Hewlett-Packard Company

TPC Benchmark™ H
Full Disclosure Report

HP BladeSystem c-Class 128P RAC with HP Oracle Exadata Storage Servers

using

Oracle Database 11g Release 2 Enterprise Edition with Oracle Real Application Clusters, Partitioning, Advanced Compression

and

Oracle Enterprise Linux

First Edition
June 2009

First Edition – June 2009

Hewlett Packard Company, the Sponsor of this benchmark test, believes that the information in this document is accurate as of the publication date. The information in this document is subject to change without notice. The Sponsor assumes no responsibility for any errors that may appear in this document.

The pricing information in this document is believed to accurately reflect the current prices as of the publication date. However, the Sponsor provides no warranty of the pricing information in this document.

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

All performance data contained in this report was obtained in a rigorously controlled environment. Results obtained in other operating environments may vary significantly. No warranty of system performance or price/performance is expressed or implied in this report.

Abstract

Overview

This report documents the methodology and results of the TPC Benchmark™ H test conducted on *HP BladeSystem c-Class 128P RAC with HP Oracle Exadata Storage Servers* using Oracle Database 11g Release 2 Enterprise Edition in conformance with the requirements of the TPC Benchmark™ H Standard Specification, Revision 2.8.0. The operating system used for the benchmark was Oracle Enterprise Linux.

The benchmark results are summarized in the following table.

Hardware	Software	Total System Cost	QppH @ 1000GB	QthH @ 1000GB	QphH @ 1000GB	$ / QphH @ 1000GB
HP BladeSystem c-Class 128P RAC with HP Oracle Exadata Storage Servers	Oracle Database 11g Release 2 Enterprise Edition with Oracle Real Application Clusters, Partitioning, Advanced Compression and Oracle Enterprise Linux; and Exadata Storage Server Software	$6,320,001USD	782,608.7	1,740,121.8	1,166,976.6	$5.42USD

The TPC Benchmark™ H 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.

Standard and Executive Summary Statements

Executive Summary and Numerical Quantities Summary of the benchmark results for the *HP BladeSystem c-Class 128P RAC with HP Oracle Exadata Storage Servers* can be found in the following pages.

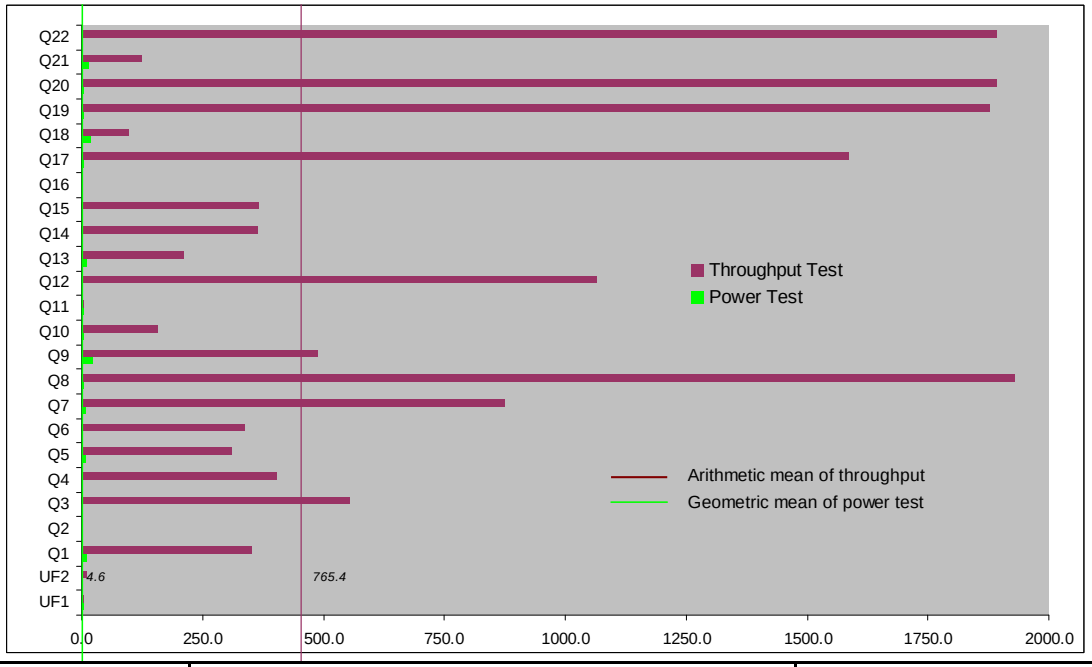
Auditor

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

	HP BladeSystem c-Class 128P RAC with HP Oracle Exadata Storage Servers	TPC-H Rev. 2.8.0 Report Date: **June 3, 2009**

Total System Cost	Composite Query per Hour Metric	Price / Performance
$6,320,001USD	**1,166,976.6** QphH@1000GB	**$5.42USD** $ / QphH@1000GB

Database Size	Database Manager	Operating System	Other Software	Availability Date
1000GB	**Oracle Database 11g Release 2 Enterprise Edition with Oracle Real Application Clusters, Partitioning and Advanced Compression**	**Oracle Enterprise Linux**		**December 1, 2009** **Hardware Available Now**



Database Load Time = 2:22:57	Load Included Backup: N	Total Data Storage / Database Size = 38.79
RAID (Base tables only): n.a	RAID (Base tables and auxiliary data structures): n.a	RAID (All): Y

Database Server Components	**System Total**	**Per Node**
HP BladeSystem c7000 Enclosure:	4	n.a.
HP ProLiant BL460c Server:	64	n.a
Quad-Core Intel Xeon X5450 Processor (12M Cache, 3GHz) (Processor/Cores/Threads):	128/512/512	2/8/8
Memory:	2080GB	32GB x 63 Nodes 64GB x 1 Node
HP 146GB 10K SAS 2.5 Hot Plug HDD (OS, Flat files):	128	2
Total formatted storage internal to Database Servers:	18688GB	292GB
HP 4X DDR IB DP Mezzanine HCA for HP BladeSystem c-Class:	128	2
HP GbE2c Ethernet Blade Switch for c-Class BladeSystem:	8	n.a
HP 4X DDR IB Switch Module for HP BladeSystem c-Class	12	n.a
Storage Components		
HP Voltaire IB 4X DDR 24-port Internally Managed Switch:	2	n.a
HP Oracle Exadata Storage Server SAS:	6	3351.8GB per HP Oracle Exadata Storage Server SAS
Total configured Storage on HP Oracle Exadata Storage Server SAS:	20110.5GB	
Total Storage:	38798.5GB	

	HP BladeSystem c-Class RAC with HP Oracle Exadata Storage Servers				TPC-H Rev. 2.8.0		
					Report Date:		3-Jun-09
Description	**Part Number**	**Brand**	**Pricing**	**Unit Price**	**Qty**	**Extended Price**	**3 yr. Maint. Price**
Server							
HP ProLiant BL460c Configure-to-order Blade	447707-B21		1	1402	64	89728	
Intel® Xeon® processor X5450 (3.00 GHz, 1333 FSB, 120W) FIO Option Kit	463056-L21		1	1249	128	159872	
HP 64GB Fully Buffered DIMM PC2-5300 8x8GB DDR2 Memory Kit	495604-B21		1	7199	1	7199	
HP 8GB Fully Buffered DIMM PC2-5300 2x4GB DDR2 Memory Kit	397415-B21		1	339	252	85428	
HP 4X DDR InfiniBand Dual Port Mezzanine HCA for c-Class BladeSystem	448262-B21		1	995	128	127360	
HP 146GB 10K rpm Hot Plug SAS 2.5 Dual Port Hard Drive	418367-B21		1	319	128	40832	
HP 3y 4h 24x7 BL4xxc Svr Bld HW Support	UK066E			440	64	28160	28,160
HP BladeSystem c7000 Enclosure, SPwith 6 Power Supplies, 10 Fans with 16 ICE Licens	507015-B21		1	12873	4	51492	
HP c7000 Redundant Onboard Administrator Option	412142-B21		1	799	4	3196	
HP GbE2c Ethernet Blade Switch for HP c-Class BladeSystem	410917-B21		1	1399	4	5596	5596
HP 3y 4h 24x7 c7000 Enclosure HW Supp	UE479E			927	4	3708	
HP 4X DDR IB Switch Module for HP c-Class BladeSystem	410398-B21		1	5999	12	71988	
HP 3y 4h 24x7 ProLiant InfinibandHW Supp	UA247E		1	1387	12	16644	16644
10642 G2 (42U) Rack Cabinet	AF001A		1	1249	1	1249	
S10614 (14U) Rack Cabinet - Shock Pallet	292302-B22		1	999	1	999	
HP KVM CAT5 0x2x16 Server Console Switch	336045-B21		1	1099	1	1099	
HP TFT7600 Rackmount Keyboard and Monitor	AG052A		1	1869	1	1869	
				Server Subtotal		**$696,419**	**$50,400**
Storage							
HP Voltaire IB 4X DDR 24-port Internally Managed Switch	409367-B21		1	13329	2	26658	
HP 3y 4h 24x7 4hr HW Support for Infiniband managed switch	HA110A3		1	2323	2		4646
HP 4X DDR IB Copper Cable - 1 Meter	410123-B22		1	129	20	2580	
HP 4X DDR IB Copper Cable - 2 Meter	410123-B23		1	149	22	3278	
HP Exadata Storage Server Hardware SAS		Oracle	2	24000	6	144000	Inc
Exadata Storage Server Software for 3 years	run-time	Oracle	2	5000	72	360,000	
Premium Support for 3 years	run-time	Oracle	2	158400	3		475,200
				Storage Subtotal		**$536,516**	**$479,846**
Software							
Oracle Database 11g Release 2 Enterprise Edition, Named User Plus for 3 years	run-time	Oracle	2	11875	256 **	3,040,000	
Real Application Clusters, Named User Plus for 3 years	run-time	Oracle	2	5750	256 **	1,472,000	
Partitioning, Named User Plus for 3 years	run-time	Oracle	2	2875	256 **	736,000	
Advanced Compression, Named User Plus for 3 years	run-time	Oracle	2	2875	256 **	736,000	
Database Server Support Package for 3 years	run-time	Oracle	2	6900	64	441,600	
Unbreakable Linux Support: Enterprise Linux Basic Limited for 3 years	run-time	Oracle	2	1497	64		95,808
				Software Subtotal		**$6,425,600**	**$95,808**
HP Large Purchase and Net30 discount			1			(125,437)	
Oracle Mandatory E-Business Discount on Licenses and Support		Oracle	2			(1,839,152)	
					Total	**$5,693,946**	**$626,054**
Pricing: 1- HP Direct at 16% discount 800-203-7648. Pricing: 2- Oracle pricing contact: MaryBeth Pierantoni, mary.beth.pierantoni@oracle.com, 916-315-5081. (* * 256 = 0.50 * 512) For the purposes of counting the number of processors which require licensing for Intel multicorechips, "n" cores shall be determined by multiplying the total number of cores by a core processor licensing factor of .50. Oracle Price quote is in Appendix G.				**3-Year Cost of Ownership in USD:**			**$6,320,001 USD**
				QphH Rating:			**1,166,976.6**
All discounts are based on US list prices and for similar quantities and configurations. Prices used in TPC benchmarks reflect the actual prices a customer would pay for a one-time purchase of the stated components. Individually negotiated discounts are not permitted. Special prices based on assumptions about past or future purchases are not permitted. All discounts reflect standard pricing policies for the listed components. For complete details, see the pricing section of the TPC benchmark specifications. If you find that the stated prices are not available according to these terms, please inform the TPC at pricing@tpc.org. Thank you.				**USD$ / QphH@1000GB:**			**$5.42 USD**

Numerical Quantities

Measurement Results:

Database Scale Factor	= 1000
Total Data Storage / Database Size	= 38.79
Start of Database Load (Part 1)	= 5/17/2009 17:20:29
End of Database Load (Part 1)	= 5/17/2009 19:08:10
Start of Database Load (Part 2)	= 5/17/2009 19:47:22
End of Database Load (Part 2)	= 5/17/2009 20:22:38
Database Load Time	= 2:22:57
Query Streams for Throughput Test	= 498
TPC-H Power	= 782,608.7
TPC-H Throughput	= 1,740,121.8
TPC-H Composite Query-per-Hour Metric (QphH@1000GB)	= 1,166,976.6
Total System Price Over 3 Years	= $6,320,001USD
TPC-H Price/ Performance Metric ($/QphH@1000GB)	= $5.42USD

Measurement Intervals:

Measurement Interval in Throughput Test (Ts)	= 22,666.0 seconds

Duration of Stream Execution:

Power Run	Seed	Query Start Time		Query End Time		Duration	RF1 Start Time			Duration	RF2 Start Time			Duration
	517202238	5/17/09	23:03:13	5/17/09	23:05:39	0:02:26	5/17/09	23:03:08	23:03:13	0:00:05	5/17/09	23:05:39	23:05:42	0:00:03

Duration of Stream Execution

Throughput Stream	Seed	Query Start Time	Query End Time	Duration	RF1			RF2		
					Start	End	Duration	Start	End	Duration
1	517202239	5/17/2009 23:05:46	5/18/2009 4:01:35	4:55:49	5/18/2009 4:13:26	4:13:30	0:00:04	5/18/2009 4:13:30	4:13:33	0:00:03
2	517202240	5/17/2009 23:05:46	5/18/2009 3:39:17	4:33:31	5/18/2009 4:13:33	4:13:37	0:00:04	5/18/2009 4:13:37	4:13:40	0:00:03
3	517202241	5/17/2009 23:05:46	5/18/2009 4:02:01	4:56:15	5/18/2009 4:13:40	4:13:43	0:00:03	5/18/2009 4:13:43	4:13:46	0:00:03
4	517202242	5/17/2009 23:05:46	5/18/2009 4:02:09	4:56:23	5/18/2009 4:13:46	4:13:51	0:00:05	5/18/2009 4:13:51	4:13:53	0:00:02
5	517202243	5/17/2009 23:05:46	5/18/2009 3:38:51	4:33:05	5/18/2009 4:13:53	4:13:56	0:00:03	5/18/2009 4:13:56	4:14:00	0:00:04
6	517202244	5/17/2009 23:05:46	5/18/2009 4:11:15	5:05:29	5/18/2009 4:14:00	4:14:03	0:00:03	5/18/2009 4:14:03	4:14:06	0:00:03
7	517202245	5/17/2009 23:05:46	5/18/2009 3:38:54	4:33:08	5/18/2009 4:14:06	4:14:10	0:00:04	5/18/2009 4:14:10	4:14:12	0:00:02
8	517202246	5/17/2009 23:05:46	5/18/2009 4:01:20	4:55:34	5/18/2009 4:14:12	4:14:16	0:00:04	5/18/2009 4:14:16	4:14:19	0:00:03
9	517202247	5/17/2009 23:05:46	5/18/2009 3:39:33	4:33:47	5/18/2009 4:14:19	4:14:24	0:00:05	5/18/2009 4:14:24	4:14:26	0:00:02
10	517202248	5/17/2009 23:05:46	5/18/2009 4:11:15	5:05:29	5/18/2009 4:14:26	4:14:30	0:00:04	5/18/2009 4:14:30	4:14:33	0:00:03
11	517202249	5/17/2009 23:05:46	5/18/2009 4:11:37	5:05:51	5/18/2009 4:14:33	4:14:38	0:00:05	5/18/2009 4:14:38	4:14:41	0:00:03
12	517202250	5/17/2009 23:05:46	5/18/2009 3:10:23	4:04:37	5/18/2009 4:14:41	4:14:45	0:00:04	5/18/2009 4:14:45	4:14:47	0:00:02
13	517202251	5/17/2009 23:05:46	5/18/2009 4:11:30	5:05:44	5/18/2009 4:14:47	4:14:51	0:00:04	5/18/2009 4:14:51	4:14:55	0:00:04
14	517202252	5/17/2009 23:05:46	5/18/2009 4:11:17	5:05:31	5/18/2009 4:14:55	4:14:59	0:00:04	5/18/2009 4:14:59	4:15:02	0:00:03
15	517202253	5/17/2009 23:05:46	5/18/2009 3:39:23	4:33:37	5/18/2009 4:15:02	4:15:05	0:00:03	5/18/2009 4:15:05	4:15:08	0:00:03
16	517202254	5/17/2009 23:05:46	5/18/2009 3:40:02	4:34:16	5/18/2009 4:15:08	4:15:12	0:00:04	5/18/2009 4:15:12	4:15:15	0:00:03
17	517202255	5/17/2009 23:05:46	5/18/2009 4:02:14	4:56:28	5/18/2009 4:15:15	4:15:19	0:00:04	5/18/2009 4:15:19	4:15:22	0:00:03
18	517202256	5/17/2009 23:05:46	5/18/2009 4:11:15	5:05:29	5/18/2009 4:15:22	4:15:26	0:00:04	5/18/2009 4:15:26	4:15:29	0:00:03
19	517202257	5/17/2009 23:05:46	5/18/2009 3:39:24	4:33:38	5/18/2009 4:15:29	4:15:33	0:00:04	5/18/2009 4:15:33	4:15:36	0:00:03
20	517202258	5/17/2009 23:05:46	5/18/2009 3:39:52	4:34:06	5/18/2009 4:15:36	4:15:41	0:00:05	5/18/2009 4:15:41	4:15:44	0:00:03
21	517202259	5/17/2009 23:05:46	5/18/2009 3:11:42	4:05:56	5/18/2009 4:15:44	4:15:48	0:00:04	5/18/2009 4:15:48	4:15:50	0:00:02
22	517202260	5/17/2009 23:05:46	5/18/2009 3:39:41	4:33:55	5/18/2009 4:15:50	4:15:55	0:00:05	5/18/2009 4:15:55	4:15:57	0:00:02
23	517202261	5/17/2009 23:05:47	5/18/2009 4:01:35	4:55:48	5/18/2009 4:15:57	4:16:01	0:00:04	5/18/2009 4:16:01	4:16:05	0:00:04
24	517202262	5/17/2009 23:05:47	5/18/2009 4:02:12	4:56:25	5/18/2009 4:16:05	4:16:09	0:00:04	5/18/2009 4:16:09	4:16:12	0:00:03
25	517202263	5/17/2009 23:05:47	5/18/2009 3:39:43	4:33:56	5/18/2009 4:16:12	4:16:15	0:00:03	5/18/2009 4:16:15	4:16:18	0:00:03
26	517202264	5/17/2009 23:05:47	5/18/2009 4:02:00	4:56:13	5/18/2009 4:16:18	4:16:23	0:00:05	5/18/2009 4:16:23	4:16:26	0:00:03
27	517202265	5/17/2009 23:05:47	5/18/2009 3:10:34	4:04:47	5/18/2009 4:16:26	4:16:30	0:00:04	5/18/2009 4:16:30	4:16:33	0:00:03
28	517202266	5/17/2009 23:05:47	5/18/2009 3:40:06	4:34:19	5/18/2009 4:16:33	4:16:39	0:00:06	5/18/2009 4:16:39	4:16:41	0:00:02
29	517202267	5/17/2009 23:05:47	5/18/2009 4:02:53	4:57:06	5/18/2009 4:16:41	4:16:45	0:00:04	5/18/2009 4:16:45	4:16:48	0:00:03
30	517202268	5/17/2009 23:05:47	5/18/2009 3:40:54	4:35:07	5/18/2009 4:16:48	4:16:53	0:00:05	5/18/2009 4:16:53	4:16:56	0:00:03
31	517202269	5/17/2009 23:05:47	5/18/2009 4:02:32	4:56:45	5/18/2009 4:16:56	4:17:01	0:00:05	5/18/2009 4:17:01	4:17:03	0:00:02
32	517202270	5/17/2009 23:05:47	5/18/2009 3:11:03	4:05:16	5/18/2009 4:17:03	4:17:08	0:00:05	5/18/2009 4:17:08	4:17:11	0:00:03
33	517202271	5/17/2009 23:05:47	5/18/2009 3:40:41	4:34:54	5/18/2009 4:17:11	4:17:15	0:00:04	5/18/2009 4:17:15	4:17:18	0:00:03
34	517202272	5/17/2009 23:05:47	5/18/2009 4:11:29	5:05:42	5/18/2009 4:17:18	4:17:23	0:00:05	5/18/2009 4:17:23	4:17:26	0:00:03
35	517202273	5/17/2009 23:05:47	5/18/2009 2:39:27	3:33:40	5/18/2009 4:17:26	4:17:30	0:00:04	5/18/2009 4:17:30	4:17:33	0:00:03
36	517202274	5/17/2009 23:05:47	5/18/2009 4:02:32	4:56:45	5/18/2009 4:17:33	4:17:39	0:00:06	5/18/2009 4:17:39	4:17:42	0:00:03
37	517202275	5/17/2009 23:05:59	5/18/2009 3:44:21	4:38:22	5/18/2009 4:17:42	4:17:47	0:00:05	5/18/2009 4:17:47	4:17:50	0:00:03
38	517202276	5/17/2009 23:05:47	5/18/2009 3:40:55	4:35:08	5/18/2009 4:17:50	4:17:56	0:00:06	5/18/2009 4:17:56	4:17:59	0:00:03
39	517202277	5/17/2009 23:05:47	5/18/2009 3:40:54	4:35:07	5/18/2009 4:17:59	4:18:04	0:00:05	5/18/2009 4:18:04	4:18:07	0:00:03
40	517202278	5/17/2009 23:05:47	5/18/2009 3:40:25	4:34:38	5/18/2009 4:18:07	4:18:14	0:00:07	5/18/2009 4:18:14	4:18:17	0:00:03
41	517202279	5/17/2009 23:05:47	5/18/2009 2:40:12	3:34:25	5/18/2009 4:18:17	4:18:22	0:00:05	5/18/2009 4:18:22	4:18:24	0:00:02
42	517202280	5/17/2009 23:05:47	5/18/2009 3:40:25	4:34:38	5/18/2009 4:18:24	4:18:29	0:00:05	5/18/2009 4:18:29	4:18:32	0:00:03
43	517202281	5/17/2009 23:05:49	5/18/2009 3:12:36	4:06:47	5/18/2009 4:18:32	4:18:37	0:00:05	5/18/2009 4:18:37	4:18:40	0:00:03
44	517202282	5/17/2009 23:05:57	5/18/2009 4:04:22	4:58:25	5/18/2009 4:18:40	4:18:45	0:00:05	5/18/2009 4:18:45	4:18:48	0:00:03
45	517202283	5/17/2009 23:06:00	5/18/2009 3:16:34	4:10:34	5/18/2009 4:18:48	4:18:52	0:00:04	5/18/2009 4:18:52	4:18:55	0:00:03
46	517202284	5/17/2009 23:05:48	5/18/2009 4:02:53	4:57:05	5/18/2009 4:18:55	4:19:00	0:00:05	5/18/2009 4:19:00	4:19:03	0:00:03
47	517202285	5/17/2009 23:05:47	5/18/2009 4:02:32	4:56:45	5/18/2009 4:19:03	4:19:07	0:00:04	5/18/2009 4:19:07	4:19:10	0:00:03
48	517202286	5/17/2009 23:05:47	5/18/2009 2:40:12	3:34:25	5/18/2009 4:19:10	4:19:15	0:00:05	5/18/2009 4:19:15	4:19:18	0:00:03
49	517202287	5/17/2009 23:06:00	5/18/2009 3:17:30	4:11:30	5/18/2009 4:19:18	4:19:22	0:00:04	5/18/2009 4:19:22	4:19:25	0:00:03
50	517202288	5/17/2009 23:05:49	5/18/2009 3:12:54	4:07:05	5/18/2009 4:19:25	4:19:30	0:00:05	5/18/2009 4:19:30	4:19:33	0:00:03

Duration of Stream Execution

51	517202289	5/17/2009	23:05:49	5/18/2009	4:03:25	4:57:36	5/18/2009	4:19:33	4:19:38	0:00:05	5/18/2009	4:19:38	4:19:41	0:00:03
52	517202290	5/17/2009	23:05:57	5/18/2009	2:43:10	3:37:13	5/18/2009	4:19:41	4:19:46	0:00:05	5/18/2009	4:19:46	4:19:49	0:00:03
53	517202291	5/17/2009	23:05:47	5/18/2009	3:41:10	4:35:23	5/18/2009	4:19:49	4:19:54	0:00:05	5/18/2009	4:19:54	4:19:57	0:00:03
54	517202292	5/17/2009	23:05:47	5/18/2009	3:40:55	4:35:08	5/18/2009	4:19:57	4:20:02	0:00:05	5/18/2009	4:20:02	4:20:05	0:00:03
55	517202293	5/17/2009	23:05:49	5/18/2009	3:41:42	4:35:53	5/18/2009	4:20:05	4:20:10	0:00:05	5/18/2009	4:20:10	4:20:14	0:00:04
56	517202294	5/17/2009	23:05:49	5/18/2009	4:11:37	5:05:48	5/18/2009	4:20:14	4:20:19	0:00:05	5/18/2009	4:20:19	4:20:22	0:00:03
57	517202295	5/17/2009	23:05:49	5/18/2009	3:42:49	4:37:00	5/18/2009	4:20:22	4:20:27	0:00:05	5/18/2009	4:20:27	4:20:30	0:00:03
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59	517202297	5/17/2009	23:05:49	5/18/2009	4:11:38	5:05:49	5/18/2009	4:20:37	4:20:42	0:00:05	5/18/2009	4:20:42	4:20:45	0:00:03
60	517202298	5/17/2009	23:05:48	5/18/2009	3:42:16	4:36:28	5/18/2009	4:20:45	4:20:50	0:00:05	5/18/2009	4:20:50	4:20:53	0:00:03
61	517202299	5/17/2009	23:05:57	5/18/2009	3:13:03	4:07:06	5/18/2009	4:20:53	4:20:59	0:00:06	5/18/2009	4:20:59	4:21:01	0:00:02
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66	517202304	5/17/2009	23:05:57	5/18/2009	3:42:50	4:36:53	5/18/2009	4:21:34	4:21:39	0:00:05	5/18/2009	4:21:39	4:21:41	0:00:02
67	517202305	5/17/2009	23:05:49	5/18/2009	3:12:09	4:06:20	5/18/2009	4:21:41	4:21:46	0:00:05	5/18/2009	4:21:46	4:21:49	0:00:03
68	517202306	5/17/2009	23:05:49	5/18/2009	4:03:06	4:57:17	5/18/2009	4:21:49	4:21:53	0:00:04	5/18/2009	4:21:53	4:21:56	0:00:03
69	517202307	5/17/2009	23:06:00	5/18/2009	3:47:05	4:41:05	5/18/2009	4:21:56	4:22:02	0:00:06	5/18/2009	4:22:02	4:22:04	0:00:02
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85	517202323	5/17/2009	23:05:58	5/18/2009	3:45:59	4:40:01	5/18/2009	4:24:03	4:24:10	0:00:07	5/18/2009	4:24:10	4:24:13	0:00:03
86	517202324	5/17/2009	23:05:57	5/18/2009	3:42:16	4:36:19	5/18/2009	4:24:13	4:24:17	0:00:04	5/18/2009	4:24:17	4:24:20	0:00:03
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94	517202332	5/17/2009	23:05:59	5/18/2009	3:47:44	4:41:45	5/18/2009	4:25:19	4:25:24	0:00:05	5/18/2009	4:25:24	4:25:27	0:00:03
95	517202333	5/17/2009	23:06:00	5/18/2009	4:04:40	4:58:40	5/18/2009	4:25:27	4:25:32	0:00:05	5/18/2009	4:25:32	4:25:34	0:00:02
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97	517202335	5/17/2009	23:05:58	5/18/2009	4:04:21	4:58:23	5/18/2009	4:25:42	4:25:48	0:00:06	5/18/2009	4:25:48	4:25:50	0:00:02
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100	517202338	5/17/2009	23:06:00	5/18/2009	3:44:56	4:38:56	5/18/2009	4:26:07	4:26:11	0:00:04	5/18/2009	4:26:11	4:26:14	0:00:03

Duration of Stream Execution

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104	517202342	5/17/2009	23:05:59	5/18/2009	3:44:04	4:38:05	5/18/2009	4:26:38	4:26:43	0:00:05	5/18/2009	4:26:43	4:26:45	0:00:02
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106	517202344	5/17/2009	23:06:02	5/18/2009	4:12:50	5:06:48	5/18/2009	4:26:54	4:26:59	0:00:05	5/18/2009	4:26:59	4:27:03	0:00:04
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108	517202346	5/17/2009	23:06:02	5/18/2009	4:06:46	5:00:44	5/18/2009	4:27:11	4:27:16	0:00:05	5/18/2009	4:27:16	4:27:19	0:00:03
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110	517202348	5/17/2009	23:06:00	5/18/2009	3:45:04	4:39:04	5/18/2009	4:27:26	4:27:30	0:00:04	5/18/2009	4:27:30	4:27:33	0:00:03
111	517202349	5/17/2009	23:06:01	5/18/2009	3:24:15	4:18:14	5/18/2009	4:27:33	4:27:37	0:00:04	5/18/2009	4:27:37	4:27:40	0:00:03
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113	517202351	5/17/2009	23:06:00	5/18/2009	3:44:34	4:38:34	5/18/2009	4:27:47	4:27:51	0:00:04	5/18/2009	4:27:51	4:27:55	0:00:04
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137	517202375	5/17/2009	23:06:02	5/18/2009	3:49:18	4:43:16	5/18/2009	4:30:48	4:30:53	0:00:05	5/18/2009	4:30:53	4:30:55	0:00:02
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150	517202388	5/17/2009	23:06:00	5/18/2009	4:05:43	4:59:43	5/18/2009	4:32:28	4:32:33	0:00:05	5/18/2009	4:32:33	4:32:36	0:00:03

Duration of Stream Execution

151	517202389	5/17/2009	23:06:00	5/18/2009	3:48:05	4:42:05	5/18/2009	4:32:36	4:32:41	0:00:05	5/18/2009	4:32:41	4:32:44	0:00:03
152	517202390	5/17/2009	23:05:58	5/18/2009	4:04:22	4:58:24	5/18/2009	4:32:44	4:32:49	0:00:05	5/18/2009	4:32:49	4:32:52	0:00:03
153	517202391	5/17/2009	23:06:00	5/18/2009	3:22:41	4:16:41	5/18/2009	4:32:52	4:32:57	0:00:05	5/18/2009	4:32:57	4:33:00	0:00:03
154	517202392	5/17/2009	23:06:00	5/18/2009	3:44:34	4:38:34	5/18/2009	4:33:00	4:33:05	0:00:05	5/18/2009	4:33:05	4:33:08	0:00:03
155	517202393	5/17/2009	23:06:02	5/18/2009	3:22:58	4:16:56	5/18/2009	4:33:08	4:33:13	0:00:05	5/18/2009	4:33:13	4:33:15	0:00:02
156	517202394	5/17/2009	23:06:02	5/18/2009	3:49:35	4:43:33	5/18/2009	4:33:15	4:33:20	0:00:05	5/18/2009	4:33:20	4:33:23	0:00:03
157	517202395	5/17/2009	23:06:00	5/18/2009	4:13:25	5:07:25	5/18/2009	4:33:23	4:33:28	0:00:05	5/18/2009	4:33:28	4:33:31	0:00:03
158	517202396	5/17/2009	23:06:01	5/18/2009	2:47:13	3:41:12	5/18/2009	4:33:31	4:33:36	0:00:05	5/18/2009	4:33:36	4:33:39	0:00:03
159	517202397	5/17/2009	23:06:06	5/18/2009	4:07:23	5:01:17	5/18/2009	4:33:39	4:33:44	0:00:05	5/18/2009	4:33:44	4:33:47	0:00:03
160	517202398	5/17/2009	23:06:01	5/18/2009	3:17:41	4:11:40	5/18/2009	4:33:47	4:33:53	0:00:06	5/18/2009	4:33:53	4:33:56	0:00:03
161	517202399	5/17/2009	23:06:01	5/18/2009	4:07:14	5:01:13	5/18/2009	4:33:56	4:34:01	0:00:05	5/18/2009	4:34:01	4:34:04	0:00:03
162	517202400	5/17/2009	23:06:01	5/18/2009	3:51:38	4:45:37	5/18/2009	4:34:04	4:34:09	0:00:05	5/18/2009	4:34:09	4:34:11	0:00:02
163	517202401	5/17/2009	23:06:01	5/18/2009	3:46:36	4:40:35	5/18/2009	4:34:11	4:34:17	0:00:06	5/18/2009	4:34:17	4:34:19	0:00:02
164	517202402	5/17/2009	23:06:01	5/18/2009	3:19:31	4:13:30	5/18/2009	4:34:19	4:34:24	0:00:05	5/18/2009	4:34:24	4:34:27	0:00:03
165	517202403	5/17/2009	23:06:07	5/18/2009	4:07:50	5:01:43	5/18/2009	4:34:27	4:34:31	0:00:04	5/18/2009	4:34:31	4:34:34	0:00:03
166	517202404	5/17/2009	23:06:01	5/18/2009	3:21:58	4:15:57	5/18/2009	4:34:34	4:34:39	0:00:05	5/18/2009	4:34:39	4:34:42	0:00:03
167	517202405	5/17/2009	23:06:02	5/18/2009	3:52:02	4:46:00	5/18/2009	4:34:42	4:34:47	0:00:05	5/18/2009	4:34:47	4:34:50	0:00:03
168	517202406	5/17/2009	23:06:01	5/18/2009	3:46:53	4:40:52	5/18/2009	4:34:50	4:34:55	0:00:05	5/18/2009	4:34:55	4:34:58	0:00:03
169	517202407	5/17/2009	23:06:01	5/18/2009	4:05:29	4:59:28	5/18/2009	4:34:58	4:35:03	0:00:05	5/18/2009	4:35:03	4:35:06	0:00:03
170	517202408	5/17/2009	23:05:48	5/18/2009	3:41:10	4:35:22	5/18/2009	4:35:06	4:35:10	0:00:04	5/18/2009	4:35:10	4:35:13	0:00:03
171	517202409	5/17/2009	23:06:06	5/18/2009	2:54:08	3:48:02	5/18/2009	4:35:13	4:35:18	0:00:05	5/18/2009	4:35:18	4:35:21	0:00:03
172	517202410	5/17/2009	23:06:01	5/18/2009	3:47:03	4:41:02	5/18/2009	4:35:21	4:35:26	0:00:05	5/18/2009	4:35:26	4:35:29	0:00:03
173	517202411	5/17/2009	23:06:06	5/18/2009	2:54:33	3:48:27	5/18/2009	4:35:29	4:35:34	0:00:05	5/18/2009	4:35:34	4:35:37	0:00:03
174	517202412	5/17/2009	23:06:06	5/18/2009	3:51:30	4:45:24	5/18/2009	4:35:37	4:35:41	0:00:04	5/18/2009	4:35:41	4:35:44	0:00:03
175	517202413	5/17/2009	23:06:01	5/18/2009	3:20:35	4:14:34	5/18/2009	4:35:44	4:35:49	0:00:05	5/18/2009	4:35:49	4:35:51	0:00:02
176	517202414	5/17/2009	23:06:01	5/18/2009	3:48:54	4:42:53	5/18/2009	4:35:51	4:35:56	0:00:05	5/18/2009	4:35:56	4:35:59	0:00:03
177	517202415	5/17/2009	23:06:02	5/18/2009	3:49:35	4:43:33	5/18/2009	4:35:59	4:36:04	0:00:05	5/18/2009	4:36:04	4:36:06	0:00:02
178	517202416	5/17/2009	23:06:01	5/18/2009	3:48:21	4:42:20	5/18/2009	4:36:06	4:36:11	0:00:05	5/18/2009	4:36:11	4:36:14	0:00:03
179	517202417	5/17/2009	23:06:01	5/18/2009	4:05:52	4:59:51	5/18/2009	4:36:14	4:36:19	0:00:05	5/18/2009	4:36:19	4:36:22	0:00:03
180	517202418	5/17/2009	23:06:01	5/18/2009	3:50:08	4:44:07	5/18/2009	4:36:22	4:36:27	0:00:05	5/18/2009	4:36:27	4:36:29	0:00:02
181	517202419	5/17/2009	23:06:02	5/18/2009	3:26:46	4:20:44	5/18/2009	4:36:29	4:36:35	0:00:06	5/18/2009	4:36:35	4:36:37	0:00:02
182	517202420	5/17/2009	23:06:01	5/18/2009	4:12:23	5:06:22	5/18/2009	4:36:37	4:36:43	0:00:06	5/18/2009	4:36:43	4:36:45	0:00:02
183	517202421	5/17/2009	23:06:01	5/18/2009	3:20:35	4:14:34	5/18/2009	4:36:45	4:36:51	0:00:06	5/18/2009	4:36:51	4:36:54	0:00:03
184	517202422	5/17/2009	23:06:02	5/18/2009	4:06:57	5:00:55	5/18/2009	4:36:54	4:36:59	0:00:05	5/18/2009	4:36:59	4:37:02	0:00:03
185	517202423	5/17/2009	23:06:01	5/18/2009	3:23:06	4:17:05	5/18/2009	4:37:02	4:37:07	0:00:05	5/18/2009	4:37:07	4:37:10	0:00:03
186	517202424	5/17/2009	23:06:06	5/18/2009	4:07:14	5:01:08	5/18/2009	4:37:10	4:37:15	0:00:05	5/18/2009	4:37:15	4:37:18	0:00:03
187	517202425	5/17/2009	23:06:01	5/18/2009	4:11:16	5:05:15	5/18/2009	4:37:18	4:37:22	0:00:04	5/18/2009	4:37:22	4:37:25	0:00:03
188	517202426	5/17/2009	23:06:01	5/18/2009	3:50:04	4:44:03	5/18/2009	4:37:25	4:37:31	0:00:06	5/18/2009	4:37:31	4:37:33	0:00:02
189	517202427	5/17/2009	23:06:01	5/18/2009	3:19:32	4:13:31	5/18/2009	4:37:33	4:37:39	0:00:06	5/18/2009	4:37:39	4:37:41	0:00:02
190	517202428	5/17/2009	23:06:01	5/18/2009	4:06:28	5:00:27	5/18/2009	4:37:41	4:37:47	0:00:06	5/18/2009	4:37:47	4:37:50	0:00:03
191	517202429	5/17/2009	23:06:01	5/18/2009	3:46:36	4:40:35	5/18/2009	4:37:50	4:37:55	0:00:05	5/18/2009	4:37:55	4:37:57	0:00:02
192	517202430	5/17/2009	23:05:49	5/18/2009	4:03:41	4:57:52	5/18/2009	4:37:57	4:38:03	0:00:06	5/18/2009	4:38:03	4:38:06	0:00:03
193	517202431	5/17/2009	23:06:01	5/18/2009	4:06:15	5:00:14	5/18/2009	4:38:06	4:38:11	0:00:05	5/18/2009	4:38:11	4:38:13	0:00:02
194	517202432	5/17/2009	23:06:01	5/18/2009	3:49:42	4:43:41	5/18/2009	4:38:13	4:38:19	0:00:06	5/18/2009	4:38:19	4:38:22	0:00:03
195	517202433	5/17/2009	23:05:48	5/18/2009	3:40:41	4:34:53	5/18/2009	4:38:22	4:38:26	0:00:04	5/18/2009	4:38:26	4:38:29	0:00:03
196	517202434	5/17/2009	23:05:49	5/18/2009	3:11:57	4:06:08	5/18/2009	4:38:29	4:38:34	0:00:05	5/18/2009	4:38:34	4:38:37	0:00:03
197	517202435	5/17/2009	23:05:49	5/18/2009	3:42:16	4:36:27	5/18/2009	4:38:37	4:38:42	0:00:05	5/18/2009	4:38:42	4:38:44	0:00:02
198	517202436	5/17/2009	23:05:49	5/18/2009	4:11:54	5:06:05	5/18/2009	4:38:44	4:38:49	0:00:05	5/18/2009	4:38:49	4:38:52	0:00:03
199	517202437	5/17/2009	23:05:49	5/18/2009	2:40:32	3:34:43	5/18/2009	4:38:52	4:38:56	0:00:04	5/18/2009	4:38:56	4:38:59	0:00:03
200	517202438	5/17/2009	23:05:49	5/18/2009	4:03:24	4:57:35	5/18/2009	4:38:59	4:39:05	0:00:06	5/18/2009	4:39:05	4:39:07	0:00:02

Duration of Stream Execution

201	517202439	5/17/2009	23:05:49	5/18/2009	3:41:21	4:35:32	5/18/2009	4:39:07	4:39:12	0:00:05	5/18/2009	4:39:12	4:39:16	0:00:04
202	517202440	5/17/2009	23:05:49	5/18/2009	4:03:43	4:57:54	5/18/2009	4:39:16	4:39:21	0:00:05	5/18/2009	4:39:21	4:39:24	0:00:03
203	517202441	5/17/2009	23:05:59	5/18/2009	4:07:45	5:01:46	5/18/2009	4:39:24	4:39:29	0:00:05	5/18/2009	4:39:29	4:39:32	0:00:03
204	517202442	5/17/2009	23:05:49	5/18/2009	4:02:53	4:57:04	5/18/2009	4:39:32	4:39:37	0:00:05	5/18/2009	4:39:37	4:39:40	0:00:03
205	517202443	5/17/2009	23:05:49	5/18/2009	3:11:43	4:05:54	5/18/2009	4:39:40	4:39:45	0:00:05	5/18/2009	4:39:45	4:39:48	0:00:03
206	517202444	5/17/2009	23:05:49	5/18/2009	4:03:06	4:57:17	5/18/2009	4:39:48	4:39:53	0:00:05	5/18/2009	4:39:53	4:39:56	0:00:03
207	517202445	5/17/2009	23:05:49	5/18/2009	4:03:08	4:57:19	5/18/2009	4:39:56	4:40:01	0:00:05	5/18/2009	4:40:01	4:40:03	0:00:02
208	517202446	5/17/2009	23:05:49	5/18/2009	3:43:21	4:37:32	5/18/2009	4:40:03	4:40:08	0:00:05	5/18/2009	4:40:08	4:40:11	0:00:03
209	517202447	5/17/2009	23:05:49	5/18/2009	4:03:44	4:57:55	5/18/2009	4:40:11	4:40:16	0:00:05	5/18/2009	4:40:16	4:40:18	0:00:02
210	517202448	5/17/2009	23:05:49	5/18/2009	4:11:54	5:06:05	5/18/2009	4:40:18	4:40:24	0:00:06	5/18/2009	4:40:24	4:40:26	0:00:02
211	517202449	5/17/2009	23:05:49	5/18/2009	4:03:43	4:57:54	5/18/2009	4:40:26	4:40:32	0:00:06	5/18/2009	4:40:32	4:40:35	0:00:03
212	517202450	5/17/2009	23:06:00	5/18/2009	2:45:58	3:39:58	5/18/2009	4:40:35	4:40:40	0:00:05	5/18/2009	4:40:40	4:40:43	0:00:03
213	517202451	5/17/2009	23:05:57	5/18/2009	3:13:27	4:07:30	5/18/2009	4:40:43	4:40:47	0:00:04	5/18/2009	4:40:47	4:40:51	0:00:04
214	517202452	5/17/2009	23:05:49	5/18/2009	3:14:39	4:08:50	5/18/2009	4:40:51	4:40:56	0:00:05	5/18/2009	4:40:56	4:40:58	0:00:02
215	517202453	5/17/2009	23:06:00	5/18/2009	3:47:29	4:41:29	5/18/2009	4:40:58	4:41:03	0:00:05	5/18/2009	4:41:03	4:41:06	0:00:03
216	517202454	5/17/2009	23:06:00	5/18/2009	3:48:01	4:42:01	5/18/2009	4:41:06	4:41:11	0:00:05	5/18/2009	4:41:11	4:41:14	0:00:03
217	517202455	5/17/2009	23:06:00	5/18/2009	3:19:13	4:13:13	5/18/2009	4:41:14	4:41:19	0:00:05	5/18/2009	4:41:19	4:41:22	0:00:03
218	517202456	5/17/2009	23:05:57	5/18/2009	4:11:54	5:05:57	5/18/2009	4:41:22	4:41:27	0:00:05	5/18/2009	4:41:27	4:41:30	0:00:03
219	517202457	5/17/2009	23:05:49	5/18/2009	4:03:09	4:57:20	5/18/2009	4:41:30	4:41:35	0:00:05	5/18/2009	4:41:35	4:41:38	0:00:03
220	517202458	5/17/2009	23:05:50	5/18/2009	3:12:54	4:07:04	5/18/2009	4:41:38	4:41:43	0:00:05	5/18/2009	4:41:43	4:41:46	0:00:03
221	517202459	5/17/2009	23:06:00	5/18/2009	3:47:44	4:41:44	5/18/2009	4:41:46	4:41:50	0:00:04	5/18/2009	4:41:50	4:41:53	0:00:03
222	517202460	5/17/2009	23:05:57	5/18/2009	3:21:35	4:15:38	5/18/2009	4:41:53	4:41:58	0:00:05	5/18/2009	4:41:58	4:42:02	0:00:04
223	517202461	5/17/2009	23:06:00	5/18/2009	4:05:43	4:59:43	5/18/2009	4:42:02	4:42:07	0:00:05	5/18/2009	4:42:07	4:42:09	0:00:02
224	517202462	5/17/2009	23:06:04	5/18/2009	3:51:12	4:45:08	5/18/2009	4:42:09	4:42:14	0:00:05	5/18/2009	4:42:14	4:42:17	0:00:03
225	517202463	5/17/2009	23:06:00	5/18/2009	3:17:30	4:11:30	5/18/2009	4:42:17	4:42:22	0:00:05	5/18/2009	4:42:22	4:42:25	0:00:03
226	517202464	5/17/2009	23:05:59	5/18/2009	3:53:55	4:47:56	5/18/2009	4:42:25	4:42:30	0:00:05	5/18/2009	4:42:30	4:42:33	0:00:03
227	517202465	5/17/2009	23:05:57	5/18/2009	3:43:21	4:37:24	5/18/2009	4:42:33	4:42:38	0:00:05	5/18/2009	4:42:38	4:42:40	0:00:02
228	517202466	5/17/2009	23:06:00	5/18/2009	3:44:44	4:38:44	5/18/2009	4:42:40	4:42:45	0:00:05	5/18/2009	4:42:45	4:42:48	0:00:03
229	517202467	5/17/2009	23:06:00	5/18/2009	3:49:42	4:43:42	5/18/2009	4:42:48	4:42:52	0:00:04	5/18/2009	4:42:52	4:42:54	0:00:02
230	517202468	5/17/2009	23:06:00	5/18/2009	3:45:45	4:39:45	5/18/2009	4:42:54	4:42:59	0:00:05	5/18/2009	4:42:59	4:43:02	0:00:03
231	517202469	5/17/2009	23:05:59	5/18/2009	3:45:10	4:39:11	5/18/2009	4:43:02	4:43:08	0:00:06	5/18/2009	4:43:08	4:43:11	0:00:03
232	517202470	5/17/2009	23:06:00	5/18/2009	4:05:12	4:59:12	5/18/2009	4:43:11	4:43:16	0:00:05	5/18/2009	4:43:16	4:43:18	0:00:02
233	517202471	5/17/2009	23:06:00	5/18/2009	3:48:46	4:42:46	5/18/2009	4:43:18	4:43:23	0:00:05	5/18/2009	4:43:23	4:43:26	0:00:03
234	517202472	5/17/2009	23:05:58	5/18/2009	3:43:40	4:37:42	5/18/2009	4:43:26	4:43:31	0:00:05	5/18/2009	4:43:31	4:43:35	0:00:04
235	517202473	5/17/2009	23:05:57	5/18/2009	3:50:13	4:44:16	5/18/2009	4:43:35	4:43:40	0:00:05	5/18/2009	4:43:40	4:43:42	0:00:02
236	517202474	5/17/2009	23:06:00	5/18/2009	4:04:54	4:58:54	5/18/2009	4:43:42	4:43:48	0:00:06	5/18/2009	4:43:48	4:43:51	0:00:03
237	517202475	5/17/2009	23:06:00	5/18/2009	4:04:54	4:58:54	5/18/2009	4:43:51	4:43:56	0:00:05	5/18/2009	4:43:56	4:44:00	0:00:04
238	517202476	5/17/2009	23:06:00	5/18/2009	3:21:22	4:15:22	5/18/2009	4:44:00	4:44:05	0:00:05	5/18/2009	4:44:05	4:44:08	0:00:03
239	517202477	5/17/2009	23:06:00	5/18/2009	4:06:15	5:00:15	5/18/2009	4:44:08	4:44:13	0:00:05	5/18/2009	4:44:13	4:44:16	0:00:03
240	517202478	5/17/2009	23:06:00	5/18/2009	3:17:39	4:11:39	5/18/2009	4:44:16	4:44:22	0:00:06	5/18/2009	4:44:22	4:44:24	0:00:02
241	517202479	5/17/2009	23:05:58	5/18/2009	4:12:10	5:06:12	5/18/2009	4:44:24	4:44:29	0:00:05	5/18/2009	4:44:29	4:44:32	0:00:03
242	517202480	5/17/2009	23:05:58	5/18/2009	4:03:53	4:57:55	5/18/2009	4:44:32	4:44:38	0:00:06	5/18/2009	4:44:38	4:44:41	0:00:03
243	517202481	5/17/2009	23:05:58	5/18/2009	4:12:51	5:06:53	5/18/2009	4:44:41	4:44:45	0:00:04	5/18/2009	4:44:45	4:44:48	0:00:03
244	517202482	5/17/2009	23:05:58	5/18/2009	4:04:22	4:58:24	5/18/2009	4:44:48	4:44:54	0:00:06	5/18/2009	4:44:54	4:44:57	0:00:03
245	517202483	5/17/2009	23:05:58	5/18/2009	3:43:21	4:37:23	5/18/2009	4:44:57	4:45:02	0:00:05	5/18/2009	4:45:02	4:45:05	0:00:03
246	517202484	5/17/2009	23:05:58	5/18/2009	3:13:49	4:07:51	5/18/2009	4:45:05	4:45:10	0:00:05	5/18/2009	4:45:10	4:45:13	0:00:03
247	517202485	5/17/2009	23:05:58	5/18/2009	4:12:11	5:06:13	5/18/2009	4:45:13	4:45:17	0:00:04	5/18/2009	4:45:17	4:45:21	0:00:04
248	517202486	5/17/2009	23:05:58	5/18/2009	3:48:04	4:42:06	5/18/2009	4:45:21	4:45:26	0:00:05	5/18/2009	4:45:26	4:45:29	0:00:03
249	517202487	5/17/2009	23:05:58	5/18/2009	3:18:54	4:12:56	5/18/2009	4:45:29	4:45:34	0:00:05	5/18/2009	4:45:34	4:45:37	0:00:03
250	517202488	5/17/2009	23:05:58	5/18/2009	4:12:11	5:06:13	5/18/2009	4:45:37	4:45:42	0:00:05	5/18/2009	4:45:42	4:45:45	0:00:03

Duration of Stream Execution

251	517202489	5/17/2009	23:05:58	5/18/2009	4:11:54	5:05:56	5/18/2009	4:45:45	4:45:49	0:00:04	5/18/2009	4:45:49	4:45:52	0:00:03
252	517202490	5/17/2009	23:06:00	5/18/2009	4:04:54	4:58:54	5/18/2009	4:45:52	4:45:57	0:00:05	5/18/2009	4:45:57	4:46:00	0:00:03
253	517202491	5/17/2009	23:06:00	5/18/2009	2:45:29	3:39:29	5/18/2009	4:46:00	4:46:05	0:00:05	5/18/2009	4:46:05	4:46:08	0:00:03
254	517202492	5/17/2009	23:06:00	5/18/2009	3:46:18	4:40:18	5/18/2009	4:46:08	4:46:14	0:00:06	5/18/2009	4:46:14	4:46:17	0:00:03
255	517202493	5/17/2009	23:06:01	5/18/2009	2:51:09	3:45:08	5/18/2009	4:46:17	4:46:21	0:00:04	5/18/2009	4:46:21	4:46:24	0:00:03
256	517202494	5/17/2009	23:06:00	5/18/2009	3:48:17	4:42:17	5/18/2009	4:46:24	4:46:30	0:00:06	5/18/2009	4:46:30	4:46:32	0:00:02
257	517202495	5/17/2009	23:06:00	5/18/2009	3:23:25	4:17:25	5/18/2009	4:46:32	4:46:37	0:00:05	5/18/2009	4:46:37	4:46:39	0:00:02
258	517202496	5/17/2009	23:06:00	5/18/2009	3:21:52	4:15:52	5/18/2009	4:46:39	4:46:44	0:00:05	5/18/2009	4:46:44	4:46:47	0:00:03
259	517202497	5/17/2009	23:06:00	5/18/2009	3:45:59	4:39:59	5/18/2009	4:46:47	4:46:51	0:00:04	5/18/2009	4:46:51	4:46:54	0:00:03
260	517202498	5/17/2009	23:06:00	5/18/2009	4:05:03	4:59:03	5/18/2009	4:46:54	4:47:00	0:00:06	5/18/2009	4:47:00	4:47:03	0:00:03
261	517202499	5/17/2009	23:06:01	5/18/2009	3:48:47	4:42:46	5/18/2009	4:47:03	4:47:07	0:00:04	5/18/2009	4:47:07	4:47:09	0:00:02
262	517202500	5/17/2009	23:06:00	5/18/2009	3:17:23	4:11:23	5/18/2009	4:47:09	4:47:14	0:00:05	5/18/2009	4:47:14	4:47:17	0:00:03
263	517202501	5/17/2009	23:06:02	5/18/2009	3:52:04	4:46:02	5/18/2009	4:47:17	4:47:21	0:00:04	5/18/2009	4:47:21	4:47:25	0:00:04
264	517202502	5/17/2009	23:06:01	5/18/2009	3:20:01	4:14:00	5/18/2009	4:47:25	4:47:29	0:00:04	5/18/2009	4:47:29	4:47:32	0:00:03
265	517202503	5/17/2009	23:06:01	5/18/2009	3:23:43	4:17:42	5/18/2009	4:47:32	4:47:36	0:00:04	5/18/2009	4:47:36	4:47:39	0:00:03
266	517202504	5/17/2009	23:06:02	5/18/2009	3:48:50	4:42:48	5/18/2009	4:47:39	4:47:44	0:00:05	5/18/2009	4:47:44	4:47:47	0:00:03
267	517202505	5/17/2009	23:06:01	5/18/2009	3:53:54	4:47:53	5/18/2009	4:47:47	4:47:51	0:00:04	5/18/2009	4:47:51	4:47:54	0:00:03
268	517202506	5/17/2009	23:06:02	5/18/2009	3:49:04	4:43:02	5/18/2009	4:47:54	4:47:59	0:00:05	5/18/2009	4:47:59	4:48:02	0:00:03
269	517202507	5/17/2009	23:06:07	5/18/2009	4:07:36	5:01:29	5/18/2009	4:48:02	4:48:06	0:00:04	5/18/2009	4:48:06	4:48:09	0:00:03
270	517202508	5/17/2009	23:06:01	5/18/2009	4:07:23	5:01:22	5/18/2009	4:48:09	4:48:14	0:00:05	5/18/2009	4:48:14	4:48:17	0:00:03
271	517202509	5/17/2009	23:06:01	5/18/2009	3:48:29	4:42:28	5/18/2009	4:48:17	4:48:22	0:00:05	5/18/2009	4:48:22	4:48:24	0:00:02
272	517202510	5/17/2009	23:06:01	5/18/2009	4:06:28	5:00:27	5/18/2009	4:48:24	4:48:29	0:00:05	5/18/2009	4:48:29	4:48:32	0:00:03
273	517202511	5/17/2009	23:06:01	5/18/2009	3:20:51	4:14:50	5/18/2009	4:48:32	4:48:37	0:00:05	5/18/2009	4:48:37	4:48:40	0:00:03
274	517202512	5/17/2009	23:06:01	5/18/2009	3:50:37	4:44:36	5/18/2009	4:48:40	4:48:45	0:00:05	5/18/2009	4:48:45	4:48:47	0:00:02
275	517202513	5/17/2009	23:06:06	5/18/2009	3:23:59	4:17:53	5/18/2009	4:48:47	4:48:52	0:00:05	5/18/2009	4:48:52	4:48:55	0:00:03
276	517202514	5/17/2009	23:06:02	5/18/2009	3:51:38	4:45:36	5/18/2009	4:48:55	4:49:00	0:00:05	5/18/2009	4:49:00	4:49:02	0:00:02
277	517202515	5/17/2009	23:06:02	5/18/2009	3:49:21	4:43:19	5/18/2009	4:49:02	4:49:07	0:00:05	5/18/2009	4:49:07	4:49:10	0:00:03
278	517202516	5/17/2009	23:06:04	5/18/2009	3:22:26	4:16:22	5/18/2009	4:49:10	4:49:15	0:00:05	5/18/2009	4:49:15	4:49:18	0:00:03
279	517202517	5/17/2009	23:06:06	5/18/2009	3:25:18	4:19:12	5/18/2009	4:49:18	4:49:23	0:00:05	5/18/2009	4:49:23	4:49:26	0:00:03
280	517202518	5/17/2009	23:06:05	5/18/2009	4:08:06	5:02:01	5/18/2009	4:49:26	4:49:30	0:00:04	5/18/2009	4:49:30	4:49:33	0:00:03
281	517202519	5/17/2009	23:06:05	5/18/2009	3:22:39	4:16:34	5/18/2009	4:49:33	4:49:38	0:00:05	5/18/2009	4:49:38	4:49:41	0:00:03
282	517202520	5/17/2009	23:06:07	5/18/2009	4:08:06	5:01:59	5/18/2009	4:49:41	4:49:46	0:00:05	5/18/2009	4:49:46	4:49:49	0:00:03
283	517202521	5/17/2009	23:06:04	5/18/2009	4:06:56	5:00:52	5/18/2009	4:49:49	4:49:54	0:00:05	5/18/2009	4:49:54	4:49:56	0:00:02
284	517202522	5/17/2009	23:06:07	5/18/2009	3:54:25	4:48:18	5/18/2009	4:49:56	4:50:01	0:00:05	5/18/2009	4:50:01	4:50:04	0:00:03
285	517202523	5/17/2009	23:06:06	5/18/2009	3:52:12	4:46:06	5/18/2009	4:50:04	4:50:09	0:00:05	5/18/2009	4:50:09	4:50:12	0:00:03
286	517202524	5/17/2009	23:06:06	5/18/2009	3:50:39	4:44:33	5/18/2009	4:50:12	4:50:16	0:00:04	5/18/2009	4:50:16	4:50:19	0:00:03
287	517202525	5/17/2009	23:06:06	5/18/2009	3:23:59	4:17:53	5/18/2009	4:50:19	4:50:24	0:00:05	5/18/2009	4:50:24	4:50:27	0:00:03
288	517202526	5/17/2009	23:06:07	5/18/2009	4:12:51	5:06:44	5/18/2009	4:50:27	4:50:32	0:00:05	5/18/2009	4:50:32	4:50:34	0:00:02
289	517202527	5/17/2009	23:06:07	5/18/2009	3:52:39	4:46:32	5/18/2009	4:50:34	4:50:40	0:00:06	5/18/2009	4:50:40	4:50:43	0:00:03
290	517202528	5/17/2009	23:06:07	5/18/2009	3:52:02	4:45:55	5/18/2009	4:50:43	4:50:49	0:00:06	5/18/2009	4:50:49	4:50:51	0:00:02
291	517202529	5/17/2009	23:06:06	5/18/2009	4:07:36	5:01:30	5/18/2009	4:50:51	4:50:56	0:00:05	5/18/2009	4:50:56	4:50:59	0:00:03
292	517202530	5/17/2009	23:06:07	5/18/2009	4:12:50	5:06:43	5/18/2009	4:50:59	4:51:03	0:00:04	5/18/2009	4:51:03	4:51:06	0:00:03
293	517202531	5/17/2009	23:06:07	5/18/2009	3:51:28	4:45:21	5/18/2009	4:51:06	4:51:12	0:00:06	5/18/2009	4:51:12	4:51:14	0:00:02
294	517202532	5/17/2009	23:06:07	5/18/2009	3:08:56	4:02:49	5/18/2009	4:51:14	4:51:19	0:00:05	5/18/2009	4:51:19	4:51:22	0:00:03
295	517202533	5/17/2009	23:06:06	5/18/2009	3:50:58	4:44:52	5/18/2009	4:51:22	4:51:27	0:00:05	5/18/2009	4:51:27	4:51:30	0:00:03
296	517202534	5/17/2009	23:06:07	5/18/2009	3:25:18	4:19:11	5/18/2009	4:51:30	4:51:34	0:00:04	5/18/2009	4:51:34	4:51:37	0:00:03
297	517202535	5/17/2009	23:06:07	5/18/2009	4:08:24	5:02:17	5/18/2009	4:51:37	4:51:43	0:00:06	5/18/2009	4:51:43	4:51:46	0:00:03
298	517202536	5/17/2009	23:06:07	5/18/2009	3:26:46	4:20:39	5/18/2009	4:51:46	4:51:50	0:00:04	5/18/2009	4:51:50	4:51:53	0:00:03
299	517202537	5/17/2009	23:06:07	5/18/2009	3:27:26	4:21:19	5/18/2009	4:51:53	4:51:58	0:00:05	5/18/2009	4:51:58	4:52:01	0:00:03
300	517202538	5/17/2009	23:06:07	5/18/2009	4:08:06	5:01:59	5/18/2009	4:52:01	4:52:06	0:00:05	5/18/2009	4:52:06	4:52:09	0:00:03

Duration of Stream Execution

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302	517202540	5/17/2009	23:06:07	5/18/2009	3:25:54	4:19:47	5/18/2009	4:52:17	4:52:22	0:00:05	5/18/2009	4:52:22	4:52:25	0:00:03
303	517202541	5/17/2009	23:06:07	5/18/2009	3:51:50	4:45:43	5/18/2009	4:52:25	4:52:29	0:00:04	5/18/2009	4:52:29	4:52:32	0:00:03
304	517202542	5/17/2009	23:06:08	5/18/2009	3:52:37	4:46:29	5/18/2009	4:52:32	4:52:37	0:00:05	5/18/2009	4:52:37	4:52:40	0:00:03
305	517202543	5/17/2009	23:06:08	5/18/2009	3:52:13	4:46:05	5/18/2009	4:52:40	4:52:44	0:00:04	5/18/2009	4:52:44	4:52:47	0:00:03
306	517202544	5/17/2009	23:06:08	5/18/2009	3:53:06	4:46:58	5/18/2009	4:52:47	4:52:53	0:00:06	5/18/2009	4:52:53	4:52:56	0:00:03
307	517202545	5/17/2009	23:06:08	5/18/2009	3:25:55	4:19:47	5/18/2009	4:52:56	4:53:00	0:00:04	5/18/2009	4:53:00	4:53:03	0:00:03
308	517202546	5/17/2009	23:06:08	5/18/2009	3:54:34	4:48:26	5/18/2009	4:53:03	4:53:08	0:00:05	5/18/2009	4:53:08	4:53:11	0:00:03
309	517202547	5/17/2009	23:06:08	5/18/2009	3:51:39	4:45:31	5/18/2009	4:53:11	4:53:16	0:00:05	5/18/2009	4:53:16	4:53:19	0:00:03
310	517202548	5/17/2009	23:06:08	5/18/2009	3:52:23	4:46:15	5/18/2009	4:53:19	4:53:25	0:00:06	5/18/2009	4:53:25	4:53:27	0:00:02
311	517202549	5/17/2009	23:06:08	5/18/2009	2:57:22	3:51:14	5/18/2009	4:53:27	4:53:32	0:00:05	5/18/2009	4:53:32	4:53:34	0:00:02
312	517202550	5/17/2009	23:06:08	5/18/2009	3:38:36	4:32:28	5/18/2009	4:53:34	4:53:40	0:00:06	5/18/2009	4:53:40	4:53:43	0:00:03
313	517202551	5/17/2009	23:06:08	5/18/2009	4:08:22	5:02:14	5/18/2009	4:53:43	4:53:48	0:00:05	5/18/2009	4:53:48	4:53:50	0:00:02
314	517202552	5/17/2009	23:06:10	5/18/2009	3:53:26	4:47:16	5/18/2009	4:53:50	4:53:55	0:00:05	5/18/2009	4:53:55	4:53:58	0:00:03
315	517202553	5/17/2009	23:06:09	5/18/2009	3:53:21	4:47:12	5/18/2009	4:53:58	4:54:03	0:00:05	5/18/2009	4:54:03	4:54:06	0:00:03
316	517202554	5/17/2009	23:06:08	5/18/2009	4:08:23	5:02:15	5/18/2009	4:54:06	4:54:11	0:00:05	5/18/2009	4:54:11	4:54:14	0:00:03
317	517202555	5/17/2009	23:06:08	5/18/2009	3:53:36	4:47:28	5/18/2009	4:54:14	4:54:18	0:00:04	5/18/2009	4:54:18	4:54:21	0:00:03
318	517202556	5/17/2009	23:06:08	5/18/2009	4:08:07	5:01:59	5/18/2009	4:54:21	4:54:26	0:00:05	5/18/2009	4:54:26	4:54:29	0:00:03
319	517202557	5/17/2009	23:06:09	5/18/2009	3:52:50	4:46:41	5/18/2009	4:54:29	4:54:34	0:00:05	5/18/2009	4:54:34	4:54:37	0:00:03
320	517202558	5/17/2009	23:06:09	5/18/2009	4:08:59	5:02:50	5/18/2009	4:54:37	4:54:42	0:00:05	5/18/2009	4:54:42	4:54:45	0:00:03
321	517202559	5/17/2009	23:06:09	5/18/2009	4:13:05	5:06:56	5/18/2009	4:54:45	4:54:50	0:00:05	5/18/2009	4:54:50	4:54:53	0:00:03
322	517202560	5/17/2009	23:06:09	5/18/2009	3:26:55	4:20:46	5/18/2009	4:54:53	4:54:58	0:00:05	5/18/2009	4:54:58	4:55:01	0:00:03
323	517202561	5/17/2009	23:06:09	5/18/2009	4:08:42	5:02:33	5/18/2009	4:55:01	4:55:06	0:00:05	5/18/2009	4:55:06	4:55:08	0:00:02
324	517202562	5/17/2009	23:06:09	5/18/2009	3:52:37	4:46:28	5/18/2009	4:55:08	4:55:13	0:00:05	5/18/2009	4:55:13	4:55:16	0:00:03
325	517202563	5/17/2009	23:06:10	5/18/2009	3:55:06	4:48:56	5/18/2009	4:55:16	4:55:20	0:00:04	5/18/2009	4:55:20	4:55:23	0:00:03
326	517202564	5/17/2009	23:06:10	5/18/2009	4:08:55	5:02:45	5/18/2009	4:55:23	4:55:28	0:00:05	5/18/2009	4:55:28	4:55:31	0:00:03
327	517202565	5/17/2009	23:06:11	5/18/2009	3:53:26	4:47:15	5/18/2009	4:55:31	4:55:36	0:00:05	5/18/2009	4:55:36	4:55:39	0:00:03
328	517202566	5/17/2009	23:06:10	5/18/2009	3:27:44	4:21:34	5/18/2009	4:55:39	4:55:44	0:00:05	5/18/2009	4:55:44	4:55:47	0:00:03
329	517202567	5/17/2009	23:06:10	5/18/2009	3:53:26	4:47:16	5/18/2009	4:55:47	4:55:52	0:00:05	5/18/2009	4:55:52	4:55:54	0:00:02
330	517202568	5/17/2009	23:06:10	5/18/2009	3:53:44	4:47:34	5/18/2009	4:55:54	4:55:59	0:00:05	5/18/2009	4:55:59	4:56:02	0:00:03
331	517202569	5/17/2009	23:06:10	5/18/2009	3:53:55	4:47:45	5/18/2009	4:56:02	4:56:07	0:00:05	5/18/2009	4:56:07	4:56:10	0:00:03
332	517202570	5/17/2009	23:06:10	5/18/2009	4:08:42	5:02:32	5/18/2009	4:56:10	4:56:15	0:00:05	5/18/2009	4:56:15	4:56:18	0:00:03
333	517202571	5/17/2009	23:06:10	5/18/2009	3:52:50	4:46:40	5/18/2009	4:56:18	4:56:22	0:00:04	5/18/2009	4:56:22	4:56:25	0:00:03
334	517202572	5/17/2009	23:06:10	5/18/2009	4:13:06	5:06:56	5/18/2009	4:56:25	4:56:30	0:00:05	5/18/2009	4:56:30	4:56:32	0:00:02
335	517202573	5/17/2009	23:06:10	5/18/2009	2:57:06	3:50:56	5/18/2009	4:56:32	4:56:37	0:00:05	5/18/2009	4:56:37	4:56:40	0:00:03
336	517202574	5/17/2009	23:06:10	5/18/2009	3:27:35	4:21:25	5/18/2009	4:56:40	4:56:45	0:00:05	5/18/2009	4:56:45	4:56:48	0:00:03
337	517202575	5/17/2009	23:06:12	5/18/2009	2:57:29	3:51:17	5/18/2009	4:56:48	4:56:53	0:00:05	5/18/2009	4:56:53	4:56:56	0:00:03
338	517202576	5/17/2009	23:06:12	5/18/2009	4:09:29	5:03:17	5/18/2009	4:56:56	4:57:01	0:00:05	5/18/2009	4:57:01	4:57:04	0:00:03
339	517202577	5/17/2009	23:06:12	5/18/2009	3:54:07	4:47:55	5/18/2009	4:57:04	4:57:10	0:00:06	5/18/2009	4:57:10	4:58:00	0:00:50
340	517202578	5/17/2009	23:06:12	5/18/2009	3:29:01	4:22:49	5/18/2009	4:58:00	4:59:00	0:01:00	5/18/2009	4:59:00	4:59:14	0:00:14
341	517202579	5/17/2009	23:06:12	5/18/2009	4:08:58	5:02:46	5/18/2009	4:59:14	4:59:31	0:00:17	5/18/2009	4:59:31	4:59:55	0:00:24
342	517202580	5/17/2009	23:06:13	5/18/2009	3:54:36	4:48:23	5/18/2009	4:59:55	5:00:07	0:00:12	5/18/2009	5:00:07	5:00:21	0:00:14
343	517202581	5/17/2009	23:06:12	5/18/2009	3:28:49	4:22:37	5/18/2009	5:00:21	5:00:28	0:00:07	5/18/2009	5:00:28	5:00:35	0:00:07
344	517202582	5/17/2009	23:06:13	5/18/2009	3:54:25	4:48:12	5/18/2009	5:00:35	5:00:43	0:00:08	5/18/2009	5:00:43	5:00:50	0:00:07
345	517202583	5/17/2009	23:06:13	5/18/2009	4:09:15	5:03:02	5/18/2009	5:00:50	5:00:58	0:00:08	5/18/2009	5:00:58	5:01:02	0:00:04
346	517202584	5/17/2009	23:06:13	5/18/2009	3:54:49	4:48:36	5/18/2009	5:01:02	5:01:07	0:00:05	5/18/2009	5:01:07	5:01:11	0:00:04
347	517202585	5/17/2009	23:06:13	5/18/2009	3:29:15	4:23:02	5/18/2009	5:01:11	5:01:18	0:00:07	5/18/2009	5:01:18	5:01:23	0:00:05
348	517202586	5/17/2009	23:06:14	5/18/2009	3:30:05	4:23:51	5/18/2009	5:01:23	5:01:28	0:00:05	5/18/2009	5:01:28	5:01:32	0:00:04
349	517202587	5/17/2009	23:06:13	5/18/2009	3:55:53	4:49:40	5/18/2009	5:01:32	5:01:38	0:00:06	5/18/2009	5:01:38	5:01:41	0:00:03
350	517202588	5/17/2009	23:06:13	5/18/2009	3:54:25	4:48:12	5/18/2009	5:01:41	5:01:47	0:00:06	5/18/2009	5:01:47	5:01:50	0:00:03

Duration of Stream Execution

351	517202589	5/17/2009	23:06:13	5/18/2009	3:53:37	4:47:24	5/18/2009	5:01:50	5:01:55	0:00:05	5/18/2009	5:01:55	5:01:59	0:00:04
352	517202590	5/17/2009	23:06:13	5/18/2009	4:13:26	5:07:13	5/18/2009	5:01:59	5:02:05	0:00:06	5/18/2009	5:02:05	5:02:08	0:00:03
353	517202591	5/17/2009	23:06:13	5/18/2009	3:30:16	4:24:03	5/18/2009	5:02:08	5:02:14	0:00:06	5/18/2009	5:02:14	5:02:17	0:00:03
354	517202592	5/17/2009	23:06:13	5/18/2009	2:59:19	3:53:06	5/18/2009	5:02:17	5:02:24	0:00:07	5/18/2009	5:02:24	5:02:27	0:00:03
355	517202593	5/17/2009	23:06:13	5/18/2009	3:29:53	4:23:40	5/18/2009	5:02:27	5:02:35	0:00:08	5/18/2009	5:02:35	5:02:38	0:00:03
356	517202594	5/17/2009	23:06:13	5/18/2009	3:55:21	4:49:08	5/18/2009	5:02:38	5:02:44	0:00:06	5/18/2009	5:02:44	5:02:48	0:00:04
357	517202595	5/17/2009	23:06:13	5/18/2009	4:09:15	5:03:02	5/18/2009	5:02:48	5:02:53	0:00:05	5/18/2009	5:02:53	5:02:56	0:00:03
358	517202596	5/17/2009	23:06:14	5/18/2009	3:31:41	4:25:27	5/18/2009	5:02:56	5:03:02	0:00:06	5/18/2009	5:03:02	5:03:06	0:00:04
359	517202597	5/17/2009	23:06:13	5/18/2009	4:09:16	5:03:03	5/18/2009	5:03:06	5:03:11	0:00:05	5/18/2009	5:03:11	5:03:15	0:00:04
360	517202598	5/17/2009	23:06:13	5/18/2009	3:55:21	4:49:08	5/18/2009	5:03:15	5:03:20	0:00:05	5/18/2009	5:03:20	5:03:23	0:00:03
361	517202599	5/17/2009	23:06:13	5/18/2009	3:30:57	4:24:44	5/18/2009	5:03:23	5:03:29	0:00:06	5/18/2009	5:03:29	5:03:33	0:00:04
362	517202600	5/17/2009	23:06:13	5/18/2009	4:09:26	5:03:13	5/18/2009	5:03:33	5:03:39	0:00:06	5/18/2009	5:03:39	5:03:43	0:00:04
363	517202601	5/17/2009	23:06:14	5/18/2009	2:29:24	3:23:10	5/18/2009	5:03:43	5:03:49	0:00:06	5/18/2009	5:03:49	5:03:52	0:00:03
364	517202602	5/17/2009	23:06:14	5/18/2009	4:09:37	5:03:23	5/18/2009	5:03:52	5:03:58	0:00:06	5/18/2009	5:03:58	5:04:01	0:00:03
365	517202603	5/17/2009	23:06:15	5/18/2009	3:55:39	4:49:24	5/18/2009	5:04:01	5:04:07	0:00:06	5/18/2009	5:04:07	5:04:10	0:00:03
366	517202604	5/17/2009	23:06:14	5/18/2009	3:56:14	4:50:00	5/18/2009	5:04:10	5:04:16	0:00:06	5/18/2009	5:04:16	5:04:18	0:00:02
367	517202605	5/17/2009	23:06:14	5/18/2009	4:09:26	5:03:12	5/18/2009	5:04:18	5:04:24	0:00:06	5/18/2009	5:04:24	5:04:27	0:00:03
368	517202606	5/17/2009	23:06:14	5/18/2009	3:54:35	4:48:21	5/18/2009	5:04:27	5:04:33	0:00:06	5/18/2009	5:04:33	5:04:36	0:00:03
369	517202607	5/17/2009	23:06:15	5/18/2009	3:30:31	4:24:16	5/18/2009	5:04:36	5:04:41	0:00:05	5/18/2009	5:04:41	5:04:44	0:00:03
370	517202608	5/17/2009	23:06:14	5/18/2009	3:55:53	4:49:39	5/18/2009	5:04:44	5:04:51	0:00:07	5/18/2009	5:04:51	5:04:54	0:00:03
371	517202609	5/17/2009	23:06:14	5/18/2009	3:30:36	4:24:22	5/18/2009	5:04:54	5:05:00	0:00:06	5/18/2009	5:05:00	5:05:03	0:00:03
372	517202610	5/17/2009	23:06:14	5/18/2009	4:09:36	5:03:22	5/18/2009	5:05:03	5:05:08	0:00:05	5/18/2009	5:05:08	5:05:12	0:00:04
373	517202611	5/17/2009	23:06:15	5/18/2009	3:31:09	4:24:54	5/18/2009	5:05:12	5:05:18	0:00:06	5/18/2009	5:05:18	5:05:21	0:00:03
374	517202612	5/17/2009	23:06:14	5/18/2009	4:09:50	5:03:36	5/18/2009	5:05:21	5:05:27	0:00:06	5/18/2009	5:05:27	5:05:30	0:00:03
375	517202613	5/17/2009	23:06:15	5/18/2009	4:13:06	5:06:51	5/18/2009	5:05:30	5:05:35	0:00:05	5/18/2009	5:05:36	5:05:39	0:00:03
376	517202614	5/17/2009	23:06:14	5/18/2009	3:31:08	4:24:54	5/18/2009	5:05:39	5:05:44	0:00:05	5/18/2009	5:05:44	5:05:47	0:00:03
377	517202615	5/17/2009	23:06:15	5/18/2009	3:31:37	4:25:22	5/18/2009	5:05:47	5:05:53	0:00:06	5/18/2009	5:05:53	5:05:56	0:00:03
378	517202616	5/17/2009	23:06:15	5/18/2009	3:01:21	3:55:06	5/18/2009	5:05:56	5:06:02	0:00:06	5/18/2009	5:06:02	5:06:05	0:00:03
379	517202617	5/17/2009	23:06:15	5/18/2009	4:09:50	5:03:35	5/18/2009	5:06:05	5:06:11	0:00:06	5/18/2009	5:06:11	5:06:14	0:00:03
380	517202618	5/17/2009	23:06:21	5/18/2009	3:32:53	4:26:32	5/18/2009	5:06:14	5:06:20	0:00:06	5/18/2009	5:06:20	5:06:23	0:00:03
381	517202619	5/17/2009	23:06:15	5/18/2009	3:56:41	4:50:26	5/18/2009	5:06:23	5:06:29	0:00:06	5/18/2009	5:06:29	5:06:32	0:00:03
382	517202620	5/17/2009	23:06:15	5/18/2009	3:56:14	4:49:59	5/18/2009	5:06:32	5:06:38	0:00:06	5/18/2009	5:06:38	5:06:41	0:00:03
383	517202621	5/17/2009	23:06:17	5/18/2009	3:56:13	4:49:56	5/18/2009	5:06:41	5:06:47	0:00:06	5/18/2009	5:06:47	5:06:50	0:00:03
384	517202622	5/17/2009	23:06:16	5/18/2009	3:56:35	4:50:19	5/18/2009	5:06:50	5:06:55	0:00:05	5/18/2009	5:06:55	5:06:59	0:00:04
385	517202623	5/17/2009	23:06:17	5/18/2009	3:55:53	4:49:36	5/18/2009	5:06:59	5:07:04	0:00:05	5/18/2009	5:07:04	5:07:07	0:00:03
386	517202624	5/17/2009	23:06:17	5/18/2009	4:13:20	5:07:03	5/18/2009	5:07:07	5:07:12	0:00:05	5/18/2009	5:07:12	5:07:16	0:00:04
387	517202625	5/17/2009	23:06:17	5/18/2009	3:00:58	3:54:41	5/18/2009	5:07:16	5:07:21	0:00:05	5/18/2009	5:07:21	5:07:25	0:00:04
388	517202626	5/17/2009	23:06:17	5/18/2009	3:56:14	4:49:57	5/18/2009	5:07:25	5:07:30	0:00:05	5/18/2009	5:07:30	5:07:34	0:00:04
389	517202627	5/17/2009	23:06:17	5/18/2009	3:56:31	4:50:14	5/18/2009	5:07:34	5:07:38	0:00:04	5/18/2009	5:07:38	5:07:42	0:00:04
390	517202628	5/17/2009	23:06:17	5/18/2009	3:56:24	4:50:07	5/18/2009	5:07:42	5:07:47	0:00:05	5/18/2009	5:07:47	5:07:50	0:00:03
391	517202629	5/17/2009	23:06:17	5/18/2009	3:31:26	4:25:09	5/18/2009	5:07:50	5:07:56	0:00:06	5/18/2009	5:07:56	5:07:59	0:00:03
392	517202630	5/17/2009	23:06:19	5/18/2009	3:32:00	4:25:41	5/18/2009	5:07:59	5:08:05	0:00:06	5/18/2009	5:08:05	5:08:07	0:00:02
393	517202631	5/17/2009	23:06:17	5/18/2009	3:57:03	4:50:46	5/18/2009	5:08:07	5:08:13	0:00:06	5/18/2009	5:08:13	5:08:17	0:00:04
394	517202632	5/17/2009	23:06:18	5/18/2009	3:31:45	4:25:27	5/18/2009	5:08:17	5:08:23	0:00:06	5/18/2009	5:08:23	5:08:26	0:00:03
395	517202633	5/17/2009	23:06:18	5/18/2009	3:32:14	4:25:56	5/18/2009	5:08:26	5:08:32	0:00:06	5/18/2009	5:08:32	5:08:36	0:00:04
396	517202634	5/17/2009	23:06:18	5/18/2009	3:56:14	4:49:56	5/18/2009	5:08:36	5:08:41	0:00:05	5/18/2009	5:08:41	5:08:45	0:00:04
397	517202635	5/17/2009	23:06:18	5/18/2009	4:10:08	5:03:50	5/18/2009	5:08:45	5:08:51	0:00:06	5/18/2009	5:08:51	5:08:54	0:00:03
398	517202636	5/17/2009	23:06:23	5/18/2009	3:57:06	4:50:43	5/18/2009	5:08:54	5:09:00	0:00:06	5/18/2009	5:09:00	5:09:03	0:00:03
399	517202637	5/17/2009	23:06:19	5/18/2009	3:56:48	4:50:29	5/18/2009	5:09:03	5:09:09	0:00:06	5/18/2009	5:09:09	5:09:12	0:00:03
400	517202638	5/17/2009	23:06:19	5/18/2009	3:56:30	4:50:11	5/18/2009	5:09:12	5:09:18	0:00:06	5/18/2009	5:09:18	5:09:22	0:00:04

Duration of Stream Execution

401	517202639	5/17/2009	23:06:21	5/18/2009	4:10:00	5:03:39	5/18/2009	5:09:22	5:09:27	0:00:05	5/18/2009	5:09:27	5:09:31	0:00:04
402	517202640	5/17/2009	23:06:18	5/18/2009	3:31:59	4:25:41	5/18/2009	5:09:31	5:09:36	0:00:05	5/18/2009	5:09:36	5:09:39	0:00:03
403	517202641	5/17/2009	23:06:20	5/18/2009	4:09:59	5:03:39	5/18/2009	5:09:39	5:09:46	0:00:07	5/18/2009	5:09:46	5:09:50	0:00:04
404	517202642	5/17/2009	23:06:26	5/18/2009	3:03:21	3:56:55	5/18/2009	5:09:50	5:09:54	0:00:04	5/18/2009	5:09:54	5:09:58	0:00:04
405	517202643	5/17/2009	23:06:24	5/18/2009	3:57:28	4:51:04	5/18/2009	5:09:58	5:10:04	0:00:06	5/18/2009	5:10:04	5:10:08	0:00:04
406	517202644	5/17/2009	23:06:23	5/18/2009	3:32:53	4:26:30	5/18/2009	5:10:08	5:10:13	0:00:05	5/18/2009	5:10:13	5:10:17	0:00:04
407	517202645	5/17/2009	23:06:20	5/18/2009	4:10:10	5:03:50	5/18/2009	5:10:17	5:10:22	0:00:05	5/18/2009	5:10:22	5:10:26	0:00:04
408	517202646	5/17/2009	23:06:24	5/18/2009	4:10:58	5:04:34	5/18/2009	5:10:26	5:10:30	0:00:04	5/18/2009	5:10:30	5:10:34	0:00:04
409	517202647	5/17/2009	23:06:24	5/18/2009	3:57:06	4:50:42	5/18/2009	5:10:34	5:10:39	0:00:05	5/18/2009	5:10:39	5:10:42	0:00:03
410	517202648	5/17/2009	23:06:20	5/18/2009	3:32:35	4:26:15	5/18/2009	5:10:42	5:10:47	0:00:05	5/18/2009	5:10:47	5:10:51	0:00:04
411	517202649	5/17/2009	23:06:21	5/18/2009	4:10:10	5:03:49	5/18/2009	5:10:51	5:10:56	0:00:05	5/18/2009	5:10:56	5:11:00	0:00:04
412	517202650	5/17/2009	23:06:21	5/18/2009	3:32:41	4:26:20	5/18/2009	5:11:00	5:11:04	0:00:04	5/18/2009	5:11:04	5:11:08	0:00:04
413	517202651	5/17/2009	23:06:23	5/18/2009	3:57:28	4:51:05	5/18/2009	5:11:08	5:11:12	0:00:04	5/18/2009	5:11:12	5:11:16	0:00:04
414	517202652	5/17/2009	23:06:25	5/18/2009	3:57:30	4:51:05	5/18/2009	5:11:16	5:11:21	0:00:05	5/18/2009	5:11:21	5:11:25	0:00:04
415	517202653	5/17/2009	23:06:23	5/18/2009	3:57:16	4:50:53	5/18/2009	5:11:25	5:11:30	0:00:05	5/18/2009	5:11:30	5:11:33	0:00:03
416	517202654	5/17/2009	23:06:23	5/18/2009	3:57:13	4:50:50	5/18/2009	5:11:33	5:11:39	0:00:06	5/18/2009	5:11:39	5:11:42	0:00:03
417	517202655	5/17/2009	23:06:23	5/18/2009	3:33:06	4:26:43	5/18/2009	5:11:42	5:11:48	0:00:06	5/18/2009	5:11:48	5:11:51	0:00:03
418	517202656	5/17/2009	23:06:24	5/18/2009	3:33:45	4:27:21	5/18/2009	5:11:51	5:11:57	0:00:06	5/18/2009	5:11:57	5:12:00	0:00:03
419	517202657	5/17/2009	23:06:25	5/18/2009	3:59:29	4:53:04	5/18/2009	5:12:00	5:12:05	0:00:05	5/18/2009	5:12:05	5:12:08	0:00:03
420	517202658	5/17/2009	23:06:26	5/18/2009	4:10:42	5:04:16	5/18/2009	5:12:08	5:12:13	0:00:05	5/18/2009	5:12:13	5:12:17	0:00:04
421	517202659	5/17/2009	23:06:25	5/18/2009	3:33:30	4:27:05	5/18/2009	5:12:17	5:12:23	0:00:06	5/18/2009	5:12:23	5:12:26	0:00:03
422	517202660	5/17/2009	23:06:25	5/18/2009	3:57:39	4:51:14	5/18/2009	5:12:26	5:12:32	0:00:06	5/18/2009	5:12:32	5:12:35	0:00:03
423	517202661	5/17/2009	23:06:25	5/18/2009	3:58:16	4:51:51	5/18/2009	5:12:35	5:12:41	0:00:06	5/18/2009	5:12:41	5:12:44	0:00:03
424	517202662	5/17/2009	23:06:25	5/18/2009	3:57:41	4:51:16	5/18/2009	5:12:44	5:12:51	0:00:07	5/18/2009	5:12:51	5:12:54	0:00:03
425	517202663	5/17/2009	23:06:25	5/18/2009	3:57:24	4:50:59	5/18/2009	5:12:54	5:13:00	0:00:06	5/18/2009	5:13:00	5:13:03	0:00:03
426	517202664	5/17/2009	23:06:25	5/18/2009	3:57:58	4:51:33	5/18/2009	5:13:03	5:13:09	0:00:06	5/18/2009	5:13:09	5:13:12	0:00:03
427	517202665	5/17/2009	23:06:26	5/18/2009	4:00:34	4:54:08	5/18/2009	5:13:12	5:13:17	0:00:05	5/18/2009	5:13:17	5:13:20	0:00:03
428	517202666	5/17/2009	23:06:26	5/18/2009	4:10:23	5:03:57	5/18/2009	5:13:20	5:13:26	0:00:06	5/18/2009	5:13:26	5:13:29	0:00:03
429	517202667	5/17/2009	23:06:26	5/18/2009	3:59:29	4:53:03	5/18/2009	5:13:29	5:13:35	0:00:06	5/18/2009	5:13:35	5:13:38	0:00:03
430	517202668	5/17/2009	23:06:26	5/18/2009	3:34:02	4:27:36	5/18/2009	5:13:38	5:13:44	0:00:06	5/18/2009	5:13:44	5:13:47	0:00:03
431	517202669	5/17/2009	23:06:26	5/18/2009	3:37:55	4:31:29	5/18/2009	5:13:47	5:13:52	0:00:05	5/18/2009	5:13:52	5:13:56	0:00:04
432	517202670	5/17/2009	23:06:27	5/18/2009	3:58:16	4:51:49	5/18/2009	5:13:56	5:14:01	0:00:05	5/18/2009	5:14:01	5:14:04	0:00:03
433	517202671	5/17/2009	23:06:26	5/18/2009	3:58:17	4:51:51	5/18/2009	5:14:04	5:14:10	0:00:06	5/18/2009	5:14:10	5:14:13	0:00:03
434	517202672	5/17/2009	23:06:27	5/18/2009	4:01:04	4:54:37	5/18/2009	5:14:13	5:14:18	0:00:05	5/18/2009	5:14:18	5:14:22	0:00:04
435	517202673	5/17/2009	23:06:27	5/18/2009	3:38:17	4:31:50	5/18/2009	5:14:22	5:14:27	0:00:05	5/18/2009	5:14:27	5:14:30	0:00:03
436	517202674	5/17/2009	23:06:27	5/18/2009	4:10:23	5:03:56	5/18/2009	5:14:30	5:14:36	0:00:06	5/18/2009	5:14:36	5:14:38	0:00:02
437	517202675	5/17/2009	23:06:27	5/18/2009	3:58:34	4:52:07	5/18/2009	5:14:38	5:14:43	0:00:05	5/18/2009	5:14:43	5:14:47	0:00:04
438	517202676	5/17/2009	23:06:27	5/18/2009	3:36:45	4:30:18	5/18/2009	5:14:47	5:14:52	0:00:05	5/18/2009	5:14:52	5:14:55	0:00:03
439	517202677	5/17/2009	23:06:27	5/18/2009	3:34:33	4:28:06	5/18/2009	5:14:55	5:15:00	0:00:05	5/18/2009	5:15:00	5:15:04	0:00:04
440	517202678	5/17/2009	23:06:27	5/18/2009	4:01:17	4:54:50	5/18/2009	5:15:04	5:15:09	0:00:05	5/18/2009	5:15:09	5:15:12	0:00:03
441	517202679	5/17/2009	23:06:27	5/18/2009	3:58:35	4:52:08	5/18/2009	5:15:12	5:15:17	0:00:05	5/18/2009	5:15:17	5:15:20	0:00:03
442	517202680	5/17/2009	23:06:27	5/18/2009	3:35:22	4:28:55	5/18/2009	5:15:20	5:15:26	0:00:06	5/18/2009	5:15:26	5:15:29	0:00:03
443	517202681	5/17/2009	23:06:27	5/18/2009	3:36:39	4:30:12	5/18/2009	5:15:29	5:15:33	0:00:04	5/18/2009	5:15:33	5:15:37	0:00:04
444	517202682	5/17/2009	23:06:28	5/18/2009	4:00:46	4:54:18	5/18/2009	5:15:37	5:15:41	0:00:04	5/18/2009	5:15:41	5:15:45	0:00:04
445	517202683	5/17/2009	23:06:28	5/18/2009	3:03:52	3:57:24	5/18/2009	5:15:45	5:15:50	0:00:05	5/18/2009	5:15:50	5:15:54	0:00:04
446	517202684	5/17/2009	23:06:27	5/18/2009	3:59:15	4:52:48	5/18/2009	5:15:54	5:15:59	0:00:05	5/18/2009	5:15:59	5:16:02	0:00:03
447	517202685	5/17/2009	23:06:28	5/18/2009	3:58:34	4:52:06	5/18/2009	5:16:02	5:16:07	0:00:05	5/18/2009	5:16:07	5:16:11	0:00:04
448	517202686	5/17/2009	23:06:28	5/18/2009	3:38:03	4:31:35	5/18/2009	5:16:11	5:16:16	0:00:05	5/18/2009	5:16:16	5:16:19	0:00:03
449	517202687	5/17/2009	23:06:28	5/18/2009	4:10:58	5:04:30	5/18/2009	5:16:19	5:16:25	0:00:06	5/18/2009	5:16:25	5:16:28	0:00:03
450	517202688	5/17/2009	23:06:28	5/18/2009	3:58:53	4:52:25	5/18/2009	5:16:28	5:16:33	0:00:05	5/18/2009	5:16:33	5:16:36	0:00:03

Duration of Stream Execution

451	517202689	5/17/2009	23:06:28	5/18/2009	3:34:23	4:27:55	5/18/2009	5:16:36	5:16:41	0:00:05	5/18/2009	5:16:41	5:16:44	0:00:03
452	517202690	5/17/2009	23:06:28	5/18/2009	4:13:20	5:06:52	5/18/2009	5:16:44	5:16:49	0:00:05	5/18/2009	5:16:49	5:16:52	0:00:03
453	517202691	5/17/2009	23:06:28	5/18/2009	3:58:19	4:51:51	5/18/2009	5:16:52	5:16:57	0:00:05	5/18/2009	5:16:57	5:17:00	0:00:03
454	517202692	5/17/2009	23:06:28	5/18/2009	4:00:05	4:53:37	5/18/2009	5:17:00	5:17:05	0:00:05	5/18/2009	5:17:05	5:17:08	0:00:03
455	517202693	5/17/2009	23:06:28	5/18/2009	4:00:20	4:53:52	5/18/2009	5:17:08	5:17:13	0:00:05	5/18/2009	5:17:13	5:17:17	0:00:04
456	517202694	5/17/2009	23:06:28	5/18/2009	4:10:23	5:03:55	5/18/2009	5:17:17	5:17:22	0:00:05	5/18/2009	5:17:22	5:17:25	0:00:03
457	517202695	5/17/2009	23:06:28	5/18/2009	4:13:20	5:06:52	5/18/2009	5:17:25	5:17:31	0:00:06	5/18/2009	5:17:31	5:17:34	0:00:03
458	517202696	5/17/2009	23:06:28	5/18/2009	3:38:04	4:31:36	5/18/2009	5:17:34	5:17:39	0:00:05	5/18/2009	5:17:39	5:17:42	0:00:03
459	517202697	5/17/2009	23:06:28	5/18/2009	3:58:59	4:52:31	5/18/2009	5:17:42	5:17:48	0:00:06	5/18/2009	5:17:48	5:17:51	0:00:03
460	517202698	5/17/2009	23:06:28	5/18/2009	3:37:03	4:30:35	5/18/2009	5:17:51	5:17:56	0:00:05	5/18/2009	5:17:56	5:17:59	0:00:03
461	517202699	5/17/2009	23:06:28	5/18/2009	4:10:51	5:04:23	5/18/2009	5:17:59	5:18:05	0:00:06	5/18/2009	5:18:05	5:18:08	0:00:03
462	517202700	5/17/2009	23:06:28	5/18/2009	3:07:06	4:00:38	5/18/2009	5:18:08	5:18:14	0:00:06	5/18/2009	5:18:14	5:18:17	0:00:03
463	517202701	5/17/2009	23:06:28	5/18/2009	3:59:15	4:52:47	5/18/2009	5:18:17	5:18:23	0:00:06	5/18/2009	5:18:23	5:18:27	0:00:04
464	517202702	5/17/2009	23:06:28	5/18/2009	3:38:52	4:32:24	5/18/2009	5:18:27	5:18:32	0:00:05	5/18/2009	5:18:32	5:18:35	0:00:03
465	517202703	5/17/2009	23:06:28	5/18/2009	3:59:21	4:52:53	5/18/2009	5:18:35	5:18:41	0:00:06	5/18/2009	5:18:41	5:18:44	0:00:03
466	517202704	5/17/2009	23:06:28	5/18/2009	3:35:13	4:28:45	5/18/2009	5:18:44	5:18:50	0:00:06	5/18/2009	5:18:50	5:18:53	0:00:03
467	517202705	5/17/2009	23:06:28	5/18/2009	3:59:15	4:52:47	5/18/2009	5:18:53	5:18:59	0:00:06	5/18/2009	5:18:59	5:19:02	0:00:03
468	517202706	5/17/2009	23:06:28	5/18/2009	4:00:48	4:54:20	5/18/2009	5:19:02	5:19:08	0:00:06	5/18/2009	5:19:08	5:19:11	0:00:03
469	517202707	5/17/2009	23:06:28	5/18/2009	4:13:20	5:06:52	5/18/2009	5:19:11	5:19:16	0:00:05	5/18/2009	5:19:16	5:19:20	0:00:04
470	517202708	5/17/2009	23:06:28	5/18/2009	3:37:21	4:30:53	5/18/2009	5:19:20	5:19:25	0:00:05	5/18/2009	5:19:25	5:19:28	0:00:03
471	517202709	5/17/2009	23:06:28	5/18/2009	3:35:15	4:28:47	5/18/2009	5:19:28	5:19:34	0:00:06	5/18/2009	5:19:34	5:19:37	0:00:03
472	517202710	5/17/2009	23:06:28	5/18/2009	3:37:37	4:31:09	5/18/2009	5:19:37	5:19:43	0:00:06	5/18/2009	5:19:43	5:19:46	0:00:03
473	517202711	5/17/2009	23:06:28	5/18/2009	3:59:41	4:53:13	5/18/2009	5:19:46	5:19:51	0:00:05	5/18/2009	5:19:51	5:19:54	0:00:03
474	517202712	5/17/2009	23:06:28	5/18/2009	3:38:54	4:32:26	5/18/2009	5:19:54	5:19:59	0:00:05	5/18/2009	5:19:59	5:20:03	0:00:04
475	517202713	5/17/2009	23:06:28	5/18/2009	4:01:04	4:54:36	5/18/2009	5:20:03	5:20:07	0:00:04	5/18/2009	5:20:07	5:20:11	0:00:04
476	517202714	5/17/2009	23:06:28	5/18/2009	3:58:56	4:52:28	5/18/2009	5:20:11	5:20:16	0:00:05	5/18/2009	5:20:16	5:20:20	0:00:04
477	517202715	5/17/2009	23:06:28	5/18/2009	3:35:36	4:29:08	5/18/2009	5:20:20	5:20:25	0:00:05	5/18/2009	5:20:25	5:20:28	0:00:03
478	517202716	5/17/2009	23:06:28	5/18/2009	3:35:29	4:29:01	5/18/2009	5:20:28	5:20:33	0:00:05	5/18/2009	5:20:33	5:20:37	0:00:04
479	517202717	5/17/2009	23:06:28	5/18/2009	4:00:50	4:54:22	5/18/2009	5:20:37	5:20:42	0:00:05	5/18/2009	5:20:42	5:20:46	0:00:04
480	517202718	5/17/2009	23:06:29	5/18/2009	3:35:57	4:29:28	5/18/2009	5:20:46	5:20:51	0:00:05	5/18/2009	5:20:51	5:20:54	0:00:03
481	517202719	5/17/2009	23:06:29	5/18/2009	3:37:47	4:31:18	5/18/2009	5:20:54	5:20:59	0:00:05	5/18/2009	5:20:59	5:21:03	0:00:04
482	517202720	5/17/2009	23:06:29	5/18/2009	3:59:29	4:53:00	5/18/2009	5:21:03	5:21:09	0:00:06	5/18/2009	5:21:09	5:21:12	0:00:03
483	517202721	5/17/2009	23:06:28	5/18/2009	3:37:21	4:30:53	5/18/2009	5:21:12	5:21:17	0:00:05	5/18/2009	5:21:17	5:21:20	0:00:03
484	517202722	5/17/2009	23:06:29	5/18/2009	3:07:24	4:00:55	5/18/2009	5:21:20	5:21:26	0:00:06	5/18/2009	5:21:26	5:21:29	0:00:03
485	517202723	5/17/2009	23:06:29	5/18/2009	4:10:58	5:04:29	5/18/2009	5:21:29	5:21:35	0:00:06	5/18/2009	5:21:35	5:21:38	0:00:03
486	517202724	5/17/2009	23:06:29	5/18/2009	3:36:29	4:30:00	5/18/2009	5:21:38	5:21:44	0:00:06	5/18/2009	5:21:44	5:21:47	0:00:03
487	517202725	5/17/2009	23:06:29	5/18/2009	4:00:20	4:53:51	5/18/2009	5:21:47	5:21:53	0:00:06	5/18/2009	5:21:53	5:21:56	0:00:03
488	517202726	5/17/2009	23:06:29	5/18/2009	3:59:57	4:53:28	5/18/2009	5:21:56	5:22:02	0:00:06	5/18/2009	5:22:02	5:22:05	0:00:03
489	517202727	5/17/2009	23:06:29	5/18/2009	4:01:18	4:54:49	5/18/2009	5:22:05	5:22:11	0:00:06	5/18/2009	5:22:11	5:22:14	0:00:03
490	517202728	5/17/2009	23:06:29	5/18/2009	3:59:53	4:53:24	5/18/2009	5:22:14	5:22:20	0:00:06	5/18/2009	5:22:20	5:22:23	0:00:03
491	517202729	5/17/2009	23:06:29	5/18/2009	3:59:41	4:53:12	5/18/2009	5:22:23	5:22:28	0:00:05	5/18/2009	5:22:28	5:22:32	0:00:04
492	517202730	5/17/2009	23:06:29	5/18/2009	4:00:04	4:53:35	5/18/2009	5:22:32	5:22:37	0:00:05	5/18/2009	5:22:37	5:22:40	0:00:03
493	517202731	5/17/2009	23:06:29	5/18/2009	4:10:41	5:04:12	5/18/2009	5:22:40	5:22:45	0:00:05	5/18/2009	5:22:45	5:22:49	0:00:04
494	517202732	5/17/2009	23:06:29	5/18/2009	4:10:38	5:04:09	5/18/2009	5:22:49	5:22:53	0:00:04	5/18/2009	5:22:53	5:22:56	0:00:03
495	517202733	5/17/2009	23:06:29	5/18/2009	4:10:59	5:04:30	5/18/2009	5:22:56	5:23:01	0:00:05	5/18/2009	5:23:01	5:23:04	0:00:03
496	517202734	5/17/2009	23:06:29	5/18/2009	4:10:50	5:04:21	5/18/2009	5:23:04	5:23:10	0:00:06	5/18/2009	5:23:10	5:23:14	0:00:04
497	517202735	5/17/2009	23:06:29	5/18/2009	3:36:26	4:29:57	5/18/2009	5:23:14	5:23:19	0:00:05	5/18/2009	5:23:19	5:23:23	0:00:04
498	517202736	5/17/2009	23:06:29	5/18/2009	4:00:34	4:54:05	5/18/2009	5:23:23	5:23:28	0:00:05	5/18/2009	5:23:28	5:23:32	0:00:04

HP BladeSystem c-Class 128P RAC with HP Oracle Exadata Storage Servers

TPC-H Rev. 2.8.0

Report Date:
June 3, 2009

Timing Intervals (in seconds)

Stream	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
0	10.3	1.8	2.4	0.8	6.8	1	7	5.2	24.3	4.2	6.4	3.8
1	0.1	1798	1907	0.1	1707.1	0.1	0.1	1876.3	0.1	0.1	1696.6	0.1
2	0.1	1974.1	0.1	0.1	0.1	64.4	0.1	1880.2	0.1	0.1	9.5	1863.3
3	0.1	1847.9	0.1	1691.9	1910.2	1682.2	1998.1	136.2	0.1	0.1	4	0.1
4	0.1	1863.9	0.4	0.1	101.7	0.1	0.1	1864.9	2008.8	0.2	2.6	1676.1
5	0.1	1869.7	0.1	0.1	0.1	0.1	1730.8	1804.5	0.1	0.1	3.2	0.1
6	0.1	1857.1	1926.1	0.1	0.1	1687.4	1692.5	1692.6	0.1	101.3	7.1	1862
7	0.1	1680.8	0.1	0.1	0.1	0.1	1807.8	1913.4	0.1	0.1	4.2	1782.4
8	1896.4	1380.6	0.1	0.1	0.1	0.1	1881.6	1689.3	0.1	0.1	2.3	1964.6
9	0.1	1694.6	1993.6	0.1	0.1	0.1	1868.9	101.7	0.1	0.1	5.8	0.1
10	1679.4	1874.2	0.1	0.1	0.1	85.1	1975.8	578.2	0.1	0.1	2.8	1682.7
11	0.1	1800.6	0.1	0.1	0.1	0.1	572.5	1880.6	0.1	1682.9	8.5	1860
12	130.5	0.1	0.1	0.4	0.1	0.1	1916.1	1879.4	0.1	0.1	5	2001.4
13	1669.8	1867.4	1686.8	0.4	0.1	0.1	1704.3	1804	0.1	0.1	5.4	1976.6
14	0.1	80.5	0.1	1688.4	1683.2	0.1	1802.4	1796.7	1938.3	0.1	11.2	555.1
15	0.1	1799.1	0.1	0.1	0.1	0.1	1977.1	1698.1	1937	0.1	4.3	1680.9
16	130	1693.3	1903	0.1	0.1	1705	1799.3	1796.4	0.1	0.1	4.4	0.1
17	0.1	1667.7	136.3	0.1	0.1	0.1	1879.7	1812.3	1720.5	0.1	1702.1	0.1
18	0.1	1972.4	0.1	1920.9	0.1	1667.8	1799.1	1689.5	0.1	0.1	1695.7	1856.6
19	0.1	1673.6	0.1	111.1	0.1	0.1	1809.3	1998.2	1853	0.1	5.5	1921
20	0.1	1862.8	0.1	0.1	0.1	0.2	1686.7	1799.3	0.1	0.1	2.5	1999.5
21	0.1	1849.9	0.1	0.1	0.1	0.1	0.1	1892.2	0.1	0.1	2.3	1720.2
22	0.1	1694.1	0.1	0.1	0.1	0.1	0.1	1814.2	0.1	1687	8.7	1997.1
23	0.1	1685.6	0.1	0.1	0.1	0.1	0.1	1979.2	1726.6	0.1	3.1	1686.1
24	0.1	1875.5	1891.2	0.1	0.1	0.1	200.8	1670.4	0.1	1679.7	3.9	1818.7
25	1882.1	1994	0.1	0.1	0.1	0.1	1697.8	1857.5	0.1	1663.5	2.3	0.1
26	0.1	1911.7	0.1	0.1	0.1	0.1	1992.5	1802.2	0.1	0.1	1677.9	1856.9
27	0.1	0.1	0.1	1702.3	0.1	0.1	0.1	1687.5	0.1	0.1	3.5	1886.8
28	0.1	1667.4	1878.9	0.1	0.1	0.1	0.1	1800.7	0.1	199	4.2	1673.7
29	1705.8	1778.7	0.1	0.1	0.1	0.1	0.1	1876.3	1722.1	219.3	2.7	1671.3
30	0.1	1774	1662.7	0.1	0.1	0.1	278.7	1826.6	0.1	0.1	4.7	1869.2
31	0.1	164.6	1688.8	1687.9	0.1	0.1	1671.4	1863.7	1918	0.1	4.3	0.1
32	0.1	0.1	0.1	1663	0.1	0.1	0.1	1719.7	0.1	0.1	4	1863.7
33	0.1	1718.1	0.1	0.1	0.1	0.1	0.1	1826.7	0.1	0.1	1659	1887.4
34	255.1	537.5	0.1	0.1	0.1	1655.2	0.1	1778.3	0.1	0.1	1729.2	1874.4
35	0.1	1875.4	0.1	0.1	0.1	0.1	0.1	1681.9	0.1	0.1	2.5	0.1
36	0.1	1789.3	1676.6	0.1	1676.8	0.1	1698.1	1852.3	218.3	0.1	4.1	0.1
37	0.1	1842	0.1	0.1	1656.2	0.1	0.1	2038.7	0.1	0.1	4.8	0.1
38	1680	1852.1	0.1	1715.1	1838.3	0.1	0.1	1884.8	0.1	0.1	10.1	0.1
39	0.1	1773.7	244.1	0.1	0.1	0.1	1868.1	1878.6	0.1	0.1	7.9	1815.9
40	0.1	1807.4	1680.5	0.1	0.1	0.1	0.1	1888.5	0.1	0.1	2.4	0.1
41	0.1	1871.2	0.1	0.1	0.1	0.1	0.1	1689.6	1729.5	0.1	6.2	0.1
42	0.1	1875.4	1861.3	0.1	1680.3	0.1	1701.4	1821.9	0.1	0.1	5.4	0.1
43	0.1	1982.9	0.1	0.1	0.1	367.1	0.1	1892.8	1715.4	0.1	13.5	0.1
44	0.1	1766.1	0.1	0.1	1756.7	0.1	1637.6	556.5	2038	0.1	16.1	1232.4
45	0.1	1840.9	0.1	0.1	672.3	0.1	0.1	1788.3	0.1	0.1	2.2	1653
46	0.1	1803.6	1888.5	0.1	0.1	0.1	1739.5	1854.4	0.1	0.1	6.2	0.2
47	0.1	0.1	1863.5	0.1	0.1	1665.8	1990.2	1680.2	0.1	243.8	6.5	0.1
48	0.1	1662.5	0.1	0.1	0.1	0.1	1874	1877.2	0.1	0.1	2.6	0.1
49	1790.8	1837.4	0.1	0.1	0.1	0.1	0.1	1647.1	1831.2	0.1	7.9	0.1
50	0.1	1712	1992.6	0.1	0.1	0.1	0.1	334.9	0.1	0.1	6.5	0.1

Timing Intervals (in seconds)

51	1672.4	1975.1	0.1	0.1	0.1	385.6	1711.6	1284.6	0.1	0.1	10	0.1
52	0.1	0.1	0.1	0.1	0.1	0.1	0.1	2044.6	0.1	0.1	2.3	0.1
53	291	1823.3	0.1	0.1	0.1	0.1	1840.4	1878.8	0.1	0.1	8.2	1980.3
54	0.1	1876.8	0.1	0.1	0.1	0.1	1712.7	1819.1	0.1	0.1	2.3	1660.8
55	0.1	332.6	0.1	1643.6	1701.1	0.1	0.1	1857.6	1859.9	0.1	3.5	0.1
56	0.1	524.1	1818.8	0.1	0.1	0.1	1867.2	1652.8	1856.8	0.1	1693.5	1976.1
57	416	1675.5	1848.5	0.1	0.1	1674.9	0.1	1855.6	0.1	0.1	3.6	0.1
58	0.1	1826.1	893.1	0.1	0.1	0.1	1809.1	1788.4	1662.8	0.1	1631.3	0.1
59	0.1	1884	0.1	1850.9	1680.8	1701.7	0.1	1664	0.1	0.1	3.2	1765.6
60	0.1	1703.5	1778.6	386	0.1	0.1	0.1	1990.1	0.1	0.1	4.1	1867.5
61	0.1	1785.1	0.1	0.1	0.1	0.2	0.1	1862.8	0.1	0.1	7.4	2007.4
62	0.1	0.1	1828.8	0.1	0.1	0.1	0.1	1810.8	0.1	0.1	4	1660.7
63	0.1	1711.9	0.1	0.1	0.1	0.1	0.1	1899.3	0.1	0.1	3.5	1696.4
64	0.1	2020.9	0.1	0.1	0.1	0.1	0.1	1862.3	1700.1	0.1	6.3	1704.3
65	0.1	1810.8	1768.6	0.1	0.1	0.1	1061.3	1825.7	0.1	0.1	9.2	1806.5
66	1782.9	1707	0.1	0.1	0.1	0.1	1688.3	1777.6	0.1	0.1	8.3	0.1
67	0.1	1852	0.1	1682.5	0.1	0.1	0.1	1894.7	0.1	0.1	5.1	1788.1
68	0.1	1666.6	1887	1676	0.1	0.1	0.1	1712.5	0.1	0.1	2.1	1840.8
69	0.1	1820.2	1804.7	0.1	0.1	0.1	0.1	1713.8	0.1	850.1	10.5	1629.9
70	0.1	1710.8	0.1	0.1	0.1	1815.9	0.1	1730.8	1671.1	895.5	4.6	1638.5
71	0.1	1844.8	1617.8	0.1	0.1	0.1	1063.6	1815.8	0.1	0.1	3.3	0.1
72	0.1	699.1	1789	1645.3	0.1	0.1	1646.5	1787.6	0.1	0.1	5.1	0.1
73	0.1	1844.6	0.1	1622.3	0.1	0.1	0.1	1654.3	0.1	0.1	2.7	1701.7
74	0.1	1639.4	0.1	0.1	0.1	0.1	0.1	1796.2	1987	0.1	4.1	1803.1
75	848.2	365.7	1624.4	1666.1	0.1	0.1	0.1	1713.3	1988.7	0.1	1746.9	1792.1
76	0.1	1835.7	0.1	0.1	0.1	0.1	0.1	1730.4	0.1	0.1	2.9	0.1
77	0.1	1837.5	1640.9	0.1	1619.8	0.1	0.1	1787.4	763.5	0.1	5.3	1732
78	0.1	1855.5	0.1	0.1	1639.9	0.1	0.1	2034.4	0.1	0.1	2.4	0.1
79	1841.2	1847	0.1	1677.1	1700.8	0.1	0.1	1773.9	0.1	0.1	1642.4	0.1
80	0.1	1561.8	1279.3	0.1	0.1	0.1	1708.4	1796	0.1	0.1	2.4	0.1
81	0.1	0.1	2026.8	0.1	0.1	0.1	0.1	1866.1	1768.2	0.1	1704.6	0.1
82	0.1	1746.7	0.1	0.1	0.1	0.1	0.1	2009.7	1708.1	0.1	4.6	1665
83	0.1	1781.8	1750.6	0.1	1641.9	0.1	0.1	1841.1	0.1	0.1	1647.1	0.1
84	0.1	1789.4	0.1	0.1	0.1	1155.5	0.1	1812.4	2000.7	0.1	4.3	0.1
85	1810.8	1784	0.1	1727.9	0.1	0.1	1655.8	802.1	0.1	0.1	2.2	0.1
86	0.1	1782.2	0.2	0.1	417.8	0.1	0.1	2002.5	0.1	0.1	2.6	1701
87	0.1	1859.7	1778.1	0.1	0.1	1675	1683	1767.5	0.1	0.1	6.4	0.1
88	0.1	1790.8	1710.7	0.1	0.1	1629.1	1824.4	1674	0.1	884.7	4	0.1
89	0.1	1657.6	0.1	0.1	0.1	0.1	0.1	1797	0.1	0.1	6.6	1850.1
90	1784.8	1734.7	0.1	0.1	0.1	0.1	0.1	1650.7	1740.3	0.1	3.2	2012.3
91	0.1	1639.5	0.1	0.1	0.1	0.1	0.1	784.9	0.1	0.1	3	0.1
92	0.1	2005.9	0.1	0.1	0.1	1149.6	1839.8	1026.8	0.1	0.1	2.4	1618.2
93	0.1	1798.7	0.1	0.1	0.1	0.1	0.1	1814.3	0.1	0.1	8	1802.7
94	923.2	1794.2	0.1	0.1	0.1	0.1	1706.1	1810.9	0.1	0.1	3.6	1992.6
95	0.1	1793.2	0.1	0.1	0.1	0.1	1662.4	1859	0.1	1619	2.7	1725.6
96	0.1	753.1	0.1	1634	1619.1	0.1	0.1	1850.3	1773.5	0.1	6.4	1162.4
97	0.1	1239.9	0.1	0.1	0.1	0.1	1851.8	1646.3	1798.7	0.1	1694.6	2039.4
98	579.3	1692.1	1768.8	0.1	0.1	0.1	0.1	1865.6	0.1	0.1	2.3	0.1
99	0.1	1805.2	1291.8	0.1	0.1	0.1	1787.4	1803.1	1671.3	0.1	1678.7	0.1
100	0.1	2041.3	0.1	1762.4	1649.5	0.1	0.1	1651.2	0.1	0.1	2.3	0.1

Timing Intervals (in seconds)

101	0.1	1705.3	1758.8	563.6	0.1	0.1	0.1	2044.7	0.1	0.1	11.1	1781.7
102	0.1	1735.6	1835.2	0.1	0.1	0.1	1789.3	1175.7	0.1	0.1	7.6	1985.5
103	0.1	1837.2	0.1	0.1	0.1	0.1	0.1	1815.3	0.1	0.1	2.5	1668.6
104	0.1	1710.5	0.1	0.1	0.1	0.1	1840.7	1776.3	0.1	0.1	2.8	1706.5
105	0.1	2010	0.1	0.1	0.1	0.1	0.1	1802.2	1694.7	0.1	4	1819.9
106	0.1	1809.6	1739.8	0.1	0.1	1610.7	1098.1	2004.1	0.1	0.1	7.9	1846.6
107	1785.5	1627.9	0.1	0.1	0.1	0.1	0.1	1844.1	0.1	0.1	3.3	0.1
108	0.1	1721.8	0.1	1994.1	0.1	0.1	0.1	1787.2	0.1	0.1	1613.8	1861.7
109	0.1	1589.4	0.1	1822	0.1	0.1	0.1	1695.6	0.1	0.1	2.3	1800.7
110	0.1	1744.4	1833.3	0.1	0.1	0.1	0.1	1737.6	0.1	635.8	6.8	1660.7
111	1619.5	0.1	0.1	0.1	0.1	0.1	0.1	1715.8	1683.3	1150.3	2.2	0.1
112	0.1	1628.2	1618.6	0.1	0.1	0.1	1063.9	1807.1	0.1	0.1	3.7	1810.1
113	0.1	651	0.1	1665.8	0.1	0.1	0.1	1791.5	1770.4	0.1	1645.8	0.1
114	0.1	1743.8	1857	0.1	0.1	0.1	0.1	1706.8	0.1	0.1	4.5	1778.3
115	0.1	1697.6	0.1	0.1	0.1	0.1	1847.3	1798.2	0.1	0.1	2.3	1792.9
116	1020.6	0.1	0.1	1614.8	0.1	0.1	2009	1065.1	0.1	0.1	1660.6	1810.3
117	0.1	1857	0.1	0.1	0.1	0.1	0.1	1704.8	0.1	0.1	3.7	0.1
118	0.1	0.1	1742.1	0.1	1641.4	0.1	1676.1	1858.8	634.6	0.1	2.6	0.1
119	0.1	1856.3	0.1	0.1	1656.2	0.1	0.1	2039.9	0.1	0.1	3.8	0.1
120	1789.1	1658.8	1834.3	1646.9	1773.9	0.1	0.1	1816.9	0.1	0.1	14.2	0.1
121	0.1	1647.8	975.8	0.1	0.1	0.1	1775.8	1816.3	0.1	0.1	2.9	0.1
122	0.1	1837.3	0.1	0.1	0.1	0.1	1991.6	1801.7	0.1	0.1	1794.1	0.1
123	0.1	1769.8	0.1	0.1	0.1	1638.2	0.1	2046.4	0.2	0.1	2.7	0.1
124	0.1	1775.4	1737.8	0.1	1631	0.1	0.1	1837.6	0.1	0.1	1657.7	0.1
125	0.1	2011.8	0.1	0.1	0.1	1155.4	0.1	1793.9	1857.2	0.1	4.5	1861.5
126	0.1	1797.3	0.1	0.1	1722	1687.5	1825.6	915.4	0.1	0.1	2.4	0.1
127	0.1	1706.7	0.1	0.1	797.7	0.1	0.1	1783.9	1853.5	0.1	2.3	1965.2
128	0.5	1796.1	1814.4	1675.7	0.1	0.1	0.1	1847.3	0.1	0.1	5.4	0.1
129	0.1	1809.8	1742.7	0.1	0.1	1619.7	0.1	1676.3	0.1	849.5	3.3	0.1
130	0.1	1718.3	0.1	0.1	0.1	0.1	0.1	1897.5	0.1	0.1	12.7	1869.4
131	1804.9	0.1	0.1	0.1	0.1	0.1	0.1	1655.8	1785.6	0.1	3.8	1969
132	0.1	1720.7	0.1	0.1	0.1	0.1	0.1	937.6	0.1	0.1	1827.1	1791.2
133	0.1	1987.6	0.1	0.1	0.1	859.8	1821.3	1138.5	0.1	0.1	3.2	1669.4
134	0.1	1853.7	0.1	0.1	0.1	0.2	0.1	1863.4	0.1	1622.4	2.7	0.1
135	849.3	1777.1	0.1	0.1	0.1	0.1	1735.3	1839.8	0.2	0.1	4.8	1967.7
136	0.1	0.1	0.1	0.1	0.1	0.1	1667.2	1784.6	2030.5	0.1	3.8	1627.7
137	0.1	980.4	0.1	1601.4	1670.5	0.1	0.1	1860.4	1781	0.1	3.3	0.1
138	0.1	1747.6	0.1	0.1	0.1	0.1	2040.8	1630.5	1778.9	0.1	6.6	1716.2
139	885.2	1676.9	0.1	0.1	1626.3	1708.1	0.1	1856.7	0.1	0.1	2.1	0.1
140	0.1	1806.6	976.7	0.1	0.1	0.1	0.1	1828	1607.7	0.1	1698.8	0.1
141	0.1	0.1	0.1	0.1	1654.7	0.1	0.1	1801	0.1	0.1	1653.9	1823.6
142	0.1	1823.6	0.1	945.2	0.1	0.1	0.1	2005.6	0.1	0.1	3.7	1723.1
143	0.1	1754.8	0.1	1612.5	0.1	0.1	0.1	1237.7	0.1	0.1	7.5	1840.6
144	0.1	1535.5	0.1	0.1	0.1	0.1	0.1	1807.6	0.1	0.1	4.8	1705.7
145	0.1	1654.7	0.1	0.1	0.1	0.1	0.1	1842.6	0.1	1648.8	3.9	0.1
146	0.1	0.1	0.1	0.1	0.1	0.1	0.1	2053.7	1711.3	0.1	5.2	1711.9
147	0.1	1804.6	1768.4	0.1	0.1	0.1	1062.8	1831.4	0.1	1655.6	5.4	0.1
148	1886.2	1679.7	0.1	0.1	0.1	0.1	1706.3	1800.3	0.1	0.1	5	0.1
149	0.1	1800	0.1	0.1	0.1	0.1	0.1	1842.1	0.1	0.1	1649.4	1801.8
150	0.1	0.1	0.1	1789.5	0.1	0.1	1845.4	1649.1	1683.5	0.1	5	1829.1

Timing Intervals (in seconds)

151	0.1	1822.3	0.1	0.1	0.1	0.1	1798.9	1698.2	0.1	933.7	3	1676.4
152	1693.9	1772.8	0.1	0.1	0.1	0.1	0.1	1806.9	1709	504.1	7.1	1630.9
153	0.1	1848.9	0.1	0.1	1608.5	0.1	1042.8	1818.3	0.1	0.1	5.8	0.1
154	0.1	634.2	0.1	1654.6	0.1	0.1	1638.1	1798.2	1787	0.1	4.4	0.1
155	0.1	1827.5	0.1	0.1	0.1	0.1	0.1	1658.6	0.1	0.1	2.5	1786.7
156	0.1	1646.3	0.1	0.1	0.1	0.1	1804.7	1814.1	0.1	0.1	4.4	1815.1
157	964.9	49.9	0.1	1602.8	0.1	0.1	2009.6	1079.4	0.1	0.1	1697.7	1807
158	0.1	1848.9	0.1	0.1	0.1	0.1	0.1	1825.5	0.1	0.1	2.4	0.1
159	0.1	1611.7	1827.7	0.1	1653.4	0.1	0.1	1842.7	1136.1	0.1	1636.4	0.6
160	0.1	0.1	0.1	0.1	1629.6	0.1	0.1	1972.1	0.1	0.1	5.4	0.1
161	1638.8	1802.6	0.1	1655.8	1750.2	0.1	0.1	2013.1	0.1	0.1	2.9	1835.6
162	0.1	1579.5	1217.4	0.1	0.1	0.1	1708.5	1797.5	0.1	0.1	2.5	0.1
163	0.1	1786.2	0.1	1785.6	0.1	0.1	0.1	1849.2	0.1	0.1	3.3	0.1
164	0.1	1703	0.1	0.1	0.1	0.1	0.1	1996.5	1687.1	0.1	2.4	0.1
165	0.1	1806.7	0.1	0.1	1706.7	1596.4	0.1	1857.8	0.1	0.1	1704.9	0.1
166	0.1	2014.8	0.1	0.1	0.1	990	0.1	1818.6	1804.1	0.1	6.3	0.1
167	1874.2	1810.9	0.1	0.1	1668.2	0.1	1615.7	1258.3	0.1	0.1	16.4	0.1
168	0.1	1777.3	0.1	0.1	833.2	0.1	0.1	1983	0.1	0.1	3.5	0.1
169	0.1	1800.2	0.1	1628.3	0.1	0.1	1655.6	1840.5	0.1	0.1	2.2	0.1
170	0.1	0.1	1838	0.1	0.1	0.1	1693	1668.3	0.1	321	14.6	0.1
171	0.1	1607.8	0.1	0.1	0.1	0.1	0.1	1738.3	0.1	0.1	2.1	0.1
172	1753.3	0.1	0.1	0.1	0.1	0.1	0.1	1825.6	2005	0.1	9.2	1824
173	0.1	1670.5	0.1	0.1	0.1	1840.9	0.1	1254.6	0.1	0.1	7.3	0.1
174	0.1	1842.6	0.1	0.1	0.1	1226.1	1612.5	1598.4	0.1	0.1	4.2	0.1
175	0.1	1783.8	0.1	0.1	0.1	0.1	0.1	1824.4	0.1	0.1	2.4	1807
176	968.5	1811.5	1653.5	0.1	0.1	0.1	1723.3	2013.1	0.1	0.1	3.6	0.1
177	0.1	1819.1	0.1	0.1	0.1	0.1	1654	1804.4	0.1	0.1	4.3	1621.6
178	0.1	937.3	0.1	1627.2	1658.2	0.1	0.1	1858.1	1741	0.1	4.9	0.1
179	0.1	1155.6	0.1	0.1	0.1	1959.1	1857.6	1672.4	1764.3	0.1	4.7	1807.6
180	1131.1	1624	0.1	0.1	1647.6	1708	0.1	1849.6	0.1	0.1	2.8	0.1
181	0.1	1641.1	1287.1	0.1	0.1	0.1	0.1	2024	1677.3	0.1	3.6	0.1
182	0.1	1813.3	0.1	0.1	1657.2	1998.2	0.1	1825	0.1	0.1	1631.5	1694.3
183	0.1	1819.9	0.1	936.8	0.1	0.1	0.1	2016.1	0.1	0.1	2.3	1702.4
184	0.1	1668.2	1843.6	1648.7	0.1	0.1	1986.4	1062.3	0.1	0.1	3.7	0.1
185	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1806	0.1	0.1	3.5	1663.2
186	0.1	1664	1834.3	1621.9	0.1	0.1	0.1	1806.7	0.2	0.1	2.3	2013.6
187	0.1	1979.9	0.1	0.1	0.1	0.1	0.1	1864.9	1745.7	0.1	2.9	1680.4
188	0.1	1817.9	1739.8	1818.7	0.1	0.1	1098.6	2008.3	0.1	0.1	4.1	0.1
189	0.1	1638.6	0.1	0.1	0.1	0.1	1730.7	1816.3	0.1	0.1	6.4	0.1
190	0.1	1711.8	0.1	0.1	0.1	0.1	2006.7	1790.9	0.1	0.1	1613.3	1854.9
191	0.1	1672.4	1833.4	1811.1	0.1	0.1	0.1	1622.3	0.1	0.1	5.7	0.1
192	0.1	1694.4	1787.2	0.1	0.1	0.1	1883.9	1282.2	0.1	415.2	15.9	1656.7
193	1814.2	1712.6	0.1	0.1	0.1	0.1	0.1	1717.1	1653.8	891.3	2.7	1649.1
194	0.1	1628.7	0.1	0.1	1609.9	0.1	1080.2	1814.1	0.1	0.1	5.1	1806.5
195	0.1	289.1	1714.6	1652.4	0.1	0.1	1683.7	1856.1	1822.5	0.1	2.2	0.1
196	0.1	1843.1	0.1	0.1	0.1	0.1	0.3	1714	0.1	0.1	10.7	1846.3
197	0.1	1667	0.1	0.1	0.1	0.1	1688.9	1804.2	0.1	0.1	5.8	1888.9
198	417.7	490.4	0.1	0.1	0.2	0.1	0.2	1757	2029.5	0.1	1696.6	1780
199	0.1	1873.9	0.1	0.1	0.1	0.1	0.1	1692.7	0.1	0.1	3.4	0.1
200	0.1	1755.4	1699.7	0.1	0.1	0.1	1682.1	1854.2	376.4	0.1	1666.1	0.3

