

PTC® MKS Toolkit®

System Administration in Mixed Computer Environments page



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PTC MKS Toolkit allows you to set up user accounts, group associations, system permissions, end-user desktops, manage services, network mounts, the registry, monitor your system, network, and applications as well as a myriad of other system administration tasks.

User and Group Manipulation

As we all know, the Information Technology (IT) industry is plagued with a notoriously high turnover rate. Solving this problem, that's for Human Resources. Dealing with the rapid turnover, however, is a system administrator's task. Finding more efficient and automated ways to manage these user and group accounts would save enough time to allow system administrators to concentrate on the really tough issues facing IT.

Automating Installations

Deploying applications has to be one of the most time consuming processes that falls within the system administration realm. Any process or tool that can help push updates and new applications to your users desktops can only be a good thing. Did you know you could automate the installation of the PTC MKS Toolkit products themselves? Combining the power of the PTC MKS Toolkit utilities with the standard installer lets you easily deploy PTC MKS Toolkit throughout your organizations.

Synchronizing Passwords

Many system administrators have both UNIX and Windows machines to administer. Their users must access both kinds of machines, but want only one password and do not want to have to change their passwords two or more times. How important is password synchronization in a mixed environment and how can you ensure that passwords changed on either UNIX or Windows are propagated back to the other systems? PTC MKS Toolkit can help.

Simple Network Management Protocol (SNMP)

You have a managed network and have added several Windows boxes and you need them all to play well with your Network Management software. Windows comes with built in SNMP protocol support and provide some counters to permit the workstation (or server) to be considered a managed node. PTC MKS Toolkit contains a full suite of SNMP command line utilities to help you better manage your Windows machine in this environment.

Windows Management Instrumentation (WMI)

Windows Management Instrumentation (WMI), as with any COM interface, can be accessed using PTC Perl. Perl is particularly well suited as a scripting language for COM. The PTC MKS Toolkit Evaluation Guide for System Administrators has a sample of calling WMI to retrieve network adapter settings.

Setting and Implementing Corporate Standards

You have hundreds of existing users and you want to add an icon to all of their desktops; or you want to map a drive for every user logging into all machines on the network. The built-in Windows GUI tools allow you to make these kinds of modifications, but you have to visit each machine serially to affect the necessary changes. How do you make bulk edits to remote registries or user profiles? The power of PTC MKS Toolkit scripting, combined with such utilities as desktop, registry, and mount, can be used to solve large numbers of one-time or repetitive tasks.

Controlling Services

Have you ever wanted to start a service on a remote machine from the command line or a script? NET does not control remote machines. Why try to remember all the NET command options when all you need is our service command to fully manage all services locally or on a remote machine? In one script you can enumerate all the services, grep (text search) for the one you want, stop it, use registry to update the Windows registry, and restart your services.

Backups, File Archiving, and Compression

PTC MKS Toolkit provides many utilities that can be combined with the scripting capabilities of PTC MKS KornShell, PTC MKS C Shell, or Perl to create fully automated backup scripts that PTC MKS Toolkit Scheduler can run at preset times. At the heart of the PTC MKS Toolkit solution are the archiving utilities: tar, cpio, pax, and Visual Pax. An archive is a collection of files and directories that have been combined into a single file, usually for the purpose of backup or transfer. With these utilities, you can create archives of any set of files and directories and restore these archives on any Windows system as well as on many other operating systems. These utilities use standard archive formats, which makes transferring archives between operating systems a reasonably simple task. The PTC MKS Toolkit versions of these utilities (unlike other Windows-based versions) also let you preserve Windows security information while remaining 100% compatibility with standard archives. In addition, the PTC MKS Toolkit contains other utilities that can be useful when performing backups and archiving files:

- The find utility selects files and directories meeting a given criteria (such as all files changed since a given date). This makes it easy to perform selective and incremental backups.
- The dd utility can copy a disk block by block. You can use it to create an exact copy of the disk's image (also referred to as mirroring a disk).
- The mt utility can be used to pass control information to and from tape devices installed in your Windows system.
- The zip and gzip utilities are compression and file packaging tools. They are analogous to a combination of the UNIX commands tar and compress and are compatible with PKZIP (Phil Katz's ZIP for MSDOS systems). Companion programs (unzip, gunzip) unpack zip/gzip archives. The zip/gzip and unzip/gunzip programs can work with archives produced by PKZIP, and PKZIP and PKUNZIP can work with archives produced by zip/gzip.

The compression utilities are useful for packaging a set of files for distribution; for archiving files; and for saving disk space by temporarily compressing unused files or directories. The bzip2 (and corresponding bunzip2) compresses specified files using a mix of Burrows-Wheeler block-sorting and Huffman coding. This process often achieves greater compression than the more conventional approaches used by other

compression utilities. The pack (and corresponding unpack) utility compresses specified files using a Huffman minimal redundancy code on a byte basis. Huffman compression is a lossless compression algorithm that is ideal for compressing text or program files. It is most commonly used in the file formats JPEG and MPEG. The remote utilities and services (rlogin, rsh, rcp, rexec, rlogind, rshd, and rexecd) let you communicate with remote systems. You can use these utilities to back up files and directories on remote machines. Likewise, if you require a secure environment, you can use the secure utilities and services (secsh, secshd, scp, sftp, and sftp-server) for remote communications. As mentioned above, PTC MKS Toolkit Scheduler lets you schedule your backup command or script to run at desired times.

Application and Network Availability Monitoring

The AlertCentre[®] Add-on to PTC MKS Toolkit products is a complete solution for monitoring, alerting and corrective action automation scheduling. AlertCentre can monitor your mission-critical systems and applications 24 hours a day, seven days a week to provide you with the peace of mind of knowing that your network, applications, and Internet/Intranet-based information systems are running normally. Available as a download from the PTC MKS Toolkit web site and easily customized to fit your needs, the AlertCentre Add-on triggers actions to be taken upon failures or system events. Using these actions, you can alert people of failures and critical system status through e-mail, cell phone, page, SNMP trap, or another method that you've defined. AlertCentre can also trigger monitors, scripts, and programs as actions, letting you take automated corrective actions.