INFORMATION

ALLEY

"Get Off the Highway and Into the Alley ™"

In This Issue...

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.

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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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We also welcome letters to the editor and suggestions for future articles. Please send all letters to the preceding address.

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Thoughts from the Alley Cat (Editor)

Happy Holidays!

By Janet Christian

Article Clarification
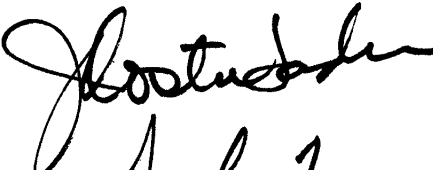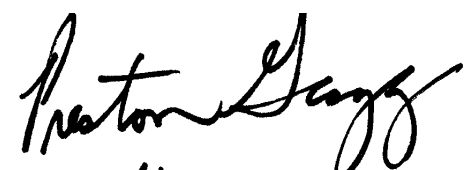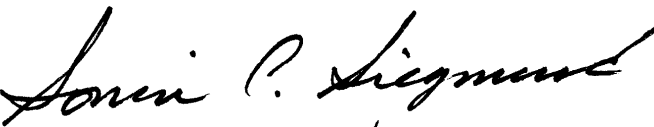
The last issue of the *Information Alley* (28 November 1994) included an article titled *What is GPi and What Systems Support It?*. This article explained that some Macintosh models do not have GPi capabilities, which causes a problem running super-fast modems. We received feedback from several customers asking for clarification on exactly what was meant by "super-fast".

We escalated this question internally and received a detailed response and clarification. You will find this response in an article titled *GPi Super-Fast Modem Clarification* on page 11.

Happy Holidays from the Information Alley Staff

Different cultures and different religions celebrate this time of year in many ways. We wish you all a happy and safe holiday season. Since Apple Computer closes the last week of December, we will not be publishing a 26 December 1994 issue of the *Information Alley*. Our next issue will be 9 January 1995.

We plan great things for the *Information Alley* in 1995 – and we want the *Information Alley* to continue growing as a useful tool for you. We are still interested in your article suggestions, so don't forget to let us hear from you (email, fax, or direct mail is welcome).

Increase QuickTime Performance with Multimedia Tuner

By Jim Armstrong

The Apple Multimedia Tuner is a fix for problems such as slow response and freezes with QuickTime 2.0 and various third party applications.

About the Multimedia Tuner

The Multimedia Tuner is a system extension that helps improve the playback performance of multimedia titles, especially those created with Macromedia Director. It is used in conjunction with QuickTime 1.6.1, 1.6.2, or 2.0 for Macintosh, or with Sound Manager 3.0.

Macromedia's implementation of the QuickTime Application Program Interface (API) was not completed according to our developer guidelines, consequently some CD-ROM titles that are created with Macromedia Director do not perform optimally in certain situations. The problems existed with previous versions of QuickTime, such as QuickTime 1.6.1, but are particularly pronounced with QuickTime 2.0.

Anyone who is using a CD-ROM title created with Macromedia Director should consider using the Tuner extension whether using QuickTime 1.6.1 or QuickTime 2.0. In some cases, the Tuner also improves performance of CD titles that have been created with other applications. Macromedia Director 4.0.4 solves these issues, but titles created with previous versions of Director should have improved performance with the Multimedia Tuner.

The Multimedia Tuner is not specific to a bug fix for QuickTime 2.0. It improves performance of titles that interact with QuickTime 1.6.1, 2.0, and in some cases, products that use the Sound Manager 3.0

No license or licensing fee is required for the Multimedia Tuner; you can distribute it freely. QuickTime 2.0 system software requires a license from Apple Software licensing.

Minor Enhancements

A number of minor enhancement have also been added to the Multimedia Tuner, improving multimedia system performance in some situations:

- Sound Manager 3.0 required too much memory in the system heap. Sound now plays even if there is almost no system memory available.

- Includes the changes made after QuickTime 2.0 for Adobe Premier 4.0 and VideoVision Studio 2.0. This decreases memory usage when many clips are open, and increases performance for hardware decompressors.

Getting the Multimedia Tuner

The Multimedia Tuner is distributed at no charge, with no licensing fee or agreement required. Here are a few locations where you can obtain it:

- Macromedia – Director Bulletin Board/ Patch Network

- Apple Developer CD – Apple Multimedia Program

- Online – AppleLink, eWorld, Internet

Printer Sharing Between QuickDraw GX and Non-GX Users

By Denny Carag

With QuickDraw GX, you can create a shareable desktop printer by choosing the **Share Printer** command from the **Printer** menu. QuickDraw GX adds the **Printer** menu item to the menu bar when you click on a printer icon. You can also set up a desktop printer for sharing just like you set up a file for sharing; choose the **Sharing** command from the **File** menu.

