



Support News 

**March 15, 1996**

Volume II, Issue 21

**“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., Service and Support Engineering. The goal of the *Information Alley* is to help you get full use of your Apple computers, peripherals, and software. We make every attempt to include articles that have the broadest audience possible. However, we do sometimes print articles that do not apply to our international readers.

## Where to Find the *Information Alley*

The *Information Alley* is available through a variety of online services and via an Internet list server.

For a complete list of where to find the *Information 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. Available articles are:

- *Information Alley: Where to Find Online*
- *Information Alley: Index of Vol I Issues*
- *Information Alley: Index of Vol II Issues*

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<http://www.adobe.com/>.

## Submissions and Letters

We welcome articles of general interest to Apple computer users, letters to the editor, and suggestions for articles. Send submissions to:

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## IMPORTANT ANNOUNCEMENT: Changes to the *Information Alley*

Attention *Information Alley* Readers,

The sixth-century Greek philosopher Heraclitus said "Nothing endures but change." Apple Computer, Inc. has gone through many changes since its inception in our founder's garage and now the *Information Alley* is going through a major change.

When the *Information Alley* was created, the idea was to provide new and late breaking information on Apple products. This is still the primary reason we publish the *Information Alley*. In order to really provide you with late breaking news and information we are creating a new version.

### Changes to the *Information Alley*

Starting Monday **March 25th**, *Information Alley* will become a **daily** publication! That's right, you'll be getting late breaking news from Apple every weekday. Instead of providing you with a publication every two weeks, we are going to provide you with information Monday through Friday. In order to make the transition to a daily publication, we are no longer going to publish the *Information Alley* in an Acrobat format. We are moving to a completely e-mail-based publication. Being a daily publication will allow you to keep current on Apple products and technologies with greater ease than ever before.

In order to receive *Information Alley* from now on, you need to subscribe to the Information Alley e-mail list. You can do this by following the steps in the section titled "Subscribing to the *Information Alley*."

**Note:** If you are currently subscribed to the text version of the *Information Alley*, you do not need to subscribe to the new list, your account will automatically be moved.

All of us on the *Information Alley* staff are sure that these changes will help meet the demand for the most current information on Apple's products. If you have any questions or comments, please send them to [alley@apple.com](mailto:alley@apple.com). Please remember that this address can get quite busy, so it may take some time to receive a response.

Sincerely,

The *Information Alley* Staff

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# An Overview of the PowerPC Platform

This article provides an overview of the PowerPC Platform (PPCP) (formerly known as CHRP).

**Note:** The information discussed in this article is based on features and functionality planned for a future release. The discussion of PPCP herein does not represent a commitment on the part of Apple Computer, Inc. for providing or shipping the features and functionality discussed. Information is subject to change without notice.

## Definitions

The following definitions are taken from the article titled "PowerPC Browser's Glossary." This article contains a glossary of PowerPC industry-related key terms and concepts. Terms are provided on newer PowerPC technology and important historically PC information leading up to the PowerPC. It is excerpted from the book, "Inside the PowerPC Revolution," written by Jeff Duntemann and Ron Pronk. The contents of the file is copyrighted by The Coriolis Group, Inc. The book, which covers the emerging PowerPC industry, is published by The Coriolis Group; ISBN: 1-883577-04-7; (602) 483-0192.



## Bi-endian

There are two possible byte ordering conventions for representing scalar (that is, non-string) quantities in system memory. Big-endian byte ordering places the most significant byte of the scalar at the lowest memory address, whereas little-endian byte ordering places the least significant byte of the scalar at the lowest memory address. Virtually all CPUs support either one convention or the other, but a CPU that can be configured to handle both schemes is called bi-endian. The PowerPC is bi-endian in nature, which allows it to execute both big-endian 680x0 binaries and little-endian x86 binaries under emulation, without running afoul of byte-ordering conflicts.

## Big-endian

A term specifying a byte-ordering convention for scalar data items. In the big-endian scheme, the most significant byte of a scalar is stored at the lowest memory address, the next most significant byte of the scalar is stored at the next higher address, and so on. The Motorola 680x0 line of CPUs is big-endian in nature. The PowerPC, while defaulting on power-up to big-endian mode, is in fact bi-endian and can operate either in big-endian or little-endian mode as required.

