

What is a computer "freeze" or "crash"?

It happens to us all - you're working on something on the computer and suddenly it either stops responding ("freezes") or it shows the "blue screen of death" ("crashes").

While freezes and crashes are inevitable, there are some things you can do about them.

How do I know if I'm frozen?

There are several indications that let you know your computer may be frozen. The most common is the "unresponsive" program. The program will simply not do what you tell it to do. It may also appear "stuck" in the task bar at the bottom of the screen (it will appear to be eternally minimized, never to be brought back to the front).

You may also see a message pop up, telling you that a program has performed an "illegal operation" or "is no longer responding"; these are ways in which Windows tells you that a program has frozen. You will most likely be given the option in this window to close the program, or to cancel and let the computer attempt to reopen the program.

A major indication that your computer may be frozen is that the mouse "freezes" in its place, and cannot be moved about the screen any more.

The "blue screen of death" is probably the most obvious indication; your computer will flash to a blue-background with white text, listing a small amount of computer code alongside an error message.

What Causes a Crash?

There are many reasons why a computer may freeze or completely crash. The most common reason is an overload in the memory. Computers have a set amount of memory to work with (this is their RAM, or "Random Access Memory"). If you attempt to do more with the computer than it's capable of handling at one time, it may "crash" in an attempt to save itself. Generally, the cause of this is generally that too many programs are running at once for the computer to handle. If you are not using a program, close it.

Conflicts between programs are other well-known reasons for crashes. Programs such as virus detectors are notorious for conflicting with other applications and utilities. If you notice that crashes are occurring while the same two programs are running, try to avoid running these two programs at the same time.

What Can I Do?

1. Take Notes

Your first step should be to pay attention to what was happening at the time of the freeze or crash. Try to isolate the program that may be causing problems (this can help prevent a further, more damaging, crash). Is there a history of problems with a particular program (or combination of programs) on your computer? Were too many programs running at once? Was it a

particular task you were trying to do? See if you can form a hypothesis about the cause. By understanding what may have caused it this time, you can attempt to avoid future, similar occurrences.

2. **Try to End the Program**

Windows provides a "Task Manager" that lists all current programs in operation. In Windows 9x & ME, this menu is brought up by pressing Ctrl + Alt + Delete at the same time. In Windows 2000, after pressing Ctrl + Alt + Delete, click the "Task List" button. In this menu, you can attempt to individually close programs that are causing problems. If programs are unresponsive, Windows will attempt to notify you of this in the Task Manager.

If you are able to effectively close the program causing problems, save your work in all other open programs, and reboot your computer. This will help to prevent further crashes, and give your system a clean slate to work from again.

3. **Reboot**

If you are not able to effectively close the program in question, you have several options. Please note that any changes in unsaved documents WILL be lost in a system reboot.

With the Task Manager open, try pressing Ctrl + Alt + Delete once more. Windows will attempt to reboot itself.

If the Task Manager does not respond, you still have a few options. Check your computer's tower to see if there is a "Reset" button (it will be in the general area of the normal "Power" button, and should be slightly smaller than it). Press the "Reset" button, and your computer should reboot.

If you are unable to find the "Reset" button or do not have one, there is one final option to pursue. Find the "Power" button on your computer's tower. Press and hold this button. You will need to hold it for a few seconds (sometimes up to ten full seconds). At some point, your computer should shut down completely. If nothing happens, keep holding the button. Do not press and let go without giving the computer a fair chance to shut down.

What happens next?

After rebooting, Windows will most likely automatically start a program called "ScanDisk." This program will do a basic scan of your hard drive looking for any glaring errors that may have occurred during the reboot. Most of the time there will be nothing wrong, but it is a good idea to let the program run to its conclusion. Computers crash quite often, and you will generally have nothing to worry about.

Defrag

You may also want to "defrag" your hard drive. By running "Disk Defragmenter" (Start >> Programs >> Accessories >> System Tools >> Disk Defragmenter), you can clean up the way in which Windows organizes files on your hard drive. As you use your computer, Windows stores files (and parts of files) in different locations (called "sectors") on the hard drive. Disk Defragmenter will attempt to move all related files to adjacent sectors, maximizing the efficiency of your hard drive space

(which in turn allows your computer to access files faster). Note that defragging a drive can take a very long time. Try running it overnight.

Anything Else?

Crashes and freezes are inevitable. Be sure to back up your files, and save often. Put your floppy drive to use. Small documents (such as papers and images) are almost always the ones that are lost during a crash. Any computer is prone to a crash. It's best to be aware and prepared than to lose your data.