

# Workstations Compared

	<b>BOXX APEXX S3</b> one 3.70GHz Intel Core i7-8700K 6-core CPU over-clocked to 4.8GHz, NVIDIA Quadro P4000, 32GB RAM, 512GB SSD	<b>Lenovo ThinkStation P320 Tiny</b> one 2.90GHz Intel Core i7-7700T quad-core CPU, NVIDIA Quadro P600, 16GB RAM, 512GB SSD	<b>HP Z2 Mini G3</b> one 3.2GHz Intel Core i7-6700 quad-core CPU, NVIDIA Quadro M620, 32GB RAM, 250GB SSD and 1TB SATA HD	<b>Lenovo ThinkStation P410</b> one 3.6GHz Intel Xeon E5-1650 v4 6-core CPU, NVIDIA Quadro M4000, 16GB RAM, 1TB SATA SSD HD	<b>Dell Precision 3620</b> one 4.0GHz Intel Core i7-6700K quad-core CPU, NVIDIA Quadro M4000, 32GB RAM, 512GB PCIe SSD and two 1TB SATA drives in RAID 0 array	<b>BOXX APEXX 2 2402</b> one 4.0GHz Intel Core i7-6700K quad-core CPU cover-clocked to 4.4GHz, NVIDIA Quadro M5000, 16GB RAM, 800GB PCIe SSD
Price as tested	\$4,498	\$1,479	\$1,698	\$2,515	\$2,860	\$5,806
Date tested	11/30/17	9/8/17	1/20/17	10/26/16	8/5/16	1/30/16
<b>Operating System</b>	<b>Windows 10</b>	<b>Windows 10</b>	<b>Windows 10</b>	<b>Windows 10</b>	<b>Windows 10</b>	<b>Windows 10</b>
SPECviewperf 12 (higher is better)						
3dsmax-05	140.20	30.87	33.19	n/a	n/a	n/a
catia-04	170.48	40.37	33.97	89.66	86.07	133.05
creo-01	148.65	41.63	36.68	76.93	72.47	108.03
energy-01	12.62	0.41	0.63	6.34	6.33	11.44
maya-04	120.80	37.07	29.95	63.31	69.94	101.53
medical-01	56.17	12.24	10.74	26.62	26.54	45.12
showcase-01	82.78	16.32	19.63	46.58	45.77	60.37
snx-02	159.37	36.04	28.29	125.39	72.93	121.01
sw-03	196.79	63.53	57.90	106.37	108.73	158.22
SPECapc SOLIDWORKS 2015 (higher is better)						
Graphics Composite	6.25	2.59	2.51	8.08	8.23	7.65
Shaded Graphics Sub-Composite	4.53	1.99	2.04	4.87	4.95	4.19
Shaded w/Edges Graphics Sub-Composite	5.55	2.46	2.58	5.97	6.36	5.57
Shaded using RealView Sub-Composite	5.51	2.17	1.94	6.43	6.35	5.45
Shaded w/Edges using RealView Sub-Composite	5.93	2.60	3.33	9.99	10.19	9.01
Shaded using RealView and Shadows Sub-Composite	5.82	2.25	1.73	7.23	7.07	6.77
Shaded with Edges using RealView and Shadows Graphics Sub-Composite	6.22	2.55	2.84	10.47	10.57	10.29
Shaded using RealView and Shadows and Ambient Occlusion Graphics Sub-Composite	10.77	3.97	2.21	16.01	15.04	14.87
Shaded with Edges using RealView and Shadows and Ambient Occlusion Graphics Sub-Composite	11.93	4.49	3.37	22.75	21.89	21.17
Wireframe Graphics Sub-Composite	4.67	2.05	3.46	3.26	3.88	4.19
CPU Composite	4.27	1.67	2.78	5.08	4.96	6.09
SPECowpc v2.0 (higher is better)						
Media and Entertainment	4.91	1.44	2.53	2.84	3.22	3.52
Product Development	4.65	1.36	2.40	2.79	2.75	3.06
Life Sciences	5.24	1.39	2.59	3.03	3.25	3.65
Financial Services	6.07	1.70	3.11	4.60	1.40	1.54
Energy	4.91	1.10	1.97	3.11	2.77	3.17
General Operations	2.33	0.86	1.47	1.14	1.58	1.99
Time						
Autodesk Render Test (in seconds, lower is better)	33.40	109.90	62.40	50.10	58.20	41.70

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