## Little-endian

A term specifying a byte-ordering convention for scalar data items. In the little-endian scheme, the least significant byte of a scalar is stored at the lowest memory address, the next most significant byte of the scalar is stored at the next higher address, and so on. The Intel x86 line of CPUs is little-endian in nature, while most other industry CPUs are big-endian.

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**Note:** The following information is taken from "PowerPC Microprocessor Common Hardware Reference Platform: A System Architecture", which is available from the PPCP Web Site:

<http://chrp.apple.com/>

## **What is PPCP?**

The PowerPC Platform (PPCP) architecture specification provides a comprehensive computer system hardware-to-software interface definition, combined with minimum system requirements, that enables the development of and software porting to a range of compatible industry-standard computer systems from portables through servers.

These systems are based on the PowerPC microprocessor, as defined in The PowerPC Architecture. The definition supports the development of both uniprocessor and multiprocessor system implementations.

A key attribute and benefit of the architecture is the ability of hardware platform developers to have degrees of freedom of implementation below the level of architected interfaces and creating an opportunity for adding unique value. This flexibility is achieved through architecture facilities including:

- device drivers
- Open Firmware (OF)
- Run-Time Abstraction Services (RTAS)
- hardware abstraction layers

Though the PowerPC microprocessor is the most widely used RISC processor, substantial legacy software exists and a mechanism for running the bulk of this legacy software is a requirement. The system address map has been defined with a specific objective of assisting efficient x86 emulation.

Additionally the PowerPC microprocessors support Bi-Endian operation which is a key attribute important to running the supported operating systems and applications. Bi-Endian capability is not available in the current IBM PC compatible x86-based system architecture.

The architecture combines leading-edge IBM PC and Apple Macintosh technologies to create a superior personal computing platform. By design, it supports a wide range of computing needs including personal productivity, engineering design, data management, information analysis, education, desktop publishing, multimedia, entertainment, and database, file, and application servers.

The architecture effectively leverages industry-standard I/O through the PCI bus while accommodating legacy I/O from both the IBM PC compatible and the Apple Macintosh domains.

This approach provides several key benefits for system manufacturers and end customers:

- systems can be designed and manufactured to enable the customer a choice of operating system support which could include AIX, Mac OS, NetWare, OS/2, Solaris or Windows NT
- smooth application, operating system and customer system transitions are enabled by accommodation for legacy software, I/O devices, and peripherals. 🍏

# PowerPC Platform Technology Comparison

**Note:** The information discussed in this article is based on features and functionality planned for a future release. The discussion of PPCP herein does not represent a commitment on the part of Apple Computer, Inc. for providing or shipping the features and functionality discussed. Information is subject to change without notice.

This information is taken from "Macintosh Technology in the Common Hardware Reference Platform", which is available from the PPCP Web Site:

<http://chrp.apple.com/>



## Apple Computer and the PowerPC Platform

The PowerPC Reference Platform (PReP), Apple RISC architecture, and IBM RISC server systems were used in the development of the PowerPC Platform (PPCP) architecture. The objective was to reduce the porting effort of operating systems and applications coming from each of these environments. The information below describes the relationship of the Apple RISC architecture to the PPCP architecture and of the PowerPC Reference Platform to this architecture. The PowerPC Reference Platform used IBM RISC client and server information.


Many components of the second-generation Power Macintosh architecture are included for compatibility with the desktop products based on that architecture. Features of the second generation Power Macintosh are listed below:

- Based on the PowerPC microprocessor family for main system processing. The instruction set of the Motorola 68LC040 is supported through a built-in emulation system.
- Use of the PCI bus to support all I/O and system expansion. Other buses (such as NuBus, SCSI and IDE) are supported by means of bridge ASICs connected to the PCI bus.
- Use of Open Firmware for system startup and to allow use of expansion cards from other architectures. While the Mac OS continues to be the principal operating system for Power Macintosh computers, Open Firmware lets other operating systems that are ported to the PowerPC instruction set take control of the computer.
- Function of processor bus coherency. Memory systems connected directly to the PowerPC bus, including main RAM and all levels of cache, belong to a single coherency domain.
- Support for both Big-Endian and Little-Endian addressing modes. Besides the support for both modes built into the PowerPC processor, storage subsystems such as frame buffers are accessible to software through both Big-Endian and Little-Endian apertures.
- Support for Macintosh-style I/O such as ADB, SCC and LocalTalk.
- Support for PowerPC-native interrupts and native device drivers.

