
system devices) machine.inf Not Available
ROOT\SYSTEM\0001

[Environment Variables]
Variable Value User Name
CLASSPATH
.;C:\PROGRA-1\IBM\SQLLIB\java\db2java.zip;C
:\PROGRA-1\IBM\SQLLIB\java\db2jcc.jar;C:\PROGRA-1\IBM
\SQLLIB\java\db2jcc_license_cu.jar;C:\PROGRA-1\IBM\SQ
LLIB\bin;C:\PROGRA-1\IBM\SQLLIB\java\common.jar
ClusterLog C:\WINDOWS\Cluster\cluster.log
ComSpec %SystemRoot%\system32\cmd.exe <SYSTEM>
DB2INSTANCE DB2 <SYSTEM>
DB2TEMPDIR C:\PROGRA-1\IBM\SQLLIB\
<SYSTEM>
INCLUDE
C:\PROGRA-1\IBM\SQLLIB\INCLUDE;C:\PROGRA-1\
IBM\SQLLIB\LIB <SYSTEM>
LIB C:\PROGRA-1\IBM\SQLLIB\LIB <SYSTEM>
NUMBER_OF_PROCESSORS 2 <SYSTEM>
OS Windows_NT <SYSTEM>
Path
c:\cygwin\bin;c:\Perl\bin;c:\WINDOWS\sysme
m32;c:\WINDOWS;c:\WINDOWS\System32\wbem;c:\PROGRA-1\I
BM\SQLLIB\BIN;c:\PROGRA-1\IBM\SQLLIB\FUNCTION;c:\PROG
RA-1\IBM\SQLLIB\SAMPLES\REPL <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>

```

```

TMP %SystemRoot%\TEMP <SYSTEM>
windir %SystemRoot% <SYSTEM>
TEMP %USERPROFILE%\Local Settings\Temp NT
AUTHORITY\SYSTEM
TMP %USERPROFILE%\Local Settings\Temp NT
AUTHORITY\SYSTEM
TEMP %USERPROFILE%\Local Settings\Temp NT
AUTHORITY\LOCAL SERVICE
TMP %USERPROFILE%\Local Settings\Temp NT
AUTHORITY\LOCAL SERVICE
TEMP %USERPROFILE%\Local Settings\Temp NT
AUTHORITY\NETWORK SERVICE
TMP %USERPROFILE%\Local Settings\Temp NT
AUTHORITY\NETWORK SERVICE
TEMP %USERPROFILE%\Local Settings\Temp
BLUE\db2admin
TMP %USERPROFILE%\Local Settings\Temp
BLUE\db2admin

[Print Jobs]
Document Size Owner Notify Status
Time Submitted Start Time
Until Time Elapsed Time
Pages Printed Job ID Priority
Parameters Driver Print
Processor Host Print Queue Data Type Name

[Network Connections]
Local Name Remote Name Type
Status User Name
Y: \\danil\c$ Disk Persistent
Connection BLUE\db2admin

[Running Tasks]
Name Path Process ID Priority Min
Working Set Max Working Set Start Time
Version Size File Date
system idle process Not Available 0 0
Not Available Not Available Not Available Not
Available Not Available Not Available Not
system Not Available 4 8 0
1413120 Not Available Not Available
Not Available Not Available
smss.exe Not Available 420 11
204800 1413120 4/6/2004 2:18 PM Not
Available Not Available Not Available
csrss.exe Not Available 476 13 Not
Available Not Available 4/6/2004 2:18 PM Not
Available Not Available Not Available
winlogon.exe c:\windows\system32\winlogon.exe
500 13 204800 1413120
4/6/2004 2:18 PM 5.2.3790.0
(srv03_rtm.030324-2048) 536.50 KB (549,376
bytes) 3/25/2003 6:00 AM
services.exe c:\windows\system32\services.exe
544 9 204800 1413120
4/6/2004 2:18 PM 5.2.3790.0
(srv03_rtm.030324-2048) 102.00 KB (104,448
bytes) 3/25/2003 6:00 AM

```

```

lsass.exe c:\windows\system32\lsass.exe 556 9
204800 1413120 4/6/2004 2:18 PM
5.2.3790.0 (srv03_rtm.030324-2048)
13.00 KB (13,312 bytes) 3/25/2003
6:00 AM
svchost.exe c:\windows\system32\svchost.exe
716 8 204800 1413120
4/6/2004 2:18 PM 5.2.3790.0
(srv03_rtm.030324-2048) 13.00 KB (13,312 bytes)
3/25/2003 6:00 AM
svchost.exe c:\windows\system32\svchost.exe
752 8 204800 1413120
4/6/2004 2:18 PM 5.2.3790.0
(srv03_rtm.030324-2048) 13.00 KB (13,312 bytes)
3/25/2003 6:00 AM
svchost.exe Not Available 916 8
Not Available Not Available
4/6/2004 2:18 PM Not Available Not
Available Not Available
svchost.exe Not Available 964 8
Not Available Not Available
4/6/2004 2:18 PM Not Available Not
Available Not Available
svchost.exe c:\windows\system32\svchost.exe
976 8 204800 1413120
4/6/2004 2:18 PM 5.2.3790.0
(srv03_rtm.030324-2048) 13.00 KB (13,312 bytes)
3/25/2003 6:00 AM
spoolsv.exe c:\windows\system32\spoolsv.exe
1148 8 204800 1413120
4/6/2004 2:18 PM 5.2.3790.0
(srv03_rtm.030324-2048) 55.00 KB (56,320 bytes)
3/25/2003 6:00 AM
msdtc.exe Not Available 1176 8 Not
Available Not Available 4/6/2004 2:18 PM Not
Available Not Available Not Available
db2dasrrm.exe Not Available 1384 8
Not Available Not Available
4/6/2004 2:18 PM Not Available Not
Available Not Available
db2jds.exe c:\program
files\ibm\sqlib\bin\db2jds.exe 1400 8
204800 1413120 4/6/2004 2:18 PM
8.1.5.449 189.12 KB (193,656 bytes)
2/21/2004 2:15 AM
db2licd.exe c:\program
files\ibm\sqlib\bin\db2licd.exe 1416 8
204800 1413120 4/6/2004 2:18 PM
8.1.5.449 89.12 KB (91,256 bytes)
2/21/2004 2:15 AM
db2sec.exe c:\program
files\ibm\sqlib\bin\db2sec.exe 1428 8
204800 1413120 4/6/2004 2:18 PM
8.1.5.449 29.12 KB (29,816 bytes)
2/21/2004 2:17 AM
db2rcmd.exe Not Available 1440 8
Not Available Not Available
4/6/2004 2:18 PM Not Available Not
Available Not Available
svchost.exe c:\windows\system32\svchost.exe
1468 8 204800 1413120
4/6/2004 2:18 PM 5.2.3790.0

```

```

(srv03_rtm.030324-2048) 13.00 KB (13,312 bytes)
3/25/2003 6:00 AM
svchost.exe Not Available 1508 8
Not Available Not Available
4/6/2004 2:18 PM Not Available Not
Available Not Available
tlntsvr.exe Not Available 1528 8
Not Available Not Available
4/6/2004 2:18 PM Not Available Not
Available Not Available
db2syscs.exe
c:\progra-1\ibm\sqlib\bin\db2syscs.exe
1728 8 204800 1413120
4/6/2004 2:18 PM 8.1.5.449 101.12 KB
(103,544 bytes) 2/21/2004 2:17 AM
db2dasstm.exe c:\program
files\ibm\sqlib\bin\db2dasstm.exe 1764 8
204800 1413120 4/6/2004 2:18 PM
8.1.5.449 105.12 KB (107,640 bytes)
2/21/2004 2:14 AM
explorer.exe c:\windows\explorer.exe
1912 8 204800 1413120
4/6/2004 2:18 PM 6.00.3790.0
(srv03_rtm.030324-2048) 1,008.50 KB (1,032,704
bytes) 3/25/2003 6:00 AM
dfssvc.exe c:\windows\system32\dfssvc.exe
1976 8 204800 1413120
4/6/2004 2:18 PM 5.2.3790.0
(srv03_rtm.030324-2048) 130.50 KB (133,632
bytes) 3/25/2003 6:00 AM
svchost.exe c:\windows\system32\svchost.exe
152 8 204800 1413120
4/6/2004 2:19 PM 5.2.3790.0
(srv03_rtm.030324-2048) 13.00 KB (13,312 bytes)
3/25/2003 6:00 AM
cmd.exe c:\windows\system32\cmd.exe 248 8
204800 1413120 4/6/2004 2:19 PM
5.2.3790.0 (srv03_rtm.030324-2048)
374.00 KB (382,976 bytes) 3/25/2003
6:00 AM
msinfo32.exe c:\program files\common
files\microsoft shared\msinfo32.exe
1588 8 204800 1413120
4/6/2004 2:19 PM 5.2.3790.0
(srv03_rtm.030324-2048) 40.50 KB (41,472 bytes)
2/19/2004 12:02 PM
wmiprvse.exe Not Available 1748 8
Not Available Not Available
4/6/2004 2:19 PM Not Available Not
Available Not Available
[Loaded Modules]
Name Version Size File Date Manufacturer
Path
winlogon 5.2.3790.0 (srv03_rtm.030324-2048)
536.50 KB (549,376 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\winlogon.exe
ntdll 5.2.3790.0 (srv03_rtm.030324-2048)
722.50 KB (739,840 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\ntdll.dll

