



Support News 

September 19, 1994

Volume I, Issue 11

**“Get Off the Highway
and Into the Alley™”**

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Inside Information...

About the Information Alley

The Information Alley™ is a publication of Apple Computer, Inc., Support Information Services. The goal of the Information Alley is to help you get full use of your Apple computers, peripherals, and software.

Where to Find the Information Alley

The Alley is available to anyone through a variety of online services and Internet list server capability. For a complete list of where to find the Alley, call the Apple Fax line at 1-800-505-0171 and request document #20720. You can also get an index to back issues by requesting document #20719. Optionally, you can search the Technical Information Library; use "information alley" as the search string. Select article title Information Alley: Online Services it is Posted To or article title Information Alley: Index of Past Issues.

Submissions and Letters

We welcome articles that help Apple computer users become more knowledgeable about the functionality of their systems, explain or illustrate complex features or functions, or that describe technical tips or techniques. Send submissions to:

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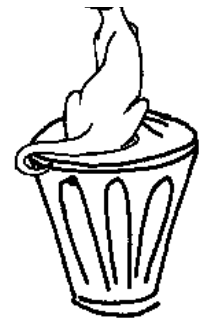
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Information Alley Now on Japanese BBSs



By Janet Christian

Information Alley Now Locally Available in Japan

Thanks to Hisashi Nishimura, a member of MuON (Macintosh Users Group On Network) in Japan, the Information Alley is now available through four different services there. See New Places to Find the Information Alley on page 13 for a complete description of these services.

We really appreciate the assistance that everyone has given us in redistributing the Alley to 16 different bulletin boards and online services (in addition to the 13 online services where we initially post each issue).

If you are posting the Alley to a Bulletin Board System (BBS) or to an online service, please let us know (send email to **alley@apple.com**) so that we may include it in the newsmagazine. We believe this redistribution is truly a case of "the more the merrier" and is to everyone's advantage.

Japan joins the ranks of countries outside the United States where the Information Alley is available locally. (The other countries are Santo Domingo, Dominican Republic; Vienna, Austria; and Quebec City, Canada.) Please remember to let us know if you are downloading the Alley to a local online service or BBS—whether in the United States or another country—so that we may include it in the Information Alley.

Tips and Tidbits Correction

Issue 10 included a Tips and Tidbits about where to find the 1984 Quicktime

movie (along with other other popular Quicktime movies). Alert Information Alley reader Keith Cooper let us know that the ftp site we were given is not currently allowing anonymous guest access. Upon investigation, we found that this site is available through gopher. You can access this site from your Macintosh one of these ways:

Turbogopher

Path is: **csc.ucs.uwplatt.edu**

Mosaic

Path is: **gopher://csc.ucs.uwplatt.edu**

BBS Update

In Issue 10, the New Places to Find the Information Alley column included information on Capitol Macintosh: Austin's Macintosh Users Group BBS. We are pleased to update this listing to state that you no longer need to be a paid CapMac member to download the Information Alley. Thanks to Rick Cardona and Mark Millard for providing this free service to central Texas Information Alley readers.

Correction to Issue 5

In the article Power Macintosh Native Applications, we inadvertently listed Gibbs and Associates Virtual Gibbs with incorrect information. The correct phone number is (800) 654-9399 and the correct category for the product is Computer Aided Design. We apologize for any inconvenience this may have caused. 🍏

Macintosh 630 Family – Resolutions and Color Depths

By Henry Ellis and Janet Christian

This article describes the various resolutions and color depths supported by the Macintosh 630 family of computers, which includes the Performa 630, Performa 635, Performa 636, Performa 637, Performa 638, LC 630, and Quadra 630.

What is Resolution?

Resolution is the number of pixels (dots) a monitor can display on the entire screen. The more pixels there are, the higher the resolution. For example, a resolution of 640x480 is a total of 307,200 pixels on the screen (640 pixels horizontally and 480 pixels vertically). A resolution of 800x600 is 480,000 pixels. The increased number of pixels on the screen provides for a more detailed, crisper image – as well as slower screen-related processing (such as displaying an image).

What is Color Depth?

Color depth is the number of colors or shades of grey that a single pixel can display, which depends on the number of bits in memory each pixel uses (each byte of memory equals eight bits). The more bits-per-pixel used, the more colors and shades of grey you can display and the more video RAM you need to store the information. (The 630 family includes 1MB for video RAM.) For example, a color depth of one bit can display black or white. An 8-bit color depth can display 256 colors or shades of grey (the bits in one byte can be combined 256 different ways). A 16-bit color depth can display 32,768 colors. You can tell the video RAM needed by multiplying the resolution by the color depth (example: 640 times 480 times 2 (bytes) equals 614,400 bytes or 614K).

Resolution	Scan Rate	Color Depth	Video RAM	Most Common Displays and Options
640x480	60Hz	32,768	614K	Multiple Scan 15 Display
				Apple Presentation System
				Apple TV/Video System
640x480	67Hz	32,768	614K	Apple Color Plus
				Performa Plus Display
800x600	60Hz	256	480K	Multiple Scan 15 Display
				Apple TV/Video System
800x600	72Hz	256	480K	Multiple Scan 15 Display
				Apple TV/Video System
832x624 (1)	75Hz	256	519K	No support for Multiple Scan 17 Display
				No support of Apple TV/Video System

Note: (1) – The resolution switching software, which is built into the Macintosh 630, lets a Multiple Scan Display use the 832x624 resolution. However, the video-in and TV tuner features of the Macintosh 630 do not work properly at this resolution. 🍏

An Overview of A/UX

[Editor's note: We found this article on an ftp site at NASA. The original author is unknown. We felt that our readers might find it interesting.]