Apple is currently designing computers that will comply with the PowerPC Platform specification. The following table lists the general characteristics of first- and second-generation Power Macintosh computers and the currently-projected characteristics of Power Macintosh computers that comply with the PowerPC Platform specification.

Continued on next page...

**PPCP–Macintosh Feature Comparison**

<b>Feature</b>	<b>First-Generation Power Macintosh</b>	<b>Second-Generation Power Macintosh</b>	<b>PPCP Specification</b>
Processor Type	PowerPC 601	PowerPC 601, 603 or 604	All PowerPC Models
Processor Upgrade	None	By replacing processor subsystem card	By replacing processor subsystem card
OS Support	Mac OS	Mac OS	Mac OS OS/2 AIX Netware
External Cache	Up to 1 MB	Up to 4 MB	Up to 4 MB
RAM expansion	32-bit SIMM	64-bit DIMM	64-bit DIMM
Maximum RAM	72–264 MB	1 GB–1.5 GB	To be determined
NVRAM	Macintosh PRAM	8 KB	8 KB
Support for 21-inch monitors	None	16 bpp or 24 bpp	16 bpp or 24 bpp
Sound	Macintosh 16-bit, 44.1 MHz, stereo input and output	Macintosh 16-bit, 44.1 MHz, stereo input and output	Both Macintosh and Soundblaster-compatible stereo input and output
Internal hard disk	160 MB to 1 GB	250 MB to 2 GB	To be determined
Additional internal drives	One 5.25-inch drives one or two 3.5-inch	One 5.25-inch drives one or two 3.5-inch	To be determined
SCSI buses	1 internal 1 external	1 fast internal 1 external	To be determined
IDE bus	No	No	Yes
Floppy disk format	MFM or GCR	MFM or GCR	MFM only
Ethernet	AAUI	AAUI or 10BaseT	10BaseT
GeoPort serial ports	2	2	1–2
x86-compatible RS-23 serial ports	None	None	0–2
IEEE P1284 parallel ports	None	None	In some models
NuBus slots	1–3	None	None
PCI slots	None	3–6	3–6
ISA slot	None	None	None 

## Network Server 500 & 700 Comparison

By Fred Widmer

The following table compares the Network Server 500 to the Network Server 700.

Network Server	500/132	700/150
Processor Type	PPC 604	PPC 604
Processor Speed	132 MHz	150 MHz
CPU Cards	Yes	Yes
L2 Cache	512K	1 MB
Main Memory (shipped with)	32 MB	32 Or 48 MB*
Main Memory (expandable to)	512 MB	512 MB
PCI Slots	6	6
Internal Storage Devices Supported	7	9
Total Internal Storage Capacity	24 GB	32 GB
Total Overall Storage Capacity	332 GB	340 GB
Apple SuperDrive	Yes	Yes
AppleCD 600i	Yes	Yes

\* Depending on system ordered. 🍏

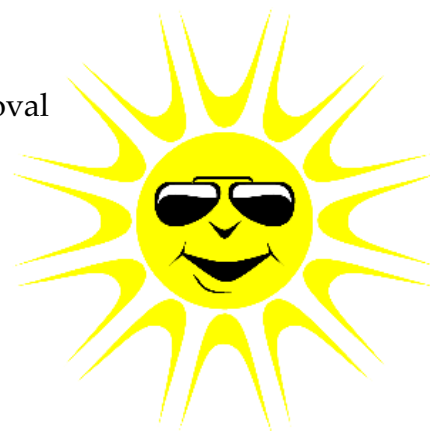
## Hot Swappable Drives & RAID

By Fred Widmer

The Network Server 500 and Network Server 700 contain a flexible SCSI backplane that allows the physical hot swapping and hot removal of SCSI wide and narrow devices. This ability to gracefully handle the logical addition and removal of drives is operating-system dependent.

The optional Network Server PCI RAID Card lets the AIX operating system be buffered from the logical consequences of drive addition and removal when setup in a RAID configuration. Hence, hot plug and removal is only recommended for RAID configurations.

**Warning!** An optional PCI RAID card must be installed with RAID level 5 configured to ensure that data will not be lost when drives are hot swapped. 🍏





# Global Village: MacInTax Initialization Strings

By Dan Nolen

This article provides an initialization string for users of Global Village modems who are running GlobalFax 2.5.6 software and who want to utilize the electronic filing options in Intuit Software's 1995 version of MacInTax.