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```

kernel32 5.2.3790.0 (srv03_rtm.030324-2048)
965.00 KB (988,160 bytes) 3/25/2003
Microsoft Corporation
c:\windows\system32\kernel32.dll
msvcrt 7.0.3790.0 (srv03_rtm.030324-2048)
319.50 KB (327,168 bytes) 3/25/2003
Microsoft Corporation
c:\windows\system32\msvcrt.dll
advapi32 5.2.3790.0 (srv03_rtm.030324-2048)
559.50 KB (572,928 bytes) 3/25/2003
Microsoft Corporation
c:\windows\system32\advapi32.dll
rpcrt4 5.2.3790.0 (srv03_rtm.030324-2048)
643.50 KB (658,944 bytes) 3/25/2003
Microsoft Corporation
c:\windows\system32\rpcrt4.dll
user32 5.2.3790.0 (srv03_rtm.030324-2048)
562.00 KB (575,488 bytes) 3/25/2003
Microsoft Corporation
c:\windows\system32\user32.dll
gdi32 5.2.3790.0 (srv03_rtm.030324-2048)
263.00 KB (269,312 bytes) 3/25/2003
Microsoft Corporation
c:\windows\system32\gdi32.dll
userenv 5.2.3790.0 (srv03_rtm.030324-2048)
732.50 KB (750,080 bytes) 3/25/2003
Microsoft Corporation
c:\windows\system32\userenv.dll
nddeapi 5.2.3790.0 (srv03_rtm.030324-2048)
16.00 KB (16,384 bytes) 3/25/2003
Microsoft Corporation
c:\windows\system32\nddeapi.dll
crypt32 5.131.3790.0 (srv03_rtm.030324-2048)
598.00 KB (612,352 bytes) 3/25/2003
Microsoft Corporation
c:\windows\system32\crypt32.dll
msasn1 5.2.3790.0 (srv03_rtm.030324-2048)
58.00 KB (59,392 bytes) 3/25/2003
Microsoft Corporation
c:\windows\system32\msasn1.dll
secur32 5.2.3790.0 (srv03_rtm.030324-2048)
63.00 KB (64,512 bytes) 3/25/2003
Microsoft Corporation
c:\windows\system32\secur32.dll
winsta 5.2.3790.0 (srv03_rtm.030324-2048)
51.00 KB (52,224 bytes) 3/25/2003
Microsoft Corporation
c:\windows\system32\winsta.dll
netapi32 5.2.3790.0 (srv03_rtm.030324-2048)
317.00 KB (324,608 bytes) 3/25/2003
Microsoft Corporation
c:\windows\system32\netapi32.dll
profmap 5.2.3790.0 (srv03_rtm.030324-2048)
22.00 KB (22,528 bytes) 3/25/2003
Microsoft Corporation
c:\windows\system32\profmap.dll
regapi 5.2.3790.0 (srv03_rtm.030324-2048)
48.50 KB (49,664 bytes) 3/25/2003
Microsoft Corporation
c:\windows\system32\regapi.dll
ws2_32 5.2.3790.0 (srv03_rtm.030324-2048)
87.50 KB (89,600 bytes) 3/25/2003

```

6:00 AM Microsoft Corporation
c:\windows\system32\ws2_32.dll
ws2help 5.2.3790.0 (srv03_rtm.030324-2048)
19.50 KB (19,968 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\ws2help.dll
psapi 5.2.3790.0 (srv03_rtm.030324-2048)
21.50 KB (22,016 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\psapi.dll
version 5.2.3790.0 (srv03_rtm.030324-2048)
17.00 KB (17,408 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\version.dll
setupapi 5.2.3790.0 (srv03_rtm.030324-2048)
1,014.50 KB (1,038,848 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\setupapi.dll
msgina 5.2.3790.0 (srv03_rtm.030324-2048)
1.14 MB (1,191,936 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\msgina.dll
shsvcs 6.00.3790.0 (srv03_rtm.030324-2048)
121.50 KB (124,416 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\shsvcs.dll
shlwapi 6.00.3790.0 (srv03_rtm.030324-2048)
281.00 KB (287,744 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\shlwapi.dll
sfc 5.2.3790.0 (srv03_rtm.030324-2048)
4.50 KB (4,608 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\sfc.dll
sfc_os 5.2.3790.0 (srv03_rtm.030324-2048)
133.00 KB (136,192 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\sfc_os.dll
wintrust 5.131.3790.0 (srv03_rtm.030324-2048)
161.50 KB (165,376 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\wintrust.dll
ole32 5.2.3790.0 (srv03_rtm.030324-2048)
1.13 MB (1,187,328 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\ole32.dll
imagehlp 5.2.3790.0 (srv03_rtm.030324-2048)
142.50 KB (145,920 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\imagehlp.dll
comctl32 6.0 (srv03_rtm.030324-2048) 907.00 KB
(928,768 bytes) 2/19/2004 5:43 AM Microsoft
Corporation
c:\windows\winsxs\x86_microsoft.windows.com
mon-controls_6595b64144ccf1df_6.0.100.0_x-
ww_8417450b\comctl32.dll
winscard 5.2.3790.0 (srv03_rtm.030324-2048)
98.50 KB (100,864 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\winscard.dll
wtsapi32 5.2.3790.0 (srv03_rtm.030324-2048)
17.50 KB (17,920 bytes) 3/25/2003

6:00 AM Microsoft Corporation
c:\windows\system32\wtsapi32.dll
winmm 5.2.3790.0 (srv03_rtm.030324-2048)
166.00 KB (169,984 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\winmm.dll
sxs 5.2.3790.0 (srv03_rtm.030324-2048)
733.00 KB (750,592 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\sxs.dll
shell32 6.00.3790.0 (srv03_rtm.030324-2048)
7.79 MB (8,166,400 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\shell32.dll
wldap32 5.2.3790.0 (srv03_rtm.030324-2048)
158.00 KB (161,792 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\wldap32.dll
csddl 5.2.3790.0 (srv03_rtm.030324-2048)
99.00 KB (101,376 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\csddl.dll
wlnotify 5.2.3790.0 (srv03_rtm.030324-2048)
87.50 KB (89,600 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\wlnotify.dll
winspool 5.2.3790.0 (srv03_rtm.030324-2048)
140.00 KB (143,360 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\winspool.drv
mpr 5.2.3790.0 (srv03_rtm.030324-2048)
56.00 KB (57,344 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\mpr.dll
rsaenh 5.2.3790.0 (srv03_rtm.030324-2048)
176.83 KB (181,072 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\rsaenh.dll
comctl32 5.82 (srv03_rtm.030324-2048) 561.00 KB
(574,464 bytes) 2/19/2004 5:43 AM Microsoft
Corporation
c:\windows\winsxs\x86_microsoft.windows.com
mon-controls_6595b64144ccf1df_5.82.0.0_x-
ww_8a69ba05\comctl32.dll
uxtheme 6.00.3790.0 (srv03_rtm.030324-2048)
196.00 KB (200,704 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\uxtheme.dll
samlib 5.2.3790.0 (srv03_rtm.030324-2048)
49.00 KB (50,176 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\samlib.dll
cscui 5.2.3790.0 (srv03_rtm.030324-2048)
305.00 KB (312,320 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\cscui.dll
drprov 5.2.3790.0 (srv03_rtm.030324-2048)
12.50 KB (12,800 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\drprov.dll
ntlanman 5.2.3790.0 (srv03_rtm.030324-2048)
41.00 KB (41,984 bytes) 3/25/2003

6:00 AM Microsoft Corporation
c:\windows\system32\ntlanman.dll
netui0 5.2.3790.0 (srv03_rtm.030324-2048)
75.50 KB (77,312 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\netui0.dll
netui1 5.2.3790.0 (srv03_rtm.030324-2048)
184.00 KB (188,416 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\netui1.dll
davclnt 5.2.3790.0 (srv03_rtm.030324-2048)
23.50 KB (24,064 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\davclnt.dll
mprui 5.2.3790.0 (srv03_rtm.030324-2048)
49.00 KB (50,176 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\mprui.dll
netui2 5.2.3790.0 (srv03_rtm.030324-2048)
309.50 KB (316,928 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\netui2.dll
comdlg32 6.00.3790.0 (srv03_rtm.030324-2048)
261.00 KB (267,264 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\comdlg32.dll
netmsg 5.2.3790.0 (srv03_rtm.030324-2048)
178.00 KB (182,272 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\netmsg.dll
oleaut32 5.2.3790.0 486.00 KB (497,664
bytes) 3/25/2003 6:00 AM Microsoft Corporation
c:\windows\system32\oleaut32.dll
clbcatq 2001.12.4720.0 (srv03_rtm.030324-2048)
481.00 KB (492,544 bytes) 2/19/2004
11:59 AM Microsoft Corporation
c:\windows\system32\clbcatq.dll
comres 2001.12.4720.0 (srv03_rtm.030324-2048)
778.00 KB (796,672 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\comres.dll
ntmarta 5.2.3790.0 (srv03_rtm.030324-2048)
114.00 KB (116,736 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\ntmarta.dll
services 5.2.3790.0 (srv03_rtm.030324-2048)
102.00 KB (104,448 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\services.exe
sceerv 5.2.3790.0 (srv03_rtm.030324-2048)
316.50 KB (324,096 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\sceerv.dll
authz 5.2.3790.0 (srv03_rtm.030324-2048)
67.00 KB (68,608 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\authz.dll
umpnpgmr 5.2.3790.0 (srv03_rtm.030324-2048)
121.50 KB (124,416 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\umpnpgmr.dll
ncobjapi 5.2.3790.0 (srv03_rtm.030324-2048)
34.50 KB (35,328 bytes) 3/25/2003

6:00 AM Microsoft Corporation
 c:\windows\system32\ncobjapi.dll
 msvcp60 6.05.2144.0 388.00 KB (397,312 bytes) 3/25/2003 6:00 AM Microsoft Corporation
 c:\windows\system32\msvcp60.dll
 eventlog 5.2.3790.0 (srv03_rtm.030324-2048) 60.50 KB (61,952 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\eventlog.dll
 lsass 5.2.3790.0 (srv03_rtm.030324-2048) 13.00 KB (13,312 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\lsass.exe
 lsasrv 5.2.3790.0 (srv03_rtm.030324-2048) 780.50 KB (799,232 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\lsasrv.dll
 samsrv 5.2.3790.0 (srv03_rtm.030324-2048) 452.00 KB (462,848 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\samsrv.dll
 cryptdll 5.2.3790.0 (srv03_rtm.030324-2048) 34.00 KB (34,816 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\cryptdll.dll
 dnsapi 5.2.3790.0 (srv03_rtm.030324-2048) 147.50 KB (151,040 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\dnsapi.dll
 ntdsapi 5.2.3790.0 (srv03_rtm.030324-2048) 76.00 KB (77,824 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\ntdsapi.dll
 msprivs 5.2.3790.0 (srv03_rtm.030324-2048) 46.50 KB (47,616 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\msprivs.dll
 kerberos 5.2.3790.0 (srv03_rtm.030324-2048) 332.50 KB (340,480 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\kerberos.dll
 msvl_0 5.2.3790.0 (srv03_rtm.030324-2048) 127.00 KB (130,048 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\msvl_0.dll
 netlogon 5.2.3790.0 (srv03_rtm.030324-2048) 409.00 KB (418,816 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\netlogon.dll
 w32time 5.2.3790.0 (srv03_rtm.030324-2048) 216.00 KB (221,184 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\w32time.dll
 iphlpapi 5.2.3790.0 (srv03_rtm.030324-2048) 82.50 KB (84,480 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\iphlpapi.dll
 schannel 5.2.3790.0 (srv03_rtm.030324-2048) 149.50 KB (153,088 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\schannel.dll
 wdigest 5.2.3790.0 (srv03_rtm.030324-2048) 61.00 KB (62,464 bytes) 3/25/2003

6:00 AM Microsoft Corporation
 c:\windows\system32\wdigest.dll
 rassfm 5.2.3790.0 (srv03_rtm.030324-2048) 20.50 KB (20,992 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\rassfm.dll
 kdcsvc 5.2.3790.0 (srv03_rtm.030324-2048) 221.00 KB (226,304 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\kdcsvc.dll
 ntlsa 5.2.3790.0 (srv03_rtm.030324-2048) 1.45 MB (1,520,640 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\ntlsa.dll
 ntdsatq 5.2.3790.0 (srv03_rtm.030324-2048) 32.00 KB (32,768 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\ntdsatq.dll
 mssock 5.2.3790.0 (srv03_rtm.030324-2048) 254.00 KB (260,096 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\mssock.dll
 esent 5.2.3790.0 (srv03_rtm.030324-2048) 1.01 MB (1,056,256 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\esent.dll
 scecli 5.2.3790.0 (srv03_rtm.030324-2048) 179.50 KB (183,808 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\scecli.dll
 wshtcpip 5.2.3790.0 (srv03_rtm.030324-2048) 18.00 KB (18,432 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\wshtcpip.dll
 ipsecsvc 5.2.3790.0 (srv03_rtm.030324-2048) 162.50 KB (166,400 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\ipsecsvc.dll
 oakley 5.2.3790.0 (srv03_rtm.030324-2048) 325.50 KB (333,312 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\oakley.dll
 winipsec 5.2.3790.0 (srv03_rtm.030324-2048) 34.50 KB (35,328 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\winipsec.dll
 pstorsvc 5.2.3790.0 (srv03_rtm.030324-2048) 24.00 KB (24,576 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\pstorsvc.dll
 psbase 5.2.3790.0 (srv03_rtm.030324-2048) 81.00 KB (82,944 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\psbase.dll
 dssenh 5.2.3790.0 (srv03_rtm.030324-2048) 131.33 KB (134,480 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\dssenh.dll
 wlbctrl 5.2.3790.0 (srv03_rtm.030324-2048) 78.00 KB (79,872 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\wlbctrl.dll

svchost 5.2.3790.0 (srv03_rtm.030324-2048) 13.00 KB (13,312 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\svchost.exe
 rpcss 5.2.3790.0 (srv03_rtm.030324-2048) 276.50 KB (283,136 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\rpcss.dll
 termsrv 5.2.3790.0 (srv03_rtm.030324-2048) 216.50 KB (221,696 bytes) 2/19/2004
 11:59 AM Microsoft Corporation
 c:\windows\system32\termsrv.dll
 icaapi 5.2.3790.0 (srv03_rtm.030324-2048) 10.50 KB (10,752 bytes) 2/19/2004
 11:59 AM Microsoft Corporation
 c:\windows\system32\icaapi.dll
 mstlsapi 5.2.3790.0 (srv03_rtm.030324-2048) 104.50 KB (107,008 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\mstlsapi.dll
 activeds 5.2.3790.0 (srv03_rtm.030324-2048) 189.00 KB (193,536 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\activeds.dll
 adslldpc 5.2.3790.0 (srv03_rtm.030324-2048) 142.50 KB (145,920 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\adslldpc.dll
 credui 5.2.3790.0 (srv03_rtm.030324-2048) 159.00 KB (162,816 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\credui.dll
 atl 3.05.2283 83.00 KB (84,992 bytes) 3/25/2003 6:00 AM Microsoft Corporation
 c:\windows\system32\atl.dll
 rdpswx 5.2.3790.0 (srv03_rtm.030324-2048) 80.13 KB (82,056 bytes) 2/19/2004
 11:59 AM Microsoft Corporation
 c:\windows\system32\rdpswx.dll
 wzscvc 5.2.3790.0 (srv03_rtm.030324-2048) 272.50 KB (279,040 bytes) 3/25/2003
 6:15 AM Microsoft Corporation
 c:\windows\system32\wzscvc.dll
 rtutils 5.2.3790.0 (srv03_rtm.030324-2048) 32.00 KB (32,768 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\rtutils.dll
 wmi 5.2.3790.0 (srv03_rtm.030324-2048) 6.50 KB (6,656 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\wmi.dll
 dhcpcsvc 5.2.3790.0 (srv03_rtm.030324-2048) 101.50 KB (103,936 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\dhcpcsvc.dll
 rastls 5.2.3790.0 (srv03_rtm.030324-2048) 155.00 KB (158,720 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\rastls.dll
 cryptui 5.131.3790.0 (srv03_rtm.030324-2048) 473.50 KB (484,864 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\cryptui.dll

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mprapi 5.2.3790.0 (srv03_rtm.030324-2048)
81.00 KB (82,944 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\mprapi.dll
rasapi32 5.2.3790.0 (srv03_rtm.030324-2048)
227.50 KB (232,960 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\rasapi32.dll
rasman 5.2.3790.0 (srv03_rtm.030324-2048)
56.50 KB (57,856 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\rasman.dll
tapi32 5.2.3790.0 (srv03_rtm.030324-2048)
175.00 KB (179,200 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\tapi32.dll
raschap 5.2.3790.0 (srv03_rtm.030324-2048)
106.00 KB (108,544 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\raschap.dll
schedsvcs 5.2.3790.0 (srv03_rtm.030324-2048)
176.00 KB (180,224 bytes) 2/19/2004
Microsoft Corporation
12:02 PM c:\windows\system32\schedsvcs.dll
msidle 6.00.3790.0 (srv03_rtm.030324-2048)
5.50 KB (5,632 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\msidle.dll
audiosrv 5.2.3790.0 (srv03_rtm.030324-2048)
38.00 KB (38,912 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\audiosrv.dll
wkssvc 5.2.3790.0 (srv03_rtm.030324-2048)
125.00 KB (128,000 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\wkssvc.dll
wiarpc 5.2.3790.0 (srv03_rtm.030324-2048)
30.00 KB (30,720 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\wiarpc.dll
cryptsvc 5.2.3790.0 (srv03_rtm.030324-2048)
51.00 KB (52,224 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\cryptsvc.dll
certcli 5.2.3790.0 (srv03_rtm.030324-2048)
228.00 KB (233,472 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\certcli.dll
vssapi 5.2.3790.0 (srv03_rtm.030324-2048)
528.00 KB (540,672 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\vssapi.dll
dmserver 5.2.3790.0 (srv03_rtm.030324-2048)
24.00 KB (24,576 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\dmserver.dll
es 2001.12.4720.0 (srv03_rtm.030324-2048)
221.50 KB (226,816 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\es.dll
pchsvc 5.2.3790.0 (srv03_rtm.030324-2048)
31.50 KB (32,256 bytes) 2/19/2004
Microsoft Corporation
12:02 PM

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c:\windows\pchealth\helpctr\binaries\pchsvc
.dll
srvsvc 5.2.3790.0 (srv03_rtm.030324-2048)
89.00 KB (91,136 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\srvsvc.dll
mprdim 5.2.3790.0 (srv03_rtm.030324-2048)
49.50 KB (50,688 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\mprdim.dll
seclogon 5.2.3790.0 (srv03_rtm.030324-2048)
16.50 KB (16,896 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\seclogon.dll
iptrmgr 5.2.3790.0 (srv03_rtm.030324-2048)
164.50 KB (168,448 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\iptrmgr.dll
rtm 5.2.3790.0 (srv03_rtm.030324-2048)
101.50 KB (103,936 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\rtm.dll
wsock32 5.2.3790.0 (srv03_rtm.030324-2048)
22.00 KB (22,528 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\wsock32.dll
iprtprio 5.2.3790.0 (srv03_rtm.030324-2048)
5.00 KB (5,120 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\iprtprio.dll
trkwks 5.2.3790.0 (srv03_rtm.030324-2048)
85.00 KB (87,040 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\trkwks.dll
wuauerv 5.4.3790.0 (srv03_rtm.030324-2048)
10.50 KB (10,752 bytes) 2/19/2004
Microsoft Corporation
11:59 AM c:\windows\system32\wuauerv.dll
igmpv2 5.2.3790.0 (srv03_rtm.030324-2048)
128.00 KB (131,072 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\igmpv2.dll
ipbootp 5.2.3790.0 (srv03_rtm.030324-2048)
34.50 KB (35,328 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\ipbootp.dll
wuaueng 5.4.3790.0 (srv03_rtm.030324-2048)
188.50 KB (193,024 bytes) 2/19/2004
Microsoft Corporation
11:59 AM c:\windows\system32\wuaueng.dll
advpack 6.00.3790.0 (srv03_rtm.030324-2048)
93.50 KB (95,744 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\advpack.dll
wininet 6.00.3790.0 (srv03_rtm.030324-2048)
609.00 KB (623,616 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\wininet.dll
wmisvc 5.2.3790.0 (srv03_rtm.030324-2048)
131.00 KB (134,144 bytes) 2/19/2004
Microsoft Corporation
11:59 AM c:\windows\system32\wbem\wmisvc.dll

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sens 5.2.3790.0 (srv03_rtm.030324-2048)
35.50 KB (36,352 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\sens.dll
mprddm 5.2.3790.0 (srv03_rtm.030324-2048)
71.50 KB (73,216 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\mprddm.dll
iaslhpr 5.2.3790.0 (srv03_rtm.030324-2048)
30.50 KB (31,232 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\iaslhpr.dll
iasrad 5.2.3790.0 (srv03_rtm.030324-2048)
110.50 KB (113,152 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\iasrad.dll
iaspolcy 5.2.3790.0 (srv03_rtm.030324-2048)
18.50 KB (18,944 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\iaspolcy.dll
iasvcs 5.2.3790.0 (srv03_rtm.030324-2048)
69.50 KB (71,168 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\iasvcs.dll
rasppp 5.2.3790.0 (srv03_rtm.030324-2048)
195.00 KB (199,680 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\rasppp.dll
ntlsapi 5.2.3790.0 (srv03_rtm.030324-2048)
8.00 KB (8,192 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\ntlsapi.dll
rasmans 5.2.3790.0 (srv03_rtm.030324-2048)
163.50 KB (167,424 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\rasmans.dll
netcfgx 5.2.3790.0 (srv03_rtm.030324-2048)
726.00 KB (743,424 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\netcfgx.dll
comsvcs 2001.12.4720.0 (srv03_rtm.030324-2048)
1.14 MB (1,199,616 bytes) 2/19/2004
Microsoft Corporation
11:59 AM c:\windows\system32\comsvcs.dll
browser 5.2.3790.0 (srv03_rtm.030324-2048)
70.50 KB (72,192 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\browser.dll
actxprxy 6.00.3790.0 (srv03_rtm.030324-2048)
95.00 KB (97,280 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\actxprxy.dll
netrap 5.2.3790.0 (srv03_rtm.030324-2048)
11.50 KB (11,776 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\netrap.dll
rastapi 5.2.3790.0 (srv03_rtm.030324-2048)
57.00 KB (58,368 bytes) 3/25/2003
Microsoft Corporation
6:00 AM c:\windows\system32\rastapi.dll
iasdo 5.2.3790.0 (srv03_rtm.030324-2048)
251.50 KB (257,536 bytes) 3/25/2003

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6:00 AM Microsoft Corporation
 c:\windows\system32\iasddo.dll
 iasrecst 5.2.3790.0 (srv03_rtm.030324-2048)
 150.00 KB (153,600 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\iasrecst.dll
 msjetoledb40 4.00.6807.0 340.03 KB
 (348,193 bytes) 3/25/2003 6:00 AM Microsoft
 Corporation
 c:\windows\system32\msjetoledb40.dll
 msjet40 4.00.6807.0 1.43 MB (1,503,260
 bytes) 3/25/2003 6:00 AM Microsoft Corporation
 c:\windows\system32\msjet40.dll
 msWSTR10 4.00.6508.0 600.03 KB (614,431
 bytes) 3/25/2003 6:00 AM Microsoft Corporation
 c:\windows\system32\msWSTR10.dll
 msjter40 4.00.6508.0 52.03 KB (53,279 bytes)
 3/25/2003 6:00 AM Microsoft Corporation
 c:\windows\system32\msjter40.dll
 msjint40 4.00.6508.0 148.03 KB (151,583
 bytes) 3/25/2003 6:00 AM Microsoft Corporation
 c:\windows\system32\msjint40.dll
 oledb32 2.80.1022.0 (srv03_rtm.030324-2048)
 500.00 KB (512,000 bytes) 2/19/2004
 12:02 PM Microsoft Corporation c:\program
 files\common files\system\ole db\oledb32.dll
 msdart 2.80.1022.0 (srv03_rtm.030324-2048)
 164.00 KB (167,936 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\msdart.dll
 oledb32r 2.80.1022.0 (srv03_rtm.030324-2048)
 68.00 KB (69,632 bytes) 2/19/2004
 12:02 PM Microsoft Corporation c:\program
 files\common files\system\ole db\oledb32r.dll
 msjtes40 4.00.6807.0 236.03 KB (241,693
 bytes) 3/25/2003 6:00 AM Microsoft Corporation
 c:\windows\system32\msjtes40.dll
 vbajet32 6.1.9431 30.03 KB (30,749 bytes)
 3/25/2003 6:00 AM Microsoft Corporation
 c:\windows\system32\vbajet32.dll
 expsrv 6.0.9589 371.53 KB (380,445 bytes)
 3/25/2003 6:00 AM Microsoft Corporation
 c:\windows\system32\expsrv.dll
 netman 5.2.3790.0 (srv03_rtm.030324-2048)
 209.00 KB (214,016 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\netman.dll
 wzcsapi 5.2.3790.0 (srv03_rtm.030324-2048)
 24.50 KB (25,088 bytes) 3/25/2003
 6:15 AM Microsoft Corporation
 c:\windows\system32\wzcsapi.dll
 netshell 5.2.3790.0 (srv03_rtm.030324-2048)
 1.67 MB (1,747,456 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\netshell.dll
 clusapi 5.2.3790.0 (srv03_rtm.030324-2048)
 56.00 KB (57,344 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\clusapi.dll
 hnetcfg 5.2.3790.0 (srv03_rtm.030324-2048)
 243.50 KB (249,344 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\hnetcfg.dll

wbemprox 5.2.3790.0 (srv03_rtm.030324-2048)
 17.50 KB (17,920 bytes) 2/19/2004
 11:59 AM Microsoft Corporation
 c:\windows\system32\wbem\wbemprox.dll
 wbemcomn 5.2.3790.0 (srv03_rtm.030324-2048)
 211.50 KB (216,576 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\wbem\wbemcomn.dll
 wbemcore 5.2.3790.0 (srv03_rtm.030324-2048)
 457.00 KB (467,968 bytes) 2/19/2004
 11:59 AM Microsoft Corporation
 c:\windows\system32\wbem\wbemcore.dll
 esscli 5.2.3790.0 (srv03_rtm.030324-2048)
 235.50 KB (241,152 bytes) 2/19/2004
 11:59 AM Microsoft Corporation
 c:\windows\system32\wbem\esscli.dll
 fastprox 5.2.3790.0 (srv03_rtm.030324-2048)
 443.00 KB (453,632 bytes) 2/19/2004
 11:59 AM Microsoft Corporation
 c:\windows\system32\wbem\fastprox.dll
 iasnap 5.2.3790.0 (srv03_rtm.030324-2048)
 66.00 KB (67,584 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\iasnap.dll
 wbemsvc 5.2.3790.0 (srv03_rtm.030324-2048)
 42.50 KB (43,520 bytes) 2/19/2004
 11:59 AM Microsoft Corporation
 c:\windows\system32\wbem\wbemsvc.dll
 iassam 5.2.3790.0 (srv03_rtm.030324-2048)
 99.50 KB (101,888 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\iassam.dll
 iasacct 5.2.3790.0 (srv03_rtm.030324-2048)
 35.00 KB (35,840 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\iasacct.dll
 winnr 5.2.3790.0 (srv03_rtm.030324-2048)
 15.00 KB (15,360 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\winnr.dll
 wmiutils 5.2.3790.0 (srv03_rtm.030324-2048)
 90.50 KB (92,672 bytes) 2/19/2004
 11:59 AM Microsoft Corporation
 c:\windows\system32\wbem\wmiutils.dll
 repdrvfs 5.2.3790.0 (srv03_rtm.030324-2048)
 165.00 KB (168,960 bytes) 2/19/2004
 11:59 AM Microsoft Corporation
 c:\windows\system32\wbem\repdrvfs.dll
 wmiprvsd 5.2.3790.0 (srv03_rtm.030324-2048)
 405.50 KB (415,232 bytes) 2/19/2004
 11:59 AM Microsoft Corporation
 c:\windows\system32\wbem\wmiprvsd.dll
 wbemess 5.2.3790.0 (srv03_rtm.030324-2048)
 256.50 KB (262,656 bytes) 2/19/2004
 11:59 AM Microsoft Corporation
 c:\windows\system32\wbem\wbemess.dll
 rasdlg 5.2.3790.0 (srv03_rtm.030324-2048)
 642.00 KB (657,408 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\rasdlg.dll
 rasadhlp 5.2.3790.0 (srv03_rtm.030324-2048)
 6.50 KB (6,656 bytes) 3/25/2003

6:00 AM Microsoft Corporation
 c:\windows\system32\rasadhlp.dll
 winhttp 5.2.3790.0 (srv03_rtm.030324-2048)
 327.50 KB (335,360 bytes) 2/19/2004
 5:43 AM Microsoft Corporation
 c:\windows\winsxs\x86_microsoft.windows.win
 http_6595b64144ccfd5_5.1.0.0_x-
 ww_e0651936\winhttp.dll
 spoolsv 5.2.3790.0 (srv03_rtm.030324-2048)
 55.00 KB (56,320 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\spoolsv.exe
 spoolss 5.2.3790.0 (srv03_rtm.030324-2048)
 79.00 KB (80,896 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\spoolss.dll
 localspl 5.2.3790.0 (srv03_rtm.030324-2048)
 304.50 KB (311,808 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\localspl.dll
 cnbjmon 5.2.3680.0 (Lab03_dev\skatari).020509-1043)
 45.50 KB (46,592 bytes) 3/24/2003
 7:48 PM Microsoft Corporation
 c:\windows\system32\cnbjmon.dll
 pjlmn 5.2.3790.0 (srv03_rtm.030324-2048)
 15.00 KB (15,360 bytes) 3/24/2003
 7:49 PM Microsoft Corporation
 c:\windows\system32\pjlmn.dll
 tcpmon 5.2.3790.0 (srv03_rtm.030324-2048)
 44.00 KB (45,056 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\tcpmon.dll
 mgmtapi 5.2.3790.0 (srv03_rtm.030324-2048)
 14.00 KB (14,336 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\mgmtapi.dll
 snmpapi 5.2.3790.0 (srv03_rtm.030324-2048)
 17.50 KB (17,920 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\snmpapi.dll
 wsnmp32 5.2.3790.0 (srv03_rtm.030324-2048)
 39.50 KB (40,448 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\wsnmp32.dll
 usbmon 5.2.3790.0 (srv03_rtm.030324-2048)
 17.00 KB (17,408 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\usbmon.dll
 wshqos 5.2.3790.0 (srv03_rtm.030324-2048)
 23.00 KB (23,552 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\wshqos.dll
 win32spl 5.2.3790.0 (srv03_rtm.030324-2048)
 94.50 KB (96,768 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\win32spl.dll
 inetpp 5.2.3790.0 (srv03_rtm.030324-2048)
 71.50 KB (73,216 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\inetpp.dll
 icmp 5.2.3790.0 (srv03_rtm.030324-2048)
 4.50 KB (4,608 bytes) 3/25/2003

6:00 AM Microsoft Corporation
 c:\windows\system32\icomp.dll
 8.1.5.449 189.12 KB (193,656 bytes)
 db2jds 2/21/2004 2:15 AM International Business
 Machines Corporation c:\program
 files\ibm\sqllib\bin\db2jds.exe
 db2app 8.1.5.449 2.49 MB (2,613,313 bytes)
 2/20/2004 11:15 PM International Business
 Machines Corporation c:\program
 files\ibm\sqllib\bin\db2app.dll
 db2sys 8.1.5.449 2.38 MB (2,490,433 bytes)
 2/20/2004 11:15 PM International Business
 Machines Corporation c:\program
 files\ibm\sqllib\bin\db2sys.dll
 db2wint 8.1.5.449 48.06 KB (49,218 bytes)
 2/20/2004 11:15 PM International Business
 Machines Corporation c:\program
 files\ibm\sqllib\bin\db2wint.dll
 db2sysp 8.1.5.449 88.07 KB (90,179 bytes)
 2/20/2004 11:15 PM International Business
 Machines Corporation c:\program
 files\ibm\sqllib\bin\db2sysp.dll
 db2g1ln 8.1.5.449 364.06 KB (372,802 bytes)
 2/20/2004 11:13 PM International Business
 Machines Corporation c:\program
 files\ibm\sqllib\bin\db2g1ln.dll
 db2osse 8.1.5.449 312.07 KB (319,564 bytes)
 2/20/2004 11:15 PM International Business
 Machines Corporation c:\program
 files\ibm\sqllib\bin\db2osse.dll
 db2locale 8.1.5.449 48.07 KB (49,220 bytes)
 2/20/2004 11:13 PM International Business
 Machines Corporation c:\program
 files\ibm\sqllib\bin\db2locale.dll
 db2trcapi 8.1.5.449 36.08 KB (36,941 bytes)
 2/20/2004 11:13 PM International Business
 Machines Corporation c:\program
 files\ibm\sqllib\bin\db2trcapi.dll
 db2install 8.1.5.449 28.07 KB (28,741 bytes)
 2/20/2004 11:13 PM International Business
 Machines Corporation c:\program
 files\ibm\sqllib\bin\db2install.dll
 db2util 8.1.5.449 1.18 MB (1,237,058 bytes)
 2/20/2004 11:15 PM International Business
 Machines Corporation c:\program
 files\ibm\sqllib\bin\db2util.dll
 db2abind 8.1.5.449 244.07 KB (249,923 bytes)
 2/20/2004 11:15 PM International Business
 Machines Corporation c:\program
 files\ibm\sqllib\bin\db2abind.dll
 db2cli 8.1.5.449 2.68 MB (2,805,825 bytes)
 2/20/2004 11:15 PM International Business
 Machines Corporation c:\program
 files\ibm\sqllib\bin\db2cli.dll
 db2trcapi 8.1.5.449 36.08 KB (36,941 bytes)
 2/21/2004 2:15 AM International Business
 Machines Corporation c:\program
 files\ibm\sqllib\bin\db2trcapi.exe
 db2sec 8.1.5.449 29.12 KB (29,816 bytes)
 2/21/2004 2:17 AM International Business
 Machines Corporation c:\program
 files\ibm\sqllib\bin\db2sec.exe

ersvc 5.2.3790.0 (srv03_rtm.030324-2048)
 22.00 KB (22,528 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\ersvc.dll
 db2syscs 8.1.5.449 101.12 KB (103,544 bytes)
 2/21/2004 2:17 AM International Business
 Machines Corporation
 c:\progra-1\ibm\sqllib\bin\db2syscs.exe
 db2sys 8.1.5.449 2.38 MB (2,490,433 bytes)
 2/20/2004 11:15 PM International Business
 Machines Corporation
 c:\progra-1\ibm\sqllib\bin\db2sys.dll
 db2wint 8.1.5.449 48.06 KB (49,218 bytes)
 2/20/2004 11:15 PM International Business
 Machines Corporation
 c:\progra-1\ibm\sqllib\bin\db2wint.dll
 db2sysp 8.1.5.449 88.07 KB (90,179 bytes)
 2/20/2004 11:15 PM International Business
 Machines Corporation
 c:\progra-1\ibm\sqllib\bin\db2sysp.dll
 db2app 8.1.5.449 2.49 MB (2,613,313 bytes)
 2/20/2004 11:15 PM International Business
 Machines Corporation
 c:\progra-1\ibm\sqllib\bin\db2app.dll
 db2util 8.1.5.449 1.18 MB (1,237,058 bytes)
 2/20/2004 11:15 PM International Business
 Machines Corporation
 c:\progra-1\ibm\sqllib\bin\db2util.dll
 db2abind 8.1.5.449 244.07 KB (249,923 bytes)
 2/20/2004 11:15 PM International Business
 Machines Corporation
 c:\progra-1\ibm\sqllib\bin\db2abind.dll
 db2g1ln 8.1.5.449 364.06 KB (372,802 bytes)
 2/20/2004 11:13 PM International Business
 Machines Corporation
 c:\progra-1\ibm\sqllib\bin\db2g1ln.dll
 db2osse 8.1.5.449 312.07 KB (319,564 bytes)
 2/20/2004 11:15 PM International Business
 Machines Corporation
 c:\progra-1\ibm\sqllib\bin\db2osse.dll
 db2locale 8.1.5.449 48.07 KB (49,220 bytes)
 2/20/2004 11:13 PM International Business
 Machines Corporation
 c:\progra-1\ibm\sqllib\bin\db2locale.dll
 db2cli 8.1.5.449 2.68 MB (2,805,825 bytes)
 2/20/2004 11:15 PM International Business
 Machines Corporation
 c:\progra-1\ibm\sqllib\bin\db2cli.dll
 db2install 8.1.5.449 28.07 KB (28,741 bytes)
 2/20/2004 11:13 PM International Business
 Machines Corporation
 c:\progra-1\ibm\sqllib\bin\db2install.dll
 db2trcapi 8.1.5.449 36.08 KB (36,941 bytes)
 2/20/2004 11:13 PM International Business
 Machines Corporation
 c:\progra-1\ibm\sqllib\bin\db2trcapi.dll
 db2engn 8.1.5.449 27.43 MB (28,766,274 bytes)
 2/20/2004 11:15 PM International Business
 Machines Corporation
 c:\progra-1\ibm\sqllib\bin\db2engn.dll

db2suba 8.1.5.449 268.06 KB (274,498 bytes)
 2/20/2004 11:15 PM International Business
 Machines Corporation
 c:\progra-1\ibm\sqllib\bin\db2suba.dll
 db2qg 8.1.5.449 776.06 KB (794,688 bytes)
 2/20/2004 11:15 PM International Business
 Machines Corporation
 c:\progra-1\ibm\sqllib\bin\db2qg.dll
 db2dlnk 8.1.5.449 404.06 KB (413,762 bytes)
 2/20/2004 11:15 PM International Business
 Machines Corporation
 c:\progra-1\ibm\sqllib\bin\db2dlnk.dll
 db2genreg 8.1.5.449 152.08 KB (155,725 bytes)
 2/20/2004 11:13 PM International Business
 Machines Corporation
 c:\progra-1\ibm\sqllib\bin\db2genreg.dll
 msvcirt 7.0.3790.0 (srv03_rtm.030324-2048)
 50.00 KB (51,200 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\msvcirt.dll
 db2sqlin 8.1.5.449 788.07 KB (806,979 bytes)
 2/20/2004 11:15 PM International Business
 Machines Corporation
 c:\progra-1\ibm\sqllib\bin\db2sqlin.dll
 db2licm 8.1.5.449 244.06 KB (249,922 bytes)
 2/20/2004 11:13 PM International Business
 Machines Corporation
 c:\progra-1\ibm\sqllib\bin\db2licm.dll
 shfolder 6.00.3790.0 (srv03_rtm.030324-2048)
 23.00 KB (23,552 bytes) 3/25/2003
 6:00 AM Microsoft Corporation
 c:\windows\system32\shfolder.dll
 dbghelp 6.1.0017.1 (DbgBuild.020901-2218)
 747.50 KB (765,440 bytes) 12/14/2002
 1:32 PM Microsoft Corporation
 c:\progra-1\ibm\sqllib\bin\dbghelp.dll
 db2dasstm 8.1.5.449 105.12 KB (107,640 bytes)
 2/21/2004 2:14 AM International Business
 Machines Corporation c:\program
 files\ibm\sqllib\bin\db2dasstm.exe
 db2dasapi 8.1.5.449 312.07 KB (319,562 bytes)
 2/20/2004 11:15 PM International Business
 Machines Corporation c:\program
 files\ibm\sqllib\bin\db2dasapi.dll
 db2dascmm 8.1.5.449 80.07 KB (81,994 bytes)
 2/20/2004 11:15 PM International Business
 Machines Corporation c:\program
 files\ibm\sqllib\bin\db2dascmm.dll
 db2genreg 8.1.5.449 152.08 KB (155,725 bytes)
 2/20/2004 11:13 PM International Business
 Machines Corporation c:\program
 files\ibm\sqllib\bin\db2genreg.dll
 db2osse_db2 8.1.5.449 60.08 KB (61,520 bytes)
 2/20/2004 11:15 PM International Business
 Machines Corporation c:\program
 files\ibm\sqllib\bin\db2osse_db2.dll
 db2daskrb 8.1.5.449 36.07 KB (36,938 bytes)
 2/20/2004 11:15 PM International Business
 Machines Corporation c:\program
 files\ibm\sqllib\bin\db2daskrb.dll
 db2dasflist 8.1.5.449 32.07 KB (32,844 bytes)
 2/20/2004 11:15 PM International Business

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Machines Corporation      c:\program
files\ibm\sql\bin\db2dasflist.dll
db2schedapis            8.1.5.449 180,08 KB (184,397
bytes) 2/20/2004 11:18 PM International Business
Machines Corporation      c:\program
files\ibm\sql\bin\dasfc\db2schedapis.dll
db2mddb                8.1.5.449 256.07 KB (262,216 bytes)
2/20/2004 11:15 PM International Business
Machines Corporation      c:\program
files\ibm\sql\bin\bin\db2mddb.dll
db2cmncoll             8.1.5.449 128.08 KB (131,150
bytes) 2/20/2004 11:13 PM International Business
Machines Corporation      c:\program
files\ibm\sql\bin\bin\db2cmncoll.dll
db2schedsrv            8.1.5.449 208.07 KB (213,068
bytes) 2/20/2004 11:15 PM International Business
Machines Corporation      c:\program
files\ibm\sql\bin\bin\db2schedsrv.dll
db2cmnnote             8.1.5.449 36.08 KB (36,942 bytes)
2/20/2004 11:13 PM International Business
Machines Corporation      c:\program
files\ibm\sql\bin\bin\db2cmnnote.dll
jvm                    Not Available      1.09 MB (1,145,344
bytes) 4/25/2002 2:17 PM Not Available
c:\program
files\ibm\sql\bin\java\jdk\jre\bin\classic\jvm.dll
explorer               6.00.3790.0 (srv03_rtm.030324-2048)
1,008.50 KB (1,032,704 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\explorer.exe
browseui               6.00.3790.0 (srv03_rtm.030324-2048)
1.01 MB (1,057,280 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\browseui.dll
shdocvw                6.00.3790.0 (srv03_rtm.030324-2048)
1.33 MB (1,393,664 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\shdocvw.dll
apphelp                5.2.3790.0 (srv03_rtm.030324-2048)
122.00 KB (124,928 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\apphelp.dll
themeui                6.00.3790.0 (srv03_rtm.030324-2048)
360.50 KB (369,152 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\themeui.dll
msimg32                5.2.3790.0 (srv03_rtm.030324-2048)
4.50 KB (4,608 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\msimg32.dll
linkinfo               5.2.3790.0 (srv03_rtm.030324-2048)
16.50 KB (16,896 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\linkinfo.dll
ntshrui                6.00.3790.0 (srv03_rtm.030324-2048)
136.00 KB (139,264 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\ntshrui.dll
urlmon                 6.00.3790.0 (srv03_rtm.030324-2048)
501.50 KB (513,536 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\urlmon.dll

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webcheck              6.00.3790.0 (srv03_rtm.030324-2048)
261.50 KB (267,776 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\webcheck.dll
stobject              5.2.3790.0 (srv03_rtm.030324-2048)
117.50 KB (120,320 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\stobject.dll
batmeter              6.00.3790.0 (srv03_rtm.030324-2048)
28.50 KB (29,184 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\batmeter.dll
powrprof              6.00.3790.0 (srv03_rtm.030324-2048)
14.50 KB (14,848 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\powrprof.dll
printui               5.2.3790.0 (srv03_rtm.030324-2048)
536.50 KB (549,376 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\printui.dll
cfgmgr32              5.2.3790.0 (srv03_rtm.030324-2048)
17.50 KB (17,920 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\cfgmgr32.dll
dfssvc                5.2.3790.0 (srv03_rtm.030324-2048)
130.50 KB (133,632 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\dfssvc.exe
resutils              5.2.3790.0 (srv03_rtm.030324-2048)
59.00 KB (60,416 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\resutils.dll
mfc42u                6.05.3014.0 960.00 KB (983,040
bytes) 3/25/2003 6:00 AM Microsoft Corporation
c:\windows\system32\mfc42u.dll
tapisrv               5.2.3790.0 (srv03_rtm.030324-2048)
238.50 KB (244,224 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\tapisrv.dll
unimdm                5.2.3790.0 (srv03_rtm.030324-2048)
190.50 KB (195,072 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\unimdm.tsp
uniplat               5.2.3790.0 (srv03_rtm.030324-2048)
15.00 KB (15,360 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\uniplat.dll
unimdm2               5.2.3790.0 (srv03_rtm.030324-2048)
69.00 KB (70,656 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\unimdm2.dll
modemui               5.2.3790.0 (srv03_rtm.030324-2048)
146.50 KB (150,016 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\modemui.dll
kmdisp                5.2.3790.0 (srv03_rtm.030324-2048)
34.00 KB (34,816 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\kmdisp.tsp
ndptsp                5.2.3790.0 (srv03_rtm.030324-2048)
54.50 KB (55,808 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\ndptsp.tsp

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ipconf                5.2.3790.0 (srv03_rtm.030324-2048)
16.50 KB (16,896 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\ipconf.tsp
h323                  5.2.3790.0 (srv03_rtm.030324-2048)
250.00 KB (256,000 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\h323.tsp
hidphone              5.2.3790.0 (srv03_rtm.030324-2048)
28.00 KB (28,672 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\hidphone.tsp
hid                   5.2.3790.0 (srv03_rtm.030324-2048)
17.50 KB (17,920 bytes) 3/24/2003
7:48 PM Microsoft Corporation
c:\windows\system32\hid.dll
cmd                   5.2.3790.0 (srv03_rtm.030324-2048)
374.00 KB (382,976 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\cmd.exe
msinfo32              5.2.3790.0 (srv03_rtm.030324-2048)
40.50 KB (41,472 bytes) 2/19/2004
12:02 PM Microsoft Corporation      c:\program
files\common\microsoft
shared\msinfo\msinfo32.exe
msinfo                 5.2.3790.0 (srv03_rtm.030324-2048)
358.50 KB (367,104 bytes) 2/19/2004
12:02 PM Microsoft Corporation
c:\windows\pchealth\helpctr\binaries\msinfo
.dll
riched32              5.2.3790.0 (srv03_rtm.030324-2048)
3.50 KB (3,584 bytes) 3/25/2003
6:00 AM Microsoft Corporation
c:\windows\system32\riched32.dll
riched20               5.31.23.1218 406.00 KB (415,744
bytes) 3/25/2003 6:00 AM Microsoft Corporation
c:\windows\system32\riched20.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     Running    Auto
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

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Computer Browser Browser Running Auto
Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Indexing Service C1Svc Stopped Disabled
Share Process
c:\windows\system32\cisvc.exe Normal
LocalSystem 0
ClipBook ClipSrv Stopped Disabled Own Process
c:\windows\system32\clipsrv.exe
Normal LocalSystem 0
COM+ System Application COMSysApp Stopped
Manual Own Process
c:\windows\system32\dlhhost.exe
/processid:{02d4b3f1-fd88-11d1-960d-00805fc79235}
Normal LocalSystem 0
Cryptographic Services CryptSvc Running
Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
DB2 - DB2 DB2 Running Auto Own Process
c:\progra~1\ibm\sqllib\bin\db2syscs.exe
Normal LocalSystem 0
DB2DAS - DB2DAS00 DB2DAS00 Running Auto Own
Process c:\program
files\ibm\sqllib\bin\db2dasrrm.exe Normal
\db2admin 0
DB2 Governor DB2GOVERNOR Stopped
Manual Own Process
c:\program
files\ibm\sqllib\bin\db2govds.exe Normal
LocalSystem 0
DB2 JDBC Applet Server DB2JDS Running
Auto Own Process "c:\program
files\ibm\sqllib\bin\db2jds.exe" Normal
LocalSystem 0
DB2 License Server DB2LICD Running Auto Own
Process c:\program files\ibm\sqllib\bin\db2licd.exe
Ignore LocalSystem 0
DB2 Security Server DB2NTSECSERVER Running
Auto Own Process "c:\program
files\ibm\sqllib\bin\db2sec.exe" Normal
LocalSystem 0
DB2 Remote Command Server DB2REMOATECMD
Running Auto Own Process
c:\program files\ibm\sqllib\bin\db2rcmd.exe
Ignore .\db2admin 0
Distributed File System Dfs Running
Auto Own Process
c:\windows\system32\dfssvc.exe
Normal LocalSystem 0
DHCP Client Dhcp Running Auto
Share Process
c:\windows\system32\svchost.exe -k
networkservice Normal NT
AUTHORITY\NetworkService 0
Logical Disk Manager Administrative Service
dmdadmin Stopped Manual Share Process
c:\windows\system32\dmdadmin.exe /com
Normal LocalSystem 0
Logical Disk Manager dmsrvr Running
Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0