A/UX is Apple's implementation of UNIX (it's Apple's/UNix) for various Macintosh computers. A/UX merges two computing environments, UNIX and the Macintosh Finder OS, and provides the full functionality of both.

A/UX is based on AT&T UNIX System V.2.2 with numerous extensions from V.3, V.4 (such as streams), and BSD 4.2/4.3 (such as networking, the Fast File System, job control, lpr, NFS with Yellow Pages, SCCS, and sendmail 5.64). It also provides full POSIX compliance. A/UX provides SYSV, BSD and POSIX compatibility switches and libraries. A/UX is fully compliant with the System V Interface Definition (SVID).

A/UX provides all three standard shells: sh, csh, and ksh. X-Windows is also provided standard.

A/UX 3.0 and later incorporates System 7 for the Macintosh allowing for the use of the vast majority of Macintosh applications under A/UX. System7 and UNIX are fully-integrated under A/UX 3.0 and later with the UNIX file system being seen as a disk drive by the Finder.

There are quite a few people who feel that A/UX is a near-perfect implementation of UNIX. Of course, every operating system has its share of devotees, so that's not a very valid scale of whether the system is any good. A/UX *is* UNIX – it's not some form of pseudo-UNIX. It insulates the user from UNIX, if required, but the System Administrator needs to become UNIX-aware. Furthermore, if you want straight UNIX, you can get it. People may also complain that A/UX is based on an "obsolete" version of AT&T UNIX (V.2.2).

In many ways, Apple's extensions make A/UX very V.3-like (V.3 is in many ways an enhanced V.2 – it even uses the V.2 kernel). The list of extensions to A/UX are impressive. Compare what you get standard with other systems and you'll be shocked! On some, 'cc', 'f77', NFS, etc... are costly options.

The main consideration (and opposition) to A/UX is the platform it runs on: the Macintosh. Some consider this a boon, others a bust. At present, Apple's top-level workstation is the Quadra 800, a 33MHz 68040-based system. Some consider this underpowered; others consider it overkill; others consider it, like Goldilocks, "just right".

If you need super-fast state-of-the-art number crunching capability then A/UX may not be for you; the Q800 benchmarks at maybe 10-16 SPECmarks (depending on compiler used, external cache size, etc...) and you can get lots faster with other platforms. Of course, you'll have to "settle" for their operating systems, but if you need it, then that's how you'll get it. Of course, this doesn't mean that A/UX "crawls".

There are very few people who need this type of performance though. If you need (or just want) a UNIX workstation with the speed and power of UNIX and the user interface and application selection of the Macintosh then A/UX is the way to go. In many, many ways, A/UX is the UNIX "for the rest of us" even if we are long-time UNIX junkies. If you love the Macintosh, you'll love A/UX; if you love UNIX, you'll love A/UX. And if you want a near-perfect marriage of the two, then you'll love A/UX. 🍏

PowerBook 500: Printing to PostScript Files

By Mark Hansen

The Problem

You have a PowerBook 500 series computer and want to print to a PostScript file rather than to a printer. You choose **LaserWriter** in the Chooser, but of course, you can't choose a specific printer. You activate the print dialog and select the destination as a PostScript file, and then click on the **Save** button.

You get the dialog message "This document cannot be printed at the current time on the printer 'LaserWriter' because a printer is not available to the AppleTalk network;" you have two choices: **Exit the dialog - Don't Print**, or **Print Later**.

If you choose **Print Later**, it spools the file to the PrintMonitor, and does not create the file you want.

The Solution

The PowerBook 500 series computers ship with version 1.1 of the Assistant Toolbox. It has a deferred printing feature that lets you save a spooled

print file and then print it out later when you return to your printer.

This feature takes over control of the printing from PrintMonitor. Therefore, it interrupts printing to put up the preceding dialog before PrintMonitor figures out that a PostScript file was being requested. So, if you choose **Print Later**, it only makes the spool file, and doesn't even try to print the file until you reconnect to the network. Once you do this, you get a dialog that asks if you are ready to print, and if so, it generates the PostScript file.

If you disable the Background Printing option in the Chooser, and go through the preceding steps, you still get the **Print Later** dialog. However, if you choose **Print Later**, it immediately generates the PostScript file since PrintMonitor is not active to make a spool file. This is a little confusing, but does produce the desired result.

The only other way to get this to work is to remove the Assistant Toolbox extension and then restart, which disables the whole **Print Later** option. 🍏

Tips and Tidbits

Might and Magic III

In the game of Might and Magic III you can type BLASTOFF in any mirror portal and view the "award winning" game ending sequence. Kind of takes the thrill out of seeing the ending when you've finally won the game though.