To use the print sharing feature of QuickDraw GX, LaserWriter GX *must* be installed in the client Macintosh that needs to print to the serial printer connected to the host Macintosh. This is the reason that the checkbox **Non-QuickDraw GX Systems May Also Use This Printer** is grayed out. The previous implementation of print sharing with PrinterShare (also known as GrayShare/ColorShare) is *not* compatible with QuickDraw GX. They utilize different techniques for sharing and also provide different functionality. With network printers, checking the **Share Printer** box works exactly like the **Bypass** option of the AppleShare Print Server; users on a non-GX node print directly to the printer without having to go through the host Macintosh. Thus, it is only with LaserWriter GX that the checkbox is functional; other GX print drivers for QuickDraw printers (such as StyleWriter GX, ImageWriter GX, and so on) have the checkbox grayed out.

Microsoft Office 4.2 Freezes on System 7.5

From Apple World Wide Product Technical Support

Your system may occasionally freeze if you have System 7.5 and Microsoft Office 4.2 (including Word 6.0 and Excel 5.0). This happens less frequently when just running System 7.5 with no Microsoft applications.

Microsoft Office 4.2 comes with RAM Doubler. If you are using System 7.5 you should run RAM Doubler 1.5.1 or higher. Some versions of RAM doubler that shipped with Microsoft Office included RAM Doubler 1.0.4 and should be upgraded.

Follow these steps to check your version:

STEP	ACTION
1	Open the Extensions Folder in the System Folder.
2	Click on the RAM Doubler extension once to highlight.
3	Select **Get Info** from the File menu (or press ⌘-i) and read the version number.

Although Connectix wrote RAM Doubler, if it shipped with Microsoft Office you need to call Microsoft to get the update, not Connectix. You can contact Microsoft Technical Support at:

Microsoft Corporation
One Microsoft Way
Redmond, WA 98052-6399

Technical Support:
(206) 454-2030

Using a Hard Drive with a LaserWriter Printer for Fax Storage

By Bob McConachie

Page 150 of the LaserWriter 16/600 manual includes the following statement:

"...internal hard disk...provides space for font storage. If you have the LaserWriter 16/600 Postscript Fax Card installed, you can also store incoming faxes on the hard disk."

This article describes what this means and the general advantages of using hard drives attached to PostScript fax equipped printers.
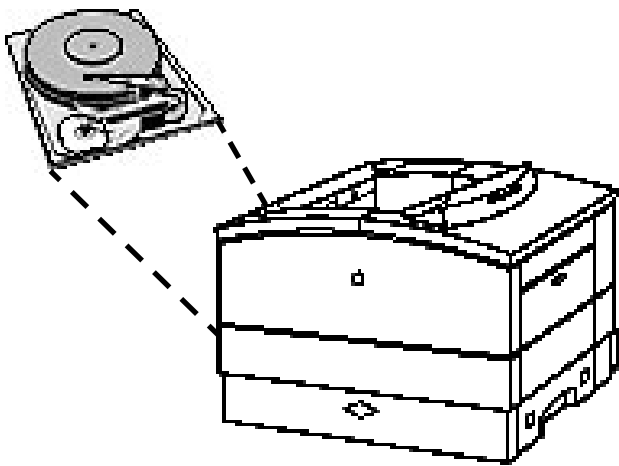
A hard drive connected to your PostScript fax equipped LaserWriter can also store fax jobs. In addition to all of the normal advantages of having a hard drive connected to your printer for font and print job storage, you can transmit and receive longer faxes with one phone call because there is typically more space available on a hard drive than in RAM. If the destination printer is busy printing a document, the printer saves incoming faxes in memory and/or on the hard drive. When the printer is done printing the current print job, it then prints the stored documents. Therefore, if you are using a hard drive, there is a potential for receiving and buffering more fax jobs.

However, having a hard drive attached to a fax capable LaserWriter does not let you store a fax or printing job for an extended period of time. All print or fax jobs are stored temporarily. When the printer is free to process the documents, they are printed then deleted.

If the destination printer runs out of paper, the printer buffers the queued fax print jobs until paper is provided. The printer continues to accept incoming faxes until its RAM and hard drive buffer are full, at which point it no longer accepts calls.

Faxes sent in the PostScript file format are generally more compact than traditional faxes, thus reducing the transmission time and cost. However, if the file contains complex graphics or images, then the size of the PostScript file can exceed the size of the standard raster fax. File size is reduced because PostScript Fax uses the built-in LZW compression and decompression capability of PostScript Level 2.

The memory required to handle fonts becomes an issue when the recipient's fax device is another PostScript fax device, and a PostScript fax is being sent. The sending fax device has no way of determining if the target PostScript fax device has additional fonts beyond the standard 35 fonts installed. So, if the document being sent requires additional fonts, the PostScript Fax printer automatically sends the additional fonts along with the PostScript file to the recipient's fax printer. PostScript fonts are generally about 35KB in size and require

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approximately 35 seconds of additional transmission time for each font transmitted.

