✏ **Trouble Shooting**

Installation

Before installing, please read this section. It will help you avoid troubles. If you don't read this section, you will probably need the next section which deals with troubleshooting.

Check the notes below on MS Mail and QuickMail & other applications

Remove virus protection
Remove all virus protection before installing 7.0 (unless you like all of the warnings you'll get
  before inserting all floppies).

Do a clean install! Do a clean install! Do a clean install!
  Install onto a drive which has no System Folder. This will get you a clean installation. This is
  the most certain way to get up and running as quickly as possible.

  To do a clean install on the drive you're booting from, do the following.
  Unbless.
  – Rename the System Folder to anything else (e.g. xSystem Folder).
  – Drop the Finder file anywhere other than the System Folder (e.g. on the desktop).
  – Notice that the System Folder now looks like a plain folder, and the folders inside (Apple
  Menu Items, Extensions, Control Panels, etc. no longer have special icons).
  Install.
  Once you have done that, gradually install the pieces which you use to customize your
  Macintosh. Read the section below on extensions.

  If you decide to live recklessly and not do a clean install, at least remove your custom extensions
    from the System folder until after you install and reboot.

Check the Compatibility Report (and this document) before installing 7.0. It lists whether your
  extensions will work with System 7.0.

Network software
  7.0b4 is AppleTalk Phase II only. If your network is Phase I, and you are using EtherTalk, drag
  your 6.x EtherTalk driver out of your system before installing 7.0. Once the installation is
  complete, drag it back in. This workaround has not been thoroughly tested.

Not enough space
   You need more space to live net install (running Installer from a file server) than to boot off of
   the Install 1 floppy for a floppy install. You may find that even 4MB is not enough free space
   if you want to live install. A live install makes a copy of your current System Folder and
   installs over that. You might want to clean out your System Folder. If you can't throw away
   enough stuff, you can "unbless" your System Folder so Installer won't make a copy. See the
   section above on how to unbless.

Some things you may need to know

Extensions: What are they?
   Extensions are files which extend the behavior of the Macintosh. They are opened during
   startup. They used to be kept in the System Folder. System 7.0 will find them in the System
   Folder, the Extensions folder, and the Control Panels folder. They are opened in alphabetical
   order in each of the Extensions folder, the Control Panels folder, and the System Folder,
   respectively.

   Extensions used to be called INITs. This was taken from the file type for one of the extension
   types. However, there are a number of different file types which extend the behavior of the
   Macintosh. Finder will show you file kinds like "system extension", "Chooser extension", and
   "control panel". There are other kinds and most of them have the word "extension" in the Kind
   field.

What do extensions do?
   The Macintosh allows developers to modify how the system works. In most cases, extensions
   are used to make these modifications. Because these modifications are made at a very low level
   in the system it is possible that the changes can break the system if:

   - the modification is made incorrectly
   - the system has changed (a new release for example) and the modification can no longer be
        made correctly
   - an extension opened before the currently executing extension changed the system so the
        modification can't be made correctly. If you want to try to make them work, you can
        make them open in a different order by changing the alphabetical order of their names.

Extensions and System 7.0
   Because System 7.0 represents a major change to the Macintosh system, some extensions may
   no longer work correctly. If you are having trouble and suspect that some extension may be the
   problem, try the following:

      1. Restart and hold down the Shift key. This turns off extensions.
      2. Remove non-Apple extensions. Put them somewhere easy to find. Remove them from:
      Extensions folder (inside the System Folder)
      Control Panels folder (inside the System Folder)
      System Folder

3. Restart. Don't turn off extensions this time.
4. Now try to isolate the offending extension.
Put one extension back into the System Folder. Finder will help you put it into the
      appropriate folder (Extensions or Control Panels).
Restart.
Does it cause a problem? This one may be incompatible with System 7.0 and should not be
      used. Take it back out and set it aside.
If it doesn't cause a problem, take it back out. Keep it handy because you'll be putting it
      back in after you've checked out your other extensions.
Repeat until you have checked each extension.

Some extensions can be made to work by putting them and their files into the System Folder.
They may be looking for their files in the System Folder because they don't know about the
special folders yet.

Testing extensions together
   Once you have tested all the extensions individually, test that they will work together.

1. One by one place an extension into its proper folder (check your notes) and restart your
     system.
2. As long as the system starts up correctly, then continue.
3. If you add an extension and the system no longer starts up without problems, this is more
     than likely due to one of extensions already installed that is making a change to the
     system that cause this extension to fail.
4. Depending on how many extensions you have installed, finding the offending
     combination of extensions can be quite difficult. Experiment with different
     combinations and different orders of execution (by changing the names of the
     extension files).