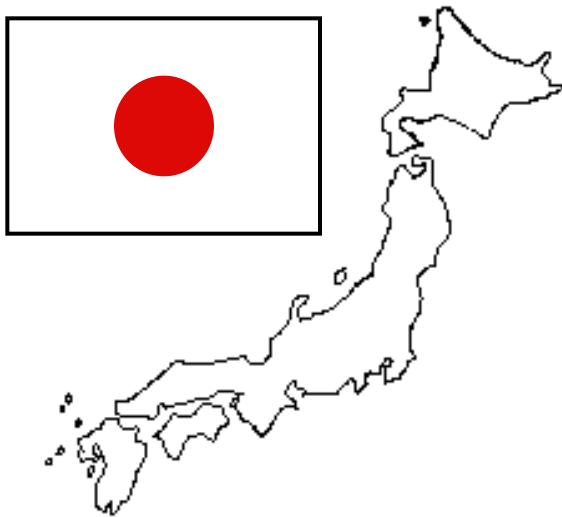
Also in Might and Magic III the words DOE MEISTER gets you into a remote cave (in the dragons) where there is mega loot. ORB MEISTER gets you underneath a pyramid into an area where there is one of the precious Orbs. [Contributed by Sandy Kettenhofen]. 🍏

Japanese Language Kit Overview

By Andrew Gonzalez and Brandon Black

The Japanese Language Kit (JLK) is system software that supports Japanese language input on a non-Japanese operating system. In other words you can add the JLK to a Roman (European) operating system and input Japanese characters using a Japanese localized or WorldScript™-savvy application.

The JLK works with System 7.1 or later. (System 7.1 is the first version of the operating system to incorporate WorldScript technology.) **The JLK does not currently work with System 7.5.** An update is scheduled for early January 1995.



How the JLK Works

Once installed on a System 7.1 or later Macintosh, the Japanese Language Kit places Japanese as a secondary script into the computer. It adds extensions, a Japanese character input method, language resources, fonts, a user dictionary, and TeachText Japanese. The language resources provide script-specific information for line direction, word boundaries, date, time, and number formats.

For publishers, the JLK expands business opportunities into Japanese-speaking markets by making possible Japanese language brochures, sign boards, posters, T-shirt designs, business cards, and more.

Many publishers have been using KanjiTalk™, but would prefer to use a system that provides an English finder while letting them use a Japanese application and work with Japanese files.

JLK Installation

The Japanese Language Kit requires 4 MB of RAM (5 MB recommended to run multiple applications) and about 20 MB of free disk space. Japanese fonts require 6-9 MB each in order to accommodate more than 40,000 Kanji characters. If you do not have sufficient disk space, you can choose to install only one Japanese TrueType font through the custom install menu.

The Japanese Language Kit includes:

- WorldScript II extension
- Japanese Language Kit extension
- InputBackSupport extension
- Kotoeri™ extension
- Kotoeri Help extension
- Japanese Support extension
- Roman Support extension
- Text control panel
- Japanese Script Resource
- Kanji fbit/fdef fonts
- Kanji Fonts
- Kanji bitmap fonts
- Kanji TrueType fonts
- Kotoeri main dictionary
- Kotoeri user dictionary

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- Kotoeri Dictionary Tool
- Japanese Language Register
- TeachText Japanese
- Language Kit Preferences
- User Preference File

Troubleshooting Tips

When I run the installer, it doesn't ask for diskette Font 12.

The SaiMincho and ChuGothic fonts found on Font Disk 12 are available only through a customized installation. These fonts are PostScript compatible bitmaps for use with the LaserWriter NTX-J.

If I install the JLK (with 24-bit addressing ON) the Installer crashes while merging the TrueType fonts.

This only happens when installing on Macintosh computers (Macintosh II, IIfx, SE/30, IIfx) that also have the 32-bit System Enabler installed. Turn ON 32-bit addressing in the Memory Control Panel while installing the Japanese Language Kit with these types of Macintosh computers (Macintosh II, IIfx, SE/30, IIfx).

I get unreadable Japanese text on the screen. What's wrong?

If you see unreadable Japanese text, check the following basic points to make sure the Japanese fonts system is complete:

- The **fbit/fdef** Kanji bit-map fonts (the one with the Kanji character "kan" and the circle behind its icon) are located at the System Folder root level (not Fonts folder). At minimum, the Osaka font must be installed.
- The InputBackSupport extension is present in the Extensions folder.

Can I change unreadable Japanese text back into something readable?

Following are situations where unreadable Japanese text can be made

readable:

- File names in Finder windows:

Open the Views Control Panel and select a Japanese font (for example, Osaka).

Note: There is a side effect in choosing a Japanese font in the Views Control Panel. Characters using a symbol or diacritical mark (such as è and ü) are replaced by another character. This occurs because Japanese fonts replace the upper ASCII table with Japanese characters. Use a Roman font when you need a character that includes a symbol or diacritical mark.

- Japanese Application Menu Bar and dialog boxes:

The application has a resource that tells the system which language the application uses. The system uses the information to select the appropriate font. In some cases, this resource was not properly set and the system has assumed English as the application's language. Use the Japanese Language Register application to register a Japanese-localized application.

Note: Some applications hard-code the font to use, for example in a text entry window or font list. In this case, the Japanese Language Register does not correct this misused font.

- In the Keyboard menu (Diamond Menu) and/or the Pencil menu the Japanese text is displayed as garbage:

This is normally caused by NOW Menus or some other menu management program. The menu program overrides the system menu font and forces the menu into a specific font. The menu font needs to be changed to the Osaka font in this menu program.

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- Double click on a Japanese TeachText file and the data appears as garbage:
The File Finder Attributes are the same for a TeachText file whether it be Japanese or U.S. When you double click a TeachText file either version could be opened. The only work around is to open the version of TeachText you want, then open the file from within TeachText. Alternatively, you can use SimpleText, which is WorldScript-savvy.
- Text entered in Romaji or Kana does convert to Kanji:
The Main dictionary needs to be opened in the JLK preferences.