```

```

DNS Client Dnscache Running Auto
Share Process
c:\windows\system32\svchost.exe -k
networkservice Normal NT
AUTHORITY\NetworkService 0
Error Reporting Service ERSvc Running
Auto Share Process
c:\windows\system32\svchost.exe -k winerr
Ignore LocalSystem 0
Event Log Eventlog Running Auto Share Process
c:\windows\system32\services.exe
Normal LocalSystem 0
COM+ Event System EventSystem Running
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
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\llsdrv.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
NetMeeting Remote Desktop Sharing mnmsrvc
Stopped Disabled Own Process

```

```

c:\windows\system32\mnmsrvc.exe
Normal LocalSystem 0
Distributed Transaction Coordinator MSDTC
Running Auto Own Process
c:\windows\system32\msdtc.exe Normal NT
AUTHORITY\NetworkService 0
Windows Installer MSIServer Stopped Manual
Share Process
c:\windows\system32\msiexec.exe /v
Normal LocalSystem 0
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
Running Manual Share Process
c:\windows\system32\lsass.exe Normal
LocalSystem 0
Removable Storage NtmsSvc Stopped Manual
Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Plug and Play PlugPlay Running Auto
Share Process
c:\windows\system32\services.exe
Normal LocalSystem 0
IPSEC Services PolicyAgent 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
Running Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Remote Desktop Help Session Manager RDSessMgr
Stopped Manual Own Process

```

```

c:\windows\system32\sessmgr.exe
Normal LocalSystem 0
Routing and Remote Access RemoteAccess
Running Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Remote Registry RemoteRegistry Running
Auto Share Process
c:\windows\system32\svchost.exe -k regsvc
Normal NT AUTHORITY\LocalService 0

Remote Procedure Call (RPC) Locator RpcLocator
Stopped Manual Own Process
c:\windows\system32\locator.exe
Normal NT AUTHORITY\NetworkService 0

Remote Procedure Call (RPC) RpcSs Running
Auto Share Process
c:\windows\system32\svchost.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
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Security Accounts Manager SamSs Running
Auto Share Process
c:\windows\system32\lsass.exe Normal
LocalSystem 0
Smart Card SCardSvr Stopped Manual
Share Process
c:\windows\system32\scardsvr.exe
Ignore NT AUTHORITY\LocalService 0

Task Scheduler Schedule Running Auto
Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Secondary Logon seclogon Running Auto
Share Process
c:\windows\system32\svchost.exe -k netsvcs
Ignore LocalSystem 0
System Event Notification SENS Running
Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Internet Connection Firewall (ICF) / Internet
Connection Sharing (ICS) SharedAccess
Stopped Disabled 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 Running Auto Own
Process c:\windows\system32\spoolsv.exe
Normal LocalSystem 0
Windows Image Acquisition (WIA) stisvc
Stopped Disabled Share Process

```

```

c:\windows\system32\svchost.exe -k imgsvc
Normal NT AUTHORITY\LocalService 0

Microsoft Software Shadow Copy Provider swprv
Stopped Manual Own Process
c:\windows\system32\svchost.exe -k swprv
Normal LocalSystem 0
Performance Logs and Alerts SysmonLog Stopped
Manual Own Process
c:\windows\system32\smlogsvc.exe
Normal NT Authority\NetworkService 0

Telephony Tapisrv Running 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 termvcs
Normal LocalSystem 0
Themes Themes Stopped Disabled Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Telnet TlntSvr Running Auto Own Process
c:\windows\system32\tlntsvr.exe
Normal NT AUTHORITY\LocalService 0

DB2 - TPCC TPCC Stopped Manual Own
Process c:\progra~1\ibm\sqlib\bin\db2syscs.exe
Normal .\db2admin 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 Manual
Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Uninterruptible Power Supply UPS Stopped
Manual Own Process
c:\windows\system32\ups.exe Normal NT
AUTHORITY\LocalService 0
Virtual Disk Service vds Stopped
Manual Own Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Volume Shadow Copy 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
Portable Media Serial Number Service WmdmPmSN
Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Windows Management Instrumentation Driver Extensions
Wmi Stopped Manual Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
WMI Performance Adapter WmiApSrv Stopped
Manual Own Process
c:\windows\system32\wbem\wmiaprv.exe
Normal LocalSystem 0
Automatic Updates wuauerv Running Auto
Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Wireless Configuration WZCSVC Running
Auto Share Process
c:\windows\system32\svchost.exe -k netsvcs
Normal LocalSystem 0

[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
ActiveState ActivePerl 5.6 All Users:ActiveState
ActivePerl 5.6 All Users
ActiveState ActivePerl 5.8 All Users:ActiveState
ActivePerl 5.8 All Users
Administrative Tools All
Users:Administrative Tools All Users
Cygwin All Users:Cygwin All Users

```

```

HP System Tools    All Users:HP System Tools    All
Users
HP System Tools\HP Array Configuration Utility    All
Users:HP System Tools\HP Array Configuration Utility
All Users
IBM DB2    All Users:IBM DB2    All Users
IBM DB2\Command Line Tools    All Users:IBM
DB2\Command Line Tools    All Users
IBM DB2\General Administration Tools    All Users:IBM
DB2\General Administration Tools    All Users
IBM DB2\Information All Users:IBM DB2\Information All
Users
IBM DB2\Monitoring Tools    All Users:IBM
DB2\Monitoring Tools    All Users
IBM DB2\Set-up Tools    All Users:IBM DB2\Set-
up Tools    All Users
Microsoft Visual Studio 6.0    All Users:Microsoft
Visual Studio 6.0    All Users
Microsoft Visual Studio 6.0\Microsoft Visual Studio
6.0 Tools All Users:Microsoft Visual Studio
6.0\Microsoft Visual Studio 6.0 Tools    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    BLUE\db2admin:Accessories
BLUE\db2admin
Accessories\Accessibility
BLUE\db2admin:Accessories\Accessibility
BLUE\db2admin
Accessories\Entertainment
BLUE\db2admin:Accessories\Entertainment
BLUE\db2admin
Administrative Tools
BLUE\db2admin:Administrative Tools
BLUE\db2admin
Startup    BLUE\db2admin:Startup    BLUE\db2admin

[Startup Programs]

Program    Command    User Name    Location
desktop    desktop.ini    NT AUTHORITY\SYSTEM
Startup
desktop    desktop.ini    BLUE\db2admin
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"
Windows Media Services DRM Storage object    Not
Available
Bitmap Image    mspaint.exe

[Windows Error Reporting]

Time    Type    Details
4/6/2004 2:18 PM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
4/6/2004 9:04 AM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
4/6/2004 8:22 AM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
4/5/2004 9:29 PM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
4/5/2004 8:06 PM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
4/5/2004 7:18 PM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
4/5/2004 6:16 PM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
4/5/2004 5:53 PM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
4/5/2004 3:36 PM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
4/5/2004 11:34 AM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
4/5/2004 9:26 AM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
4/5/2004 9:17 AM    Application Error    Faulting
application drvtpcc.exe, version 0.0.0.0, faulting
module ntdll.dll, version 5.2.3790.0, fault address
0x0000200b.&#x000d;&#x000a;
4/5/2004 9:17 AM    Application Error    Faulting
application drvtpcc.exe, version 0.0.0.0, faulting
module ntdll.dll, version 5.2.3790.0, fault address
0x0000200b.&#x000d;&#x000a;
4/5/2004 9:10 AM    Application Error    Faulting
application drvtpcc.exe, version 0.0.0.0, faulting
module ntdll.dll, version 5.2.3790.0, fault address
0x0000200b.&#x000d;&#x000a;
4/5/2004 8:56 AM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
4/2/2004 3:27 PM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
4/2/2004 2:10 PM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
4/2/2004 9:38 AM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
4/1/2004 5:41 PM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
4/1/2004 4:31 PM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
4/1/2004 4:29 PM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
4/1/2004 3:44 PM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;

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```

7/25/2003 1:02 AM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
4/1/2004 10:44 AM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
4/1/2004 9:29 AM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
3/31/2004 8:20 PM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
3/31/2004 8:17 PM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
3/31/2004 7:43 PM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
3/31/2004 12:49 PM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
3/31/2004 11:34 AM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
3/31/2004 10:36 AM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
3/31/2004 9:42 AM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
3/31/2004 9:38 AM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
3/31/2004 8:17 AM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
3/30/2004 6:39 PM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
3/30/2004 6:36 PM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
3/30/2004 3:29 PM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
3/30/2004 2:40 PM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
3/30/2004 2:15 PM    Application Error    Faulting
application drvtpcc.exe, version 0.0.0.0, faulting
module ntdll.dll, version 5.2.3790.0, fault address
0x0000200b.&#x000d;&#x000a;
3/30/2004 1:19 PM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
3/30/2004 12:10 PM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
3/30/2004 11:20 AM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
3/30/2004 9:49 AM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
3/30/2004 9:43 AM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
3/29/2004 4:43 PM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
3/29/2004 4:20 PM    Application Error    Faulting
application drvtpcc.exe, version 0.0.0.0, faulting
module ntdll.dll, version 5.2.3790.0, fault address
0x0000200b.&#x000d;&#x000a;
3/29/2004 3:25 PM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
3/29/2004 1:20 PM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
3/29/2004 10:04 AM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
3/29/2004 9:53 AM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;
3/29/2004 9:33 AM    TlntSvr    Telnet Service was
started successfully.&#x000d;&#x000a;

```


3/4/2004 5:29 PM Application Error Faulting application drvtpcc.exe, version 0.0.0.0, faulting module ntdll.dll, version 5.2.3790.0, fault address 0x0000200b.

3/4/2004 5:26 PM Application Error Faulting application drvtpcc.exe, version 0.0.0.0, faulting module ntdll.dll, version 5.2.3790.0, fault address 0x0000200b.

