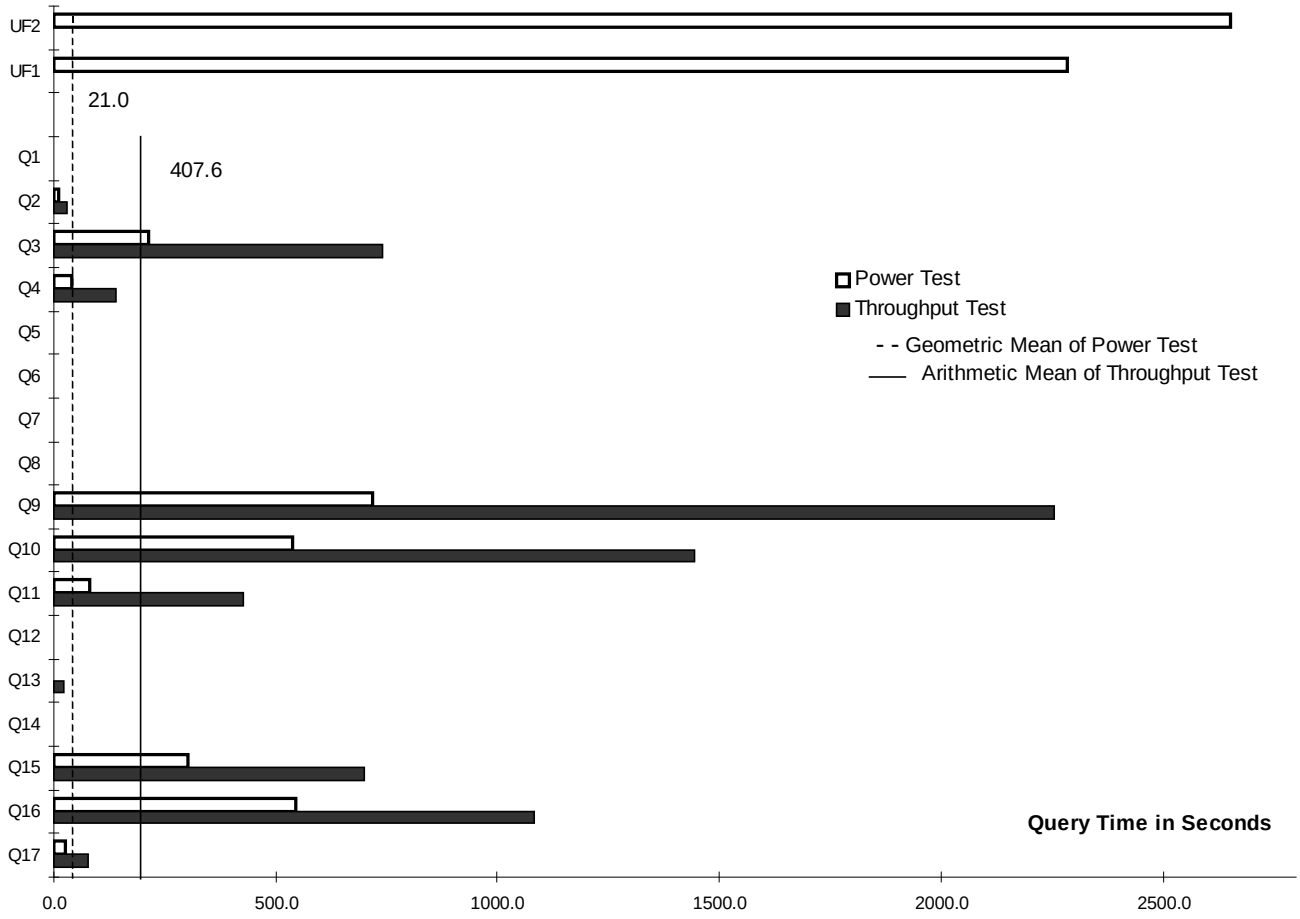
# WorldMark 4400
# Using Teradata V2R3.0