The reality of running out of RAM is unlikely in most circumstances. Apple has not tested the upper limit. Apple has transmitted and buffered, in RAM, as many as 20 one page PostScript faxes to a PostScript Fax LaserWriter without running out of RAM. Even though 20 print jobs were buffered, additional variables such as these can cause different results:

• The fax job is a PostScript fax file

• Fonts are downloaded

• The job is in Group 3 standard mode (200 dpi by 100 dpi)

• G3 fine mode (200 dpi by 200 dpi)

If raster faxes encounter memory limitations, they can be transmitted in multiple calls. However, if the sender or receiver does not have sufficient storage to hold all of a transmitted PostScript fax, the job fails. In this case, having a hard drive connected to one or both printers may enable the transmission to succeed. 🍎

System 7.5 Scrapbook Out of Memory Message

By Anthony Snyder

After upgrading to System 7.5, you may notice that the items in the Scrapbook now gives you "out of memory" error messages.

The Scrapbook in System 7.5 was re-written to provide greater functionality. Two of the new features are:

• Support for drag and drop clippings
• The ability to resize

It was also rewritten as an application under System 7.5 rather than a desk accessory, which means that a certain amount of memory can be allocated for the Scrapbook application through the **Get Info** command in the Finder.

If you get multiple out of memory messages when opening the Scrapbook, then increase the preferred memory allocation 100-200k using the **Get Info** command (use the search string **change program memory** in Apple Guide for more information). 🍎

Tips and Tidbits

Maelstrom

Set your system date to December 25 to see a new opening screen, complete with red Christmas tree ornaments. [Contributed by Simon Lawson]

Airborne!

On December 25, the cactus becomes a Christmas tree.

A-Train (Maxis)

On December 25, you can see Santa and the reindeer on the left side of the play screen.

Dark Castle

Set your system clock to December 25 and play for some surprises. 🍎

Newton Memory – Types and Errors

By Brian Schussler

This article describes the different types of memory on the Newton MessagePad, how to get the most out of your existing memory, and memory related errors.

Types of Memory

The Newton has two kinds of memory:

- System memory
- User storage

System memory is analogous to the RAM memory in a desktop computer; user storage to the storage space on a disk drive.

The memory space reported in the Memory Preferences window is for user storage. This system memory is further broken down into different uses. It is in the system memory that programs actually run and store the intermediate data that they create. Permanent data, as well as the packages themselves, are stored in the user storage. There are shareware packages that measure system memory (heap space), but it is not displayed by the Newton system software.

Out-of-Memory-Restart Error

When an out-of-memory-restart error occurs, this indicates that the Newton ran out of system memory. That is, some part of the system or a package made a request to use system memory and that request failed due to insufficient memory. The machine was unable to proceed without the memory so the only option at that point is to reset the Newton MessagePad. It is a way to wipe the slate clean and start again. Tapping **Reset** in the error dialog has the same effect on system memory as opening the battery door and pressing reset.

Normally there is enough system memory for normal operation, but each time you load in a new package, either by downloading, or by inserting a PCMCIA card, the package is "installed" and requires memory. Installation integrates the package into the Newton. It uses some small amount of system memory to do this. Installing too many packages causes the Newton MessagePad to run out of system memory. If this were the only cause of out-of-memory-restart errors, the problem would rarely occur. Installing a package takes up only a few hundred bytes. Installing hundreds of packages would be required to run out of memory this way.

Removing Packages

Removing the PCMCIA card, the software from the card, or the internal user storage removes both the package and the integration information. This frees up a small amount of system memory.

Packages can do other things to make permanent use of system memory. They can create objects and then leave references to those objects around so the system cannot get rid of them. Resetting the Newton removes all these objects and references until a package creates them again. It is this "waste

data" left around by packages that contributes to memory problems. Some packages can leave around 20K bytes or more of data each.

Why does this limitation exist?

Whenever you close or quit an application the information for this application is eliminated and the memory space reclaimed. Only when many applications are run simultaneously does a system run out of memory. You can attempt to run one application that asks for more memory than is available, but this is a less common case. Most applications know how to live within their own memory allocation. The system only has problems when several of them are run simultaneously.

Consider a Macintosh or a Windows computer. A user running System 7 typically has 8 to 32 MB of RAM and at least 120 MB of disk. However, there are still many Macintosh Plus computers out there with 1 MB of RAM and a 20 MB hard disk. These arguments apply to them too, it's just a matter of scale. When running a program on a Macintosh, memory is allocated to the program when it is loaded from the disk, and the program's function is performed. Afterward the program and the data are flushed from the RAM, the memory is reused to run the next program. When the program is not running, it cannot receive messages, respond to changes in its files, or communicate.

