

Tower Workstations Compared

	@Xi Mtower PCIe one 3.5GHz Intel Core i9-9920X 12-core CPU over-clocked to 4.3GHz, NVIDIA Quadro RTX5000, 32GB RAM, 512GB SSD	Lenovo ThinkStation P520 one 4.0GHz Intel Xeon W-2125 quad-core CPU, NVIDIA Quadro P4000, 16GB RAM, 512GB SSD	Dell Precision 7820 two 3.0GHz Intel Xeon Gold 6148 20-core CPU, NVIDIA Quadro P4000, 96GB RAM, 500GB SSD, 2TB SATA HD	Dell Precision 7920 Rackmount two 3.0GHz Intel Xeon Gold 6136 12-core CPU, NVIDIA Quadro P5000, 64GB RAM, 1TB SSD, 1TB SATA raid array	HP Z2 Small Form Factor G4 one 3.8GHz Intel Xeon E-2174G quad-core CPU, NVIDIA Quadro P1000, 32GB RAM, 256GB Z Turbo SSD, 1TB SATA HD	Origin PC M-Class one 3.7GHz Intel Core i7-8700K 6-core CPU over-clocked to 4.9GHz, NVIDIA Quadro P5000, 64GB RAM, 512GB SSD, 3TB SATA HD
Price as tested	\$6,400	\$2,825	\$12,582	\$12,702	\$1,949	\$5,365
Date tested	2/28/19	7/18/18	7/15/18	7/15/18	8/26/18	5/18/18
Operating System	Windows 10 Home	Windows 10 Home	Windows 10 Home	Windows 10 Home	Windows 10 Pro	Windows 10 Home
SPECviewperf 12 (higher is better)						
3dsmax-05	230.38	130.05	126.73	137.98	60.53	150.40
catia-04	205.71	157.41	131.31	183.62	62.60	206.44
creo-01	145.05	120.87	88.98	119.95	66.38	169.24
energy-01	22.95	12.76	12.01	16.24	4.46	18.64
maya-04	161.78	122.76	76.95	110.69	53.41	134.99
medical-01	93.89	55.59	52.59	79.75	18.03	79.37
showcase-01	139.17	74.75	80.13	102.97	24.96	103.99
snx-02	309.05	260.35	150.05	210.35	59.36	218.72
sw-03	190.25	180.65	117.99	184.45	103.80	212.00
SPECapc SOLIDWORKS 2015 (higher is better)						
Graphics Composite	5.09	4.55	4.38	4.83	4.17	5.86
Shaded Graphics Sub-Composite	3.40	3.07	2.90	3.28	3.13	3.91
Shaded w/Edges Graphics Sub-Composite	4.26	3.79	3.73	4.11	4.05	4.95
Shaded using RealView Sub-Composite	3.83	3.43	3.27	3.68	3.46	4.38
Shaded w/Edges using RealView Sub-Composite	4.25	3.83	3.85	4.16	3.92	4.92
Shaded using RealView and Shadows Sub-Composite	4.36	3.95	3.71	4.07	3.87	5.02
Shaded with Edges using RealView and Shadows Graphics Sub-Composite	4.47	4.05	4.02	4.34	4.08	5.21
Shaded using RealView and Shadows and Ambient Occlusion Graphics Sub-Composite	13.58	11.50	10.57	12.38	6.03	14.60
Shaded with Edges using RealView and Shadows and Ambient Occlusion Graphics Sub-Composite	12.57	10.93	10.56	11.91	6.75	13.94
Wireframe Graphics Sub-Composite	3.66	3.45	3.25	3.35	3.89	4.58
CPU Composite	4.50	2.95	3.75	4.07	2.53	3.87
SPECwpc v2.0 (higher is better)						
Media and Entertainment	5.92	3.65	5.21	6.27	2.42	4.93
Product Development	5.43	3.09	6.74	6.35	2.24	4.88
Life Sciences	6.43	3.61	10.09	9.93	2.25	5.65
Financial Services	10.75	3.67	24.35	17.73	3.56	6.14
Energy	6.53	1.65	9.31	9.52	2.40	7.48
General Operations	1.90	1.51	1.47	1.86	1.11	1.91
Time						
Autodesk Render Test (in seconds, lower is better)	23.80	61.60	28.30	29.60	45.10	28.80

Numbers in blue indicate best recorded results. Numbers in red indicate worst recorded results.