3/4/2004 5:25 PM Application Error Faulting application drvtpcc.exe, version 0.0.0.0, faulting module ntdll.dll, version 5.2.3790.0, fault address 0x0000200b.

3/3/2004 1:19 PM TintSvr Telnet Service was started successfully.

3/1/2004 4:46 PM Application Error Faulting application drvtpcc.exe, version 0.0.0.0, faulting module drvtpcc.exe, version 0.0.0.0, fault address 0x00005a50.

3/1/2004 4:45 PM Application Error Faulting application drvtpcc.exe, version 0.0.0.0, faulting module drvtpcc.exe, version 0.0.0.0, fault address 0x00005a50.

3/1/2004 4:43 PM Application Error Faulting application drvtpcc.exe, version 0.0.0.0, faulting module drvtpcc.exe, version 0.0.0.0, fault address 0x00005a50.

3/1/2004 4:23 PM Application Error Faulting application drvtpcc.exe, version 0.0.0.0, faulting module ntdll.dll, version 5.2.3790.0, fault address 0x0000200b.

3/1/2004 3:13 PM Application Error Faulting application drvtpcc.exe, version 0.0.0.0, faulting module ntdll.dll, version 5.2.3790.0, fault address 0x0000200b.

3/1/2004 11:18 AM Application Error Faulting application drvtpcc.exe, version 0.0.0.0, faulting module ntdll.dll, version 5.2.3790.0, fault address 0x0000200b.

2/24/2004 3:36 PM Application Error Faulting application drvtpcc.exe, version 0.0.0.0, faulting module ntdll.dll, version 5.2.3790.0, fault address 0x0000200b.

2/24/2004 3:35 PM Application Error Faulting application drvtpcc.exe, version 0.0.0.0, faulting module ntdll.dll, version 5.2.3790.0, fault address 0x0000200b.

4/1/2004 6:46 PM Application Hang Hanging application mmc.exe, version 5.2.3790.0, hang module hungapp, version 0.0.0.0, hang address 0x00000000.

3/8/2004 11:53 AM Application Hang Hanging application notepad.exe, version 5.2.3790.0, hang module comctl32.dll, version 6.0.3790.0, hang address 0x00057ce8.

3/1/2004 2:12 PM Application Hang Hanging application mmc.exe, version 5.2.3790.0, hang module hungapp, version 0.0.0.0, hang address 0x00000000.

2/23/2004 1:45 PM Application Hang Hanging application notepad.exe, version 5.2.3790.0, hang module comctl32.dll, version 6.0.3790.0, hang address 0x0002314b.

2/23/2004 9:15 AM Application Hang Hanging application wordpad.exe, version 5.2.3790.0, hang module msftedit.dll, version 5.41.21.2500, hang address 0x00038elf.

2/23/2004 9:14 AM Application Hang Hanging application notepad.exe, version 5.2.3790.0, hang module user32.dll, version 5.2.3790.0, hang address 0x00002e37.

[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
actxprxy.dll	6.0.3790.0	95 KB	3/25/2003 7:00:00 AM	C:\WINDOWS\system32 Microsoft Corporation
advpack.dll	6.0.3790.0	94 KB	3/25/2003 7:00:00 AM	C:\WINDOWS\system32 Microsoft Corporation
asctrls.ocx	6.0.3790.0	90 KB	3/25/2003 7:00:00 AM	C:\WINDOWS\system32 Microsoft Corporation
browsecl.dll	6.0.3790.0	62 KB	3/25/2003 7:00:00 AM	C:\WINDOWS\system32 Microsoft Corporation
browseui.dll	6.0.3790.0	1,033 KB	3/25/2003 7:00:00 AM	C:\WINDOWS\system32 Microsoft Corporation
cdfview.dll	6.0.3790.0	144 KB	3/25/2003 7:00:00 AM	C:\WINDOWS\system32 Microsoft Corporation
comctl32.dll	5.82.3790.0	561 KB	3/25/2003 7:00:00 AM	C:\WINDOWS\system32 Microsoft Corporation

dxtrans.dll	6.3.3790.0	198 KB	3/25/2003 7:00:00 AM	C:\WINDOWS\system32 Microsoft Corporation
dxtmsft.dll	6.3.3790.0	344 KB	3/25/2003 7:00:00 AM	C:\WINDOWS\system32 Microsoft Corporation
iecont.dll	<File Missing>	Not Available	Not Available	Not Available
iecontlc.dll	<File Missing>	Not Available	Not Available	Not Available
iedkcs32.dll	16.0.3790.0	300 KB	3/25/2003 7:00:00 AM	C:\WINDOWS\system32 Microsoft Corporation
iepeers.dll	6.0.3790.0	230 KB	3/25/2003 7:00:00 AM	C:\WINDOWS\system32 Microsoft Corporation
iesetup.dll	6.0.3790.0	59 KB	3/25/2003 7:00:00 AM	C:\WINDOWS\system32 Microsoft Corporation
ieuinit.inf	Not Available	20 KB	3/25/2003 7:00:00 AM	C:\WINDOWS\system32 Not Available
ieexplore.exe	6.0.3790.0	90 KB	3/25/2003 7:00:00 AM	C:\Program Files\Internet Explorer Microsoft Corporation
imgutil.dll	5.2.3790.0	35 KB	3/25/2003 7:00:00 AM	C:\WINDOWS\system32 Microsoft Corporation
inetcp1.cpl	6.0.3790.0	303 KB	3/25/2003 7:00:00 AM	C:\WINDOWS\system32 Microsoft Corporation
inetcp1c.dll	6.0.3790.0	109 KB	3/25/2003 7:00:00 AM	C:\WINDOWS\system32 Microsoft Corporation
inseng.dll	6.0.3790.0	72 KB	3/25/2003 7:00:00 AM	C:\WINDOWS\system32 Microsoft Corporation
mlang.dll	6.0.3790.0	570 KB	3/25/2003 7:00:00 AM	C:\WINDOWS\system32 Microsoft Corporation
msencode.dll	2002.10.4.0	112 KB	3/25/2003 7:00:00 AM	C:\WINDOWS\system32 Not Available
mshta.exe	6.0.3790.0	26 KB	3/25/2003 7:00:00 AM	C:\WINDOWS\system32 Microsoft Corporation
mshtml.dll	6.0.3790.0	2,848 KB	3/25/2003 7:00:00 AM	C:\WINDOWS\system32 Microsoft Corporation


```

mshtml.tlb      6.0.3790.0      1,319 KB
3/25/2003 7:00:00 AM
C:\WINDOWS\system32 Microsoft Corporation

mshtml.dll     6.0.3790.0      444 KB
3/25/2003 7:00:00 AM
C:\WINDOWS\system32 Microsoft Corporation

mshtmlr.dll   6.0.3790.0      55 KB
3/25/2003 7:00:00 AM
C:\WINDOWS\system32 Microsoft Corporation

msident.dll   6.0.3790.0      47 KB
3/25/2003 7:00:00 AM
C:\WINDOWS\system32 Microsoft Corporation

msidntld.dll  6.0.3790.0      15 KB
3/25/2003 7:00:00 AM
C:\WINDOWS\system32 Microsoft Corporation

msieftpl.dll  6.0.3790.0      230 KB
3/25/2003 7:00:00 AM
C:\WINDOWS\system32 Microsoft Corporation

msrating.dll  6.0.3790.0      132 KB
3/25/2003 7:00:00 AM
C:\WINDOWS\system32 Microsoft Corporation

mstime.dll   6.0.3790.0      491 KB
3/25/2003 7:00:00 AM
C:\WINDOWS\system32 Microsoft Corporation

occache.dll  6.0.3790.0      89 KB
3/25/2003 7:00:00 AM
C:\WINDOWS\system32 Microsoft Corporation

proctexe.ocx  6.3.3790.0      78 KB
3/25/2003 7:00:00 AM
C:\WINDOWS\system32 Intel Corporation

sendmail.dll  6.0.3790.0      52 KB
3/25/2003 7:00:00 AM
C:\WINDOWS\system32 Microsoft Corporation

shdoclc.dll   6.0.3790.0      589 KB
3/25/2003 7:00:00 AM
C:\WINDOWS\system32 Microsoft Corporation

shdocvw.dll   6.0.3790.0      1,361 KB
3/25/2003 7:00:00 AM
C:\WINDOWS\system32 Microsoft Corporation

shfolder.dll  6.0.3790.0      23 KB
3/25/2003 7:00:00 AM
C:\WINDOWS\system32 Microsoft Corporation

shlwapi.dll   6.0.3790.0      281 KB
3/25/2003 7:00:00 AM
C:\WINDOWS\system32 Microsoft Corporation

tdc.ocx       1.3.0.3130      58 KB      3/25/2003
7:00:00 AM      C:\WINDOWS\system32 Microsoft
Corporation

```

```

url.dll        6.0.3790.0      36 KB      3/25/2003
7:00:00 AM      C:\WINDOWS\system32 Microsoft
Corporation

urlmon.dll     6.0.3790.0      502 KB
3/25/2003 7:00:00 AM
C:\WINDOWS\system32 Microsoft Corporation

webcheck.dll   6.0.3790.0      262 KB
3/25/2003 7:00:00 AM
C:\WINDOWS\system32 Microsoft Corporation

wininet.dll    6.0.3790.0      609 KB
3/25/2003 7:00:00 AM
C:\WINDOWS\system32 Microsoft Corporation

[Connectivity]

Item      Value
Connection Preference      Never dial

LAN Settings

AutoConfigProxy      Not Available
AutoProxyDetectMode  Disabled
AutoConfigURL
Proxy      Disabled
ProxyServer
ProxyOverride

[Cache]

[ Following are sub-categories of this main category
]
[Summary]

Item      Value
Page Refresh Type      Automatic
Temporary Internet Files Folder      C:\Documents
and Settings\NetworkService\Local Settings\Temporary
Internet Files
Total Disk Space      Not Available
Available Disk Space      Not Available
Maximum Cache Size      Not Available
Available Cache Size      Not Available

[List of Objects]

Program File      Status      CodeBase
No cached object information available

[Content]

[ Following are sub-categories of this main category
]
[Summary]

Item      Value
Content Advisor      Disabled

[Personal Certificates]

```

```

Issued To Issued By Validity Signature Algorithm
No personal certificate information available

```

[Other People Certificates]

```

Issued To Issued By Validity Signature Algorithm
No other people certificate information available

```

[Publishers]

```

Name
No publisher information available

```

[Security]

```

Zone      Security Level
My Computer      Custom
Local intranet   Medium-low
Trusted sites    Medium
Internet High
Restricted sites  High

```

Client Summary

System Information report written at: 04/08/2004
03:09:57 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      Build 2195
OS Manufacturer      Microsoft Corporation
System Name      DANIL
System Manufacturer      Hewlett-Packard
System Model      HP Server
System Type      X86-based PC
Processor      x86 Family 15 Model 2 Stepping 7
GenuineIntel ~2533 Mhz
BIOS Version      Hewlett-Packard Company MBA
v7.0.3      Slot 0028
Windows Directory      C:\WINNT
System Directory      C:\WINNT\System32
Boot Device      \Device\Harddisk0\Partition1
Locale      United States
User Name      DANIL\db2admin
Time Zone      Central Daylight Time
Total Physical Memory      785,948 KB
Available Physical Memory      635,852 KB
Total Virtual Memory      2,314,292 KB
Available Virtual Memory      2,031,464 KB
Page File Space      1,528,344 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
2 Standard floppy disk controller OK
3 ECP Printer Port (LPT1) OK
4 Direct memory access 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
0x0D00-0x13FF PCI bus OK
0x5000-0xFFFF PCI bus OK
0xD800-0xD8FF 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
0x02F4-0x02F7 ISAPNP Read Data Port OK
0x03F2-0x03F5 Standard floppy disk controller OK
0x03F7-0x03F7 Standard floppy disk controller OK
0x0378-0x037F ECP Printer Port (LPT1) OK
0x0778-0x077B ECP Printer Port (LPT1) OK
0x03F8-0x03FF Communications Port (COM1) 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
0x0070-0x0073 System CMOS/real time clock OK
0xEB00-0xEB7F Motherboard resources OK
0x0081-0x008F Direct memory access controller OK
0x00C0-0x00DF Direct memory access controller OK
0x0020-0x0021 Programmable interrupt controller OK
0x00A0-0x00A1 Programmable interrupt controller OK
0x00F0-0x00FE Numeric data processor OK
0x0040-0x0043 System timer OK

```

```

0x0061-0x0061 System speaker OK
0x0540-0x054F Motherboard resources OK
0x05A0-0x05BF Motherboard resources OK
0x0C20-0x0C30 Motherboard resources OK
0x0C80-0x0C9F Motherboard resources OK
0x1200-0x122F Motherboard resources OK
0x0C00-0x0C01 Motherboard resources OK
0x0C06-0x0C08 Motherboard resources OK
0x0C14-0x0C14 Motherboard resources OK
0x0C49-0x0C4A Motherboard resources OK
0x0C50-0x0C52 Motherboard resources OK
0x0C6C-0x0C6C Motherboard resources OK
0x0C6F-0x0C6F Motherboard resources OK
0x0CD6-0x0CD7 Motherboard resources OK
0x0F50-0x0F58 Motherboard resources OK
0x0010-0x0010 Motherboard resources OK
0x0011-0x0011 Motherboard resources OK
0x0012-0x0012 Motherboard resources OK
0x0013-0x0013 Motherboard resources OK
0x0014-0x0014 Motherboard resources OK
0x0015-0x0015 Motherboard resources OK
0x0016-0x0016 Motherboard resources OK
0x0017-0x0017 Motherboard resources OK
0x0018-0x0018 Motherboard resources OK
0x0019-0x0019 Motherboard resources OK
0x001A-0x001A Motherboard resources OK
0x001B-0x001B Motherboard resources OK
0x001C-0x001C Motherboard resources OK
0x001D-0x001D Motherboard resources OK
0x001E-0x001E Motherboard resources OK
0x001F-0x001F Motherboard resources OK
0x002E-0x002E Motherboard resources OK
0x002F-0x002F Motherboard resources OK
0x0072-0x0072 Motherboard resources OK
0x0073-0x0073 Motherboard resources OK
0x0080-0x0080 Motherboard resources OK
0x0092-0x0092 Motherboard resources OK
0x00B0-0x00B0 Motherboard resources OK
0x040B-0x040B Motherboard resources OK
0x04D0-0x04D0 Motherboard resources OK
0x04D1-0x04D1 Motherboard resources OK
0x04D6-0x04D6 Motherboard resources OK
0x077C-0x077F Motherboard resources OK
0x0C31-0x0C31 Motherboard resources OK
0x0C32-0x0C32 Motherboard resources OK
0x0C33-0x0C33 Motherboard resources OK
0x0C34-0x0C34 Motherboard resources OK
0x0C35-0x0C35 Motherboard resources OK
0x0C36-0x0C36 Motherboard resources OK
0x0C37-0x0C37 Motherboard resources OK
0x0C38-0x0C38 Motherboard resources OK
0x0C39-0x0C39 Motherboard resources OK
0x0C3A-0x0C3A Motherboard resources OK
0x0C3B-0x0C3B Motherboard resources OK
0x0C3C-0x0C3C Motherboard resources OK
0x0C3D-0x0C3D Motherboard resources OK
0x0C3E-0x0C3E Motherboard resources OK
0x0C3F-0x0C3F Motherboard resources OK
0x0F60-0x0F6F Motherboard resources OK
0xB000-0xB00F Standard Dual Channel PCI IDE Controller OK
0x01F0-0x01F7 Primary IDE Channel OK
0x03F6-0x03F6 Primary IDE Channel OK

```

```

0x0170-0x0177 Secondary IDE Channel OK
0x0376-0x0376 Secondary IDE Channel OK

[IRQs]

IRQ Number Device
9 Microsoft ACPI-Compliant System
18 HP NC7760 Gigabit Server Adapter
20 HP NC1020 ProLiant Gigabit Server Adapter
32 PCI
17 ATI Technologies Inc. RAGE XL PCI
6 Standard floppy disk controller
4 Communications Port (COM1)
1 Standard 101/102-Key or Microsoft Natural PS/2 Keyboard
12 PS/2 Compatible Mouse
8 System CMOS/real time clock
13 Numeric data processor
14 Primary IDE Channel
15 Secondary IDE Channel
11 Standard OpenHCD USB Host Controller

[Memory]

Range Device Status
0x0000-0x9FFFF System board OK
0xF0000-0xFFFFF System board OK
0x100000-0x2FFFFFFF System board OK
0xFFF80000-0xFFFFFFFF System board OK
0xA0000-0xBFFFF PCI bus OK
0xA0000-0xBFFFF ATI Technologies Inc. RAGE XL PCI OK
0xD0000-0xD3FFF PCI bus OK
0xD4000-0xD7FFF PCI bus OK
0xD8000-0xDBFFF PCI bus OK
0xDC000-0xDFFFF PCI bus OK
0xFB000000-0xFEFFFFFF PCI bus OK
0xFB000000-0xFEFFFFFF Standard OpenHCD USB Host Controller OK
0xFEB00000-0xFEBFFFFFF PCI bus OK
0xFE000000-0xFE00FFFF HP NC7760 Gigabit Server Adapter OK
0xFD800000-0xFD80FFFF HP NC1020 ProLiant Gigabit Server Adapter 32 PCI OK
0xFC000000-0xFCFFFFFFF ATI Technologies Inc. RAGE XL PCI OK
0xFB800000-0xFB80FFFF ATI Technologies Inc. RAGE XL PCI OK

[Components]

[ Following are sub-categories of this main category
]

[Multimedia]

[ Following are sub-categories of this main category
]

[Audio Codecs]

```

```

Codec      Manufacturer      Description
Status File      Version  Size
Creation Date
c:\winnt\system32\iac25_32.ax Intel Corporation
Indeo® audio software OK
C:\WINNT\System32\IAC25_32.AX 2.05.53
195.00 KB (199,680 bytes) 12/7/1999
7:00:00 AM
c:\winnt\system32\msg723.acm Microsoft Corporation
OK
C:\WINNT\System32\MSG723.ACM 4.4.3385
106.77 KB (109,328 bytes) 11/4/2003
3:52:22 PM
c:\winnt\system32\lhacm.acm Microsoft Corporation
OK
C:\WINNT\System32\LHACM.ACM 4.4.3385
33.27 KB (34,064 bytes) 11/4/2003
3:52:22 PM
c:\winnt\system32\tssoft32.acm DSP GROUP,
INC.
C:\WINNT\System32\TSSOFT32.ACM
1.01 9.27 KB (9,488 bytes)
12/7/1999 7:00:00 AM
c:\winnt\system32\msg711.acm Microsoft Corporation
OK
C:\WINNT\System32\MSG711.ACM 5.00.2134.1
10.27 KB (10,512 bytes) 12/7/1999
7:00:00 AM
c:\winnt\system32\msgsm32.acm Microsoft Corporation
OK
C:\WINNT\System32\MSGSM32.ACM 5.00.2134.1
22.27 KB (22,800 bytes) 12/7/1999
7:00:00 AM
c:\winnt\system32\msadp32.acm Microsoft Corporation
OK
C:\WINNT\System32\MSADP32.ACM 5.00.2134.1
14.77 KB (15,120 bytes) 12/7/1999
7:00:00 AM
c:\winnt\system32\imaadp32.acm Microsoft
Corporation
OK
C:\WINNT\System32\IMAADP32.ACM
5.00.2134.1 16.27 KB (16,656 bytes)
12/7/1999 7:00:00 AM

[Video Codecs]

Codec      Manufacturer      Description
Status File      Version  Size
Creation Date
c:\winnt\system32\ir50_32.dll Intel Corporation
Indeo® video 5.10 OK
C:\WINNT\System32\IR50_32.DLL
R.5.10.15.2.55 737.50 KB (755,200
bytes) 12/7/1999 7:00:00 AM
c:\winnt\system32\msh261.drv Microsoft Corporation
OK
C:\WINNT\System32\MSH261.DRV 4.4.3385
163.77 KB (167,696 bytes) 11/4/2003
3:52:22 PM
c:\winnt\system32\msrle32.dll Microsoft Corporation
OK
C:\WINNT\System32\MSRLE32.DLL 5.00.2134.1

```

```

10.77 KB (11,024 bytes) 12/7/1999
7:00:00 AM
c:\winnt\system32\msh263.drv Microsoft Corporation
OK
C:\WINNT\System32\MSH263.DRV 4.4.3385
252.27 KB (258,320 bytes) 11/4/2003
3:51:55 PM
c:\winnt\system32\msvidc32.dll Microsoft
Corporation
OK
C:\WINNT\System32\MSVIDC32.DLL
5.00.2134.1 27.27 KB (27,920 bytes)
12/7/1999 7:00:00 AM
c:\winnt\system32\ir32_32.dll Intel(R) Corporation
OK
C:\WINNT\System32\IR32_32.DLL Not Available
194.50 KB (199,168 bytes) 12/7/1999
7:00:00 AM
c:\winnt\system32\iccvld.dll Radius Inc.
OK
C:\WINNT\System32\ICCVLD.DLL
1.10.0.6 108.00 KB (110,592 bytes)
12/7/1999 7:00:00 AM

[CD-ROM]

Item Value
Drive D:
Description CD-ROM Drive
Media Loaded False
Media Type CD-ROM
Name HL-DT-ST CD-ROM GCR-8480B
Manufacturer (Standard CD-ROM drives)
Status OK
Transfer Rate Not Available
SCSI Target ID 1
PNP Device ID IDE\CDROMHL-DT-ST_CD-ROM_GCR-
8480B 2.05____\5&25DBE6F8&0&0.1.0

[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_001E0E11&REV_2
7\3&13C0B0C5&0&48
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 256
Resolution 800 x 600 x 60 hertz
Bits/Pixel 8

```

```

[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\5&2C631CF0&0
NumberOfFunctionKeys 12

[Pointing Device]

Item Value
Hardware Type PS/2 Compatible Mouse
Number of Buttons 5
Status OK
PNP Device ID ACPI\PNP0F13\5&2C631CF0&0
Power Management Supported False
Double Click Threshold 6
Handedness Right Handed Operation

[Modem]

Item Value
No modems

[Network]

[ Following are sub-categories of this main category ]

[Adapter]