By keeping notes of your findings, you can maintain a list of known good extensions and
known bad extensions that will help other people in your organization successfully install
extensions with System 7.0.

If You Can't Start Up Your System
   If you have installed some extensions and you cannot start up your system, you can do the
following:
     1. Restart your system while holding down the Shift key. This turns off extensions.
     2. Once the system is running, follow the above procedure for installing extensions.

Working with Control Panels
   Control Panels (the icons that appeared in the Control Panel in System 6.0.x and commonly
   known as CDEVs) are placed in the Control Panels folder in the System Folder for System 7.0.

   Control panels, like extensions, may make low-level changes to the system and may have some
   of the same problems as extensions. Follow the same procedure with control panels as you do

with extensions.

1. Create a new folder, not in the System Folder, and place all the control panels into this folder.
2. One by one, drag a control panel into the Control Panels folder and restart.
3. Once the system is running again, open up the control panel to make sure that it opens successfully.
4. If everything is ok, then continue with step 2.
5. If there is a problem, then the control panel is probably incompatible with System 7.0 and should not be installed.

Disk Recovery Utilities

If for any reason you have problems starting up your system after you have installed System 7.0 because of hard disk problems, you can boot up your system with the Utilities 2 disk. This disk has a bootable system and various disk recovery tools such as HDSC Setup and Disk First Aid.

32-Bit Operation

System 7.0 allows you to use more than 8 megabytes of memory if you are using a Macintosh IIci, IIfx, IIsi or LC. To use this feature, open the Memory control panel. If you see the radio buttons for 32-bit Addressing, you can turn it on.

Apple has worked closely with developers to ensure that their applications are compatible with the Macintosh system software. One area for possible incompatibilities is 32-bit operation, especially for some older applications.

If your Macintosh is in 32-bit mode and an application you are running crashes, then do the following:

1. Restart your system.
2. Open up the Memory control panel and turn off 32-bit operation.
3. You should now be able to run the application without any problems. If it still crashes, it may simply be incompatible with System 7.0.

Turning off 32-bit operation simply reduces the total amount of physical RAM you can potentially use in your system to 8 megabytes, and virtual memory to 13Mb.

Switching between 6.x and 7.0 with 32-bit mode turned on
If you're running under 32-bit mode, and switch to another drive, or a floppy with 6.x on it, you will be confronted with a dialog with two options : switch to 24-bit mode, or shutdown. If you click on 24-bit mode, the system should put you into 24-bit mode and restart. If there is a problem with this, you might need to disconnect or turn off the 6.x drive and restart. Then under

7.0 you can set your system to 24-bit in the Memory control panel.

Some old debuggers will crash when booting 6.0.x instead of showing the dialog. If you have this problem and your debugger is MacsBug, hold down the mouse button during startup to keep MacsBug from loading.

LaserWriters & Printing

Installing LaserWriter 7.0 drivers under System 6.0.x:
  To install LaserWriter 7.0 drivers and Background Printing under System 6.0.x, simply insert the 7.0 Printing Tools disk and launch the installer on that disk. This will bring up the printer installer script and there you can install LaserWriter 7.0, along with PrintMonitor, which allows you to do background printing.

  If you simply drag the 7.0 LaserWriter drivers and PrintMonitor over to your 6.0.x System Folder, you MUST drag Backgrounder as well. If you forgot to drag PrintMonitor as well, you will get a misleading and wrong error message that your file is damaged and cannot be printed.
Print Spooler & Laser Prep tip.
  You must also update the drivers on your print spoolers, but the installer (7 & Printing Tools) doesn't place a copy of the "Laser Prep" file into the System Folder upon installation. Drag Laser Prep into the System Folder. Now your 7.0 systems and 6.x systems with 7.0 drivers will now be able to print using the spooler.

  Font Downloader
There is a new Font Downloader utility for 7.0 on the Printing Tools disk. If your Font downloader tells you it cannot find the printer you've been printing to without problems for the last 2 years, then you're probably running the incorrect version.
Namer problem: can't rename a networked printer
Move the LaserWriter driver from the Extensions folder into your System Folder.

Peripheral Specific

8•24GC card:
  The GC card exhibits problems when running under System 7.0. The grayed-out menu items disappear. There will be a new version of the GC extension when System 7.0 ships, or soon after.

System Tidbits and Anomalies

tip: Bypassing the "Magic" of the System Folder
  Some extensions won't work when put into the Extensions folder. If you want to place an extension in the System Folder, but not in the Extensions folder, open the System Folder's window and drag the icon into the window. Don't drag it onto the actual icon of the System Folder.