When is it not possible to turn unreadable Japanese text into something readable?

Following are situations where Japanese text shows up as unreadable and there is no fix:

- Unreadable text occurs in the menus and dialog boxes. For example, the Applications menu showing a Japanese named application. These areas of the system were not designed to support multiple scripts (writing systems).
- You see this with the Kotoeri alert messages. The alert dialog box routine uses the primary script to display the message.

If I request Hiragana and see Katakana, what am I doing wrong?

Review the following. This is how the Kotoeri Input Method works:

- “One-Touch mode” is off in the preferences:
 - In Hiragana mode, when the **Caps Lock** is pressed, Kotoeri generates Katakana. (Katakana does not convert to Kanji.)
 - In one of the Roman modes, Kotoeri generates capital characters when the **Caps Lock** is

pressed.

- In one of the Katakana modes, the **Caps Lock** doesn't affect characters generated by Kotoeri.
- “One-Touch mode” is on in the preferences:
 - The preceding default feature is disabled.
 - In turn, you can choose a mode for each state of **Caps Lock**, such as Hiragana mode for caps off and Roman mode for caps on. This setting is recorded in the preferences.

Some of my keyboard shortcuts don't work since I installed JLK. What's wrong?

System 7.1 or later uses the sequence **⌘-Option-Spacebar** to switch keyboard layouts. Other applications or utilities like QuickKeys may also attempt to use this key combination. The System Software takes precedence in all cases so you have to find an alternative for the conflicting program.

I use the JLK on my Macintosh with Apple Express Modem software. There are two problems when I try to FAX:

- The Fax Phone Book window refuses to scroll in the Fax Send dialog box even though there are more addresses than can be displayed. I have to click on an addressee, then use the up and down arrow keys to navigate.

This occurs with the scroll bars for the “Fax Phone Book” and “Send To” lists. This is a known issue between Express Modem and Apple Language Kit software. Apple is working on a solution.

- The Cover Page is lost when I transmit a document (even though one is selected).

Make page 1 of your document the cover page.

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Is the JLK compatible with Apple Power Macintosh computers?

Yes, absolutely. The Power Macintosh runs the System 7.1 or later operating system, which the Apple Language Kits require. If your Power Macintosh comes with System 7.5 installed, then you need the upcoming JLK update (scheduled for early January 1995).

I use the JLK and when I rename a folder in the Finder, the keyboard menu changes from U.S. System 7 (a blue diamond) to Kotoeri (a red sun with an apple) automatically. If I select U.S. System 7 in the keyboard menu, I can enter the name in English. Why does the keyboard layout switch occur?

Apple Language Kits provide Finder support for English and the language each installs. When you modify a file or folder name, the language kit defaults to its primary keyboard layout. Japanese defaults to Kotoeri. Here is how that default is selected:

The JLK displays keyboard layouts based on the "Font for views" selected in the Views Control Panel. When **Osaka** is selected, the keyboard menu displays "U.S. System 7" and Kotoeri, because Osaka supports both Japanese and Roman character sets. Selecting a Roman-only font like Palatino or Helvetica only displays "U.S. System 7" in the keyboard menu.

I have a Performa computer and the JLK. Windows such as help and the input window do not show up when I try to enter Japanese text. What's wrong?

If you have System 7.1P4 or later, open the Performa Control Panel and turn off **Finder Hiding**. Then restart your computer to enter Japanese through the input window.

If you have System 7.1P3 or earlier,

remove the Launcher from the Control Panels folder, and place it in the Startup Items folder. Restart your computer; **Finder Hiding** is deactivated.

Does the JLK let all my applications process Japanese text after installation?

No, the JLK places Japanese resources into your System Folder, but still requires a WorldScript-savvy or Japanese localized application for professional results. WorldScript-savvy applications let you use any installed language scripts your system is using, like Japanese.

If you are unsure, contact the manufacturer to see if your favorite application is WorldScript-savvy. Here is a partial list of WorldScript savvy software covering a variety of categories:

APPLICATION	COMPANY
AllPage 1.82	MicroMacro
AllScript 1.81	MicroMacro
FreeHand 3.1 Asian	Aldus
HyperCard 2.2	Apple
Imprint 3.5	Ivy Systems
In Control 2.0	Attain
Nisus 3.482	Nisus
Persuasion 2.1 Asian	Aldus
Sindex 2.0	WinSoft
StatView 4.01	Abacus Concepts
WinFile 1.7	WinSoft
WinText 2.7.1	WinSoft
WinView 1.7	WinSoft
WordPerfect 3.0	WordPerfect

Note: Apple does not recommend the use of programs that are not WorldScript-savvy or localized into Japanese. They may cause loss of Japanese text over time. 🍏

System 7 File Sharing

By Janet Christian

You can define file sharing in System 7 for up to 10 top-level items (drives and parent folders – folders inside folders don't count toward this limit). (This article uses the term "files" when a specific distinction is not important.)

You can define file sharing for as many guests or specific users (or groups of users) as you want. Up to 10 users (specific or guest) can simultaneously access your shared files.

Defining File Sharing

Setting up sharing includes these steps:

- Turning file sharing on for your Macintosh
- Defining users and groups (if you want to restrict access)
- Defining the files you want to share
- Monitoring and managing file sharing once you have activated it

Setting Up Sharing

The first thing you need to do is turn sharing capability on for your Macintosh. To do this, select the Sharing Setup Control Panel. Enter the owner and system names, click on the **Start** button for **File Sharing**, and close the Control Panel.