The Newton MessagePad architecture is targeted at machines you can hold in your hand for less than $600. This means that the storage must be compressed both in space and cost (not to mention battery power requirements). It is this compression that led to Apple's creation of NewtonScript, an interpreted language that is far more memory efficient than C or C++.

Newton Soups

The Newton MessagePad architecture is also targeted at being a personal assistant. As an assistant, all of its functions should be available all the time. It has an object oriented database, called *soups*, rather than files, so that Newton functions and packages have access to all the data. Cross functional inter-package access to data is allowed and even encouraged.

Even when it's not "running", a Newton package can respond to changes in its soups, it can respond to incoming data from modem, network, infrared, or even messages from other packages.

Newton packages can access the data in another package's soup. A fax editor package can make use of the Names soup for its address book. It can get its data from the NotePad, or from an email message. A Contact Manager package can make use of the Names soup to look up contact information. It can schedule items into the To Do list, or the Calendar. Apple calls this Newton Intelligence.

There are single applications on desktop computers that integrate these sorts of cross functions. These "all in one" applications exist because developers have not exploited the inter-application communication capability of System 7.5. As a result, in most cases, you cannot have your favorite address book program communicate with your favorite calendar program to create a contact manager function.

Newton packages need to always be active in some way. When a package is loaded into the Newton, the package

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tells the system about itself and its soups. It prepares itself and the system to deal with its soup data and messages it might receive. This causes the package to take up system memory even though the user has not opened it. Again, only a very small amount of memory is used up for this capability.

Minimizing Out-of-Memory-Restart Messages

Users who load packages that leave "waste data" around will eventually see out-of-memory-restart messages.

The way to minimize this problem is by not loading packages that require a lot of permanent system memory. Watch out for these packages and put them on a separate card. Run these packages by themselves. When you are through running them, the Newton MessagePad should be reset. This is an extreme measure, and only applicable if you are getting a lot of out-of-memory-restart errors.

Here is another strategy. When you identify a particular package or combination of packages that causes out-of-memory-restart errors, break up that particular combination. "Break up" means do not have this combination installed simultaneously. If you install lots of packages internally, move some of them to cards that are not normally loaded in the Newton MessagePad. Remove packages that have little or marginal value.

As developers learn more about the Newton MessagePad, fewer packages will waste space. Even now, the Newton performs well for the majority of customers. It offers users and developers features that electronic products have not had available before.

Questions and Answers

Q: How can customers identify packages that use more system memory?

A: There are various shareware packages that measure system memory (heap space). Users with access to one of these packages can measure the amount of system memory a package uses by measuring the system memory just before and just after running the package the first time. The amount that the system memory goes down is the amount used by the package. If the amount is more than one or two kilobytes then that package is using more memory than it should.

Users who do not have access to a package that measures system memory have to infer which packages are causing problems. When out-of-memory-restart errors are frequent, the installed combination of packages is straining the Newton. Try to break up this combination until the errors stop. It's sort of like tracking down conflicting extensions on the Macintosh or conflicting memory resident applications on the MS-DOS PC.

Q: Is removing install scripts with a soup editor such as RemoveIt, StewPot, or Souper a good or bad idea to increase system memory?

A: It's a bad idea. The install script may contain code that the package needs while running. The package authors need to be the ones to modify a package to use less system memory. It's not a good idea to try and second guess the authors of the package.

Tips and Tidbits

QuickTime

When playing a QuickTime movie, hold down **Shift** and double-click inside the main movie window itself. The movie and sound play backwards. [From *System 7.5 Easter Eggs* – compiled by Stanton Sky.]

GPi Super-Fast Modem Clarification

By Mike Martin

<u>What is GPi?</u>

GPi is a signal pin that is used on the serial connector of a DIN-8 (DIN-9 on Geoport enabled Macintosh computers). It was intended to provide a way for the Macintosh to support communication devices that needed to pass along pacing information (an external clocking signal).

This signal was typically needed several years ago by modems that were synchronous serial modems. This "class" of modems is typically used for specialized purposes, as into tying into certain computer data networks or directly into a remote communications controller.

Today, the vast majority (98% or better) of personal computer remote communications are done via asynchronous modems. The need for GPi to be used as a synchronous external clock input is rare. Asynchronous serial modems today go as fast as 28,800 bps over the communication link, and if the data going over that link is highly compressible, it is theoretically possible that the actual data rate (because of the gain in compression) can approach 115,000 bps.

However, there is a more practical use for the GPi control line – hardware handshaking. Hardware handshaking is a method of signaling used between hardware devices (computer and modem) to pace the "conversations" over the serial line to help ensure that characters and other information do not get "dropped". Typically speaking, most Macintosh computers that are communicating serially to a modem only require a special cable called a "high speed hardware handshaking cable" to speak at serial port speeds of 9600 bps or higher.