Mover: Moving fonts and sounds hangs system
  Moving fonts and sounds into the system can cause the system to hang when running versions
  of SAM prior to 3.0. Turn SAM off when moving things into the System file.

Suppressing Startup items
  A startup item is anything that is in the Startup Folder. Like Extensions, these items can be
  suppressed by holding down the Shift key at boot time. However, this turns off all your
  extensions, too. This might be inconvenient if you wanted to use any of them. Instead, you can
  try to cancel startup items by pressing command-period as the items open right after the Finder
  starts up.

Application Workarounds

FileMaker Pro
  • If a FileMaker Pro database on a 7.0 host is made non-exclusive, other clients get an error
    message upon attempts to connect. The message states that the host has insufficient resources
    for more connections...even when there aren't any connections.

  • When using FileMaker Pro, you may notice that the pop-up menus in the program dialogs
    (import, export) may not function. This is NOT a 7.0 bug, but rather you do not have the
    latest version of the Claris XTND engine installed. The best way to use the Claris resources
    is to create a folder called Claris in the System Folder. There you can place dictionaries,
    which can be shared by all Claris applications, the Claris translators (in a folder) and the
    XTND engine.   Your popups in the import/export dialogs will then work.

Microsoft Mail & 8MB+
• Microsoft Mail conflicts with the DAL extension. If you get the error that MS Mail was not
    loaded, move the DAL extension out of the Extensions folder, and restart the machine. The
    already announced but not yet shipping Microsoft Mail 3.0 solves this problem.

• Some products, like Microsoft Mail 2.0 and TOPS, have problems loading their extensions if
    the Macintosh has more than 8MB of physical RAM. Although there is a workaround
    extension offered by Technology Works, Inc. (Austin, TX), it does not seem to be effective
    under 7.0 (only tested under 32-bit addressing so far).

• Cannot save enclosures when File Sharing is on. MS-Mail thinks it is running on a file server.
    To work around the problem, turn off file sharing to save enclosures.

PageMaker 4.0
  PageMaker 4.0 seems to be quite functional under 7.0. There may be a problem in choosing the
  printer in the Print dialog.

tip: DiskTop by CE Software
  Although DiskTop 4.0 has compatibility problems with 7.0, version 3.0 of DiskTop seems to

work fine.

QuicKeys 2.0 by CE Software
  Although QuicKeys 2 has compatibility problems with 7.0, version 1.2 seems to work fine with
  everything except Apple menu items. CE is working on an update for System 7 compatibility.

RAM Disk (the application)
Does not refresh the Finder menu bar. The work around is to Hide the Finder layer and show it
  again.

HyperCard 1.2.5
  Prior to B4, any beep would freeze. This is fixed in B4 and later.
  HyperCard 1.2.5 is not 32-bit clean.

HyperCard 2.0v2
  Aliasing HyperCard 2.0v2 may cause some problems. Either the application won't be found, or
  it may cause system problems.

Networking & Communication Specific

QuickMail
  There are two known problems with QuickMail 2.2.3 under 7.0:
  1. When running in 32-bit mode, QuickMail will get into an infinite loop at startup (therefore
  don't run in 32-bit mode when running QuickMail).
  2. Preferences aren't saved after changes are made. Workaround: put the DA in the System
  Folder, and an alias to it in the Apple Menu Items folder.
  If QuickMail 2.2.3 won't load or you get the message "QuickINIT was not found", put
  QuickINIT into the System Folder.

  If you want to install QuickMail, run QuickInstall and install QuickMail into a separate file.
  Don't install QMmenu. QuickInstall should place QuickINIT into the System Folder, and the
  folder QuickMail Stuff into the Preferences folder. Put the QuickMail DA into the Apple Menu
  Items folder.

  QuickFix 1.2 (or later) fixes problems with QuickMail 2.2.3.

Comm Toolbox
  Tools should be placed in "Extensions" folder, not "Communications" folder. Copying the 6.0
  Communications folder to the 7.0 System folder results in 2 copies, one in the communications
  folder and another set in the extensions folder. (Tip)

MacTCP
  Place MacTCP and MacTCP Prep into the System Folder.

Timbuktu

Some programs are looking for the user's name in the "old" Chooser. Of course, under 7.0, the user name is not located in the Chooser.

Accelerators
Some third-party accelerator boards are not System 7 compatible. Although many are, you may want to check with your vendor.

Viruses
Viruses have become a fact of life for computer users. A virus is a small program that attaches itself to application programs, system files, or documents. If an "infected" file is loaded onto your system, the virus may replicate itself and attach itself to other files on your system. Most viruses have bugs and wind up crashing your system sooner or later.

