

Design Engineering Workstations Compared

		@Xi Computer Xi MTower workstation (one 3.4GHz Intel Core i7 2600K quad-core CPU over-clocked to 4.1GHz, NVIDIA Quadro 5000, 16GB RAM)		BOXX 3DBOXX 8550XTREME workstation (two 3.33GHz Intel Xeon X5680 six-core CPUs over-clocked to 4.2GHz, NVIDIA Quadro 5000, 24GB RAM)		Dell T5500 workstation (two 3.33GHz Intel Xeon X5680 six-core CPUs, NVIDIA Quadro 5000, 6GB RAM)		Digital Storm PROTUS 226060 workstation (one 3.33GHz Intel i7-X980 six-core CPU, NVIDIA Quadro FX 3800, 12GB RAM)		BOXX 3DBOXX 4860 Extreme workstation (one 3.33GHz Intel i7-X980 six-core CPU (over-clocked to 4.15GHz), NVIDIA Quadro 5000, 12GB RAM)		Lenovo E20 workstation (one 3.19GHz Intel i5650 dual core CPUs. NVIDIA Quadro FX 580 4GB RAM)	
Price as tested		\$4,465		\$11,396		\$9,240		\$6,545		\$6,325		\$1,224	
Date tested		4/30/11		3/20/11		1/14/11		12/13/10		11/14/10		9/15/10	
Operating System		Windows XP	Windows 7 64-bit	Windows XP	Windows 7 64-bit	Windows XP	Windows 7 64-bit	Windows XP	Windows 7 64-bit	Windows XP	Windows 7 64-bit	Windows XP	Windows 7
SPECviewperf	higher												
3dsmax-04		n/a	89.36	95.97	95.44 ¹	76.05	78.72	88.15	87.07	n/a	90.25	66.73	64.98
catia-02		n/a	121.7 ¹	120.44	121.1 ¹	98.48	100.25	75.35	84.85	n/a	115.36	68.28	63.79
ensight-03		n/a	131.19 ¹	132.41	130.13 ¹	118.29	121.70	62.22	58.33	n/a	120.41	45.79	43.40
maya-02		n/a	465.88	529.89	476.95 ¹	490.95	435.44	174.45	218.33	n/a	458.21	185.81	157.57
proe-04		n/a	128.25	113.84	113.24	92.19	90.61	83.16	77.29	n/a	114.34	64.08	59.17
SW-01		n/a	239.78	221.31	214.06	180.49	169.75	174.74	157.70	n/a	233.03	97.07	89.67
tcvis-01		n/a	97.45	98.58	94.17	93.99	90.34	40.16	37.36	n/a	95.26	23.66	23.00
ugnx-01		n/a	88.87	89.32	86.90	89.31	87.95	37.46	35.49	n/a	88.75	23.15	16.93
SPECcapc SolidWorks	lower												
Score	seconds	n/a	n/a	106.56 ¹	n/a	146.86	n/a	106.51 ¹	n/a	n/a	n/a	153.29	n/a
Graphics	seconds	n/a	n/a	35.33 ¹	n/a	58.42	n/a	32.17 ¹	n/a	n/a	n/a	58.71	n/a
CPU	seconds	n/a	27.48 ¹	25.99 ¹	n/a	32.27	n/a	26.87 ¹	n/a	n/a	31.63	33.67	n/a
I/O	seconds	n/a	49.48 ¹	46.51 ¹	n/a	60.76	n/a	47.99 ¹	n/a	n/a	54.68	65.44	n/a
SPECcapc SolidWorks	higher												
Score	ratio	n/a	n/a	8.23 ¹	n/a	5.32	n/a	8.04 ¹	n/a	n/a	n/a	5.21	n/a
Graphics	ratio	n/a	n/a	6.08 ¹	n/a	3.23	n/a	6.07 ¹	n/a	n/a	n/a	3.25	n/a
CPU	ratio	n/a	11.74 ¹	12.61 ¹	n/a	10.00	n/a	12.01 ¹	n/a	n/a	10.20	9.58	n/a
I/O	ratio	n/a	6.40 ¹	6.81 ¹	n/a	5.21	n/a	6.60 ¹	n/a	n/a	5.79	4.84	n/a
Autodesk Render Test	lower												
Time	seconds	n/a	49.8 ¹	34.0 ¹	19.0 ¹	42.0 ¹	28.0 ¹	53.5 ¹	46.3 ¹	n/a	39.6 ¹	222.3 ¹	203.0 ¹

Numbers in **blue** indicate best recorded results. Numbers in **red** indicate worst recorded results. 1: Hyper-threading enabled.