You must change the Global Village initialization string if you use the electronic filing option in MacInTax. If you do not change the initialization string, the modem connects but does not send any data.

## Workaround

### Teleport Bronze II and Teleport Platinum

Initialization string: AT&C0&D2X1

### Teleport Gold II

1. Start up your computer with extensions off by holding down the Shift key during startup.
2. Use this Initialization string: AT&F1\N0

This article provides information about non-Apple products. Apple Computer, Inc. is not responsible for its content. Please contact the vendor, Global Village or Intuit, for additional information. 🍏



## Tips and Tidbits: PowerBook Won't Wake If Password Protection Is Set

### Issue

There is a known issue with the password security feature on the PowerBook 5300 and 190 series computers. If you open the Password Security control panel, see that the password security is turned on and is set for ask password on wake, the unit will not sleep.

### Workaround

The current workaround is to turn off the "ask for password on wake" feature. This enables the PowerBook to sleep. This issue is expected to be resolved in future versions of the system software. [Contributed by Terry Carter] 🍏

# AppleVision 1710 Displays Calibration Message

By Dave Brockmeier

There is a way to stop your AppleVision 1710AV or AppleVision 1710 from displaying the calibration message every two weeks.

You need to set the preferences in either the AppleVision Setup control panel, or the Sound & Displays control panel, dependent upon the system software installed on your Macintosh computer.

For more information on setting the preferences refer to your "AppleVision 1710AV Display User's Guide" or "AppleVision 1710 Display User's Guide."

Here are the steps to follow:

Step	Action
1	Either open the AppleVision Setup control panel or press any of the buttons on the left side of the display.
2	Click the Color button to open the control panel to the Accurate Color window.
3	Click the Preferences button in the bottom left corner of the Accurate Color window to open the Preferences window.
4	On the left side of the Preferences window is an Auto Recalibrate section, with a series of checkboxes, which determine when the display will recalibrate. Click the top four checkboxes to deselect them (an X no longer appears).



After you perform these steps your display will no longer display the "time to recalibrate" message every two weeks. 🍏

## Tips and Tidbits: AppleVision 1710 Display: Requires Video Signal for Power

Some customers may believe their AppleVision 1710 Displays needs to be replaced due to what they believe is a power failure. However, unlike many other monitors, both the AppleVision 1710 Display and the AppleVision 1710AV Display require a video signal before powering on. If you do not connect them to your Macintosh, the power LED is not activated.

To properly test either AppleVision 1710 Display, you need to connect the video cable to your computer. You must also connect the ADB cable from your Macintosh to the display in order to get resolutions greater than 640x480. [Contributed by Anthony Snyder] 🍏

# Why Does Clip Art Print Out Jagged?

By Robert Dorsett

This article explains some reasons why some clip art prints smoothly and other clip art prints with jagged edges. There are two types of graphics formats used on personal computers: bitmapped and vector (or object-oriented) graphics.

## Bitmapped Graphics

Bitmapped graphics are a matrix of picture elements (called pixels), each one of which has a color assigned to it. The collection of these elements define what an image looks like. Since it is a matrix, the image you look at does not have any inherent properties which define its characteristics. For example, a "line" is a collection of dots, rather than a solid line.

If the image is scaled or magnified, the dots will become more visible. Considering that your screen has a resolution of about 72 dots per inch, and even low-end printers have 300 dots per inch, it is more likely that you will see such "pixellation," especially if color information is lost as part of the printing process.

In Macintosh terminology, MacPaint, TIFF, GIF, or JPEG images are bitmapped graphics, so you can expect to see some pixellation when you print. Exceptions would be pixmaps which are imaged at extremely high resolution—resolutions which equal or exceed your printer's resolution. You will find it easy to spot these because they tend to be quite large in size.

## Vector Images

Vector images are object-oriented collections of geometrically defined elements. For example, a line really is a line—an object which consists of information specifying its start and end coordinates, color, width, and other characteristics. Similarly, text just consists of the string information to draw and some font information. The dots that comprise the letters are not stored.

