Macintosh System Software 6.0.7: Troubleshooting (1 of 2)

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TOPIC ---

This article outlines the steps for troubleshooting system software
version 6.0.7. Perform these operations in the order presented here.

DISCUSSION --

WDEF Virus

The number one known problem is the WDEF virus. In version 6.0.5 and
earlier versions of the system software, the WDEF virus might exist
without creating major problems. This is not true in version 6.0.7.
The presence of the WDEF virus can cause problems from the moment the
computer is turned on. The most common results are the three error
messages - "Bus Error," "Address Error," and "Coprocessor not Installed."
Floppy disk copy procedures are known to suffer in particular, but the
difficulties can appear at any time without any warning.

Solution:

Use Disinfectant 2.4 (or later) or SAM 2.0.5 (or later) to detect and
remove the WDEF virus. Disinfectant is available from various online
services. Search on "Disinfectant" using BB Pathfinder in the AppleLink
Information icon. SAM is available from Symantec. Other anti-virus
applications may also assist in detection and removal.

Incompatible Applications

Incompatible applications cause the next most common problem. Older
versions of applications are often incompatible. Some of the most commonly
reported incompatibilities have been with Microsoft Works 2.00a and
MacWrite 5.0x. Fully compatible versions of these two programs are
Microsoft Works 2.00e and MacWrite II 1.1v2.

An application that causes things to go wrong may not be the application
that is currently running; it may be an application that ran previously. An
application might corrupt some portion of memory and then never reference

that area of memory during the remainder of its running time. However, an application launched later (possibly, an application that tested as compatible) may make a reference to the corrupted memory created by the earlier application. The result is a system error, most likely one of the three previously mentioned - "Bus Error," "Address Error," or "Coprocessor not Installed."

Solution:

Check with the publisher of any software package you are wondering about concerning compatibility with the 6.0.7 environment.

INITS and CDevs

The next possibility is closely related to applications. INITs and cdevs can be considered mini-applications. INITs are programs that run at startup and continue to run during the entire time that the Macintosh is on. Some cdevs can have a split personality. First, a cdev can exist only as a Control Panel item; but second, a cdev can also contain an INIT that may not be visible to the user.

Other cdevs that do not contain an INIT will not affect the operation of the system unless they are chosen from the Control Panel. This form of cdev can be thought of as a mini-program. If it isn't chosen by the user, it isn't run.

INITs and cdevs that contain INITs, are a different matter. They can affect a system from the early part of the startup process. If there are any incompatibilities with these items, a system can display error dialogs at any time. Then again, depending on what has been done since the Macintosh was started up, they may never cause any problem.

Solution:

Remove all INITs and cdevs that were not installed by Apple's System Software Installer program. Then test the Macintosh to see if the previous difficulties have gone away.

If the difficulties have gone away, and you must have the use of INITs and cdevs, reinstall one INIT or cdev at a time and then test for difficulties after each installation. Repeat this sequence until after the installation of one of the INITs or cdevs difficulties begin appearing. Then take one step back and remove the last installed INIT or cdev. Check with the publisher of that removed item to see if a later and compatible version is available. If it isn't, you will need to find a way to achieve those functions in a different manner until the publisher can provide an update.

Third-Party SIMMs

Some third-party SIMMs do not meet Apple's specifications. There are two SIMM issues listed here.

• The PC board on which the RAM chips are mounted is too thin to provide

proper contact to both sides of the SIMM socket. The results are system
error dialogs. There appears to be a very small sample of boards that
are affected by this issue.

- The timing of the PAL chip on some SIMMs has proven to be out of
  specification. The 2MB SIMMs appear to be the most common offenders.
  Timing issues can also result in system error dialogs. Third-party
  vendors have been informed of the considerations involved with timing.

Solution:

To determine if the SIMMs are at fault, replace the third-party
SIMMs with Apple SIMMs and run tests to see if the previous problems
continue. If the Apple SIMMs resolve the appearance of system error
dialogs, replace the SIMMs.

Hard Disk Drivers

Hard disk driver software can have trouble performing correctly when
installed in certain ways, or if the driver software is out of date. This
is a problem with either Apple HD SC hard disks or various third-party
hard disks. Before reinstalling system software, try this step, which is
not as involved as doing a system software reinstallation.

Solution: Procedure for Apple Hard Disks

Use the Apple HD SC Setup that ships with 6.0.7 (or later) to update the
driver on the hard disk. The version of this hard disk driver is at least
2.0.3. Use the Drive button to select the hard disk that will be the
startup disk. Press the Update button to update the hard disk driver
software on the hard disk.

Solution: Procedure for Third-Party Hard Disks

Some third-party hard disk drivers which are installed with an
"Installer" type of program may have difficulties if the installer
was launched from a System 6.0.5 (or earlier) environment.

Usually this means that the third-party installer was shipped on a
floppy disk which has System 6.0.5 (or earlier) on the disk. The installer
disk is used to boot for the installation. In this way, the hard disk
driver is installed from 6.0.5 (or earlier) into 6.0.7. Sometimes a
Macintosh system which has been in place for a while is updated to
version 6.0.7.   The third-party hard disk drivers were in place prior
to the 6.0.7 update.

In either case, follow these steps to resolve the problem:

1) Create a third-party hard disk installer disk with System 6.0.7 (not
   6.0.5) on it. Make a new installer disk or update the installer disk
   to version 6.0.7.

2) Boot from the third-party hard disk installer with 6.0.7 on it.

3) Launch the third-party hard disk installer.

4) Update the third-party hard disk's driver. (Most installers have an
   Update selection.)

5) Restart and test for previous difficulties.

If you have worked through all of the procedures described in this document
and you still have problems, you need to reinstall System Software 6.0.7.
Search for the second part of this article on System 6.0.7 Troubleshooting
for advice on reinstalling the system software.
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