**TPC-D Rev 1.3.1**

**Report Date: June 18, 1999**

| Total System Cost | TPC-D Power | TPC-D Throughput | Price/Performance | |
|---|---|---|---|---|
| **$321,812** | **17,115.2 QppD@100GB** | **869.1 QthD@100GB** | **$83 per QphD@100GB** | |
| Database Size | Database Manager | Operating System | Other Software | Availability Date |
| **100GB** | **Teradata V2R3.0** | **UNIX SVR4 MP-RAS 03.02.00** | **None** | **HW: 4-16-99 SW: 8-10-99** |




| Database Load Time = 47 Hrs 9 Mins | Total Data Storage / Database Size = 5.34 | RAID = N |
|---|---|---|

**1 4400 Node:**

4 Intel Pentium II Xeon 450 MHz CPUs 2 MB Cache
2 GB Memory
2 Ultra SCSI Adapters
1 CD-ROM Unit, Floppy Drive & Tape Drive
1 Network card
3 9GB internal drives
6 Disk modules, each with
10 x 9 GB drives

**Total GB of Storage =534.2**

| Product I.D. | Description | Qty | UNIT PRICE | EXT PRICE | 5-YR MAINT |
|---|---|---|---|---|---|
| 4400-4361-8090 | WM4400D/SDW/2PIIX/2M,1GB,27GB | 1 | $ 39,520 | $ 39,520 | $ 17,373 |
| 4400-F027 | Processor, PII Xeon 450/2M w Heatsink | 2 | $ 8,560 | $ 17,120 | $ 1,380 |
| 4400-F060 | Cord, Power - US 120 V | 4 | $ 40 | $ 160 | $ - |
| 3498-2244-8090 | Monitor 14" Color, MPR II, DDC | 1 | $ 240 | $ 240 | $ 226 |
| 4400-F048 | VRM, Board | 3 | $ 20 | $ 60 | $ - |
| 4400-F700 | Keyboard - US 120V | 1 | $ 40 | $ 40 | $ - |
| 4400-F147 | Adpt - PCI Ethernet 10/10 | 1 | $ 76 | $ 76 | $ - |
| 4400-F118 | Memory DIMM 1 GB EDO (4 x 256MB) | 1 | $ 5,800 | $ 5,800 | $ - |
| 4400-F129 | Adapt - PCI - Quad | 3 | $ 2,236 | $ 6,708 | $ - |
| | **Server Hardware** | | | **$ 69,724** | **$ 18,979** |
| 6282-1101-XXXX | Entry level modular JBOD | 6 | $ 2,250 | $ 13,500 | $ 25,105 |
| 6282-F129 | EL 9.1 (1) 10000 RPM Disk Drive | 54 | $ 1,125 | $ 60,750 | $ - |
| 9100-K931 | Symbios Cable Kit | 6 | $ 1,688 | $ 10,125 | $ - |
| | **Storage Devices** | | | **$ 84,375** | **$ 25,105** |
| F784-1406-0000 | V2R3 4400 Up to 4 CPU | 1 | $ 40,000 | $ 40,000 | $ 67,500 |
| F481-6030-0000 | NFS OE 1-8 users | 1 | $ 1,520 | $ 1,520 | $ - |
| F784-5020-0000 | Teradata CLI for SMP Node | 1 | $ 1,600 | $ 1,600 | $ 2,430 |
| F784-5021-0000 | Teradata BTEQ for SMP Node | 1 | $ 200 | $ 200 | $ 304 |
| F784-5022-0000 | Teradata FastLoad for SMP Node | 1 | $ 4,000 | $ 4,000 | $ 6,075 |
| | **Software** | | | **$ 47,320** | **$ 76,309** |
| | **TOTAL** | | | **$ 201,419** | **$ 120,393** |
| | **FIVE YEAR COST OF OWNERSHIP** | | | | **$ 321,812** |

"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 onassumptions about past or future purchases are not permitted. All discounts reflect standard pricing policies for the listed components. For complete details, see the pricing sections of the TPC benchmark specifications. If you find that the stated prices are not available according to these terms, please inform the TPC at pricing@tpc.org. Thank you."