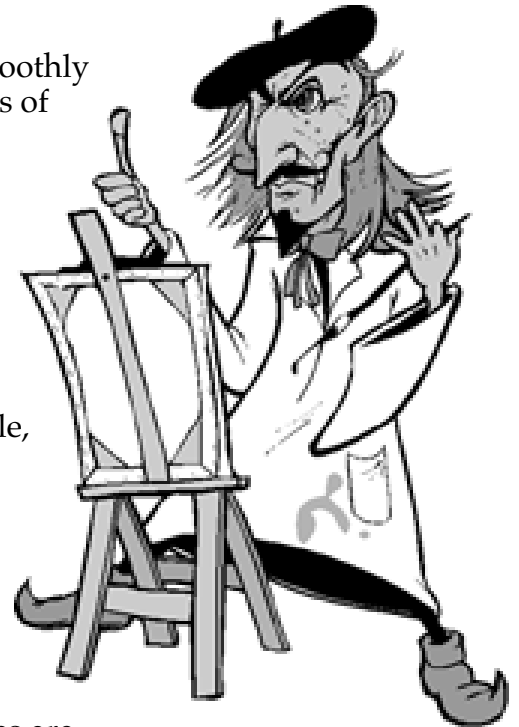
A picture comprised of vector elements can be scaled to any size, and the resulting output will be very smooth and will generally contain the characteristics of the original image.

On your Macintosh, vector formats include PICT, EPSF, and PostScript.

## Summary

There are literally hundreds of file formats in use in the Macintosh, UNIX, and PC worlds. However, the basic limitations above apply, and many programs allow graphics to be imported from similar formats.

So, to avoid bitmapped printouts of your clip art, you need to obtain clip art which consists primarily of vector graphics. Most PICT-based packages would satisfy that requirement, but you should check with the publisher to verify this. However, if the PICT image is solely defined of one big bitmap, you will get pixellation. 🍏



# An Overview of Dual-Channel Asynchronous SCSI Interface

By Jay Guetterman

This article provides a general overview of the dual-channel asynchronous SCSI interface included in some Macintosh computers.

Computers with dual-channel asynchronous SCSI have a single SCSI controller responsible for the entire I/O subsystem. This primary I/O controller chip manages SCSI communications through dual SCSI controllers: a controller for the internal SCSI bus and a second controller chip for an external SCSI connection and an additional internal connection. This second SCSI controller also manages Ethernet and serial communications. In the Power Macintosh 7500, 8500, and 9500 computers, the internal SCSI bus controller provides Fast SCSI communications up to 10 MB per second.

Because there are actually two separate SCSI buses, both are capable of handling seven devices. So, theoretically, you could have 13 devices attached to the computer. (Note that the theoretical limit is not 14 because the computer will always be one of the devices). However, space limitations prohibit the connection of that many separate devices.

With only one internal connector, the internal SCSI bus will be particularly limited by the amount of available space inside the computer. For the other SCSI bus, you also are limited by space for internal devices, but the external devices are only limited by SCSI ID numbers.

Different computer models may have distinct standard configurations of the SCSI buses. For example, on the Power Macintosh 9500 series, the internal CD-ROM drive and the internal hard drive are both attached to the Fast (internal) SCSI bus, but on the Power Macintosh 8100 series, only the internal hard drive is attached to the internal SCSI bus; the CD-ROM drive is on the other SCSI bus. 🍏

## Power Macintosh SCSI Termination Explained

By Garret Wilson

This article explains the differences between the internal SCSI termination on Power Macintosh 8100 series computers and Power Macintosh 7500, 8500, and 9500 series computers.

Power Macintosh 8100 series and Power Macintosh 7500, 8500, and 9500 series computers have dual-channel asynchronous SCSI interfaces, which results in two separate SCSI buses: an internal/external SCSI bus, Bus 1, and an internal SCSI bus, Bus 0. However, the specifications and configurations of the two buses differ slightly among the different computers.

### Power Macintosh 8100 Series Computers

#### **Bus 1**

Bus 1 consists of a 50-pin flat ribbon cable with two 50-pin connectors on the end of the cable. The CD-ROM drive, if installed, occupies the first connector. The second connector has a 50-pin terminator connector installed on it. To add a second SCSI device to Bus 1, you must remove the 50-pin terminator connector and install a terminated SCSI device.

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Bus 1 has automatic termination, which means that circuitry on the logic board senses whether or not there are any external SCSI devices attached. If there are no external SCSI devices connected, the logic board automatically terminates itself at the 50-pin logic board connector, thus terminating both ends of the SCSI chain.

Once an external SCSI device is connected to the 25-pin external connector, the circuitry senses the device and disables termination at the 50-pin logic board connector. The computer then relies on the external SCSI device to provide the proper termination.