Timing Intervals (in seconds)

201	0.1	1850.9	0.1	0.1	1689.8	0.1	1885	1993	0.1	0.1	7.7	0.1
202	1704.1	1855.4	0.1	1667.3	1847.6	0.1	0.1	1872.1	0.1	0.1	3.9	0.1
203	0.1	1010.8	1159.6	0.1	0.1	0.1	1739.5	1811.3	0.1	0.1	11.8	0.1
204	0.1	1863.8	0.1	1690	0.1	0.1	0.1	1809.3	1901	0.1	3.6	0.1
205	0.1	1848.1	0.1	0.1	0.1	0.1	0.1	1986.3	1731.3	0.1	2.3	0.1
206	0.1	1794	1825	0.1	1701	0.1	1646.9	1855.1	0.1	0.1	6.3	0.1
207	0.1	2005	1272.9	0.1	0.1	374.1	0.1	1886.7	1673.3	0.1	2.1	1851.7
208	0.1	1769.7	0.1	0.1	1789	1676	1686.2	565.3	0.1	0.1	4.5	0.1
209	0.1	1852.2	0.1	0.1	415.1	0.1	0.1	1889.4	1995.3	0.1	7.8	1699.4
210	0.1	1780.4	0.1	1668.6	0.1	0.1	1682.9	1858.3	0.1	0.1	4.9	1247.4
211	0.1	1786.3	1866.8	0.1	0.1	1663.2	0.1	1711.8	0.1	386.3	11.8	0.1
212	0.1	1648.9	0.1	0.1	0.1	0.1	0.1	1802.4	0.1	0.1	2.2	0.1
213	1809.3	1850.4	1700.4	0.1	0.1	0.1	0.1	1663	0.1	0.1	6	0.1
214	0.1	1684.1	0.1	0.1	0.1	0.1	0.1	564.8	0.1	0.1	2.3	1772.3
215	0.1	1824.7	0.1	0.1	0.1	889.5	0.1	1704.3	0.1	0.1	10.3	1659.9
216	0.1	1851.3	0.1	0.1	0.1	0.1	0.1	2004.9	0.1	0.1	3.1	1793.2
217	885.9	1804	0.1	0.1	0.1	0.1	1724.1	1998.8	0.1	0.1	2.6	0.1
218	0.1	1862.1	0.1	0.1	0.1	0.1	1687.1	1759.9	1856.9	1661.6	4.6	1705.7
219	1682.4	375.5	0.4	1655.2	1678.5	0.1	0.1	1763.8	1853.6	0.1	2.4	0.1
220	0.1	1849.5	0.1	0.1	0.1	0.1	0.1	1662.5	1878.4	0.1	8.9	1701.3
221	922.6	1641.9	1705.3	0.1	0.1	1655.7	0.1	1858.5	0.1	0.1	5.3	0.1
222	0.1	1606.3	974.8	0.1	0.1	0.1	0.1	2013	0.1	0.1	1700.9	0.1
223	0.1	1980.9	0.1	0.1	1669.3	0.1	0.1	1645.4	0.1	0.1	3.2	1837.4
224	0.1	1844.1	1804.9	1156	0.1	0.1	0.1	2016.3	0.1	0.1	5.4	1731.9
225	0.1	1793.2	0.1	0.1	0.1	0.1	0.1	1847.2	0.1	0.1	4.3	0.1
226	0.1	1518	0.1	0.1	0.1	0.1	1764.9	1826.2	0.1	0.1	3	1679.8
227	0.1	1693.7	0.1	0.1	0.1	0.1	0.1	1781.4	0.1	1660.8	3.5	2039.6
228	0.1	1709.3	0.1	0.1	0.1	0.1	0.1	2058.9	1656.2	0.1	6.5	1643.1
229	0.1	0.1	0.1	1804.1	0.1	1650.3	1042.8	2010.6	0.1	1766.2	2.1	0.1
230	1786.5	1734.2	0.1	0.1	0.1	0.1	1639.9	1803.6	0.1	0.1	8.3	0.1
231	0.1	1786.8	0.1	1735.3	0.1	0.1	0.1	1846.7	0.1	0.1	3.3	1801.1
232	0.1	1647.3	1828.5	0.1	0.1	0.1	0.1	1652	1781.8	0.1	11.9	1843.5
233	0.1	1828.7	1794.8	0.1	0.1	0.1	0.1	1683.7	0.1	948.9	7.2	1695.8
234	1694.8	0.1	0.1	0.1	0.1	0.1	0.1	1790	1673	556.5	11.9	1642
235	1848.6	1607.8	0.1	0.1	1629.2	0.1	1102.3	1805.3	0.1	0.1	5.1	0.1
236	0.1	672	1642.7	0.1	0.1	0.1	1652.8	1859.5	1784.2	0.1	1721.6	0.1
237	0.1	1210.5	0.1	1637.6	0.1	0.1	1792.1	1645.3	0.1	0.1	4.7	1795.4
238	0.1	1699.5	2010.4	0.1	0.1	0.1	0.1	1825.5	0.1	0.1	3.3	0.1
239	884.4	0.1	0.1	0.1	0.1	1675.7	0.1	1713.1	0.1	0.1	1636.8	1807.7
240	0.1	1847.9	0.1	0.1	0.1	0.1	0.1	1825.7	0.1	0.1	4.7	1789.5
241	0.1	1748.6	1701.2	0.1	0.1	0.1	1707	1865.4	533.1	0.1	1644.9	1232.8
242	0.1	1752.4	0.1	0.1	1681.8	0.1	1852.7	2027.1	0.1	0.1	4.3	0.1
243	1799.3	1849.7	0.1	1689.3	1706.4	0.1	0.1	1785.7	0.1	0.1	6.5	1543
244	0.1	0.1	525.1	0.1	0.1	1634.4	1786.3	1775.4	0.1	0.1	2.5	1750.7
245	0.1	1771.4	0.1	0.1	0.1	0.1	0.1	1866	2037.4	0.1	7	0.1
246	0.1	1780	0.1	0.1	0.1	1638.9	0.1	2029.9	0.1	0.1	2.7	0.1
247	0.1	1858.6	1777.4	0.1	1680.6	0.1	0.1	1765.4	0.1	0.1	1646.6	1865
248	0.1	0.1	0.1	0.1	0.1	939.7	0.1	1811	1997.8	0.1	2.6	1848.8
249	1805.8	0.1	0.1	0.1	1706.5	0.1	1693.9	892.1	0.1	0.1	2.6	0.1
250	0.1	1717.5	0.1	0.1	825.4	0.1	0.1	1799.7	1828.4	0.1	4.6	1970.2

Timing Intervals (in seconds)

251	0.1	1769.5	0.1	1679.3	0.1	0.1	1647.2	1864.2	0.1	0.1	2.2	1240.6
252	0.1	1781.3	1790.9	0.1	0.1	1657.2	1731.1	1644.2	0.1	635.8	4.6	0.1
253	0.1	1643.8	0.1	0.1	0.1	0.1	0.1	1804.2	0.1	0.1	4.4	1802.6
254	1786.2	0.1	0.1	0.1	0.1	0.1	1828.1	1672.8	1837.1	0.1	3.6	1966.5
255	0.1	1675.2	0.1	0.1	0.1	0.1	0.1	1000.2	0.1	0.1	2.6	0.1
256	0.1	1819.7	0.1	0.1	0.1	947.1	0.1	1693.8	0.1	0.1	2.4	1627.7
257	1830.6	1803.2	0.1	0.1	0.1	0.1	0.1	2008.3	0.1	0.1	3.2	0.1
258	1013.9	1823.6	0.1	0.1	0.1	0.1	1778.4	2003.6	0.1	0.1	4.5	0.1
259	0.1	0.1	1640.1	0.1	0.1	0.1	1657.8	1801.4	0.1	0.1	2.7	1797
260	1721.6	659.3	1.7	1630.3	1656.2	0.1	0.1	1746.8	1768.3	0.1	7	0.1
261	0.1	1676.7	0.1	0.1	0.1	0.1	0.1	1579.4	1758.7	0.1	1829.5	1998.6
262	764.7	1647.9	1762.4	0.1	0.1	1638.3	0.1	1793.7	0.1	0.1	6.7	0.1
263	0.1	1831.6	1287.5	0.1	1645.7	0.1	0.1	1796.2	1661.4	0.1	2.3	0.1
264	0.1	0.1	0.1	1703.6	1686.4	0.1	0.1	1630.5	0.1	0.1	10	0.1
265	0.1	1819.6	0.1	1155.4	0.1	0.1	0.1	2000.1	0.1	0.1	3.1	1712.9
266	1789.8	1850.7	0.1	0.1	0.1	0.1	0.1	1669.3	0.1	0.1	7.7	1998.5
267	0.1	1516.8	0.1	0.1	0.1	0.1	0.1	1820.1	0.1	0.1	2.9	1681.2
268	0.1	1696.2	0.1	0.1	0.1	0.1	0.1	1790.7	0.1	0.1	1606.8	1997.9
269	0.1	1838	0.1	0.1	0.1	0.1	0.1	2023.8	1709	0.1	4.2	1603.6
270	0.1	1816.4	1706.2	1827.8	0.1	0.1	1132.2	2014.9	0.1	0.1	4.4	0.1
271	14.2	1819.9	0.1	0.1	0.1	0.1	1715.5	1802	0.1	0.1	2.3	0.1
272	0.1	1738.1	1806.9	0.1	0.1	0.1	0.1	1799.2	0.1	0.1	1602.8	1832.6
273	0.1	1600.5	2005.8	0.1	0.1	0.1	0.1	1698	0.1	0.1	2.1	0.1
274	0.1	1820.4	1811.7	0.1	0.1	0.1	0.1	1608.7	0.7	1150.4	4.2	1686.6
275	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1728.9	1668.8	1146.7	2.2	1618
276	1615.7	1579.2	0.1	0.1	0.1	0.1	1221.4	1807.9	0.1	0.1	2.2	1779.6
277	0.1	991.6	1655.6	0.1	0.1	0.1	0.1	1796.9	1799.9	0.1	1611.7	0.1
278	0.1	1845.3	0.1	0.1	0.1	0.1	0.1	1642.7	0.1	0.1	7.5	1784.4
279	0.1	1693.8	0.1	0.1	0.1	0.1	1855.5	1796.9	0.1	0.1	3.2	0.1
280	1232	976.3	1699.5	0.1	0.1	0.1	0.1	1856.1	0.1	0.1	1695.9	2013.9
281	0.1	1810.5	0.1	0.1	0.1	0.1	0.1	1825.7	0.1	0.1	2.4	1809.7
282	0.1	1592.8	1850.4	0.1	0.1	0.1	1692.8	1866.8	1197.8	0.1	1611.4	0.3
283	0.1	1653.7	0.1	0.1	1648.9	0.1	0.1	2012.3	0.1	0.1	10.5	1835
284	1653.9	0.1	0.1	1672.3	1708.9	0.1	0.1	2006.6	0.1	0.1	6	1798.1
285	0.1	1561.1	1282.8	0.1	0.1	0.1	1713.3	1796.1	0.1	0.1	2.1	0.1
286	0.1	1808.4	0.1	0.1	0.1	0.1	0.1	1792.8	2036.3	0.1	2.9	0.1
287	0.1	1710.6	0.1	0.1	0.1	0.1	0.1	2012.8	1687.6	0.1	2.8	0.1
288	0.1	1861.4	1685.9	0.1	1694.5	0.1	1847.5	1595.9	0.1	0.1	1611.6	0.1
289	0.1	2026.4	0.1	0.1	0.1	1290.6	0.1	1799	1820.4	0.1	2.3	1853.1
290	0.1	1799.2	0.1	0.1	1705.7	1653.1	1852.4	1275.6	0.1	0.1	10.8	0.1
291	0.1	1843.8	0.1	0.1	1146.6	0.1	0.1	1808.9	0.1	0.1	6.3	2012.6
292	0.1	1799.3	0.1	1700.7	0.1	1686.9	1611.8	1861.5	0.1	0.1	4.9	1016.3
293	0.1	0.1	1705.2	0.1	0.1	1684.8	1846	1613.1	0.1	1198.8	3.1	0.1
294	0.1	1681.8	0.1	1678.4	0.1	0.1	0.1	1913.1	0.1	0.1	2.2	0.1
295	1692.8	1598.1	0.1	0.1	0.1	0.1	2000.2	1606.3	0.1	0.1	4.6	1847.4
296	0.1	1698.3	1859.4	0.1	0.1	0.1	0.1	1252.8	0.1	0.1	10.6	1803.2
297	0.1	1817	1772.5	0.1	0.1	1316.2	0.1	955.3	0.1	0.1	5.6	1625.3
298	0.1	1800.8	0.1	0.1	0.1	0.1	0.1	2036.2	0.1	0.1	5	0.1
299	1314.1	1797.7	0.1	0.1	0.1	0.1	1719.5	2049	0.1	0.1	5	1810.5
300	0.1	1806.8	1614.2	0.1	0.1	0.1	1687.3	1858	0.1	0.1	2.6	1862

Timing Intervals (in seconds)

301	1606.6	1263	0.5	1684.7	0.1	0.1	0.1	1855	1662.1	0.1	4.7	0.1
302	0.1	0.1	2023.2	0.1	0.1	0.1	0.1	1652.6	1705.8	0.1	4.8	1825.8
303	1263.1	1625.8	1662.8	0.1	1694.3	0.1	0.1	1863.4	0.1	0.1	4.4	0.1
304	0.1	1827.9	1307	0.1	1660.9	0.1	0.1	1798.9	0.1	0.1	1641.5	0.1
305	0.1	2021.8	0.1	1716.1	0.1	1812.9	0.1	1655.1	0.1	0.1	1670.4	0.1
306	0.1	1810.9	1802.3	1321.9	0.1	0.1	0.1	2049	0.1	0.1	3.4	1706.5
307	0.1	1800.5	0.1	0.1	0.1	0.1	0.1	1862.9	0.1	0.1	4.7	0.1
308	0.1	1511	0.1	0.1	0.1	0.1	0.1	1834.1	0.1	0.1	2.4	1677.6
309	0.1	1655.5	0.2	0.1	0.1	0.2	0.1	1806.8	0.1	0.1	1616.4	2018
310	0.1	1639.3	0.1	0.1	0.1	0.1	0.1	1834.7	1717.2	0.1	13.7	1677
311	0.1	0.1	1695.2	1621.7	0.1	0.1	1383.9	1839.8	0.1	0.1	5.8	0.1
312	1898.1	1684.5	0.1	0.1	0.1	0.1	1721.3	1800.1	0.1	0.1	3	0.1
313	0.1	1712	1780.6	0.1	0.1	0.1	0.1	1814	0.1	0.1	1637.2	1852.1
314	0.1	1626.4	1803.2	0.1	0.1	0.1	0.1	1698.4	1837.7	0.1	4.9	0.1
315	0.1	1822.7	1792	0.1	0.1	0.1	0.1	1541.2	0.1	1336.8	14.1	1701.6
316	1799.7	1533.2	0.1	0.3	0.1	0.1	0.1	1723.9	1701.5	1282.7	2.7	1637.1
317	1625.8	1516.1	0.1	0.1	0.1	0.1	1365.5	1817.4	0.1	0.1	2	1794.5
318	0.1	1289.6	0.1	1640	0.1	0.1	1652.1	1797.5	1705.7	0.1	7.7	1544.5
319	0.1	1547.1	0.1	1635.8	0.1	0.1	0.1	1683.5	0.1	0.1	7	1709.1
320	0.1	1702.9	0.1	0.1	0.1	0.1	2022.3	1857	0.1	0.1	1620.1	1810.9
321	1365.7	247.2	1687.6	0.1	0.1	0.1	2006.1	1528.4	1861.7	0.1	1732.6	0.1
322	0.1	1783.2	0.1	0.1	0.1	0.1	0.1	1819.1	0.1	0.1	8.5	1791.2
323	0.1	1539	1809.2	1686	0.1	0.1	0.1	1864.1	1324.1	0.1	1639.3	0.1
324	0.1	1862.2	0.1	0.1	1663.6	0.1	0.1	2036.2	0.1	0.1	4.9	0.1
325	1637.1	1819.6	0.1	1702.5	1686.8	0.1	0.1	2011.1	0.1	0.1	6.8	0.1
326	0.1	909.7	1390.7	0.1	0.1	0.1	1706.1	1816.2	1773.7	0.1	2.8	0.1
327	0.1	1790.8	0.1	0.1	0.1	0.1	0.1	2028.1	0.1	0.1	7.5	1853.3
328	0.1	1705.9	0.1	0.1	0.1	0.1	0.1	2033.3	1722.9	0.1	3.5	0.1
329	0.1	1782.5	0.1	0.1	1711.1	0.1	0.1	1807	0.1	0.1	1708.6	0.1
330	0.1	2019.2	0.1	0.1	0.1	1366.9	0.1	1789.7	0.1	0.1	5.9	1866.1
331	0.1	1819.3	0.1	0.1	1709.3	1675.6	1836.6	1409.9	0.1	0.1	5.9	0.1
332	0.1	1844.9	0.1	0.1	1348.7	0.1	0.1	1792.1	2010.1	0.1	4.7	1825.2
333	0.1	0.1	1794.2	1705	0.1	0.1	1689.4	1802.2	0.1	0.1	2.2	0.1
334	0.1	1854.1	1715.5	0.1	0.1	0.1	2048.2	1649.5	1796.7	1324.7	4.7	0.1
335	0.1	1623.6	0.1	0.1	0.1	0.1	0.1	1718.3	0.1	0.1	4.6	0.1
336	1719.2	1853.6	0.1	0.1	0.1	0.1	0.1	1623.4	0.1	0.1	2.9	1827
337	0.1	1709.6	0.1	1996.2	0.1	0.1	0.1	1408.9	0.1	0.1	4.5	0.1
338	0.1	2007.7	0.1	0.1	0.1	1437.6	1858	865.8	0.1	0.1	14	1651.5
339	0.1	1847.2	1822	0.1	0.1	0.1	0.1	1854.8	0.1	0.1	6	1786.5
340	1434.7	1777	0.1	0.1	0.1	0.1	1699.9	2001.8	0.1	0.1	7.5	0.1
341	0.1	1827.7	1674.3	0.1	0.1	1772.5	0.1	1858.7	0.1	0.1	2.4	1633.6
342	1650.7	1445.7	0.1	1677.1	0.1	0.1	0.1	1859.4	1691.3	0.1	10.3	0.1
343	0.1	0.1	0.1	0.1	0.1	0.1	1997.1	1641.1	1718.9	0.1	6.3	1847.2
344	1436.8	1646.3	0.1	0.1	1686.2	1701.4	0.1	1867.7	0.1	0.1	7.3	0.1
345	0.1	1848	1478.1	0.1	1703	0.1	1785.3	1818.7	0.1	0.1	1629.7	0.1
346	0.1	2001.9	0.1	1702.2	0.1	1639.8	0.1	1687	0.1	0.1	2.4	0.1
347	0.1	1847.7	0.1	1423.6	0.1	0.1	0.1	2012.2	0.1	0.1	5.6	1710.3
348	0.2	0.1	0.1	0.1	0.1	0.1	1855.6	1876.4	0.1	0.1	2.1	2007.2
349	0.1	1494.7	1848.9	0.1	0.1	0.1	0.1	1789.6	0.1	0.1	3.7	1721.1
350	0.1	1671.1	0.1	0.1	0.1	0.1	1774.3	1822	0.1	0.1	2.6	1852.1

Timing Intervals (in seconds)

351	0.1	1620	0.1	0.1	0.1	0.1	0.1	1841.9	1670.2	0.1	5.9	0.1
352	0.1	1863.5	0.1	1949.3	0.1	1621.1	1530.9	1804.8	0.1	1661.1	3.5	1476.9
353	0.1	1631.8	0.1	0.1	0.1	0.1	1698.2	1791.1	0.1	0.1	4.2	0.1
354	0.1	1696.2	1988.7	0.1	0.1	0.1	0.1	1797.6	0.1	0.1	4.7	0.1
355	0.1	1638.9	2002.7	0.1	0.1	0.1	0.1	1698.9	0.1	0.1	3.1	0.1
356	0.1	1845	0.1	0.1	0.1	0.3	1785.7	1500.6	0.1	1477.6	13.4	1711.9
357	1840	1496.1	0.1	0.1	0.1	0.1	0.1	1714.3	1710	1436.8	3.9	1632.8
358	1953.4	0.1	0.1	0.1	1641.2	0.1	1569.9	1860.2	0.1	0.1	4.9	0.1
359	0.1	1445.6	0.1	1682.5	0.1	0.1	1650.9	1816.3	1691.3	0.1	3.7	1511.6
360	0.1	1476.6	0.1	1618.5	0.1	0.1	0.1	1708.4	0.1	0.1	6.5	1664.1
361	0.1	1706.6	0.1	0.1	0.1	0.1	0.1	1782.6	0.1	0.1	1626	0.1
362	1503.8	859.4	1702.5	0.1	0.1	0.1	1856.2	1865.2	0.1	0.1	9.2	0.2
363	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1879.9	0.1	0.1	6.8	0.1
364	0.1	1868.7	0.1	1697	0.1	0.1	0.1	1819	1518.2	0.1	1635.9	1493.5
365	0.1	1860.2	0.1	0.1	0.1	0.1	0.1	1940.7	1951	0.1	3.7	0.1
366	1929.5	1803.9	0.1	1699.1	1653.6	0.1	0.1	1788.4	0.1	0.1	1649.2	0.1
367	0.1	860	1506.7	0.1	0.1	1624.8	1672.4	1822.1	0.1	0.1	6.8	0.1
368	0.1	1809.2	0.1	0.1	0.1	0.1	1842.7	1788	0.1	0.1	14.5	0.1
369	0.1	1661.2	0.1	0.1	0.1	1618.7	0.1	1976.2	0.1	0.1	3.3	0.1
370	0.1	0.1	1658.7	0.1	0.1	1630.8	0.1	1814	0.1	0.1	1706.6	0.1
371	0.1	1975.3	0.1	0.1	0.1	1519.5	0.1	1797.6	1879.4	0.1	3.7	0.1
372	0.1	1873.4	0.1	1702.3	1653	1618.3	1976.4	1543.6	0.1	0.1	7.1	0.1
373	0.1	0.1	0.1	0.1	1556.4	0.1	0.1	1972.9	0.1	0.1	2.4	0.1
374	0.1	1805.8	0.1	1701.5	0.1	1635.9	0.1	1862.2	0.1	0.1	6.6	0.1
375	0.1	1860.4	1653.2	0.1	0.1	1701.7	0.1	1649.1	1937.3	1527.3	6.8	1791.7
376	0.1	1626.1	0.1	0.1	0.1	0.1	1810.4	1674.1	0.1	0.1	5.9	0.1
377	0.1	1812.3	0.1	0.1	0.1	0.1	0.2	1727.5	1656.7	0.1	2.6	1939.9
378	0.1	1634.8	0.1	0.1	0.1	0.1	1779.7	1583.9	0.1	0.1	3.6	0.1
379	0.1	0.1	1782.4	0.1	0.1	1544.7	1929.6	849.5	0.1	0.1	2.1	1623.2
380	0.1	1861.1	0.1	0.1	0.1	0.1	0.1	1936.9	0.1	0.1	3.9	0.1
381	1603.6	1851.3	0.1	0.1	0.1	0.1	1671.4	1795.7	0.1	0.1	5	1928.8
382	0.1	1793	0.1	0.1	0.1	0.1	1711.2	1848.3	0.1	0.1	8.2	1634.3
383	1633.4	1577.1	0.1	1712.1	0.1	0.1	0.1	1860.7	1627.5	0.1	20.1	0.1
384	0.1	1460	0.1	0.2	0.1	0.1	1934	1643.5	1678.9	0.1	9.3	1947
385	1566.8	1716.7	0.1	0.1	1638.5	0.1	0.1	1855.7	0.1	0.1	4.5	1809.5
386	0.1	1926.1	1593.3	0.1	1709.7	0.1	1852.9	1812.9	1936.9	0.1	1645.9	0.1
387	0.1	0.1	0.1	0.2	1634.6	0.1	0.1	1728	0.1	0.1	5.4	0.1
388	0.1	1919.9	0.1	1589	0.1	0.1	0.1	1793.7	0.1	0.1	4.5	1668.5
389	0.1	1808.1	0.1	0.1	0.1	0.1	1943.6	1496.2	0.1	0.1	4.3	0.1
390	0.1	1465.4	0.1	0.1	0.1	0.1	0.1	1859.9	0.1	0.1	6.1	1708.4
391	0.1	1727.4	0.1	0.1	0.1	0.1	0.1	1846.5	0.1	0.1	1619.8	1938.2
392	0.1	1640.9	0.1	0.3	0.1	0.1	0.1	1942.7	0.1	0.1	6.9	1744.1
393	0.1	1796	1643.2	1604.4	0.1	0.1	1639.5	1961.7	0.1	0.1	5.2	0.1
394	0.1	1647	0.1	0.1	0.1	0.1	1631	1804.4	0.1	0.1	3.1	0.1
395	0.1	1638.1	1927.8	0.1	0.1	0.1	0.1	1804.3	0.1	0.1	3	0.1
396	0.1	1642.9	1790.1	0.1	0.1	0.1	1922.3	1731.5	0.1	0.1	2.2	0.1
397	0.1	1617.3	1788.2	0.1	0.1	1445.2	1925.1	801.3	0.1	1599.9	6.7	0.1
398	0.1	1808.3	0.1	0.1	0.1	0.1	0.1	1651.8	1744.4	1642.7	7.2	1610
399	1640.8	1452.6	0.1	0.1	0.1	0.1	1618	1856.1	0.1	0.1	7.2	1797.7
400	0.1	1589.4	0.1	1680.6	0.1	0.1	1646.6	1859.2	1680.9	0.1	5.3	1802

Timing Intervals (in seconds)

401	0.1	790.3	0.1	1604.4	0.1	0.1	1850.3	1730.4	0.1	0.1	11.9	1678
402	0.1	1727.9	0.1	0.1	0.1	0.1	1646.9	1798.9	0.1	0.1	3.2	1934
403	1630.7	790	1632	0.1	0.1	0.1	1934.9	1799.2	0.1	0.1	1716	0.1
404	0.1	1782.6	0.1	0.1	0.1	0.1	0.1	1935.7	0.1	0.1	5.4	0.1
405	0.1	1811	0.1	1720.4	0.1	0.1	0.1	1860.3	1695.8	0.1	1629.6	0.1
406	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1931.4	1939.4	0.1	7	0.1
407	1625.2	1812.7	1847.5	1748.9	1660.9	0.2	0.1	1949.4	0.1	0.1	8.2	0.1
408	0.1	624.4	1819.5	0.1	0.1	1634.1	1712.9	1876.8	0.1	0.1	4.7	0.1
409	0.1	1788.8	0.1	0.1	0.1	0.1	0.1	1933.3	0.1	0.1	7.1	1805
410	0.1	1681	0.1	0.1	0.1	0.1	0.1	1928.2	1718.6	0.1	2.2	0.1
411	0.1	1862.6	0.1	0.1	1661.4	1631.4	0.1	1823.6	0.1	0.1	1750.7	0.1
412	0.1	1920.9	0.1	0.1	0.2	1642.3	0.1	1799.4	0.1	0.1	5.6	0.1
413	0.1	1862.8	0.1	1746.3	1647.1	0.1	1937.1	1658.9	0.1	0.1	2.9	0.1
414	0.1	1860.6	0.1	0.1	1657.1	0.1	0.1	1950.1	0.1	0.1	2.4	1945.7
415	0.1	1789.5	0.1	1637.3	0.2	1743.2	0.1	1864.3	0.1	0.1	3.4	1447.7
416	0.1	1858.4	1649.5	0.1	0.1	1749.9	1935.7	1622.8	0.1	1645.2	6.3	0.1
417	0.1	1612.4	0.1	1939.2	0.1	0.1	0.1	1646.9	0.1	0.1	4.5	0.1
418	0.1	1810.1	0.1	0.1	0.1	0.1	1940.5	1741.5	0.1	0.1	3.2	1632.8
419	0.1	1726.6	1887.3	0.1	0.1	0.1	0.1	1769.8	0.1	0.1	2.2	1808.7
420	0.1	2000.7	1796.2	0.1	0.1	1802.9	1652.9	640.5	0.1	0.1	6.2	1704.8
421	0.1	1862.2	1772.2	0.1	0.1	0.1	0.1	1943	0.1	0.1	5.1	0.1
422	1719.1	0.1	0.1	0.1	0.1	1781.4	1627.2	1857.7	0.1	0.1	9.8	1910.7
423	0.1	1785.6	0.1	0.2	0.1	0.1	1714.2	1872.3	0.1	0.1	2.4	1623.8
424	1635.4	1679.1	0.1	1748.3	0.1	0.1	0.1	1814.8	1625.3	0.1	2.2	0.1
425	0.1	1432.9	0.1	0.3	0.1	0.1	1927.4	1623.1	1650.3	0.1	3.7	1934.8
426	1694.9	1723.4	1634.6	0.1	0.1	0.1	0.1	1871.6	0.1	0.1	10.6	1789.6
427	0.1	1982.2	1831.2	0.1	1705.2	0.1	0.1	1815.4	0.1	0.1	1660.1	0.1
428	0.1	1916	0.1	0.1	1628.2	0.1	0.1	1641.7	0.1	0.1	1728.4	1807.5
429	0.1	1963.6	0.1	1776	0.1	0.1	1849.3	1896.9	0.1	0.1	5.6	1705.5
430	0.1	0.1	0.1	1725.4	0.1	0.2	0.1	1816	0.1	0.1	12.8	1921.3
431	0.1	1790.3	0.1	0.1	0.1	0.1	0.1	1798.7	0.1	0.1	10.5	1714.7
432	0.1	1708.3	0.1	1947.6	0.1	0.1	0.1	1883.1	0.1	0.1	1632	0.1
433	0.1	1625.1	0.1	0.1	0.1	0.1	0.1	1942.4	1663.5	0.1	6.7	1734.5
434	0.1	1878.1	1692.2	1983.1	0.1	0.1	1861.8	1860	0.1	1724.4	2.3	0.1
435	1886.1	1676.5	0.1	0.1	0.1	0.1	1678.8	1798.9	0.1	0.1	4.1	0.1
436	0.1	1656.8	1783.1	0.1	0.1	1911.5	0.1	1871.8	0.1	0.1	4.2	1810.2
437	0.1	1619.2	1779	0.1	0.1	0.1	0.1	1730.5	1980.3	0.1	3.5	0.1
438	0.1	1988.3	1816.1	0.1	0.1	0.1	0.1	1808.8	0.1	1816.7	5.3	1700.6
439	0.1	1863.8	0.1	0.1	0.1	0.1	0.1	1687.2	1728.7	1717	3.9	1642.9
440	1708.5	1392	0.1	0.1	0.1	0.1	1880.3	1873.8	0.1	0.1	2.1	1796.4
441	0.1	1739.6	0.1	1734.1	0.1	0.1	1640.4	1877.1	1650.6	0.1	8	0.1
442	0.1	1792.8	0.1	0.1	0.1	0.1	0.1	1741	0.1	0.1	2.3	1686.3
443	0.1	1695.4	0.1	0.1	0.1	0.1	0.1	1813.9	0.1	0.1	1645.6	0.1
444	1809.9	1404.7	1723.7	0.1	0.1	0.1	0.1	1883.6	2013.3	0.1	1720.2	0.1
445	0.1	1774.8	0.1	0.1	0.1	0.1	0.1	1955.1	0.1	0.1	4.1	0.1
446	1972.4	1801.2	0.1	0.1	0.1	0.1	1728.3	1870.7	1750.8	0.1	7	0.1
447	0.1	0.1	0.1	0.1	0.1	1873.1	1887.3	1791.8	1979.4	0.1	2.2	0.1
448	1704.4	0.1	0.1	1709.6	1670.6	0.1	1874	1873	0.1	0.1	6.2	0.1
449	0.1	611.5	1856.9	0.1	0.1	0.1	1699.7	1872	1784.3	0.1	3.6	1794.8
450	0.1	1868.6	0.1	1630.5	0.1	0.1	1981.8	1792.9	0.1	0.1	3	0.1

Timing Intervals (in seconds)

451	0.1	1662.1	0.1	0.1	0.1	0.1	0.1	1955.9	1743.6	0.1	2.3	1802.2
452	0.1	1788.3	1901.5	0.1	1715.9	0.1	1699.1	1362.4	0.1	0.1	1704.8	1810.9
453	0.1	1928	0.1	0.1	0.1	1716.7	0.1	1795.4	1911.1	0.1	2.9	1790.5
454	0.1	1863.9	0.1	1697.6	1705.9	1636.6	0.1	1809.3	0.1	0.1	2.2	0.1
455	0.1	1872	0.1	0.1	1827.4	0.1	0.1	1857.1	0.1	0.1	2.8	1978.2
456	0.1	1874	0.1	1664.1	0.1	1732.4	1641.4	1800.1	0.1	0.1	2.5	0.1
457	0.1	1802.6	1657	0.1	0.1	0.1	1925.4	1734.9	1641.3	1716.6	3.4	1791.1
458	0.1	1718.3	0.1	1674.9	0.1	0.1	1857.2	1897.8	0.1	0.1	4.5	0.1
459	0.1	1434.3	1884.3	1968.2	0.1	0.1	0.1	1740.1	0.1	0.1	3.7	1642.2
460	0.1	1698.3	1984.3	0.1	0.1	0.1	0.1	1847.7	0.1	0.1	6.7	1867.3
461	0.1	1859.4	0.1	0.1	0.1	1820.9	2001.1	629.5	0.1	0.1	2.2	1619.2
462	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1844.8	0.1	0.1	6.7	0.1
463	1740.8	1867.7	0.1	0.1	0.2	0.1	1674.6	1802.7	0.1	0.1	5	1878.3
464	0.1	1879	0.1	0.1	0.1	0.1	1720.5	1804.6	0.1	0.1	2.5	1693.4
465	1632.7	1749.4	0.2	1734.1	0.1	0.1	0.1	1809.9	1663.7	0.1	5.3	0.1
466	0.1	1809.2	0.1	0.1	0.1	0.1	0.1	1641.2	1697.2	0.1	6.7	1958.7
467	1740.8	1629.6	0.1	0.1	1737.6	1664	0.1	1815.9	0.1	0.1	6.3	0.1
468	0.1	1998.2	1856.6	0.1	1715.8	0.1	0.1	1809	0.1	0.1	1665	0.1
469	0.1	1870.3	1881.6	0.1	1662.4	1968	0.1	1640.1	0.1	0.1	1734.9	0.1
470	0.1	1976.6	0.1	1820.3	0.1	0.1	0.1	1856.2	0.1	0.1	3.2	1716.7
471	0.1	0.1	1863.3	0.1	0.1	0.1	1963.4	1806.9	0.1	0.1	3.6	0.1
472	1938.7	1806.1	0.1	0.1	0.1	0.1	0.1	1793.6	0.1	0.1	4.3	1731.8
473	0.1	1718.7	0.1	1638	0.1	0.1	0.1	1872.6	0.1	0.1	2.3	1889.4
474	0.1	1684.3	0.1	0.1	0.1	0.1	0.1	1972.9	1719.3	0.1	5.2	1689.3
475	0.1	1870	1684.7	1982.9	0.1	1710.2	1879.4	1860.1	0.1	0.1	2.2	0.1
476	0.1	1965.6	0.1	0.1	0.1	0.1	1727.9	1872.8	0.1	0.1	6.9	0.1
477	0.1	1704.9	0.1	0.1	0.1	0.1	1876.6	1877.3	0.1	0.1	1640.9	0.1
478	0.1	1637.4	0.1	2.7	0.1	1955.8	0.1	1723.2	0.1	0.1	2.9	0.1
479	0.1	1994.9	0.2	0.1	0.1	0.1	1806.9	1406.8	0.1	1844.7	2.1	1719.2
480	1646	0.1	0.1	0.1	0.1	0.1	0.1	1712.2	0.1	1768.6	2.8	1718.4
481	1703.8	1783.1	0.1	0.1	0.1	0.1	1878.8	1810	0.1	0.1	3.4	0.1
482	0.1	1767.7	0.1	1698.1	0.1	0.1	1651.8	1856.9	1711.8	0.1	2.5	0.1
483	0.1	1814.4	0.1	0.1	0.1	0.1	1851	1721.8	0.1	0.1	2.8	1713.5
484	0.1	1715.7	0.1	0.1	0.1	0.1	0.1	1850.6	0.1	0.1	4.1	0.1
485	1846.5	593.8	1725.1	0.1	0.1	1651.2	0.1	1802.3	0.1	0.1	1705.2	0.1
486	0.1	1805.3	0.1	0.1	0.1	0.1	1866.8	1988.1	0.1	0.1	3.1	0.1
487	0.1	1816.6	0.1	1638.5	0.1	0.1	1708.7	1864.2	1802.2	0.1	8.6	0.1
488	0.1	1798.1	0.1	0.1	0.1	0.1	1807.7	1872.5	1982.5	0.1	8.6	0.1
489	1689.3	0.1	0.1	1711.2	1678.9	1949.7	1802.2	1799.6	0.1	0.1	10.4	0.1
490	0.1	1425.9	1788.6	0.1	0.1	1694.5	1716.6	1808.4	0.1	0.1	4.1	0.1
491	0.1	1860.8	0.1	0.1	0.1	0.2	1984.2	1818.7	0.1	0.1	10.9	0.1
492	0.1	1702.5	0.1	0.1	0.1	1648.1	1437.1	1862.1	0.1	0.1	9.6	0.2
493	0.1	1860.6	1711.8	0.1	0.1	0.1	1648.2	1822.2	0.1	0.1	1711.5	0.1
494	0.1	1801.6	0.1	0.1	0.1	1788.4	1451	1863.2	1849.3	0.1	4.9	0.1
495	0.1	1799.6	0.1	1703.6	1703.6	1660.8	1881.4	1859.2	0.1	0.1	2.5	0.1
496	0.1	1801.3	1409.3	0.1	1824.9	0.1	1868.7	1989.7	0.1	0.1	4.2	1656.1
497	0.1	1802.7	0.1	1704.7	0.1	0.1	1717.6	1859	0.1	0.1	2.2	0.1
498	0.1	0.1	1700.3	0.1	0.1	0.1	1990.9	1710.2	1671.7	1814.4	11.2	1807.1
Min Si	0.1	0.1	0.1	0.1	0.1	0.1	0.1	5.2	0.1	0.1	2.0	0.1
Max Si	1972.4	2041.3	2026.8	1996.2	1910.2	1998.2	2048.2	2058.9	2038.0	1844.7	1829.5	2039.6
Avg Si	289.4	1503.9	512.1	366.3	293.5	274.2	720.4	1750.4	456.5	121.9	242.4	883.8

Timing Intervals (in seconds)

Stream	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	RF1	RF2
0	10.8	2.5	1.8	3.3	5.3	16.9	6.2	5.6	16	3.6	5.2	2.5
1	0.1	0.1	0.1	1869.4	1969.8	0.1	1795.2	1686.5	63	1379.9	4.0	2.5
2	0.1	1693.5	0.1	1685.2	1944.3	0.1	1686	1796	0.1	1814.2	4.1	3.1
3	0.1	0.1	0.1	1338.1	1687	0.1	1790.1	1812	0.2	1876.8	3.6	2.7
4	0.1	0.1	0.1	1810.5	1696.3	0.1	1695.6	1338.6	1926.1	1797.8	4.6	2.5
5	0.1	0.1	1898.9	1686.6	1793.3	0.1	1686	1877	71.1	1964.3	3.2	3.3
6	0.1	0.1	0.1	1799.2	564.2	0.1	1794.8	1346.7	0.1	1997.6	3.9	2.9
7	0.1	0.1	0.1	1871.6	1976.5	56.6	1871.6	1730.6	0.1	1692.3	3.1	2.4
8	0.1	0.1	1673.4	1865	1730.3	0.1	51.1	1798.1	0.1	1800.7	3.6	3.5
9	1926.1	0.1	0.1	1791.7	1677.1	0.1	1857.9	1698.2	0.1	1811.4	4.7	2.6
10	0.1	0.1	1942.1	1871.4	1685.8	0.1	1348.1	1795.4	0.1	1808.2	3.7	3.2
11	0.1	1932.9	86.9	1967.2	1693.6	0.1	1352	1692.7	0.1	1821	5.1	2.9
12	0.1	0.1	0.1	1693	1691.6	0.1	1857.5	1816	0.1	1685.9	3.6	2.6
13	0.1	0.1	0.1	1798.1	1941.2	0.1	579.3	1345.8	87	1877.7	4.0	3.6
14	0.1	0.1	0.1	1975.5	1879	0.9	1859.5	1697.5	0.1	1362.7	3.5	3.0
15	0.1	0.1	0.1	81.8	1683.2	0.1	1864.7	1809.5	0.1	1881.4	3.8	2.7
16	0.1	0.1	0.1	1683.9	0.1	0.1	1857	1880	0.1	2003.5	3.8	3.2
17	0.1	0.1	0.1	1907.5	1994.4	0.1	1856	1323.6	0.1	1787.4	3.8	3.3
18	0.1	101	0.1	580.1	0.1	0.1	1805.4	1880.1	0.1	1359.8	4.0	2.9
19	0.1	0.1	0.1	1686.8	0.1	0.1	1795.7	1863.1	0.1	1700.6	3.8	2.9
20	0.1	0.1	1908.4	123.3	1863.9	0.1	1698.9	1799	0.1	1701	5.1	2.9
21	0.1	1853.7	0.1	1991.1	1671.8	0.1	1707.9	260	0.1	1806.6	4.0	2.5
22	0.1	1901.9	0.1	137.1	1796.9	0.1	1863	1856.5	0.1	1678	4.6	2.7
23	0.1	0.1	1893.2	1810.8	1866.3	55.6	1791.7	1379.9	0.1	1870.1	3.8	3.2
24	0.1	0.1	0.1	1318	1787.3	0.1	1842.9	1708	0.1	1989.4	4.2	3.0
25	0.1	0.1	0.1	1709.5	0.1	164.7	1870.1	1799.3	0.1	1796	3.8	2.7
26	160.6	0.1	0.1	1329.1	1788.6	0.1	1878.4	1688.7	0.1	1687.1	4.9	2.9
27	0.1	157.6	0.1	1993.4	1914.9	0.1	1852	1817.1	0.1	1671.9	4.2	3.2
28	0.1	0.1	0.1	1992.8	1801.4	0.1	1855.9	1701.6	0.1	1883.4	5.2	2.7
29	0.1	0.1	0.1	1852	1875.7	0.1	1303	1998.1	0.1	1821.6	3.8	2.8
30	0.1	0.1	0.1	1975.4	1851.6	0.1	1707.3	1844.7	0.1	1712.6	5.1	3.1
31	0.1	0.1	0.1	1992.4	1796.1	0.1	1810.5	1880.2	0.1	1327.3	4.7	2.6
32	0.1	0.1	234	1986.9	1876.9	0.1	1865	1820.3	0.1	1683.1	4.9	2.6
33	0.1	0.1	243.9	1865	1695.7	0.1	1849.6	1988	0.1	1760.4	4.4	2.6
34	1858.2	0.1	0.1	1810.8	1851.5	0.1	1310.3	1985.1	0.1	1697	4.7	2.8
35	0.1	164.7	0.1	1989.7	1907.6	0.1	1803.7	1708.6	0.1	1686.6	4.7	2.9
36	0.1	0.1	0.1	1879.7	1874.2	0.1	1327.3	1817	0.1	1991.3	5.8	2.7
37	668.4	1759.7	0.1	1792.3	1825.5	0.1	1723.7	1746.8	0.1	1644.1	5.1	2.9
38	0.1	1659.6	0.1	1992.1	0.1	0.1	1763.2	293	0.1	1819.7	6.6	3.1
39	0.1	1715.8	0.1	1696.6	0.1	0.1	1984.1	1670.1	0.1	1852.6	4.8	2.8
40	200.5	0.1	1882.1	1845.8	1688.9	0.1	1782.5	1991.5	0.1	1707.9	6.9	2.9
41	0.1	226.4	0.1	1872.4	0.1	0.1	1818.1	1667.6	0.1	1984.4	5.0	2.7
42	0.1	0.1	0.1	1989.8	0.1	0.1	1859.7	1669.4	231.5	1782.4	5.1	2.8
43	0.1	0.1	0.1	1682.6	1850	0.1	1661.2	1839.5	0.1	1802.1	4.9	2.8
44	0.1	0.1	0.1	1764.4	1706.6	0.1	1857.5	1865.5	0.1	1707.7	4.8	3.3
45	0.1	4.3	0.1	1990	1649.4	0.1	1796	1850.4	0.1	1787.5	4.1	2.8
46	0.1	0.1	1827.1	1664.2	1292.5	0.1	1695.6	1765.4	303.1	1984.6	5.1	2.9
47	0.1	0.1	1710.1	1807.7	1311.5	0.1	1855.7	1788	0.1	1881.6	4.3	2.9
48	0.1	0.1	0.1	1822.5	0.1	234	1982.2	1720.5	0.2	1688.7	5.0	2.7
49	0.1	0.1	0.1	1842.5	1640.9	0.1	723.5	1990.2	0.1	1778.4	4.1	2.7
50	1845.3	0.1	0.1	1859.8	1719.6	0.1	1895.4	1655.4	0.1	1803.7	5.3	2.8

Timing Intervals (in seconds)

51	0.1	0.1	1832.4	1802.6	1682.2	0.1	1768.2	1840	0.1	1891.6	4.7	2.9
52	0.1	1780.4	532.8	1700.7	1706.5	0.1	1780	1635.2	0.1	1849.9	5.2	3.4
53	0.1	0.1	0.1	1720.4	1669.4	0.1	1777.6	1841.5	0.1	1692.3	4.8	3.2
54	0.1	0.1	0.1	1973.9	1852.5	0.1	1774.4	1866.9	277.9	1690.2	4.9	2.7
55	0.1	0.1	0.1	1997.4	1885.1	0.1	1798	1707.3	0.1	1767.6	5.3	3.9
56	0.1	0.1	0.1	302.8	1722.7	0.1	1294.9	1786.6	0.1	1852.7	4.6	3.0
57	0.1	0.1	0.1	1703.3	1868.7	0.1	1768.4	1782.4	0.1	2022.4	5.3	2.9
58	0.1	0.1	0.1	1715.3	1984.3	0.1	1851.1	1122.1	0.1	1712	4.3	3.0
59	0.1	385.3	0.1	494	1985.4	0.1	1852.6	1799.2	0.1	1281.6	5.0	2.6
60	0.1	0.1	0.1	1661.4	1901.9	0.1	1761.1	1865.7	0.1	1667.5	5.0	3.1
61	0.1	1655.7	1824	432.7	0.1	0.1	1703.3	1884.6	0.1	1662.7	5.9	2.7
62	0.1	1758.1	0.1	2006.8	1629.4	0.1	1820.6	1081.1	0.1	1819.5	4.9	3.0
63	0.1	1835.4	0.1	344.3	0.1	0.1	1992	1806.5	0.1	1650.8	5.6	2.8
64	0.1	1650.3	1782.9	1856.3	0.1	482.1	1772.2	1279.6	0.1	1773.6	4.9	3.1
65	0.1	1643.1	0.1	1627.2	0.1	0.1	1845.6	1621.2	0.1	2002.2	5.3	2.9
66	0.1	0.1	0.1	1672.6	1864.5	482.1	2019.4	1753.6	0.1	1856.3	4.8	2.5
67	327.4	0.1	0.1	1854.8	0.1	0.1	1997.1	1665.7	0.1	1712.8	5.1	2.7
68	0.1	334.7	0.1	1800.9	1856.7	0.1	1276.6	1778.6	0.1	2004.3	4.5	2.8
69	0.1	0.1	0.1	1991.4	1781.4	0.1	1844.4	1676.7	0.1	1741.5	5.3	2.7
70	0.1	0.1	0.1	1844.8	1803.7	0.1	1111.1	2001.8	0.1	1786	4.9	3.1
71	0.1	0.1	0.1	2008.9	1756.3	0.1	1807.9	1811.6	0.1	1657.1	6.0	2.8
72	0.1	0.1	0.1	1798.8	1835.2	0.1	1841	1987.5	0.1	1730.9	4.9	3.2
73	0.1	0.1	1150.2	2002.6	0.1	0.1	1802.7	1808.6	0.1	1826.8	5.7	2.9
74	0.1	0.1	911.3	1711.5	1658.4	0.1	1858.2	1823.8	0.1	1711.3	4.9	2.7
75	0.1	0.1	0.1	1846.9	0.1	0.1	1143.1	1822.4	0.1	1823.1	5.8	2.9
76	0.1	598.8	0.1	2043.5	1781.5	0.1	1785.6	1628.7	0.2	1694	4.3	2.6
77	0.1	0.1	0.1	1996.6	1762.4	0.1	1184	1838.8	0.1	1800.8	5.6	2.5
78	686.3	1786.6	0.1	1788.2	1839.7	0.1	1737.1	1741.2	0.1	1654.5	4.1	2.7
79	0.1	0.1	0.1	2013.2	907.8	0.1	1521.8	1447.8	0.1	1820.7	5.9	2.7
80	0.1	1652.1	0.1	1857.4	1797.4	0.1	2024.8	1626.3	0.1	1865.2	4.9	2.6
81	504.3	0.1	1774.3	1767.4	1697.5	0.1	1261.7	1857.1	0.1	1662	5.8	2.9
82	0.1	967	0.1	1803.9	1831.5	0.1	1846.1	1578	0.1	1806.2	4.2	2.7
83	0.1	0.1	0.1	1837.4	1996.3	0.1	1729.2	1800.3	753.2	1174.5	5.5	2.9
84	0.1	1675.6	0.1	1625.5	1725.4	0.1	1849.2	1600.4	0.1	1844.4	4.8	2.5
85	0.1	0.1	0.1	1730.8	1639.8	0.1	1839	1841.2	0.1	1968.2	7.0	2.7
86	0.1	1838.9	0.1	1879.3	1671.5	0.1	1672.3	1753.5	0.1	1856.7	4.3	2.8
87	0.1	0.1	1812.4	1704.7	0.1	0.1	2011.5	1279.4	444.3	1853.6	5.2	3.2
88	0.1	0.1	0.1	1804.4	0.1	0.1	1842.6	1728.9	0.1	1994.4	4.9	2.9
89	0.1	0.1	0.1	1776.3	2018.3	481.1	1858.2	1688.6	0.1	1709.4	6.8	2.9
90	0.1	0.1	0.1	1780.6	1645.8	0.1	672.2	1847.7	0.1	1866.2	5.2	2.9
91	1745.3	0.1	0.1	1780.8	1824.5	0.1	1964.7	1655.8	0.1	1861.1	5.1	2.9
92	0.1	0.1	1702.7	1814.4	1667	0.1	1604.5	1848.6	0.1	1814.9	5.2	3.5
93	0.1	0.1	896.7	1643.8	1726.2	0.1	1845.8	1659.4	0.1	1997.5	4.9	3.0
94	0.1	0.1	0.1	1668.6	1640.5	0.1	1692.7	1850.3	0.1	1822.5	5.1	2.8
95	0.1	0.1	0.1	1840.7	1785.7	0.1	1218.4	1745.7	635.8	2032.1	5.0	2.7
96	0.1	0.1	0.1	1979.8	1843.3	0.1	1787.5	1793.7	0.1	1731.6	5.0	2.8
97	0.1	0.1	0.1	524.9	1696.6	0.1	1769.5	1861.8	0.1	1779.8	5.4	2.8
98	0.1	0.1	0.1	1641.4	0.1	0.1	1794	2044.8	0.1	1711.6	4.3	3.6
99	0.1	0.1	0.1	1714.3	2049	0.1	1864.3	933.8	0.1	1547.4	5.2	3.4
100	0.1	671.8	0.1	1722.7	1725.9	0.1	1800.3	1849	0.1	1859.2	4.0	3.1

Timing Intervals (in seconds)

101	0.1	0.1	0.1	1644.5	1861.6	0.1	1750.4	1870.1	0.1	1682.1	5.6	2.7
102	0.1	0.1	1790.5	685	1842.6	0.1	1648.9	1803.2	0.1	1655	5.0	2.8
103	0.1	1731.9	0.1	2011	1639.1	0.1	1832.4	1097.9	0.1	1814	5.5	2.7
104	0.1	1774.6	0.1	587.6	1743.4	0.1	2044.1	1872.2	0.1	1626.4	4.5	2.7
105	0.1	1599.3	1729.7	1852.3	1678.6	949.4	1092.5	366.3	0.1	1794	5.6	2.7
106	0.1	1647.7	0.1	327.9	1038.2	0.1	1639.5	1822.5	0.1	1816.1	5.1	4.1
107	0.1	0.1	0.1	1660.7	1792.5	635.8	1717.3	1853.4	0.1	2045.9	4.9	3.0
108	963.3	0.1	0.1	1088	1683.2	0.1	1816.5	1825.6	0.1	1688.7	4.7	3.6
109	0.1	963.4	0.1	1816.3	1749	0.1	1679.2	1853.5	0.1	2010.8	4.0	2.6
110	0.1	0.1	0.1	2038	1799.2	0.1	1846	1651.2	0.1	1791.2	4.0	2.8
111	0.1	0.1	0.1	1812.6	2025.1	0.1	1859.3	1834.9	0.1	1790.5	4.4	2.9
112	0.1	0.1	0.1	2008.3	1768.6	0.1	1830.3	1843	0.1	1655.9	4.3	2.6
113	0.1	0.1	0.1	1717.7	1853.5	0.1	1843.9	2043.3	0.1	1731.2	4.8	3.1
114	0.1	0.1	578.3	1698.5	2035	0.1	1860.6	1783.5	0.1	1639.9	4.9	3.0
115	0.1	0.1	1156.3	1735.3	1614	0.1	1865.1	2016.8	0.1	1584.7	4.0	3.0
116	1771.2	0.1	0.1	1837.5	1653.6	0.1	315	1816.6	0.1	1819.1	4.1	2.8
117	0.1	577	0.1	2042.6	1778.7	0.1	1762.9	1648.5	0.1	1684.3	4.7	2.8
118	0.1	0.1	0.1	1844.6	1786.7	0.1	1736.7	1788.2	0.1	2038.3	4.8	2.7
119	659.9	1768.8	0.1	1788.3	1843	0.1	1723.4	1739	0.1	1643.9	5.2	2.6
120	0.1	1613.1	0.1	2001.4	337.1	0.1	1051.7	1037.3	0.1	1810.7	4.9	2.6
121	0.1	1682.4	0.1	1817.7	1809.9	0.1	2003.1	1619.7	0.1	1849.1	4.9	2.6
122	704.9	0.1	1782.7	1726.1	1657.1	0.1	1173.4	1842.2	0.1	1641.4	5.6	2.8
123	0.1	584.8	0.1	1773.4	1712.8	0.1	1871.8	1685.6	0.1	1855.2	4.5	2.7
124	0.1	0.1	0.1	1861.9	1968.9	0.1	1713.2	1830.9	800	1168.4	5.2	2.7
125	0.1	0.1	0.1	1694.5	1725	0.1	1608	1599.1	0.1	1803.8	4.1	2.8
126	0.1	0.1	0.1	1690.6	1636.3	0.1	1853.2	1813.3	0.1	2004.4	5.0	3.1
127	0.1	1729.3	1661.8	1829.6	1829	0.1	1640.1	401.7	0.1	1169.6	4.3	2.7
128	0.1	0.1	1779.2	1614	1061.8	0.1	1805.1	1662.7	981.5	2000.8	5.0	3.0
129	0.1	0.1	0.1	1990.8	1729.4	0.1	1784.6	1837.4	0.1	1828.6	5.1	3.1
130	0.1	0.1	0.1	1794.3	1958.3	44.6	1867	1694.9	0.1	1681.1	5.2	2.6
131	0.1	0.1	0.1	1801.1	1655.5	0.1	652.7	1845.6	0.1	1856.2	5.1	2.7
132	0.1	0.1	0.1	1853.3	1636.8	0.1	2006.1	1677.5	0.1	1806.4	4.2	2.6
133	0.1	0.1	1731	1780.2	1627.7	0.1	1711.2	1846.7	0.1	1817.4	4.8	2.7
134	0.2	1765.3	525.1	2027.1	1713.7	0.1	1758.1	1707.7	0.1	1788.2	5.4	2.6
135	0.1	0.1	0.1	1625.8	1672.8	0.1	1715.3	1835.3	0.1	1814.1	4.2	2.9
136	1.5	0.1	0.2	1854.2	1777.6	0.1	1737.1	1882	627.9	1706.6	4.7	2.9
137	0.1	0.1	0.1	2010.1	1811.4	0.1	1805.9	1812.2	0.1	1659.4	4.5	2.8
138	0.1	0.1	0.1	626.6	1677.5	0.1	1851.6	1794.7	0.1	1842.8	4.9	2.6
139	0.1	0.1	0.1	1822.3	1813.2	0.1	1711.9	1793	0.1	1991.4	5.0	3.0
140	0.1	0.1	0.1	1756.8	2012.1	0.1	1799.2	1662.4	0.1	1849	4.9	2.9
141	1780	696.2	0.1	1180.8	2003.7	0.1	1801.8	1838.8	0.1	1731.7	5.4	2.8
142	0.1	0.1	0.1	1615.6	1816.3	0.1	1848.5	1813.7	0.1	1694.8	4.6	2.7
143	0.1	1695.8	1753.2	626.4	1774.5	0.1	2044.9	1854.8	0.1	1718.7	5.0	2.7
144	0.1	1691.5	1616.1	1791.8	1826.5	0.1	2019.2	1393.4	0.1	1865.8	5.2	3.0
145	0.1	1779	0.1	697.2	1848.2	0.1	1997.4	1786.1	0.1	1790	4.5	2.9
146	0.1	1615.5	1755.6	1775.8	1861.9	606.6	1743.9	1237.5	0.1	1843.6	4.4	2.7
147	0.1	0.1	0.1	1623.2	1846.8	0.1	1810.6	1620.2	0.1	2007.4	5.6	2.7
148	0.1	0.1	0.1	1719.2	1865.6	44.4	1974.6	1803.9	0.1	1872.7	4.7	2.7
149	672.3	0.1	0.1	1841.4	0.1	0.1	2001	1776.8	0.1	1639.7	4.8	2.8
150	0.1	781.3	0.1	1780.4	1756.5	0.1	1174.5	1717.2	0.1	1971.5	5.0	3.3

Timing Intervals (in seconds)

151	0.1	0.1	0.1	2009.2	1791.1	0.1	1853	1626.2	0.1	1713.5	5.1	3.0
152	0.1	0.1	0.1	1855.1	1843.1	0.1	1260.5	2040.9	0.1	1779.8	5.2	2.7
153	0.1	0.1	0.1	2020.8	1776	0.1	1816.7	1805.8	0.1	1657.6	5.0	3.0
154	0.1	0.1	0.1	1708	1867.7	0.1	1855.4	2035.1	0.1	1731.5	5.3	2.9
155	0.1	0.1	1029.4	1829.1	2009.1	0.1	1819.5	1824.4	0.1	1629.2	4.7	2.7
156	0.1	0.1	1026.8	1779.9	1624.3	0.1	1845	2010.6	0.1	1642.4	4.9	2.7
157	1727.5	0.1	0.1	1846.5	1664.9	0.1	347.4	1807.4	0.1	1839.7	4.9	3.0
158	0.1	800.9	0.1	1955.3	1756.7	0.1	1782.7	1672.2	0.1	1628.2	5.3	3.0
159	0.1	0.1	0.1	1812.3	1712.2	0.1	1024.2	1819.2	0.1	2001.1	5.0	3.1
160	800.8	1738.1	0.1	1782.4	1853.4	0.1	1828.5	1829.2	0.1	1660.7	5.3	2.9
161	0.1	0.1	0.1	1820	1037.8	0.1	1628.1	1080.6	0.1	1807.9	5.1	2.9
162	0.1	1690.5	0.1	1851.7	1805.5	0.1	2015.5	1618.4	0.1	1850	4.9	2.7
163	831.9	0.1	1736.9	1834.6	1630.4	0.1	1725.2	1980.9	0.1	1671.8	5.3	2.7
164	0.1	932	0.1	1782.4	1821.7	0.1	1847.9	1626.2	0.1	1810.9	4.6	2.7
165	0.1	0.5	0.1	1777.6	2019.8	0.1	1582.3	1854.3	1198.3	998.4	4.8	2.8
166	0.1	0.1	0.1	1677.6	1772.9	0.1	1626.8	1840.2	0.1	1806	4.8	2.9
167	0.1	0.1	0.1	1551.5	1699	0.1	1853.7	1796.9	0.1	2015.4	5.2	3.0
168	0.1	1749.4	1672.8	1824.6	1822.9	0.1	1627.2	1724.9	0.1	1833.1	5.2	2.9
169	0.1	0.1	1726	1809.2	1169.5	0.1	1969	1729.3	800.8	1837.8	4.6	2.7
170	0.1	0.1	1693.4	1891.6	1765.9	0.1	1806.2	1852.9	0.1	1976.9	4.6	2.8
171	0.1	0.1	0.1	1806.1	2020.9	1152.8	1793.1	1705.4	0.1	1855.3	5.4	2.8
172	0.1	0.1	1614.4	1840.4	1671.6	0.1	818.5	1773.9	0.1	1726.5	4.8	2.6
173	0.1	0.1	0.1	1801.3	1626.2	0.1	2017.8	1696.8	0.1	1792.2	5.1	3.0
174	0.1	0.1	1690	1782.3	1688.4	0.1	1864.9	1808.9	0.1	2005.8	4.7	2.8
175	0.1	0.1	947.9	1615.6	1730.4	0.1	1864.8	1683.4	0.1	2014.2	4.3	2.8
176	0.1	0.2	0.1	1694.2	1603.4	0.1	1862.2	1810.7	0.1	1829.6	4.9	2.6
177	0.1	0.1	0.1	1999.1	1783.2	0.1	1651.7	1848.3	1023.3	1804	4.7	2.8
178	0.1	0.1	0.1	1995.1	1811.2	0.1	1791.9	1821	0.1	1694	5.1	2.7
179	0.1	0.1	0.1	818.4	1617	0.1	1714.8	1835.4	0.1	1784.4	4.9	2.6
180	0.1	0.1	0.1	1823.3	1823.9	0.1	1621.9	1819.4	0.1	1995.6	5.0	2.6
181	0.1	0.1	0.1	1707.1	1834.4	0.1	1801	1862.5	0.1	1806.2	5.3	2.9
182	1723.8	955.4	0.1	354.6	0.1	0.1	1847.1	1788.4	0.1	1092.9	5.5	2.6
183	0.1	0.1	0.1	1636.8	1816.4	0.1	1850.6	1797.1	0.1	1695.9	5.5	2.9
184	0.1	0.1	1790.8	992.4	1824.4	0.1	1804.6	1810.7	0.1	1619	5.5	2.7
185	0.1	1750.2	1624.3	1821.1	1829	0.1	2012.3	1079.9	0.1	1835.6	5.1	2.8
186	0.1	1713.1	0.1	1122.9	1020.9	0.1	1814.6	1627.1	0.1	1826.8	5.3	2.7
187	0.1	0.1	1673.4	1866.1	1785.1	1927.5	1381	598.2	0.1	1810.1	4.4	2.7
188	0.1	1647.9	0.1	1620.7	0.1	0.1	1846.7	1631.5	0.1	1808.9	5.5	2.9
189	0.1	0.1	0.1	1655.3	1799.5	895.2	1815.7	1849.9	0.1	2002.9	5.5	2.6
190	923.3	0.1	0.2	1106.5	1697	0.1	1811	1825.2	0.1	1686.2	5.3	2.8
191	0.1	832.5	0.1	1780.1	1749.7	0.1	1722.4	1830.7	0.1	1975.3	4.9	2.7
192	0.1	0.1	0.1	2003.3	1859	0.1	1749.3	1676.2	0.1	1849.3	5.6	2.7
193	0.1	0.1	0.1	1839.5	1806.6	0.1	1128.4	2005.6	0.1	1792.9	5.0	2.7
194	0.1	0.1	0.1	2002.5	1749.9	0.1	1823	1845	0.1	1655.7	5.4	2.9
195	0.1	0.1	0.1	1984	0.1	0.1	1822.6	1877.7	0.1	1787.7	4.3	2.8
196	0.1	0.1	332.9	1696	1980.6	0.1	1798.7	1891.9	0.1	1652.6	5.1	3.0
197	0.1	0.1	409.8	1842.6	1671.8	0.1	1858.7	1987	0.1	1761.8	5.0	2.6
198	1846.9	0.1	1653.8	1856.4	0.1	0.1	1269.8	1861.7	0.1	1703.9	4.9	2.7
199	0.1	300.9	0.1	1980.7	1850.5	0.1	1813.1	1668.9	0.1	1699.8	4.2	3.2
200	0.1	0.1	0.1	1889.9	1852	0.1	1289.9	1805.2	0.1	1983.2	5.2	2.7

Timing Intervals (in seconds)

201	326	1853.9	0.1	1798	0.1	0.1	1694.6	1768.4	0.1	1664.8	5.1	3.5
202	0.1	1670.5	0.1	2020.7	1272.1	0.1	1755.6	424.9	0.1	1780	5.0	3.1
203	0.1	1695.3	1599.8	2008.6	1850.3	0.1	1792.1	1839.6	0.1	1587.6	5.3	2.9
204	325.6	0.1	1825.6	1762.7	1690.9	0.1	1281.7	1992.5	0.1	1678	5.0	2.9
205	0.1	303	0.1	1804.6	1693.1	0.1	1849.5	1653.2	0.1	1883.2	5.3	2.7
206	0.1	0.1	0.1	1883.7	1989.8	0.1	1776.8	1697.4	367.7	1294.2	5.1	2.8
207	0.1	0.1	0.1	1689.2	1843.2	0.1	1666.2	1772.9	0.1	1802.3	4.6	2.8
208	0.1	0.1	0.1	1762.4	1649.4	0.1	1859.7	1862	0.1	2028.2	4.1	3.3
209	0.1	0.1	0.1	1783.8	1671.7	0.1	1683	1271.8	1839.4	1766.4	4.7	2.8
210	0.1	0.1	1818.9	1705.1	479.8	0.1	2032.1	1768.4	452.4	1865.6	5.4	2.7
211	0.1	0.1	1667.9	1874.5	1299.6	0.1	1844.6	1766.7	0.1	1995.1	5.6	2.9
212	0.1	0.1	0.1	1800.9	1990	672.3	1841.2	1655.9	0.1	1784.1	5.1	2.6
213	0.1	0.1	0.1	1853.2	1693.8	0.1	473	2024.2	0.1	1776.8	4.7	3.1
214	1790.9	0.1	0.1	1865.3	1698	0.1	2040.7	1647.8	0.1	1863.6	5.3	2.6
215	0.1	0.1	1714.9	1799.7	1647.2	0.1	1840.2	1800.7	0.1	1997.5	4.6	3.1
216	0.1	1705.3	922.9	1821.4	1668.7	0.1	1697.3	1641.2	0.1	1811.7	5.2	2.9
217	0.1	0.1	0.1	1641.5	1659.6	0.1	1844.7	1806.3	0.1	1824.8	5.3	2.7
218	0.1	0.1	0.1	1775.9	1785.7	0.1	465.6	1261.5	503.5	2026.5	5.2	3.0
219	0.1	0.1	0.1	1898.1	1789.3	0.1	1841.3	2006.1	0.1	1293	4.3	2.9
220	0.1	0.1	0.1	385.5	1672.8	0.1	1783.6	1881.4	0.1	2001.1	5.1	3.3
221	0.1	0.1	0.1	1821.1	1803.5	0.1	1691.7	1799	0.1	1999.1	4.4	2.6
222	0.1	0.1	0.1	1760.2	1806.1	0.1	1821.3	1850.5	0.1	1804.9	5.0	3.9
223	1771.4	704.9	0.1	1183.2	1826.4	0.1	1784.2	1844.2	0.1	1732.5	4.9	2.7
224	0.1	0.1	0.1	1604.9	1788.9	0.1	1598.6	1856.9	0.1	1699.8	4.5	3.0
225	0.1	1627.2	1763.3	764.1	1980.1	0.1	1820.4	1843.9	0.1	1646.6	4.8	3.1
226	0.1	1705.2	0.1	2012.9	1624.6	0.1	1850.6	1420.1	0.1	1871	5.2	3.4
227	0.1	1798.9	0.1	472.5	1761.6	0.1	1852.6	1864.8	0.1	1714.7	4.4	2.5
228	0.1	0.1	1775.6	1787	0.1	652	1857.5	1741.7	0.1	1836.7	4.5	2.9
229	0.1	0.1	0.1	1647.5	1846.4	0.1	1807.1	1625	0.1	1820.4	4.0	2.8
230	0.1	0.1	0.1	1652.8	1863.2	686.3	2040.3	1737.1	0.1	1832.9	4.6	3.4
231	652.5	0.1	0.1	1735.4	1845.3	0.1	2031.2	1652.9	0.1	1659.9	5.2	3.0
232	0.1	680.9	0.1	1800.5	1791.7	0.1	1186.6	1741.3	0.1	1986.4	4.9	2.8
233	0.1	0.1	0.1	2011.8	1796.9	0.1	1851.9	1603.9	0.1	1742.1	5.0	2.8
234	0.1	0.1	0.1	1867.3	1853.3	0.1	1755	2045.6	0.1	1772.7	5.1	3.3
235	0.1	0.1	0.1	1814.1	1740.5	0.1	2006.6	1835.3	0.1	1660.5	5.0	2.9
236	0.1	0.1	0.1	2031.9	1737.3	0.1	1800.3	1848.2	0.1	1183.7	5.9	3.0
237	0.1	0.1	660.4	2041.4	1833.2	0.1	1723.8	1865.3	0.1	1724.4	5.1	3.1
238	0.1	0.1	969.1	1753.8	1605.5	0.1	1805.5	1801.9	0.1	1847.1	5.4	3.0
239	1707.6	0.1	0.1	1788	1841.8	0.1	1143.1	1994.9	0.1	1821.9	5.0	2.7
240	0.1	763.1	0.1	1981.2	1741.7	0.1	1839.2	1655.8	0.1	1650.4	6.0	2.7
241	0.1	0.1	0.1	1861.8	1790.9	0.1	467.8	1774.7	0.1	2044.4	4.9	3.1
242	504.2	1780.2	0.1	1855.6	1786	0.1	1706.9	1264.2	0.1	1660	5.8	2.5
243	0.1	1634	0.1	2050.5	248.6	0.1	951.5	1337.4	0.1	1811	4.6	2.9
244	0.1	1694	0.1	2040.9	1865.1	0.1	1853.8	1717.4	0.1	1259.4	5.7	2.8
245	504.2	0.1	1784.9	1852.3	1715	0.1	1751.3	1706.6	0.1	1647.9	5.3	2.7
246	0.1	504	0.1	1779.4	1712.8	0.1	1853.9	1719.9	0.1	1850.2	5.9	2.8
247	0.1	0.1	0.1	1772.4	2024.4	0.1	1257.7	1703.5	570.2	451.1	4.3	3.1
248	0.1	1676.7	0.1	1624.3	1709	0.1	1823.8	1696.8	0.1	1795.6	5.8	3.0
249	0.1	0.1	0.1	1840.3	1630.1	0.1	1801	1808.9	0.1	1994.2	5.1	2.7
250	0.1	1745.6	1644	1836.7	1818.5	0.1	1616.1	387.8	0.1	1178.3	5.3	2.7

Timing Intervals (in seconds)

251	0.1	0.1	1757.1	1702.4	452	0.1	2028.4	1759.1	605.2	1848.4	4.2	2.6
252	0.1	0.1	0.1	1847	1196.8	0.1	1866.3	1737.6	0.1	2041.6	5.1	2.8
253	0.1	0.1	0.1	1845.6	0.1	652	2023.2	1655.6	0.1	1738.2	5.3	2.9
254	0.1	0.1	0.1	1838.3	1617.7	0.1	781.7	1782.7	0.1	1703.4	5.7	3.1
255	1764.1	0.1	0.1	1804	1817.1	0.1	2013.7	1613.9	0.1	1817.2	4.4	3.0
256	0.1	0.1	1700.1	1810.6	1688.2	0.1	1854.9	1793.9	0.1	1998.7	5.5	2.7
257	0.1	0.1	1141	1623.1	1712.4	0.1	1842.7	1667.8	0.1	1812.1	4.4	2.6
258	0.1	0.1	0.1	1648.5	1627	0.1	1851.3	1796.9	0.1	1803.7	4.9	2.9
259	0.1	0.1	0.1	1840.1	1758.4	0.1	1729.7	1854.3	729.9	1988.1	4.2	2.8
260	0.1	0.1	0.1	1835	1786.1	0.1	1858.3	2040.5	0.1	1232	5.8	2.9
261	0.1	0.1	0.1	963.6	1699.2	0.1	1848.9	1805.1	0.1	1806.3	3.9	2.8
262	0.1	0.1	0.1	1819.8	0.1	0.1	1836.7	1843.8	0.1	1968.3	4.8	2.7
263	0.1	0.1	0.1	1706.3	2013.1	0.1	1797.1	1568.9	0.1	1852.2	4.4	3.0
264	0.1	932.2	0.1	1847.8	1819.8	0.1	1810.4	1998.6	0.1	1800.9	5.0	2.6
265	0.1	0.1	0.1	1626.4	1797	0.1	1848.2	1811.8	0.1	1687.1	4.2	2.7
266	0.1	0.1	1749.5	981.3	1816.8	0.1	1598.7	1805.3	0.1	1700	5.0	2.7
267	0.1	1704	1623.8	1783.4	1861.6	0.1	2004.5	1418.5	0.1	1855.4	4.7	2.8
268	0.1	1748.5	0.1	980.2	1662.8	0.1	1824.4	1862.4	0.1	1812.4	5.1	3.1
269	0.1	0.1	1723.8	1806.9	1851	1152.6	1582	1002	0.1	1792.4	4.2	2.6
270	0.1	1653.5	0.1	1020.3	1614	0.1	1842.6	1636.7	0.1	1812.7	5.1	2.7
271	0.1	1610.3	0.1	1681.8	1848.9	949.4	1998.6	1692	0.1	1812.9	4.7	2.9
272	947.4	0.1	0.1	1080.2	1690	0.1	2014.3	1826.5	0.1	1688.6	4.3	3.1
273	0.1	955.9	0.1	1817.4	1733.5	0.1	1848.7	1803.7	0.1	1823.7	4.9	3.0
274	0.1	0.2	0.1	2008	1820.4	0.1	1834	1618	0.1	1712	4.9	2.6
275	0.1	0.1	0.1	1812.6	2022.1	0.1	1843.5	1836.4	0.1	1790.5	4.7	3.1
276	0.1	0.1	0.1	2014.6	1699.1	0.1	1855.3	1866.4	0.1	1694.5	4.7	2.7
277	0.1	0.1	0.1	1810.5	1850.4	0.1	1829.2	2004.1	0.1	1648.8	4.6	3.1
278	0.1	0.1	1019.5	1816.9	2009.2	0.1	1808.4	1814	0.1	1633.5	4.9	3.1
279	0.1	0.1	1206.9	1709	1613.5	0.1	1805.3	2015.2	0.1	1852.7	4.8	2.9
280	0.1	0.1	0.1	1792.5	1795.5	0.1	1572.9	1865.4	0.1	1621.6	4.6	3.0
281	0.1	1027.1	0.1	2008.9	1776.8	0.1	1846.5	1632.4	0.1	1654.2	4.9	3.2
282	0.1	0.1	0.1	1793	1706.4	0.1	988.8	1813.6	0.1	2005.8	4.7	2.8
283	1019.5	1769.8	0.1	1806.3	1809.5	0.1	1818.9	1041.1	0.1	1626.3	4.5	3.0
284	0.1	0.1	0.1	1851.2	1524.5	0.1	1860.4	1429.8	0.1	1786.7	4.8	2.9
285	0.1	1640.8	0.1	1829.4	1797	0.1	2025	1652	0.1	1866.1	4.9	2.8
286	1146.6	0.1	1710.5	1852.3	1678.2	0.1	1583.6	1835.2	0.1	1625.3	4.7	2.6
287	0.1	1146.6	0.1	1818.8	1821.2	0.1	1848	1617.8	0.1	1806.4	5.2	2.8
288	0.1	0.1	0.1	1790.8	1794.1	0.1	976.4	2011.7	1230	304.2	4.7	2.6
289	0.1	0.1	0.1	1669.5	1715.1	0.1	1636.7	1566.6	0.1	1812.9	5.7	3.0
290	0.1	0.1	0.1	1567.9	1625.6	0.1	1868.2	1783.2	0.1	2013.7	5.6	2.6
291	0.1	1701.5	1623.2	1818.1	1845	0.1	1666.6	1028.1	0.1	1588.7	5.1	2.5
292	0.1	0.1	0.1	1841.8	299.7	0.1	2008.8	1582.1	1198.7	1791	4.6	2.8
293	0.1	0.1	0.1	1793.6	1590.7	0.1	1810.8	1861.9	0.2	2013.5	5.4	2.6
294	0.1	0.1	0.1	1857.3	1873.4	36.1	1820	1730	0.1	1977.8	5.1	2.6
295	0.1	0.1	0.1	1819	1695.9	0.1	1183.6	1791.4	0.1	1852.5	4.9	2.9
296	1669.1	0.1	0.1	1854.9	0.1	0.1	2006.5	1616.2	0.1	1780.5	4.8	2.7
297	0.1	0.1	1709	1811.4	1684.1	0.1	1554.1	1852.2	0.1	2034	5.5	3.0
298	0.1	1705.7	1290.8	1832.8	1674	0.1	1850.1	1642.2	0.1	1801.1	4.9	2.8
299	0.1	0.1	0.1	1685.4	0.1	0.1	1858.2	1801.6	0.1	1637.9	4.6	3.0
300	0.1	0.1	0.1	1788.4	1683.1	0.1	962.8	1586.6	1263.2	2004.3	5.0	2.9

Timing Intervals (in seconds)

301	0.1	0.1	0.1	2011.1	1795.1	0.1	1807.5	1852.1	0.1	1585.5	5.4	2.8
302	0.1	0.1	0.1	1263.2	1666.6	0.1	1863.3	1804.7	0.1	1777	4.9	3.0
303	0.1	0.1	0.1	1844.4	1796.4	0.1	1573	1810.2	0.1	2004.7	4.4	3.0
304	0.1	0.1	0.1	1707.2	2013.3	0.1	1812.4	1568.4	0.1	1852.2	4.6	2.7
305	0.1	1290.3	0.1	1561.9	0.1	0.1	1795	1788.8	0.1	1852.4	4.9	2.9
306	0.1	0.1	0.1	1634.7	1791.8	0.1	1539.5	1865.5	0.1	1693	5.7	2.6
307	0.1	1662.8	1696.7	1273.2	2015.3	0.1	1850.6	1794.7	0.1	1626.4	4.7	2.7
308	0.1	1701	1627.4	1777.4	1859.7	0.1	2010.7	1440.6	0.1	1865	5.3	2.6
309	0.1	1695.5	0.2	1273.1	1562.5	0.1	1790.1	1857.6	0.1	1855.6	4.6	3.2
310	0.1	0.1	0.1	1801.5	1799.4	1263	1851.9	1554.5	0.2	2023.4	5.7	2.6
311	0.1	0.1	0.1	1816.2	0.1	0.1	1795.1	1703.8	0.1	2013.2	4.6	2.6
312	0.1	0.1	0.1	1698	1865.8	34.5	1963.1	1803.9	0.1	1875.1	5.5	2.9
313	1282.9	0.1	0.1	960.5	1569.2	0.1	2027.3	1835	0.1	1663.6	4.9	2.7
314	0.1	1333.8	0.1	1800.6	1708.2	0.1	1541.3	1861.3	0.1	2020	4.9	2.9
315	0.1	0.1	0.1	2032.3	1801	0.1	1858.8	1616	0.1	1716	4.8	2.9
316	0.1	0.1	0.1	1866.3	1799.8	0.1	946.6	2039.1	0.1	1802	5.0	2.7
317	0.1	0.1	0.1	2006.6	1702.7	0.1	1844.4	1868.6	0.1	1704.3	4.6	2.9
318	0.1	0.1	0.1	1833.5	1868.3	0.1	1796.2	2030	0.1	953.7	5.1	2.6
319	0.1	0.1	1315.4	2048.6	1786.7	0.1	1856.1	1805	0.1	1806	5.1	2.8
320	0.1	0.1	1343.9	1710.2	1816	0.1	1550.5	1803.2	0.1	933.1	5.5	3.0
321	0.1	0.1	0.1	1812.1	1862.1	0.1	893.2	1785.9	0.1	1634.3	4.8	2.9
322	0.1	1289.5	0.1	2047.3	1723.3	0.1	1850.4	1651.1	0.1	1681.7	5.0	3.1
323	0.1	0.1	0.1	1796.4	1701	0.1	936.5	1817.8	0.1	2039.3	4.6	2.9
324	1290	1715.5	0.1	1805.7	1784	0.1	1833.9	1552	0.1	1640.7	4.4	2.8
325	0.1	0.1	0.1	1842.7	1513.1	0.1	1867.5	1467.7	0.1	1780.9	4.5	2.7
326	0.1	1683.1	0.1	1861.3	1869	0.1	2000.5	1627.5	0.1	1524	5.0	2.9
327	1364.5	0.1	1702	1814.7	1703	0.1	1525.8	1836.3	0.1	1609	5.3	2.9
328	0.1	1324.7	0.1	1811.6	1822.9	0.1	1850	1615.2	0.1	1803.7	5.1	2.7
329	0.1	0.1	0.1	2013.9	1835.3	0.1	1865.3	1630.2	1355.5	1526.4	5.0	2.6
330	0.1	1695.8	0.1	1619	1708.2	0.1	1831.3	1538.5	0.1	1813.8	4.6	2.9
331	0.1	0.1	0.1	1518	1638.8	0.1	1869.1	1782.8	0.1	1999	5.1	2.8
332	0.1	1704.9	0.1	1801.6	1608.6	0.1	1716.2	952.3	0.1	1542.8	4.7	2.9
333	0.1	0.1	0.1	1634.2	1545.9	0.1	1806.6	1857.7	1324.7	2038.2	4.8	2.7
334	0.1	0.1	1679.2	1811.5	262.9	0.1	1533.6	936.8	0.1	1798	4.7	2.6
335	0.1	0.1	0.1	1818.8	2035.1	1324.7	1792.8	1711.8	0.1	1826.3	5.0	2.9
336	0.1	0.1	0.1	1786.4	1702.9	0.1	1348.2	2020.4	0.1	1801	4.9	2.7
337	0.1	0.1	0.1	1821.2	1628.8	0.1	1852	1685.1	0.1	1771.2	4.9	2.8
338	0.1	0.1	1700.4	1813.7	1686.5	0.1	1515	1863	0.1	1784.2	5.3	3.0
339	0.3	0.1	1417	1626	1716.1	0.1	1521.9	1672.8	0.1	2005.2	5.8	50.9
340	0.1	0.1	0.1	1675.7	1631.9	0.1	1861.8	1823.8	0.1	1854.8	59.0	14.7
341	0.1	0.1	0.1	1998.8	1717	0.1	911.9	1525.9	1391.6	1852.1	16.9	23.9
342	0.1	0.1	0.1	2009.5	1782	0.1	1814.3	1852.7	0.1	1509.8	12.1	13.5
343	0.1	0.1	0.1	1389.4	1684.7	0.1	1865.1	1821.7	0.1	1785.5	7.4	7.2
344	0.1	0.1	0.1	1845	1771.7	0.1	1510.9	1822.6	0.1	1996	8.0	7.2
345	0.1	0.1	0.1	1681	2010.5	0.1	1865.4	866.2	0.1	1496.6	7.5	3.9
346	0.1	1433.9	0.1	1515.4	1851	0.1	1828.8	1791.8	0.1	1861.9	5.8	4.0
347	0.1	0.1	0.1	1639.4	1778.1	0.1	1857.6	1826.8	0.1	1680.8	6.6	4.8
348	0.1	0.1	1674.4	1476.3	1786.5	0.1	1631.1	1811.7	0.1	1709.8	5.6	3.3
349	0.1	1652.5	0.1	1948.4	1628.7	0.1	1937.8	1545.1	0.1	1809.4	6.0	3.3
350	0.1	1714.1	0.1	1417.4	1525.2	0.1	2002.7	1874.7	0.1	1636.2	5.7	2.9

Timing Intervals (in seconds)

351	0.1	0.1	1716.7	1780	1822.8	1390.7	1856	1518.8	0.1	2021.6	5.9	3.6
352	0.1	1705.3	0.1	16.6	217.6	0.1	846.4	1924.5	0.1	1810.8	5.6	3.4
353	16.7	0.1	0.1	1719.5	1819.6	1437.1	1847.2	1870.8	0.1	2007.4	5.7	3.6
354	1462.6	0.1	0.1	1816.9	0.1	0.1	1865.2	1641.3	0.1	1713.1	6.7	3.5
355	0.1	1445.8	0.1	1789.3	1704.8	0.1	1865.5	1827.6	0.1	1842.9	7.3	3.0
356	0.1	0.2	0.1	2009.4	1829.8	0.1	1859.9	1632.1	0.1	1681.2	6.2	3.6
357	0.1	0.1	0.1	1880.5	1773.2	0.1	866.7	2012.3	0.1	1815.4	5.9	3.0
358	0.1	0.1	0.1	1785.6	1645.3	0.1	1929.4	1812.1	0.1	1724.6	5.1	4.1
359	0.1	0.1	0.1	1853.4	1865	0.1	1780.3	2001.4	0.1	880.4	5.8	3.4
360	0.1	0.1	1527.2	1984.5	1785.1	0.1	1874	1807.1	0.1	1896	5.5	3.2
361	0.1	0.1	1525.7	1665.6	1918.9	0.1	1825.6	1971.6	0.1	1860.7	5.9	3.4
362	1655.5	0.1	0.1	1786.4	1807	0.1	1495.1	2019.4	0.1	1632.3	6.7	3.1
363	0.1	1478.3	0.1	1981.9	1696	0.1	1804.1	1636.5	0.1	1706.2	6.1	3.0
364	0.1	0.1	0.1	1987.2	1656.5	0.1	853.8	1797.2	0.1	1876.1	6.2	3.1
365	1527.4	1653.2	0.1	1815.9	1781.7	0.1	1641.8	1483.4	0.1	1706	5.7	3.0
366	0.1	0.1	0.1	1926.1	0.1	0.1	1479.6	1622.7	0.1	1848.3	5.9	2.9
367	0.1	1699.6	0.1	2002.1	1868.6	0.1	1790.5	1855	0.1	1483.7	5.9	2.9
368	1464	0.1	1686.8	1865.7	1698	0.2	1502.2	2004.6	0.1	1625.6	5.4	3.3
369	0.1	1527.9	0.1	1802	1895.5	0.1	1868.1	1709.3	0.1	1794.1	5.1	3.4
370	0.1	0.1	0.1	1796.5	1984.1	0.1	1874.8	1895.7	1521.3	1496.3	6.1	3.6
371	0.1	0.1	0.1	1705.7	1654.6	0.1	1636	1872.4	0.1	1817.6	5.7	3.3
372	0.1	0.1	0.1	853.3	1895.5	0.1	1478.4	1807	0.1	1793.6	5.2	3.9
373	0.1	1640.2	1610.4	1790.7	1915.5	0.1	1719	1873.1	0.1	1814.1	5.4	3.4
374	0.1	0.1	1660.5	1877.8	865	0.1	1987.3	1492.8	1519.4	1800.3	5.6	3.1
375	0.1	0.1	0.1	1816.3	195.3	0.1	1482.4	851.7	0.1	1937.9	5.7	3.1
376	0.1	0.1	0.1	1858.4	1939.8	1521.3	1795	1722.2	0.1	1939.9	5.7	3.2
377	0.1	0.1	0.1	1786	1660.6	0.1	1541.7	1936.3	0.1	1858.6	5.6	3.0
378	0.1	0.1	0.1	1857.4	1646.9	0.1	1946.2	1735.8	0.1	1918.6	5.7	3.2
379	0.1	0.1	1651.6	1809.8	1719.2	0.1	1493.2	1865.6	0.1	1944.7	6.1	3.2
380	0.1	1636	1643.3	1939.7	1719.5	0.1	1814.3	1651.2	0.1	1785.9	6.3	2.8
381	0.1	0.1	0.1	1718.3	1630	0.1	1464.6	1812.2	0.1	1944.6	5.8	3.3
382	0.1	0.1	0.1	1941.7	1637.2	0.1	1487.9	1826.3	1569.2	1941.9	5.5	3.6
383	0.1	0.1	0.1	1940.1	1788.1	0.1	1810.7	1942.3	0.1	1483.7	5.2	3.2
384	0.1	0.1	0.1	1594.6	1694.5	0.1	1806.7	1861.8	0.1	1788.8	5.7	3.1
385	0.1	0.1	0.1	1628.2	1941.7	0.1	1484.2	1788.7	0.1	1941.6	5.0	3.7
386	0.1	0.3	0.1	1664.9	1785.6	0.1	1483.6	199.9	0.1	811.2	4.6	3.9
387	0.1	1559.3	0.1	1844.5	1648.5	0.1	1940.3	1929.1	0.1	1790.9	5.6	3.8
388	0.1	0.1	1632.5	1924.3	1852.7	0.1	1487.8	1814.5	0.1	1709.4	4.8	3.5
389	0.1	1726.3	1631.9	1578.2	1798.3	0.1	1928.2	1858.3	0.1	1640.3	4.7	3.6
390	0.1	1662	1620	1786.1	1954	0.1	1922	1620.6	0.1	1802.7	5.4	3.1
391	0.1	1631.1	0.1	1578	0.1	0.1	1792.3	1826.7	0.1	1949	5.4	3.1
392	0.1	0.1	1639.2	1792.4	0.1	1581.4	1858.7	1804.5	0.1	1929.7	5.8	2.9
393	0.1	0.1	0.1	1445.5	1812.6	0.1	1863	1747.3	0.1	1927.4	5.6	3.8
394	0.1	0.1	0.1	1726.5	1859.1	1578.4	1940.4	1803.6	0.1	1933.8	5.7	3.5
395	1582.3	0.1	0.1	1807.7	1868.1	0.1	1939.3	1655.8	0.1	1729.8	6.4	3.4
396	0.1	1580.9	0.1	1852.8	1638.8	0.1	1487.9	1817	0.1	1929.8	5.7	3.5
397	0.1	0.1	0.1	1945.7	1862.3	0.1	1808.9	1747.3	0.1	1682.4	6.0	3.0
398	0.1	0.1	0.1	1868.2	1933.9	0.1	1440.4	1954.4	0.1	1781.8	5.9	3.3
399	0.1	0.1	0.1	1927	1663.3	0.1	1947.9	1809.1	0.1	1709.5	5.4	3.5
400	0.1	0.1	0.1	1943.9	0.1	0.1	1801.5	1929.9	0.1	1471.4	5.7	3.6

Timing Intervals (in seconds)

401	0.1	0.1	1618.3	1920.8	1805.5	0.1	1436.1	1814.2	0.1	1959	5.7	3.6
402	0.1	0.1	1582.3	1638.3	0.1	0.1	1859.6	1933.1	0.1	1817	5.1	3.3
403	1649.5	0.1	0.1	1861.1	0.1	0.1	1473.5	1798.2	0.1	1934.4	6.9	3.6
404	0.1	1700.5	0.1	1937.4	1644.4	0.1	1855.9	1628.7	0.1	1725.3	4.6	3.5
405	0.1	0.1	0.1	1936.8	1634.6	0.1	1457.7	1778.1	0.1	1939.5	6.5	3.4
406	1658.4	1636.4	0.1	1862	1794.5	0.1	1603.3	1813.9	0.1	1743.9	5.1	3.8
407	0.1	0.1	0.1	1933.7	773.8	0.1	1445.4	1636.7	0.1	1786.6	5.6	3.5
408	0.1	1698.8	0.1	1859.6	1817.7	0.1	1803.9	2001.2	0.1	1420.2	4.5	3.6
409	1657.2	0.1	1636.1	1860.3	1743.8	0.1	1452.2	1954	0.1	1603.6	5.0	3.1
410	0.1	1598.4	0.1	1862	1947.9	0.1	1807.5	1631.8	0.1	1797.3	5.3	4.1
411	0.1	0.1	0.1	1782.9	1952.4	0.1	1451	1935.1	1646.1	732	5.1	3.2
412	0.1	1703.3	0.1	1628.6	1653.4	0.1	1949.9	1817.7	0.1	1858.9	4.4	4.0
413	0.1	0.1	0.1	1437.9	1626.4	0.1	1816.3	1786.2	0.1	1943.4	4.3	3.5
414	0.1	1636.1	0.1	1774	1613.1	0.1	1756.8	1439.5	0.1	1830.1	5.4	3.6
415	0.1	0.1	0.1	1609.8	0.1	0.1	1952.4	1821.3	1658.5	1925	5.5	2.9
416	0.1	0.1	0.1	1790.3	0.2	0.1	1810.4	1446.7	0.2	1934.8	5.5	3.1
417	0.1	0.1	0.1	1816.3	1785.3	1658.5	1861.4	1745.9	0.1	1932.2	5.9	3.2
418	0.1	0.1	0.1	1785.7	1651.1	0.1	1679.3	1939.5	0.1	1857.1	5.6	3.0
419	1681.1	0.1	0.1	1431	1964	0.1	1801.5	1635.4	0.1	1876.3	4.8	3.4
420	0.1	0.1	0.2	1864	1702.2	0.1	1427.2	1808.1	0.1	1849.9	5.6	3.6
421	0.1	0.2	1700.4	1625.4	1644	0.2	1807.2	1726.1	0.1	1939.3	5.8	3.2
422	0.1	0.1	0.1	1731.3	1636.2	0.1	1432.4	1819.4	0.1	1949	6.0	3.0
423	0.1	0.1	0.1	1929.7	1653.8	0.1	1455.1	1803	1712.8	1957.6	5.7	3.2
424	0.1	0.1	0.1	1938.4	1783.3	0.1	1870.8	1946.4	0.1	1432.1	7.0	3.2
425	0.1	0.1	0.1	1694	1725.4	0.2	1814.6	1865.7	0.1	1786	5.5	3.1
426	0.1	0.1	0.1	1635.4	1939.9	0.1	1450.1	1798	0.1	1944.3	6.0	3.1
427	0.1	0.1	0.1	1708.9	1854.7	0.1	1860.6	1409.7	0.1	1820	5.5	3.1
428	0.1	1716.3	0.1	744.7	1945.9	0.1	1871	1793.2	0.1	1443.3	5.9	3.0
429	0.1	0.1	0.1	1633.1	1800.1	0.1	1434.9	1812.3	0.1	1705.7	5.5	2.9
430	0.1	0.1	1636.1	1708.9	1786.7	0.1	1957.1	1857.7	0.1	1633.5	6.2	3.1
431	0.1	1684.6	0.1	1871.6	1709.9	0.1	1956.2	1881.3	0.1	1871.1	5.3	3.4
432	0.1	1656.9	0.1	1717.1	1444.5	0.1	1790.6	1800.3	0.1	1928.5	5.2	3.2
433	0.1	0.1	0.1	1784.1	1874.8	1711.8	1801.2	1445.9	0.1	1920.4	5.6	3.2
434	0.1	0.1	0.1	1405	0.1	0.1	1806.6	1663.6	0.1	1800.1	5.5	3.7
435	0.1	0.1	0.1	1739.9	1865	14.9	1963.9	1800.8	0.1	1880.8	5.0	3.3
436	1717	0.1	0.1	745.1	1439.1	0.1	1940.6	1647.2	0.1	1708.8	5.2	2.9
437	0.1	1739.7	0.1	1879.9	1662.2	0.1	1442.7	1807.3	0.1	1882.6	5.1	3.2
438	0.1	0.2	0.1	1852	0.1	0.1	1864.2	1653.7	0.1	1711.6	5.1	2.9
439	0.1	0.1	0.1	1791.1	0.1	0.1	1801.4	1970.4	0.1	1879	5.2	3.9
440	0.1	0.1	0.1	1864.6	1691.9	0.1	1968.7	1797.9	0.1	1713.8	5.1	3.1
441	0.1	0.1	0.1	1970.8	1793.3	0.1	1791.5	1871.1	0.1	1450.8	5.0	3.1
442	0.1	0.1	1716.8	1977.5	1888.3	0.1	1862.1	1815.4	0.1	1651.8	5.8	2.8
443	0.1	0.1	1816.4	1709.8	2009	0.1	1862.6	1850.8	0.1	1808.1	4.6	3.7
444	0.1	0.1	0.1	1798.7	0.1	0.1	1797.1	1851.6	0.1	1655.4	4.4	3.4
445	0.1	1716.8	0.1	1883.7	1663.7	0.1	1862.2	1640.9	0.2	1742.5	5.0	4.0
446	0.1	0.1	0.1	1879.3	1684.5	0.1	1442.9	1791.4	0.1	1639.4	5.4	3.1
447	1716.8	1657.1	0.1	1800.9	0.1	0.1	1639.4	1441.9	0.1	1736.8	4.7	3.9
448	0.1	0.1	0.1	1955.2	0.1	0.1	1797.1	1898.8	0.1	1806	4.6	3.7
449	0.1	1719.1	0.1	1990	0.1	0.1	1868.6	1665.7	0.1	1404.3	5.3	3.7
450	1716.7	0.1	0.1	1804.4	1673.1	0.1	1450.5	1882.3	0.1	1741.4	5.0	2.9

Timing Intervals (in seconds)

451	0.1	1716.7	0.1	1784.3	0.1	0.1	1883.9	1641.6	0.1	1883.1	5.0	3.2
452	0.1	0.1	0.1	1848.6	1863.5	0.1	578.8	2001.8	26.9	110	4.6	2.9
453	0.1	0.1	0.1	1732.7	1673	0.1	1627.7	1455.3	0.1	1878.2	4.9	3.2
454	0.1	0.1	0.1	1418.4	1997.6	0.1	1814.7	1806.4	0.1	1864.5	5.2	3.1
455	0.1	1702.5	0.1	1805.3	1655.5	0.1	1712.8	1410.7	0.1	1807.9	5.1	3.7
456	0.1	0.1	0.1	1977.9	690	0.1	1871.4	1448.6	1741	1791.7	4.7	3.5
457	0.1	0.1	0.1	1878.8	175.2	0.1	1450.8	710.5	0.1	1924.2	5.7	2.9
458	0.1	0.1	0.1	1797.1	1864.1	14.2	1809.5	1694.6	0.1	1963.5	5.3	3.4
459	0.1	0.1	0.1	1867.2	1673.5	0.1	1739.4	1789.2	0.1	1809.3	5.4	3.0
460	0.1	0.1	0.1	1808.5	1659.3	0.1	1843.9	1721.4	0.1	1798.2	5.1	3.5
461	0.1	0.1	1708.7	1858.2	1712.8	0.1	1420.1	1826.8	0.1	1803.8	5.7	3.2
462	0.1	1695	1843.1	2001	1715.7	0.1	1875.1	1656.1	0.1	1801.1	5.7	3.1
463	0.1	0.1	0.1	1735.4	1629.2	0.1	1440.1	1816.4	0.1	1976.8	5.9	3.6
464	0.1	0.1	0.1	1970.3	1905.3	0.1	1793.8	1876.5	20.3	1677.5	4.9	3.6
465	0.1	0.1	0.1	1890.4	1788.6	0.1	1867.4	1977.3	0.1	1454.1	5.8	3.4
466	0.1	0.1	0.1	1750.5	1721.4	0.1	1863.3	1790.8	0.1	1885.8	5.4	3.6
467	0.1	0.1	0.1	1970.9	1791.2	0.1	1453.6	1886.1	0.1	1871.4	5.4	3.4
468	0.1	0.1	0.1	1695.1	1868.8	0.1	1871.5	1390.3	0.1	1789.4	5.3	3.7
469	0.1	1740.7	0.1	167.9	1791.8	0.1	1449	1805.9	0.1	698.9	5.3	3.5
470	0.1	0.1	0.1	1654.3	1811.4	0.1	1825.3	1872.2	0.1	1716.9	5.1	3.3
471	0.1	0.1	1675.4	1760.2	1890.3	0.1	1635.7	1805.1	0.1	1722.6	5.8	3.2
472	0.1	1679	0.1	1868.1	0.1	0.1	1679.3	1898.2	0.1	1869.7	5.2	3.1
473	0.1	1705.5	0.1	1760.3	1429.9	0.1	1803.2	1811.7	0.1	1961.7	5.0	3.4
474	0.1	0.1	1909.2	1799.4	0.1	14.3	1866.9	1810.2	0.1	1874.6	5.4	3.3
475	0.1	0.1	0.1	1405.1	0.1	0.1	1806.7	1666.8	0.1	1808	4.7	3.6
476	1664.9	0.1	0.1	1647.1	1802.2	1750.8	1879.2	1435.8	0.1	1794.2	5.3	3.3
477	1760.6	0.1	0.1	1806.4	0.1	0.1	1801.8	1970.5	0.1	1708.9	5.2	3.3
478	0.1	1758.5	0.1	1802.5	1688.1	0.1	1813.8	1873.7	0.1	1882.5	4.8	3.7
479	0.1	0.1	0.2	1849.4	1875.3	0.1	1799.1	1661.5	0.1	1701.2	5.4	3.8
480	0.1	0.1	0.1	1863.2	1862.1	0.1	1810.6	1986.3	0.1	1798.2	4.6	3.4
481	0.1	0.1	0.1	1871.1	1688.7	0.1	1955.3	1867	0.1	1717.4	5.4	3.7
482	0.1	0.1	0.1	1981.3	1805.4	0.1	1816.1	1865.2	0.1	1423.9	5.6	3.1
483	0.1	0.1	1831.5	1984.2	0.1	0.1	1867.4	1806.6	0.1	1659.2	4.9	3.6
484	0.1	0.1	1821.5	1715.7	1668.8	0.1	1809.8	1997.1	0.1	1871.6	5.5	3.5
485	0.1	0.1	0.1	1791.6	1874.8	0.1	1393.9	1882.3	0.1	2003	5.9	2.9
486	0.1	1788.5	0.1	1874.1	1702.6	0.1	1815.3	1648.6	0.1	1708.1	6.1	3.2
487	0.1	0.1	0.1	1853.8	1711.5	0.1	1411	1809.8	0.1	2006.1	5.3	3.4
488	1788.7	1691.6	0.1	1865.8	0.1	0.1	1634.7	1439.1	0.1	1719	5.5	3.6
489	0.1	2.1	0.1	1868.9	0.1	0.1	1407.2	1897.4	0.1	1872.3	5.2	3.5
490	0.1	0.1	0.1	1978.5	1866.1	0.1	1871.5	1646.6	0.1	1803	5.6	3.1
491	1788.4	0.1	1691.5	1805.9	1704.2	0.1	1429	1865.1	0.1	1633.6	5.3	3.7
492	0.1	1788.4	0.1	1863.2	1986.1	0.1	1810.2	1708.8	0.1	1798.3	5.2	3.1
493	0.1	0.1	0.1	1803.6	1850.1	0.1	1418.4	2001.8	1788.3	634.9	5.2	3.3
494	0.1	1708.1	0.1	1645.4	1703	0.1	1967.8	652.2	0.1	1813.9	4.6	3.1
495	0.1	0.1	0.1	594.6	1995.7	0.1	1396.2	1870.3	0.1	1802	5.0	3.1
496	0.1	1703.4	0.1	1858.4	0.1	0.1	1713	617.3	0.1	1814.7	5.7	3.8
497	0.1	0.1	0.1	1645.8	0.1	0.1	1989.2	1823.2	1788.1	1864.3	5.2	3.4
498	0.1	0.1	0.1	1861.2	0.1	0.1	1820	1410.3	0.1	1847.3	5.6	3.5
Min Si	0.1	0.1	0.1	3.3	0.1	0.1	6.2	5.6	0.1	3.6	3.1	2.4
Max Si	1,926.1	1,932.9	1,942.1	2,050.5	2,049.0	1,927.5	2,044.9	2,045.6	1,926.1	2,045.9	59.0	50.9
Avg Si	138.2	400.4	325.3	1,713.6	1,513.3	56.9	1,699.5	1,713.0	76.4	1,753.7	5.2	3.2

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1.0 General Items

1.1 Test Sponsor

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

Hewlett-Packard Company sponsored this benchmark. The benchmark was developed and engineered by Hewlett-Packard Company and Oracle Corporation. Testing took place at HP Database Performance Engineering Laboratory in Houston, Texas.

1.2 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 Tuning Options*
- *Optimizer/Query execution options*
- *Query processing tool/language configuration parameters*
- *Recovery/commit options*
- *Consistency/locking options*
- *Operating system and configuration parameters*
- *Configuration parameters and options for any other software component incorporated into the pricing structure*
- *Compiler optimization options*

This requirement can be satisfied by providing a full list of all parameters and options, as long as all those which have been modified from their default values have been clearly identified and these parameters and options are only set once.

Appendix A contains Database and Operating system parameter settings.

1.3 Configuration Items

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

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

The *HP BladeSystem c-Class 128P RAC with HP Oracle Exadata Storage Servers* is depicted in Figure 1.1 consists of:

Database Server Components	**System Total**	**Per Node**
HP BladeSystem c7000 Enclosure:	4	n.a.
HP ProLiant BL460c Server:	64	n.a
Quad-Core Intel Xeon X5450 Processor (12M Cache, 3GHz) (Processor/Cores/Threads):	128/512/512	2/8/8
Memory:	2080GB	32GB x 63 Nodes 64GB x 1 Node
HP 146GB 10K SAS 2.5 Hot Plug HDD (OS, Flat files):	128	2
Total formatted storage internal to Database Servers:	18688GB	292GB
HP 4X DDR IB DP Mezzanine HCA for HP BladeSystem c-Class:	128	2
HP GbE2c Ethernet Blade Switch for c-Class BladeSystem:	8	n.a
HP 4X DDR IB Switch Module for HP BladeSystem c-Class	12	n.a
Storage Components		
HP Voltaire IB 4X DDR 24-port Internally Managed Switch:	2	n.a
HP Oracle Exadata Storage Server SAS:	6	
Total configured Storage on HP Oracle Exadata Storage Server SAS:	20110.5GB	3351.8 GB per HP Oracle Exadata Storage Server
Total Storage:	38798.5GB	

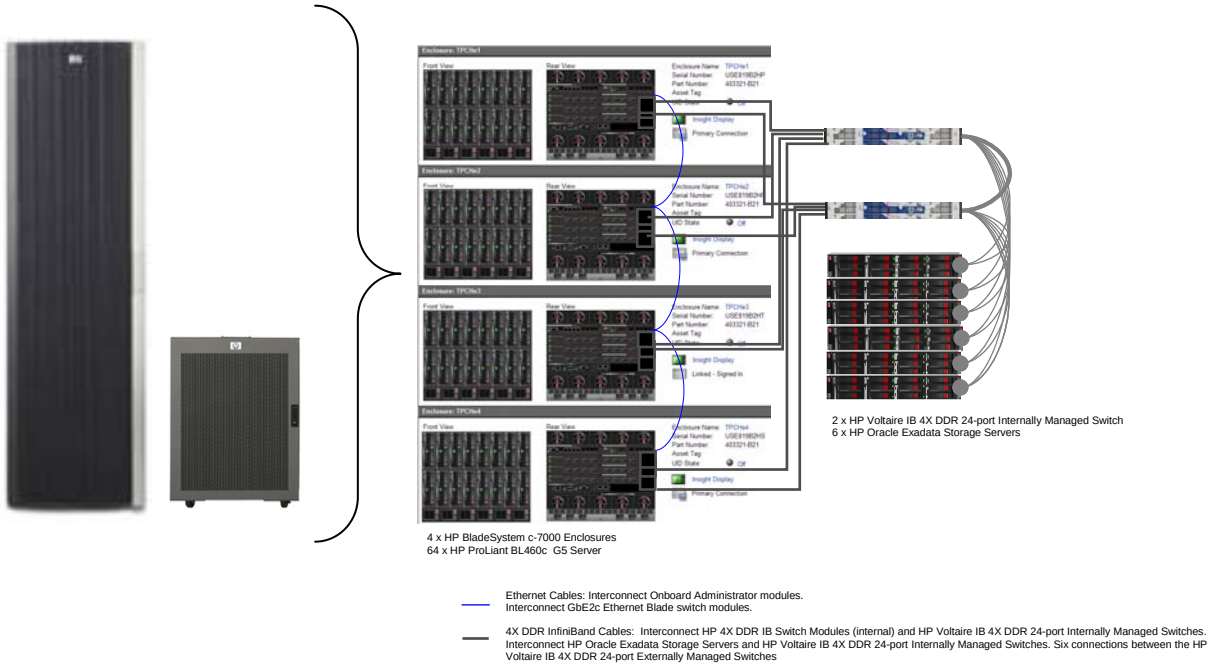
The HP BladeSystem c-Class 128P RAC with HP Oracle Exadata Storage Servers consists of 64 *HP ProLiant BL460c server*s (16 per HP BladeSystem c7000 Enclosure) as database servers and six *HP Oracle Exadata Storage Server SAS* as storage servers interconnected using 4x DDR InfiniBand. *HP ProLiant BL460c server*s have one RAID10 volume of two internal 146GB disk drives hosting the OS and flat files each. One *HP ProLiant BL460c server* has 64GB of memory and others have 32GB of memory; and two Dual-Port InfiniBand Mezzanine HCAs. The InfiniBand Mezzanine HCAs are internally connected to three HP 4X DDR IB Switch Modules internal to HP BladeSystem c7000 Enclosure.

The HP Oracle Exadata Storage Servers have 12 x 300GB 15K RPM LFF SAS disk drives. In the priced configuration 450GB 15K RPM LFF SAS disk drives were substituted for 300GB 15K RPM LFF SAS disk drives. The database resides on the HP Oracle Exadata Storage Servers running Exadata Storage Server Software. The database is mirrored across HP Oracle Exadata Storage Servers using Oracle Automatic Storage Management ensuring high availability at disk drive level and at storage server level.

The HP BladeSystem c7000 Enclosures and HP Oracle Exadata Storage Servers are interconnected using two *HP Voltaire IB 4X DDR 24-port Internally Managed Switch*es. IB bonding is configured on the database servers and storage servers to enable redundant active-active server-server interconnects and server-storage interconnects.

The distribution of database files can be found in Table 5.2.

Figure 1.1: Benchmarked and Priced Configuration



2.0 Clause 1: Logical Database Design

2.1 Database Definition Statements

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

Appendix B contains the database build scripts.

2.2 Physical Organization of Database

The physical organization of tables and indices, within the test and qualification databases, must be disclosed. If the column ordering of any table is different from that specified in Clause 1.4, it must be noted.

Please refer Appendix B for column reordering of tables.

2.3 Horizontal Partitioning

Horizontal partitioning of tables and rows in the test and qualification databases (see Clause 1.5.4) must be disclosed.

Horizontal partitioning was used for all tables except NATION and REGION as described in Appendix B.

2.4 Replication

Any replication of physical objects must be disclosed and must conform to the requirements of Clause 1.5.6.

The database was not replicated.

3.0 Clause 2: Queries and Refresh Functions Related Items

3.1 Query Language

The query language used to implement the queries must be identified.

SQL was the query language used to implement all queries.

3.2 Random Number Generation

The method of verification for the random number generation must be described unless the supplied DBGEN and QGEN were used.

TPC supplied versions 2.8.0 of DBGEN and QGEN were used for this TPC-H benchmark.

3.3 Substitution Parameters Generation

The method used to generate values for substitution parameters must be disclosed. If QGEN is not used for this purpose, then the source code of any non-commercial tool used must be disclosed. If QGEN is used, the version number, release number, modification number and patch level of QGEN must be disclosed.

The supplied QGEN version 2.8.0 was used to generate the substitution parameters.

3.4 Query Text and Output Data from Database

The executable query text used for query validation must be disclosed along with the corresponding output data generated during the execution of the query text against the qualification database. If minor modifications (see Clause 2.2.3) have been applied to any functional query definitions or approved variants in order to obtain executable query text, these modifications must be disclosed and justified. The justification for a particular minor query modification can apply collectively to all queries for which it has been used. The output data for the power and throughput tests must be made available electronically upon request..
Appendix D contains the query text and output.

3.5 Query Substitution Parameters and Seeds Used

All the query substitution parameters used during the performance test must be disclosed in tabular format, along with the seeds used to generate these parameters.
Appendix E contains the query substitution parameters and seed used.

3.6 Isolation Level

The isolation level used to run the queries must be disclosed. If the isolation level does not map closely to one of the isolation levels defined in Clause 3.4, additional descriptive detail must be provided.

The queries and transactions were run with the isolation level set to “Level 3” (repeatable read).

3.7 Refresh Functions

The details of how the refresh functions were implemented must be disclosed (including source code of any non-commercial program used).

The refresh function is part of the implementation-specific layer/driver code included in Appendix F.

4.0 Clause 3: Database System Properties

4.1 Atomicity Requirements

The results of the ACID tests must be disclosed along with a description of how the ACID requirements were met. This includes disclosing the code written to implement the ACID Transaction and Query.

Appendix C contains the source code for the ACID transactions.

4.1.1 Atomicity of the Completed Transactions

Perform the ACID Transaction for a randomly selected set of input data and verify that the appropriate rows have been changed in the ORDER, LINEITEM, and HISTORY tables.

The following steps were performed to verify the Atomicity of the completed ACID transactions:

1. The total price from the ORDERS table and the extended price from the LINEITEM table were retrieved for a randomly selected order key.
2. The ACID Transaction was performed using the order key from step 1.
3. The ACID Transaction committed.
4. The total price from the ORDERS table and the extended price from the LINEITEM table were retrieved for the same order key. It was verified that the appropriate rows had been changed.

4.1.2 Atomicity of Aborted Transactions

Perform the ACID transaction for a randomly selected set of input data, submitting a ROLLBACK of the transaction for the COMMIT of the transaction. Verify that the appropriate rows have not been changed in the ORDER, LINEITEM, and HISTORY tables.

The following steps were performed to verify the Atomicity of the aborted ACID transactions:

1. The total price from the ORDERS table and the extended price from the LINEITEM table were retrieved for a randomly selected order key.
2. The ACID Transaction was performed using the order key from step 1. The transaction was stopped prior to the commit.
3. The ACID Transaction was ROLLED BACK.
4. The total price from the ORDERS table and the extended price from the LINEITEM table were retrieved for the same order key. It was verified that the appropriate rows had not been changed.

4.2 Consistency Requirements

Consistency is the property of the application that requires any execution of transactions to take the database from one consistent state to another.

A consistent state for the TPC-H database is defined to exist when:

*O_TOTALPRICE = SUM(L_EXTENDEDPRICE – L_DISCOUNT) * (1 + L_TAX)*
For each ORDER and LINEITEM defined by (O_ORDERKEY = L_ORDERKEY)

The following queries were executed before and after a measurement to show that the database was always in a consistent state both initially and after a measurement.

SELECT DECIMAL (SUM (DECIMAL (INTEGER (INTEGER (DECIMAL (INTEGER (100 * DECIMAL (L_EXTENDEDPRICE, 20, 3)), 20, 3) * (1 – L_DISCOUNT)) * (1 + L_TAX)), 20, 3) / 100.0) 20, 3) FROM TPCD.LINEITEM WHERE L_ORDERKEY = okey

SELECT DECIMAL(SUM(O_TOTALPRICE, 20, 3)) from TPCH.ORDERS WHERE O_ORDERKEY = okey

4.2.1 Consistency Tests

Verify that ORDER and LINEITEM tables are initially consistent as defined in Clause 3.3.2.1, based upon a random sample of at least 10 distinct values of O_ORDERKEY.

The following steps were performed to verify the Consistency of ACID transactions:

1. The consistency of the ORDERS and LINEITEM tables was verified based on a sample of order keys.
2. 100 ACID Transactions were submitted from each of 10 execution streams.
3. The consistency of the ORDERS and LINEITEM tables was re-verified.

4.3 Isolation Requirements

Operations of concurrent transactions must yield results which are indistinguishable from the results which would be obtained by forcing each transaction to be serially executed to completion in some order.

4.3.1 Isolation Test 1 - Read-Write Conflict with Commit

Demonstrate isolation for the read-write conflict of a read-write transaction and a read-only transaction when the read-write transaction is committed.

The following steps were performed to satisfy the test of isolation for a read-only and a read-write committed transaction:

1. An ACID Transaction was started for a randomly selected O_KEY, L_KEY, and DELTA. The ACID Transaction was suspended prior to COMMIT.
2. An ACID Query was started for the same O_KEY used in step 1. The ACID Query blocked and did not see any uncommitted changes made by the ACID Transaction.
3. The ACID Transaction was resumed, and COMMITTED.
4. The ACID Query completed. It returned the data as committed by the ACID Transaction.

4.3.2 Isolation Test 2 - Read-Write Conflict with Rollback

Demonstrate isolation for the read-write conflict of a read-write transaction and a read-only transaction when the read-write transaction is rolled back.

The following steps were performed to satisfy the test of isolation for a read-only and a rolled back read-write transaction:

1. An ACID Transaction was started for a randomly selected O_KEY, L_KEY, and DELTA. The ACID Transaction was suspended prior to ROLLBACK.
2. An ACID Query was started for the same O_KEY used in step 1. The ACID Query did not see the uncommitted changes made by the ACID Transaction.
3. The ACID Transaction was ROLLED BACK.
4. The ACID Query completed.

4.3.3 Isolation Test 3 - Write-Write Conflict with Commit

Demonstrate isolation for the write-write conflict of two update transactions when the first transaction is committed.

The following steps were performed to verify isolation of two update transactions:

1. An ACID Transaction, T1, was started for a randomly selected O_KEY, L_KEY, and DELTA. The ACID transaction T1 was suspended prior to COMMIT.
2. Another ACID Transaction, T2, was started using the same O_KEY and L_KEY and a randomly selected DELTA.
3. T2 waited.
4. T1 was allowed to COMMIT and T2 completed.
5. It was verified that T2.L_EXTENDEDPRICE = T1.L_EXTENDEDPRICE + (DELTA1*(T1.L_EXTENDEDPRICE/T1.L_QUANTITY))

4.3.4 Isolation Test 4 - Write-Write Conflict with Rollback

Demonstrate isolation for the write-write conflict of two update transactions when the first transaction is rolled back.

The following steps were performed to verify isolation of two update transactions after the first one is rolled back:

1. An ACID Transaction, T1, was started for a randomly selected O_KEY, L_KEY, and DELTA. The ACID transaction T1 was suspended prior to ROLLBACK.
2. Another ACID Transaction, T2, was started using the same O_KEY and L_KEY and a randomly selected DELTA.
3. T2 waited.
4. T1 was allowed to ROLLBACK and T2 completed.
5. It was verified that T2.L_EXTENDEDPRICE = T1.L_EXTENDEDPRICE.

4.3.5 Isolation Test 5 – Concurrent Read and Write Transactions on Different Tables

Demonstrate the ability of read and write transactions affecting different database tables to make progress concurrently.

The following steps were performed to demonstrate the ability of read and write transactions affecting different database tables to make progress concurrently:

1. An ACID Transaction, T1, was started for a randomly selected O_KEY, L_KEY, and DELTA. T1 was suspended prior to COMMIT.
2. Another ACID transaction, T2 was started using random values for PS_PARTKEY and PS_SUPPKEY, all columns of the PARTSUPP table for which PS_PARTKEY and PS_SUPPKEy are equal are returned.
3. ACID Transaction T2 completed.
4. T1 was allowed to COMMIT.
5. It was verified that the appropriate rows in the ORDER, LINEITEM, and HISTORY tables have been changed.

4.3.6 Isolation Test 6 – Update Transactions during Continuous Read-Only Query Stream

Demonstrate the continuous submission of arbitrary (read-only) queries against one or more tables of the database does not indefinitely delay update transactions affecting those tables from making progress.

The following steps were performed to demonstrate that the continuous submission of arbitrary (read-only) queries against one or more tables of the database:

1. A Transaction, T1, was started which executed Q21 against the qualification database, was started using a randomly selected DELTA.
2. An ACID Transaction, T2, was started for a randomly selected O_KEY, L_KEY and DELTA.
3. T2 completed and appropriate rows in the ORDERS, LINEITEM and HISTORY tables had been changed.
4. Transaction T1 completed executing Q21.

4.4 Durability Requirements

The tested system must guarantee durability: the ability to preserve the effects of committed transactions and insure database consistency after recovery from any one of the failures listed in Clause 3.5.2.

4.4.1 Permanent Unrecoverable Failure of Any Durable Medium

Guarantee the database and committed updates are preserved across a permanent irrecoverable failure of any single durable medium containing TPC-H database tables or recovery log tables.

Qualification database was brought up on two nodes. Started test transactions. During the test one of the disks was removed. As the entire database was mirrored across storage servers (enabling high availability at the disk drive level and at the storage server level) the test continued uninterrupted. Consistency conditions were verified.

4.4.2 System Crash

Guarantee the database and committed updates are preserved across an instantaneous interruption (system crash/system hang) in processing which requires the system to reboot to recover.

The system crash and memory failure tests were combined. Qualification database was brought up on two nodes. Started test transactions. During the test power to entire system under test was turned off. The power was restored. Started Oracle instance, which automatically recovered the database. The durability success file and the HISTORY table were compared and the counts matched.

4.4.3 Memory Failure

Guarantee the database and committed updates are preserved across failure of all or part of memory (loss of contents).

The system crash and memory failure tests were combined as explained in section 4.4.2.

5.0 Clause 4: Scaling and Database Population

5.1 Initial Cardinality of Tables

The cardinality (e.g., the number of rows) of each table of the test database, as it existed at the completion of the database load (see clause 4.2.5) must be disclosed.

Table 5.1 lists the TPC Benchmark H defined tables and the row count for each table as they existed upon completion of the build.

Table Name	Row Count
Region	5
Nation	25
Supplier	10,000,000
Customer	150,000,000
Part	200,000,000
Partsupp	800,000,000
Orders	1,500,000,000
Lineitem	5,999,989,709

Table 5. 1: Initial Number of Rows

5.2 Distribution of Tables and Logs Across Media

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

The configuration of *HP BladeSystem c-Class 128P RAC with HP Oracle Exadata Storage Servers* is explained in Section 1.3. The distribution of database files can be found in Table 5.2.

	Disk Count, Type, Total Capacity	Description
HP Oracle Exadata Storage Server SAS	12 x 300GB 15K RPM LFF SAS, with configured capacity of 279.31GB each, mirrored across HP Oracle Exadata Storage Servers using Oracle ASM. Total configured capacity of 20110.5 GB	All database files
HP ProLiant BL460c Server	2 x 146GB 10K RPM SFF SAS, hardware RAID 10.	OS and Flat files

Table 5.2: SAN configuration and Database Layout

5.3 Mapping of Database Partitions/Replications

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

Horizontal partitioning was used for all tables except NATION and REGION. Sections 5.2 describe the distribution of database files. The database was not replicated.

5.4 Implementation of RAID

Implementations may use some form of RAID to ensure high availability. If used for data, auxiliary storage (e.g. indexes) or temporary space, the level of RAID used must be disclosed for each device.

Database is mirrored across HP Oracle Exadata Storage Servers using Oracle ASM enabling high availability at the disk drive level and at the storage server level.

5.5 DBGEN Modifications

The version number, release number, modification number, and patch level of DBGEN must be disclosed. Any modifications to the DBGEN (see Clause 4.2.1) source code must be disclosed. In the event that a program other than DBGEN was used to populate the database, it must be disclosed in its entirety.

The supplied DBGEN version 2.8.0 was used to generate the database population for this benchmark without any modification.

5.6 Database Load time

The database load time for the test database (see clause 4.3) must be disclosed.

The database load time was 2 hour 22 minutes 57 seconds.

5.7 Data Storage Ratio

The data storage ratio must be disclosed. It is computed by dividing the total data storage of the priced configuration (expressed in GB) by the size chosen for the test database as defined in 4.1.3.1. The ratio must be reported to the nearest 1/100th, rounded up.

