

# PTC X/Server™

## Easily Accomplish all your UNIX/Windows OS Integration Tasks

In a world of heterogeneous IT environments, the need for a high-performance, transparent PC X server that delivers seamless integration between the Windows® desktop and the UNIX/Linux server is critical. PTC X/Server is designed to be the ideal solution for interoperability of PCs and UNIX/Linux systems utilizing the most recent standards and provides ease of usability and flexibility that users and enterprise system administrators require.

PTC X/Server operates on Windows Desktop (32 and 64) and Windows Server (64 bit) platforms. PTC X/Server is available separately, or as a great companion to PTC MKS Toolkit products.

### PTC X/Server Features:

- Full X11R7.6 server with GLX 1.4 support for displaying sophisticated 3D imaging applications on a Windows PC. Provides greater user control over Pixel Format to VisualMapping. No additional 3D license is needed
- Remote Environment Support including Citrix, Microsoft Terminal Services and Remote Desktop environments
- 3Dconnexion Spaceball 5000 and SpaceMouse Plus support
- Multiple simultaneous color depths
- X Keyboard Mapper Enhanced XDMCP implementation for easy connection over VPN
- Cut and paste between UNIX/Linux and Microsoft® Windows applications
- IPV6 support
- 32 and 64-bit X Servers on the same CD image
- Choice of Microsoft, local OSF/Motif or third party (mwm, olwm, twm) window manager
- Intelligent color matching between X and Windows applications
- VT420, WYSE 60, and ANSI terminal emulation over SSH, telnet and other transports
- UNIX/Linux Neighborhood browser
- Multi-monitor support
- Graphics Optimizer maximizes the power of your hardware
- Direct Rendering support – enables applications migrated with PTC MKS Toolkit for Enterprise Developers (both 32 and 64-bit editions), and using the PTC NuTCRACKER Platform to boost performance by communicating directly with the Windows OpenGL libraries
- Many simultaneous Truecolor, Pseudocolor, Greyscale and StaticGrey visuals with overlay/underlay planes (depending upon underlying graphics hardware support)

“There is a remarkable performance improvement using Mentor Graphics tools with PTC X/Server as compared to X-Win32. Not sure what you’re doing, but it’s working.”

Raytheon Missile Systems

### PTC X/Server Font Support

- X Font Compiler
- Powerful font substitution (interactive or automatic) with font preview facility
- MIT 75dpi, 100dpi, HP, Andrew, Asian, Hangul and Siemens fonts supplied
- Windows TrueType/OpenType fonts can be used seamlessly with X11 fonts and connection to a font server for share network font repository

## Secure Shell Support

SSH is a secure replacement for older TCP protocols that provides greater security and full support for password-less authentication and other modern authentication methods like RSA/DSA keys and smart cards as well as allowing an established connection to tunnel other protocols (such as X11). Support for SSH-enabled transports is fully integrated in PTC X/Server's terminal emulators, Remote Program Starter, and UNIX Neighborhood. When an SSH-enabled transport is used, PTC X/Server first tries to connect using SSH and if that fails, it falls back to using an insecure method (for example, telnet). As a result, you can connect to both pre-SSH machines and SSH-capable machines.

## Plug-and-Play X

PTC X/Server is true plug-and-play X, with a powerful UNIX/Linux application wizard to guide the user seamlessly through the connection process of starting X- or character-based applications.

Unix Neighborhood provides a powerful, transparent natural extension to the Windows Explorer, making UNIX/Linux files as accessible as Windows files.

## Exceed File Compatibility

Remote Program Starter (RPS) will read and use Hummingbird Exceed .xs files. You can place such files directly in a RPS command line or you can read them into RPS, modify them, and save them as .rps files. Additionally, if you desire, you can associate .xs files with rps.exe with the command line: `assoc .xs="Rps.Document.l"`

## Beyond Connectivity

PTC has focused on integration, not simply connectivity. PTC X/Server has a number of features to harmonize the worlds of Windows and UNIX/Linux operating systems.

The world of UNIX/Linux technology becomes accessible to the Windows user through the UNIX/Linux Neighborhood browser, which has an identical interface to the Network Neighborhood. This allows drag-and-drop file transfer between

UNIX/Linux and Windows systems without any additional learning requirements.

At the click of a local application icon on your desktop, the PTC X/Server can be launched and

### At a glance

#### PTC X/Server Security Options:

- Secure Shell 2 Support included (SSH)
- FTP and secure FTP clients

#### PTC X/Server Supported X Extensions:

- BIG-REQUESTS
- DAMAGE
- DOUBLE-BUFFER
- GLX
- Composite
- MIT-SHM
- ACE
- RANDR
- RENDER
- Generic Event Extension
- SECURITY
- SGI-GLX
- SHAPE
- SYNC
- XC-MISC
- XFIXES
- XInputExtension
- XKEYBOARD
- XTEST

connect to a UNIX Server (even over VPN or the Internet) over SSH, tunnel, X11 back to your local machine and display the XClient right on your desktop.

## Error-Free Installation

PTC X/Server uses Windows Installer technology to ensure secure, bulletproof, compliant installs that work every time. Windows Installer technology implies the ability to do silent, administrative, and customized installations on one or all machines on your network with familiar ease.

The installer will detect and allow you to configure the Windows firewall to allow incoming X11 connections.

Minor updates and fixes are delivered in Windows Installer patch format and can be applied to admin images or delivered in an automated fashion.