Defining Users and Groups

To restrict access to your shared files you must define the users and groups who will have access. If no restriction is necessary, then you simply permit "guest" access.

You define users and groups using the Users & Groups Control Panel. This Control Panel initially includes two items: one for you, as the owner, and one for guest access.

To allow guest access, double click on the <guest> icon, which displays a small

dialog box that gives you two options:

- Allow guests to connect
- Allow guest to link to programs on this Macintosh

Click on the options you want and then close the box.

To add additional users and groups, you select **New User** or **New Group** from the **File** menu. Both of these actions creates a new item in the Users & Groups folder.

If you create a New User, define the name as the name you want the user to use when accessing your shared files. To set specific access for the user, you double click on the user's icon, which displays this dialog box:

The screenshot shows a dialog box for a user named 'Charlie'. At the top, the name 'Charlie' is displayed. Below it is a 'User Password:' label followed by an empty text input field. A horizontal line separates this from the 'File Sharing' section, which is accompanied by a folder icon. Under 'File Sharing', there are two checked checkboxes: 'Allow user to connect' and 'Allow user to change password'. Below these is a 'Groups:' label and a list box containing the group name 'SIS'. Another horizontal line separates this from the 'Program Linking' section, which has a magnifying glass icon. Under 'Program Linking', there is one unchecked checkbox: 'Allow user to link to programs on this Macintosh'.

You specify the type of file sharing access to have, whether they belong to a Group folder (described next), and

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whether they have program linking capability. You also define an access password, if desired.

If you create a New Group, define the name as the name of the group. You then select and drag the applicable user icon(s) into the group folder. If you double click on the group folder, you see the users who belong to the group.

Sharing Drives and Folders

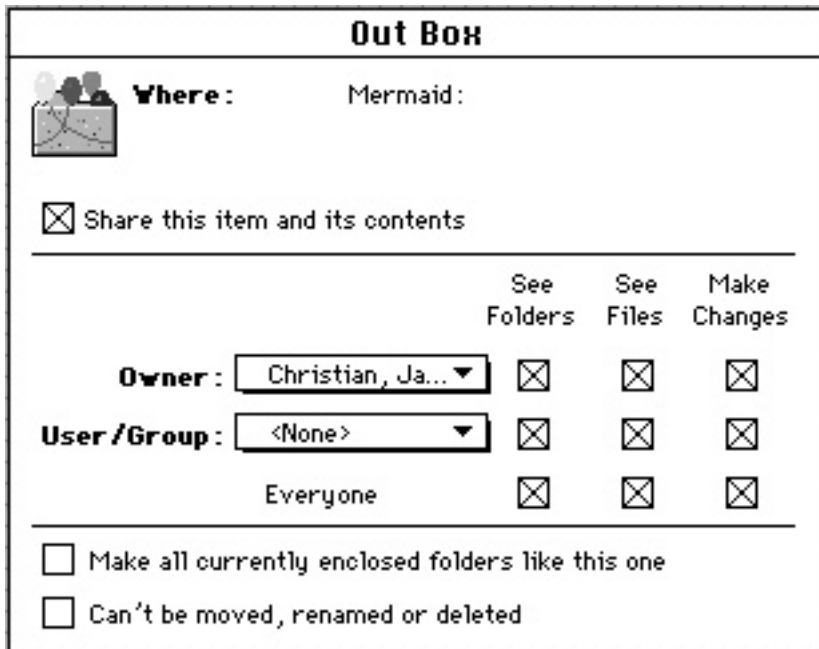
You define the drives and folders you want to share by highlighting the item and selecting the **Sharing** option from the **File** menu. A file sharing dialog box displays. An example of this dialog box is shown at the bottom of this page. This dialog box lets you:

- Share this item and its contents

For drives, this includes all files and top-level folders on the drive. For folders, this includes all files and sub-folders within the folder.

- Select who will have shared access

You can change the Owner to someone other than yourself.



You can also define access for a specific user or group. Or you can let everyone have access (as "guest").

- Define the level of access

You can restrict access for each user or group to seeing folders, seeing files, and making changes, or any combination of these.

- Share access "down the folder tree"

For folders, you can provide access to the folder and its immediate contents, or to all folders within the selected folder (by selecting "Make all currently enclosed folders like this one").

- Restrict modification

You can let users access information in your files and still restrict their ability to move, rename, or delete them (by selecting "Can't be moved, renamed or deleted").

Monitoring and Managing File Sharing

The File Sharing Monitor Control Panel lets you see what has been shared and shows you the name of any connected users (actually the names you have allowed users to connect with). In addition, the monitor lets you

disconnect any connected users. A thermometer-style meter indicates the activity level of the server.

Viewing File Sharing Status

To see whether file sharing is turned on, simply open the File Sharing Monitor Control Panel. Information in the File Sharing Monitor updates as the status of file sharing on your Macintosh changes.

Disconnecting a File Sharing User

To disconnect a user from file sharing on your Macintosh, open the File

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Sharing Monitor Control Panel. Highlight the user or user names you want to disconnect and click on the **Disconnect** button. At the prompt, enter the number of minutes to wait before the disconnect (enter 0 for immediate disconnect) and click on **OK**.

A message announcing the pending disconnect displays on the monitor of each Macintosh that is currently sharing files on your system, or you can turn off your system to disconnect them all.

Troubleshooting Tips

Here are the most common problems and the things you should verify first.