Virus Prevention

You should always know the source of any software you load into your system.

- Public domain software and software downloaded from various services can
    contain viruses.
- Use virus detection software. Some older versions don't work with System 7.0, so
    be sure to get and use the latest versions.

Viruses and System 7.0

If you use File Sharing, you may receive files from network users. This can only happen if you give them permission to make changes to the folder or disk you have shared. Take care with the files which you receive this way. Exercise the same caution with these files as if someone had handed them to you on a floppy. Follow normal virus prevention methods to ensure that the files shared are not infected.

Antiviral products
Use SAM 3.0 or later from Symantec. Do not use earlier versions with 7.0.

VirusRX seems to work fine under 7.0, but is out of date. It hasn't been revised in over a year. Use Disinfectant 2.4 or later instead. It's free, it's extremely good, and it has an extension to give you constant protection.

Other products which work with System 7.0 include
GateKeeper and GateKeeper Aid (except with FileShare)
Virex (except the extension and hot keys; bug fix is on the way)
Rival from Microseeds (new version is coming very soon)
Eradicat'Em
VirusBlockade II 2.0/VirusDetective 5.0 will soon be available

Security

Both File Sharing and InterApplication Communication open up your Macintosh system to the world beyond your own machine through the network.

You will need to carefully control access to your system when you set up the Users and Groups for file sharing.

- Do not allow the Guest User full access to your files and folders.
- Make sure that people choose good passwords that are difficult to guess.

For InterApplication Communication

- Do not allow Program Linking for the Guest User

Your system does not allow network users to access your machine without your permission. Neither File Sharing or Program Linking is turned on unless you explicitly turn it on with the Sharing Setup control panel found in the Control Panels folder. If you choose to turn these features on, then follow the guidelines for setting up the Users and Groups that you want to have access to your Macintosh.

7.0b4 Bugs and Workarounds

Extensions mentioned below are available on the System 7.0 icon on AppleLink. The problems mentioned below are fixed in later versions of System 7.0.

• LocalTalk connections go away after disconnecting from AppleLink (or other serial connections). Zones also disappear in the Chooser. Use the Serial INIT.

• Aliases may "disappear" if the window is dragged while they are being created. They aren't really gone, but you may not see them until you click in the window.

• Balloon Help has some trouble with low-memory situations. You may experience an out-of-memory situation if you turn on Balloon Help after launching an application which took all available memory. To avoid a problem, don't turn on Balloon Help if you just said "OK" to whether to use all available memory to launch an application.

• 68030 Macintoshes can experience a slowdown due to a bug which turns off their caches. The Cache extension will turn the caches back on. The Cache extension works only on 7.0b4. It is not needed and will not do anything in later versions of 7.0.

• A/Rose and the Cache extension don't get along. Remove A/Rose unless you need it for an A/Rose card installed in your Macintosh.

• Use the TEInit extension to fix any of these problems:
- Text hilighting may not look right on the Macintosh IIci, IIfx, IIsi, and LC. The selection is actually right, it just looks wrong.
- deleting a character doesn't erase the character even though the caret moves.
- the line doesn't break at a carriage return.
- double-byte characters don't redraw after determining a new line-break.
- Some strings don't show in dialog text items if they were one pixel too long.

• Eject a shared CD-ROM while someone is logged on and using it, and you get a strange dialog. Either don't eject a shared CD-ROM or be sure the CD Remote extension is in the System Folder, not the Extensions folder.

• Chooser may hang on a Macintosh IIsi if (1) Virtual Memory is on, and (2) there is moderate to high traffic on LocalTalk.

• CloseView and Virtual Memory may crash in some small-memory configurations because CloseView doesn't know to leave enough memory for the system. Workaround: reboot and turn off extensions with the shift key. Turn off CloseView and reboot.

• Scrapbook. The list of types doesn't update correctly if there are many types listed.

• LC crashes while booting if in 32-bit mode and A/Rose is installed. Reboot, holding down the shift key to turn off extensions. Remove A/Rose from the Extensions folder and reboot.

• FileShare and sharing volumes. When sharing a volume, check "Share". Close the window and save the changes. Then reopen it and check "Make all enclosed folders like this one" checkbox. If you don't do it in this order, you'll get an unknown error and the settings are left set incorrectly.
• Standard File (Save As… dialog box), pasting something longer than 31 characters causes a crash.

• If an application has cicn's with ids 261 and 264, they will show instead of the desktop and hard disk icons displayed in Standard File dialogs.

Finder
• Finder may occasionally crash if you select all in an outline view and collapse the whole outline all at once (pressing "command left-arrow").

• Finder may not update correctly when it contains a very large number of items.