In Macintosh computers that support the GPi connection, the GPi line goes to the "Data Carrier Detect" or DCD signal line of the serial control chip. It is located at pin 7 on the DIN-8 serial connectors, and connects to the DCD input of the Z8530 Serial Communications Controller (SCC). Some machines that do not support GPi include the Macintosh Plus, Macintosh Classic, and Macintosh LC. On these machines, pins 7 of the DIN-8 serial connectors are not connected.

There is no one correct way to institute a hardware handshaking protocol as it relies heavily on a combination of events: the software requiring serial communications, the cable used to connect the computer and the external serial communications device (typically a modem of sorts), and the communications device itself (again, typically a modem).

In Macintosh software, the choice of using GPi is up to the programmer of the software. The software producer should tell you in the documentation whether their software relies on GPi and other configuration information. In most Macintosh serial communications software, the use of GPi is minimal or non-existent.

A few Macintosh computers (such as the Macintosh IIfx and Macintosh Quadra 950) are exceptions to certain hardware trends and require the use of special compatibility software to allow the use of communications software that require GPi control.

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GPi signal use can be instituted to allow for one form of Hardware handshaking control. However, the use of the GPi line is not ***required*** for the use of other hardware handshaking control schemes on the Macintosh. In fact, many "Super High Speed" modems do not use GPi to hardware handshake.

Can you use a "high Speed" modem with your Macintosh?

Yes, you can use a "Super High Speed" modem for your Macintosh. The general technical classification for these modems are:

- V.32 for 9600baud
- V.32bis for 14,400
- V.32ter for 19,200
- V.34 for 28,800

The data rate specified is typically the best data for that class of modem (for example, V.32 will never go faster than 9600, but it can communicate at 4800, 2400, and 1200 baud speeds) taking into account certain factors like quality of telecommunications line, how much "attention" your Macintosh can pay to the serial line, and other tasks that it needs to be doing at the same time.

In fact, for most Macintosh computers that are not equipped with the Geoport capability, the fastest ideal speed that you can expect the computer can speak at the serial connector is 57,600 bps. Geoport-equipped Macintosh computers can potentially go up to 230Kbps at the serial port.

Further Reference

For additional information about GPi technology, refer to the following publications:

- *Inside Macintosh, Volume III – The Macintosh Hardware*
- *Inside Macintosh, Volume VI – Compatibility Guidelines*

- *Guide to the Macintosh Family Hardware – Serial I/O Ports*

- *Technical Note M.OV. GestaltSysenvirons – Gestalt and Sysenvirons: A Never Ending Story*

- *Technical Note M.HW.MacIIfx – Macintosh IIfx: The Inside Story*

  Technical Manual: Z8530 SCC Serial Communications Controller (contact Zilog or AMD)

Tips and Tidbits

System 7.x About... Option

Hold down **Option** while choosing "About This Macintosh" from the Apple menu. (The menu option changes to "About the Finder" Select this option to bring up the original picture of the mountains from "About the Finder" in System 1.0.

If the creation date of the invisible "Desktop Folder" is May 13, 1991 (System 7's release date) or later, after several seconds the names of all the Finder developers through the Macintosh and Lisa history also scroll by.

In addition, if you hold down ⌘-**Option** while choosing "About This Macintosh" you get a goofy-face cursor along with the "About the Finder" window. Click on the desktop to return the cursor to normal and to close the Finder window. [Contributed by David Richardson and John Feinberg. From the 1994 **Macintosh/ Newton Easter Egg List** – compiled by Brian Kendig.]

Monitor Scan Rates

From the Technical Information Library

This article contains a list of scan rates of Apple Macintosh monitors.

Scan Rates

The scan rate is the time it takes a monitor's electron gun to move across one line of the screen or repeat one entire screen. These values are known as the horizontal and vertical scan rates, respectively. The monitor scan rate is the number of times a screen is redrawn each second. Computer display scan rates differ from standard video scan rates.

Interlaced versus Non-Interlaced Scans

Apple monitors use a non-interlaced, or progressive, scan. Interlacing is a technique used on character-based displays to create solid character text. It is also used on home television sets (the dominant standard in the United States being NTSC). Using alternate scan lines, the monitor performs high-speed retraces to create the illusion that the monitor has twice as many lines as it does. A major drawback of interlaced displays is their tendency to noticeably flicker thin horizontal lines, lines that are frequently used on the Macintosh interface.

The non-interlaced format used on Apple Macintosh monitors means that the horizontal and vertical scan rates are timed to cause the display electron guns to produce even progressively horizontal scans. The non-interlaced scan format helps prevent the flickering that you can see on some types of monitors.

