



Tech Info Library

Macintosh: System Crashes and Basic Troubleshooting (1 of 2)

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TOPIC -----

One problem that every Macintosh user faces sooner later is a system crash, freeze, or other unexpected event. Depending on the user's knowledge and familiarity with his system, such an event may simply be shrugged off with no great concern, or lead to phone calls or sudden visits to the local Apple Authorized Dealer. All too often the user immediately suspects a hardware failure and panics, thinking of hundreds of dollars of repair costs. Usually, the problem is not related to hardware failure. The purpose of this article is to help users understand what is happening, help them to troubleshoot their problem, resolve it, or to fairly conclusively determine that they may in fact be looking at a hardware failure and be in need of service.

DISCUSSION -----

HOW TO START TROUBLESHOOTING

The most useful thing you can do for yourself and for anyone else who may become involved in helping you troubleshoot your system, is to set up a problem log in which you record exactly what was going on when the problem occurred. The format below should prove useful:

- Which version of system software is being used
- Program being run (include version number)
- Other Applications open at the time
- List all Extensions, Control Panels
- What were you doing EXACTLY when the problem occurred
- What was the result (freeze, reboot, crash, error message, etc.)
- What you tried to do to get out of it and with what results
- Did you have to reboot?
- Did things work okay after reboot

If you experience multiple crashes and begin the troubleshooting cycle below, note what you do and with what results.

If it becomes necessary for you to take your system to your dealer to assist you with the troubleshoot, this information will be helpful for explaining the problem.

WHAT CAUSES A CRASH - A PROGRAM TO NO LONGER RUN - UNEXPECTEDLY QUIT?

There are many causes for problems of this nature, leading among them:

- Corrupted System Software from a previous crash or incompatible add-on
Although this sounds like a round-robin, and in fact is, the plain truth is that any system crash could corrupt your application or System Software to some degree which, if not corrected, will continue to haunt you until the problem is determined and corrected. The solution is to reinstall System Software and, as a matter of good habit, the application. It is usually wise to err on the side of precaution than not - and good practice to keep your copy of System Software nearby so that you can reinstall after any serious crash. An incompatible extension or Control Panel after being run, even if removed, may leave "bits and pieces" of itself behind. Reinstalling System Software will correct this problem as well.

- System and Application Version Incompatibility

Not all versions of System Software and application software are compatible. Most applications that you purchase will clearly indicate what version of System Software is required to permit the program to run correctly. If you are using an older version of System Software, you may have problems. If you are running current System Software, but using an old version of application software you may run into problems. Occasionally, when System Software is updated, some previously functioning applications may fail to run, crash, or fail to perform reliably. This is a compatibility problem, you have only two alternatives: first, revert to an older version of System Software under which the application ran well; and/or get in touch with the software vendor and notify him of the problems, and inquire about the availability of a "patch" or upgrade.

- Out of Memory condition - real or "imagined"

Some programs are "memory hogs": You may discover that you have simply not enough memory to open, or to run the application with all features working correctly. Some programs will fail to open at all; others will open and run for a while until you try to do a cut and paste, edit, print, sort, etc., operations which require additional memory. Your available options are to close another application to permit you to use the one that is crashing and/or obtain more memory.

In some instances, the "out of memory" condition is not real. This situation may exist when a program requires that you have a certain amount of "contiguous" memory available. While you may show that you have 1MB available, and the program only needs 267K, you may not have 267K of memory all in one chunk. Close the other applications you have open, then launch the program you had problems with.

Occasionally a complete system restart will be necessary. In some situations, your application may not have enough memory allocated to it to permit it to run correctly: This includes your finder. Select the application by single-clicking on it. Do a "Get Info" from the Menu Bar (or Command-I). If you

do not have as much memory allocated as is recommended, increase to the recommended amount. If you have the correct allocation, try doubling it to see if that helps.

- Extension or Control Panel Compatibility Problem

Some add on software, such as Extensions, CDevs, and DAs may not have been written to permit them to be compatible with some versions of System Software. This is a situation that you can usually identify fairly quickly. Usually crashes and problems develop shortly after you install some new add on software or after you install new version of System Software. Your only recourse is to remove the offending add on software and pursue a long-term solution with the software vendor or author.

- Desktop Manager "Confusion"

The most telling clue to this problem is when you try to open an application by double-clicking on one of its documents, or in trying to print one of its documents from the desktop, you receive a message that tells you the "application is busy or missing." If this is the case, either your application IS busy (for instance, you are trying to run a single user program on a network when someone else is already running it); it is missing (it is corrupt or you've trashed it inadvertently); or the desktop manager is unable to locate the application.

First, check and make sure the application really is on your drive. Next, launch the application and make sure that it is not corrupted. If the application is not being used by anyone else, it is on your drive, and it does work, then restart your computer while holding down the Option and Command keys.

A dialog box will appear informing you that rebuilding your desktop will take a few minutes, and given the option to continue or abort. Click OK (you can stop holding down the two keys at this point). Your desktop will be rebuilt and you should be able to continue without any problems. It is usually prudent to update desktop periodically.

(This article continues on in: "Macintosh: System Crashes and Basic Troubleshooting (2 of 2)").

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