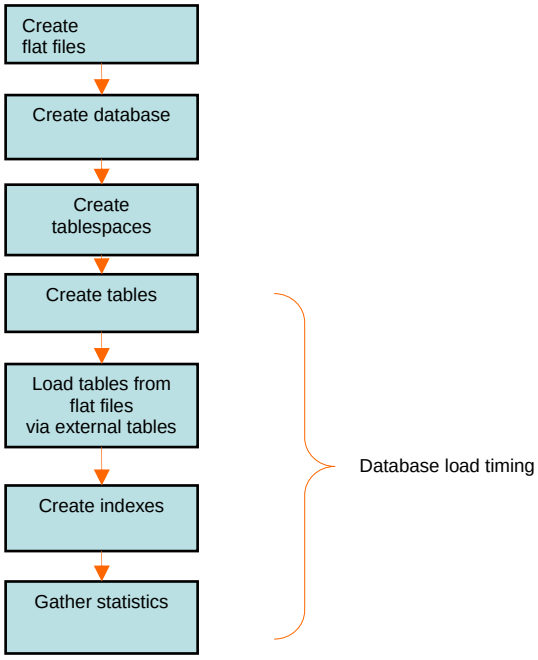
Disk Drive Type	Number of Disks	Disk Capacity	Total Disk Capacity	Data Storage Ratio
300GB 15K RPM LFF SAS, configured capacity of 279.31GB each	72	20110.5GB	38798.5GB	38.79
146GB 10K RPM SFF SAS formatted capacity of 146GB	128	18688.0GB		

5.8 Database Load Mechanism Details and Illustration

The details of the database load must be disclosed, including a block diagram illustrating the overall process. Disclosure of the load procedure includes all steps, scripts, input and configuration files required to completely reproduce the test and qualification databases.

Flat files for each of the tables were created using DBGEN, and resides on the intermal disk drives of the HP ProLiant BL460c servers.

Figure 5.8: Block Diagram of Database Load Process



5.9 Qualification Database Configuration

Any differences between the configuration of the qualification database and the test database must be disclosed.

The qualification database used identical scripts to create and load the data with changes to adjust for the database scale factor.

5.10 Dataset Verification

Verify that the rows in the loaded database after the performance test are correct by comparing some small number of rows extracted at random from any two files of the corresponding Base, Insert and Delete reference data set files for each table and the corresponding rows of the database.

Verified according to the specification.

5.11 Referental Intergrity

Verify referential integrity in the database after the initial load.

Verified according to the specification.

6.0 Clause 5: Performance Metrics and Execution Rules Related Items

6.1 Steps in the Power Test

The details of the steps followed to implement the power test (e.g., system boot, database restart, etc.) must be disclosed.

The following steps were used to implement the power test:

1. RF1 Refresh Transaction
2. Stream 00 Execution
3. RF2 Refresh Transaction.

6.2 Timing Intervals for Each Query and Refresh Function

The timing intervals (see Clause 5.3.6) for each query of the measured set and for both refresh functions must be reported for the power test.

Numerical Quantities Summary section of the executive summary, which can be found in the beginning of this document, contains the timing intervals for queries and refresh functions.

6.3 Number of Streams for The Throughput Test

The number of execution streams used for the throughput test must be disclosed.

498 streams were used for the Throughput Test.

6.4 Start and End Date/Times for Each Query Stream

The start time and finish time for each query execution stream must be reported for the throughput test.

Numerical Quantities Summary section of the executive summary, which can be found in the beginning of this document, contains the start and stop times for the query execution streams.

6.5 Total Elapsed Time for the Measurement Interval

The total elapsed time of the measurement interval (see Clause 5.3.5) must be reported for the throughput test.

Numerical Quantities Summary section of the executive summary, which can be found in the beginning of this document, contains the elapsed time for the measurement interval.

6.6 Refresh Function Start Date/Time and Finish Date/Time

Start and finish time for each update function in the update stream must be reported for the throughput test.

Numerical Quantities Summary section of the executive summary, which can be found in the beginning of this document, contains the start and finish time for the refresh functions.

6.7 Timing Intervals for Each Query and Each Refresh Function for Each Stream

The timing intervals (see Clause 5.3.6) for each query of each stream and for each update function must be reported for the throughput test.

Numerical Quantities Summary section of the executive summary, which can be found in the beginning of this document, contains the timing intervals for queries and refresh functions.

6.8 Performance Metrics

The computed performance metrics, related numerical quantities and the price performance metric must be reported.

Numerical Quantities Summary section of the executive summary, which can be found in the beginning of this document, contains the performance metrics, related numerical quantities and the price performance metric.

6.9 The Performance Metric and Numerical Quantities from Both Runs

A description of the method used to determine the reproducibility of the measurement results must be reported. This must include the performance metrics (QppH and QthH) from the reproducibility runs.

Performance results from the first two executions of the TPC-H benchmark indicated the following difference for the metric points:

Run	QppH@1000GB	QthH@1000GB	QphH@1000GB
Run 1	782,608.7	1,740,121.8	1,166,976.6
Run 2	923,076.9	1,740,121.8	1,267,385.6

6.11 System Activity Between Tests

Any activity on the SUT that takes place between the conclusion of Run1 and the beginning of Run2 must be disclosed.

No activites performed between Run 1 and Run 2.

7.0 Clause 6: SUT and Driver Implementation Related Items

7.1 Driver

A detailed description of how the driver performs its functions must be supplied, including any related source code or scripts. This description should allow an independent reconstruction of the driver.

A single script performs all stream executions. QGEN is used to produce query text. For each power-test run:
The SQL for RF1 is submitted to the database
Then the queries as generated by QGEN are submitted in the order defined by Clause 5.3.5.4
The SQL for RF2 is submitted to the database.

7.2 Implementation Specific Layer (ISL)

If an implementation-specific layer is used, then a detailed description of how it performs its functions must be supplied, including any related source code or scripts. This description should allow an independent reconstruction of the implementation-specific layer.

The source code for the qexec utility can be found in Appendix F.

7.3 Profile-Directed Optimization

If profile-directed optimization as described in Clause 5.2.9 is used, such used must be disclosed.

Profile-directed optimization was used in this benchmark.

8.0 Clause 7: Pricing Related Items

8.1 Hardware and Software Used

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

A detailed list of hardware and software used in the priced system is included in the pricing sheet in the executive summary. All prices are currently effective. Third-party price quotations are included in Appendix G.

8.2 Total 3 Year Price

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.

A detailed pricing sheet of all the hardware and software used in this configuration and the 3-year maintenance costs, demonstrating the computation of the total 3-year price of the configuration, is included in the executive summary.

8.3 Availability Date

The committed delivery date for general availability of products used in the price calculations must be reported. When the priced system includes products with different availability dates, the availability date reported on the executive summary must be the date by which all components are committed to being available. The full disclosure report must report availability dates individually for at least each of the categories for which a pricing subtotal must be provided.

Availability date is December 1, 2009. Hardware is available now.

8.4 Country-Specific Pricing

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

The configuration is priced for the United States of America.

9.0 Clause 9: Related Items

9.1 Auditors' Report

The auditor's agency name, address, phone number, and Attestation letter with a brief audit summary report indicating compliance must be included in the full disclosure report. A statement should be included specifying who to contact in order to obtain further information regarding the audit process.

Lorna Livingtree of Performance Metrics Inc audited this implementation of the TPC Benchmark H.

Performance Metrics Inc.
PO Box 984 Klamath, CA 95548
Phone: (707) 482-0523
fax: (707) 482-0575

email: LornaL@PerfMetrics.com

TPC Benchmark H Full Disclosure Report and other information can be downloaded from Transaction Processing Performance Council web site at www.tpc.org.

June 3, 2009

Mr. Raghunath Nambiar
Hewlett-Packard Company
20555 SH 249
Houston, TX 77077

I have verified the TPC Benchmark™ H for the following configuration:

Platform: HP BladeSystem c-Class 128P RAC with HP Oracle Exadata Storage Servers (64-node cluster with six storage servers)

Database Manager: Oracle Database 11g Enterprise Edition, Real Application Clusters, Partitioning, Advanced Compression and Exadata Storage Server Software.

Operating System: Oracle Enterprise Linux

CPU's	Memory	Total Disks	Qpph@ 1000GB	QthH@1000GB	QphH@1000GB
128 Intel Xeon @ 3.00 GHz quad-core	2080 GB (64GB on one node and 32GB each on 63 nodes)	72 @ 300 GB (Database) 128 @ 146GB (OS)	**782,608.7**	**1,740,121.8**	**1,166,976.6**

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 database tables were defined with the proper columns, layout and sizes.
- The tested database was correctly scaled and populated for 1000GB using DBGEN. The version of DBGEN was 2.8.0. The references data was verified.
- The qualification database layout was identical to the tested database except for the number and size of the files and nodes.
- The query text was verified to use only compliant variants and minor modifications.
- The executable query text was generated by QGEN and submitted through Oracle's standard interactive interface. The version of QGEN was 2.8.0.

- The validation of the query text against the qualification database produced compliant results.
- The refresh functions were properly implemented and executed the correct number of inserts and deletes.
- The load timing was properly measured and reported.
- The execution times were correctly measured and reported.
- The performance metrics were correctly computed and reported.
- The repeatability of the measurement was verified.
- The ACID properties were successfully demonstrated and verified.
- The system pricing was checked for major components and maintenance.
- The executive summary pages of the FDR were verified for accuracy.

Auditor's Notes:

Disk Substitution: The system under test included six *HP Oracle Exadata Storage Servers*. Each *HP Oracle Exadata Storage Servers* contained 12 disks at 300GB. The *HP Oracle Exadata Storage Servers* will not be sold with 300GB disk, but will contain 450GB disk. Therefore, all 72 disks are being substituted in the price sheet with 450GB disks. I have verified the technical specifications and this substitution meets the requirements of the Pricing specification.

Sincerely,

Lorna Livingtree
Auditor

Appendix A: Parameter Settings

```
-----------------------------------
2start
-----------------------------------
#!/bin/ksh
################################################
# Copyright Oracle Corporation 2009          #
#                                            #
# Last updated 5/1/09 Meikel Poess           #
################################################

ARG1=$1;
. $MPTOOLS/env

NODES=$START_NODES
if ((ARG1>0));then
  NODES=$ARG1
fi

for i in $NODES
do
  ssh $i -n /home/oracle/mptools/tstart | grep "Instance" &
  sleep 1
done
wait
-----------------------------------
2start.asm
-----------------------------------
#!/bin/ksh
################################################
# Copyright Oracle Corporation 2009          #
#                                            #
# Last updated 5/1/09 Meikel Poess           #
################################################

ARG1=$1;
. $MPTOOLS/env

NODES=$START_NODES

echo Starting database on nodes $NODES
doallp /home/oracle/mptools/cleanasmlog
for i in $NODES
do
  echo starting instance on node $i
  ssh $i -n /home/oracle/mptools/tstart.asm $ARG1 &
  sleep 2
done
-----------------------------------
init_tpch_build.ora
-----------------------------------
ifile ='init_tpch_run.ora'
parallel_execution_message_size = 32768
shared_pool_size              = 10g
db_cache_size                 = 8g
db_keep_cache_size            = 0
result_cache_mode             = manual
statistics_level              = basic
-----------------------------------
init_tpch_run.ora
-----------------------------------
compatible                    = 11.1.0.7.0
aq_tm_processes               = 0
audit_trail                   = false
control_files                 = (+dg0/ctrl1,+dg0/ctrl2)
cpu_count                     = 8
db_block_checksum             = false
db_block_size                 = 32768
db_cache_size                 = 19g
db_file_multiblock_read_count = 32
db_files                      = 500
db_name                       = 11i
db_writer_processes           = 1
dml_locks                     = 5000
filesystemio_options          = asynch
global_names                  = false
instance_name                 = raca
log_buffer                    = 268431360
log_checkpoints_to_alert      = true
log_checkpoint_timeout                    = 0
max_dump_file_size            = unlimited
nls_date_format               = YYYY-MM-DD
open_cursors                  = 600
optimizer_features_enable     = 11.1.0.7.1
optimizer_index_cost_adj      = 1000
optimizer_mode                = CHOOSE
parallel_adaptive_multi_user  = no
parallel_execution_message_size = 16384
parallel_max_servers          = 128
parallel_min_servers          = 128
pga_aggregate_target          = 16g
processes                     = 3000
recovery_parallelism          = 512
replication_dependency_tracking = false
shared_pool_size              = 3g
large_pool_size               = 2g
statistics_level              = basic
timed_statistics              = false
undo_management               = auto
parallel_affinity_pct         = 100
parallel_cluster_policy       = CACHED
db_cache_advice               = off
fast_start_mttr_target        = 0
workarea_size_policy          = auto
parallel_threads_per_cpu      = 1
result_cache_mode             = force
recyclebin                    = off
cell_offload_processing       = false
transactions_per_rollback_segment = 1
undo_retention                = 0
java_pool_size                = 52428800
-----------------------------------
init_xd_h[1..64].ora
-----------------------------------
instance_number = [1..64]
thread = [1..64]
undo_management = auto
undo_tablespace = ts_undo[1..64]
cluster_database = true
cluster_interconnects = 2.2.210.[1..64]
ifile = /home/oracle/app/oracle/product/11.1.0/db_1/dbs/init_tpch.ora

-----------------------------------
tstart
-----------------------------------
#!/bin/ksh
################################################
# Copyright Oracle Corporation 2009          #
#                                            #
# Last updated 5/1/09 Meikel Poess           #
################################################
starttime=`/home/oracle/kit/utils/gtime`
DIR=`pwd`
cd $ORACLE_HOME/dbs
if [ "$1" != "" ]; then
  PFILE="pfile=$ORACLE_HOME/dbs/$1.ora"
else
  PFILE="pfile=$ORACLE_HOME/dbs/init_$ORACLE_SID.ora"
fi

echo $PFILE
sqlplus /NOLOG << !
connect / as sysdba
startup $PFILE
exit
!

-----------------------------------
tstart.asm
-----------------------------------
#!/bin/ksh
################################################
# Copyright Oracle Corporation 2009          #
#                                            #
# Last updated 5/1/09 Meikel Poess           #
################################################

node=`uname -a | awk '{print $2}'`
ORACLE_SID=${node}
DBMS_SID=`echo $ORACLE_SID | sed s/xd_//`
export ORACLE_SID=+ASM_${DBMS_SID}
echo starting ASM instance with SID=$ORACLE_SID
DIR=`pwd`
cd $ORACLE_HOME/dbs
PFILE="pfile=$ORACLE_HOME/dbs/init${ORACLE_SID}.ora"
sqlplus /NOLOG << !
connect / as sysdba
startup $PFILE $1
exit
!

cd $DIR
export ORACLE_SID=$DBMS_SID
```

---
sysctl.conf (all database servers)

```
# Kernel sysctl configuration file for Red Hat Linux
#
# For binary values, 0 is disabled, 1 is enabled.  See sysctl(8) and
# sysctl.conf(5) for more details.
# raghu @hp
#
#
net.ipv4.ip_forward = 0
net.ipv4.conf.default.rp_filter = 1
net.ipv4.conf.default.accept_source_route = 0
kernel.sysrq = 0
kernel.core_uses_pid = 1
net.ipv4.tcp_syncookies = 1
kernel.msgmnb = 65536
kernel.msgmax = 65536
kernel.shmmax = 68719476736
kernel.shmall = 4294967296
fs.file-max = 6553600
net.ipv4.ip_local_port_range = 1024 65000
kernel.sem = 500        64000   100      128
fs.aio-max-nr = 8388608
kernel.shmmax =  8000000000
kernel.shmall = 40960000
net.core.rmem_default = 16777216
net.core.wmem_default = 16777216
net.core.rmem_max = 16777216
```

```
#!/bin


net.core.wmem_max = 16777216
net.ipv4.tcp_rmem = 4096 87380 16777216
net.ipv4.tcp_wmem = 4096 65536 16777216
net.ipv4.tcp_no_metrics_save = 1
net.ipv4.tcp_max_syn_backlog = 1536
net.core.netdev_max_backlog = 3000
net.ipv4.tcp_timestamps = 0
net.ipv4.tcp_sack =1
net.ipv4.tcp_window_scaling = 1
net.ipv4.tcp_tw_recycle = 1
net.rds.ib.max_send_wr = 512
net.rds.ib.max_recv_wr = 2048
```

---
ifcfg-bond0 (all database servers)

```
DEVICE=bond0
USERCTL=no
BOOTPROTO=none
ONBOOT=yes
IPADDR=2.2.210.[1..64]
NETMASK=255.255.255.0
BONDING_OPTS="mode=active-backup miimon=100 downdelay=5000 updelay=5000"
HOTPLUG=no
IPV6INIT=no
```

Appendix B: Database Build Scripts

```
---------------------------------
2cpt
---------------------------------
#!/bin/ksh
###############################################
# Copyright Oracle Corporation 2009           #
#                                             #
# Last updated 5/1/09 Meikel Poess            #
###############################################
ARG1=$1;
. $MPTOOLS/env
for i in $NODES; do
  ssh $i -n switchlog &
done
wait
---------------------------------
2shut
---------------------------------
#!/bin/ksh
ARG1=$1;
###############################################
# Copyright Oracle Corporation 2009           #
#                                             #
# Last updated 5/1/09 Meikel Poess            #
###############################################

. $MPTOOLS/env

for i in $NODES
do
  ssh $i -n ~/mptools/tshut $ARG1 | grep "Instance" &
done
wait
---------------------------------
cl_drv_exadata.sh
---------------------------------
###############################################
# Copyright Oracle Corporation 2009           #
#                                             #
# Last updated 5/1/09 Meikel Poess            #
###############################################

start=$1
end=$2
size=$3
((i=start-1))
while ((i<end));do
  ((i=i+1))
  ./cl_exadata.sh $i $size &
done
exit;
!
---------------------------------
cl_exadata.sh
---------------------------------
###############################################
# Copyright Oracle Corporation 2009           #
#                                             #
# Last updated 5/1/09 Meikel Poess            #
###############################################

log=$1;
size=$2
((group1=log*2-1))
((group2=log*2))
./clp_exadata_a.sh $log $size $group1 &
./clp_exadata_b.sh $log $size $group2 &
echo  Started log file creation in parallel waiting before proceeding
wait
sqlplus /NOLOG <<!
connect /as sysdba
alter database enable public thread $log;
exit;
!

---------------------------------
create_dir.sh
---------------------------------
#!/bin/ksh

###############################################
# Copyright Oracle Corporation 2009           #
#                                             #
# Last updated 5/1/09 Meikel Poess            #
###############################################
sqlplus /NOLOG <<!
connect / as sysdba
connect tpch/tpch
drop directory ff$1;
create directory ff$1 as '/home/oracle/dev/ff_$1';
!
---------------------------------
cu_drv_exadata.sh
---------------------------------
###############################################
# Copyright Oracle Corporation 2009           #
#                                             #
# Last updated 5/1/09 Meikel Poess            #
###############################################

start=$1
end=$2
size=$3
((i=start-1))
while ((i<end));do
  ((i=i+1))
  ./cu_exadata.sh $i $size &
done
exit;
!
---------------------------------
cu_exadata.sh
---------------------------------
###############################################
# Copyright Oracle Corporation 2009           #
#                                             #
# Last updated 5/1/09 Meikel Poess            #
###############################################

undo=$1;
size=$2
sqlplus /NOLOG <<!
connect /as sysdba
create undo tablespace ts_undo${undo} datafile '+dg0' size $size reuse;
exit;
!

---------------------------------
dapop_p1.sh
---------------------------------
#!/bin/bash
sqlplus /NOLOG <<EOF
connect / as sysdba
drop user tpch cascade;
grant DBA
to tpch identified by tpch;
EOF
i=1
while ((i <= 64)); do
/home/oracle/kit/schema/10.0/build/create_dir.sh $i
((i=i+1))
done
sqlplus /NOLOG <<EOF
connect tpch/tpch
drop table l_et;
create table l_et(
    l_orderkey          number ,
    l_partkey           number ,
    l_suppkey           number ,
    l_linenumber        number ,
    l_quantity          number ,
    l_extendedprice     number ,
    l_discount          number ,
    l_tax               number ,
    l_returnflag        char(1) ,
    l_linestatus        char(1) ,
    l_shipdate          date ,
    l_commitdate        date ,
    l_receiptdate       date ,
    l_shipinstruct      char(25) ,
    l_shipmode          char(10) ,
    l_comment           varchar(44)
)
organization external (
type ORACLE_LOADER
default directory ff1
access parameters
(
                                records delimited by newline
                                nobadfile
                                nologfile
```

```
                fields terminated by '|'
                missing field values are null
        )
        location (
ff1:'lineitem.tbl.1a',ff1:'lineitem.tbl.1b',ff2:'lineitem.tbl.2',
ff3:'lineitem.tbl.3',ff4:'lineitem.tbl.4',ff5:'lineitem.tbl.5',
ff6:'lineitem.tbl.6',ff7:'lineitem.tbl.7',ff8:'lineitem.tbl.8',
ff9:'lineitem.tbl.9',ff10:'lineitem.tbl.10',ff11:'lineitem.tbl.11',
ff12:'lineitem.tbl.12',ff13:'lineitem.tbl.13',ff14:'lineitem.tbl.14',
ff15:'lineitem.tbl.15',ff16:'lineitem.tbl.16',ff17:'lineitem.tbl.17',
ff18:'lineitem.tbl.18',ff19:'lineitem.tbl.19',ff20:'lineitem.tbl.20',
ff21:'lineitem.tbl.21',ff22:'lineitem.tbl.22',ff23:'lineitem.tbl.23',
ff24:'lineitem.tbl.24',ff25:'lineitem.tbl.25',ff26:'lineitem.tbl.26',
ff27:'lineitem.tbl.27',ff28:'lineitem.tbl.28',ff29:'lineitem.tbl.29',
ff30:'lineitem.tbl.30',ff31:'lineitem.tbl.31',ff32:'lineitem.tbl.32',
ff33:'lineitem.tbl.33',ff34:'lineitem.tbl.34',ff35:'lineitem.tbl.35',
ff36:'lineitem.tbl.36',ff37:'lineitem.tbl.37',ff38:'lineitem.tbl.38',
ff39:'lineitem.tbl.39',ff40:'lineitem.tbl.40',ff41:'lineitem.tbl.41',
ff42:'lineitem.tbl.42',ff43:'lineitem.tbl.43',ff44:'lineitem.tbl.44',
ff45:'lineitem.tbl.45',ff46:'lineitem.tbl.46',ff47:'lineitem.tbl.47',
ff48:'lineitem.tbl.48',ff49:'lineitem.tbl.49',ff50:'lineitem.tbl.50',
ff51:'lineitem.tbl.51',ff52:'lineitem.tbl.52',ff53:'lineitem.tbl.53',
ff54:'lineitem.tbl.54',ff55:'lineitem.tbl.55',ff56:'lineitem.tbl.56',
ff57:'lineitem.tbl.57',ff58:'lineitem.tbl.58',ff59:'lineitem.tbl.59',
ff60:'lineitem.tbl.60',ff61:'lineitem.tbl.61',ff62:'lineitem.tbl.62',
ff63:'lineitem.tbl.63',ff64:'lineitem.tbl.64'))
reject limit unlimited;
drop table o_et;
create table o_et(
   o_orderkey          number ,
   o_custkey           number ,
   o_orderstatus       char(1) ,
   o_totalprice        number ,
   o_orderdate         date ,
   o_orderpriority     char(15) ,
   o_clerk             char(15) ,
   o_shippriority      number ,
   o_comment           varchar(79)
)
organization external (
type ORACLE_LOADER
default directory ff1
access parameters
(
                records delimited by newline
                nobadfile
                nologfile
                fields terminated by '|'
                missing field values are null
        )
        location (
ff1:'orders.tbl.1a',ff1:'orders.tbl.1b',ff2:'orders.tbl.2',
ff3:'orders.tbl.3',ff4:'orders.tbl.4',ff5:'orders.tbl.5',
ff6:'orders.tbl.6',ff7:'orders.tbl.7',ff8:'orders.tbl.8',
ff9:'orders.tbl.9',ff10:'orders.tbl.10',ff11:'orders.tbl.11',
ff12:'orders.tbl.12',ff13:'orders.tbl.13',ff14:'orders.tbl.14',
ff15:'orders.tbl.15',ff16:'orders.tbl.16',ff17:'orders.tbl.17',
ff18:'orders.tbl.18',ff19:'orders.tbl.19',ff20:'orders.tbl.20',
ff21:'orders.tbl.21',ff22:'orders.tbl.22',ff23:'orders.tbl.23',
ff24:'orders.tbl.24',ff25:'orders.tbl.25',ff26:'orders.tbl.26',
ff27:'orders.tbl.27',ff28:'orders.tbl.28',ff29:'orders.tbl.29',
ff30:'orders.tbl.30',ff31:'orders.tbl.31',ff32:'orders.tbl.32',
ff33:'orders.tbl.33',ff34:'orders.tbl.34',ff35:'orders.tbl.35',
ff36:'orders.tbl.36',ff37:'orders.tbl.37',ff38:'orders.tbl.38',
ff39:'orders.tbl.39',ff40:'orders.tbl.40',ff41:'orders.tbl.41',
ff42:'orders.tbl.42',ff43:'orders.tbl.43',ff44:'orders.tbl.44',
ff45:'orders.tbl.45',ff46:'orders.tbl.46',ff47:'orders.tbl.47',
ff48:'orders.tbl.48',ff49:'orders.tbl.49',ff50:'orders.tbl.50',
ff51:'orders.tbl.51',ff52:'orders.tbl.52',ff53:'orders.tbl.53',
ff54:'orders.tbl.54',ff55:'orders.tbl.55',ff56:'orders.tbl.56',
ff57:'orders.tbl.57',ff58:'orders.tbl.58',ff59:'orders.tbl.59',
ff60:'orders.tbl.60',ff61:'orders.tbl.61',ff62:'orders.tbl.62',
ff63:'orders.tbl.63',ff64:'orders.tbl.64'))
reject limit unlimited;
drop table ps_et;
create table ps_et(
   ps_partkey          number ,
   ps_suppkey          number ,
   ps_availqty         number ,
   ps_supplycost       number ,
   ps_comment          varchar(199)
)
organization external (
type ORACLE_LOADER
default directory ff1
access parameters
(
                records delimited by newline
                nobadfile
                nologfile
                fields terminated by '|'
                missing field values are null
        )
        location (
ff1:'partsupp.tbl.1',ff2:'partsupp.tbl.2',ff3:'partsupp.tbl.3',
ff4:'partsupp.tbl.4',ff5:'partsupp.tbl.5',ff6:'partsupp.tbl.6',
ff7:'partsupp.tbl.7',ff8:'partsupp.tbl.8',ff9:'partsupp.tbl.9',
ff10:'partsupp.tbl.10',ff11:'partsupp.tbl.11',ff12:'partsupp.tbl.12',
ff13:'partsupp.tbl.13',ff14:'partsupp.tbl.14',ff15:'partsupp.tbl.15',
ff16:'partsupp.tbl.16',ff17:'partsupp.tbl.17',ff18:'partsupp.tbl.18',
ff19:'partsupp.tbl.19',ff20:'partsupp.tbl.20',ff21:'partsupp.tbl.21',
ff22:'partsupp.tbl.22',ff23:'partsupp.tbl.23',ff24:'partsupp.tbl.24',
ff25:'partsupp.tbl.25',ff26:'partsupp.tbl.26',ff27:'partsupp.tbl.27',
ff28:'partsupp.tbl.28',ff29:'partsupp.tbl.29',ff30:'partsupp.tbl.30',
ff31:'partsupp.tbl.31',ff32:'partsupp.tbl.32',ff33:'partsupp.tbl.33',
ff34:'partsupp.tbl.34',ff35:'partsupp.tbl.35',ff36:'partsupp.tbl.36',
ff37:'partsupp.tbl.37',ff38:'partsupp.tbl.38',ff39:'partsupp.tbl.39',
ff40:'partsupp.tbl.40',ff41:'partsupp.tbl.41',ff42:'partsupp.tbl.42',
ff43:'partsupp.tbl.43',ff44:'partsupp.tbl.44',ff45:'partsupp.tbl.45',
ff46:'partsupp.tbl.46',ff47:'partsupp.tbl.47',ff48:'partsupp.tbl.48',
ff49:'partsupp.tbl.49',ff50:'partsupp.tbl.50',ff51:'partsupp.tbl.51',
ff52:'partsupp.tbl.52',ff53:'partsupp.tbl.53',ff54:'partsupp.tbl.54',
ff55:'partsupp.tbl.55',ff56:'partsupp.tbl.56',ff57:'partsupp.tbl.57',
ff58:'partsupp.tbl.58',ff59:'partsupp.tbl.59',ff60:'partsupp.tbl.60',
ff61:'partsupp.tbl.61',ff62:'partsupp.tbl.62',ff63:'partsupp.tbl.63',
ff64:'partsupp.tbl.64'))
reject limit unlimited;
drop table p_et;
create table p_et(
   p_partkey           number ,
   p_name              varchar(55) ,
   p_mfgr              char(25) ,
   p_brand             char(10) ,
   p_type              varchar(25) ,
   p_size              number ,
   p_container         char(10) ,
   p_retailprice       number ,
   p_comment           varchar(23)
)
organization external (
type ORACLE_LOADER
default directory ff1
access parameters
(
                records delimited by newline
                nobadfile
                nologfile
                fields terminated by '|'
                missing field values are null
        )
        location (
ff1:'part.tbl.1',ff2:'part.tbl.2',ff3:'part.tbl.3',
ff4:'part.tbl.4',ff5:'part.tbl.5',ff6:'part.tbl.6',
ff7:'part.tbl.7',ff8:'part.tbl.8',ff9:'part.tbl.9',
ff10:'part.tbl.10',ff11:'part.tbl.11',ff12:'part.tbl.12',
ff13:'part.tbl.13',ff14:'part.tbl.14',ff15:'part.tbl.15',
ff16:'part.tbl.16',ff17:'part.tbl.17',ff18:'part.tbl.18',
ff19:'part.tbl.19',ff20:'part.tbl.20',ff21:'part.tbl.21',
ff22:'part.tbl.22',ff23:'part.tbl.23',ff24:'part.tbl.24',
ff25:'part.tbl.25',ff26:'part.tbl.26',ff27:'part.tbl.27',
ff28:'part.tbl.28',ff29:'part.tbl.29',ff30:'part.tbl.30',
ff31:'part.tbl.31',ff32:'part.tbl.32',ff33:'part.tbl.33',
ff34:'part.tbl.34',ff35:'part.tbl.35',ff36:'part.tbl.36',
ff37:'part.tbl.37',ff38:'part.tbl.38',ff39:'part.tbl.39',
ff40:'part.tbl.40',ff41:'part.tbl.41',ff42:'part.tbl.42',
ff43:'part.tbl.43',ff44:'part.tbl.44',ff45:'part.tbl.45',
ff46:'part.tbl.46',ff47:'part.tbl.47',ff48:'part.tbl.48',
ff49:'part.tbl.49',ff50:'part.tbl.50',ff51:'part.tbl.51',
ff52:'part.tbl.52',ff53:'part.tbl.53',ff54:'part.tbl.54',
ff55:'part.tbl.55',ff56:'part.tbl.56',ff57:'part.tbl.57',
ff58:'part.tbl.58',ff59:'part.tbl.59',ff60:'part.tbl.60',
ff61:'part.tbl.61',ff62:'part.tbl.62',ff63:'part.tbl.63',
ff64:'part.tbl.64'))
reject limit unlimited;
drop table c_et;
create table c_et(
   c_custkey           number ,
   c_name              varchar(25) ,
   c_address           varchar(40) ,
   c_nationkey         number ,
   c_phone             char(15) ,
   c_acctbal           number ,
   c_mktsegment        char(10) ,
   c_comment           varchar(117)
)
organization external (
type ORACLE_LOADER
default directory ff1
access parameters
(
                records delimited by newline
                nobadfile
                nologfile
                fields terminated by '|'
                missing field values are null
        )
```

```
                location (
ff1:'customer.tbl.1',ff2:'customer.tbl.2',ff3:'customer.tbl.3',
ff4:'customer.tbl.4',ff5:'customer.tbl.5',ff6:'customer.tbl.6',
ff7:'customer.tbl.7',ff8:'customer.tbl.8',ff9:'customer.tbl.9',
ff10:'customer.tbl.10',ff11:'customer.tbl.11',ff12:'customer.tbl.12',
ff13:'customer.tbl.13',ff14:'customer.tbl.14',ff15:'customer.tbl.15',
ff16:'customer.tbl.16',ff17:'customer.tbl.17',ff18:'customer.tbl.18',
ff19:'customer.tbl.19',ff20:'customer.tbl.20',ff21:'customer.tbl.21',
ff22:'customer.tbl.22',ff23:'customer.tbl.23',ff24:'customer.tbl.24',
ff25:'customer.tbl.25',ff26:'customer.tbl.26',ff27:'customer.tbl.27',
ff28:'customer.tbl.28',ff29:'customer.tbl.29',ff30:'customer.tbl.30',
ff31:'customer.tbl.31',ff32:'customer.tbl.32',ff33:'customer.tbl.33',
ff34:'customer.tbl.34',ff35:'customer.tbl.35',ff36:'customer.tbl.36',
ff37:'customer.tbl.37',ff38:'customer.tbl.38',ff39:'customer.tbl.39',
ff40:'customer.tbl.40',ff41:'customer.tbl.41',ff42:'customer.tbl.42',
ff43:'customer.tbl.43',ff44:'customer.tbl.44',ff45:'customer.tbl.45',
ff46:'customer.tbl.46',ff47:'customer.tbl.47',ff48:'customer.tbl.48',
ff49:'customer.tbl.49',ff50:'customer.tbl.50',ff51:'customer.tbl.51',
ff52:'customer.tbl.52',ff53:'customer.tbl.53',ff54:'customer.tbl.54',
ff55:'customer.tbl.55',ff56:'customer.tbl.56',ff57:'customer.tbl.57',
ff58:'customer.tbl.58',ff59:'customer.tbl.59',ff60:'customer.tbl.60',
ff61:'customer.tbl.61',ff62:'customer.tbl.62',ff63:'customer.tbl.63',
ff64:'customer.tbl.64'
))
reject limit unlimited;
drop table s_et;
create table s_et(
   s_suppkey          number ,
   s_name             char(25) ,
   s_address          varchar(40) ,
   s_nationkey        number ,
   s_phone            char(15) ,
   s_acctbal          number ,
   s_comment          varchar(101)
)
organization external (
type ORACLE_LOADER
default directory ff1
access parameters
(
                                records delimited by newline
                                nobadfile
                                nologfile
                                fields terminated by '|'
                                missing field values are null
                )
                location (
ff1:'supplier.tbl.1',ff2:'supplier.tbl.2',ff3:'supplier.tbl.3',
ff4:'supplier.tbl.4',ff5:'supplier.tbl.5',ff6:'supplier.tbl.6',
ff7:'supplier.tbl.7',ff8:'supplier.tbl.8',ff9:'supplier.tbl.9',
ff10:'supplier.tbl.10',ff11:'supplier.tbl.11',ff12:'supplier.tbl.12',
ff13:'supplier.tbl.13',ff14:'supplier.tbl.14',ff15:'supplier.tbl.15',
ff16:'supplier.tbl.16',ff17:'supplier.tbl.17',ff18:'supplier.tbl.18',
ff19:'supplier.tbl.19',ff20:'supplier.tbl.20',ff21:'supplier.tbl.21',
ff22:'supplier.tbl.22',ff23:'supplier.tbl.23',ff24:'supplier.tbl.24',
ff25:'supplier.tbl.25',ff26:'supplier.tbl.26',ff27:'supplier.tbl.27',
ff28:'supplier.tbl.28',ff29:'supplier.tbl.29',ff30:'supplier.tbl.30',
ff31:'supplier.tbl.31',ff32:'supplier.tbl.32',ff33:'supplier.tbl.33',
ff34:'supplier.tbl.34',ff35:'supplier.tbl.35',ff36:'supplier.tbl.36',
ff37:'supplier.tbl.37',ff38:'supplier.tbl.38',ff39:'supplier.tbl.39',
ff40:'supplier.tbl.40',ff41:'supplier.tbl.41',ff42:'supplier.tbl.42',
ff43:'supplier.tbl.43',ff44:'supplier.tbl.44',ff45:'supplier.tbl.45',
ff46:'supplier.tbl.46',ff47:'supplier.tbl.47',ff48:'supplier.tbl.48',
ff49:'supplier.tbl.49',ff50:'supplier.tbl.50',ff51:'supplier.tbl.51',
ff52:'supplier.tbl.52',ff53:'supplier.tbl.53',ff54:'supplier.tbl.54',
ff55:'supplier.tbl.55',ff56:'supplier.tbl.56',ff57:'supplier.tbl.57',
ff58:'supplier.tbl.58',ff59:'supplier.tbl.59',ff60:'supplier.tbl.60',
ff61:'supplier.tbl.61',ff62:'supplier.tbl.62',ff63:'supplier.tbl.63',
ff64:'supplier.tbl.64')) reject limit unlimited;
drop table n_et;
create table n_et(
   n_nationkey        number ,
   n_name             char(25) ,
   n_regionkey        number ,
   n_comment          varchar(152)
)
organization external (
type ORACLE_LOADER
default directory ff1
access parameters
(
                                records delimited by newline
                                nobadfile
                                nologfile
                                fields terminated by '|'
                                missing field values are null
                )
                location (
ff1:'nation.tbl'
))
reject limit unlimited;
drop table r_et;
create table r_et(
   r_regionkey        number ,
   r_name             char(25) ,
   r_comment          varchar(152)
)
organization external (
type ORACLE_LOADER
default directory ff1
access parameters
(
                                records delimited by newline
                                nobadfile
                                nologfile
                                fields terminated by '|'
                                missing field values are null
                )
                location (
ff1:'region.tbl'
))
reject limit unlimited;
alter table l_et parallel;
alter table o_et parallel;
alter table ps_et parallel;
alter table p_et parallel;
alter table c_et parallel;
alter table s_et parallel;
alter user tpch default tablespace ts_l;
alter user tpch temporary tablespace ts_temp;
@?/rdbms/admin/utlxplan.sql;
set timing on
set echo on
!date
rem drop table lineitem;
create table lineitem(
   l_shipdate         ,
   l_orderkey         NOT NULL,
   l_discount         NOT NULL,
   l_extendedprice    NOT NULL,
   l_suppkey          NOT NULL,
   l_quantity         NOT NULL,
   l_returnflag       ,
   l_partkey          NOT NULL,
   l_linestatus       ,
   l_tax              NOT NULL,
   l_commitdate       ,
   l_receiptdate      ,
   l_shipmode         ,
   l_linenumber       NOT NULL,
   l_shipinstruct     ,
   l_comment
)
pctfree 1
pctused 99
initrans 10
compress for all operations
parallel
nologging
tablespace ts_l
partition by range (l_shipdate)
subpartition by hash(l_orderkey)
subpartitions 512
(
partition item1 values less than (to_date('1992-01-01','YYYY-MM-DD')) ,
partition item2 values less than (to_date('1992-02-01','YYYY-MM-DD')) ,
partition item3 values less than (to_date('1992-03-01','YYYY-MM-DD')) ,
partition item4 values less than (to_date('1992-04-01','YYYY-MM-DD')) ,
partition item5 values less than (to_date('1992-05-01','YYYY-MM-DD')) ,
partition item6 values less than (to_date('1992-06-01','YYYY-MM-DD')) ,
partition item7 values less than (to_date('1992-07-01','YYYY-MM-DD')) ,
partition item8 values less than (to_date('1992-08-01','YYYY-MM-DD')) ,
partition item9 values less than (to_date('1992-09-01','YYYY-MM-DD')) ,
partition item10 values less than (to_date('1992-10-01','YYYY-MM-DD')) ,
partition item11 values less than (to_date('1992-11-01','YYYY-MM-DD')) ,
partition item12 values less than (to_date('1992-12-01','YYYY-MM-DD')) ,
partition item13 values less than (to_date('1993-01-01','YYYY-MM-DD')) ,
partition item14 values less than (to_date('1993-02-01','YYYY-MM-DD')) ,
partition item15 values less than (to_date('1993-03-01','YYYY-MM-DD')) ,
partition item16 values less than (to_date('1993-04-01','YYYY-MM-DD')) ,
partition item17 values less than (to_date('1993-05-01','YYYY-MM-DD')) ,
partition item18 values less than (to_date('1993-06-01','YYYY-MM-DD')) ,
partition item19 values less than (to_date('1993-07-01','YYYY-MM-DD')) ,
partition item20 values less than (to_date('1993-08-01','YYYY-MM-DD')) ,
partition item21 values less than (to_date('1993-09-01','YYYY-MM-DD')) ,
partition item22 values less than (to_date('1993-10-01','YYYY-MM-DD')) ,
partition item23 values less than (to_date('1993-11-01','YYYY-MM-DD')) ,
partition item24 values less than (to_date('1993-12-01','YYYY-MM-DD')) ,
partition item25 values less than (to_date('1994-01-01','YYYY-MM-DD')) ,
partition item26 values less than (to_date('1994-02-01','YYYY-MM-DD')) ,
partition item27 values less than (to_date('1994-03-01','YYYY-MM-DD')) ,
partition item28 values less than (to_date('1994-04-01','YYYY-MM-DD')) ,
partition item29 values less than (to_date('1994-05-01','YYYY-MM-DD')) ,
partition item30 values less than (to_date('1994-06-01','YYYY-MM-DD')) ,
partition item31 values less than (to_date('1994-07-01','YYYY-MM-DD')) ,
partition item32 values less than (to_date('1994-08-01','YYYY-MM-DD')) ,
```

```
partition item33 values less than (to_date('1994-09-01','YYYY-MM-DD')) ,
partition item34 values less than (to_date('1994-10-01','YYYY-MM-DD')) ,
partition item35 values less than (to_date('1994-11-01','YYYY-MM-DD')) ,
partition item36 values less than (to_date('1994-12-01','YYYY-MM-DD')) ,
partition item37 values less than (to_date('1995-01-01','YYYY-MM-DD')) ,
partition item38 values less than (to_date('1995-02-01','YYYY-MM-DD')) ,
partition item39 values less than (to_date('1995-03-01','YYYY-MM-DD')) ,
partition item40 values less than (to_date('1995-04-01','YYYY-MM-DD')) ,
partition item41 values less than (to_date('1995-05-01','YYYY-MM-DD')) ,
partition item42 values less than (to_date('1995-06-01','YYYY-MM-DD')) ,
partition item43 values less than (to_date('1995-07-01','YYYY-MM-DD')) ,
partition item44 values less than (to_date('1995-08-01','YYYY-MM-DD')) ,
partition item45 values less than (to_date('1995-09-01','YYYY-MM-DD')) ,
partition item46 values less than (to_date('1995-10-01','YYYY-MM-DD')) ,
partition item47 values less than (to_date('1995-11-01','YYYY-MM-DD')) ,
partition item48 values less than (to_date('1995-12-01','YYYY-MM-DD')) ,
partition item49 values less than (to_date('1996-01-01','YYYY-MM-DD')) ,
partition item50 values less than (to_date('1996-02-01','YYYY-MM-DD')) ,
partition item51 values less than (to_date('1996-03-01','YYYY-MM-DD')) ,
partition item52 values less than (to_date('1996-04-01','YYYY-MM-DD')) ,
partition item53 values less than (to_date('1996-05-01','YYYY-MM-DD')) ,
partition item54 values less than (to_date('1996-06-01','YYYY-MM-DD')) ,
partition item55 values less than (to_date('1996-07-01','YYYY-MM-DD')) ,
partition item56 values less than (to_date('1996-08-01','YYYY-MM-DD')) ,
partition item57 values less than (to_date('1996-09-01','YYYY-MM-DD')) ,
partition item58 values less than (to_date('1996-10-01','YYYY-MM-DD')) ,
partition item59 values less than (to_date('1996-11-01','YYYY-MM-DD')) ,
partition item60 values less than (to_date('1996-12-01','YYYY-MM-DD')) ,
partition item61 values less than (to_date('1997-01-01','YYYY-MM-DD')) ,
partition item62 values less than (to_date('1997-02-01','YYYY-MM-DD')) ,
partition item63 values less than (to_date('1997-03-01','YYYY-MM-DD')) ,
partition item64 values less than (to_date('1997-04-01','YYYY-MM-DD')) ,
partition item65 values less than (to_date('1997-05-01','YYYY-MM-DD')) ,
partition item66 values less than (to_date('1997-06-01','YYYY-MM-DD')) ,
partition item67 values less than (to_date('1997-07-01','YYYY-MM-DD')) ,
partition item68 values less than (to_date('1997-08-01','YYYY-MM-DD')) ,
partition item69 values less than (to_date('1997-09-01','YYYY-MM-DD')) ,
partition item70 values less than (to_date('1997-10-01','YYYY-MM-DD')) ,
partition item71 values less than (to_date('1997-11-01','YYYY-MM-DD')) ,
partition item72 values less than (to_date('1997-12-01','YYYY-MM-DD')) ,
partition item73 values less than (to_date('1998-01-01','YYYY-MM-DD')) ,
partition item74 values less than (to_date('1998-02-01','YYYY-MM-DD')) ,
partition item75 values less than (to_date('1998-03-01','YYYY-MM-DD')) ,
partition item76 values less than (to_date('1998-04-01','YYYY-MM-DD')) ,
partition item77 values less than (to_date('1998-05-01','YYYY-MM-DD')) ,
partition item78 values less than (to_date('1998-06-01','YYYY-MM-DD')) ,
partition item79 values less than (to_date('1998-07-01','YYYY-MM-DD')) ,
partition item80 values less than (to_date('1998-08-01','YYYY-MM-DD')) ,
partition item81 values less than (to_date('1998-09-01','YYYY-MM-DD')) ,
partition item82 values less than (to_date('1998-10-01','YYYY-MM-DD')) ,
partition item83 values less than (to_date('1998-11-01','YYYY-MM-DD')) ,
partition item84 values less than (MAXVALUE)
)
as select
   l_shipdate          ,
   l_orderkey          ,
   l_discount          ,
   l_extendedprice     ,
   l_suppkey           ,
   l_quantity          ,
   l_returnflag        ,
   l_partkey           ,
   l_linestatus        ,
   l_tax               ,
   l_commitdate        ,
   l_receiptdate       ,
   l_shipmode          ,
   l_linenumber        ,
   l_shipinstruct      ,
   l_comment
from l_et order by l_orderkey;
!date
rem drop table orders;
create table orders(
   o_orderdate         ,
   o_orderkey          NOT NULL,
   o_custkey           NOT NULL,
   o_orderpriority     ,
   o_shippriority      ,
   o_clerk             ,
   o_orderstatus       ,
   o_totalprice        ,
   o_comment
)
pctfree 1
pctused 99
initrans 10
tablespace ts_o
compress for all operations
parallel
nologging
partition by range (o_orderdate)
subpartition by hash(o_orderkey)
subpartitions 512
(
partition ord1 values less than (to_date('1992-01-01','YYYY-MM-DD')) ,
partition ord2 values less than (to_date('1992-02-01','YYYY-MM-DD')) ,
partition ord3 values less than (to_date('1992-03-01','YYYY-MM-DD')) ,
partition ord4 values less than (to_date('1992-04-01','YYYY-MM-DD')) ,
partition ord5 values less than (to_date('1992-05-01','YYYY-MM-DD')) ,
partition ord6 values less than (to_date('1992-06-01','YYYY-MM-DD')) ,
partition ord7 values less than (to_date('1992-07-01','YYYY-MM-DD')) ,
partition ord8 values less than (to_date('1992-08-01','YYYY-MM-DD')) ,
partition ord9 values less than (to_date('1992-09-01','YYYY-MM-DD')) ,
partition ord10 values less than (to_date('1992-10-01','YYYY-MM-DD')) ,
partition ord11 values less than (to_date('1992-11-01','YYYY-MM-DD')) ,
partition ord12 values less than (to_date('1992-12-01','YYYY-MM-DD')) ,
partition ord13 values less than (to_date('1993-01-01','YYYY-MM-DD')) ,
partition ord14 values less than (to_date('1993-02-01','YYYY-MM-DD')) ,
partition ord15 values less than (to_date('1993-03-01','YYYY-MM-DD')) ,
partition ord16 values less than (to_date('1993-04-01','YYYY-MM-DD')) ,
partition ord17 values less than (to_date('1993-05-01','YYYY-MM-DD')) ,
partition ord18 values less than (to_date('1993-06-01','YYYY-MM-DD')) ,
partition ord19 values less than (to_date('1993-07-01','YYYY-MM-DD')) ,
partition ord20 values less than (to_date('1993-08-01','YYYY-MM-DD')) ,
partition ord21 values less than (to_date('1993-09-01','YYYY-MM-DD')) ,
partition ord22 values less than (to_date('1993-10-01','YYYY-MM-DD')) ,
partition ord23 values less than (to_date('1993-11-01','YYYY-MM-DD')) ,
partition ord24 values less than (to_date('1993-12-01','YYYY-MM-DD')) ,
partition ord25 values less than (to_date('1994-01-01','YYYY-MM-DD')) ,
partition ord26 values less than (to_date('1994-02-01','YYYY-MM-DD')) ,
partition ord27 values less than (to_date('1994-03-01','YYYY-MM-DD')) ,
partition ord28 values less than (to_date('1994-04-01','YYYY-MM-DD')) ,
partition ord29 values less than (to_date('1994-05-01','YYYY-MM-DD')) ,
partition ord30 values less than (to_date('1994-06-01','YYYY-MM-DD')) ,
partition ord31 values less than (to_date('1994-07-01','YYYY-MM-DD')) ,
partition ord32 values less than (to_date('1994-08-01','YYYY-MM-DD')) ,
partition ord33 values less than (to_date('1994-09-01','YYYY-MM-DD')) ,
partition ord34 values less than (to_date('1994-10-01','YYYY-MM-DD')) ,
partition ord35 values less than (to_date('1994-11-01','YYYY-MM-DD')) ,
partition ord36 values less than (to_date('1994-12-01','YYYY-MM-DD')) ,
partition ord37 values less than (to_date('1995-01-01','YYYY-MM-DD')) ,
partition ord38 values less than (to_date('1995-02-01','YYYY-MM-DD')) ,
partition ord39 values less than (to_date('1995-03-01','YYYY-MM-DD')) ,
partition ord40 values less than (to_date('1995-04-01','YYYY-MM-DD')) ,
partition ord41 values less than (to_date('1995-05-01','YYYY-MM-DD')) ,
partition ord42 values less than (to_date('1995-06-01','YYYY-MM-DD')) ,
partition ord43 values less than (to_date('1995-07-01','YYYY-MM-DD')) ,
partition ord44 values less than (to_date('1995-08-01','YYYY-MM-DD')) ,
partition ord45 values less than (to_date('1995-09-01','YYYY-MM-DD')) ,
partition ord46 values less than (to_date('1995-10-01','YYYY-MM-DD')) ,
partition ord47 values less than (to_date('1995-11-01','YYYY-MM-DD')) ,
partition ord48 values less than (to_date('1995-12-01','YYYY-MM-DD')) ,
partition ord49 values less than (to_date('1996-01-01','YYYY-MM-DD')) ,
partition ord50 values less than (to_date('1996-02-01','YYYY-MM-DD')) ,
partition ord51 values less than (to_date('1996-03-01','YYYY-MM-DD')) ,
partition ord52 values less than (to_date('1996-04-01','YYYY-MM-DD')) ,
partition ord53 values less than (to_date('1996-05-01','YYYY-MM-DD')) ,
partition ord54 values less than (to_date('1996-06-01','YYYY-MM-DD')) ,
partition ord55 values less than (to_date('1996-07-01','YYYY-MM-DD')) ,
partition ord56 values less than (to_date('1996-08-01','YYYY-MM-DD')) ,
partition ord57 values less than (to_date('1996-09-01','YYYY-MM-DD')) ,
partition ord58 values less than (to_date('1996-10-01','YYYY-MM-DD')) ,
partition ord59 values less than (to_date('1996-11-01','YYYY-MM-DD')) ,
partition ord60 values less than (to_date('1996-12-01','YYYY-MM-DD')) ,
partition ord61 values less than (to_date('1997-01-01','YYYY-MM-DD')) ,
partition ord62 values less than (to_date('1997-02-01','YYYY-MM-DD')) ,
partition ord63 values less than (to_date('1997-03-01','YYYY-MM-DD')) ,
partition ord64 values less than (to_date('1997-04-01','YYYY-MM-DD')) ,
partition ord65 values less than (to_date('1997-05-01','YYYY-MM-DD')) ,
partition ord66 values less than (to_date('1997-06-01','YYYY-MM-DD')) ,
partition ord67 values less than (to_date('1997-07-01','YYYY-MM-DD')) ,
partition ord68 values less than (to_date('1997-08-01','YYYY-MM-DD')) ,
partition ord69 values less than (to_date('1997-09-01','YYYY-MM-DD')) ,
partition ord70 values less than (to_date('1997-10-01','YYYY-MM-DD')) ,
partition ord71 values less than (to_date('1997-11-01','YYYY-MM-DD')) ,
partition ord72 values less than (to_date('1997-12-01','YYYY-MM-DD')) ,
partition ord73 values less than (to_date('1998-01-01','YYYY-MM-DD')) ,
partition ord74 values less than (to_date('1998-02-01','YYYY-MM-DD')) ,
partition ord75 values less than (to_date('1998-03-01','YYYY-MM-DD')) ,
partition ord76 values less than (to_date('1998-04-01','YYYY-MM-DD')) ,
partition ord77 values less than (to_date('1998-05-01','YYYY-MM-DD')) ,
partition ord78 values less than (to_date('1998-06-01','YYYY-MM-DD')) ,
partition ord79 values less than (to_date('1998-07-01','YYYY-MM-DD')) ,
partition ord80 values less than (to_date('1998-08-01','YYYY-MM-DD')) ,
partition ord81 values less than (to_date('1998-09-01','YYYY-MM-DD')) ,
partition ord82 values less than (to_date('1998-10-01','YYYY-MM-DD')) ,
partition ord83 values less than (to_date('1998-11-01','YYYY-MM-DD')) ,
partition ord84 values less than (MAXVALUE)
)
as select
   o_orderdate         ,
   o_orderkey          ,
   o_custkey           ,
   o_orderpriority     ,
   o_shippriority      ,
```

```
    o_clerk             ,
    o_orderstatus       ,
    o_totalprice        ,
    o_comment
from o_et order by o_orderkey;
!date
rem drop table partsupp;
create table partsupp(
    ps_partkey          NOT NULL,
    ps_suppkey          NOT NULL,
    ps_supplycost       NOT NULL,
    ps_availqty         ,
    ps_comment
)
pctfree 1
pctused 99
initrans 10
tablespace ts_ps
compress for all operations
partition by hash(ps_partkey)
partitions 512
parallel
nologging
as select
    ps_partkey          ,
    ps_suppkey          ,
    ps_supplycost       ,
    ps_availqty         ,
    ps_comment
from ps_et order by ps_partkey;
!date
rem drop table customer;
create table customer(
    c_custkey           NOT NULL,
    c_mktsegment        ,
    c_nationkey         ,
    c_name              ,
    c_address           ,
    c_phone             ,
    c_acctbal           ,
    c_comment
)
pctfree 1
pctused 99
initrans 10
tablespace ts_c
compress for all operations
parallel
nologging
partition by hash (c_custkey)
partitions 512
as select
    c_custkey           ,
    c_mktsegment        ,
    c_nationkey         ,
    c_name              ,
    c_address           ,
    c_phone             ,
    c_acctbal           ,
    c_comment
from c_et order by c_custkey;
!date
rem drop table part;
create table part(
    p_partkey           NOT NULL,
    p_type              ,
    p_size              ,
    p_brand             ,
    p_name              ,
    p_container         ,
    p_mfgr              ,
    p_retailprice       ,
    p_comment
)
pctfree 1
pctused 99
initrans 10
tablespace ts_p
compress for all operations
parallel
nologging
partition by hash (p_partkey)
partitions 512
as select
    p_partkey           ,
    p_type              ,
    p_size              ,
    p_brand             ,
    p_name              ,
    p_container         ,
    p_mfgr              ,
    p_retailprice       ,
    p_comment
from p_et order by p_partkey;
!date
rem drop table supplier;
create table supplier(
    s_suppkey           NOT NULL,
    s_nationkey         ,
    s_comment           ,
    s_name              ,
    s_address           ,
    s_phone             ,
    s_acctbal
)
pctfree 1
pctused 99
initrans 10
tablespace ts_s
compress for all operations
parallel
nologging
partition by hash (s_suppkey)
partitions 512
as select
    s_suppkey           ,
    s_nationkey         ,
    s_comment           ,
    s_name              ,
    s_address           ,
    s_phone             ,
    s_acctbal
from s_et order by s_suppkey;
!date
rem drop table nation;
create table nation(
    n_nationkey         NOT NULL,
    n_name              ,
    n_regionkey         ,
    n_comment           )
as select * from n_et;
rem drop table region;
create table region(
    r_regionkey         ,
    r_name              ,
    r_comment           )
as select * from r_et;
!date
drop table l_et;
drop table o_et;
drop table ps_et;
drop table p_et;
drop table c_et;
drop table s_et;
drop table n_et;
rem drop index i_l_orderkey;
create index i_l_orderkey
on lineitem (l_orderkey) global partition by hash (l_orderkey)
partitions 512
compress 1
pctfree 10
initrans 10
tablespace ts_il
parallel
compute statistics
nologging;
rem drop index i_c_custkey;
create unique index i_c_custkey
on customer (c_custkey)  global partition by hash (c_custkey)
partitions 512
pctfree 2
initrans 10
tablespace ts_ic
parallel
compute statistics
nologging;
!date
EOF
-----------------------------------
dapop_p2.sh
-----------------------------------
#!/bin/bash
sqlplus /NOLOG <<EOF
connect /as sysdba
create temporary tablespace ts_temp2
tempfile '+dg0' size 1g reuse
extent management local uniform size 10m;
alter database default temporary tablespace ts_temp2;
drop tablespace ts_temp;
create temporary tablespace ts_temp
tempfile '+dg0' size 1g reuse
extent management local uniform size 10m;
alter database default temporary tablespace ts_temp;
drop tablespace ts_temp2;
create tablespace TS_IO datafile '+dg0' size 12000m reuse extent management local uniform size
70m;
```

```
exit;
EOF
((df=1));while ((df<10));do ((df=df+1))
  /home/oracle/kit/schema/10.0/build/adddf.sh ts_io +dg0 12000m&
done
wait
i=1
while ((i<40));do ((i=i+1))
 /home/oracle/kit/schema/10.0/build/addtdf.sh  ts_temp +dg0 16000m
 sleep 2
done
sqlplus /NOLOG << EOF
connect tpch/tpch
rem drop index i_o_orderkey;
create unique index i_o_orderkey
on orders (o_orderkey) global partition by hash (o_orderkey)
partitions 512
pctfree 10
initrans 10
tablespace ts_io
parallel
compute statistics
nologging;
!date
EOF
2shut
2start
sqlplus /NOLOG << EOF
set timing on
connect /as sysdba
execute dbms_stats.gather_schema_stats('TPCH', degree=> 512, granularity => 'GLOBAL',
method_opt => 'for all columns size 1');
connect / as sysdba
execute dbms_stats.gather_system_stats;
exec dbms_auto_task_admin.disable;
exec dbms_scheduler.disable('MONDAY_WINDOW');
exec dbms_scheduler.disable('TUESDAY_WINDOW');
exec dbms_scheduler.disable('WEDNESDAY_WINDOW');
exec dbms_scheduler.disable('THURSDAY_WINDOW');
exec dbms_scheduler.disable('FRIDAY_WINDOW');
exec dbms_scheduler.disable('SATURDAY_WINDOW');
exec dbms_scheduler.disable('SUNDAY_WINDOW');
connect /as sysdba
alter user tpch quota unlimited on TS_O;
alter user tpch quota unlimited on TS_C;
alter user tpch quota unlimited on TS_PS;
alter user tpch quota unlimited on TS_IO;
alter user tpch quota unlimited on TS_S;
alter user tpch quota unlimited on TS_L;
alter user tpch quota unlimited on TS_P;
alter user tpch quota unlimited on TS_IC;
alter user tpch quota unlimited on TS_IL;
!date
EOF
/home/oracle/mptools/2cpt
-----------------------------------
dapop.sh
-----------------------------------
dapop_p1.sh
dapop_p2.sh
-----------------------------------
dgcreate_dg0_exadata.sh
-----------------------------------
#!/bin/ksh
ORACLE_SID=+ASM_h1
sqlplus /NOLOG <<!
connect /as sysdba
drop diskgroup dg0 including contents;
create diskgroup dg0 normal redundancy disk
'o/2.2.210.221/data_CD_1_cell1' name disk_1_1 noforce,
'o/2.2.210.221/data_CD_2_cell1' name disk_1_2 noforce,
'o/2.2.210.221/data_CD_3_cell1' name disk_1_3 noforce,
'o/2.2.210.221/data_CD_4_cell1' name disk_1_4 noforce,
'o/2.2.210.221/data_CD_5_cell1' name disk_1_5 noforce,
'o/2.2.210.221/data_CD_6_cell1' name disk_1_6 noforce,
'o/2.2.210.221/data_CD_7_cell1' name disk_1_7 noforce,
'o/2.2.210.221/data_CD_8_cell1' name disk_1_8 noforce,
'o/2.2.210.221/data_CD_9_cell1' name disk_1_9 noforce,
'o/2.2.210.221/data_CD_10_cell1' name disk_1_10 noforce,
'o/2.2.210.221/data_CD_11_cell1' name disk_1_11 noforce,
'o/2.2.210.221/data_CD_12_cell1' name disk_1_12 noforce,
'o/2.2.210.222/data_CD_1_cell2' name disk_2_1 noforce,
'o/2.2.210.222/data_CD_2_cell2' name disk_2_2 noforce,
'o/2.2.210.222/data_CD_3_cell2' name disk_2_3 noforce,
'o/2.2.210.222/data_CD_4_cell2' name disk_2_4 noforce,
'o/2.2.210.222/data_CD_5_cell2' name disk_2_5 noforce,
'o/2.2.210.222/data_CD_6_cell2' name disk_2_6 noforce,
'o/2.2.210.222/data_CD_7_cell2' name disk_2_7 noforce,
'o/2.2.210.222/data_CD_8_cell2' name disk_2_8 noforce,
'o/2.2.210.222/data_CD_9_cell2' name disk_2_9 noforce,
'o/2.2.210.222/data_CD_10_cell2' name disk_2_10 noforce,
'o/2.2.210.222/data_CD_11_cell2' name disk_2_11 noforce,
'o/2.2.210.222/data_CD_12_cell2' name disk_2_12 noforce,
'o/2.2.210.223/data_CD_1_cell3' name disk_3_1 noforce,
'o/2.2.210.223/data_CD_2_cell3' name disk_3_2 noforce,
'o/2.2.210.223/data_CD_3_cell3' name disk_3_3 noforce,
'o/2.2.210.223/data_CD_4_cell3' name disk_3_4 noforce,
'o/2.2.210.223/data_CD_5_cell3' name disk_3_5 noforce,
'o/2.2.210.223/data_CD_6_cell3' name disk_3_6 noforce,
'o/2.2.210.223/data_CD_7_cell3' name disk_3_7 noforce,
'o/2.2.210.223/data_CD_8_cell3' name disk_3_8 noforce,
'o/2.2.210.223/data_CD_9_cell3' name disk_3_9 noforce,
'o/2.2.210.223/data_CD_10_cell3' name disk_3_10 noforce,
'o/2.2.210.223/data_CD_11_cell3' name disk_3_11 noforce,
'o/2.2.210.223/data_CD_12_cell3' name disk_3_12 noforce,
'o/2.2.210.224/data_CD_1_cell4' name disk_4_1 noforce,
'o/2.2.210.224/data_CD_2_cell4' name disk_4_2 noforce,
'o/2.2.210.224/data_CD_3_cell4' name disk_4_3 noforce,
'o/2.2.210.224/data_CD_4_cell4' name disk_4_4 noforce,
'o/2.2.210.224/data_CD_5_cell4' name disk_4_5 noforce,
'o/2.2.210.224/data_CD_6_cell4' name disk_4_6 noforce,
'o/2.2.210.224/data_CD_7_cell4' name disk_4_7 noforce,
'o/2.2.210.224/data_CD_8_cell4' name disk_4_8 noforce,
'o/2.2.210.224/data_CD_9_cell4' name disk_4_9 noforce,
'o/2.2.210.224/data_CD_10_cell4' name disk_4_10 noforce,
'o/2.2.210.224/data_CD_11_cell4' name disk_4_11 noforce,
'o/2.2.210.224/data_CD_12_cell4' name disk_4_12 noforce,
'o/2.2.210.225/data_CD_1_cell5' name disk_5_1 noforce,
'o/2.2.210.225/data_CD_2_cell5' name disk_5_2 noforce,
'o/2.2.210.225/data_CD_3_cell5' name disk_5_3 noforce,
'o/2.2.210.225/data_CD_4_cell5' name disk_5_4 noforce,
'o/2.2.210.225/data_CD_5_cell5' name disk_5_5 noforce,
'o/2.2.210.225/data_CD_6_cell5' name disk_5_6 noforce,
'o/2.2.210.225/data_CD_7_cell5' name disk_5_7 noforce,
'o/2.2.210.225/data_CD_8_cell5' name disk_5_8 noforce,
'o/2.2.210.225/data_CD_9_cell5' name disk_5_9 noforce,
'o/2.2.210.225/data_CD_10_cell5' name disk_5_10 noforce,
'o/2.2.210.225/data_CD_11_cell5' name disk_5_11 noforce,
'o/2.2.210.225/data_CD_12_cell5' name disk_5_12 noforce,
'o/2.2.210.226/data_CD_1_cell6' name disk_6_1 noforce,
'o/2.2.210.226/data_CD_2_cell6' name disk_6_2 noforce,
'o/2.2.210.226/data_CD_3_cell6' name disk_6_3 noforce,
'o/2.2.210.226/data_CD_4_cell6' name disk_6_4 noforce,
'o/2.2.210.226/data_CD_5_cell6' name disk_6_5 noforce,
'o/2.2.210.226/data_CD_6_cell6' name disk_6_6 noforce,
'o/2.2.210.226/data_CD_7_cell6' name disk_6_7 noforce,
'o/2.2.210.226/data_CD_8_cell6' name disk_6_8 noforce,
'o/2.2.210.226/data_CD_9_cell6' name disk_6_9 noforce,
'o/2.2.210.226/data_CD_10_cell6' name disk_6_10 noforce,
'o/2.2.210.226/data_CD_11_cell6' name disk_6_11 noforce,
'o/2.2.210.226/data_CD_12_cell6' name disk_6_12 noforce
atribute 'AU_SIZE'= '4M', 'cell.smart_scan_capable'='TRUE', 'compatible.rdbms'='11.1.0.7',
'compatible.asm'='11.1.0.7';
-----------------------------------
runTPCH_build
-----------------------------------
#!/bin/ksh
. $KIT_DIR/env

ECHO=echo

sqlplus=$ORACLE_HOME/bin/sqlplus
GTIME=${KIT_DIR}/utils/gtime

RUN_ID_FILE=${KIT_DIR}/audit/r_id

if [ ! -f $RUN_ID_FILE ]
then
  echo "0" > $RUN_ID_FILE
fi

RUN_ID=`cat $RUN_ID_FILE`
RUN_ID=`expr $RUN_ID + 1`
echo $RUN_ID > $RUN_ID_FILE

OUT_DIR=${KIT_DIR}/audit/tests/${RUN_ID}
if [ ! -d $OUT_DIR ]
then
  mkdir $OUT_DIR
fi

SCRIPT_LOG_FILE=${OUT_DIR}/main.out
RDB_TABLES=${OUT_DIR}/rdbtablest
FIRST_TEN=${OUT_DIR}/firstten
LD1DBCRE=${OUT_DIR}/Ld1dbcre
LD2SCTSO=${OUT_DIR}/Ld2sctso
LD3DAPOP=${OUT_DIR}/Ld3dapop


echo Start TPC-H Benchmark SEQUENCE NUMBER: $RUN_ID > $SCRIPT_LOG_FILE
echo >> $SCRIPT_LOG_FILE
echo "Starting a new Oracle log file:
$ORACLE_HOME/rdbms/log/alert_${ORACLE_SID}.log" >> $SCRIPT_LOG_FILE
echo >> $SCRIPT_LOG_FILE
mv $ORACLE_HOME/rdbms/log/alert_${ORACLE_SID}.log
$ORACLE_HOME/rdbms/log/alert_${ORACLE_SID}.log.preAudit.$RUN_ID
```

```
touch $ORACLE_HOME/rdbms/log/alert_${ORACLE_SID}.log
wait
STIME=`$GTIME`
SLTIME=`$GTIME`
echo "Start: timed load portion `date`" >> $SCRIPT_LOG_FILE
/home/oracle/kit/audit/dapop.sh >> $LD3DAPOP
$KIT_DIR/audit/gen_seed.sh $KIT_DIR/audit/seed
echo "End: timed load portion `date`" >> $SCRIPT_LOG_FILE
echo Generated seed: `cat $KIT_DIR/audit/seed` >> $SCRIPT_LOG_FILE
-----------------------------------
switchlog
-----------------------------------
#!/bin/ksh
################################################
# Copyright Oracle Corporation 2009          #
#                                            #
# Last updated 5/1/09 Meikel Poess           #
################################################
sqlplus /NOLOG <<!
connect / as sysdba;
alter system switch logfile;
alter system switch logfile;
!
-----------------------------------
tscre.sh
-----------------------------------
#!/bin/ksh
################################################
# Copyright Oracle Corporation 2009          #
#                                            #
# Last updated 5/1/09 Meikel Poess           #
################################################
tscre_im_c_exadata.sh &
tscre_im_i_l_exadata.sh &
tscre_im_o_exadata.sh &
tscre_im_ps_exadata.sh &
tscre_im_i_c_exadata.sh &
tscre_im_i_o_exadata.sh &
tscre_im_l_exadata.sh &
tscre_im_p_exadata.sh &
tscre_im_s_exadata.sh &
wait;

((df=1))
while ((df<40));do
  ((df=df+1))
  adddf.sh ts_l +dg0 24000m&
done
wait;
((df=1))
while ((df<47));do
  ((df=df+1))
  adddf.sh ts_o +dg0 11000m&
done
wait;
((df=1))
while ((df<3));do
  ((df=df+1))
  adddf.sh ts_p +dg0 16000m&
done

((df=1))
while ((df<5));do
  ((df=df+1))
  adddf.sh ts_ps +dg0 25000m&
done

((df=1))
while ((df<1));do
  ((df=df+1))
  adddf.sh ts_c +dg0 24000m&
done

((df=1))
while ((df<1));do
  ((df=df+1))
  adddf.sh ts_s +dg0 25000m&
done

((df=1))
while ((df<1));do
  ((df=df+1))
  adddf.sh ts_ic +dg0 24000m&
done

((df=1))
while ((df<16));do
  ((df=df+1))
  adddf.sh ts_il +dg0 26000m&
done
wait
i=1
while ((i<60))
do
        ((i=i+1))
        ./addtdf.sh  ts_temp +dg0 16000m
        sleep 2
done
```

Appendix C: ACID Scripts

```
-----------------------------------
a_query2.sql
-----------------------------------
Rem
Rem $Header: aquery2.sql 07-aug-99.23:54:47 mpoess Exp $
Rem
Rem aquery2.sql
Rem
Rem  Copyright (c) Oracle Corporation 1999. All Rights Reserved.
Rem
Rem    NAME
Rem      aquery2.sql - <one-line expansion of the name>
Rem
Rem  DESCRIPTION
Rem       Performs query on PARTSUPP for TPC-D benchmark
Rem       Isolation Test 5.
Rem       Asks user to input values for ps_partkey and ps_suppkey
Rem       The range for ps_partkey is 1 to 20000
Rem       The range for ps_suppkey is 1 to 1000
Rem       A valid combination is 46 and 47
Rem  Usage:   sqlplus tpcd/tpcd @a_query2 <ps_partkey> <ps_suppkey>
Rem
Rem    MODIFIED   (MM/DD/YY)
Rem    mpoess      08/07/99 - Creation
Rem    mpoess      08/07/99 - Created
Rem
rem  DESCRIPTION
rem       Performs query on PARTSUPP for TPC-D benchmark
rem       Isolation Test 5.
rem       Asks user to input values for ps_partkey and ps_suppkey
rem       The range for ps_partkey is 1 to 20000
rem       The range for ps_suppkey is 1 to 1000
rem       A valid combination is 46 and 47

set serverout on;

select
'BEFORE PARTSUPP QUERY' as STAGE,
substr(TO_CHAR(sysdate,'YYYY-MM-DD HH:MI:SS'),1,20) as CURRENT_TIME
from dual;

select *
from partsupp
where ps_partkey = &&1
and ps_suppkey = &&2;

select
'AFTER PARTSUPP QUERY' as STAGE,
substr(TO_CHAR(sysdate,'YYYY-MM-DD HH:MI:SS'),1,20) as CURRENT_TIME
from dual;

exit;
-----------------------------------
a_query.sql
-----------------------------------
Rem
Rem $Header: a_query.sql 06-aug-99.10:51:10 mpoess Exp $
Rem
Rem a_query.sql
Rem
Rem  Copyright (c) Oracle Corporation 1999. All Rights Reserved.
Rem
Rem    NAME
Rem      a_query.sql - <one-line expansion of the name>
Rem
rem  DESCRIPTION
Rem       Performs ACID Query for TPC-D benchmark.
Rem       Asks user to input values for o_key
Rem       The range of okey is 1 to 600000
Rem
================================================================
Rem
Rem Usage:   sqlplus tpcd/tpcd @a_query <o_key>
Rem
Rem
Rem    MODIFIED   (MM/DD/YY)
Rem    mpoess      08/06/99 - Creation
Rem    mpoess      08/06/99 - Created
Rem

set serverout on;

select
'BEFORE ACID QUERY' as STAGE,
substr(TO_CHAR(sysdate,'YYYY-MM-DD HH:MI:SS'),1,20) as CURRENT_TIME
from dual;

select SUM(trunc(trunc(l_extendedprice * (1-l_discount),2) * (1+l_tax),2)) AS RESULT
from lineitem
where l_orderkey = &&1;

select
'AFTER ACID QUERY' as STAGE,
substr(TO_CHAR(sysdate,'YYYY-MM-DD HH:MI:SS'),1,20) as CURRENT_TIME
from dual;

exit;
-----------------------------------
atom.sh
-----------------------------------
#!/bin/ksh
#
# $Header: atom.sh 08-aug-99.13:48:02 mpoess Exp $
#
# atom.sh
#
#  Copyright (c) Oracle Corporation 1999. All Rights Reserved.
#
#    NAME
#      atom.sh - <one-line expansion of the name>
#
#  DESCRIPTION
#      Performs atomicity tests.
#      Usage: atom.sh [-n iter] [-p prog] [-u usr/pswd] -h
#
#      Options: See usage below
#
#    NOTES
#      <other useful comments, qualifications, etc.>
#
#    MODIFIED   (MM/DD/YY)
#    mpoess      08/08/99 - Creation
#    mpoess      08/08/99 - Creation
#

. $KIT_DIR/env

OH=$ORACLE_HOME
# ACID_DIR=$TPCD_KIT_DIR/audit set in env
OUT_DIR=$ACID_OUT
DURA_DIR=$ACID_DIR/dura

usage() {

   echo ""
   echo "Usage: $0 [-n iter] [-p prog] [-u usr/pswd] -h"
   echo ""
   echo "-n iter     : number of iterations, default is 100"
   echo "-p prog     : program to run, default is atranspl.ott"
   echo "-u usr/pswd : user/password combo for database access, default is tpcd/tpcd"
   echo "-h          : print this usage summary"
   exit 1;
}

ITER=3
SF=1
PROG=$KIT_DIR/utils/atranspl
OUT=${OUT_DIR}/atom
USER=${DATABASE_USER}

set -- `getopt "n:p:u:h" "$@"` || usage

while :
do
   case "$1" in
   -n) shift; ITER=$1;;
   -p) shift; PROG=$1;;
   -u) shift; USER=$1;;
   -h) usage; exit 0;;
   --) break;;
   esac
   shift
done

echo "Starting Atomicity Test at `date`..."
echo ""
echo "Performing $ITER ACID transactions with COMMIT"
echo ""

$KIT_DIR/utils/randkey $ITER $SF u$USER | $PROG 1 1 1 0 u$USER > ${OUT}c 2>&1

echo "ACID transactions with COMMIT ended. Output in ${OUT}c"
```

```
echo ""
echo "Performing $ITER ACID transactions with ROLLBACK"
echo ""

$KIT_DIR/utils/randkey $ITER $SF u$USER | $PROG 1 1 0 0 u$USER > ${OUT}r 2>&1

echo "ACID transactions with ROLLBACK ended. Output in ${OUT}r"
echo ""
echo "Ending Atomicity Test at `date`..."
----------------------------------
atranspl.c
----------------------------------
/* Copyright (c) 2001, 2002, Oracle Corporation.  All rights reserved.  */

/*

  NAME
    atranspl.c - <one-line expansion of the name>

  DESCRIPTION
    TPC-HR benchmark ACID transaction driver, OCI version 8

  NOTES
    <other useful comments, qualifications, etc.>

  MODIFIED   (MM/DD/YY)
  mpoess     10/23/02 - mpoess_update_from_visa
  mpoess     10/17/01 - add parameter in ACIDinit
  mpoess     02/22/01 - enlarge timing array
  mpoess     01/04/01 - Creation

*/

#include <stdio.h>
#include <stdlib.h>
#include <sys/types.h>
#include <sys/stat.h>
#include <fcntl.h>

#include "atranspl.h"

/* Declare error handling functions */

double gettime();
void sql_error();
void usage();
void ACIDinit();
void ACIDexit();
int atoi();
void srand48();
long lrand48();

/* declarations for ORDERS */

int o_key = 0;
double o_tprice = 0.0;
double o_newtprice = 0.0;

/* declarations for LINEITEM */

int l_key = 0;
int l_pkey = 0;
int l_skey = 0;

int l_quan = 0;
int l_newquan = 0;
double l_eprice = 0.0;
double l_neweprice = 0.0;
double l_disc = 0.0;
double l_tax = 0.0;

sb2 l_npricei;

/* other declarations */

int delta = 0;
double rprice;
double cost;

int proc_no = 1;         /* process number, global             */
int num_streams = 1;     /* number of transaction streams      */
int trig = 0;            /* Trigger Time                       */
int slp = 0;             /* Sleep Time                         */

int logfile;             /* fdes for logfile for durability (optional)   */
int outfile = 1;         /* output file (optional)             */
#ifdef LINUX
  FILE *infile;    /* input file (optional)              */
#else
  FILE *infile = stdin;    /* input file (optional)              */
                           /* in the format of <o_key> <delta>    */
#endif
char lname[UNAME_LEN];   /* username/passwd combo              */
char *passwd;            /* pointer to password                */

char buf[WRITE_BUF_LEN];  /* buffer to write                   */

unsigned flag = (unsigned) 0;       /* flag to store all sorts of options  */

#define INFILE  0x01u
#define OUTFILE 0x02u
#define LOGFILE 0x04u
#define COMMIT  0x08u
#define DELTA   0x10u

double tr_end = 0.0;     /* transaction end time               */
double tr_start = 0.0;   /* transaction start time             */

int num_iter = 0;        /* number of iterations               */

time_t curr_time;        /* Current Time                       */

/* OCI handles */

OCIEnv *tpcenv = NULL;
OCIServer *tpcsrv = NULL;
OCIError *errhp = NULL;
OCISvcCtx *tpcsvc = NULL;
OCISession *tpcusr = NULL;
OCIStmt *curi = NULL;
OCIStmt *curr = NULL;
OCIStmt *cure1 = NULL;
OCIStmt *cure2 = NULL;

/* OCI bind handles */

#ifdef NOLKEY
OCIBind *l_keyi_bp = NULL;
OCIBind *o_keyi_bp = NULL;
#endif /* NOLKEY */

OCIBind *l_key_bp = NULL;
OCIBind *o_key_bp = NULL;
OCIBind *delta_bp = NULL;
OCIBind *l_pkey_bp = NULL;
OCIBind *l_skey_bp = NULL;
OCIBind *l_quan_bp = NULL;
OCIBind *l_newquan_bp = NULL;
OCIBind *l_tax_bp = NULL;
OCIBind *l_disc_bp = NULL;
OCIBind *l_eprice_bp = NULL;
OCIBind *l_neweprice_bp = NULL;
OCIBind *o_tprice_bp = NULL;
OCIBind *o_newtprice_bp = NULL;
OCIBind *rprice_bp = NULL;
OCIBind *cost_bp = NULL;

OCIBind *l_neweprice1_bp = NULL;
OCIBind *l_newquan1_bp = NULL;
OCIBind *o_key1_bp = NULL;
OCIBind *l_key1_bp = NULL;

OCIBind *o_newtprice2_bp = NULL;
OCIBind *o_key2_bp = NULL;

sword status = OCI_SUCCESS;  /* OCI return value */

char sqlstmt[1024];

/* usage: prints the usage of the program */

void usage()
{

  fprintf (stderr,"\nUsage: atrans.o[st]t <proc_no> <num_streams> <commit>
<delta>\n[i<pathname for input>] [o<pathname for output>] [d<pathname for durability file>]
[u<uid/passwd>] \n\n");

  fprintf(stderr,"    proc_no      :the process number within this ACID\n");
  fprintf(stderr,"    num_streams  :the total number of ACID transaction streams\n");
  fprintf(stderr,"    commit       :1 to commit transaction, abort otherwise\n\n");
  fprintf(stderr,"    delta        :1 to generate new random delta, otherwise obtain delta from
input\n\n");
  fprintf(stderr,"    OPTIONAL PARAMETERS:\n");
  fprintf(stderr,"    i<pathname for input>      :full path name for input file - default is stdin\n");
  fprintf(stderr,"    o<pathname for output>     :full path name for output file - default is
stdout\n");
  fprintf(stderr,"    d<pathname for durability> :full path name for durability success file - must
specify for durability test\n");
  fprintf(stderr,"    u<uid/passwd>             :Username/Password string - default is tcpd/tpcd\n");
  fprintf(stderr,"    t<trigger>                :Trigger Time - sleep <trigger> seconds before start\n\n");
  fprintf(stderr,"    s<sleep>                  :Sleep Time - sleep <sleep> seconds before commit or
rollback\n\n");
  exit(-1);

}
```

```
void ACIDexit() {

  OCILogoff(tpcsvc,errhp);
  OCIhfree(tpcenv,OCI_HTYPE_STMT);
  OCIhfree(tpcsvc,OCI_HTYPE_SVCCTX);
  OCIhfree(tpcsrv,OCI_HTYPE_SERVER);
  OCIhfree(tpcusr,OCI_HTYPE_SESSION);

}



/* type: 0 if environment handle is passed, 1 if error handle is passwd */

void sql_error(errhp,status,type)
     OCIError *errhp;
     sword status;
     sword type;
{
  char msg[2048];
  ub4 errcode;
  ub4 msglen;
  int i,j;

  switch(status) {
  case OCI_SUCCESS_WITH_INFO:
    fprintf(stderr, "Error: Statement returned with info.\n");
    if (type)
      (void) OCIErrorGet(errhp,1,NULL,(sb4*) &errcode, (text*) msg,
                         2048, OCI_HTYPE_ERROR);
    else
      (void) OCIErrorGet(errhp,1,NULL,(sb4*) &errcode, (text*) msg,
                         2048, OCI_HTYPE_ENV);
    fprintf(stderr,"%s\n",msg);
    break;
  case OCI_ERROR:
    fprintf(stderr, "Error: OCI call error.\n");
    if (type)
      (void) OCIErrorGet(errhp,1,NULL, (sb4 *) &errcode, (text*) msg,
                         2048,OCI_HTYPE_ERROR);
    else
      (void) OCIErrorGet(errhp,1,NULL, (sb4 *) &errcode, (text*) msg,
                         2048,OCI_HTYPE_ENV);
    fprintf(stderr,"%s\n",msg);
    break;
  case OCI_INVALID_HANDLE:
    fprintf(stderr, "Error: Invalid Handle.\n");
    if (type)
      (void) OCIErrorGet(errhp,1,NULL, (sb4 *) &errcode, (text*) msg,
                         2048,OCI_HTYPE_ERROR);
    else
      (void) OCIErrorGet(errhp,1,NULL, (sb4 *) &errcode, (text*) msg,
                         2048,OCI_HTYPE_ENV);
    fprintf(stderr,"%s\n",msg);
    break;
  }
  /* Rollback just in case */

  (void) OCITransRollback(tpcsvc,errhp,OCI_DEFAULT);

  fprintf(stderr, "Exiting Oracle...\n");
  fflush(stderr);

  ACIDexit();

  exit(1);
}

#ifdef LINUX
int main(argc,argv)
#else
void main(argc,argv)
#endif
     int argc;
     char *argv[];
{

  int i;
  char line[64];
  ub4 errcode;
  char msg[2048];
  int need_commit = 0;

  /* Initialize some variables */
#ifdef LINUX
  infile=fopen("/dev/stdin","r");
#endif
  strcpy((char *) lname, "tpcd/tpcd");

  if ((argc > 10) || (argc < 5)) {
    usage();
  }

  /* argv[1] -- Process Number */

  proc_no = atoi(argv[1]);

  /* argv[2] -- Number of Streams */

  num_streams = atoi(argv[2]);

  /* argv[3] -- Commit? */

  if (atoi(argv[3]) == 1)
    BIS(flag, COMMIT);

  /* argv[4] -- Delta? */

  if (atoi(argv[4]) == 1)
    BIS(flag, DELTA);

  /* Process  optional parameters */

  argc -= 4;
  argv += 4;

  while(--argc) {
    ++argv;
    switch(argv[0][0]) {
    case 'u':
      strncpy((char *) lname, ++(argv[0]), UNAME_LEN);
      if (strchr((char *) lname, '/') == NULL) {
        fprintf(stderr, "Login name must be in the format of userid/passwd\n");
        usage();
        exit(-1);
      }
      break;
    case 'i':
      if ((infile = fopen(++(argv[0]), "r")) == NULL) {
        fprintf(stderr,"Cannot open input file %s\n", argv[0]);
        fprintf(stderr,"%s\n",strerror(errno));
        exit(-1);
      }
      BIS(flag, INFILE);
      break;
    case 'o':
      if ((outfile = open(++(argv[0]), (O_RDWR | O_SYNC | O_CREAT), S_IRWXU)) == -1) {
        fprintf(stderr,"Cannot open output file %s\n", argv[0]);
        fprintf(stderr,"%s\n",strerror(errno));
        exit(-1);
      }
      BIS(flag, OUTFILE);
      break;
    case 'd':
      if ((logfile = open(++(argv[0]), (O_RDWR | O_SYNC | O_CREAT), S_IRWXU)) == -1) {
        fprintf(stderr,"Cannot open durability success file %s\n", argv[0]);
        fprintf(stderr,"%s\n",strerror(errno));
        exit(-1);
      }
      BIS(flag, LOGFILE);
      break;
    case 'b':
      num_iter = atoi(++(argv[0]));
      break;
    case 't':
      trig = atoi(++(argv[0]));
      break;
    case 's':
      slp = atoi(++(argv[0]));
      break;
    default:
      fprintf(stderr, "Unknown argument %s\n", argv[0]);
      usage();
      break;
    }
  }

  FPRTF(outfile,"-------------------------------------------------\n");

  /* Initialize the cursors etc. */

  (void) ACIDinit();

  /* sleep for some time (triggering) */

  sleep(trig);

  /* start doing the ACID transactions */

  tr_start = gettime();

  /* The number of iteration we will run depends on the number of */
  /* input lines                                                  */
```

```
  while (fgets(line, 64, infile) != NULL) {

#ifdef NOLKEY
    sscanf(line, "%d %d\n", &o_key, &delta);

    /* Obtain l_key from l_key query */

    OCIsexec(tpcsvc,curi,errhp,1);

    /* l_key is the highest l_linenumber available.  We need to pick */
    /* at random a number between 1..l_key.                          */

    l_key = (int) ((lrand48() % l_key) + 1);
#else
    sscanf(line, "%d %d %d\n", &o_key, &l_key, &delta);
#endif /* NOLKEY */

    /* Generate delta if necessary */

    if (BIT(flag, DELTA))
      delta = (int) (floor((drand48() * 100)) + 1);

    /* Now, we are ready to run the ACID transaction. */

    curr_time = time(NULL);

    FPRTF2(outfile, "Starting ACID transaction %d at %s...\n", (++num_iter),
          ctime(&curr_time));

    FPRTF1(outfile, "o_key: %d\n", (int) o_key);
    FPRTF1(outfile, "l_key: %d\n", (int) l_key);
    FPRTF1(outfile, "delta: %d\n", (int) delta);

    OCIsexec(tpcsvc,curr,errhp,1);

    curr_time = time(NULL);

    if (!BIT(flag, LOGFILE)) {
    FPRTF1(outfile, "BEFORE COMMIT/ROLLBACK TRANSACTION at %s\n",
ctime(&curr_time));
    FPRTF1(outfile, "l_extendedprice: %.2f\n", l_eprice);
    FPRTF1(outfile, "l_quantity:      %d\n", (int) l_quan);
    FPRTF1(outfile, "o_totalprice:    %.2f\n\n", o_tprice);
    }

    FPRTF1(outfile, "Sleep %d seconds before COMMIT/ROLLBACK...\n\n", slp);
    sleep(slp);

    /* Shall we commit? */

    if (BIT(flag, COMMIT)) {
      need_commit = 1;
      while (need_commit) {
        if((status=OCITransCommit(tpcsvc,errhp,OCI_DEFAULT)) != OCI_SUCCESS) {
            OCIrol(tpcsvc,errhp);
            OCIsexec(tpcsvc,curr,errhp,1);
        } else {
            need_commit = 0;
            curr_time = time(NULL);
            FPRTF2(outfile, "ACID Transaction iteration %d COMMITED at %s\n",
              num_iter, ctime(&curr_time));
        }
      }
    } else {
      OCIrol(tpcsvc,errhp);
      curr_time = time(NULL);
      FPRTF2(outfile, "ACID Transaction iteration %d ROLLBACK at %s\n",
          num_iter, ctime(&curr_time));
    }

    /* Report all results to outfile and if necessary, to success file. */

    /* Report initial and new values for o_totalprice, l_extendedprice, */
    /* l_quantity.                                                      */

    /*
    curr_time = time(NULL);
    FPRTF1(outfile, "Transaction Completed at %s\n", ctime(&curr_time));
    */

    /* Get the values in LINEITEM and ORDERS after the transaction */

    if (BIT(flag, LOGFILE)) {
      FPRTF1(logfile, "p_key:     %d\n", (int) l_pkey);
      FPRTF1(logfile, "s_key:     %d\n", (int) l_skey);
      FPRTF1(logfile, "o_key:     %d\n", (int) o_key);
      FPRTF1(logfile, "l_key:     %d\n", (int) l_key);
      FPRTF1(logfile, "delta:     %d\n", (int) delta);
      FPRTF1(logfile, "Transaction Completed at %s\n", ctime(&curr_time));
      FPRTF(logfile, "-------------------------------------------------\n");
    } else {

      OCIsexec(tpcsvc,cure1,errhp,1);

      OCIsexec(tpcsvc,cure2,errhp,1);

      FPRTF(outfile, "AFTER TRANSACTION:\n");
      FPRTF1(outfile, "l_extendedprice: %.2lf\n", l_neweprice);
      FPRTF1(outfile, "l_quantity:      %d\n", (int) l_newquan);
      FPRTF1(outfile, "o_totalprice:    %.2lf\n\n", o_newtprice);
      FPRTF1(outfile, "l_tax:           %.2lf\n", l_tax);
      FPRTF1(outfile, "l_discount:      %.2lf\n", l_disc);
      FPRTF1(outfile, "rprice:          %.2lf\n", rprice);
      FPRTF1(outfile, "cost:            %.2lf\n", cost);
      FPRTF(outfile, "-------------------------------------------------\n");
    }
  }

  tr_end = gettime();

  if (!BIT(flag,LOGFILE)) {
    FPRTF1(outfile, "Start Time: %.2f\n", tr_start);
    FPRTF1(outfile, "End Time: %.2f\n", tr_end);
    FPRTF1(outfile, "Elapsed Time: %.2f\n", (tr_end - tr_start));
    FPRTF1(outfile, "Transaction Count: %d\n", num_iter);
    FPRTF1(outfile, "Transaction Rate: %.2f\n", num_iter/(tr_end - tr_start));
  } else {
    FPRTF1(logfile, "Start Time: %.2f\n", tr_start);
    FPRTF1(logfile, "End Time: %.2f\n", tr_end);
    FPRTF1(logfile, "Elapsed Time: %.2f\n", (tr_end - tr_start));
    FPRTF1(logfile, "Transaction Count: %d\n", num_iter);
  }

  /*  Disconnect from ORACLE. */

  if (BIT(flag, INFILE))
    fclose(infile);
  if (BIT(flag, OUTFILE))
    close(outfile);
  if (BIT(flag, LOGFILE))
    close(logfile);

  ACIDexit();

  exit(0);
}


void ACIDinit()
{

  /* run random seed */

  srand48(getpid());

  /* Connect to ORACLE.  Program will call sql_error()
     if an error occurs in connecting to the default database. */

  (void) OCIInitialize(OCI_DEFAULT,(dvoid *)0,0,0,0);
  if((status=OCIEnvInit((OCIEnv **)&tpcenv,OCI_DEFAULT,0,(dvoid **)0)) !=
     OCI_SUCCESS)
    sql_error(tpcenv, status, 0);

  OCIhalloc(tpcenv,&errhp,OCI_HTYPE_ERROR);
  OCIhalloc(tpcenv,&curi,OCI_HTYPE_STMT);
  OCIhalloc(tpcenv,&curr,OCI_HTYPE_STMT);
  OCIhalloc(tpcenv,&cure1,OCI_HTYPE_STMT);
  OCIhalloc(tpcenv,&cure2,OCI_HTYPE_STMT);
  OCIhalloc(tpcenv,&tpcsvc,OCI_HTYPE_SVCCTX);
  OCIhalloc(tpcenv,&tpcsrv,OCI_HTYPE_SERVER);
  OCIhalloc(tpcenv,&tpcusr,OCI_HTYPE_SESSION);

  /* Disables auto commit */
 /*
  if (ocof(&tpclda)) {
    sql_error(&tpclda, &tpclda);
    ologof(&tpclda);
    exit(-1);
  }
 */

  /* get username and password */

  passwd = strchr(lname, '/');
  *passwd = '\0';
  passwd++;

  if ((status = OCIServerAttach(tpcsrv,errhp,(text *)0,0,OCI_DEFAULT)) != OCI_SUCCESS)
    sql_error(errhp,status,1);

  OCIaset(tpcsvc,OCI_HTYPE_SVCCTX,tpcsrv,0,OCI_ATTR_SERVER,errhp);
  OCIaset(tpcusr,OCI_HTYPE_SESSION,lname,strlen(lname),OCI_ATTR_USERNAME,
          errhp);
  OCIaset(tpcusr,OCI_HTYPE_SESSION,passwd,strlen(passwd),OCI_ATTR_PASSWORD,
          errhp);

  if ((status = OCISessionBegin(tpcsvc, errhp, tpcusr, OCI_CRED_RDBMS,
```

```
                        OCI_DEFAULT)) != OCI_SUCCESS)
    sql_error(errhp,status,1);

  OCIaset(tpcsvc,OCI_HTYPE_SVCCTX,tpcusr,0,OCI_ATTR_SESSION,errhp);

  /* Enable session parallel dml */

  sprintf((char *) sqlstmt, PDMLTXT);
  OCIStmtPrepare(curi,errhp,(text *)sqlstmt,strlen((char *)sqlstmt),
              OCI_NTV_SYNTAX,OCI_DEFAULT);
  OCIsexec(tpcsvc,curi,errhp,1);

  /* Enable session parallel ddl */

  /*sprintf((char *) sqlstmt, PDDLTXT);
  OCIStmtPrepare(curi,errhp,(text *)sqlstmt,strlen((char *)sqlstmt),
              OCI_NTV_SYNTAX,OCI_DEFAULT);
  OCIsexec(tpcsvc,curi,errhp,1);*/


  /* Make session serializable */

  sprintf ((char *) sqlstmt, ISOTXT);
  OCIStmtPrepare(curi,errhp,(text *)sqlstmt,strlen((char *)sqlstmt),
              OCI_NTV_SYNTAX,OCI_DEFAULT);
  OCIsexec(tpcsvc,curi,errhp,1);

  /* Set optimizer_index_cost_adj = 1000  */

  sprintf ((char *) sqlstmt, OICATXT);
  OCIStmtPrepare(curi,errhp,(text *)sqlstmt,strlen((char *)sqlstmt),
              OCI_NTV_SYNTAX,OCI_DEFAULT);
  OCIsexec(tpcsvc,curi,errhp,1);

  curr_time = time(NULL);
  printf("\nConnected to ORACLE as user: %s at %s\n\n", lname, ctime(&curr_time));


#ifdef NOLKEY
  /* Open and Parse cursor for query to choose determine l_key. */
  /* Binds l_key to :l_key.                                     */

  sprintf((char *) sqlstmt,SQLTXT1);
  OCIStmtPrepare(curi,errhp,sqlstmt,strlen((char
*)sqlstmt),OCI_NTV_SYNTAX,OCI_DEFAULT);


  OCIbbname(curi,&l_keyi_bp,errhp,":l_key",ADR(l_key),SIZ(l_key),SQLT_INT);
  OCIbbname(curi,&o_keyi_bp,errhp,":o_key",ADR(o_key),SIZ(o_key),SQLT_INT);

#endif /* NOLKEY */

  /* Open and Parse cursor for the ACID transaction.            */

  sprintf((char *) sqlstmt,SQLTXT2);
  OCIStmtPrepare(curr,errhp,(text *)sqlstmt,strlen((char *)sqlstmt),
              OCI_NTV_SYNTAX,OCI_DEFAULT);

  /* bind variables */

  OCIbbname(curr,l_key_bp,errhp,":l_key",ADR(l_key),SIZ(l_key),SQLT_INT);
  OCIbbname(curr,o_key_bp,errhp,":o_key",ADR(o_key),SIZ(o_key),SQLT_INT);
  OCIbbname(curr,delta_bp,errhp,":delta",ADR(delta),SIZ(delta),SQLT_INT);
  OCIbbname(curr,l_pkey_bp,errhp,":l_pkey",ADR(l_pkey),SIZ(l_pkey),SQLT_INT);
  OCIbbname(curr,l_skey_bp,errhp,":l_skey",ADR(l_skey),SIZ(l_skey),SQLT_INT);
  OCIbbname(curr,l_quan_bp,errhp,":l_quan",ADR(l_quan),SIZ(l_quan),SQLT_INT);
  OCIbbname(curr,l_newquan_bp,errhp,":l_newquan",ADR(l_newquan),
          SIZ(l_newquan),SQLT_INT);
  OCIbbname(curr,l_tax_bp,errhp,":l_tax",ADR(l_tax),SIZ(l_tax),SQLT_FLT);
  OCIbbname(curr,l_disc_bp,errhp,":l_disc",ADR(l_disc),SIZ(l_disc),SQLT_FLT);
  OCIbbname(curr,l_eprice_bp,errhp,":l_eprice",ADR(l_eprice),SIZ(l_eprice),
          SQLT_FLT);
  OCIbbname(curr,l_neweprice_bp,errhp,":l_neweprice",ADR(l_neweprice),
          SIZ(l_neweprice),SQLT_FLT);

  OCIbbname(curr,o_tprice_bp,errhp,":o_tprice",ADR(o_tprice),SIZ(o_tprice),
          SQLT_FLT);
  OCIbbname(curr,o_newtprice_bp,errhp,":o_newtprice",ADR(o_newtprice),
          SIZ(o_newtprice), SQLT_FLT);
  OCIbbname(curr,rprice_bp,errhp,":rprice",ADR(rprice),SIZ(rprice), SQLT_FLT);
  OCIbbname(curr,cost_bp,errhp,":cost",ADR(cost),SIZ(cost), SQLT_FLT);

  /* Open & Parse cursor for end values query */

  sprintf((char *) sqlstmt,SQLTXT3);
  OCIStmtPrepare(cure1,errhp,(text *)sqlstmt,strlen((char *)sqlstmt),
              OCI_NTV_SYNTAX,OCI_DEFAULT);

  sprintf((char *) sqlstmt,SQLTXT4);
  OCIStmtPrepare(cure2,errhp,(text *)sqlstmt,strlen((char *)sqlstmt),
              OCI_NTV_SYNTAX,OCI_DEFAULT);

  /* bind variables */

  OCIbbname(cure1,l_neweprice1_bp,errhp,":l_neweprice",ADR(l_neweprice),
          SIZ(l_neweprice),SQLT_FLT);
  OCIbbname(cure1,l_newquan1_bp,errhp,":l_newquan",ADR(l_newquan),
          SIZ(l_newquan),SQLT_INT);
  OCIbbname(cure1,o_key1_bp,errhp,":o_key",ADR(o_key),SIZ(o_key),SQLT_INT);
  OCIbbname(cure1,l_key1_bp,errhp,":l_key",ADR(l_key),SIZ(l_key),SQLT_INT);

  OCIbbname(cure2,o_newtprice2_bp,errhp,":o_newtprice",ADR(o_newtprice),
          SIZ(o_newtprice),SQLT_FLT);
  OCIbbname(cure2,o_key2_bp,errhp,":o_key",ADR(o_key),SIZ(o_key),SQLT_INT);

}
```