### Bus 0

Bus 0 is a completely separate SCSI bus with its own SCSI controller. This bus has a 50-pin flat ribbon cable with two 50-pin connectors on it. Power Macintosh 8100 series computers ship with the internal hard drive connected to this SCSI bus. The internal hard drive is terminated, which terminates the SCSI bus.

Unlike Bus 1, Bus 0 does not have automatic termination because it is exclusively an internal SCSI bus. If additional devices are added to Bus 0, only the last device should contain termination resistors.



## Power Macintosh 7500, 8500, and 9500 Series Computers

### Bus 1

Unlike Bus 1 in Power Macintosh 8100 computers, there are no devices attached internally to Bus 1 in Power Macintosh 7500, 8500, and 9500 series computers.

Bus 1 has automatic termination, which means that circuitry on the logic board senses whether or not there are any external SCSI devices attached. If there are no external SCSI devices connected, the logic board automatically terminates itself at the 50-pin logic board connector, thus terminating both ends of the SCSI chain.

Once an external SCSI device is connected to the 25-pin external connector, the circuitry senses the device and disables termination at the 50-pin logic board connector. The computer then relies on the external SCSI device to provide the proper termination.

### Bus 0

Bus 0 is a completely separate SCSI bus with its own SCSI controller. On Power Macintosh 7500, 8500, and 9500 series computers, Bus 0 provides Fast SCSI communications up to 10 MB per second.

This bus has a 50-pin flat ribbon cable with two 50-pin connectors on it. Power Macintosh 7500, 8500, and 9500 series computers ship with the internal hard drive and CD-ROM drive connected to this SCSI bus. The internal hard drive is terminated, which terminates the SCSI bus.

Unlike Bus 1, Bus 0 does not have automatic termination because it is exclusively an internal SCSI bus. If additional devices are added to Bus 0, only the last device should contain termination resistors. 🍏

## Cannot Print Color Using DOS Compatibility Card with Color LaserWriter

By Greg Abelar

At this time it is not possible to print in color using the Color LaserWriter 12/600 PS printer over the parallel port from the DOS Compatibility Card. When a revised version of the PC Printer Spooler becomes available, this will be resolved.

The Color LaserWriter 12/600 PS installation puts a virtual driver on the DOS Compatibility Card to control the LPT1 port, which causes various problems when printing. Additionally there are two other problems with the Postscript drivers.

1. The Color LaserWriter 12/600 PS driver puts some hex codes at the beginning of the postscript file (X014d). This additional code causes the PC Print Spooler to fail because it is expecting x0425 – so the Color LaserWriter 12/600 PS driver won't work. It is not possible to edit the postscript file and take out the beginning hex data because the printer expects to see that code.
2. The Laserwriter NT driver prints, but not in color. The lack of color is caused at the PostScript rendering stage at the Application/driver level on the PC. It simply does not generate color Postscript code. Instead it interprets the GDI data on the PC as being black & white (Grayscale). 🍏

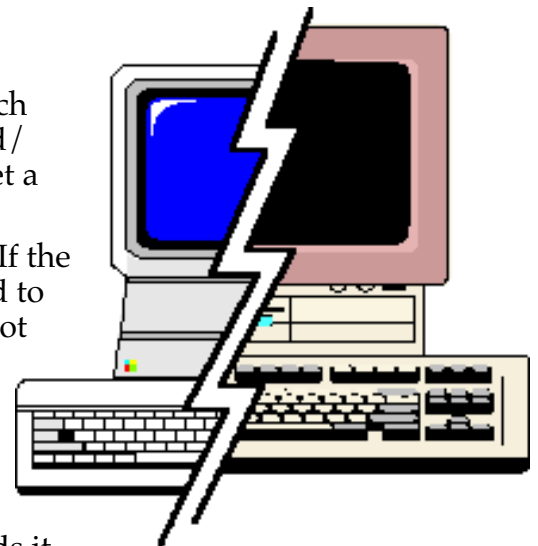
## No Video When Changing Between Mac OS & DOS

By Eric Bradley

Some customers using a DOS Compatibility Card in their Macintosh computers found that when they attempt to switch from the Mac OS to the DOS card by pressing the Command/Return key combination, the screen dims, but they do not get a DOS prompt.

The most common cause of this situation is the video cable. If the DOS Compatibility Card video cable is not securely fastened to the monitor cable and DOS Compatibility Card, or you do not have the DOS Compatibility Card video cable connected properly, the screen dims, but you will not see the MS-DOS prompt.