Item Value
Name [00000000] RAS Async Adapter
Adapter Type Not Available
Product Name RAS Async Adapter
Installed True
PNP Device ID Not Available
Last Reset 4/8/2004 9:56:55 AM
Index 0
Service Name AsyncMac
IP Address Not Available
IP Subnet Not Available
Default IP Gateway Not Available
DHCP Enabled False
DHCP Server Not Available
DHCP Lease Expires Not Available
DHCP Lease Obtained Not Available
MAC Address Not Available
Service Name Not Available

```

Name [00000001] WAN Miniport (L2TP)
 Adapter Type Not Available
 Product Name WAN Miniport (L2TP)
 Installed True
 PNP Device ID ROOT\MS_L2TPMINIPORT\0000
 Last Reset 4/8/2004 9:56:55 AM
 Index 1
 Service Name Rasl2tp
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled False
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address Not Available
 Service Name Rasl2tp
 Driver c:\winnt\system32\drivers\rasl2tp.sys
 (50800, 5.00.2179.1)

Name [00000002] WAN Miniport (PPTP)
 Adapter Type Wide Area Network (WAN)
 Product Name WAN Miniport (PPTP)
 Installed True
 PNP Device ID ROOT\MS_PPTPMINIPORT\0000
 Last Reset 4/8/2004 9:56:55 AM
 Index 2
 Service Name PptpMiniport
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled False
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address 50:50:54:50:30:30
 Service Name PptpMiniport
 Driver c:\winnt\system32\drivers\raspptp.sys
 (47856, 5.00.2160.1)

Name [00000003] Direct Parallel
 Adapter Type Not Available
 Product Name Direct Parallel
 Installed True
 PNP Device ID ROOT\MS_PTMINIPORT\0000
 Last Reset 4/8/2004 9:56:55 AM
 Index 3
 Service Name Raspti
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled False
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address Not Available
 Service Name Raspti
 Driver c:\winnt\system32\drivers\raspti.sys
 (16880, 5.00.2146.1)

Name [00000004] WAN Miniport (IP)
 Adapter Type Not Available

Product Name WAN Miniport (IP)
 Installed True
 PNP Device ID ROOT\MS_NDISWANIP\0000
 Last Reset 4/8/2004 9:56:55 AM
 Index 4
 Service Name NdisWan
 IP Address Not Available
 IP Subnet Not Available
 Default IP Gateway Not Available
 DHCP Enabled False
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address Not Available
 Service Name NdisWan
 Driver c:\winnt\system32\drivers\ndiswan.sys
 (90768, 5.00.2184.1)

Name [00000005] HP NC7760 Gigabit Server Adapter
 Adapter Type Ethernet 802.3
 Product Name HP NC7760 Gigabit Server Adapter
 Installed True
 PNP Device ID PCI\VEN_14E4&DEV_16A6&SUBSYS_00BB0E11&REV_02\3&13C0B0C5&0&18
 Last Reset 4/8/2004 9:56:55 AM
 Index 5
 Service Name q57w2k
 IP Address 130.168.211.51
 IP Subnet 255.255.0.0
 Default IP Gateway Not Available
 DHCP Enabled False
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address 00:08:02:F7:05:32
 Service Name q57w2k
 IRQ Number 18
 Driver c:\winnt\system32\drivers\q57w2k.sys
 (113988, 7.35.0.0)

Name [00000006] HP NC7770 Gigabit Server Adapter
 Adapter Type Not Available
 Product Name HP NC7770 Gigabit Server Adapter
 Installed True
 PNP Device ID Not Available
 Last Reset 4/8/2004 9:56:55 AM
 Index 6
 Service Name q57w2k
 IP Address 130.172.211.51
 IP Subnet 255.255.0.0
 Default IP Gateway Not Available
 DHCP Enabled False
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address 00:0D:9D:FE:1B:4B
 Service Name Not Available

Name [00000007] HP NC1020 ProLiant Gigabit Server Adapter 32 PCI
 Adapter Type Ethernet 802.3

Product Name HP NC1020 ProLiant Gigabit Server
 Adapter 32 PCI
 Installed True
 PNP Device ID PCI\VEN_14E4&DEV_1654&SUBSYS_3100103C&REV_03\3&13C0B0C5&0&28
 Last Reset 4/8/2004 9:56:55 AM
 Index 7
 Service Name q57w2k
 IP Address 130.172.211.51
 IP Subnet 255.255.0.0
 Default IP Gateway Not Available
 DHCP Enabled False
 DHCP Server Not Available
 DHCP Lease Expires Not Available
 DHCP Lease Obtained Not Available
 MAC Address 00:0D:9D:FE:1B:4B
 Service Name q57w2k
 IRQ Number 20
 Driver c:\winnt\system32\drivers\q57w2k.sys
 (113988, 7.35.0.0)

[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_{840AB487-AC33-4DDC-B8D2-99FA04167681}] SEQPACKE 4
 ConnectionlessService False
 GuaranteesDelivery True
 GuaranteesSequencing True
 MaximumAddressSize 20 bytes
 MaximumMessageSize 64000 bytes
 MessageOriented True
 MinimumAddressSize 20 bytes
 PseudoStreamOriented False
 SupportsBroadcasting False
 SupportsConnectData False
 SupportsDisconnectData False
 SupportsEncryption False
 SupportsExpeditedData False
 SupportsGracefulClosing False
 SupportsGuaranteedBandwidth False
 SupportsMulticasting False

Name MSAFD NetBIOS
 [\Device\NetBT_Tcpip_{840AB487-AC33-4DDC-B8D2-99FA04167681}] 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_{7539192D-A8F8-41BC-801A-CD456BACD8A6}] SEQPACKE 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_{7539192D-A8F8-41BC-801A-CD456BACD8A6}] DATAGRAM 3
 ConnectionlessService True
 GuaranteesDelivery False
 GuaranteesSequencing False
 MaximumAddressSize 20 bytes
 MaximumMessageSize 64000 bytes
 MessageOriented True
 MinimumAddressSize 20 bytes
 PseudoStreamOriented False
 SupportsBroadcasting True
 SupportsConnectData False
 SupportsDisconnectData False
 SupportsEncryption False
 SupportsExpeditedData False
 SupportsGracefulClosing False
 SupportsGuaranteedBandwidth False
 SupportsMulticasting False

Name MSAFD NetBIOS
 [\Device\NetBT_Tcpip_{DA510AFB-85A5-43A9-96B3-AE71EE2D5DD7}] SEQPACKE 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_{DA510AFB-85A5-43A9-96B3-AE71EE2D5DD7}] 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_{2582FFC3-246D-4D92-AF7C-6C54FFF10317}] SEQPACKE 1
 ConnectionlessService False
 GuaranteesDelivery True
 GuaranteesSequencing True
 MaximumAddressSize 20 bytes
 MaximumMessageSize 64000 bytes
 MessageOriented True
 MinimumAddressSize 20 bytes
 PseudoStreamOriented False
 SupportsBroadcasting False
 SupportsConnectData False
 SupportsDisconnectData False
 SupportsEncryption False
 SupportsExpeditedData False
 SupportsGracefulClosing False
 SupportsGuaranteedBandwidth False
 SupportsMulticasting False

Name MSAFD NetBIOS
 [\Device\NetBT_Tcpip_{2582FFC3-246D-4D92-AF7C-6C54FFF10317}] DATAGRAM 1
 ConnectionlessService True
 GuaranteesDelivery False
 GuaranteesSequencing False
 MaximumAddressSize 20 bytes
 MaximumMessageSize 64000 bytes
 MessageOriented True
 MinimumAddressSize 20 bytes
 PseudoStreamOriented False
 SupportsBroadcasting True
 SupportsConnectData False
 SupportsDisconnectData False

```

SupportsEncryption False
SupportsExpeditedData False
SupportsGracefulClosing False
SupportsGuaranteedBandwidth False
SupportsMulticasting False

```

```

Name MSAFD NetBIOS
[\Device\NetBT_Tcpip_{583DAA3C-0218-4DE2-8D1E-1DC474F8F57B}] SEQPACKE
T 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_{583DAA3C-0218-4DE2-8D1E-1DC474F8F57B}] DATAGRAM 2
ConnectionlessService True
GuaranteesDelivery False
GuaranteesSequencing False
MaximumAddressSize 20 bytes
MaximumMessageSize 64000 bytes
MessageOriented True
MinimumAddressSize 20 bytes
PseudoStreamOriented False
SupportsBroadcasting True
SupportsConnectData False
SupportsDisconnectData False
SupportsEncryption False
SupportsExpeditedData False
SupportsGracefulClosing False
SupportsGuaranteedBandwidth False
SupportsMulticasting False

```

[WinSock]

```

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

```

```

File c:\winnt\system32\wsock32.dll
Version 5.00.2152.1
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 Not Available
Maximum Output Buffer Size Not Available
Settable Baud Rate Not Available
Settable Data Bits Not Available
Settable Flow Control Not Available
Settable Parity Not Available
Settable Parity Check Not Available
Settable Stop Bits Not Available
Settable RLSD Not Available
Supports RLSD Not Available
Supports 16 Bit Mode Not Available
Supports Special Characters Not Available
Baud Rate 9600
Bits/Byte 8
Stop Bits 1
Parity None
Busy -1
Abort Read/Write on Error Not Available
Binary Mode Enabled Not Available
Continue Xmit on Xoff Not Available
CTS Outflow Control Not Available
Discard NULL Bytes Not Available
DSR Outflow Control Not Available
DSR Sensitivity Not Available
DTR Flow Control Type Not Available
EOF Character Not Available
Error Replace Character Not Available
Error Replacement Enabled Not Available
Event Character Not Available
Parity Check Enabled -1
RTS Flow Control Type Not Available
Xoff Character 19
XoffXmit Threshold 512
Xon Character 17
XonXmit Threshold 2048
XonXoff InFlow Control Not Available
XonXoff OutFlow Control Not Available
IRQ Number 4
I/O Port 0x03F8-0x03FF
Driver c:\winnt\system32\drivers\serial.sys
(62448, 5.00.2134.1)

```

[Parallel]

```

Item Value
Name LPT1
PNP Device ID ACPI\PNP0401\5&2C631CF0&0

```

[Storage]

[Following are sub-categories of this main category]

[Drives]

```

Item Value
Drive A:
Description 3 1/2 Inch Floppy Drive

```

```

Drive C:
Description Local Fixed Disk
Compressed False
File System NTFS
Size 37.26 GB (40,007,729,152 bytes)
Free Space 34.79 GB (37,351,690,240 bytes)
Volume Name
Volume Serial Number 08294328
Partition Disk #0, Partition #0
Partition Size 37.26 GB (40,007,729,664 bytes)
Starting Offset 32256 bytes
Drive Description Disk drive
Drive Manufacturer (Standard disk drives)
Drive Model Maxtor 6E040L0
Drive BytesPerSector 512
Drive MediaLoaded True
Drive MediaType Fixed hard disk media
Drive Partitions 1
Drive SCSIbus 0
Drive SCSILogicalUnit 0
Drive SCSIPort 0
Drive SCSTargetId 0
Drive SectorsPerTrack 63
Drive Size 40015987200 bytes
Drive TotalCylinders 4865
Drive TotalSectors 78156225
Drive TotalTracks 1240575
Drive TracksPerCylinder 255

```

[SCSI]

```

Item Value
No SCSI information

```

[Printing]

```

Name Port Name Server Name
No printing information

```

[Problem Devices]

```

Device PNP Device ID Error Code
No Problem Devices

```

[USB]

```

Device PNP Device ID
Standard OpenHCD USB Host Controller
PCI\VEN_1166&DEV_0221&SUBSYS_02201166&REV_0
5\3&13C0B0C5&0&7A
USB Root Hub USB\ROOT_HUB\4&69DB81A&0

```

[Software Environment]

[Following are sub-categories of this main category]

[Drivers]

Name	Description	File	Type	Status	Start Mode	State	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			Normal	False	False	
acpiec	ACPIEC	c:\winnt\system32\drivers\acpiec.sys	Kernel Driver	True	Boot	Running	OK
adpu160m	adpu160m	Not Available	Kernel Driver	False	Disabled	Stopped	OK
afd	AFD Networking Support Environment	c:\winnt\system32\drivers\afd.sys	Kernel Driver	True	Auto	Running	OK
aha154x	Aha154x	Not Available	Kernel Driver	False	Disabled	Stopped	OK
aic116x	aic116x	Not Available	Kernel Driver	Normal	False	False	
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	Normal	False	False	
amsint	amsint	Not Available	Kernel Driver	False	Disabled	Stopped	OK
asc	asc	Not Available	Kernel Driver	Normal	False	False	
asc3350p	asc3350p	Not Available	Kernel Driver	False	Disabled	Stopped	OK
asc3550	asc3550	Not Available	Kernel Driver	False	Disabled	Stopped	OK
asynctmac	RAS Asynchronous Media Driver	c:\winnt\system32\drivers\asynctmac.sys	Kernel Driver	True	Manual	Stopped	OK

atapi	Standard IDE/ESDI Hard Disk Controller	c:\winnt\system32\drivers\atapi.sys	Kernel Driver	True	Boot	Running	OK
atdisk	Atdisk	Not Available	Kernel Driver	False	Disabled	Stopped	OK
atirage3	atirage3			Ignore	False	False	
atmarpc	ATM ARP Client Protocol	c:\winnt\system32\drivers\atmarpc.sys	Kernel Driver	True	Manual	Running	OK
audstub	Audio Stub Driver	c:\winnt\system32\drivers\audstub.sys	Kernel Driver	True	Manual	Running	OK
beep	Beep	c:\winnt\system32\drivers\beep.sys	Kernel Driver	True	System	Running	OK
buslogic	BusLogic	Not Available	Kernel Driver	False	Disabled	Stopped	OK
cd20xrnt	cd20xrnt	Not Available	Kernel Driver	Normal	False	False	
cdaudio	Cdaudio	c:\winnt\system32\drivers\cdaudio.sys	Kernel Driver	False	System	Stopped	OK
cdfs	Cdfs	c:\winnt\system32\drivers\cdfs.sys	File System Driver	True	Disabled	Running	OK
cdrom	CD-ROM Driver	c:\winnt\system32\drivers\cdrom.sys	Kernel Driver	True	System	Running	OK
changer	Changer	Not Available	Kernel Driver	False	System	Stopped	OK
cpqarray	Cpqarray	Not Available	Kernel Driver	Ignore	False	False	
cpqarray2	cpqarray2	Not Available	Kernel Driver	False	Disabled	Stopped	OK
cpqfcalm	cpqfcalm	Not Available	Kernel Driver	False	Disabled	Stopped	OK

cpqfws2e	cpqfws2e	Not Available	Kernel Driver	False	Disabled	Stopped	OK
cgdetect	Compaq Hardware Detection Service	c:\winnt\system32\drivers\cgdetect.sys	Kernel Driver	Normal	False	Stopped	OK
dac960nt	dac960nt	Not Available	Kernel Driver	False	Disabled	Stopped	OK
deckzpsx	deckzpsx	Not Available	Kernel Driver	Normal	False	Stopped	OK
dfsdriver	DfsDriver	c:\winnt\system32\drivers\dfs.sys	File System Driver	True	Boot	Running	OK
disk	Disk Driver	c:\winnt\system32\drivers\disk.sys	Kernel Driver	True	Boot	Running	OK
diskperf	Diskperf	c:\winnt\system32\drivers\diskperf.sys	Kernel Driver	True	Boot	Running	OK
dmboot	dmboot	c:\winnt\system32\drivers\dmboot.sys	Kernel Driver	False	Disabled	Stopped	OK
dmio	Logical Disk Manager Driver	c:\winnt\system32\drivers\dmio.sys	Kernel Driver	True	Boot	Running	OK
dmload	dmload	c:\winnt\system32\drivers\dmload.sys	Kernel Driver	True	Boot	Running	OK
efs	EFS	c:\winnt\system32\drivers\efs.sys	File System Driver	True	Disabled	Running	OK
fastfat	Fastfat	c:\winnt\system32\drivers\fastfat.sys	File System Driver	True	Disabled	Running	OK
fd16_700	Fd16_700	Not Available	Kernel Driver	False	Disabled	Stopped	OK
fdc	Floppy Disk Controller Driver	c:\winnt\system32\drivers\fdc.sys	Kernel Driver	True	Manual	Running	OK
fireport	fireport	Not Available	Kernel Driver	False	Disabled	Stopped	OK

```

flashpnt flashpnt Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
flpydisk Floppy Disk Driver
c:\winnt\system32\drivers\flpydisk.sys
Kernel Driver True Manual
Running OK Normal False
True
ftdisk Volume Manager Driver
c:\winnt\system32\drivers\ftdisk.sys
Kernel Driver True Boot
Running OK Normal False
True
gpc Generic Packet Classifier
c:\winnt\system32\drivers\msgpc.sys
Kernel Driver True Manual
Running OK Normal False
True
i8042prt i8042 Keyboard and PS/2 Mouse Port Driver
c:\winnt\system32\drivers\i8042prt.sys
Kernel Driver True System
Running OK Normal False
True
ini910u ini910u Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
intelide IntelIde Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
ipfilterdriver IP Traffic Filter Driver
c:\winnt\system32\drivers\ipfldrv.sys
Kernel Driver False Manual
Stopped OK Normal False
False
ipinip IP in IP Tunnel Driver
c:\winnt\system32\drivers\ipinip.sys
Kernel Driver False Manual
Stopped OK Normal False
False
ipnat IP Network Address Translator
c:\winnt\system32\drivers\ipnat.sys
Kernel Driver False Manual
Stopped OK Normal False
False
ipsec IPSEC driver
c:\winnt\system32\drivers\ipsec.sys
Kernel Driver True Manual
Running OK Normal False
True
ipsraidn ipsraidn Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
isapnp PnP ISA/EISA Bus Driver
c:\winnt\system32\drivers\isapnp.sys
Kernel Driver True Boot
Running OK Critical False
True
kbdclass Keyboard Class Driver
c:\winnt\system32\drivers\kbdclass.sys
Kernel Driver True System
Running OK Normal False
True

```

```

ksecdd KSecDD
c:\winnt\system32\drivers\ksecdd.sys
Kernel Driver True Boot
Running OK Normal False
True
lbrtfdc lbrtfdc Not Available Kernel Driver
False System Stopped OK
Ignore False False
lp6nds35 lp6nds35 Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
mmdd mmdd
c:\winnt\system32\drivers\mmdd.sys
Kernel Driver True System
Running OK Ignore False
True
modem Modem
c:\winnt\system32\drivers\modem.sys
Kernel Driver False Manual
Stopped OK Ignore False
False
mouclass Mouse Class Driver
c:\winnt\system32\drivers\mouclass.sys
Kernel Driver True System
Running OK Normal False
True
mountmgr MountMgr
c:\winnt\system32\drivers\mountmgr.sys
Kernel Driver True Boot
Running OK Normal False
True
mraid35x mraid35x Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
mrx smb MRXSMB
c:\winnt\system32\drivers\mrx smb.sys
File System Driver True System
Running OK Normal False
True
msfs Msfs
c:\winnt\system32\drivers\msfs.sys
File System Driver True System
Running OK Normal False
True
mskssrv Microsoft Streaming Service Proxy
c:\winnt\system32\drivers\mskssrv.sys
Kernel Driver False Manual
Stopped OK Normal False
False
mspclock Microsoft Streaming Clock Proxy
c:\winnt\system32\drivers\mspclock.sys
Kernel Driver False Manual
Stopped OK Normal False
False
mspqm Microsoft Streaming Quality Manager Proxy
c:\winnt\system32\drivers\mspqm.sys
Kernel Driver False Manual
Stopped OK Normal False
False
mup Mup c:\winnt\system32\drivers\mup.sys
File System Driver True Boot
Running OK Normal False
True

```