Built-in Monitors

Monitor	Vert. (Hz)	Horiz. (KHz)
Macintosh 128K	60.15	22.25
Macintosh 512K	60.15	22.25
Macintosh 512Ke	60.15	22.25
Macintosh Plus	60.15	22.25
Macintosh SE	60.15	22.25
Macintosh SE/30	60.15	22.25
Macintosh Classic	60.15	22.25
Macintosh Classic II	60.15	22.25
Macintosh Color Classic	60.15	24.48
Macintosh LC 520	66.7	35

Apple and Macintosh Monitors

Monitor	Vert. (Hz)	Horiz. (KHz)
Apple 21-inch Color Display	75	68.7
Apple Two-Page Monitor	75	68.7
Apple 16-inch Color Display	75	50.0
Apple Portrait Display	75	68.9
Apple AudioVision 14 Display	66.7	35
Macintosh 14-in Color Display	66.7	35
Basic 14-inch Color Monitor	59.94	31.5
Performa Plus Display	66.7	35
Performa Display	66.7	35
13-inch AppleColor High-Resolution RGB Monitor	66.7	35
12-in. Apple High-Resolution Monochrome Monitor	66.7	35

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Multiple Scan Monitors

Apple Macintosh multiple scan monitors let users customize and adjust the size and position of the displayed image.

Apple Multiple Scan 15 Display

Mode	Resolution	Vert.	Horiz.
VGA	640x480	60.0	31.77
Macintosh	640x480	66.7	35.0
SVGA	800x600	72.0	48.1
SVGA	800x600	60.0	37.9
Macintosh	832x624	75.0	49.7
1024x768	1024x768	70.0	56.5

Apple Multiple Scan 17 display

Mode	Resolution	Vert.	Horiz.
VGA	640x480	59.95	31.47
Macintosh	640x480	66.7	35.0
VESA	640x480	75.0	37.5
VESA	800x600	75.0	46.9
SVGA	800x600	55.98	35.16
800x600	800x600	60.0	37.8
Macintosh	832x624	75.0	49.73
Macintosh	1024x768	75.00	60.2
1024x768	1024x768	60.0	48.3

Apple Multiple Scan 20 display

Mode	Resolution	Vert.	Horiz.
VGA	640x480	59.95	31.47
Macintosh	640x480	66.7	35.0
VESA	640x480	75.0	37.5
VESA	800x600	75.0	46.9
Macintosh	832x624	75.0	49.73
Macintosh	1024x768	74.93	60.24

Mode	Resolution	Vert.	Horiz.
VESA	1024x768	75.0	60.02
Macintosh	1152x870	75.0	68.7
VESA	1280x1024	75.0	79.98

In some cases, it may be necessary to reset the display settings of a multiple scan monitor to their factory defaults.

To reset these monitors, hold down **Control** button (which has the circle symbol above it), while pressing the **Reset** button (which has the triangle symbol).

Most of the time, just pressing the **Reset** button resets the display settings. However, pressing **Control-Reset** resets the CPU inside the Multiple Scan 17 Display and Multiple Scan 20 Display.

New Places to Find the *Information Alley*

You can now find the *Information Alley* on these online services and BBSs:

- (Update) **Imagine-Net** BBS (Irvine, California) – (714) 660-7738

  FirstClass, 14.4 kbps, two lines. Users automatically register when they call for the first time. The *Information Alley* can be located via this path:

  Computer_Forums/Computer_News_Services/The_Info_Alley

- **Pro-FAC** BBS – (810) 230-7754 (Flint, Michigan)

  Supports from 1200 to 9600 bps; 8 bits, no parity, one stop bit. Operates 24 hours a day. Accesses ProLine BBS, the Internet, and Usenet. Includes Apple II and Macintosh support. At the **Login** prompt, enter **Register** for an account.

Aliases – Common Questions and Answers

From the Technical Information Library

Issue 15 (14 November 1994) included an article titled *All About Aliases*, which described what aliases are and how to use them. This article answers several common questions about using Aliases with your Macintosh computer.
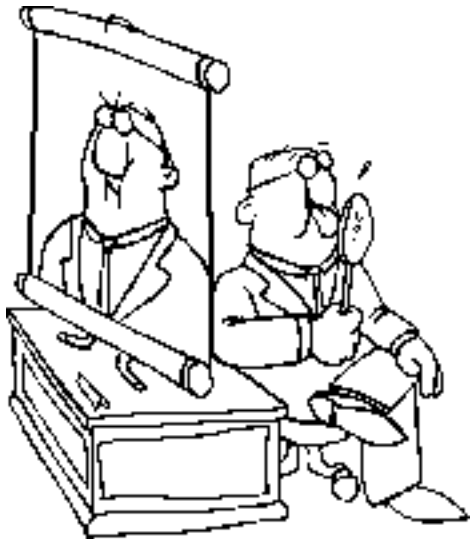
Q: Will aliases work with disks that are not currently available on my desktop?

A: Yes. When an alias to an icon is opened, and the icon that alias points to is on a disk that is not available on the desktop, the Macintosh asks you to insert the disk.