Check the cable connections and restart your computer. If you do not restart your computer, the monitor will not sync properly because when the PC Setup control panel loads it determines what type of monitor is connected. When it cannot determine what type of monitor is connected, the PC Setup control panel defaults to an Apple 16-in. Display setting. 🍏



# Where to Find MAE Patch 2

By Michael Hahn

This article describes how to obtain MAE Patch 2 to upgrade MAE from 2.0.x to 2.0.2.

## How to Download MAE 2.0.2

There are two sites to locate the latest patch. Connect to one of the following locations to get the appropriate tar file (sun, hp, or hp10):

- ftp.support.apple.com (130.43.6.3)
- www.mae.apple.com (17.255.216.51)

These patches can be obtained from the following directory on the server:

/pub/mae/patches/mae\_patch\_2.0.2

**Important:** Make sure you use FTP "binary transfer" mode to get the following files.

/pub/mae/patches/mae\_patch\_2.0.2/README.PATCH.MAE2.0.2 – This file contains complete details on what is contained in the patch release as well as how to download and install the patches.

/pub/mae/patches/mae\_patch\_2.0.2/maepatch2.0.2.hp.tar – The most recent incremental update for MAE 2.0 running HP-UX 9.x on HP Series 700 workstations.

/pub/mae/patches/mae\_patch\_2.0.2/maepatch2.0.2.hp10.tar – The most recent incremental update for MAE 2.0 running HP-UX 10.01 on HP Series 700 workstations.

/pub/mae/patches/mae\_patch\_2.0.2/maepatch2.0.2.sun.tar – The most recent incremental update for MAE 2.0 running on Sun SPARC workstations.

Download the appropriate file for your workstation. Please note, the tar files are compressed internally and do not require further compression using 'compress' or a similar utility.

## Extracting the Patch Files From the Downloaded File

Place the tar file anywhere. Extract it by running the following command:

On HP-UX 9.x Workstations:

```
% tar xovf maepatch2.0.2.hp.tar
```

On HP-UX 10.01 Workstations:

```
% tar xovf maepatch2.0.2.hp10.tar
```

On Sun Workstations:

```
% tar xovf maepatch2.0.2.sun.tar
```

The extracted files will be placed in a new directory named "maepatch2.0.2.sun", "maepatch2.0.2.hp", or "maepatch2.0.2.hp10" depending on your system type. Once the extraction is complete, you can delete the downloaded file maepatch2.0.2.\*.tar. 🍏

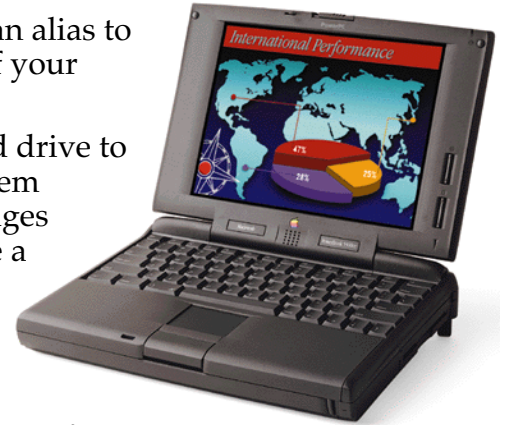


# PowerBook Has Generic System 7.5.2 Software Installer Icon

By Tammy Harvey

The System Software installer alias on the Disk Tools disk is an alias to the System Software installer application on the hard drive of your PowerBook.

The path the alias follows can be lost if you rename your hard drive to something other than Macintosh HD, or if you move the System Software Installer application out of the System Software Images folder. If this happens the System Software installer will have a generic document icon. Even if you name your hard drive back to Macintosh HD or put the System Software installer back into the System Software Images folder, the alias will still be unable to open the application.



