MAE 2.0: Technical Frequently Asked Questions (6/96)

Revised: 6/25/96
Security: Everyone

MAE 2.0: Technical Frequently Asked Questions (6/96)

==========

Article Created: 27 June 1995
Article Reviewed/Updated: 25 June 1996

TOPIC -----

This article is the MAE 2.0 Technical Frequently Asked Questions (FAQ) for users of Macintosh Application Environment (MAE).

DISCUSSION -----

Table Of Contents

Entire document is new for version 2.0 of MAE.

See Also:

- MAE 2.0 Tech Notes, available on http://www.mae.apple.com or via anonymous ftp from ftp.support.apple.com in directory /pub/mae/technotes.

- MAE 2.0 README.TXT (on MAE 2.0 product CD-ROM)

File Systems

Question: How do I show files and directories whose names begin with "." in MAE Finder windows?

Answer: You can show/hide these files and directories by setting the appropriate

check box in the Views control panel.

Question: Why are file sizes different in MAE and UNIX?

Answer: Using MAE to copy files from a CD or from network-based volumes can result in source and destination files of different sizes, as viewed by the UNIX file system. This is due to MAE's default of storing files in AppleSingle format. Since MacOS files have both resource and data forks, MAE handles these files differently on a UNIX File system, in a format called "AppleSingle". For more details, refer to "AppleSingle and AppleDouble File Formats" in the MAE 2.0 Tech Notes (see "See Also" following the table of contents of this document).

Question: Why won't my UNIX applications recognize files from MAE applications?

Answer: This is related to the previous question. By default, UNIX files are written by MAE in AppleSingle format. Since UNIX and its applications know nothing about the Macintosh "resource headers" tacked onto the beginning of files in their AppleSingle representation, UNIX applications may see these files as corrupted. For more details, refer to "AppleSingle and AppleDouble File Formats" in the MAE 2.0 Tech Notes.

This "corruption" can occur in a number of different ways. For example, under FileShare, if a UNIX file is dragged from a Macintosh to MAE, the file will be written by MAE in AppleSingle format, which may make it unusable. This occurs because the Macintosh doesn't know anything about UNIX files, so when it sends one to MAE, MAE thinks it's a Macintosh file and writes it to disk accordingly.

This situation does not occur between two MAE sessions that are sharing files, since MAE recognizes UNIX files for what they are and does not store "resource" information about them. When dragging a UNIX file between two MAE sessions, MAE correctly treats the file as a UNIX file.

Using ftp utilities such as Fetch from MAE can also be problematic. When "getting" a file, Fetch will pass the file to MAE to be written to disk. This works fine for Macintosh files since they will be written as AppleSingle files. However, when "getting" a UNIX file, MAE will likewise write this file as an AppleSingle file, which can make it unusable by UNIX applications.

Text files are handled differently by MAE. Text files are always written by MAE in AppleDouble format to facilitate reading and writing by both Macintosh and UNIX applications (newline characters are automatically translated by MAE; they are stored on disk as UNIX newlines). So in the examples above, when dragging a text file from a Macintosh to MAE or when Fetch gets a file using ftp "Text" mode (i.e., ASCII mode), MAE will write the file in AppleDouble format.

NOTE: Fetch 3.0 and higher will not work with MAE 2.0.2, use version 2.x.x.

As a rule of thumb, it's best to use UNIX to work with UNIX files and MAE to work with Macintosh files. If your environment requires the same (non-text) files to be regularly handled by both MAE and UNIX, then you're probably a candidate for running MAE in AppleDouble mode, by launching it with the

-filedouble option.

Question: Can I run UNIX commands located on Macintosh floppy disks?

Answer: MAE does not support execution of UNIX commands from Macintosh floppy disks.

Networking

Question: I like to have the Chooser open and available throughout my MAE session. Does this generate unnecessary network traffic?

Answer: The Chooser generates significant traffic only when it is the foreground application and a Chooser device (such as AppleShare) is selected. It generates minimal traffic when it is the foreground application and no Chooser devices are selected. It generates no traffic when it is in the background. Keeping the Chooser open when using other applications should not generate network traffic or impact network performance.

Question: I just launched MAE. I see the message "Unable to open the file '/dev/appletalk/lap/ethertalk0/control, please be sure the file exists'" in the UNIX window from which I launched MAE. What does this mean?

Answer: AppleTalk is not installed properly. AppleTalk installation must be done as root on each system on which you want to run MAE. You cannot simply copy your MAE binaries from machine to machine. The AppleTalk installation correctly configures your kernel and creates device files used by AppleTalk.