```

ncrc710 Nrc710 Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
ndis NDIS System Driver
c:\winnt\system32\drivers\ndis.sys
Kernel Driver True Boot
Running OK Normal False
True
ndistapi Remote Access NDIS TAPI Driver
c:\winnt\system32\drivers\ndistapi.sys
Kernel Driver True Manual
Running OK Normal False
True
ndiswan Remote Access NDIS WAN Driver
c:\winnt\system32\drivers\ndiswan.sys
Kernel Driver True Manual
Running OK Normal False
True
ndproxy NDIS Proxy
c:\winnt\system32\drivers\ndproxy.sys
Kernel Driver True Manual
Running OK Normal False
True
netbios NetBIOS Interface
c:\winnt\system32\drivers\netbios.sys
File System Driver True System
Running OK Normal False
True
netbt NetBios over Tcpip
c:\winnt\system32\drivers\netbt.sys
Kernel Driver True System
Running OK Normal False
True
netdetect NetDetect
c:\winnt\system32\drivers\netdect.sys
Kernel Driver False Manual
Stopped OK Normal False
False
npfs Npfs
c:\winnt\system32\drivers\npfs.sys
File System Driver True System
Running OK Normal False
True
ntfs Ntfs
c:\winnt\system32\drivers\ntfs.sys
File System Driver True Disabled
Running OK Normal False
True
null Null
c:\winnt\system32\drivers\null.sys
Kernel Driver True System
Running OK Normal False
True
nwlnkflt IPX Traffic Filter Driver
c:\winnt\system32\drivers\nwlnkflt.sys
Kernel Driver False Manual
Stopped OK Normal False
False
nwlnkfwf IPX Traffic Forwarder Driver
c:\winnt\system32\drivers\nwlnkfwf.sys
Kernel Driver False Manual
Stopped OK Normal False
False

```


openhci	Microsoft USB Open Host Controller Driver c:\winnt\system32\drivers\openhci.sys Kernel Driver True Manual Running OK Normal False True	Running OK Normal False True	
parallel	Parallel class driver c:\winnt\system32\drivers\parallel.sys Kernel Driver True Manual Running OK Normal False True	q57w2k HP NC7760 Gigabit Server Adapter c:\winnt\system32\drivers\q57w2k.sys Kernel Driver True Manual Running OK Normal False True	serial Serial port driver c:\winnt\system32\drivers\serial.sys Kernel Driver True System Running OK Ignore False True
parport	Parallel port driver c:\winnt\system32\drivers\parport.sys Kernel Driver True System Running OK Ignore False True	q11080 q11080 Not Available Kernel Driver False Disabled Stopped OK Normal False False	sfloppy Sfloppy c:\winnt\system32\drivers\sfloppy.sys Kernel Driver False System Stopped OK Ignore False False
partmgr	PartMgr c:\winnt\system32\drivers\partmgr.sys Kernel Driver True Boot Running OK Normal False True	q110wnt q110wnt Not Available Kernel Driver False Disabled Stopped OK Normal False False	sglfb sglfb Not Available Kernel Driver False System Stopped OK Normal False False
parvdm	ParVdm c:\winnt\system32\drivers\parvdm.sys Kernel Driver True Auto Running OK Ignore False True	q11240 q11240 Not Available Kernel Driver False Disabled Stopped OK Normal False False	simbad Simbad Not Available Kernel Driver False Disabled Stopped OK Normal False False
pci	PCI Bus Driver c:\winnt\system32\drivers\pci.sys Kernel Driver True Boot Running OK Critical False True	q12100 q12100 Not Available Kernel Driver False Disabled Stopped OK Normal False False	sparrow Sparrow Not Available Kernel Driver False Disabled Stopped OK Normal False False
pcidump	PCIDump Not Available Kernel Driver False System Stopped OK Ignore False False	rasacd Remote Access Auto Connection Driver c:\winnt\system32\drivers\rasacd.sys Kernel Driver True System Running OK Normal False True	spud Special Purpose Utility Driver c:\winnt\system32\drivers\spud.sys Kernel Driver True Manual Running OK Normal False True
pciide	PCIIde c:\winnt\system32\drivers\pciide.sys Kernel Driver True Boot Running OK Normal False True	rasl2tp WAN Miniport (L2TP) c:\winnt\system32\drivers\rasl2tp.sys Kernel Driver True Manual Running OK Normal False True	srv Srv c:\winnt\system32\drivers\srv.sys File System Driver True Manual Running OK Normal False True
pcmcia	Pcmcia c:\winnt\system32\drivers\pcmcia.sys Kernel Driver False Disabled Stopped OK Normal False False	raspti Direct Parallel c:\winnt\system32\drivers\raspti.sys Kernel Driver True Manual Running OK Normal False True	swenum Software Bus Driver c:\winnt\system32\drivers\swenum.sys Kernel Driver True Manual Running OK Normal False True
pdcomp	PDCOMP Not Available Kernel Driver False Manual Stopped OK Ignore False False	rca Microsoft Streaming Network Raw Channel Access c:\winnt\system32\drivers\rca.sys Kernel Driver False Manual Stopped OK Normal False False	symc810 symc810 Not Available Kernel Driver False Disabled Stopped OK Normal False False
pdframe	PDFRAME Not Available Kernel Driver False Manual Stopped OK Ignore False False	rdbss Rdbss c:\winnt\system32\drivers\rdbss.sys File System Driver True System Running OK Normal False True	symc8xx symc8xx Not Available Kernel Driver False Disabled Stopped OK Normal False False
pdreli	PDRELI Not Available Kernel Driver False Manual Stopped OK Ignore False False	rdpdr Terminal Server Device Redirector Driver c:\winnt\system32\drivers\rdpdr.sys Kernel Driver True Manual Running OK Normal False True	sym_hi sym_hi Not Available Kernel Driver False Disabled Stopped OK Normal False False
pdrframe	PDRFRAME Not Available Kernel Driver False Manual Stopped OK Ignore False False	rdpwd RDPWD c:\winnt\system32\drivers\rdpwd.sys Kernel Driver True Manual Running OK Ignore False True	tcpip TCP/IP Protocol Driver c:\winnt\system32\drivers\tcpip.sys Kernel Driver True System Running OK Normal False True
pptpminiport	WAN Miniport (PPTP) c:\winnt\system32\drivers\raspptp.sys Kernel Driver True Manual Running OK Normal False True	redbook Digital CD Audio Playback Filter Driver c:\winnt\system32\drivers\redbook.sys Kernel Driver False System Stopped OK Normal False False	tdasync TDASYNC c:\winnt\system32\drivers\tdasync.sys Kernel Driver False Manual Stopped OK Ignore False False
ptilink	Direct Parallel Link Driver c:\winnt\system32\drivers\ptilink.sys Kernel Driver True Manual	serenum Serenum Filter Driver c:\winnt\system32\drivers\serenum.sys Kernel Driver True Manual	tdipx TDIPX c:\winnt\system32\drivers\tdipx.sys Kernel Driver False Manual Stopped OK Ignore False False
			tdnetb TDNETB c:\winnt\system32\drivers\tdnetb.sys Kernel Driver False Manual

```

Stopped OK Ignore False
False
tdpipe TDPipe
c:\winnt\system32\drivers\tdpipe.sys
Kernel Driver False Manual
Stopped OK Ignore False
False
tdspx TDSPX
c:\winnt\system32\drivers\tdspx.sys
Kernel Driver False Manual
Running OK Ignore False
False
tdtcp TDTCP
c:\winnt\system32\drivers\tdtcp.sys
Kernel Driver True Manual
Running OK Ignore False
True
termdd Terminal Device Driver
c:\winnt\system32\drivers\termdd.sys
Kernel Driver True Auto
Running OK Normal False
True
tga tga Not Available Kernel Driver
False System Stopped OK
Ignore False False
udfs Udfs
c:\winnt\system32\drivers\udfs.sys
File System Driver False Disabled
Stopped OK Normal False
False
ultra66 ultra66 Not Available Kernel Driver
False Disabled Stopped OK
Normal False False
update Microcode Update Driver
c:\winnt\system32\drivers\update.sys
Kernel Driver True Manual
Running OK Normal False
True
usbhub Microsoft USB Standard Hub Driver
c:\winnt\system32\drivers\usbhub.sys
Kernel Driver True Manual
Running OK Normal False
True
vgasave VgaSave c:\winnt\system32\drivers\vga.sys
Kernel Driver True System
Running OK Ignore False
True
wanarp Remote Access IP ARP Driver
c:\winnt\system32\drivers\wanarp.sys
Kernel Driver True Manual
Running OK Normal False
True
wdica WDICA Not Available Kernel Driver
False Manual Stopped OK
Ignore False False

[Environment Variables]

Variable Value User Name
ComSpec %SystemRoot%\system32\cmd.exe <SYSTEM>
Os2LibPath %SystemRoot%\system32\os2\dll;
<SYSTEM>

```

```

Path
%SystemRoot%\system32;%SystemRoot%;%SystemR
oot%\System32\Wbem;C:\Program Files\Microsoft SQL
Server\80\Tools\BINN;C:\PROGRA-1\IBM\SQLLIB\BIN;C:\PR
OGRA-1\IBM\SQLLIB\FUNCTION <SYSTEM>
windir %SystemRoot% <SYSTEM>
OS Windows_NT <SYSTEM>
PROCESSOR_ARCHITECTURE x86 <SYSTEM>
PROCESSOR_LEVEL 15 <SYSTEM>
PROCESSOR_IDENTIFIER x86 Family 15 Model 2
Stepping 7, GenuineIntel <SYSTEM>
PROCESSOR_REVISION 0207 <SYSTEM>
NUMBER_OF_PROCESSORS 1 <SYSTEM>
PATHEXT .COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF
;.WSH <SYSTEM>
TEMP %SystemRoot%\TEMP <SYSTEM>
TMP %SystemRoot%\TEMP <SYSTEM>
CLASSPATH ;C:\PROGRA-1\IBM\SQLLIB\java\db2java.zip;C
:\PROGRA-1\IBM\SQLLIB\java\db2jcc.jar;C:\PROGRA-1\IBM
\SQLLIB\bin;C:\PROGRA-1\IBM\SQLLIB\java\db2jcc_licens
e_cu.jar <SYSTEM>
DB2INSTANCE DB2 <SYSTEM>
DB2TEMPDIR C:\PROGRA-1\IBM\SQLLIB\
<SYSTEM>
TEMP %USERPROFILE%\Local Settings\Temp
DANI1\db2admin
TMP %USERPROFILE%\Local Settings\Temp
DANI1\db2admin
TEMP %USERPROFILE%\Local Settings\Temp
DANI1\Administrator
TMP %USERPROFILE%\Local Settings\Temp
DANI1\Administrator

[Jobs]

[ Following are sub-categories of this main category ]

[Print]

Document Size Owner Notify Status
Time Submitted Start Time
Until Time Elapsed Time
Pages Printed Job ID Priority
Parameters Driver Name
Print Processor Host Print Queue
Data Type Name

No print jobs

[Network Connections]

Local Name Remote Name Type
Status User Name

No network connections information

[Running Tasks]

```

```

Name Path Process ID Priority Min
Working Set Max Working Set Start Time
Version Size File Date
system idle process Not Available 0 0
Not Available Not Available Not
Available Unknown Unknown Unknown
system Not Available 8 8 0
1413120 Not Available Unknown
Unknown Unknown
smss.exe c:\winnt\system32\smss.exe 176 11
204800 1413120 4/8/2004 2:57:09 PM
5.00.2170.1 44.27 KB (45,328 bytes)
12/7/1999 7:00:00 AM
csrss.exe Not Available 200 13 Not
Available Not Available 4/8/2004 2:57:20 PM
Unknown Unknown Unknown
winlogon.exe c:\winnt\system32\winlogon.exe
224 13 204800 1413120
4/8/2004 2:57:22 PM 5.00.2182.1
173.27 KB (177,424 bytes) 12/7/1999
7:00:00 AM
services.exe c:\winnt\system32\services.exe
252 9 204800 1413120
4/8/2004 2:57:24 PM 5.00.2134.1
86.77 KB (88,848 bytes) 12/7/1999
7:00:00 AM
lsass.exe c:\winnt\system32\lsass.exe 264 13
204800 1413120 4/8/2004 2:57:24 PM
5.00.2184.1 32.77 KB (33,552 bytes)
12/7/1999 7:00:00 AM
svchost.exe c:\winnt\system32\svchost.exe 428
8 204800 1413120 4/8/2004
2:57:29 PM 5.00.2134.1 7.77 KB
(7,952 bytes) 12/7/1999 7:00:00 AM
spoolsv.exe c:\winnt\system32\spoolsv.exe 452
8 204800 1413120 4/8/2004
2:57:30 PM 5.00.2161.1 43.77 KB
(44,816 bytes) 1/1/2002 9:28:30 AM
msdtc.exe c:\winnt\system32\msdtc.exe 480 8
204800 1413120 4/8/2004 2:57:30 PM
1999.9.3421.3 6.77 KB (6,928 bytes)
1/1/2002 9:41:35 AM
svchost.exe c:\winnt\system32\svchost.exe 592
8 204800 1413120 4/8/2004
2:57:33 PM 5.00.2134.1 7.77 KB
(7,952 bytes) 12/7/1999 7:00:00 AM
llssrv.exe c:\winnt\system32\llssrv.exe 612
9 204800 1413120 4/8/2004
2:57:33 PM 5.00.2167.1 114.27 KB
(117,008 bytes) 12/7/1999 7:00:00 AM
regsvcs.exe c:\winnt\system32\regsvcs.exe 656
8 204800 1413120 4/8/2004
2:57:34 PM 5.00.2155.1 65.27 KB
(66,832 bytes) 12/7/1999 7:00:00 AM
mstask.exe c:\winnt\system32\mstask.exe 684
8 204800 1413120 4/8/2004
2:57:35 PM 4.71.2137.1 115.27 KB
(118,032 bytes) 11/4/2003 3:52:11 PM
termsrv.exe c:\winnt\system32\termsrv.exe 744
10 204800 1413120 4/8/2004
2:57:36 PM 5.00.2182.1 136.77 KB
(140,048 bytes) 1/1/2002 9:41:38 AM

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tlntsvr.exe      c:\winnt\system32\tlntsvr.exe 832
8               204800 1413120 4/8/2004
2:57:43 PM      5.00.99201.1 174.77 KB
(178,960 bytes) 12/7/1999 7:00:00 AM
winmgmt.exe     c:\winnt\system32\wbem\winmgmt.exe 880
8               204800 1413120 4/8/2004
2:57:43 PM      1.50.1085.0001 188.05 KB
(192,567 bytes) 12/7/1999 7:00:00 AM
inetinfo.exe   c:\winnt\system32\inetrv\inetinfo.exe 896
8               204800 1413120 4/8/2004
2:57:43 PM      5.00.0984 14.27 KB (14,608 bytes)
1/1/2002 9:41:58 AM
dfssvc.exe     c:\winnt\system32\dfssvc.exe 912
8               204800 1413120 4/8/2004
2:57:44 PM      5.00.2191.1 85.27 KB
(87,312 bytes) 12/7/1999 7:00:00 AM
svchost.exe   c:\winnt\system32\svchost.exe
1160           8 204800 1413120
4/8/2004 2:58:11 PM 5.00.2134.1
7.77 KB (7,952 bytes) 12/7/1999
7:00:00 AM
explorer.exe   c:\winnt\explorer.exe 692
8               204800 1413120 4/8/2004
3:00:01 PM      5.00.2920.0000 232.77 KB
(238,352 bytes) 12/7/1999 7:00:00 AM
cmd.exe       c:\winnt\system32\cmd.exe 1044 8
204800 1413120 4/8/2004 3:00:14 PM
5.00.2144.1 230.77 KB (236,304
bytes) 12/7/1999 7:00:00 AM
dllhost.exe   Not Available Not Available 1204 8
4/8/2004 3:00:21 PM Unknown Unknown
Unknown
msinfo32.exe  c:\program files\common
files\microsoft shared\msinfo\msinfo32.exe
1024           8 204800 1413120
4/8/2004 3:09:26 PM 5.00.2134.1
15.77 KB (16,144 bytes) 11/4/2003
3:52:18 PM
rsvp.exe     c:\winnt\system32\rsvp.exe 1604 8
204800 1413120 4/8/2004 3:09:41 PM
5.00.2167.1 172.77 KB (176,912
bytes) 12/7/1999 7:00:00 AM

[Loaded Modules]

Name      Version      Size      File Date      Manufacturer
Path
traffic.dll 5.00.2139.1 30.77 KB
(31,504 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\traffic.dll
rsvp.exe 5.00.2167.1 172.77 KB (176,912
bytes) 12/7/1999 7:00:00 AM Microsoft
Corporation
c:\winnt\system32\rsvp.exe
wbemprox.dll 1.50.1085.0001 40.05 KB
(41,016 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\wbem\wbemprox.dll
cabinet.dll 5.00.2147.1 54.77 KB
(56,080 bytes) 12/7/1999 7:00:00 AM

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Microsoft Corporation
c:\winnt\system32\cabinet.dll
msinfo32.dll 5.00.2177.1 312.27 KB
(319,760 bytes) 11/4/2003 3:52:18 PM
Microsoft Corporation
c:\program
files\common files\microsoft
shared\msinfo\msinfo32.dll
msinfo32.exe 5.00.2134.1 15.77 KB
(16,144 bytes) 11/4/2003 3:52:18 PM
Microsoft Corporation
c:\program
files\common files\microsoft
shared\msinfo\msinfo32.exe
cmd.exe 5.00.2144.1 230.77 KB (236,304
bytes) 12/7/1999 7:00:00 AM Microsoft
Corporation
c:\winnt\system32\cmd.exe
linkinfo.dll 5.00.2134.1 15.77 KB
(16,144 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\linkinfo.dll
msi.dll 2.0.2600.0 1.90 MB (1,991,168
bytes) 12/7/1999 7:00:00 AM Microsoft
Corporation
c:\winnt\system32\msi.dll
powrprof.dll 5.00.2920.0000 13.27 KB
(13,584 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\powrprof.dll
batmeter.dll 5.00.2920.0000 20.27 KB
(20,752 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\batmeter.dll
stobject.dll 5.00.2144.1 81.77 KB
(83,728 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\stobject.dll
webcheck.dll 5.00.2920.0000 251.77 KB
(257,808 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\webcheck.dll
ntshrui.dll 5.00.2134.1 46.77 KB
(47,888 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\ntshrui.dll
mydocs.dll 5.00.2920.0000 55.77 KB
(57,104 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\mydocs.dll
browseui.dll 5.00.2920.0000 793.27 KB
(812,304 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\browseui.dll
shdocvw.dll 5.00.2920.0000 1.05 MB
(1,104,144 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\shdocvw.dll
explorer.exe 5.00.2920.0000 232.77 KB
(238,352 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\explorer.exe
tapisrv.dll 5.00.2186.1 168.77 KB
(172,816 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\tapisrv.dll