- In the case of floppy disks, CD-ROMs, and removable hard disks, you are asked to insert the disk that contains the target of the alias.

- If a hard disk is attached and turned on, but not on the desktop, opening the alias mounts that disk.

- If the alias points to something on an unavailable file server or to another Macintosh using System 7 File Sharing, the server is automatically mounted on the desktop. If you were signed on as a registered user when the alias was created, you are prompted for a password.

Q: The Date Modified field of an alias does not stay in synch with the original file. If I update a file through an alias, shouldn't the date modified for the alias file be set? I have not been able to figure out the exact rules by which these dates are modified and coordinated.

A: Aliases are separate files. When you open a file via an alias, the alias is opened, the original is found, the alias is closed, and the original is opened. At this point, the operating system has no knowledge as to how the original file was opened. Since there is no concept as to backward links to aliases, modifications to a file are treated as they always have been. The modification date is set on the modified file, not the alias. Since the alias is a separate file, its modification date can also be changed. Cases where this might occur include having the path to the original file change or modifying the alias file within a utility such as ResEdit.

Q: If I delete a file, what happens to any aliases that point to the deleted file?

Q: Nothing. The next time you try to open the alias, you will receive an alert saying that the original item could not be found. If you later place an icon with the same name in the same location, the alias will find the new icon.

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Q: I used System 7 to create aliases to items from multiple volumes on the same file server. I connect to one of the volumes and double-click an alias for something on a second volume of the same server. The second volume is connected with the same user name and password (access rights permitting) as the first volume from the server. Even if the second alias was created using a different user name, the second volume is still connected with the first user name because you cannot log on to the same server twice. Should the user be warned about this? It seems that this could cause some confusion about how a user is logged on and what privileges they have.

A: This is true but should not be a problem. There is little reason for more than one user name to be used from a particular machine (other than Guest). Since the password is not saved with the alias, the system prompts the user for it at the time they attempt connection to the volume. The dialog box displays the user name. The behavior of aliases mimics the Chooser. If you are already logged on to the server, choosing that server again gives you the opportunity to mount any other volumes you have access privileges for. The only time this becomes inconvenient is when you are logged on to a server as a guest and want to connect to a restricted volume. You must log off the server then log back on as a registered user.

Q: I am using System 7.5 on my Macintosh. Through the Finder I locked several aliases in my Recent Servers Folder to assure that they would not get deleted as I accessed more and more servers. I have found that my system hangs whenever I reach the limit defined by the Apple Menu Options (v 1.0) control panel, and the Finder tries to replace a locked alias. It appears that the Finder does not first check to see if the aliases are locked before replacing them.

A: This has been reported as a bug in System 7.5. There is a temporary workaround for the problem:

STEP	ACTION
1	Instead of locking server aliases you want to keep, make a new folder for your Apple Menu (you might call it "Recent Saved Servers").
2	Drag aliases that you want to keep from your Recent Servers folder to your new Recent Saved Servers folder.
3	These aliases in your new Recent Saved Servers folder are not touched by Apple Menu Options and are accessible under your Apple Menu just as your Recent Servers folder currently appears.

You can recreate this problem by doing the following:

STEP	ACTION
1	Clean Install System 7.5
2	Open Apple Menu Options
3	Set **Remember recently used items option** to **5** for Servers
4	Log onto five different server volumes (five server aliases are created in Recent Servers folder under Apple Menu).
5	Open Recent Servers folder and view window by date.
6	Lock the oldest server alias.
7	Log onto a different server volume (not one included in original five).
8	The Macintosh freezes when trying to delete the locked alias.

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Q: Can I start up my Macintosh computer from a file server by putting aliases to the server's System and Finder files on my Macintosh computer?

A: No. Aliases do not do this.

Q: Can I have an alias to a file on a file server?

Q: Yes. Opening the alias opens the file on the file server. When an alias points to an icon which is on a file server, but the file server is not currently on your desktop, opening that alias automatically mounting the file server.

If you were signed on as a registered user when the alias was created, you are prompted for the user's password. Apple has provided hooks for file server products that do not support the AppleTalk Filing Protocol (AFP). You should expect to see new versions of these products supporting aliases in the near future.

LaserWriter Toner Cartridge Guidelines

From the Technical Information Library

Apple recommends using remanufactured or reconditioned instead of refilled toner cartridges.

Refilled Cartridges

Refilled cartridges are merely refilled with toner, usually of a different kind than the original equipment manufacturer toner. The parts inside are not touched. Refilled cartridges may include worn parts, which do not yield the high level of print quality expected of laser printers. In addition, the printer warranty may be void if the printer is damaged due to the use of poor-quality recycled toner cartridges.