The PTC X/Server installation files (and all delivered binaries) are digitally signed for your peace of mind. You always know that they came from PTC unmodified and are the genuine, virus-free packages.

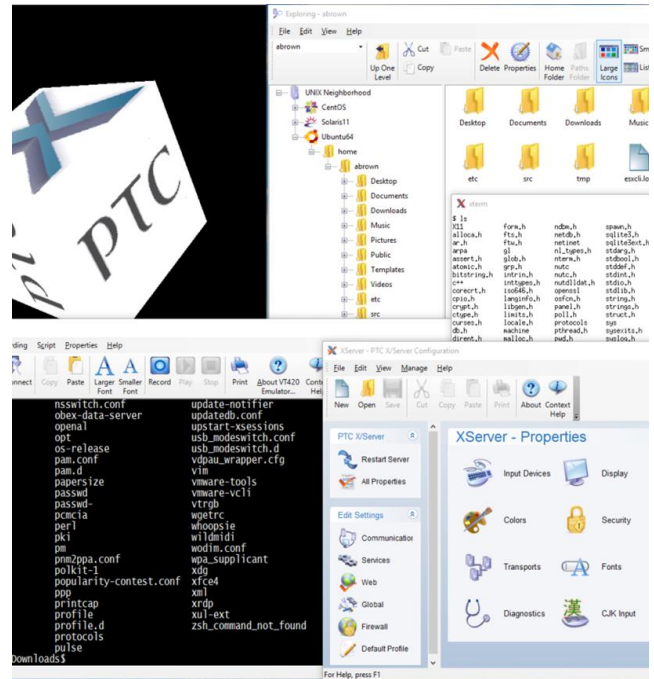
PTC X/Server installation auto-senses if it is being installed on an x86 (and hence installs the 32-bit X Server) or an x64 machine (and hence installs the native 64-bit X Server). No more hassles with multiple install media for different architectures. This all-in-one smart installer looks after delivering the correct binaries.

After installation, the users may choose to run the UNIX/Linux application wizard which will guide them through their first and subsequent connections to the UNIX/Linux servers. The wizard automatically detects and lists available hosts on the network and prompts the user to select one. The user then either enters the application they wish to start or browses the UNIX/Linux file system to find it. The application is then stored as a UNIX/Linux program on the Windows Start menu.

## Highest Performance PC X Server

PTC X/Server automatically configures itself to deliver the highest performance possible for each PC. At installation time, it advises on how to best utilize the full power of an individual PC's hardware by having the graphics optimizer benchmark several different drawing methods and recommending the best one. The graphics resource cache provides further performance gains by eliminating unnecessary access to the server, for example there is no need to open a new brush if one is already open in the cache.

The innovative asynchronous communications feature of PTC X/Server ensures optimum use of a PC's resources by executing operations concurrently.



PTC X/Server's user interface makes it easy to accomplish all your UNIX/Windows integration tasks

## The Power of UNIX on Windows

Mixed environments can make for headaches, but diversity also does some good. Oftentimes, instead of choosing between Windows and UNIX/Linux, organizations are opting for a mix of the two operating systems. Scripting becomes more universal with the availability of PTC MKS Toolkit products which host traditional UNIX tools on Windows. PTC MKS Toolkit for Interoperability provides the power of the PTC MKS Toolkit product with the new PTC X/Server, providing full automation and scripting capabilities, remote access, remote system administration, interconnectivity and file sharing.

Furthermore, PTC MKS Toolkit for Enterprise Developers allows you to port X11 applications to Windows and the PTC MKS Toolkit is available for redistribution with PTC ported applications. Such applications communicate with PTC X/Server using a fast, local transport (AF\_UNIX) for added performance. Of course, the application can remain on UNIX/Linux and be rendered using IPv4 or IPv6 TCP connections. For instance, PTC X/Server works with Subsystem for Linux Applications. Just like running a X11 client over the network, it can be run inside a Linux subsystem on Windows 10. The client and display run on the same machine but communicate over the network.

## Future-Proofing

PTC X/Server has been designed not only to match the future needs of corporate IT infrastructures, but also to optimize the IT infrastructures and investments of the past.

It is crucial to allow integration of legacy applications into an infrastructure while allowing the development of future strategies. PTC X/Server is consistent in

its treatment of technology. Character-based legacy applications can be used in one of the terminal emulators provided (VT420 and subsets, WYSE 60 and subsets, and SCO ANSI). For backwards X compatibility, PTC X/Server offers X11R3 bug compatibility

For more information, visit the [PTC X/Server webpage](#).

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## At a glance

The next generation PC X Server, PTC X/Server includes the following X-Windows porting and integration features:

- Secure Shell 2 support included (SSH)
- FTP and secure FTP clients
- OpenGL/GLX 1.4 support for displaying sophisticated 3D imaging applications on a Windows PC
- Remote environment support including Citrix, Microsoft Terminal Services and Remote

### Standards:

- Full X11R7.6 compliance
- Native Windows (32-bit and 64-bit client)
- Winsock 2.0 compatible
  - IPV4
  - IPV6
  - AF\_UNIX support with MKS NuTCRACKER platform

### System requirements:

- For X/Server v10.1
  - x86 & x64 PCs running Windows Vista thru Windows 10
  - Server 2008R2 thru Server 2016 (x64 only)
- For X/Server v 10.2
  - Windows 7 thru Windows 10
  - Server 2012 thru Sever 2016 (x64 only)
- Typical installation requires 40Mb of disk space