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dfssvc.exe 5.00.2191.1 85.27 KB
(87,312 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\dfssvc.exe
tpcc_com_all.dll 1, 0, 0, 1 84.00 KB
(86,016 bytes) 11/4/2003 10:33:25 AM
c:\inetpub\wwwroot\tpcc_com_all.dll
db2tcp.dll 8.1.5.449 64.06 KB (65,601 bytes)
2/20/2004 11:15:52 PM International
Business Machines Corporation
c:\progra-1\ibm\sqlib\bin\db2tcp.dll
db2cli.dll 8.1.5.449 2.68 MB (2,805,825
bytes) 2/20/2004 11:15:20 PM International
Business Machines Corporation
c:\progra-1\ibm\sqlib\bin\db2cli.dll
db2abind.dll 8.1.5.449 244.07 KB (249,923
bytes) 2/20/2004 11:15:18 PM International
Business Machines Corporation
c:\progra-1\ibm\sqlib\bin\db2abind.dll
db2util.dll 8.1.5.449 1.18 MB (1,237,058
bytes) 2/20/2004 11:15:52 PM International
Business Machines Corporation
c:\progra-1\ibm\sqlib\bin\db2util.dll
db2install.dll 8.1.5.449 28.07 KB (28,741 bytes)
2/20/2004 11:13:36 PM International
Business Machines Corporation
c:\progra-1\ibm\sqlib\bin\db2install.dll
db2trcapi.dll 8.1.5.449 36.08 KB (36,941 bytes)
2/20/2004 11:13:36 PM International
Business Machines Corporation
c:\progra-1\ibm\sqlib\bin\db2trcapi.dll
db2locale.dll 8.1.5.449 48.07 KB (49,220 bytes)
2/20/2004 11:13:36 PM International
Business Machines Corporation
c:\progra-1\ibm\sqlib\bin\db2locale.dll
db2osse.dll 8.1.5.449 312.07 KB (319,564
bytes) 2/20/2004 11:15:54 PM International
Business Machines Corporation
c:\progra-1\ibm\sqlib\bin\db2osse.dll
db2g1ln.dll 8.1.5.449 364.06 KB (372,802
bytes) 2/20/2004 11:13:36 PM International
Business Machines Corporation
c:\progra-1\ibm\sqlib\bin\db2g1ln.dll
db2sysp.dll 8.1.5.449 88.07 KB (90,179 bytes)
2/20/2004 11:15:52 PM International
Business Machines Corporation
c:\progra-1\ibm\sqlib\bin\db2sysp.dll
db2wint.dll 8.1.5.449 48.06 KB (49,218 bytes)
2/20/2004 11:15:52 PM International
Business Machines Corporation
c:\progra-1\ibm\sqlib\bin\db2wint.dll
db2sys.dll 8.1.5.449 2.38 MB (2,490,433
bytes) 2/20/2004 11:15:52 PM International
Business Machines Corporation
c:\progra-1\ibm\sqlib\bin\db2sys.dll
db2app.dll 8.1.5.449 2.49 MB (2,613,313
bytes) 2/20/2004 11:15:20 PM International
Business Machines Corporation
c:\progra-1\ibm\sqlib\bin\db2app.dll
tpcc_dblib.dll Not Available 44.00 KB
(45,056 bytes) 11/4/2003 10:33:23 AM Not
Available c:\inetpub\wwwroot\tpcc_dblib.dll

```

tpcc_com.dll Not Available 24.00 KB
(24,576 bytes) 11/4/2003 10:33:24 AM Not Available c:\inetpub\wwwroot\tpcc_com.dll
msvcirt.dll 6.10.8637.0 76.05 KB
(77,878 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\msvcirt.dll
tpcc.dll 0, 4, 0, 0 68.00 KB (69,632 bytes)
11/4/2003 10:33:23 AM Microsoft Corporation
c:\inetpub\wwwroot\tpcc.dll
mfc42.dll 6.00.8665.0 972.05 KB (995,383 bytes)
12/7/1999 7:00:00 AM Microsoft Corporation
c:\winnt\system32\mfc42.dll
wam.dll 5.00.0984 71.27 KB (72,976 bytes)
1/1/2002 9:42:04 AM Microsoft Corporation
c:\winnt\system32\inetsrv\wam.dll
odbcint.dll 3.520.9001.0 88.00 KB
(90,112 bytes) 11/6/2003 3:14:16 PM
Microsoft Corporation
c:\winnt\system32\odbcint.dll
comdlg32.dll 5.00.2920.0000 236.77 KB
(242,448 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\comdlg32.dll
odbc32.dll 3.520.9030.0 196.00 KB
(200,704 bytes) 11/6/2003 3:14:17 PM
Microsoft Corporation
c:\winnt\system32\odbc32.dll
comsvcs.dll 1999.9.3422.14 1.16 MB
(1,219,856 bytes) 1/1/2002 9:41:31 AM Microsoft Corporation
c:\winnt\system32\comsvcs.dll
iislog.dll 5.00.0984 76.27 KB (78,096 bytes)
1/1/2002 9:41:58 AM Microsoft Corporation
c:\winnt\system32\inetsrv\iislog.dll
httpext.dll 0.9.3939.9 418.27 KB
(428,304 bytes) 1/1/2002 9:41:58 AM Microsoft Corporation
c:\winnt\system32\inetsrv\httpext.dll
md5filt.dll 5.00.0984 32.77 KB (33,552 bytes)
1/1/2002 9:42:03 AM Microsoft Corporation
c:\winnt\system32\inetsrv\md5filt.dll
gzip.dll 5.00.0984 30.27 KB (30,992 bytes)
1/1/2002 9:42:03 AM Microsoft Corporation
c:\winnt\system32\inetsrv\gzip.dll
compfilt.dll 5.00.0984 22.27 KB (22,800 bytes)
1/1/2002 9:42:02 AM Microsoft Corporation
c:\winnt\system32\inetsrv\compfilt.dll
sspifilt.dll 5.00.0984 43.27 KB (44,304 bytes)
1/1/2002 9:42:03 AM Microsoft Corporation
c:\winnt\system32\inetsrv\sspifilt.dll
iscomlog.dll 5.00.0984 24.77 KB (25,360 bytes)
1/1/2002 9:41:58 AM Microsoft Corporation
c:\winnt\system32\inetsrv\iscomlog.dll
lonsint.dll 5.00.0984 11.77 KB (12,048 bytes)
1/1/2002 9:41:58 AM Microsoft Corporation
c:\winnt\system32\inetsrv\lonsint.dll
inetsloc.dll 5.00.0984 20.27 KB (20,752 bytes)
1/1/2002 9:41:59 AM Microsoft Corporation
c:\winnt\system32\inetsloc.dll
iisfecnv.dll 5.00.0984 7.27 KB (7,440 bytes)
1/1/2002 9:41:58 AM Microsoft Corporation
c:\winnt\system32\inetsrv\iisfecnv.dll

isatq.dll 5.00.0984 61.27 KB (62,736 bytes)
1/1/2002 9:42:00 AM Microsoft Corporation
c:\winnt\system32\inetsrv\isatq.dll
infocomm.dll 5.00.0984 234.27 KB (239,888 bytes)
1/1/2002 9:41:58 AM Microsoft Corporation
c:\winnt\system32\inetsrv\infocomm.dll
w3svc.dll 5.00.0984 347.27 KB (355,600 bytes)
1/1/2002 9:42:04 AM Microsoft Corporation
c:\winnt\system32\inetsrv\w3svc.dll
svcext.dll 5.00.0984 39.77 KB (40,720 bytes)
1/1/2002 9:41:59 AM Microsoft Corporation
c:\winnt\system32\inetsrv\svcext.dll
admexs.dll 5.00.0984 27.77 KB (28,432 bytes)
1/1/2002 9:41:58 AM Microsoft Corporation
c:\winnt\system32\inetsrv\admexs.dll
wamreg.dll 5.00.0984 46.27 KB (47,376 bytes)
1/1/2002 9:42:04 AM Microsoft Corporation
c:\winnt\system32\inetsrv\wamreg.dll
metadata.dll 5.00.0984 70.77 KB (72,464 bytes)
1/1/2002 9:41:58 AM Microsoft Corporation
c:\winnt\system32\inetsrv\metadata.dll
iismap.dll 5.00.0984 56.27 KB (57,616 bytes)
1/1/2002 9:41:59 AM Microsoft Corporation
c:\winnt\system32\iismap.dll
nsepm.dll 5.00.0984 43.27 KB (44,304 bytes)
1/1/2002 9:41:58 AM Microsoft Corporation
c:\winnt\system32\inetsrv\nsepm.dll
coadmin.dll 5.00.0984 39.77 KB (40,720 bytes)
1/1/2002 9:42:00 AM Microsoft Corporation
c:\winnt\system32\inetsrv\coadmin.dll
iisadmin.dll 5.00.0984 14.77 KB (15,120 bytes)
1/1/2002 9:41:58 AM Microsoft Corporation
c:\winnt\system32\inetsrv\iisadmin.dll
rpref.dll 5.00.0984 4.27 KB (4,368 bytes)
1/1/2002 9:41:58 AM Microsoft Corporation
c:\winnt\system32\inetsrv\rpref.dll
iisrtl.dll 5.00.0984 120.77 KB (123,664 bytes)
1/1/2002 9:41:59 AM Microsoft Corporation
c:\winnt\system32\iisrtl.dll
inetinfo.exe 5.00.0984 14.27 KB (14,608 bytes)
1/1/2002 9:41:58 AM Microsoft Corporation
c:\winnt\system32\inetsrv\inetinfo.exe
netui1.dll 5.00.2134.1 210.27 KB
(215,312 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\netui1.dll
netui0.dll 5.00.2134.1 70.27 KB
(71,952 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\netui0.dll
ntlanman.dll 5.00.2157.1 35.27 KB
(36,112 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\ntlanman.dll
wshnetbs.dll 5.00.2134.1 7.77 KB
(7,952 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\wshnetbs.dll
rapilib.dll 5.00.2167.1 25.27 KB
(25,872 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\rapilib.dll

rsvpsp.dll 5.00.2167.1 74.77 KB
(76,560 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\rsvpsp.dll
ntmarta.dll 5.00.2158.1 98.77 KB
(101,136 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\ntmarta.dll
provthrd.dll 1.50.1085.0000 68.07 KB
(69,708 bytes) 11/4/2003 3:52:11 PM
Microsoft Corporation
c:\winnt\system32\wbem\provthrd.dll
ntevt.dll 1.50.1085.0000 192.06 KB (196,669 bytes)
12/7/1999 7:00:00 AM Microsoft Corporation
c:\winnt\system32\wbem\ntevt.dll
perfos.dll 5.00.2155.1 21.27 KB
(21,776 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\perfos.dll
psapi.dll 5.00.2134.1 28.27 KB (28,944 bytes)
12/7/1999 7:00:00 AM Microsoft Corporation
c:\winnt\system32\psapi.dll
framedyn.dll 1.50.1085.0000 164.05 KB
(167,992 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\wbem\framedyn.dll
cimwin32.dll 1.50.1085.0000 1.03 MB
(1,077,306 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\wbem\cimwin32.dll
wbemsvc.dll 1.50.1085.0000 140.07 KB
(143,430 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\wbem\wbemsvc.dll
wbemess.dll 1.50.1085.0001 352.05 KB
(360,503 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\wbem\wbemess.dll
fastprox.dll 1.50.1085.0001 144.08 KB
(147,534 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\wbem\fastprox.dll
wbemcore.dll 1.50.1085.0001 632.05 KB
(647,224 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\wbem\wbemcore.dll
wbemcomn.dll 1.50.1085.0001 684.05 KB
(700,472 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\wbem\wbemcomn.dll
winmgmt.exe 1.50.1085.0001 188.05 KB
(192,567 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\wbem\winmgmt.exe
security.dll 5.00.2154.1 5.77 KB
(5,904 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\security.dll
tlntsvr.exe 5.00.99201.1 174.77 KB
(178,960 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\tlntsvr.exe

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rdpwsx.dll          5.00.2180.1      94.40 KB
(96,664 bytes)    1/1/2002 9:41:38 AM Microsoft
Corporation      c:\winnt\system32\rdpwsx.dll
ntlsapi.dll        5.00.2134.1      6.77 KB
(6,928 bytes)    12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\ntlsapi.dll
mstlsapi.dll       5.00.2181.1      24.77 KB
(25,360 bytes)   12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\mstlsapi.dll
icaapi.dll         5.00.2134.1      118.77 KB
(121,616 bytes) 1/1/2002 9:41:38 AM Microsoft
Corporation      c:\winnt\system32\icaapi.dll
regapi.dll         5.00.2155.1      35.27 KB
(36,112 bytes)   12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\regapi.dll
termsrv.exe        5.00.2182.1      136.77 KB
(140,048 bytes) 1/1/2002 9:41:38 AM Microsoft
Corporation      c:\winnt\system32\termsrv.exe
msidle.dll         5.00.2920.0000   6.27 KB
(6,416 bytes)    12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\msidle.dll
mstask.exe         4.71.2137.1      115.27 KB
(118,032 bytes) 11/4/2003 3:52:11 PM
Microsoft
Corporation      c:\winnt\system32\mstask.exe
regsvc.exe         5.00.2155.1      65.27 KB
(66,832 bytes)   12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\regsvc.exe
llsrpc.dll         5.00.2149.1      45.77 KB
(46,864 bytes)   12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\llsrpc.dll
llsrv.exe          5.00.2167.1      114.27 KB
(117,008 bytes)  12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\llsrv.exe
netshell.dll       5.00.2176.1      456.77 KB
(467,728 bytes) 12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\netshell.dll
netman.dll         5.00.2175.1      88.77 KB
(90,896 bytes)   12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\netman.dll
ntmsdba.dll        5.00.2187.1      167.77 KB
(171,792 bytes) 12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\ntmsdba.dll
rasdlg.dll         5.00.2194.1      514.27 KB
(526,608 bytes) 12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\rasdlg.dll
netcfgx.dll        5.00.2175.1      533.77 KB
(546,576 bytes) 12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\netcfgx.dll
rasmans.dll        5.00.2188.1      146.77 KB
(150,288 bytes) 12/7/1999 7:00:00 AM

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Microsoft
Corporation      c:\winnt\system32\rasmans.dll
sens.dll           5.00.2163.1      36.77 KB (37,648 bytes)
12/7/1999 7:00:00 AM Microsoft
Corporation      c:\winnt\system32\sens.dll
ntmssvc.dll        5.00.2187.1      390.77 KB
(400,144 bytes) 12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\ntmssvc.dll
es.dll             1999.9.3422.21   231.77 KB (237,328
bytes) 12/7/1999 7:00:00 AM Microsoft
Corporation      c:\winnt\system32\es.dll
mtxoci.dll         1999.9.3421.3    109.27 KB
(111,888 bytes) 1/1/2002 9:41:36 AM Microsoft
Corporation      c:\winnt\system32\mtxoci.dll
resutils.dll       5.00.2191.1      39.77 KB
(40,720 bytes)   12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\resutils.dll
clusapi.dll        5.00.2179.1      50.27 KB
(51,472 bytes)   12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\clusapi.dll
msvcp50.dll        5.00.7051 552.50 KB (565,760
bytes) 12/7/1999 7:00:00 AM Microsoft
Corporation      c:\winnt\system32\msvcp50.dll
xolehlp.dll        1999.9.3421.3    17.27 KB
(17,680 bytes)   1/1/2002 9:41:36 AM Microsoft
Corporation      c:\winnt\system32\xolehlp.dll
msdtclog.dll       1999.9.3421.3    89.77 KB
(91,920 bytes)   1/1/2002 9:41:35 AM Microsoft
Corporation      c:\winnt\system32\msdtclog.dll
mtxclu.dll         1999.9.3421.3    50.27 KB
(51,472 bytes)   12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\mtxclu.dll
msdtcprx.dll       1999.9.3422.10   619.27 KB
(634,128 bytes) 1/1/2002 9:41:36 AM Microsoft
Corporation      c:\winnt\system32\msdtcprx.dll
txfaux.dll         1999.9.3422.24   341.27 KB
(349,456 bytes) 1/1/2002 9:41:35 AM Microsoft
Corporation      c:\winnt\system32\txfaux.dll
msdtctm.dll        1999.9.3422.12   1.02 MB
(1,070,864 bytes) 1/1/2002 9:41:36 AM Microsoft
Corporation      c:\winnt\system32\msdtctm.dll
msdtc.exe          1999.9.3421.3    6.77 KB (6,928 bytes)
1/1/2002 9:41:35 AM Microsoft
Corporation      c:\winnt\system32\msdtc.exe
wmi.dll            5.00.2191.1      6.27 KB (6,416 bytes)
12/7/1999 7:00:00 AM Microsoft
Corporation      c:\winnt\system32\wmi.dll
admwprox.dll       5.00.0984 31.77 KB (32,528 bytes)
1/1/2002 9:41:59 AM Microsoft
Corporation      c:\winnt\system32\admwprox.dll
inetpp.dll         5.00.2161.1      63.27 KB
(64,784 bytes)   12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\inetpp.dll
win32spl.dll        5.00.2162.1      92.27 KB
(94,480 bytes)   12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\win32spl.dll

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usbmon.dll         5.00.2165.1      11.27 KB
(11,536 bytes)   12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\usbmon.dll
tcpmon.dll         5.00.2165.1      40.77 KB
(41,744 bytes)   12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\tcpmon.dll
pjlmon.dll         5.00.2165.1      12.77 KB
(13,072 bytes)   11/30/1999 5:39:36 PM
Microsoft
Corporation      c:\winnt\system32\pjlmon.dll
cnbjmon.dll        5.00.2134.1      43.77 KB
(44,816 bytes)   11/30/1999 5:38:48 PM
Microsoft
Corporation      c:\winnt\system32\cnbjmon.dll
localspl.dll       5.00.2191.1      244.77 KB
(250,640 bytes) 12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\localspl.dll
spoolss.dll        5.00.2161.1      61.77 KB
(63,248 bytes)   1/1/2002 9:28:30 AM Microsoft
Corporation      c:\winnt\system32\spoolss.dll
spoolsv.exe        5.00.2161.1      43.77 KB
(44,816 bytes)   1/1/2002 9:28:30 AM Microsoft
Corporation      c:\winnt\system32\spoolsv.exe
rpcss.dll          5.00.2181.1      229.27 KB (234,768
bytes) 12/7/1999 7:00:00 AM Microsoft
Corporation      c:\winnt\system32\rpcss.dll
svchost.exe        5.00.2134.1      7.77 KB
(7,952 bytes)    12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\svchost.exe
iissuba.dll        5.00.0984 9.77 KB (10,000 bytes)
12/7/1999 7:00:00 AM Microsoft
Corporation      c:\winnt\system32\iissuba.dll
dssbase.dll        5.00.2150.1      140.77 KB
(144,144 bytes) 12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\dssbase.dll
oakley.dll         5.00.2174.1      420.27 KB
(430,352 bytes) 12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\oakley.dll
mfc42u.dll         6.00.8665.0      972.05 KB
(995,384 bytes) 12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\mfc42u.dll
polagent.dll       5.00.2183.1      108.27 KB
(110,864 bytes) 12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\polagent.dll
scecli.dll         5.00.2191.1      105.27 KB
(107,792 bytes) 12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\scecli.dll
atl.dll            3.00.8449 57.56 KB (58,938 bytes)
12/7/1999 7:00:00 AM Microsoft
Corporation      c:\winnt\system32\atl.dll
certcli.dll        5.00.2175.1      132.27 KB
(135,440 bytes) 12/7/1999 7:00:00 AM
Microsoft
Corporation      c:\winnt\system32\certcli.dll

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esent.dll 6.0.3939.6 1.07 MB (1,120,016
bytes) 12/7/1999 7:00:00 AM Microsoft
Corporation c:\winnt\system32\esent.dll
ntdsatq.dll 5.00.2181.1 31.27 KB
(32,016 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\ntdsatq.dll
ntdsa.dll 5.00.2195.1 993.27 KB (1,017,104
bytes) 12/7/1999 7:00:00 AM Microsoft
Corporation c:\winnt\system32\ntdsa.dll
kdcsvc.dll 5.00.2181.1 133.77 KB
(136,976 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\kdcsvc.dll
sfmapi.dll 5.00.2134.1 38.77 KB
(39,696 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\sfmapi.dll
rassfm.dll 5.00.2168.1 21.27 KB
(21,776 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\rassfm.dll
mpr.dll 5.00.2146.1 53.27 KB (54,544 bytes)
12/7/1999 7:00:00 AM Microsoft
Corporation c:\winnt\system32\mpr.dll
schannel.dll 5.00.2170.1 139.77 KB
(143,120 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\schannel.dll
netlogon.dll 5.00.2182.1 347.77 KB
(356,112 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\netlogon.dll
msvl_0.dll 5.00.2164.1 94.77 KB
(97,040 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\msvl_0.dll
kerberos.dll 5.00.2181.1 196.77 KB
(201,488 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\kerberos.dll
msprivs.dll 5.00.2154.1 41.50 KB
(42,496 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\msprivs.dll
samsvr.dll 5.00.2192.1 357.77 KB
(366,352 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\samsvr.dll
lsaasrv.dll 5.00.2184.1 487.77 KB
(499,472 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\lsaasrv.dll
lsass.exe 5.00.2184.1 32.77 KB (33,552 bytes)
12/7/1999 7:00:00 AM Microsoft
Corporation c:\winnt\system32\lsass.exe
wmicore.dll 5.00.2178.1 70.77 KB
(72,464 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\wmicore.dll
rasadhlp.dll 5.00.2168.1 7.27 KB
(7,440 bytes) 12/7/1999 7:00:00 AM

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Microsoft Corporation
c:\winnt\system32\rasadhlp.dll
winrnr.dll 5.00.2160.1 18.77 KB
(19,216 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\winrnr.dll
rnr20.dll 5.00.2152.1 35.77 KB (36,624 bytes)
12/7/1999 7:00:00 AM Microsoft
Corporation c:\winnt\system32\rnr20.dll
wshtcpip.dll 5.00.2134.1 17.27 KB
(17,680 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\wshtcpip.dll
msafd.dll 5.00.2153.1 54.27 KB (55,568 bytes)
12/7/1999 7:00:00 AM Microsoft
Corporation c:\winnt\system32\msafd.dll
msock.dll 5.00.2152.1 62.27 KB
(63,760 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\msock.dll
browser.dll 5.00.2142.1 48.27 KB
(49,424 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\browser.dll
alrsvr.dll 5.00.2134.1 17.77 KB
(18,192 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\alrsvr.dll
msgsvr.dll 5.00.2181.1 33.77 KB
(34,576 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\msgsvr.dll
trkwks.dll 5.00.2166.1 88.77 KB
(90,896 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\trkwks.dll
seclogon.dll 5.00.2135.1 15.77 KB
(16,144 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\seclogon.dll
psbase.dll 5.00.2146.1 111.77 KB
(114,448 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\psbase.dll
cryptsvc.dll 5.00.2181.1 61.77 KB
(63,248 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\cryptsvc.dll
cryptdll.dll 5.00.2135.1 41.27 KB
(42,256 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\cryptdll.dll
wkssvc.dll 5.00.2181.1 95.27 KB
(97,552 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\wkssvc.dll
srsvr.dll 5.00.2178.1 79.27 KB
(81,168 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\srsvr.dll
cfgmgr32.dll 5.00.2134.1 16.77 KB
(17,168 bytes) 12/7/1999 7:00:00 AM

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Microsoft Corporation
c:\winnt\system32\cfgmgr32.dll
dmserver.dll 2191.1.296.2 11.77 KB
(12,048 bytes) 12/7/1999 7:00:00 AM
VERITAS Software Corp.
c:\winnt\system32\dmserver.dll
lmhsvc.dll 5.00.2134.1 9.27 KB
(9,488 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\lmhsvc.dll
dnssrslvr.dll 5.00.2181.1 88.27 KB
(90,384 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\dnssrslvr.dll
tapi32.dll 5.00.2182.1 123.27 KB
(126,224 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\tapi32.dll
rasman.dll 5.00.2188.1 54.77 KB
(56,080 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\rasman.dll
rasapi32.dll 5.00.2188.1 189.77 KB
(194,320 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\rasapi32.dll
rtutils.dll 5.00.2168.1 43.77 KB
(44,816 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\rtutils.dll
adslrpc.dll 5.00.2172.1 127.77 KB
(130,832 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\adslrpc.dll
activeds.dll 5.00.2172.1 172.77 KB
(176,912 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\activeds.dll
mprapi.dll 5.00.2181.1 79.27 KB
(81,168 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\mprapi.dll
iphlpapi.dll 5.00.2173.2 67.77 KB
(69,392 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\iphlpapi.dll
icmp.dll 5.00.2134.1 7.27 KB (7,440 bytes)
12/7/1999 7:00:00 AM Microsoft
Corporation c:\winnt\system32\icmp.dll
dhcpcsvc.dll 5.00.2153.1 88.77 KB
(90,896 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\dhcpcsvc.dll
eventlog.dll 5.00.2178.1 43.77 KB
(44,816 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\eventlog.dll
ntdsapi.dll 5.00.2160.1 56.27 KB
(57,616 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\ntdsapi.dll
scesrv.dll 5.00.2188.1 225.77 KB
(231,184 bytes) 12/7/1999 7:00:00 AM

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Microsoft Corporation
c:\winnt\system32\scesrv.dll
umpnpgmgr.dll 5.00.2182.1 86.27 KB
(88,336 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\umpnpgmgr.dll
services.exe 5.00.2134.1 86.77 KB
(88,848 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\services.exe
clbcatq.dll 1999.9.3422.14 479.27 KB
(490,768 bytes) 1/1/2002 9:41:30 AM Microsoft
Corporation c:\winnt\system32\clbcatq.dll
oleaut32.dll 2.40.4512 600.27 KB (614,672
bytes) 12/7/1999 7:00:00 AM Microsoft
Corporation c:\winnt\system32\oleaut32.dll
cscui.dll 5.00.2172.1 227.27 KB (232,720
bytes) 12/7/1999 7:00:00 AM Microsoft
Corporation c:\winnt\system32\cscui.dll
winspool.drv 5.00.2167.1 109.77 KB
(112,400 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\winspool.drv
winscard.dll 5.00.2134.1 77.27 KB
(79,120 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\winscard.dll
wlnotify.dll 5.00.2164.1 53.27 KB
(54,544 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\wlnotify.dll
csddl.dll 5.00.2189.1 98.27 KB
(100,624 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\csddl.dll
lz32.dll 5.00.2134.1 9.77 KB (10,000 bytes)
12/7/1999 7:00:00 AM Microsoft
Corporation c:\winnt\system32\lz32.dll
version.dll 5.00.2134.1 15.77 KB
(16,144 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\version.dll
rsabase.dll 5.00.2150.1 128.77 KB
(131,856 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\rsabase.dll
mscat32.dll 5.131.2134.1 7.77 KB
(7,952 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\mscat32.dll
ole32.dll 5.00.2181.1 966.27 KB (989,456
bytes) 12/7/1999 7:00:00 AM Microsoft
Corporation c:\winnt\system32\ole32.dll
imagehlp.dll 5.00.2195.1 125.27 KB
(128,272 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\imagehlp.dll
msasn1.dll 5.00.2134.1 51.27 KB
(52,496 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\msasn1.dll
crypt32.dll 5.131.2173.1 465.77 KB
(476,944 bytes) 12/7/1999 7:00:00 AM

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Microsoft Corporation
c:\winnt\system32\crypt32.dll
wintrust.dll 5.131.2143.1 162.27 KB
(166,160 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\wintrust.dll
setupapi.dll 5.00.2183.1 554.27 KB
(567,568 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\setupapi.dll
winmm.dll 5.00.2161.1 184.77 KB (189,200
bytes) 12/7/1999 7:00:00 AM Microsoft
Corporation c:\winnt\system32\winmm.dll
comctl32.dll 5.81 540.27 KB (553,232
bytes) 12/7/1999 7:00:00 AM Microsoft
Corporation c:\winnt\system32\comctl32.dll
shlwapi.dll 5.00.2920.0000 282.77 KB
(289,552 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\shlwapi.dll
shell32.dll 5.00.2920.0000 2.24 MB
(2,352,400 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\shell32.dll
msgina.dll 5.00.2191.1 309.77 KB
(317,200 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\msgina.dll
winsta.dll 5.00.2134.1 36.27 KB
(37,136 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\winsta.dll
wsock32.dll 5.00.2152.1 21.27 KB
(21,776 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\wsock32.dll
dnsapi.dll 5.00.2181.1 129.77 KB
(132,880 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\dnsapi.dll
wldap32.dll 5.00.2168.1 155.77 KB
(159,504 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\wldap32.dll
ws2help.dll 5.00.2134.1 17.77 KB
(18,192 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\ws2help.dll
ws2_32.dll 5.00.2134.1 69.77 KB
(71,440 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\ws2_32.dll
samlib.dll 5.00.2160.1 46.27 KB
(47,376 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\samlib.dll
netrap.dll 5.00.2134.1 11.27 KB
(11,536 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\netrap.dll
netapi32.dll 5.00.2194.1 302.77 KB
(310,032 bytes) 12/7/1999 7:00:00 AM

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Microsoft Corporation
c:\winnt\system32\netapi32.dll
profmap.dll 5.00.2181.1 29.27 KB
(29,968 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\profmap.dll
secur32.dll 5.00.2154.1 46.77 KB
(47,888 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\secur32.dll
sfc.dll 5.00.2164.1 84.27 KB (86,288 bytes)
12/7/1999 7:00:00 AM Microsoft
Corporation c:\winnt\system32\sfc.dll
nddeapi.dll 5.00.2137.1 15.27 KB
(15,632 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\nddeapi.dll
userenv.dll 5.00.2185.1 361.27 KB
(369,936 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\userenv.dll
user32.dll 5.00.2180.1 393.27 KB
(402,704 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\user32.dll
gdi32.dll 5.00.2180.1 228.77 KB (234,256
bytes) 12/7/1999 7:00:00 AM Microsoft
Corporation c:\winnt\system32\gdi32.dll
rpport4.dll 5.00.2193.1 434.27 KB
(444,688 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\rpport4.dll
advapi32.dll 5.00.2191.1 349.27 KB
(357,648 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\advapi32.dll
kernel32.dll 5.00.2191.1 715.27 KB
(732,432 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\kernel32.dll
msvcrt.dll 6.10.8637.0 288.09 KB
(295,000 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\msvcrt.dll
winlogon.exe 5.00.2182.1 173.27 KB
(177,424 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\winlogon.exe
sfcfiles.dll 5.00.2195.1 973.27 KB
(996,624 bytes) 12/7/1999 7:00:00 AM
Microsoft Corporation
c:\winnt\system32\sfcfiles.dll
ntdll.dll 5.00.2163.1 469.77 KB (481,040
bytes) 12/7/1999 7:00:00 AM Microsoft
Corporation c:\winnt\system32\ntdll.dll
smss.exe 5.00.2170.1 44.27 KB (45,328 bytes)
12/7/1999 7:00:00 AM Microsoft
Corporation c:\winnt\system32\smss.exe

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[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	0
Application Management	AppMgmt	Stopped				
Computer Browser	Browser	Running	Auto	Share Process	c:\winnt\system32\services.exe	0
Indexing Service	cisvc	Stopped	Manual	Share Process	c:\winnt\system32\cisvc.exe	0
ClipBook	ClipSrv	Stopped	Manual	Own Process	c:\winnt\system32\clipsrv.exe	0
DB2 JDBC Applet Server	DB2JDS	Stopped		Manual	Own Process	"c:\program files\ibm\sqllib\bin\db2jds.exe"
DB2 Security Server	DB2NTSECSERVER	Stopped		Manual	Own Process	c:\program files\ibm\sqllib\bin\db2sec.exe
Distributed File System	Dfs	Running		Auto	Own Process	c:\winnt\system32\dfssvc.exe
DHCP Client	Dhcp	Running	Auto	Share Process	c:\winnt\system32\services.exe	0
Logical Disk Manager Administrative Service	dmadm	Stopped	Manual	Share Process	c:\winnt\system32\dmadmn.exe	/com
Logical Disk Manager	dmserver	Running		Auto	Share Process	c:\winnt\system32\services.exe
DNS Client	Dnscache	Running	Auto	Share Process	c:\winnt\system32\services.exe	0
Event Log	Eventlog	Running	Auto	Share Process	c:\winnt\system32\services.exe	0
COM+ Event System	EventSystem	Running		Manual	Share Process	c:\winnt\system32\svchost.exe
Fax Service	Fax	Stopped	Manual	Own Process	c:\winnt\system32\faxsvc.exe	0
IIS Admin Service	IISADMIN	Running	Auto	Share Process	c:\winnt\system32\inetnls\inetinfo.exe	0

Intersite Messaging	IsmServ	Stopped	Disabled	Own Process	c:\winnt\system32\ismserv.exe	0
Kerberos Key Distribution Center	kdc	Stopped	Disabled	Share Process	c:\winnt\system32\lsass.exe	Normal
Server	lanmanserver	Running	Auto	Share Process	c:\winnt\system32\services.exe	0
Workstation	lanmanworkstation	Running	Auto	Share Process	c:\winnt\system32\services.exe	0
License Logging Service	LicenseService	Running	Auto	Own Process	c:\winnt\system32\llssrv.exe	Normal
TCP/IP NetBIOS Helper Service	LmHosts	Running		Auto	Share Process	c:\winnt\system32\services.exe
Messenger	Messenger	Running	Auto	Share Process	c:\winnt\system32\services.exe	0
NetMeeting Remote Desktop Sharing	mnmrsvc	Stopped	Manual	Own Process	c:\winnt\system32\mnmrsvc.exe	Normal
Distributed Transaction Coordinator	MSDTC	Running	Auto	Own Process	c:\winnt\system32\msdtc.exe	Normal
Windows Installer	MSIServer	Stopped	Manual	Share Process	c:\winnt\system32\msiexec.exe	/v
Network DDE	NetDDE	Stopped	Manual	Share Process	c:\winnt\system32\netdde.exe	0
Network DDE DSDM	NetDDEdsdm	Stopped		Manual	Share Process	c:\winnt\system32\netdde.exe
Net Logon	Netlogon	Stopped	Manual	Share Process	c:\winnt\system32\lsass.exe	Normal
Network Connections	Netman	Running	Manual	Share Process	c:\winnt\system32\svchost.exe	-k netsvcs
File Replication	NtFrs	Stopped	Manual	Own Process	c:\winnt\system32\ntfrs.exe	Ignore
NT LM Security Support Provider	NtLmSsp	Stopped	Manual	Share Process	c:\winnt\system32\lsass.exe	Normal
Removable Storage	NtmsSvc	Running	Auto	Share Process		

Plug and Play	PlugPlay	Running	Auto	Share Process	c:\winnt\system32\services.exe	0
IPSEC Policy Agent	PolicyAgent	Running		Auto	Share Process	c:\winnt\system32\lsass.exe
Protected Storage	ProtectedStorage	Running	Auto	Share Process	c:\winnt\system32\services.exe	0
Remote Access Auto Connection Manager	RasAuto	Stopped	Manual	Share Process	c:\winnt\system32\svchost.exe	-k netsvcs
Remote Access Connection Manager	RasMan	Stopped	Manual	Share Process	c:\winnt\system32\svchost.exe	-k netsvcs
Routing and Remote Access	RemoteAccess	Stopped	Disabled	Share Process	c:\winnt\system32\svchost.exe	-k netsvcs
Remote Registry Service	RemoteRegistry	Running	Auto	Own Process	c:\winnt\system32\regsvc.exe	Normal
Remote Procedure Call (RPC) Locator	RpcLocator	Stopped	Manual	Own Process	c:\winnt\system32\locator.exe	Normal
Remote Procedure Call (RPC)	RpcSs	Running	Auto	Share Process	c:\winnt\system32\svchost.exe	-k rpcss
QoS RSVP	RSVP	Running	Manual	Own Process	c:\winnt\system32\rsvp.exe	-s Normal
Security Accounts Manager	SamSs	Running	Auto	Share Process	c:\winnt\system32\lsass.exe	Normal
Smart Card Helper	SCardDrv	Stopped	Manual	Share Process	c:\winnt\system32\scardsvr.exe	0
Smart Card	SCardSvr	Stopped	Manual	Share Process	c:\winnt\system32\scardsvr.exe	0
Task Scheduler	Schedule	Running	Auto	Share Process	c:\winnt\system32\mstask.exe	Normal
RunAs Service	seclogon	Running	Auto	Share Process	c:\winnt\system32\services.exe	0
System Event Notification	SENS	Running	Auto	Share Process		


