

## MKS TOOLKIT FOR PROFESSIONAL DEVELOPERS

Organizations can no longer develop in a pure UNIX environment when customers and the marketplace are demanding multi-platform offerings. With this increased pressure on development organizations, enterprises around the world are looking for solutions that can bridge UNIX and Windows to enable them to easily provide more than a single-platform product and remain competitive.

A significant number of corporate developers are fluent in the UNIX environment, so utilities that are UNIX-based yet operate in Windows can instantly leverage the skills of UNIX-trained people onto new platforms. MKS Toolkit® for Professional Developers addresses these issues and allows organizations to standardize the development environment accordingly.

MKS Toolkit for Professional Developers is an ideal solution for the migration of the UNIX development environment, including applications, custom utilities and scripts, to Windows.

### Standardize the Development Environment

By providing a complete set of development tools as well as the ability to migrate existing custom utilities, MKS Toolkit for Professional Developers allows software developers to extend the UNIX development environment to Windows. MKS Toolkit for Professional Developers also enables organizations to easily:

- Port existing scripts, custom utilities, and non-graphical UNIX applications to Windows
- Leverage existing investments and resources
- Easily package and deploy applications
- Evolve UNIX applications with native Windows development

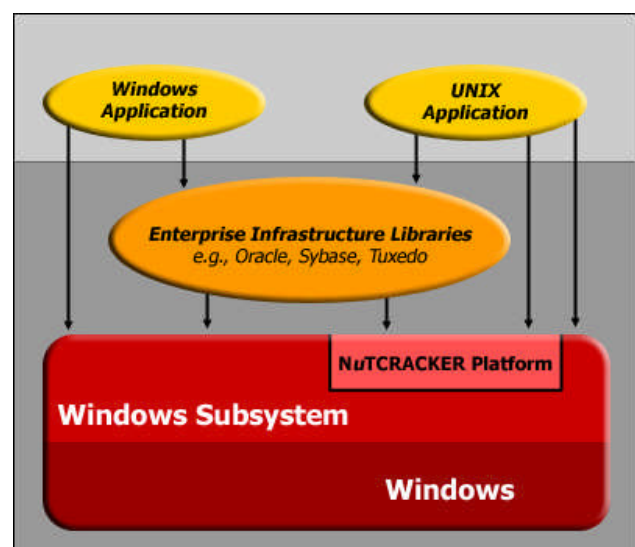
### Port Existing Applications to Windows

The numerous UNIX shell environments, including KornShell, bash and CShell, that come standard with all MKS Toolkit products, provide the ability to seamlessly port advanced UNIX scripts to the Windows environment. Including over 1500 APIs, MKS Toolkit for Professional Developers allow development organizations to migrate custom utilities, non-graphical C, C++, or FORTRAN applications to the Windows environment. POSIX compliant file and text manipulation tools like `vi`, `grep`, and `find` simplify the interoperability initiative within an organization. MKS Toolkit for Professional Developers enables users to easily and efficiently establish, maintain and customize their organization's Windows development and user environment.

### Save Time and Resources by Leveraging Existing Investments

The MKS Toolkit for Professional Developers solution offers software developers the ability to recompile and reuse UNIX source code (C, C++ and FORTRAN) to produce native Windows executables that look like, act like and interact with other Windows applications.

Further, with its intuitive interface and comprehensive set of UNIX utilities, MKS Toolkit for Professional Developers makes it easy for UNIX-trained developers to quickly become productive in the unfamiliar Windows environment.



