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

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(Continued from previous article: "Macintosh: System Crashes and Basic
Troubleshooting (1 of 2)")

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 application
The application you are trying to use may be corrupted. This can occur on a
floppy if the floppy is damaged by being stored in extreme heat or cold areas,
near magnets, etc. On a hard drive, it may be that the sector on the drive has
become corrupted, or one or more of its files may have been accidentally
deleted. Delete the application and reinstall it.

- Application Wars
Occasionally, you may run into two or more applications, or combination of
applications and DA's, Extensions, or CDev's that simply refuse to coexist in
harmony. This is difficult to troubleshoot because there may be many factors
interacting with each other and the problem may be intermittent, occouring only
if the applications were opened in a specific order, or if a certain DA had been
run sometime prior to application launch in the same work session, etc.   Your
solution is to remove any add-on programs (cdevs, inits, da's) that are
contributing to the problem; learn not to run them at the same time; get in
touch with the sofware vendors for assistance and fix.

- Multiple System Software Schizophrenia
Leaving the best and most common cause for last - multiple copies or versions of
System Software WILL cause you to experience repeated and multiple system
crashes, system freezes, peculiar and highly unusual headaches of the finest
kind. NEVER, EVER, UNDER ANY CIRCUMSTANCES EVER have more than one version of
System Software on your disk or disk drive. Learn good housekeeping habits.
The only things that belong in your system folder are your system software,
device drivers, inits, and other related programs. If you find system or
finder anywhere else, TRASH IT!

It is EASY to inadvertanly clutter your hard drive with multiple copies. Every
time that you copy software up to your hard drive, you may be copying System
Software with it. Most applications you purchase come with System Software on
the disk, or on one of the disks if it is a multi-disk package. Make sure you

do NOT copy the System Software to your hard drive - and as a double check - get into the habit of periodically using Find File to do a search on all your connected drives for "System" and "Finder." If you find multiples, get rid of them. Keep only the offically installed System Software in your System Folder.

SYSTEMATIC TROUBLESHOOTING PROCEDURES BEFORE PANIC

1. If your problems started after installing new Extensions or Control Panels, remove them to determine if they are incompatible.

2. If your problems started after installing new System Software, check with software vendor to determine if there is a compatibility problem.

3. If your problems started after installing new application software, try running from the floppy to make sure the software is in good working order; check documentation to determine that you are using system software with which it is compatible; check with software vendor to determine if there is a compatibility problem or known bug.

4. Try quitting other applications.

5. Try launching the problem application first.

6. Make sure that the application you are trying to run has not been deleted or damaged. Delete the copy on drive and reinstall.

7. Check memory allocation and increase if necessary.

8. Replace system software. Use the installer on your original system software diskettes or CD ROM.

9. Rebuild your desktop.

10. Create a folder within your system folder and call it "Suspects". Put all your inits, cdev's, startup and control panel programs in that folder and restart your system. If your crashes or unreliable operation problems disappear, you can be fairly confident that one of the "suspects" was causative. Replace the "suspects" to your system folder level ONE AT A TIME, (rebooting your system after each time) and run your system for a day or two or longer to make sure the problem doesn't come back. Now replace another of the suspects until you begin to have crashes again. Once you start to crash, youb can be fairly certain that the last reinstated add-on program is the culprit. Get rid of it.

Remember - while not necessarily likely, it is not unheard of to be plagued with more than one causative factor when you have crashing problems. Keep working at it until you've eliminated all possibilities.

If you have investigated all of the procedures above, then you have justification in believing that you may be looking at a hardware problem. Consult your local Apple Authorized service provider and have your computer checked out.

HELPFUL HINT: When your system freezes, if you have your programmer's switch
installed, you MAY be able to get back into your program long enough to save off
whatever you were working on before, for the sake of safety, rebooting and
starting again. Here is what you do:

Press the first button on the programmer's switch (the one with the circle on
it, the triangle will restart your computer). You will be taken into the
monitor and you will see a carat ">" prompt:

Type the following:
SM 0 A9F4   (press RETURN)
G 0   (press RETURN)

This procedure will not work all the time, but will work often enough to permit
you to quickly do a Save or a Quit, then permit you to reboot your system so
that you will not lose your valuable data.

Remember, you can always replace your system software, add on software and
applications. But the ONLY way you can replace your data is if you are
conscientious about BACKING IT UP routinely.

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