```

c:\winnt\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Internet Connection Sharing SharedAccess
Stopped Manual Share Process
c:\winnt\system32\svchost.exe -k netsvcs
Normal LocalSystem 0
Print Spooler Spooler Running Auto Own
Process c:\winnt\system32\spoolsv.exe Normal
LocalSystem 0
Performance Logs and Alerts SysmonLog Stopped
Manual Own Process
c:\winnt\system32\smlogsvc.exe
Normal LocalSystem 0
Telephony TAPI Srv Running Manual Share Process
c:\winnt\system32\svchost.exe -k tapisrv
Normal LocalSystem 0
Terminal Services TermService Running
Auto Own Process
c:\winnt\system32\termsrv.exe Normal
LocalSystem 0
Telnet TlntSvr Running Auto Own Process
c:\winnt\system32\tlntsvr.exe Normal
LocalSystem 0
Distributed Link Tracking Server TrkSvr
Stopped Manual Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
Distributed Link Tracking Client TrkWks
Running Auto Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
Uninterruptible Power Supply UPS Stopped
Manual Own Process
c:\winnt\system32\ups.exe Normal
LocalSystem 0
Utility Manager UtilMan Stopped Manual Own
Process c:\winnt\system32\utilman.exe Normal
LocalSystem 0
Windows Time W32Time Stopped Manual
Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0
World Wide Web Publishing Service W3SVC
Running Auto Share Process
c:\winnt\system32\inethttpd.exe
Normal LocalSystem 0
Windows Management Instrumentation WinMgmt
Running Auto Own Process
c:\winnt\system32\wbem\winmgmt.exe
Ignore LocalSystem 0
Windows Management Instrumentation Driver Extensions
Wmi Running Manual Share Process
c:\winnt\system32\services.exe
Normal LocalSystem 0

```

[Program Groups]

```

Group Name Name User Name
Accessories Default User:Accessories
Default User
Accessories\Accessibility Default
User:Accessories\Accessibility Default User

```

```

Accessories\Entertainment Default
User:Accessories\Entertainment Default User
Accessories\System Tools Default
User:Accessories\System Tools Default User
Startup Default User:Startup Default User
Accessories All Users:Accessories All
Users
Accessories\Communications All
Users:Accessories\Communications All Users
Accessories\Entertainment All
Users:Accessories\Entertainment All Users
Accessories\System Tools All
Users:Accessories\System Tools All Users
Administrative Tools All
Users:Administrative Tools All Users
IBM DB2 All Users:IBM DB2 All Users
IBM DB2\Command Line Tools All Users:IBM
DB2\Command Line Tools All Users
Microsoft SQL Server All Users:Microsoft SQL
Server All Users
Startup All Users:Startup All Users
Accessories DANII\db2admin:Accessories
DANII\db2admin
Accessories\Accessibility
DANII\db2admin:Accessories\Accessibility
DANII\db2admin
Accessories\Entertainment
DANII\db2admin:Accessories\Entertainment
DANII\db2admin
Accessories\System Tools
DANII\db2admin:Accessories\System Tools
DANII\db2admin
Administrative Tools
DANII\db2admin:Administrative Tools
DANII\db2admin
Startup DANII\db2admin:Startup
DANII\db2admin
Accessories DANII\Administrator:Accessories
DANII\Administrator
Accessories\Accessibility
DANII\Administrator:Accessories\Accessibili
ty DANII\Administrator
Accessories\Entertainment
DANII\Administrator:Accessories\Entertainme
nt DANII\Administrator
Accessories\System Tools
DANII\Administrator:Accessories\System
Tools DANII\Administrator
Startup DANII\Administrator:Startup
DANII\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 5.00.2920.0000
Build 52920
Product ID 51876-270-8989294-05189
Application Path C:\Program Files\Internet
Explorer
Language English (United States)
Active Printer Not Available

```

```

Cipher Strength 56-bit
Content Advisor Disabled
IEAK Install No

```

[File Versions]

File	Version	Size	Date	Path
advapi32.dll	5.0.2191.1	349 KB		
advpack.dll	5.0.2920.0	87 KB	12/7/1999 8:00:00 AM	C:\WINNT\system32 Microsoft Corporation
browsecl.dll	5.0.2920.0	35 KB	12/7/1999 8:00:00 AM	C:\WINNT\system32 Microsoft Corporation
browseui.dll	5.0.2920.0	793 KB	12/7/1999 8:00:00 AM	C:\WINNT\system32 Microsoft Corporation
ckcnv.exe	5.0.2189.1	9 KB	12/7/1999 8:00:00 AM	C:\WINNT\system32 Microsoft Corporation
comctl32.dll	5.81.2920.0	540 KB	12/7/1999 8:00:00 AM	C:\WINNT\system32 Microsoft Corporation
crypt32.dll	5.131.2173.1	466 KB	12/7/1999 8:00:00 AM	C:\WINNT\system32 Microsoft Corporation
ehnsig.dll	<File Missing>	Not Available	Not Available	Not Available
iemigrat.dll	<File Missing>	Not Available	Not Available	Not Available

```

iesetup.dll      5.0.2920.0      57 KB
12/7/1999 8:00:00 AM
C:\WINNT\system32 Microsoft Corporation
iexplore.exe    5.0.2920.0      59 KB
12/7/1999 8:00:00 AM C:\Program
Files\Internet Explorer Microsoft Corporation
imagehlp.dll   5.0.2195.1      125 KB
12/7/1999 8:00:00 AM
C:\WINNT\system32 Microsoft Corporation
imghelp.dll    <File Missing> Not Available
Not Available Not Available Not
Available
inseng.dll     5.0.2920.0      72 KB
12/7/1999 8:00:00 AM
C:\WINNT\system32 Microsoft Corporation
jobexec.dll    5.0.0.1 47 KB 12/7/1999
8:00:00 AM C:\WINNT\system32 Microsoft
Corporation
jscript.dll    5.1.0.4615      476 KB
12/7/1999 8:00:00 AM
C:\WINNT\system32 Microsoft Corporation
jsproxy.dll    5.0.2920.0      13 KB
12/7/1999 8:00:00 AM
C:\WINNT\system32 Microsoft Corporation
msaahtml.dll  <File Missing> Not Available
Not Available Not Available Not
Available
mshtml.dll    5.0.2920.0      2302 KB
12/7/1999 8:00:00 AM
C:\WINNT\system32 Microsoft Corporation
msjava.dll    5.0.3234.0      918 KB
12/7/1999 8:00:00 AM
C:\WINNT\system32 Microsoft Corporation
msoss.dll     <File Missing> Not Available Not
Available Not Available Not Available
msxml.dll     5.0.2920.0      521 KB 12/7/1999
8:00:00 AM C:\WINNT\system32 Microsoft
Corporation
occache.dll   5.0.2920.0      86 KB
12/7/1999 8:00:00 AM
C:\WINNT\system32 Microsoft Corporation
ole32.dll    5.0.2181.1      966 KB 12/7/1999
8:00:00 AM C:\WINNT\system32 Microsoft
Corporation
oleaut32.dll  2.40.4512.1     600 KB
12/7/1999 8:00:00 AM
C:\WINNT\system32 Microsoft Corporation
olepro32.dll  5.0.4512.1     160 KB
12/7/1999 8:00:00 AM
C:\WINNT\system32 Microsoft Corporation
rsabase.dll   5.0.2150.1     129 KB
12/7/1999 8:00:00 AM
C:\WINNT\system32 Microsoft Corporation
rsaenh.dll   <File Missing> Not Available
Not Available Not Available Not
Available
rsapi32.dll  <File Missing> Not Available
Not Available Not Available Not
Available
rsasig.dll   <File Missing> Not Available
Not Available Not Available Not
Available

```

```

schannel.dll   5.0.2170.0      140 KB
12/7/1999 8:00:00 AM
C:\WINNT\system32 Microsoft Corporation
shdoc401.dll  <File Missing> Not Available
Not Available Not Available Not
Available
shdocvw.dll   5.0.2920.0     1078 KB
12/7/1999 8:00:00 AM
C:\WINNT\system32 Microsoft Corporation
shell32.dll   5.0.2920.0     2297 KB
12/7/1999 8:00:00 AM
C:\WINNT\system32 Microsoft Corporation
shlwapi.dll   5.0.2920.0     283 KB
12/7/1999 8:00:00 AM
C:\WINNT\system32 Microsoft Corporation
url.dll       5.0.2920.0     82 KB 12/7/1999
8:00:00 AM C:\WINNT\system32 Microsoft
Corporation
urlmon.dll    5.0.2920.0     427 KB
12/7/1999 8:00:00 AM
C:\WINNT\system32 Microsoft Corporation
vbscript.dll  5.1.0.4615     428 KB
12/7/1999 8:00:00 AM
C:\WINNT\system32 Microsoft Corporation
webcheck.dll  5.0.2920.0     252 KB
12/7/1999 8:00:00 AM
C:\WINNT\system32 Microsoft Corporation
win.com       5.0.2134.1     24 KB 12/7/1999
8:00:00 AM C:\WINNT\system32 Microsoft
Corporation
wininet.dll   5.0.2920.0     457 KB
12/7/1999 8:00:00 AM
C:\WINNT\system32 Microsoft Corporation
winsock.dll   3.10.0.103     3 KB
12/7/1999 8:00:00 AM
C:\WINNT\system32 Microsoft Corporation
wintrust.dll  5.131.2143.1   162 KB
12/7/1999 8:00:00 AM
C:\WINNT\system32 Microsoft Corporation
wsock.vxd    <File Missing> Not Available Not
Available Not Available Not Available
wsock32.dll  5.0.2152.1     21 KB
12/7/1999 8:00:00 AM
C:\WINNT\system32 Microsoft Corporation
wsock32n.dll <File Missing> Not Available
Not Available Not Available Not
Available
[Connectivity]
Item Value
Connection Preference Never dial
EnableHttp1.1 1
ProxyHttp1.1 0
LAN Settings
AutoConfigProxy wininet.dll
AutoProxyDetectMode 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\db2admin\Local Settings\Temporary
Internet Files
Total Disk Space 38154 MB
Available Disk Space 35621 MB
Maximum Cache Size 1192 MB
Available Cache Size 1192 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
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
Local intranet Medium-low
Trusted sites Low
Internet Medium
Restricted sites High

```

Microsoft COM Component Configuration Parameters

The component services tool in Windows 2000 Server was used to change the queue settings for the TPCC COM+ single queue component. The single queue component was set to enable object pooling, object construction, just in time activation, and component supports events and statistics. The min and max pool size for the single queue component on the client was 240. Delivery threads were set under the TPCC key in the registry at 60. The construction string was Dummy String

Appendix D: 60-Day Space

60 Days Space Computation

All Data sizes are in MB unless otherwise stated

Warehouses	1,530	tpmC	19,000.00	tpmC/W	12.42
Table	Rows	Data	Index	5% Space	Total Space
History	45,900,000	2,840	0	0	2,840
Orders	45,900,000	1,691	1,290	0	2,981
Order-line	459,004,838	30,139	0	0	30,139
New-order	13,770,000	272	326	0	598
Warehouse	1,530	11	0	1	12
District	15,300	6	0	0	6
Item	100,000	18	0	1	19
Customer	45,900,000	35,864	2,216	1,904	39,984
Stock	153,000,000	49,809	0	2,490	52,299
Free Space	9,577				
Dynamic Space	34,942				
Static Space	92,320				
Daily Growth	6,943				
Daily Spread	0				
60 Days MB	508,886				
60 Days GB	497				

Log File Storage Requirement:

Log Pages Written	398,353.00	log file storage used in a steady state 30 minute interval
Total N-O Txn	570,000.00	New Order transactions completed during the same 30 minute interval during steady
Log per N-O txn	2.80	KB of log storage used per New Order transaction (Log page size = 4k)
8 Hour Log (GB)	24.31	8-hour log storage required

Disks Type	Disk Formatted Capacity (GB)	SUT # of Disks	SUT Capacity (GB)	Priced # of Disks	Priced Capacity (GB)
28 External disks for Data	16.930	28	474	28	474
2 Internal disks for Log	33.860	2	68	2	68
4 Internal disks for Data	16.930	4	68	4	68
1 Internal OS disk	33.860	1	34	1	34
Priced Space (GB)			643		643

Appendix E: *Third Party Letters*

April 8, 2004

Michael Nikolaiev
Director, Database Engineering
Compaq Computer Corporation
20555 SH-249 MS-150402
Houston TX, 77070 USA

Dear Mr. Nikolaiev,

The table shown below lists the U.S. pricing for the DB2 Universal Database Express Edition product that has been used in TPC-C Benchmark test.

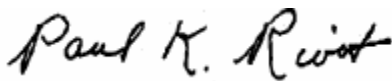
All prices shown are in U.S. Dollars.

Description	Price
DB2 UDB Express Edition CPU Option d535pll (processor lic+sw maint 12 mo)	\$4,874
DB2 UDB Express Edition CPU Option Support Renewal E013SLL (per processor/per year). 2 years for 1 processors @ \$975 each	\$1,950

This quote is valid for 90 days.

If I can be of any further assistance, please contact me at 914-766-1325 or privot@us.ibm.com.

Yours Truly,



Paul Rivot
Director of DB2 Servers and OLTP
Route 100
Somers, NY 10589

April 12, 2004

Hewlett-Packard
Company
Daniel Pol
20555 SH 249
Houston, TX 77070

Mr. Pol:

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 retail unit price of \$799.</i>	\$738	1	\$738
P73-00295	Windows Server 2003, Standard Edition <i>Server license only - No CALs</i> <i>Discount Schedule: Open Program - No Level</i> <i>Unit Price reflects a 26% discount from the retail unit price of \$999.</i>	\$738	1	\$738
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: PCdapo0412043809

Please include this Reference ID in any correspondence regarding this price quote.



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75ft cat5e Category5 / cat5e cat5 e 350mhz Crossover

Hooks 2 PCs together W/O hub 10bt or 100bt 100 supports Fast Ethern twisted pair cross over Backwards compatible w/cat5

CBLC5C75 Regular price: \$15.00 Sale price: \$7.00, 5/\$32.50, 10/\$110.00, 60/\$300.00 Select:



7Ft Category 5e cross over Cable RJ45/RJ45 PC To PC C

Hooks 2 PCs Together W/O Hub 10bt or 100bt Supports Fast Ethernet twisted pair crossover Backwards compatible w/cat5

CBLC5C7 Regular price: \$2.00 Sale price: \$1.00, 30/\$28.50, 150/\$ Select_color:



50ft Category 5e CROSSOVER cable TESTED RJ45/RJ45

Hooks 2 PCs together W/O hub 10bt or 100bt Supports Fast Ethernet twisted pair cat 5 also 350 MHZ CAT 5E

CBLC5C50 Regular price: \$7.00 Sale price: \$7.00, 30/\$195.00 Se



Cat5e 5ft Crossover Cable with molded ends (backwar

Cat5e 5ft Crossover with molded ends Cable RJ45/RJ45 PC To PC (discount on 5 ft orders above 50) minimum shipping charge 4.95 3 colors to choose from red orange gray Backwards compatible w/cat

cblc5c5 Regular price: \$2.00 Sale price: \$1.00, 30/\$28.50, 200/\$17 \$304.00 Select:



Cat5e 3ft Crossover Cable with molded ends (backwar

Cat5e 3ft Crossover with molded ends Cable RJ45/RJ45 PC To PC (discount on 3 ft orders above 50) minimum shipping charge 4.95 Backwards compatible w/cat5

Cat5e 3ft Crossover Cable with molded ends (backwards compa cat5) Regular price: \$2.00 Sale price: \$1.00, 50 Select_color:



Cat5e 25ft Crossover Cable with molded ends TESTED

25Ft Category 5e 350 MHz cross over Cable RJ45/RJ45 PC To PC C up 2 PCs together W/O hub molded 10bt or 100bt Supports Fast Ethern twisted pair (you can order up to 3 [Only!] and choose 4.95 priority m otherwise choose ups