Hardware Notes - Creo 4.0

Parametric, Direct, Layout, Schematics, Options Modeler, Simulate

Last updated: December 1, 2020

- **Platform Support**

- **System Requirements**

- **Graphics Information**

- **Certified and Supported Graphics Cards**

- **Desktop Virtualization Environment Support**

- **Supported Peripherals and Accessories**

- **Supported MCAD Systems**

- **Supported Finite Element Solvers**

- **Platform Support for Data Exchange**

Platform Support		
Partner	Operating System	Operating System levels
Microsoft	Windows 10 Pro 64-bit Edition[4] Windows 10 Pro for Workstations 64-bit Edition[4] Windows 10 Enterprise 64-bit Edition[4]	Version 1803 Version 1809 Version 1909 Version 2004 Version 20H2
	Windows 10 Enterprise LTSB/LTSC 64-bit Edition[4]	Version 1507 RTM Version 1607 Version 1809
	Windows 8.1 64-bit Edition Windows 8.1 Pro 64-bit Edition	Base OS, Update (KB 2919355) All Microsoft Required Updates Installed.[2]
	Windows 7 Professional 64-Edition Windows 7 Ultimate 64-Edition Windows 7 Enterprise 64-Edition	Service Pack 1 All Microsoft Required Updates Installed.[2]
	Windows Server 2019[1]	Base OS
	Windows Server 2016[1]	Base OS
	Windows Server 2012 R2 64-bit Standard Edition[1]	Base OS

NOTES
1. Windows Server 2012 R2 (M050 and higher), 2016 and 2019 are supported in Batch Mode only and are NOT supported for Creo Schematics.
2. Creo 4.0 M010 and later requires all required Microsoft updates to be installed on Windows 7 and 8.1.
3. The Creators update requires the latest Microsoft Windows 10 cumulative update. Please refer to this PTC Technical Support Article for more information.
4. PTC has not tested and does not support the Resilient File System (ReFS) with Creo.

System Requirements		
	Operating System	**Recommended amount**
Main Memory (RAM)	Windows 10 64-bit	4GB or higher
	Windows Server 2012 R2	4GB or higher
	Windows 8.1 64-bit	4GB or higher
	Windows 7 64-bit	4GB or higher
Internal Browser Support	One of the following: • Microsoft Internet Explorer 11.0 • Embedded Chromium Browser	
Browser Support for PTC Creo 4.0 Help Center	PTC Creo Help supports Internet Explorer 9.0 and later, and Mozilla Firefox 10.0.1 and later. The Help Center opens in your default browser.	
Monitor	1280 x 1024 (or higher) resolution support with 24-bit or greater color	
Network	Microsoft TCP/IP Ethernet Network Adapter	
Mouse	Microsoft-approved 3-button mouse	
File systems	NTFS - Universal Naming Convention (UNC)[2]	
Misc.	DVD drive	

NOTES
2. PTC does not test any specific technologies which provide UNC support (Samba, DFS, WebDAV, NAS appliances, etc.)

Graphics Information

For 3D-hardware acceleration, an OpenGL graphics card must be used that has been tested in a PTC-certified configuration. To ensure the compatibility of a graphics driver with Creo 4.0, a PTC certified or supported hardware configuration is recommended. Graphics cards that support at least OpenGL 4.0 are recommended for Creo 4.0.

PTC recognizes that customers can benefit from using latest graphics driver and performance optimizations and improvements made by PTC's Graphics Hardware Partners. With new workstations being continuously certified by PTC, the most current graphics drivers used in the

certification process can now be re-applied to previously certified configurations, as long as the configuration belongs to the same combination of workstation and graphics hardware families.

Support for High DPI Monitors

Support for High DPI Monitors has been enabled in Creo 4.0 M010 and later.

Dual Monitor Support

Limited dual monitor support is provided in Creo 4.0. PTC has successfully performed limited testing of some graphics card models from AMD and NVIDIA that support dual monitor capabilities. If your graphics card is certified for Creo 4.0 and provides dual monitor support**, PTC expects that it will run in this mode without issue. PTC will provide limited support to resolve issues arising when running in dual monitor mode, however, the entire solution will not be submitted for formal certification as a complete configuration.

In the event that dual monitor mode fails, we advise use of Span mode as a workaround.

**Consult with AMD, NVIDIA, or the hardware platform partner to confirm the availability of this functionality with a given graphics card that has been certified with Creo 4.0.

Certified and Supported Graphics Cards

PTC provides Customer Support for all certified and supported graphics cards. Graphics cards are part of a fully-certified or supported configuration (such as a workstation model, operating system, graphics card, graphics card driver).

PTC does not certify or support graphic cards independently from the configurations in which they are certified or supported. Refer to the official PTC Platform Support web page for specific hardware partners and available configurations.

Additional certified and supported workstation hardware information will be added to the PTC Platform Support web page as our hardware partners complete certifications in preparation for production Creo 4.0 shipment.