---

atranspl.h

```
/* Copyright (c) 2001, 2002, Oracle Corporation.  All rights reserved.  */

/*
   NAME
     atranspl.h - <one-line expansion of the name>

   DESCRIPTION

   MODIFIED   (MM/DD/YY)
   mpoess      10/23/02 - mpoess_update_from_visa
   mpoess      10/17/01 - add TXT parameter
   mpoess      04/09/01 - add hint to find max linenumber
   mpoess      01/04/01 - Creation

*/
#ifndef ATRANSPL_H

#define ATRANSPL_H

#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <sys/param.h>
#include <sys/types.h>
#include <time.h>
#include <errno.h>
#include <math.h>

#include <oratypes.h>
#ifndef OCIDFN
#include <ocidfn.h>
#endif /* OCIDFN */

#ifndef OCI_ORACLE
#include <oci.h>
#endif /* OCI_ORACLE */

/*
#ifdef __STDC__
#include <ociapr.h>
#else
#include <ocikpr.h>
#endif */ /* __STDC__ */

extern int errno;

#ifndef NULL
#define NULL 0
#endif

#ifndef NULLP
# define NULLP (void *)NULL
#endif /* NULLP */

#ifndef DISCARD
# define DISCARD (void)
#endif

#ifndef sword
# define sword int
#endif

#ifndef ub1
#define ub1 unsigned char
#endif

#define UNAME_LEN 64
#define WRITE_BUF_LEN 1024

#define NA              -1      /* ANSI SQL NULL */
#define VER7            2
#define NOT_SERIALIZABLE  8177  /* ORA-08177: transaction not serializable */
#define WRITE_BUF_LEN 1024

#define ADR(object) ((ub1 *)&(object))
#define SIZ(object) ((sword)sizeof(object))
```

```
#define BIS(flg,mask) (unsigned) (flg |= (unsigned) mask)
#define BIT(flg,mask) (unsigned) ((unsigned) flg & (unsigned) mask)

#define FPRTF(fd,s) \
{sprintf(buf,s); write(fd, buf, strlen(s));}
#define FPRTF1(fd,s,p) \
{sprintf(buf,s,p); write(fd, buf, strlen(buf));}
#define FPRTF2(fd,s,p1,p2) \
{sprintf(buf,s,p1,p2); write(fd, buf, strlen(buf));}

#define OCIhalloc(envh,hndl,htyp) \
   if((status=OCIHandleAlloc((dvoid *)envh,(dvoid **)hndl,htyp,0,(dvoid
**)0))!=OCI_SUCCESS) \
      sql_error(envh,status,0); \
   else \
      DISCARD 0

#define OCIhfree(hndl,htyp) \
   if((status=OCIHandleFree((dvoid *)hndl,htyp)) == OCI_SUCCESS) \
      fprintf(stderr, "Error freeing handle of type %d\n", htyp)

#define OCIaget(hndl,htyp,attp,size,atyp,errh) \
   if((status=OCIAttrGet((dvoid *)hndl,htyp,(dvoid *)attp,(dvoid *)size,atyp,errh)) !=
OCI_SUCCESS) \
      sql_error(errh,status,1); \
   else \
      DISCARD 0

#define OCIaset(hndl,htyp,attp,size,atyp,errh) \
   if((status=OCIAttrSet((dvoid *)hndl,htyp,(dvoid *)attp,size,atyp,errh)) != OCI_SUCCESS) \
      sql_error(errh,status,1); \
   else \
      DISCARD 0

#define OCIsexec(svch,stmh,errh,iter) \
   if((status=OCIStmtExecute(svch,stmh,errh,iter,0,NULL,NULL,OCI_DEFAULT)) !=
OCI_SUCCESS) \
      sql_error(errh,status,1); \
   else \
      DISCARD 0

#define OCIbbname(stmh,bindp,errh,sqlvar,progv,progvl,ftype) \
   if((status=OCIBindByName(stmh,&bindp,errh,(text *)sqlvar,strlen(sqlvar), \
         progv,progvl,ftype,0,0,0,0,0,OCI_DEFAULT)) != OCI_SUCCESS) \
      sql_error(errh,status,1); \
   else \
      DISCARD 0

#define OCIbbnamei(stmh,bindp,errh,sqlvar,progv,progvl,ftype,indp) \
   if((status=OCIHandleAlloc((dvoid *)stmh,(dvoid **)&bindp,OCI_HTYPE_BIND, \
                  0,(dvoid **)0))!=OCI_SUCCESS) \
      sql_error(stmh,status,0); \
   if((status=OCIBindByName(stmh,&bindp,errh,(text *)sqlvar,strlen(sqlvar), \
         progv,progvl,ftype,indp,0,0,0,0,OCI_DEFAULT)) != OCI_SUCCESS) \
      sql_error(errh,status,1); \
   else \
      DISCARD 0

#define OCIcom(svcp,errh) \
    if((status=OCITransCommit(svcp,errh,OCI_DEFAULT)) != OCI_SUCCESS) \
      sql_error(errh,status,1); \
    else \
      DISCARD 0

#define OCIrol(svcp,errh) \
    if((status=OCITransRollback(svcp,errh,OCI_DEFAULT)) != OCI_SUCCESS) \
      sql_error(errh,status,1); \
    else \
      DISCARD 0

#define ISOTXT "alter session set isolation_level = serializable"
#define PDMLTXT "alter session force parallel dml parallel (degree 2)"
#define PDDLTXT "alter session force parallel ddl parallel (degree 2)"
#define OICATXT "alter session set optimizer_index_cost_adj=1000"

#define SQLTXT1 "BEGIN SELECT /*+ index(lineitem,i_l_orderkey) */ MAX(l_linenumber)
INTO :l_key FROM lineitem \
WHERE l_orderkey = :o_key; END;"

#define SQLTXT2 "BEGIN d_atrans.doatrans(:l_key, :o_key, :delta, :l_pkey, \
:l_skey, :l_quan, :l_newquan, :l_tax, :l_disc, :l_eprice, :l_neweprice, \
:o_tprice, :o_newtprice, :rprice, :cost); END;"

#define SQLTXT3 "BEGIN SELECT l_extendedprice, l_quantity \
INTO :l_neweprice, :l_newquan \
FROM lineitem \
WHERE l_orderkey = :o_key \
AND l_linenumber = :l_key; END;"

#define SQLTXT4 "BEGIN SELECT o_totalprice INTO :o_newtprice \
FROM orders \
WHERE o_orderkey = :o_key; END;"

#define SQLTXT5 "BEGIN SELECT l_extendedprice, l_quantity \
INTO :l_eprice, :l_quan \
FROM lineitem \
WHERE l_orderkey = :o_key \
AND l_linenumber = :l_key; END;"

#define SQLTXT6 "BEGIN SELECT o_totalprice INTO :o_tprice \
FROM orders \
WHERE o_orderkey = :o_key; END;"

#endif /* ATRANSPL_H */
----------------------------------
atrans.sql
----------------------------------
Rem
Rem $Header: atrans.sql 07-aug-99.21:27:13 mpoess Exp $
Rem
Rem atrans.sql
Rem
Rem  Copyright (c) Oracle Corporation 1999. All Rights Reserved.
Rem
Rem    NAME
Rem      atrans.sql - <one-line expansion of the name>
Rem
Rem   DESCRIPTION
Rem       Creates ACID Transaction Package for TPC-D benchmark.
Rem       Asks user to input values for o_key, delta and output file.
Rem
Rem    NOTES
Rem      <other useful comments, qualifications, etc.>
Rem
Rem    MODIFIED   (MM/DD/YY)
Rem    mpoess      08/07/99 - Creation
Rem    mpoess      08/07/99 - Created
Rem


set serverout on;
set termout on;
set echo on;

CREATE OR REPLACE PACKAGE d_atrans
IS
PROCEDURE doatrans
(
                l_key                           IN OUT integer,
                o_key                           IN OUT integer,
                delta                           IN OUT integer,
                l_pkey          IN OUT integer,
                l_skey          IN OUT integer,
                l_quan          IN OUT integer,
                l_newquan       IN OUT integer,
                l_tax           IN OUT number,
                l_disc          IN OUT number,
                l_eprice        IN OUT number,
                l_neweprice     IN OUT number,
                o_tprice        IN OUT number,
                o_newtprice     IN OUT number,
                rprice                          IN OUT number,
                cost                            IN OUT number
);
END;
/

CREATE OR REPLACE PACKAGE BODY d_atrans
IS
PROCEDURE doatrans
(
                l_key                           IN OUT integer,
                o_key                           IN OUT integer,
                delta                           IN OUT integer,
                l_pkey          IN OUT integer,
                l_skey          IN OUT integer,
                l_quan          IN OUT integer,
                l_newquan       IN OUT integer,
                l_tax           IN OUT number,
                l_disc          IN OUT number,
                l_eprice        IN OUT number,
                l_neweprice     IN OUT number,
                o_tprice        IN OUT number,
                o_newtprice     IN OUT number,
                rprice                          IN OUT number,
                cost                            IN OUT number
)
IS
      ototal number;
      not_serializable EXCEPTION;
      PRAGMA EXCEPTION_INIT(not_serializable,-8177);
BEGIN
 LOOP BEGIN

   select o_totalprice
                into o_tprice
```

```
                from orders
                where o_orderkey = o_key;

    select l_quantity, l_extendedprice, l_partkey, l_suppkey, l_tax, l_discount
       into l_quan, l_eprice, l_pkey, l_skey, l_tax, l_disc
       from lineitem
       where l_orderkey = o_key
       and   l_linenumber = l_key;

    ototal := o_tprice - trunc((trunc((l_eprice * (1.0-l_disc)),2) * (1.0+l_tax)),2);
    rprice := trunc((l_eprice/l_quan), 2);
    cost := trunc((rprice * delta), 2);
    l_neweprice := l_eprice + cost;
    o_newtprice := trunc((l_neweprice * (1.0 - l_disc)), 2);
    o_newtprice := ototal + trunc((o_newtprice * (1.0 + l_tax)), 2);
    l_newquan := l_quan + delta;

    update lineitem
       set l_extendedprice = l_neweprice,
       l_quantity = l_newquan
       where l_orderkey = o_key
       and l_linenumber = l_key;

    update orders
       set o_totalprice = o_newtprice
       where o_orderkey = o_key;

     insert into history (h_p_key, h_s_key, h_o_key, h_l_key, h_delta, h_date_t)
       values (l_pkey, l_skey, o_key, l_key, delta, sysdate);

    EXIT;

  EXCEPTION
    WHEN not_serializable THEN
      ROLLBACK;
  END;

  END LOOP;

END doatrans;
END;
/
exit;
-----------------------------------
ckpt.sh
-----------------------------------
#!/bin/ksh
#
# $Header: ckpt.sh 08-aug-99.17:37:07 mpoess Exp $
#
# ckpt.sh
#
#  Copyright (c) Oracle Corporation 1999. All Rights Reserved.
#
#    NAME
#      ckpt.sh - <one-line expansion of the name>
#
#  DESCRIPTION
#      Usage: ckpt.sh
#      Start database checkpoint
#
#    NOTES
#      <other useful comments, qualifications, etc.>
#
#    MODIFIED   (MM/DD/YY)
#    mpoess      08/08/99 - Creation
#    mpoess      08/08/99 - Creation
#

. $KIT_DIR/env

sqlplus -s /NOLOG << !

                connect / as sysdba;
                alter system switch logfile;
                alter system switch logfile;
                exit;
!
-----------------------------------
consist.sh
-----------------------------------
#!/bin/ksh
#
# $Header: consist.sh 08-aug-99.14:20:51 mpoess Exp $
#
# consist.sh
#
#  Copyright (c) Oracle Corporation 1999. All Rights Reserved.
#
#    NAME
#      consist.sh - <one-line expansion of the name>
#
#  DESCRIPTION
#      Performs consistency tests.
#      Usage: consist.sh [-n iter] [-s number of stream] [-p prog]
#                        [-u usr/pswd] -h
#
#      Options: See usage below
#
#    NOTES
#      <other useful comments, qualifications, etc.>
#
#    MODIFIED   (MM/DD/YY)
#    mpoess      08/08/99 - Creation
#    mpoess      08/08/99 - Creation
#

. $KIT_DIR/env

OH=$ORACLE_HOME
# ACID_DIR=$TPCD_KIT_DIR/audit set in env
OUT_DIR=$ACID_OUT

KEY=$OUT_DIR/key$$_
OUTFILE=${OUT_DIR}/consrte
CON1=${OUT_DIR}/conb
CON2=${OUT_DIR}/cona
CHK=${OUT_DIR}/consckpt

/bin/rm -rf ${KEY}* $CON1 $CON2 $OUTFILE $CHK

trap "/bin/rm -rf ${KEY}*; exit 1" 1 2 3 15

STREAM=${NUM_STREAMS}
let STREAM="$STREAM + 1" # add one for the update stream
ITER=100
PROG=atranspl
USER=${DATABASE_USER}
CK=10

usage() {

  echo ""
  echo "Usage: $0 [-n iter] [-s number of stream] [-p prog] [-u usr/pswd] -h"
  echo ""
  echo "-n iter            : number of iterations, default is 100"
  echo "-s number of stream : number of streams, default is 2"
  echo "-p prog             : program to run, default is atranspl.ott"
  echo "-u usr/pswd         : user/password for database access, default is tpcd/tpcd"
  echo "-t chkpt            : time after the start of ACID transaction to perform the checkpoint"
  echo "                    default is 10 seconds"
  echo "-h                  : print this usage summary"
  exit 1;
}

set -- `getopt "n:p:u:s:h" "$@"` || usage

while :
do
  case "$1" in
  -s) shift; STREAM=$1;;
  -n) shift; ITER=$1;;
  -p) shift; PROG=$1;;
  -u) shift; USER=$1;;
  -t) shift; CK=$1;;
  -h) usage; exit 0;;
  --) break;;
  esac
  shift
done


if [ $ITER -lt 100 ]
then
echo "Error: Must at least run 100 iterations!"
echo "Exiting..."
exit 1
fi

if [ $STREAM -lt 2 ]
then
echo "Error: Must at least run 2 streams!"
echo "Exiting..."
exit 1
fi

echo "Starting Consistency Test at `date`..."
echo ""
echo "Generate some keys first"
echo ""

i=0

while [ $i -lt $STREAM ]
do
  echo randkey $ITER 1 u$USER
```

```
  randkey $ITER 1 u$USER > ${KEY}$i
  i=`expr $i + 1`
done

echo "Check consistency before Submitting Transactions `date`"
echo "Check consistency before Submitting Transactions `date`" >> $CON1

echo "Obtain 10 keys from the each key file to check consistency"

i=0
while [ $i -lt $STREAM ]
do
KEYS=`head -10 ${KEY}${i} | awk '{printf "%d ", $1}'`
echo "The 10 Keys for file $i are: $KEYS"
#for j in `head -10 ${KEY}${i} | awk '{printf "%d ", $1}'`
for j in $KEYS
do
   sqlplus $USER @consist $j >> $CON1
   echo "------------------------------" >> $CON1
done
   i=`expr $i + 1`
done

echo ""
echo "Starting ACID transactions at `date`"
echo ""

i=0

while [ $i -lt $STREAM ]
do
   $PROG $i $STREAM 1 0 u${USER} i${KEY}${i} o${OUTFILE}${i} s1 &
   i=`expr $i + 1`
done

echo "Schedule a Checkpoint"
echo "Checkpoint scheduled at $CK seconds after `date`"

(sleep $CK; $ACID_DIR/ckpt.sh) &

wait

echo ""
echo "Ending ACID transactions at `date`"
echo ""

echo "Completed $STREAM transaction streams with $ITER iterations each"
echo ""

echo "Check consistency after Submitting Transactions `date`"
echo "Check consistency after Submitting Transactions `date`" >> $CON2

cat ${ORACLE_HOME}/rdbms/log/alert_${ORACLE_SID}.log >> $CHK

i=0
while [ $i -lt $STREAM ]
do
KEYS=`head -10 ${KEY}$i | awk '{printf "%d ", $1}'`
#for j in `head -10 ${KEY}$i | awk '{printf "%d ", $1}'`
echo "The keys to check for consistency after the test from file $i are:"
echo "$KEYS"
for j in $KEYS
do
   sqlplus $USER @consist $j >> $CON2
   echo "------------------------------" >> $CON2
done
   i=`expr $i + 1`
done
----------------------------------
consist.sql
----------------------------------
Rem
Rem $Header: consist.sql 08-aug-99.16:59:17 mpoess Exp $
Rem
Rem consist.sql
Rem
Rem  Copyright (c) Oracle Corporation 1999. All Rights Reserved.
Rem
Rem    NAME
Rem      consist.sql - <one-line expansion of the name>
Rem
Rem  DESCRIPTION
Rem       Verifies the consistency of TPC-D database using the
Rem       consistency condition.
Rem
Rem Usage:   sqlplus tpcd/tpcd @consist
Rem
Rem NOTE
Rem REQUIRES PACKAGES prvtotpt and dbmsotpt
rem
Rem    MODIFIED   (MM/DD/YY)
Rem    mpoess      08/08/99 - Creation
Rem    mpoess      08/08/99 - Created
Rem

set verify off
rem set termout on
rem set echo on


REM
REM Get today's date.
REM

select
substr(TO_CHAR(sysdate,'YYYY-MM-DD HH:MI:SS'),1,20) as CURRENT_TIME
from dual;

set serverout on;

DECLARE
                o_okey          number;
                o_tprice        number;
                l_tprice        number;
                diff                            number;
BEGIN
   select o_totalprice
                into o_tprice
                from orders
                where o_orderkey = &&1;


   select sum(trunc((trunc((l_extendedprice * (1-l_discount)), 2)
        * (1+l_tax)), 2))
                into l_tprice
                from lineitem
                where l_orderkey = &&1;

   diff := l_tprice - o_tprice;

   dbms_output.put_line('O_TOTALPRICE: ' || TO_CHAR(trunc(o_tprice,2)));
   dbms_output.put_line('L_TOTALPRICE: ' || TO_CHAR(trunc(l_tprice,2)));
   dbms_output.put_line('Difference:   ' || TO_CHAR(trunc(diff,2)));

END;
.
/


spool off
exit

----------------------------------
d_hist.sql
----------------------------------
Rem
Rem $Header: d_hist.sql 07-aug-99.21:33:08 mpoess Exp $
Rem
Rem d_hist.sql
Rem
Rem  Copyright (c) Oracle Corporation 1999. All Rights Reserved.
Rem
Rem    NAME
Rem      d_hist.sql - <one-line expansion of the name>
Rem
Rem    DESCRIPTION
Rem       Creates a history table for ACID test purpose.
Rem
Rem    NOTES
Rem      <other useful comments, qualifications, etc.>
Rem
Rem    MODIFIED   (MM/DD/YY)
Rem    mpoess      08/07/99 - Creation
Rem    mpoess      08/07/99 - Created
Rem


set termout on;
set serverout on;
set echo on;

drop table history;

create table history
(
                h_p_key         number,
                h_s_key         number,
                h_o_key number,
                h_l_key         number,
                h_delta number,
                h_date_t date
);

exit;
----------------------------------
end_acid.sh
```

```
-----------------------------------
#!/bin/ksh
#
# $Header: end_acid.sh 08-aug-99.17:06:20 mpoess Exp $
#
# end_acid.sh
#
#  Copyright (c) Oracle Corporation 1999. All Rights Reserved.
#
#    NAME
#      end_acid.sh - <one-line expansion of the name>
#
#  DESCRIPTION
#      end_cons.sh <pid of the durability run>
#      Options: See usage below
#
#    NOTES
#      <other useful comments, qualifications, etc.>
#
#    MODIFIED   (MM/DD/YY)
#    mpoess      08/08/99 - Creation
#    mpoess      08/08/99 - Creation
#

. $KIT_DIR/env

OH=$ORACLE_HOME
# ACID_DIR=$OH/tpcd/audit set in env
OUT_DIR=$ACID_OUT/
DURA_DIR=$ACID_OUT/dura
RUN_ID_FILE=$ACID_DIR/run_id

SHELL_PID=`cat ${DURA_DIR}/shellpid`
ITER=100
STEM=${NUM_STREAMS}
let STEM="$STEM + 1" # add one for the update stream
PROG=${ACID_DIR}/atranspl.ott
IN=${ACID_DIR}/acid_in
DURA=${DURA_DIR}/drate
OUT=${DURA_DIR}/drate
DSMPL=${DURA_DIR}/durasmpl
KEY=${DURA_DIR}/key${SHELL_PID}_
USER=tpch/tpch
TRIG=1
HCNT=duracnta

# get history count

sqlplus $USER @cnt_hist > $DURA_DIR/$HCNT 2>&1

# perform the consistency

i=0
while [ $i -lt $STEM ]
do
  for j in `head -10 ${KEY}${i} | awk '{printf "%d ",$1}'`
  do
    sqlplus tpch/tpch @consist $j >> $DURA_DIR/duraconsa
  done
  i=`expr $i + 1`
done

i=0
while [ $i -lt $STEM ]
do
sample.sh $DURA${i} > ${DSMPL}${i} 2>&1
i=`expr $i + 1`
done
-----------------------------------
gtime.c
-----------------------------------
/* Copyright (c) 2001, 2002, Oracle Corporation.  All rights reserved.  */

/*

  NAME
    gtime.c - <one-line expansion of the name>

  DESCRIPTION
    <short description of facility this file declares/defines>

  EXPORT FUNCTION(S)
    <external functions defined for use outside package - one-line descriptions>

  INTERNAL FUNCTION(S)
    <other external functions defined - one-line descriptions>

  STATIC FUNCTION(S)
    <static functions defined - one-line descriptions>

  NOTES
    <other useful comments, qualifications, etc.>

  MODIFIED   (MM/DD/YY)
  mpoess      10/23/02 - mpoess_update_from_visa
  mpoess      08/29/01 - Creation

*/
#include<stdio.h>
#include<stdlib.h>

# include <sys/time.h>

main ()
{

 struct timeval tv;

      (void) gettimeofday (&tv, (struct timezone *) 0);

 printf ("%.2f\n", ((double) tv.tv_sec + (1.0e-6 * (double) tv.tv_usec)) ) ;

}

/* end of file gtime.c */

-----------------------------------
iso1.sh
-----------------------------------
#!/bin/ksh
#
# $Header: iso1.sh 29-jul-98.17:00:11 akarasik Exp $
#
# iso1.sh
#
#  Copyright (c) Oracle Corporation 1998. All Rights Reserved.
#
#    NAME
#      iso1.sh
#
#  DESCRIPTION
#      Usage: iso1.sh [-u user/password] [-n remote_node] -h
#      Options: See usage below
#  NOTES
#                For a cross node isolation test, assume the local node is
#                one of the participating nodes.  The other node can be
#                specified by the -n option.
#      You need to set the environment variable TPCD_KIT_DIR
#
#    MODIFIED   (MM/DD/YY)
#    mpoess      12/16/98 - update to version 8.1.6
#    mpoess      09/25/98 - update audit
#    akarasik    07/29/98 -
#    akarasik    07/29/98 - Creation
#

. $KIT_DIR/env

# May need to change the following:
RSH=ssh

OH=$ORACLE_HOME
#ACID_DIR=$KIT_DIR/acid is set in env
OUT_DIR=$ACID_OUT

TXN1FILE=$OUT_DIR/txn1$$.out
TXN2FILE=$OUT_DIR/txn2$$.out
KEYFILE=$OUT_DIR/key$$.out
ISOFILE=$OUT_DIR/iso1

USER=$DATABASE_USER
PROG=atranspl


/bin/rm -rf $TXN1FILE $TXN2FILE $KEYFILE

trap "/bin/rm -rf $TXN1FILE $TXN2FILE $KEYFILE; exit 1" 1 2 3 15

usage() {

  echo ""
  echo "Usage: $0 [-u user/passwd] [-n remote_node] -h"
  echo ""
  exit 1;
}

set -- `getopt "u:n:h" "$@"` || usage

while :
do
  case "$1" in
  -u) shift; USER=$1;;
  -n) shift; HOST="$1";;
  -h) usage; exit 0;;
  --) break;;
  esac
```

```
  shift;
done


de=`direxists.sh $ACID_OUT c` # I am not using $de afterward, but I want to avoid the output
of direxists

# generate key files

randkey 1 0.1 u"$USER" > $KEYFILE

OKEY=`cat $KEYFILE | awk '{print $1}'`
echo "o_key is "$OKEY

# before the ACID transaction, let's run a ACID query to record the
# initial state of lineitem

echo "Running ACID query BEFORE the start of Isolation Test 1" >> $TXN2FILE
echo "`date`" >> $TXN2FILE
echo "" >> $TXN2FILE
sqlplus $USER @$ACID_DIR/isolation/a_query $OKEY >> $TXN2FILE
echo "" >> $TXN2FILE
echo "-------------------------------------------------" >> $TXN2FILE

sleep 1

# start ACID transaction, Sleep for 60 second before COMMIT

$PROG 1 1 1 0 i$KEYFILE u$USER s60 b0 >> $TXN1FILE &

# let's sleep 10 seconds before starting ACID query

sleep 15

# start ACID query with the same OKEY

echo "Running ACID query 15 seconds AFTER the start of ACID Transaction" \
>> $TXN2FILE
echo "`date`" >> $TXN2FILE
if [ "$HOST" != "" ]
then
echo "Starting ACID query on node $HOST" >> $TXN2FILE
${RSH} -n ${HOST}  sqlplus $USER @$ACID_DIR/isolation/a_query $OKEY >>
$TXN2FILE
else
sqlplus $USER @$ACID_DIR/isolation/a_query $OKEY >> $TXN2FILE
fi

echo "-------------------------------------------------" >> $TXN2FILE
wait
echo "-------------------------------------------------" >> $TXN1FILE

cat $TXN1FILE $TXN2FILE >> $ISOFILE

/bin/rm -rf $TXN1FILE $TXN2FILE $KEYFILE

-----------------------------------
iso2.sh
-----------------------------------
#!/bin/ksh
#
# $Header: iso2.sh 04-aug-99.09:19:54 mpoess Exp $
#
# iso2.sh
#
#  Copyright (c) Oracle Corporation 1999. All Rights Reserved.
#
#    NAME
#      iso2.sh - <one-line expansion of the name>
#
#    DESCRIPTION
#      Usage: iso2.sh [-u user/password] [-n remote_node] -h
#      Options: See usage below
#    NOTES
#       For a cross node isolation test, assume the local node is
#       one of the participating nodes.  The other node can be
#       specified by the -n option.
#       You need to set the environment variable TPCD_KIT_DIR
#
#    MODIFIED   (MM/DD/YY)
#    mpoess      08/04/99 - Creation
#    mpoess      08/04/99 - Creation
#
#
# ======================================================================+
# May need to change the following:

. $KIT_DIR/env

RSH=ssh

OH=$ORACLE_HOME
# ACID_DIR=$TPCD_KIT_DIR/audit is set in env
OUT_DIR=$ACID_OUT

DURA_DIR=$ACID_DIR/dura

TXN1FILE=$OUT_DIR/txn1$$.out
TXN2FILE=$OUT_DIR/txn2$$.out
KEYFILE=$OUT_DIR/key$$.out
ISOFILE=$OUT_DIR/iso2

USER=$DATABASE_USER
PROG=atranspl

/bin/rm -rf $TXN1FILE $TXN2FILE $KEYFILE

trap "/bin/rm -rf $TXN1FILE $TXN2FILE $KEYFILE; exit 1" 1 2 3 15

usage() {

  echo ""
  echo "Usage: $0 [-u user/passwd] [-n remote_node] -h"
  echo ""
  exit 1;
}

set -- `getopt "u:n:h" "$@"` || usage

while :
do
  case "$1" in
  -u) shift; USER=$1;;
  -n) shift; HOST="$1";;
  -h) usage; exit 0;;
  --) break;;
  esac
  shift;
done


# generate key files

randkey 1 0.1 u"$USER" > $KEYFILE

OKEY=`cat $KEYFILE | awk '{print $1}'`
echo "o_key is "$OKEY

# before the ACID transaction, let's run a ACID query to record the
# initial state of lineitem

echo "Running ACID query BEFORE the start of Isolation Test 1" >> $TXN2FILE
echo "`date`" >> $TXN2FILE
echo "" >> $TXN2FILE
sqlplus "$USER" @$ACID_DIR/isolation/a_query $OKEY >> $TXN2FILE
echo "" >> $TXN2FILE
echo "-------------------------------------------------" >> $TXN2FILE

sleep 1

# start ACID transaction, Sleep for 30 second before ROLLBACK

$PROG 1 1 0 0 i$KEYFILE u$USER s30 >> $TXN1FILE &

# let's sleep 15 seconds before starting ACID query

sleep 15

# start ACID query with the same OKEY

echo "Running ACID query 15 seconds AFTER the start of ACID transaction" \
>> $TXN2FILE
echo "`date`" >> $TXN2FILE
if [ "$HOST" != "" ]
then
echo "Starting ACID query on node $HOST" >> $TXN2FILE
${RSH} -n ${HOST}  sqlplus "$USER" @$ACID_DIR/isolation/a_query $OKEY >>
$TXN2FILE
else
sqlplus $USER @$ACID_DIR/isolation/a_query $OKEY >> $TXN2FILE
fi

echo "-------------------------------------------------" >> $TXN2FILE
wait
echo "-------------------------------------------------" >> $TXN1FILE

cat $TXN1FILE $TXN2FILE >> $ISOFILE

/bin/rm -rf $TXN1FILE $TXN2FILE $KEYFILE
-----------------------------------
iso3.sh
-----------------------------------
#!/bin/ksh
#
# $Header: iso3.sh 04-aug-99.09:20:35 mpoess Exp $
#
```

```
# iso3.sh
#
#  Copyright (c) Oracle Corporation 1999. All Rights Reserved.
#
#    NAME
#      iso3.sh - <one-line expansion of the name>
#
#  DESCRIPTION
#      Usage: iso3.sh [-u user/password] [-n remote_node] -h
#      Options: See usage below
#  NOTES
#       For a cross node isolation test, assume the local node is
#       one of the participating nodes.  The other node can be
#       specified by the -n option.
#                  We need to make sure the remote node has access to the
#                  file system on the local node.  Otherwise, we need to rcp
#                  the keyfile to the remote system.
#       You need to set the environment variable TPCD_KIT_DIR
#
#    MODIFIED   (MM/DD/YY)
#    mpoess      08/04/99 - Creation
#    mpoess      08/04/99 - Creation
#

. $KIT_DIR/env

# May need to change the following:
RSH=ssh

OH=$ORACLE_HOME
#ACID_DIR=$TPCD_KIT_DIR/audit is set in env
OUT_DIR=$ACID_OUT

DURA_DIR=$ACID_DIR/dura

TXN1FILE=$OUT_DIR/txn1$$.out
TXN2FILE=$OUT_DIR/txn2$$.out
KEYFILE=$OUT_DIR/key$$.out
ISOFILE=$OUT_DIR/iso3

USER=$DATABASE_USER
PROG=/home/oracle/kit/utils/atranspl

/bin/rm -rf $TXN1FILE $TXN2FILE $KEYFILE

trap "/bin/rm -rf $TXN1FILE $TXN2FILE $KEYFILE; exit 1" 1 2 3 15

usage() {

  echo ""
  echo "Usage: $0 [-u user/passwd] [-n remote_node] -h"
  echo ""
  exit 1;
}

set -- `getopt "u:n:h" "$@"` || usage

while :
do
  case "$1" in
  -u) shift; USER=$1;;
  -n) shift; HOST="$1";;
  -h) usage; exit 0;;
  --) break;;
  esac
  shift
done


# generate key files

randkey 1 0.1 u"$USER" > $KEYFILE
scp $KEYFILE ${HOST}:$KEYFILE

sleep 1

# start ACID transaction, Sleep for 30 second before COMMIT

$PROG 1 2 1 0 i$KEYFILE u$USER s30 b0 >> $TXN1FILE &

# let's sleep 15 seconds before starting second ACID transaction

sleep 15

# start another ACID transaction with the same LKEY and OKEY
# but different DELTA

# Do not sleep before COMMIT so that we can see TXN2 has waited.

if [ "$HOST" != "" ]
then
echo "Starting TXN2 on node $HOST" >> $TXN2FILE
${RSH} -n ${HOST} $PROG 2 2 1 1 i$KEYFILE u$USER s1 b1 >> $TXN2FILE &
else
$PROG 2 2 1 1 i$KEYFILE u$USER s1 b1 >> $TXN2FILE &
fi

wait
echo "------------------------------------------------" >> $TXN2FILE
echo "------------------------------------------------" >> $TXN1FILE

cat $TXN1FILE $TXN2FILE >> $ISOFILE

/bin/rm -rf $TXN1FILE $TXN2FILE $KEYFILE
----------------------------------
iso4.sh
----------------------------------
#!/bin/ksh
#
# $Header: iso4.sh 04-aug-99.09:21:12 mpoess Exp $
#
# iso4.sh
#
#  Copyright (c) Oracle Corporation 1999. All Rights Reserved.
#
#    NAME
#      iso4.sh - <one-line expansion of the name>
#
#  DESCRIPTION
#      Usage: iso4.sh [-u user/password] [-n remote_node] -h
#      Options: See usage below
#  NOTES
#       For a cross node isolation test, assume the local node is
#       one of the participating nodes.  The other node can be
#       specified by the -n option.
#       We need to make sure the remote node has access to the
#       file system on the local node.  Otherwise, we need to rcp
#       the keyfile to the remote system.
#       You need to set the environment variable TPCD_KIT_DIR
#
#    MODIFIED   (MM/DD/YY)
#    mpoess      08/04/99 - Creation
#    mpoess      08/04/99 - Creation
#

. $KIT_DIR/env

# May need to change the following:
RSH=ssh

OH=$ORACLE_HOME
# ACID_DIR=$TPCD_KIT_DIR/audit is set in env
OUT_DIR=$ACID_OUT

DURA_DIR=$ACID_DIR/dura

TXN1FILE=$OUT_DIR/txn1$$.out
TXN2FILE=$OUT_DIR/txn2$$.out
KEYFILE=$OUT_DIR/key$$.out
ISOFILE=$OUT_DIR/iso4

USER=$DATABASE_USER
PROG=/home/oracle/kit/utils/atranspl

/bin/rm -rf $TXN1FILE $TXN2FILE $KEYFILE

trap "/bin/rm -rf $TXN1FILE $TXN2FILE $KEYFILE; exit 1" 1 2 3 15

usage() {

  echo ""
  echo "Usage: $0 [-u user/passwd] [-n remote_node] -h"
  echo ""
  exit 1;
}

set -- `getopt "u:n:h" "$@"` || usage

while :
do
  case "$1" in
  -u) shift; USER=$1;;
  -n) shift; HOST="$1";;
  -h) usage; exit 0;;
  --) break;;
  esac
  shift
done


# generate key files

randkey 1 0.1 u"$USER" > $KEYFILE
scp $KEYFILE ${HOST}:$KEYFILE

sleep 1
```

```
# start ACID transaction, Sleep for 30 second before ROLLBACK

$PROG 1 2 0 0 i$KEYFILE u$USER s30 b0 >> $TXN1FILE &

# let's sleep 15 seconds before starting second ACID transaction

sleep 15

# start another ACID transaction with the same LKEY and OKEY
# but different DELTA

# Do not sleep before COMMIT so that we can see TXN2 has waited.

if [ "$HOST" != "" ]
then
echo "Starting TXN2 on node $HOST" >> $TXN2FILE
${RSH} -n ${HOST} $PROG 2 2 1 1 i$KEYFILE u$USER s1 b1 >> $TXN2FILE &
else
$PROG 2 2 1 1 i$KEYFILE u$USER s1 b1 >> $TXN2FILE &
fi

wait
echo "----------" >> $TXN2FILE
echo "----------" >> $TXN1FILE

cat $TXN1FILE $TXN2FILE >> $ISOFILE

/bin/rm -rf $TXN1FILE $TXN2FILE $KEYFILE
----------
iso5.sh
----------
#!/bin/ksh
#
# $Header: iso5.sh 04-aug-99.09:21:45 mpoess Exp $
#
# iso5.sh
#
#  Copyright (c) Oracle Corporation 1999. All Rights Reserved.
#
#    NAME
#      iso5.sh - <one-line expansion of the name>
#
#  DESCRIPTION
#      Usage: iso5.sh [-u user/password] [-n remote_node] -h
#      Options: See usage below
#  NOTES
#       For a cross node isolation test, assume the local node is
#       one of the participating nodes.  The other node can be
#       specified by the -n option.
#       You need to set the environment variable TPCD_KIT_DIR
#
#    MODIFIED   (MM/DD/YY)
#    mpoess      08/04/99 - Creation
#    mpoess      08/04/99 - Creation
#

. $KIT_DIR/env

# May need to change the following:
RSH=ssh

OH=$ORACLE_HOME
# ACID_DIR=$TPCD_KIT_DIR/audit is set in env
OUT_DIR=$ACID_OUT
DURA_DIR=$ACID_DIR/dura

TXN1FILE=$OUT_DIR/txn1$$.out
TXN2FILE=$OUT_DIR/txn2$$.out
KEYFILE=$OUT_DIR/key$$.out
ISOFILE=$OUT_DIR/iso5

USER=$DATABASE_USER
PROG=/home/oracle/kit/utils/atranspl

/bin/rm -rf $TXN1FILE $TXN2FILE $KEYFILE

trap "/bin/rm -rf $TXN1FILE $TXN2FILE $KEYFILE; exit 1" 1 2 3 15

usage() {

  echo ""
  echo "Usage: $0 [-u user/passwd] [-n remote_node] -h"
  echo ""
  exit 1;
}

set -- `getopt "u:n:h" "$@"` || usage

while :
do
  case "$1" in
  -u) shift; USER=$1;;
  -n) shift; HOST="$1";;
  -h) usage; exit 0;;
  --) break;;
  esac
  shift;
done


# generate key files

randkey 1 0.1 u"$USER" > $KEYFILE
scp $KEYFILE ${HOST}:$KEYFILE

OKEY=`cat $KEYFILE | awk '{print $1}'`
echo "o_key is "$OKEY

# before the ACID transaction, let's run a ACID query to record the
# initial state of lineitem

echo "Running ACID query BEFORE the start of Isolation Test 5" >> $TXN1FILE
echo "`date`" >> $TXN1FILE
echo "" >> $TXN1FILE
sqlplus $USER @$ACID_DIR/isolation/a_query $OKEY >> $TXN1FILE
echo "" >> $TXN1FILE
echo "----------" >> $TXN1FILE

sleep 1

# start ACID transaction, Sleep for 60 second before COMMIT

$PROG 1 1 1 0 i$KEYFILE u$USER s60 >> $TXN1FILE &

# let's sleep 5 seconds before starting PARTSUPP query

sleep 5

# First generate PS_PARTKEY and PS_SUPPKEY

PSKEY=`randpsup 1`

echo "Running PARTSUPP query 5 seconds AFTER the start of ACID Transaction" \
>> $TXN2FILE
echo "`date`" >> $TXN2FILE
echo "PS_PARTKEY and PS_SUPPKEY are: $PSKEY" >> $TXN2FILE

if [ "$HOST" != "" ]
then
echo "Starting PARTSUPP query on node $HOST" >> $TXN2FILE
${RSH} -n ${HOST} sqlplus $USER @$ACID_DIR/isolation/a_query2 ${PSKEY} >>
$TXN2FILE &
else
sqlplus $USER @$ACID_DIR/isolation/a_query2 ${PSKEY} >> $TXN2FILE &
fi

wait

echo "----------" >> $TXN2FILE
echo "----------" >> $TXN1FILE

cat $TXN1FILE $TXN2FILE >> $ISOFILE

/bin/rm -rf $TXN1FILE $TXN2FILE $KEYFILE
----------
iso6.sh
----------
#!/bin/ksh
#
# $Header: iso6.sh 04-aug-99.09:22:12 mpoess Exp $
#
# iso6.sh
#
#  Copyright (c) Oracle Corporation 1999. All Rights Reserved.
#
#    NAME
#      iso6.sh - <one-line expansion of the name>
#
#  DESCRIPTION
#      Usage: iso6.sh [-u user/password] [-n remote_node] -h
#      Options: See usage below
#  NOTES
#       For a cross node isolation test, assume the local node is
#       one of the participating nodes.  The other node can be
#       specified by the -n option.
#       We need to make sure the remote node has access to the
#       file system on the local node.  Otherwise, we need to rcp
#       the keyfile to the remote system.
#       You need to set the environment variable TPCD_KIT_DIR
#
#    MODIFIED   (MM/DD/YY)
#    mpoess      08/04/99 - Creation
#    mpoess      08/04/99 - Creation
#
```

```
. $KIT_DIR/env

# May need to change the following:
RSH=ssh

OH=/private/tpcd
# ACID_DIR=$TPCD_KIT_DIR/audit is set in env
OUT_DIR=$ACID_OUT

DURA_DIR=$ACID_DIR/dura

TXN1FILE=$OUT_DIR/txn1$$.out
TXN2FILE=$OUT_DIR/txn2$$.out
TXN3FILE=$OUT_DIR/txn3$$.out
KEYFILE=$OUT_DIR/key$$.out
ISOFILE=$OUT_DIR/iso6

USER=$DATABASE_USER
PROG=/home/oracle/kit/utils/atranspl

/bin/rm -rf $TXN1FILE $TXN2FILE $TXN3FILE $KEYFILE

trap "/bin/rm -rf $TXN1FILE $TXN2FILE $TXN3FILE $KEYFILE; exit 1" 1 2 3 15

usage() {

  echo ""
  echo "Usage: $0 [-u user/passwd] [-n remote_node] -h"
  echo ""
  exit 1;
}

set -- `getopt "u:n:h" "$@"` || usage

while :
do
  case "$1" in
  -u) shift; USER=$1;;
  -n) shift; HOST="$1";;
  -h) usage; exit 0;;
  --) break;;
  esac
  shift;
done


# generate key files

randkey 1 0.1 u"$USER" > $KEYFILE
scp $KEYFILE ${HOST}:$KEYFILE

OKEY=`cat $KEYFILE | awk '{print $1}'`
echo "o_key is "$OKEY

# before the any transaction, let's run a ACID query to record the
# initial state of lineitem

echo "Running ACID query BEFORE the start of Isolation Test 6" >> $TXN2FILE
echo "`date`" >> $TXN2FILE
echo "" >> $TXN2FILE
sqlplus $USER @$ACID_DIR/isolation/a_query $OKEY >> $TXN2FILE
echo "" >> $TXN2FILE
echo "--------------------------------------------------" >> $TXN2FILE

sleep 1

# start Query 1, use 0 as the delta

echo "Running Query 17b at `date`" >> $TXN1FILE
sqlplus $USER @q1 >> $TXN1FILE &

# sleep 2 seconds before starting ACID transaction

sleep 2

# start ACID transaction, COMMIT after one second

echo "Starting AICD transaction at `date`" >> $TXN2FILE

if [ "$HOST" != "" ]
then
echo "Starting ACID transaction on node $HOST" >> $TXN2FILE
${RSH} -n ${HOST} $PROG 1 1 1 0 i$KEYFILE u$USER s1 >> $TXN2FILE &
else
$PROG 1 1 1 0 i$KEYFILE u$USER s1 >> $TXN2FILE &
fi

# start Query 17

sleep 2

echo "Running 2nd Query 17b at `date`" >> $TXN3FILE
sqlplus $USER @q1 >> $TXN3FILE &

# wait for everyone to finish

wait

echo "--------------------------------------------------" >> $TXN3FILE
echo "--------------------------------------------------" >> $TXN2FILE
echo "--------------------------------------------------" >> $TXN1FILE

cat $TXN1FILE $TXN2FILE $TXN3FILE >> $ISOFILE

/bin/rm -rf $TXN1FILE $TXN2FILE $TXN3FILE $KEYFILE
-----------------------------------
randkey.c
-----------------------------------
/* Copyright (c) 2001, 2002, Oracle Corporation.  All rights reserved.  */

/*

  NAME
    randkey.c - <one-line expansion of the name>

  DESCRIPTION
    Generate random keys for ACID transactions:
    O_ORDERKEY unique random (1..SF*150000*4) and only
    first 8 keys out of every 32 are populated.
      and
    L_ORDERKEY based on Clause 3.1.6.2
    DELTA random (1..100)
*/

#include <stdio.h>
#include <stdlib.h>
#include <math.h>
#include "atranspl.h"

#define ORDERCNT 150000.0

/* MK_SPARSE adopted from dss.h */

#define  MK_SPARSE(key, seq) \
        (((((key>>3)<<2)|(seq & 0x0003))<<3)|(key & 0x0007))

void sql_error();
void usage();
void ACIDinit();
long atol();
void srand48();
long lrand48();

/* Not really used here, but retained it for future purposes. */

typedef struct aciddef {
  long okey;
  long lkey;
  int delta;
} adef;

long l_key = 0;
long o_key = 0;
char lname[UNAME_LEN];
char *passwd;

/* OCI handles */

OCIEnv *tpcenv;
OCIServer *tpcsrv;
OCIError *errhp;
OCISvcCtx *tpcsvc;
OCISession *tpcusr;
OCIStmt *curi;

OCIBind *l_key_bp;
OCIBind *o_key_bp;

sword status = OCI_SUCCESS;  /* OCI return value */

char sqlstmt[1024];


void ACIDexit() {
  OCILogoff(tpcsvc,errhp);
  OCIhfree(tpcenv,OCI_HTYPE_STMT);
  OCIhfree(tpcsvc,OCI_HTYPE_SVCCTX);
  OCIhfree(tpcsrv,OCI_HTYPE_SERVER);
  OCIhfree(tpcusr,OCI_HTYPE_SESSION);
}


/* type: 0 if environment handle is passed, 1 if error handle is passwd */

void sql_error(errhp,status,type)
    OCIError *errhp;
    sword status;
```

```
    sword type;
{
 char msg[2048];
 sb4 errcode;
 ub4 msglen;
 int i,j;

 switch(status) {
 case OCI_SUCCESS_WITH_INFO:
  fprintf(stderr, "Error: Statement returned with info.\n");
  if (type)
   (void) OCIErrorGet(errhp,1,NULL,(sb4 *) &errcode,(text *)msg,
                2048,OCI_HTYPE_ERROR);
  else
   (void) OCIErrorGet(errhp,1,NULL,(sb4 *) &errcode,(text *)msg,
                2048,OCI_HTYPE_ENV);
  fprintf(stderr,"%s\n",msg);
  break;
 case OCI_ERROR:
  fprintf(stderr, "Error: OCI call error.\n");
  if (type)
   (void) OCIErrorGet(errhp,1,NULL,(sb4 *) &errcode,(text *)msg,
                2048,OCI_HTYPE_ERROR);
  else
   (void) OCIErrorGet(errhp,1,NULL,(sb4 *) &errcode,(text *)msg,
                2048,OCI_HTYPE_ENV);
  fprintf(stderr,"%s\n",msg);
  break;
 case OCI_INVALID_HANDLE:
  fprintf(stderr, "Error: Invalid Handle.\n");
  if (type)
   (void) OCIErrorGet(errhp,1,NULL,(sb4 *) &errcode,(text *)msg,
                2048,OCI_HTYPE_ERROR);
  else
   (void) OCIErrorGet(errhp,1,NULL,(sb4 *) &errcode,(text *)msg,
                2048,OCI_HTYPE_ENV);
  fprintf(stderr,"%s\n",msg);
  break;
 }
 /* Rollback just in case */

 (void) OCITransRollback(tpcsvc,errhp,OCI_DEFAULT);

 fprintf(stderr, "Exiting Oracle...\n");
 fflush(stderr);

 ACIDexit();

 exit(1);
}


main(argc, argv)
    int argc;
    char **argv;
{

 long count;
 long i;
 double sf;        /* need to accomodate sf 0.1 */
 double random;
 double ordcnt;
 adef *res;

 if ((argc < 3) || (argc > 4)) {
  usage();
  exit(-1);
 }

 strcpy((char *) lname, "tpcd/tpcd");

 count = atol(argv[1]);
 sf = atof(argv[2]);

 argc -= 2;
 argv += 2;

 while (--argc) {
  ++argv;
  switch(argv[0][0]) {
  case 'u':
   strncpy((char *) lname, ++(argv[0]), UNAME_LEN);
   if (strchr((char *) lname, '/') == NULL) {
    usage();
    exit(-1);
   }
   break;
  default:
   fprintf(stderr, "Unknown argument %s\n", argv[0]);
   usage();
   break;
  }
 }

 ACIDinit();

 /* initialize array for random numbers */

 res = (adef *) malloc(count*sizeof(adef));
 ordcnt = (double) ORDERCNT * (double) sf;

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

  /* The algorithm:                                    */
  /* Assumes drand's output is 'unique', first get a number within */
  /* the range of [0..sf*ORDERCNT) and then maps the different     */
  /* ranges to generate the real output.                           */

  random = floor(drand48() * (double) ordcnt) + 1;
  res[i].okey = o_key = (long) MK_SPARSE((long) random, 0);
  res[i].delta = (long) floor(drand48() * 100) + 1;

  /* Obtain l_key from l_key query */

  OCIsexec(tpcsvc,curi,errhp,1);

  /* l_key is the highest l_linenumber available.  We need to pick */
  /* at random a number between 1..l_key.                          */

  res[i].lkey = (lrand48() % l_key) + 1;

  printf("%ld %ld %d\n", res[i].okey, res[i].lkey, res[i].delta);
 }

 ACIDexit();
 free(res);

}


void usage() {

 fprintf(stderr, "Usage: randkey <number of random keys to generate> <SF>
u<user/password>\n");
 fprintf(stderr, "\n");
}

void ACIDinit()
{

 /* run random seed */

 srand48(getpid());

 /* Connect to ORACLE.  Program will call sql_error()
    if an error occurs in connecting to the default database. */

 (void) OCIInitialize(OCI_DEFAULT,(dvoid *)0,0,0,0);
 if((status=OCIEnvInit((OCIEnv **)&tpcenv,OCI_DEFAULT,0,(dvoid **)0)) !=
   OCI_SUCCESS)
  sql_error(tpcenv, status, 0);

 OCIhalloc(tpcenv,&errhp,OCI_HTYPE_ERROR);
 OCIhalloc(tpcenv,&curi,OCI_HTYPE_STMT);
 OCIhalloc(tpcenv,&tpcsvc,OCI_HTYPE_SVCCTX);
 OCIhalloc(tpcenv,&tpcsrv,OCI_HTYPE_SERVER);
 OCIhalloc(tpcenv,&tpcusr,OCI_HTYPE_SESSION);

 /* get username and password */

 passwd = strchr(lname, '/');
 *passwd = '\0';
 passwd++;

 if ((status=OCIServerAttach(tpcsrv,errhp,(text *)0,0,OCI_DEFAULT))!=OCI_SUCCESS)
  sql_error(errhp,status,1);

 OCIaset(tpcsvc,OCI_HTYPE_SVCCTX,tpcsrv,0,OCI_ATTR_SERVER,errhp);
 OCIaset(tpcusr,OCI_HTYPE_SESSION,lname,strlen(lname),OCI_ATTR_USERNAME,
       errhp);
 OCIaset(tpcusr,OCI_HTYPE_SESSION,passwd,strlen(passwd),OCI_ATTR_PASSWORD,
       errhp);

 if ((status = OCISessionBegin(tpcsvc, errhp, tpcusr, OCI_CRED_RDBMS,
                OCI_DEFAULT)) != OCI_SUCCESS)
  sql_error(errhp,status,1);

 OCIaset(tpcsvc,OCI_HTYPE_SVCCTX,tpcusr,0,OCI_ATTR_SESSION,errhp);

 /* Open and Parse cursor for query to choose determine l_key. */
 /* Binds l_key to :l_key.                                     */

 sprintf((char *) sqlstmt,SQLTXT1);
 OCIStmtPrepare(curi,errhp,(text *)sqlstmt,strlen((char *)sqlstmt),
          OCI_NTV_SYNTAX,OCI_DEFAULT);
```

```
  OCIbbname(curi,l_key_bp,errhp,":l_key",ADR(l_key),SIZ(l_key),SQLT_INT);
  OCIbbname(curi,o_key_bp,errhp,":o_key",ADR(o_key),SIZ(o_key),SQLT_INT);
}
-----------------------------------
randpsup.c
-----------------------------------
/* Copyright (c) 2001, 2002, Oracle Corporation.  All rights reserved.  */

/*

  NAME
    randpsup.c - <one-line expansion of the name>

  DESCRIPTION
    Generate random keys for ACID PARTSUPP transactions:
    (Clause 4.2.3)
    PS_PARTKEY random within [SF*200000]
      and
    PS_SUPPKEY = (PS_PARTKEY + (i * ((S/4) + (int)(PS_PARTKEY - 1)
                /S))) % S + 1
    where i random within [0..3] and S = SF * 10000

MODIFIED
  mpoess     10/23/02 - mpoess_update_from_visa
  mpoess     01/04/01 - Creation

*/

#include <stdio.h>
#include <stdlib.h>
#include <math.h>

#define PS_PER_SF 200000.0
#define S_PER_SF 10000.0
#define SUPP_PER_PART 4

/* borrowed from build.c in the dbgen distribution */

#define PART_SUPP_BRIDGE(tgt, p, s) \
   { \
   long tot_scnt = (long) (S_PER_SF * sf); \
   tgt = (p + s *  (tot_scnt / SUPP_PER_PART +  \
      (long) ((p - 1) / tot_scnt))) % tot_scnt + 1; \
   }

void usage();
double atof();
void srand48();
long lrand48();


main(argc, argv)
    int argc;
    char **argv;
{

  double sf = 0.1;          /* scale factor      */
  long supp;                /* the i-th supplier */
  long pkey;                /* partkey           */
  long maxpkey;             /* highest partkey   */
  long ps_skey;             /* ps_suppkey        */

  if (argc < 2) {
    usage();
    exit(-1);
  }

  /* seed the random number generator */

  srand48(getpid());

  sf = atof(argv[1]);
  maxpkey = (long) (sf * PS_PER_SF);
  supp = lrand48() % 4;
  pkey = lrand48() % maxpkey + 1;

  PART_SUPP_BRIDGE(ps_skey, pkey, supp);

  fprintf(stdout, "%ld %ld", pkey, ps_skey);

  exit(0);
}


void usage()
{
  fprintf(stderr, "Usage: randpsup <SF>\n\n");
}


-----------------------------------
run_acid.sh
-----------------------------------
#!/bin/ksh
#
# $Header: run_acid.sh 08-aug-99.15:30:10 mpoess Exp $
#
# run_acid.sh
#
#  Copyright (c) Oracle Corporation 1999. All Rights Reserved.
#
#    NAME
#      run_acid.sh - <one-line expansion of the name>
#
#  DESCRIPTION
#      Usage: run_acid.sh [-n iter] [-s stream] [-p prog] [-i infile]
#                         [-o outfile] [-d durafile] [-u usr/pswd]
#                         [-t trigger] [-f scale factor] -h
#
#      Options: See usage below
#
#    MODIFIED   (MM/DD/YY)
#    mpoess      08/08/99 - Creation
#    mpoess      08/08/99 - Creation
#

. $KIT_DIR/env

OH=$ORACLE_HOME
ACID_DIR=$ACID_DIR
OUT_DIR=$ACID_OUT

usage() {

   echo ""
   echo "Usage: $0 [-n iter] [-s stream] [-p prog] [-i infile] [-o outfile]"
   echo "          [-d durafile] [-u usr/pswd] -h"
   echo ""
   echo "-n iter     : number of iterations, default is 100"
   echo "-s stream   : number of streams, default is 2"
   echo "-p prog     : program to run, default is atranspl.ott"
   echo "-i infile   : input file prefix, suffix by process number within a"
   echo "              stream and run ID, default is ./acid_in"
   echo "-o outfile  : output file prefix, similar to input file"
   echo "              default is ./out/acid_out"
   echo "-d durafile : durability file prefix, used for durability tests"
   echo "              default is ./dura/acid_dura"
   echo "-u usr/pswd : user/password combo for database access, default is tpch/tpch"
   echo "-t trigger  : trigger time between process starts, default is 1 second"
   echo "-h          : print this usage summary"
   exit 1;
}

ITER=600
STEM=${NUM_STREAMS}
let STEM="$STEM + 1" # add one for the update stream
SF=1
PROG=atranspl
IN=${ACID_DIR}/acid_in
DURA_DIR=$ACID_OUT/dura
OUT=$DURA_DIR/drate
DURA=$DURA_DIR/dura
KEY=${DURA_DIR}/key$$_
echo "$$" > ${DURA_DIR}/shellpid
USER=tpch/tpch
TRIG=1
HCNT=duracntb

set -- `getopt "n:s:p:i:o:d:u:ht:f:" "$@"` || usage

# get all the options

while :
do
   case "$1" in
   -n) shift; ITER=$1;;
   -s) shift; STEM=$1;;
   -p) shift; PROG=$1;;
   -i) shift; IN=$1;;
   -o) shift; OUT=$1;;
   -d) shift; DURA=$1;;
   -u) shift; USER=$1;;
   -h) usage; exit 0;;
   -t) shift; TRIG=$1;;
   -f) shift; SF=$1;;
   --) break;;
   esac
   shift;
done


echo "Starting ACID run..."

i=0
T=`expr $STEM \* $TRIG + 6`
```

```
# Get history count before the run

sqlplus $USER @cnt_hist > $DURA_DIR/$HCNT 2>&1

while [ $i -lt $STEM ]
do
  randkey $ITER ${SF} u${USER} > ${KEY}${i} &
  i=`expr $i + 1`
done

wait
# perform the consistency

i=0
while [ $i -lt $STEM ]
do
  for j in `head -10 ${KEY}${i} | awk '{printf "%d ",$1}'`
  do
    sqlplus tpch/tpch @consist $j >> $DURA_DIR/duraconsb
  done
  i=`expr $i + 1`
done

echo "Starting Transaction Counting Program"
count_tx.sh $STEM 100 $DURA_DIR &

i=0
while [ $i -lt $STEM ]
do

  $PROG $i $STEM 1 0 i${KEY}${i} o${OUT}${i} d${DURA}${i} u$USER s1 &
  T=`expr $T - $TRIG`
  i=`expr $i + 1`

done

wait

echo "ACID run completed"
-----------------------------------
sample.sh
-----------------------------------
#!/bin/ksh
#
# $Header: sample.sh 08-aug-99.17:10:00 mpoess Exp $
#
# sample.sh
#
#  Copyright (c) Oracle Corporation 1999. All Rights Reserved.
#
#    NAME
#      sample.sh - <one-line expansion of the name>
#
#    DESCRIPTION
#      <short description of component this file declares/defines>
#
#    NOTES
#      <other useful comments, qualifications, etc.>
#
#    MODIFIED   (MM/DD/YY)
#    mpoess      08/08/99 - Creation
#    mpoess      08/08/99 - Creation
#

# $1 durability output file

. $KIT_DIR/env

cat $1 | grep o_key | awk '{printf "%d \n", $2}' | head -106 > /tmp/okey$$
cat $1 | grep l_key | awk '{printf "%d \n", $2}' | head -106 > /tmp/lkey$$



paste /tmp/okey$$ /tmp/lkey$$ > /tmp/keys$$
tail -6 /tmp/keys$$ > /tmp/6keys$$

echo "Keys chosen are:"
cat /tmp/6keys$$

i=1
while [ $i -le 6 ]
do

j=`cat /tmp/6keys$$ | tail -${i} | head -1`
sqlplus tpch/tpch @sample $j
i=`expr $i + 1`
done

#/bin/rm -f /tmp/*key*

-----------------------------------
sample.sql
-----------------------------------
Rem
Rem $Header: sample.sql 08-aug-99.17:10:34 mpoess Exp $
Rem
Rem sample.sql
Rem
Rem  Copyright (c) Oracle Corporation 1999. All Rights Reserved.
Rem
Rem    NAME
Rem      sample.sql - <one-line expansion of the name>
Rem
Rem    DESCRIPTION
Rem      <short description of component this file declares/defines>
Rem
Rem    NOTES
Rem      <other useful comments, qualifications, etc.>
Rem
Rem    MODIFIED   (MM/DD/YY)
Rem    mpoess      08/08/99 - Creation
Rem    mpoess      08/08/99 - Created
Rem

alter session set nls_date_format = 'YYYY-MM-DD HH:MI:SS';
select * from history where  h_o_key = &&1 and h_l_key = &&2;

exit;
```

Appendix D: Qualification query text and output

```
---------------------------------
10.log
---------------------------------
-- using default substitutions
select  *  from  (
select
c_custkey,
c_name,
sum(l_extendedprice * (1 - l_discount)) as revenue,
c_acctbal,
n_name,
c_address,
c_phone,
c_comment
from
customer,
orders,
lineitem,
nation
where
c_custkey = o_custkey
and l_orderkey = o_orderkey
and o_orderdate >= to_date ('1993-10-01',  'YYYY-MM-DD')
and o_orderdate < add_months(  to_date( '1993-10-01',  'YYYY-MM-DD'),  3)
and l_returnflag = 'R'
and c_nationkey = n_nationkey
group by
c_custkey,
c_name,
c_acctbal,
c_phone,
n_name,
c_address,
c_comment
order by
revenue desc)
where rownum <= 20
C_CUSTKEY           C_NAME                  REVENUE
C_ACCTBAL           N_NAME
C_ADDRESS                           C_PHONE
C_COMMENT
57040.00            Customer#000057040      734235.25
632.87              JAPAN
Eioyzjf4pp                          22-895-641-3466
sits. slyly regular requests sleep alongside of the regular inst
143347.00           Customer#000143347      721002.69
2557.47             EGYPT
1aReFYv,Kw4                         14-742-935-3718
ggle carefully enticing requests. final deposits use bold, bold pinto beans. ironic, idle re
60838.00            Customer#000060838      679127.31
2454.77             BRAZIL
64EaJ5vMAHWJlBOxJklpNc2RJiWE        12-913-494-9813
 need to boost against the slyly regular account
101998.00           Customer#000101998      637029.57
3790.89             UNITED KINGDOM
01c9CILnNtfOQYmZj                   33-593-865-6378
ress foxes wake slyly after the bold excuses. ironic platelets are furiously carefully bold
theodolites
125341.00           Customer#000125341      633508.09
4983.51             GERMANY
S29ODD6bceU8QSuuEJznkNaK            17-582-695-5962
arefully even depths. blithely even excuses sleep furiously. foxes use except the dependencies. ca
25501.00            Customer#000025501      620269.78
7725.04             ETHIOPIA
  W556MXuoiaYCCZamJI,Rn0B4ACUGdkQ8DZ    15-874-808-6793
he pending instructions wake carefully at the pinto beans. regular, final instructions along the
slyly fina
115831.00           Customer#000115831      596423.87
5098.10             FRANCE
rFeBbEEyk dl ne7zV5fDrmiq1oK09wV7pxqCgIc 16-715-386-3788
l somas sleep. furiously final deposits wake blithely regular pinto b
84223.00            Customer#000084223      594998.02
528.65              UNITED KINGDOM
nAVZCs6BaWap rrM27N 2qBnzc5WBauxbA      33-442-824-8191
 slyly final deposits haggle regular, pending dependencies. pending escapades wake
54289.00            Customer#000054289      585603.39
5583.02             IRAN
vXCxoCsU0Bad5JQI ,oobkZ             20-834-292-4707
ely special foxes are quickly finally ironic p
39922.00            Customer#000039922      584878.11
7321.11             GERMANY
Zgy4s50l2GKN4pLDPBU8m342gIw6R       17-147-757-8036
y final requests. furiously final foxes cajole blithely special platelets. f
6226.00             Customer#000006226      576783.76
2230.09             UNITED KINGDOM
8gPu8,NPGkfyQQ0hcIYUGPIBWc,ybP5g,       33-657-701-3391
ending platelets along the express deposits cajole carefully final
922.00              Customer#000000922      576767.53
3869.25             GERMANY
Az9RFaut7NkPnc5zSD2PwHgVwr4jRzq         17-945-916-9648
luffily fluffy deposits. packages c
147946.00           Customer#000147946      576455.13
2030.13             ALGERIA
iANyZHjqhyy7Ajah0pTrYyhJ            10-886-956-3143
ithely ironic deposits haggle blithely ironic requests. quickly regu
115640.00           Customer#000115640      569341.19
6436.10             ARGENTINA
Vtgfia9qI 7EpHgecU1X                11-411-543-4901
ost slyly along the patterns; pinto be
73606.00            Customer#000073606      568656.86
1785.67             JAPAN
xuR0Tro5yChDfOCrjkd2ol              22-437-653-6966
he furiously regular ideas. slowly
110246.00           Customer#000110246      566842.98
7763.35             VIETNAM
7KzflgX MDOq7sOkI                   31-943-426-9837
egular deposits serve blithely above the fl
142549.00           Customer#000142549      563537.24
5085.99             INDONESIA
ChqEoK43OysjdHbtKCp6dKqjNyvvi9          19-955-562-2398
sleep pending courts. ironic deposits against the carefully unusual platelets cajole carefully
express accounts.
146149.00           Customer#000146149      557254.99
1791.55             ROMANIA
s87fvzFQpU                          29-744-164-6487
 of the slyly silent accounts. quickly final accounts across the
52528.00            Customer#000052528      556397.35
551.79              ARGENTINA
NFztyTOR10UOJ                       11-208-192-3205
 deposits hinder. blithely pending asymptotes breach slyly regular re
23431.00            Customer#000023431      554269.54
3381.86             ROMANIA
HgiV0phqhaIa9aydNoIlb               29-915-458-2654
nusual, even instructions: furiously stealthy n
20 rows processed.
---------------------------------
11.log
---------------------------------
-- using default substitutions
select
ps_partkey,
sum(ps_supplycost * ps_availqty) as value
from
partsupp,
supplier,
nation
where
ps_suppkey = s_suppkey
and s_nationkey = n_nationkey
and n_name = 'GERMANY'
group by
ps_partkey having
sum(ps_supplycost * ps_availqty) > (
select
sum(ps_supplycost * ps_availqty) * 0.0001000000
from
partsupp,
supplier,
nation
where
ps_suppkey = s_suppkey
and s_nationkey = n_nationkey
and n_name = 'GERMANY'
)
order by
value desc
PS_PARTKEY          VALUE
129760.00           17538456.86
166726.00           16503353.92
191287.00           16474801.97
161758.00           16101755.54
34452.00            15983844.72
```

```
139035.00            15907078.34
9403.00              15451755.62
154358.00            15212937.88
38823.00             15064802.86
85606.00             15053957.15
:
:
lines deleted
:
:
95952.00             7927972.78
196514.00            7927180.70
4403.00              7925729.04
2267.00              7925649.37
45924.00             7925047.68
11493.00             7916722.23
104478.00            7916253.60
166794.00            7913842.00
161995.00            7910874.27
23538.00             7909752.06
41093.00             7909579.92
112073.00            7908617.57
92814.00             7908262.50
88919.00             7907992.50
79753.00             7907933.88
108765.00            7905338.98
146530.00            7905336.60
71475.00             7903367.58
36289.00             7901946.50
61739.00             7900794.00
52338.00             7898638.08
194299.00            7898421.24
105235.00            7897829.94
77207.00             7897752.72
96712.00             7897575.27
10157.00             7897046.25
171154.00            7896814.50
79373.00             7896186.00
113808.00            7893353.88
27901.00             7892952.00
128820.00            7892882.72
25891.00             7890511.20
122819.00            7888881.02
154731.00            7888301.33
101674.00            7879324.60
51968.00             7879102.21
72073.00             7877736.11
5182.00              7874521.73
1048 rows processed.
-------------------------------------
12.log
-------------------------------------
-- using default substitutions
select
        l_shipmode,
        sum(case
                when o_orderpriority = '1-URGENT'
                        or o_orderpriority = '2-HIGH'
                        then 1
                else 0
        end) as high_line_count,
        sum(case
                when o_orderpriority <> '1-URGENT'
                        and o_orderpriority <> '2-HIGH'
                        then 1
                else 0
        end) as low_line_count
from
        orders,
        lineitem
where
        o_orderkey = l_orderkey
        and l_shipmode in ('MAIL', 'SHIP')
        and l_commitdate < l_receiptdate
        and l_shipdate < l_commitdate
and l_receiptdate >= to_date( '1994-01-01',  'YYYY-MM-DD')
and l_receiptdate < add_months(to_date ('1994-01-01',  'YYYY-MM-DD'),  12)
group by
        l_shipmode
order by
        l_shipmode
L_SHIPMODE HIGH_LINE_COUNT       LOW_LINE_COUNT
MAIL       6202.00               9324.00
SHIP       6200.00               9262.00
2 rows processed.
-------------------------------------
13.log
-------------------------------------
-- using default substitutions
select
c_count,
count(*) as custdist
from
(
select
c_custkey,
count(o_orderkey)  as  c_count
from
customer, orders where
c_custkey = o_custkey(+)
and o_comment(+) not like '%special%requests%'
group by
c_custkey
) c_orders
group by
c_count
order by
custdist desc,
c_count desc
C_COUNT              CUSTDIST
0.00                 50005.00
9.00                 6641.00
10.00                6532.00
11.00                6014.00
8.00                 5937.00
12.00                5639.00
13.00                5024.00
19.00                4793.00
7.00                 4687.00
17.00                4587.00
18.00                4529.00
20.00                4516.00
15.00                4505.00
14.00                4446.00
16.00                4273.00
21.00                4190.00
22.00                3623.00
6.00                 3265.00
23.00                3225.00
24.00                2742.00
25.00                2086.00
5.00                 1948.00
26.00                1612.00
27.00                1179.00
4.00                 1007.00
28.00                893.00
29.00                593.00
3.00                 415.00
30.00                376.00
31.00                226.00
32.00                148.00
2.00                 134.00
33.00                75.00
34.00                50.00
35.00                37.00
1.00                 17.00
36.00                14.00
38.00                5.00
37.00                5.00
40.00                4.00
41.00                2.00
39.00                1.00
42 rows processed.
-------------------------------------
14.log
-------------------------------------
-- using default substitutions
select
        100.00 * sum(case
                when p_type like 'PROMO%'
                        then l_extendedprice * (1 - l_discount)
                else 0
        end) / sum(l_extendedprice * (1 - l_discount)) as promo_revenue
from
        lineitem,
        part
where
        l_partkey = p_partkey
        and l_shipdate >= date '1995-09-01'
        and l_shipdate < date '1995-09-01' + interval '1' month
PROMO_REVENUE
16.38
1 row processed.
-------------------------------------
15.log
-------------------------------------
-- using default substitutions
with   revenue
as (select
l_suppkey supplier_no,
sum(l_extendedprice * (1 - l_discount)) total_revenue
from
lineitem
where
                l_shipdate >= date '1996-01-01'
                and l_shipdate < date '1996-01-01' + interval '3' month
```

```
group by
l_suppkey)
select
s_suppkey,
s_name,
s_address,
s_phone,
total_revenue
from
supplier,
revenue
where
s_suppkey = supplier_no
and total_revenue = (
select
max(total_revenue)
from
revenue  )
order by
s_suppkey
S_SUPPKEY            S_NAME
S_ADDRESS                          S_PHONE         TOTAL_REVENUE
8449.00              Supplier#000008449
Wp34zim9qYFbVctdW                  20-469-856-8873 1772627.21
1 row processed.
-----------------------------------
16.log
-----------------------------------
-- using default substitutions
select
p_brand,
p_type,
p_size,
count(distinct ps_suppkey) as supplier_cnt
from
partsupp,
part
where
p_partkey = ps_partkey
and p_brand <> 'Brand#45'
and p_type not like 'MEDIUM POLISHED%'
and p_size in (49, 14, 23, 45, 19, 3, 36, 9)
and ps_suppkey not in (
select
s_suppkey
from
supplier
where
s_comment like '%Customer%Complaints%'
)
group by
p_brand,
p_type,
p_size
order by
supplier_cnt desc,
p_brand,
p_type,
p_size
P_BRAND    P_TYPE                  P_SIZE               SUPPLIER_CNT
Brand#41   MEDIUM BRUSHED TIN        3.00                28.00
Brand#54   STANDARD BRUSHED COPPER   14.00                27.00
Brand#11   STANDARD BRUSHED TIN      23.00                24.00
Brand#11   STANDARD BURNISHED BRASS  36.00                24.00
Brand#15   MEDIUM ANODIZED NICKEL    3.00                24.00
Brand#15   SMALL ANODIZED BRASS      45.00                24.00
Brand#15   SMALL BURNISHED NICKEL    19.00                24.00
Brand#21   MEDIUM ANODIZED COPPER    3.00                24.00
Brand#22   SMALL BRUSHED NICKEL      3.00                24.00
Brand#22   SMALL BURNISHED BRASS     19.00                24.00
Brand#25   MEDIUM BURNISHED COPPER   36.00                24.00
Brand#31   PROMO POLISHED COPPER     36.00                24.00
:
:
lines delected
:
:
Brand#55   STANDARD BURNISHED STEEL  23.00                 4.00
Brand#55   STANDARD BURNISHED STEEL  36.00                 4.00
Brand#55   STANDARD BURNISHED STEEL  45.00                 4.00
Brand#55   STANDARD BURNISHED TIN    9.00                 4.00
Brand#55   STANDARD BURNISHED TIN    19.00                4.00
Brand#55   STANDARD BURNISHED TIN    36.00                4.00
Brand#55   STANDARD BURNISHED TIN    49.00                4.00
Brand#55   STANDARD PLATED BRASS     9.00                 4.00
Brand#55   STANDARD PLATED BRASS     45.00                4.00
Brand#55   STANDARD PLATED BRASS     49.00                4.00
Brand#55   STANDARD PLATED COPPER    9.00                 4.00
Brand#55   STANDARD PLATED COPPER    45.00                4.00
Brand#55   STANDARD PLATED NICKEL    3.00                 4.00
Brand#55   STANDARD PLATED NICKEL    19.00                4.00
Brand#55   STANDARD PLATED NICKEL    45.00                4.00
Brand#55   STANDARD PLATED STEEL     14.00                4.00
Brand#55   STANDARD PLATED STEEL     23.00                4.00
Brand#55   STANDARD PLATED STEEL     49.00                4.00
Brand#55   STANDARD PLATED TIN       9.00                 4.00
Brand#55   STANDARD PLATED TIN       14.00                4.00
Brand#55   STANDARD PLATED TIN       36.00                4.00
Brand#55   STANDARD POLISHED BRASS   3.00                 4.00
Brand#55   STANDARD POLISHED BRASS   9.00                 4.00
Brand#55   STANDARD POLISHED BRASS   23.00                4.00
Brand#55   STANDARD POLISHED COPPER  3.00                 4.00
Brand#55   STANDARD POLISHED COPPER  23.00                4.00
Brand#55   STANDARD POLISHED COPPER  45.00                4.00
Brand#55   STANDARD POLISHED NICKEL  3.00                 4.00
Brand#55   STANDARD POLISHED NICKEL  23.00                4.00
Brand#55   STANDARD POLISHED NICKEL  36.00                4.00
Brand#55   STANDARD POLISHED NICKEL  45.00                4.00
Brand#55   STANDARD POLISHED NICKEL  49.00                4.00
Brand#55   STANDARD POLISHED STEEL   14.00                4.00
Brand#55   STANDARD POLISHED STEEL   23.00                4.00
Brand#55   STANDARD POLISHED TIN     9.00                 4.00
Brand#55   STANDARD POLISHED TIN     19.00                4.00
Brand#55   STANDARD POLISHED TIN     36.00                4.00
Brand#11   SMALL BRUSHED TIN         19.00                3.00
Brand#15   LARGE PLATED NICKEL       45.00                3.00
Brand#15   LARGE POLISHED NICKEL     9.00                 3.00
Brand#21   PROMO BURNISHED STEEL     45.00                3.00
Brand#22   STANDARD PLATED STEEL     23.00                3.00
Brand#25   LARGE PLATED STEEL        19.00                3.00
Brand#32   STANDARD ANODIZED COPPER  23.00                3.00
Brand#33   SMALL ANODIZED BRASS      9.00                 3.00
Brand#35   MEDIUM ANODIZED TIN       19.00                3.00
Brand#51   SMALL PLATED BRASS        23.00                3.00
Brand#52   MEDIUM BRUSHED BRASS      45.00                3.00
Brand#53   MEDIUM BRUSHED TIN        45.00                3.00
Brand#54   ECONOMY POLISHED BRASS    9.00                 3.00
Brand#55   PROMO PLATED BRASS        19.00                3.00
Brand#55   STANDARD PLATED TIN       49.00                3.00
18314 rows processed.
-----------------------------------
17.log
-----------------------------------
-- using default substitutions
select
sum(l_extendedprice) / 7.0 as avg_yearly
from
lineitem,
part
where
p_partkey = l_partkey
and p_brand = 'Brand#23'
and p_container = 'MED BOX'
and l_quantity < (
select
0.2 * avg(l_quantity)
from
lineitem
where
l_partkey = p_partkey
)
AVG_YEARLY
348406.05
1 row processed.
-----------------------------------
18.log
-----------------------------------
-- using default substitutions
select  *  from  (
select
c_name,
c_custkey,
o_orderkey,
o_orderdate,
o_totalprice,
sum(l_quantity)
from
customer,
orders,
lineitem
where
o_orderkey in (
select
l_orderkey
from
lineitem
group by
l_orderkey having
sum(l_quantity) > 300
)
and c_custkey = o_custkey
and o_orderkey = l_orderkey
group by
c_name,
c_custkey,
o_orderkey,
```

```
o_orderdate,
o_totalprice
order by
o_totalprice desc,
o_orderdate
)
where rownum <= 100
C_NAME                C_CUSTKEY          O_ORDERKEY         O_ORDERDATE
O_TOTALPRICE        SUM(L_QUANTITY)
Customer#000128120      128120.00          4722021.00         1994-04-07
544089.09           323.00
Customer#000144617      144617.00          3043270.00         1997-02-12
530604.44           317.00
Customer#000013940      13940.00           2232932.00         1997-04-13
522720.61           304.00
Customer#000066790      66790.00           2199712.00         1996-09-30
515531.82           327.00
Customer#000046435      46435.00           4745607.00         1997-07-03
508047.99           309.00
Customer#000015272      15272.00           3883783.00         1993-07-28
500241.33           302.00
Customer#000146608      146608.00          3342468.00         1994-06-12
499794.58           303.00
Customer#000096103      96103.00           5984582.00         1992-03-16
494398.79           312.00
Customer#000024341      24341.00           1474818.00         1992-11-15
491348.26           302.00
Customer#000137446      137446.00          5489475.00         1997-05-23
487763.25           311.00
Customer#000107590      107590.00          4267751.00         1994-11-04
485141.38           301.00
Customer#000050008      50008.00           2366755.00         1996-12-09
483891.26           302.00
Customer#000015619      15619.00           3767271.00         1996-08-07
480083.96           318.00
Customer#000077260      77260.00           1436544.00         1992-09-12
479499.43           307.00
Customer#000109379      109379.00          5746311.00         1996-10-10
478064.11           302.00
Customer#000054602      54602.00           5832321.00         1997-02-09
471220.08           307.00
Customer#000105995      105995.00          2096705.00         1994-07-03
469692.58           307.00
Customer#000148885      148885.00          2942469.00         1992-05-31
469630.44           313.00
Customer#000114586      114586.00          551136.00          1993-05-19
469605.59           308.00
Customer#000105260      105260.00          5296167.00         1996-09-06
469360.57           303.00
Customer#000147197      147197.00          1263015.00         1997-02-02
467149.67           320.00
Customer#000064483      64483.00           2745894.00         1996-07-04
466991.35           304.00
Customer#000136573      136573.00          2761378.00         1996-05-31
461282.73           301.00
Customer#000016384      16384.00           502886.00          1994-04-12
458378.92           312.00
Customer#000117919      117919.00          2869152.00         1996-06-20
456815.92           317.00
Customer#000012251      12251.00           735366.00          1993-11-24
455107.26           309.00
Customer#000120098      120098.00          1971680.00         1995-06-14
453451.23           308.00
Customer#000066098      66098.00           5007490.00         1992-08-07
453436.16           304.00
Customer#000117076      117076.00          4290656.00         1997-02-05
449545.85           301.00
Customer#000129379      129379.00          4720454.00         1997-06-07
448665.79           303.00
Customer#000126865      126865.00          4702759.00         1994-11-07
447606.65           320.00
Customer#000088876      88876.00           983201.00          1993-12-30
446717.46           304.00
Customer#000036619      36619.00           4806726.00         1995-01-17
446704.09           328.00
Customer#000141823      141823.00          2806245.00         1996-12-29
446269.12           310.00
Customer#000053029      53029.00           2662214.00         1993-08-13
446144.49           302.00
Customer#000018188      18188.00           3037414.00         1995-01-25
443807.22           308.00
Customer#000066533      66533.00           29158.00           1995-10-21
443576.50           305.00
Customer#000037729      37729.00           4134341.00         1995-06-29
441082.97           309.00
Customer#000003566      3566.00            2329187.00         1998-01-04
439803.36           304.00
Customer#000045538      45538.00           4527553.00         1994-05-22
436275.31           305.00
Customer#000081581      81581.00           4739650.00         1995-11-04
435405.90           305.00
Customer#000119989      119989.00          1544643.00         1997-09-20
434568.25           320.00
Customer#000003680      3680.00            3861123.00         1998-07-03
433525.97           301.00
Customer#000113131      113131.00          967334.00          1995-12-15
432957.75           301.00
Customer#000141098      141098.00          565574.00          1995-09-24
430986.69           301.00
Customer#000093392      93392.00           5200102.00         1997-01-22
425487.51           304.00
Customer#000015631      15631.00           1845057.00         1994-05-12
419879.59           302.00
Customer#000112987      112987.00          4439686.00         1996-09-17
418161.49           305.00
Customer#000012599      12599.00           4259524.00         1998-02-12
415200.61           304.00
Customer#000105410      105410.00          4478371.00         1996-03-05
412754.51           302.00
Customer#000149842      149842.00          5156581.00         1994-05-30
411329.35           302.00
Customer#000010129      10129.00           5849444.00         1994-03-21
409129.85           309.00
Customer#000069904      69904.00           1742403.00         1996-10-19
408513.00           305.00
Customer#000017746      17746.00           6882.00            1997-04-09
408446.93           303.00
Customer#000013072      13072.00           1481925.00         1998-03-15
399195.47           301.00
Customer#000082441      82441.00           857959.00          1994-02-07
382579.74           305.00
Customer#000088703      88703.00           2995076.00         1994-01-30
363812.12           302.00
57 rows processed.
-----------------------------------
19.log
-----------------------------------
-- using default substitutions
select
sum(l_extendedprice* (1 - l_discount)) as revenue
from
lineitem,
part
where
(
p_partkey = l_partkey
and p_brand = 'Brand#12'
and p_container in ('SM CASE', 'SM BOX', 'SM PACK', 'SM PKG')
and l_quantity >= 1 and l_quantity <= 1 + 10
and p_size between 1 and 5
and l_shipmode in ('AIR', 'AIR REG')
and l_shipinstruct = 'DELIVER IN PERSON'
)
or
(
p_partkey = l_partkey
and p_brand = 'Brand#23'
and p_container in ('MED BAG', 'MED BOX', 'MED PKG', 'MED PACK')
and l_quantity >= 10 and l_quantity <= 10 + 10
and p_size between 1 and 10
and l_shipmode in ('AIR', 'AIR REG')
and l_shipinstruct = 'DELIVER IN PERSON'
)
or
(
p_partkey = l_partkey
and p_brand = 'Brand#34'
and p_container in ('LG CASE', 'LG BOX', 'LG PACK', 'LG PKG')
and l_quantity >= 20 and l_quantity <= 20 + 10
and p_size between 1 and 15
and l_shipmode in ('AIR', 'AIR REG')
and l_shipinstruct = 'DELIVER IN PERSON'
)
REVENUE
3083843.06
1 row processed.
-----------------------------------
1.log
-----------------------------------
-- using default substitutions
select
l_returnflag,
l_linestatus,
sum(l_quantity) as sum_qty,
sum(l_extendedprice) as sum_base_price,
sum(l_extendedprice * (1 - l_discount)) as sum_disc_price,
sum(l_extendedprice * (1 - l_discount) * (1 + l_tax)) as sum_charge,
avg(l_quantity) as avg_qty,
avg(l_extendedprice) as avg_price,
avg(l_discount) as avg_disc,
count(*) as count_order
from
lineitem
where
l_shipdate <= to_date ('1998-12-01','YYYY-MM-DD')  -  90
group by
```

```
l_returnflag,
l_linestatus
order by
l_returnflag,
l_linestatus
L_RETURNFLAG L_LINESTATUS SUM_QTY              SUM_BASE_PRICE
SUM_DISC_PRICE       SUM_CHARGE           AVG_QTY
AVG_PRICE            AVG_DISC             COUNT_ORDER
A            F            37734107.00          56586554400.73
53758257134.87       55909065222.83       25.52
38273.13             0.05                 1478493.00
N            F            991417.00            1487504710.38
1413082168.05        1469649223.19        25.52
38284.47             0.05                 38854.00
N            O            74476040.00          111701729697.74
106118230307.61      110367043872.50      25.50
38249.12             0.05                 2920374.00
R            F            37719753.00          56568041380.90
53741292684.60       55889619119.83       25.51
38250.85             0.05                 1478870.00
4 rows processed.
-----------------------------------
20.log
-----------------------------------
-- using default substitutions
select
s_name,
s_address
from
supplier,
nation
where
s_suppkey in (
select
ps_suppkey
from
partsupp
where
ps_partkey in (
select
p_partkey
from
part
where
p_name like 'forest%'
)
and ps_availqty > (
select
0.5 * sum(l_quantity)
from
lineitem
where
l_partkey = ps_partkey
and l_suppkey = ps_suppkey
and l_shipdate >= to_date ('1994-01-01', 'YYYY-MM-DD')
and l_shipdate < add_months( to_date ('1994-01-01', 'YYYY-MM-DD'), 12)
)
)
and s_nationkey = n_nationkey
and n_name = 'CANADA'
order by
s_name
S_NAME               S_ADDRESS
Supplier#000000020       iybAE,RmTymrZVYaFZva2SH,j
Supplier#000000091       YV45D7TkfdQanOOZ7q9QxkyGUapU1oOWU6q3
Supplier#000000197       YC2Acon6kjY3zj3Fbxs2k4Vdf7X0cd2F
Supplier#000000226       83qOdU2EYRdPQAQhEtn GRZEd
Supplier#000000285       Br7e1nnt1yxrw6ImgpJ7YdhFDjuBf
Supplier#000000378       FfbhyCxWvcPrO8ltp9
Supplier#000000402       i9Sw4DoyMhzhKXCH9By,AYSgmD
Supplier#000000530       0qwCMwobKY OcmLyfRXlagA8ukENJv,
Supplier#000000688       D fw5ocppmZpYBBIPl718hCihLDZ5KhKX
Supplier#000000710       f19YPvOyb QoYwjKC,oPycpGfieBAcwKJo
Supplier#000000736       l6i2nMwVuovfKnuVgaSGK2rDy65DlAFLegiL7
Supplier#000000761       zlSLelQUj2XrvTTFnv7WAcYZGvvMTx882d4
Supplier#000000884       bmhEShejaS
Supplier#000000887       urEaTejH5POADP2ARrf
Supplier#000000935       ij98czM 2KzWe7dDTOxB8sq0UfCdvrX
Supplier#000000975       ,AC e,tBpNwKb5xMUzeohxlRn, hdZJo73gFQF8y
Supplier#000001263       rQWr6nf8ZhB2TAiIDIvo5Io
Supplier#000001399       LmrocnIMSyYOWuANx7
Supplier#000001446       lch9HMNU1R7a0LIybsUodVknk6
Supplier#000001454       TOpimgu2TVXIjhiL93h,
Supplier#000001500       wDmF5xLxtQch9ctVu,
Supplier#000001602       uKNWIeafaM644
Supplier#000001626       UhxNRzUu1dtFmp0
Supplier#000001682       pXTkGxrTQVyH1Rr
Supplier#000001699       Q9C4rfJ26oijVPqqcqVXeRI
:
:
lines deleted
:
:
Supplier#000009032       qK,trB6Sdy4Dz1BRUFNy
Supplier#000009147       rOAuryHxpZ9eOvx
Supplier#000009252       F7cZaPUHwh1 ZKyj3xmAVWC1XdP ue1p5m,i
Supplier#000009278       RqYTzgxj93CLX 0mcYfCENOefD
Supplier#000009327       uoqMdf7e7Gj9dbQ53
Supplier#000009430       igRqmneFt
Supplier#000009567       r4Wfx4c3xsEAjcGj71HHZByornl D9vrztXlv4
Supplier#000009601       51m637bO,Rw5DnHWFUvLacRx9
Supplier#000009709       rRnCbHYgDgl9PZYnyWKVYSUW0vKg
Supplier#000009753       wLhVEcRmd7PkJF4FBnGK7Z
Supplier#000009796       z,y4Idmr15DOvPUqYG
Supplier#000009799        4wNjXGa4OKWl
Supplier#000009811       E3iuyq7UnZxU7oPZIe2Gu6
Supplier#000009812       APFRMy3lCbgFga53n5t9DxzFPQPgnjrGt32
Supplier#000009862       rJzweWeN58
Supplier#000009868       ROjGgx5gvtkmnUUoeyy7v
Supplier#000009869       ucLqxzrpBTRMewGSM29t0rNTM30g1Tu3Xgg3mKag
Supplier#000009899       7XdpAHrzr1t,UQFZE
Supplier#000009974       7wJ,J5DKcxSU4Kp1cQLpbcAvB5AsvKT
204 rows processed.
-----------------------------------
21.log
-----------------------------------
-- using default substitutions
select * from (
select
s_name,
count(*)  numwait
from
supplier,
lineitem l1,
orders,
nation
where
s_suppkey = l1.l_suppkey
and o_orderkey = l1.l_orderkey
and o_orderstatus = 'F'
and l1.l_receiptdate > l1.l_commitdate
and exists (
select
*
from
lineitem l2
where
l2.l_orderkey = l1.l_orderkey
and l2.l_suppkey <> l1.l_suppkey
)
and not exists (
select
*
from
lineitem l3
where
l3.l_orderkey = l1.l_orderkey
and l3.l_suppkey <> l1.l_suppkey
and l3.l_receiptdate > l3.l_commitdate
)
and s_nationkey = n_nationkey
and n_name = 'SAUDI ARABIA'
group by
s_name
order by
numwait desc,
s_name)
where rownum <= 100
S_NAME               NUMWAIT
Supplier#000002829       20.00
Supplier#000005808       18.00
Supplier#000000262       17.00
Supplier#000000496       17.00
Supplier#000002160       17.00
Supplier#000002301       17.00
Supplier#000002540       17.00
Supplier#000003063       17.00
Supplier#000005178       17.00
Supplier#000008331       17.00
Supplier#000002005       16.00
Supplier#000002095       16.00
Supplier#000005799       16.00
Supplier#000005842       16.00
Supplier#000006450       16.00
Supplier#000006939       16.00
Supplier#000009200       16.00
Supplier#000009727       16.00
Supplier#000000486       15.00
Supplier#000000565       15.00
Supplier#000001046       15.00
Supplier#000001047       15.00
Supplier#000001161       15.00
Supplier#000001336       15.00
Supplier#000001435       15.00
Supplier#000003075       15.00
Supplier#000003335       15.00
```

```
Supplier#000005649      15.00
Supplier#000006027      15.00
Supplier#000006795      15.00
Supplier#000006800      15.00
Supplier#000006824      15.00
Supplier#000007131      15.00
Supplier#000007382      15.00
Supplier#000008913      15.00
Supplier#000009787      15.00
Supplier#000000633      14.00
Supplier#000001960      14.00
Supplier#000002323      14.00
Supplier#000002490      14.00
Supplier#000002993      14.00
Supplier#000003101      14.00
Supplier#000004489      14.00
Supplier#000005435      14.00
Supplier#000005583      14.00
Supplier#000005774      14.00
Supplier#000007579      14.00
Supplier#000008180      14.00
Supplier#000008695      14.00
Supplier#000009224      14.00
Supplier#000000357      13.00
Supplier#000000436      13.00
Supplier#000000610      13.00
Supplier#000000788      13.00
Supplier#000000889      13.00
Supplier#000001062      13.00
Supplier#000001498      13.00
Supplier#000002056      13.00
Supplier#000002312      13.00
Supplier#000002344      13.00
Supplier#000002596      13.00
Supplier#000002615      13.00
Supplier#000002978      13.00
Supplier#000003048      13.00
Supplier#000003234      13.00
Supplier#000003727      13.00
Supplier#000003806      13.00
Supplier#000004472      13.00
Supplier#000005236      13.00
Supplier#000005906      13.00
Supplier#000006241      13.00
Supplier#000006326      13.00
Supplier#000006384      13.00
Supplier#000006394      13.00
Supplier#000006624      13.00
Supplier#000006629      13.00
Supplier#000006682      13.00
Supplier#000006737      13.00
Supplier#000006825      13.00
Supplier#000007021      13.00
Supplier#000007417      13.00
Supplier#000007497      13.00
Supplier#000007602      13.00
Supplier#000008134      13.00
Supplier#000008234      13.00
Supplier#000009435      13.00
Supplier#000009436      13.00
Supplier#000009564      13.00
Supplier#000009896      13.00
Supplier#000000379      12.00
Supplier#000000673      12.00
Supplier#000000762      12.00
Supplier#000000811      12.00
Supplier#000000821      12.00
Supplier#000001337      12.00
Supplier#000001916      12.00
Supplier#000001925      12.00
Supplier#000002039      12.00
Supplier#000002357      12.00
Supplier#000002483      12.00
100 rows processed.
-----------------------------------
22.log
-----------------------------------
-- using default substitutions
select
cntrycode,
count(*) as numcust,
sum(c_acctbal) as totacctbal
from
(
select
substr(c_phone, 1, 2) as cntrycode,
c_acctbal
from
customer
where
substr(c_phone,1, 2) in
('13', '31', '23', '29', '30', '18', '17')
and c_acctbal > (
select
avg(c_acctbal)
from
customer
where
c_acctbal > 0.00
and substr(c_phone, 1, 2) in
('13', '31', '23', '29', '30', '18', '17')
)
and not exists (
select
*
from
orders
where
o_custkey = c_custkey
)
) custsale
group by
cntrycode
order by
cntrycode
CNTRYCODE NUMCUST            TOTACCTBAL
13        888.00             6737713.99
17        861.00             6460573.72
18        964.00             7236687.40
23        892.00             6701457.95
29        948.00             7158866.63
30        909.00             6808436.13
31        922.00             6806670.18
7 rows processed.
-----------------------------------
2.log
-----------------------------------
-- using default substitutions
select * from (
select
s_acctbal,
s_name,
n_name,
p_partkey,
p_mfgr,
s_address,
s_phone,
s_comment
from
part,
supplier,
partsupp,
nation,
region
where
p_partkey = ps_partkey
and s_suppkey = ps_suppkey
and p_size = 15
and p_type like '%BRASS'
and s_nationkey = n_nationkey
and n_regionkey = r_regionkey
and r_name = 'EUROPE'
and ps_supplycost = (
select
min(ps_supplycost)
from
partsupp,
supplier,
nation,
region
where
p_partkey = ps_partkey
and s_suppkey = ps_suppkey
and s_nationkey = n_nationkey
and n_regionkey = r_regionkey
and r_name = 'EUROPE'
)
order by
s_acctbal desc,
n_name,
s_name,
p_partkey
)
where rownum <= 100
S_ACCTBAL          S_NAME               N_NAME
P_PARTKEY          P_MFGR
S_ADDRESS                       S_PHONE
S_COMMENT
9938.53            Supplier#000005359       UNITED KINGDOM
185358.00          Manufacturer#4
QKuHYh,vZGiwu2FWEJoLDx04              33-429-790-6131
uriously regular requests hag
9937.84            Supplier#000005969       ROMANIA
108438.00          Manufacturer#1
ANDENSOSmk,miq23Xfb5RWt6dvUcvt6Qa      29-520-692-3537
efully express instructions. regular requests against the slyly fin
```

```
9936.22         Supplier#000005250      UNITED KINGDOM
249.00          Manufacturer#4
B3rqp0xbSEim4Mpy2RH J           33-320-228-2957
etect about the furiously final accounts. slyly ironic pinto beans sleep inside the furiously
9923.77         Supplier#000002324      GERMANY
29821.00        Manufacturer#4
y3OD9UywSTOk            17-779-299-1839
ackages boost blithely. blithely regular deposits c
9871.22         Supplier#000006373      GERMANY
43868.00        Manufacturer#5
J8fcXWsTqM              17-813-485-8637
etect blithely bold asymptotes. fluffily ironic platelets wake furiously; blit
9870.78         Supplier#000001286      GERMANY
81285.00        Manufacturer#2
YKA,E2fjiVd7eUrzp2Ef8j1QxGo2DFnosaTEH   17-516-924-4574
 regular accounts. furiously unusual courts above the fi
9870.78         Supplier#000001286      GERMANY
181285.00       Manufacturer#4
YKA,E2fjiVd7eUrzp2Ef8j1QxGo2DFnosaTEH   17-516-924-4574
 regular accounts. furiously unusual courts above the fi
9852.52         Supplier#000008973      RUSSIA
18972.00        Manufacturer#2
t5L67YdBYYH6o,Vz24jpDyQ9        32-188-594-7038
rns wake final foxes. carefully unusual depende
9847.83         Supplier#000008097      RUSSIA
130557.00       Manufacturer#2
xMe97bpE69NzdwLoX               32-375-640-3593
 the special excuses. silent sentiments serve carefully final ac
9847.57         Supplier#000006345      FRANCE
86344.00        Manufacturer#1
VSt3rzk3qG698u6ld8HhOByvrTcSTSvQlDQDag  16-886-766-7945
ges. slyly regular requests are. ruthless, express excuses cajole blithely across the unu
9847.57         Supplier#000006345      FRANCE
173827.00       Manufacturer#2
VSt3rzk3qG698u6ld8HhOByvrTcSTSvQlDQDag  16-886-766-7945
ges. slyly regular requests are. ruthless, express excuses cajole blithely across the unu
9836.93         Supplier#000007342      RUSSIA
4841.00         Manufacturer#4
JOlK7C1,7xrEZSSOw               32-399-414-5385
blithely carefully bold theodolites. fur
9817.10         Supplier#000002352      RUSSIA
124815.00       Manufacturer#2
4LfoHUZjgjEbAKw TgdKcgOc4D4uCYw         32-551-831-1437
wake carefully alongside of the carefully final ex
9817.10         Supplier#000002352      RUSSIA
152351.00       Manufacturer#3
4LfoHUZjgjEbAKw TgdKcgOc4D4uCYw         32-551-831-1437
wake carefully alongside of the carefully final ex
:
:
lines deleted
:
:
7950.37         Supplier#000008101      GERMANY
33094.00        Manufacturer#5
kkYvL6IuvojJgTNG IKkaXQDYgx8ILohj       17-627-663-8014
arefully unusual requests x-ray above the quickly final deposits.
7937.93         Supplier#000009012      ROMANIA
83995.00        Manufacturer#2
iUiTziH,Ek3i4lwSgunXMgrcTzwdb           29-250-925-9690
to the blithely ironic deposits nag sly
7914.45         Supplier#000001013      RUSSIA
125988.00       Manufacturer#2
riRcntps4KEDtYScjpMIWeYF6mNnR           32-194-698-3365
 busily bold packages are dolphi
7912.91         Supplier#000004211      GERMANY
159180.00       Manufacturer#5
2wQRVovHrm3,v03IKzfTd,1PYsFXQFFOG       17-266-947-7315
ay furiously regular platelets. cou
7912.91         Supplier#000004211      GERMANY
184210.00       Manufacturer#4
2wQRVovHrm3,v03IKzfTd,1PYsFXQFFOG       17-266-947-7315
ay furiously regular platelets. cou
7894.56         Supplier#000007981      GERMANY
85472.00        Manufacturer#4
NSJ96vMROAbeXP          17-963-404-3760
ic platelets affix after the furiously
7887.08         Supplier#000009792      GERMANY
164759.00       Manufacturer#3
Y28ITVeYriT3kIGdV2K8fSZ V2UqT5H1Otz      17-988-938-4296
ckly around the carefully fluffy theodolites. slyly ironic pack
7871.50         Supplier#000007206      RUSSIA
104695.00       Manufacturer#1
3w fNCnrVmvJjE95sgWZzvW         32-432-452-7731
ironic requests. furiously final theodolites cajole. final, express packages sleep. quickly reg
7852.45         Supplier#000005864      RUSSIA
8363.00         Manufacturer#4
WCNfBPZeSXh3h,c         32-454-883-3821
usly unusual pinto beans. brave ideas sleep carefully quickly ironi
7850.66         Supplier#000001518      UNITED KINGDOM
86501.00        Manufacturer#1
ONda3YJiHKJOC           33-730-383-3892
ifts haggle fluffily pending pai
7843.52         Supplier#000006683      FRANCE
11680.00        Manufacturer#4
2Z0JGkiv01Y00oCFwUGfviIbhzCdy           16-464-517-8943
 express, final pinto beans x-ray slyly asymptotes. unusual, unusual
100 rows processed.
-----------------------------------
3.log
-----------------------------------
-- using default substitutions
select * from (
select
l_orderkey,
sum(l_extendedprice * (1 - l_discount)) as revenue,
o_orderdate,
o_shippriority
from
customer,
orders,
lineitem
where
c_mktsegment = 'BUILDING'
and c_custkey = o_custkey
and l_orderkey = o_orderkey
and o_orderdate < to_date( '1995-03-15', 'YYYY-MM-DD')
and l_shipdate > to_date( '1995-03-15', 'YYYY-MM-DD')
group by
l_orderkey,
o_orderdate,
o_shippriority
order by
revenue desc,
o_orderdate)
where rownum <= 10
L_ORDERKEY      REVENUE         O_ORDERDATE O_SHIPPRIORITY
2456423.00      406181.01       1995-03-05  0.00
3459808.00      405838.70       1995-03-04  0.00
492164.00       390324.06       1995-02-19  0.00
1188320.00      384537.94       1995-03-09  0.00
2435712.00      378673.06       1995-02-26  0.00
4878020.00      378376.80       1995-03-12  0.00
5521732.00      375153.92       1995-03-13  0.00
2628192.00      373133.31       1995-02-22  0.00
993600.00       371407.46       1995-03-05  0.00
2300070.00      367371.15       1995-03-13  0.00
10 rows processed.
-----------------------------------
4.log
-----------------------------------
-- using default substitutions
select
o_orderpriority,
count(*) as order_count
from
orders
where
o_orderdate >= to_date( '1993-07-01',  'YYYY-MM-DD')
and o_orderdate < add_months(to_date( '1993-07-01', 'YYYY-MM-DD'),3)
and exists (
select
*
from
lineitem
where
l_orderkey = o_orderkey
and l_commitdate < l_receiptdate
)
group by
o_orderpriority
order by
o_orderpriority
O_ORDERPRIORITY ORDER_COUNT
1-URGENT        10594.00
2-HIGH          10476.00
3-MEDIUM        10410.00
4-NOT SPECIFIED 10556.00
5-LOW           10487.00
5 rows processed.
-----------------------------------
5.log
-----------------------------------
-- using default substitutions
select
n_name,
sum(l_extendedprice * (1 - l_discount)) as revenue
from
customer,
orders,
lineitem,
supplier,
nation,
region
where
c_custkey = o_custkey
```

```
and l_orderkey = o_orderkey
and l_suppkey = s_suppkey
and c_nationkey = s_nationkey
and s_nationkey = n_nationkey
and n_regionkey = r_regionkey
and r_name = 'ASIA'
and o_orderdate >= to_date( '1994-01-01',  'YYYY-MM-DD')
and o_orderdate < add_months(to_date( '1994-01-01',  'YYYY-MM-DD'),  12)
group by
n_name
order by
revenue desc
N_NAME                 REVENUE
INDONESIA               55502041.17
VIETNAM                 55295087.00
CHINA                  53724494.26
INDIA                  52035512.00
JAPAN                   45410175.70
5 rows processed.
-----------------------------------
6.log
-----------------------------------
-- using default substitutions
select
sum(l_extendedprice * l_discount) as revenue
from
lineitem
where
l_shipdate >= to_date( '1994-01-01',  'YYYY-MM-DD')
and l_shipdate < add_months(to_date( '1994-01-01',  'YYYY-MM-DD'),  12)
and l_discount between .06 - 0.01 and .06 + 0.01
and l_quantity < 24
REVENUE
123141078.23
1 row processed.
-----------------------------------
7.log
-----------------------------------
-- using default substitutions
select
supp_nation,
cust_nation,
l_year,
sum(volume) as revenue
from
(
select
n1.n_name as supp_nation,
n2.n_name as cust_nation,
                                                to_number (to_char (l_shipdate,'yyyy')) as l_year,
l_extendedprice * (1 - l_discount) as volume
from
supplier,
lineitem,
orders,
customer,
nation n1,
nation n2
where
s_suppkey = l_suppkey
and o_orderkey = l_orderkey
and c_custkey = o_custkey
and s_nationkey = n1.n_nationkey
and c_nationkey = n2.n_nationkey
and (
(n1.n_name = 'FRANCE' and n2.n_name = 'GERMANY')
or (n1.n_name = 'GERMANY' and n2.n_name = 'FRANCE')
)
and l_shipdate between to_date( '1995-01-01', 'YYYY-MM-DD') and to_date( '1996-12-31',
'YYYY-MM-DD')
) shipping
group by
supp_nation,
cust_nation,
l_year
order by
supp_nation,
cust_nation,
l_year
SUPP_NATION            CUST_NATION            L_YEAR
REVENUE
FRANCE                 GERMANY                1995.00
54639732.73
FRANCE                 GERMANY                1996.00
54633083.31
GERMANY                FRANCE                 1995.00
52531746.67
GERMANY                FRANCE                 1996.00
52520549.02
4 rows processed.
-----------------------------------
8.log
-----------------------------------
-- using default substitutions
select
o_year,
sum(case when nation='BRAZIL' then volume else 0 end )/ sum(volume)
as mkt_share
from
(
select
to_number (to_char (o_orderdate, 'yyyy')) as o_year,
l_extendedprice * (1 - l_discount) as volume,
n2.n_name as nation
from
part,
supplier,
lineitem,
orders,
customer,
nation n1,
nation n2,
region
where
p_partkey = l_partkey
and s_suppkey = l_suppkey
and l_orderkey = o_orderkey
and o_custkey = c_custkey
and c_nationkey = n1.n_nationkey
and n1.n_regionkey = r_regionkey
and r_name = 'AMERICA'
and s_nationkey = n2.n_nationkey
and o_orderdate between to_date ('1995-01-01', 'YYYY-MM-DD') and to_date ('1996-12-31',
'YYYY-MM-DD')
and p_type = 'ECONOMY ANODIZED STEEL'
) all_nations
group by
o_year
order by
o_year
O_YEAR                 MKT_SHARE
1995.00                0.03
1996.00                0.04
2 rows processed.
-----------------------------------
9.log
-----------------------------------
-- using default substitutions
select
nation,
o_year,
sum(amount) as sum_profit
from
(
select
n_name as nation,
to_number (to_char (o_orderdate, 'yyyy')) as o_year,
l_extendedprice * (1 - l_discount) - ps_supplycost * l_quantity as amount
from
part,
supplier,
                                                lineitem,
partsupp,
orders,
                                                nation
where
s_suppkey = l_suppkey
and ps_suppkey = l_suppkey
and ps_partkey = l_partkey
and p_partkey = l_partkey
and o_orderkey = l_orderkey
and s_nationkey = n_nationkey
and p_name like '%green%'
) profit
group by
nation,
o_year
order by
nation,
o_year desc
NATION                 O_YEAR                 SUM_PROFIT
ALGERIA                1998.00                31342867.23
ALGERIA                1997.00                57138193.02
ALGERIA                1996.00                56140140.13
ALGERIA                1995.00                53051469.65
ALGERIA                1994.00                53867582.13
ALGERIA                1993.00                54942718.13
ALGERIA                1992.00                54628034.71
ARGENTINA              1998.00                30211185.71
ARGENTINA              1997.00                50805741.75
ARGENTINA              1996.00                51923746.58
ARGENTINA              1995.00                49298625.77
ARGENTINA              1994.00                50835610.11
ARGENTINA              1993.00                51646079.18
ARGENTINA              1992.00                50410314.99
BRAZIL                 1998.00                27217924.38
```

```
BRAZIL          1997.00         48378669.20
BRAZIL          1996.00         50482870.36
BRAZIL          1995.00         47623383.63
BRAZIL          1994.00         47840165.73
BRAZIL          1993.00         49054694.04
BRAZIL          1992.00         48667639.08
CANADA          1998.00          30379833.77
CANADA          1997.00          50465052.31
CANADA          1996.00          52560501.39
CANADA          1995.00          52375332.81
CANADA          1994.00          52600364.66
CANADA          1993.00          52644504.07
CANADA          1992.00          53932871.70
CHINA           1998.00         31075466.16
CHINA           1997.00         50551874.45
CHINA           1996.00         51039293.88
CHINA           1995.00         49287534.62
CHINA           1994.00         50851090.07
:
:
lines deleted
:
:
UNITED KINGDOM  1994.00          48086499.71
UNITED KINGDOM  1993.00          49166827.22
UNITED KINGDOM  1992.00          49349122.08
UNITED STATES   1998.00          25126238.95
UNITED STATES   1997.00          50077306.42
UNITED STATES   1996.00          48048649.47
UNITED STATES   1995.00          48809032.42
UNITED STATES   1994.00          49296747.18
UNITED STATES   1993.00          48029946.80
UNITED STATES   1992.00          48671944.50
VIETNAM         1998.00         30442736.06
VIETNAM         1997.00         50309179.79
VIETNAM         1996.00         50488161.41
VIETNAM         1995.00         49658284.61
VIETNAM         1994.00         50596057.26
VIETNAM         1993.00         50953919.15
VIETNAM         1992.00         49613838.32
175 rows processed.
```

Appendix E: Seed and Input Parameters

QP1.0
---
seed=517202238
Q=14 1994-06-01|Q=2 35 STEEL ASIA|Q=9 olive|Q=20 frosted 1997-01-01 SAUDI ARABIA|Q=6 1996-01-01 0.08 24|Q=17 Brand#14 WRAP BOX|Q=18 314|Q=8 INDONESIA ASIA LARGE POLISHED STEEL|Q=21 SAUDI ARABIA|Q=13 express requests|Q=3 HOUSEHOLD 1995-03-17|Q=22 13 12 22 21 25 29 11|Q=16 Brand#31 LARGE BRUSHED 42 33 29 41 20 25 24 2|Q=4 1995-08-01|Q=11 BRAZIL 0.0000001000|Q=15 1995-03-01|Q=1 84|Q=10 1994-08-01|Q=19 Brand#52 Brand#55 Brand#23 1 13 28|Q=5 AFRICA 1996-01-01|Q=7 VIETNAM INDONESIA|Q=12 MAIL SHIP 1994-01-01|

QP1.1
---
seed=517202239
Q=21 JAPAN|Q=3 AUTOMOBILE 1995-03-02|Q=18 312|Q=5 ASIA 1997-01-01|Q=11 MOROCCO 0.0000001000|Q=7 JORDAN ARGENTINA|Q=6 1997-01-01 0.06 24|Q=20 purple 1995-01-01 IRAN|Q=17 Brand#11 WRAP PACK|Q=12 TRUCK SHIP 1994-01-01|Q=16 Brand#11 STANDARD BURNISHED 46 14 26 21 17 5 50 4|Q=15 1997-10-01|Q=13 express requests|Q=10 1993-05-01|Q=2 22 BRASS AFRICA|Q=8 ARGENTINA AMERICA LARGE BURNISHED STEEL|Q=14 1994-09-01|Q=19 Brand#54 Brand#33 Brand#22 6 14 24|Q=9 midnight|Q=22 20 18 11 24 10 14 29|Q=1 92|Q=4 1993-05-01|

QP1.10
---
seed=517202248
Q=6 1994-01-01 0.07 24|Q=15 1996-09-01|Q=18 313|Q=17 Brand#23 MED PACK|Q=12 REG AIR AIR 1997-01-01|Q=1 104|Q=7 MOZAMBIQUE CANADA|Q=2 13 NICKEL MIDDLE EAST|Q=22 27 18 19 17 21 13 23|Q=13 pending deposits|Q=21 PERU|Q=10 1994-04-01|Q=14 1997-02-01|Q=9 wheat|Q=3 BUILDING 1995-03-27|Q=16 Brand#12 MEDIUM BRUSHED 24 25 31 5 3 13 16 12|Q=20 lime 1996-01-01 PERU|Q=19 Brand#33 Brand#44 Brand#45 4 12 23|Q=11 GERMANY 0.0000001000|Q=4 1997-03-01|Q=8 CANADA AMERICA PROMO BRUSHED TIN|Q=5 AMERICA 1994-01-01|

QP1.100
---
seed=517202338
Q=14 1996-03-01|Q=4 1996-12-01|Q=13 pending accounts|Q=5 AFRICA 1995-01-01|Q=21 JAPAN|Q=11 ALGERIA 0.0000001000|Q=8 GERMANY EUROPE STANDARD PLATED STEEL|Q=6 1995-01-01 0.08 24|Q=3 FURNITURE 1995-03-25|Q=17 Brand#55 MED PACK|Q=2 13 STEEL EUROPE|Q=20 black 1995-01-01 PERU|Q=1 94|Q=19 Brand#31 Brand#34 Brand#31 8 15 21|Q=10 1993-04-01|Q=9 blue|Q=12 FOB RAIL 1996-01-01|Q=18 315|Q=15 1995-02-01|Q=7 CHINA GERMANY|Q=22 27 20 32 19 25 29 34|Q=16 Brand#35 PROMO BRUSHED 21 4 26 33 22 46 39 13|

QP1.101
---
seed=517202339
Q=4 1994-09-01|Q=12 MAIL TRUCK 1996-01-01|Q=22 27 24 33 16 25 18 11|Q=14 1996-06-01|Q=5 AMERICA 1995-01-01|Q=15 1997-08-01|Q=16 Brand#25 MEDIUM BURNISHED 30 8 18 16 7 48 13 31|Q=2 1 BRASS AMERICA|Q=8 UNITED STATES AMERICA STANDARD ANODIZED COPPER|Q=10 1994-01-01|Q=17 Brand#52 MED DRUM|Q=9 aquamarine|Q=21 EGYPT|Q=7 IRAN UNITED STATES|Q=3 AUTOMOBILE 1995-03-11|Q=6 1995-01-01 0.05 25|Q=13 pending accounts|Q=18 313|Q=11 JORDAN 0.0000001000|Q=20 lime 1993-01-01 GERMANY|Q=19 Brand#33 Brand#12 Brand#25 3 16 28|Q=1 102|

QP1.102
---
seed=517202340
Q=16 Brand#55 ECONOMY PLATED 33 46 45 2 18 29 16 35|Q=15 1995-05-01|Q=14 1996-09-01|Q=13 pending accounts|Q=4 1997-04-01|Q=22 32 17 30 22 13 34 12|Q=18 315|Q=19 Brand#45 Brand#55 Brand#25 8 17 25|Q=7 BRAZIL MOZAMBIQUE|Q=1 110|Q=12 TRUCK FOB 1995-01-01|Q=17 Brand#54 JUMBO BAG|Q=5 ASIA 1995-01-01|Q=10 1994-10-01|Q=20 steel 1997-01-01 RUSSIA|Q=3 FURNITURE 1995-03-27|Q=9 violet|Q=21 RUSSIA|Q=11 ARGENTINA 0.0000001000|Q=2 38 TIN MIDDLE EAST|Q=6 1995-01-01 0.02 25|Q=8 MOZAMBIQUE AFRICA PROMO POLISHED COPPER|

QP1.103
---
seed=517202341
Q=20 frosted 1995-01-01 IRAQ|Q=14 1996-12-01|Q=21 KENYA|Q=12 RAIL TRUCK 1996-01-01|Q=15 1993-02-01|Q=17 Brand#51 JUMBO PACK|Q=4 1995-01-01|Q=19 Brand#42 Brand#33 Brand#24 4 18 21|Q=13 pending deposits|Q=10 1993-08-01|Q=11 KENYA 0.0000001000|Q=1 118|Q=16 Brand#45 STANDARD BRUSHED 37 45 29 46 19 33 9 42|Q=5 EUROPE 1996-01-01|Q=18 312|Q=7 ROMANIA INDIA|Q=8 INDIA ASIA PROMO BURNISHED COPPER|Q=22 12 32 10 23 14 16 17|Q=9 spring|Q=6 1996-01-01 0.08 24|Q=3 MACHINERY 1995-03-13|Q=2 26 COPPER AMERICA|

QP1.104
---
seed=517202342
Q=16 Brand#25 LARGE ANODIZED 37 38 17 16 8 25 21 45|Q=14 1997-04-01|Q=13 unusual deposits|Q=2 14 STEEL MIDDLE EAST|Q=21 FRANCE|Q=10 1994-05-01|Q=11 BRAZIL 0.0000001000|Q=4 1997-07-01|Q=1 65|Q=22 11 13 22 27 15 18 25|Q=18 314|Q=12 REG AIR TRUCK 1997-01-01|Q=19 Brand#44 Brand#21 Brand#13 9 19 28|Q=5 MIDDLE EAST 1996-01-01|Q=7 IRAQ ALGERIA|Q=8 ALGERIA AFRICA ECONOMY BRUSHED COPPER|Q=6 1996-01-01 0.05 24|Q=3 BUILDING 1995-03-29|Q=15 1995-08-01|Q=20 purple 1994-01-01 ARGENTINA|Q=9 seashell|Q=17 Brand#53 JUMBO DRUM|

QP1.105
---
seed=517202343
Q=18 315|Q=15 1993-05-01|Q=9 rose|Q=14 1997-07-01|Q=12 SHIP TRUCK 1997-01-01|Q=2 2 BRASS ASIA|Q=8 PERU AMERICA ECONOMY PLATED COPPER|Q=11 MOROCCO 0.0000001000|Q=22 26 16 18 13 34 20 17|Q=21 UNITED KINGDOM|Q=16 Brand#55 PROMO PLATED 32 15 36 33 5 11 28 9|Q=1 73|Q=6 1996-01-01 0.03 25|Q=17 Brand#55 WRAP BAG|Q=5 AFRICA 1996-01-01|Q=10 1993-02-01|Q=19 Brand#51 Brand#54 Brand#12 4 20 24|Q=4 1995-04-01|Q=20 chiffon 1997-01-01 MOZAMBIQUE|Q=13 unusual deposits|Q=3 MACHINERY 1995-03-15|Q=7 CANADA PERU|

QP1.106
---
seed=517202344
Q=7 SAUDI ARABIA INDONESIA|Q=3 BUILDING 1995-03-31|Q=10 1993-11-01|Q=14 1997-10-01|Q=13 unusual deposits|Q=21 MOROCCO|Q=18 313|Q=6 1996-01-01 0.08 24|Q=20 misty 1996-01-01 FRANCE|Q=4 1997-11-01|Q=9 pink|Q=8 INDONESIA ASIA ECONOMY BURNISHED TIN|Q=22 33 12 20 26 30 24 21|Q=15 1995-12-01|Q=2 39 NICKEL MIDDLE EAST|Q=1 81|Q=5 ASIA 1996-01-01|Q=12 FOB MAIL 1997-01-01|Q=19 Brand#53 Brand#42 Brand#11 9 10 20|Q=17 Brand#52 WRAP PACK|Q=11 CANADA 0.0000001000|Q=16 Brand#45 SMALL POLISHED 5 46 30 8 16 10 23 13|

QP1.107
---
seed=517202345
Q=18 314|Q=1 89|Q=13 unusual packages|Q=7 JAPAN ARGENTINA|Q=16 Brand#25 ECONOMY ANODIZED 49 6 16 42 48 27 21 33|Q=10 1994-08-01|Q=14 1993-01-01|Q=2 27 COPPER ASIA|Q=19 Brand#55 Brand#25 Brand#51 5 11 28|Q=5 EUROPE 1997-01-01|Q=21 GERMANY|Q=11 MOZAMBIQUE 0.0000001000|Q=22 12 33 17 14 20 27 32|Q=15 1993-09-01|Q=8 ARGENTINA AMERICA LARGE BRUSHED TIN|Q=17 Brand#54 WRAP DRUM|Q=20 yellow 1994-01-01 SAUDI ARABIA|Q=3 HOUSEHOLD 1995-03-17|Q=4 1995-08-01|Q=12 MAIL REG AIR 1993-01-01|Q=6 1997-01-01 0.06 24|Q=9 orange|

QP1.108
---
seed=517202346
Q=13 unusual packages|Q=2 15 STEEL AFRICA|Q=22 34 31 26 18 13 25 15|Q=5 MIDDLE EAST 1997-01-01|Q=11 EGYPT 0.0000001000|Q=21 ALGERIA|Q=20 indian 1993-01-01 IRAN|Q=14 1993-04-01|Q=7 EGYPT CHINA|Q=10 1993-06-01|Q=4 1993-05-01|Q=9 mint|Q=19 Brand#13 Brand#13 Brand#55 10 12 24|Q=18 312|Q=6 1997-01-01 0.03 25|Q=3 BUILDING 1995-03-02|Q=1 97|Q=8 CHINA ASIA LARGE PLATED TIN|Q=15 1996-03-01|Q=12 TRUCK MAIL 1993-01-01|Q=17 Brand#51 SM BAG|Q=16 Brand#55 STANDARD BURNISHED 16 14 3 22 49 5 36 12|

QP1.109
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seed=517202347
Q=14 1993-08-01|Q=17 Brand#53 SM PACK|Q=21 PERU|Q=8 IRAN MIDDLE EAST LARGE ANODIZED TIN|Q=2 3 BRASS ASIA|Q=9 linen|Q=6 1997-01-01 0.08 24|Q=4 1995-12-01|Q=5 AFRICA 1997-01-01|Q=13 unusual packages|Q=22 19 26 24 23 18 30 16|Q=7 VIETNAM IRAN|Q=15 1993-12-01|Q=3 HOUSEHOLD 1995-03-19|Q=1 105|Q=18 313|Q=16 Brand#45 MEDIUM POLISHED 3 42 12 23 40 8 17 34|Q=11 PERU 0.0000001000|Q=10 1994-03-01|Q=12 AIR MAIL 1993-01-01|Q=20 seashell 1996-01-01 ALGERIA|Q=19 Brand#15 Brand#41 Brand#54 5 13 20|

QP1.11
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seed=517202249
Q=15 1994-05-01|Q=14 1997-05-01|Q=18 315|Q=17 Brand#25 MED CAN|Q=10 1995-01-01|Q=20 tan 1994-01-01 GERMANY|Q=16 Brand#52 PROMO BURNISHED 29 46 20 35 32 18 30 25|Q=11 SAUDI ARABIA 0.0000001000|Q=1 112|Q=8 SAUDI ARABIA MIDDLE EAST PROMO PLATED TIN|Q=4 1994-12-01|Q=22 17 25 10 23 18 28 33|Q=5 EUROPE 1994-01-01|Q=12 FOB RAIL 1997-01-01|Q=3 HOUSEHOLD 1995-03-12|Q=9 steel|Q=21 INDONESIA|Q=2 50 TIN AMERICA|Q=13 pending deposits|Q=6 1994-01-01 0.04 25|Q=19 Brand#35 Brand#22 Brand#45 9 13 30|Q=7 INDIA SAUDI ARABIA|

QP1.110
---
seed=517202348
Q=10 1994-12-01|Q=22 22 19 30 16 20 27 34|Q=1 113|Q=12 REG AIR FOB 1993-01-01|Q=13 unusual packages|Q=18 315|Q=21 INDONESIA|Q=20 deep 1994-01-01 MOROCCO|Q=2 41 NICKEL AFRICA|Q=14 1993-11-01|Q=16 Brand#25 ECONOMY BRUSHED 25 16 48 31 24 2 30 22|Q=7 JORDAN BRAZIL|Q=15 1996-07-01|Q=3 AUTOMOBILE 1995-03-04|Q=4 1993-09-01|Q=17 Brand#55 SM DRUM|Q=5 AMERICA 1997-01-01|Q=19 Brand#12 Brand#24 Brand#43 10 14 27|Q=6 1997-01-01 0.06 24|Q=8 BRAZIL AMERICA MEDIUM POLISHED TIN|Q=9 lace|Q=11 ETHIOPIA 0.0000001000|

QP1.111
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seed=517202349
Q=10 1993-09-01|Q=8 ROMANIA EUROPE MEDIUM BURNISHED NICKEL|Q=9 grey|Q=18 312|Q=12 SHIP FOB 1994-01-01|Q=6 1993-01-01 0.03 25|Q=1 60|Q=5 ASIA 1993-01-01|Q=20 papaya 1993-01-01 EGYPT|Q=11 CHINA 0.0000001000|Q=17 Brand#52 LG

BAG|Q=22 14 19 20 25 13 18 32|Q=16 Brand#55 SMALL BURNISHED 13 34 33 29 2 21 31 9|Q=3 FURNITURE 1995-03-21|Q=13 express packages|Q=2 28 COPPER EUROPE|Q=15 1994-04-01|Q=21 ARGENTINA|Q=14 1994-02-01|Q=19 Brand#24 Brand#11 Brand#43 6 15 23|Q=7 ETHIOPIA ROMANIA|Q=4 1996-04-01|

QP1.112

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seed=517202350

Q=7 RUSSIA IRAQ|Q=17 Brand#53 LG PACK|Q=22 18 27 23 24 26 31 17|Q=5 EUROPE 1993-01-01|Q=3 AUTOMOBILE 1995-03-06|Q=10 1994-06-01|Q=13 express requests|Q=18 314|Q=9 forest|Q=1 68|Q=14 1994-05-01|Q=15 1996-10-01|Q=21 CHINA|Q=19 Brand#21 Brand#44 Brand#32 1 16 20|Q=16 Brand#45 LARGE PLATED 18 23 21 40 6 1 38 31|Q=12 FOB AIR 1996-01-01|Q=8 IRAQ MIDDLE EAST SMALL BRUSHED NICKEL|Q=6 1993-01-01 0.09 24|Q=11 FRANCE 0.0000001000|Q=20 blanched 1996-01-01 ROMANIA|Q=4 1994-01-01|Q=2 16 STEEL AFRICA|

QP1.113

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seed=517202351

Q=2 4 BRASS EUROPE|Q=9 deep|Q=21 IRAN|Q=3 FURNITURE 1995-03-23|Q=4 1996-08-01|Q=7 KENYA CANADA|Q=1 76|Q=11 ROMANIA 0.0000001000|Q=16 Brand#21 PROMO BRUSHED 10 25 13 15 27 12 29 32|Q=5 MIDDLE EAST 1993-01-01|Q=20 lime 1995-01-01 INDONESIA|Q=19 Brand#23 Brand#32 Brand#31 6 17 27|Q=18 315|Q=8 CANADA AMERICA SMALL PLATED NICKEL|Q=17 Brand#15 LG DRUM|Q=13 express requests|Q=10 1993-04-01|Q=12 MAIL FOB 1994-01-01|Q=15 1994-07-01|Q=6 1993-01-01 0.06 24|Q=14 1994-08-01|Q=22 29 21 12 24 31 22 30|

QP1.114

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seed=517202352

Q=15 1997-02-01|Q=12 TRUCK SHIP 1994-01-01|Q=8 SAUDI ARABIA MIDDLE EAST SMALL ANODIZED NICKEL|Q=4 1994-04-01|Q=22 33 21 13 11 30 32 24|Q=13 express requests|Q=16 Brand#51 MEDIUM ANODIZED 23 46 7 48 1 6 15 41|Q=17 Brand#12 MED BAG|Q=18 313|Q=3 MACHINERY 1995-03-09|Q=7 FRANCE SAUDI ARABIA|Q=5 AFRICA 1993-01-01|Q=6 1993-01-01 0.04 25|Q=1 84|Q=9 coral|Q=11 GERMANY 0.0000001000|Q=21 CANADA|Q=10 1994-01-01|Q=14 1994-12-01|Q=20 tan 1993-01-01 UNITED KINGDOM|Q=19 Brand#35 Brand#15 Brand#35 2 18 23|Q=2 42 NICKEL AMERICA|

QP1.115

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seed=517202353

Q=15 1994-10-01|Q=16 Brand#41 ECONOMY PLATED 42 17 41 28 2 3 32 21|Q=2 29 TIN EUROPE|Q=11 SAUDI ARABIA 0.0000001000|Q=17 Brand#14 MED PACK|Q=7 UNITED KINGDOM JAPAN|Q=5 AMERICA 1994-01-01|Q=14 1995-03-01|Q=20 gainsboro 1997-01-01 JORDAN|Q=4 1996-11-01|Q=21 SAUDI ARABIA|Q=3 FURNITURE 1995-03-25|Q=10 1994-10-01|Q=9 brown|Q=12 AIR SHIP 1995-01-01|Q=8 JAPAN ASIA STANDARD POLISHED NICKEL|Q=13 express requests|Q=6 1994-01-01 0.09 24|Q=18 314|Q=19 Brand#32 Brand#53 Brand#25 7 19 30|Q=22 23 19 10 26 13 16 34|Q=1 92|

QP1.116

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seed=517202354

Q=1 100|Q=13 express requests|Q=11 INDIA 0.0000001000|Q=3 MACHINERY 1995-03-11|Q=4 1994-08-01|Q=21 JAPAN|Q=6 1994-01-01 0.06 24|Q=14 1995-06-01|Q=15 1997-05-01|Q=22 13 14 26 11 28 21 31|Q=18 312|Q=9 beige|Q=7 MOROCCO EGYPT|Q=5 ASIA 1994-01-01|Q=10 1993-07-01|Q=20 red 1995-01-01 CANADA|Q=12 REG AIR SHIP 1995-01-01|Q=16 Brand#21 STANDARD POLISHED 37 38 11 18 17 4 14 50|Q=17 Brand#11 MED DRUM|Q=8 EGYPT MIDDLE EAST STANDARD BURNISHED BRASS|Q=19 Brand#34 Brand#31 Brand#24 2 20 26|Q=2 17 STEEL AMERICA|

QP1.117

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seed=517202355

Q=14 1995-09-01|Q=17 Brand#13 JUMBO BAG|Q=22 26 11 19 30 32 17 21|Q=20 chocolate 1993-01-01 CHINA|Q=8 VIETNAM ASIA PROMO BRUSHED BRASS|Q=16 Brand#11 LARGE ANODIZED 6 9 34 50 13 5 35 24|Q=5 MIDDLE EAST 1994-01-01|Q=10 1994-05-01|Q=1 108|Q=13 express accounts|Q=2 5 BRASS MIDDLE EAST|Q=21 EGYPT|Q=12 SHIP TRUCK 1995-01-01|Q=9 white|Q=4 1997-03-01|Q=18 314|Q=3 BUILDING 1995-03-27|Q=7 GERMANY VIETNAM|Q=6 1994-01-01 0.04 25|Q=19 Brand#41 Brand#14 Brand#23 7 10 23|Q=15 1995-02-01|Q=11 VIETNAM 0.0000001000|

QP1.118

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seed=517202356

Q=9 tan|Q=17 Brand#15 JUMBO PACK|Q=7 UNITED STATES JORDAN|Q=4 1994-12-01|Q=5 AFRICA 1994-01-01|Q=13 special accounts|Q=21 VIETNAM|Q=18 315|Q=11 INDONESIA 0.0000001000|Q=3 MACHINERY 1995-03-13|Q=22 17 23 18 15 11 20 12|Q=1 116|Q=6 1994-01-01 0.09 25|Q=16 Brand#41 PROMO BURNISHED 24 30 44 17 10 18 11 9|Q=20 misty 1997-01-01 GERMANY|Q=14 1996-01-01|Q=15 1997-09-01|Q=10 1993-02-01|Q=8 JORDAN MIDDLE EAST PROMO PLATED BRASS|Q=2 43 NICKEL AMERICA|Q=12 FOB REG AIR 1996-01-01|Q=19 Brand#43 Brand#52 Brand#12 3 11 30|

QP1.119

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seed=517202357

Q=13 special accounts|Q=14 1996-04-01|Q=5 AMERICA 1994-01-01|Q=22 32 12 14 18 19 24 31|Q=19 Brand#41 Brand#35 Brand#11 8 12 26|Q=11 RUSSIA 0.0000001000|Q=9 sky|Q=6 1994-01-01 0.07 24|Q=18 313|Q=15 1995-05-01|Q=8 ETHIOPIA AFRICA PROMO ANODIZED BRASS|Q=10 1993-11-01|Q=7 MOZAMBIQUE ETHIOPIA|Q=4 1997-07-01|Q=17 Brand#12 JUMBO DRUM|Q=16 Brand#21 SMALL POLISHED 2 40 28 46 3 10 45 29|Q=3 BUILDING 1995-03-29|Q=1 63|Q=12 MAIL REG AIR 1996-01-01|Q=2 31 TIN MIDDLE EAST|Q=21 JORDAN|Q=20 almond 1995-01-01 RUSSIA|

QP1.12

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seed=517202250

Q=1 120|Q=7 ALGERIA JAPAN|Q=16 Brand#32 SMALL PLATED 32 17 4 13 34 33 21 6|Q=17 Brand#22 JUMBO BOX|Q=18 313|Q=22 32 16 26 17 20 33 30|Q=12 MAIL RAIL 1997-01-01|Q=6 1994-01-01 0.02 25|Q=8 JAPAN ASIA PROMO ANODIZED TIN|Q=9 sienna|Q=11 INDIA 0.0000001000|Q=4 1997-07-01|Q=2 38 COPPER MIDDLE EAST|Q=5 MIDDLE EAST 1994-01-01|Q=20 gainsboro 1993-01-01 RUSSIA|Q=21 ARGENTINA|Q=13 pending deposits|Q=10 1993-10-01|Q=19 Brand#42 Brand#15 Brand#34 4 14 26|Q=3 AUTOMOBILE 1995-03-29|Q=14 1997-09-01|Q=15 1996-12-01|

QP1.120

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seed=517202358

Q=20 ivory 1994-01-01 JAPAN|Q=5 ASIA 1995-01-01|Q=4 1995-04-01|Q=14 1996-07-01|Q=11 IRAN 0.0000001000|Q=1 71|Q=6 1995-01-01 0.04 25|Q=16 Brand#11 LARGE BRUSHED 28 35 27 16 40 22 14 26|Q=8 VIETNAM ASIA ECONOMY POLISHED BRASS|Q=22 12 25 22 29 20 13 15|Q=7 INDIA VIETNAM|Q=3 HOUSEHOLD 1995-03-15|Q=2 18 COPPER ASIA|Q=12 RAIL REG AIR 1996-01-01|Q=21 FRANCE|Q=19 Brand#53 Brand#23 Brand#11 3 13 22|Q=17 Brand#14 WRAP BAG|Q=13 special accounts|Q=10 1994-08-01|Q=15 1993-02-01|Q=18 314|Q=9 royal|

QP1.121

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seed=517202359

Q=3 AUTOMOBILE 1995-03-31|Q=7 ALGERIA JORDAN|Q=14 1996-10-01|Q=15 1995-09-01|Q=6 1995-01-01 0.02 25|Q=5 EUROPE 1995-01-01|Q=21 UNITED KINGDOM|Q=20 sienna 1997-01-01 BRAZIL|Q=18 312|Q=10 1993-05-01|Q=4 1997-11-01|Q=16 Brand#41 STANDARD BURNISHED 34 25 17 19 49 44 30 13|Q=19 Brand#55 Brand#51 Brand#55 8 14 29|Q=1 79|Q=13 special deposits|Q=9 powder|Q=8 JORDAN MIDDLE EAST ECONOMY BURNISHED STEEL|Q=17 Brand#11 WRAP PKG|Q=11 UNITED KINGDOM 0.0000001000|Q=12 AIR REG AIR 1996-01-01|Q=22 13 17 31 33 21 18 27|Q=2 6 BRASS MIDDLE EAST|

QP1.122

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seed=517202360

Q=13 special deposits|Q=15 1993-05-01|Q=17 Brand#13 WRAP DRUM|Q=1 87|Q=22 26 32 28 16 33 14 13|Q=11 IRAQ 0.0000001000|Q=3 HOUSEHOLD 1995-03-17|Q=4 1995-08-01|Q=7 PERU ETHIOPIA|Q=20 dim 1996-01-01 MOZAMBIQUE|Q=14 1997-01-01|Q=21 MOROCCO|Q=9 pale|Q=8 ETHIOPIA AFRICA LARGE BRUSHED STEEL|Q=2 44 NICKEL ASIA|Q=18 313|Q=16 Brand#21 MEDIUM PLATED 6 13 25 34 12 37 29 27|Q=6 1995-01-01 0.07 24|Q=10 1994-03-01|Q=12 REG AIR AIR 1997-01-01|Q=5 MIDDLE EAST 1995-01-01|Q=19 Brand#52 Brand#44 Brand#54 4 15 26|

QP1.123

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seed=517202361

Q=14 1997-05-01|Q=2 32 TIN AFRICA|Q=9 moccasin|Q=20 peach 1994-01-01 FRANCE|Q=6 1995-01-01 0.04 25|Q=17 Brand#15 SM BAG|Q=18 315|Q=8 RUSSIA EUROPE LARGE PLATED STEEL|Q=21 GERMANY|Q=13 special deposits|Q=3 AUTOMOBILE 1995-03-02|Q=22 16 21 28 31 25 14 17|Q=16 Brand#11 ECONOMY BRUSHED 3 34 16 21 26 29 43 32|Q=4 1993-05-01|Q=11 UNITED STATES 0.0000001000|Q=15 1995-12-01|Q=1 95|Q=10 1994-12-01|Q=19 Brand#14 Brand#22 Brand#53 9 16 22|Q=5 AFRICA 1995-01-01|Q=7 INDONESIA RUSSIA|Q=12 SHIP AIR 1997-01-01|

QP1.124

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seed=517202362

Q=21 UNITED STATES|Q=3 FURNITURE 1995-03-19|Q=18 312|Q=5 AMERICA 1996-01-01|Q=11 JAPAN 0.0000001000|Q=7 ARGENTINA KENYA|Q=6 1996-01-01 0.02 25|Q=20 blue 1997-01-01 VIETNAM|Q=17 Brand#11 SM PKG|Q=12 FOB AIR 1997-01-01|Q=16 Brand#41 SMALL ANODIZED 7 5 16 44 39 21 35 42|Q=15 1993-09-01|Q=13 special deposits|Q=10 1993-09-01|Q=2 19 COPPER ASIA|Q=8 KENYA AFRICA LARGE ANODIZED STEEL|Q=14 1997-08-01|Q=19 Brand#11 Brand#55 Brand#43 4 17 29|Q=9 maroon|Q=22 31 23 20 24 28 11 33|Q=1 103|Q=4 1995-11-01|

QP1.125

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seed=517202363

Q=6 1996-01-01 0.07 24|Q=17 Brand#13 SM DRUM|Q=14 1997-11-01|Q=16 Brand#21 LARGE PLATED 10 3 45 16 35 14 15 41|Q=19 Brand#13 Brand#43 Brand#42 10 18 25|Q=10 1994-06-01|Q=9 lawn|Q=2 7 STEEL AFRICA|Q=15 1996-04-01|Q=8 FRANCE EUROPE MEDIUM POLISHED STEEL|Q=5 ASIA 1996-01-01|Q=22 31 10 16 32 17 24 19|Q=12 MAIL AIR 1997-01-01|Q=7 CHINA FRANCE|Q=13 pending deposits|Q=18 314|Q=1 111|Q=4 1993-08-01|Q=20 linen 1996-01-01 IRAN|Q=3 AUTOMOBILE 1995-03-04|Q=11 ALGERIA 0.0000001000|Q=21 MOZAMBIQUE|

QP1.126

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seed=517202364

Q=8 UNITED KINGDOM EUROPE MEDIUM BURNISHED COPPER|Q=5 EUROPE 1996-01-01|Q=4 1996-03-01|Q=6 1996-01-01 0.05 25|Q=17 Brand#15 LG BAG|Q=7 IRAN UNITED KINGDOM|Q=1 119|Q=18 315|Q=22 10 14 12 18 15 32 29|Q=14 1993-02-01|Q=9 hot|Q=10 1993-03-01|Q=15 1993-12-01|Q=11 JORDAN 0.0000001000|Q=20 thistle 1994-01-01 ALGERIA|Q=2 45 NICKEL EUROPE|Q=21 INDONESIA|Q=19 Brand#25 Brand#21 Brand#41 5 19 21|Q=13 pending packages|Q=16 Brand#11 PROMO POLISHED 13 4 26 11 32 18 22 21|Q=12 RAIL REG AIR 1994-01-01|Q=3 FURNITURE 1995-03-21|

QP1.127

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seed=517202365

Q=5 AFRICA 1996-01-01|Q=21 ARGENTINA|Q=14 1993-05-01|Q=19 Brand#22 Brand#14 Brand#35 10 20 29|Q=15 1996-07-01|Q=17 Brand#12 LG PKG|Q=12 AIR RAIL 1993-01-01|Q=6 1996-01-01 0.02 25|Q=4 1993-12-01|Q=9 gainsboro|Q=8 MOROCCO AFRICA SMALL BRUSHED COPPER|Q=16 Brand#41 MEDIUM ANODIZED 25 1 3 31 28 15 6 50|Q=11 ARGENTINA 0.0000001000|Q=2 33 TIN AFRICA|Q=10 1994-01-01|Q=18 313|Q=1 66|Q=13 pending packages|Q=7 ARGENTINA MOROCCO|Q=22 14 23 33 12 34 16 10|Q=3 MACHINERY 1995-03-06|Q=20 ghost 1993-01-01 MOROCCO|

QP1.128

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seed=517202366

Q=21 CHINA|Q=15 1994-04-01|Q=4 1996-07-01|Q=6 1997-01-01 0.08 24|Q=7 CHINA GERMANY|Q=16 Brand#21 ECONOMY BURNISHED 21 39 1 11 4 29 22 43|Q=19 Brand#24 Brand#42 Brand#35 5 10 25|Q=18 314|Q=14 1993-09-01|Q=22 16 22 12 28 30 21 19|Q=11 KENYA 0.0000001000|Q=13 pending packages|Q=3 BUILDING 1995-03-23|Q=1 75|Q=2 21 COPPER EUROPE|Q=5 AMERICA 1997-01-01|Q=8 GERMANY EUROPE SMALL PLATED COPPER|Q=20 rose 1996-01-01 ETHIOPIA|Q=12 REG AIR RAIL 1993-01-01|Q=17 Brand#14 LG DRUM|Q=10 1994-10-01|Q=9 dodger|

QP1.129

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seed=517202367

Q=10 1993-07-01|Q=3 MACHINERY 1995-03-08|Q=15 1996-11-01|Q=13 pending packages|Q=6 1997-01-01 0.05 25|Q=8 UNITED STATES AMERICA SMALL ANODIZED COPPER|Q=9 cornsilk|Q=7 IRAN UNITED STATES|Q=4 1994-04-01|Q=11 BRAZIL 0.0000001000|Q=22 32 31 26 15 17 29 11|Q=18 312|Q=12 SHIP RAIL 1993-01-01|Q=1 83|Q=5 ASIA 1997-01-01|Q=16 Brand#11 STANDARD POLISHED 29 8 25 40 48 33 2 18|Q=2 8 STEEL AMERICA|Q=14 1993-12-01|Q=19 Brand#31 Brand#34 Brand#34 1 11 21|Q=20 coral 1995-01-01 ROMANIA|Q=17 Brand#11 MED BAG|Q=21 IRAN|

QP1.13

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seed=517202251

Q=21 CHINA|Q=17 Brand#24 JUMBO PACK|Q=7 PERU EGYPT|Q=3 HOUSEHOLD 1995-03-14|Q=1 67|Q=10 1994-07-01|Q=12 TRUCK RAIL 1997-01-01|Q=22 19 22 20 32 12 16 33|Q=9 rosy|Q=16 Brand#22 LARGE BRUSHED 22 10 2 24 25 9 45 26|Q=6 1995-01-01 0.07 24|Q=11 SAUDI ARABIA 0.0000001000|Q=2 26 BRASS ASIA|Q=4 1995-04-01|Q=5 AFRICA 1995-01-01|Q=14 1997-12-01|Q=8 EGYPT MIDDLE EAST ECONOMY POLISHED NICKEL|Q=20 red 1996-01-01 IRAQ|Q=13 pending deposits|Q=18 314|Q=15 1994-09-01|Q=19 Brand#44 Brand#43 Brand#33 9 15 22|

QP1.130

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seed=517202368

Q=18 313|Q=8 MOZAMBIQUE AFRICA STANDARD BRUSHED TIN|Q=20 moccasin 1993-01-01 INDONESIA|Q=21 BRAZIL|Q=2 46 BRASS EUROPE|Q=4 1996-11-01|Q=22 13 18 22 23 11 29 21|Q=17 Brand#13 MED PKG|Q=1 91|Q=11 MOROCCO 0.0000001000|Q=9 burnished|Q=19 Brand#33 Brand#12 Brand#23 6 12 28|Q=3 BUILDING 1995-03-25|Q=13 pending packages|Q=5 EUROPE 1997-01-01|Q=7 BRAZIL MOZAMBIQUE|Q=10 1994-04-01|Q=16 Brand#41 MEDIUM BRUSHED 17 10 39 20 49 25 19 34|Q=6 1997-01-01 0.02 25|Q=14 1994-03-01|Q=15 1994-07-01|Q=12 FOB TRUCK 1994-01-01|

QP1.131

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seed=517202369

Q=19 Brand#31 Brand#45 Brand#22 1 14 24|Q=1 99|Q=15 1997-02-01|Q=17 Brand#15 MED DRUM|Q=5 MIDDLE EAST 1997-01-01|Q=8 INDIA ASIA STANDARD PLATED TIN|Q=9 black|Q=12 TRUCK RAIL 1997-01-01|Q=14 1994-06-01|Q=7 ROMANIA INDIA|Q=4 1994-08-01|Q=3 HOUSEHOLD 1995-03-10|Q=20 antique 1996-01-01 UNITED STATES|Q=16 Brand#21 PROMO BURNISHED 2 17 38 5 3 18 49 19|Q=6 1997-01-01 0.08 24|Q=22 17 15 18 16 19 20 30|Q=10 1995-01-01|Q=13 pending requests|Q=2 34 TIN AMERICA|Q=21 ROMANIA|Q=18 315|Q=11 CANADA 0.0000001000|

QP1.132

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seed=517202370

Q=8 ALGERIA AFRICA STANDARD ANODIZED TIN|Q=13 unusual requests|Q=2 22 COPPER MIDDLE EAST|Q=20 khaki 1995-01-01 KENYA|Q=17 Brand#12 JUMBO BAG|Q=3 BUILDING 1995-03-27|Q=6 1993-01-01 0.05 24|Q=21 JAPAN|Q=18 313|Q=11 MOZAMBIQUE 0.0000001000|Q=19 Brand#43 Brand#33 Brand#21 6 15 20|Q=10 1993-11-01|Q=15 1994-11-01|Q=4 1997-03-01|Q=22 25 15 28 10 32 22 16|Q=1 107|Q=7 IRAQ ALGERIA|Q=12 RAIL TRUCK 1994-01-01|Q=9 almond|Q=14 1994-09-01|Q=5 AFRICA 1993-01-01|Q=16 Brand#11 SMALL PLATED 34 19 25 29 4 2 7 23|

QP1.133

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seed=517202371

Q=6 1993-01-01 0.03 25|Q=15 1997-05-01|Q=18 314|Q=17 Brand#14 JUMBO PKG|Q=12 AIR TRUCK 1995-01-01|Q=1 115|Q=7 CANADA PERU|Q=2 9 STEEL AMERICA|Q=22 21 31 11 13 23 28 27|Q=13 unusual requests|Q=21 EGYPT|Q=10 1994-08-01|Q=14 1995-01-01|Q=9 tomato|Q=3 HOUSEHOLD 1995-03-12|Q=16 Brand#41 LARGE BRUSHED 37 3 9 25 7 24 43 28|Q=20 sky 1993-01-01 CANADA|Q=19 Brand#45 Brand#11 Brand#11 2 16 28|Q=11 EGYPT 0.0000001000|Q=4 1994-12-01|Q=8 PERU AMERICA PROMO POLISHED TIN|Q=5 AMERICA 1993-01-01|

QP1.134

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seed=517202372

Q=15 1995-02-01|Q=14 1995-04-01|Q=18 312|Q=17 Brand#11 JUMBO DRUM|Q=10 1993-05-01|Q=20 dodger 1997-01-01 CHINA|Q=16 Brand#31 STANDARD ANODIZED 4 14 8 9 30 10 33 7|Q=11 PERU 0.0000001000|Q=1 62|Q=8 INDONESIA ASIA PROMO BURNISHED TIN|Q=4 1997-06-01|Q=22 28 24 22 26 13 19 32|Q=5 ASIA 1993-01-01|Q=12 REG AIR TRUCK 1995-01-01|Q=3 AUTOMOBILE 1995-03-29|Q=9 smoke|Q=21 VIETNAM|Q=2 47 BRASS MIDDLE EAST|Q=13 unusual requests|Q=6 1993-01-01 0.08 24|Q=19 Brand#42 Brand#54 Brand#15 7 17 24|Q=7 SAUDI ARABIA INDONESIA|

QP1.135

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seed=517202373

Q=1 70|Q=7 JAPAN ARGENTINA|Q=16 Brand#11 MEDIUM PLATED 21 35 7 3 36 37 38 2|Q=17 Brand#13 WRAP BAG|Q=18 313|Q=22 18 11 28 33 12 34 23|Q=12 SHIP MAIL 1995-01-01|Q=6 1993-01-01 0.06 24|Q=8 ARGENTINA AMERICA ECONOMY BRUSHED NICKEL|Q=9 salmon|Q=11 ETHIOPIA 0.0000001000|Q=4 1995-03-01|Q=2 35 NICKEL ASIA|Q=5 EUROPE 1993-01-01|Q=20 peach 1995-01-01 INDIA|Q=21 JORDAN|Q=13 unusual accounts|Q=10 1994-02-01|Q=19 Brand#54 Brand#32 Brand#54 2 18 20|Q=3 HOUSEHOLD 1995-03-14|Q=14 1995-07-01|Q=15 1997-09-01|

QP1.136

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seed=517202374

Q=21 ETHIOPIA|Q=17 Brand#14 WRAP PKG|Q=7 EGYPT CHINA|Q=3 AUTOMOBILE 1995-03-31|Q=1 78|Q=10 1994-11-01|Q=12 FOB MAIL 1995-01-01|Q=22 32 18 28 27 19 16 11|Q=9 purple|Q=16 Brand#41 ECONOMY POLISHED 8 6 23 21 1 22 35 42|Q=6 1993-01-01 0.03 25|Q=11 CHINA 0.0000001000|Q=2 23 COPPER MIDDLE EAST|Q=4 1997-10-01|Q=5 MIDDLE EAST 1993-01-01|Q=14 1995-10-01|Q=8 CHINA ASIA ECONOMY PLATED NICKEL|Q=20 blush 1994-01-01 RUSSIA|Q=13 unusual accounts|Q=18 315|Q=15 1995-06-01|Q=19 Brand#51 Brand#25 Brand#53 7 19 27|

QP1.137

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seed=517202375

Q=2 11 STEEL ASIA|Q=9 peach|Q=5 AFRICA 1994-01-01|Q=4 1995-07-01|Q=18 312|Q=1 86|Q=20 magenta 1997-01-01 JAPAN|Q=15 1993-02-01|Q=16 Brand#31 SMALL ANODIZED 1 26 34 29 43 21 12 3|Q=17 Brand#11 WRAP DRUM|Q=7 VIETNAM IRAN|Q=21 RUSSIA|Q=13 unusual accounts|Q=14 1996-01-01|Q=19 Brand#53 Brand#53 Brand#53 3 20 23|Q=8 IRAN MIDDLE EAST ECONOMY ANODIZED NICKEL|Q=22 22 11 20 15 27 10 19|Q=11 FRANCE 0.0000001000|Q=10 1993-09-01|Q=3 FURNITURE 1995-03-16|Q=12 TRUCK MAIL 1996-01-01|Q=6 1994-01-01 0.08 24|

