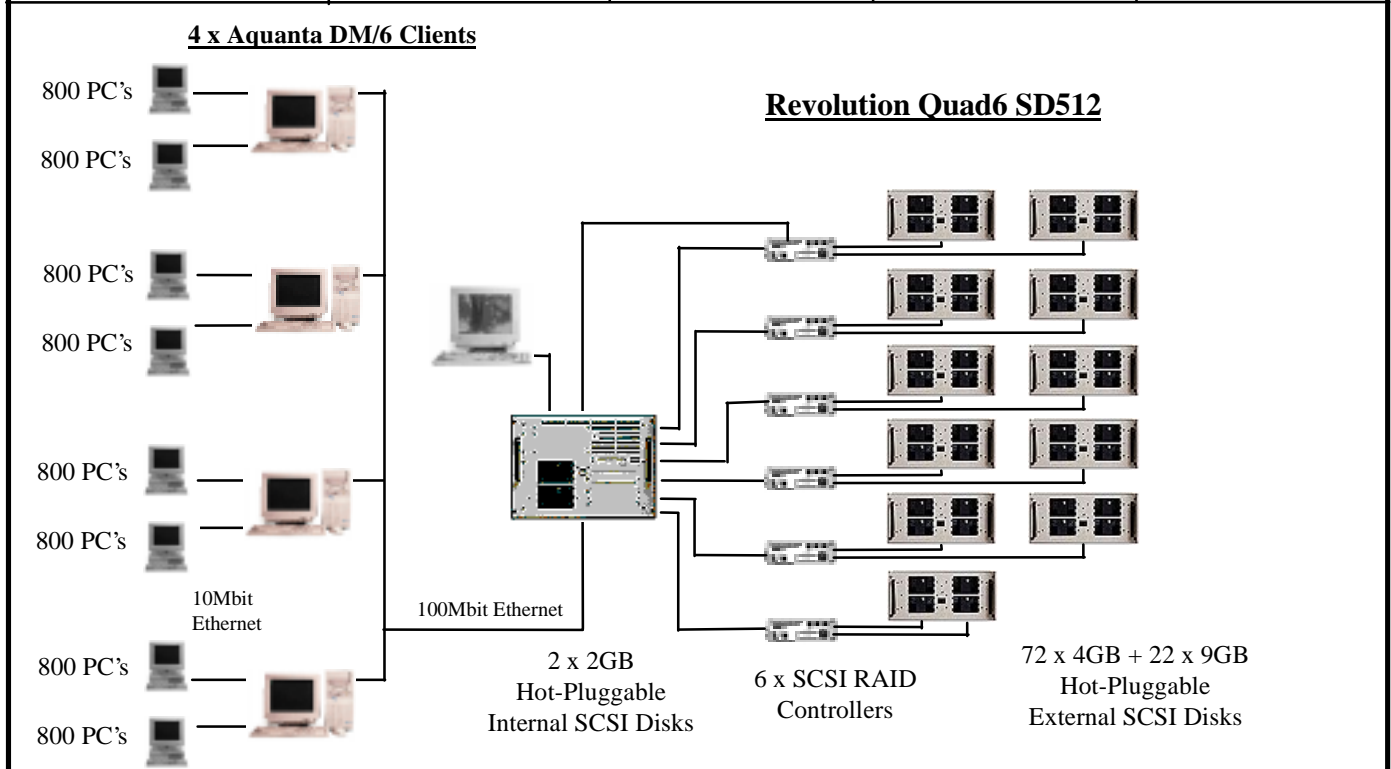


<b>Advanced Logic Research, Inc.</b>	<b>Revolution Quad6 SD512 Client/Server</b>			TPC-C Rev. 3.2.3
				Report Date: 04-Apr-1997
Total System Cost	TPC-C Throughput		Price/Performance	Availability Date
<b>\$427,949</b>	<b>7407.05 tpmC</b>		<b>\$57.78 per tpmC</b>	<b>30-Apr-1997</b>
Processors	Database Manager	Operating System	Other Software	Number of Users
4 Pentium® Pro 200 MHz 512MB L2 cache	Microsoft SQL Server 6.5 SP3	Microsoft NT Server 4.0 SP1	Microsoft IIS 3.0	<b>6400</b>