Users can't see a shared volume or folder

- Make sure that File Sharing is turned on
- Make sure the volume or folder has the "Share this item..." box selected
- Check your network connections and

make sure both you and the user have access to the same network

Users can't log on

- Make sure the user has the correct name and password (see **Defining Users and Groups** on page 11)
- Make sure the **Caps Lock** key is not down since passwords are case-sensitive
- Make sure the user has permission to connect (see **Defining Users and Groups** on page 11)
- Make sure the user has access to the same volume or folder that has been shared

Unexpected disconnects

- Make sure the Macintosh acting as a server has not gone down or been turned off
- Check for network problems 🍏

New Places to Find the Information Alley

You can now find the Information Alley on these on-line services and BBSs:

- **NIFTY-Serve** Online Service (Japan)

Commercial online service. Up to 2400 bps: 10 yen/min. (8 am to 3 am); 8 yen/min (3 am to 8 am). Up to 14,400 bps: 25/yen/min (8 am to 3 am); 20 yen/min (3 am to 8 am). Path is: Macintosh Users SIG Japan Library. Shortcut is: GO FMACUSL.

- **Heartway Online Network** BBS (Japan)

A FirstClass server, accessed by many independent FirstClass servers. Server speeds range from 9600 bps to 28,800 bps with an analog modem or 56 K/second with ISDN.

- **FC-Link** BBS (Japan)

A FirstClass server; access is as described for Heartway Online Network.

- **moovBBS/OneNet Japan** BBS (Japan) – 03-5707-7211

BBS of one of the Macintosh Users Groups in Japan. BBS access is free; to download files (including the Information Alley) the fee is x6,000 per year donation to the users group. Access speed is up to 14,400 bps. FirstClassx Client is required. 🍏

MAE: Frequently Asked Questions – Part 2

By Fred Widmer

This is part two of a multi-part article that provides answers to the most frequently asked technical questions about the Macintosh Application Environment (MAE). Part 2 covers troubleshooting, printing, and networking.



Troubleshooting

I've just installed MAE 1.0 from the CD. When started, MAE opens a window, displays a splash screen, then displays the "Welcome to Macintosh" screen and bombs. What do I do now?

Follow these steps to help you troubleshoot this and other MAE start problems:

STEP	ACTION
1	Install and run MAE under a user account on the console machine (the root account tries to build a System Folder in the root directory – which may not have enough free disk space). Your HOME directory should be local to the console machine (not via some NFS or other mount point).

STEP	ACTION
2	Make sure that you have plenty of available disk space in your HOME file system (the Installer checks free space for the package install but MAE builds a System Folder in your HOME directory and there should be at least 5 MB available for it).
3	Make sure there are no NFS (or other) mount points within your HOME directory or in any of its parent directories. The first time MAE starts up, it scans through all these directories up to the root, which can trigger the automounter or AFS cells if these mount points are in the path. This can cause long delays or "hanging" situations at startup. Stale NFS mount points also cause these problems.
4	Check UNIX permissions on your HOME directory and the files and directories within the Apple directory (this should not be a problem unless you installed or operated as root or some other privileged account). You <u>must</u> be able to create the System Folder directory in your HOME directory.
5	Check the workstation RAM and available swap space to ensure there is enough to run MAE (which runs in 16 MB minimum).
6	If a problem occurs after "Rebuilding the Desktop" begins or if rebuilding takes a long time, cancel the rebuild.

Once you get MAE to successfully run, work back until you discover what caused your problem.

Everything works except I don't seem to be able to access the floppy drive on my Sun workstation. How can I fix this?

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Ensure the permissions on the floppy device file symlinked to **/dev/rdiskette** are readable and writable by you.

In addition, software products that do not currently support the Solaris Volume Manager conflict with MAE, which uses the Volume Manager. Until software products that are incompatible with the Volume Manager are upgraded to support it, you can work around this conflict by turning the Volume Manager on when using floppies or CDs in MAE and off when using other software. This work-around is only necessary when accessing a Macintosh floppy or CD since MAE doesn't use the Volume Manager until you try to access a Macintosh disk. Beware, too, that some software disables Volume Manager control at the device level by changing your **/etc/vold.conf** file, rather than starting or stopping the Volume Manager's vold process.

Printing

When I cancel printing in MAE, is the job really canceled or will a partial job be queued to UNIX?

If a "Printing Canceled" or some equivalent dialog comes up, then the entire print job is canceled and nothing gets printed. Note that the ⌘ and . (period) keys may need to be held down for a few seconds to ensure this occurs. After the application has completed writing the print job, MAE queues the entire print job to UNIX where it is printed by the UNIX spooler.

Networking

Does MAE 1.0 work with hard mounted NFS filesystems?

Yes, MAE works with hard mounted NFS filesystems. However like any application, MAE can hang if an NFS server mounted with the hard mount option goes down. (This problem will be addressed in a future patch.)

Does MAE 1.0 work with NFS automounters?

Yes, MAE works with NFS automounters. However, as with any application that scans the filesystem, MAE's behavior is dependent on your setup. For example, if a directory contains a large number of direct mapped automount points, then whenever this directory is opened and scanned (such as when the MAE Finder opens a folder on the desktop to display its contents), the automounter is triggered to mount each of the NFS filesystems in that directory. This can produce a "mount storm" of activity with a corresponding delay dependent on the number of mount points and the time it takes to mount each of them. In addition, if any of the servers are down, then MAE can hang. On the other hand, directories of indirect mapped automount points do not have these problems since the mapped directories are not being specifically referenced.