• Some third-party file servers crash when Finder tries to get an icon for a document when the application doesn't have an icon for it.

• Pasting a custom icon onto a file with no resource fork (e.g. most documents) results in an error -39.

• If a FileShare server shuts down while a FileShare client has a file open on it, the client may go into an infinite loop putting up an error dialog.

• Sometimes, the finder opens windows at their maximum scroll. This is especially common when opening suitcase files. The window opens into list view and appears empty. Actually, all it requires is a little scrolling, but it is enough to throw users off.

• When a file's name is selected, the I-beam cursor doesn't show up fast enough (even on a IIfx, particularly on shared volumes). The result is that users end up double-clicking the icon instead of editing its name.

• Eject a floppy with the Eject menu item and you may get the "Please insert the disk…" dialog. This may cause a crash on IIci's in 32-bit mode. If it doesn't, you can press cmd-'.' to dismiss the alert.

• In an expanded list view, "tab" skips over items with the same name as the current selection.

• Font/DA Mover 4.1b1 lets you remove the critically important bitmapped fonts out of a 7.0 System (Chicago 12, Geneva 9 & 12, Monaco 9). Fixed in a later version of Font/DA Mover.

• If the change the current keyboard with the keyboard control panel and the System file's

window is open, you can (wrongly) remove the current KCHR from the System file. If the System file's window is open, the current keyboard layout doesn't become invisible (like it should). If you remove it from the System file, you're headed for trouble. One way to crash at this point is to pull down the keyboard menu.

• If you drag a suitcase file onto the System Folder or onto the System file, Mover (now a part of Finder) has some problems. To avoid these problems, open each suitcase and drag the fonts or DAs out before installing them.

• If you drag old Adobe screen fonts (created before 1988) from an unlocked floppy or folder onto your System Folder or System file, the Font Mover tries (incorrectly) to repair a zero-length font by deleting it and creating a new zero-length NFNT. You can crash then by selecting it. To avoid this problem, keep your original Adobe font on a locked floppy when you drag the fonts into your system.

• Print Directory in Finder may print two pages for every one it should have. This happens if the window is viewed by name.

• If you put the System Folder into the trash, open the trash window, select the System Folder, and then do "Put Away", you will crash. Don't do this.

• The line heights for the TrueType versions of Chicago, Geneva, Monaco, and New York don't match their bitmap line heights.

• HD SC Setup causes a hang when launched if Fileshare is on. Fixed in 7.0b5.

• DiskDoubler hangs the machine if you open an alias to a server. It also hangs VolumeMount. Remove DiskDoubler extension.

• HyperCard 2.0 stacks will lose some Finder attributes when you compact them. This only happens if the Finder window with the stack is open. To work around this, close the window before compacting the stack.

• LaserWriter. If you print a document on a LaserWriter where the first line of text is New York, Chicago, Geneval, or Monaco, and the text is styled, the document will default to Courier.

• Monitors control panel sometimes does not redraw all of its contents.

• User Setup control panel. You can crash if you select "New User" while the info window is open. New User should be disabled when the info window is open.

7.0b5 Bugs and Workarounds

• You just can't live-install over pre-6.0.4 or current 7.0 beta. The Installer's script will only allow installation over previously released system software. Work around this by doing a clean install or by unblessing your System Folder as shown at the top of this document.

• Installing 7.0 over 6.0.x removes the Communications folder. All the tools are put into the Extensions folder.

• If a server goes down unexpectedly, it will now be unmounted, even if you have files open on it. One exception is the Edition Mgr, and that will be fixed in b6.

• If your icons look generic and you can't launch documents, try rebuilding the desktop. Hold down cmd-option while Finder is starting up. It will ask if you want to rebuild the desktop. Click "OK".

• If you are crashing in the Finder after extensions have loaded, one last ditch thing to try is deleting your Finder Preferences files in the Preferences folder.

• Delete a locked file by holding the option key. This didn't work in 7.0b4.

• If you have applications which look for a "hosts.cl1" file and they can't find it, do the following:
- duplicate the 'DAL Preferences' file and name it 'hosts.cl1'.
- move your new 'hosts.cl1' file into the System Folder.
If you make any changes to either file, you must remember to update the other file.

• EtherTalk 2.0 has been renamed 'EtherTalk Phase 2'. Old EtherTalk files were deleted by the 7.0b5 installer. If you need the phase one driver, obtain the EtherTalk 1.2.2 or 2.0 disk and drag the EtherTalk phase one driver into your System Folder.

• Use the TrueType extension for 7.0b5. It's version is 1.0b7.17. It may be called Bass Special. It fixes some problems which show up under low memory conditions.