Question: Whenever I use Find File to search a folder exported via FileSharing from a workstation running MAE 2.0, both the client and the server appear to hang. Is this a bug?

Answer: This is a file system problem. FindFile uses PBCatSearch to search the entire volume anytime a search is done. For large volumes with nested mountpoints, PBCatSearch can take a very long time. It is best not to use FindFile to search remote volumes.

Question: I have two ethernet cards installed on my workstation; can I select either card for my MacTCP interface?

Answer: No. The MacTCP driver will use the first interface detected by the ifconfig command. If more than one ethernet card is installed, MacTCP will be configured for the first card.

Question: Can I use the MacTCP control panel to set my MacTCP ip address?

Answer: No. When you run MacTCP on MAE, it uses the host and ip configuration of

the UNIX workstation on which you are running MAE. This control panel is for information only. As a user, you cannot reset your workstation's ip/host information using MacTCP.

Question: We use File Sharing to share files between Macintoshes and workstations running MAE 2.0. We have experienced problems when accessing files exported from an MAE workstation while performing server maintenance chores on that workstation. In particular, changing access permissions or ownership seems to adversely affect clients accessing the file server. Is there any way we can prevent this?

Answer: It is best not to attempt to alter the sharing status of a folder while it is being used by a remote client. If you want to alter the status of a shared folder (by changing its access permissions, changing its owner, or unsharing it) you should check the "File Sharing Monitor" to see that no one is using the folder before changing its sharing status.

Floppy Disks and CD-ROMS

Question: (Sun only) I'm having difficulty mounting CD-ROM discs on Solaris 2.4.

Answer: MAE may be unable to mount CD-ROMs under Solaris 2.4, even though the file macdisk.Solaris is unchanged from Solaris 2.3, where CD-ROMs can be mounted without difficulty.

For mounting CD-ROMs in MAE while running Solaris 2.4, follow these steps:

Step 1
Verify that Volume Manager patch 101907-05 has been loaded.
(/etc/showrev -p will list all installed patches.)

Step 2
Under Solaris 2.4, modify the macdisks.Solaris file in this manner (scsi6 should be replaced with the correct SCSI ID# of the CD-ROM Drive):

scsi6:removable:ro:/vol/dev/aliases/cdrom0

NOTE: After inserting the CD-ROM, wait 5 seconds before attempting to mount it in MAE. The Volume Manager first must create an entry in aliases for 'cdrom0' before MAE will be able to read the alias directory.

This will properly allow MAE to mount CD-ROMs without modifying the /etc/vold.conf directory, thereby allowing the user to mount UNIX CD-ROMs with the Volume Manager.

Question: Is there any way of accessing a Mac-formatted hard disk from MAE if I connect it to the SCSI bus on my workstation?

Answer: No. MAE does NOT support HFS format hard disks (only CD-ROMs and

floppies). You may potentially damage your workstation or Mac disk if you try to connect the two.

Question: What kinds of removable media are compatible with MAE?

Answer: The current release of MAE only supports Macintosh formatted CD-ROMs and Macintosh formatted 1.4 Meg floppy disks.

Question: Are ISO 9660 format CD-ROMs compatible with MAE?

Answer: No. Do not add the "ISO 9660 File Access" extension (or any of the other Mac CD-ROM extensions) to your System Folder.

If ISO 9660 CD-ROMs are mounted under UNIX (Solaris 2.3 does this automatically), the mounted directory should be accessible to MAE. (It does not appear as an icon on the desktop.)

Performance

Question: Can MAE be run as an X Application over the network?

Answer: Yes. However, MAE was optimized to run as a local application and be displayed on the local workstation console. While MAE is certainly an X application and can be run remotely, it is graphics intensive and may run significantly slower over the network. MAE performance is highly dependent upon the X server, X client, and network bandwidth/traffic.

Question: Can I increase the performance of MAE when using a remote X-Client over the network?

Answer: Yes. Changing the Monitors Control Panel to "Black and White" will reduce the amount data sent over the network to the X-Client. This can make a significant difference when running remotely, especially with graphics intensive applications.

Question: Will performance be affected if my home directory is located on a remote volume?

Answer: Yes. The "System Folder", which contains the MacOS system files, is built in your home directory when you start MAE for the first time. Performance will be affected since the code in this folder must be executed to run MAE and it will run more slowly when the System Folder is located on a remote volume.