A related MAE startup delay can occur if your site has configured the automounter to place NFS filesystems on direct mapped mount points within any directory on the path to your home directory (including /).

The reason for this is that when MAE first runs, it opens and examines each directory along the path from the root to your home directory to gather information that is used to present the Macintosh desktop. For example, if your home is **/nfs/sitename/users/joe**, MAE tries to open and read **/**, **/nfs**, **/nfs/sitename**, and so on. This behavior can cause MAE to trigger the automounter for all direct mapped automount points listed in any directory along the path to your home (which could take a long time). In addition, as with hard mounted NFS filesystems, MAE may hang if any of those NFS servers is down.

Does MAE 1.0 work with Andrew Filesystems (AFS)?

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AFS is not supported under MAE 1.0. However, MAE can be used on a workstation that is an AFS client if you start MAE 1.0 with **\$HOME** referencing a filesystem that is not in your **/afs** hierarchy. As with the NFS automounter, when MAE traverses the path to your home directory on startup, any AFS cells found along this path may be contacted (which could produce a very long delay). In addition, MAE may hang if one of the cells in **/afs** is down.

Compatibility

Does MAE run with the Ross HyperSparc processor upgrade?

No, this release of MAE does not support Ross HyperSparcs.

Does MAE support the Chinese and Japanese language kits?

These kits are not supported under MAE release 1.0. But like many applications, however, they may work adequately for your needs.

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

No. Apple does NOT support HFS format hard disks (only CDs and floppies) in MAE. Further, you may potentially damage your workstation or Macintosh disk if you try this since most workstations use fast differential SCSI2, which is electrically different from single-ended SCSI2 or SCSI1 used by most Mac SCSI drives.

What kinds of removable media are compatible with MAE?

The current release of MAE only supports Macintosh formatted CDs and 1.4 MB floppy disks.

Are ISO 9660 formatted CDs compatible with MAE?

No. MAE cannot mount ISO 9660 format

CDs. If these CDs are mounted under UNIX (Solaris 2.3 does this automatically), the mounted directory should be accessible to MAE. Do not add the "ISO 9660 File Access" extension (or any of the other Macintosh CD-ROM extensions) to your System Folder – it does not work.

Miscellaneous

What are the AppleSingle and AppleDouble file formats?

Apple provides two standards for representing files on foreign file systems. The goal is to preserve all attributes of the file's home file system on file systems that don't otherwise support the same attributes. MAE can read and write to both formats.

AppleSingle format keeps all contents and attributes of a file in a single file on the foreign file system. Both the data and resource forks of a Macintosh file, the Finder information and associated icons, and so on, are all arranged in a single file with a simple structure.

AppleDouble format is the same as AppleSingle format, except that the data fork is kept in a separate file from the resource fork and Finder information. The two can be distinguished by a % sign preceding the file name of the file containing the resource and Finder information. Apple recommends that AppleSingle format should be used to transfer files to MAE whenever possible.

Can MAE read MacBinary file formats?

No, MAE only reads AppleSingle and AppleDouble file formats.

I notice that MAE uses CPU resources even when I'm not doing anything. Is there a way I can stop an idle MAE from eating these cycles?

There is no method within MAE to halt operation in this release. If this

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overhead is a problem, you can press **Control-Z** (or whatever **stty suspend** is set to) in the controlling window. Typing **fg** in the controlling window awakens MAE.

Note that the controlling window is the window where MAE was started. If MAE is started from a Window Manager menu, then you can't use this trick. Also, if your shell doesn't support job control then it won't work either.

How do I remove MAE from my system?

To remove MAE, delete the following:

- ~/apple (and all its contents)
- ~/ "System Folder" (and all its contents)
- ~/ .mac (and all its contents)
- ~/man1
- ~/docs

Note that you may have installed your **Apple** directory in a place other than your **HOME** directory and you may also have chosen to create multiple "System Folders" (using the **-sysfol** argument or by running MAE with different user IDs).

Is there any way to access the workstation serial ports through MAE?

No, this release of MAE does not support serial ports.

What happens to applications that use sound?

MAE returns an error to the application when it requests sound support. If the application doesn't check for this error (refusing to believe the Macintosh doesn't have sound capability), the application may not behave correctly.

What happens to file names that begin with the characters "//" ?

MAE looks in the root directory for these files. For example, if you save a file with

name **//foo**, MAE attempts to write file **foo** into directory **/**.

How do I change the size of the desktop font used for filenames?

Use the **Views** control panel.

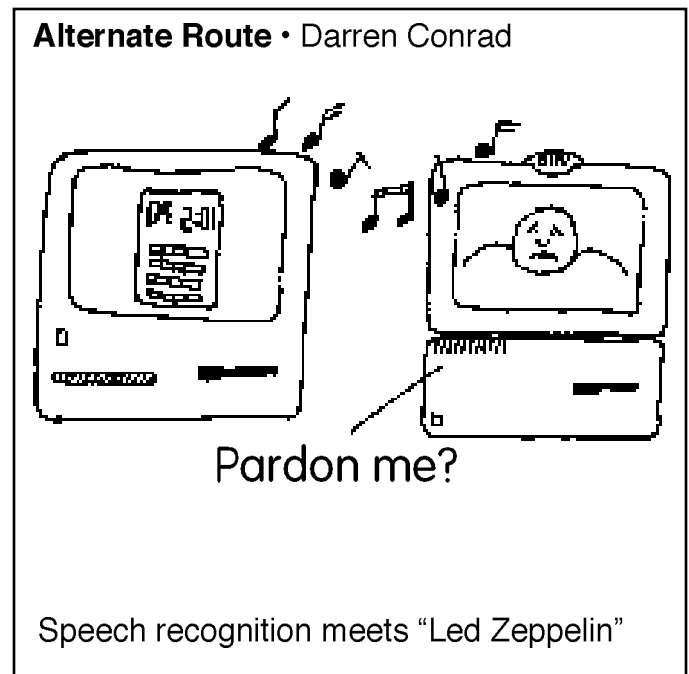
How do I show "." files and directories in MAE Finder windows.

