

WINDOWS SYSTEM RECOVERY METHODS

By Mark E. Donaldson

Software and hardware issues can affect the way that your system functions. Severe problems might prevent you from starting Windows XP Professional normally.

- Software problems: Installing incompatible software, incorrectly changing system configuration settings, or installing faulty device drivers can cause system instability or a Stop error.
- Hardware problems: Hardware that is defective, malfunctioning, incorrectly installed, or incorrectly configured can also cause instability or a Stop error.
- Other problems: Deleted or corrupted system files caused by problems such as user error or virus activity can cause data loss or prevent you from starting the operating system.

The following list lists these tools according to the preferred order of use, from tools that present little or no risk to data, to those that might cause data loss. With the exception of the Automated System Recovery (ASR) restore phase, Last Known Good Configuration, and Recovery Console, the features in the table are available in safe and normal startup modes. If the following tools and features do not resolve the problem, and you upgraded your system from an earlier version of Windows, you might have the option to uninstall Windows XP Professional.

REGISTRY

AUTOMATED SYSTEM RECOVERY (ASR)

A Backup (Ntbackup.exe) option to use when boot and system files become corrupt, preventing your system from starting in normal or safe modes, or using Recovery Console. This option is more desirable than formatting disks and reinstalling Windows because ASR restores system settings and critical files on the system and boot partitions. The user interface to ASR backup is the ASR wizard in Backup, which steps you through the process of creating an ASR backup set and an ASR floppy. Windows XP Professional Setup provides the user interface to ASR restore. Because the ASR process formats disks, consider this a last resort when using Last Known Good Configuration, Device Driver Roll Back, System Restore, or Recovery Console does not solve the problem. ASR is available in safe or normal mode.

SYSTEM RESTORE POINTS

A service for x86-based computers that actively monitors your system and records changes to the registry, to system files, and to certain application files. System Restore allows you to undo recent registry and file changes by using information previously saved in restore points. Use to restore the system to a previous state. System Restore is available in normal or safe mode.

SAFE MODE

If you are unable to start your system by using Last Known Good Configuration, Windows XP Professional provides safe mode, a startup option that disables startup programs and nonessential services to create an environment useful for troubleshooting and diagnosing problems. In safe mode, Windows XP Professional starts a minimal set of drivers that the operating system needs to function. Support for devices such as audio devices, most USB devices, and IEEE 1394 devices is disabled to

WINDOWS SYSTEM RECOVERY METHODS

By Mark E. Donaldson

reduce the variables that you need to account for when diagnosing the cause of startup problems, Stop messages, or system instability.

RECOVERY CONSOLE

A command-line environment that you can use to perform advanced troubleshooting operations. In addition to Last Known Good Configuration and safe mode, advanced users can use Recovery Console to attempt manual recovery operations.

LAST KNOWN GOOD

A startup option to use when the system cannot start in normal or safe mode following a driver or application installation that causes a problem. By using the Last Known Good Configuration, you can recover by reversing the most recent driver and registry changes made since you last started Windows XP Professional.

DEVICE DRIVER ROLLBACK

A Device Manager feature that allows you to replace an individual device driver with the previously installed version if the driver was updated after you installed Windows XP Professional. Device Driver Roll Back is available in normal or safe mode.

NT BACKUP

A tool for saving data, such as the system-state, before you troubleshoot problems, attempt workarounds, or apply updates. Backup (Ntbackup.exe) enables you to restore system settings and data if your troubleshooting attempts worsen the problem. Use in conjunction with a parallel installation to restore a system that cannot start in normal or safe modes. Backup is available in safe or normal mode.

ADD/REMOVE PROGRAMS CONTROL PANEL

A Control Panel feature you can use to uninstall programs. Use to temporarily uninstall software that you suspect is causing a problem. You can uninstall an application in normal or safe mode.