System Components	Server		Clients	
	Quantity	Type	Quantity	Type
Processors	4	200 MHz Pentium® Pro with 512KB Level 2 Cache	4	200MHz Pentium® Pro with 256KB Level 2 Cache
Memory	1	2048MB	4	128 MB
Disk Controllers	6	SCSI RAID controllers	4	Inbuilt IDE
Disk Drives	2	2GB internal	4	1.5 GB internal
	72	4GB external		
	22	9GB external		
Total Storage		482.25 GB		6 GB
CD-ROM / Tape	1	CD-ROM Drive	4	CD-ROM Drive

Advanced Logic Research, Inc. FDR Pricing		Revolution Quad6 SD512 Client Server				TPC-C Rev 3.2.3 04-Apr-1997	
Description	Part Number	Third Party Brand Pricing	MRLP Unit Price	Qty.	Extended Price	5 Years Maint.	
<b>Server Hardware</b>							
Revolution Quad6 SD512	72460220		\$12,495	1	\$12,495	\$14,314	
200-MHz Pentium Pro/512KB Cache	12968621		\$2,295	3	\$6,885	INCL	
ECC Memory Board, 0MB Mem	(included w/ 72460220)		\$0	1	\$0	INCL	
128-MB Memory Upgrade	12903260		\$2,755	16	\$44,080	INCL	
SVGA Video Card	(included w/ 72460220)		\$0	1	\$0	INCL	
3-Channel ADAC PCI Ultra SCSI RAID Ctr	11900983-10		\$1,315	6	\$7,890	INCL	
2-GB SCA F/W Ultra SCSI Hard Drive	11351230		\$955	2	\$1,910	INCL	
16X SCSI CD-ROM Drive	11315280		\$168	1	\$168	INCL	
10/100 PCI Network Interface Card	CP000169		\$290	1	\$290	INCL	
Quick Hot Swap II Storage Drwr + 2 spares	11910190		\$1,795	13	\$23,335	INCL	
4-GB SCA F/W Ultra SCSI Hard Drive	11351430		\$1,795	72	\$129,240	INCL	
9-GB SCA F/W Ultra SCSI Hard Drive	11351910		\$2,845	22	\$62,590	INCL	
14-inch Color Monitor	11001034		\$295	1	\$295	INCL	
Keyboard Tray Kit (Kybd, Mouse, Cables)	11910130		\$165	1	\$165	INCL	
Server to Disk Drawers SCSI Cable	(two included w/ ea 11910190)		\$0	12	\$0	INCL	
Rack Cabinet (44U)	11910170		\$2,195	3	\$6,585	INCL	
Rack Coupling Kit (44U)	82321506		\$165	2	\$330	INCL	
Rack Cabinet Bezel Kit (44U)	(included w/ 1191070)		\$0	3	\$0	INCL	
Rack Cabinet Weight kit (0U)	(N/A)		\$0	3	\$0	INCL	
Monitor Alcove	82321502		\$145	1	\$145	INCL	
Keyboard Drawer (1U)	(included w/ 11910130)		\$0	1	\$0	INCL	
Rack Cabinet Side Panel Kit (44U)	82321503		\$245	1	\$245	INCL	
Rack Cabinet Filler Panel (3U)	82321204		\$30	6	\$180	INCL	
Rack Cabinet Filler Panel (1U)	82321202		\$15	2	\$30	INCL	
			<b>Subtotal</b>		<b>\$296,858</b>	<b>\$14,314</b>	
<b>Server Software</b>							
Microsoft Windows NT Server 4.0 (w/ 10cal)		Microsoft	2	\$809	1	\$809	\$0
Microsoft SQL Server 6.5 w/ 5 cal		Microsoft	2	\$1,399	1	\$1,399	\$10,475
MS SQL Internet Conn. License		Microsoft	2	\$2,999	1	\$2,999	\$0
			<b>Subtotal</b>		<b>\$5,207</b>	<b>\$10,475</b>	
<b>Client Hardware</b>							
SYS: Aquanta DM/6 II, 0 Proc, 0MB Mem	CMT60072-ZFA	Unisys	1	\$343	4	\$1,372	\$3,272
PROC:1x200MHz PentiumPro/256KB Cache	PRC 6200-256	Unisys	1	\$1,087	4	\$4,348	INCL
MEM: 32 MB EDO Memory Upgrade	MPM4-32M	Unisys	1	\$244	16	\$3,904	INCL
CTRL: SVGA	PCV102-PCI	Unisys	1	\$176	4	\$704	INCL
DISK: 1.5GB Drive	HDI1600-5	Unisys	1	\$306	4	\$1,224	INCL
CDROM: Twelve Speed IDE	CDR1200-SI	Unisys	1	\$357	4	\$1,428	INCL
ETHERNET: 100Mbit/sec, PCI 32-bit	ETH101007-PCI	Unisys	1	\$156	4	\$624	INCL
ETHERNET: 10Mbit/sec, PCI 32-bit	ETH101-PCI	Unisys	1	\$153	8	\$1,224	INCL
MONITOR:14-inch Color	EVG142-COL	Unisys	1	\$341	4	\$1,364	INCL
K/B: Keyboard/Mouse/Power Cord kit	KBM104-SS	Unisys	1	\$78	4	\$312	INCL
			<b>Subtotal</b>		<b>\$16,504</b>	<b>\$3,272</b>	
<b>Client Software</b>							
Microsoft Windows NT Server 4.0		Microsoft	2	\$809	4	\$3,236	\$0
Microsoft SQL Server Programmer's Toolkit		Microsoft	2	\$499	1	\$499	\$0
Microsoft Visual C++ v.4.0		Microsoft	2	\$499	1	\$499	\$0
			<b>Subtotal</b>		<b>\$4,234</b>	<b>\$0</b>	
<b>User Connectivity</b>							
NetLux 8-Port 100TX TrueFast Ethernet Hub + 2 spares		NETLUX	3	\$595	3	\$1,785	\$0
NetLux 24-Port 10Base-T Ethernet Hub + 10% spares		NETLUX	3	\$251	300	\$75,300	\$0
			<b>Subtotal</b>		<b>\$77,085</b>	<b>\$0</b>	
			<b>Total</b>		<b>\$399,888</b>	<b>\$28,061</b>	
<b>Notes:</b>							
1. All Microsoft maintenance is covered by the maintenance cost of Microsoft SQL Server.					<b>Five Year Cost of Ownership</b> <b>\$427,949</b>		
2. 10% or minimum 2 spares are added in place of onsite service (products have a five year return-to-vendor warranty)					<b>TPC-C Throughput</b> <b>7407.05</b>		
3. Pricing: 1 - Unisys, 2 - Microsoft, 3 - Netlux					<b>\$/tpmC</b> <b>\$57.78</b>		
<b>The benchmark results and test methodology were audited by Richard Gimarc of Performance Metrics, Inc.</b>							
Prices used in TPC benchmarks reflect the actual prices a customer would pay for a one-time purchase of the stated components. Individually negotiated discounts are not permitted. Special prices based on assumptions about past or future purchases are not permitted. All discounts reflect standard pricing policies for the listed components. For complete details, see the pricing sections of the TPC benchmark specifications. If you find that the stated prices are not available according to these terms, please inform the TPC at pricing@tpc.org. Thank you.							

