PTC MKS Toolkit 10.2 and PTC X/Server 10.2

PTC announces the releases of:

- PTC MKS Toolkit 10.2 leader in UNIX to Window scripting, connectivity, and application migration;
- PTC X/Server 10.2, provides secure, seamless access to character and X-based UNIX applications from the Windows desktop.

PTC MKS Toolkit for Developers is an award winning and industry-leading Windows/UNIX interoperability solution that dramatically improves the compatibility between Windows and UNIX environments. It enables developers and system administrators to customize, control, and automate their software development and administrative processes. PTC MKS Toolkit for Developers speeds the software development and administration process and reduces errors by eliminating the time spent on tedious manual tasks.

- Powerful scripting allows you to simplify and automate the execution of repetitive tasks.
- New technology integration enables you to easily control and manipulate today’s dynamic infrastructures.
- Component-based architecture provides you with the ability to easily customize a solution configured to the needs of your organization.

PTC MKS Toolkit for Enterprise Developers (formerly NuTCRACKER) is the proven solution for porting robust, mission-critical UNIX applications to Windows. No other product can match our full support for C, C++, and Fortran; for UNIX process management including fork(), signals, alarms, and threads; for file system and security management; and for curses, X, Motif, and OpenGL. And no other product matches PTC MKS Toolkit’s access to Win32 APIs for Windows integration and interoperability.

- Run UNIX applications as native Windows programs taking full advantage of COM, .NET, and other Windows features.
- Maintain a single source base across UNIX and Windows save time and money for years to come.
- Cut development time - 70%, 80%, even 90%.
- Easily deploy ported applications with built-in packaging wizard and a wide variety of UNIX runtime options.

PTC MKS Toolkit for Enterprise Developers will run on either 32-bit or 64-bit Windows systems. The application ported using PTC MKS Toolkit for Enterprise Developers will install and run on either 32-bit or 64-bit Windows systems. However, on 64-bit Windows systems the application will run as a 32-bit application.
PTC X/Server for Windows provides secure, seamless access to character and X-based UNIX applications from the Windows desktop. This allows you to leverage the benefits of new desktop platforms while connecting to UNIX applications throughout the enterprise. Because PTC X/Server is a Windows X Server containing a rich feature set that is easy to use, users can optimize their personal computing environments while minimizing their overall cost of ownership over time.

MKS Toolkit 10.2 and X/Server are available to customers with current support by requesting an upgrade from https://www.mkssoftware.com/support/upgradeform.asp.

### Highlights of MKS Toolkit 10.2

- Security vulnerabilities addressed.
  - OpenSSL has been updated to 1.0.2q.
  - OpenSSH has been updated to 7.8p1.
  - Net-SNMP has been updated to version 5.8.
  - libexpat has been updated to version 2.2.6.
  - sqlite3 has been updated to version 3.26.0.
  - zlib has been updated to version 1.2.11

- LLVM updated to version 6.0.1.
  - Added lld-link for better *NIX ld command line compatibility.
  - Improved .pdb debugging symbols file for Visual Studio debugging.

- Secure shell updated to OpenSSH 7.8p1.
  - Support for protocol version 1 has been dropped
  - Privilege separation can no longer be disabled.
  - Support for DSA keys is now deprecated.

  - libc/libcxx tested and updated.
  - PTC MKS Toolkit cc/ld/clang/lld-link toolsets available to vcbuild and msbuild.

- New PTC® NuTCRACKER® libraries and APIs.
  - libxml2 and utilities xmllint(1) and xsltproc(1) added
  - iconv(3) - home grown implementation added (iconv(1) uses iconv(3))
  - vis(3)/unvis(3) - BSD implementation added
  - strnlen(3)/wcsnlen(3) - BSD implementation added
  - <uchar.h> and corresponding API implementation added
  - <stdalign.h> added
  - <stdatomic> implementation added

- PTC® NuTCRACKER® heap performance improvement.
  - Added spin locks to NCCriticalSection which improves performance on multi-threaded processes – especially heap management.
• PTC® MKS Toolkit® utility code page changes.
  o PC MKS Toolkit utilities no longer set the console code page on process startup.
• Platform changes
  o Drop Windows Server 2008 and Windows Vista which allows us to use Windows 7 specific APIs.
• Installation improvements
  o First time PTC MKS Toolkit 10.2 and any subsequent patches can be installed simultaneously using instructions found here.

PTC MKS Toolkit 10.2 Release notes: https://www.mkssoftware.com/docs/rn/relnotes_tk102.asp

**Highlights of X/Server 10.2**
• Security vulnerabilities addressed
  o OpenSSL has been updated to 1.0.2q.
  o OpenSSH has been updated to 7.8p1.
• Platform changes
  o Drop Windows Server 2008 and Windows Vista which allows us to use Windows 7 specific APIs.
• Redistribution Improvements
  o Redistribution of PTC X/Server has always been limited to full CD releases, or required a great deal of manual intervention. With X/Server 10.2 we add a setup.ini, and ensured that PTC X/Server and PTC® MKS Toolkit® can install patches with first product install. This is documented here.

PTC X/Server 10.2 Release Notes: https://www.mkssoftware.com/docs/rn/relnotes_mksx102.asp

For the most up-to-date information concerning this release, or for detailed information on new features in PTC MKS Toolkit and PTC X/Server, please visit the PTC eSupport Portal. To ensure you stay fully informed of new information as it happens, we recommend you subscribe to our news & alerts feed. In the PTC eSupport Portal, navigate to Tools, then Manage Notifications. **Important Note: if you have previously subscribed, we suggest you verify the subscriptions you selected are still active.** If you have any questions, log a support case or telephone (800-477-6435).