QP1.138

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seed=517202376

Q=16 Brand#11 LARGE BURNISHED 9 47 34 5 40 41 38 4|Q=9 navy|Q=17 Brand#13 SM BAG|Q=8 BRAZIL AMERICA LARGE POLISHED NICKEL|Q=14 1996-05-01|Q=11 ROMANIA 0.0000001000|Q=10 1994-06-01|Q=12 RAIL MAIL 1996-01-01|Q=6 1994-01-01 0.06 24|Q=21 MOROCCO|Q=7 JORDAN BRAZIL|Q=3 MACHINERY 1995-03-02|Q=15 1995-09-01|Q=5 ASIA 1994-01-01|Q=22 15 29 19 28 12 14 18|Q=20 tomato 1996-01-01 BRAZIL|Q=1 94|Q=13 unusual accounts|Q=19 Brand#15 Brand#41 Brand#42 8 10 20|Q=2 48 BRASS AFRICA|Q=4 1993-04-01|Q=18 314|

QP1.139

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seed=517202377

Q=1 102|Q=3 FURNITURE 1995-03-18|Q=6 1994-01-01 0.03 25|Q=5 EUROPE 1994-01-01|Q=2 36 NICKEL ASIA|Q=16 Brand#42 PROMO POLISHED 7 18 23 32 2 8 39 6|Q=14 1996-08-01|Q=22 27 30 24 16 20 26 12|Q=17 Brand#25 SM PKG|Q=20 goldenrod 1994-01-01 PERU|Q=4 1995-11-01|Q=9 metallic|Q=10 1993-03-01|Q=11 GERMANY 0.0000001000|Q=15 1993-06-01|Q=8 ROMANIA EUROPE LARGE BURNISHED NICKEL|Q=12 AIR FOB 1996-01-01|Q=19 Brand#12 Brand#24 Brand#41 3 11 27|Q=18 315|Q=13 unusual accounts|Q=7 ETHIOPIA ROMANIA|Q=21 GERMANY|

QP1.14

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seed=517202252

Q=2 14 NICKEL MIDDLE EAST|Q=9 plum|Q=5 AMERICA 1995-01-01|Q=4 1997-10-01|Q=18 312|Q=1 75|Q=20 chocolate 1995-01-01 ARGENTINA|Q=15 1997-03-01|Q=16 Brand#52 STANDARD ANODIZED 18 3 23 4 26 17 38 31|Q=17 Brand#21 JUMBO CAN|Q=7 INDONESIA VIETNAM|Q=21 IRAQ|Q=13 pending packages|Q=14 1993-03-01|Q=19 Brand#41 Brand#31 Brand#32 5 16 30|Q=8 VIETNAM ASIA ECONOMY BURNISHED NICKEL|Q=22 19 20 32 10 16 33 27|Q=11 INDIA 0.0000001000|Q=10 1993-04-01|Q=3 AUTOMOBILE 1995-03-31|Q=12 RAIL REG AIR 1997-01-01|Q=6 1995-01-01 0.04 25|

QP1.140

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seed=517202378

Q=3 MACHINERY 1995-03-04|Q=16 Brand#32 SMALL BRUSHED 29 6 49 15 12 16 41 47|Q=5 MIDDLE EAST 1994-01-01|Q=11 SAUDI ARABIA 0.0000001000|Q=21 UNITED STATES|Q=9 light|Q=2 24 TIN AFRICA|Q=15 1995-12-01|Q=10 1993-12-01|Q=18 313|Q=17 Brand#22 SM DRUM|Q=7 RUSSIA IRAQ|Q=8 IRAQ MIDDLE EAST MEDIUM BRUSHED BRASS|Q=19 Brand#14 Brand#52 Brand#45 9 12 23|Q=14 1996-11-01|Q=13 express deposits|Q=1 110|Q=4 1993-08-01|Q=22 16 19 24 30 32 34 27|Q=20 rose 1997-01-01 FRANCE|Q=6 1994-01-01 0.09 24|Q=12 REG AIR FOB 1996-01-01|

QP1.141

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seed=517202379

Q=14 1997-02-01|Q=4 1996-03-01|Q=13 express deposits|Q=5 AFRICA 1995-01-01|Q=21 MOZAMBIQUE|Q=11 INDIA 0.0000001000|Q=8 CANADA AMERICA MEDIUM PLATED BRASS|Q=6 1995-01-01 0.06 24|Q=3 BUILDING 1995-03-20|Q=17 Brand#24 LG BAG|Q=2 12 STEEL EUROPE|Q=20 cornflower 1996-01-01 VIETNAM|Q=1 118|Q=19 Brand#21 Brand#45 Brand#35 4 13 30|Q=10 1994-09-01|Q=9 ivory|Q=12 SHIP FOB 1997-01-01|Q=18 314|Q=15 1993-09-01|Q=7 KENYA CANADA|Q=22 16 24 22 18 13 34 31|Q=16 Brand#12 ECONOMY BURNISHED 14 2 34 44 9 41 17 45|

QP1.142

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seed=517202380
Q=4 1993-12-01|Q=12 MAIL FOB 1997-01-01|Q=22 27 22 18 14 19 30 10|Q=14 1997-06-01|Q=5 AMERICA 1995-01-01|Q=15 1996-04-01|Q=16 Brand#42 STANDARD PLATED 2 31 18 23 40 33 11 13|Q=2 49 BRASS AFRICA|Q=8 SAUDI ARABIA MIDDLE EAST MEDIUM ANODIZED BRASS|Q=10 1993-07-01|Q=17 Brand#21 LG PKG|Q=9 goldenrod|Q=21 INDIA|Q=7 FRANCE SAUDI ARABIA|Q=3 MACHINERY 1995-03-06|Q=6 1995-01-01 0.04 25|Q=13 express deposits|Q=18 312|Q=11 VIETNAM 0.0000001000|Q=20 navajo 1994-01-01 IRAQ|Q=19 Brand#24 Brand#23 Brand#34 9 14 26|Q=1 65|

QP1.143

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seed=517202381
Q=16 Brand#32 MEDIUM BRUSHED 12 4 2 3 31 25 7 18|Q=15 1994-01-01|Q=14 1997-09-01|Q=13 express deposits|Q=4 1996-07-01|Q=22 18 21 22 15 11 20 31|Q=18 313|Q=19 Brand#21 Brand#11 Brand#33 4 15 23|Q=7 UNITED KINGDOM JAPAN|Q=1 73|Q=12 TRUCK SHIP 1997-01-01|Q=17 Brand#23 LG DRUM|Q=5 ASIA 1995-01-01|Q=10 1994-04-01|Q=20 aquamarine 1993-01-01 ALGERIA|Q=3 BUILDING 1995-03-22|Q=9 firebrick|Q=21 ALGERIA|Q=11 INDONESIA 0.0000001000|Q=2 37 NICKEL EUROPE|Q=6 1995-01-01 0.09 25|Q=8 JAPAN ASIA SMALL POLISHED BRASS|

QP1.144

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seed=517202382
Q=20 lace 1996-01-01 MOROCCO|Q=14 1997-12-01|Q=21 CHINA|Q=12 RAIL SHIP 1997-01-01|Q=15 1996-07-01|Q=17 Brand#25 MED BAG|Q=4 1994-03-01|Q=19 Brand#33 Brand#44 Brand#22 10 16 30|Q=13 express deposits|Q=10 1995-01-01|Q=11 RUSSIA 0.0000001000|Q=1 81|Q=16 Brand#12 PROMO ANODIZED 24 23 16 36 48 45 43 29|Q=5 EUROPE 1995-01-01|Q=18 315|Q=7 MOROCCO EGYPT|Q=8 EGYPT MIDDLE EAST SMALL BURNISHED BRASS|Q=22 25 11 21 32 24 33 14|Q=9 cyan|Q=6 1995-01-01 0.06 24|Q=3 HOUSEHOLD 1995-03-08|Q=2 25 TIN AMERICA|

QP1.145

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seed=517202383
Q=16 Brand#42 SMALL PLATED 27 43 21 11 16 25 22 12|Q=14 1993-03-01|Q=13 express packages|Q=2 13 COPPER EUROPE|Q=21 IRAN|Q=10 1993-10-01|Q=11 IRAN 0.0000001000|Q=4 1996-10-01|Q=1 89|Q=22 15 17 25 20 26 24 27|Q=18 312|Q=12 AIR SHIP 1993-01-01|Q=19 Brand#35 Brand#32 Brand#21 5 17 26|Q=5 MIDDLE EAST 1996-01-01|Q=7 GERMANY VIETNAM|Q=8 VIETNAM ASIA STANDARD BRUSHED STEEL|Q=6 1996-01-01 0.04 25|Q=3 AUTOMOBILE 1995-03-24|Q=15 1994-04-01|Q=20 sky 1995-01-01 ETHIOPIA|Q=9 chiffon|Q=17 Brand#22 MED PKG|

QP1.146

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seed=517202384
Q=18 314|Q=15 1996-11-01|Q=9 blue|Q=14 1993-06-01|Q=12 REG AIR SHIP 1993-01-01|Q=21 BRASS AMERICA|Q=8 JORDAN MIDDLE EAST STANDARD PLATED STEEL|Q=11 UNITED KINGDOM 0.0000001000|Q=22 13 15 32 34 28 19 22|Q=21 BRAZIL|Q=16 Brand#32 LARGE BRUSHED 3 6 42 41 26 47 49 38|Q=1 97|Q=6 1996-01-01 0.09 25|Q=17 Brand#24 MED DRUM|Q=5 AFRICA 1996-01-01|Q=10 1994-07-01|Q=19 Brand#32 Brand#15 Brand#21 10 18 22|Q=4 1994-07-01|Q=20 drab 1993-01-01 SAUDI ARABIA|Q=13 express packages|Q=3 HOUSEHOLD 1995-03-10|Q=7 UNITED STATES JORDAN|

QP1.147

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seed=517202385
Q=7 MOZAMBIQUE ETHIOPIA|Q=3 AUTOMOBILE 1995-03-27|Q=10 1993-05-01|Q=14 1993-10-01|Q=13 special packages|Q=21 ROMANIA|Q=18 312|Q=6 1996-01-01 0.07 24|Q=20 peru 1996-01-01 INDONESIA|Q=4 1997-02-01|Q=9 aquamarine|Q=8 ETHIOPIA AFRICA STANDARD ANODIZED STEEL|Q=22 33 14 31 16 30 32 13|Q=15 1994-08-01|Q=2 38 NICKEL MIDDLE EAST|Q=1 105|Q=5 AMERICA 1996-01-01|Q=12 SHIP REG AIR 1993-01-01|Q=19 Brand#44 Brand#42 Brand#15 5 19 29|Q=17 Brand#21 JUMBO BAG|Q=11 IRAQ 0.0000001000|Q=16 Brand#12 STANDARD ANODIZED 10 35 40 5 9 44 25 36|

QP1.148

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seed=517202386
Q=18 313|Q=1 113|Q=13 special packages|Q=7 INDIA RUSSIA|Q=16 Brand#52 MEDIUM PLATED 7 6 24 22 14 17 19 42|Q=10 1994-02-01|Q=14 1994-01-01|Q=2 26 TIN AMERICA|Q=19 Brand#41 Brand#35 Brand#14 1 20 26|Q=5 EUROPE 1996-01-01|Q=21 IRAQ|Q=11 UNITED STATES 0.0000001000|Q=22 13 21 20 25 27 23 14|Q=15 1997-02-01|Q=8 RUSSIA EUROPE PROMO POLISHED STEEL|Q=17 Brand#23 JUMBO PKG|Q=20 brown 1995-01-01 UNITED STATES|Q=3 FURNITURE 1995-03-12|Q=4 1994-11-01|Q=12 MAIL REG AIR 1994-01-01|Q=6 1996-01-01 0.04 25|Q=9 violet|

QP1.149

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seed=517202387
Q=13 special requests|Q=2 14 COPPER MIDDLE EAST|Q=22 25 24 31 23 33 15 30|Q=5 MIDDLE EAST 1997-01-01|Q=11 JAPAN 0.0000001000|Q=21 CANADA|Q=20 maroon 1993-01-01 KENYA|Q=14 1994-04-01|Q=7 ALGERIA KENYA|Q=10 1994-11-01|Q=4 1997-06-01|Q=9 spring|Q=19 Brand#43 Brand#13 Brand#13 6 10 22|Q=18 315|Q=6 1997-01-01 0.02 25|Q=3 AUTOMOBILE 1995-03-29|Q=1 60|Q=8 KENYA AFRICA PROMO BURNISHED STEEL|Q=15 1994-11-01|Q=12 TRUCK REG AIR 1994-01-01|Q=17 Brand#24 JUMBO DRUM|Q=16 Brand#32 ECONOMY POLISHED 20 26 8 29 27 30 28 5|

QP1.15

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seed=517202253
Q=16 Brand#32 MEDIUM PLATED 43 14 7 33 18 16 47 29|Q=9 orchid|Q=17 Brand#23 WRAP BOX|Q=8 JORDAN MIDDLE EAST LARGE BRUSHED NICKEL|Q=14 1993-06-01|Q=11 VIETNAM 0.0000001000|Q=10 1994-02-01|Q=12 AIR TRUCK 1993-01-01|Q=6 1995-01-01 0.02 25|Q=21 CANADA|Q=7 ARGENTINA JORDAN|Q=3 FURNITURE 1995-03-16|Q=15 1994-12-01|Q=5 ASIA 1995-01-01|Q=22 26 18 11 33 31 28 34|Q=20 misty 1993-01-01 MOZAMBIQUE|Q=1 83|Q=13 pending packages|Q=19 Brand#53 Brand#14 Brand#21 10 17 26|Q=2 1 TIN ASIA|Q=4 1995-07-01|Q=18 313|

QP1.150

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seed=517202388
Q=14 1994-07-01|Q=17 Brand#21 WRAP BAG|Q=21 VIETNAM|Q=8 FRANCE EUROPE ECONOMY BRUSHED COPPER|Q=2 2 STEEL ASIA|Q=9 seashell|Q=6 1997-01-01 0.07 24|Q=4 1995-03-01|Q=5 AFRICA 1997-01-01|Q=13 special requests|Q=22 14 23 10 33 20 27 18|Q=7 PERU FRANCE|Q=15 1997-06-01|Q=3 FURNITURE 1995-03-14|Q=1 68|Q=18 312|Q=16 Brand#12 SMALL ANODIZED 11 48 30 14 6 8 9 31|Q=11 UNITED STATES 0.0000001000|Q=10 1993-08-01|Q=12 RAIL REG AIR 1994-01-01|Q=20 turquoise 1997-01-01 EGYPT|Q=19 Brand#55 Brand#51 Brand#53 1 11 29|

QP1.151

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seed=517202389
Q=10 1994-05-01|Q=22 19 32 16 25 34 14 15|Q=1 76|Q=12 AIR RAIL 1995-01-01|Q=13 special requests|Q=18 314|Q=21 JORDAN|Q=20 green 1995-01-01 CHINA|Q=2 40 NICKEL MIDDLE EAST|Q=14 1994-10-01|Q=16 Brand#52 LARGE BURNISHED 44 19 27 38 45 14 31 34|Q=7 INDONESIA UNITED KINGDOM|Q=15 1995-02-01|Q=3 MACHINERY 1995-03-31|Q=4 1997-10-01|Q=17 Brand#23 WRAP PKG|Q=5 AMERICA 1997-01-01|Q=19 Brand#52 Brand#34 Brand#52 7 12 25|Q=6 1997-01-01 0.04 25|Q=8 UNITED KINGDOM EUROPE ECONOMY PLATED COPPER|Q=9 rose|Q=11 JAPAN 0.0000001000|

QP1.152

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seed=517202390
Q=10 1993-03-01|Q=8 MOROCCO AFRICA ECONOMY ANODIZED COPPER|Q=9 pink|Q=18 315|Q=12 REG AIR AIR 1995-01-01|Q=6 1997-01-01 0.02 25|Q=1 84|Q=5 ASIA 1997-01-01|Q=20 rosy 1994-01-01 INDIA|Q=11 ALGERIA 0.0000001000|Q=17 Brand#25 WRAP DRUM|Q=22 18 28 12 16 10 23 25|Q=16 Brand#32 PROMO POLISHED 37 10 32 3 43 6 7 19|Q=3 FURNITURE 1995-03-16|Q=13 special requests|Q=2 27 TIN ASIA|Q=15 1997-09-01|Q=21 ETHIOPIA|Q=14 1995-02-01|Q=19 Brand#54 Brand#22 Brand#51 2 13 21|Q=7 ARGENTINA MOROCCO|Q=4 1995-07-01|

QP1.153

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seed=517202391
Q=7 CHINA GERMANY|Q=17 Brand#22 SM BAG|Q=22 27 28 18 20 15 30 33|Q=5 EUROPE 1997-01-01|Q=3 MACHINERY 1995-03-02|Q=10 1993-12-01|Q=13 special requests|Q=18 313|Q=9 orange|Q=1 92|Q=14 1995-05-01|Q=15 1995-06-01|Q=21 RUSSIA|Q=19 Brand#11 Brand#55 Brand#45 7 14 29|Q=16 Brand#12 SMALL BRUSHED 32 21 44 47 40 35 25 20|Q=12 FOB AIR 1995-01-01|Q=8 GERMANY EUROPE LARGE POLISHED COPPER|Q=6 1997-01-01 0.07 24|Q=11 JORDAN 0.0000001000|Q=20 cornsilk 1997-01-01 UNITED KINGDOM|Q=4 1993-04-01|Q=2 15 COPPER AFRICA|

QP1.154

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seed=517202392
Q=2 3 STEEL ASIA|Q=9 mint|Q=21 KENYA|Q=3 BUILDING 1995-03-18|Q=4 1995-10-01|Q=7 IRAN UNITED STATES|Q=1 100|Q=11 ARGENTINA 0.0000001000|Q=16 Brand#52 ECONOMY BURNISHED 12 15 30 47 34 29 19 24|Q=5 MIDDLE EAST 1993-01-01|Q=20 navy 1995-01-01 JAPAN|Q=19 Brand#14 Brand#33 Brand#45 2 15 25|Q=18 314|Q=8 UNITED STATES AMERICA LARGE BURNISHED COPPER|Q=17 Brand#24 SM PKG|Q=13 pending accounts|Q=10 1994-09-01|Q=12 MAIL AIR 1995-01-01|Q=15 1993-03-01|Q=6 1993-01-01 0.05 25|Q=14 1995-08-01|Q=22 15 34 16 14 21 13 20|

QP1.155

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seed=517202393
Q=15 1995-09-01|Q=12 TRUCK RAIL 1995-01-01|Q=8 MOZAMBIQUE AFRICA LARGE ANODIZED TIN|Q=4 1993-07-01|Q=22 12 21 26 22 24 14 13|Q=13 pending accounts|Q=16 Brand#32 STANDARD PLATED 26 2 14 50 44 33 41 16|Q=17 Brand#21 SM DRUM|Q=18 312|Q=3 HOUSEHOLD 1995-03-04|Q=7 BRAZIL MOZAMBIQUE|Q=5 AFRICA 1993-01-01|Q=6 1993-01-01 0.02 25|Q=1 108|Q=9 linen|Q=11 KENYA 0.0000001000|Q=21 FRANCE|Q=10 1993-06-01|Q=14 1995-11-01|Q=20 azure 1994-01-01 BRAZIL|Q=19 Brand#11 Brand#21 Brand#44 8 16 21|Q=2 41 BRASS AFRICA|

QP1.156

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seed=517202394
Q=15 1993-06-01|Q=16 Brand#12 MEDIUM BRUSHED 14 18 29 35 13 10 21 34|Q=2 28 TIN EUROPE|Q=11 BRAZIL 0.0000001000|Q=17 Brand#23 LG BAG|Q=7 ROMANIA INDIA|Q=5 AMERICA 1993-01-01|Q=14 1996-02-01|Q=20 lavender 1997-01-01 PERU|Q=4 1996-02-01|Q=21 UNITED STATES|Q=3 BUILDING 1995-03-20|Q=10 1994-03-01|Q=9 lace|Q=12 RAIL MAIL 1993-01-01|Q=8 INDIA ASIA MEDIUM POLISHED TIN|Q=13 pending accounts|Q=6 1993-01-01 0.08 24|Q=18 313|Q=19 Brand#23 Brand#54 Brand#33 3 17 28|Q=22 27 28 21 10 20 29 13|Q=1 116|

QP1.157

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seed=517202395
Q=1 63|Q=13 pending accounts|Q=11 MOROCCO 0.0000001000|Q=3 HOUSEHOLD 1995-03-06|Q=4 1993-11-01|Q=21 MOZAMBIQUE|Q=6 1993-01-01 0.05 24|Q=14 1996-06-01|Q=15 1996-01-01|Q=22 17 30 18 23 11 10 15|Q=18 315|Q=9 grey|Q=7 IRAQ ALGERIA|Q=5 ASIA 1993-01-01|Q=10 1995-01-01|Q=20 slate 1996-01-01 GERMANY|Q=12 AIR RAIL 1996-01-01|Q=16 Brand#52 PROMO ANODIZED 36 3 5 15 24 16 39 21|Q=17 Brand#25 LG PKG|Q=8 ALGERIA AFRICA MEDIUM BURNISHED TIN|Q=19 Brand#25 Brand#42 Brand#32 8 18 24|Q=2 16 COPPER AFRICA|

QP1.158

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seed=517202396
Q=14 1996-09-01|Q=17 Brand#22 LG DRUM|Q=22 31 19 24 17 20 29 15|Q=20 firebrick 1994-01-01 VIETNAM|Q=8 PERU AMERICA SMALL BRUSHED TIN|Q=16 Brand#32 SMALL PLATED 37 15 47 44 36 16 2 43|Q=5 EUROPE 1994-01-01|Q=10 1993-10-01|Q=1 71|Q=13 pending accounts|Q=2 4 STEEL EUROPE|Q=21 INDIA|Q=12 REG AIR RAIL 1996-01-01|Q=9 forest|Q=4 1996-06-01|Q=18 312|Q=3 AUTOMOBILE 1995-03-22|Q=7 CANADA PERU|Q=6 1994-01-01 0.02 25|Q=19 Brand#22 Brand#25 Brand#21 3 19 20|Q=15 1993-09-01|Q=11 CANADA 0.0000001000|

QP1.159
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seed=517202397
Q=9 deep|Q=17 Brand#24 MED BAG|Q=7 SAUDI ARABIA INDONESIA|Q=4 1994-03-01|Q=5 AFRICA 1994-01-01|Q=13 pending deposits|Q=21 ALGERIA|Q=18 314|Q=11 MOZAMBIQUE 0.0000001000|Q=3 HOUSEHOLD 1995-03-08|Q=22 12 18 16 30 33 34 10|Q=1 79|Q=6 1994-01-01 0.08 24|Q=16 Brand#12 LARGE POLISHED 24 6 34 1 48 13 41 44|Q=20 pink 1993-01-01 IRAQ|Q=14 1996-12-01|Q=15 1996-04-01|Q=10 1994-07-01|Q=8 INDONESIA ASIA SMALL PLATED TIN|Q=2 42 BRASS AMERICA|Q=12 FOB TRUCK 1996-01-01|Q=19 Brand#34 Brand#13 Brand#21 9 20 28|

QP1.16
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seed=517202254
Q=1 91|Q=3 AUTOMOBILE 1995-03-02|Q=6 1995-01-01 0.07 24|Q=5 EUROPE 1995-01-01|Q=2 39 COPPER AFRICA|Q=16 Brand#22 ECONOMY POLISHED 2 48 33 12 36 38 24 15|Q=14 1993-09-01|Q=22 11 16 18 22 29 10 23|Q=17 Brand#24 WRAP PACK|Q=20 almond 1997-01-01 ETHIOPIA|Q=4 1993-04-01|Q=9 misty|Q=10 1994-11-01|Q=11 INDONESIA 0.0000001000|Q=15 1997-07-01|Q=8 ETHIOPIA AFRICA LARGE PLATED NICKEL|Q=12 REG AIR TRUCK 1993-01-01|Q=19 Brand#51 Brand#52 Brand#21 5 18 22|Q=18 315|Q=13 pending packages|Q=7 CHINA ETHIOPIA|Q=21 SAUDI ARABIA|

QP1.160
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seed=517202398
Q=13 pending deposits|Q=14 1997-03-01|Q=5 AMERICA 1994-01-01|Q=22 28 16 31 18 29 17 33|Q=19 Brand#31 Brand#41 Brand#25 4 10 24|Q=11 EGYPT 0.0000001000|Q=9 coral|Q=6 1994-01-01 0.05 24|Q=18 312|Q=15 1994-01-01|Q=8 ARGENTINA AMERICA SMALL ANODIZED NICKEL|Q=10 1993-04-01|Q=7 JAPAN ARGENTINA|Q=4 1996-10-01|Q=17 Brand#21 MED PKG|Q=16 Brand#52 STANDARD ANODIZED 43 10 4 36 13 44 18 7|Q=3 AUTOMOBILE 1995-03-24|Q=1 87|Q=12 MAIL TRUCK 1997-01-01|Q=2 30 NICKEL EUROPE|Q=21 PERU|Q=20 burlywood 1996-01-01 ARGENTINA|

QP1.161
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seed=517202399
Q=20 medium 1995-01-01 MOZAMBIQUE|Q=5 ASIA 1994-01-01|Q=4 1994-07-01|Q=14 1997-06-01|Q=11 PERU 0.0000001000|Q=1 95|Q=6 1994-01-01 0.03 25|Q=16 Brand#32 MEDIUM BURNISHED 15 2 1 33 10 37 8 25|Q=8 CHINA ASIA STANDARD POLISHED NICKEL|Q=22 30 15 28 13 29 14 12|Q=7 EGYPT CHINA|Q=3 FURNITURE 1995-03-10|Q=2 17 COPPER AMERICA|Q=12 TRUCK SHIP 1996-01-01|Q=21 IRAN|Q=19 Brand#33 Brand#34 Brand#14 9 11 20|Q=17 Brand#22 MED DRUM|Q=13 unusual deposits|Q=10 1994-01-01|Q=15 1996-08-01|Q=18 313|Q=9 brown|

QP1.162
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seed=517202400
Q=3 MACHINERY 1995-03-26|Q=7 SAUDI ARABIA IRAN|Q=14 1997-10-01|Q=15 1994-04-01|Q=6 1995-01-01 0.08 24|Q=5 EUROPE 1995-01-01|Q=21 BRAZIL|Q=20 turquoise 1993-01-01 ETHIOPIA|Q=18 315|Q=10 1994-11-01|Q=4 1997-02-01|Q=16 Brand#22 ECONOMY POLISHED 47 48 5 12 7 22 24 23|Q=19 Brand#45 Brand#12 Brand#13 4 12 27|Q=1 103|Q=13 unusual deposits|Q=9 beige|Q=8 IRAN MIDDLE EAST STANDARD BURNISHED NICKEL|Q=17 Brand#24 JUMBO BAG|Q=11 ETHIOPIA 0.0000001000|Q=12 RAIL TRUCK 1997-01-01|Q=22 15 13 33 34 10 11 29|Q=2 5 STEEL MIDDLE EAST|

QP1.163
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seed=517202401
Q=13 unusual packages|Q=15 1996-11-01|Q=17 Brand#21 JUMBO PKG|Q=1 111|Q=22 14 22 20 32 13 18 26|Q=11 CHINA 0.0000001000|Q=3 FURNITURE 1995-03-12|Q=4 1994-11-01|Q=7 JAPAN BRAZIL|Q=20 grey 1996-01-01 SAUDI ARABIA|Q=14 1993-01-01|Q=21 ROMANIA|Q=9 wheat|Q=8 BRAZIL AMERICA PROMO BRUSHED NICKEL|Q=2 43 BRASS AMERICA|Q=18 312|Q=16 Brand#52 STANDARD BRUSHED 11 19 8 41 49 21 15 48|Q=6 1995-01-01 0.06 24|Q=10 1993-08-01|Q=12 AIR MAIL 1993-01-01|Q=5 MIDDLE EAST 1995-01-01|Q=19 Brand#42 Brand#45 Brand#13 10 13 23|

QP1.164
---
seed=517202402
Q=14 1993-04-01|Q=2 31 NICKEL MIDDLE EAST|Q=9 steel|Q=20 royal 1995-01-01 IRAN|Q=6 1995-01-01 0.03 25|Q=17 Brand#23 JUMBO DRUM|Q=18 314|Q=8 ROMANIA EUROPE PROMO PLATED NICKEL|Q=21 IRAQ|Q=13 unusual packages|Q=3 MACHINERY 1995-03-28|Q=22 10 17 30 21 23 25 14|Q=16 Brand#32 LARGE BURNISHED 13 10 4 21 2 38 35 20|Q=4 1997-05-01|Q=11 FRANCE 0.0000001000|Q=15 1994-08-01|Q=1 119|Q=10 1994-05-01|Q=19 Brand#44 Brand#33 Brand#52 5 14 20|Q=5 AFRICA 1995-01-01|Q=7 EGYPT ROMANIA|Q=12 SHIP MAIL 1993-01-01|

QP1.165
---
seed=517202403
Q=21 CANADA|Q=3 BUILDING 1995-03-14|Q=18 315|Q=5 AMERICA 1995-01-01|Q=11 ROMANIA 0.0000001000|Q=7 VIETNAM IRAQ|Q=6 1995-01-01 0.09 24|Q=20 cream 1993-01-01 UNITED STATES|Q=17 Brand#35 WRAP BAG|Q=12 FOB MAIL 1993-01-01|Q=16 Brand#23 PROMO PLATED 32 18 8 50 23 6 30 25|Q=15 1997-03-01|Q=13 unusual packages|Q=10 1993-02-01|Q=2 18 TIN ASIA|Q=8 IRAQ MIDDLE EAST PROMO ANODIZED BRASS|Q=14 1993-07-01|Q=19 Brand#52 Brand#15 Brand#51 10 15 27|Q=9 sienna|Q=22 25 32 29 10 31 26 28|Q=1 66|Q=4 1995-02-01|

QP1.166
---
seed=517202404
Q=6 1996-01-01 0.06 24|Q=17 Brand#32 WRAP PKG|Q=14 1993-11-01|Q=16 Brand#53 SMALL BRUSHED 47 5 42 30 19 10 45 9|Q=19 Brand#54 Brand#53 Brand#55 6 16 23|Q=10 1993-12-01|Q=9 rosy|Q=2 6 STEEL MIDDLE EAST|Q=15 1994-11-01|Q=8 CANADA AMERICA ECONOMY POLISHED BRASS|Q=5 ASIA 1996-01-01|Q=22 24 31 32 22 19 18 26|Q=12 MAIL AIR 1994-01-01|Q=7 JORDAN CANADA|Q=13 unusual packages|Q=18 313|Q=1 74|Q=4 1997-09-01|Q=20 olive 1997-01-01 KENYA|Q=3 MACHINERY 1995-03-30|Q=11 GERMANY 0.0000001000|Q=21 SAUDI ARABIA|

QP1.167
---
seed=517202405
Q=8 SAUDI ARABIA MIDDLE EAST ECONOMY BURNISHED BRASS|Q=5 EUROPE 1996-01-01|Q=4 1995-06-01|Q=6 1996-01-01 0.03 25|Q=17 Brand#34 SM CASE|Q=7 ETHIOPIA SAUDI ARABIA|Q=1 82|Q=18 314|Q=22 13 28 30 27 26 19 24|Q=14 1994-02-01|Q=9 plum|Q=10 1994-09-01|Q=15 1997-06-01|Q=11 SAUDI ARABIA 0.0000001000|Q=20 azure 1995-01-01 EGYPT|Q=2 44 BRASS ASIA|Q=21 JORDAN|Q=19 Brand#11 Brand#31 Brand#45 1 17 30|Q=13 unusual packages|Q=16 Brand#33 ECONOMY ANODIZED 1 7 42 23 39 41 21 17|Q=12 TRUCK MAIL 1994-01-01|Q=3 BUILDING 1995-03-16|

QP1.168
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seed=517202406
Q=5 MIDDLE EAST 1996-01-01|Q=21 ETHIOPIA|Q=14 1994-05-01|Q=19 Brand#13 Brand#24 Brand#44 6 18 26|Q=15 1995-03-01|Q=17 Brand#31 SM BAG|Q=12 RAIL FOB 1994-01-01|Q=6 1996-01-01 0.09 24|Q=4 1993-03-01|Q=9 orchid|Q=8 JAPAN ASIA LARGE BRUSHED BRASS|Q=16 Brand#23 STANDARD PLATED 31 24 43 39 36 33 28 1|Q=11 INDIA 0.0000001000|Q=2 32 NICKEL AFRICA|Q=10 1993-06-01|Q=18 312|Q=1 90|Q=13 unusual requests|Q=7 RUSSIA JAPAN|Q=22 30 20 26 23 10 12 15|Q=3 HOUSEHOLD 1995-03-01|Q=20 lawn 1994-01-01 ROMANIA|

QP1.169
---
seed=517202407
Q=21 RUSSIA|Q=15 1997-09-01|Q=4 1995-10-01|Q=6 1996-01-01 0.06 24|Q=7 KENYA EGYPT|Q=16 Brand#53 MEDIUM POLISHED 19 16 36 33 3 25 32 43|Q=19 Brand#15 Brand#52 Brand#43 1 19 23|Q=18 313|Q=14 1994-08-01|Q=22 29 32 13 22 27 10 21|Q=11 VIETNAM 0.0000001000|Q=13 express requests|Q=3 BUILDING 1995-03-18|Q=1 98|Q=2 20 TIN ASIA|Q=5 AMERICA 1996-01-01|Q=8 EGYPT MIDDLE EAST LARGE PLATED BRASS|Q=20 smoke 1997-01-01 INDIA|Q=12 AIR FOB 1994-01-01|Q=17 Brand#33 SM PKG|Q=10 1994-03-01|Q=9 misty|

QP1.17
---
seed=517202255
Q=3 FURNITURE 1995-03-18|Q=16 Brand#52 SMALL ANODIZED 49 3 26 42 11 31 50 33|Q=5 MIDDLE EAST 1995-01-01|Q=11 RUSSIA 0.0000001000|Q=21 JAPAN|Q=9 magenta|Q=2 27 STEEL ASIA|Q=15 1995-04-01|Q=10 1993-08-01|Q=18 312|Q=17 Brand#21 WRAP CAN|Q=7 IRAN RUSSIA|Q=8 RUSSIA EUROPE LARGE ANODIZED NICKEL|Q=19 Brand#53 Brand#35 Brand#25 10 19 29|Q=14 1994-01-01|Q=13 unusual packages|Q=1 99|Q=4 1995-11-01|Q=22 10 15 31 20 32 14 21|Q=20 ivory 1995-01-01 SAUDI ARABIA|Q=6 1995-01-01 0.05 25|Q=12 FOB TRUCK 1994-01-01|

QP1.170
---
seed=517202408
Q=10 1994-12-01|Q=3 HOUSEHOLD 1995-03-03|Q=15 1995-06-01|Q=13 express requests|Q=6 1996-01-01 0.04 25|Q=8 VIETNAM ASIA LARGE ANODIZED STEEL|Q=9 magenta|Q=7 FRANCE VIETNAM|Q=4 1993-07-01|Q=11 INDONESIA 0.0000001000|Q=22 13 24 16 23 34 12 18|Q=18 315|Q=12 SHIP FOB 1994-01-01|Q=1 107|Q=5 ASIA 1996-01-01|Q=16 Brand#33 PROMO ANODIZED 8 38 43 48 10 18 31 17|Q=2 7 COPPER AFRICA|Q=14 1994-11-01|Q=19 Brand#22 Brand#35 Brand#32 7 20 30|Q=20 floral 1995-01-01 UNITED KINGDOM|Q=17 Brand#35 LG CASE|Q=21 KENYA|

QP1.171
---
seed=517202409
Q=18 312|Q=8 JORDAN MIDDLE EAST MEDIUM POLISHED STEEL|Q=20 plum 1994-01-01 JORDAN|Q=21 FRANCE|Q=2 45 BRASS EUROPE|Q=4 1996-02-01|Q=22 23 12 14 13 21 26 19|Q=17 Brand#32 LG BAG|Q=1 115|Q=11 RUSSIA 0.0000001000|Q=9 lavender|Q=19 Brand#24 Brand#23 Brand#31 2 10 26|Q=3 AUTOMOBILE 1995-03-20|Q=13 express requests|Q=5 EUROPE 1997-01-01|Q=7 UNITED KINGDOM JORDAN|Q=10 1993-10-01|Q=16 Brand#23 SMALL BURNISHED 14 36 12 27 25 28 7 46|Q=6 1997-01-01 0.09 25|Q=14 1995-03-01|Q=15 1993-03-01|Q=12 FOB TRUCK 1993-01-01|

QP1.172
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seed=517202410
Q=19 Brand#21 Brand#51 Brand#31 7 11 22|Q=1 62|Q=15 1995-10-01|Q=17 Brand#34 LG PKG|Q=5 MIDDLE EAST 1997-01-01|Q=8 ETHIOPIA AFRICA MEDIUM BURNISHED STEEL|Q=9 honeydew|Q=12 MAIL SHIP 1995-01-01|Q=14 1995-06-01|Q=7 MOROCCO ETHIOPIA|Q=4 1993-11-01|Q=3 FURNITURE 1995-03-05|Q=20 burnished 1997-01-01 BRAZIL|Q=16 Brand#53 LARGE POLISHED 31 24 30 43 22 7 36 46|Q=6 1997-01-01 0.07 24|Q=22 18 20 12 14 22 16 33|Q=10 1994-07-01|Q=13 express requests|Q=2 33 NICKEL AFRICA|Q=21 UNITED KINGDOM|Q=18 314|Q=11 IRAN 0.0000001000|

QP1.173
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seed=517202411
Q=8 RUSSIA EUROPE SMALL BRUSHED STEEL|Q=13 express accounts|Q=2 21 TIN EUROPE|Q=20 metallic 1996-01-01 PERU|Q=17 Brand#35 MED CASE|Q=3 AUTOMOBILE 1995-03-22|Q=6 1997-01-01 0.04 25|Q=21 MOZAMBIQUE|Q=18 315|Q=11 UNITED KINGDOM 0.0000001000|Q=19 Brand#33 Brand#44 Brand#25 2 12 29|Q=10 1993-04-01|Q=15 1993-06-01|Q=4 1996-06-01|Q=22 24 34 20 23 12 32 28|Q=1 70|Q=7 GERMANY RUSSIA|Q=12 TRUCK SHIP 1995-01-01|Q=9 frosted|Q=14 1995-09-01|Q=5 AFRICA 1997-01-01|Q=16 Brand#33 PROMO BRUSHED 11 19 33 2 14 44 49 12|

QP1.174
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seed=517202412
Q=6 1997-01-01 0.09 25|Q=15 1996-01-01|Q=18 313|Q=17 Brand#32 MED BAG|Q=12 RAIL SHIP 1995-01-01|Q=1 78|Q=7 UNITED STATES KENYA|Q=2 8 COPPER AMERICA|Q=22 17 10 28 22 26 24 12|Q=13 express accounts|Q=21 INDIA|Q=10 1994-01-01|Q=14 1995-12-01|Q=9 dim|Q=3 FURNITURE 1995-03-07|Q=16 Brand#23 MEDIUM BURNISHED 24 49 17 10 50 31 8 33|Q=20 violet 1994-01-01 GERMANY|Q=19 Brand#35 Brand#22 Brand#24 8 13 26|Q=11 IRAQ 0.0000001000|Q=4 1994-03-01|Q=8 KENYA AFRICA SMALL PLATED STEEL|Q=5 AMERICA 1997-01-01|

QP1.175
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seed=517202413
Q=15 1993-10-01|Q=14 1996-03-01|Q=18 315|Q=17 Brand#34 MED PKG|Q=10 1994-10-01|Q=20 honeydew 1993-01-01 RUSSIA|Q=16 Brand#53 ECONOMY PLATED 3 4 1 31 17 46 12 6|Q=11 UNITED STATES 0.0000001000|Q=1 86|Q=8 FRANCE EUROPE SMALL ANODIZED COPPER|Q=4 1996-09-01|Q=22 21 23 24 18 26 11 20|Q=5 ASIA 1993-01-01|Q=12 REG AIR SHIP 1996-01-01|Q=3 MACHINERY 1995-03-24|Q=9 cornflower|Q=21 ALGERIA|Q=2 46 STEEL EUROPE|Q=13 express accounts|Q=6 1993-01-01 0.07 24|Q=19 Brand#32 Brand#15 Brand#23 3 14 22|Q=7 MOZAMBIQUE FRANCE|

QP1.176
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seed=517202414
Q=1 94|Q=7 INDIA UNITED KINGDOM|Q=16 Brand#33 STANDARD BRUSHED 37 41 12 43 23 33 29 26|Q=17 Brand#31 JUMBO CASE|Q=18 312|Q=22 21 10 23 33 26 31 24|Q=12 SHIP REG AIR 1996-01-01|Q=6 1993-01-01 0.04 25|Q=8 UNITED KINGDOM EUROPE STANDARD POLISHED COPPER|Q=9 burlywood|Q=11 JAPAN 0.0000001000|Q=4 1994-06-01|Q=2 34 NICKEL AMERICA|Q=5 EUROPE 1993-01-01|Q=20 saddle 1996-01-01 IRAQ|Q=21 PERU|Q=13 special accounts|Q=10 1993-08-01|Q=19 Brand#45 Brand#43 Brand#13 8 15 29|Q=3 FURNITURE 1995-03-09|Q=14 1996-07-01|Q=15 1996-04-01|

QP1.177
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seed=517202415
Q=21 INDONESIA|Q=17 Brand#33 JUMBO BAG|Q=7 ALGERIA KENYA|Q=3 MACHINERY 1995-03-26|Q=1 102|Q=10 1994-05-01|Q=12 FOB REG AIR 1996-01-01|Q=22 12 25 21 26 18 31 27|Q=9 bisque|Q=16 Brand#23 LARGE ANODIZED 10 11 20 21 13 15 7 3|Q=6 1993-01-01 0.02 25|Q=11 ALGERIA 0.0000001000|Q=2 22 TIN MIDDLE EAST|Q=4 1997-01-01|Q=5 MIDDLE EAST 1993-01-01|Q=14 1996-10-01|Q=8 KENYA AFRICA STANDARD BURNISHED COPPER|Q=20 cyan 1994-01-01 ARGENTINA|Q=13 special deposits|Q=18 314|Q=15 1994-01-01|Q=19 Brand#42 Brand#21 Brand#12 4 16 25|

QP1.178
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seed=517202416
Q=2 10 COPPER AMERICA|Q=9 yellow|Q=5 AFRICA 1993-01-01|Q=4 1994-10-01|Q=18 315|Q=1 110|Q=20 orange 1993-01-01 MOZAMBIQUE|Q=15 1996-08-01|Q=16 Brand#53 PROMO PLATED 5 32 4 38 43 6 42 45|Q=17 Brand#35 JUMBO PKG|Q=7 PERU FRANCE|Q=21 ARGENTINA|Q=13 special deposits|Q=14 1997-01-01|Q=19 Brand#44 Brand#14 Brand#11 9 17 21|Q=8 FRANCE EUROPE PROMO BRUSHED COPPER|Q=22 11 26 22 14 21 19 32|Q=11 JORDAN 0.0000001000|Q=10 1993-02-01|Q=3 BUILDING 1995-03-12|Q=12 MAIL REG AIR 1997-01-01|Q=6 1993-01-01 0.07 24|

QP1.179
---
seed=517202417
Q=16 Brand#43 SMALL POLISHED 41 3 10 13 17 48 4 2|Q=9 thistle|Q=17 Brand#32 WRAP CASE|Q=8 UNITED KINGDOM EUROPE PROMO PLATED COPPER|Q=14 1997-04-01|Q=11 ARGENTINA 0.0000001000|Q=10 1993-11-01|Q=12 TRUCK REG AIR 1997-01-01|Q=6 1994-01-01 0.05 25|Q=21 ROMANIA|Q=7 INDONESIA UNITED KINGDOM|Q=3 HOUSEHOLD 1995-03-28|Q=15 1994-05-01|Q=5 AMERICA 1994-01-01|Q=22 16 33 23 20 29 21 15|Q=20 beige 1996-01-01 FRANCE|Q=1 118|Q=13 special deposits|Q=19 Brand#51 Brand#42 Brand#55 4 18 29|Q=2 47 STEEL MIDDLE EAST|Q=4 1997-05-01|Q=18 313|

QP1.18
---
seed=517202256
Q=14 1994-04-01|Q=4 1993-08-01|Q=13 unusual requests|Q=5 AFRICA 1996-01-01|Q=21 EGYPT|Q=11 IRAN 0.0000001000|Q=8 KENYA AFRICA MEDIUM POLISHED BRASS|Q=6 1996-01-01 0.02 25|Q=3 MACHINERY 1995-03-04|Q=17 Brand#23 SM BOX|Q=2 15 NICKEL AFRICA|Q=20 sienna 1993-01-01 IRAN|Q=1 107|Q=19 Brand#15 Brand#13 Brand#14 6 20 25|Q=10 1994-05-01|Q=9 lavender|Q=12 MAIL TRUCK 1994-01-01|Q=18 314|Q=15 1997-10-01|Q=7 BRAZIL KENYA|Q=22 20 13 28 22 14 17 15|Q=16 Brand#32 LARGE BURNISHED 3 42 30 38 7 37 26 49|

QP1.180
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seed=517202418
Q=1 65|Q=3 BUILDING 1995-03-14|Q=6 1994-01-01 0.02 25|Q=5 EUROPE 1994-01-01|Q=2 35 BRASS ASIA|Q=16 Brand#23 ECONOMY ANODIZED 33 46 23 42 43 41 29 5|Q=14 1997-07-01|Q=22 24 31 10 26 11 18 15|Q=17 Brand#34 WRAP BAG|Q=20 lemon 1995-01-01 SAUDI ARABIA|Q=4 1995-02-01|Q=9 slate|Q=10 1994-08-01|Q=11 KENYA 0.0000001000|Q=15 1996-11-01|Q=8 MOROCCO AFRICA PROMO BURNISHED TIN|Q=12 AIR SHIP 1997-01-01|Q=19 Brand#53 Brand#35 Brand#55 9 19 25|Q=18 314|Q=13 special deposits|Q=7 ARGENTINA MOROCCO|Q=21 IRAQ|

QP1.181
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seed=517202419
Q=3 HOUSEHOLD 1995-03-30|Q=16 Brand#53 STANDARD BURNISHED 29 26 7 22 19 20 28 49|Q=5 MIDDLE EAST 1994-01-01|Q=11 BRAZIL 0.0000001000|Q=21 CANADA|Q=9 saddle|Q=2 23 TIN MIDDLE EAST|Q=15 1994-08-01|Q=10 1993-06-01|Q=18 312|Q=17 Brand#31 WRAP PKG|Q=7 CHINA GERMANY|Q=8 GERMANY EUROPE ECONOMY BRUSHED TIN|Q=19 Brand#55 Brand#13 Brand#44 5 20 21|Q=14 1997-11-01|Q=13 special deposits|Q=1 73|Q=4 1997-09-01|Q=22 20 29 18 14 13 31 27|Q=20 snow 1993-01-01 IRAN|Q=6 1994-01-01 0.07 24|Q=12 REG AIR AIR 1997-01-01|

QP1.182
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seed=517202420
Q=14 1993-02-01|Q=4 1995-06-01|Q=13 special packages|Q=5 AFRICA 1994-01-01|Q=21 SAUDI ARABIA|Q=11 MOROCCO 0.0000001000|Q=8 UNITED STATES AMERICA ECONOMY PLATED TIN|Q=6 1994-01-01 0.05 25|Q=3 AUTOMOBILE 1995-03-16|Q=17 Brand#33 SM CASE|Q=2 11 COPPER ASIA|Q=20 forest 1997-01-01 ALGERIA|Q=1 81|Q=19 Brand#12 Brand#51 Brand#43 10 10 28|Q=10 1994-03-01|Q=9 puff|Q=12 SHIP AIR 1993-01-01|Q=18 313|Q=15 1997-03-01|Q=7 IRAN UNITED STATES|Q=22 17 14 15 33 28 29 22|Q=16 Brand#43 MEDIUM POLISHED 46 28 8 35 11 19 47 42|

QP1.183
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seed=517202421
Q=4 1993-03-01|Q=12 FOB AIR 1993-01-01|Q=22 17 26 11 14 32 20 22|Q=14 1993-05-01|Q=5 AMERICA 1995-01-01|Q=15 1994-12-01|Q=16 Brand#23 ECONOMY BRUSHED 4 11 1 9 20 18 24 8|Q=2 48 STEEL AFRICA|Q=8 MOZAMBIQUE AFRICA ECONOMY ANODIZED TIN|Q=10 1994-12-01|Q=17 Brand#35 SM BAG|Q=9 papaya|Q=21 JAPAN|Q=7 BRAZIL MOZAMBIQUE|Q=3 HOUSEHOLD 1995-03-01|Q=6 1995-01-01 0.02 25|Q=13 pending packages|Q=18 315|Q=11 CANADA 0.0000001000|Q=20 powder 1995-01-01 KENYA|Q=19 Brand#14 Brand#33 Brand#42 5 11 24|Q=1 89|

QP1.184
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seed=517202422
Q=16 Brand#53 SMALL BURNISHED 7 28 44 3 20 26 50 12|Q=15 1997-06-01|Q=14 1993-08-01|Q=13 pending packages|Q=4 1995-10-01|Q=22 23 24 26 34 19 10 32|Q=18 312|Q=19 Brand#11 Brand#11 Brand#31 10 12 21|Q=7 ROMANIA INDIA|Q=1 97|Q=12 MAIL RAIL 1993-01-01|Q=17 Brand#32 SM PKG|Q=5 ASIA 1995-01-01|Q=10 1993-09-01|Q=20 burnished 1993-01-01 EGYPT|Q=3 AUTOMOBILE 1995-03-18|Q=9 navajo|Q=21 EGYPT|Q=11 MOZAMBIQUE 0.0000001000|Q=2 36 BRASS ASIA|Q=6 1995-01-01 0.08 24|Q=8 INDIA ASIA LARGE POLISHED NICKEL|

QP1.185
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seed=517202423
Q=20 midnight 1997-01-01 ROMANIA|Q=14 1993-11-01|Q=21 RUSSIA|Q=12 TRUCK RAIL 1993-01-01|Q=15 1995-03-01|Q=17 Brand#33 LG CASE|Q=4 1993-06-01|Q=19 Brand#23 Brand#54 Brand#31 6 13 28|Q=13 pending packages|Q=10 1994-06-01|Q=11 EGYPT 0.0000001000|Q=1 105|Q=16 Brand#43 LARGE PLATED 41 6 45 35 20 19 26 17|Q=5 EUROPE 1995-01-01|Q=18 314|Q=7 IRAQ ALGERIA|Q=8 ALGERIA AFRICA LARGE BURNISHED NICKEL|Q=22 12 11 26 22 24 31 17|Q=9 medium|Q=6 1995-01-01 0.05 24|Q=3 FURNITURE 1995-03-03|Q=2 24 NICKEL AFRICA|

QP1.186
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seed=517202424
Q=16 Brand#23 PROMO BRUSHED 10 49 7 17 31 32 30 36|Q=14 1994-03-01|Q=13 pending packages|Q=2 12 COPPER EUROPE|Q=21 KENYA|Q=10 1993-04-01|Q=11 PERU 0.0000001000|Q=4 1996-01-01|Q=1 113|Q=22 24 26 10 32 20 14 28|Q=18 315|Q=12 AIR RAIL 1994-01-01|Q=19 Brand#25 Brand#32 Brand#35 1 14 24|Q=5 MIDDLE EAST 1995-01-01|Q=7 CANADA PERU|Q=8 PERU AMERICA MEDIUM BRUSHED NICKEL|Q=6 1995-01-01 0.03 25|Q=3 MACHINERY 1995-03-20|Q=15 1997-10-01|Q=20 wheat 1995-01-01 INDONESIA|Q=9 lemon|Q=17 Brand#35 LG BAG|

QP1.187
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seed=517202425
Q=18 313|Q=15 1995-06-01|Q=9 indian|Q=14 1994-06-01|Q=12 REG AIR RAIL 1994-01-01|Q=2 50 STEEL AFRICA|Q=8 INDONESIA ASIA MEDIUM PLATED NICKEL|Q=11 ETHIOPIA 0.0000001000|Q=22 33 26 28 24 16 19 22|Q=21 FRANCE|Q=16 Brand#53 MEDIUM ANODIZED 17 20 12 41 2 37 15 24|Q=1 60|Q=6 1995-01-01 0.08 24|Q=17 Brand#32 LG PKG|Q=5 AFRICA 1995-01-01|Q=10 1994-01-01|Q=19 Brand#22 Brand#25 Brand#24 6 15 20|Q=4 1993-10-01|Q=20 hot 1994-01-01 UNITED KINGDOM|Q=13 pending requests|Q=3 FURNITURE 1995-03-05|Q=7 SAUDI ARABIA INDONESIA|

QP1.188
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seed=517202426
Q=7 JAPAN ARGENTINA|Q=3 MACHINERY 1995-03-22|Q=10 1994-10-01|Q=14 1994-09-01|Q=13 pending requests|Q=21 UNITED KINGDOM|Q=18 314|Q=6 1996-01-01 0.05 24|Q=20 salmon 1997-01-01 JORDAN|Q=4 1996-05-01|Q=9 ghost|Q=8 ARGENTINA AMERICA MEDIUM ANODIZED NICKEL|Q=22 20 26 16 24 25 19 12|Q=15 1993-03-01|Q=2 37 BRASS EUROPE|Q=1 68|Q=5 AMERICA 1996-01-01|Q=12 SHIP TRUCK 1994-01-01|Q=19 Brand#35 Brand#53 Brand#23 1 16 27|Q=17 Brand#34 MED CASE|Q=11 CHINA 0.0000001000|Q=16 Brand#43 ECONOMY PLATED 5 14 33 28 18 39 9 45|

QP1.189
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seed=517202427
Q=18 312|Q=1 76|Q=13 pending requests|Q=7 EGYPT CHINA|Q=16 Brand#23 STANDARD POLISHED 39 12 20 42 29 21 3 17|Q=10 1993-07-01|Q=14 1994-12-01|Q=2 25 NICKEL AMERICA|Q=19 Brand#32 Brand#41 Brand#23 7 17 23|Q=5 ASIA 1996-01-01|Q=21 MOROCCO|Q=11 FRANCE 0.0000001000|Q=22 13 33 32 10 15 17 18|Q=15 1995-10-01|Q=8 CHINA ASIA SMALL POLISHED BRASS|Q=17 Brand#31 MED BAG|Q=20 cyan 1996-01-01 CANADA|Q=3 BUILDING 1995-03-07|Q=4 1994-02-01|Q=12 FOB TRUCK 1994-01-01|Q=6 1996-01-01 0.03 25|Q=9 drab|

QP1.19
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seed=517202257
Q=4 1996-03-01|Q=12 TRUCK MAIL 1994-01-01|Q=22 17 27 24 18 31 13 16|Q=14 1994-07-01|Q=5 AMERICA 1996-01-01|Q=15 1995-07-01|Q=16 Brand#22 PROMO POLISHED 49 11 16 2 32 23 12 42|Q=2 3 TIN EUROPE|Q=8 FRANCE EUROPE MEDIUM BURNISHED BRASS|Q=10 1993-03-01|Q=17 Brand#25 SM PACK|Q=9 honeydew|Q=21 VIETNAM|Q=7 ROMANIA FRANCE|Q=3 FURNITURE 1995-03-21|Q=6 1996-01-01 0.08 24|Q=13 unusual requests|Q=18 315|Q=11 UNITED KINGDOM 0.0000001000|Q=20 dim 1997-01-01 ALGERIA|Q=19 Brand#12 Brand#51 Brand#13 1 10 22|Q=1 115|

QP1.190
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seed=517202428
Q=13 unusual requests|Q=2 13 COPPER EUROPE|Q=22 31 14 16 17 29 28 20|Q=5 MIDDLE EAST 1996-01-01|Q=11 ROMANIA 0.0000001000|Q=21 GERMANY|Q=20 orchid 1994-01-01 CHINA|Q=14 1995-03-01|Q=7 VIETNAM IRAN|Q=10 1994-04-01|Q=4 1996-09-01|Q=9 cream|Q=19 Brand#34 Brand#24 Brand#12 2 18 20|Q=18 314|Q=6 1996-01-01 0.08 24|Q=3 MACHINERY 1995-03-24|Q=1 84|Q=8 IRAN MIDDLE EAST SMALL BURNISHED BRASS|Q=15 1993-07-01|Q=12 MAIL TRUCK 1995-01-01|Q=17 Brand#33 MED PKG|Q=16 Brand#53 LARGE ANODIZED 25 20 16 37 9 14 8 44|

QP1.191
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seed=517202429
Q=14 1995-07-01|Q=17 Brand#45 JUMBO CASE|Q=21 ALGERIA|Q=8 BRAZIL AMERICA STANDARD BRUSHED BRASS|Q=2 1 STEEL AMERICA|Q=9 chartreuse|Q=6 1996-01-01 0.06 24|Q=4 1994-06-01|Q=5 AFRICA 1996-01-01|Q=13 unusual accounts|Q=22 10 12 11 26 32 33 30|Q=7 JORDAN BRAZIL|Q=15 1996-01-01|Q=3 BUILDING 1995-03-09|Q=1 92|Q=18 315|Q=16 Brand#44 PROMO BURNISHED 3 20 1 16 6 8 34 45|Q=11 GERMANY 0.0000001000|Q=10 1993-02-01|Q=12 RAIL TRUCK 1995-01-01|Q=20 bisque 1993-01-01 GERMANY|Q=19 Brand#41 Brand#12 Brand#11 7 19 27|

QP1.192
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seed=517202430
Q=10 1993-11-01|Q=22 26 14 20 15 34 18 27|Q=1 100|Q=12 AIR MAIL 1995-01-01|Q=13 unusual accounts|Q=18 313|Q=21 PERU|Q=20 light 1996-01-01 RUSSIA|Q=2 39 BRASS MIDDLE EAST|Q=14 1995-10-01|Q=16 Brand#24 SMALL POLISHED 16 5 2 28 10 48 11 50|Q=7 ETHIOPIA ROMANIA|Q=15 1993-10-01|Q=3 HOUSEHOLD 1995-03-26|Q=4 1997-01-01|Q=17 Brand#42 JUMBO BAG|Q=5 AMERICA 1997-01-01|Q=19 Brand#43 Brand#45 Brand#15 3 20 23|Q=6 1997-01-01 0.03 25|Q=8 ROMANIA EUROPE STANDARD PLATED BRASS|Q=9 blanched|Q=11 SAUDI ARABIA 0.0000001000|

QP1.193
---
seed=517202431
Q=10 1994-08-01|Q=8 IRAQ MIDDLE EAST STANDARD ANODIZED BRASS|Q=9 antique|Q=18 314|Q=12 REG AIR MAIL 1996-01-01|Q=6 1997-01-01 0.09 24|Q=1 108|Q=5 ASIA 1997-01-01|Q=20 spring 1994-01-01 JAPAN|Q=11 INDIA 0.0000001000|Q=17 Brand#44 JUMBO PKG|Q=22 16 12 30 18 13 11 21|Q=16 Brand#14 LARGE BRUSHED 20 13 11 24 50 17 48 25|Q=3 BUILDING 1995-03-11|Q=13 unusual accounts|Q=2 26 NICKEL AMERICA|Q=15 1996-05-01|Q=21 INDONESIA|Q=14 1996-01-01|Q=19 Brand#45 Brand#23 Brand#55 8 10 30|Q=7 RUSSIA IRAQ|Q=4 1994-10-01|

QP1.194
---
seed=517202432
Q=7 KENYA CANADA|Q=17 Brand#41 WRAP CASE|Q=22 22 13 26 14 16 25 32|Q=5 EUROPE 1997-01-01|Q=3 HOUSEHOLD 1995-03-28|Q=10 1993-05-01|Q=13 unusual accounts|Q=18 312|Q=9 turquoise|Q=1 116|Q=14 1996-04-01|Q=15 1994-01-01|Q=21 ARGENTINA|Q=19 Brand#52 Brand#11 Brand#54 3 11 26|Q=16 Brand#44 STANDARD BURNISHED 37 6 50 10 45 33 13 8|Q=12 SHIP MAIL 1996-01-01|Q=8 CANADA AMERICA PROMO POLISHED STEEL|Q=6 1997-01-01 0.06 24|Q=11 VIETNAM 0.0000001000|Q=20 frosted 1993-01-01 ARGENTINA|Q=4 1997-05-01|Q=2 14 TIN MIDDLE EAST|

QP1.195
---
seed=517202433
Q=2 2 STEEL ASIA|Q=9 snow|Q=21 CHINA|Q=3 AUTOMOBILE 1995-03-13|Q=4 1995-01-01|Q=7 FRANCE SAUDI ARABIA|Q=1 63|Q=11 INDONESIA 0.0000001000|Q=16 Brand#24 MEDIUM PLATED 24 37 38 34 42 25 40 13|Q=5 MIDDLE EAST 1997-01-01|Q=20 puff 1996-01-01 MOZAMBIQUE|Q=19 Brand#54 Brand#44 Brand#53 8 12 23|Q=18 313|Q=8 SAUDI ARABIA MIDDLE EAST PROMO BURNISHED STEEL|Q=17 Brand#43 WRAP BAG|Q=13 unusual accounts|Q=10 1994-02-01|Q=12 FOB MAIL 1996-01-01|Q=15 1996-08-01|Q=6 1997-01-01 0.03 25|Q=14 1996-08-01|Q=22 32 30 22 29 16 17 12|

QP1.196
---
seed=517202434
Q=15 1994-05-01|Q=12 MAIL FOB 1994-01-01|Q=8 JAPAN ASIA ECONOMY BRUSHED STEEL|Q=4 1997-08-01|Q=22 21 28 18 24 12 30 14|Q=13 unusual deposits|Q=16 Brand#14 ECONOMY BRUSHED 15 8 22 49 38 18 14 2|Q=17 Brand#45 WRAP PKG|Q=18 315|Q=3 FURNITURE 1995-03-30|Q=7 UNITED KINGDOM JAPAN|Q=5 AFRICA 1993-01-01|Q=6 1993-01-01 0.09 25|Q=1 71|Q=9 sandy|Q=11 RUSSIA 0.0000001000|Q=21 IRAN|Q=10 1994-12-01|Q=14 1996-11-01|Q=20 chartreuse 1995-01-01 FRANCE|Q=19 Brand#51 Brand#32 Brand#42 4 13 30|Q=2 40 BRASS MIDDLE EAST|

QP1.197
---
seed=517202435
Q=15 1996-12-01|Q=16 Brand#44 SMALL ANODIZED 45 29 7 31 18 36 23 22|Q=2 27 NICKEL ASIA|Q=11 IRAN 0.0000001000|Q=17 Brand#41 SM CASE|Q=7 KENYA EGYPT|Q=5 AMERICA 1993-01-01|Q=14 1997-02-01|Q=20 mint 1993-01-01 VIETNAM|Q=4 1995-05-01|Q=21 CANADA|Q=3 AUTOMOBILE 1995-03-15|Q=10 1993-09-01|Q=9 red|Q=12 RAIL FOB 1997-01-01|Q=8 EGYPT MIDDLE EAST ECONOMY PLATED STEEL|Q=13 unusual deposits|Q=6 1993-01-01 0.06 24|Q=18 312|Q=19 Brand#13 Brand#15 Brand#41 9 14 26|Q=22 23 22 11 30 28 26 17|Q=1 79|

QP1.198
---
seed=517202436
Q=1 87|Q=13 express deposits|Q=11 UNITED KINGDOM 0.0000001000|Q=3 FURNITURE 1995-03-01|Q=4 1993-02-01|Q=21 SAUDI ARABIA|Q=6 1993-01-01 0.04 25|Q=14 1997-05-01|Q=15 1994-08-01|Q=22 31 18 21 19 23 16 28|Q=18 314|Q=9 peru|Q=7 FRANCE VIETNAM|Q=5 ASIA 1993-01-01|Q=10 1994-06-01|Q=20 white 1997-01-01 IRAN|Q=12 AIR FOB 1997-01-01|Q=16 Brand#24 LARGE PLATED 40 25 29 12 9 5 30 27|Q=17 Brand#43 SM BAG|Q=8 VIETNAM ASIA ECONOMY ANODIZED STEEL|Q=19 Brand#15 Brand#53 Brand#41 4 15 22|Q=2 15 TIN AFRICA|

QP1.199
---
seed=517202437
Q=14 1997-08-01|Q=17 Brand#45 SM PKG|Q=22 10 24 31 16 21 13 17|Q=20 indian 1995-01-01 ALGERIA|Q=8 JORDAN MIDDLE EAST LARGE POLISHED COPPER|Q=16 Brand#14 PROMO POLISHED 7 4 18 32 33 44 35 10|Q=5 EUROPE 1993-01-01|Q=10 1993-03-01|Q=1 95|Q=13 express deposits|Q=2 3 COPPER ASIA|Q=21 JAPAN|Q=12 REG AIR FOB 1997-01-01|Q=9 olive|Q=4 1995-09-01|Q=18 315|Q=3 MACHINERY 1995-03-17|Q=7 UNITED KINGDOM JORDAN|Q=6 1993-01-01 0.09 25|Q=19 Brand#13 Brand#31 Brand#35 9 16 29|Q=15 1997-03-01|Q=11 IRAQ 0.0000001000|

QP1.2
---
seed=517202240
Q=6 1997-01-01 0.03 25|Q=17 Brand#13 WRAP CAN|Q=14 1994-12-01|Q=16 Brand#51 MEDIUM PLATED 49 20 34 47 15 6 13 39|Q=19 Brand#51 Brand#25 Brand#21 1 15 20|Q=10 1994-02-01|Q=9 lime|Q=2 10 NICKEL ASIA|Q=15 1995-07-01|Q=8 CHINA ASIA MEDIUM BRUSHED STEEL|Q=5 EUROPE 1997-01-01|Q=22 34 18 17 14 22 20 32|Q=12 RAIL REG AIR 1994-01-01|Q=7 ETHIOPIA CHINA|Q=13 special requests|Q=18 313|Q=1 101|Q=4 1995-12-01|Q=20 chiffon 1994-01-01 UNITED STATES|Q=3 HOUSEHOLD 1995-03-19|Q=11 CANADA 0.0000001000|Q=21 ETHIOPIA|

QP1.20
---
seed=517202258
Q=16 Brand#52 SMALL BRUSHED 9 11 38 42 14 18 15 8|Q=15 1993-04-01|Q=14 1994-10-01|Q=13 unusual requests|Q=4 1993-12-01|Q=22 18 13 20 14 19 31 27|Q=18 313|Q=19 Brand#14 Brand#33 Brand#53 6 11 29|Q=7 IRAQ UNITED KINGDOM|Q=1 62|Q=12 RAIL MAIL 1994-01-01|Q=17 Brand#22 SM CAN|Q=5 ASIA 1996-01-01|Q=10 1993-12-01|Q=20 papaya 1995-01-01 KENYA|Q=3 MACHINERY 1995-03-06|Q=9 frosted|Q=21 KENYA|Q=11 IRAQ 0.0000001000|Q=2 40 COPPER AFRICA|Q=6 1996-01-01 0.05 25|Q=8 UNITED KINGDOM EUROPE SMALL BRUSHED BRASS|

QP1.200
---
seed=517202438
Q=9 midnight|Q=17 Brand#42 LG CASE|Q=7 MOROCCO ETHIOPIA|Q=4 1993-06-01|Q=5 MIDDLE EAST 1994-01-01|Q=13 express deposits|Q=21 EGYPT|Q=18 313|Q=11 UNITED STATES 0.0000001000|Q=3 FURNITURE 1995-03-03|Q=22 25 21 28 15 16 11 12|Q=1 103|Q=6 1994-01-01 0.07 24|Q=16 Brand#44 MEDIUM ANODIZED 11 18 10 31 24 37 9 36|Q=20 sandy 1993-01-01 MOROCCO|Q=14 1997-12-01|Q=15 1994-12-01|Q=10 1993-12-01|Q=8 ETHIOPIA AFRICA LARGE BURNISHED COPPER|Q=2 41 BRASS AFRICA|Q=12 SHIP FOB 1997-01-01|Q=19 Brand#25 Brand#14 Brand#34 5 17 26|

QP1.201
---
seed=517202439
Q=13 express packages|Q=14 1993-03-01|Q=5 AMERICA 1994-01-01|Q=22 22 20 24 19 28 25 11|Q=19 Brand#22 Brand#51 Brand#33 10 18 22|Q=11 JAPAN 0.0000001000|Q=9 lime|Q=6 1994-01-01 0.04 25|Q=18 314|Q=15 1997-07-01|Q=8 RUSSIA EUROPE MEDIUM BRUSHED COPPER|Q=10 1994-10-01|Q=7 GERMANY RUSSIA|Q=4 1996-01-01|Q=17 Brand#44 LG BAG|Q=16 Brand#24 ECONOMY BURNISHED 16 34 9 10 21 28 13 41|Q=3 MACHINERY 1995-03-19|Q=1 111|Q=12 FOB SHIP 1993-01-01|Q=2 29 NICKEL EUROPE|Q=21 VIETNAM|Q=20 dark 1997-01-01 EGYPT|

QP1.202
---
seed=517202440
Q=20 pale 1995-01-01 ROMANIA|Q=5 ASIA 1994-01-01|Q=4 1993-10-01|Q=14 1993-06-01|Q=11 ALGERIA 0.0000001000|Q=1 119|Q=6 1994-01-01 0.09 25|Q=16 Brand#14 STANDARD POLISHED 27 33 25 40 1 21 24 45|Q=8 KENYA AFRICA MEDIUM PLATED COPPER|Q=22 16 15 20 21 32 31 12|Q=7 UNITED STATES KENYA|Q=3 BUILDING 1995-03-05|Q=2 16 TIN AFRICA|Q=12 TRUCK SHIP 1993-01-01|Q=21 JORDAN|Q=19 Brand#24

Brand#34 Brand#23 5 19 29|Q=17 Brand#41 LG PKG|Q=13 express packages|Q=10 1993-07-01|Q=15 1995-03-01|Q=18 312|Q=9 khaki|

QP1.203
---
seed=517202441
Q=3 HOUSEHOLD 1995-03-21|Q=7 MOZAMBIQUE FRANCE|Q=14 1993-09-01|Q=15 1997-10-01|Q=6 1994-01-01 0.07 24|Q=5 EUROPE 1994-01-01|Q=21 FRANCE|Q=20 black 1994-01-01 INDONESIA|Q=18 313|Q=10 1994-04-01|Q=4 1996-05-01|Q=16 Brand#44 MEDIUM BRUSHED 22 28 10 19 38 5 12 50|Q=19 Brand#31 Brand#22 Brand#22 1 20 25|Q=1 66|Q=13 express packages|Q=9 green|Q=8 FRANCE EUROPE MEDIUM ANODIZED COPPER|Q=17 Brand#43 MED CASE|Q=11 JORDAN 0.0000001000|Q=12 RAIL SHIP 1993-01-01|Q=22 23 17 10 19 34 32 30|Q=2 4 COPPER EUROPE|

QP1.204
---
seed=517202442
Q=13 express packages|Q=15 1995-07-01|Q=17 Brand#45 MED BAG|Q=1 74|Q=22 30 11 12 33 15 24 14|Q=11 ARGENTINA 0.0000001000|Q=3 BUILDING 1995-03-07|Q=4 1994-02-01|Q=7 INDIA UNITED KINGDOM|Q=20 lime 1997-01-01 UNITED STATES|Q=14 1993-12-01|Q=21 UNITED KINGDOM|Q=9 floral|Q=8 UNITED KINGDOM EUROPE SMALL BRUSHED TIN|Q=2 42 STEEL AMERICA|Q=18 315|Q=16 Brand#24 PROMO BURNISHED 1 25 47 48 10 41 35 5|Q=6 1994-01-01 0.04 25|Q=10 1995-01-01|Q=12 AIR SHIP 1993-01-01|Q=5 MIDDLE EAST 1994-01-01|Q=19 Brand#33 Brand#55 Brand#11 6 10 21|

QP1.205
---
seed=517202443
Q=14 1994-04-01|Q=2 30 NICKEL EUROPE|Q=9 dark|Q=20 steel 1996-01-01 JORDAN|Q=6 1995-01-01 0.02 25|Q=17 Brand#42 MED PKG|Q=18 313|Q=8 MOROCCO AFRICA SMALL PLATED TIN|Q=21 MOROCCO|Q=13 special requests|Q=3 HOUSEHOLD 1995-03-23|Q=22 27 11 33 28 19 20 10|Q=16 Brand#14 SMALL PLATED 28 21 24 1 7 48 31 3|Q=4 1996-08-01|Q=11 KENYA 0.0000001000|Q=15 1993-03-01|Q=1 82|Q=10 1993-10-01|Q=19 Brand#35 Brand#43 Brand#15 1 11 29|Q=5 AFRICA 1995-01-01|Q=7 ALGERIA MOROCCO|Q=12 REG AIR AIR 1993-01-01|

QP1.206
---
seed=517202444
Q=21 GERMANY|Q=3 AUTOMOBILE 1995-03-09|Q=18 314|Q=5 AMERICA 1995-01-01|Q=11 BRAZIL 0.0000001000|Q=7 PERU GERMANY|Q=6 1995-01-01 0.07 24|Q=20 frosted 1994-01-01 CANADA|Q=17 Brand#44 JUMBO CASE|Q=12 SHIP REG AIR 1994-01-01|Q=16 Brand#44 LARGE BRUSHED 19 17 12 10 8 41 29 11|Q=15 1995-10-01|Q=13 special requests|Q=10 1994-08-01|Q=2 17 TIN AMERICA|Q=8 GERMANY EUROPE SMALL ANODIZED TIN|Q=14 1994-07-01|Q=19 Brand#42 Brand#21 Brand#15 6 12 25|Q=9 chocolate|Q=22 25 31 30 17 26 21 11|Q=1 90|Q=4 1994-05-01|

QP1.207
---
seed=517202445
Q=6 1995-01-01 0.05 25|Q=17 Brand#41 JUMBO BAG|Q=14 1994-10-01|Q=16 Brand#34 STANDARD ANODIZED 29 21 50 49 3 8 9 18|Q=19 Brand#44 Brand#54 Brand#54 2 13 21|Q=10 1993-05-01|Q=9 blush|Q=2 5 COPPER MIDDLE EAST|Q=15 1993-07-01|Q=8 UNITED STATES AMERICA STANDARD POLISHED TIN|Q=5 ASIA 1995-01-01|Q=22 20 34 24 15 30 26 14|Q=12 FOB REG AIR 1994-01-01|Q=7 INDONESIA UNITED STATES|Q=13 special requests|Q=18 312|Q=1 98|Q=4 1996-12-01|Q=20 purple 1997-01-01 CHINA|Q=3 HOUSEHOLD 1995-03-25|Q=11 MOROCCO 0.0000001000|Q=21 UNITED STATES|

QP1.208
---
seed=517202446
Q=8 MOZAMBIQUE AFRICA STANDARD BURNISHED TIN|Q=5 EUROPE 1995-01-01|Q=4 1994-09-01|Q=6 1995-01-01 0.02 25|Q=17 Brand#43 JUMBO PKG|Q=7 ARGENTINA MOZAMBIQUE|Q=1 106|Q=18 313|Q=22 18 33 27 25 34 29 32|Q=14 1995-01-01|Q=9 azure|Q=10 1994-02-01|Q=15 1996-02-01|Q=11 CANADA 0.0000001000|Q=20 chiffon 1996-01-01 INDIA|Q=2 43 STEEL AMERICA|Q=21 MOZAMBIQUE|Q=19 Brand#41 Brand#42 Brand#53 7 14 28|Q=13 special requests|Q=16 Brand#14 MEDIUM PLATED 38 9 36 39 2 21 48 23|Q=12 TRUCK REG AIR 1995-01-01|Q=3 AUTOMOBILE 1995-03-11|

QP1.209
---
seed=517202447
Q=5 MIDDLE EAST 1996-01-01|Q=21 INDONESIA|Q=14 1995-04-01|Q=19 Brand#53 Brand#25 Brand#52 2 15 24|Q=15 1993-10-01|Q=17 Brand#44 WRAP CASE|Q=12 RAIL AIR 1995-01-01|Q=6 1996-01-01 0.07 24|Q=4 1997-04-01|Q=9 wheat|Q=8 INDIA ASIA PROMO BRUSHED NICKEL|Q=16 Brand#44 ECONOMY POLISHED 40 29 42 46 12 18 30 27|Q=11 MOZAMBIQUE 0.0000001000|Q=2 31 BRASS MIDDLE EAST|Q=10 1994-11-01|Q=18 315|Q=1 114|Q=13 special requests|Q=7 CHINA INDIA|Q=22 32 31 12 22 23 19 15|Q=3 FURNITURE 1995-03-28|Q=20 misty 1994-01-01 RUSSIA|

QP1.21
---
seed=517202259
Q=20 blue 1994-01-01 EGYPT|Q=14 1995-01-01|Q=21 FRANCE|Q=12 AIR MAIL 1995-01-01|Q=15 1995-10-01|Q=17 Brand#24 LG BOX|Q=4 1996-07-01|Q=19 Brand#21 Brand#21 Brand#52 1 12 25|Q=13 unusual requests|Q=10 1994-09-01|Q=11 UNITED STATES 0.0000001000|Q=1 70|Q=16 Brand#32 ECONOMY BURNISHED 13 25 16 50 7 4 47 3|Q=5 EUROPE 1996-01-01|Q=18 314|Q=7 BRAZIL MOROCCO|Q=8 MOROCCO AFRICA SMALL PLATED BRASS|Q=22 14 34 10 16 12 23 13|Q=9 dim|Q=6 1996-01-01 0.02 25|Q=3 BUILDING 1995-03-23|Q=2 28 STEEL EUROPE|

QP1.210
---
seed=517202448
Q=21 ARGENTINA|Q=15 1996-05-01|Q=4 1995-01-01|Q=6 1996-01-01 0.05 24|Q=7 IRAN ALGERIA|Q=16 Brand#34 SMALL ANODIZED 18 19 3 25 9 10 35 32|Q=19 Brand#55 Brand#13 Brand#41 7 16 21|Q=18 312|Q=14 1995-08-01|Q=22 10 21 15 27 25 14 23|Q=11 EGYPT 0.0000001000|Q=13 special accounts|Q=3 AUTOMOBILE 1995-03-13|Q=1 61|Q=2 19 TIN ASIA|Q=5 AFRICA 1996-01-01|Q=8 ALGERIA AFRICA PROMO PLATED NICKEL|Q=20 yellow 1993-01-01 JAPAN|Q=12 AIR TRUCK 1996-01-01|Q=17 Brand#41 WRAP BAG|Q=10 1993-08-01|Q=9 steel|

QP1.211
---
seed=517202449
Q=10 1994-06-01|Q=3 FURNITURE 1995-03-30|Q=15 1994-02-01|Q=13 special accounts|Q=6 1996-01-01 0.02 25|Q=8 PERU AMERICA PROMO ANODIZED NICKEL|Q=9 sienna|Q=7 BRAZIL PERU|Q=4 1997-08-01|Q=11 PERU 0.0000001000|Q=22 10 34 12 16 28 11 15|Q=18 314|Q=12 REG AIR AIR 1995-01-01|Q=1 69|Q=5 AMERICA 1996-01-01|Q=16 Brand#14 LARGE BURNISHED 48 6 35 28 36 21 4 44|Q=2 6 COPPER MIDDLE EAST|Q=14 1995-11-01|Q=19 Brand#53 Brand#41 Brand#41 3 17 28|Q=20 indian 1996-01-01 BRAZIL|Q=17 Brand#43 WRAP PKG|Q=21 CHINA|

QP1.212
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seed=517202450
Q=18 315|Q=8 INDONESIA ASIA ECONOMY POLISHED NICKEL|Q=20 seashell 1995-01-01 MOZAMBIQUE|Q=21 IRAN|Q=2 44 STEEL ASIA|Q=4 1995-05-01|Q=22 26 10 32 28 30 20 21|Q=17 Brand#45 SM CASE|Q=1 78|Q=11 ETHIOPIA 0.0000001000|Q=9 rosy|Q=19 Brand#15 Brand#34 Brand#45 8 18 24|Q=3 MACHINERY 1995-03-15|Q=13 pending accounts|Q=5 EUROPE 1996-01-01|Q=7 ROMANIA INDONESIA|Q=10 1993-03-01|Q=16 Brand#44 PROMO POLISHED 1 32 22 34 13 37 38 41|Q=6 1996-01-01 0.08 24|Q=14 1996-02-01|Q=15 1996-08-01|Q=12 SHIP AIR 1996-01-01|

QP1.213
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seed=517202451
Q=19 Brand#12 Brand#12 Brand#34 3 19 20|Q=1 86|Q=15 1994-05-01|Q=17 Brand#42 SM BAG|Q=5 MIDDLE EAST 1997-01-01|Q=8 ARGENTINA AMERICA ECONOMY BURNISHED NICKEL|Q=9 plum|Q=12 MAIL RAIL 1996-01-01|Q=14 1996-05-01|Q=7 IRAQ ARGENTINA|Q=4 1993-02-01|Q=3 BUILDING 1995-03-01|Q=20 deep 1993-01-01 FRANCE|Q=16 Brand#34 SMALL BRUSHED 4 44 50 11 29 34 22 46|Q=6 1997-01-01 0.05 24|Q=22 16 17 28 18 32 24 29|Q=10 1993-12-01|Q=13 pending accounts|Q=2 32 BRASS AFRICA|Q=21 BRAZIL|Q=18 313|Q=11 CHINA 0.0000001000|

QP1.214
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seed=517202452
Q=8 CHINA ASIA LARGE BRUSHED BRASS|Q=13 pending accounts|Q=2 20 NICKEL ASIA|Q=20 papaya 1996-01-01 VIETNAM|Q=17 Brand#44 SM PKG|Q=3 MACHINERY 1995-03-17|Q=6 1997-01-01 0.03 25|Q=21 ROMANIA|Q=18 314|Q=11 FRANCE 0.0000001000|Q=19 Brand#14 Brand#45 Brand#33 8 20 27|Q=10 1994-09-01|Q=15 1996-12-01|Q=4 1995-09-01|Q=22 16 18 21 29 34 27 26|Q=1 94|Q=7 CANADA CHINA|Q=12 TRUCK RAIL 1996-01-01|Q=9 orchid|Q=14 1996-08-01|Q=5 AFRICA 1997-01-01|Q=16 Brand#14 ECONOMY BURNISHED 8 13 19 43 31 29 2 50|

QP1.215
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seed=517202453
Q=6 1997-01-01 0.08 24|Q=15 1994-09-01|Q=18 312|Q=17 Brand#41 LG CASE|Q=12 RAIL FOB 1994-01-01|Q=1 102|Q=7 SAUDI ARABIA IRAN|Q=2 7 COPPER AFRICA|Q=22 13 20 14 12 24 15 30|Q=13 pending deposits|Q=21 JAPAN|Q=10 1993-07-01|Q=14 1996-12-01|Q=9 misty|Q=3 BUILDING 1995-03-03|Q=16 Brand#44 STANDARD PLATED 11 26 25 44 29 21 14 35|Q=20 blanched 1995-01-01 IRAQ|Q=19 Brand#21 Brand#33 Brand#33 4 10 24|Q=11 ROMANIA 0.0000001000|Q=4 1993-05-01|Q=8 IRAN MIDDLE EAST LARGE PLATED BRASS|Q=5 AMERICA 1997-01-01|

QP1.216
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seed=517202454
Q=15 1997-03-01|Q=14 1997-03-01|Q=18 313|Q=17 Brand#43 LG JAR|Q=10 1994-04-01|Q=20 linen 1993-01-01 ALGERIA|Q=16 Brand#34 MEDIUM BRUSHED 3 27 25 45 32 1 43 10|Q=11 GERMANY 0.0000001000|Q=1 110|Q=8 BRAZIL AMERICA LARGE ANODIZED BRASS|Q=4 1995-12-01|Q=22 33 27 16 31 17 18 11|Q=5 ASIA 1997-01-01|Q=12 AIR RAIL 1997-01-01|Q=3 HOUSEHOLD 1995-03-19|Q=9 magenta|Q=21 EGYPT|Q=2 45 STEEL EUROPE|Q=13 pending deposits|Q=6 1997-01-01 0.05 24|Q=19 Brand#23 Brand#11 Brand#22 9 11 20|Q=7 JAPAN BRAZIL|

QP1.217
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seed=517202455
Q=1 118|Q=7 EGYPT ROMANIA|Q=16 Brand#15 PROMO ANODIZED 5 46 43 32 4 27 19 39|Q=17 Brand#55 LG PKG|Q=18 315|Q=22 21 17 33 19 20 26 15|Q=12 REG AIR TRUCK 1997-01-01|Q=6 1993-01-01 0.03 25|Q=8 ROMANIA EUROPE MEDIUM POLISHED BRASS|Q=9 lavender|Q=11 SAUDI ARABIA 0.0000001000|Q=4 1993-09-01|Q=2 33 BRASS AFRICA|Q=5 EUROPE 1993-01-01|Q=20 tan 1997-01-01 MOROCCO|Q=21 VIETNAM|Q=13 pending deposits|Q=10 1995-01-01|Q=19 Brand#25 Brand#54 Brand#21 4 13 27|Q=3 BUILDING 1995-03-05|Q=14 1997-06-01|Q=15 1994-12-01|

QP1.218
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seed=517202456
Q=21 JORDAN|Q=17 Brand#52 MED CASE|Q=7 VIETNAM IRAQ|Q=3 HOUSEHOLD 1995-03-21|Q=1 65|Q=10 1993-10-01|Q=12 SHIP TRUCK 1997-01-01|Q=22 15 25 31 30 12 18 11|Q=9 honeydew|Q=16 Brand#45 SMALL PLATED 21 17 1 35 25 48 24 19|Q=6 1993-01-01

0.08 24|Q=11 INDIA 0.0000001000|Q=2 21 NICKEL EUROPE|Q=4 1996-04-01|Q=5 MIDDLE EAST 1993-01-01|Q=14 1997-09-01|Q=8 IRAQ MIDDLE EAST MEDIUM BURNISHED BRASS|Q=20 gainsboro 1995-01-01 ETHIOPIA|Q=13 pending deposits|Q=18 312|Q=15 1997-07-01|Q=19 Brand#32 Brand#32 Brand#25 10 14 23|

QP1.219

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seed=517202457

Q=2 9 TIN AFRICA|Q=9 frosted|Q=5 AFRICA 1993-01-01|Q=4 1994-01-01|Q=18 314|Q=1 73|Q=20 red 1994-01-01 SAUDI ARABIA|Q=15 1995-04-01|Q=16 Brand#35 LARGE POLISHED 6 45 20 41 19 15 2 5|Q=17 Brand#54 MED JAR|Q=7 JORDAN CANADA|Q=21 ETHIOPIA|Q=13 unusual packages|Q=14 1993-01-01|Q=19 Brand#34 Brand#25 Brand#15 5 15 30|Q=8 CANADA AMERICA SMALL BRUSHED STEEL|Q=22 30 13 16 15 11 23 33|Q=11 SAUDI ARABIA 0.0000001000|Q=10 1994-07-01|Q=3 AUTOMOBILE 1995-03-07|Q=12 MAIL TRUCK 1993-01-01|Q=6 1993-01-01 0.06 24|

QP1.22

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seed=517202260

Q=16 Brand#22 STANDARD PLATED 16 40 47 8 41 4 23 46|Q=14 1995-05-01|Q=13 unusual requests|Q=2 16 BRASS AMERICA|Q=21 UNITED KINGDOM|Q=10 1993-06-01|Q=11 JAPAN 0.0000001000|Q=4 1994-04-01|Q=1 78|Q=22 29 16 12 17 19 25 22|Q=18 312|Q=12 SHIP MAIL 1995-01-01|Q=19 Brand#23 Brand#54 Brand#51 7 13 21|Q=5 AFRICA 1997-01-01|Q=7 ROMANIA GERMANY|Q=8 GERMANY EUROPE SMALL ANODIZED BRASS|Q=6 1997-01-01 0.08 24|Q=3 HOUSEHOLD 1995-03-08|Q=15 1993-07-01|Q=20 linen 1997-01-01 ROMANIA|Q=9 cornflower|Q=17 Brand#21 LG PACK|

QP1.220

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seed=517202458

Q=16 Brand#15 STANDARD ANODIZED 40 9 47 41 12 33 6 15|Q=9 dim|Q=17 Brand#51 MED PKG|Q=8 SAUDI ARABIA MIDDLE EAST SMALL PLATED STEEL|Q=14 1993-04-01|Q=11 INDIA 0.0000001000|Q=10 1993-05-01|Q=12 TRUCK REG AIR 1997-01-01|Q=6 1993-01-01 0.03 25|Q=21 UNITED KINGDOM|Q=7 ETHIOPIA SAUDI ARABIA|Q=3 FURNITURE 1995-03-23|Q=15 1997-10-01|Q=5 AMERICA 1993-01-01|Q=22 19 12 18 11 23 25 32|Q=20 chocolate 1997-01-01 INDONESIA|Q=1 81|Q=13 unusual packages|Q=19 Brand#31 Brand#52 Brand#14 10 16 26|Q=2 46 STEEL EUROPE|Q=4 1996-08-01|Q=18 312|

QP1.221

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seed=517202459

Q=1 89|Q=3 AUTOMOBILE 1995-03-09|Q=6 1993-01-01 0.09 24|Q=5 ASIA 1993-01-01|Q=2 34 BRASS AMERICA|Q=16 Brand#55 MEDIUM BURNISHED 12 30 1 49 31 22 14 21|Q=14 1993-07-01|Q=22 18 34 16 29 26 21 15|Q=17 Brand#52 JUMBO CASE|Q=20 moccasin 1996-01-01 UNITED STATES|Q=4 1994-05-01|Q=9 cornflower|Q=10 1994-02-01|Q=11 VIETNAM 0.0000001000|Q=15 1995-07-01|Q=8 JAPAN ASIA SMALL ANODIZED STEEL|Q=12 RAIL MAIL 1993-01-01|Q=19 Brand#43 Brand#45 Brand#13 5 17 23|Q=18 313|Q=13 unusual packages|Q=7 RUSSIA JAPAN|Q=21 MOROCCO|

QP1.222

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seed=517202460

Q=3 FURNITURE 1995-03-25|Q=16 Brand#35 ECONOMY POLISHED 7 26 15 32 36 25 13 37|Q=5 MIDDLE EAST 1994-01-01|Q=11 INDONESIA 0.0000001000|Q=21 GERMANY|Q=9 burlywood|Q=2 22 NICKEL EUROPE|Q=15 1993-04-01|Q=10 1994-11-01|Q=18 315|Q=17 Brand#54 JUMBO JAR|Q=7 KENYA EGYPT|Q=8 EGYPT MIDDLE EAST STANDARD POLISHED STEEL|Q=19 Brand#41 Brand#23 Brand#52 1 18 30|Q=14 1993-10-01|Q=13 unusual packages|Q=1 97|Q=4 1996-12-01|Q=22 34 33 31 17 28 27 21|Q=20 almond 1994-01-01 KENYA|Q=6 1994-01-01 0.06 24|Q=12 AIR MAIL 1993-01-01|

QP1.223

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seed=517202461

Q=14 1994-01-01|Q=4 1994-09-01|Q=13 unusual packages|Q=5 AFRICA 1994-01-01|Q=21 UNITED STATES|Q=11 RUSSIA 0.0000001000|Q=8 VIETNAM ASIA STANDARD BURNISHED STEEL|Q=6 1994-01-01 0.04 25|Q=3 MACHINERY 1995-03-11|Q=17 Brand#51 JUMBO PKG|Q=2 10 TIN AMERICA|Q=20 ivory 1997-01-01 CANADA|Q=1 105|Q=19 Brand#43 Brand#51 Brand#51 6 19 26|Q=10 1993-08-01|Q=9 bisque|Q=12 REG AIR MAIL 1994-01-01|Q=18 312|Q=15 1995-10-01|Q=7 FRANCE VIETNAM|Q=22 13 17 29 16 30 15 19|Q=16 Brand#15 STANDARD BRUSHED 31 22 50 11 23 2 6 47|

QP1.224

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seed=517202462

Q=4 1997-04-01|Q=12 FOB MAIL 1994-01-01|Q=22 12 17 28 30 32 16 23|Q=14 1994-05-01|Q=5 AMERICA 1994-01-01|Q=15 1993-07-01|Q=16 Brand#55 LARGE BURNISHED 41 9 29 23 1 43 38 46|Q=2 47 COPPER MIDDLE EAST|Q=8 JORDAN MIDDLE EAST PROMO BRUSHED COPPER|Q=10 1994-05-01|Q=17 Brand#53 WRAP CASE|Q=9 yellow|Q=21 MOZAMBIQUE|Q=7 UNITED KINGDOM JORDAN|Q=3 FURNITURE 1995-03-27|Q=6 1994-01-01 0.09 25|Q=13 unusual requests|Q=18 314|Q=11 IRAN 0.0000001000|Q=20 sienna 1996-01-01 CHINA|Q=19 Brand#55 Brand#44 Brand#51 1 20 22|Q=1 113|

QP1.225

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seed=517202463

Q=16 Brand#35 PROMO PLATED 8 13 23 17 22 45 29 44|Q=15 1996-02-01|Q=14 1994-08-01|Q=13 unusual requests|Q=4 1994-12-01|Q=22 14 29 22 24 30 12 34|Q=18 315|Q=19 Brand#52 Brand#22 Brand#45 6 10 29|Q=7 MOROCCO ETHIOPIA|Q=1 60|Q=12 MAIL FOB 1994-01-01|Q=17 Brand#55 WRAP JAR|Q=5 ASIA 1994-01-01|Q=10 1993-03-01|Q=20 dim 1994-01-01 INDIA|Q=3 MACHINERY 1995-03-13|Q=9 thistle|Q=21 INDIA|Q=11 UNITED KINGDOM 0.0000001000|Q=2 35 BRASS AMERICA|Q=6 1994-01-01 0.06 24|Q=8 ETHIOPIA AFRICA PROMO PLATED COPPER|

QP1.226

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seed=517202464

Q=20 peach 1993-01-01 UNITED KINGDOM|Q=14 1994-11-01|Q=21 ARGENTINA|Q=12 TRUCK FOB 1994-01-01|Q=15 1993-11-01|Q=17 Brand#52 WRAP PKG|Q=4 1997-07-01|Q=19 Brand#54 Brand#15 Brand#44 2 11 26|Q=13 express requests|Q=10 1993-12-01|Q=11 IRAQ 0.0000001000|Q=1 68|Q=16 Brand#15 SMALL BRUSHED 14 15 3 47 2 8 25 37|Q=5 EUROPE 1995-01-01|Q=18 313|Q=7 GERMANY RUSSIA|Q=8 RUSSIA EUROPE PROMO ANODIZED COPPER|Q=22 29 26 14 31 16 30 19|Q=9 slate|Q=6 1995-01-01 0.04 25|Q=3 BUILDING 1995-03-29|Q=2 23 NICKEL MIDDLE EAST|

QP1.227

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seed=517202465

Q=16 Brand#55 ECONOMY ANODIZED 23 5 22 26 30 29 47 16|Q=14 1995-02-01|Q=13 express requests|Q=2 11 TIN ASIA|Q=21 CHINA|Q=10 1994-09-01|Q=11 UNITED STATES 0.0000001000|Q=4 1995-04-01|Q=1 76|Q=22 12 13 11 18 34 15 20|Q=18 314|Q=12 RAIL FOB 1995-01-01|Q=19 Brand#11 Brand#43 Brand#33 7 12 22|Q=5 MIDDLE EAST 1995-01-01|Q=7 UNITED STATES KENYA|Q=8 KENYA AFRICA ECONOMY POLISHED COPPER|Q=6 1995-01-01 0.09 25|Q=3 MACHINERY 1995-03-15|Q=15 1996-05-01|Q=20 blue 1996-01-01 JAPAN|Q=9 saddle|Q=17 Brand#54 SM CASE|

QP1.228

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seed=517202466

Q=18 312|Q=15 1994-02-01|Q=9 puff|Q=14 1995-05-01|Q=12 AIR FOB 1995-01-01|Q=2 49 COPPER MIDDLE EAST|Q=8 FRANCE EUROPE ECONOMY BURNISHED COPPER|Q=11 JAPAN 0.0000001000|Q=22 12 23 20 14 21 16 31|Q=21 IRAN|Q=16 Brand#35 STANDARD PLATED 4 39 21 6 27 3 9 15|Q=1 84|Q=6 1995-01-01 0.07 24|Q=17 Brand#51 SM JAR|Q=5 AFRICA 1995-01-01|Q=10 1993-06-01|Q=19 Brand#13 Brand#31 Brand#33 2 13 29|Q=4 1997-11-01|Q=20 linen 1995-01-01 BRAZIL|Q=13 express requests|Q=3 BUILDING 1995-03-31|Q=7 MOZAMBIQUE FRANCE|

QP1.229

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seed=517202467

Q=7 INDIA UNITED KINGDOM|Q=3 HOUSEHOLD 1995-03-17|Q=10 1994-03-01|Q=14 1995-09-01|Q=13 express accounts|Q=21 BRAZIL|Q=18 313|Q=6 1995-01-01 0.04 25|Q=20 thistle 1993-01-01 PERU|Q=4 1995-08-01|Q=9 papaya|Q=8 UNITED KINGDOM EUROPE ECONOMY ANODIZED TIN|Q=22 14 28 30 32 19 22 25|Q=15 1996-09-01|Q=2 36 STEEL ASIA|Q=1 92|Q=5 AMERICA 1995-01-01|Q=12 REG AIR FOB 1995-01-01|Q=19 Brand#15 Brand#14 Brand#32 8 14 25|Q=17 Brand#53 SM PKG|Q=11 ALGERIA 0.0000001000|Q=16 Brand#15 MEDIUM POLISHED 34 18 6 27 13 39 37 17|

QP1.23

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seed=517202261

Q=18 313|Q=15 1996-02-01|Q=9 burlywood|Q=14 1995-08-01|Q=12 FOB TRUCK 1996-01-01|Q=2 4 TIN EUROPE|Q=8 UNITED STATES AMERICA STANDARD POLISHED STEEL|Q=11 ALGERIA 0.0000001000|Q=22 23 29 33 13 31 10 12|Q=21 MOROCCO|Q=16 Brand#52 MEDIUM BRUSHED 12 47 32 1 40 48 46 15|Q=1 86|Q=6 1997-01-01 0.05 25|Q=17 Brand#23 LG CAN|Q=5 AMERICA 1997-01-01|Q=10 1994-03-01|Q=19 Brand#25 Brand#42 Brand#45 2 14 28|Q=4 1996-11-01|Q=20 thistle 1996-01-01 INDONESIA|Q=13 unusual accounts|Q=3 BUILDING 1995-03-25|Q=7 IRAQ UNITED STATES|

QP1.230

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seed=517202468

Q=18 315|Q=1 100|Q=13 express accounts|Q=7 ALGERIA MOROCCO|Q=16 Brand#55 PROMO ANODIZED 11 18 39 31 3 6 25 21|Q=10 1995-01-01|Q=14 1995-12-01|Q=2 24 NICKEL AFRICA|Q=19 Brand#22 Brand#42 Brand#21 3 15 21|Q=5 ASIA 1996-01-01|Q=21 ROMANIA|Q=11 JORDAN 0.0000001000|Q=22 16 29 12 31 13 11 19|Q=15 1994-05-01|Q=8 MOROCCO AFRICA LARGE POLISHED TIN|Q=17 Brand#55 LG CASE|Q=20 ghost 1996-01-01 FRANCE|Q=3 AUTOMOBILE 1995-03-02|Q=4 1993-05-01|Q=12 FOB SHIP 1995-01-01|Q=6 1996-01-01 0.02 25|Q=9 navajo|

QP1.231

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seed=517202469

Q=13 express accounts|Q=2 12 TIN ASIA|Q=22 31 18 22 29 23 30 21|Q=5 EUROPE 1996-01-01|Q=11 ARGENTINA 0.0000001000|Q=21 IRAQ|Q=20 rose 1995-01-01 VIETNAM|Q=14 1996-03-01|Q=7 PERU GERMANY|Q=10 1993-10-01|Q=4 1995-12-01|Q=9 medium|Q=19 Brand#24 Brand#35 Brand#25 8 16 29|Q=18 312|Q=6 1996-01-01 0.07 24|Q=3 HOUSEHOLD 1995-03-19|Q=1 108|Q=8 GERMANY EUROPE LARGE BURNISHED TIN|Q=15 1996-12-01|Q=12 MAIL SHIP 1996-01-01|Q=17 Brand#52 LG JAR|Q=16 Brand#35 SMALL BURNISHED 40 39 24 44 1 13 30 29|

QP1.232

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seed=517202470

Q=14 1996-06-01|Q=17 Brand#54 LG PKG|Q=21 EGYPT|Q=8 UNITED STATES AMERICA MEDIUM BRUSHED TIN|Q=2 50 COPPER AFRICA|Q=9 lemon|Q=6 1996-01-01 0.04 25|Q=4 1993-09-01|Q=5 MIDDLE EAST 1996-01-01|Q=13 express accounts|Q=22 18 16 27 17 29 22 10|Q=7 INDONESIA UNITED STATES|Q=15 1994-09-01|Q=3 AUTOMOBILE 1995-03-04|Q=1 116|Q=18 314|Q=16 Brand#15 LARGE POLISHED 18 12 50 23 13 26 29 33|Q=11 KENYA 0.0000001000|Q=10 1994-07-01|Q=12 TRUCK SHIP 1996-01-01|Q=20 coral 1993-01-01 IRAQ|Q=19 Brand#21 Brand#13 Brand#25 3 17 25|

QP1.233

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seed=517202471

Q=10 1993-04-01|Q=22 11 10 16 15 28 30 18|Q=1 63|Q=12 RAIL SHIP 1996-01-01|Q=13 express accounts|Q=18 315|Q=21 VIETNAM|Q=20 moccasin 1997-01-01 ARGENTINA|Q=2

38 STEEL EUROPE|Q=14 1996-09-01|Q=16 Brand#55 PROMO BRUSHED 50 30 36 19 12 33 32 38|Q=7 ALGERIA MOZAMBIQUE|Q=15 1997-04-01|Q=3 FURNITURE 1995-03-21|Q=4 1996-04-01|Q=17 Brand#55 MED CASE|Q=5 AMERICA 1996-01-01|Q=19 Brand#33 Brand#51 Brand#14 9 18 21|Q=6 1996-01-01 0.02 25|Q=8 MOZAMBIQUE AFRICA MEDIUM PLATED NICKEL|Q=9 indian|Q=11 BRAZIL 0.0000001000|

QP1.234

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seed=517202472
Q=10 1994-01-01|Q=8 GERMANY EUROPE MEDIUM ANODIZED NICKEL|Q=9 ghost|Q=18 313|Q=12 AIR REG AIR 1997-01-01|Q=6 1997-01-01 0.07 24|Q=1 71|Q=5 ASIA 1997-01-01|Q=20 antique 1995-01-01 MOROCCO|Q=11 MOROCCO 0.0000001000|Q=17 Brand#52 MED JAR|Q=22 25 12 20 13 10 29 19|Q=16 Brand#35 MEDIUM BURNISHED 2 24 30 32 6 13 17 5|Q=3 AUTOMOBILE 1995-03-06|Q=13 special deposits|Q=2 25 BRASS AFRICA|Q=15 1994-12-01|Q=21 JORDAN|Q=14 1997-01-01|Q=19 Brand#31 Brand#34 Brand#13 4 19 28|Q=7 PERU GERMANY|Q=4 1994-01-01|

QP1.235

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seed=517202473
Q=7 INDONESIA UNITED STATES|Q=17 Brand#54 MED PKG|Q=22 17 29 18 16 33 27 31|Q=5 EUROPE 1997-01-01|Q=3 FURNITURE 1995-03-23|Q=10 1994-11-01|Q=13 special deposits|Q=18 315|Q=9 drab|Q=1 79|Q=14 1997-04-01|Q=15 1997-07-01|Q=21 ETHIOPIA|Q=19 Brand#33 Brand#22 Brand#12 9 20 24|Q=16 Brand#15 ECONOMY PLATED 28 16 13 14 12 34 45 47|Q=12 SHIP REG AIR 1997-01-01|Q=8 UNITED STATES AMERICA SMALL POLISHED NICKEL|Q=6 1997-01-01 0.05 25|Q=11 CANADA 0.0000001000|Q=20 khaki 1994-01-01 ETHIOPIA|Q=4 1996-07-01|Q=2 13 TIN EUROPE|

QP1.236

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seed=517202474
Q=2 1 COPPER AMERICA|Q=9 cream|Q=21 RUSSIA|Q=3 MACHINERY 1995-03-08|Q=4 1994-04-01|Q=7 ARGENTINA MOZAMBIQUE|Q=1 87|Q=11 MOZAMBIQUE 0.0000001000|Q=16 Brand#55 STANDARD BRUSHED 31 8 22 41 9 26 38 24|Q=5 MIDDLE EAST 1997-01-01|Q=20 sky 1997-01-01 SAUDI ARABIA|Q=19 Brand#45 Brand#55 Brand#51 4 10 21|Q=18 312|Q=8 MOZAMBIQUE AFRICA SMALL BURNISHED NICKEL|Q=17 Brand#51 JUMBO CASE|Q=13 special deposits|Q=10 1993-08-01|Q=12 FOB REG AIR 1997-01-01|Q=15 1995-04-01|Q=6 1997-01-01 0.02 25|Q=14 1997-07-01|Q=22 12 34 15 28 17 14 23|

QP1.237

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seed=517202475
Q=15 1993-01-01|Q=12 MAIL REG AIR 1997-01-01|Q=8 INDIA ASIA STANDARD BRUSHED NICKEL|Q=4 1996-11-01|Q=22 12 15 19 23 20 28 34|Q=13 special deposits|Q=16 Brand#35 LARGE ANODIZED 34 6 22 47 18 41 20 14|Q=17 Brand#53 JUMBO JAR|Q=18 314|Q=3 BUILDING 1995-03-25|Q=7 CHINA INDIA|Q=5 AFRICA 1997-01-01|Q=6 1997-01-01 0.08 24|Q=1 95|Q=9 chartreuse|Q=11 EGYPT 0.0000001000|Q=21 KENYA|Q=10 1994-05-01|Q=14 1997-10-01|Q=20 dodger 1995-01-01 IRAN|Q=19 Brand#42 Brand#33 Brand#51 10 11 28|Q=2 39 STEEL EUROPE|

QP1.238

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seed=517202476
Q=15 1995-07-01|Q=16 Brand#25 PROMO PLATED 39 26 13 9 6 27 28 14|Q=2 26 BRASS AMERICA|Q=11 PERU 0.0000001000|Q=17 Brand#55 JUMBO PKG|Q=7 IRAN ALGERIA|Q=5 AMERICA 1997-01-01|Q=14 1993-01-01|Q=20 peru 1994-01-01 UNITED STATES|Q=4 1994-08-01|Q=21 GERMANY|Q=3 MACHINERY 1995-03-10|Q=10 1993-02-01|Q=9 blanched|Q=12 TRUCK AIR 1993-01-01|Q=8 ALGERIA AFRICA STANDARD PLATED BRASS|Q=13 special packages|Q=6 1997-01-01 0.05 24|Q=18 315|Q=19 Brand#44 Brand#25 Brand#55 5 12 24|Q=22 12 27 32 10 31 25 18|Q=1 103|

QP1.239

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seed=517202477
Q=1 111|Q=13 special packages|Q=11 ETHIOPIA 0.0000001000|Q=3 BUILDING 1995-03-27|Q=4 1997-03-01|Q=21 UNITED STATES|Q=6 1993-01-01 0.02 25|Q=14 1993-05-01|Q=15 1993-04-01|Q=22 24 21 18 34 17 29 11|Q=18 313|Q=9 antique|Q=7 BRAZIL PERU|Q=5 ASIA 1993-01-01|Q=10 1993-11-01|Q=20 blush 1997-01-01 KENYA|Q=12 RAIL AIR 1993-01-01|Q=16 Brand#55 SMALL POLISHED 41 6 47 26 13 37 3 15|Q=17 Brand#52 WRAP CASE|Q=8 PERU AMERICA STANDARD ANODIZED BRASS|Q=19 Brand#51 Brand#53 Brand#44 10 13 20|Q=2 14 NICKEL MIDDLE EAST|

QP1.24

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seed=517202262
Q=7 CANADA MOZAMBIQUE|Q=3 HOUSEHOLD 1995-03-10|Q=10 1995-01-01|Q=14 1995-11-01|Q=13 express accounts|Q=21 GERMANY|Q=18 315|Q=6 1997-01-01 0.03 25|Q=20 ghost 1994-01-01 UNITED KINGDOM|Q=4 1994-07-01|Q=9 bisque|Q=8 MOZAMBIQUE AFRICA STANDARD BURNISHED STEEL|Q=22 33 15 30 27 23 17 18|Q=15 1993-11-01|Q=2 41 COPPER AMERICA|Q=1 94|Q=5 ASIA 1997-01-01|Q=12 MAIL FOB 1995-01-01|Q=19 Brand#32 Brand#25 Brand#45 7 15 25|Q=17 Brand#25 MED BOX|Q=11 JORDAN 0.0000001000|Q=16 Brand#32 PROMO ANODIZED 23 18 16 20 37 29 39 36|

QP1.240

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seed=517202478
Q=14 1993-08-01|Q=17 Brand#54 WRAP JAR|Q=22 25 27 23 22 19 16 11|Q=20 magenta 1996-01-01 EGYPT|Q=8 INDONESIA ASIA PROMO POLISHED BRASS|Q=16 Brand#35 ECONOMY ANODIZED 44 14 33 1 42 17 25 20|Q=5 EUROPE 1993-01-01|Q=10 1994-09-01|Q=1 119|Q=13 special packages|Q=2 2 COPPER AMERICA|Q=21 MOZAMBIQUE|Q=12 REG AIR AIR 1993-01-01|Q=9 turquoise|Q=4 1994-12-01|Q=18 314|Q=3 HOUSEHOLD 1995-03-12|Q=7 ROMANIA INDONESIA|Q=6 1993-01-01 0.08 24|Q=19 Brand#53 Brand#41 Brand#43 5 14 27|Q=15 1995-11-01|Q=11 CHINA 0.0000001000|

QP1.241

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seed=517202479
Q=9 snow|Q=17 Brand#51 WRAP PKG|Q=7 IRAQ ARGENTINA|Q=4 1997-07-01|Q=5 MIDDLE EAST 1993-01-01|Q=13 pending packages|Q=21 INDIA|Q=18 312|Q=11 FRANCE 0.0000001000|Q=3 BUILDING 1995-03-29|Q=22 32 10 20 21 17 18 11|Q=1 66|Q=6 1993-01-01 0.05 24|Q=16 Brand#25 STANDARD BURNISHED 48 28 2 38 40 21 47 26|Q=20 tomato 1994-01-01 CHINA|Q=14 1993-11-01|Q=15 1993-07-01|Q=10 1993-06-01|Q=8 ARGENTINA AMERICA PROMO BURNISHED BRASS|Q=2 40 STEEL MIDDLE EAST|Q=12 SHIP AIR 1993-01-01|Q=19 Brand#55 Brand#24 Brand#43 1 15 24|

QP1.242

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seed=517202480
Q=13 pending packages|Q=14 1994-02-01|Q=5 AFRICA 1993-01-01|Q=22 15 12 16 10 31 25 14|Q=19 Brand#12 Brand#12 Brand#32 6 16 20|Q=11 ROMANIA 0.0000001000|Q=9 sandy|Q=6 1993-01-01 0.03 25|Q=18 313|Q=15 1996-02-01|Q=8 CHINA ASIA ECONOMY BRUSHED BRASS|Q=10 1994-03-01|Q=7 CANADA CHINA|Q=4 1995-04-01|Q=17 Brand#53 SM CASE|Q=16 Brand#55 MEDIUM POLISHED 44 26 23 2 28 14 30 29|Q=3 HOUSEHOLD 1995-03-15|Q=1 74|Q=12 FOB RAIL 1994-01-01|Q=2 28 BRASS ASIA|Q=21 ALGERIA|Q=20 goldenrod 1993-01-01 INDIA|

QP1.243

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seed=517202481
Q=20 rosy 1996-01-01 UNITED KINGDOM|Q=5 ASIA 1994-01-01|Q=4 1997-11-01|Q=14 1994-06-01|Q=11 GERMANY 0.0000001000|Q=1 82|Q=6 1994-01-01 0.08 24|Q=16 Brand#31 ECONOMY BRUSHED 9 1 36 7 25 33 13 31|Q=8 IRAN MIDDLE EAST ECONOMY PLATED STEEL|Q=22 18 13 23 19 26 30 20|Q=7 SAUDI ARABIA IRAN|Q=3 AUTOMOBILE 1995-03-31|Q=2 15 NICKEL MIDDLE EAST|Q=12 MAIL RAIL 1994-01-01|Q=21 PERU|Q=19 Brand#14 Brand#45 Brand#31 1 17 27|Q=17 Brand#15 SM JAR|Q=13 pending requests|Q=10 1994-12-01|Q=15 1993-11-01|Q=18 315|Q=9 red|

QP1.244

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seed=517202482
Q=3 HOUSEHOLD 1995-03-17|Q=7 JAPAN BRAZIL|Q=14 1994-09-01|Q=15 1996-06-01|Q=6 1994-01-01 0.06 24|Q=5 EUROPE 1994-01-01|Q=21 IRAN|Q=20 cornflower 1995-01-01 JORDAN|Q=18 312|Q=10 1993-09-01|Q=4 1995-08-01|Q=16 Brand#21 SMALL BURNISHED 45 2 21 18 3 48 25 38|Q=19 Brand#11 Brand#33 Brand#35 7 18 23|Q=1 90|Q=13 pending requests|Q=9 peru|Q=8 BRAZIL AMERICA ECONOMY ANODIZED STEEL|Q=17 Brand#12 SM PKG|Q=11 SAUDI ARABIA 0.0000001000|Q=12 TRUCK RAIL 1994-01-01|Q=22 23 19 33 25 28 18 27|Q=2 3 TIN ASIA|

QP1.245

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seed=517202483
Q=13 pending requests|Q=15 1994-02-01|Q=17 Brand#13 LG CASE|Q=1 98|Q=22 28 18 30 33 31 34 17|Q=11 INDIA 0.0000001000|Q=3 AUTOMOBILE 1995-03-02|Q=4 1993-04-01|Q=7 EGYPT ROMANIA|Q=20 navajo 1993-01-01 BRAZIL|Q=14 1994-12-01|Q=21 BRAZIL|Q=9 olive|Q=8 ROMANIA EUROPE LARGE POLISHED STEEL|Q=2 41 STEEL AFRICA|Q=18 314|Q=16 Brand#51 LARGE PLATED 47 22 5 24 18 41 7 27|Q=6 1994-01-01 0.03 25|Q=10 1994-07-01|Q=12 RAIL AIR 1997-01-01|Q=5 MIDDLE EAST 1994-01-01|Q=19 Brand#24 Brand#11 Brand#25 2 19 30|

QP1.246

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seed=517202484
Q=14 1995-03-01|Q=2 29 BRASS ASIA|Q=9 midnight|Q=20 aquamarine 1996-01-01 PERU|Q=6 1994-01-01 0.08 24|Q=17 Brand#15 LG JAR|Q=18 315|Q=8 IRAQ MIDDLE EAST LARGE BURNISHED STEEL|Q=21 ROMANIA|Q=13 pending requests|Q=3 FURNITURE 1995-03-19|Q=22 11 16 23 22 34 14 28|Q=16 Brand#31 PROMO BRUSHED 38 2 31 44 9 33 16 46|Q=4 1995-11-01|Q=11 VIETNAM 0.0000001000|Q=15 1996-09-01|Q=1 106|Q=10 1993-04-01|Q=19 Brand#21 Brand#44 Brand#24 7 20 26|Q=5 AFRICA 1994-01-01|Q=7 VIETNAM IRAQ|Q=12 REG AIR TRUCK 1995-01-01|

QP1.247

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seed=517202485
Q=21 IRAQ|Q=3 MACHINERY 1995-03-04|Q=18 313|Q=5 AMERICA 1995-01-01|Q=11 INDONESIA 0.0000001000|Q=7 JORDAN CANADA|Q=6 1995-01-01 0.06 24|Q=20 lace 1995-01-01 GERMANY|Q=17 Brand#12 LG PKG|Q=12 SHIP TRUCK 1995-01-01|Q=16 Brand#21 MEDIUM ANODIZED 47 33 24 36 39 25 7 32|Q=15 1994-06-01|Q=13 pending requests|Q=10 1994-01-01|Q=2 16 NICKEL AFRICA|Q=8 CANADA AMERICA MEDIUM BRUSHED STEEL|Q=14 1995-06-01|Q=19 Brand#23 Brand#32 Brand#23 2 10 23|Q=9 lime|Q=22 25 15 30 16 19 10 14|Q=1 114|Q=4 1993-08-01|

QP1.248

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seed=517202486
Q=6 1995-01-01 0.03 25|Q=17 Brand#14 MED CASE|Q=14 1995-10-01|Q=16 Brand#51 ECONOMY PLATED 21 43 6 45 44 18 46 36|Q=19 Brand#35 Brand#15 Brand#12 8 11 30|Q=10 1994-10-01|Q=9 khaki|Q=2 4 TIN EUROPE|Q=15 1997-01-01|Q=8 SAUDI ARABIA MIDDLE EAST MEDIUM PLATED COPPER|Q=5 ASIA 1995-01-01|Q=22 32 12 18 14 27 33 23|Q=12 FOB TRUCK 1995-01-01|Q=7 ETHIOPIA SAUDI ARABIA|Q=13 unusual accounts|Q=18 314|Q=1 61|Q=4 1996-03-01|Q=20 slate 1993-01-01 RUSSIA|Q=3 FURNITURE 1995-03-21|Q=11 RUSSIA 0.0000001000|Q=21 CANADA|

QP1.249

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seed=517202487

Q=8 JAPAN ASIA MEDIUM ANODIZED COPPER|Q=5 EUROPE 1995-01-01|Q=4 1993-12-01|Q=6 1995-01-01 0.09 25|Q=17 Brand#11 MED JAR|Q=7 RUSSIA JAPAN|Q=1 69|Q=18 312|Q=22 28 34 12 15 32 24 33|Q=14 1996-01-01|Q=9 green|Q=10 1993-07-01|Q=15 1994-09-01|Q=11 IRAN 0.0000001000|Q=20 drab 1997-01-01 IRAQ|Q=2 42 COPPER AFRICA|Q=21 SAUDI ARABIA|Q=19 Brand#32 Brand#53 Brand#11 3 12 26|Q=13 unusual accounts|Q=16 Brand#31 STANDARD POLISHED 22 6 9 28 21 43 12 37|Q=12 MAIL TRUCK 1996-01-01|Q=3 MACHINERY 1995-03-06|

QP1.25

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seed=517202263

Q=18 312|Q=1 102|Q=13 express accounts|Q=7 SAUDI ARABIA INDIA|Q=16 Brand#22 SMALL PLATED 26 39 50 27 19 32 11 43|Q=10 1993-10-01|Q=14 1996-02-01|Q=2 29 STEEL MIDDLE EAST|Q=19 Brand#34 Brand#53 Brand#44 3 16 21|Q=5 EUROPE 1997-01-01|Q=21 UNITED STATES|Q=11 ARGENTINA 0.0000001000|Q=22 23 26 14 33 25 11 21|Q=15 1996-05-01|Q=8 INDIA ASIA PROMO BRUSHED STEEL|Q=17 Brand#22 MED PACK|Q=20 red 1997-01-01 JORDAN|Q=3 AUTOMOBILE 1995-03-27|Q=4 1997-02-01|Q=12 TRUCK FOB 1996-01-01|Q=6 1997-01-01 0.08 24|Q=9 yellow|

QP1.250

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seed=517202488

Q=5 MIDDLE EAST 1995-01-01|Q=21 JORDAN|Q=14 1996-04-01|Q=19 Brand#34 Brand#31 Brand#51 8 13 22|Q=15 1997-04-01|Q=17 Brand#13 MED PKG|Q=12 TRUCK MAIL 1996-01-01|Q=6 1995-01-01 0.06 24|Q=4 1996-07-01|Q=9 floral|Q=8 EGYPT MIDDLE EAST SMALL POLISHED COPPER|Q=16 Brand#21 LARGE ANODIZED 11 6 29 14 50 5 44 1|Q=11 UNITED KINGDOM 0.0000001000|Q=2 30 BRASS EUROPE|Q=10 1994-05-01|Q=18 314|Q=1 77|Q=13 unusual accounts|Q=7 KENYA EGYPT|Q=22 14 22 11 29 17 31 30|Q=3 BUILDING 1995-03-23|Q=20 peru 1995-01-01 ARGENTINA|

QP1.251

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seed=517202489

Q=21 ETHIOPIA|Q=15 1995-01-01|Q=4 1994-04-01|Q=6 1996-01-01 0.04 25|Q=7 FRANCE VIETNAM|Q=16 Brand#51 PROMO BURNISHED 31 8 35 4 43 45 15 21|Q=19 Brand#41 Brand#24 Brand#55 3 14 29|Q=18 315|Q=14 1996-07-01|Q=22 21 33 32 17 20 19 29|Q=11 IRAQ 0.0000001000|Q=13 unusual accounts|Q=3 MACHINERY 1995-03-08|Q=1 85|Q=2 18 NICKEL AMERICA|Q=5 AFRICA 1996-01-01|Q=8 VIETNAM ASIA SMALL BURNISHED COPPER|Q=20 brown 1994-01-01 MOZAMBIQUE|Q=12 AIR MAIL 1996-01-01|Q=17 Brand#15 JUMBO CASE|Q=10 1993-02-01|Q=9 dark|

QP1.252

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seed=517202490

Q=10 1993-11-01|Q=3 BUILDING 1995-03-25|Q=15 1997-07-01|Q=13 unusual deposits|Q=6 1996-01-01 0.09 25|Q=8 JORDAN MIDDLE EAST STANDARD BRUSHED COPPER|Q=9 chocolate|Q=7 UNITED KINGDOM JORDAN|Q=4 1996-11-01|Q=11 UNITED STATES 0.0000001000|Q=22 15 14 28 32 27 18 23|Q=18 313|Q=12 REG AIR MAIL 1996-01-01|Q=1 93|Q=5 AMERICA 1996-01-01|Q=16 Brand#41 SMALL POLISHED 13 27 17 46 19 37 42 16|Q=2 5 TIN EUROPE|Q=14 1996-10-01|Q=19 Brand#43 Brand#52 Brand#54 9 15 26|Q=20 maroon 1997-01-01 ETHIOPIA|Q=17 Brand#12 JUMBO JAR|Q=21 RUSSIA|

QP1.253

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seed=517202491

Q=18 314|Q=8 ETHIOPIA AFRICA STANDARD POLISHED TIN|Q=20 turquoise 1995-01-01 SAUDI ARABIA|Q=21 KENYA|Q=2 43 COPPER AMERICA|Q=4 1994-08-01|Q=22 21 29 20 13 12 14 25|Q=17 Brand#14 JUMBO PKG|Q=1 101|Q=11 JAPAN 0.0000001000|Q=9 blush|Q=19 Brand#45 Brand#35 Brand#43 4 16 22|Q=3 HOUSEHOLD 1995-03-10|Q=13 unusual deposits|Q=5 ASIA 1996-01-01|Q=7 MOROCCO ETHIOPIA|Q=10 1994-08-01|Q=16 Brand#21 LARGE BRUSHED 26 48 30 46 14 2 8 3|Q=6 1996-01-01 0.06 24|Q=14 1997-02-01|Q=15 1995-04-01|Q=12 SHIP MAIL 1997-01-01|

QP1.254

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seed=517202492

Q=19 Brand#52 Brand#23 Brand#43 9 17 29|Q=1 110|Q=15 1993-01-01|Q=17 Brand#11 WRAP CASE|Q=5 MIDDLE EAST 1996-01-01|Q=8 RUSSIA EUROPE STANDARD BURNISHED TIN|Q=9 azure|Q=12 FOB SHIP 1993-01-01|Q=14 1997-05-01|Q=7 GERMANY RUSSIA|Q=4 1997-03-01|Q=3 AUTOMOBILE 1995-03-27|Q=20 green 1994-01-01 IRAN|Q=16 Brand#51 STANDARD BURNISHED 41 16 13 21 37 4 11 20|Q=6 1996-01-01 0.04 25|Q=22 22 18 10 17 26 34 11|Q=10 1993-05-01|Q=13 unusual deposits|Q=2 31 STEEL MIDDLE EAST|Q=21 FRANCE|Q=18 312|Q=11 ALGERIA 0.0000001000|

QP1.255

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seed=517202493

Q=8 KENYA AFRICA PROMO BRUSHED TIN|Q=13 express deposits|Q=2 19 NICKEL AMERICA|Q=20 rosy 1997-01-01 ALGERIA|Q=17 Brand#13 WRAP JAR|Q=3 HOUSEHOLD 1995-03-12|Q=6 1996-01-01 0.09 25|Q=21 UNITED KINGDOM|Q=18 313|Q=11 JORDAN 0.0000001000|Q=19 Brand#54 Brand#51 Brand#42 5 18 25|Q=10 1994-03-01|Q=15 1995-08-01|Q=4 1994-11-01|Q=22 10 13 32 20 29 23 21|Q=1 118|Q=7 UNITED STATES KENYA|Q=12 MAIL FOB 1997-01-01|Q=9 wheat|Q=14 1997-08-01|Q=5 AFRICA 1996-01-01|Q=16 Brand#41 MEDIUM PLATED 4 46 17 19 22 14 21 37|

QP1.256

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seed=517202494

Q=6 1997-01-01 0.07 24|Q=15 1993-04-01|Q=18 315|Q=17 Brand#15 WRAP PKG|Q=12 TRUCK FOB 1997-01-01|Q=1 65|Q=7 MOZAMBIQUE FRANCE|Q=2 6 TIN MIDDLE EAST|Q=22 24 19 11 33 15 17 14|Q=13 express deposits|Q=21 MOZAMBIQUE|Q=10 1994-12-01|Q=14 1997-11-01|Q=9 steel|Q=3 AUTOMOBILE 1995-03-29|Q=16 Brand#21 ECONOMY BRUSHED 48 46 13 30 4 34 47 44|Q=20 cornsilk 1996-01-01 KENYA|Q=19 Brand#51 Brand#43 Brand#31 10 19 21|Q=11 ARGENTINA 0.0000001000|Q=4 1997-06-01|Q=8 FRANCE EUROPE PROMO PLATED TIN|Q=5 AMERICA 1997-01-01|