# NUMERICAL QUANTITIES SUMMARY

ALR Revolution Quad6 SD512  
Microsoft SQL Server 6.5

**MQTh, Computed Maximum Qualified Throughput:** **7407.05**  
 % throughput difference, reported & reproducibility runs: 1.41%

**Transaction Mix (% of Total Transactions)**

Transaction Mix	
New-Order	44.76%
Payment	43.06%
Delivery	4.05%
Stock-Level	4.06%
Order-Status	4.07%

**Response Time (seconds)**

Transaction	Average	Maximum	90th %ile
New-Order	2.00	8.37	2.73
Payment	1.83	6.29	2.54
Delivery	0.29	0.97	0.31
Stock-Level	4.48	12.54	6.20
Order-Status	2.48	11.57	3.36
Menu	0.21	1.08	0.32
Delivery (Deferred)	2.97	28.37	3.65

**Response time delay added for emulated components (seconds)**

RT Response time 0.1  
 Menu Response time 0.1

**Keying/Think Time Times (seconds)**

Transaction	Minimum	Average	Maximum
New-Order	18.00/0.00	18.02/12.07	18.48/120.51
Payment	3.00/0.00	3.02/12.03	3.54/120.53
Delivery	2.00/0.00	2.01/5.04	2.34/37.20
Stock-Level	2.00/0.00	2.01/5.06	2.20/42.73
Order-Status	2.00/0.00	2.01/10.02	2.29/95.31

**Test Duration:**

Ramp up time 1hour, 28 minutes  
 Measurement interval (M) 60 minutes  
 Transactions (all types) completed during measurement interval 992,864  
 Ramp-down time 35.5 minutes  
**Checkpointing:**  
 Number of checkpoints 2  
 Checkpoint interval 30 minutes