Creo Simulation Live requires a NVIDIA GPU with CUDA Compute Capability >= 3.0, Video RAM >= 4GB and Windows NVIDIA driver version >= 418.96 for Creo 4.0 M130+ or >= 391.29 for Creo 4.0 M120 or earlier. You may check your hardware compatibility using the PTCHardwareCheck tool available for download at PTC.COM

Workstation Vendor	Certified and Supported Graphics Cards		
	AMD (ATI)	NVIDIA	INTEL
Dell	Yes	Yes	No
Cisco	No	Yes	No
Fujitsu	Yes	Yes	No
HP	Yes	Yes	Yes
HPE	No	No	Yes
IBM	No	Yes	No
Lenovo	Yes	Yes	Yes
Microsoft	No	No	Yes
Toshiba	No	Yes	No

Desktop Virtualization Environment Support

PTC supports the following PTC Creo Applications to work in Virtualized Desktop Environments:-

- PTC Creo 4.0 Parametric
- PTC Creo 4.0 Direct
- PTC Creo 4.0 Layout
- PTC Creo 4.0 Simulate
- PTC Creo 4.0 Options Modeler

Refer to the official PTC Platform Support web page for specific hardware partners and available configurations.

Supported Peripherals and Accessories

3D Controllers for Creo 4.0		
Please refer to http://www.3dconnexion.com/service/drivers.html for specific driver information. Using the latest driver provided by 3DConnexion is fully supported by PTC.		
Device	**3DxSoftware version**	**Status**
SpaceMouse® Enterprise	10.4.9 or later	**Certified**
SpacePilot® Pro	10.4.9 or later	**Certified**
SpaceMouse® Pro Wireless	10.4.9 or later	**Certified**
SpaceMouse® Pro	10.4.9 or later	**Certified**
SpaceMouse® Wireless	10.4.9 or later	**Certified**
SpaceNavigator® for Notebooks	10.4.9 or later	**Certified**
SpaceNavigator®	10.4.9 or later	**Certified**
CadMouse	10.4.9 or later	**Certified**
Plotters and Printers		
Creo 4.0 supports HPGL, HPGL/2 and PostScript standard plotting formats. In addition, Creo 4.0 supports the Microsoft Print Manager. **Emulation** Various manufacturers produce printers and plotters that may be compatible with or emulate a device that use a format which is supported by PTC. Most devices are not specifically tested by PTC and therefore, may not produce correct plotted output. PTC Technical Support will attempt to provide support for any printer which is using a standard supported format, but only to the extent of verifying the output to a previously tested and readily available printer. Any support pertaining to the correctness of emulation can only be made by the manufacturers of the device in question, and not by PTC. The Microsoft Printer Manager creates an emulation of what appears on the screen and attempts to print this. Since this emulation is between the Print Manager driver and the printer/plotter driver, quality and results may vary.		
3D Printers		
To speed up the development of Additive Manufacturing functionality, PTC is partnering with Stratasys, a manufacturer for 3D printing equipment, to streamline 3D printing workflows by using direct interaction between PTC Creo and supported Stratasys 3D printers. Support for additional printers is planned.		
Objet500 Connex3	Certified	

Objet Studio 9.2.11.6581 prerequisite.	

Supported MCAD Systems

You can integrate several MCAD systems with Creo 4.0

Platforms	Creo Elements/Direct (all languages)	CATIA (English only)	Unigraphics (English only)
64-bit Windows 7, 8.1 and 10.0	18.1	n/a	NX7

Supported Finite Element Solvers

You can integrate several Finite Element Solvers with Creo 4.0 for use in FEM mode. The following table lists the supported Finite Element Solvers and platforms.

Platforms	NASTRAN	ANSYS
64-bit Windows 7, 8.1 and 10.0	2012	18.0

Platform Support for Data Exchange

Processor	Format	Import / Export	Platform Windows 64-bit
Image Formats			
BMP	*.bmp – Edit via Image Editor, used in style feature as trace sketch, export parts and assemblies via Distributed Pro/BATCH	I/E	Yes
EPS	*.eps – Save a Copy of parts and assemblies, export parts and assemblies via Distributed Pro/BATCH	E	Yes
GIF	*.gif – import via Image Editor, used in style feature as trace sketch	I	Yes
HDR	*.hdr – import via Image Editor	I	Yes
JPEG	*.jpg – Edit via Image Editor, used in style feature as trace sketch, Save a Copy of parts and assemblies, export parts, assemblies and drawings via Distributed Pro/BATCH	I/E	Yes
PDF	*.pdf – Save a Copy of parts, assemblies and drawings, export parts and assemblies via Distributed Pro/BATCH	E	Yes
Picture	*.pic – Save a Copy of parts, assemblies and drawings	E	Yes
PNG	*.png – Edit via Image Editor, used in style feature as trace sketch	I/E	Yes
PTC Bumpmap	*.tx1 – Edit via Image Editor	I/E	Yes
PTC Color Texture	*.tx4 – Edit via Image Editor, used in style feature as trace sketch	I/E	Yes