You can show/hide these files and directories by setting the appropriate check box in the **Views** control panel.

The Views control panel check box for "Calculate folder sizes" does not seem to work and neither does the "Get Info" menu command. How can I find out the size of a folder from within MAE?

By setting the "Calculate folder sizes" check box in the Views control panel and viewing the contents of a folder "by size", the folder sizes within that directory will be calculated and displayed.

WARNING: this can take a very long time depending on the depth of your directory. 🍏



Apple Workgroup Server 95 – Recovering From a Crash

By Ed Rupp and Randall Lemley

Apple's Workgroup Server 95 is based on the A/UX operating system. A/UX integrates the Macintosh System 7 Finder interface with industry-standard UNIX. Because the Workgroup Server 95 is running A/UX, the procedure for recovering from a system crash is different than that used to recover a Macintosh running the Macintosh OS.



Restarting the Server

The System 7 Finder runs as an A/UX process. Therefore it is possible for the Finder to be "locked up" but still have other A/UX processes running within the server.

Complete the following steps, in the order they are given, to reduce the chance of worsening the existing problem or causing further problems with A/UX during system shutdown and restart.

STEP	ACTION
1	Simultaneously press and release the three keys: ⌘-Control-E . The ⌘-Control-E key sequence forces a restart of the Macintosh Finder process running within A/UX. After pressing and releasing the keys, wait for at least one minute for the Finder to restart before proceeding. If you are able to successfully restart the Finder process, it is recommended that you immediately restart the Workgroup Server 95 by selecting the Restart option under the Special menu and running fsck .
2	If no response is generated by ⌘-Control-E , turn the Workgroup Server 95 off using the key switch on its front panel. Turn the key counter-clockwise to the Off position to send a signal to the main logic board to perform an orderly shutdown of A/UX processes. As before, wait at least one minute for this action to complete before assuming it was unsuccessful. If you are successful in shutting down the server, turn the key back to the On position, restart the server, and run fsck .

The last option for restarting the server is to press the **Reset** button on the front panel of the server. Do this only if both the previously mentioned steps were not successful.

Running fsck

When restarting the server after a system crash, it is recommended that you perform a manual file system check (**fsck**) from the A/UX Startup shell. Any file system inconsistency is made worse if you continue to use the file system (thus modifying it further) without running **fsck**.

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To enter A/UX Startup, watch for the status box that says "Welcome to the Apple Workgroup Server 95" – it appears when you turn on the system. Click the **Cancel** button or press ⌘-. (period) to cancel the A/UX startup process and display the A/UX Startup shell. Once the A/UX Startup shell window is displayed, this command-line prompt appears:

startup#

At the prompt, type this UNIX command (using lower case):

fsck -y /dev/default

Press **Return** to start **fsck**. The **fsck** program lets you know which phase and what file system it is in at any given time. It may take several minutes to complete the check. For a complete description of all the phases of **fsck**, refer to the Server Administration with A/UX manual that came with your

Workgroup Server 95.

On completion of **fsck**, if you see a message that says "FILE SYSTEM WAS MODIFIED" it is recommended that you run **fsck** again using the same command. You want **fsck** to make a complete check without changing anything.

Launching A/UX

Once the file system has been checked, you need to launch A/UX. At the startup prompt type this command and press **Return**:

launch

The server should now launch normally. You may want to consider manually running **fsck** periodically (every 2 weeks) as part of your normal server maintenance. This could help to prevent system crashes or poor server performance. 🍏

Microsoft Fox Pro and AppleShare/AIR

By Doug Kornis

When you install Fox Pro 2.5 on a Macintosh computer, the Apple Shared Library Manager (ASLM) software is also installed. This causes a problem if you are running AppleShare 4.0 or Apple Internet Router (AIR) 3.0, which uses ASLM version 1.0. AppleShare File Server fails to initialize because of an incompatible version of Apple Shared Library Manager. The Router may fail to initialize for the same reason, only if the SNMP extensions are installed, as this is the only part of the Router that uses ASLM.

The solution is to upgrade to AppleShare 4.0.1 or AIR 3.0.1, which provides compatibility with ASLM version 1.1. Fox Pro, Internet Router, and AppleShare Server can then co-exist using a single version of ASLM. 🍏

WARNING! Do not use Speed Disk 3.0!

Symantec Corporation reports a problem running Norton Speed Disk 3.0 for the Macintosh on any hard disk. Running this program can cause data loss on the hard disk. Symantec has suspended shipment of this product and will replace all units in retail stores with a 3.1 version. Symantec will ship updates automatically to registered users and upgrade customers. Updates are now available through Symantec customer service and several online services. Contact Symantec at (800) 441-7234 for additional information. 🍏

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