*“Delivering UNIX-based robotics solutions has contributed to much of our success and saving time and reducing TCO is an essential requirement for our clients. Having our applications on a PC enables our clients to perform more simulations in a virtual manner, without having to go onsite. Faced with this increasing demand for PC-based products among our clients, it became apparent that a migration to the Windows platform was necessary. MKS Toolkit allowed us to do that quickly and easily.” Director of CAD & Robcad Applications — R&D Group, Technomatix.*

## Enterprise Deployment

Applications and utilities ported to Windows with MKS Toolkit for Professional Developers can be instantly deployed to any Toolkit enabled Windows machine. Further, with the Application Packaging Wizard and a wide variety of runtime options, MKS Toolkit for Professional Developers includes a complete framework for deploying ported UNIX as well as native Windows cross-platform applications. Available runtime options are:

- NuTCRACKER Workstation – a full UNIX runtime compatibility environment for workstation platforms
- NuTCRACKER Server – the server counterpart of NuTCRACKER Workstation for servers and all machines with more than two processors
- Power User Utilities – a set of UNIX utilities for runtime support of automation and scripting capabilities
- Developer Utilities – more comprehensive set of UNIX utilities for advanced support of application automation and scripting capabilities
- Connectivity Suite – a complete suite of connectivity tools and services providing runtime support for access to and from remote UNIX and Windows systems
- If you are looking to deploy graphical applications, which make use of X, Motif, OpenGL, etc., look to MKS Toolkit for Enterprise Developers in the suite of MKS Toolkit family products

## Evolution to Windows Technologies

MKS Toolkit for Professional Developers supports converting UNIX software to componentized objects that can be deployed across UNIX and Windows, integrated with desktop productivity tools (such as Visual Studio), and used from browsers in web-enabled applications.

- Integrate with Desktop Applications
- Web Enable Existing UNIX Applications
- Componentize Legacy Business Logic

- Architecture Modernization
- Component Standardization
- Create Distributed Services
- Integrate with Multiple Scripting Hosts
- Reuse Existing User Interface Technology
- Create Language Independent Applications

MKS Toolkit for Professional Developers allows users to easily run UNIX applications as native Windows programs that take full advantage of COM, .Net and other Windows constructs.

## MKS Toolkit for Professional Developers Features

- Over 1500 UNIX APIs
- Over 450 UNIX and Windows command-line utilities (full POSIX.2 specification)
- An integrated command-line build environment including utilities such as ar, cc, cxx, ld, make, lex/yacc, and flex/bison
- Process management: fork(), exec(), signals
- POSIX, DCE, and Solaris threads
- Real time application support from the Single UNIX Specification v3 such as Message Queues, Memory Locks, and Barriers

*“ We wanted a UNIX-to-Windows migration tool that would enable our UNIX engineers to capitalize on their skill set. We needed a product that would meet our quality requirements, and we were looking for an environment that would allow for a speedy introduction of new products and maximize the efficiency of post-delivery maintenance services.” Production Group Manager — Getronics Olivetti Japan*

- File system handling: mount(), umount(), symlink()
- IPC and Networking: sockets (including UNIX-domain sockets), shared memory, message queues, semaphores, and FIFOs
- UNIX to Windows file and user security mapping
- UNIX to Windows file path and file system mapping, including devices such as /dev/null and /dev/lp
- Access remote UNIX, Linux, and Windows systems with Secure Shell utilities (secsh/secshd, scp, sftp), Remote Shell utilities (rsh/rshd, rexec/rexecd, rlogin, rcp), a Telnet service (telnetd), and xterm
- MKS utilities and APIs now support multibyte/Unicode characters within file content, file and directory names, pipes, environment variables, console displays, and other areas
- Curses and terminal handling
- A powerful scheduling interface as well as a suite of command-line utilities (at, batch, crontab, taskrun, and wts) for automating routine tasks.

**MKS**  
Toolkit

## In a Nutshell

More companies are looking to standardize the development environment and empower their software developers and engineers to become more productive. MKS Toolkit for Professional Developers allows organizations to leverage existing skills and resources while increasing the productivity of individuals across multiple platforms.

Request an evaluation copy of MKS Toolkit for Professional Developers and learn more about the rest of the MKS Toolkit line of products and services by pointing your browser to [www.mkssoftware.com](http://www.mkssoftware.com)



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