

What to Do After Your Computer Crashes

Beginners' Kaffee Klatch
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Not every Windows crash is a catastrophe. That might be difficult to remember when you switch on your computer and are confronted by an ominous error message or a blank screen instead of the Windows logo. But if you analyze what caused your system to stop working properly, you have an excellent chance of recovering quickly and completely.

In some cases, the cause is easy to pinpoint. If you install a new scanner or update a video driver and your system hangs at a blank screen when you restart, you can safely bet that the new device or driver is to blame. Error messages sometimes point directly to a file that's causing a problem. Even without a smoking gun, you can use basic troubleshooting techniques to uncover the cause of a crash.

Windows XP provides a full assortment of troubleshooting and repair options. The circumstances and severity of the problem usually dictate which tool is most appropriate.

Using Advanced Options Menu in Windows XP

If Windows hangs at startup, the first thing you should do is use the power button on your tower or its reset button (if you have one) to restart your system. In many instances, you will be up and running again after a minor glitch self-corrects.

If Windows continues to hang up at startup, you can access the Advanced Options menu by continuously tapping the F8 key the moment you power up your computer.

Safe Mode.

By tapping the F8 at startup, you probably will be able to reach the desktop by using one of the Safe Mode options. From Safe Mode, you can start and stop services, change computer settings, uninstall a program or driver that you suspect is causing your problem, or use the System Restore utility to roll back your configuration.

Windows XP gives you the option to start your system in Safe Mode if you're unable to reliably start in normal mode. In Safe Mode, Windows uses only those services and drivers that are absolutely required to start your system. The operating system starts with a minimal set of drivers and services, using a generic video driver at a resolution of 640x480, with support for your keyboard, mouse, monitor,

local hard drive, and default system services. In Safe Mode, Windows does not install support for audio devices and nonessential peripherals, including most devices connected via USB ports. (USB keyboards and mice may be used in Safe Mode if your system BIOS includes the option to recognize and enable these devices.) Windows ignores all startup programs as well in Safe Mode, whether they're specified in a startup group on the All Programs menu, in msconfig, or in the registry.

In Safe Mode, you can access most essential configuration tools, including **Device Manager** and **System Restore**. (Registry Editor and Windows Backup are also available, but it is generally advised that novice users should not access these tools.) Virtually all **Help And Support Center** features are available as well. You can use these tools to disable system services, device drivers, or startup applications that are preventing your computer from starting.

If Windows appears to work properly in Safe Mode, you can safely assume that there's no problem with the basic services. However, to verify that your basic services are functioning as intended, do the following:

1. Click **Start**.
2. Click **Control Panel**.
3. Click **System**.
4. On the **Hardware** tab, click **Device Manager**.
5. If you suspect that a newly installed device is the cause of the problem, you can remove the offending software from this location. Use Device Manager to uninstall or roll back a hardware driver.
6. If you suspect that a newly installed program is the cause of the problem, then try the Add Or Remove Programs option in Control Panel to remove a program.
7. Finally, restart the system normally to see whether that resolved the problem.

If you need access to Internet connections, choose the **Safe Mode With Networking** option, which loads the base set of Safe Mode files and adds drivers and services required to start Windows networking. (Note that this option will do you no good on a notebook computer with a wireless PC Card network adapter.)

System Restore.

This system recovery tool takes a snapshot of your system files and settings, monitoring every change and storing compressed copies of original files in a protected location. If you can start Windows normally – or in Safe Mode – you

may be able to use System Restore to undo the configuration change that's causing the problem.

Last Known Good Configuration.

This option is available by pressing F8 at startup.

(In general, System Restore is a more reliable alternative than the Last Known Good Configuration menu choice, because it restores all Windows system files and the entire registry rather than just a single key.)

Every time you successfully start Windows in normal mode, the operating system makes a record of all currently installed drivers and the contents of one specific registry key (HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet). This record comes in handy if you install a driver or make a hardware configuration change that causes your system to hang at startup. When Windows responds to your F8 key entries and displays the Startup Recovery menu, you can choose the Last Known Good Configuration option. This menu choice restores the previous, working registry key, effectively removing the changes that are causing the problem.

Caution: *If you suspect that a driver change is causing system problems and you don't have a recent System Restore point to go back to, don't log on in normal mode. As soon as you log on in normal mode, Windows resets the Last Known Good Configuration information, effectively removing your safety net. If you suspect problems, start Windows in Safe Mode and do basic troubleshooting first. Logging on in Safe Mode does not update the Last Known Good Configuration information, so you can safely roll back to the Last Known Good Configuration if Safe Mode troubleshooting is unsuccessful.*

Reinstallation.

When all else fails, you may be able to repair serious problems by reinstalling Windows XP over your existing installation without losing your program and data files. With the right preparation, you should be able to repair system files without disturbing your settings and preferences. (This process can be rather complicated, even when presented in a series of step-by-step instructions. It will not be covered during this presentation, but rather will be developed later as a separate topic.)