PTC Decal	*.tx3 – Edit via Image Editor, used in style feature as trace sketch	I/E	Yes
PTC Image	*.imf – Edit via Image Editor, used in style feature as trace sketch	I/E	Yes
RGB	*.rgb – Edit via Image Editor, used in style feature as trace sketch	I/E	Yes
RLA	*.rla - Edit via Image Editor, used in style feature as trace sketch	I/E	Yes
Session Texture	*.mem – Import via Image Editor	I	Yes
Shaded Image	*.shd – Edit via Image Editor, Save a Copy of parts and assemblies	I/E	Yes
SHIMA-SEIKI	*.pic – Edit via Image Editor, used in style feature as trace sketch	I/E	Yes
TGA	*.tga – Edit via Image Editor, used in style feature as trace sketch	I/E	Yes
TIFF	*.tif – Edit via Image Editor, used in style feature as trace sketch, Save a Copy of parts, assemblies and drawings, export parts and assemblies via Distributed Pro/BATCH	I/E	Yes
2D Formats			
Adobe Illustrator	*.ai	I	Yes
CGM	*.cgm	I/E	Yes
DWG	*.dwg	I/E	Yes
DXF	*.dxf	I/E	Yes
IGES	*.igs	I/E	Yes
Medusa	s.* – Format generated by UNIX on export *.she – Format generated by Windows on export *.asc – (import)	I/E	Yes
PDF	*.pdf – Direct drawing export	E	Yes
Creo View	*.ed (structure) & *.plt (drawing) *.edz (compressed structure and drawings) *.pvs (structure) & *.plt (drawing) *.pvz (packaged structure and drawings)	E	Yes
STEP	*.stp – (import/export) *.step – (import)	I/E	Yes
Stheno	*.tsh	I/E	Yes
3D Formats			
ACIS	*.acs	I/E	Yes
Autodesk Inventor	*.iam, *.ipt	I	Yes
CATIA V4	*.model – (import/export) *.exp, *.session – (import) Requires PTC Creo CATIA V4 Collaboration Extension license for export and update	I/E	No
CATIA V5	*.CATPart *.CATProduct *.cgr - Facet Only Requires PTC Creo CATIA V5 Collaboration Extension license for export and update	I/E	Yes
DWG	*.dwg – import with embedded ACIS, export facet geometry	I/E	Yes
DXF	*.dxf – import with embedded ACIS, export facet geometry	I/E	Yes
Granite	*.g	I/E	Yes
JT	*.jt Requires Interface for JT license	I/E	Yes
IBL	*.ibl	I	Yes
ICEM	*.icm	I	Yes
IGES	*.igs – (import/export) *.iges – (import)	I/E	Yes
Neutral	*.neu	I/E	Yes
Optegra visualize	*.gbf Facet Only	E	Yes
Parasolid 3D	*.xmt, *.xmt_txt, *.x_t, *.xmt_neu, *.x_n *.xmt_bin, *.x_b – (import) *.x_t – (export)	I/E	Yes
PDF	*.pdf – Direct model export	E	Yes
Points	*.pts	I	Yes
Creo View	*.ed (structure) & *.ol (models) *.edz (compressed structure and models) *.pvs (structure) & *.ol (models) *.pvz (packaged structure and models)	I/E	Yes
Render	*.slp – Facet Only	E	Yes
Rhino	*.3dm	I	Yes

SolidEdge	*.par, *.asm.	I	Yes
SolidWorks	*.sldprt, *.sldasm.	I/E	Yes
STEP	*.stp – (import/export) *.step – (import)	I/E	Yes
STL	*.stl – Facet Only	I/E	Yes
U3D	*.u3d	E	Yes
Unigraphics	*.prt (UG format) Requires PTC Creo UG/NX Collaboration Extension license for export and update	I/E	Yes
VDA	*.vda	I/E	Yes
VRML	*.wrl – Facet Only	I/E	Yes
Wavefront	*.obj	I	Yes
ECAD Formats			
Allegro	*.mdb – For board outline files *.mdc – For component placement files *.mdf – For footprint files, such as the ones in component outline libraries	I/E	Yes
DAZIX	*.edn – Neutral file of the board outline and component placement. Dazix refers to this as a core file. *.edp – Profile file that contains component outlines. Dazix refers to this as a library file	I/E	Yes
EDMD	*.idx	I/E	Yes
IDF	*.emn – (import/export) *.emp – library file (import)	I/E	Yes
Neutral	*.nwf	I/E	Yes
Creo Schematics	*.xml	I	Yes
Visula	*.evs	I/E	Yes
NOTES			
Object Linking and Embedding (OLE) may provide additional format support but is dependent on operating system, installed software components, and third-party support for OLE.			