QP1.257

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seed=517202495

Q=15 1995-11-01|Q=14 1993-02-01|Q=18 312|Q=17 Brand#11 SM CASE|Q=10 1993-09-01|Q=20 navy 1994-01-01 EGYPT|Q=16 Brand#51 SMALL ANODIZED 4 31 12 10 26 48 28 45|Q=11 KENYA 0.0000001000|Q=1 73|Q=8 UNITED KINGDOM EUROPE PROMO ANODIZED TIN|Q=4 1995-03-01|Q=22 10 22 33 24 12 11 17|Q=5 ASIA 1997-01-01|Q=12 AIR FOB 1993-01-01|Q=3 FURNITURE 1995-03-14|Q=9 sienna|Q=21 INDIA|Q=2 44 COPPER ASIA|Q=13 express packages|Q=6 1997-01-01 0.04 25|Q=19 Brand#14 Brand#21 Brand#35 5 20 29|Q=7 INDIA UNITED KINGDOM|

QP1.258

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seed=517202496

Q=1 81|Q=7 ALGERIA MOROCCO|Q=16 Brand#41 LARGE PLATED 3 36 26 39 27 41 13 5|Q=17 Brand#13 SM JAR|Q=18 314|Q=22 23 32 33 34 21 31 28|Q=12 REG AIR FOB 1993-01-01|Q=6 1997-01-01 0.02 25|Q=8 MOROCCO AFRICA ECONOMY POLISHED NICKEL|Q=9 rosy|Q=11 BRAZIL 0.0000001000|Q=4 1997-10-01|Q=2 32 STEEL MIDDLE EAST|Q=5 EUROPE 1997-01-01|Q=20 azure 1993-01-01 ROMANIA|Q=21 ALGERIA|Q=13 express packages|Q=10 1994-06-01|Q=19 Brand#11 Brand#14 Brand#35 10 10 25|Q=3 AUTOMOBILE 1995-03-31|Q=14 1993-06-01|Q=15 1993-08-01|

QP1.259

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seed=517202497

Q=21 PERU|Q=17 Brand#15 SM PKG|Q=7 PERU GERMANY|Q=3 FURNITURE 1995-03-16|Q=1 89|Q=10 1993-03-01|Q=12 SHIP REG AIR 1996-01-01|Q=22 24 10 18 33 22 14 26|Q=9 plum|Q=16 Brand#21 PROMO POLISHED 29 23 32 19 5 10 9 27|Q=6 1997-01-01 0.07 24|Q=11 MOROCCO 0.0000001000|Q=2 20 BRASS ASIA|Q=4 1995-07-01|Q=5 MIDDLE EAST 1997-01-01|Q=14 1993-09-01|Q=8 GERMANY EUROPE ECONOMY BURNISHED NICKEL|Q=20 lavender 1996-01-01 INDONESIA|Q=13 express packages|Q=18 315|Q=15 1996-02-01|Q=19 Brand#13 Brand#42 Brand#24 6 11 21|

QP1.26

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seed=517202264

Q=13 express accounts|Q=2 17 BRASS AMERICA|Q=22 13 24 22 28 20 34 27|Q=5 MIDDLE EAST 1993-01-01|Q=11 KENYA 0.0000001000|Q=21 PERU|Q=20 coral 1996-01-01 CANADA|Q=14 1996-05-01|Q=7 JAPAN ALGERIA|Q=10 1994-07-01|Q=4 1994-11-01|Q=9 thistle|Q=19 Brand#31 Brand#41 Brand#33 8 17 28|Q=18 314|Q=6 1993-01-01 0.06 24|Q=3 HOUSEHOLD 1995-03-12|Q=1 110|Q=8 ALGERIA AFRICA PROMO PLATED STEEL|Q=15 1994-02-01|Q=12 RAIL FOB 1996-01-01|Q=17 Brand#24 MED DRUM|Q=16 Brand#52 LARGE POLISHED 29 4 35 7 20 25 37 36|

QP1.260

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seed=517202498

Q=2 8 TIN AFRICA|Q=9 orchid|Q=5 AFRICA 1993-01-01|Q=4 1993-04-01|Q=18 313|Q=1 97|Q=20 slate 1994-01-01 UNITED KINGDOM|Q=15 1993-11-01|Q=16 Brand#51 MEDIUM ANODIZED 11 30 34 48 13 29 44 31|Q=17 Brand#12 LG CASE|Q=7 INDONESIA UNITED STATES|Q=21 INDONESIA|Q=13 express packages|Q=14 1993-12-01|Q=19 Brand#25 Brand#25 Brand#23 1 12 28|Q=8 UNITED STATES AMERICA LARGE BRUSHED NICKEL|Q=22 34 21 16 33 15 20 23|Q=11 CANADA 0.0000001000|Q=10 1994-01-01|Q=3 MACHINERY 1995-03-02|Q=12 FOB SHIP 1993-01-01|Q=6 1993-01-01 0.04 25|

QP1.261

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seed=517202499

Q=16 Brand#41 ECONOMY BURNISHED 26 1 4 27 42 28 29 11|Q=9 misty|Q=17 Brand#14 LG JAR|Q=8 MOZAMBIQUE AFRICA LARGE PLATED NICKEL|Q=14 1994-03-01|Q=11 MOZAMBIQUE 0.0000001000|Q=10 1994-10-01|Q=12 MAIL SHIP 1994-01-01|Q=6 1993-01-01 0.02 25|Q=21 ARGENTINA|Q=7 ARGENTINA MOZAMBIQUE|Q=3 BUILDING 1995-03-18|Q=15 1996-06-01|Q=5 AMERICA 1993-01-01|Q=22 32 15 11 24 22 30 13|Q=20 firebrick 1993-01-01 JORDAN|Q=1 105|Q=13 express packages|Q=19 Brand#22 Brand#13 Brand#22 6 13 24|Q=2 45 COPPER ASIA|Q=4 1995-11-01|Q=18 314|

QP1.262

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seed=517202500

Q=1 113|Q=3 MACHINERY 1995-03-04|Q=6 1993-01-01 0.07 24|Q=5 ASIA 1993-01-01|Q=2 33 STEEL AFRICA|Q=16 Brand#21 STANDARD POLISHED 18 31 39 49 5 10 9 15|Q=14 1994-06-01|Q=22 13 14 15 17 20 28 27|Q=17 Brand#11 LG CAN|Q=20 pink 1996-01-01 CANADA|Q=4 1993-08-01|Q=9 magenta|Q=10 1993-07-01|Q=11 EGYPT 0.0000001000|Q=15 1994-03-01|Q=8 INDIA ASIA LARGE ANODIZED NICKEL|Q=12 RAIL SHIP 1994-01-01|Q=19 Brand#24 Brand#41 Brand#11 1 14 21|Q=18 312|Q=13 express requests|Q=7 CHINA INDIA|Q=21 ROMANIA|

QP1.263

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seed=517202501

Q=3 BUILDING 1995-03-20|Q=16 Brand#51 MEDIUM BRUSHED 21 6 23 42 40 19 32 30|Q=5 EUROPE 1993-01-01|Q=11 PERU 0.0000001000|Q=21 IRAQ|Q=9 lavender|Q=2 21 BRASS EUROPE|Q=15 1996-09-01|Q=10 1994-04-01|Q=18 313|Q=17 Brand#13 MED CASE|Q=7 IRAN ALGERIA|Q=8 ALGERIA AFRICA MEDIUM POLISHED BRASS|Q=19 Brand#31 Brand#34 Brand#11 7 15 28|Q=14 1994-10-01|Q=13 special requests|Q=1 60|Q=4 1996-03-01|Q=22 11 12 13 17 21 20 18|Q=20 burlywood 1995-01-01 PERU|Q=6 1993-01-01 0.05 24|Q=12 AIR REG AIR 1994-01-01|

QP1.264

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seed=517202502
Q=14 1995-01-01|Q=4 1993-12-01|Q=13 special requests|Q=5 AFRICA 1994-01-01|Q=21 CANADA|Q=11 ETHIOPIA 0.0000001000|Q=8 PERU AMERICA MEDIUM BURNISHED BRASS|Q=6 1994-01-01 0.02 25|Q=3 HOUSEHOLD 1995-03-06|Q=17 Brand#15 MED JAR|Q=2 9 NICKEL AFRICA|Q=20 medium 1993-01-01 GERMANY|Q=1 68|Q=19 Brand#33 Brand#12 Brand#15 2 16 24|Q=10 1995-01-01|Q=9 honeydew|Q=12 REG AIR RAIL 1994-01-01|Q=18 315|Q=15 1994-06-01|Q=7 BRAZIL PERU|Q=22 11 17 32 19 14 20 21|Q=16 Brand#41 PROMO BURNISHED 40 48 7 16 27 45 3 33|

QP1.265
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seed=517202503
Q=4 1996-06-01|Q=12 SHIP REG AIR 1995-01-01|Q=22 32 18 24 22 12 33 20|Q=14 1995-04-01|Q=5 AMERICA 1994-01-01|Q=15 1997-01-01|Q=16 Brand#21 SMALL PLATED 28 48 42 12 2 24 16 35|Q=2 46 COPPER EUROPE|Q=8 INDONESIA ASIA SMALL BRUSHED BRASS|Q=10 1993-11-01|Q=17 Brand#12 MED CAN|Q=9 frosted|Q=21 SAUDI ARABIA|Q=7 ROMANIA INDONESIA|Q=3 BUILDING 1995-03-22|Q=6 1994-01-01 0.08 24|Q=13 special requests|Q=18 313|Q=11 CHINA 0.0000001000|Q=20 violet 1997-01-01 RUSSIA|Q=19 Brand#35 Brand#55 Brand#54 7 17 20|Q=1 76|

QP1.266
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seed=517202504
Q=16 Brand#11 LARGE BRUSHED 31 9 26 25 45 17 1 39|Q=15 1994-10-01|Q=14 1995-07-01|Q=13 special accounts|Q=4 1994-03-01|Q=22 16 32 24 14 29 28 11|Q=18 314|Q=19 Brand#42 Brand#33 Brand#53 2 18 27|Q=7 IRAQ ARGENTINA|Q=1 84|Q=12 FOB REG AIR 1995-01-01|Q=17 Brand#14 JUMBO CASE|Q=5 ASIA 1994-01-01|Q=10 1994-08-01|Q=20 grey 1995-01-01 JAPAN|Q=3 HOUSEHOLD 1995-03-08|Q=9 dim|Q=21 JAPAN|Q=11 FRANCE 0.0000001000|Q=2 34 STEEL AMERICA|Q=6 1994-01-01 0.05 24|Q=8 ARGENTINA AMERICA SMALL PLATED BRASS|

QP1.267
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seed=517202505
Q=20 royal 1993-01-01 ARGENTINA|Q=14 1995-10-01|Q=21 EGYPT|Q=12 MAIL AIR 1995-01-01|Q=15 1997-04-01|Q=17 Brand#11 JUMBO JAR|Q=4 1996-10-01|Q=19 Brand#44 Brand#11 Brand#53 8 19 24|Q=13 special accounts|Q=10 1993-05-01|Q=11 ROMANIA 0.0000001000|Q=1 92|Q=16 Brand#41 STANDARD ANODIZED 25 14 10 18 29 21 37 6|Q=5 EUROPE 1994-01-01|Q=18 312|Q=7 CANADA CHINA|Q=8 CHINA ASIA SMALL ANODIZED BRASS|Q=22 14 22 20 25 31 19 21|Q=9 cornflower|Q=6 1994-01-01 0.02 25|Q=3 AUTOMOBILE 1995-03-24|Q=2 22 BRASS EUROPE|

QP1.268
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seed=517202506
Q=16 Brand#22 MEDIUM PLATED 38 21 31 28 2 14 13 49|Q=14 1996-02-01|Q=13 special accounts|Q=2 10 NICKEL AMERICA|Q=21 RUSSIA|Q=10 1994-02-01|Q=11 GERMANY 0.0000001000|Q=4 1994-07-01|Q=1 100|Q=22 24 14 16 12 19 26 30|Q=18 313|Q=12 RAIL AIR 1996-01-01|Q=19 Brand#42 Brand#54 Brand#42 3 20 20|Q=5 MIDDLE EAST 1994-01-01|Q=7 ROMANIA IRAN|Q=8 IRAN MIDDLE EAST STANDARD POLISHED STEEL|Q=6 1994-01-01 0.08 24|Q=3 HOUSEHOLD 1995-03-10|Q=15 1995-01-01|Q=20 cream 1997-01-01 MOZAMBIQUE|Q=9 burlywood|Q=17 Brand#23 JUMBO CAN|

QP1.269
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seed=517202507
Q=18 315|Q=15 1997-08-01|Q=9 bisque|Q=14 1996-05-01|Q=12 AIR MAIL 1997-01-01|Q=2 48 TIN MIDDLE EAST|Q=8 BRAZIL AMERICA STANDARD BURNISHED STEEL|Q=11 SAUDI ARABIA 0.0000001000|Q=22 16 21 12 29 26 32 10|Q=21 KENYA|Q=16 Brand#12 ECONOMY POLISHED 3 32 1 16 31 6 27 29|Q=1 108|Q=6 1995-01-01 0.05 24|Q=17 Brand#24 WRAP CASE|Q=5 AFRICA 1995-01-01|Q=10 1994-12-01|Q=19 Brand#54 Brand#32 Brand#41 8 10 27|Q=4 1997-02-01|Q=20 olive 1995-01-01 FRANCE|Q=13 special accounts|Q=3 AUTOMOBILE 1995-03-26|Q=7 IRAQ BRAZIL|

QP1.27
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seed=517202265
Q=14 1996-09-01|Q=17 Brand#21 JUMBO BOX|Q=21 INDONESIA|Q=8 PERU AMERICA PROMO ANODIZED COPPER|Q=2 5 NICKEL MIDDLE EAST|Q=9 slate|Q=6 1993-01-01 0.03 25|Q=4 1997-06-01|Q=5 AFRICA 1993-01-01|Q=13 express accounts|Q=22 27 22 14 16 28 31 25|Q=7 EGYPT PERU|Q=15 1996-09-01|Q=3 AUTOMOBILE 1995-03-29|Q=1 118|Q=18 312|Q=16 Brand#32 STANDARD ANODIZED 33 4 19 36 23 24 14 41|Q=11 BRAZIL 0.0000001000|Q=10 1993-04-01|Q=12 AIR SHIP 1996-01-01|Q=20 moccasin 1994-01-01 PERU|Q=19 Brand#43 Brand#24 Brand#32 3 18 24|

QP1.270
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seed=517202508
Q=7 CANADA ROMANIA|Q=3 FURNITURE 1995-03-12|Q=10 1993-09-01|Q=14 1996-08-01|Q=13 pending accounts|Q=21 FRANCE|Q=18 312|Q=6 1995-01-01 0.03 25|Q=20 beige 1994-01-01 SAUDI ARABIA|Q=4 1994-11-01|Q=9 yellow|Q=8 ROMANIA EUROPE PROMO BRUSHED STEEL|Q=22 13 25 33 14 17 28 31|Q=15 1995-04-01|Q=2 35 STEEL AMERICA|Q=1 116|Q=5 AMERICA 1995-01-01|Q=12 REG AIR AIR 1996-01-01|Q=19 Brand#51 Brand#25 Brand#45 4 11 23|Q=17 Brand#21 WRAP JAR|Q=11 INDIA 0.0000001000|Q=16 Brand#42 SMALL ANODIZED 33 11 13 50 31 7 16 8|

QP1.271
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seed=517202509
Q=18 314|Q=1 63|Q=13 pending deposits|Q=7 SAUDI ARABIA IRAQ|Q=16 Brand#22 LARGE BURNISHED 9 30 1 22 27 10 11 12|Q=10 1994-06-01|Q=14 1996-11-01|Q=2 23 BRASS MIDDLE EAST|Q=19 Brand#53 Brand#53 Brand#35 9 12 30|Q=5 ASIA 1995-01-01|Q=21 UNITED KINGDOM|Q=11 VIETNAM 0.0000001000|Q=22 33 23 16 27 21 34 29|Q=15 1993-01-01|Q=8 IRAQ MIDDLE EAST PROMO PLATED STEEL|Q=17 Brand#23 WRAP CAN|Q=20 lawn 1997-01-01 IRAN|Q=3 MACHINERY 1995-03-28|Q=4 1997-06-01|Q=12 SHIP RAIL 1996-01-01|Q=6 1995-01-01 0.08 24|Q=9 thistle|

QP1.272
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seed=517202510
Q=13 pending deposits|Q=2 11 NICKEL ASIA|Q=22 10 21 16 30 32 29 22|Q=5 EUROPE 1995-01-01|Q=11 INDONESIA 0.0000001000|Q=21 MOROCCO|Q=20 smoke 1996-01-01 ALGERIA|Q=14 1997-03-01|Q=7 JAPAN CANADA|Q=10 1993-03-01|Q=4 1995-03-01|Q=9 slate|Q=19 Brand#15 Brand#41 Brand#34 4 13 27|Q=18 315|Q=6 1995-01-01 0.06 24|Q=3 FURNITURE 1995-03-14|Q=1 71|Q=8 CANADA AMERICA PROMO ANODIZED STEEL|Q=15 1995-08-01|Q=12 FOB RAIL 1997-01-01|Q=17 Brand#25 SM CASE|Q=16 Brand#12 PROMO POLISHED 8 35 12 1 14 10 18 45|

QP1.273
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seed=517202511
Q=14 1997-06-01|Q=17 Brand#22 SM JAR|Q=21 GERMANY|Q=8 SAUDI ARABIA MIDDLE EAST ECONOMY POLISHED COPPER|Q=2 49 TIN MIDDLE EAST|Q=9 saddle|Q=6 1996-01-01 0.03 25|Q=4 1997-10-01|Q=5 MIDDLE EAST 1996-01-01|Q=13 pending deposits|Q=22 12 19 22 15 28 34 33|Q=7 EGYPT SAUDI ARABIA|Q=15 1993-05-01|Q=3 MACHINERY 1995-03-31|Q=1 79|Q=18 313|Q=16 Brand#42 SMALL BRUSHED 21 15 16 49 19 25 38 37|Q=11 RUSSIA 0.0000001000|Q=10 1993-12-01|Q=12 TRUCK RAIL 1997-01-01|Q=20 floral 1994-01-01 MOROCCO|Q=19 Brand#12 Brand#24 Brand#23 9 14 23|

QP1.274
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seed=517202512
Q=10 1994-10-01|Q=22 14 18 11 20 19 27 15|Q=1 87|Q=12 RAIL SHIP 1995-01-01|Q=13 pending deposits|Q=18 314|Q=21 ALGERIA|Q=20 plum 1993-01-01 EGYPT|Q=2 36 STEEL ASIA|Q=14 1997-09-01|Q=16 Brand#22 ECONOMY BURNISHED 3 36 8 10 17 40 21 49|Q=7 VIETNAM JAPAN|Q=15 1995-11-01|Q=3 BUILDING 1995-03-16|Q=4 1995-07-01|Q=17 Brand#24 SM CAN|Q=5 AFRICA 1996-01-01|Q=19 Brand#14 Brand#11 Brand#22 5 15 30|Q=6 1996-01-01 0.08 24|Q=8 JAPAN ASIA ECONOMY BURNISHED COPPER|Q=9 puff|Q=11 IRAN 0.0000001000|

QP1.275
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seed=517202513
Q=10 1993-07-01|Q=8 EGYPT MIDDLE EAST LARGE BRUSHED COPPER|Q=9 papaya|Q=18 312|Q=12 AIR TRUCK 1997-01-01|Q=6 1996-01-01 0.06 24|Q=1 95|Q=5 ASIA 1996-01-01|Q=20 burnished 1996-01-01 ROMANIA|Q=11 UNITED KINGDOM 0.0000001000|Q=17 Brand#21 LG CASE|Q=22 20 16 14 32 21 24 26|Q=16 Brand#12 STANDARD PLATED 4 5 35 40 14 38 17 31|Q=3 MACHINERY 1995-03-02|Q=13 pending deposits|Q=2 24 BRASS AFRICA|Q=15 1993-08-01|Q=21 PERU|Q=14 1997-12-01|Q=19 Brand#21 Brand#44 Brand#21 10 16 26|Q=7 JORDAN EGYPT|Q=4 1993-03-01|

QP1.276
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seed=517202514
Q=7 ETHIOPIA VIETNAM|Q=17 Brand#23 LG JAR|Q=22 12 13 19 11 24 22 26|Q=5 EUROPE 1996-01-01|Q=3 BUILDING 1995-03-18|Q=10 1994-04-01|Q=13 pending packages|Q=18 313|Q=9 navajo|Q=1 103|Q=14 1993-03-01|Q=15 1996-03-01|Q=21 INDONESIA|Q=19 Brand#23 Brand#22 Brand#11 5 17 22|Q=16 Brand#42 MEDIUM BRUSHED 15 6 29 11 32 18 2 31|Q=12 REG AIR TRUCK 1993-01-01|Q=8 VIETNAM ASIA LARGE PLATED COPPER|Q=6 1996-01-01 0.03 25|Q=11 IRAQ 0.0000001000|Q=20 metallic 1994-01-01 INDONESIA|Q=4 1995-10-01|Q=2 12 NICKEL ASIA|

QP1.277
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seed=517202515
Q=2 50 TIN AFRICA|Q=9 medium|Q=21 ARGENTINA|Q=3 HOUSEHOLD 1995-03-04|Q=4 1993-07-01|Q=7 RUSSIA JORDAN|Q=1 111|Q=11 UNITED STATES 0.0000001000|Q=16 Brand#22 PROMO ANODIZED 25 19 13 15 38 30 50 23|Q=5 MIDDLE EAST 1997-01-01|Q=20 violet 1993-01-01 UNITED STATES|Q=19 Brand#25 Brand#15 Brand#15 10 18 29|Q=18 315|Q=8 JORDAN MIDDLE EAST LARGE ANODIZED COPPER|Q=17 Brand#25 LG CAN|Q=13 unusual packages|Q=10 1995-01-01|Q=12 SHIP TRUCK 1993-01-01|Q=15 1993-11-01|Q=6 1997-01-01 0.09 25|Q=14 1993-07-01|Q=22 34 19 32 14 29 12 26|

QP1.278
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seed=517202516
Q=15 1996-06-01|Q=12 FOB TRUCK 1993-01-01|Q=8 ETHIOPIA AFRICA MEDIUM BRUSHED TIN|Q=4 1996-02-01|Q=22 13 11 21 29 12 24 20|Q=13 unusual packages|Q=16 Brand#12 SMALL PLATED 31 18 5 28 26 37 23 45|Q=17 Brand#22 MED CASE|Q=18 312|Q=3 AUTOMOBILE 1995-03-20|Q=7 KENYA ETHIOPIA|Q=5 AFRICA 1997-01-01|Q=6 1997-01-01 0.06 24|Q=1 119|Q=9 lemon|Q=11 JAPAN 0.0000001000|Q=21 CHINA|Q=10 1993-10-01|Q=14 1993-10-01|Q=20 honeydew 1996-01-01 JORDAN|Q=19 Brand#32 Brand#43 Brand#14 6 19 26|Q=2 38 COPPER EUROPE|

QP1.279
---
seed=517202517
Q=15 1994-03-01|Q=16 Brand#42 LARGE POLISHED 25 15 43 7 50 44 22 26|Q=2 25 BRASS AFRICA|Q=11 ALGERIA 0.0000001000|Q=17 Brand#24 MED JAR|Q=7 FRANCE RUSSIA|Q=5 AMERICA 1997-01-01|Q=14 1994-01-01|Q=20 saddle 1995-01-01 CANADA|Q=4 1993-11-01|Q=21 IRAN|Q=3 HOUSEHOLD 1995-03-06|Q=10 1994-08-01|Q=9 indian|Q=12 TRUCK MAIL 1994-01-01|Q=8 RUSSIA EUROPE MEDIUM PLATED TIN|Q=13 unusual packages|Q=6 1997-01-01 0.04 25|Q=18 314|Q=19 Brand#35 Brand#31 Brand#53 1 20 22|Q=22 14 31 29 34 11 17 20|Q=1 66|

QP1.28

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seed=517202266
Q=10 1994-01-01|Q=22 16 11 15 29 32 12 19|Q=1 65|Q=12 SHIP FOB 1994-01-01|Q=13 express deposits|Q=18 313|Q=21 ARGENTINA|Q=20 antique 1993-01-01 GERMANY|Q=2 43 COPPER ASIA|Q=14 1996-12-01|Q=16 Brand#22 MEDIUM BURNISHED 6 36 15 31 12 10 40 45|Q=7 VIETNAM INDONESIA|Q=15 1994-06-01|Q=3 FURNITURE 1995-03-14|Q=4 1995-03-01|Q=17 Brand#22 JUMBO PACK|Q=5 AMERICA 1993-01-01|Q=19 Brand#41 Brand#12 Brand#31 8 19 20|Q=6 1993-01-01 0.08 24|Q=8 INDONESIA ASIA ECONOMY POLISHED COPPER|Q=9 saddle|Q=11 MOROCCO 0.0000001000|

QP1.280
---
seed=517202518
Q=1 74|Q=13 unusual requests|Q=11 JORDAN 0.0000001000|Q=3 AUTOMOBILE 1995-03-22|Q=4 1996-06-01|Q=21 CANADA|Q=6 1997-01-01 0.09 25|Q=14 1994-04-01|Q=15 1996-10-01|Q=22 21 17 29 24 22 26 23|Q=18 312|Q=9 ghost|Q=7 UNITED KINGDOM KENYA|Q=5 ASIA 1997-01-01|Q=10 1993-05-01|Q=20 cyan 1993-01-01 CHINA|Q=12 RAIL MAIL 1994-01-01|Q=16 Brand#22 STANDARD ANODIZED 15 27 2 8 23 21 29 32|Q=17 Brand#21 MED CAN|Q=8 KENYA AFRICA MEDIUM ANODIZED TIN|Q=19 Brand#32 Brand#14 Brand#53 6 10 29|Q=2 13 NICKEL EUROPE|

QP1.281
---
seed=517202519
Q=14 1994-07-01|Q=17 Brand#22 JUMBO CASE|Q=22 22 27 19 14 16 26 12|Q=20 orange 1997-01-01 GERMANY|Q=8 FRANCE EUROPE SMALL POLISHED TIN|Q=16 Brand#12 MEDIUM BURNISHED 32 9 5 10 43 13 44 8|Q=5 EUROPE 1993-01-01|Q=10 1994-02-01|Q=1 82|Q=13 unusual requests|Q=2 1 TIN AMERICA|Q=21 SAUDI ARABIA|Q=12 AIR MAIL 1994-01-01|Q=9 drab|Q=4 1994-03-01|Q=18 313|Q=3 FURNITURE 1995-03-08|Q=7 MOROCCO FRANCE|Q=6 1993-01-01 0.06 24|Q=19 Brand#44 Brand#52 Brand#52 2 11 25|Q=15 1994-06-01|Q=11 ARGENTINA 0.0000001000|

QP1.282
---
seed=517202520
Q=9 cream|Q=17 Brand#24 JUMBO JAR|Q=7 GERMANY UNITED KINGDOM|Q=4 1996-10-01|Q=5 MIDDLE EAST 1993-01-01|Q=13 unusual requests|Q=21 JAPAN|Q=18 315|Q=11 KENYA 0.0000001000|Q=3 AUTOMOBILE 1995-03-24|Q=22 32 11 17 20 28 26 27|Q=1 90|Q=6 1993-01-01 0.04 25|Q=16 Brand#42 ECONOMY POLISHED 35 30 11 46 41 15 45 21|Q=20 beige 1995-01-01 RUSSIA|Q=14 1994-11-01|Q=15 1997-01-01|Q=10 1994-11-01|Q=8 UNITED KINGDOM EUROPE SMALL BURNISHED NICKEL|Q=2 39 COPPER EUROPE|Q=12 REG AIR MAIL 1994-01-01|Q=19 Brand#41 Brand#35 Brand#41 7 12 21|

QP1.283
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seed=517202521
Q=13 unusual requests|Q=14 1995-02-01|Q=5 AFRICA 1993-01-01|Q=22 29 31 15 14 24 26 19|Q=19 Brand#43 Brand#13 Brand#45 2 13 29|Q=11 BRAZIL 0.0000001000|Q=9 chartreuse|Q=6 1993-01-01 0.09 25|Q=18 312|Q=15 1994-10-01|Q=8 MOROCCO AFRICA STANDARD BRUSHED NICKEL|Q=10 1993-08-01|Q=7 UNITED STATES MOROCCO|Q=4 1994-07-01|Q=17 Brand#21 JUMBO CAN|Q=16 Brand#32 STANDARD BRUSHED 1 12 10 35 6 2 8 15|Q=3 FURNITURE 1995-03-10|Q=1 98|Q=12 SHIP FOB 1995-01-01|Q=2 27 STEEL AMERICA|Q=21 EGYPT|Q=20 lemon 1993-01-01 JAPAN|

QP1.284
---
seed=517202522
Q=20 snow 1997-01-01 BRAZIL|Q=5 AMERICA 1993-01-01|Q=4 1997-02-01|Q=14 1995-05-01|Q=11 MOROCCO 0.0000001000|Q=1 106|Q=6 1993-01-01 0.07 24|Q=16 Brand#12 LARGE BURNISHED 19 23 44 27 32 33 17 22|Q=8 GERMANY EUROPE STANDARD PLATED NICKEL|Q=22 29 25 16 27 33 14 15|Q=7 MOZAMBIQUE GERMANY|Q=3 MACHINERY 1995-03-26|Q=2 14 NICKEL MIDDLE EAST|Q=12 MAIL FOB 1995-01-01|Q=21 VIETNAM|Q=19 Brand#55 Brand#51 Brand#45 7 14 25|Q=17 Brand#23 WRAP CASE|Q=13 express requests|Q=10 1994-06-01|Q=15 1997-05-01|Q=18 314|Q=9 black|

QP1.285
---
seed=517202523
Q=3 FURNITURE 1995-03-12|Q=7 INDIA UNITED STATES|Q=14 1995-08-01|Q=15 1995-01-01|Q=6 1993-01-01 0.04 25|Q=5 EUROPE 1993-01-01|Q=21 KENYA|Q=20 forest 1995-01-01 MOZAMBIQUE|Q=18 315|Q=10 1993-03-01|Q=4 1994-10-01|Q=16 Brand#42 PROMO PLATED 24 16 8 30 17 40 9 19|Q=19 Brand#52 Brand#34 Brand#34 3 15 21|Q=1 114|Q=13 express accounts|Q=9 almond|Q=8 UNITED STATES AMERICA STANDARD ANODIZED NICKEL|Q=17 Brand#25 WRAP JAR|Q=11 CANADA 0.0000001000|Q=12 TRUCK FOB 1995-01-01|Q=22 29 16 10 19 12 15 27|Q=2 2 TIN AMERICA|

QP1.286
---
seed=517202524
Q=13 express accounts|Q=15 1997-08-01|Q=17 Brand#22 WRAP CAN|Q=1 61|Q=22 16 22 12 33 26 23 30|Q=11 MOZAMBIQUE 0.0000001000|Q=3 MACHINERY 1995-03-28|Q=4 1997-05-01|Q=7 ALGERIA MOZAMBIQUE|Q=20 powder 1994-01-01 FRANCE|Q=14 1995-11-01|Q=21 FRANCE|Q=9 tomato|Q=8 MOZAMBIQUE AFRICA PROMO POLISHED NICKEL|Q=2 40 COPPER MIDDLE EAST|Q=18 313|Q=16 Brand#32 SMALL BRUSHED 9 37 13 41 39 5 30 22|Q=6 1994-01-01 0.02 25|Q=10 1993-12-01|Q=12 RAIL FOB 1995-01-01|Q=5 MIDDLE EAST 1994-01-01|Q=19 Brand#54 Brand#22 Brand#33 8 16 28|

QP1.287
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seed=517202525
Q=14 1996-03-01|Q=2 28 STEEL ASIA|Q=9 smoke|Q=20 chartreuse 1997-01-01 VIETNAM|Q=6 1994-01-01 0.07 24|Q=17 Brand#24 SM CASE|Q=18 314|Q=8 INDIA ASIA PROMO BURNISHED BRASS|Q=21 UNITED KINGDOM|Q=13 express accounts|Q=3 BUILDING 1995-03-14|Q=22 11 30 12 16 32 21 25|Q=16 Brand#12 ECONOMY ANODIZED 7 8 47 15 4 18 41 38|Q=4 1995-02-01|Q=11 CANADA 0.0000001000|Q=15 1995-05-01|Q=1 69|Q=10 1994-09-01|Q=19 Brand#11 Brand#55 Brand#32 3 17 24|Q=5 AFRICA 1994-01-01|Q=7 PERU INDIA|Q=12 AIR SHIP 1996-01-01|

QP1.288
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seed=517202526
Q=21 MOROCCO|Q=3 HOUSEHOLD 1995-03-30|Q=18 312|Q=5 AMERICA 1994-01-01|Q=11 MOZAMBIQUE 0.0000001000|Q=7 INDONESIA ALGERIA|Q=6 1994-01-01 0.05 24|Q=20 midnight 1996-01-01 IRAQ|Q=17 Brand#21 SM JAR|Q=12 REG AIR SHIP 1996-01-01|Q=16 Brand#42 STANDARD PLATED 5 19 39 23 18 9 12 15|Q=15 1993-01-01|Q=13 express accounts|Q=10 1993-06-01|Q=2 15 BRASS MIDDLE EAST|Q=8 ALGERIA AFRICA ECONOMY BRUSHED BRASS|Q=14 1996-06-01|Q=19 Brand#13 Brand#43 Brand#21 8 18 21|Q=9 salmon|Q=22 25 22 15 17 16 14 13|Q=1 77|Q=4 1997-09-01|

QP1.289
---
seed=517202527
Q=6 1994-01-01 0.02 25|Q=17 Brand#23 SM CAN|Q=14 1996-09-01|Q=16 Brand#32 MEDIUM POLISHED 8 6 32 11 43 4 3 21|Q=19 Brand#15 Brand#21 Brand#21 4 19 28|Q=10 1994-04-01|Q=9 purple|Q=2 3 TIN ASIA|Q=15 1995-08-01|Q=8 PERU AMERICA ECONOMY PLATED BRASS|Q=5 ASIA 1994-01-01|Q=22 12 17 10 26 19 20 15|Q=12 SHIP FOB 1995-01-01|Q=7 ARGENTINA PERU|Q=13 express accounts|Q=18 313|Q=1 85|Q=4 1995-06-01|Q=20 wheat 1994-01-01 ALGERIA|Q=3 BUILDING 1995-03-16|Q=11 EGYPT 0.0000001000|Q=21 GERMANY|

QP1.29
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seed=517202267
Q=10 1994-11-01|Q=8 ARGENTINA AMERICA ECONOMY BURNISHED COPPER|Q=9 puff|Q=18 315|Q=12 FOB SHIP 1997-01-01|Q=6 1993-01-01 0.06 24|Q=1 73|Q=5 ASIA 1993-01-01|Q=20 khaki 1996-01-01 RUSSIA|Q=11 CANADA 0.0000001000|Q=17 Brand#24 JUMBO DRUM|Q=22 11 13 14 17 34 18 20|Q=16 Brand#52 ECONOMY POLISHED 35 33 18 45 15 23 10 50|Q=3 MACHINERY 1995-03-31|Q=13 express deposits|Q=2 30 STEEL MIDDLE EAST|Q=15 1996-12-01|Q=21 CHINA|Q=14 1997-03-01|Q=19 Brand#43 Brand#45 Brand#21 4 20 28|Q=7 JORDAN ARGENTINA|Q=4 1997-10-01|

QP1.290
---
seed=517202528
Q=8 INDONESIA ASIA ECONOMY ANODIZED BRASS|Q=5 EUROPE 1995-01-01|Q=4 1993-03-01|Q=6 1995-01-01 0.07 24|Q=17 Brand#25 LG CASE|Q=7 CHINA INDONESIA|Q=1 93|Q=18 315|Q=22 16 27 32 28 11 20 25|Q=14 1996-12-01|Q=9 peach|Q=10 1995-01-01|Q=15 1993-05-01|Q=11 PERU 0.0000001000|Q=20 hot 1997-01-01 MOROCCO|Q=2 41 COPPER AFRICA|Q=21 UNITED STATES|Q=19 Brand#22 Brand#54 Brand#25 9 20 24|Q=13 express deposits|Q=16 Brand#12 PROMO ANODIZED 10 37 5 9 11 45 43 22|Q=12 MAIL SHIP 1996-01-01|Q=3 HOUSEHOLD 1995-03-01|

QP1.291
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seed=517202529
Q=5 MIDDLE EAST 1995-01-01|Q=21 PERU|Q=14 1997-03-01|Q=19 Brand#25 Brand#42 Brand#14 4 10 20|Q=15 1995-12-01|Q=17 Brand#22 LG JAR|Q=12 TRUCK SHIP 1997-01-01|Q=6 1995-01-01 0.05 24|Q=4 1995-10-01|Q=9 navy|Q=8 ALGERIA AFRICA LARGE POLISHED BRASS|Q=16 Brand#42 SMALL BURNISHED 4 41 26 14 25 17 20 13|Q=11 ETHIOPIA 0.0000001000|Q=2 29 STEEL ASIA|Q=10 1993-10-01|Q=18 312|Q=1 101|Q=13 express deposits|Q=7 IRAN ALGERIA|Q=22 15 16 21 26 13 14 24|Q=3 AUTOMOBILE 1995-03-18|Q=20 salmon 1996-01-01 ETHIOPIA|

QP1.292
---
seed=517202530
Q=21 INDONESIA|Q=15 1993-08-01|Q=4 1993-07-01|Q=6 1995-01-01 0.02 25|Q=7 BRAZIL PERU|Q=16 Brand#32 LARGE POLISHED 18 12 3 5 40 29 42 9|Q=19 Brand#22 Brand#24 Brand#13 9 11 27|Q=18 314|Q=14 1997-07-01|Q=22 29 25 24 18 23 19 31|Q=11 CHINA 0.0000001000|Q=13 special deposits|Q=3 HOUSEHOLD 1995-03-03|Q=1 109|Q=2 17 BRASS AFRICA|Q=5 AFRICA 1995-01-01|Q=8 PERU AMERICA LARGE BURNISHED STEEL|Q=20 dark 1994-01-01 ROMANIA|Q=12 RAIL REG AIR 1997-01-01|Q=17 Brand#24 LG CAN|Q=10 1994-07-01|Q=9 metallic|

QP1.293
---
seed=517202531
Q=10 1993-04-01|Q=3 AUTOMOBILE 1995-03-20|Q=15 1996-03-01|Q=13 special deposits|Q=6 1995-01-01 0.08 24|Q=8 INDONESIA ASIA MEDIUM BRUSHED STEEL|Q=9 light|Q=7 ROMANIA INDONESIA|Q=4 1996-02-01|Q=11 FRANCE 0.0000001000|Q=22 11 19 26 12 27 10 15|Q=18 315|Q=12 AIR REG AIR 1997-01-01|Q=1 117|Q=5 AMERICA 1995-01-01|Q=16 Brand#12 PROMO BRUSHED 5 42 3 20 29 18 1 14|Q=2 4 NICKEL EUROPE|Q=14 1997-10-01|Q=19 Brand#34 Brand#12 Brand#13 5 12 24|Q=20 orchid 1993-01-01 INDONESIA|Q=17 Brand#25 MED CASE|Q=21 ARGENTINA|

QP1.294
---
seed=517202532
Q=18 313|Q=8 ARGENTINA AMERICA MEDIUM PLATED STEEL|Q=20 bisque 1996-01-01 UNITED STATES|Q=21 CHINA|Q=2 42 COPPER AFRICA|Q=4 1993-11-01|Q=22 19 30 14 28 18 34 26|Q=17 Brand#32 MED JAR|Q=1 64|Q=11 ROMANIA 0.0000001000|Q=9 ivory|Q=19 Brand#31 Brand#45 Brand#52 10 13 20|Q=3 FURNITURE 1995-03-05|Q=13 special packages|Q=5 ASIA 1996-01-01|Q=7 IRAQ ARGENTINA|Q=10 1994-02-01|Q=16 Brand#43 MEDIUM BURNISHED 21 9 16 49 47 20 22 15|Q=6 1996-01-01 0.05 24|Q=14 1993-01-01|Q=15 1993-12-01|Q=12 REG AIR AIR 1996-01-01|

QP1.295
---
seed=517202533
Q=19 Brand#33 Brand#33 Brand#51 5 14 27|Q=1 72|Q=15 1996-06-01|Q=17 Brand#34 MED CAN|Q=5 EUROPE 1996-01-01|Q=8 CHINA ASIA MEDIUM ANODIZED STEEL|Q=9 goldenrod|Q=12 FOB REG AIR 1993-01-01|Q=14 1993-04-01|Q=7 CANADA CHINA|Q=4 1996-05-01|Q=3 MACHINERY 1995-03-22|Q=20 light 1995-01-01 KENYA|Q=16 Brand#33 ECONOMY PLATED 28 25 49 29 20 8 1 35|Q=6 1996-01-01 0.03 25|Q=22 24 31 11 34 23 22 12|Q=10 1994-11-01|Q=13 special packages|Q=2 30 STEEL EUROPE|Q=21 IRAN|Q=18 315|Q=11 GERMANY 0.0000001000|

QP1.296
---
seed=517202534
Q=8 IRAN MIDDLE EAST SMALL POLISHED STEEL|Q=13 special packages|Q=2 18 BRASS AMERICA|Q=20 spring 1993-01-01 CANADA|Q=17 Brand#31 JUMBO CASE|Q=3 FURNITURE 1995-03-07|Q=6 1996-01-01 0.08 24|Q=21 BRAZIL|Q=18 312|Q=11 SAUDI ARABIA 0.0000001000|Q=19 Brand#45 Brand#11 Brand#45 1 15 23|Q=10 1993-08-01|Q=15 1994-03-01|Q=4 1994-02-01|Q=22 10 25 26 13 23 18 27|Q=1 81|Q=7 SAUDI ARABIA IRAN|Q=12 MAIL AIR 1993-01-01|Q=9 firebrick|Q=14 1993-08-01|Q=5 AFRICA 1996-01-01|Q=16 Brand#13 STANDARD BRUSHED 7 45 6 28 20 5 32 49|

QP1.297
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seed=517202535
Q=6 1996-01-01 0.05 24|Q=15 1996-10-01|Q=18 314|Q=17 Brand#33 JUMBO JAR|Q=12 TRUCK AIR 1993-01-01|Q=1 89|Q=7 JAPAN BRAZIL|Q=2 5 NICKEL EUROPE|Q=22 28 22 30 23 18 14 33|Q=13 special packages|Q=21 SAUDI ARABIA|Q=10 1994-05-01|Q=14 1993-11-01|Q=9 cyan|Q=3 MACHINERY 1995-03-24|Q=16 Brand#53 LARGE ANODIZED 23 36 18 20 37 3 2 5|Q=20 frosted 1997-01-01 CHINA|Q=19 Brand#42 Brand#54 Brand#45 6 16 30|Q=11 INDIA 0.0000001000|Q=4 1996-09-01|Q=8 BRAZIL AMERICA SMALL BURNISHED COPPER|Q=5 AMERICA 1996-01-01|

QP1.298
---
seed=517202536
Q=15 1994-07-01|Q=14 1994-02-01|Q=18 315|Q=17 Brand#35 JUMBO CAN|Q=10 1993-02-01|Q=20 puff 1995-01-01 INDIA|Q=16 Brand#33 PROMO PLATED 38 28 13 9 11 26 22 10|Q=11 VIETNAM 0.0000001000|Q=1 97|Q=8 ROMANIA EUROPE STANDARD BRUSHED COPPER|Q=4 1994-06-01|Q=22 30 17 20 14 28 25 10|Q=5 ASIA 1997-01-01|Q=12 RAIL AIR 1994-01-01|Q=3 BUILDING 1995-03-09|Q=9 chiffon|Q=21 JAPAN|Q=2 43 TIN AMERICA|Q=13 special packages|Q=6 1997-01-01 0.03 25|Q=19 Brand#44 Brand#32 Brand#44 1 17 27|Q=7 EGYPT ROMANIA|

QP1.299
---
seed=517202537
Q=1 105|Q=7 VIETNAM IRAQ|Q=16 Brand#13 SMALL POLISHED 12 8 9 27 30 17 2 16|Q=17 Brand#32 WRAP CASE|Q=18 313|Q=22 18 33 31 12 20 17 28|Q=12 AIR FOB 1993-01-01|Q=6 1997-01-01 0.08 24|Q=8 IRAQ MIDDLE EAST STANDARD PLATED COPPER|Q=9 blue|Q=11 INDONESIA 0.0000001000|Q=4 1997-01-01|Q=2 31 STEEL MIDDLE EAST|Q=5 EUROPE 1997-01-01|Q=20 chartreuse 1993-01-01 RUSSIA|Q=21 EGYPT|Q=13 pending requests|Q=10 1993-12-01|Q=19 Brand#51 Brand#15 Brand#33 6 18 23|Q=3 MACHINERY 1995-03-26|Q=14 1994-05-01|Q=15 1997-01-01|

QP1.3
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seed=517202241
Q=8 IRAN MIDDLE EAST MEDIUM PLATED COPPER|Q=5 MIDDLE EAST 1997-01-01|Q=4 1993-09-01|Q=6 1997-01-01 0.09 24|Q=17 Brand#15 SM BOX|Q=7 RUSSIA IRAN|Q=1 109|Q=18 315|Q=22 12 11 24 21 10 26 15|Q=14 1995-04-01|Q=9 khaki|Q=10 1994-11-01|Q=15 1993-03-01|Q=11 MOZAMBIQUE 0.0000001000|Q=20 mint 1997-01-01 KENYA|Q=2 48 COPPER AFRICA|Q=21 RUSSIA|Q=19 Brand#13 Brand#53 Brand#11 7 16 28|Q=13 special requests|Q=16 Brand#31 ECONOMY BRUSHED 50 6 38 30 10 29 3 4|Q=12 AIR REG AIR 1995-01-01|Q=3 AUTOMOBILE 1995-03-04|

QP1.30
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seed=517202268
Q=7 ETHIOPIA CHINA|Q=17 Brand#21 WRAP BOX|Q=22 22 14 27 20 23 19 30|Q=5 EUROPE 1994-01-01|Q=3 FURNITURE 1995-03-16|Q=10 1993-08-01|Q=13 express deposits|Q=18 312|Q=9 papaya|Q=1 81|Q=14 1997-06-01|Q=15 1994-09-01|Q=21 IRAN|Q=19 Brand#55 Brand#33 Brand#25 9 10 24|Q=16 Brand#42 STANDARD BRUSHED 49 28 22 8 21 42 18 5|Q=12 MAIL SHIP 1997-01-01|Q=8 CHINA ASIA LARGE BRUSHED COPPER|Q=6 1994-01-01 0.03 25|Q=11 MOZAMBIQUE 0.0000001000|Q=20 sienna 1995-01-01 JAPAN|Q=4 1995-07-01|Q=2 18 BRASS ASIA|

QP1.300
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seed=517202538
Q=21 VIETNAM|Q=17 Brand#34 WRAP JAR|Q=7 JORDAN CANADA|Q=3 BUILDING 1995-03-11|Q=1 113|Q=10 1994-09-01|Q=12 SHIP RAIL 1994-01-01|Q=22 22 26 25 19 16 33 32|Q=9 aquamarine|Q=16 Brand#53 ECONOMY ANODIZED 45 29 20 11 27 36 5 46|Q=6 1997-01-01 0.06 24|Q=11 RUSSIA 0.0000001000|Q=2 19 BRASS AMERICA|Q=4 1994-10-01|Q=5 MIDDLE EAST 1997-01-01|Q=14 1994-08-01|Q=8 CANADA AMERICA STANDARD ANODIZED COPPER|Q=20 mint 1997-01-01 JAPAN|Q=13 pending requests|Q=18 314|Q=15 1994-10-01|Q=19 Brand#53 Brand#53 Brand#32 2 19 30|

QP1.301
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seed=517202539
Q=2 7 NICKEL MIDDLE EAST|Q=9 violet|Q=5 AFRICA 1997-01-01|Q=4 1997-05-01|Q=18 312|Q=1 60|Q=20 white 1995-01-01 BRAZIL|Q=15 1997-05-01|Q=16 Brand#33 STANDARD BURNISHED 15 50 16 26 21 24 32 43|Q=17 Brand#31 WRAP CAN|Q=7 ETHIOPIA SAUDI ARABIA|Q=21 JORDAN|Q=13 pending requests|Q=14 1994-12-01|Q=19 Brand#55 Brand#31 Brand#31 7 20 26|Q=8 SAUDI ARABIA MIDDLE EAST PROMO POLISHED COPPER|Q=22 11 32 18 23 34 33 24|Q=11 IRAN 0.0000001000|Q=10 1993-06-01|Q=3 HOUSEHOLD 1995-03-28|Q=12 FOB RAIL 1994-01-01|Q=6 1997-01-01 0.03 25|

QP1.302
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seed=517202540
Q=16 Brand#13 MEDIUM POLISHED 32 5 41 4 8 22 9 14|Q=9 spring|Q=17 Brand#33 SM CASE|Q=8 JAPAN ASIA PROMO PLATED TIN|Q=14 1995-03-01|Q=11 UNITED KINGDOM 0.0000001000|Q=10 1994-03-01|Q=12 MAIL RAIL 1995-01-01|Q=6 1997-01-01 0.09 25|Q=21 ETHIOPIA|Q=7 RUSSIA JAPAN|Q=3 BUILDING 1995-03-13|Q=15 1995-02-01|Q=5 AMERICA 1997-01-01|Q=22 26 17 18 14 27 24 12|Q=20 indian 1994-01-01 PERU|Q=168|Q=13 pending requests|Q=19 Brand#13 Brand#24 Brand#21 2 10 22|Q=2 44 TIN ASIA|Q=4 1995-02-01|Q=18 313|

QP1.303
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seed=517202541
Q=1 76|Q=3 HOUSEHOLD 1995-03-30|Q=6 1993-01-01 0.06 24|Q=5 ASIA 1993-01-01|Q=2 32 COPPER MIDDLE EAST|Q=16 Brand#53 ECONOMY BRUSHED 5 20 47 8 1 41 25 18|Q=14 1995-06-01|Q=22 18 17 22 24 34 10 20|Q=17 Brand#35 SM JAR|Q=20 sandy 1997-01-01 FRANCE|Q=4 1997-09-01|Q=9 seashell|Q=10 1994-12-01|Q=11 IRAQ 0.0000001000|Q=15 1997-08-01|Q=8 EGYPT MIDDLE EAST PROMO ANODIZED TIN|Q=12 TRUCK RAIL 1995-01-01|Q=19 Brand#15 Brand#52 Brand#25 7 12 29|Q=18 315|Q=13 pending requests|Q=7 JORDAN EGYPT|Q=21 UNITED KINGDOM|

QP1.304
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seed=517202542
Q=3 AUTOMOBILE 1995-03-16|Q=16 Brand#33 SMALL BURNISHED 11 30 31 44 13 37 19 25|Q=5 EUROPE 1993-01-01|Q=11 UNITED STATES 0.0000001000|Q=21 MOROCCO|Q=9 rose|Q=2 20 BRASS ASIA|Q=15 1995-05-01|Q=10 1993-10-01|Q=18 312|Q=17 Brand#32 SM CAN|Q=7 ETHIOPIA VIETNAM|Q=8 VIETNAM ASIA ECONOMY POLISHED TIN|Q=19 Brand#12 Brand#45 Brand#24 3 13 26|Q=14 1995-09-01|Q=13 pending accounts|Q=1 84|Q=4 1995-06-01|Q=22 17 16 28 19 27 24 30|Q=20 dark 1996-01-01 VIETNAM|Q=6 1993-01-01 0.03 25|Q=12 RAIL TRUCK 1995-01-01|

QP1.305
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seed=517202543
Q=14 1995-12-01|Q=4 1993-02-01|Q=13 pending accounts|Q=5 MIDDLE EAST 1993-01-01|Q=21 GERMANY|Q=11 JAPAN 0.0000001000|Q=8 JORDAN MIDDLE EAST ECONOMY BURNISHED TIN|Q=6 1993-01-01 0.09 25|Q=3 FURNITURE 1995-03-01|Q=17 Brand#33 LG CASE|Q=2 8 NICKEL AFRICA|Q=20 pale 1994-01-01 IRAQ|Q=1 92|Q=19 Brand#24 Brand#23 Brand#13 8 14 22|Q=10 1994-07-01|Q=9 pink|Q=12 AIR TRUCK 1995-01-01|Q=18 314|Q=15 1993-02-01|Q=7 RUSSIA JORDAN|Q=22 30 14 22 28 18 15 16|Q=16 Brand#13 LARGE PLATED 1 33 15 23 9 18 38 39|

QP1.306
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seed=517202544
Q=4 1995-09-01|Q=12 SHIP TRUCK 1996-01-01|Q=22 10 12 25 18 21 14 17|Q=14 1996-04-01|Q=5 AMERICA 1993-01-01|Q=15 1995-08-01|Q=16 Brand#53 PROMO BRUSHED 11 4 49 50 8 21 14 5|Q=2 45 TIN ASIA|Q=8 ETHIOPIA AFRICA LARGE BRUSHED TIN|Q=10 1993-04-01|Q=17 Brand#35 LG JAR|Q=9 orange|Q=21 UNITED STATES|Q=7 KENYA ETHIOPIA|Q=3 AUTOMOBILE 1995-03-18|Q=6 1993-01-01 0.06 24|Q=13 unusual accounts|Q=18 315|Q=11 ALGERIA 0.0000001000|Q=20 black 1997-01-01 ARGENTINA|Q=19 Brand#21 Brand#51 Brand#13 3 15 29|Q=1 100|

QP1.307
---
seed=517202545
Q=16 Brand#33 MEDIUM ANODIZED 18 16 34 32 10 45 1 26|Q=15 1993-05-01|Q=14 1996-07-01|Q=13 unusual accounts|Q=4 1993-06-01|Q=22 22 25 15 31 23 14 20|Q=18 313|Q=19 Brand#23 Brand#44 Brand#12 9 16 25|Q=7 FRANCE RUSSIA|Q=1 108|Q=12 FOB TRUCK 1996-01-01|Q=17 Brand#32 LG CAN|Q=5 ASIA 1994-01-01|Q=10 1994-01-01|Q=20 lime 1996-01-01 MOROCCO|Q=3 FURNITURE 1995-03-03|Q=9 mint|Q=21 MOZAMBIQUE|Q=11 JORDAN 0.0000001000|Q=2 33 COPPER AFRICA|Q=6 1994-01-01 0.04 25|Q=8 RUSSIA EUROPE LARGE PLATED NICKEL|

QP1.308
---
seed=517202546
Q=20 steel 1994-01-01 ETHIOPIA|Q=14 1996-10-01|Q=21 INDIA|Q=12 MAIL FOB 1996-01-01|Q=15 1995-12-01|Q=17 Brand#34 MED CASE|Q=4 1996-01-01|Q=19 Brand#35 Brand#22 Brand#51 4 17 21|Q=13 unusual deposits|Q=10 1994-10-01|Q=11 ARGENTINA 0.0000001000|Q=1 116|Q=16 Brand#13 ECONOMY PLATED 40 46 18 44 37 23 47 19|Q=5 EUROPE 1994-01-01|Q=18 314|Q=7 UNITED KINGDOM KENYA|Q=8 KENYA AFRICA LARGE ANODIZED NICKEL|Q=22 24 34 12 25 30 13 22|Q=9 linen|Q=6 1994-01-01 0.09 25|Q=3 MACHINERY 1995-03-20|Q=2 21 STEEL EUROPE|

QP1.309
---
seed=517202547
Q=16 Brand#53 STANDARD POLISHED 6 35 3 41 45 12 43 8|Q=14 1997-01-01|Q=13 unusual deposits|Q=2 9 NICKEL AFRICA|Q=21 ARGENTINA|Q=10 1993-08-01|Q=11 KENYA 0.0000001000|Q=4 1993-10-01|Q=1 63|Q=22 27 32 18 31 28 10 11|Q=18 312|Q=12 TRUCK MAIL 1997-01-01|Q=19 Brand#32 Brand#15 Brand#55 9 18 29|Q=5 MIDDLE EAST 1994-01-01|Q=7 MOROCCO FRANCE|Q=8 FRANCE EUROPE MEDIUM POLISHED NICKEL|Q=6 1994-01-01 0.07 24|Q=3 FURNITURE 1995-03-05|Q=15 1993-09-01|Q=20 gainsboro 1993-01-01 SAUDI ARABIA|Q=9 lace|Q=17 Brand#31 MED JAR|

QP1.31
---
seed=517202269
Q=2 6 NICKEL AFRICA|Q=9 navajo|Q=21 CANADA|Q=3 MACHINERY 1995-03-02|Q=4 1993-04-01|Q=7 RUSSIA IRAN|Q=1 89|Q=11 EGYPT 0.0000001000|Q=16 Brand#22 LARGE BURNISHED 48 1 45 16 12 49 19 17|Q=5 MIDDLE EAST 1994-01-01|Q=20 dodger 1993-01-01 ARGENTINA|Q=19 Brand#52 Brand#11 Brand#24 4 11 20|Q=18 314|Q=8 IRAN MIDDLE EAST LARGE PLATED COPPER|Q=17 Brand#23 WRAP PACK|Q=13 special deposits|Q=10 1994-05-01|Q=12 TRUCK REG AIR 1997-01-01|Q=15 1997-04-01|Q=6 1994-01-01 0.09 24|Q=14 1997-09-01|Q=22 11 18 28 32 12 22 16|

QP1.310
---
seed=517202548
Q=18 314|Q=15 1996-03-01|Q=9 grey|Q=14 1997-04-01|Q=12 RAIL MAIL 1997-01-01|Q=2 47 TIN EUROPE|Q=8 UNITED KINGDOM EUROPE MEDIUM BURNISHED NICKEL|Q=11 BRAZIL 0.0000001000|Q=22 16 20 28 10 12 13 24|Q=21 CHINA|Q=16 Brand#33 LARGE ANODIZED 28 12 14 45 15 27 26 2|Q=1 71|Q=6 1994-01-01 0.04 25|Q=17 Brand#33 MED CAN|Q=5 AFRICA 1994-01-01|Q=10 1994-05-01|Q=19 Brand#34 Brand#42 Brand#55 4 19 25|Q=4 1996-05-01|Q=20 purple 1996-01-01 INDONESIA|Q=13 unusual deposits|Q=3 MACHINERY 1995-03-22|Q=7 GERMANY UNITED KINGDOM|

QP1.311
---
seed=517202549
Q=7 UNITED STATES MOROCCO|Q=3 BUILDING 1995-03-07|Q=10 1993-02-01|Q=14 1997-08-01|Q=13 unusual deposits|Q=21 IRAN|Q=18 315|Q=6 1995-01-01 0.09 25|Q=20 chiffon 1995-01-01 UNITED STATES|Q=4 1994-02-01|Q=9 forest|Q=8 MOROCCO AFRICA SMALL BRUSHED NICKEL|Q=22 34 28 26 31 13 22 11|Q=15 1993-12-01|Q=2 34 COPPER AMERICA|Q=1 79|Q=5 AMERICA 1995-01-01|Q=12 REG AIR MAIL 1997-01-01|Q=19 Brand#41 Brand#35 Brand#44 10 20 21|Q=17 Brand#35 JUMBO BOX|Q=11 MOROCCO 0.0000001000|Q=16 Brand#23 PROMO BURNISHED 29 9 21 36 38 33 46 25|

QP1.312
---
seed=517202550
Q=18 313|Q=1 87|Q=13 unusual deposits|Q=7 MOZAMBIQUE GERMANY|Q=16 Brand#53 SMALL POLISHED 23 29 6 33 1 47 22 28|Q=10 1993-11-01|Q=14 1997-11-01|Q=2 22 STEEL EUROPE|Q=19 Brand#43 Brand#13 Brand#43 5 10 28|Q=5 ASIA 1995-01-01|Q=21 BRAZIL|Q=11 CANADA 0.0000001000|Q=22 26 30 17 20 25 18 24|Q=15 1996-07-01|Q=8 GERMANY EUROPE SMALL PLATED BRASS|Q=17 Brand#32 JUMBO JAR|Q=20 misty 1993-01-01 KENYA|Q=3 HOUSEHOLD 1995-03-24|Q=4 1996-09-01|Q=12 SHIP FOB 1997-01-01|Q=6 1995-01-01 0.07 24|Q=9 deep|

QP1.313
---
seed=517202551
Q=13 express packages|Q=2 10 BRASS AMERICA|Q=22 14 23 26 34 15 21 24|Q=5 EUROPE 1995-01-01|Q=11 MOZAMBIQUE 0.0000001000|Q=21 ROMANIA|Q=20 yellow 1996-01-01 EGYPT|Q=14 1993-02-01|Q=7 INDIA UNITED STATES|Q=10 1994-08-01|Q=4 1994-06-01|Q=9 coral|Q=19 Brand#45 Brand#41 Brand#42 10 11 24|Q=18 314|Q=6 1995-01-01 0.04 25|Q=3 BUILDING 1995-03-09|Q=1 95|Q=8 UNITED STATES AMERICA SMALL ANODIZED BRASS|Q=15 1994-03-01|Q=12 FOB REG AIR 1994-01-01|Q=17 Brand#34 JUMBO CAN|Q=16 Brand#33 LARGE BRUSHED 38 16 40 48 35 8 22 18|

QP1.314
---
seed=517202552
Q=14 1993-05-01|Q=17 Brand#31 WRAP BOX|Q=21 IRAQ|Q=8 MOZAMBIQUE AFRICA STANDARD POLISHED BRASS|Q=2 48 TIN MIDDLE EAST|Q=9 brown|Q=6 1995-01-01 0.02 25|Q=4 1997-01-01|Q=5 MIDDLE EAST 1995-01-01|Q=13 express packages|Q=22 28 10 20 16 13 14 19|Q=7 ALGERIA MOZAMBIQUE|Q=15 1996-10-01|Q=3 HOUSEHOLD 1995-03-26|Q=1 103|Q=18 312|Q=16 Brand#23 STANDARD BURNISHED 42 1 24 22 4 20 5 36|Q=11 EGYPT 0.0000001000|Q=10 1993-06-01|Q=12 MAIL FOB 1993-01-01|Q=20 ivory 1995-01-01 CHINA|Q=19 Brand#53 Brand#34 Brand#31 5 12 21|

QP1.315
---
seed=517202553
Q=10 1994-03-01|Q=22 19 21 18 12 11 22 20|Q=1 111|Q=12 TRUCK FOB 1993-01-01|Q=13 express packages|Q=18 313|Q=21 EGYPT|Q=20 seashell 1993-01-01 INDIA|Q=2 35 COPPER AMERICA|Q=14 1993-08-01|Q=16 Brand#53 MEDIUM PLATED 13 11 9 18 24 42 28 17|Q=7 PERU INDIA|Q=15 1994-07-01|Q=3 AUTOMOBILE 1995-03-11|Q=4 1994-09-01|Q=17 Brand#33 WRAP JAR|Q=5 AFRICA 1996-01-01|Q=19 Brand#55 Brand#12 Brand#31 1 13 28|Q=6 1996-01-01 0.07 24|Q=8 INDIA ASIA STANDARD BURNISHED BRASS|Q=9 beige|Q=11 PERU 0.0000001000|

QP1.316
---
seed=517202554
Q=10 1994-12-01|Q=8 ALGERIA AFRICA PROMO BRUSHED BRASS|Q=9 white|Q=18 315|Q=12 RAIL SHIP 1993-01-01|Q=6 1996-01-01 0.05 24|Q=1 119|Q=5 AMERICA 1996-01-01|Q=20 deep 1997-01-01 UNITED KINGDOM|Q=11 ETHIOPIA 0.0000001000|Q=17 Brand#35 WRAP CAN|Q=22 33 24 32 23 19 15 30|Q=16 Brand#33 ECONOMY BRUSHED 2 13 14 18 12 45 28 19|Q=3 HOUSEHOLD 1995-03-28|Q=13 express packages|Q=2 23 STEEL MIDDLE EAST|Q=15 1997-02-01|Q=21 VIETNAM|Q=14 1993-12-01|Q=19 Brand#52 Brand#55 Brand#35 6 14 24|Q=7 INDONESIA ALGERIA|Q=4 1997-04-01|

QP1.317
---
seed=517202555
Q=7 ARGENTINA PERU|Q=17 Brand#31 SM BOX|Q=22 25 15 28 18 21 13 16|Q=5 EUROPE 1996-01-01|Q=3 AUTOMOBILE 1995-03-13|Q=10 1993-09-01|Q=13 express packages|Q=18 312|Q=9 tan|Q=1 66|Q=14 1994-03-01|Q=15 1994-10-01|Q=21 JORDAN|Q=19 Brand#14 Brand#33 Brand#24 1 15 20|Q=16 Brand#23 SMALL ANODIZED 2 31 19 9 17 37 22 24|Q=12 REG AIR SHIP 1994-01-01|Q=8 PERU AMERICA PROMO PLATED STEEL|Q=6 1996-01-01 0.02 25|Q=11 CHINA 0.0000001000|Q=20 papaya 1995-01-01 JORDAN|Q=4 1995-01-01|Q=2 11 BRASS ASIA|

QP1.318
---
seed=517202556
Q=2 49 NICKEL MIDDLE EAST|Q=9 sky|Q=21 ETHIOPIA|Q=3 FURNITURE 1995-03-30|Q=4 1997-08-01|Q=7 CHINA INDONESIA|Q=1 74|Q=11 FRANCE 0.0000001000|Q=16 Brand#53 LARGE PLATED 39 38 12 47 14 40 13 49|Q=5 MIDDLE EAST 1996-01-01|Q=20 blanched 1994-01-01 BRAZIL|Q=19 Brand#11 Brand#21 Brand#23 6 16 27|Q=18 314|Q=8 INDONESIA ASIA PROMO ANODIZED STEEL|Q=17 Brand#33 SM JAR|Q=13 express requests|Q=10 1994-07-01|Q=12 SHIP RAIL 1997-01-01|Q=15 1997-05-01|Q=6 1996-01-01 0.07 24|Q=14 1994-06-01|Q=22 12 23 24 11 13 27 26|

QP1.319
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seed=517202557
Q=15 1995-02-01|Q=12 FOB SHIP 1994-01-01|Q=8 ARGENTINA AMERICA ECONOMY POLISHED STEEL|Q=4 1995-05-01|Q=22 27 23 20 30 22 18 14|Q=13 express requests|Q=16 Brand#33 PROMO POLISHED 2 26 32 37 14 21 30 33|Q=17 Brand#35 SM CAN|Q=18 315|Q=3 MACHINERY 1995-03-15|Q=7 IRAN ARGENTINA|Q=5 AFRICA 1996-01-01|Q=6 1996-01-01 0.05 24|Q=1 82|Q=9 royal|Q=11 ROMANIA 0.0000001000|Q=21 RUSSIA|Q=10 1993-04-01|Q=14 1994-09-01|Q=20 linen 1997-01-01 PERU|Q=19 Brand#13 Brand#54 Brand#13 2 17 24|Q=2 37 COPPER ASIA|

QP1.32
---
seed=517202270
Q=15 1994-12-01|Q=12 RAIL REG AIR 1993-01-01|Q=8 BRAZIL AMERICA LARGE BURNISHED TIN|Q=4 1995-11-01|Q=22 23 14 20 17 16 21 15|Q=13 special packages|Q=16 Brand#52 PROMO PLATED 36 24 41 40 39 29 45 11|Q=17 Brand#25 WRAP DRUM|Q=18 315|Q=3 BUILDING 1995-03-18|Q=7 KENYA BRAZIL|Q=5 AMERICA 1994-01-01|Q=6 1994-01-01 0.06 24|Q=1 97|Q=9 medium|Q=11 PERU 0.0000001000|Q=21 SAUDI ARABIA|Q=10 1993-02-01|Q=14 1993-01-01|Q=20 peach 1997-01-01 MOZAMBIQUE|Q=19 Brand#54 Brand#54 Brand#13 9 12 27|Q=2 44 COPPER ASIA|

QP1.320
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seed=517202558
Q=15 1997-09-01|Q=16 Brand#24 MEDIUM ANODIZED 8 21 30 40 11 14 32 38|Q=2 24 STEEL AFRICA|Q=11 GERMANY 0.0000001000|Q=17 Brand#42 LG BOX|Q=7 BRAZIL CHINA|Q=5 AMERICA 1997-01-01|Q=14 1994-12-01|Q=20 tan 1995-01-01 GERMANY|Q=4 1993-02-01|Q=21 KENYA|Q=3 FURNITURE 1995-03-01|Q=10 1994-01-01|Q=9 powder|Q=12 MAIL REG AIR 1994-01-01|Q=8 CHINA ASIA ECONOMY BURNISHED STEEL|Q=13 special requests|Q=6 1997-01-01 0.02 25|Q=18 313|Q=19 Brand#25 Brand#32 Brand#12 7 18 20|Q=22 27 13 10 18 28 24 22|Q=1 90|

QP1.321
---
seed=517202559
Q=1 98|Q=13 special requests|Q=11 SAUDI ARABIA 0.0000001000|Q=3 MACHINERY 1995-03-17|Q=4 1995-09-01|Q=21 GERMANY|Q=6 1997-01-01 0.08 24|Q=14 1995-04-01|Q=15 1995-05-01|Q=22 31 18 16 14 30 19 32|Q=18 314|Q=9 pale|Q=7 ROMANIA IRAN|Q=5 ASIA 1997-01-01|Q=10 1994-10-01|Q=20 gainsboro 1994-01-01 VIETNAM|Q=12 TRUCK REG AIR 1995-01-01|Q=16 Brand#54 ECONOMY BURNISHED 15 17 12 5 26 6 9 10|Q=17 Brand#44 LG JAR|Q=8 IRAN MIDDLE EAST LARGE BRUSHED STEEL|Q=19 Brand#22 Brand#25 Brand#11 2 19 27|Q=2 12 BRASS ASIA|

QP1.322
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seed=517202560
Q=14 1995-07-01|Q=17 Brand#41 LG CAN|Q=22 23 25 33 27 10 20 15|Q=20 red 1997-01-01 IRAQ|Q=8 BRAZIL AMERICA LARGE PLATED COPPER|Q=16 Brand#34 STANDARD POLISHED 7 10 8 16 50 48 46 47|Q=5 EUROPE 1997-01-01|Q=10 1993-07-01|Q=1 106|Q=13 special accounts|Q=2 50 NICKEL AFRICA|Q=21 UNITED STATES|Q=12 AIR REG AIR 1995-01-01|Q=9 moccasin|Q=4 1993-06-01|Q=18 312|Q=3 BUILDING 1995-03-03|Q=7 IRAQ BRAZIL|Q=6 1997-01-01 0.05 24|Q=19 Brand#24 Brand#53 Brand#55 8 20 23|Q=15 1993-02-01|Q=11 INDIA 0.0000001000|

QP1.323
---
seed=517202561
Q=9 maroon|Q=17 Brand#43 MED BOX|Q=7 CANADA ROMANIA|Q=4 1996-01-01|Q=5 MIDDLE EAST 1997-01-01|Q=13 special accounts|Q=21 MOZAMBIQUE|Q=18 313|Q=11 VIETNAM 0.0000001000|Q=3 MACHINERY 1995-03-19|Q=22 22 20 19 27 26 34 28|Q=1 114|Q=6 1997-01-01 0.03 25|Q=16 Brand#24 MEDIUM BRUSHED 14 34 15 33 47 29 46 9|Q=20 chocolate 1996-01-01 ARGENTINA|Q=14 1995-10-01|Q=15 1995-09-01|Q=10 1994-05-01|Q=8 ROMANIA EUROPE LARGE ANODIZED COPPER|Q=2 38 TIN EUROPE|Q=12 REG AIR TRUCK 1995-01-01|Q=19 Brand#31 Brand#41 Brand#55 3 10 30|

QP1.324
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seed=517202562
Q=13 special accounts|Q=14 1996-01-01|Q=5 AFRICA 1993-01-01|Q=22 26 17 21 24 10 12 25|Q=19 Brand#33 Brand#24 Brand#54 8 11 27|Q=11 INDONESIA 0.0000001000|Q=9 lawn|Q=6 1993-01-01 0.08 24|Q=18 315|Q=15 1993-05-01|Q=8 IRAQ MIDDLE EAST MEDIUM POLISHED COPPER|Q=10 1993-02-01|Q=7 SAUDI ARABIA IRAQ|Q=4 1993-10-01|Q=17 Brand#45 MED JAR|Q=16 Brand#54 PROMO BURNISHED 25 30 47 20 31 46 3

10|Q=3 BUILDING 1995-03-05|Q=1 61|Q=12 SHIP REG AIR 1996-01-01|Q=2 26 STEEL AFRICA|Q=21 INDIA|Q=20 moccasin 1994-01-01 MOZAMBIQUE|

QP1.325

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seed=517202563

Q=20 almond 1993-01-01 ETHIOPIA|Q=5 AMERICA 1993-01-01|Q=4 1996-04-01|Q=14 1996-05-01|Q=11 RUSSIA 0.0000001000|Q=1 69|Q=6 1993-01-01 0.05 24|Q=16 Brand#44 SMALL PLATED 19 3 29 12 46 25 15 9|Q=8 CANADA AMERICA MEDIUM BURNISHED COPPER|Q=22 19 29 20 21 10 13 24|Q=7 JAPAN CANADA|Q=3 HOUSEHOLD 1995-03-21|Q=2 13 BRASS EUROPE|Q=12 FOB AIR 1996-01-01|Q=21 ALGERIA|Q=19 Brand#31 Brand#12 Brand#43 3 12 23|Q=17 Brand#42 MED CAN|Q=13 special accounts|Q=10 1993-11-01|Q=15 1995-12-01|Q=18 313|Q=9 hot|

QP1.326

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seed=517202564

Q=3 BUILDING 1995-03-07|Q=7 EGYPT SAUDI ARABIA|Q=14 1996-08-01|Q=15 1993-09-01|Q=6 1993-01-01 0.03 25|Q=5 ASIA 1993-01-01|Q=21 PERU|Q=20 ivory 1996-01-01 SAUDI ARABIA|Q=18 314|Q=10 1994-08-01|Q=4 1994-01-01|Q=16 Brand#24 LARGE BRUSHED 32 34 2 42 46 18 41 33|Q=19 Brand#43 Brand#45 Brand#42 9 13 30|Q=1 77|Q=13 special accounts|Q=9 gainsboro|Q=8 SAUDI ARABIA MIDDLE EAST SMALL BRUSHED COPPER|Q=17 Brand#44 JUMBO BOX|Q=11 IRAN 0.0000001000|Q=12 MAIL AIR 1996-01-01|Q=22 15 28 18 10 26 11 19|Q=2 1 NICKEL AMERICA|

QP1.327

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seed=517202565

Q=13 special deposits|Q=15 1996-04-01|Q=17 Brand#41 JUMBO JAR|Q=1 85|Q=22 23 26 33 18 12 31 29|Q=11 UNITED KINGDOM 0.0000001000|Q=3 HOUSEHOLD 1995-03-23|Q=4 1996-08-01|Q=7 VIETNAM JAPAN|Q=20 sienna 1995-01-01 IRAN|Q=14 1996-11-01|Q=21 IRAN|Q=9 dodger|Q=8 JAPAN ASIA SMALL POLISHED TIN|Q=2 39 TIN EUROPE|Q=18 312|Q=16 Brand#54 STANDARD ANODIZED 14 18 21 24 7 19 17 37|Q=6 1993-01-01 0.08 24|Q=10 1993-05-01|Q=12 TRUCK AIR 1996-01-01|Q=5 EUROPE 1993-01-01|Q=19 Brand#45 Brand#33 Brand#41 4 14 26|

QP1.328

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seed=517202566

Q=14 1997-02-01|Q=2 27 COPPER AMERICA|Q=9 cornsilk|Q=20 dim 1993-01-01 UNITED STATES|Q=6 1994-01-01 0.06 24|Q=17 Brand#43 JUMBO CAN|Q=18 313|Q=8 EGYPT MIDDLE EAST SMALL BURNISHED TIN|Q=21 BRAZIL|Q=13 pending deposits|Q=3 AUTOMOBILE 1995-03-09|Q=22 23 24 34 31 17 16 18|Q=16 Brand#44 MEDIUM PLATED 9 6 4 24 29 13 44 25|Q=4 1994-05-01|Q=11 IRAQ 0.0000001000|Q=15 1993-12-01|Q=1 93|Q=10 1994-03-01|Q=19 Brand#42 Brand#15 Brand#31 9 15 22|Q=5 AFRICA 1994-01-01|Q=7 JORDAN EGYPT|Q=12 AIR FOB 1994-01-01|

QP1.329

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seed=517202567

Q=21 ROMANIA|Q=3 FURNITURE 1995-03-25|Q=18 315|Q=5 AMERICA 1994-01-01|Q=11 UNITED STATES 0.0000001000|Q=7 ETHIOPIA VIETNAM|Q=6 1994-01-01 0.03 25|Q=20 peach 1996-01-01 KENYA|Q=17 Brand#44 WRAP BOX|Q=12 REG AIR RAIL 1997-01-01|Q=16 Brand#24 ECONOMY POLISHED 42 19 44 30 26 22 6 49|Q=15 1996-07-01|Q=13 pending deposits|Q=10 1994-12-01|Q=2 14 BRASS MIDDLE EAST|Q=8 VIETNAM ASIA STANDARD BRUSHED TIN|Q=14 1997-05-01|Q=19 Brand#54 Brand#43 Brand#35 4 16 30|Q=9 burnished|Q=22 25 22 32 19 10 28 33|Q=1 101|Q=4 1996-12-01|

QP1.33

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seed=517202271

Q=15 1997-07-01|Q=16 Brand#42 SMALL BRUSHED 3 16 25 29 12 35 30 19|Q=2 31 STEEL AFRICA|Q=11 ETHIOPIA 0.0000001000|Q=17 Brand#22 SM BOX|Q=7 FRANCE ROMANIA|Q=5 ASIA 1994-01-01|Q=14 1993-04-01|Q=20 blush 1995-01-01 FRANCE|Q=4 1993-08-01|Q=21 JAPAN|Q=3 MACHINERY 1995-03-04|Q=10 1993-11-01|Q=9 lemon|Q=12 REG AIR SHIP 1996-01-01|Q=8 ROMANIA EUROPE MEDIUM BRUSHED TIN|Q=13 special packages|Q=6 1994-01-01 0.04 25|Q=18 313|Q=19 Brand#11 Brand#32 Brand#13 5 13 23|Q=22 24 19 10 25 27 14 20|Q=1 105|

QP1.330

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seed=517202568

Q=6 1994-01-01 0.09 25|Q=17 Brand#41 WRAP JAR|Q=14 1997-09-01|Q=16 Brand#54 SMALL ANODIZED 18 46 24 3 22 11 30 34|Q=19 Brand#51 Brand#31 Brand#34 10 17 26|Q=10 1993-09-01|Q=9 black|Q=2 2 NICKEL AMERICA|Q=15 1994-04-01|Q=8 JORDAN MIDDLE EAST STANDARD PLATED TIN|Q=5 ASIA 1994-01-01|Q=22 12 30 17 33 26 32 10|Q=12 SHIP RAIL 1997-01-01|Q=7 RUSSIA JORDAN|Q=13 pending deposits|Q=18 312|Q=1 109|Q=4 1994-09-01|Q=20 blue 1995-01-01 EGYPT|Q=3 AUTOMOBILE 1995-03-11|Q=11 JAPAN 0.0000001000|Q=21 IRAQ|

QP1.331

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seed=517202569

Q=8 ETHIOPIA AFRICA STANDARD ANODIZED TIN|Q=5 EUROPE 1994-01-01|Q=4 1997-04-01|Q=6 1994-01-01 0.06 24|Q=17 Brand#43 WRAP CAN|Q=7 KENYA ETHIOPIA|Q=1 117|Q=18 314|Q=22 29 22 24 18 28 31 14|Q=14 1997-12-01|Q=9 almond|Q=10 1994-06-01|Q=15 1996-10-01|Q=11 ALGERIA 0.0000001000|Q=20 magenta 1993-01-01 ROMANIA|Q=2 40 TIN MIDDLE EAST|Q=21 CANADA|Q=19 Brand#53 Brand#14 Brand#23 5 18 22|Q=13 pending deposits|Q=16 Brand#44 LARGE BURNISHED 46 26 35 10 19 29 23 33|Q=12 FOB RAIL 1997-01-01|Q=3 FURNITURE 1995-03-27|

QP1.332

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seed=517202570

Q=5 MIDDLE EAST 1995-01-01|Q=21 SAUDI ARABIA|Q=14 1993-03-01|Q=19 Brand#15 Brand#52 Brand#23 10 19 29|Q=15 1994-07-01|Q=17 Brand#45 SM BOX|Q=12 MAIL RAIL 1993-01-01|Q=6 1995-01-01 0.03 25|Q=4 1995-01-01|Q=9 tomato|Q=8 RUSSIA EUROPE PROMO POLISHED NICKEL|Q=16 Brand#24 PROMO POLISHED 46 47 12 18 45 21 48 43|Q=11 JORDAN 0.0000001000|Q=2 28 COPPER ASIA|Q=10 1993-03-01|Q=18 315|Q=1 64|Q=13 pending packages|Q=7 FRANCE RUSSIA|Q=22 18 10 20 34 26 14 32|Q=3 MACHINERY 1995-03-13|Q=20 thistle 1997-01-01 INDIA|

QP1.333

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seed=517202571

Q=21 JORDAN|Q=15 1997-02-01|Q=4 1997-08-01|Q=6 1995-01-01 0.09 25|Q=7 UNITED KINGDOM KENYA|Q=16 Brand#54 SMALL BRUSHED 31 18 27 19 6 17 28 25|Q=19 Brand#12 Brand#35 Brand#22 6 20 25|Q=18 313|Q=14 1993-06-01|Q=22 33 25 20 18 21 17 24|Q=11 ARGENTINA 0.0000001000|Q=13 pending packages|Q=3 FURNITURE 1995-03-29|Q=1 72|Q=2 16 STEEL MIDDLE EAST|Q=5 AFRICA 1995-01-01|Q=8 KENYA AFRICA PROMO BURNISHED NICKEL|Q=20 ghost 1995-01-01 UNITED KINGDOM|Q=12 RAIL TRUCK 1993-01-01|Q=17 Brand#42 SM JAR|Q=10 1994-01-01|Q=9 smoke|

QP1.334

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seed=517202572

Q=10 1994-10-01|Q=3 MACHINERY 1995-03-15|Q=15 1994-11-01|Q=13 pending packages|Q=6 1995-01-01 0.06 24|Q=8 FRANCE EUROPE ECONOMY BRUSHED NICKEL|Q=9 salmon|Q=7 MOROCCO FRANCE|Q=4 1995-05-01|Q=11 KENYA 0.0000001000|Q=22 26 13 12 29 15 11 17|Q=18 314|Q=12 AIR TRUCK 1993-01-01|Q=1 80|Q=5 AMERICA 1995-01-01|Q=16 Brand#44 ECONOMY BURNISHED 22 5 11 27 8 6 19 14|Q=2 3 NICKEL ASIA|Q=14 1993-09-01|Q=19 Brand#14 Brand#23 Brand#11 1 10 21|Q=20 rose 1994-01-01 JORDAN|Q=17 Brand#44 SM CAN|Q=21 ETHIOPIA|

QP1.335

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seed=517202573

Q=18 312|Q=8 UNITED KINGDOM EUROPE ECONOMY PLATED NICKEL|Q=20 coral 1997-01-01 CANADA|Q=21 RUSSIA|Q=2 41 TIN MIDDLE EAST|Q=4 1997-11-01|Q=22 13 12 24 18 23 32 22|Q=17 Brand#41 LG BOX|Q=1 88|Q=11 BRAZIL 0.0000001000|Q=9 purple|Q=19 Brand#21 Brand#51 Brand#15 6 11 29|Q=3 BUILDING 1995-03-31|Q=13 unusual packages|Q=5 ASIA 1995-01-01|Q=7 GERMANY UNITED KINGDOM|Q=10 1993-07-01|Q=16 Brand#24 STANDARD PLATED 44 9 34 39 18 48 23 27|Q=6 1995-01-01 0.04 25|Q=14 1994-01-01|Q=15 1997-05-01|Q=12 REG AIR TRUCK 1994-01-01|

QP1.336

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seed=517202574

Q=19 Brand#23 Brand#34 Brand#15 1 12 25|Q=1 96|Q=15 1995-02-01|Q=17 Brand#43 LG JAR|Q=5 EUROPE 1995-01-01|Q=8 MOROCCO AFRICA ECONOMY ANODIZED BRASS|Q=9 peach|Q=12 SHIP TRUCK 1994-01-01|Q=14 1994-04-01|Q=7 UNITED STATES MOROCCO|Q=4 1995-08-01|Q=3 HOUSEHOLD 1995-03-17|Q=20 navajo 1995-01-01 PERU|Q=16 Brand#54 MEDIUM BRUSHED 5 28 4 17 7 6 1 10|Q=6 1995-01-01 0.09 25|Q=22 20 27 29 16 15 22 30|Q=10 1994-04-01|Q=13 unusual requests|Q=2 29 COPPER ASIA|Q=21 KENYA|Q=18 313|Q=11 MOROCCO 0.0000001000|

QP1.337

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seed=517202575

Q=8 GERMANY EUROPE LARGE POLISHED BRASS|Q=13 unusual requests|Q=2 17 STEEL AFRICA|Q=20 antique 1994-01-01 GERMANY|Q=17 Brand#45 LG CAN|Q=3 BUILDING 1995-03-03|Q=6 1996-01-01 0.07 24|Q=21 FRANCE|Q=18 315|Q=11 CANADA 0.0000001000|Q=19 Brand#21 Brand#22 Brand#54 7 13 21|Q=10 1995-01-01|Q=15 1997-09-01|Q=4 1993-05-01|Q=22 14 33 19 30 10 25 12|Q=1 104|Q=7 MOZAMBIQUE GERMANY|Q=12 FOB MAIL 1994-01-01|Q=9 navy|Q=14 1994-07-01|Q=5 MIDDLE EAST 1996-01-01|Q=16 Brand#44 PROMO ANODIZED 6 30 12 16 23 8 24 9|

QP1.338

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seed=517202576

Q=6 1996-01-01 0.04 25|Q=15 1995-06-01|Q=18 312|Q=17 Brand#42 MED BOX|Q=12 MAIL RAIL 1995-01-01|Q=1 113|Q=7 GERMANY UNITED STATES|Q=2 4 BRASS ASIA|Q=22 21 15 22 13 10 29 34|Q=13 unusual requests|Q=21 UNITED KINGDOM|Q=10 1993-11-01|Q=14 1994-10-01|Q=9 metallic|Q=3 HOUSEHOLD 1995-03-19|Q=16 Brand#24 SMALL PLATED 2 1 48 23 44 25 7 21|Q=20 khaki 1997-01-01 RUSSIA|Q=19 Brand#33 Brand#55 Brand#53 2 14 28|Q=11 MOZAMBIQUE 0.0000001000|Q=4 1995-12-01|Q=8 UNITED STATES AMERICA LARGE BURNISHED BRASS|Q=5 AMERICA 1996-01-01|

QP1.339

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seed=517202577

Q=15 1993-02-01|Q=14 1995-01-01|Q=18 314|Q=17 Brand#44 MED JAR|Q=10 1994-08-01|Q=20 sky 1996-01-01 IRAQ|Q=16 Brand#54 LARGE POLISHED 25 43 3 9 44 18 10 37|Q=11 EGYPT 0.0000001000|Q=1 60|Q=8 MOZAMBIQUE AFRICA MEDIUM BRUSHED BRASS|Q=4 1993-09-01|Q=22 21 29 18 26 22 10 31|Q=5 ASIA 1996-01-01|Q=12 RAIL MAIL 1995-01-01|Q=3 AUTOMOBILE 1995-03-05|Q=9 light|Q=21 MOZAMBIQUE|Q=2 42 TIN AFRICA|Q=13 unusual requests|Q=6 1996-01-01 0.09 25|Q=19 Brand#35 Brand#43 Brand#52 7 15 24|Q=7 UNITED STATES MOZAMBIQUE|

QP1.34

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seed=517202272

Q=1 113|Q=13 special packages|Q=11 CHINA 0.0000001000|Q=3 BUILDING 1995-03-20|Q=4 1996-02-01|Q=21 EGYPT|Q=6 1994-01-01 0.09 24|Q=14 1993-07-01|Q=15 1995-04-01|Q=22 15 31 28 33 19 11 34|Q=18 314|Q=9 indian|Q=7 UNITED KINGDOM IRAQ|Q=5 EUROPE 1994-01-01|Q=10 1994-09-01|Q=20 magenta 1993-01-01 VIETNAM|Q=12 SHIP REG AIR

1993-01-01|Q=16 Brand#22 ECONOMY ANODIZED 40 5 10 43 16 15 48 23|Q=17 Brand#24 SM PACK|Q=8 IRAQ MIDDLE EAST MEDIUM PLATED TIN|Q=19 Brand#13 Brand#15 Brand#12 10 14 20|Q=2 19 BRASS EUROPE|

QP1.340

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seed=517202578
Q=1 68|Q=7 MOZAMBIQUE INDIA|Q=16 Brand#44 STANDARD ANODIZED 22 14 27 31 1 40 6 49|Q=17 Brand#41 MED CAN|Q=18 312|Q=22 21 23 17 12 24 14 13|Q=12 AIR MAIL 1995-01-01|Q=6 1996-01-01 0.07 24|Q=8 INDIA ASIA MEDIUM PLATED BRASS|Q=9 ivory|Q=11 PERU 0.0000001000|Q=4 1996-04-01|Q=2 30 COPPER EUROPE|Q=5 EUROPE 1996-01-01|Q=20 dodger 1994-01-01 ARGENTINA|Q=21 INDIA|Q=13 unusual requests|Q=10 1993-05-01|Q=19 Brand#32 Brand#21 Brand#41 2 16 21|Q=3 HOUSEHOLD 1995-03-21|Q=14 1995-05-01|Q=15 1995-09-01|

QP1.341

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seed=517202579
Q=21 ALGERIA|Q=17 Brand#42 JUMBO BOX|Q=7 INDIA ALGERIA|Q=3 AUTOMOBILE 1995-03-07|Q=1 76|Q=10 1994-02-01|Q=12 REG AIR FOB 1995-01-01|Q=22 19 22 33 24 34 16 23|Q=9 goldenrod|Q=16 Brand#24 MEDIUM BURNISHED 20 24 32 16 34 44 30 5|Q=6 1997-01-01 0.04 24|Q=11 ETHIOPIA 0.0000001000|Q=2 18 STEEL AFRICA|Q=4 1994-01-01|Q=5 MIDDLE EAST 1997-01-01|Q=14 1995-08-01|Q=8 ALGERIA AFRICA MEDIUM ANODIZED STEEL|Q=20 peru 1993-01-01 MOZAMBIQUE|Q=13 unusual accounts|Q=18 313|Q=15 1993-06-01|Q=19 Brand#44 Brand#14 Brand#41 8 17 28|

QP1.342

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seed=517202580
Q=2 6 BRASS EUROPE|Q=9 firebrick|Q=5 AFRICA 1997-01-01|Q=4 1996-08-01|Q=18 315|Q=1 84|Q=20 blush 1996-01-01 FRANCE|Q=15 1995-12-01|Q=16 Brand#14 ECONOMY POLISHED 14 6 36 1 30 45 4 12|Q=17 Brand#44 JUMBO JAR|Q=7 ALGERIA PERU|Q=21 PERU|Q=13 express accounts|Q=14 1995-11-01|Q=19 Brand#41 Brand#42 Brand#35 3 18 24|Q=8 PERU AMERICA SMALL POLISHED STEEL|Q=22 17 27 32 18 15 20 26|Q=11 CHINA 0.0000001000|Q=10 1994-11-01|Q=3 FURNITURE 1995-03-23|Q=12 SHIP FOB 1995-01-01|Q=6 1997-01-01 0.02 25|

QP1.343

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seed=517202581
Q=16 Brand#44 STANDARD BRUSHED 39 27 48 12 2 37 1 8|Q=9 cyan|Q=17 Brand#41 JUMBO CAN|Q=8 INDONESIA ASIA SMALL BURNISHED STEEL|Q=14 1996-02-01|Q=11 FRANCE 0.0000001000|Q=10 1993-09-01|Q=12 FOB MAIL 1993-01-01|Q=6 1997-01-01 0.07 24|Q=21 INDONESIA|Q=7 PERU INDONESIA|Q=3 AUTOMOBILE 1995-03-09|Q=15 1993-09-01|Q=5 AMERICA 1997-01-01|Q=22 30 18 28 24 31 12 22|Q=20 magenta 1994-01-01 SAUDI ARABIA|Q=1 92|Q=13 express accounts|Q=19 Brand#43 Brand#25 Brand#34 8 19 20|Q=2 43 NICKEL AMERICA|Q=4 1994-05-01|Q=18 312|

QP1.344

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seed=517202582
Q=1 100|Q=3 FURNITURE 1995-03-25|Q=6 1997-01-01 0.05 24|Q=5 ASIA 1997-01-01|Q=2 31 COPPER EUROPE|Q=16 Brand#24 LARGE BURNISHED 3 34 7 22 28 29 13 39|Q=14 1996-05-01|Q=22 31 16 12 19 15 27 23|Q=17 Brand#43 WRAP BOX|Q=20 tomato 1993-01-01 IRAN|Q=4 1996-12-01|Q=9 chiffon|Q=10 1994-06-01|Q=11 ROMANIA 0.0000001000|Q=15 1996-04-01|Q=8 ARGENTINA AMERICA STANDARD BRUSHED STEEL|Q=12 TRUCK FOB 1996-01-01|Q=19 Brand#55 Brand#13 Brand#33 3 20 27|Q=18 314|Q=13 express accounts|Q=7 INDONESIA ARGENTINA|Q=21 ARGENTINA|

QP1.345

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seed=517202583
Q=3 MACHINERY 1995-03-11|Q=16 Brand#14 PROMO PLATED 16 18 25 7 29 22 42 50|Q=5 EUROPE 1993-01-01|Q=11 GERMANY 0.0000001000|Q=21 ROMANIA|Q=9 blue|Q=2 19 STEEL AMERICA|Q=15 1994-01-01|Q=10 1993-03-01|Q=18 315|Q=17 Brand#45 WRAP JAR|Q=7 ARGENTINA CHINA|Q=8 CHINA ASIA STANDARD PLATED STEEL|Q=19 Brand#52 Brand#41 Brand#23 9 10 24|Q=14 1996-09-01|Q=13 express accounts|Q=1 108|Q=4 1994-08-01|Q=22 22 14 21 17 27 12 32|Q=20 goldenrod 1996-01-01 ALGERIA|Q=6 1993-01-01 0.02 25|Q=12 RAIL SHIP 1996-01-01|

QP1.346

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seed=517202584
Q=14 1996-12-01|Q=4 1997-03-01|Q=13 express deposits|Q=5 MIDDLE EAST 1993-01-01|Q=21 IRAQ|Q=11 SAUDI ARABIA 0.0000001000|Q=8 IRAN MIDDLE EAST STANDARD ANODIZED COPPER|Q=6 1993-01-01 0.08 24|Q=3 BUILDING 1995-03-27|Q=17 Brand#52 WRAP CAN|Q=2 7 BRASS MIDDLE EAST|Q=20 rosy 1995-01-01 MOROCCO|Q=1 116|Q=19 Brand#54 Brand#34 Brand#22 4 11 20|Q=10 1993-12-01|Q=9 aquamarine|Q=12 AIR SHIP 1996-01-01|Q=18 313|Q=15 1996-07-01|Q=7 CHINA IRAN|Q=22 15 24 16 21 11 25 17|Q=16 Brand#45 SMALL BRUSHED 49 9 7 31 17 29 15 18|

QP1.347

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seed=517202585
Q=4 1994-12-01|Q=12 REG AIR SHIP 1997-01-01|Q=22 24 16 12 31 21 11 13|Q=14 1997-03-01|Q=5 AFRICA 1993-01-01|Q=15 1994-04-01|Q=16 Brand#25 ECONOMY ANODIZED 2 26 3 1 13 48 31 34|Q=2 44 NICKEL AMERICA|Q=8 ARGENTINA AMERICA PROMO POLISHED COPPER|Q=10 1994-09-01|Q=17 Brand#54 SM BOX|Q=9 violet|Q=21 CANADA|Q=7 IRAN ARGENTINA|Q=3 MACHINERY 1995-03-13|Q=6 1993-01-01 0.05 24|Q=13 express deposits|Q=18 314|Q=11 INDIA 0.0000001000|Q=20 cornflower 1993-01-01 EGYPT|Q=19 Brand#11 Brand#11 Brand#21 9 12 27|Q=1 63|

QP1.348

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seed=517202586
Q=16 Brand#15 STANDARD PLATED 5 30 42 39 22 48 1 17|Q=15 1996-11-01|Q=14 1997-06-01|Q=13 express deposits|Q=4 1997-07-01|Q=22 31 14 30 16 19 22 27|Q=18 312|Q=19 Brand#14 Brand#54 Brand#15 5 13 23|Q=7 BRAZIL CHINA|Q=1 71|Q=12 SHIP FOB 1993-01-01|Q=17 Brand#51 SM JAR|Q=5 AMERICA 1993-01-01|Q=10 1993-07-01|Q=20 navajo 1997-01-01 ROMANIA|Q=3 BUILDING 1995-03-29|Q=9 spring|Q=21 SAUDI ARABIA|Q=11 VIETNAM 0.0000001000|Q=2 32 TIN MIDDLE EAST|Q=6 1993-01-01 0.02 25|Q=8 CHINA ASIA PROMO BURNISHED COPPER|

QP1.349

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seed=517202587
Q=20 aquamarine 1995-01-01 INDONESIA|Q=14 1997-10-01|Q=21 JAPAN|Q=12 FOB REG AIR 1997-01-01|Q=15 1994-07-01|Q=17 Brand#53 SM CAN|Q=4 1995-04-01|Q=19 Brand#11 Brand#32 Brand#15 10 14 30|Q=13 special deposits|Q=10 1994-04-01|Q=11 INDONESIA 0.0000001000|Q=1 79|Q=16 Brand#45 MEDIUM BRUSHED 9 29 26 19 6 33 47 21|Q=5 EUROPE 1994-01-01|Q=18 313|Q=7 ROMANIA IRAN|Q=8 IRAN MIDDLE EAST ECONOMY BRUSHED COPPER|Q=22 19 12 30 33 25 34 15|Q=9 seashell|Q=6 1994-01-01 0.08 24|Q=3 HOUSEHOLD 1995-03-15|Q=2 20 STEEL ASIA|

QP1.35

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seed=517202273
Q=14 1993-10-01|Q=17 Brand#31 SM DRUM|Q=22 20 33 12 28 23 10 17|Q=20 tomato 1997-01-01 IRAN|Q=8 CANADA AMERICA MEDIUM ANODIZED TIN|Q=16 Brand#53 STANDARD PLATED 9 47 44 22 43 6 40 20|Q=5 MIDDLE EAST 1995-01-01|Q=10 1993-06-01|Q=1 60|Q=13 special packages|Q=2 7 NICKEL AFRICA|Q=21 VIETNAM|Q=12 FOB AIR 1993-01-01|Q=9 ghost|Q=4 1993-11-01|Q=18 312|Q=3 HOUSEHOLD 1995-03-06|Q=7 MOROCCO CANADA|Q=6 1995-01-01 0.06 24|Q=19 Brand#15 Brand#53 Brand#51 5 15 27|Q=15 1993-01-01|Q=11 FRANCE 0.0000001000|

QP1.350

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seed=517202588
Q=16 Brand#25 PROMO ANODIZED 12 23 37 36 11 33 3 26|Q=14 1993-01-01|Q=13 special packages|Q=2 8 BRASS MIDDLE EAST|Q=21 ETHIOPIA|Q=10 1995-01-01|Q=11 RUSSIA 0.0000001000|Q=4 1997-11-01|Q=1 87|Q=22 33 11 26 17 22 18 34|Q=18 315|Q=12 TRUCK REG AIR 1993-01-01|Q=19 Brand#23 Brand#25 Brand#14 5 15 27|Q=5 MIDDLE EAST 1994-01-01|Q=7 IRAQ BRAZIL|Q=8 BRAZIL AMERICA ECONOMY PLATED COPPER|Q=6 1994-01-01 0.05 24|Q=3 BUILDING 1995-03-31|Q=15 1997-02-01|Q=20 lace 1994-01-01 UNITED KINGDOM|Q=9 rose|Q=17 Brand#55 LG BOX|

QP1.351

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seed=517202589
Q=18 312|Q=15 1994-11-01|Q=9 pink|Q=14 1993-04-01|Q=12 RAIL REG AIR 1993-01-01|Q=2 46 NICKEL ASIA|Q=8 ROMANIA EUROPE ECONOMY BURNISHED TIN|Q=11 IRAN 0.0000001000|Q=22 23 34 22 11 24 28 20|Q=21 RUSSIA|Q=16 Brand#15 SMALL PLATED 14 44 45 28 38 40 5 3|Q=1 95|Q=6 1994-01-01 0.03 25|Q=17 Brand#52 LG JAR|Q=5 AFRICA 1994-01-01|Q=10 1993-10-01|Q=19 Brand#25 Brand#53 Brand#53 10 16 23|Q=4 1995-08-01|Q=20 slate 1997-01-01 JORDAN|Q=13 special packages|Q=3 HOUSEHOLD 1995-03-17|Q=7 CANADA ROMANIA|

QP1.352

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seed=517202590
Q=7 SAUDI ARABIA IRAQ|Q=3 AUTOMOBILE 1995-03-02|Q=10 1994-07-01|Q=14 1993-07-01|Q=13 special packages|Q=21 KENYA|Q=18 314|Q=6 1994-01-01 0.08 24|Q=20 drab 1995-01-01 CANADA|Q=4 1993-05-01|Q=9 orange|Q=8 IRAQ MIDDLE EAST LARGE BRUSHED TIN|Q=22 13 24 18 29 27 19 12|Q=15 1997-06-01|Q=2 33 TIN AFRICA|Q=1 103|Q=5 AMERICA 1994-01-01|Q=12 AIR REG AIR 1993-01-01|Q=19 Brand#22 Brand#31 Brand#52 6 17 30|Q=17 Brand#54 LG CAN|Q=11 UNITED KINGDOM 0.0000001000|Q=16 Brand#45 LARGE POLISHED 36 14 25 8 46 18 20 16|

QP1.353

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seed=517202591
Q=18 312|Q=1 111|Q=13 special packages|Q=7 JAPAN CANADA|Q=16 Brand#25 STANDARD ANODIZED 22 35 7 9 18 32 23 1|Q=10 1993-05-01|Q=14 1993-10-01|Q=2 21 STEEL ASIA|Q=19 Brand#34 Brand#24 Brand#51 1 18 26|Q=5 ASIA 1994-01-01|Q=21 FRANCE|Q=11 IRAQ 0.0000001000|Q=22 28 13 27 30 15 23 25|Q=15 1995-02-01|Q=8 CANADA AMERICA LARGE PLATED TIN|Q=17 Brand#51 MED BOX|Q=20 pink 1994-01-01 CHINA|Q=3 FURNITURE 1995-03-19|Q=4 1995-12-01|Q=12 REG AIR AIR 1995-01-01|Q=6 1994-01-01 0.06 24|Q=9 mint|

QP1.354

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seed=517202592
Q=13 special packages|Q=2 9 BRASS AFRICA|Q=22 12 19 13 24 31 16 25|Q=5 EUROPE 1995-01-01|Q=11 UNITED STATES 0.0000001000|Q=21 UNITED KINGDOM|Q=20 brown 1997-01-01 GERMANY|Q=14 1994-02-01|Q=7 EGYPT SAUDI ARABIA|Q=10 1994-02-01|Q=4 1993-09-01|Q=9 linen|Q=19 Brand#31 Brand#52 Brand#41 6 19 22|Q=18 313|Q=6 1995-01-01 0.03 25|Q=3 AUTOMOBILE 1995-03-04|Q=1 119|Q=8 SAUDI ARABIA MIDDLE EAST LARGE ANODIZED TIN|Q=15 1997-09-01|Q=12 SHIP AIR 1994-01-01|Q=17 Brand#52 MED JAR|Q=16 Brand#15 MEDIUM BURNISHED 25 2 48 20 12 43 5 33|

QP1.355

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seed=517202593
Q=14 1994-05-01|Q=17 Brand#54 MED CAN|Q=21 MOROCCO|Q=8 JAPAN ASIA MEDIUM POLISHED TIN|Q=2 47 NICKEL EUROPE|Q=9 lace|Q=6 1995-01-01 0.08 25|Q=4 1996-03-01|Q=5 MIDDLE EAST 1995-01-01|Q=13 special requests|Q=22 18 16 13 33 34 21 15|Q=7

VIETNAM JAPAN|Q=15 1995-06-01|Q=3 FURNITURE 1995-03-21|Q=1 66|Q=18 315|Q=16 Brand#45 ECONOMY POLISHED 29 39 10 46 7 45 21 49|Q=11 JAPAN 0.0000001000|Q=10 1994-11-01|Q=12 MAIL AIR 1994-01-01|Q=20 maroon 1996-01-01 RUSSIA|Q=19 Brand#33 Brand#45 Brand#45 1 20 30|

QP1.356

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seed=517202594

Q=10 1993-08-01|Q=22 22 30 10 20 27 33 19|Q=1 74|Q=12 TRUCK AIR 1994-01-01|Q=13 special requests|Q=18 312|Q=21 INDIA|Q=20 turquoise 1994-01-01 JAPAN|Q=2 34 TIN AFRICA|Q=14 1994-08-01|Q=16 Brand#35 STANDARD BRUSHED 32 9 15 25 33 16 13 17|Q=7 JORDAN EGYPT|Q=15 1993-03-01|Q=3 MACHINERY 1995-03-06|Q=4 1993-12-01|Q=17 Brand#51 JUMBO BOX|Q=5 AFRICA 1995-01-01|Q=19 Brand#45 Brand#23 Brand#44 7 10 26|Q=6 1995-01-01 0.06 24|Q=8 EGYPT MIDDLE EAST MEDIUM BURNISHED NICKEL|Q=9 grey|Q=11 UNITED STATES 0.0000001000|

QP1.357

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seed=517202595

Q=10 1994-05-01|Q=8 VIETNAM ASIA SMALL BRUSHED NICKEL|Q=9 forest|Q=18 314|Q=12 RAIL AIR 1994-01-01|Q=6 1995-01-01 0.03 25|Q=1 82|Q=5 AMERICA 1995-01-01|Q=20 green 1993-01-01 ARGENTINA|Q=11 JAPAN 0.0000001000|Q=17 Brand#53 JUMBO PACK|Q=22 12 23 24 14 13 25 32|Q=16 Brand#15 LARGE BURNISHED 23 13 10 4 28 29 15 37|Q=3 FURNITURE 1995-03-23|Q=13 pending requests|Q=2 22 COPPER EUROPE|Q=15 1995-09-01|Q=21 ALGERIA|Q=14 1994-11-01|Q=19 Brand#42 Brand#11 Brand#33 2 11 22|Q=7 ETHIOPIA VIETNAM|Q=4 1996-07-01|

QP1.358

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seed=517202596

Q=7 RUSSIA JORDAN|Q=17 Brand#55 JUMBO CAN|Q=22 26 22 20 10 16 21 17|Q=5 ASIA 1996-01-01|Q=3 MACHINERY 1995-03-08|Q=10 1993-03-01|Q=13 pending requests|Q=18 315|Q=9 deep|Q=1 90|Q=14 1995-02-01|Q=15 1993-06-01|Q=21 PERU|Q=19 Brand#44 Brand#44 Brand#33 7 12 29|Q=16 Brand#45 PROMO PLATED 39 40 10 34 25 22 4 13|Q=12 AIR RAIL 1995-01-01|Q=8 JORDAN MIDDLE EAST SMALL PLATED NICKEL|Q=6 1996-01-01 0.09 25|Q=11 ALGERIA 0.0000001000|Q=20 royal 1996-01-01 MOZAMBIQUE|Q=4 1994-04-01|Q=2 10 BRASS AMERICA|

QP1.359

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seed=517202597

Q=2 48 NICKEL EUROPE|Q=9 coral|Q=21 INDONESIA|Q=3 BUILDING 1995-03-25|Q=4 1996-11-01|Q=7 KENYA ETHIOPIA|Q=1 98|Q=11 JORDAN 0.0000001000|Q=16 Brand#35 SMALL BRUSHED 42 30 20 13 21 14 2 17|Q=5 MIDDLE EAST 1996-01-01|Q=20 cornsilk 1994-01-01 FRANCE|Q=19 Brand#52 Brand#22 Brand#32 3 13 25|Q=18 313|Q=8 ETHIOPIA AFRICA SMALL ANODIZED NICKEL|Q=17 Brand#52 WRAP BOX|Q=13 pending requests|Q=10 1993-12-01|Q=12 REG AIR RAIL 1995-01-01|Q=15 1996-01-01|Q=6 1996-01-01 0.06 24|Q=14 1995-06-01|Q=22 30 20 10 15 14 23 24|

QP1.36

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seed=517202274

Q=9 drab|Q=17 Brand#33 LG BOX|Q=7 GERMANY SAUDI ARABIA|Q=4 1996-06-01|Q=5 AFRICA 1995-01-01|Q=13 special packages|Q=21 JORDAN|Q=18 313|Q=11 ROMANIA 0.0000001000|Q=3 BUILDING 1995-03-22|Q=22 13 32 33 22 25 17 27|Q=1 68|Q=6 1995-01-01 0.04 25|Q=16 Brand#43 MEDIUM POLISHED 7 18 28 13 45 48 8 17|Q=20 goldenrod 1995-01-01 ALGERIA|Q=14 1994-02-01|Q=15 1995-07-01|Q=10 1994-03-01|Q=8 SAUDI ARABIA MIDDLE EAST SMALL POLISHED TIN|Q=2 45 TIN EUROPE|Q=12 MAIL AIR 1994-01-01|Q=19 Brand#22 Brand#31 Brand#55 1 16 23|

QP1.360

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seed=517202598

Q=15 1993-09-01|Q=12 SHIP RAIL 1995-01-01|Q=8 RUSSIA EUROPE STANDARD POLISHED NICKEL|Q=4 1994-08-01|Q=22 31 10 12 17 34 20 28|Q=13 pending accounts|Q=16 Brand#15 ECONOMY ANODIZED 45 31 13 19 18 6 11 22|Q=17 Brand#54 WRAP PACK|Q=18 314|Q=3 MACHINERY 1995-03-10|Q=7 FRANCE RUSSIA|Q=5 AFRICA 1996-01-01|Q=6 1996-01-01 0.04 25|Q=1 106|Q=9 brown|Q=11 ARGENTINA 0.0000001000|Q=21 ARGENTINA|Q=10 1994-09-01|Q=14 1995-09-01|Q=20 navy 1993-01-01 VIETNAM|Q=19 Brand#54 Brand#15 Brand#21 8 14 22|Q=2 36 TIN AMERICA|

QP1.361

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seed=517202599

Q=15 1996-04-01|Q=16 Brand#45 STANDARD PLATED 21 36 1 12 14 48 13 20|Q=2 23 COPPER MIDDLE EAST|Q=11 KENYA 0.0000001000|Q=17 Brand#51 WRAP CAN|Q=7 UNITED KINGDOM KENYA|Q=5 AMERICA 1996-01-01|Q=14 1995-12-01|Q=20 azure 1996-01-01 IRAN|Q=4 1997-03-01|Q=21 CHINA|Q=3 BUILDING 1995-03-27|Q=10 1993-06-01|Q=9 beige|Q=12 MAIL RAIL 1995-01-01|Q=8 KENYA AFRICA STANDARD BURNISHED BRASS|Q=13 pending accounts|Q=6 1996-01-01 0.09 25|Q=18 312|Q=19 Brand#51 Brand#43 Brand#25 3 15 29|Q=22 27 19 33 32 22 30 25|Q=1 114|

QP1.362

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seed=517202600

Q=1 61|Q=13 pending accounts|Q=11 BRAZIL 0.0000001000|Q=3 HOUSEHOLD 1995-03-12|Q=4 1994-12-01|Q=21 IRAQ|Q=6 1997-01-01 0.06 24|Q=14 1996-03-01|Q=15 1994-01-01|Q=22 14 15 30 29 12 22 34|Q=18 313|Q=9 white|Q=7 MOROCCO FRANCE|Q=5 ASIA 1997-01-01|Q=10 1994-03-01|Q=20 lavender 1995-01-01 ALGERIA|Q=12 TRUCK MAIL 1994-01-01|Q=16 Brand#35 MEDIUM POLISHED 32 4 1 23 11 44 37 31|Q=17 Brand#53 SM BOX|Q=8 FRANCE EUROPE PROMO BRUSHED BRASS|Q=19 Brand#13 Brand#31 Brand#25 8 16 25|Q=2 11 STEEL AMERICA|

QP1.363

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seed=517202601

Q=14 1996-06-01|Q=17 Brand#55 SM PACK|Q=22 25 13 20 15 14 17 22|Q=20 smoke 1993-01-01 MOROCCO|Q=8 UNITED KINGDOM EUROPE PROMO PLATED BRASS|Q=16 Brand#15 PROMO ANODIZED 6 40 7 31 28 11 30 37|Q=5 EUROPE 1997-01-01|Q=10 1995-01-01|Q=1 69|Q=13 pending accounts|Q=2 49 NICKEL MIDDLE EAST|Q=21 CANADA|Q=12 RAIL TRUCK 1996-01-01|Q=9 tan|Q=4 1997-07-01|Q=18 315|Q=3 AUTOMOBILE 1995-03-29|Q=7 GERMANY UNITED KINGDOM|Q=6 1997-01-01 0.04 25|Q=19 Brand#15 Brand#14 Brand#14 4 17 21|Q=15 1996-08-01|Q=11 MOROCCO 0.0000001000|

QP1.364

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seed=517202602

Q=9 sky|Q=17 Brand#52 SM CAN|Q=7 UNITED STATES MOROCCO|Q=4 1995-04-01|Q=5 MIDDLE EAST 1997-01-01|Q=13 unusual deposits|Q=21 SAUDI ARABIA|Q=18 312|Q=11 CANADA 0.0000001000|Q=3 HOUSEHOLD 1995-03-14|Q=22 15 11 32 30 18 20 10|Q=1 77|Q=6 1997-01-01 0.09 25|Q=16 Brand#45 SMALL BURNISHED 9 15 41 5 6 39 42 40|Q=20 firebrick 1997-01-01 ETHIOPIA|Q=14 1996-10-01|Q=15 1994-04-01|Q=10 1993-10-01|Q=8 MOROCCO AFRICA PROMO ANODIZED BRASS|Q=2 37 TIN ASIA|Q=12 AIR TRUCK 1996-01-01|Q=19 Brand#12 Brand#52 Brand#13 9 18 28|

QP1.365

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seed=517202603

Q=13 unusual deposits|Q=14 1997-01-01|Q=5 AFRICA 1997-01-01|Q=22 15 24 12 23 32 16 25|Q=19 Brand#24 Brand#34 Brand#52 4 19 24|Q=11 MOZAMBIQUE 0.0000001000|Q=9 royal|Q=6 1997-01-01 0.07 24|Q=18 314|Q=15 1996-11-01|Q=8 GERMANY EUROPE ECONOMY POLISHED BRASS|Q=10 1994-07-01|Q=7 MOZAMBIQUE GERMANY|Q=4 1997-10-01|Q=17 Brand#54 LG BOX|Q=16 Brand#35 LARGE POLISHED 3 30 26 6 1 9 13 17|Q=3 AUTOMOBILE 1995-03-31|Q=1 85|Q=12 REG AIR TRUCK 1997-01-01|Q=2 24 COPPER MIDDLE EAST|Q=21 JAPAN|Q=20 pink 1995-01-01 ROMANIA|

QP1.366

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seed=517202604

Q=20 burlywood 1993-01-01 INDONESIA|Q=5 AMERICA 1993-01-01|Q=4 1995-07-01|Q=14 1997-04-01|Q=11 EGYPT 0.0000001000|Q=1 93|Q=6 1993-01-01 0.04 25|Q=16 Brand#15 PROMO BRUSHED 12 33 50 11 17 9 45 49|Q=8 UNITED STATES AMERICA ECONOMY BURNISHED STEEL|Q=22 16 33 30 32 34 14 25|Q=7 INDIA UNITED STATES|Q=3 FURNITURE 1995-03-16|Q=2 12 STEEL ASIA|Q=12 FOB MAIL 1997-01-01|Q=21 EGYPT|Q=19 Brand#21 Brand#12 Brand#51 9 20 21|Q=17 Brand#55 LG PACK|Q=13 unusual deposits|Q=10 1993-04-01|Q=15 1994-08-01|Q=18 315|Q=9 powder|

QP1.367

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seed=517202605

Q=3 AUTOMOBILE 1995-03-02|Q=7 ALGERIA MOZAMBIQUE|Q=14 1997-07-01|Q=15 1997-02-01|Q=6 1993-01-01 0.02 25|Q=5 ASIA 1993-01-01|Q=21 VIETNAM|Q=20 medium 1997-01-01 UNITED STATES|Q=18 313|Q=10 1994-02-01|Q=4 1993-04-01|Q=16 Brand#45 MEDIUM BURNISHED 50 6 11 26 3 28 15 49|Q=19 Brand#23 Brand#55 Brand#51 5 10 28|Q=1 101|Q=13 unusual deposits|Q=9 pale|Q=8 MOZAMBIQUE AFRICA LARGE BRUSHED STEEL|Q=17 Brand#52 LG CAN|Q=11 PERU 0.0000001000|Q=12 MAIL SHIP 1997-01-01|Q=22 33 18 34 21 15 27 14|Q=2 50 BRASS AFRICA|

QP1.368

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seed=517202606

Q=13 unusual deposits|Q=15 1994-11-01|Q=17 Brand#54 MED BOX|Q=1 109|Q=22 23 29 22 10 16 20 24|Q=11 ETHIOPIA 0.0000001000|Q=3 FURNITURE 1995-03-19|Q=4 1995-11-01|Q=7 PERU INDIA|Q=20 violet 1995-01-01 JORDAN|Q=14 1997-10-01|Q=21 KENYA|Q=9 moccasin|Q=8 INDIA ASIA LARGE PLATED STEEL|Q=2 38 TIN ASIA|Q=18 315|Q=16 Brand#35 ECONOMY PLATED 22 41 44 28 24 45 17 9|Q=6 1993-01-01 0.07 24|Q=10 1994-11-01|Q=12 TRUCK MAIL 1997-01-01|Q=5 EUROPE 1993-01-01|Q=19 Brand#35 Brand#33 Brand#45 10 11 24|

QP1.369

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seed=517202607

Q=14 1993-02-01|Q=2 26 COPPER AFRICA|Q=9 maroon|Q=20 grey 1994-01-01 CANADA|Q=6 1993-01-01 0.04 24|Q=17 Brand#51 MED PACK|Q=18 312|Q=8 ALGERIA AFRICA LARGE ANODIZED STEEL|Q=21 FRANCE|Q=13 unusual packages|Q=3 MACHINERY 1995-03-04|Q=22 13 15 11 27 19 17 30|Q=16 Brand#15 STANDARD BRUSHED 26 19 13 9 41 5 18 11|Q=4 1993-08-01|Q=11 CHINA 0.0000001000|Q=15 1997-06-01|Q=1 117|Q=10 1993-08-01|Q=19 Brand#32 Brand#21 Brand#44 5 12 20|Q=5 MIDDLE EAST 1993-01-01|Q=7 INDONESIA ALGERIA|Q=12 RAIL MAIL 1993-01-01|

QP1.37

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seed=517202275

Q=13 special requests|Q=14 1994-05-01|Q=5 AMERICA 1995-01-01|Q=22 33 32 11 19 15 34 29|Q=19 Brand#24 Brand#24 Brand#55 6 17 30|Q=11 GERMANY 0.0000001000|Q=9 cream|Q=6 1995-01-01 0.09 24|Q=18 315|Q=15 1993-04-01|Q=8 JAPAN ASIA SMALL BURNISHED NICKEL|Q=10 1994-12-01|Q=7 UNITED STATES JAPAN|Q=4 1994-03-01|Q=17 Brand#35 LG PACK|Q=16 Brand#23 PROMO ANODIZED 16 34 13 12 41 5 3 36|Q=3 HOUSEHOLD 1995-03-08|Q=1 76|Q=12 TRUCK AIR 1994-01-01|Q=2 33 STEEL AMERICA|Q=21 FRANCE|Q=20 rose 1994-01-01 MOROCCO|

QP1.370

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seed=517202608

Q=21 UNITED KINGDOM|Q=3 BUILDING 1995-03-21|Q=18 314|Q=5 AMERICA 1993-01-01|Q=11 FRANCE 0.0000001000|Q=7 ARGENTINA PERU|Q=6 1993-01-01 0.02 25|Q=20

royal 1997-01-01 CHINA|Q=17 Brand#53 MED CAN|Q=12 AIR FOB 1993-01-01|Q=16 Brand#55 LARGE ANODIZED 29 30 19 37 44 1 32 14|Q=15 1995-03-01|Q=13 unusual packages|Q=10 1994-05-01|Q=2 13 STEEL EUROPE|Q=8 PERU AMERICA MEDIUM POLISHED STEEL|Q=14 1993-05-01|Q=19 Brand#34 Brand#54 Brand#43 10 13 27|Q=9 lawn|Q=22 15 25 24 16 18 19 21|Q=1 64|Q=4 1996-03-01|

QP1.371

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seed=517202609

Q=6 1994-01-01 0.07 24|Q=17 Brand#55 JUMBO BOX|Q=14 1993-08-01|Q=16 Brand#35 PROMO PLATED 32 35 1 14 30 29 12 8|Q=19 Brand#42 Brand#42 Brand#33 6 14 24|Q=10 1993-02-01|Q=9 hot|Q=2 1 BRASS AFRICA|Q=15 1997-09-01|Q=8 INDONESIA ASIA MEDIUM BURNISHED COPPER|Q=5 ASIA 1994-01-01|Q=22 18 14 10 34 12 19 27|Q=12 SHIP FOB 1993-01-01|Q=7 CHINA INDONESIA|Q=13 express packages|Q=18 315|Q=1 72|Q=4 1993-12-01|Q=20 cream 1996-01-01 INDIA|Q=3 MACHINERY 1995-03-06|Q=11 ROMANIA 0.0000001000|Q=21 MOROCCO|

QP1.372

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seed=517202610

Q=8 ARGENTINA AMERICA SMALL BRUSHED COPPER|Q=5 EUROPE 1994-01-01|Q=4 1996-07-01|Q=6 1994-01-01 0.05 24|Q=17 Brand#12 JUMBO PACK|Q=7 IRAN ARGENTINA|Q=1 80|Q=18 313|Q=22 27 13 31 12 23 32 22|Q=14 1993-11-01|Q=9 gainsboro|Q=10 1993-12-01|Q=15 1995-06-01|Q=11 GERMANY 0.0000001000|Q=20 olive 1994-01-01 RUSSIA|Q=2 39 NICKEL EUROPE|Q=21 GERMANY|Q=19 Brand#44 Brand#25 Brand#32 1 15 20|Q=13 express packages|Q=16 Brand#11 SMALL POLISHED 36 31 43 46 26 44 10 27|Q=12 FOB AIR 1995-01-01|Q=3 BUILDING 1995-03-23|

QP1.373

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seed=517202611

Q=5 MIDDLE EAST 1994-01-01|Q=21 UNITED STATES|Q=14 1994-03-01|Q=19 Brand#41 Brand#53 Brand#31 6 16 27|Q=15 1993-03-01|Q=17 Brand#14 JUMBO CAN|Q=12 MAIL FOB 1994-01-01|Q=6 1994-01-01 0.02 25|Q=4 1994-04-01|Q=9 dodger|Q=8 CHINA ASIA SMALL PLATED COPPER|Q=16 Brand#51 ECONOMY ANODIZED 39 48 50 26 23 38 4 5|Q=11 SAUDI ARABIA 0.0000001000|Q=2 27 COPPER AMERICA|Q=10 1994-09-01|Q=18 314|Q=1 88|Q=13 express packages|Q=7 BRAZIL CHINA|Q=22 22 21 12 30 25 18 17|Q=3 HOUSEHOLD 1995-03-08|Q=20 beige 1997-01-01 JAPAN|

QP1.374

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seed=517202612

Q=21 PERU|Q=15 1995-10-01|Q=4 1996-11-01|Q=6 1994-01-01 0.08 24|Q=7 CHINA IRAN|Q=16 Brand#31 STANDARD BURNISHED 42 40 35 4 21 9 30 33|Q=19 Brand#53 Brand#41 Brand#25 2 17 23|Q=18 312|Q=14 1994-06-01|Q=22 11 25 23 33 27 18 10|Q=11 INDIA 0.0000001000|Q=13 express requests|Q=3 BUILDING 1995-03-25|Q=1 96|Q=2 15 STEEL EUROPE|Q=5 AFRICA 1994-01-01|Q=8 IRAN MIDDLE EAST SMALL ANODIZED COPPER|Q=20 lawn 1996-01-01 BRAZIL|Q=12 TRUCK SHIP 1994-01-01|Q=17 Brand#11 WRAP BOX|Q=10 1993-06-01|Q=9 cornsilk|

QP1.375

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seed=517202613

Q=10 1994-03-01|Q=3 HOUSEHOLD 1995-03-10|Q=15 1993-06-01|Q=13 express requests|Q=6 1995-01-01 0.05 24|Q=8 BRAZIL AMERICA STANDARD POLISHED COPPER|Q=9 burnished|Q=7 IRAN BRAZIL|Q=4 1994-08-01|Q=11 VIETNAM 0.0000001000|Q=22 27 17 21 16 18 34 19|Q=18 313|Q=12 RAIL SHIP 1994-01-01|Q=1 104|Q=5 AMERICA 1995-01-01|Q=16 Brand#11 MEDIUM POLISHED 46 45 36 35 5 14 37 17|Q=2 2 BRASS AMERICA|Q=14 1994-09-01|Q=19 Brand#55 Brand#24 Brand#25 7 18 30|Q=20 smoke 1994-01-01 PERU|Q=17 Brand#13 WRAP PACK|Q=21 INDONESIA|

QP1.376

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seed=517202614

Q=18 315|Q=8 ROMANIA EUROPE STANDARD PLATED TIN|Q=20 floral 1993-01-01 FRANCE|Q=21 ARGENTINA|Q=2 40 NICKEL MIDDLE EAST|Q=4 1997-02-01|Q=22 21 15 17 31 32 12 29|Q=17 Brand#15 WRAP CAN|Q=1 112|Q=11 INDONESIA 0.0000001000|Q=9 black|Q=19 Brand#52 Brand#12 Brand#24 2 19 27|Q=3 AUTOMOBILE 1995-03-27|Q=13 express requests|Q=5 ASIA 1995-01-01|Q=7 BRAZIL ROMANIA|Q=10 1994-12-01|Q=16 Brand#51 ECONOMY BRUSHED 49 11 3 14 12 16 7 45|Q=6 1995-01-01 0.02 25|Q=14 1994-12-01|Q=15 1996-01-01|Q=12 AIR SHIP 1994-01-01|