Remanufactured Cartridges

Reconditioned or remanufactured cartridges, on the other hand, can be used safely if certain steps are taken in the remanufacturing process. There is the added advantage that these cartridges get recycled, reducing the amount of solid waste that goes into landfills. The minimum recommended guidelines for remanufactured toner cartridges are:

- Inspection, and, if necessary, replacement of the photo-conductive image drum. This is probably the most important part in the cartridge. It is the one most likely to suffer from abrasion and scratches after normal use. A damaged photo drum does not yield good print quality.

- Inspection, and, if necessary, replacement of the urethane wiper blade on the photo drum. This part scrapes toner from the drum. It is subject to heat degradation over time, making it hard and brittle and more likely to damage the photo drum.

- Cleaning and inspection of internal parts. There are many small plastic parts, including gears and springs, that should be inspected and cleaned in the remanufacturing process to ensure that they are not faulty.

- Use of good-quality toner powder.

Apple cannot endorse or certify the products of recycled toner cartridge vendors, because we cannot maintain a program of regular testing of their products to ensure consistent quality control.

The Apple Menu Items Folder

By Mark Hansen

This article describes the initial contents of the System 7.5 Apple Menu Items folder, as well as how you can customize and expand the items in this folder. The items in the Apple Menu Items folder appear in the menu at the left end of the menu bar, indicated by the Apple logo. You choose items from this menu to open items that you have placed in the Apple Menu Items folder, and to get information about programs that are currently running ("About…").

Default Apple Menu Items Folder

The following is a brief description of the contents of the System 7.5 Apple Menu Items folder. Since you can customize and expand the items in your Apple Menu, the contents of your Apple Menu Items folder may vary.

AppleCD Audio Player

Gives you control of audio CDs inserted into your Macintosh.

Calculator

An online calculator.

Chooser

Gives you access to select which printer you want to use as well as other network services.

Control Panels

This is an alias to the control panel folder.

Find File

Lets you search for files on volumes mounted on your desktop based on a variety of search criteria.

Jigsaw Puzzle

An online jigsaw puzzle game.

Key Caps

Provides you with a visual representation of a keyboard and what character is produced for each key in every font installed in your Fonts folder. Key Caps is not able to display the extended keyset of QuickDraw GX Fonts.

Note Pad

A small note pad for keeping notes or reminders.

Recent Applications

A folder that stores an alias to applications that have recently been opened. You can set how many applications it remembers via the Apple Menu Options control panel.

Recent Documents

A folder that stores an alias to documents that have recently been opened. You can set how many it remembers via the Apple Menu Options control panel.

Recent Servers

A folder that stores an alias to servers that have recently been accessed. You can set how many it remembers via the Apple Menu Options control panel.

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Scrapbook

The scrapbook can hold text, graphics, and QuickTime files for use in other applications.

Stickies

Stickies are similar to 3M™ Brand Post-It notes in electronic form.

• Shut Down

This is an alternative to the Shut Down selection under the Special menu. When your select the • Shut Down menu item, any item in the Shutdown Items folder in your system folder is not acted upon.

Changing the Sequence of Apple Menu Items

Have you installed so many desk accessories in your Macintosh system that your Apple menu is longer than your monitor is high?

Are some of the menu items you use most often near the bottom of the list, and scrolling to them is annoying?

There is an easy way to force a few of your menu items to the top of the alphabetical list – without renaming them.

For example, if you change "Scrapbook" to " Scrapbook" (with a leading space), then it appears in the Apple menu ahead of "Alarm Clock" and "Chooser".

```
  Scrapbook
Alarm Clock
Chooser
```

In the Finder, open your System Folder, then your Apple Menu Items folder, and change the names of the menu items as you would any other filenames.

You might also want to experiment by putting various punctuation symbols at the beginning of the items in your Apple menu to see how this affects the

sequence. If you still feel the menu is cluttered, make an empty folder named simply with a row of hyphens (or any other character) and use it as a divider (with leading spaces to position it appropriately) between, say, folder aliases and application aliases in your menu.

Limits on the Number of Items in the Apple Menu

System 7.x has a defined limit of no more than 52 items displayed in the Apple Menu Items Folder.

The value of 52 was set for performance reasons. Basically, when more than 52 items are in the Apple Menu Items Folder, the amount of available RAM for processing is limited (especially when the menu items has color icons), drastically slowing the display of menus. Thus, a decision was made to take into account what "acceptable" performance was, and the value of approximately 52 menu items was the threshold amount.

You can still place more than 52 items in the Apple Menu Items Folder, but only the first 52 (alphabetically by name) are displayed. Refer to the preceding section (**Changing the Sequence of Apple Menu Items**) to ensure the menu items you want are alphabetically in the first 52 menu items.

Here are a couple of workarounds:

• Have folder aliases in the Apple Menu Items Folder.

• Use the hierarchical menus in System 7.5 (or a third-party software that provides hierarchical menus). Hierarchical menus in System 7.5 are controlled through the Apple Menu Options Control Panel.

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