Audited by: Francois Raab
Information Paradigm

# Numerical Quantity Summary

## Measurement Results:

| | | |
|---|---|---|
| Scale Factor | = | 100 |
| Total Data Storage / Database Size | = | 5.34 |
| Database Load Time | = | 47 Hrs 9 Min |
| Query Streams for Throughput Test | = | 3 |
| Geometric Mean of Power Test | = | 21.0 |
| TPC-D Power Metric (QppD@100GB) | = | 17,115.2 |
| TPC-D Throughput Metric (QthD@100GB) | = | 869.1 |
| Composite QphD@100GB | = | 3,856.8 |
| Total System Price Over 5 Years | = | $ 321,812 |
| TPC-D Price/Performance Metric | = | $83.44 |

## Measurement Intervals:

Measurement Interval in Throughput Test (Ts) =21,125 seconds

## Duration of stream execution:

| Stream ID | Seed | Start-Date | Start-Time | End-Date | End-Time | Total Time |
|---|---|---|---|---|---|---|
| Stream00 | 68870749 | 2/5/99 | 15:56:31 | 2/5/99 | 18:00:08 | 7,417 |
| Stream01 | 68870750 | 2/5/99 | 18:00:08 | 2/5/99 | 19:51:08 | 6,660 |
| Stream02 | 68870751 | 2/5/99 | 18:00:08 | 2/5/99 | 20:01:55 | 7,307 |
| Stream03 | 68870752 | 2/5/99 | 18:00:08 | 2/5/99 | 19:53:57 | 6,829 |
| Updates | | 2/5/99 | 18:00:08 | 2/5/99 | 23:52:13 | 21,125 |

## TPC-D Timing Intervals (in seconds):

| | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Stream0** | 0.4 | 10.5 | 214.5 | 40.4 | 0.5 | 0.2 | 0.7 | 0.7 | 718.6 | 538.0 |
| **Stream01** | 0.4 | 51.0 | 597.8 | 40.5 | 0.6 | 0.4 | 0.8 | 4.2 | 2254.9 | 1234.1 |
| **Stream02** | 0.8 | 10.2 | 681.6 | 254.5 | 0.5 | 1.2 | 0.8 | 0.8 | 2383.0 | 1658.3 |
| **Stream03** | 0.3 | 22.0 | 941.5 | 126.8 | 0.5 | 0.2 | 2.4 | 0.9 | 2129.1 | 1442.7 |
| **Minimum** | 0.3 | 10.2 | 597.8 | 40.5 | 0.5 | 0.2 | 0.8 | 0.8 | 2129.1 | 1234.1 |
| **Average** | 0.5 | 27.7 | 740.3 | 140.6 | 0.5 | 0.6 | 1.3 | 2.0 | 2255.7 | 1445.1 |
| **Maximum** | 0.8 | 51.0 | 941.5 | 254.5 | 0.6 | 1.2 | 2.4 | 4.2 | 2383.0 | 1658.3 |

| | Q11 | Q12 | Q13 | Q14 | Q15 | Q16 | Q17 | UF1 | UF2 |
|---|---|---|---|---|---|---|---|---|---|
| **Stream0** | 80.8 | 0.3 | 2.2 | 0.2 | 302.8 | 543.9 | 26.6 | 2282.6 | 2653.0 |
| **Stream01** | 444.1 | 0.2 | 4.4 | 0.6 | 666.6 | 1320.8 | 34.9 | 9251.8 | 2694.2 |
| **Stream02** | 680.2 | 0.4 | 54.1 | 0.4 | 855.4 | 567.6 | 153.4 | 1914.6 | 2702.1 |
| **Stream03** | 157.1 | 0.3 | 5.2 | 0.3 | 582.1 | 1365.4 | 49.0 | 1842.6 | 2720.3 |
| **Minimum** | 157.1 | 0.2 | 4.4 | 0.3 | 582.1 | 567.6 | 34.9 | 1842.6 | 2694.2 |
| **Average** | 427.1 | 0.3 | 21.2 | 0.4 | 701.4 | 1084.6 | 79.1 | 4336.3 | 2705.5 |
| **Maximum** | 680.2 | 0.4 | 54.1 | 0.6 | 855.4 | 1365.4 | 153.4 | 9251.8 | 2720.3 |