QP1.377

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seed=517202615

Q=19 Brand#14 Brand#45 Brand#13 7 20 23|Q=1 120|Q=15 1993-10-01|Q=17 Brand#12 SM BOX|Q=5 EUROPE 1995-01-01|Q=8 IRAQ MIDDLE EAST STANDARD ANODIZED TIN|Q=9 almond|Q=12 SHIP TRUCK 1993-01-01|Q=14 1995-03-01|Q=7 ROMANIA IRAQ|Q=4 1994-11-01|Q=3 HOUSEHOLD 1995-03-12|Q=20 plum 1996-01-01 VIETNAM|Q=16 Brand#31 SMALL BURNISHED 12 42 38 10 17 26 33 50|Q=6 1995-01-01 0.08 24|Q=22 30 15 23 27 34 16 19|Q=10 1993-10-01|Q=13 express requests|Q=2 28 TIN AMERICA|Q=21 CHINA|Q=18 312|Q=11 RUSSIA 0.0000001000|

QP1.378

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seed=517202616

Q=8 CANADA AMERICA PROMO POLISHED TIN|Q=13 special accounts|Q=2 16 STEEL MIDDLE EAST|Q=20 burnished 1995-01-01 IRAQ|Q=17 Brand#13 SM PACK|Q=3 AUTOMOBILE 1995-03-29|Q=6 1995-01-01 0.05 24|Q=21 IRAN|Q=18 314|Q=11 IRAN 0.0000001000|Q=19 Brand#11 Brand#33 Brand#12 3 10 30|Q=10 1994-07-01|Q=15 1996-04-01|Q=4 1997-06-01|Q=22 19 14 16 15 12 28 25|Q=1 67|Q=7 IRAQ CANADA|Q=12 FOB REG AIR 1995-01-01|Q=9 tomato|Q=14 1995-07-01|Q=5 MIDDLE EAST 1995-01-01|Q=16 Brand#11 LARGE PLATED 6 13 22 8 5 34 36 23|

QP1.379

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seed=517202617

Q=6 1996-01-01 0.03 25|Q=15 1994-01-01|Q=18 315|Q=17 Brand#15 SM CAN|Q=12 MAIL REG AIR 1995-01-01|Q=1 75|Q=7 CANADA SAUDI ARABIA|Q=2 3 BRASS ASIA|Q=22 22 10 14 23 34 25 11|Q=13 special accounts|Q=21 BRAZIL|Q=10 1993-04-01|Q=14 1995-10-01|Q=9 smoke|Q=3 FURNITURE 1995-03-14|Q=16 Brand#51 PROMO BRUSHED 9 32 6 27 33 10 22 1|Q=20 metallic 1993-01-01 ALGERIA|Q=19 Brand#13 Brand#11 Brand#11 8 11 26|Q=11 UNITED KINGDOM 0.0000001000|Q=4 1995-03-01|Q=8 SAUDI ARABIA MIDDLE EAST PROMO BURNISHED TIN|Q=5 AFRICA 1996-01-01|

QP1.38

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seed=517202276

Q=20 cornflower 1997-01-01 EGYPT|Q=5 ASIA 1995-01-01|Q=4 1996-10-01|Q=14 1994-08-01|Q=11 SAUDI ARABIA 0.0000001000|Q=1 84|Q=6 1995-01-01 0.07 24|Q=16 Brand#53 SMALL BURNISHED 12 37 5 2 27 33 47 41|Q=8 EGYPT MIDDLE EAST STANDARD BRUSHED NICKEL|Q=22 27 23 15 28 24 25 30|Q=7 MOZAMBIQUE EGYPT|Q=3 AUTOMOBILE 1995-03-24|Q=2 20 BRASS EUROPE|Q=12 RAIL AIR 1994-01-01|Q=21 UNITED KINGDOM|Q=19 Brand#21 Brand#51 Brand#44 1 18 26|Q=17 Brand#32 LG DRUM|Q=13 pending requests|Q=10 1993-09-01|Q=15 1995-11-01|Q=18 312|Q=9 chartreuse|

QP1.380

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seed=517202618

Q=15 1996-08-01|Q=14 1996-01-01|Q=18 313|Q=17 Brand#12 LG BOX|Q=10 1994-01-01|Q=20 wheat 1997-01-01 MOROCCO|Q=16 Brand#31 MEDIUM ANODIZED 36 6 41 29 48 49 25 7|Q=11 IRAQ 0.0000001000|Q=1 84|Q=8 JAPAN ASIA ECONOMY BRUSHED TIN|Q=4 1997-10-01|Q=22 12 19 25 31 17 30 21|Q=5 ASIA 1996-01-01|Q=12 TRUCK REG AIR 1996-01-01|Q=3 MACHINERY 1995-03-31|Q=9 salmon|Q=21 SAUDI ARABIA|Q=2 41 NICKEL MIDDLE EAST|Q=13 special accounts|Q=6 1996-01-01 0.08 24|Q=19 Brand#25 Brand#54 Brand#51 3 12 22|Q=7 SAUDI ARABIA JAPAN|

QP1.381

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seed=517202619

Q=1 92|Q=7 JAPAN EGYPT|Q=16 Brand#11 ECONOMY PLATED 16 12 25 11 45 5 37 18|Q=17 Brand#14 LG PACK|Q=18 314|Q=22 30 32 11 29 17 12 31|Q=12 RAIL REG AIR 1996-01-01|Q=6 1996-01-01 0.06 24|Q=8 EGYPT MIDDLE EAST ECONOMY PLATED NICKEL|Q=9 purple|Q=11 UNITED STATES 0.0000001000|Q=4 1995-07-01|Q=2 29 TIN ASIA|Q=5 EUROPE 1996-01-01|Q=20 honeydew 1995-01-01 ETHIOPIA|Q=21 JAPAN|Q=13 special accounts|Q=10 1994-10-01|Q=19 Brand#22 Brand#32 Brand#55 8 13 30|Q=3 FURNITURE 1995-03-16|Q=14 1996-04-01|Q=15 1994-05-01|

QP1.382

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seed=517202620

Q=21 EGYPT|Q=17 Brand#11 LG CAN|Q=7 EGYPT VIETNAM|Q=3 MACHINERY 1995-03-02|Q=1 100|Q=10 1993-08-01|Q=12 REG AIR AIR 1996-01-01|Q=22 30 10 34 25 21 24 22|Q=9 peach|Q=16 Brand#51 STANDARD POLISHED 26 5 9 21 28 37 1 23|Q=6 1996-01-01 0.03 25|Q=11 JAPAN 0.0000001000|Q=2 17 COPPER AFRICA|Q=4 1993-04-01|Q=5 MIDDLE EAST 1996-01-01|Q=14 1996-07-01|Q=8 VIETNAM ASIA ECONOMY ANODIZED NICKEL|Q=20 saddle 1993-01-01 SAUDI ARABIA|Q=13 special accounts|Q=18 312|Q=15 1996-11-01|Q=19 Brand#25 Brand#15 Brand#54 4 14 26|

QP1.383

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seed=517202621

Q=2 5 BRASS ASIA|Q=9 navy|Q=5 AFRICA 1997-01-01|Q=4 1995-11-01|Q=18 314|Q=1 108|Q=20 cyan 1997-01-01 INDONESIA|Q=15 1994-08-01|Q=16 Brand#31 LARGE ANODIZED 22 12 16 20 38 32 1 27|Q=17 Brand#13 MED BOX|Q=7 VIETNAM JORDAN|Q=21 VIETNAM|Q=13 special deposits|Q=14 1996-11-01|Q=19 Brand#32 Brand#52 Brand#43 9 15 22|Q=8 JORDAN MIDDLE EAST LARGE POLISHED NICKEL|Q=22 19 16 24 11 33 20 17|Q=11 ALGERIA 0.0000001000|Q=10 1994-05-01|Q=3 BUILDING 1995-03-18|Q=12 SHIP AIR 1996-01-01|Q=6 1997-01-01 0.08 25|

QP1.384

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seed=517202622

Q=16 Brand#11 PROMO BURNISHED 41 30 28 39 14 4 15 38|Q=9 metallic|Q=17 Brand#15 MED PACK|Q=8 ETHIOPIA AFRICA LARGE BURNISHED NICKEL|Q=14 1997-02-01|Q=11 JORDAN 0.0000001000|Q=10 1993-02-01|Q=12 FOB AIR 1997-01-01|Q=6 1997-01-01 0.06 24|Q=21 JORDAN|Q=7 JORDAN ETHIOPIA|Q=3 MACHINERY 1995-03-04|Q=15 1997-03-01|Q=5 AMERICA 1997-01-01|Q=22 34 26 30 32 25 31 12|Q=20 orange 1995-01-01 UNITED STATES|Q=1 116|Q=13 special deposits|Q=19 Brand#34 Brand#35 Brand#43 4 16 29|Q=2 42 NICKEL AFRICA|Q=4 1993-08-01|Q=18 315|

QP1.385

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seed=517202623

Q=1 63|Q=3 BUILDING 1995-03-20|Q=6 1997-01-01 0.03 25|Q=5 ASIA 1997-01-01|Q=2 30 TIN EUROPE|Q=16 Brand#51 SMALL POLISHED 29 11 12 35 31 14 30 37|Q=14 1997-05-01|Q=22 24 25 16 32 28 23 12|Q=17 Brand#12 MED CAN|Q=20 bisque 1994-01-01 KENYA|Q=4 1996-03-01|Q=9 light|Q=10 1993-11-01|Q=11 ARGENTINA 0.0000001000|Q=15 1994-12-01|Q=8 RUSSIA EUROPE MEDIUM BRUSHED BRASS|Q=12 MAIL AIR 1997-01-01|Q=19 Brand#31 Brand#23 Brand#42 10 17 25|Q=18 313|Q=13 special deposits|Q=7 ETHIOPIA RUSSIA|Q=21 ETHIOPIA|

QP1.386

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seed=517202624

Q=3 HOUSEHOLD 1995-03-06|Q=16 Brand#31 LARGE BRUSHED 14 39 17 9 27 38 8 2|Q=5 EUROPE 1997-01-01|Q=11 KENYA 0.0000001000|Q=21 UNITED KINGDOM|Q=9 ivory|Q=2 18 COPPER AFRICA|Q=15 1997-06-01|Q=10 1994-08-01|Q=18 314|Q=17 Brand#14 JUMBO BOX|Q=7 RUSSIA KENYA|Q=8 KENYA AFRICA MEDIUM PLATED BRASS|Q=19 Brand#43 Brand#51 Brand#31 5 18 22|Q=14 1997-08-01|Q=13 pending deposits|Q=1 71|Q=4 1993-11-01|Q=22 21 11 12 27 22 18 29|Q=20 lemon 1997-01-01 EGYPT|Q=6 1997-01-01 0.09 25|Q=12 TRUCK AIR 1997-01-01|

QP1.387

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seed=517202625

Q=14 1997-11-01|Q=4 1996-06-01|Q=13 pending deposits|Q=5 MIDDLE EAST 1997-01-01|Q=21 MOROCCO|Q=11 BRAZIL 0.0000001000|Q=8 FRANCE EUROPE MEDIUM ANODIZED BRASS|Q=6 1997-01-01 0.06 24|Q=3 AUTOMOBILE 1995-03-22|Q=17 Brand#11 JUMBO PACK|Q=2 6 STEEL EUROPE|Q=20 snow 1996-01-01 CHINA|Q=1 79|Q=19 Brand#45 Brand#44 Brand#35 10 19 29|Q=10 1993-06-01|Q=9 goldenrod|Q=12 RAIL SHIP 1995-01-01|Q=18 312|Q=15 1995-03-01|Q=7 KENYA FRANCE|Q=22 28 17 25 18 32 29 24|Q=16 Brand#21 STANDARD BURNISHED 36 45 31 9 21 22 37 46|

QP1.388

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seed=517202626

Q=4 1994-03-01|Q=12 REG AIR RAIL 1993-01-01|Q=22 10 19 30 21 20 17 24|Q=14 1993-03-01|Q=5 AFRICA 1993-01-01|Q=15 1997-10-01|Q=16 Brand#51 MEDIUM PLATED 31 45 15 17 26 41 3 29|Q=2 43 NICKEL AMERICA|Q=8 UNITED KINGDOM EUROPE SMALL POLISHED BRASS|Q=10 1994-03-01|Q=17 Brand#13 JUMBO CAN|Q=9 firebrick|Q=21 GERMANY|Q=7 FRANCE UNITED KINGDOM|Q=3 HOUSEHOLD 1995-03-08|Q=6 1993-01-01 0.04 25|Q=13 pending packages|Q=18 313|Q=11 MOROCCO 0.0000001000|Q=20 forest 1994-01-01 INDIA|Q=19 Brand#42 Brand#22 Brand#25 5 20 25|Q=1 87|

QP1.389

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seed=517202627

Q=16 Brand#31 ECONOMY BRUSHED 7 29 50 47 11 33 42 4|Q=15 1995-06-01|Q=14 1993-06-01|Q=13 pending packages|Q=4 1996-10-01|Q=22 23 18 14 15 19 33 27|Q=18 315|Q=19 Brand#54 Brand#55 Brand#24 1 11 21|Q=7 UNITED KINGDOM MOROCCO|Q=1 95|Q=12 SHIP RAIL 1993-01-01|Q=17 Brand#15 WRAP BOX|Q=5 AMERICA 1993-01-01|Q=10 1994-12-01|Q=20 powder 1997-01-01 UNITED KINGDOM|Q=3 AUTOMOBILE 1995-03-24|Q=9 cyan|Q=21 UNITED STATES|Q=11 CANADA 0.0000001000|Q=2 31 TIN EUROPE|Q=6 1993-01-01 0.09 25|Q=8 MOROCCO AFRICA SMALL BURNISHED BRASS|

QP1.39

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seed=517202277

Q=3 FURNITURE 1995-03-10|Q=7 INDIA VIETNAM|Q=14 1994-11-01|Q=15 1993-07-01|Q=6 1996-01-01 0.04 25|Q=5 EUROPE 1996-01-01|Q=21 MOROCCO|Q=20 navajo 1996-01-01 ROMANIA|Q=18 314|Q=10 1994-07-01|Q=4 1994-07-01|Q=16 Brand#43 LARGE POLISHED 23 31 11 40 34 41 50 48|Q=19 Brand#34 Brand#44 Brand#43 6 19 23|Q=1 92|Q=13 pending requests|Q=9 blanched|Q=8 VIETNAM ASIA STANDARD PLATED NICKEL|Q=17 Brand#34 MED BOX|Q=11 INDIA 0.0000001000|Q=12 REG AIR AIR 1994-01-01|Q=22 29 17 22 28 20 16 31|Q=2 8 NICKEL AMERICA|

QP1.390

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seed=517202628

Q=20 chartreuse 1996-01-01 JAPAN|Q=14 1993-09-01|Q=21 MOZAMBIQUE|Q=12 FOB RAIL 1993-01-01|Q=15 1993-03-01|Q=17 Brand#11 WRAP PACK|Q=4 1994-07-01|Q=19 Brand#51 Brand#43 Brand#23 6 12 28|Q=13 pending packages|Q=10 1993-09-01|Q=11 MOZAMBIQUE 0.0000001000|Q=1 103|Q=16 Brand#21 SMALL ANODIZED 46 8 22 38 14 25 28 10|Q=5 ASIA 1993-01-01|Q=18 312|Q=7 MOROCCO GERMANY|Q=8 GERMANY EUROPE STANDARD BRUSHED STEEL|Q=22 22 24 10 34 29 21 26|Q=9 chiffon|Q=6 1993-01-01 0.06 24|Q=3 FURNITURE 1995-03-10|Q=2 19 COPPER AMERICA|

QP1.391

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seed=517202629

Q=16 Brand#51 LARGE PLATED 49 5 18 7 22 3 8 24|Q=14 1993-12-01|Q=13 pending packages|Q=2 7 STEEL MIDDLE EAST|Q=21 INDIA|Q=10 1994-06-01|Q=11 EGYPT 0.0000001000|Q=4 1997-02-01|Q=1 111|Q=22 11 13 28 30 16 26 15|Q=18 314|Q=12 MAIL TRUCK 1993-01-01|Q=19 Brand#53 Brand#21 Brand#12 1 13 24|Q=5 MIDDLE EAST 1993-01-01|Q=7 GERMANY UNITED STATES|Q=8 UNITED STATES AMERICA STANDARD PLATED STEEL|Q=6 1993-01-01 0.04 25|Q=3 AUTOMOBILE 1995-03-26|Q=15 1995-10-01|Q=20 midnight 1994-01-01 BRAZIL|Q=9 blue|Q=17 Brand#13 WRAP CAN|

QP1.392

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seed=517202630

Q=18 315|Q=15 1993-07-01|Q=9 aquamarine|Q=14 1994-03-01|Q=12 TRUCK AIR 1993-01-01|Q=2 45 BRASS AMERICA|Q=8 MOZAMBIQUE AFRICA STANDARD ANODIZED STEEL|Q=11 PERU 0.0000001000|Q=22 23 13 15 29 30 18 21|Q=21 ARGENTINA|Q=16 Brand#31 PROMO POLISHED 15 38 43 35 48 9 6 18|Q=1 119|Q=6 1994-01-01 0.09 25|Q=17 Brand#15 SM BOX|Q=5 AFRICA 1994-01-01|Q=10 1993-04-01|Q=19 Brand#15 Brand#14 Brand#11 6 14 21|Q=4 1994-11-01|Q=20 wheat 1993-01-01 PERU|Q=13 pending packages|Q=3 FURNITURE 1995-03-12|Q=7 UNITED STATES MOZAMBIQUE|

QP1.393

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seed=517202631

Q=7 MOZAMBIQUE INDIA|Q=3 MACHINERY 1995-03-28|Q=10 1994-01-01|Q=14 1994-07-01|Q=13 unusual requests|Q=21 CHINA|Q=18 313|Q=6 1994-01-01 0.07 24|Q=20 hot 1996-01-01 GERMANY|Q=4 1997-06-01|Q=9 violet|Q=8 INDIA ASIA PROMO POLISHED STEEL|Q=22 34 11 18 17 21 26 10|Q=15 1996-01-01|Q=2 32 TIN MIDDLE EAST|Q=1 66|Q=5 AMERICA 1994-01-01|Q=12 AIR TRUCK 1994-01-01|Q=19 Brand#12 Brand#42 Brand#11 2 15 28|Q=17 Brand#12 SM PACK|Q=11 ETHIOPIA 0.0000001000|Q=16 Brand#21 MEDIUM ANODIZED 26 28 5 15 34 4 25 23|

QP1.394

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seed=517202632

Q=18 314|Q=1 74|Q=13 unusual requests|Q=7 INDIA ALGERIA|Q=16 Brand#51 ECONOMY BURNISHED 38 39 27 43 10 23 33 28|Q=10 1994-10-01|Q=14 1994-10-01|Q=2 20 COPPER ASIA|Q=19 Brand#15 Brand#35 Brand#55 7 16 24|Q=5 ASIA 1994-01-01|Q=21 IRAN|Q=11 CHINA 0.0000001000|Q=22 31 27 29 26 23 14 16|Q=15 1993-10-01|Q=8 ALGERIA AFRICA PROMO BURNISHED STEEL|Q=17 Brand#14 SM CAN|Q=20 salmon 1995-01-01 VIETNAM|Q=3 BUILDING 1995-03-14|Q=4 1995-03-01|Q=12 REG AIR TRUCK 1994-01-01|Q=6 1994-01-01 0.04 24|Q=9 spring|

QP1.395

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seed=517202633

Q=13 unusual requests|Q=2 8 STEEL MIDDLE EAST|Q=22 21 33 29 14 13 32 27|Q=5 EUROPE 1994-01-01|Q=11 FRANCE 0.0000001000|Q=21 BRAZIL|Q=20 dark 1993-01-01 IRAQ|Q=14 1995-01-01|Q=7 ALGERIA PERU|Q=10 1993-07-01|Q=4 1997-10-01|Q=9 seashell|Q=19 Brand#22 Brand#13 Brand#54 2 17 20|Q=18 312|Q=6 1994-01-01 0.02 25|Q=3 MACHINERY 1995-03-30|Q=1 82|Q=8 PERU AMERICA ECONOMY BRUSHED COPPER|Q=15 1996-05-01|Q=12 SHIP MAIL 1995-01-01|Q=17 Brand#11 LG BOX|Q=16 Brand#31 STANDARD POLISHED 13 12 27 31 23 39 14 34|

QP1.396

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seed=517202634

Q=14 1995-04-01|Q=17 Brand#13 LG PACK|Q=21 ROMANIA|Q=8 INDONESIA ASIA ECONOMY PLATED COPPER|Q=2 46 BRASS ASIA|Q=9 rose|Q=6 1995-01-01 0.07 24|Q=4 1995-06-01|Q=5 MIDDLE EAST 1995-01-01|Q=13 unusual requests|Q=22 11 29 33 27 10 14 24|Q=7 PERU INDONESIA|Q=15 1994-01-01|Q=3 BUILDING 1995-03-16|Q=1 90|Q=18 313|Q=16 Brand#21 MEDIUM BRUSHED 16 3 4 5 43 27 30 18|Q=11 ROMANIA 0.0000001000|Q=10 1994-04-01|Q=12 FOB MAIL 1995-01-01|Q=20 orchid 1996-01-01 ARGENTINA|Q=19 Brand#24 Brand#41 Brand#53 7 18 27|

QP1.397

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seed=517202635

Q=10 1993-02-01|Q=22 25 11 17 15 31 18 23|Q=1 98|Q=12 MAIL TRUCK 1996-01-01|Q=13 unusual accounts|Q=18 315|Q=21 IRAQ|Q=20 bisque 1995-01-01 MOROCCO|Q=2 33 NICKEL AFRICA|Q=14 1995-07-01|Q=16 Brand#51 PROMO BURNISHED 19 44 23 32 11 40 46 42|Q=7 INDONESIA ARGENTINA|Q=15 1996-08-01|Q=3 HOUSEHOLD 1995-03-01|Q=4 1993-03-01|Q=17 Brand#15 LG CAN|Q=5 AFRICA 1995-01-01|Q=19 Brand#21 Brand#34 Brand#43 3 19 24|Q=6 1995-01-01 0.04 24|Q=8 ARGENTINA AMERICA ECONOMY ANODIZED COPPER|Q=9 pink|Q=11 GERMANY 0.0000001000|

QP1.398

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seed=517202636

Q=10 1993-11-01|Q=8 CHINA ASIA LARGE POLISHED COPPER|Q=9 orange|Q=18 313|Q=12 TRUCK MAIL 1995-01-01|Q=6 1995-01-01 0.02 25|Q=1 106|Q=5 AMERICA 1995-01-01|Q=20 light 1993-01-01 ETHIOPIA|Q=11 SAUDI ARABIA 0.0000001000|Q=17 Brand#22 MED BOX|Q=22 17 27 16 20 23 13 24|Q=16 Brand#32 SMALL PLATED 16 22 9 12 41 14 8 13|Q=3 BUILDING 1995-03-18|Q=13 unusual accounts|Q=2 21 COPPER ASIA|Q=15 1994-05-01|Q=21 EGYPT|Q=14 1995-11-01|Q=19 Brand#33 Brand#12 Brand#42 8 20 20|Q=7 ARGENTINA CHINA|Q=4 1995-10-01|

QP1.399

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seed=517202637

Q=7 CHINA IRAN|Q=17 Brand#24 MED PACK|Q=22 29 17 12 16 21 27 18|Q=5 ASIA 1995-01-01|Q=3 HOUSEHOLD 1995-03-04|Q=10 1994-08-01|Q=13 unusual accounts|Q=18 314|Q=9 mint|Q=1 114|Q=14 1996-02-01|Q=15 1996-12-01|Q=21 VIETNAM|Q=19 Brand#35 Brand#55 Brand#41 3 10 27|Q=16 Brand#22 LARGE BRUSHED 23 46 10 22 28 31 9 26|Q=12 AIR FOB 1996-01-01|Q=8 IRAN MIDDLE EAST LARGE BURNISHED COPPER|Q=6 1995-01-01 0.07 24|Q=11 INDIA 0.0000001000|Q=20 spring 1997-01-01 SAUDI ARABIA|Q=4 1993-07-01|Q=2 9 STEEL AFRICA|

QP1.4

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seed=517202242

Q=5 AFRICA 1997-01-01|Q=21 KENYA|Q=14 1995-07-01|Q=19 Brand#15 Brand#31 Brand#15 2 17 24|Q=15 1995-10-01|Q=17 Brand#11 SM PACK|Q=12 REG AIR TRUCK 1995-01-01|Q=6 1997-01-01 0.06 24|Q=4 1996-03-01|Q=9 green|Q=8 BRAZIL AMERICA MEDIUM ANODIZED COPPER|Q=16 Brand#11 SMALL ANODIZED 16 10 29 9 1 44 12 18|Q=11 EGYPT 0.0000001000|Q=2 36 STEEL EUROPE|Q=10 1993-08-01|Q=18 312|Q=1 117|Q=13 special accounts|Q=7 KENYA BRAZIL|Q=22 17 12 31 13 27 25 14|Q=3 FURNITURE 1995-03-21|Q=20 yellow 1995-01-01 EGYPT|

QP1.40

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seed=517202278

Q=13 pending requests|Q=15 1996-02-01|Q=17 Brand#35 MED PACK|Q=1 100|Q=22 32 31 13 18 10 15 29|Q=11 VIETNAM 0.0000001000|Q=3 AUTOMOBILE 1995-03-26|Q=4 1997-02-01|Q=7 ALGERIA JORDAN|Q=20 aquamarine 1994-01-01 INDONESIA|Q=14 1995-02-01|Q=21 GERMANY|Q=9 antique|Q=8 JORDAN MIDDLE EAST STANDARD ANODIZED NICKEL|Q=2 46 TIN MIDDLE EAST|Q=18 315|Q=16 Brand#23 PROMO BRUSHED 10 18 35 28 25 7 33 42|Q=6 1996-01-01 0.02 25|Q=10 1993-04-01|Q=12 SHIP RAIL 1995-01-01|Q=5 MIDDLE EAST 1996-01-01|Q=19 Brand#31 Brand#22 Brand#42 2 20 30|

QP1.400

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seed=517202638
Q=2 47 BRASS EUROPE|Q=9 linen|Q=21 JORDAN|Q=3 AUTOMOBILE 1995-03-20|Q=4 1996-02-01|Q=7 IRAN BRAZIL|Q=1 61|Q=11 VIETNAM 0.0000001000|Q=16 Brand#52 STANDARD ANODIZED 35 15 27 21 46 24 9 20|Q=5 EUROPE 1996-01-01|Q=20 frosted 1995-01-01 IRAN|Q=19 Brand#32 Brand#33 Brand#35 9 11 23|Q=18 312|Q=8 BRAZIL AMERICA LARGE ANODIZED TIN|Q=17 Brand#21 MED CAN|Q=13 express accounts|Q=10 1993-05-01|Q=12 REG AIR FOB 1996-01-01|Q=15 1994-08-01|Q=6 1996-01-01 0.05 24|Q=14 1996-05-01|Q=22 20 24 14 10 17 31 21|

QP1.401
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seed=517202639
Q=15 1997-03-01|Q=12 SHIP FOB 1996-01-01|Q=8 ROMANIA EUROPE MEDIUM POLISHED TIN|Q=4 1993-11-01|Q=22 34 22 29 26 16 17 14|Q=13 express accounts|Q=16 Brand#42 MEDIUM PLATED 33 6 12 14 46 41 17 20|Q=17 Brand#23 JUMBO BOX|Q=18 313|Q=3 HOUSEHOLD 1995-03-06|Q=7 BRAZIL ROMANIA|Q=5 AFRICA 1996-01-01|Q=6 1996-01-01 0.02 25|Q=1 69|Q=9 lace|Q=11 INDONESIA 0.0000001000|Q=21 ETHIOPIA|Q=10 1994-02-01|Q=14 1996-08-01|Q=20 puff 1994-01-01 UNITED STATES|Q=19 Brand#44 Brand#25 Brand#35 4 12 30|Q=2 35 NICKEL AFRICA|

QP1.402
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seed=517202640
Q=15 1994-12-01|Q=16 Brand#22 ECONOMY POLISHED 36 8 46 3 5 7 10 15|Q=2 22 TIN EUROPE|Q=11 RUSSIA 0.0000001000|Q=17 Brand#24 JUMBO PACK|Q=7 ROMANIA IRAQ|Q=5 AMERICA 1996-01-01|Q=14 1996-12-01|Q=20 chiffon 1997-01-01 KENYA|Q=4 1996-06-01|Q=21 RUSSIA|Q=3 AUTOMOBILE 1995-03-22|Q=10 1994-12-01|Q=9 grey|Q=12 FOB RAIL 1994-01-01|Q=8 IRAQ MIDDLE EAST MEDIUM BURNISHED TIN|Q=13 express deposits|Q=6 1996-01-01 0.08 24|Q=18 315|Q=19 Brand#41 Brand#53 Brand#34 9 13 27|Q=22 24 20 28 15 11 12 16|Q=1 77|

QP1.403
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seed=517202641
Q=1 85|Q=13 express deposits|Q=11 IRAN 0.0000001000|Q=3 FURNITURE 1995-03-08|Q=4 1994-03-01|Q=21 KENYA|Q=6 1996-01-01 0.05 24|Q=14 1997-03-01|Q=15 1997-07-01|Q=22 23 28 24 26 13 17 14|Q=18 312|Q=9 forest|Q=7 IRAQ CANADA|Q=5 ASIA 1996-01-01|Q=10 1993-09-01|Q=20 mint 1995-01-01 EGYPT|Q=12 MAIL SHIP 1997-01-01|Q=16 Brand#52 SMALL ANODIZED 8 23 46 47 13 1 50 37|Q=17 Brand#21 JUMBO CAN|Q=8 CANADA AMERICA SMALL BRUSHED TIN|Q=19 Brand#43 Brand#31 Brand#23 4 14 23|Q=2 10 STEEL AMERICA|

QP1.404
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seed=517202642
Q=14 1997-06-01|Q=17 Brand#23 WRAP BOX|Q=22 29 17 26 32 14 19 20|Q=20 white 1994-01-01 ROMANIA|Q=8 ROMANIA EUROPE SMALL PLATED TIN|Q=16 Brand#42 LARGE BURNISHED 19 33 7 8 3 13 46 24|Q=5 EUROPE 1996-01-01|Q=10 1994-06-01|Q=1 93|Q=13 express deposits|Q=2 48 BRASS EUROPE|Q=21 GERMANY|Q=12 RAIL SHIP 1997-01-01|Q=9 deep|Q=4 1996-10-01|Q=18 314|Q=3 MACHINERY 1995-03-24|Q=7 CANADA ROMANIA|Q=6 1996-01-01 0.02 25|Q=19 Brand#55 Brand#24 Brand#22 10 15 30|Q=15 1995-03-01|Q=11 UNITED KINGDOM 0.0000001000|

QP1.405
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seed=517202643
Q=9 coral|Q=17 Brand#25 WRAP PACK|Q=7 SAUDI ARABIA IRAQ|Q=4 1994-07-01|Q=5 MIDDLE EAST 1997-01-01|Q=13 express deposits|Q=21 UNITED STATES|Q=18 315|Q=11 IRAQ 0.0000001000|Q=3 FURNITURE 1995-03-10|Q=22 18 15 17 21 10 25 30|Q=1 101|Q=6 1997-01-01 0.08 24|Q=16 Brand#22 PROMO POLISHED 46 14 15 18 2 20 37 44|Q=20 indian 1997-01-01 INDIA|Q=14 1997-09-01|Q=15 1997-10-01|Q=10 1993-03-01|Q=8 IRAQ MIDDLE EAST SMALL ANODIZED NICKEL|Q=2 36 NICKEL AMERICA|Q=12 AIR SHIP 1997-01-01|Q=19 Brand#53 Brand#52 Brand#21 5 16 26|

QP1.406
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seed=517202644
Q=13 express deposits|Q=14 1997-12-01|Q=5 AFRICA 1997-01-01|Q=22 24 13 14 34 26 16 28|Q=19 Brand#55 Brand#45 Brand#11 10 17 22|Q=11 UNITED STATES 0.0000001000|Q=9 blush|Q=6 1997-01-01 0.05 24|Q=18 313|Q=15 1995-07-01|Q=8 CANADA AMERICA STANDARD POLISHED NICKEL|Q=10 1993-12-01|Q=7 JAPAN CANADA|Q=4 1997-01-01|Q=17 Brand#22 WRAP DRUM|Q=16 Brand#52 SMALL BRUSHED 16 6 33 29 8 40 7 3|Q=3 MACHINERY 1995-03-26|Q=1 109|Q=12 REG AIR SHIP 1997-01-01|Q=2 23 TIN MIDDLE EAST|Q=21 MOZAMBIQUE|Q=20 sandy 1996-01-01 UNITED KINGDOM|

QP1.407
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seed=517202645
Q=20 deep 1994-01-01 JORDAN|Q=5 AMERICA 1997-01-01|Q=4 1994-10-01|Q=14 1993-04-01|Q=11 JAPAN 0.0000001000|Q=1 117|Q=6 1997-01-01 0.03 25|Q=16 Brand#42 ECONOMY BURNISHED 4 40 10 5 29 45 30 38|Q=8 SAUDI ARABIA MIDDLE EAST STANDARD BURNISHED NICKEL|Q=22 25 14 24 15 28 12 27|Q=7 EGYPT SAUDI ARABIA|Q=3 BUILDING 1995-03-12|Q=2 11 COPPER AMERICA|Q=12 SHIP REG AIR 1993-01-01|Q=21 INDIA|Q=19 Brand#12 Brand#23 Brand#15 5 18 30|Q=17 Brand#24 SM BOX|Q=13 special packages|Q=10 1994-10-01|Q=15 1993-03-01|Q=18 314|Q=9 azure|

QP1.408
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seed=517202646
Q=3 MACHINERY 1995-03-28|Q=7 VIETNAM JAPAN|Q=14 1993-07-01|Q=15 1995-10-01|Q=6 1997-01-01 0.08 25|Q=5 ASIA 1997-01-01|Q=21 ALGERIA|Q=20 pale 1993-01-01 BRAZIL|Q=18 312|Q=10 1993-07-01|Q=4 1997-05-01|Q=16 Brand#22 STANDARD PLATED 5 7 33 9 16 37 23 42|Q=19 Brand#14 Brand#11 Brand#14 1 19 26|Q=1 64|Q=13 special packages|Q=9 wheat|Q=8 JAPAN ASIA PROMO BRUSHED NICKEL|Q=17 Brand#21 SM PACK|Q=11 ALGERIA 0.0000001000|Q=12 FOB REG AIR 1993-01-01|Q=22 13 12 26 11 27 25 15|Q=2 49 BRASS MIDDLE EAST|

QP1.409
---
seed=517202647
Q=13 special packages|Q=15 1993-07-01|Q=17 Brand#23 SM DRUM|Q=1 72|Q=22 20 14 17 29 30 15 22|Q=11 JORDAN 0.0000001000|Q=3 BUILDING 1995-03-14|Q=4 1995-02-01|Q=7 JAPAN EGYPT|Q=20 black 1996-01-01 PERU|Q=14 1993-10-01|Q=21 CHINA|Q=9 steel|Q=8 EGYPT MIDDLE EAST PROMO PLATED NICKEL|Q=2 37 NICKEL ASIA|Q=18 313|Q=16 Brand#52 MEDIUM BRUSHED 9 8 37 27 47 16 22 1|Q=6 1993-01-01 0.06 24|Q=10 1994-04-01|Q=12 MAIL REG AIR 1993-01-01|Q=5 EUROPE 1993-01-01|Q=19 Brand#11 Brand#44 Brand#53 6 20 22|

QP1.41
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seed=517202279
Q=14 1995-06-01|Q=2 34 COPPER AMERICA|Q=9 turquoise|Q=20 lace 1997-01-01 UNITED STATES|Q=6 1996-01-01 0.07 24|Q=17 Brand#32 MED DRUM|Q=18 313|Q=8 ETHIOPIA AFRICA PROMO POLISHED NICKEL|Q=21 UNITED STATES|Q=13 pending requests|Q=3 FURNITURE 1995-03-12|Q=22 34 23 27 18 13 11 29|Q=16 Brand#53 MEDIUM BURNISHED 43 26 50 42 18 21 32 1|Q=4 1994-11-01|Q=11 INDONESIA 0.0000001000|Q=15 1993-11-01|Q=1 108|Q=10 1994-01-01|Q=19 Brand#33 Brand#55 Brand#31 7 10 26|Q=5 AFRICA 1996-01-01|Q=7 PERU ETHIOPIA|Q=12 FOB RAIL 1995-01-01|

QP1.410
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seed=517202648
Q=14 1994-01-01|Q=2 25 TIN MIDDLE EAST|Q=9 sienna|Q=20 lime 1995-01-01 GERMANY|Q=6 1993-01-01 0.03 25|Q=17 Brand#25 LG BOX|Q=18 315|Q=8 VIETNAM ASIA PROMO ANODIZED BRASS|Q=21 IRAN|Q=13 special packages|Q=3 HOUSEHOLD 1995-03-30|Q=22 14 26 28 16 21 11 33|Q=16 Brand#42 PROMO ANODIZED 13 8 12 20 26 22 16 25|Q=4 1997-09-01|Q=11 ARGENTINA 0.0000001000|Q=15 1996-02-01|Q=1 80|Q=10 1995-01-01|Q=19 Brand#23 Brand#32 Brand#53 1 10 29|Q=5 MIDDLE EAST 1993-01-01|Q=7 EGYPT VIETNAM|Q=12 RAIL REG AIR 1994-01-01|

QP1.411
---
seed=517202649
Q=21 BRAZIL|Q=3 AUTOMOBILE 1995-03-16|Q=18 312|Q=5 AFRICA 1993-01-01|Q=11 KENYA 0.0000001000|Q=7 VIETNAM JORDAN|Q=6 1993-01-01 0.09 25|Q=20 steel 1993-01-01 RUSSIA|Q=17 Brand#22 LG PACK|Q=12 AIR RAIL 1994-01-01|Q=16 Brand#22 SMALL PLATED 47 35 24 19 40 8 26 11|Q=15 1993-10-01|Q=13 special requests|Q=10 1993-10-01|Q=2 12 COPPER ASIA|Q=8 JORDAN MIDDLE EAST ECONOMY POLISHED BRASS|Q=14 1994-04-01|Q=19 Brand#25 Brand#15 Brand#42 7 11 25|Q=9 rosy|Q=22 28 26 14 25 22 33 15|Q=1 88|Q=4 1995-06-01|

QP1.412
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seed=517202650
Q=6 1993-01-01 0.06 24|Q=17 Brand#24 LG DRUM|Q=14 1994-08-01|Q=16 Brand#52 LARGE POLISHED 19 28 20 24 37 6 7 21|Q=19 Brand#22 Brand#43 Brand#41 2 12 22|Q=10 1994-08-01|Q=9 plum|Q=2 50 STEEL AFRICA|Q=15 1996-05-01|Q=8 ETHIOPIA AFRICA ECONOMY BURNISHED BRASS|Q=5 ASIA 1993-01-01|Q=22 34 26 12 13 14 15 19|Q=12 REG AIR AIR 1994-01-01|Q=7 JORDAN ETHIOPIA|Q=13 special requests|Q=18 314|Q=1 96|Q=4 1993-03-01|Q=20 gainsboro 1996-01-01 IRAQ|Q=3 HOUSEHOLD 1995-03-01|Q=11 BRAZIL 0.0000001000|Q=21 ROMANIA|

QP1.413
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seed=517202651
Q=8 RUSSIA EUROPE LARGE BRUSHED BRASS|Q=5 EUROPE 1994-01-01|Q=4 1995-10-01|Q=6 1994-01-01 0.03 25|Q=17 Brand#21 MED BOX|Q=7 ETHIOPIA RUSSIA|Q=1 104|Q=18 312|Q=22 23 30 20 10 16 31 17|Q=14 1994-11-01|Q=9 orchid|Q=10 1993-05-01|Q=15 1994-02-01|Q=11 MOROCCO 0.0000001000|Q=20 purple 1995-01-01 ARGENTINA|Q=2 38 NICKEL ASIA|Q=21 IRAQ|Q=19 Brand#34 Brand#31 Brand#45 7 13 29|Q=13 special requests|Q=16 Brand#42 STANDARD ANODIZED 17 26 3 8 30 48 33 15|Q=12 SHIP AIR 1994-01-01|Q=3 AUTOMOBILE 1995-03-18|

QP1.414
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seed=517202652
Q=5 MIDDLE EAST 1994-01-01|Q=21 CANADA|Q=14 1995-02-01|Q=19 Brand#31 Brand#14 Brand#35 2 14 25|Q=15 1996-08-01|Q=17 Brand#22 MED PACK|Q=12 FOB AIR 1995-01-01|Q=6 1994-01-01 0.09 25|Q=4 1993-07-01|Q=9 misty|Q=8 KENYA AFRICA LARGE PLATED BRASS|Q=16 Brand#22 MEDIUM BURNISHED 11 7 8 12 30 41 10 1|Q=11 CANADA 0.0000001000|Q=2 26 TIN AFRICA|Q=10 1994-02-01|Q=18 313|Q=1 112|Q=13 pending requests|Q=7 RUSSIA KENYA|Q=22 10 16 30 14 19 23 11|Q=3 FURNITURE 1995-03-03|Q=20 chiffon 1993-01-01 MOZAMBIQUE|

QP1.415
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seed=517202653
Q=21 VIETNAM|Q=15 1994-05-01|Q=4 1996-02-01|Q=6 1994-01-01 0.06 24|Q=7 KENYA FRANCE|Q=16 Brand#12 ECONOMY POLISHED 10 2 43 13 19 33 35 9|Q=19 Brand#33 Brand#52 Brand#34 8 15 21|Q=18 315|Q=14 1995-05-01|Q=22 24 23 20 15 22 19 16|Q=11 MOZAMBIQUE 0.0000001000|Q=13 pending requests|Q=3 AUTOMOBILE 1995-03-20|Q=1 120|Q=2 14 COPPER EUROPE|Q=5 AFRICA 1994-01-01|Q=8 FRANCE EUROPE LARGE ANODIZED STEEL|Q=20 misty 1997-01-01 FRANCE|Q=12 TRUCK AIR 1995-01-01|Q=17 Brand#24 MED DRUM|Q=10 1994-11-01|Q=9 magenta|

QP1.416

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seed=517202654
Q=10 1993-09-01|Q=3 FURNITURE 1995-03-05|Q=15 1996-12-01|Q=13 pending accounts|Q=6 1994-01-01 0.04 25|Q=8 UNITED KINGDOM EUROPE MEDIUM POLISHED STEEL|Q=9 lavender|Q=7 FRANCE UNITED KINGDOM|Q=4 1993-10-01|Q=11 EGYPT 0.0000001000|Q=22 26 21 27 15 24 13 25|Q=18 312|Q=12 RAIL TRUCK 1997-01-01|Q=1 67|Q=5 AMERICA 1994-01-01|Q=16 Brand#42 STANDARD BRUSHED 20 37 27 42 23 11 12 34|Q=2 1 STEEL AFRICA|Q=14 1995-08-01|Q=19 Brand#45 Brand#35 Brand#33 3 16 28|Q=20 yellow 1995-01-01 SAUDI ARABIA|Q=17 Brand#21 JUMBO BOX|Q=21 JORDAN|

QP1.417
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seed=517202655
Q=18 314|Q=8 MOROCCO AFRICA MEDIUM BURNISHED STEEL|Q=20 ivory 1994-01-01 IRAN|Q=21 ETHIOPIA|Q=2 39 BRASS EUROPE|Q=4 1996-05-01|Q=22 16 19 17 12 24 23 31|Q=17 Brand#23 JUMBO PACK|Q=1 75|Q=11 PERU 0.0000001000|Q=9 honeydew|Q=19 Brand#43 Brand#23 Brand#22 8 17 25|Q=3 MACHINERY 1995-03-22|Q=13 pending accounts|Q=5 ASIA 1995-01-01|Q=7 UNITED KINGDOM MOROCCO|Q=10 1994-06-01|Q=16 Brand#22 LARGE BURNISHED 41 21 11 2 20 29 6 9|Q=6 1995-01-01 0.09 25|Q=14 1995-12-01|Q=15 1994-09-01|Q=12 AIR RAIL 1995-01-01|

QP1.418
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seed=517202656
Q=19 Brand#45 Brand#51 Brand#21 3 18 21|Q=1 83|Q=15 1997-03-01|Q=17 Brand#25 JUMBO DRUM|Q=5 EUROPE 1995-01-01|Q=8 GERMANY EUROPE SMALL BRUSHED STEEL|Q=9 frosted|Q=12 REG AIR RAIL 1996-01-01|Q=14 1996-03-01|Q=7 MOROCCO GERMANY|Q=4 1994-02-01|Q=3 FURNITURE 1995-03-07|Q=20 seashell 1997-01-01 ALGERIA|Q=16 Brand#12 PROMO PLATED 29 40 46 11 16 17 12 38|Q=6 1995-01-01 0.07 24|Q=22 10 17 15 11 28 14 16|Q=10 1993-03-01|Q=13 pending accounts|Q=2 27 TIN AMERICA|Q=21 RUSSIA|Q=18 315|Q=11 ETHIOPIA 0.0000001000|

QP1.419
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seed=517202657
Q=8 UNITED STATES AMERICA SMALL PLATED STEEL|Q=13 pending accounts|Q=2 15 COPPER EUROPE|Q=20 deep 1995-01-01 KENYA|Q=17 Brand#22 WRAP BOX|Q=3 MACHINERY 1995-03-24|Q=6 1995-01-01 0.04 25|Q=21 KENYA|Q=18 313|Q=11 CHINA 0.0000001000|Q=19 Brand#52 Brand#33 Brand#21 9 19 28|Q=10 1993-12-01|Q=15 1994-12-01|Q=4 1996-09-01|Q=22 28 16 21 30 31 27 18|Q=1 91|Q=7 GERMANY UNITED STATES|Q=12 SHIP RAIL 1996-01-01|Q=9 dim|Q=14 1996-06-01|Q=5 MIDDLE EAST 1995-01-01|Q=16 Brand#42 SMALL BRUSHED 42 6 30 3 2 19 7 1|

QP1.42
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seed=517202280
Q=21 MOZAMBIQUE|Q=3 MACHINERY 1995-03-28|Q=18 315|Q=5 AMERICA 1996-01-01|Q=11 RUSSIA 0.0000001000|Q=7 INDONESIA RUSSIA|Q=6 1996-01-01 0.05 25|Q=20 sky 1996-01-01 JORDAN|Q=17 Brand#34 JUMBO BOX|Q=12 MAIL RAIL 1995-01-01|Q=16 Brand#43 ECONOMY PLATED 33 31 34 39 1 42 17 7|Q=15 1996-06-01|Q=13 pending accounts|Q=10 1994-10-01|Q=2 21 BRASS MIDDLE EAST|Q=8 RUSSIA EUROPE PROMO BURNISHED BRASS|Q=14 1995-09-01|Q=19 Brand#45 Brand#43 Brand#31 2 11 22|Q=9 smoke|Q=22 12 18 23 10 17 15 29|Q=1 116|Q=4 1997-06-01|

QP1.420
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seed=517202658
Q=6 1995-01-01 0.09 25|Q=15 1997-07-01|Q=18 314|Q=17 Brand#24 WRAP PACK|Q=12 FOB TRUCK 1996-01-01|Q=1 99|Q=7 UNITED STATES MOZAMBIQUE|Q=2 2 STEEL AMERICA|Q=22 14 19 21 18 13 23 25|Q=13 pending accounts|Q=21 FRANCE|Q=10 1994-09-01|Q=14 1996-09-01|Q=9 cornflower|Q=3 BUILDING 1995-03-09|Q=16 Brand#22 ECONOMY ANODIZED 46 34 13 10 28 23 18 27|Q=20 papaya 1994-01-01 EGYPT|Q=19 Brand#54 Brand#21 Brand#15 4 20 24|Q=11 FRANCE 0.0000001000|Q=4 1994-06-01|Q=8 MOZAMBIQUE AFRICA SMALL ANODIZED COPPER|Q=5 AFRICA 1995-01-01|

QP1.421
---
seed=517202659
Q=15 1995-04-01|Q=14 1996-12-01|Q=18 312|Q=17 Brand#21 WRAP DRUM|Q=10 1993-07-01|Q=20 blanched 1997-01-01 ROMANIA|Q=16 Brand#12 STANDARD PLATED 49 18 1 12 6 37 44 38|Q=11 ROMANIA 0.0000001000|Q=1 107|Q=8 INDIA ASIA STANDARD POLISHED COPPER|Q=4 1997-01-01|Q=22 13 18 28 31 20 12 17|Q=5 AMERICA 1995-01-01|Q=12 TRUCK FOB 1995-01-01|Q=3 HOUSEHOLD 1995-03-26|Q=9 burlywood|Q=21 UNITED STATES|Q=2 40 BRASS MIDDLE EAST|Q=13 pending deposits|Q=6 1995-01-01 0.07 24|Q=19 Brand#51 Brand#54 Brand#14 9 10 20|Q=7 MOZAMBIQUE INDIA|

QP1.422
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seed=517202660
Q=1 116|Q=7 INDIA ALGERIA|Q=16 Brand#42 MEDIUM POLISHED 27 5 16 19 36 29 32 20|Q=17 Brand#23 SM BOX|Q=18 313|Q=22 26 19 24 13 10 28 33|Q=12 RAIL TRUCK 1997-01-01|Q=6 1996-01-01 0.04 24|Q=8 ALGERIA AFRICA STANDARD BURNISHED COPPER|Q=9 bisque|Q=11 GERMANY 0.0000001000|Q=4 1994-10-01|Q=2 28 NICKEL AMERICA|Q=5 EUROPE 1996-01-01|Q=20 linen 1996-01-01 INDONESIA|Q=21 MOZAMBIQUE|Q=13 unusual deposits|Q=10 1994-04-01|Q=19 Brand#13 Brand#42 Brand#13 4 11 27|Q=3 BUILDING 1995-03-11|Q=14 1997-04-01|Q=15 1997-10-01|

QP1.423
---
seed=517202661
Q=21 INDIA|Q=17 Brand#25 SM PACK|Q=7 ALGERIA PERU|Q=3 HOUSEHOLD 1995-03-28|Q=1 63|Q=10 1995-01-01|Q=12 AIR TRUCK 1997-01-01|Q=22 28 26 20 25 23 19 18|Q=9 yellow|Q=16 Brand#22 PROMO ANODIZED 8 46 17 26 49 12 37 9|Q=6 1996-01-01 0.02 25|Q=11 SAUDI ARABIA 0.0000001000|Q=2 16 COPPER MIDDLE EAST|Q=4 1997-05-01|Q=5 MIDDLE EAST 1996-01-01|Q=14 1997-07-01|Q=8 PERU AMERICA PROMO BRUSHED COPPER|Q=20 tan 1994-01-01 UNITED KINGDOM|Q=13 unusual deposits|Q=18 315|Q=15 1995-07-01|Q=19 Brand#15 Brand#25 Brand#53 10 12 24|

QP1.424
---
seed=517202662
Q=2 4 STEEL ASIA|Q=9 thistle|Q=5 AFRICA 1996-01-01|Q=4 1995-02-01|Q=18 312|Q=1 71|Q=20 ghost 1993-01-01 JORDAN|Q=15 1993-04-01|Q=16 Brand#13 SMALL BURNISHED 24 7 34 28 13 14 23 27|Q=17 Brand#32 SM DRUM|Q=7 PERU INDONESIA|Q=21 ALGERIA|Q=13 unusual deposits|Q=14 1997-10-01|Q=19 Brand#12 Brand#13 Brand#52 5 13 20|Q=8 INDONESIA ASIA PROMO PLATED COPPER|Q=22 18 32 19 26 17 25 12|Q=11 GERMANY 0.0000001000|Q=10 1993-10-01|Q=3 AUTOMOBILE 1995-03-13|Q=12 REG AIR MAIL 1997-01-01|Q=6 1996-01-01 0.07 24|

QP1.425
---
seed=517202663
Q=16 Brand#43 LARGE POLISHED 12 30 22 19 2 6 49 21|Q=9 slate|Q=17 Brand#34 LG BOX|Q=8 ARGENTINA AMERICA PROMO BURNISHED TIN|Q=14 1993-01-01|Q=11 SAUDI ARABIA 0.0000001000|Q=10 1994-07-01|Q=12 SHIP MAIL 1993-01-01|Q=6 1996-01-01 0.05 24|Q=21 PERU|Q=7 INDONESIA ARGENTINA|Q=3 HOUSEHOLD 1995-03-30|Q=15 1995-10-01|Q=5 AMERICA 1996-01-01|Q=22 24 23 12 34 16 25 10|Q=20 red 1996-01-01 CANADA|Q=1 79|Q=13 unusual packages|Q=19 Brand#24 Brand#41 Brand#51 10 14 27|Q=2 41 BRASS MIDDLE EAST|Q=4 1997-09-01|Q=18 314|

QP1.426
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seed=517202664
Q=1 87|Q=3 AUTOMOBILE 1995-03-15|Q=6 1997-01-01 0.02 25|Q=5 ASIA 1997-01-01|Q=2 29 NICKEL ASIA|Q=16 Brand#23 PROMO BRUSHED 16 9 1 45 38 48 26 6|Q=14 1993-05-01|Q=22 27 28 33 22 23 18 24|Q=17 Brand#35 LG PACK|Q=20 chocolate 1994-01-01 PERU|Q=4 1995-05-01|Q=9 saddle|Q=10 1993-05-01|Q=11 INDIA 0.0000001000|Q=15 1993-07-01|Q=8 CHINA ASIA ECONOMY BRUSHED TIN|Q=12 MAIL REG AIR 1993-01-01|Q=19 Brand#21 Brand#24 Brand#45 6 15 23|Q=18 315|Q=13 unusual packages|Q=7 ARGENTINA CHINA|Q=21 INDONESIA|

QP1.427
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seed=517202665
Q=3 FURNITURE 1995-03-01|Q=16 Brand#13 MEDIUM BURNISHED 29 49 5 38 35 11 21 26|Q=5 EUROPE 1997-01-01|Q=11 VIETNAM 0.0000001000|Q=21 BRAZIL|Q=9 puff|Q=2 17 TIN AFRICA|Q=15 1996-02-01|Q=10 1994-02-01|Q=18 313|Q=17 Brand#32 LG DRUM|Q=7 CHINA IRAN|Q=8 IRAN MIDDLE EAST ECONOMY PLATED TIN|Q=19 Brand#23 Brand#12 Brand#45 1 16 30|Q=14 1993-08-01|Q=13 unusual packages|Q=1 95|Q=4 1993-02-01|Q=22 16 27 10 26 12 34 13|Q=20 moccasin 1993-01-01 GERMANY|Q=6 1997-01-01 0.07 24|Q=12 TRUCK MAIL 1993-01-01|

QP1.428
---
seed=517202666
Q=14 1993-11-01|Q=4 1995-09-01|Q=13 unusual packages|Q=5 MIDDLE EAST 1997-01-01|Q=21 ROMANIA|Q=11 INDONESIA 0.0000001000|Q=8 BRAZIL AMERICA ECONOMY ANODIZED TIN|Q=6 1997-01-01 0.05 24|Q=3 MACHINERY 1995-03-17|Q=17 Brand#34 MED BOX|Q=2 5 STEEL ASIA|Q=20 almond 1996-01-01 RUSSIA|Q=1 103|Q=19 Brand#31 Brand#45 Brand#44 6 17 27|Q=10 1994-11-01|Q=9 papaya|Q=12 RAIL FOB 1993-01-01|Q=18 315|Q=15 1993-11-01|Q=7 IRAN BRAZIL|Q=22 18 25 22 34 12 28 20|Q=16 Brand#43 ECONOMY PLATED 8 44 39 45 35 40 37 7|

QP1.429
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seed=517202667
Q=4 1993-06-01|Q=12 AIR FOB 1994-01-01|Q=22 22 25 13 15 29 17 30|Q=14 1994-02-01|Q=5 AFRICA 1997-01-01|Q=15 1996-05-01|Q=16 Brand#33 STANDARD BRUSHED 26 20 3 9 7 4 37 17|Q=2 42 BRASS AFRICA|Q=8 ROMANIA EUROPE LARGE POLISHED TIN|Q=10 1993-08-01|Q=17 Brand#31 MED PACK|Q=9 navajo|Q=21 IRAQ|Q=7 BRAZIL ROMANIA|Q=3 FURNITURE 1995-03-03|Q=6 1997-01-01 0.02 25|Q=13 express packages|Q=18 312|Q=11 RUSSIA 0.0000001000|Q=20 khaki 1995-01-01 JAPAN|Q=19 Brand#33 Brand#33 Brand#33 1 18 23|Q=1 111|

QP1.43
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seed=517202281
Q=6 1997-01-01 0.02 25|Q=17 Brand#31 JUMBO PACK|Q=14 1995-12-01|Q=16 Brand#23 STANDARD BRUSHED 36 14 19 18 20 44 22 2|Q=19 Brand#42 Brand#21 Brand#25 7 12 29|Q=10 1993-07-01|Q=9 salmon|Q=2 9 NICKEL ASIA|Q=15 1994-02-01|Q=8 KENYA AFRICA ECONOMY BRUSHED BRASS|Q=5 EUROPE 1997-01-01|Q=22 13 19 31 21 16 29 17|Q=12 TRUCK RAIL 1995-01-01|Q=7 ARGENTINA KENYA|Q=13 pending accounts|Q=18 312|Q=1 63|Q=4 1995-03-01|Q=20 drab 1994-01-01 CANADA|Q=3 FURNITURE 1995-03-14|Q=11 IRAN 0.0000001000|Q=21 INDONESIA|

QP1.430
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seed=517202668
Q=16 Brand#13 LARGE ANODIZED 29 43 8 3 24 26 32 44|Q=15 1994-02-01|Q=14 1994-05-01|Q=13 express requests|Q=4 1996-01-01|Q=22 11 21 19 10 22 27 12|Q=18 314|Q=19 Brand#35 Brand#11 Brand#32 7 19 30|Q=7 ROMANIA IRAQ|Q=1 119|Q=12 REG AIR FOB 1994-01-01|Q=17 Brand#33 MED DRUM|Q=5 AMERICA 1993-01-01|Q=10 1994-05-01|Q=20 sienna 1993-01-01 ARGENTINA|Q=3 MACHINERY 1995-03-19|Q=9 medium|Q=21 CANADA|Q=11 IRAN 0.0000001000|Q=2 30 NICKEL EUROPE|Q=6 1993-01-01 0.08 24|Q=8 IRAQ MIDDLE EAST LARGE BURNISHED NICKEL|

QP1.431
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seed=517202669
Q=20 dim 1997-01-01 MOZAMBIQUE|Q=14 1994-09-01|Q=21 SAUDI ARABIA|Q=12 FOB RAIL 1996-01-01|Q=15 1996-09-01|Q=17 Brand#35 JUMBO BOX|Q=4 1993-10-01|Q=19 Brand#42 Brand#54 Brand#31 2 20 26|Q=13 express requests|Q=10 1993-03-01|Q=11 UNITED KINGDOM 0.0000001000|Q=1 66|Q=16 Brand#43 PROMO PLATED 38 28 42 24 21 10 8 48|Q=5 ASIA 1993-01-01|Q=18 315|Q=7 IRAQ CANADA|Q=8 CANADA AMERICA MEDIUM BRUSHED NICKEL|Q=22 28 24 14 13 15 25 10|Q=9 lemon|Q=6 1993-01-01 0.05 24|Q=3 BUILDING 1995-03-05|Q=2 18 TIN AFRICA|

QP1.432
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seed=517202670
Q=16 Brand#33 SMALL POLISHED 36 6 16 29 20 34 5 39|Q=14 1994-12-01|Q=13 express requests|Q=2 6 STEEL EUROPE|Q=21 JAPAN|Q=10 1993-12-01|Q=11 IRAQ 0.0000001000|Q=4 1996-05-01|Q=1 74|Q=22 12 22 11 23 19 28 16|Q=18 313|Q=12 MAIL SHIP 1994-01-01|Q=19 Brand#44 Brand#32 Brand#21 7 10 22|Q=5 EUROPE 1993-01-01|Q=7 CANADA SAUDI ARABIA|Q=8 SAUDI ARABIA MIDDLE EAST MEDIUM PLATED NICKEL|Q=6 1993-01-01 0.03 25|Q=3 MACHINERY 1995-03-22|Q=15 1994-05-01|Q=20 peach 1995-01-01 FRANCE|Q=9 indian|Q=17 Brand#32 JUMBO PACK|

QP1.433
---
seed=517202671
Q=18 314|Q=15 1996-12-01|Q=9 ghost|Q=14 1995-03-01|Q=12 TRUCK SHIP 1995-01-01|Q=2 44 BRASS AMERICA|Q=8 JAPAN ASIA MEDIUM ANODIZED NICKEL|Q=11 UNITED STATES 0.0000001000|Q=22 31 15 24 13 14 12 21|Q=21 ETHIOPIA|Q=16 Brand#13 ECONOMY ANODIZED 29 5 39 22 35 45 8 10|Q=1 82|Q=6 1993-01-01 0.08 24|Q=17 Brand#34 JUMBO DRUM|Q=5 AFRICA 1993-01-01|Q=10 1994-09-01|Q=19 Brand#41 Brand#25 Brand#25 2 11 30|Q=4 1994-02-01|Q=20 blue 1994-01-01 VIETNAM|Q=13 express requests|Q=3 BUILDING 1995-03-07|Q=7 SAUDI ARABIA JAPAN|

QP1.434
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seed=517202672
Q=7 JAPAN EGYPT|Q=3 HOUSEHOLD 1995-03-24|Q=10 1993-06-01|Q=14 1995-06-01|Q=13 express requests|Q=21 RUSSIA|Q=18 312|Q=6 1994-01-01 0.05 24|Q=20 magenta 1997-01-01 IRAN|Q=4 1996-09-01|Q=9 drab|Q=8 EGYPT MIDDLE EAST SMALL POLISHED BRASS|Q=22 17 14 28 12 15 30 32|Q=15 1994-09-01|Q=2 31 NICKEL EUROPE|Q=1 90|Q=5 AMERICA 1994-01-01|Q=12 RAIL SHIP 1995-01-01|Q=19 Brand#53 Brand#53 Brand#14 8 12 26|Q=17 Brand#31 WRAP BOX|Q=11 JAPAN 0.0000001000|Q=16 Brand#43 STANDARD BURNISHED 43 41 45 22 31 37 27 12|

QP1.435
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seed=517202673
Q=18 313|Q=1 98|Q=13 express accounts|Q=7 EGYPT VIETNAM|Q=16 Brand#33 MEDIUM POLISHED 46 4 21 47 9 3 28 17|Q=10 1994-03-01|Q=14 1995-09-01|Q=2 19 TIN AMERICA|Q=19 Brand#55 Brand#31 Brand#13 3 13 22|Q=5 ASIA 1994-01-01|Q=21 KENYA|Q=11 ALGERIA 0.0000001000|Q=22 10 27 24 23 18 25 19|Q=15 1997-04-01|Q=8 VIETNAM ASIA SMALL BURNISHED BRASS|Q=17 Brand#33 WRAP PACK|Q=20 thistle 1995-01-01 ALGERIA|Q=3 BUILDING 1995-03-09|Q=4 1994-06-01|Q=12 AIR SHIP 1995-01-01|Q=6 1994-01-01 0.03 25|Q=9 cream|

QP1.436
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seed=517202674
Q=13 special accounts|Q=2 7 COPPER MIDDLE EAST|Q=22 33 11 20 17 10 18 19|Q=5 EUROPE 1994-01-01|Q=11 JORDAN 0.0000001000|Q=21 FRANCE|Q=20 ghost 1994-01-01 MOROCCO|Q=14 1996-01-01|Q=7 VIETNAM JORDAN|Q=10 1995-01-01|Q=4 1996-12-01|Q=9 chartreuse|Q=19 Brand#52 Brand#24 Brand#13 8 14 29|Q=18 315|Q=6 1994-01-01 0.08 25|Q=3 HOUSEHOLD 1995-03-26|Q=1 106|Q=8 JORDAN MIDDLE EAST STANDARD BRUSHED BRASS|Q=15 1994-12-01|Q=12 REG AIR MAIL 1995-01-01|Q=17 Brand#35 WRAP DRUM|Q=16 Brand#13 ECONOMY BRUSHED 50 30 14 5 31 22 3 41|

QP1.437
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seed=517202675
Q=14 1996-04-01|Q=17 Brand#32 SM BOX|Q=21 UNITED KINGDOM|Q=8 ETHIOPIA AFRICA STANDARD PLATED BRASS|Q=2 45 BRASS AMERICA|Q=9 blanched|Q=6 1994-01-01 0.06 24|Q=4 1994-09-01|Q=5 MIDDLE EAST 1994-01-01|Q=13 special accounts|Q=22 19 34 33 13 12 23 22|Q=7 JORDAN ETHIOPIA|Q=15 1997-07-01|Q=3 AUTOMOBILE 1995-03-11|Q=1 114|Q=18 312|Q=16 Brand#43 SMALL BURNISHED 13 39 48 1 9 14 11 8|Q=11 ARGENTINA 0.0000001000|Q=10 1993-10-01|Q=12 FOB REG AIR 1996-01-01|Q=20 rose 1997-01-01 EGYPT|Q=19 Brand#14 Brand#51 Brand#52 4 15 25|

QP1.438
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seed=517202676
Q=10 1994-07-01|Q=22 29 33 18 20 11 24 16|Q=1 61|Q=12 MAIL REG AIR 1996-01-01|Q=13 special accounts|Q=18 314|Q=21 MOROCCO|Q=20 coral 1996-01-01 ROMANIA|Q=2 32 NICKEL MIDDLE EAST|Q=14 1996-07-01|Q=16 Brand#33 LARGE PLATED 6 49 32 40 47 17 16 21|Q=7 ETHIOPIA RUSSIA|Q=15 1995-04-01|Q=3 FURNITURE 1995-03-28|Q=4 1997-04-01|Q=17 Brand#33 SM PACK|Q=5 AFRICA 1994-01-01|Q=19 Brand#11 Brand#44 Brand#51 9 16 22|Q=6 1994-01-01 0.03 25|Q=8 RUSSIA EUROPE STANDARD ANODIZED BRASS|Q=9 antique|Q=11 KENYA 0.0000001000|

QP1.439
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seed=517202677
Q=10 1993-04-01|Q=8 KENYA AFRICA PROMO POLISHED STEEL|Q=9 turquoise|Q=18 315|Q=12 TRUCK REG AIR 1996-01-01|Q=6 1995-01-01 0.09 25|Q=1 69|Q=5 AMERICA 1995-01-01|Q=20 navajo 1994-01-01 INDONESIA|Q=11 BRAZIL 0.0000001000|Q=17 Brand#35 SM DRUM|Q=22 19 31 24 18 22 11 28|Q=16 Brand#13 PROMO BRUSHED 10 32 36 19 15 42 21 35|Q=3 AUTOMOBILE 1995-03-13|Q=13 special deposits|Q=2 20 TIN ASIA|Q=15 1993-01-01|Q=21 INDIA|Q=14 1996-10-01|Q=19 Brand#13 Brand#22 Brand#55 4 17 29|Q=7 RUSSIA KENYA|Q=4 1995-01-01|

QP1.44
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seed=517202282
Q=8 FRANCE EUROPE ECONOMY PLATED BRASS|Q=5 MIDDLE EAST 1997-01-01|Q=4 1997-09-01|Q=6 1997-01-01 0.07 24|Q=17 Brand#33 JUMBO DRUM|Q=7 CHINA FRANCE|Q=1 72|Q=18 314|Q=22 31 18 10 15 19 13 20|Q=14 1996-03-01|Q=9 purple|Q=10 1994-05-01|Q=15 1996-09-01|Q=11 UNITED KINGDOM 0.0000001000|Q=20 peru 1993-01-01 CHINA|Q=2 47 TIN MIDDLE EAST|Q=21 ARGENTINA|Q=19 Brand#44 Brand#14 Brand#24 3 14 25|Q=13 pending accounts|Q=16 Brand#13 LARGE ANODIZED 25 6 33 37 17 4 36 10|Q=12 AIR TRUCK 1996-01-01|Q=3 MACHINERY 1995-03-30|

QP1.440
---
seed=517202678
Q=7 KENYA FRANCE|Q=17 Brand#32 LG BOX|Q=22 25 29 30 32 16 28 20|Q=5 ASIA 1995-01-01|Q=3 FURNITURE 1995-03-30|Q=10 1994-01-01|Q=13 special deposits|Q=18 313|Q=9 snow|Q=1 77|Q=14 1997-01-01|Q=15 1995-07-01|Q=21 ALGERIA|Q=19 Brand#21 Brand#15 Brand#45 9 18 25|Q=16 Brand#43 MEDIUM ANODIZED 42 18 2 49 40 41 1 24|Q=12 RAIL AIR 1997-01-01|Q=8 FRANCE EUROPE PROMO BURNISHED STEEL|Q=6 1995-01-01 0.06 24|Q=11 MOROCCO 0.0000001000|Q=20 antique 1993-01-01 UNITED STATES|Q=4 1997-08-01|Q=2 8 COPPER MIDDLE EAST|

QP1.441
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seed=517202679
Q=2 46 STEEL ASIA|Q=9 sandy|Q=21 PERU|Q=3 MACHINERY 1995-03-15|Q=4 1995-05-01|Q=7 FRANCE UNITED KINGDOM|Q=1 85|Q=11 CANADA 0.0000001000|Q=16 Brand#33 ECONOMY PLATED 16 29 13 28 1 33 50 31|Q=5 EUROPE 1995-01-01|Q=20 khaki 1996-01-01 JORDAN|Q=19 Brand#23 Brand#43 Brand#44 5 19 21|Q=18 314|Q=8 UNITED KINGDOM EUROPE ECONOMY BRUSHED STEEL|Q=17 Brand#34 LG PACK|Q=13 special deposits|Q=10 1994-11-01|Q=12 AIR SHIP 1993-01-01|Q=15 1993-04-01|Q=6 1995-01-01 0.03 25|Q=14 1997-05-01|Q=22 23 19 14 24 31 20 11|

QP1.442
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seed=517202680
Q=15 1995-11-01|Q=12 SHIP AIR 1997-01-01|Q=8 MOROCCO AFRICA ECONOMY PLATED STEEL|Q=4 1993-02-01|Q=22 19 26 22 33 18 30 11|Q=13 special deposits|Q=16 Brand#13 STANDARD POLISHED 24 43 1 8 28 25 3 49|Q=17 Brand#31 LG DRUM|Q=18 312|Q=3 FURNITURE 1995-03-01|Q=7 UNITED KINGDOM MOROCCO|Q=5 MIDDLE EAST 1995-01-01|Q=6 1995-01-01 0.09 25|Q=1 93|Q=9 red|Q=11 MOZAMBIQUE 0.0000001000|Q=21 INDONESIA|Q=10 1993-08-01|Q=14 1997-08-01|Q=20 sky 1994-01-01 CANADA|Q=19 Brand#25 Brand#21 Brand#43 10 20 28|Q=2 34 NICKEL AFRICA|

QP1.443
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seed=517202681
Q=15 1993-07-01|Q=16 Brand#43 LARGE ANODIZED 23 50 8 37 32 18 24 16|Q=2 21 TIN ASIA|Q=11 EGYPT 0.0000001000|Q=17 Brand#33 MED BOX|Q=7 MOROCCO GERMANY|Q=5 AFRICA 1996-01-01|Q=14 1997-11-01|Q=20 dodger 1993-01-01 CHINA|Q=4 1995-09-01|Q=21 ARGENTINA|Q=3 MACHINERY 1995-03-17|Q=10 1994-05-01|Q=9 peru|Q=12 FOB AIR 1997-01-01|Q=8 GERMANY EUROPE ECONOMY ANODIZED STEEL|Q=13 pending deposits|Q=6 1996-01-01 0.06 24|Q=18 314|Q=19 Brand#32 Brand#14 Brand#32 5 10 25|Q=22 28 14 17 22 24 13 16|Q=1 101|

QP1.444
---
seed=517202682
Q=1 109|Q=13 pending packages|Q=11 PERU 0.0000001000|Q=3 BUILDING 1995-03-03|Q=4 1993-06-01|Q=21 CHINA|Q=6 1996-01-01 0.04 25|Q=14 1993-02-01|Q=15 1996-02-01|Q=22 25 24 15 12 28 32 13|Q=18 315|Q=9 olive|Q=7 FRANCE UNITED STATES|Q=5 ASIA 1996-01-01|Q=10 1993-02-01|Q=20 peru 1996-01-01 INDIA|Q=12 MAIL RAIL 1993-01-01|Q=16 Brand#33 PROMO BURNISHED 12 19 13 4 1 29 33 8|Q=17 Brand#35 MED PACK|Q=8 UNITED STATES AMERICA LARGE POLISHED COPPER|Q=19 Brand#34 Brand#42 Brand#31 10 11 21|Q=2 9 COPPER AFRICA|

QP1.445
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seed=517202683
Q=14 1993-05-01|Q=17 Brand#32 MED DRUM|Q=22 12 20 31 22 21 11 13|Q=20 blush 1995-01-01 RUSSIA|Q=8 MOZAMBIQUE AFRICA LARGE BURNISHED COPPER|Q=16 Brand#13 SMALL POLISHED 30 2 27 46 22 14 16 13|Q=5 EUROPE 1996-01-01|Q=10 1993-11-01|Q=1 117|Q=13 pending packages|Q=2 47 STEEL EUROPE|Q=21 IRAQ|Q=12 TRUCK RAIL 1993-01-01|Q=9 midnight|Q=4 1996-01-01|Q=18 313|Q=3 HOUSEHOLD 1995-03-19|Q=7 UNITED KINGDOM MOZAMBIQUE|Q=6 1996-01-01 0.09 25|Q=19 Brand#31 Brand#35 Brand#31 6 12 28|Q=15 1993-11-01|Q=11 ETHIOPIA 0.0000001000|

QP1.446
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seed=517202684
Q=9 lime|Q=17 Brand#34 JUMBO BOX|Q=7 MOROCCO INDIA|Q=4 1993-09-01|Q=5 MIDDLE EAST 1996-01-01|Q=13 pending packages|Q=21 CANADA|Q=18 314|Q=11 CHINA 0.0000001000|Q=3 BUILDING 1995-03-05|Q=22 22 27 32 19 29 20 12|Q=1 64|Q=6 1996-01-01 0.07 24|Q=16 Brand#53 LARGE BRUSHED 33 27 3 9 1 45 7 17|Q=20 maroon 1993-01-01 JAPAN|Q=14 1993-09-01|Q=15 1996-06-01|Q=10 1994-09-01|Q=8 INDIA ASIA MEDIUM BRUSHED COPPER|Q=2 35 BRASS AFRICA|Q=12 RAIL REG AIR 1996-01-01|Q=19 Brand#43 Brand#13 Brand#25 1 13 24|

QP1.447
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seed=517202685
Q=13 pending packages|Q=14 1993-12-01|Q=5 AFRICA 1997-01-01|Q=22 14 23 22 34 32 17 18|Q=19 Brand#45 Brand#51 Brand#24 6 14 20|Q=11 FRANCE 0.0000001000|Q=9 khaki|Q=6 1997-01-01 0.04 24|Q=18 312|Q=15 1994-02-01|Q=8 ALGERIA AFRICA MEDIUM PLATED COPPER|Q=10 1993-06-01|Q=7 GERMANY ALGERIA|Q=4 1996-04-01|Q=17 Brand#31 JUMBO PACK|Q=16 Brand#33 STANDARD BURNISHED 14 30 41 10 16 37 20 24|Q=3 HOUSEHOLD 1995-03-21|Q=1 72|Q=12 AIR RAIL 1993-01-01|Q=2 22 TIN EUROPE|Q=21 SAUDI ARABIA|Q=20 tomato 1997-01-01 BRAZIL|

QP1.448
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seed=517202686
Q=20 goldenrod 1995-01-01 MOZAMBIQUE|Q=5 AMERICA 1997-01-01|Q=4 1994-01-01|Q=14 1994-03-01|Q=11 ROMANIA 0.0000001000|Q=1 80|Q=6 1997-01-01 0.09 25|Q=16 Brand#13 MEDIUM PLATED 40 18 5 34 41 29 12 3|Q=8 PERU AMERICA MEDIUM ANODIZED COPPER|Q=22 26 25 13 24 27 28 20|Q=7 UNITED STATES PERU|Q=3 AUTOMOBILE 1995-03-07|Q=2 10 COPPER AMERICA|Q=12 SHIP RAIL 1994-01-01|Q=21 JAPAN|Q=19 Brand#42 Brand#34 Brand#23 1 15 28|Q=17 Brand#33 JUMBO DRUM|Q=13 pending packages|Q=10 1994-03-01|Q=15 1996-09-01|Q=18 313|Q=9 green|

QP1.449
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seed=517202687
Q=3 HOUSEHOLD 1995-03-23|Q=7 MOZAMBIQUE INDONESIA|Q=14 1994-06-01|Q=15 1994-06-01|Q=6 1997-01-01 0.07 24|Q=5 ASIA 1997-01-01|Q=21 EGYPT|Q=20 rosy 1993-01-01 FRANCE|Q=18 315|Q=10 1994-12-01|Q=4 1996-08-01|Q=16 Brand#53 ECONOMY BRUSHED 43 4 10 24 8 12 25 42|Q=19 Brand#54 Brand#12 Brand#13 7 16 24|Q=1 88|Q=13 pending requests|Q=9 floral|Q=8 INDONESIA ASIA SMALL BRUSHED TIN|Q=17 Brand#35 WRAP BOX|Q=11 GERMANY 0.0000001000|Q=12 FOB TRUCK 1994-01-01|Q=22 21 14 20 31 26 18 25|Q=2 48 STEEL EUROPE|

QP1.45
---
seed=517202283
Q=5 AFRICA 1997-01-01|Q=21 CHINA|Q=14 1996-06-01|Q=19 Brand#51 Brand#42 Brand#23 8 15 22|Q=15 1994-06-01|Q=17 Brand#35 WRAP BOX|Q=12 REG AIR TRUCK 1996-01-01|Q=6 1997-01-01 0.05 25|Q=4 1995-06-01|Q=9 peach|Q=8 UNITED KINGDOM EUROPE ECONOMY ANODIZED BRASS|Q=16 Brand#43 PROMO PLATED 43 22 37 16 9 24 38 23|Q=11 IRAQ 0.0000001000|Q=2 35 COPPER ASIA|Q=10 1993-02-01|Q=18 315|Q=1 80|Q=13 pending accounts|Q=7 IRAN UNITED KINGDOM|Q=22 17 16 30 28 18 34 32|Q=3 BUILDING 1995-03-16|Q=20 brown 1996-01-01 GERMANY|

QP1.450
---
seed=517202688
Q=13 pending requests|Q=15 1996-12-01|Q=17 Brand#41 WRAP PACK|Q=1 96|Q=22 34 33 16 19 27 31 17|Q=11 SAUDI ARABIA 0.0000001000|Q=3 AUTOMOBILE 1995-03-09|Q=4 1994-05-01|Q=7 INDIA ARGENTINA|Q=20 cornflower 1997-01-01 VIETNAM|Q=14 1994-09-01|Q=21 VIETNAM|Q=9 dark|Q=8 ARGENTINA AMERICA SMALL PLATED TIN|Q=2 36 BRASS AMERICA|Q=18 312|Q=16 Brand#34 SMALL ANODIZED 41 28 21 42 5 14 49 26|Q=6 1997-01-01 0.04 24|Q=10 1993-09-01|Q=12 MAIL TRUCK 1994-01-01|Q=5 EUROPE 1997-01-01|Q=19 Brand#51 Brand#55 Brand#12 2 17 20|

QP1.451
---
seed=517202689
Q=14 1995-01-01|Q=2 24 NICKEL MIDDLE EAST|Q=9 chocolate|Q=20 navy 1995-01-01 IRAQ|Q=6 1993-01-01 0.02 25|Q=17 Brand#43 WRAP DRUM|Q=18 314|Q=8 CHINA ASIA SMALL ANODIZED TIN|Q=21 KENYA|Q=13 unusual requests|Q=3 FURNITURE 1995-03-25|Q=22 22 20 28 10 29 27 34|Q=16 Brand#14 LARGE PLATED 5 37 21 41 50 27 30 40|Q=4 1996-12-01|Q=11 INDIA 0.0000001000|Q=15 1994-09-01|Q=1 104|Q=10 1994-07-01|Q=19 Brand#54 Brand#33 Brand#11 7 18 27|Q=5 MIDDLE EAST 1993-01-01|Q=7 ALGERIA CHINA|Q=12 TRUCK RAIL 1994-01-01|

QP1.452
---
seed=517202690
Q=21 FRANCE|Q=3 MACHINERY 1995-03-11|Q=18 315|Q=5 AFRICA 1993-01-01|Q=11 VIETNAM 0.0000001000|Q=7 PERU IRAN|Q=6 1993-01-01 0.07 24|Q=20 aquamarine 1994-01-01 ALGERIA|Q=17 Brand#45 SM BAG|Q=12 RAIL TRUCK 1995-01-01|Q=16 Brand#54 PROMO POLISHED 3 4 13 37 23 29 41 45|Q=15 1997-04-01|Q=13 unusual requests|Q=10 1993-04-01|Q=2 11 COPPER AMERICA|Q=8 IRAN MIDDLE EAST STANDARD POLISHED TIN|Q=14 1995-04-01|Q=19 Brand#11 Brand#21 Brand#55 3 19 23|Q=9 blush|Q=22 10 25 22 15 12 30 17|Q=1 112|Q=4 1994-09-01|

QP1.453
---
seed=517202691
Q=6 1993-01-01 0.05 24|Q=17 Brand#42 SM PACK|Q=14 1995-07-01|Q=16 Brand#34 MEDIUM ANODIZED 6 17 47 36 16 41 7 49|Q=19 Brand#13 Brand#54 Brand#55 8 20 30|Q=10 1994-01-01|Q=9 azure|Q=2 49 STEEL MIDDLE EAST|Q=15 1995-01-01|Q=8 BRAZIL AMERICA STANDARD BURNISHED TIN|Q=5 AMERICA 1993-01-01|Q=22 23 29 32 11 34 21 33|Q=12 REG AIR MAIL 1995-01-01|Q=7 INDONESIA BRAZIL|Q=13 unusual accounts|Q=18 313|Q=1 120|Q=4 1997-04-01|Q=20 lace 1997-01-01 MOROCCO|Q=3 FURNITURE 1995-03-27|Q=11 INDONESIA 0.0000001000|Q=21 UNITED KINGDOM|

QP1.454
---
seed=517202692
Q=8 ROMANIA EUROPE PROMO BRUSHED NICKEL|Q=5 EUROPE 1993-01-01|Q=4 1995-01-01|Q=6 1993-01-01 0.02 25|Q=17 Brand#44 SM DRUM|Q=7 ARGENTINA ROMANIA|Q=1 67|Q=18 314|Q=22 15 29 18 16 30 22 21|Q=14 1995-10-01|Q=9 wheat|Q=10 1994-10-01|Q=15 1997-07-01|Q=11 RUSSIA 0.0000001000|Q=20 slate 1996-01-01 ETHIOPIA|Q=2 37 BRASS AMERICA|Q=21 MOROCCO|Q=19 Brand#15 Brand#42 Brand#54 3 10 27|Q=13 unusual accounts|Q=16 Brand#14 ECONOMY BURNISHED 39 44 23 8 41 1 13 11|Q=12 SHIP MAIL 1995-01-01|Q=3 MACHINERY 1995-03-13|

QP1.455
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seed=517202693
Q=5 MIDDLE EAST 1993-01-01|Q=21 GERMANY|Q=14 1996-02-01|Q=19 Brand#22 Brand#24 Brand#43 8 11 23|Q=15 1995-04-01|Q=17 Brand#41 LG BAG|Q=12 FOB MAIL 1996-01-01|Q=6 1993-01-01 0.07 24|Q=4 1997-08-01|Q=9 steel|Q=8 IRAQ MIDDLE EAST PROMO PLATED NICKEL|Q=16 Brand#54 STANDARD POLISHED 18 23 16 40 37 2 17 9|Q=11 IRAN 0.0000001000|Q=2 25 NICKEL MIDDLE EAST|Q=10 1993-07-01|Q=18 312|Q=1 75|Q=13 unusual accounts|Q=7 CHINA IRAQ|Q=22 13 28 20 10 12 17 26|Q=3 BUILDING 1995-03-29|Q=20 drab 1994-01-01 ROMANIA|

QP1.456
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seed=517202694
Q=21 UNITED STATES|Q=15 1993-01-01|Q=4 1995-04-01|Q=6 1994-01-01 0.05 24|Q=7 IRAN CANADA|Q=16 Brand#34 MEDIUM BRUSHED 17 11 15 10 34 14 9 7|Q=19 Brand#24 Brand#52 Brand#42 4 12 30|Q=18 313|Q=14 1996-05-01|Q=22 29 32 24 30 16 33 26|Q=11 UNITED KINGDOM 0.0000001000|Q=13 unusual accounts|Q=3 MACHINERY 1995-03-15|Q=1 83|Q=2 13 TIN ASIA|Q=5 AFRICA 1994-01-01|Q=8 CANADA AMERICA PROMO ANODIZED NICKEL|Q=20 pink 1997-01-01 INDONESIA|Q=12 MAIL REG AIR 1995-01-01|Q=17 Brand#43 LG PACK|Q=10 1994-05-01|Q=9 sienna|

QP1.457
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seed=517202695
Q=10 1993-02-01|Q=3 BUILDING 1995-03-31|Q=15 1995-08-01|Q=13 unusual accounts|Q=6 1994-01-01 0.02 25|Q=8 SAUDI ARABIA MIDDLE EAST ECONOMY POLISHED NICKEL|Q=9 rosy|Q=7 BRAZIL SAUDI ARABIA|Q=4 1997-11-01|Q=11 IRAQ 0.0000001000|Q=22 29 24 27 30 18 25 11|Q=18 315|Q=12 TRUCK FOB 1996-01-01|Q=1 91|Q=5 AMERICA 1994-01-01|Q=16 Brand#14 PROMO BURNISHED 19 6 35 49 15 10 9 2|Q=2 50 STEEL MIDDLE EAST|Q=14 1996-08-01|Q=19 Brand#21 Brand#45 Brand#31 9 13 26|Q=20 brown 1996-01-01 UNITED STATES|Q=17 Brand#45 LG DRUM|Q=21 PERU|

QP1.458
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seed=517202696
Q=18 313|Q=8 JAPAN ASIA ECONOMY BURNISHED NICKEL|Q=20 maroon 1994-01-01 KENYA|Q=21 INDONESIA|Q=2 38 BRASS ASIA|Q=4 1995-08-01|Q=22 13 23 29 19 22 16 32|Q=17 Brand#42 MED BAG|Q=1 99|Q=11 UNITED STATES 0.0000001000|Q=9 plum|Q=19 Brand#33 Brand#23 Brand#31 4 14 22|Q=3 HOUSEHOLD 1995-03-17|Q=13 express deposits|Q=5 ASIA 1994-01-01|Q=7 ROMANIA JAPAN|Q=10 1993-11-01|Q=16 Brand#54 SMALL PLATED 13 30 19 24 28 27 17 12|Q=6 1994-01-01 0.08 24|Q=14 1996-11-01|Q=15 1993-04-01|Q=12 RAIL FOB 1996-01-01|

QP1.459
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seed=517202697
Q=19 Brand#35 Brand#11 Brand#35 9 15 30|Q=1 107|Q=15 1995-11-01|Q=17 Brand#44 MED PACK|Q=5 EUROPE 1994-01-01|Q=8 EGYPT MIDDLE EAST LARGE BRUSHED BRASS|Q=9 orchid|Q=12 REG AIR FOB 1997-01-01|Q=14 1997-02-01|Q=7 IRAQ EGYPT|Q=4 1993-05-01|Q=3 BUILDING 1995-03-02|Q=20 turquoise 1993-01-01 CANADA|Q=16 Brand#34 LARGE BRUSHED 31 44 3 8 24 45 11 14|Q=6 1994-01-01 0.05 24|Q=22 28 21 32 20 23 33 17|Q=10 1994-08-01|Q=13 express deposits|Q=2 26 NICKEL AFRICA|Q=21 ARGENTINA|Q=18 314|Q=11 JAPAN 0.0000001000|

QP1.46
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seed=517202284
Q=21 IRAN|Q=15 1997-01-01|Q=4 1993-03-01|Q=6 1997-01-01 0.02 25|Q=7 BRAZIL MOROCCO|Q=16 Brand#23 SMALL POLISHED 48 27 22 1 10 21 14 28|Q=19 Brand#53 Brand#35 Brand#13 3 16 29|Q=18 313|Q=14 1996-10-01|Q=22 32 14 20 16 12 31 24|Q=11 UNITED STATES 0.0000001000|Q=13 unusual deposits|Q=3 HOUSEHOLD 1995-03-01|Q=1 88|Q=2 23 STEEL AFRICA|Q=5 AMERICA 1997-01-01|Q=8 MOROCCO AFRICA LARGE POLISHED BRASS|Q=20 maroon 1995-01-01 RUSSIA|Q=12 SHIP TRUCK 1996-01-01|Q=17 Brand#32 WRAP PACK|Q=10 1993-11-01|Q=9 navy|

QP1.460
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seed=517202698
Q=8 VIETNAM ASIA LARGE PLATED BRASS|Q=13 express deposits|Q=2 14 TIN ASIA|Q=20 green 1996-01-01 CHINA|Q=17 Brand#41 MED DRUM|Q=3 HOUSEHOLD 1995-03-19|Q=6 1995-01-01 0.03 25|Q=21 CHINA|Q=18 312|Q=11 ALGERIA 0.0000001000|Q=19 Brand#32 Brand#44 Brand#24 5 16 26|Q=10 1993-05-01|Q=15 1993-08-01|Q=4 1995-12-01|Q=22 30 19 10 16 27 24 17|Q=1 115|Q=7 CANADA VIETNAM|Q=12 SHIP FOB 1997-01-01|Q=9 misty|Q=14 1997-06-01|Q=5 MIDDLE EAST 1995-01-01|Q=16 Brand#24 STANDARD ANODIZED 24 49 38 3 20 12 8 50|

QP1.461
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seed=517202699
Q=6 1995-01-01 0.08 25|Q=15 1996-02-01|Q=18 313|Q=17 Brand#43 JUMBO BAG|Q=12 FOB SHIP 1997-01-01|Q=1 62|Q=7 SAUDI ARABIA JAPAN|Q=2 1 COPPER AFRICA|Q=22 18 10 24 16 31 15 33|Q=13 express deposits|Q=21 IRAN|Q=10 1994-03-01|Q=14 1997-09-01|Q=9 magenta|Q=3 AUTOMOBILE 1995-03-04|Q=16 Brand#54 MEDIUM PLATED 42 40 22 34 21 29 11 10|Q=20 royal 1995-01-01 INDIA|Q=19 Brand#44 Brand#32 Brand#23 10 17 22|Q=11

JORDAN 0.0000001000|Q=4 1993-09-01|Q=8 JAPAN ASIA LARGE ANODIZED BRASS|Q=5 AFRICA 1995-01-01|

QP1.462

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seed=517202700
Q=15 1993-11-01|Q=14 1997-12-01|Q=18 315|Q=17 Brand#44 JUMBO PACK|Q=10 1994-12-01|Q=20 cornsilk 1993-01-01 UNITED KINGDOM|Q=16 Brand#34 ECONOMY POLISHED 36 40 17 39 38 22 12 41|Q=11 ARGENTINA 0.0000001000|Q=1 70|Q=8 EGYPT MIDDLE EAST MEDIUM POLISHED BRASS|Q=4 1996-04-01|Q=22 33 18 20 22 30 32 24|Q=5 AMERICA 1995-01-01|Q=12 MAIL SHIP 1997-01-01|Q=3 FURNITURE 1995-03-21|Q=9 lavender|Q=21 BRAZIL|Q=2 39 BRASS EUROPE|Q=13 express deposits|Q=6 1995-01-01 0.05 24|Q=19 Brand#42 Brand#15 Brand#23 5 18 29|Q=7 JAPAN EGYPT|

QP1.463

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seed=517202701
Q=1 78|Q=7 EGYPT VIETNAM|Q=16 Brand#24 SMALL ANODIZED 7 31 41 18 10 43 40 45|Q=17 Brand#41 JUMBO DRUM|Q=18 312|Q=22 13 24 16 22 17 20 33|Q=12 TRUCK SHIP 1993-01-01|Q=6 1995-01-01 0.03 25|Q=8 VIETNAM ASIA MEDIUM BURNISHED BRASS|Q=9 honeydew|Q=11 KENYA 0.0000001000|Q=4 1994-01-01|Q=2 27 NICKEL AFRICA|Q=5 ASIA 1995-01-01|Q=20 navy 1997-01-01 JAPAN|Q=21 SAUDI ARABIA|Q=13 express packages|Q=10 1993-09-01|Q=19 Brand#44 Brand#53 Brand#12 1 19 25|Q=3 AUTOMOBILE 1995-03-07|Q=14 1993-03-01|Q=15 1996-06-01|

QP1.464

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seed=517202702
Q=21 JAPAN|Q=17 Brand#43 WRAP BAG|Q=7 VIETNAM JORDAN|Q=3 FURNITURE 1995-03-23|Q=1 87|Q=10 1994-06-01|Q=12 AIR SHIP 1993-01-01|Q=22 12 33 11 20 15 18 30|Q=9 frosted|Q=16 Brand#54 LARGE BURNISHED 43 18 7 38 4 5 22 19|Q=6 1996-01-01 0.08 25|Q=11 BRAZIL 0.0000001000|Q=2 15 TIN EUROPE|Q=4 1996-08-01|Q=5 EUROPE 1996-01-01|Q=14 1993-06-01|Q=8 JORDAN MIDDLE EAST SMALL BRUSHED STEEL|Q=20 azure 1995-01-01 BRAZIL|Q=13 express packages|Q=18 314|Q=15 1994-03-01|Q=19 Brand#51 Brand#31 Brand#11 6 20 22|

QP1.465

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seed=517202703
Q=2 3 COPPER AMERICA|Q=9 dim|Q=5 AFRICA 1996-01-01|Q=4 1994-05-01|Q=18 315|Q=1 95|Q=20 lavender 1993-01-01 PERU|Q=15 1996-09-01|Q=16 Brand#34 PROMO POLISHED 21 23 7 35 8 49 4 9|Q=17 Brand#45 WRAP PACK|Q=7 JORDAN ETHIOPIA|Q=21 EGYPT|Q=13 special packages|Q=14 1993-10-01|Q=19 Brand#53 Brand#14 Brand#15 1 10 29|Q=8 ETHIOPIA AFRICA SMALL PLATED STEEL|Q=22 10 13 14 33 21 31 30|Q=11 MOROCCO 0.0000001000|Q=10 1993-04-01|Q=3 MACHINERY 1995-03-09|Q=12 REG AIR AIR 1996-01-01|Q=6 1996-01-01 0.06 24|

QP1.466

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seed=517202704
Q=16 Brand#24 SMALL BRUSHED 50 22 19 16 49 13 30 35|Q=9 cornflower|Q=17 Brand#42 WRAP DRUM|Q=8 RUSSIA EUROPE SMALL ANODIZED STEEL|Q=14 1994-01-01|Q=11 CANADA 0.0000001000|Q=10 1994-01-01|Q=12 SHIP REG AIR 1994-01-01|Q=6 1996-01-01 0.03 25|Q=21 VIETNAM|Q=7 ETHIOPIA RUSSIA|Q=3 FURNITURE 1995-03-25|Q=15 1994-06-01|Q=5 AMERICA 1996-01-01|Q=22 18 15 19 13 14 29 22|Q=20 smoke 1997-01-01 FRANCE|Q=1 103|Q=13 special packages|Q=19 Brand#55 Brand#52 Brand#55 6 11 25|Q=2 40 STEEL EUROPE|Q=4 1996-11-01|Q=18 313|

QP1.467

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seed=517202705
Q=1 111|Q=3 MACHINERY 1995-03-11|Q=6 1996-01-01 0.09 25|Q=5 ASIA 1996-01-01|Q=2 28 NICKEL AMERICA|Q=16 Brand#54 ECONOMY BURNISHED 3 16 12 24 46 36 10 43|Q=14 1994-04-01|Q=22 31 29 13 15 17 21 18|Q=17 Brand#44 SM BAG|Q=20 firebrick 1995-01-01 VIETNAM|Q=4 1994-08-01|Q=9 burlywood|Q=10 1994-10-01|Q=11 MOZAMBIQUE 0.0000001000|Q=15 1997-01-01|Q=8 KENYA AFRICA STANDARD POLISHED STEEL|Q=12 FOB REG AIR 1994-01-01|Q=19 Brand#12 Brand#35 Brand#54 2 12 21|Q=18 314|Q=13 special requests|Q=7 RUSSIA KENYA|Q=21 JORDAN|

QP1.468

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seed=517202706
Q=3 BUILDING 1995-03-27|Q=16 Brand#34 STANDARD PLATED 38 36 10 23 24 22 32 18|Q=5 EUROPE 1997-01-01|Q=11 EGYPT 0.0000001000|Q=21 ETHIOPIA|Q=9 bisque|Q=2 16 TIN MIDDLE EAST|Q=15 1994-09-01|Q=10 1993-07-01|Q=18 312|Q=17 Brand#41 SM PACK|Q=7 KENYA FRANCE|Q=8 FRANCE EUROPE STANDARD BURNISHED STEEL|Q=19 Brand#14 Brand#23 Brand#53 7 13 28|Q=14 1994-07-01|Q=13 special requests|Q=1 119|Q=4 1997-03-01|Q=22 21 16 28 25 19 24 30|Q=20 plum 1994-01-01 IRAQ|Q=6 1997-01-01 0.06 24|Q=12 MAIL REG AIR 1994-01-01|

QP1.469

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seed=517202707
Q=14 1994-10-01|Q=4 1994-12-01|Q=13 special requests|Q=5 MIDDLE EAST 1997-01-01|Q=21 UNITED KINGDOM|Q=11 PERU 0.0000001000|Q=8 UNITED KINGDOM EUROPE PROMO BRUSHED COPPER|Q=6 1997-01-01 0.04 25|Q=3 HOUSEHOLD 1995-03-13|Q=17 Brand#43 SM DRUM|Q=2 4 COPPER AMERICA|Q=20 burlywood 1997-01-01 ARGENTINA|Q=1 66|Q=19 Brand#11 Brand#51 Brand#42 2 14 25|Q=10 1994-04-01|Q=9 yellow|Q=12 TRUCK AIR 1994-01-01|Q=18 313|Q=15 1997-04-01|Q=7 FRANCE UNITED KINGDOM|Q=22 16 29 18 14 17 13 15|Q=16 Brand#24 MEDIUM BRUSHED 32 30 4 47 33 18 9 11|

QP1.47

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seed=517202285
Q=10 1994-08-01|Q=3 BUILDING 1995-03-18|Q=15 1994-09-01|Q=13 unusual deposits|Q=6 1993-01-01 0.08 24|Q=8 GERMANY EUROPE LARGE BURNISHED STEEL|Q=9 metallic|Q=7 ROMANIA GERMANY|Q=4 1995-10-01|Q=11 JAPAN 0.0000001000|Q=22 20 13 18 23 25 10 31|Q=18 314|Q=12 FOB TRUCK 1997-01-01|Q=1 96|Q=5 ASIA 1993-01-01|Q=16 Brand#13 ECONOMY ANODIZED 49 3 6 25 7 22 40 18|Q=2 10 NICKEL ASIA|Q=14 1997-01-01|Q=19 Brand#55 Brand#13 Brand#12 8 17 25|Q=20 tomato 1993-01-01 JAPAN|Q=17 Brand#34 WRAP DRUM|Q=21 BRAZIL|

QP1.470

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seed=517202708
Q=4 1997-07-01|Q=12 AIR RAIL 1995-01-01|Q=22 22 20 15 19 16 14 12|Q=14 1995-02-01|Q=5 AFRICA 1997-01-01|Q=15 1995-01-01|Q=16 Brand#54 PROMO ANODIZED 16 15 11 32 35 6 5 21|Q=2 41 STEEL MIDDLE EAST|Q=8 MOROCCO AFRICA PROMO PLATED COPPER|Q=10 1993-02-01|Q=17 Brand#45 LG BAG|Q=9 thistle|Q=21 MOROCCO|Q=7 UNITED KINGDOM MOROCCO|Q=3 BUILDING 1995-03-29|Q=6 1997-01-01 0.09 25|Q=13 special requests|Q=18 315|Q=11 ETHIOPIA 0.0000001000|Q=20 medium 1996-01-01 MOROCCO|Q=19 Brand#23 Brand#44 Brand#41 7 15 21|Q=1 74|

QP1.471

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seed=517202709
Q=16 Brand#34 SMALL PLATED 17 24 16 20 32 48 1 43|Q=15 1997-08-01|Q=14 1995-05-01|Q=13 special requests|Q=4 1995-04-01|Q=22 12 21 15 18 11 27 17|Q=18 312|Q=19 Brand#25 Brand#22 Brand#41 3 16 28|Q=7 MOROCCO GERMANY|Q=1 82|Q=12 REG AIR AIR 1995-01-01|Q=17 Brand#42 LG PACK|Q=5 AMERICA 1997-01-01|Q=10 1993-11-01|Q=20 violet 1994-01-01 ETHIOPIA|Q=3 HOUSEHOLD 1995-03-15|Q=9 slate|Q=21 GERMANY|Q=11 CHINA 0.0000001000|Q=2 29 BRASS ASIA|Q=6 1997-01-01 0.06 24|Q=8 GERMANY EUROPE PROMO ANODIZED COPPER|

QP1.472

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seed=517202710
Q=20 grey 1997-01-01 SAUDI ARABIA|Q=14 1995-08-01|Q=21 UNITED STATES|Q=12 SHIP AIR 1995-01-01|Q=15 1995-04-01|Q=17 Brand#44 LG DRUM|Q=4 1997-11-01|Q=19 Brand#22 Brand#55 Brand#35 8 17 24|Q=13 pending accounts|Q=10 1994-08-01|Q=11 FRANCE 0.0000001000|Q=1 90|Q=16 Brand#24 LARGE POLISHED 20 19 18 41 28 42 36 5|Q=5 ASIA 1997-01-01|Q=18 314|Q=7 GERMANY UNITED STATES|Q=8 UNITED STATES AMERICA ECONOMY POLISHED COPPER|Q=22 30 23 16 28 13 25 11|Q=9 saddle|Q=6 1997-01-01 0.04 25|Q=3 AUTOMOBILE 1995-03-31|Q=2 17 TIN MIDDLE EAST|

QP1.473

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seed=517202711
Q=16 Brand#54 STANDARD ANODIZED 23 2 34 45 32 31 46 41|Q=14 1995-11-01|Q=13 pending accounts|Q=2 5 COPPER ASIA|Q=21 MOZAMBIQUE|Q=10 1993-05-01|Q=11 ROMANIA 0.0000001000|Q=4 1995-08-01|Q=1 98|Q=22 20 15 28 32 17 31 16|Q=18 312|Q=12 FOB RAIL 1995-01-01|Q=19 Brand#34 Brand#43 Brand#34 3 18 20|Q=5 EUROPE 1993-01-01|Q=7 UNITED STATES MOZAMBIQUE|Q=8 MOZAMBIQUE AFRICA ECONOMY BURNISHED COPPER|Q=6 1993-01-01 0.09 25|Q=3 HOUSEHOLD 1995-03-17|Q=15 1993-01-01|Q=20 saddle 1996-01-01 IRAN|Q=9 puff|Q=17 Brand#41 MED BAG|

QP1.474

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seed=517202712
Q=18 313|Q=15 1995-08-01|Q=9 papaya|Q=14 1996-02-01|Q=12 MAIL RAIL 1996-01-01|Q=2 43 STEEL AFRICA|Q=8 INDIA ASIA ECONOMY ANODIZED TIN|Q=11 GERMANY 0.0000001000|Q=22 12 17 11 30 22 21 23|Q=21 INDONESIA|Q=16 Brand#44 MEDIUM BURNISHED 27 18 19 2 14 8 38 46|Q=1 106|Q=6 1993-01-01 0.07 24|Q=17 Brand#42 MED PACK|Q=5 MIDDLE EAST 1993-01-01|Q=10 1994-02-01|Q=19 Brand#32 Brand#25 Brand#33 8 19 28|Q=4 1993-05-01|Q=20 cream 1994-01-01 UNITED STATES|Q=13 pending accounts|Q=3 AUTOMOBILE 1995-03-02|Q=7 MOZAMBIQUE INDIA|

QP1.475

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seed=517202713
Q=7 INDIA ALGERIA|Q=3 FURNITURE 1995-03-19|Q=10 1994-12-01|Q=14 1996-06-01|Q=13 pending accounts|Q=21 ARGENTINA|Q=18 315|Q=6 1993-01-01 0.04 24|Q=20 olive 1993-01-01 KENYA|Q=4 1995-12-01|Q=9 navajo|Q=8 ALGERIA AFRICA LARGE POLISHED TIN|Q=22 14 18 20 11 24 13 23|Q=15 1993-05-01|Q=2 30 BRASS ASIA|Q=1 114|Q=5 AMERICA 1993-01-01|Q=12 RAIL MAIL 1993-01-01|Q=19 Brand#34 Brand#13 Brand#23 4 10 24|Q=17 Brand#44 MED DRUM|Q=11 SAUDI ARABIA 0.0000001000|Q=16 Brand#24 ECONOMY POLISHED 8 32 3 29 46 4 17 30|

QP1.476

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seed=517202714
Q=18 312|Q=1 61|Q=13 pending accounts|Q=7 ALGERIA PERU|Q=16 Brand#55 STANDARD BRUSHED 33 45 37 9 38 5 27 14|Q=10 1993-09-01|Q=14 1996-09-01|Q=2 18 NICKEL AFRICA|Q=19 Brand#41 Brand#41 Brand#22 9 11 20|Q=5 ASIA 1993-01-01|Q=21 CHINA|Q=11 INDIA 0.0000001000|Q=22 27 16 32 18 11 20 19|Q=15 1995-11-01|Q=8 PERU AMERICA LARGE BURNISHED TIN|Q=17 Brand#51 JUMBO BAG|Q=20 beige 1996-01-01 EGYPT|Q=3 AUTOMOBILE 1995-03-04|Q=4 1993-08-01|Q=12 AIR RAIL 1996-01-01|Q=6 1993-01-01 0.02 25|Q=9 medium|

QP1.477

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seed=517202715
Q=13 pending deposits|Q=2 6 COPPER EUROPE|Q=22 24 18 25 19 13 31 30|Q=5 EUROPE 1994-01-01|Q=11 VIETNAM 0.0000001000|Q=21 IRAN|Q=20 lawn 1995-01-01 CHINA|Q=14 1996-12-01|Q=7 PERU INDONESIA|Q=10 1994-06-01|Q=4 1996-03-01|Q=9 lemon|Q=19

Brand#43 Brand#34 Brand#21 4 12 27|Q=18 314|Q=6 1994-01-01 0.07 24|Q=3 FURNITURE 1995-03-21|Q=1 69|Q=8 INDONESIA ASIA MEDIUM BRUSHED TIN|Q=15 1993-08-01|Q=12 REG AIR RAIL 1996-01-01|Q=17 Brand#53 JUMBO PACK|Q=16 Brand#45 LARGE BURNISHED 27 24 12 23 28 6 26 32|

QP1.478

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seed=517202716

Q=14 1997-03-01|Q=17 Brand#55 JUMBO DRUM|Q=21 BRAZIL|Q=8 ARGENTINA AMERICA MEDIUM PLATED TIN|Q=2 44 STEEL AFRICA|Q=9 indian|Q=6 1994-01-01 0.04 24|Q=4 1993-12-01|Q=5 MIDDLE EAST 1994-01-01|Q=13 pending deposits|Q=22 30 33 34 20 16 23 19|Q=7 INDONESIA ARGENTINA|Q=15 1996-03-01|Q=3 MACHINERY 1995-03-06|Q=1 77|Q=18 315|Q=16 Brand#25 PROMO PLATED 40 24 20 36 7 47 46 8|Q=11 INDONESIA 0.0000001000|Q=10 1993-03-01|Q=12 SHIP TRUCK 1997-01-01|Q=20 snow 1993-01-01 INDIA|Q=19 Brand#45 Brand#12 Brand#15 10 13 23|

QP1.479

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seed=517202717

Q=10 1993-12-01|Q=22 32 11 30 10 23 34 25|Q=1 85|Q=12 FOB TRUCK 1997-01-01|Q=13 pending deposits|Q=18 313|Q=21 ROMANIA|Q=20 floral 1996-01-01 UNITED KINGDOM|Q=2 31 BRASS EUROPE|Q=14 1997-07-01|Q=16 Brand#55 SMALL BRUSHED 13 8 46 5 47 41 34 45|Q=7 ALGERIA CHINA|Q=15 1993-11-01|Q=3 BUILDING 1995-03-23|Q=4 1996-07-01|Q=17 Brand#52 WRAP BAG|Q=5 AFRICA 1994-01-01|Q=19 Brand#52 Brand#45 Brand#15 5 14 30|Q=6 1994-01-01 0.02 25|Q=8 CHINA ASIA MEDIUM ANODIZED NICKEL|Q=9 ghost|Q=11 RUSSIA 0.0000001000|

QP1.48

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seed=517202286

Q=18 312|Q=8 UNITED STATES AMERICA MEDIUM BRUSHED STEEL|Q=20 green 1996-01-01 BRAZIL|Q=21 ROMANIA|Q=2 48 TIN AFRICA|Q=4 1993-07-01|Q=22 31 11 21 29 28 32 13|Q=17 Brand#31 SM BOX|Q=1 104|Q=11 ALGERIA 0.0000001000|Q=9 light|Q=19 Brand#12 Brand#41 Brand#11 4 18 21|Q=3 HOUSEHOLD 1995-03-03|Q=13 unusual deposits|Q=5 EUROPE 1993-01-01|Q=7 IRAQ UNITED STATES|Q=10 1993-05-01|Q=16 Brand#43 STANDARD BURNISHED 3 11 4 5 10 28 23 9|Q=6 1993-01-01 0.05 25|Q=14 1997-04-01|Q=15 1997-04-01|Q=12 MAIL SHIP 1997-01-01|

QP1.480

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seed=517202718

Q=10 1994-10-01|Q=8 IRAN MIDDLE EAST SMALL POLISHED NICKEL|Q=9 drab|Q=18 314|Q=12 MAIL TRUCK 1997-01-01|Q=6 1994-01-01 0.07 24|Q=1 93|Q=5 AMERICA 1994-01-01|Q=20 plum 1995-01-01 JORDAN|Q=11 IRAN 0.0000001000|Q=17 Brand#54 WRAP PACK|Q=22 23 16 28 33 21 13 25|Q=16 Brand#45 ECONOMY ANODIZED 26 46 10 27 20 28 48 24|Q=3 MACHINERY 1995-03-08|Q=13 unusual deposits|Q=2 19 NICKEL AMERICA|Q=15 1996-06-01|Q=21 JAPAN|Q=14 1997-10-01|Q=19 Brand#54 Brand#33 Brand#54 10 15 27|Q=7 PERU IRAN|Q=4 1994-04-01|

QP1.481

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seed=517202719

Q=7 INDONESIA BRAZIL|Q=17 Brand#51 WRAP DRUM|Q=22 25 33 13 10 30 18 21|Q=5 ASIA 1995-01-01|Q=3 BUILDING 1995-03-25|Q=10 1993-07-01|Q=13 unusual packages|Q=18 312|Q=9 cream|Q=1 101|Q=14 1993-01-01|Q=15 1994-03-01|Q=21 EGYPT|Q=19 Brand#51 Brand#11 Brand#53 5 16 23|Q=16 Brand#25 STANDARD PLATED 46 7 11 6 47 42 39 28|Q=12 RAIL TRUCK 1993-01-01|Q=8 BRAZIL AMERICA SMALL BURNISHED NICKEL|Q=6 1995-01-01 0.05 24|Q=11 UNITED KINGDOM 0.0000001000|Q=20 burnished 1993-01-01 BRAZIL|Q=4 1996-11-01|Q=2 7 TIN EUROPE|

QP1.482

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seed=517202720

Q=2 45 STEEL AMERICA|Q=9 chartreuse|Q=21 VIETNAM|Q=3 HOUSEHOLD 1995-03-10|Q=4 1994-08-01|Q=7 ARGENTINA ROMANIA|Q=1 109|Q=11 IRAQ 0.0000001000|Q=16 Brand#55 MEDIUM POLISHED 5 9 41 36 10 18 3 33|Q=5 EUROPE 1995-01-01|Q=20 metallic 1997-01-01 PERU|Q=19 Brand#13 Brand#54 Brand#52 1 17 30|Q=18 313|Q=8 ROMANIA EUROPE STANDARD BRUSHED NICKEL|Q=17 Brand#53 SM BAG|Q=13 unusual packages|Q=10 1994-04-01|Q=12 AIR MAIL 1993-01-01|Q=15 1996-10-01|Q=6 1995-01-01 0.02 25|Q=14 1993-04-01|Q=22 13 31 21 27 20 17 30|

QP1.483

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seed=517202721

Q=15 1994-06-01|Q=12 REG AIR MAIL 1993-01-01|Q=8 IRAQ MIDDLE EAST STANDARD PLATED NICKEL|Q=4 1997-03-01|Q=22 17 16 14 23 28 25 10|Q=13 unusual packages|Q=16 Brand#45 PROMO ANODIZED 41 49 28 13 34 36 5 37|Q=17 Brand#55 SM PACK|Q=18 315|Q=3 BUILDING 1995-03-27|Q=7 CHINA IRAQ|Q=5 MIDDLE EAST 1995-01-01|Q=6 1995-01-01 0.08 24|Q=1 117|Q=9 blanched|Q=11 UNITED STATES 0.0000001000|Q=21 JORDAN|Q=10 1995-01-01|Q=14 1993-07-01|Q=20 wheat 1995-01-01 GERMANY|Q=19 Brand#15 Brand#32 Brand#41 6 18 26|Q=2 33 BRASS MIDDLE EAST|

QP1.484

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seed=517202722

Q=15 1997-01-01|Q=16 Brand#25 SMALL BURNISHED 10 38 12 47 11 15 30 42|Q=2 20 NICKEL AMERICA|Q=11 JAPAN 0.0000001000|Q=17 Brand#52 SM DRUM|Q=7 IRAN CANADA|Q=5 AFRICA 1995-01-01|Q=14 1993-11-01|Q=20 honeydew 1994-01-01 VIETNAM|Q=4 1994-12-01|Q=21 ETHIOPIA|Q=3 HOUSEHOLD 1995-03-12|Q=10 1993-10-01|Q=9 antique|Q=12 SHIP MAIL 1993-01-01|Q=8 CANADA AMERICA STANDARD ANODIZED BRASS|Q=13 unusual packages|Q=6 1995-01-01 0.05 24|Q=18 312|Q=19 Brand#12 Brand#25 Brand#41 1 19 22|Q=22 12 18 17 28 30 23 27|Q=1 64|

QP1.485

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seed=517202723

Q=1 72|Q=13 unusual packages|Q=11 ALGERIA 0.0000001000|Q=3 AUTOMOBILE 1995-03-29|Q=4 1997-07-01|Q=21 RUSSIA|Q=6 1996-01-01 0.02 25|Q=14 1994-02-01|Q=15 1994-10-01|Q=22 25 22 30 19 33 14 31|Q=18 314|Q=9 turquoise|Q=7 BRAZIL SAUDI ARABIA|Q=5 AMERICA 1996-01-01|Q=10 1994-08-01|Q=20 saddle 1997-01-01 IRAQ|Q=12 FOB MAIL 1994-01-01|Q=16 Brand#55 LARGE POLISHED 13 19 16 24 4 45 2 28|Q=17 Brand#54 LG BAG|Q=8 SAUDI ARABIA MIDDLE EAST PROMO POLISHED BRASS|Q=19 Brand#25 Brand#53 Brand#45 6 20 30|Q=2 8 TIN MIDDLE EAST|

QP1.486

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seed=517202724

Q=14 1994-05-01|Q=17 Brand#55 LG PACK|Q=22 14 24 28 13 11 10 20|Q=20 cyan 1996-01-01 ARGENTINA|Q=8 JAPAN ASIA PROMO BURNISHED BRASS|Q=16 Brand#45 PROMO BRUSHED 8 12 32 36 30 46 7 17|Q=5 EUROPE 1996-01-01|Q=10 1993-05-01|Q=1 80|Q=13 unusual requests|Q=2 46 COPPER ASIA|Q=21 MOROCCO|Q=12 TRUCK FOB 1994-01-01|Q=9 snow|Q=4 1995-03-01|Q=18 315|Q=3 FURNITURE 1995-03-14|Q=7 ROMANIA JAPAN|Q=6 1996-01-01 0.08 25|Q=19 Brand#22 Brand#41 Brand#34 2 10 26|Q=15 1997-04-01|Q=11 JORDAN 0.0000001000|

QP1.487

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seed=517202725

Q=9 sandy|Q=17 Brand#52 LG DRUM|Q=7 IRAQ EGYPT|Q=4 1997-10-01|Q=5 MIDDLE EAST 1996-01-01|Q=13 express requests|Q=21 GERMANY|Q=18 313|Q=11 ARGENTINA 0.0000001000|Q=3 AUTOMOBILE 1995-03-31|Q=22 26 27 19 18 20 15 32|Q=1 88|Q=6 1996-01-01 0.05 24|Q=16 Brand#25 MEDIUM BURNISHED 20 7 21 33 26 13 4 9|Q=20 orange 1994-01-01 MOZAMBIQUE|Q=14 1994-08-01|Q=15 1995-01-01|Q=10 1994-02-01|Q=8 EGYPT MIDDLE EAST ECONOMY BRUSHED BRASS|Q=2 34 BRASS MIDDLE EAST|Q=12 RAIL FOB 1994-01-01|Q=19 Brand#24 Brand#24 Brand#33 7 11 22|

QP1.488

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seed=517202726

Q=13 express requests|Q=14 1994-11-01|Q=5 AFRICA 1996-01-01|Q=22 34 28 20 14 13 32 30|Q=19 Brand#31 Brand#52 Brand#33 2 12 29|Q=11 KENYA 0.0000001000|Q=9 red|Q=6 1996-01-01 0.03 25|Q=18 315|Q=15 1997-08-01|Q=8 VIETNAM ASIA ECONOMY PLATED STEEL|Q=10 1994-11-01|Q=7 CANADA VIETNAM|Q=4 1995-07-01|Q=17 Brand#54 MED BAG|Q=16 Brand#55 ECONOMY PLATED 15 28 25 6 1 22 9 33|Q=3 FURNITURE 1995-03-16|Q=1 96|Q=12 AIR FOB 1994-01-01|Q=2 21 NICKEL ASIA|Q=21 UNITED STATES|Q=20 bisque 1997-01-01 ETHIOPIA|

QP1.489

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seed=517202727

Q=20 lemon 1996-01-01 SAUDI ARABIA|Q=5 AMERICA 1996-01-01|Q=4 1993-04-01|Q=14 1995-03-01|Q=11 BRAZIL 0.0000001000|Q=1 104|Q=6 1996-01-01 0.08 25|Q=16 Brand#45 STANDARD BRUSHED 7 6 34 5 31 14 37 15|Q=8 JORDAN MIDDLE EAST ECONOMY ANODIZED STEEL|Q=22 22 11 16 27 17 23 15|Q=7 SAUDI ARABIA JORDAN|Q=3 MACHINERY 1995-03-02|Q=2 9 TIN AFRICA|Q=12 REG AIR FOB 1995-01-01|Q=21 MOZAMBIQUE|Q=19 Brand#33 Brand#45 Brand#22 8 13 25|Q=17 Brand#51 MED PACK|Q=13 express requests|Q=10 1993-08-01|Q=15 1995-05-01|Q=18 312|Q=9 peru|

QP1.49

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seed=517202287

Q=19 Brand#14 Brand#34 Brand#55 9 19 28|Q=1 112|Q=15 1995-01-01|Q=17 Brand#33 SM PACK|Q=5 MIDDLE EAST 1993-01-01|Q=8 MOZAMBIQUE AFRICA MEDIUM PLATED STEEL|Q=9 ivory|Q=12 RAIL MAIL 1997-01-01|Q=14 1997-07-01|Q=7 CANADA MOZAMBIQUE|Q=4 1996-02-01|Q=3 AUTOMOBILE 1995-03-20|Q=20 rosy 1995-01-01 MOZAMBIQUE|Q=16 Brand#23 MEDIUM POLISHED 37 21 15 17 32 48 23 13|Q=6 1993-01-01 0.03 25|Q=22 15 21 33 29 30 14 25|Q=10 1994-03-01|Q=13 unusual deposits|Q=2 36 COPPER EUROPE|Q=21 JAPAN|Q=18 313|Q=11 JORDAN 0.0000001000|

QP1.490

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seed=517202728

Q=3 FURNITURE 1995-03-18|Q=7 JAPAN ETHIOPIA|Q=14 1995-06-01|Q=15 1993-01-01|Q=6 1997-01-01 0.06 24|Q=5 ASIA 1997-01-01|Q=21 INDIA|Q=20 spring 1994-01-01 IRAN|Q=18 314|Q=10 1994-06-01|Q=4 1995-11-01|Q=16 Brand#25 LARGE ANODIZED 25 45 47 21 16 33 12 13|Q=19 Brand#35 Brand#23 Brand#21 3 14 22|Q=1 112|Q=13 express requests|Q=9 olive|Q=8 ETHIOPIA AFRICA LARGE POLISHED STEEL|Q=17 Brand#53 MED DRUM|Q=11 MOROCCO 0.0000001000|Q=12 SHIP TRUCK 1993-01-01|Q=22 31 17 12 27 23 18 19|Q=2 47 COPPER ASIA|

QP1.491

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seed=517202729

Q=13 express accounts|Q=15 1995-08-01|Q=17 Brand#55 JUMBO BAG|Q=1 120|Q=22 33 15 34 28 19 31 25|Q=11 CANADA 0.0000001000|Q=3 MACHINERY 1995-03-04|Q=4 1993-08-01|Q=7 EGYPT RUSSIA|Q=20 forest 1993-01-01 ALGERIA|Q=14 1995-09-01|Q=21 ALGERIA|Q=9 midnight|Q=8 RUSSIA EUROPE LARGE BURNISHED STEEL|Q=2 35 STEEL AFRICA|Q=18 315|Q=16 Brand#15 PROMO PLATED 21 35 16 33 12 25 38 42|Q=6 1997-01-01 0.03 25|Q=10 1993-03-01|Q=12 MAIL SHIP 1995-01-01|Q=5 EUROPE 1997-01-01|Q=19 Brand#42 Brand#11 Brand#25 8 15 29|

QP1.492

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seed=517202730

Q=14 1995-12-01|Q=2 23 NICKEL EUROPE|Q=9 lime|Q=20 powder 1996-01-01 KENYA|Q=6 1997-01-01 0.08 25|Q=17 Brand#52 JUMBO PACK|Q=18 313|Q=8 KENYA AFRICA

MEDIUM BRUSHED STEEL|Q=21 CHINA|Q=13 express accounts|Q=3 BUILDING 1995-03-20|Q=22 24 28 19 23 10 15 14|Q=16 Brand#45 SMALL POLISHED 39 13 17 18 12 41 45 28|Q=4 1996-03-01|Q=11 MOZAMBIQUE 0.0000001000|Q=15 1993-05-01|Q=1 67|Q=10 1993-12-01|Q=19 Brand#44 Brand#43 Brand#15 3 16 25|Q=5 MIDDLE EAST 1997-01-01|Q=7 VIETNAM KENYA|Q=12 TRUCK SHIP 1995-01-01|

QP1.493

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seed=517202731

Q=21 IRAN|Q=3 MACHINERY 1995-03-06|Q=18 314|Q=5 AFRICA 1997-01-01|Q=11 CANADA 0.0000001000|Q=7 JORDAN FRANCE|Q=6 1997-01-01 0.06 24|Q=20 chartreuse 1995-01-01 EGYPT|Q=17 Brand#54 JUMBO DRUM|Q=12 RAIL SHIP 1996-01-01|Q=16 Brand#25 ECONOMY ANODIZED 12 16 18 10 19 15 41 26|Q=15 1995-12-01|Q=13 express accounts|Q=10 1994-09-01|Q=2 10 TIN AFRICA|Q=8 FRANCE EUROPE MEDIUM PLATED COPPER|Q=14 1996-03-01|Q=19 Brand#41 Brand#31 Brand#14 9 17 21|Q=9 khaki|Q=22 14 24 18 32 34 17 13|Q=1 75|Q=4 1993-12-01|

QP1.494

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seed=517202732

Q=6 1993-01-01 0.03 25|Q=17 Brand#51 WRAP BAG|Q=14 1996-07-01|Q=16 Brand#15 STANDARD BURNISHED 47 33 5 39 11 49 40 38|Q=19 Brand#53 Brand#14 Brand#13 4 18 28|Q=10 1993-06-01|Q=9 green|Q=2 48 COPPER EUROPE|Q=15 1993-08-01|Q=8 UNITED KINGDOM EUROPE MEDIUM ANODIZED COPPER|Q=5 AMERICA 1993-01-01|Q=22 25 29 17 18 19 33 31|Q=12 AIR REG AIR 1996-01-01|Q=7 ETHIOPIA UNITED KINGDOM|Q=13 special accounts|Q=18 312|Q=1 83|Q=4 1996-07-01|Q=20 midnight 1993-01-01 ROMANIA|Q=3 BUILDING 1995-03-22|Q=11 MOZAMBIQUE 0.0000001000|Q=21 BRAZIL|

QP1.495

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seed=517202733

Q=8 MOROCCO AFRICA SMALL POLISHED COPPER|Q=5 ASIA 1993-01-01|Q=4 1994-04-01|Q=6 1993-01-01 0.09 25|Q=17 Brand#53 WRAP PACK|Q=7 RUSSIA MOROCCO|Q=1 91|Q=18 313|Q=22 18 33 10 31 30 15 17|Q=14 1996-10-01|Q=9 floral|Q=10 1994-04-01|Q=15 1996-03-01|Q=11 EGYPT 0.0000001000|Q=20 white 1996-01-01 INDIA|Q=2 36 STEEL AMERICA|Q=21 ROMANIA|Q=19 Brand#55 Brand#42 Brand#52 9 19 25|Q=13 special deposits|Q=16 Brand#45 MEDIUM POLISHED 47 43 40 18 45 37 35 38|Q=12 REG AIR FOB 1996-01-01|Q=3 HOUSEHOLD 1995-03-08|