Question: Can I run MAE with my home directory physically located on a machine running SunOS 4.1.x and NFS mounted to a Solaris 2.x workstation running MAE?

Answer: Yes, but be careful with your permissions. Performance may also be

significantly affected.

Keyboard and Display

Question: Why does the cursor sometimes disappear from the screen, when I'm using MAE with a black and white monitor?

Answer: The MAE cursor can "disappear" when it enters an area of the MAE screen that is the same color as the cursor. This is most prevalent when running MAE in monochrome mode and you move an all black cursor (for example, the I-beam cursor) over an all black region of the screen. If your X Server supports color cursors, you can control the foreground and background colors of the MAE cursor by setting the TBFGCURSORCOLOR and TBBGCURSORCOLOR environment variables, as in the following c-shell example:

```
setenv TBFGCURSORCOLOR red
setenv TBBGCURSORCOLOR blue
```

Question: When I try to abort an MAE application by pressing Command-Option-Escape, MAE hangs. What's the problem?

Answer: This feature is not implemented in MAE 2.0. Avoid trying to abort applications with Command-Option-Escape on both Sun and HP.

Printers and PostScript

Question: I'm having trouble getting my PostScript printer to print reliably under MAE. What should I do?

Answer: While developing MAE, we couldn't test on all possible PostScript printers - there are just too many. Also, many older PostScript printers have very little memory (for example, the original Apple LaserWriter(tm), only had 1 Mbyte of RAM), making it difficult to print complicated documents on them. A Macintosh computer, by communicating directly with the printer, can circumvent this memory limitation by optimizing the feeding of PostScript to the printer. MAE's LprWriter, however, uses the underlying UNIX print spooler, and does not communicate directly with the printer. It is therefore possible for a printer to be unable to print a complex document from MAE that it can print successfully from a Mac.

Other tips:

1) The LprWriter driver generates Level 1 PostScript, which should print on any "real" PostScript printer that has enough memory. (Some companies didn't license a PostScript interpreter from Adobe but wrote their own; these often have problems.)

2) It is very important to specify the correct PPD file for the printer. The PPD file contains information about resident fonts, memory size, page sizes, etc. An incorrect PPD specification can create many problems.

3) If the PPD file for a printer isn't shipped with MAE, you can try to get it directly from the printer manufacturer, or from Adobe. Adobe, the creator of PostScript, maintains archives of PPD files, and technical papers about PostScript. These are available on the Internet, at Adobe's ftp server, ftp.adobe.com (130.248.1.4). The login is "anonymous" (without the quotes), and you should use your email address as the password. PPD files are in the directory : /pub/adobe/PPD/mac

NOTE: all spaces in PPD filenames have been replaced with tildes (~), to make it easier to retrieve the files. After downloading a PPD from this directory, change all tildes in the filename to spaces.

You can also send mail to their email server:
ps-file-server@adobe.com

Send an email message with just the word "help" in the subject for instructions on how to use the email server.

Other

Question: Why won't my Solaris 2.4 machine successfully run MAE unless it is connected to a network? Without a network, MAE hangs after the "Welcome to Macintosh" screen, and I must kill MAE from a UNIX shell. If the same machine is added to a network, MAE starts up fine.

Answer: Solaris 2.4 workstations not connected to a network require Sun's patch 101945-27 (this "megapatch" is newer than the patches recommended in the MAE 2.0 README). connected to a network. This patch can be found at sunsite.unc.edu. After installing the patch, remove the file /tmp/at if it exists.

Question: Why won't MAE 2.0 produce sound on my HP Workstation?

Answer: See ISSUES RELATED TO SOUND in the README file delivered with MAE 2.0. Final check: be sure the AUDIO environment variable is set to the target audio server.

Question: Using Aldus Persuasion 3.0 with MAE, I can open documents, but can't save them. What's the problem?

Answer: You will have to save your Persuasion 3.0 documents under a name different from their original name. This workaround is necessitated by an incompatibility between MAE and Persuasion 3.0 that causes Persuasion to think the original document is locked; it therefore opens a copy, with a generic 'untitled' name. Because it thinks the original document is locked, you can't save the modifications under the original name.

Fax Document Index or call the Apple Fax line at 1-800-505-0171 and select document number 20000 (Apple Fax - Document Index - Product Support Literature). The Apple Fax center is available free of charge 24 hours a day, 7 days a week.

Article Change History:
25 Jun 1996 - Updated Fetch information.

Tech Info Library Article Number:18027