QP1.496

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seed=517202734

Q=5 MIDDLE EAST 1993-01-01|Q=21 IRAQ|Q=14 1997-01-01|Q=19 Brand#52 Brand#35 Brand#51 4 20 21|Q=15 1993-12-01|Q=17 Brand#55 WRAP DRUM|Q=12 SHIP REG AIR 1997-01-01|Q=6 1993-01-01 0.06 24|Q=4 1996-10-01|Q=9 dark|Q=8 GERMANY EUROPE SMALL BURNISHED COPPER|Q=16 Brand#25 ECONOMY BRUSHED 8 3 24 48 28 11 14 31|Q=11 PERU 0.0000001000|Q=2 24 BRASS EUROPE|Q=10 1995-01-01|Q=18 315|Q=1 99|Q=13 special deposits|Q=7 KENYA GERMANY|Q=22 30 32 13 23 10 14 21|Q=3 AUTOMOBILE 1995-03-25|Q=20 hot 1995-01-01 UNITED KINGDOM|

QP1.497

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seed=517202735

Q=21 CANADA|Q=15 1996-06-01|Q=4 1994-07-01|Q=6 1993-01-01 0.04 25|Q=7 FRANCE UNITED STATES|Q=16 Brand#15 SMALL BURNISHED 3 5 48 27 2 17 14 6|Q=19 Brand#15 Brand#13 Brand#51 10 10 28|Q=18 312|Q=14 1997-04-01|Q=22 14 30 25 20 12 17 18|Q=11 ETHIOPIA 0.0000001000|Q=13 special deposits|Q=3 HOUSEHOLD 1995-03-10|Q=1 107|Q=2 11 TIN AMERICA|Q=5 AFRICA 1993-01-01|Q=8 UNITED STATES AMERICA STANDARD BRUSHED COPPER|Q=20 salmon 1993-01-01 JORDAN|Q=12 MAIL REG AIR 1997-01-01|Q=17 Brand#52 SM BAG|Q=10 1993-10-01|Q=9 chocolate|

QP1.498

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seed=517202736

Q=10 1994-07-01|Q=3 AUTOMOBILE 1995-03-27|Q=15 1994-03-01|Q=13 special deposits|Q=6 1994-01-01 0.09 25|Q=8 MOZAMBIQUE AFRICA STANDARD POLISHED TIN|Q=9 blush|Q=7 UNITED KINGDOM MOZAMBIQUE|Q=4 1997-02-01|Q=11 CHINA 0.0000001000|Q=22 19 27 14 21 18 24 26|Q=18 314|Q=12 TRUCK AIR 1997-01-01|Q=1 115|Q=5 AMERICA 1994-01-01|Q=16 Brand#45 LARGE PLATED 7 31 6 21 38 8 23 45|Q=2 49 COPPER MIDDLE EAST|Q=14 1997-07-01|Q=19 Brand#12 Brand#51 Brand#45 5 11 24|Q=20 dark 1997-01-01 CANADA|Q=17 Brand#53 SM PACK|Q=21 VIETNAM|

QP1.5

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seed=517202243

Q=21 FRANCE|Q=15 1993-07-01|Q=4 1993-12-01|Q=6 1993-01-01 0.04 25|Q=7 FRANCE ROMANIA|Q=16 Brand#51 LARGE PLATED 3 21 41 39 28 37 36 4|Q=19 Brand#13 Brand#24 Brand#14 7 18 20|Q=18 314|Q=14 1995-10-01|Q=22 20 15 28 26 10 14 21|Q=11 PERU 0.0000001000|Q=13 special accounts|Q=3 MACHINERY 1995-03-06|Q=1 64|Q=2 24 BRASS AFRICA|Q=5 AMERICA 1993-01-01|Q=8 ROMANIA EUROPE SMALL POLISHED COPPER|Q=20 indian 1994-01-01 ROMANIA|Q=12 SHIP REG AIR 1995-01-01|Q=17 Brand#13 SM CAN|Q=10 1994-06-01|Q=9 floral|

QP1.50

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seed=517202288

Q=8 INDIA ASIA MEDIUM ANODIZED STEEL|Q=13 unusual deposits|Q=2 24 STEEL AFRICA|Q=20 cornsilk 1993-01-01 FRANCE|Q=17 Brand#35 SM DRUM|Q=3 HOUSEHOLD 1995-03-05|Q=6 1993-01-01 0.08 24|Q=21 EGYPT|Q=18 315|Q=11 ARGENTINA 0.0000001000|Q=19 Brand#11 Brand#12 Brand#55 4 20 25|Q=10 1994-12-01|Q=15 1997-07-01|Q=4 1993-11-01|Q=22 25 32 24 19 10 21 11|Q=1 120|Q=7 SAUDI ARABIA INDIA|Q=12 AIR MAIL 1997-01-01|Q=9 goldenrod|Q=14 1997-10-01|Q=5 AFRICA 1993-01-01|Q=16 Brand#13 ECONOMY BRUSHED 19 3 1 48 15 45 34 5|

QP1.51

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seed=517202289

Q=6 1993-01-01 0.05 24|Q=15 1995-04-01|Q=18 312|Q=17 Brand#32 LG BOX|Q=12 REG AIR MAIL 1993-01-01|Q=1 67|Q=7 JAPAN ALGERIA|Q=2 11 BRASS EUROPE|Q=22 34 20 19 17 13 32 18|Q=13 unusual packages|Q=21 VIETNAM|Q=10 1993-09-01|Q=14 1993-02-01|Q=9 firebrick|Q=3 AUTOMOBILE 1995-03-22|Q=16 Brand#43 SMALL BURNISHED 5 27 16 35 23 41 21 39|Q=20 navy 1997-01-01 VIETNAM|Q=19 Brand#24 Brand#55 Brand#54 10 10 21|Q=11 KENYA 0.0000001000|Q=4 1996-06-01|Q=8 ALGERIA AFRICA SMALL POLISHED STEEL|Q=5 AMERICA 1993-01-01|

QP1.52

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seed=517202290

Q=15 1993-01-01|Q=14 1993-05-01|Q=18 314|Q=17 Brand#33 LG PACK|Q=10 1994-06-01|Q=20 aquamarine 1995-01-01 IRAQ|Q=16 Brand#23 LARGE PLATED 49 9 14 4 8 27 1 39|Q=11 BRAZIL 0.0000001000|Q=1 75|Q=8 PERU AMERICA SMALL BURNISHED COPPER|Q=4 1994-03-01|Q=22 31 15 33 27 30 11 26|Q=5 ASIA 1994-01-01|Q=12 SHIP FOB 1993-01-01|Q=3 FURNITURE 1995-03-08|Q=9 cyan|Q=21 JORDAN|Q=2 49 TIN AMERICA|Q=13 unusual packages|Q=6 1994-01-01 0.03 25|Q=19 Brand#21 Brand#33 Brand#43 5 11 28|Q=7 EGYPT PERU|

QP1.53

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seed=517202291

Q=1 83|Q=7 VIETNAM INDONESIA|Q=16 Brand#13 PROMO BRUSHED 20 43 2 24 36 41 49 32|Q=17 Brand#35 LG DRUM|Q=18 315|Q=22 10 29 18 34 33 21 13|Q=12 FOB REG AIR 1995-01-01|Q=6 1994-01-01 0.08 24|Q=8 INDONESIA ASIA STANDARD BRUSHED COPPER|Q=9 chiffon|Q=11 MOROCCO 0.0000001000|Q=4 1996-10-01|Q=2 37 COPPER EUROPE|Q=5 MIDDLE EAST 1994-01-01|Q=20 lavender 1994-01-01 ALGERIA|Q=21 ETHIOPIA|Q=13 express packages|Q=10 1993-03-01|Q=19 Brand#23 Brand#21 Brand#42 10 12 24|Q=3 MACHINERY 1995-03-24|Q=14 1993-08-01|Q=15 1995-08-01|

QP1.54

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seed=517202292

Q=21 RUSSIA|Q=17 Brand#32 MED BOX|Q=7 JORDAN ARGENTINA|Q=3 FURNITURE 1995-03-10|Q=1 91|Q=10 1994-01-01|Q=12 MAIL FOB 1993-01-01|Q=22 29 23 19 32 17 14 33|Q=9 blue|Q=16 Brand#43 MEDIUM ANODIZED 23 16 46 40 13 10 48 26|Q=6 1994-01-01 0.06 24|Q=11 CANADA 0.0000001000|Q=2 25 STEEL AMERICA|Q=4 1994-06-01|Q=5 AFRICA 1994-01-01|Q=14 1993-11-01|Q=8 ARGENTINA AMERICA STANDARD PLATED COPPER|Q=20 slate 1997-01-01 MOROCCO|Q=13 express packages|Q=18 313|Q=15 1993-04-01|Q=19 Brand#35 Brand#54 Brand#41 5 13 20|

QP1.55

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seed=517202293

Q=2 13 BRASS MIDDLE EAST|Q=9 aquamarine|Q=5 AMERICA 1994-01-01|Q=4 1997-01-01|Q=18 314|Q=1 99|Q=20 firebrick 1996-01-01 ETHIOPIA|Q=15 1995-11-01|Q=16 Brand#23 ECONOMY PLATED 23 9 31 38 41 15 30 19|Q=17 Brand#34 MED PACK|Q=7 ETHIOPIA CHINA|Q=21 MOROCCO|Q=13 express packages|Q=14 1994-02-01|Q=19 Brand#32 Brand#42 Brand#31 1 14 28|Q=8 CHINA ASIA STANDARD ANODIZED COPPER|Q=22 25 24 10 20 19 27 26|Q=11 MOZAMBIQUE 0.0000001000|Q=10 1994-10-01|Q=3 MACHINERY 1995-03-26|Q=12 RAIL FOB 1994-01-01|Q=6 1994-01-01 0.03 25|

QP1.56

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seed=517202294

Q=16 Brand#13 STANDARD POLISHED 23 4 5 8 25 44 13 12|Q=9 violet|Q=17 Brand#31 MED DRUM|Q=8 IRAN MIDDLE EAST PROMO POLISHED COPPER|Q=14 1994-06-01|Q=11 EGYPT 0.0000001000|Q=10 1993-07-01|Q=12 AIR SHIP 1994-01-01|Q=6 1995-01-01 0.09 24|Q=21 GERMANY|Q=7 VIETNAM IRAN|Q=3 BUILDING 1995-03-12|Q=15 1993-08-01|Q=5 ASIA 1995-01-01|Q=22 10 12 31 23 17 16 11|Q=20 pink 1994-01-01 ROMANIA|Q=1 107|Q=13 express requests|Q=19 Brand#34 Brand#24 Brand#35 6 15 24|Q=2 50 NICKEL AMERICA|Q=4 1994-10-01|Q=18 312|

QP1.57

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seed=517202295

Q=1 115|Q=3 MACHINERY 1995-03-28|Q=6 1995-01-01 0.06 24|Q=5 EUROPE 1995-01-01|Q=2 38 COPPER MIDDLE EAST|Q=16 Brand#43 LARGE ANODIZED 16 6 43 7 26 37 20 47|Q=14 1994-09-01|Q=22 22 14 32 20 23 11 28|Q=17 Brand#33 JUMBO BOX|Q=20 burlywood 1997-01-01 INDONESIA|Q=4 1997-05-01|Q=9 spring|Q=10 1994-04-01|Q=11 PERU 0.0000001000|Q=15 1996-02-01|Q=8 BRAZIL AMERICA PROMO PLATED TIN|Q=12 REG AIR SHIP 1994-01-01|Q=19 Brand#41 Brand#52 Brand#34 1 16 20|Q=18 314|Q=13 express requests|Q=7 JORDAN BRAZIL|Q=21 UNITED STATES|

QP1.58

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seed=517202296

Q=3 BUILDING 1995-03-14|Q=16 Brand#33 PROMO BURNISHED 44 3 19 49 18 29 13 9|Q=5 MIDDLE EAST 1995-01-01|Q=11 ETHIOPIA 0.0000001000|Q=21 MOZAMBIQUE|Q=9 seashell|Q=2 26 STEEL ASIA|Q=15 1993-11-01|Q=10 1995-01-01|Q=18 315|Q=17 Brand#35 JUMBO PACK|Q=7 ETHIOPIA ROMANIA|Q=8 ROMANIA EUROPE PROMO ANODIZED TIN|Q=19 Brand#43 Brand#45 Brand#23 6 17 27|Q=14 1994-12-01|Q=13 express requests|Q=1 62|Q=4 1995-02-01|Q=22 34 11 24 17 26 14 22|Q=20 medium 1996-01-01 UNITED STATES|Q=6 1995-01-01 0.03 25|Q=12 SHIP RAIL 1993-01-01|

QP1.59

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seed=517202297
Q=14 1995-03-01|Q=4 1997-09-01|Q=13 express requests|Q=5 AFRICA 1995-01-01|Q=21 INDIA|Q=11 CHINA 0.0000001000|Q=8 IRAQ MIDDLE EAST ECONOMY POLISHED TIN|Q=6 1995-01-01 0.09 24|Q=3 HOUSEHOLD 1995-03-30|Q=17 Brand#32 JUMBO DRUM|Q=2 14 BRASS MIDDLE EAST|Q=20 turquoise 1994-01-01 KENYA|Q=1 70|Q=19 Brand#45 Brand#23 Brand#23 2 18 23|Q=10 1993-11-01|Q=9 rose|Q=12 FOB SHIP 1995-01-01|Q=18 313|Q=15 1996-06-01|Q=7 RUSSIA IRAQ|Q=22 24 34 14 13 12 25 32|Q=16 Brand#13 SMALL POLISHED 40 12 43 4 13 21 47 38|

QP1.6
---
seed=517202244
Q=10 1993-03-01|Q=3 FURNITURE 1995-03-23|Q=15 1996-02-01|Q=13 special accounts|Q=6 1993-01-01 0.09 24|Q=8 IRAN MIDDLE EAST SMALL BURNISHED COPPER|Q=9 dark|Q=7 UNITED KINGDOM IRAN|Q=4 1996-07-01|Q=11 ETHIOPIA 0.0000001000|Q=22 18 34 24 14 31 27 20|Q=18 315|Q=12 MAIL AIR 1996-01-01|Q=1 72|Q=5 ASIA 1993-01-01|Q=16 Brand#31 PROMO POLISHED 12 42 48 33 49 41 32 26|Q=2 11 NICKEL EUROPE|Q=14 1996-01-01|Q=19 Brand#25 Brand#52 Brand#53 2 19 27|Q=20 seashell 1997-01-01 INDIA|Q=17 Brand#15 LG BOX|Q=21 UNITED KINGDOM|

QP1.60
---
seed=517202298
Q=4 1995-06-01|Q=12 TRUCK REG AIR 1995-01-01|Q=22 23 32 20 26 30 19 18|Q=14 1995-06-01|Q=5 AMERICA 1996-01-01|Q=15 1994-03-01|Q=16 Brand#43 LARGE BRUSHED 9 31 50 25 11 18 33 42|Q=2 2 NICKEL ASIA|Q=8 CANADA AMERICA ECONOMY BURNISHED TIN|Q=10 1994-08-01|Q=17 Brand#34 WRAP BOX|Q=9 pink|Q=21 ALGERIA|Q=7 KENYA CANADA|Q=3 BUILDING 1995-03-16|Q=6 1996-01-01 0.06 24|Q=13 special requests|Q=18 314|Q=11 FRANCE 0.0000001000|Q=20 grey 1993-01-01 CANADA|Q=19 Brand#52 Brand#11 Brand#22 7 19 20|Q=1 78|

QP1.61
---
seed=517202299
Q=16 Brand#34 STANDARD BURNISHED 16 40 3 38 8 30 5 42|Q=15 1996-09-01|Q=14 1995-10-01|Q=13 special accounts|Q=4 1993-03-01|Q=22 28 13 12 14 15 26 10|Q=18 312|Q=19 Brand#54 Brand#44 Brand#11 2 20 27|Q=7 FRANCE SAUDI ARABIA|Q=1 86|Q=12 RAIL REG AIR 1995-01-01|Q=17 Brand#41 WRAP PACK|Q=5 ASIA 1996-01-01|Q=10 1993-05-01|Q=20 royal 1996-01-01 CHINA|Q=3 HOUSEHOLD 1995-03-01|Q=9 orange|Q=21 CHINA|Q=11 ROMANIA 0.0000001000|Q=2 39 TIN AFRICA|Q=6 1996-01-01 0.04 25|Q=8 SAUDI ARABIA MIDDLE EAST LARGE BRUSHED TIN|

QP1.62
---
seed=517202300
Q=20 cream 1995-01-01 INDIA|Q=14 1996-01-01|Q=21 IRAN|Q=12 AIR REG AIR 1996-01-01|Q=15 1994-06-01|Q=17 Brand#43 WRAP DRUM|Q=4 1995-10-01|Q=19 Brand#52 Brand#32 Brand#15 8 10 23|Q=13 special accounts|Q=10 1994-02-01|Q=11 GERMANY 0.0000001000|Q=1 94|Q=16 Brand#14 MEDIUM PLATED 3 25 27 44 4 48 36 50|Q=5 EUROPE 1996-01-01|Q=18 313|Q=7 UNITED KINGDOM JAPAN|Q=8 JAPAN ASIA LARGE PLATED NICKEL|Q=22 14 25 33 27 21 17 10|Q=9 mint|Q=6 1996-01-01 0.09 24|Q=3 AUTOMOBILE 1995-03-18|Q=2 27 STEEL ASIA|

QP1.63
---
seed=517202301
Q=16 Brand#44 ECONOMY BRUSHED 2 17 5 43 3 4 33 21|Q=14 1996-04-01|Q=13 special accounts|Q=2 15 BRASS AFRICA|Q=21 BRAZIL|Q=10 1994-11-01|Q=11 SAUDI ARABIA 0.0000001000|Q=4 1993-07-01|Q=1 102|Q=22 17 28 14 25 26 20 24|Q=18 315|Q=12 REG AIR MAIL 1997-01-01|Q=19 Brand#14 Brand#15 Brand#15 3 11 30|Q=5 MIDDLE EAST 1996-01-01|Q=7 MOROCCO CANADA|Q=8 CANADA AMERICA LARGE ANODIZED NICKEL|Q=6 1996-01-01 0.07 24|Q=3 FURNITURE 1995-03-03|Q=15 1997-01-01|Q=20 olive 1993-01-01 UNITED KINGDOM|Q=9 linen|Q=17 Brand#45 SM BOX|

QP1.64
---
seed=517202302
Q=18 312|Q=15 1994-10-01|Q=9 lace|Q=14 1996-07-01|Q=12 SHIP AIR 1996-01-01|Q=2 3 NICKEL EUROPE|Q=8 SAUDI ARABIA MIDDLE EAST MEDIUM POLISHED NICKEL|Q=11 INDIA 0.0000001000|Q=22 22 30 18 28 17 11 34|Q=21 ROMANIA|Q=16 Brand#34 SMALL ANODIZED 6 3 40 14 49 42 38 11|Q=1 110|Q=6 1997-01-01 0.04 25|Q=17 Brand#41 SM PACK|Q=5 AMERICA 1997-01-01|Q=10 1993-09-01|Q=19 Brand#11 Brand#43 Brand#54 8 12 26|Q=4 1996-01-01|Q=20 azure 1996-01-01 JAPAN|Q=13 special accounts|Q=3 AUTOMOBILE 1995-03-20|Q=7 GERMANY SAUDI ARABIA|

QP1.65
---
seed=517202303
Q=7 UNITED STATES JAPAN|Q=3 FURNITURE 1995-03-05|Q=10 1994-06-01|Q=14 1996-11-01|Q=13 special deposits|Q=21 IRAQ|Q=18 314|Q=6 1997-01-01 0.09 25|Q=20 lawn 1995-01-01 BRAZIL|Q=4 1993-10-01|Q=9 grey|Q=8 JAPAN ASIA MEDIUM BURNISHED NICKEL|Q=22 12 33 22 23 13 16 24|Q=15 1997-04-01|Q=2 40 TIN AFRICA|Q=1 118|Q=5 ASIA 1997-01-01|Q=12 FOB AIR 1996-01-01|Q=19 Brand#13 Brand#31 Brand#53 3 13 23|Q=17 Brand#43 SM DRUM|Q=11 VIETNAM 0.0000001000|Q=16 Brand#14 LARGE PLATED 10 23 31 9 44 47 15 20|

QP1.66
---
seed=517202304
Q=18 315|Q=1 65|Q=13 special deposits|Q=7 MOZAMBIQUE EGYPT|Q=16 Brand#44 PROMO POLISHED 6 44 36 35 40 19 2 3|Q=10 1993-03-01|Q=14 1997-02-01|Q=2 28 COPPER EUROPE|Q=19 Brand#25 Brand#14 Brand#42 9 14 30|Q=5 EUROPE 1997-01-01|Q=21 CANADA|Q=11 INDONESIA 0.0000001000|Q=22 23 29 25 15 19 10 13|Q=15 1995-01-01|Q=8 EGYPT MIDDLE EAST SMALL BRUSHED NICKEL|Q=17 Brand#45 LG BOX|Q=20 smoke 1993-01-01 PERU|Q=3 MACHINERY 1995-03-22|Q=4 1996-05-01|Q=12 TRUCK AIR 1997-01-01|Q=6 1997-01-01 0.07 24|Q=9 forest|

QP1.67
---
seed=517202305
Q=13 pending deposits|Q=2 16 BRASS AMERICA|Q=22 29 11 14 19 21 33 20|Q=5 MIDDLE EAST 1997-01-01|Q=11 RUSSIA 0.0000001000|Q=21 VIETNAM|Q=20 floral 1997-01-01 FRANCE|Q=14 1997-05-01|Q=7 INDIA VIETNAM|Q=10 1993-12-01|Q=4 1994-02-01|Q=9 deep|Q=19 Brand#22 Brand#52 Brand#41 4 15 26|Q=18 313|Q=6 1997-01-01 0.04 25|Q=3 FURNITURE 1995-03-07|Q=1 73|Q=8 VIETNAM ASIA SMALL PLATED BRASS|Q=15 1997-08-01|Q=12 RAIL AIR 1997-01-01|Q=17 Brand#42 LG PACK|Q=16 Brand#34 MEDIUM ANODIZED 8 33 22 14 26 10 18 29|

QP1.68
---
seed=517202306
Q=14 1997-08-01|Q=17 Brand#44 LG DRUM|Q=21 JORDAN|Q=8 JORDAN MIDDLE EAST SMALL ANODIZED BRASS|Q=2 4 NICKEL EUROPE|Q=9 coral|Q=6 1997-01-01 0.02 25|Q=4 1996-09-01|Q=5 AFRICA 1997-01-01|Q=13 pending deposits|Q=22 12 26 13 20 14 15 21|Q=7 ALGERIA JORDAN|Q=15 1995-04-01|Q=3 MACHINERY 1995-03-24|Q=1 81|Q=18 314|Q=16 Brand#14 ECONOMY BURNISHED 20 24 27 44 25 16 11 29|Q=11 IRAN 0.0000001000|Q=10 1994-10-01|Q=12 AIR RAIL 1997-01-01|Q=20 plum 1995-01-01 VIETNAM|Q=19 Brand#24 Brand#35 Brand#41 9 16 22|

QP1.69
---
seed=517202307
Q=10 1993-07-01|Q=22 21 16 17 14 26 32 24|Q=1 89|Q=12 REG AIR RAIL 1997-01-01|Q=13 pending deposits|Q=18 312|Q=21 ETHIOPIA|Q=20 burlywood 1994-01-01 IRAQ|Q=2 42 TIN AMERICA|Q=14 1997-11-01|Q=16 Brand#44 STANDARD POLISHED 35 7 11 31 25 44 5 34|Q=7 PERU ETHIOPIA|Q=15 1993-01-01|Q=3 BUILDING 1995-03-09|Q=4 1994-06-01|Q=17 Brand#41 MED BOX|Q=5 AMERICA 1993-01-01|Q=19 Brand#31 Brand#23 Brand#35 4 17 29|Q=6 1993-01-01 0.07 24|Q=8 ETHIOPIA AFRICA STANDARD POLISHED BRASS|Q=9 brown|Q=11 UNITED KINGDOM 0.0000001000|

QP1.7
---
seed=517202245
Q=18 313|Q=8 BRAZIL AMERICA STANDARD BRUSHED COPPER|Q=20 deep 1996-01-01 UNITED KINGDOM|Q=21 MOROCCO|Q=2 49 TIN AMERICA|Q=4 1994-04-01|Q=22 33 21 20 29 15 14 19|Q=17 Brand#12 LG PACK|Q=1 80|Q=11 CHINA 0.0000001000|Q=9 chocolate|Q=19 Brand#22 Brand#45 Brand#53 8 20 23|Q=3 MACHINERY 1995-03-08|Q=13 special accounts|Q=5 EUROPE 1993-01-01|Q=7 MOROCCO BRAZIL|Q=10 1993-12-01|Q=16 Brand#11 MEDIUM ANODIZED 16 13 9 29 46 21 25 49|Q=6 1993-01-01 0.06 24|Q=14 1996-04-01|Q=15 1993-10-01|Q=12 TRUCK AIR 1996-01-01|

QP1.70
---
seed=517202308
Q=10 1994-04-01|Q=8 RUSSIA EUROPE STANDARD BURNISHED BRASS|Q=9 beige|Q=18 313|Q=12 SHIP RAIL 1993-01-01|Q=6 1993-01-01 0.05 25|Q=1 97|Q=5 ASIA 1993-01-01|Q=20 metallic 1997-01-01 ARGENTINA|Q=11 IRAQ 0.0000001000|Q=17 Brand#43 MED PACK|Q=22 34 20 26 25 30 10 19|Q=16 Brand#34 MEDIUM BRUSHED 12 15 4 13 27 20 19 38|Q=3 HOUSEHOLD 1995-03-26|Q=13 pending packages|Q=2 29 COPPER MIDDLE EAST|Q=15 1995-08-01|Q=21 RUSSIA|Q=14 1993-03-01|Q=19 Brand#33 Brand#51 Brand#34 10 18 26|Q=7 INDONESIA RUSSIA|Q=4 1997-01-01|

QP1.71
---
seed=517202309
Q=7 ARGENTINA KENYA|Q=17 Brand#45 MED DRUM|Q=22 25 28 23 11 15 30 32|Q=5 EUROPE 1993-01-01|Q=3 BUILDING 1995-03-11|Q=10 1995-01-01|Q=13 pending packages|Q=18 315|Q=9 white|Q=1 105|Q=14 1993-06-01|Q=15 1993-05-01|Q=21 KENYA|Q=19 Brand#35 Brand#34 Brand#33 5 19 22|Q=16 Brand#14 PROMO BURNISHED 30 49 41 47 39 36 5 43|Q=12 MAIL RAIL 1993-01-01|Q=8 KENYA AFRICA PROMO BRUSHED BRASS|Q=6 1993-01-01 0.02 25|Q=11 UNITED STATES 0.0000001000|Q=20 violet 1995-01-01 MOROCCO|Q=4 1994-10-01|Q=2 17 STEEL AMERICA|

QP1.72
---
seed=517202310
Q=2 5 NICKEL MIDDLE EAST|Q=9 tan|Q=21 FRANCE|Q=3 HOUSEHOLD 1995-03-28|Q=4 1997-05-01|Q=7 CHINA FRANCE|Q=1 113|Q=11 JAPAN 0.0000001000|Q=16 Brand#44 SMALL PLATED 33 20 16 12 5 35 45 47|Q=5 MIDDLE EAST 1993-01-01|Q=20 honeydew 1994-01-01 ETHIOPIA|Q=19 Brand#42 Brand#22 Brand#23 10 20 29|Q=18 313|Q=8 FRANCE EUROPE PROMO PLATED STEEL|Q=17 Brand#42 JUMBO BAG|Q=13 pending packages|Q=10 1993-10-01|Q=12 TRUCK RAIL 1993-01-01|Q=15 1995-11-01|Q=6 1993-01-01 0.07 24|Q=14 1993-09-01|Q=22 15 22 10 21 17 31 23|

QP1.73
---
seed=517202311
Q=15 1993-08-01|Q=12 RAIL TRUCK 1993-01-01|Q=8 UNITED KINGDOM EUROPE PROMO ANODIZED STEEL|Q=4 1995-02-01|Q=22 14 17 26 22 21 13 28|Q=13 pending packages|Q=16 Brand#34 LARGE BRUSHED 38 8 47 41 19 10 25 40|Q=17 Brand#44 JUMBO PACK|Q=18 314|Q=3 AUTOMOBILE 1995-03-13|Q=7 IRAN UNITED KINGDOM|Q=5 AFRICA 1994-01-01|Q=6 1994-01-01 0.05 25|Q=1 60|Q=9 sky|Q=11 ALGERIA 0.0000001000|Q=21 UNITED STATES|Q=10 1994-08-01|Q=14 1993-12-01|Q=20 saddle 1997-01-01 SAUDI ARABIA|Q=19 Brand#44 Brand#55 Brand#22 5 10 25|Q=2 43 TIN ASIA|

QP1.74

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seed=517202312
Q=15 1996-03-01|Q=16 Brand#14 STANDARD ANODIZED 18 7 33 24 13 14 8 19|Q=2 30 COPPER MIDDLE EAST|Q=11 JORDAN 0.0000001000|Q=17 Brand#41 JUMBO DRUM|Q=7 BRAZIL MOROCCO|Q=5 ASIA 1994-01-01|Q=14 1994-03-01|Q=20 cream 1996-01-01 INDONESIA|Q=4 1997-08-01|Q=21 MOZAMBIQUE|Q=3 HOUSEHOLD 1995-03-30|Q=10 1993-05-01|Q=9 royal|Q=12 AIR TRUCK 1994-01-01|Q=8 MOROCCO AFRICA ECONOMY POLISHED STEEL|Q=13 pending packages|Q=6 1994-01-01 0.02 25|Q=18 312|Q=19 Brand#42 Brand#42 Brand#21 1 11 21|Q=22 13 30 20 22 32 21 14|Q=1 68|

QP1.75
---
seed=517202313
Q=1 76|Q=13 unusual requests|Q=11 ARGENTINA 0.0000001000|Q=3 AUTOMOBILE 1995-03-15|Q=4 1995-05-01|Q=21 INDIA|Q=6 1994-01-01 0.08 24|Q=14 1994-07-01|Q=15 1993-11-01|Q=22 28 26 19 23 13 30 22|Q=18 313|Q=9 powder|Q=7 ROMANIA GERMANY|Q=5 EUROPE 1994-01-01|Q=10 1994-02-01|Q=20 orange 1994-01-01 UNITED STATES|Q=12 REG AIR TRUCK 1994-01-01|Q=16 Brand#54 MEDIUM PLATED 2 22 47 23 3 12 33 11|Q=17 Brand#43 WRAP BAG|Q=8 GERMANY EUROPE ECONOMY BURNISHED STEEL|Q=19 Brand#54 Brand#25 Brand#15 6 12 28|Q=2 18 STEEL ASIA|

QP1.76
---
seed=517202314
Q=14 1994-10-01|Q=17 Brand#44 WRAP PACK|Q=22 22 20 19 30 17 10 34|Q=20 beige 1993-01-01 KENYA|Q=8 UNITED STATES AMERICA LARGE BRUSHED STEEL|Q=16 Brand#34 ECONOMY POLISHED 8 2 20 14 7 4 6 16|Q=5 MIDDLE EAST 1994-01-01|Q=10 1994-11-01|Q=1 84|Q=13 unusual requests|Q=2 6 BRASS AFRICA|Q=21 ALGERIA|Q=12 SHIP TRUCK 1994-01-01|Q=9 pale|Q=4 1993-02-01|Q=18 315|Q=3 FURNITURE 1995-03-01|Q=7 IRAQ UNITED STATES|Q=6 1994-01-01 0.05 25|Q=19 Brand#51 Brand#13 Brand#15 1 13 25|Q=15 1996-06-01|Q=11 KENYA 0.0000001000|

QP1.77
---
seed=517202315
Q=9 moccasin|Q=17 Brand#41 WRAP DRUM|Q=7 CANADA MOZAMBIQUE|Q=4 1995-09-01|Q=5 AFRICA 1995-01-01|Q=13 unusual requests|Q=21 PERU|Q=18 312|Q=11 BRAZIL 0.0000001000|Q=3 AUTOMOBILE 1995-03-17|Q=22 11 12 26 16 19 30 17|Q=1 92|Q=6 1995-01-01 0.03 25|Q=16 Brand#14 SMALL ANODIZED 50 15 8 9 24 33 43 38|Q=20 lemon 1996-01-01 EGYPT|Q=14 1995-01-01|Q=15 1994-03-01|Q=10 1993-08-01|Q=8 MOZAMBIQUE AFRICA LARGE PLATED COPPER|Q=2 44 TIN ASIA|Q=12 MAIL RAIL 1994-01-01|Q=19 Brand#53 Brand#41 Brand#14 7 14 21|

QP1.78
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seed=517202316
Q=13 unusual requests|Q=14 1995-04-01|Q=5 AMERICA 1995-01-01|Q=22 23 18 22 13 25 29 30|Q=19 Brand#15 Brand#24 Brand#53 2 15 28|Q=11 MOROCCO 0.0000001000|Q=9 maroon|Q=6 1995-01-01 0.08 24|Q=18 314|Q=15 1996-10-01|Q=8 INDIA ASIA LARGE ANODIZED COPPER|Q=10 1994-06-01|Q=7 SAUDI ARABIA INDIA|Q=4 1993-06-01|Q=17 Brand#43 SM BAG|Q=16 Brand#54 LARGE BURNISHED 27 45 34 28 49 50 7 6|Q=3 FURNITURE 1995-03-03|Q=1 100|Q=12 TRUCK MAIL 1995-01-01|Q=2 32 COPPER AFRICA|Q=21 INDONESIA|Q=20 snow 1994-01-01 CHINA|

QP1.79
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seed=517202317
Q=20 forest 1993-01-01 INDIA|Q=5 ASIA 1995-01-01|Q=4 1996-01-01|Q=14 1995-07-01|Q=11 CANADA 0.0000001000|Q=1 108|Q=6 1995-01-01 0.05 24|Q=16 Brand#34 PROMO POLISHED 19 23 21 27 32 11 4 37|Q=8 ALGERIA AFRICA MEDIUM POLISHED COPPER|Q=22 12 25 17 14 24 22 23|Q=7 JAPAN ALGERIA|Q=3 MACHINERY 1995-03-19|Q=2 19 STEEL EUROPE|Q=12 RAIL MAIL 1995-01-01|Q=21 BRAZIL|Q=19 Brand#12 Brand#12 Brand#52 7 16 24|Q=17 Brand#45 SM PACK|Q=13 unusual accounts|Q=10 1993-03-01|Q=15 1994-06-01|Q=18 315|Q=9 lawn|

QP1.8
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seed=517202246
Q=19 Brand#24 Brand#23 Brand#52 3 10 20|Q=1 88|Q=15 1996-05-01|Q=17 Brand#14 LG CAN|Q=5 MIDDLE EAST 1993-01-01|Q=8 ROMANIA EUROPE STANDARD POLISHED TIN|Q=9 blush|Q=12 RAIL AIR 1996-01-01|Q=14 1996-08-01|Q=7 GERMANY ROMANIA|Q=4 1996-11-01|Q=3 BUILDING 1995-03-25|Q=20 papaya 1994-01-01 JORDAN|Q=16 Brand#51 ECONOMY BURNISHED 11 37 21 27 15 12 13 32|Q=6 1993-01-01 0.04 25|Q=22 19 13 21 12 31 25 27|Q=10 1994-09-01|Q=13 special accounts|Q=2 37 STEEL EUROPE|Q=21 INDIA|Q=18 314|Q=11 FRANCE 0.0000001000|

QP1.80
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seed=517202318
Q=3 BUILDING 1995-03-05|Q=7 EGYPT PERU|Q=14 1995-11-01|Q=15 1997-01-01|Q=6 1995-01-01 0.03 25|Q=5 EUROPE 1995-01-01|Q=21 ROMANIA|Q=20 powder 1996-01-01 UNITED KINGDOM|Q=18 313|Q=10 1993-12-01|Q=4 1993-10-01|Q=16 Brand#14 SMALL BRUSHED 2 19 23 36 15 1 25 27|Q=19 Brand#14 Brand#45 Brand#51 2 17 20|Q=1 116|Q=13 unusual accounts|Q=9 hot|Q=8 PERU AMERICA MEDIUM BURNISHED COPPER|Q=17 Brand#42 SM DRUM|Q=11 MOZAMBIQUE 0.0000001000|Q=12 AIR MAIL 1995-01-01|Q=22 18 30 19 21 26 14 28|Q=2 7 BRASS AFRICA|

QP1.81
---
seed=517202319
Q=13 unusual accounts|Q=15 1994-10-01|Q=17 Brand#44 LG BAG|Q=1 63|Q=22 19 16 23 30 29 21 28|Q=11 EGYPT 0.0000001000|Q=3 MACHINERY 1995-03-21|Q=4 1996-05-01|Q=7 VIETNAM INDONESIA|Q=20 burnished 1995-01-01 JORDAN|Q=14 1996-02-01|Q=21 IRAQ|Q=9 gainsboro|Q=8 INDONESIA ASIA MEDIUM ANODIZED TIN|Q=2 45 NICKEL EUROPE|Q=18 314|Q=16 Brand#54 ECONOMY BURNISHED 17 6 31 8 38 7 24 43|Q=6 1996-01-01 0.08 24|Q=10 1994-09-01|Q=12 REG AIR FOB 1996-01-01|Q=5 MIDDLE EAST 1996-01-01|Q=19 Brand#21 Brand#33 Brand#41 8 18 28|

QP1.82
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seed=517202320
Q=14 1996-05-01|Q=2 33 COPPER AMERICA|Q=9 dodger|Q=20 midnight 1993-01-01 BRAZIL|Q=6 1996-01-01 0.06 24|Q=17 Brand#41 LG PACK|Q=18 312|Q=8 ARGENTINA AMERICA SMALL POLISHED TIN|Q=21 CANADA|Q=13 express accounts|Q=3 BUILDING 1995-03-07|Q=22 26 27 11 16 10 18 23|Q=16 Brand#34 STANDARD PLATED 9 18 8 6 1 44 13 42|Q=4 1994-02-01|Q=11 MOZAMBIQUE 0.0000001000|Q=15 1997-05-01|Q=1 71|Q=10 1993-06-01|Q=19 Brand#23 Brand#11 Brand#45 3 19 24|Q=5 AFRICA 1996-01-01|Q=7 JORDAN ARGENTINA|Q=12 FOB MAIL 1997-01-01|

QP1.83
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seed=517202321
Q=21 SAUDI ARABIA|Q=3 HOUSEHOLD 1995-03-24|Q=18 313|Q=5 AMERICA 1996-01-01|Q=11 EGYPT 0.0000001000|Q=7 ETHIOPIA CHINA|Q=6 1996-01-01 0.03 25|Q=20 wheat 1997-01-01 PERU|Q=17 Brand#43 LG DRUM|Q=12 MAIL FOB 1996-01-01|Q=16 Brand#14 MEDIUM BRUSHED 22 26 3 36 31 37 39 43|Q=15 1995-01-01|Q=13 express accounts|Q=10 1994-04-01|Q=2 20 STEEL EUROPE|Q=8 CHINA ASIA SMALL BURNISHED TIN|Q=14 1996-08-01|Q=19 Brand#25 Brand#54 Brand#44 8 20 20|Q=9 cornsilk|Q=22 17 15 28 22 18 23 32|Q=1 79|Q=4 1996-09-01|

QP1.84
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seed=517202322
Q=6 1996-01-01 0.09 24|Q=17 Brand#45 MED BAG|Q=14 1996-11-01|Q=16 Brand#54 PROMO ANODIZED 23 20 30 15 28 29 13 33|Q=19 Brand#32 Brand#32 Brand#33 3 10 27|Q=10 1995-01-01|Q=9 burnished|Q=2 8 BRASS AMERICA|Q=15 1997-08-01|Q=8 IRAN MIDDLE EAST STANDARD BRUSHED TIN|Q=5 ASIA 1996-01-01|Q=22 17 14 24 31 23 27 20|Q=12 TRUCK FOB 1996-01-01|Q=7 RUSSIA IRAN|Q=13 express deposits|Q=18 315|Q=1 87|Q=4 1994-05-01|Q=20 hot 1995-01-01 GERMANY|Q=3 BUILDING 1995-03-09|Q=11 PERU 0.0000001000|Q=21 JAPAN|

QP1.85
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seed=517202323
Q=8 BRAZIL AMERICA STANDARD PLATED TIN|Q=5 MIDDLE EAST 1996-01-01|Q=4 1996-12-01|Q=6 1996-01-01 0.06 24|Q=17 Brand#42 MED PACK|Q=7 KENYA BRAZIL|Q=1 95|Q=18 312|Q=22 13 21 20 14 19 15 23|Q=14 1997-03-01|Q=9 black|Q=10 1993-10-01|Q=15 1995-05-01|Q=11 ETHIOPIA 0.0000001000|Q=20 salmon 1994-01-01 VIETNAM|Q=2 46 NICKEL MIDDLE EAST|Q=21 ETHIOPIA|Q=19 Brand#35 Brand#25 Brand#33 9 11 23|Q=13 express deposits|Q=16 Brand#34 SMALL PLATED 20 19 11 29 24 21 8 42|Q=12 RAIL SHIP 1997-01-01|Q=3 HOUSEHOLD 1995-03-26|

QP1.86
---
seed=517202324
Q=5 AFRICA 1997-01-01|Q=21 RUSSIA|Q=14 1997-06-01|Q=19 Brand#32 Brand#53 Brand#32 4 12 20|Q=15 1993-01-01|Q=17 Brand#44 MED DRUM|Q=12 AIR SHIP 1997-01-01|Q=6 1997-01-01 0.03 25|Q=4 1994-09-01|Q=9 almond|Q=8 ROMANIA EUROPE STANDARD ANODIZED NICKEL|Q=16 Brand#14 LARGE POLISHED 37 12 45 24 20 25 5 10|Q=11 CHINA 0.0000001000|Q=2 34 TIN AMERICA|Q=10 1994-07-01|Q=18 314|Q=1 104|Q=13 express deposits|Q=7 FRANCE ROMANIA|Q=22 17 20 13 32 15 25 11|Q=3 AUTOMOBILE 1995-03-11|Q=20 cyan 1997-01-01 IRAQ|

QP1.87
---
seed=517202325
Q=21 KENYA|Q=15 1995-08-01|Q=4 1997-04-01|Q=6 1997-01-01 0.09 24|Q=7 UNITED KINGDOM IRAQ|Q=16 Brand#55 STANDARD ANODIZED 41 12 4 40 8 6 44 16|Q=19 Brand#44 Brand#31 Brand#21 9 13 27|Q=18 312|Q=14 1997-09-01|Q=22 10 18 22 31 16 19 24|Q=11 FRANCE 0.0000001000|Q=13 express deposits|Q=3 FURNITURE 1995-03-28|Q=1 112|Q=2 22 STEEL MIDDLE EAST|Q=5 AMERICA 1997-01-01|Q=8 IRAQ MIDDLE EAST PROMO POLISHED NICKEL|Q=20 orchid 1995-01-01 ARGENTINA|Q=12 REG AIR SHIP 1997-01-01|Q=17 Brand#51 JUMBO BAG|Q=10 1993-04-01|Q=9 tomato|

QP1.88
---
seed=517202326
Q=10 1994-02-01|Q=3 AUTOMOBILE 1995-03-13|Q=15 1993-05-01|Q=13 express deposits|Q=6 1997-01-01 0.06 24|Q=8 CANADA AMERICA PROMO BURNISHED NICKEL|Q=9 smoke|Q=7 MOROCCO CANADA|Q=4 1995-01-01|Q=11 ROMANIA 0.0000001000|Q=22 26 16 33 31 24 23 25|Q=18 313|Q=12 FOB SHIP 1997-01-01|Q=1 120|Q=5 ASIA 1997-01-01|Q=16 Brand#35 MEDIUM BURNISHED 36 4 14 2 41 48 19 25|Q=2 9 BRASS ASIA|Q=14 1997-12-01|Q=19 Brand#41 Brand#24 Brand#25 5 14 23|Q=20 bisque 1994-01-01 MOZAMBIQUE|Q=17 Brand#52 JUMBO PACK|Q=21 FRANCE|

QP1.89
---
seed=517202327
Q=18 315|Q=8 SAUDI ARABIA MIDDLE EAST ECONOMY BRUSHED NICKEL|Q=20 light 1997-01-01 ETHIOPIA|Q=21 UNITED KINGDOM|Q=2 47 NICKEL MIDDLE EAST|Q=4 1997-08-01|Q=22 10 20 17 33 22 34 19|Q=17 Brand#54 JUMBO DRUM|Q=1 67|Q=11 GERMANY 0.0000001000|Q=9 salmon|Q=19 Brand#43 Brand#52 Brand#15 10 15 30|Q=3 FURNITURE 1995-03-30|Q=13 special packages|Q=5 EUROPE 1997-01-01|Q=7 GERMANY SAUDI ARABIA|Q=10 1994-11-01|Q=16 Brand#25 ECONOMY POLISHED 44 24 14 12 10 11 47 27|Q=6 1997-01-01 0.04 25|Q=14 1993-04-01|Q=15 1995-12-01|Q=12 MAIL REG AIR 1993-01-01|

QP1.9
---
seed=517202247
Q=8 IRAQ MIDDLE EAST STANDARD BURNISHED TIN|Q=13 special deposits|Q=2 25 BRASS AMERICA|Q=20 blanched 1993-01-01 BRAZIL|Q=17 Brand#21 MED BOX|Q=3 MACHINERY 1995-03-10|Q=6 1994-01-01 0.09 24|Q=21 ALGERIA|Q=18 312|Q=11 ROMANIA 0.0000001000|Q=19 Brand#31 Brand#11 Brand#41 8 11 27|Q=10 1993-06-01|Q=15 1994-02-01|Q=4 1994-08-01|Q=22 18 20 19 21 11 26 10|Q=1 96|Q=7 UNITED STATES IRAQ|Q=12 AIR FOB 1994-01-01|Q=9 azure|Q=14 1996-11-01|Q=5 AFRICA 1994-01-01|Q=16 Brand#32 STANDARD POLISHED 3 45 14 6 24 49 2 15|

QP1.90
---
seed=517202328
Q=19 Brand#55 Brand#45 Brand#14 5 16 26|Q=1 75|Q=15 1993-08-01|Q=17 Brand#51 WRAP BAG|Q=5 MIDDLE EAST 1993-01-01|Q=8 JAPAN ASIA ECONOMY PLATED NICKEL|Q=9 purple|Q=12 TRUCK REG AIR 1993-01-01|Q=14 1993-07-01|Q=7 UNITED STATES JAPAN|Q=4 1995-05-01|Q=3 MACHINERY 1995-03-15|Q=20 spring 1996-01-01 SAUDI ARABIA|Q=16 Brand#55 STANDARD BRUSHED 28 45 32 42 18 12 23 39|Q=6 1993-01-01 0.09 25|Q=22 27 13 14 21 24 25 15|Q=10 1993-08-01|Q=13 special packages|Q=2 35 TIN ASIA|Q=21 MOROCCO|Q=18 312|Q=11 SAUDI ARABIA 0.0000001000|

QP1.91
---
seed=517202329
Q=8 EGYPT MIDDLE EAST ECONOMY ANODIZED BRASS|Q=13 special packages|Q=2 23 COPPER AFRICA|Q=20 forest 1994-01-01 IRAN|Q=17 Brand#53 WRAP PACK|Q=3 FURNITURE 1995-03-01|Q=6 1993-01-01 0.07 24|Q=21 INDIA|Q=18 314|Q=11 INDIA 0.0000001000|Q=19 Brand#52 Brand#23 Brand#13 10 17 23|Q=10 1994-05-01|Q=15 1996-03-01|Q=4 1993-02-01|Q=22 25 17 22 34 27 23 10|Q=1 83|Q=7 MOZAMBIQUE EGYPT|Q=12 RAIL REG AIR 1993-01-01|Q=9 peach|Q=14 1993-10-01|Q=5 AFRICA 1993-01-01|Q=16 Brand#35 LARGE BURNISHED 19 10 39 8 17 25 50 35|

QP1.92
---
seed=517202330
Q=6 1993-01-01 0.04 25|Q=15 1993-12-01|Q=18 315|Q=17 Brand#55 WRAP DRUM|Q=12 AIR REG AIR 1994-01-01|Q=1 91|Q=7 GERMANY VIETNAM|Q=2 10 BRASS ASIA|Q=22 15 20 21 22 31 27 26|Q=13 special packages|Q=21 ALGERIA|Q=10 1993-02-01|Q=14 1994-01-01|Q=9 navy|Q=3 MACHINERY 1995-03-17|Q=16 Brand#25 PROMO PLATED 21 37 32 38 15 34 26 39|Q=20 puff 1993-01-01 ALGERIA|Q=19 Brand#54 Brand#11 Brand#52 6 18 30|Q=11 VIETNAM 0.0000001000|Q=4 1995-09-01|Q=8 VIETNAM ASIA LARGE POLISHED BRASS|Q=5 AMERICA 1993-01-01|

QP1.93
---
seed=517202331
Q=15 1996-06-01|Q=14 1994-04-01|Q=18 313|Q=17 Brand#52 SM BAG|Q=10 1993-12-01|Q=20 chartreuse 1996-01-01 KENYA|Q=16 Brand#55 SMALL BRUSHED 3 7 6 17 19 42 15 29|Q=11 INDONESIA 0.0000001000|Q=1 99|Q=8 JORDAN MIDDLE EAST LARGE BURNISHED BRASS|Q=4 1993-06-01|Q=22 13 16 23 21 31 10 33|Q=5 ASIA 1993-01-01|Q=12 SHIP AIR 1994-01-01|Q=3 BUILDING 1995-03-03|Q=9 metallic|Q=21 PERU|Q=2 48 NICKEL AFRICA|Q=13 special requests|Q=6 1993-01-01 0.09 25|Q=19 Brand#11 Brand#43 Brand#51 1 19 26|Q=7 UNITED STATES JORDAN|

QP1.94
---
seed=517202332
Q=1 107|Q=7 MOZAMBIQUE ETHIOPIA|Q=16 Brand#35 ECONOMY ANODIZED 42 13 38 9 43 31 2 35|Q=17 Brand#54 SM PACK|Q=18 314|Q=22 12 31 14 24 10 26 22|Q=12 FOB AIR 1994-01-01|Q=6 1994-01-01 0.07 24|Q=8 ETHIOPIA AFRICA MEDIUM BRUSHED BRASS|Q=9 light|Q=11 RUSSIA 0.0000001000|Q=4 1995-12-01|Q=2 36 TIN EUROPE|Q=5 EUROPE 1994-01-01|Q=20 mint 1994-01-01 EGYPT|Q=21 INDONESIA|Q=13 special requests|Q=10 1994-09-01|Q=19 Brand#13 Brand#21 Brand#51 6 20 22|Q=3 MACHINERY 1995-03-19|Q=14 1994-08-01|Q=15 1994-03-01|

QP1.95
---
seed=517202333
Q=21 ARGENTINA|Q=17 Brand#51 SM DRUM|Q=7 INDIA RUSSIA|Q=3 BUILDING 1995-03-05|Q=1 115|Q=10 1993-06-01|Q=12 MAIL AIR 1994-01-01|Q=22 20 14 13 31 10 33 27|Q=9 ivory|Q=16 Brand#25 STANDARD PLATED 10 19 48 39 7 6 40 31|Q=6 1994-01-01 0.04 25|Q=11 IRAN 0.0000001000|Q=2 24 COPPER AFRICA|Q=4 1993-09-01|Q=5 AFRICA 1994-01-01|Q=14 1994-11-01|Q=8 RUSSIA EUROPE MEDIUM PLATED BRASS|Q=20 white 1993-01-01 ROMANIA|Q=13 special requests|Q=18 312|Q=15 1996-10-01|Q=19 Brand#15 Brand#14 Brand#45 1 10 29|

QP1.96
---
seed=517202334
Q=2 12 STEEL EUROPE|Q=9 goldenrod|Q=5 AMERICA 1994-01-01|Q=4 1996-04-01|Q=18 313|Q=1 62|Q=20 hot 1996-01-01 INDIA|Q=15 1994-07-01|Q=16 Brand#55 MEDIUM POLISHED 24 38 39 34 1 32 31 46|Q=17 Brand#53 LG BAG|Q=7 ALGERIA KENYA|Q=21 ROMANIA|Q=13 pending requests|Q=14 1995-02-01|Q=19 Brand#23 Brand#42 Brand#44 7 11 26|Q=8 KENYA AFRICA MEDIUM ANODIZED STEEL|Q=22 16 27 19 14 26 22 21|Q=11 UNITED KINGDOM 0.0000001000|Q=10 1994-03-01|Q=3 HOUSEHOLD 1995-03-21|Q=12 TRUCK AIR 1995-01-01|Q=6 1994-01-01 0.02 25|

QP1.97
---
seed=517202335
Q=16 Brand#35 PROMO ANODIZED 17 31 23 19 49 50 20 46|Q=9 firebrick|Q=17 Brand#55 LG PACK|Q=8 FRANCE EUROPE SMALL POLISHED STEEL|Q=14 1995-05-01|Q=11 IRAQ 0.0000001000|Q=10 1994-12-01|Q=12 RAIL TRUCK 1997-01-01|Q=6 1994-01-01 0.07 24|Q=21 IRAQ|Q=7 PERU FRANCE|Q=3 AUTOMOBILE 1995-03-07|Q=15 1997-01-01|Q=5 ASIA 1994-01-01|Q=22 33 34 24 32 23 14 28|Q=20 sandy 1995-01-01 UNITED KINGDOM|Q=1 70|Q=13 pending requests|Q=19 Brand#25 Brand#35 Brand#43 2 12 22|Q=2 49 NICKEL AMERICA|Q=4 1994-01-01|Q=18 315|

QP1.98
---
seed=517202336
Q=1 78|Q=3 HOUSEHOLD 1995-03-23|Q=6 1995-01-01 0.05 25|Q=5 EUROPE 1995-01-01|Q=2 37 TIN EUROPE|Q=16 Brand#25 SMALL BURNISHED 37 2 38 27 40 21 46 18|Q=14 1995-08-01|Q=22 14 24 20 11 22 31 29|Q=17 Brand#52 LG DRUM|Q=20 dark 1993-01-01 JORDAN|Q=4 1996-08-01|Q=9 cyan|Q=10 1993-10-01|Q=11 UNITED STATES 0.0000001000|Q=15 1994-10-01|Q=8 UNITED KINGDOM EUROPE SMALL BURNISHED STEEL|Q=12 AIR RAIL 1995-01-01|Q=19 Brand#22 Brand#13 Brand#33 7 13 29|Q=18 312|Q=13 pending accounts|Q=7 INDONESIA UNITED KINGDOM|Q=21 CANADA|

QP1.99
---
seed=517202337
Q=3 AUTOMOBILE 1995-03-09|Q=16 Brand#55 LARGE POLISHED 18 33 42 19 26 12 30 22|Q=5 MIDDLE EAST 1995-01-01|Q=11 JAPAN 0.0000001000|Q=21 SAUDI ARABIA|Q=9 chiffon|Q=2 25 COPPER AMERICA|Q=15 1997-05-01|Q=10 1994-07-01|Q=18 314|Q=17 Brand#54 MED BAG|Q=7 ARGENTINA MOROCCO|Q=8 MOROCCO AFRICA STANDARD BRUSHED STEEL|Q=19 Brand#34 Brand#51 Brand#32 3 14 25|Q=14 1995-12-01|Q=13 pending accounts|Q=1 86|Q=4 1994-05-01|Q=22 13 25 16 12 20 11 24|Q=20 pale 1997-01-01 CANADA|Q=6 1995-01-01 0.02 25|Q=12 SHIP RAIL 1995-01-01|

Appendix F: Benchmark Scripts

```
----------------------------------
gen_seed.sh
----------------------------------
#!/bin/ksh
SEED_FILE=$1
echo "Setting the random number seed"
PSEED=`date +%m:%d:%H:%M:%S | sed -e 's/://g`
echo "Using ${PSEED} as seed0"
echo ${PSEED} >  $SEED_FILE
echo "Done setting the random number seed"
----------------------------------
main_drv_rf1.sh
----------------------------------
#!/bin/ksh
################################################
# Copyright Oracle Corporation 2009          #
#                                            #
# Last updated 5/1/09 Meikel Poess           #
################################################
. $KIT_DIR/env

START=`/home/oracle/kit/utils/gtime`
UPDATE_SET=$1
RUN_ID=$2
PARA=$3
OUTPUT_DIR=${BECHMARK_OUTPUT}/performance_runs/${RUN_ID}/updates_m${PAR
A}/output_set_${1}
NODE_LOG=$OUTPUT_DIR/rf1_node
NUMBER_NDS=64

if [ ! -d $OUTPUT_DIR ];then
  mkdir ${BECHMARK_OUTPUT}/performance_runs/${RUN_ID}/updates_m${PARA}
  mkdir $OUTPUT_DIR
fi
echo Start update set $UPDATE_SET at `date` \($START\)

node=0
while ((node<NUMBER_NDS));do
  ((node=node+1))
  ssh h$node /home/oracle/kit/update/scripts/node_drv_rf1.sh  $UPDATE_SET >
${NODE_LOG}${node}.timing &
done
wait
rco=`grep Inserted ${OUTPUT_DIR}/rf1_node*.timing | awk '{print s=s+$2}' | tail -1`
rcl=`grep Inserted ${OUTPUT_DIR}/rf1_node*.timing | awk '{print s=s+$5}' | tail -1`

END=`/home/oracle/kit/utils/gtime`

echo End update set $UPDATE_SET at `date` \($END\)
echo inserted $rco into orders
echo inserted $rcl into lineitem
echo $START $END | awk '{print "Elapsed RF1 " $2-$1}'
----------------------------------
main_drv_rf2.sh
----------------------------------
#!/bin/ksh
. $KIT_DIR/env
################################################
# Copyright Oracle Corporation 2009          #
#                                            #
# Last updated 5/1/09 Meikel Poess           #
################################################
START=`/home/oracle/kit/utils/gtime`
UPDATE_SET=$1
RUN_ID=$2
PARA=$3
OUTPUT_DIR=${BECHMARK_OUTPUT}/performance_runs/${RUN_ID}/updates_m${PAR
A}/output_set_${1}
NODE_LOG=$OUTPUT_DIR/rf2_node
NUMBER_NDS=64
if [ ! -d $OUTPUT_DIR ];then
  mkdir ${BECHMARK_OUTPUT}/performance_runs/${RUN_ID}/updates_m${PARA}
  mkdir $OUTPUT_DIR
fi
echo Start update set $UPDATE_SET at `date` \($START\)
node=0
while ((node<NUMBER_NDS));do
  ((node=node+1))
  ssh h$node /home/oracle/kit/update/scripts/node_drv_rf2.sh  $UPDATE_SET >
${NODE_LOG}${node}.timing &
done
wait
drc=`grep Deleted ${OUTPUT_DIR}/rf2_node*.timing | awk '{print s=s+$2}' | tail -1`

END=`/home/oracle/kit/utils/gtime`
echo End update set $UPDATE_SET at `date` \($END\)
echo Deleted $drc from lineitem and orders
echo $START $END | awk '{print "Elapsed RF2 " $2-$1}'
----------------------------------
node_drv_rf1.sh
----------------------------------
#!/bin/ksh
################################################
# Copyright Oracle Corporation 2009          #
#                                            #
# Last updated 5/1/09 Meikel Poess           #
################################################
Starttime=`/home/oracle/kit/utils/gtime`
IAM=`uname -a | awk '{print $2}' | sed s/h//`
echo Calling OCI programs on node $IAM $Starttime

UPDATE_SET=$1
IAM=`uname -a | awk '{print $2}' | sed s/h//`
((FF=(IAM+1)%64))
if ((IAM==63)); then FF=64;fi
FF_DIR=/home/oracle/dev/ff_update_${FF}
((PART=IAM+1))
if ((IAM==64)); then PART=1;fi

rbs=0
while ((PART<=512));do
  ((rbs=rbs+1))
  /home/oracle/kit/update/scripts/rf1A -l ${FF_DIR}/lineitem.tbl.u${UPDATE_SET}.${PART}
-o ${FF_DIR}/orders.tbl.u${UPDATE_SET}.${PART} -u tpch -p tpch &
  ((PART=PART+64))
done
wait
Endtime=`/home/oracle/kit/utils/gtime`
echo OCI program returns $Endtime
echo Elapsed `echo $Endtime-$Starttime  | bc`
----------------------------------
node_drv_rf2.sh
----------------------------------
#!/bin/ksh
################################################
# Copyright Oracle Corporation 2009          #
#                                            #
# Last updated 5/1/09 Meikel Poess           #
################################################
Starttime=`/home/oracle/kit/utils/gtime`
IAM=`uname -a | awk '{print $2}' | sed s/h//`
echo Calling OCI programs on node $IAM $Starttime

UPDATE_SET=$1
IAM=`uname -a | awk '{print $2}' | sed s/h//`
((FF=(IAM+1)%64))
if ((IAM==63)); then FF=64;fi
FF_DIR=/home/oracle/dev/ff_update_${FF}
((PART=IAM+1))
if ((IAM==64)); then PART=1;fi
rbs=0
while ((PART<=512));do
  ((rbs=rbs+1))
  /home/oracle/kit/update/scripts/rf2A -d ${FF_DIR}/delete.u${UPDATE_SET}.${PART} -u
tpch -p tpch &
  ((PART=PART+64))
done
wait
Endtime=`/home/oracle/kit/utils/gtime`
echo OCI program returns $Endtime
echo Elapsed `echo $Endtime-$Starttime  | bc`

----------------------------------
rf1.c
----------------------------------
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <time.h>
#include <sys/types.h>
#ifdef __STDC__
#  define PROTO(args)    args
#else
#  define PROTO(args)    ()
#endif
#include <oratypes.h>
#include <oci.h>
```

```
#include <ocidfn.h>
#define NA              -1
#define NLT             1
#define DEADLOCK        60
#define NO_DATA_FOUND   1403
#define NOT_SERIALIZABLE  8177
#define SNAPSHOT_TOO_OLD  1555
#define OCIERROR(errp,function)\
        ocierror(__FILE__,__LINE__,(errp),(function));
#define RECOVERR -10
#define IRRECERR -20
#define NOERR    111
#define ROW_BUF_SIZE 512
#define ENDTIME 1
#define MAX_ORD_ARRAY 100
#define MAX_LI_ARRAY 100
#define ORD_INSERT_SQL \
     "INSERT INTO ORDERS (O_ORDERDATE, O_ORDERKEY, O_CUSTKEY,
O_ORDERPRIORITY, O_SHIPPRIORITY,\
            O_CLERK, O_ORDERSTATUS, O_TOTALPRICE, O_COMMENT)\
            VALUES (to_date(:o_odate, 'YYYY-MM-DD'), :o_okey, :o_ckey,\
                  :o_oprior, :o_sprior, :o_clerk, :o_ostatus,\
                  :o_tprice, :o_comment)"
#define LI_INSERT_SQL \
     "INSERT INTO LINEITEM (L_SHIPDATE, L_ORDERKEY, L_DISCOUNT,
L_EXTENDEDPRICE, L_SUPPKEY,\
          L_QUANTITY, L_RETURNFLAG, L_PARTKEY, L_LINESTATUS, L_TAX,
L_COMMITDATE, L_RECEIPTDATE,\
           L_SHIPMODE, L_LINENUMBER, L_SHIPINSTRUCT, L_COMMENT)\
            VALUES (to_date(:l_sdate, 'YYYY-MM-DD'), :l_okey, :l_disc,\
                  :l_eprice, :l_skey, :l_qty, :l_rflag,\
                  :l_pkey, :l_lstatus, :l_tax, to_date(:l_cdate, 'YYYY-MM-DD'),\
                  to_date(:l_rdate, 'YYYY-MM-DD'), :l_smode, :l_lnum, :l_sinst,\
                  :l_comment)"
OCIEnv *tpcenv;
OCIServer *tpcsrv;
OCIError *errhp;
OCISvcCtx *tpcsvc;
OCISession *tpcusr;
OCIStmt *ord_insert_cursor;
OCIStmt *li_insert_cursor;
OCIBind *o_row_bp = (OCIBind *) 0;
OCIBind *o_okey_bp = (OCIBind *) 0;
OCIBind *o_ckey_bp = (OCIBind *) 0;
OCIBind *o_ostatus_bp = (OCIBind *) 0;
OCIBind *o_tprice_bp = (OCIBind *) 0;
OCIBind *o_odate_bp = (OCIBind *) 0;
OCIBind *o_oprior_bp = (OCIBind *) 0;
OCIBind *o_clerk_bp = (OCIBind *) 0;
OCIBind *o_sprior_bp = (OCIBind *) 0;
OCIBind *o_comment_bp = (OCIBind *) 0;
OCIBind *l_row_bp = (OCIBind *) 0;
OCIBind *l_okey_bp = (OCIBind *) 0;
OCIBind *l_pkey_bp = (OCIBind *) 0;
OCIBind *l_skey_bp = (OCIBind *) 0;
OCIBind *l_lnum_bp = (OCIBind *) 0;
OCIBind *l_qty_bp = (OCIBind *) 0;
OCIBind *l_eprice_bp = (OCIBind *) 0;
OCIBind *l_disc_bp = (OCIBind *) 0;
OCIBind *l_tax_bp = (OCIBind *) 0;
OCIBind *l_rflag_bp = (OCIBind *) 0;
OCIBind *l_lstatus_bp = (OCIBind *) 0;
OCIBind *l_sdate_bp = (OCIBind *) 0;
OCIBind *l_cdate_bp = (OCIBind *) 0;
OCIBind *l_rdate_bp = (OCIBind *) 0;
OCIBind *l_sinst_bp = (OCIBind *) 0;
OCIBind *l_smode_bp = (OCIBind *) 0;
OCIBind *l_comment_bp = (OCIBind *) 0;
long long int o_okey[MAX_ORD_ARRAY];
long long int o_ckey[MAX_ORD_ARRAY];
char o_ostatus[MAX_ORD_ARRAY][1];
char o_tprice[MAX_ORD_ARRAY][20];
char o_odate[MAX_ORD_ARRAY][10];
char o_oprior[MAX_ORD_ARRAY][15];
char o_clerk[MAX_ORD_ARRAY][15];
int o_sprior[MAX_ORD_ARRAY];
char o_comment[MAX_ORD_ARRAY][79];
ub2 o_okey_len[MAX_ORD_ARRAY];
ub2 o_ckey_len[MAX_ORD_ARRAY];
ub2 o_ostatus_len[MAX_ORD_ARRAY];
ub2 o_tprice_len[MAX_ORD_ARRAY];
ub2 o_odate_len[MAX_ORD_ARRAY];
ub2 o_oprior_len[MAX_ORD_ARRAY];
ub2 o_clerk_len[MAX_ORD_ARRAY];
ub2 o_sprior_len[MAX_ORD_ARRAY];
ub2 o_comment_len[MAX_ORD_ARRAY];
ub4 o_okey_array_ct;
ub4 o_ckey_array_ct;
ub4 o_ostatus_array_ct;
ub4 o_tprice_array_ct;
ub4 o_odate_array_ct;
ub4 o_oprior_array_ct;
ub4 o_clerk_array_ct;
ub4 o_sprior_array_ct;
ub4 o_comment_array_ct;
long long int l_okey[MAX_LI_ARRAY];
long long int l_pkey[MAX_LI_ARRAY];
long long int l_skey[MAX_LI_ARRAY];
int l_lnum[MAX_LI_ARRAY];
long long int l_qty[MAX_LI_ARRAY];
char l_eprice[MAX_LI_ARRAY][20];
char l_disc[MAX_LI_ARRAY][20];
char l_tax[MAX_LI_ARRAY][20];
char l_rflag[MAX_LI_ARRAY][1];
char l_lstatus[MAX_LI_ARRAY][1];
char l_sdate[MAX_LI_ARRAY][10];
char l_cdate[MAX_LI_ARRAY][10];
char l_rdate[MAX_LI_ARRAY][10];
char l_sinst[MAX_LI_ARRAY][25];
char l_smode[MAX_LI_ARRAY][10];
char l_comment[MAX_LI_ARRAY][44];
ub2 l_okey_len[MAX_LI_ARRAY];
ub2 l_pkey_len[MAX_LI_ARRAY];
ub2 l_skey_len[MAX_LI_ARRAY];
ub2 l_lnum_len[MAX_LI_ARRAY];
ub2 l_qty_len[MAX_LI_ARRAY];
ub2 l_eprice_len[MAX_LI_ARRAY];
ub2 l_disc_len[MAX_LI_ARRAY];
ub2 l_tax_len[MAX_LI_ARRAY];
ub2 l_rflag_len[MAX_LI_ARRAY];
ub2 l_lstatus_len[MAX_LI_ARRAY];
ub2 l_sdate_len[MAX_LI_ARRAY];
ub2 l_cdate_len[MAX_LI_ARRAY];
ub2 l_rdate_len[MAX_LI_ARRAY];
ub2 l_sinst_len[MAX_LI_ARRAY];
ub2 l_smode_len[MAX_LI_ARRAY];
ub2 l_comment_len[MAX_LI_ARRAY];
ub4 l_okey_array_ct;
ub4 l_pkey_array_ct;
ub4 l_skey_array_ct;
ub4 l_lnum_array_ct;
ub4 l_qty_array_ct;
ub4 l_eprice_array_ct;
ub4 l_disc_array_ct;
ub4 l_tax_array_ct;
ub4 l_rflag_array_ct;
ub4 l_lstatus_array_ct;
ub4 l_sdate_array_ct;
ub4 l_cdate_array_ct;
ub4 l_rdate_array_ct;
ub4 l_sinst_array_ct;
ub4 l_smode_array_ct;
ub4 l_comment_array_ct;
int ord_rows = 0;
int li_rows = 0;
int total_li = 0;
int total_ord = 0;
int ocierror(fname, lineno, errhp, status)
char *fname;
int lineno;
OCIError *errhp;
sword status;
{
text errbuf[512];
sb4 errcode;
sb4 lstat;
ub4 recno=2;
switch (status) {
                case OCI_SUCCESS:
                        break;
                case OCI_SUCCESS_WITH_INFO:
                        fprintf(stderr,"Module %s Line %d\n", fname, lineno);
                        fprintf(stderr,"Error - OCI_SUCCESS_WITH_INFO\n");
                        lstat = OCIErrorGet (errhp, recno++, (text *) NULL, &errcode,
errbuf,
                                        (ub4) sizeof(errbuf), OCI_HTYPE_ERROR);
                        fprintf(stderr,"Error - %s\n", errbuf);
                        break;
                case OCI_NEED_DATA:
                        fprintf(stderr,"Module %s Line %d\n", fname, lineno);
                        fprintf(stderr,"Error - OCI_NEED_DATA\n");
                        return (IRRECERR);
                case OCI_NO_DATA:
                        fprintf(stderr,"Module %s Line %d\n", fname, lineno);
                        fprintf(stderr,"Error - OCI_NO_DATA\n");
                        return (IRRECERR);
                case OCI_ERROR:
                        lstat = OCIErrorGet (errhp, (ub4) 1, (text *) NULL, &errcode,
errbuf,
                                        (ub4) sizeof(errbuf), OCI_HTYPE_ERROR);
                        if (errcode == NOT_SERIALIZABLE) return (errcode);
                        if (errcode == SNAPSHOT_TOO_OLD) return (errcode);
                        while (lstat != OCI_NO_DATA) {
                                        fprintf(stderr,"Module %s Line %d\n", fname,
lineno);
                                        fprintf(stderr,"Error - %s\n", errbuf);
```

```
                                        lstat = OCIErrorGet (errhp, recno++, (text *)
NULL, &errcode, errbuf,
                                                                (ub4) sizeof(errbuf),
OCI_HTYPE_ERROR);
                        }
                        return (errcode);
                case OCI_INVALID_HANDLE:
                        fprintf(stderr,"Module %s Line %d\n", fname, lineno);
                        fprintf(stderr,"Error - OCI_INVALID_HANDLE\n");
                        exit(-1);
                case OCI_STILL_EXECUTING:
                        fprintf(stderr,"Module %s Line %d\n", fname, lineno);
                        fprintf(stderr,"Error - OCI_STILL_EXECUTE\n");
                        return (IRRECERR);
                case OCI_CONTINUE:
                        fprintf(stderr,"Module %s Line %d\n", fname, lineno);
                        fprintf(stderr,"Error - OCI_CONTINUE\n");
                        return (IRRECERR);
                default:
                        fprintf(stderr,"Module %s Line %d\n", fname, lineno);
                        fprintf(stderr,"Status - %c\n", status);
                        return (IRRECERR);
                }
return (RECOVERR);
}

void copy_ord_rec(linebuf, rowct)
char *linebuf;
int rowct;
{
char tmpbuf[30];
int i=0;
int j=0;
int maxlen;

                maxlen = strlen(linebuf);

                if (rowct >= MAX_ORD_ARRAY)
                        return;
                for (j=0; j < 10;)
                        o_odate[rowct][j++] = linebuf[i++];
                o_odate_len[rowct] = 10;
                i++;

                j=0;
                while (linebuf[i] != '|')
                        tmpbuf[j++] = linebuf[i++];
                i++;
                tmpbuf[j] = '\0';
                sscanf(tmpbuf, "%lld", &(o_okey[rowct]));
                o_okey_len[rowct] = sizeof(long long int);

                j=0;
                while (linebuf[i] != '|')
                        tmpbuf[j++] = linebuf[i++];
                i++;
                tmpbuf[j] = '\0';
                sscanf(tmpbuf, "%lld", &(o_ckey[rowct]));
                o_ckey_len[rowct] = sizeof(long long int);

                j=0;
                while (linebuf[i] != '|')
                        o_oprior[rowct][j++] = linebuf[i++];
                o_oprior_len[rowct] = j;
                i++;

                j=0;
                while (linebuf[i] != '|')
                        tmpbuf[j++] = linebuf[i++];
                i++;
                tmpbuf[j] = '\0';
                o_sprior[rowct] = atoi(tmpbuf);
                o_sprior_len[rowct] = sizeof(int);

                j=0;
                while (linebuf[i] != '|')
                        o_clerk[rowct][j++] = linebuf[i++];
                o_clerk_len[rowct] = j;
                i++;

                o_ostatus[rowct][0] = linebuf[i];
                o_ostatus_len[rowct] = 1;
                i+=2;

                j=0;
                while (linebuf[i] != '|')
                        o_tprice[rowct][j++] = linebuf[i++];
                i++;
                o_tprice_len[rowct] = j;

                j=0;
                while ((i < maxlen ) && (linebuf[i] != '|'))
                        o_comment[rowct][j++] = linebuf[i++];
                o_comment_len[rowct] = j;
}

void copy_li_rec(linebuf, rowct)
char *linebuf;
int rowct;
{
char tmpbuf[30];
int i=0;
int j=0;
int maxlen;

                maxlen = strlen(linebuf);

                if (rowct >= MAX_LI_ARRAY)
                        return;
                for (j=0; j < 10;)
                        l_sdate[rowct][j++] = linebuf[i++];
                l_sdate_len[rowct] = 10;
                i++;

                j=0;
                while (linebuf[i] != '|')
                        tmpbuf[j++] = linebuf[i++];
                i++;
                tmpbuf[j] = '\0';
                sscanf(tmpbuf, "%lld", &(l_okey[rowct]));
                l_okey_len[rowct] = sizeof(long long int);

                j=0;
                while (linebuf[i] != '|')
                        l_disc[rowct][j++] = linebuf[i++];
                i++;
                l_disc_len[rowct] = j;

                j=0;
                while (linebuf[i] != '|')
                        l_eprice[rowct][j++] = linebuf[i++];
                i++;
                l_eprice_len[rowct] = j;

                j=0;
                while (linebuf[i] != '|')
                        tmpbuf[j++] = linebuf[i++];
                i++;
                tmpbuf[j] = '\0';
                sscanf(tmpbuf, "%lld", &(l_skey[rowct]));
                l_skey_len[rowct] = sizeof(long long int);

                j=0;
                while (linebuf[i] != '|')
                        tmpbuf[j++] = linebuf[i++];
                i++;
                tmpbuf[j] = '\0';
                sscanf(tmpbuf, "%lld", &(l_qty[rowct]));
                l_qty_len[rowct] = sizeof(long long int);

                l_rflag[rowct][0] = linebuf[i];
                l_rflag_len[rowct] = 1;
                i+=2;

                j=0;
                while (linebuf[i] != '|')
                        tmpbuf[j++] = linebuf[i++];
                i++;
                tmpbuf[j] = '\0';
                sscanf(tmpbuf, "%lld", &(l_pkey[rowct]));
                l_pkey_len[rowct] = sizeof(long long int);

                l_lstatus[rowct][0] = linebuf[i];
                l_lstatus_len[rowct] = 1;
                i+=2;

                j=0;
                while (linebuf[i] != '|')
                        l_tax[rowct][j++] = linebuf[i++];
                i++;
                l_tax_len[rowct] = j;

                for (j=0; j < 10;)
                        l_cdate[rowct][j++] = linebuf[i++];
                l_cdate_len[rowct] = 10;
                i++;

                for (j=0; j < 10;)
                        l_rdate[rowct][j++] = linebuf[i++];
                l_rdate_len[rowct] = 10;
                i++;

                j=0;
                while (linebuf[i] != '|')
                        l_smode[rowct][j++] = linebuf[i++];
                i++;
```

```
		l_smode_len[rowct] = j;

		j=0;
		while (linebuf[i] != '|')
			tmpbuf[j++] = linebuf[i++];
		i++;
		tmpbuf[j] = '\0';
		l_lnum[rowct] = atoi(tmpbuf);
		l_lnum_len[rowct] = sizeof(int);

		j=0;
		while (linebuf[i] != '|')
			l_sinst[rowct][j++] = linebuf[i++];
		i++;
		l_sinst_len[rowct] = j;

		j=0;
		while ((i < maxlen ) && (linebuf[i] != '|'))
			l_comment[rowct][j++] = linebuf[i++];
		l_comment_len[rowct] = j;
}
void insert_ord_rows(rowct)
int rowct;
{
		o_okey_array_ct = rowct;
		o_ckey_array_ct = rowct;
		o_ostatus_array_ct = rowct;
		o_tprice_array_ct = rowct;
		o_odate_array_ct = rowct;
		o_oprior_array_ct = rowct;
		o_clerk_array_ct = rowct;
		o_sprior_array_ct = rowct;
		o_comment_array_ct = rowct;
		ord_rows = rowct;
		OCIERROR(errhp, OCIStmtExecute(tpcsvc, ord_insert_cursor, errhp, (ub4)
rowct, (ub4) 0,
			(CONST OCISnapshot*) 0, (OCISnapshot*) 0,
			(ub4) OCI_DEFAULT));
		total_ord += rowct;
}

void insert_li_rows(rowct)
int rowct;
{
		l_okey_array_ct = rowct;
		l_pkey_array_ct = rowct;
		l_skey_array_ct = rowct;
		l_lnum_array_ct = rowct;
		l_qty_array_ct = rowct;
		l_eprice_array_ct = rowct;
		l_disc_array_ct = rowct;
		l_tax_array_ct = rowct;
		l_rflag_array_ct = rowct;
		l_lstatus_array_ct = rowct;
		l_sdate_array_ct = rowct;
		l_cdate_array_ct = rowct;
		l_rdate_array_ct = rowct;
		l_sinst_array_ct = rowct;
		l_smode_array_ct = rowct;
		l_comment_array_ct = rowct;
		li_rows = rowct;
		OCIERROR(errhp, OCIStmtExecute(tpcsvc, li_insert_cursor, errhp, (ub4) rowct,
(ub4) 0,
			(CONST OCISnapshot*) 0, (OCISnapshot*) 0,
			(ub4) OCI_DEFAULT));
		total_li += rowct;
}

void logon_user(uid, pwd)
char *uid;
char *pwd;
{
		OCIInitialize(OCI_DEFAULT|OCI_OBJECT,(dvoid *)0,0,0,0);
		OCIEnvInit(&tpcenv, OCI_DEFAULT, 0, (dvoid **)0);
		OCIHandleAlloc((dvoid *)tpcenv, (dvoid **)&tpcsrv, OCI_HTYPE_SERVER, 0
, (dvoid **)0);
		OCIHandleAlloc((dvoid *)tpcenv, (dvoid **)&errhp, OCI_HTYPE_ERROR, 0 ,
(dvoid **)0);
		OCIHandleAlloc((dvoid *)tpcenv, (dvoid **)&tpcsvc, OCI_HTYPE_SVCCTX, 0
, (dvoid **)0);
		OCIServerAttach(tpcsrv, errhp, (text *)0,0,OCI_DEFAULT);
		OCIAttrSet((dvoid *)tpcsvc, OCI_HTYPE_SVCCTX, (dvoid *)tpcsrv,
		(ub4)0,OCI_ATTR_SERVER, errhp);
		OCIHandleAlloc((dvoid *)tpcenv, (dvoid **)&tpcusr, OCI_HTYPE_SESSION, 0
, (dvoid **)0);
		OCIAttrSet((dvoid *)tpcusr, OCI_HTYPE_SESSION, (dvoid *)uid,
		(ub4)strlen(uid),OCI_ATTR_USERNAME, errhp);
		OCIAttrSet((dvoid *)tpcusr, OCI_HTYPE_SESSION, (dvoid *)pwd,
(ub4)strlen(pwd),
		OCI_ATTR_PASSWORD, errhp);
		OCIERROR(errhp, OCISessionBegin(tpcsvc, errhp, tpcusr,
OCI_CRED_RDBMS, OCI_DEFAULT));
		OCIAttrSet(tpcsvc, OCI_HTYPE_SVCCTX, tpcusr, 0, OCI_ATTR_SESSION,
errhp);
}


void parse_bind()
{
		OCIERROR(errhp,OCIHandleAlloc(tpcenv,(dvoid **)(&ord_insert_cursor),
OCI_HTYPE_STMT, 0, (dvoid**)0));
		OCIERROR(errhp,OCIStmtPrepare(ord_insert_cursor, errhp, (text
*)ORD_INSERT_SQL,
			strlen((char *)ORD_INSERT_SQL), (ub4) OCI_NTV_SYNTAX,
(ub4) OCI_DEFAULT));

		OCIERROR(errhp,OCIHandleAlloc(tpcenv,(dvoid **)(&li_insert_cursor),
OCI_HTYPE_STMT, 0, (dvoid**)0));
		OCIERROR(errhp,OCIStmtPrepare(li_insert_cursor, errhp, (text
*)LI_INSERT_SQL,
			strlen((char *)LI_INSERT_SQL), (ub4) OCI_NTV_SYNTAX,
(ub4) OCI_DEFAULT));

		OCIERROR(errhp, OCIBindByName(ord_insert_cursor, &o_okey_bp, errhp,
(text *)":o_okey",
			strlen(":o_okey"), (ub1 *)o_okey, sizeof(long long int),
SQLT_INT,
			(dvoid *) 0, (ub2 *)0, (ub2 *)0,
			(ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
		OCIERROR(errhp, OCIBindByName(ord_insert_cursor, &o_ckey_bp, errhp,
(text *)":o_ckey",
			strlen(":o_ckey"), (ub1 *)o_ckey, sizeof(long long int),
SQLT_INT,
			(dvoid *) 0, (ub2 *)0, (ub2 *)0,
			(ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
		OCIERROR(errhp, OCIBindByName(ord_insert_cursor, &o_ostatus_bp, errhp,
(text *)":o_ostatus",
			strlen(":o_ostatus"), (ub1 *)o_ostatus, 1, SQLT_CHR,
			(dvoid *) 0, (ub2 *)0, (ub2 *)0,
			(ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
		OCIERROR(errhp, OCIBindByName(ord_insert_cursor, &o_tprice_bp, errhp,
(text *)":o_tprice",
			strlen(":o_tprice"), (ub1 *)o_tprice, 20, SQLT_CHR,
			(dvoid *) 0, (ub2 *)0, (ub2 *)0,
			(ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
		OCIERROR(errhp, OCIBindByName(ord_insert_cursor, &o_odate_bp, errhp,
(text *)":o_odate",
			strlen(":o_odate"), (ub1 *)o_odate, 10, SQLT_CHR,
			(dvoid *) 0, (ub2 *)0, (ub2 *)0,
			(ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
		OCIERROR(errhp, OCIBindByName(ord_insert_cursor, &o_oprior_bp, errhp,
(text *)":o_oprior",
			strlen(":o_oprior"), (ub1 *)o_oprior, 15, SQLT_CHR,
			(dvoid *) 0, (ub2 *)0, (ub2 *)0,
			(ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
		OCIERROR(errhp, OCIBindByName(ord_insert_cursor, &o_clerk_bp, errhp,
(text *)":o_clerk",
			strlen(":o_clerk"), (ub1 *)o_clerk, 15, SQLT_CHR,
			(dvoid *) 0, (ub2 *)0, (ub2 *)0,
			(ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
		OCIERROR(errhp, OCIBindByName(ord_insert_cursor, &o_sprior_bp, errhp,
(text *)":o_sprior",
			strlen(":o_sprior"), (ub1 *)o_sprior, sizeof(int), SQLT_INT,
			(dvoid *) 0, (ub2 *)0, (ub2 *)0,
			(ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
		OCIERROR(errhp, OCIBindByName(ord_insert_cursor, &o_comment_bp, errhp,
(text *)":o_comment",
			strlen(":o_comment"), (ub1 *)o_comment, 79, SQLT_CHR,
			(dvoid *) 0, (ub2 *)o_comment_len, (ub2 *)0,
			(ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

		OCIERROR(errhp, OCIBindByName(li_insert_cursor, &l_okey_bp, errhp, (text
*)":l_okey",
			strlen(":l_okey"), (ub1 *)l_okey, sizeof(long long int), SQLT_INT,
			(dvoid *) 0, (ub2 *)0, (ub2 *)0,
			(ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
		OCIERROR(errhp, OCIBindByName(li_insert_cursor, &l_pkey_bp, errhp, (text
*)":l_pkey",
			strlen(":l_pkey"), (ub1 *)l_pkey, sizeof(long long int), SQLT_INT,
			(dvoid *) 0, (ub2 *)0, (ub2 *)0,
			(ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
		OCIERROR(errhp, OCIBindByName(li_insert_cursor, &l_skey_bp, errhp, (text
*)":l_skey",
			strlen(":l_skey"), (ub1 *)l_skey, sizeof(long long int), SQLT_INT,
			(dvoid *) 0, (ub2 *)0, (ub2 *)0,
			(ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
		OCIERROR(errhp, OCIBindByName(li_insert_cursor, &l_lnum_bp, errhp, (text
*)":l_lnum",
			strlen(":l_lnum"), (ub1 *)l_lnum, sizeof(int), SQLT_INT,
			(dvoid *) 0, (ub2 *)0, (ub2 *)0,
			(ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
		OCIERROR(errhp, OCIBindByName(li_insert_cursor, &l_qty_bp, errhp, (text
*)":l_qty",
			strlen(":l_qty"), (ub1 *)l_qty, sizeof(long long int), SQLT_INT,
			(dvoid *) 0, (ub2 *)0, (ub2 *)0,
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                        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
        OCIERROR(errhp, OCIBindByName(li_insert_cursor, &l_eprice_bp, errhp, (text
*)":l_eprice",
                        strlen(":l_eprice"), (ub1 *)l_eprice, 20, SQLT_CHR,
                        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
        OCIERROR(errhp, OCIBindByName(li_insert_cursor, &l_disc_bp, errhp, (text
*)":l_disc",
                        strlen(":l_disc"), (ub1 *)l_disc, 20, SQLT_CHR,
                        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
        OCIERROR(errhp, OCIBindByName(li_insert_cursor, &l_tax_bp, errhp, (text
*)":l_tax",
                        strlen(":l_tax"), (ub1 *)l_tax, 20, SQLT_CHR,
                        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
        OCIERROR(errhp, OCIBindByName(li_insert_cursor, &l_rflag_bp, errhp, (text
*)":l_rflag",
                        strlen(":l_rflag"), (ub1 *)l_rflag, 1, SQLT_CHR,
                        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
        OCIERROR(errhp, OCIBindByName(li_insert_cursor, &l_lstatus_bp, errhp, (text
*)":l_lstatus",
                        strlen(":l_lstatus"), (ub1 *)l_lstatus, 1, SQLT_CHR,
                        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
        OCIERROR(errhp, OCIBindByName(li_insert_cursor, &l_sdate_bp, errhp, (text
*)":l_sdate",
                        strlen(":l_sdate"), (ub1 *)l_sdate, 10, SQLT_CHR,
                        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
        OCIERROR(errhp, OCIBindByName(li_insert_cursor, &l_cdate_bp, errhp, (text
*)":l_cdate",
                        strlen(":l_cdate"), (ub1 *)l_cdate, 10, SQLT_CHR,
                        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
        OCIERROR(errhp, OCIBindByName(li_insert_cursor, &l_rdate_bp, errhp, (text
*)":l_rdate",
                        strlen(":l_rdate"), (ub1 *)l_rdate, 10, SQLT_CHR,
                        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
        OCIERROR(errhp, OCIBindByName(li_insert_cursor, &l_sinst_bp, errhp, (text
*)":l_sinst",
                        strlen(":l_sinst"), (ub1 *)l_sinst, 25, SQLT_CHR,
                        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
        OCIERROR(errhp, OCIBindByName(li_insert_cursor, &l_smode_bp, errhp, (text
*)":l_smode",
                        strlen(":l_smode"), (ub1 *)l_smode, 10, SQLT_CHR,
                        (dvoid *) 0, (ub2 *)0, (ub2 *)0,
                        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
        OCIERROR(errhp, OCIBindByName(li_insert_cursor, &l_comment_bp, errhp,
(text *)":l_comment",
                        strlen(":l_comment"), (ub1 *)l_comment, 44, SQLT_CHR,
                        (dvoid *) 0, (ub2 *)l_comment_len, (ub2 *)0,
                        (ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
}

void reset_ord_array()
{
        memset(o_okey, 0, sizeof(o_okey));
        memset(o_ckey, 0, sizeof(o_ckey));
        memset(o_ostatus, 0, sizeof(o_ostatus));
        memset(o_tprice, ' ', sizeof(o_tprice));
        memset(o_odate, 0, sizeof(o_odate));
        memset(o_oprior, ' ', sizeof(o_oprior));
        memset(o_clerk, ' ', sizeof(o_clerk));
        memset(o_sprior, 0, sizeof(o_sprior));
        memset(o_comment, ' ', sizeof(o_comment));
}

void reset_li_array()
{
        memset(l_okey, 0, sizeof(l_okey));
        memset(l_pkey, 0, sizeof(l_pkey));
        memset(l_skey, 0, sizeof(l_skey));
        memset(l_lnum, 0, sizeof(l_lnum));
        memset(l_qty, 0, sizeof(l_qty));
        memset(l_eprice, ' ', sizeof(l_eprice));
        memset(l_disc, ' ', sizeof(l_disc));
        memset(l_tax, ' ', sizeof(l_tax));
        memset(l_rflag, 0, sizeof(l_rflag));
        memset(l_lstatus, 0, sizeof(l_lstatus));
        memset(l_sdate, 0, sizeof(l_sdate));
        memset(l_cdate, 0, sizeof(l_cdate));
        memset(l_rdate, 0, sizeof(l_rdate));
        memset(l_sinst, ' ', sizeof(l_sinst));
        memset(l_smode, ' ', sizeof(l_smode));
        memset(l_comment, ' ', sizeof(l_comment));
}

void usage()
{
        fprintf (stderr, "\n");
        fprintf (stderr, "Usage:\t rf1 -l <lineitem_flatfile> -o <orders_flatfile> -p
<password> -u <uid>\n");
        exit(1);
}

int main(argc, argv)
int argc;
char *argv[];
{
extern int getopt();
extern char *optarg;
extern int optind, opterr;
int opt;
char *argstr="l:o:p:u:";

char li_fname[128];
char ord_fname[128];
char uid[20];
char pwd[20];
FILE *lfp=NULL;
FILE *ofp=NULL;
int rowct = 0;
char linebuf[512];
struct timeval tv;
double OCIstarttime=0;
double OCIendtime=0;
double starttime=0;
double endtime=0;
double elapsed=0;
char *cptr;
char buffer[256];

(void) gettimeofday (&tv, (struct timezone *) 0);
OCIstarttime=((double) tv.tv_sec + (1.0e-6 * (double) tv.tv_usec));
        if (argc < 2) {
                usage ();
        }
        strcpy(uid, "tpch");
        strcpy(pwd, "tpch");

        while ((opt = getopt (argc, argv, argstr)) != -1) {
                switch (opt) {
                case '?': usage ();
                        break;
                case 'l': strcpy(li_fname, optarg);
                        break;
                case 'o': strcpy(ord_fname, optarg);
                        break;
                case 'p': strcpy(pwd, optarg);
                        break;
                case 'u': strcpy(uid, optarg);
                        break;
                default: usage();
                        break;
                }
        }

        if ((lfp = fopen (li_fname, "r")) == NULL) {
                fprintf (stderr, "Can't open '%s' LINEITEM flatfile\n", li_fname);
                usage ();
        }
        if ((ofp = fopen (ord_fname, "r")) == NULL) {
                fprintf (stderr, "Can't open '%s' ORDERS flatfile\n", ord_fname);
                usage ();
        }
        logon_user(uid, pwd);

#define SQLTXT "alter session set isolation_level = serializable"
text stmbuf[200];
OCIStmt *curi;

OCIHandleAlloc(tpcenv, (dvoid **)&curi, OCI_HTYPE_STMT, 0, (dvoid**)0);

sprintf ((char *) stmbuf, SQLTXT);

OCIStmtPrepare(curi, errhp, stmbuf, strlen((char *)stmbuf), OCI_NTV_SYNTAX,
OCI_DEFAULT);
OCIERROR(errhp,OCIStmtExecute(tpcsvc, curi, errhp,1,0,0,0,OCI_DEFAULT));
OCIHandleFree(curi, OCI_HTYPE_STMT);
        parse_bind();
        rowct = 0;
        reset_ord_array();
        while (fgets((char *)linebuf, ROW_BUF_SIZE, ofp)) {
                copy_ord_rec(linebuf, rowct);
                rowct++;
                if (rowct == MAX_ORD_ARRAY) {
                        insert_ord_rows(rowct);
                        reset_ord_array();
                        rowct = 0;
                }
        }
        if (rowct) {
```

```
                        insert_ord_rows(rowct);
        }

                rowct = 0;
                reset_li_array();
                while (fgets((char *)linebuf, ROW_BUF_SIZE, lfp)) {
                        copy_li_rec(linebuf, rowct);
                        rowct++;
                        if (rowct == MAX_LI_ARRAY) {
                                insert_li_rows(rowct);
                                reset_li_array();
                                rowct = 0;
                        }
                }
                if (rowct) {
                        insert_li_rows(rowct);
        }

                OCIERROR(errhp,OCITransCommit(tpcsvc, errhp, (ub4) OCI_DEFAULT));
        printf ("Inserted %d ORDERS and %d LINEITEM records", total_ord, total_li);

                OCIERROR(errhp,OCISessionEnd ( tpcsvc,errhp, tpcusr, OCI_DEFAULT));
                OCIERROR(errhp,OCIServerDetach ( tpcsrv, errhp, OCI_DEFAULT));
                OCIHandleFree((dvoid *)tpcusr, OCI_HTYPE_SESSION);
                OCIHandleFree((dvoid *)tpcsvc, OCI_HTYPE_SVCCTX);
                OCIHandleFree((dvoid *)errhp, OCI_HTYPE_ERROR);
                OCIHandleFree((dvoid *)tpcsrv, OCI_HTYPE_SERVER);
                OCIHandleFree((dvoid *)tpcenv, OCI_HTYPE_ENV);

                fclose(ofp);
                fclose(lfp);
        #ifdef ENDTIME
        (void) gettimeofday (&tv, (struct timezone *) 0);
        OCIendtime=((double) tv.tv_sec + (1.0e-6 * (double) tv.tv_usec));
        elapsed=OCIendtime-OCIstarttime;
        printf (" in %.6f sec",elapsed);
        #endif
        printf ("\n");
}
-----------------------------------
rf2.c
-----------------------------------
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <time.h>
#include <sys/types.h>
#ifdef __STDC__
#  define PROTO(args)    args
#else
#  define PROTO(args)    ()
#endif
#include <oratypes.h>
#include <oci.h>
#include <ocidfn.h>

#define NA              -1
#define NLT             1
#define DEADLOCK        60
#define NO_DATA_FOUND   1403
#define NOT_SERIALIZABLE  8177
#define SNAPSHOT_TOO_OLD  1555

#define OCIERROR(errp,function)\
        ocierror(__FILE__,__LINE__,(errp),(function));
#define RECOVERR -10
#define IRRECERR -20
#define NOERR    111
#define ROW_BUF_SIZE 512
#define MAX_ORD_ARRAY 500
#define ORD_DELETE_SQL "DELETE FROM ORDERS   WHERE O_ORDERKEY =
:o_okey"
#define LIN_DELETE_SQL "DELETE FROM LINEITEM WHERE L_ORDERKEY =
:o_okey"
#define ENDTIME 1
OCIEnv *tpcenv;
OCIServer *tpcsrv;
OCIError *errhp;
OCISvcCtx *tpcsvc;
OCISession *tpcusr;
OCIStmt *ord_delete_cursor;
OCIStmt *lin_delete_cursor;
OCIBind *o_okey_bp = (OCIBind *) 0;
OCIBind *l_okey_bp = (OCIBind *) 0;
int o_okey[MAX_ORD_ARRAY];
int ord_rows = 0;
int total_ord = 0;
int ocierror(fname, lineno, errhp, status)
char *fname;
int lineno;
OCIError *errhp;
sword status;
{
text errbuf[512];
sb4 errcode;
sb4 lstat;
ub4 recno=2;

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

void copy_ord_rec(linebuf, rowct)
char *linebuf;
int rowct;
{
char tmpbuf[30];
int i=0;
int j=0;
int maxlen;

                if (rowct >= MAX_ORD_ARRAY)
                        return;
                maxlen = strlen(linebuf);
                j=0;
                while ((i < maxlen) && (linebuf[i] != '|'))
                        tmpbuf[j++] = linebuf[i++];
                i++;
                tmpbuf[j] = '\0';
                o_okey[rowct] = atoi(tmpbuf);

}

void delete_rows(rowct)
int rowct;
{
                OCIERROR(errhp, OCIStmtExecute(tpcsvc, ord_delete_cursor, errhp, (ub4)
rowct, (ub4) 0,
                        (CONST OCISnapshot*) 0, (OCISnapshot*) 0,
                        (ub4) OCI_DEFAULT));

                OCIERROR(errhp, OCIStmtExecute(tpcsvc, lin_delete_cursor, errhp, (ub4)
rowct, (ub4) 0,
                        (CONST OCISnapshot*) 0, (OCISnapshot*) 0,
                        (ub4) OCI_DEFAULT));
```

```
		total_ord += rowct;
}

void logon_user(uid, pwd)
char *uid;
char *pwd;
{
		OCIInitialize(OCI_DEFAULT|OCI_OBJECT,(dvoid *)0,0,0,0);
		OCIEnvInit(&tpcenv, OCI_DEFAULT, 0, (dvoid **)0);
		OCIHandleAlloc((dvoid *)tpcenv, (dvoid **)&tpcsrv, OCI_HTYPE_SERVER, 0
, (dvoid **)0);
		OCIHandleAlloc((dvoid *)tpcenv, (dvoid **)&errhp, OCI_HTYPE_ERROR, 0 ,
(dvoid **)0);
		OCIHandleAlloc((dvoid *)tpcenv, (dvoid **)&tpcsvc, OCI_HTYPE_SVCCTX, 0
, (dvoid **)0);
		OCIServerAttach(tpcsrv, errhp, (text *)0,0,OCI_DEFAULT);
		OCIAttrSet((dvoid *)tpcsvc, OCI_HTYPE_SVCCTX, (dvoid *)tpcsrv,
		(ub4)0,OCI_ATTR_SERVER, errhp);
		OCIHandleAlloc((dvoid *)tpcenv, (dvoid **)&tpcusr, OCI_HTYPE_SESSION, 0
, (dvoid **)0);
		OCIAttrSet((dvoid *)tpcusr, OCI_HTYPE_SESSION, (dvoid *)uid,
		(ub4)strlen(uid),OCI_ATTR_USERNAME, errhp);
		OCIAttrSet((dvoid *)tpcusr, OCI_HTYPE_SESSION, (dvoid *)pwd,
(ub4)strlen(pwd),
		OCI_ATTR_PASSWORD, errhp);
		OCIERROR(errhp, OCISessionBegin(tpcsvc, errhp, tpcusr,
OCI_CRED_RDBMS, OCI_DEFAULT));

		OCIAttrSet(tpcsvc, OCI_HTYPE_SVCCTX, tpcusr, 0, OCI_ATTR_SESSION,
errhp);
}


void parse_bind()
{
		OCIERROR(errhp,OCIHandleAlloc(tpcenv,(dvoid **)(&ord_delete_cursor),
OCI_HTYPE_STMT, 0, (dvoid**)0));
		OCIERROR(errhp,OCIStmtPrepare(ord_delete_cursor, errhp, (text
*)ORD_DELETE_SQL,
			strlen((char *)ORD_DELETE_SQL), (ub4) OCI_NTV_SYNTAX,
(ub4) OCI_DEFAULT));

		OCIERROR(errhp,OCIHandleAlloc(tpcenv,(dvoid **)(&lin_delete_cursor),
OCI_HTYPE_STMT, 0, (dvoid**)0));
		OCIERROR(errhp,OCIStmtPrepare(lin_delete_cursor, errhp, (text
*)LIN_DELETE_SQL,
			strlen((char *)LIN_DELETE_SQL), (ub4) OCI_NTV_SYNTAX,
(ub4) OCI_DEFAULT));
		OCIERROR(errhp, OCIBindByName(ord_delete_cursor, &o_okey_bp, errhp,
(text *)":o_okey",
			strlen(":o_okey"), (ub1 *)o_okey, sizeof(int), SQLT_INT,
			(dvoid *) 0, (ub2 *)0, (ub2 *)0,
			(ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));

		OCIERROR(errhp, OCIBindByName(lin_delete_cursor, &l_okey_bp, errhp, (text
*)":o_okey",
			strlen(":o_okey"), (ub1 *)o_okey, sizeof(int), SQLT_INT,
			(dvoid *) 0, (ub2 *)0, (ub2 *)0,
			(ub4) 0, (ub4 *) 0, (ub4) OCI_DEFAULT));
}

void reset_ord_array()
{
		memset(o_okey, 0, sizeof(o_okey));
}


void usage()
{
		fprintf (stderr, "\n");
		fprintf (stderr, "Usage:\t rf2 -d <delete_flatfile> -p <password> -u <uid>\n");
		exit(1);
}
int main(argc, argv)
int argc;
char *argv[];
{
extern int getopt();
extern char *optarg;
extern int optind, opterr;
int opt;
char *argstr="d:p:u:";
char del_fname[128];
char uid[20];
char pwd[20];
FILE *ofp=NULL;
int rowct = 0;
char linebuf[512];
struct timeval tv;
double OCIstarttime=0;
double OCIendtime=0;
double starttime=0;
double endtime=0;
double elapsed=0;
(void) gettimeofday (&tv, (struct timezone *) 0);
OCIstarttime=((double) tv.tv_sec + (1.0e-6 * (double) tv.tv_usec));
		if (argc < 2) {
			usage ();
		}
		strcpy(uid, "tpch");
		strcpy(pwd, "tpch");
		while ((opt = getopt (argc, argv, argstr)) != -1) {
			switch (opt) {
			case '?': usage ();
				break;
			case 'd': strcpy(del_fname, optarg);
				break;
			case 'p': strcpy(pwd, optarg);
				break;
			case 'u': strcpy(uid, optarg);
				break;
			default: usage();
				break;
			}
		}
		if ((ofp = fopen (del_fname, "r")) == NULL) {
			fprintf (stderr, "Can't open '%s' DELETE flatfile\n", del_fname);
			usage ();
		}
		logon_user(uid, pwd);

#define SQLTXT "alter session set isolation_level = serializable"
text stmbuf[200];
OCIStmt *curi;
OCIHandleAlloc(tpcenv, (dvoid **)&curi, OCI_HTYPE_STMT, 0, (dvoid**)0);
sprintf ((char *) stmbuf, SQLTXT);
OCIStmtPrepare(curi, errhp, stmbuf, strlen((char *)stmbuf), OCI_NTV_SYNTAX,
OCI_DEFAULT);
OCIERROR(errhp,OCIStmtExecute(tpcsvc, curi, errhp,1,0,0,0,OCI_DEFAULT));
OCIHandleFree(curi, OCI_HTYPE_STMT);
		parse_bind();
		rowct = 0;
		reset_ord_array();
		while (fgets((char *)linebuf, ROW_BUF_SIZE, ofp)) {
			copy_ord_rec(linebuf, rowct);
			rowct++;
			if (rowct == MAX_ORD_ARRAY) {
				delete_rows(rowct);
				reset_ord_array();
				rowct = 0;
			}
		}
		if (rowct) {
			delete_rows(rowct);
	}
		OCIERROR(errhp,OCITransCommit(tpcsvc, errhp, (ub4) OCI_DEFAULT));
		printf ("Deleted %d ORDERKEYS from ORDERS and LINEITEM", total_ord);
		OCIERROR(errhp,OCISessionEnd ( tpcsvc,errhp, tpcusr, OCI_DEFAULT));
		OCIERROR(errhp,OCIServerDetach ( tpcsrv, errhp, OCI_DEFAULT));
		OCIHandleFree((dvoid *)tpcusr, OCI_HTYPE_SESSION);
		OCIHandleFree((dvoid *)tpcsvc, OCI_HTYPE_SVCCTX);
		OCIHandleFree((dvoid *)errhp, OCI_HTYPE_ERROR);
		OCIHandleFree((dvoid *)tpcsrv, OCI_HTYPE_SERVER);
		OCIHandleFree((dvoid *)tpcenv, OCI_HTYPE_ENV);
		fclose(ofp);
	#ifdef ENDTIME
	(void) gettimeofday (&tv, (struct timezone *) 0);
	OCIendtime=((double) tv.tv_sec + (1.0e-6 * (double) tv.tv_usec));
	elapsed=OCIendtime-OCIstarttime;
	printf (" in %.6f sec",elapsed);
	#endif
	printf ("\n");

}
```

---

runTPCHload

```
#!/bin/ksh
###############################################
# Copyright Oracle Corporation 2009          #
#                                            #
# Last updated 5/1/09 Meikel Poess           #
###############################################
. $KIT_DIR/env
ECHO=echo
sqlplus=$ORACLE_HOME/bin/sqlplus
GTIME=${KIT_DIR}/utils/gtime
RUN_ID_FILE=${KIT_DIR}/audit/r_id
if [ ! -f $RUN_ID_FILE ]
then
  echo "0" > $RUN_ID_FILE
fi
RUN_ID=`cat $RUN_ID_FILE`
RUN_ID=`expr $RUN_ID + 1`
echo $RUN_ID > $RUN_ID_FILE
OUT_DIR=${BECHMARK_OUTPUT}/performance_runs/${RUN_ID}
```

```
if [ ! -d $OUT_DIR ]
then
  mkdir $OUT_DIR
fi
SCRIPT_LOG_FILE=${OUT_DIR}/main.out
RDB_TABLES=${OUT_DIR}/rdbtablest
FIRST_TEN=${OUT_DIR}/firstten
RI_CHECK=${OUT_DIR}/richeck
LD1DBCRE=${OUT_DIR}/Ld1dbcre
LD2SCTSO=${OUT_DIR}/Ld2sctso
LD3DAPOP=${OUT_DIR}/Ld3dapop
echo Start TPC-H Benchmark SEQUENCE NUMBER: $RUN_ID > $SCRIPT_LOG_FILE
echo >> $SCRIPT_LOG_FILE
echo "Starting a new Oracle log file:
$ORACLE_HOME/rdbms/log/alert_${ORACLE_SID}.log" >> $SCRIPT_LOG_FILE
echo >> $SCRIPT_LOG_FILE
mv $ORACLE_HOME/rdbms/log/alert_${ORACLE_SID}.log
$ORACLE_HOME/rdbms/log/alert_${ORACLE_SID}.log.preAudit.$RUN_ID
touch $ORACLE_HOME/rdbms/log/alert_${ORACLE_SID}.log
STIME=`$GTIME`
echo "Start: timed load portion `date`" >> $SCRIPT_LOG_FILE
/home/oracle/kit/schema/10.0/build/dapop.sh >> $LD3DAPOP
echo "End: timed load portion `date`" >> $SCRIPT_LOG_FILE
$KIT_DIR/audit/gen_seed.sh $KIT_DIR/audit/seed
echo Generated seed: `cat $KIT_DIR/audit/seed` >> $SCRIPT_LOG_FILE
-----------------------------------
runTPCHpt
-----------------------------------
#!/bin/ksh
################################################
# Copyright Oracle Corporation 2009          #
#                                            #
# Last updated 5/1/09 Meikel Poess           #
################################################
. $KIT_DIR/env
MN=0;
SCRIPT_DIR=${KIT_DIR}/scripts
SQL_DIR=${KIT_DIR}/sql
UPD_DIR=${KIT_DIR}/update
SRC_DIR=${KIT_DIR}/utils
QRY_DIR=${KIT_DIR}/queries
QGEN_DIR=${KIT_DIR}/dbgen
QGEN=${QGEN_DIR}/qgen
QEXEC=${SRC_DIR}
TESTS_DIR=${BECHMARK_OUTPUT}/performance_runs
DSS_QUERY=${KIT_DIR}/queries
export DSS_QUERY
UPD_SQL=${UPD_DIR}/sql
UPD_SPT=${UPD_DIR}/scripts
UPD_SRC=${UPD_DIR}/source
UPD_DAT=${UPD_DIR}/data
TPCD_BIN=${KIT_DIR}/audit/bin
GTIME=${SRC_DIR}/gtime
SEED_FILE=${KIT_DIR}/audit/seed
DF=/dev/null
HID=1
INTERVAL=60
COUNT=1200
QPROG=${QEXEC}/qexec
usage () {
echo " "
echo "Usage: $0 [-r <run id>]"
echo "          [-p <subrun id>]"
echo "          [-s <scale factor>]"
echo "          [-a don't run power test]"
echo "          [-b don't run throughput test]"
echo "          [-c don't run queries of power test]"
echo "          [-d don't run queries of throughput test]"
echo "          [-e don't run updates of power test]"
echo "          [-f don't run updates of throughput test]"
echo "          [-v verbose]"
}
set -- `getopt "r:p:s:a:b:c:d:e:f:v:h" "$@"` || usage
run_pqueries=1;
run_tqueries=1;
run_power=1;
run_throughput=1;
run_pupdate=1;
run_tupdate=1;
SF=$SCALE_FACTOR;
PARA=1
RUN_ID=0
while :
do
  case "$1" in
  -r) shift; RUN_ID=$1;;
  -p) shift; PARA=$1;;
  -s) shift; SF=$1;;
  -a) run_power =0;;
  -b) run_throughput=0;;
  -c) run_pqueries=0;;
  -d) run_tqueries=0;;
  -e) run_pupdate=0;;
  -f) run_tupdate=0;;
  -v) verbose=1;;
  -h) usage; exit 0;;
  --) shift; break;;
  esac
  shift;
done
if ((RUN_ID==0));then
  RUN_ID=`cat ${TESTS_DIR}/r_id`
  ((RUN_ID=RUN_ID+1))
  echo ${RUN_ID} > ${TESTS_DIR}/r_id
fi
if ((verbose == 1));then
  echo Script invoked with the following parameters
  echo RUN_ID $RUN_ID
  echo PARA $PARA
  echo SF $SF
  echo run_pqueries $run_pqueries
  echo run_tqueries $run_tqueries
  echo run_power $run_power
  echo run_throughput $run_throughput
  echo run_pupdate $run_pupdate
  echo run_tupdate $run_tupdate
  echo NUM_STREAMS $NUM_STREAMS
fi
OUT_DIR=${TESTS_DIR}/${RUN_ID}
if [ ! -d $OUT_DIR ]
then
    mkdir $OUT_DIR
fi
if ((MN == 1));then
  doall mkdir $OUT_DIR
fi
TPCD_LOG=${OUT_DIR}
TPCD_RPT=${OUT_DIR}
OUT=${OUT_DIR}
let UF_SET="($PARA-1)*($NUM_STREAMS+1)+1"
START_SET=1
let STOP_SET=$NUM_STREAMS
let START_SET_UPDATE="($PARA-1)*($NUM_STREAMS+1)+2"
let STOP_SET_UPDATE="$START_SET_UPDATE+$NUM_STREAMS-1"
TPCD_LOG_FILE=${TPCD_LOG}/m${PARA}s0
TPCD_RPT_FILE=${TPCD_RPT}/m${PARA}s0inter
QRY_FILE=${TPCD_RPT}/qtemp.${PARA}s0
QUERY_PARAMETER=${TPCD_LOG}/qp${PARA}.0
SCRIPT_LOG_FILE=${TPCD_LOG}/m${PARA}timing
UF1_LOG=${TPCD_LOG}/m${PARA}s0rf1
UF2_LOG=${TPCD_LOG}/m${PARA}s0rf2
STREAM_COUNT_LOG=${TPCD_LOG}/m${PARA}tstrcnt
echo "TPC-H Test - RUN:${PARA} SEQUENCE:${RUN_ID} `date`" > $SCRIPT_LOG_FILE
echo "TPC-H Test - RUN:${PARA} SEQUENCE:${RUN_ID} `date`" > $TPCD_RPT_FILE
echo "Generates query template file with seed: `cat $SEED_FILE` for stream 0" >>
$SCRIPT_LOG_FILE
echo >> $SCRIPT_LOG_FILE
${QGEN} -c -r `cat $SEED_FILE` -p 0 -s ${SF} -l $QUERY_PARAMETER > ${QRY_FILE}
START=`$GTIME`
if (( run_power == 1 )); then
  echo "Start Power Test - RUN:${PARA} SEQUENCE:${RUN_ID} Execution Starts $START,
`date`" >>  $SCRIPT_LOG_FILE
  echo "" >> $SCRIPT_LOG_FILE
  if (( run_pupdate == 1 )); then
    SDATE=`date`
    UF1_START=`$GTIME`
    echo "Start UF1  $UF1_START, `date`" >> $SCRIPT_LOG_FILE
    ${UPD_SPT}/main_drv_rf1.sh ${UF_SET} ${RUN_ID} ${PARA} >> $UF1_LOG 2>&1 ;
    UF1_END=`${GTIME}`
    E1DATE=`date`
    UF1_TIME=`echo $UF1_END - $UF1_START | bc`
    echo UF1: Execution Time: $UF1_TIME >> ${TPCD_RPT_FILE}
    echo Start Time: $UF1_START, $SDATE >> ${TPCD_RPT_FILE}
    echo End Time: $UF1_END, $E1DATE >> ${TPCD_RPT_FILE}
    echo "" >> ${TPCD_RPT_FILE}
    echo "End UF1 $UF1_END, ${E1DATE}" >> $SCRIPT_LOG_FILE
    echo UF1: Execution Time: $UF1_TIME >> $SCRIPT_LOG_FILE
    echo >> $SCRIPT_LOG_FILE
  else
    echo skipping rf1 >> $SCRIPT_LOG_FILE;
  fi
  if (( run_pqueries == 1 )); then
    echo "Start Query Part `$GTIME`, `date` " >> $SCRIPT_LOG_FILE
    ${QPROG} ${DATABASE_USER} q${QRY_FILE} l${TPCD_LOG_FILE}
r${TPCD_RPT_FILE}  > $DF  2>&1;
  else
    echo skipping Query part of power run >> $SCRIPT_LOG_FILE;
  fi
  if (( run_pupdate == 1 ));then
    UF2_START=`${GTIME}`
    E2DATE=`date`
    echo "End Query Part `$GTIME`, ${E2DATE}" >> $SCRIPT_LOG_FILE
    echo "" >> $SCRIPT_LOG_FILE
    echo "Start UF2  $UF2_START, `date`" >> $SCRIPT_LOG_FILE
    ${UPD_SPT}/main_drv_rf2.sh ${UF_SET} ${RUN_ID} ${PARA} >> $UF2_LOG 2>&1;
    UF2_END=`${GTIME}`
```

```
  END=`${GTIME}`
  EDATE=`date`
  UF2_TIME=`echo $UF2_END - $UF2_START | bc`
  echo UF2: Execution Time: $UF2_TIME >> ${TPCD_RPT_FILE}
  echo Start Time: $UF2_START, $E2DATE >> ${TPCD_RPT_FILE}
  echo End Time: $UF2_END, $EDATE >> ${TPCD_RPT_FILE}
  echo "End UF2 $UF2_END, $EDATE" >>  $SCRIPT_LOG_FILE
  echo UF2: Execution Time: $UF2_TIME >> $SCRIPT_LOG_FILE
  echo >>  $SCRIPT_LOG_FILE
 else
  echo skipping rf2 >> $SCRIPT_LOG_FILE;
 fi
 echo "End TPC-H Power Test - RUN:${PARA} SEQUENCE:${RUN_ID}, $END, $EDATE"
>> $SCRIPT_LOG_FILE
 MEA_INT=`echo $END - $START | bc`
 echo "Elapsed Time for TPC-H Power Test - RUN:${PARA} SEQUENCE:${RUN_ID} is
$MEA_INT" >> $SCRIPT_LOG_FILE
 echo >> $SCRIPT_LOG_FILE
 ${KIT_DIR}/audit/abridge.pl ${TPCD_LOG_FILE}
fi
if (( run_throughput == 1 )); then
 i=$START_SET
 PSEED=`cat $SEED_FILE`
 while [ $i -le $STOP_SET ]; do
  TPCD_LOG_FILE=${TPCD_LOG}/mt${RUN_ID}_${i}.log
  TPCD_RPT_FILE=${TPCD_RPT}/mt${RUN_ID}_${i}.rpt
  QUERY_PARAMETER=${TPCD_LOG}/qp${PARA}.${i}
  QRY_FILE=${TPCD_RPT}/qtemp.${PARA}s${i}
  PSEED=`expr $PSEED + 1`
  ${QGEN} -c -r ${PSEED} -p ${i} -s ${SF} -l $QUERY_PARAMETER > ${QRY_FILE}
  i=`expr $i + 1`
 done
 TH_START_D=`date`
 TH_START_T=`${GTIME}`
 echo >> $SCRIPT_LOG_FILE
 rm -f /tmp/th_pipe1
 mknod /tmp/th_pipe1 p
 rm -f /tmp/th_pipe2
 mknod /tmp/th_pipe2 p
 i=$START_SET
 if (( run_tqueries== 1 )); then
  echo "Start Throughput Test - RUN:${PARA} SEQUENCE:${RUN_ID} $TH_START_T,
$TH_START_D"  >> $SCRIPT_LOG_FILE
  (scnt.sh $PARA $RUN_ID > $STREAM_COUNT_LOG &)
  pids=""
  snode=0;
  while [ $i -le $STOP_SET ]; do
   ((snode=snode+1))
   M_SDATE=`date`
   M_STIME=`${GTIME}`
   TPCD_LOG_FILE=${TPCD_LOG}/m${PARA}s${i}
   TPCD_RPT_FILE=${TPCD_RPT}/m${PARA}s${i}inter
   echo "Start Query Stream $i $M_STIME, ${M_SDATE}" >> $SCRIPT_LOG_FILE
   QRY_FILE=${TPCD_RPT}/qtemp.${PARA}s${i}
   if ((MN == 1));then
    ssh h${snode} ${QPROG} ${DATABASE_USER} q${QRY_FILE}
l${TPCD_LOG_FILE} r${TPCD_RPT_FILE} | grep -v "Connected to ORACLE" >>
$SCRIPT_LOG_FILE &
   else
    ${QPROG} ${DATABASE_USER} q${QRY_FILE} l${TPCD_LOG_FILE}
r${TPCD_RPT_FILE} | grep -v "Connected to ORACLE" >> $SCRIPT_LOG_FILE &
   fi
   pids=$pids" "$!
   i=`expr $i + 1`
  done
 else
  echo Skipping Queries of Throughput Test >> $SCRIPT_LOG_FILE
 fi
 if (( run_tupdate == 1 )); then
  ${KIT_DIR}/audit/runTPCHus $RUN_ID $START_SET_UPDATE $STOP_SET_UPDATE
${SF} $PARA >> $SCRIPT_LOG_FILE 2>&1 &
 else
  echo Skipping Updates of Throughput Test >> $SCRIPT_LOG_FILE
  echo toto > /tmp/th_pipe2 &
  read < /tmp/th_pipe1 &
 fi
 if (( run_tqueries == 1 )); then
  wait $pids
  THQ_END_T=`$GTIME`
  THQ_END_D=`date`
  echo End all Query Streams $THQ_END_T, $THQ_END_D >> $SCRIPT_LOG_FILE
 fi
 echo toto > /tmp/th_pipe1
 read < /tmp/th_pipe2
 if (( run_tqueries== 1 )); then
  TH_END_D=`date`
  TH_END_T=`$GTIME`
  echo End Update Stream ${TH_END_T}, ${TH_END_D} >> $SCRIPT_LOG_FILE
  echo >> $SCRIPT_LOG_FILE
 fi
 echo "End Throughput Test ${TH_END_T}, ${TH_END_D}" >> $SCRIPT_LOG_FILE
 echo Execution Time Throughput Test: `echo ${TH_END_T} - ${TH_START_T} | bc` >>
$SCRIPT_LOG_FILE
 PIDS=`ps -fu oracle | grep scnt.sh | grep -v grep | awk '{print $2}'`
 kill -9 $PIDS
else
  echo Skipping Throughput Test >> $SCRIPT_LOG_FILE
fi
---------------------------------
runTPCHus
---------------------------------
#!/bin/ksh
##############################################
# Copyright Oracle Corporation 2009          #
#                                            #
# Last updated 5/1/09 Meikel Poess           #
##############################################
. $KIT_DIR/env

SCRIPT_DIR=${KIT_DIR}/scripts
SQL_DIR=${KIT_DIR}/sql
UPD_DIR=${KIT_DIR}/update
UPD_SPT=${UPD_DIR}/scripts
SRC_DIR=${KIT_DIR}/utils
QRY_DIR=${KIT_DIR}/queries
QGEN_DIR=${KIT_DIR}/dbgen
QGEN=${QGEN_DIR}/qgen

DSS_QUERY=${KIT_DIR}/queries
export DSS_QUERY

RUN_ID=$1
START_SET_UPDATE=$2
STOP_SET_UPDATE=$3
SF=$4
PARA=$5

OUT_DIR=${KIT_DIR}/audit/tests/${RUN_ID}
if [ ! -d $OUT_DIR ]
then
        mkdir $OUT_DIR
fi


TPCD_RPT=$OUT_DIR
SCRIPT_LOG_FILE=${OUT_DIR}/m${PARA}timing
OUT=$OUT_DIR

GTIME=${SRC_DIR}/gtime
HID=1

START=`$GTIME`
echo "Start Update Stream $START, `date`" >> $SCRIPT_LOG_FILE
echo "" >> $SCRIPT_LOG_FILE


read < /tmp/th_pipe1

i=$START_SET_UPDATE
j=1
while [ $i -le $STOP_SET_UPDATE ]; do

 UF1_LOG=${OUT_DIR}/m${PARA}s${j}rf1
 UF2_LOG=${OUT_DIR}/m${PARA}s${j}rf2
 RPT_FILE=${OUT_DIR}/m${PARA}s${j}inter

 SDATE=`date`
 UF1_START=`$GTIME`
        echo "Start UF1-${j} at ${UF1_START}, ${SDATE}" >> ${RPT_FILE}

 ${UPD_SPT}/main_drv_rf1.sh ${i} ${RUN_ID} ${PARA} >> ${UF1_LOG} 2>&1
 UF1_END=`${GTIME}`
        EDATE=`date`
 echo "End UF1-${j} at ${UF1_END}, ${EDATE}" >> ${RPT_FILE}
        echo UF1-${j} Execution Time: `echo ${UF1_END} - ${UF1_START} | bc` >>
${RPT_FILE}

 SDATE=`date`
 UF2_START=`${GTIME}`
 echo "Start UF2-${j} ${UF2_START}, ${SDATE}" >> ${RPT_FILE}

 ${UPD_SPT}/main_drv_rf2.sh ${i} ${RUN_ID} ${PARA} >> ${UF2_LOG} 2>&1
 UF2_END=`${GTIME}`
 EDATE=`date`
 echo "End UF2-${j} at $UF2_END, ${EDATE}" >> ${RPT_FILE}
        echo UF2-${j} Execution Time: `echo ${UF2_END} - ${UF2_START} | bc` >>
${RPT_FILE}

 i=`expr $i + 1`
 j=`expr $j + 1`
done

echo toto > /tmp/th_pipe2
echo toto > /tmp/th_pipe2
echo toto > /tmp/th_pipe2
```

Appendix G: Price Quotes

From: MaryBeth Pierantoni [mailto:mary.beth.pierantoni@oracle.com]
Sent: Tuesday, May 26, 2009 5:22 PM
To: Nambiar, Raghu
Cc: Glasstone,Ray
Subject: Pricing

Hi Raghu,

To follow is the prelim pricing.

Thanks,
MaryBeth

Product	**Price**	**Qty**	**Extended Price**
Oracle Database 11g Release 2 Enterprise Edition, Named User Plus for 3 years	$11,875	256*	$3,040,000
Real Application Clusters, Named User Plus for 3 years	$5,750	256*	$1,472,000
Partitioning, Named User Plus for 3 years	$2,875	256*	$736,000
Advanced Compression, Named User Plus for 3 years	$2,875	256*	$736,000
Database Server Support Package for 3 years	$6,900	64	$441,600
HP Exadata Storage Server Hardware SAS (includes support)	$24,000	6	$144,000
Exadata Storage Server Software for 3 years	$5,000	72	$360,000
Premium Support for 3 years	$158,400	3	$475,200
Unbreakable Linux Support: Enterprise Linux Basic Limited for 3 years	$1,497	64	$95,808
Oracle Mandatory E-Business Discount			<$1,875,152>
Oracle TOTAL			$5,625,456

(* 256 = 0.50 * 512). Explanation: For the purposes of counting the number of processors which require licensing, an Intel multicore chip with "n" cores shall be determined by multiplying "n" cores by a factor of 0.50.
Contact: MaryBeth Pierantoni, mary.beth.pierantoni@oracle.com, 916-315-5081