You can work around this issue by double-clicking the System Software installer application on your PowerBook's hard drive instead of double-clicking the alias on the Disk Tools disk. If you have not relocated any folders on your hard drive, the application can be found on the hard drive by following the path:

Hard Drive -> Utilities -> Floppy Disk Maker -> Disk Images -> System Software Images -> System Software Installer

You can also fix the unresolved alias on the Disk Tools disk by following this procedure:

Step	Action
1	Before inserting the disk into your floppy drive slide the plastic write protect tab in the upper left corner, of the bottom of the disk (side with the silver disk in the center) to cover the hole. Insert the floppy disk into your floppy drive.
2	Locate the System Software Installer application on your hard drive. If you have not relocated any folders on your hard drive, it can be found by following the path: Hard Drive -> Utilities -> Floppy Disk Maker -> Disk Images -> System Software Images -> System Software Installer You can also use Find... under File to locate the application.
3	Click the System Software Installer application once to highlight it. Under File, choose Make Alias.
4	Drag the alias you have just created to the Disk Tools disk. When asked if you want to replace items with the same name, click OK. When the file is finished being copied you should have the alias in both the Disk Tools disk and the System Software Images folder. You can drag the alias from the System Software Images folder to the Trash.
5	Drag the Disk Tools disk icon to the Trash to eject it. Lock the floppy disk by sliding the write protect tab to cover the hole in the corner. Always keep the Disk Tools disk locked so that no information can be written to it. 🍏



# What is the Macintosh System 7.5 Update 2.0?

From the document named "Installing this Update"

## Overview

System 7.5 Update 2.0 is a set of system software enhancements that improves the reliability and performance of all computers running system software version 7.5, 7.5.1, or 7.5.2. You can install System 7.5 Update 2.0 even if you did not install Macintosh System 7.5 Update 1.0.

Before you install System 7.5 Update 2.0, review the next section, "What System 7.5 Update 2.0 Provides," which summarizes the fixes and new features delivered by this update. For a more detailed explanation of the changes in this release, see the three Read Me files named "New in This Update." (If you received the update on a CD or over a network, these Read Me files are in the same folder as this Read Me file. If you received this update only on floppy disks, the files are in the System Update Information folder on the first floppy disk.)



## What System 7.5 Update 2.0 provides

- Installs the latest versions of all components (including any components that you disabled using the Extensions Manager) it finds on the disk it is updating.
- After you run the Installer, updated components will be in the same folders as they were before you installed the update. For example, new versions of disabled extensions will be in the "Extensions (Disabled)" folder, and new versions of disabled control panels will be in the "Control Panels (Disabled)" folder.
- Fixes many problems that users and developers reported to the Apple Assistance Center, Developer Technical Support, and Apple's internal tracking systems.  
Among these fixes are elimination of some Type 11 errors found on PowerPC-based computers, and corrections to the General Controls panel to eliminate conflicts with several third-party products.
- Improves performance by including an updated version of the Finder, which copies files faster than previous versions. Performance on PowerPC-based computers also improves because the update introduces several more native system software components, including Apple Guide, the Resource Manager, and the SCSI Manager.
- Introduces "translucent dragging" on PowerPC computers.
- Includes version 1.0.4 of Drive Setup, for use on IDE-capable, 68K-based computers and all PowerPC-based computers. The new version of Drive Setup fixes a problem with some IDE drives. If you use IDE (ATA) drives, you should update your drivers as part of the installation of this update. (If you have an IDE drive, see the section "Known Problems and Their Workarounds" at the end of the "New in This Update - 3" document for more information about Drive Setup.)

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- In addition to updating system software for a single Mac OS computer, you can use this update to create a "universal" System Folder — a single System Folder that can be used with all Mac OS computers supported by the update. You can use this universal System Folder on an external hard disk or removable media drive to start up any model of Mac OS-based computer.
- On computers with 68030, 68040, or PowerPC processors, the update's Easy Install automatically installs Open Transport networking software, which provides improved network flexibility and performance. After you install the update, Open Transport will be active only if it was active before the update was installed.

Open Transport is available on all computers with 68030, 68040, or PowerPC processors except for the desktop 5200, 5300, 6200, and 6300 series computers. On some computers, you can use the Network Software Selector (in the Apple Extras folder after you install the update) to switch between Open Transport and classic AppleTalk. Open Transport may require more RAM than classic AppleTalk.

- During an Easy Install, Text-to-Speech software is automatically installed. If you don't use this software, after you install the update you can use the Extensions Manager to turn off MacinTalk (version 2 or 3) and the Speech control panel.
- After you install the update, the About This Macintosh window says "System Software 7.5.3"; below that, the window says "System 7.5 Update 2.0," to indicate how the system software was installed.
- Includes many other previously released fixes, including those in the 7.5.2 Printing Update, the PowerBook 5300 System Software Update, and the PowerBook 2300c Update. 🍏

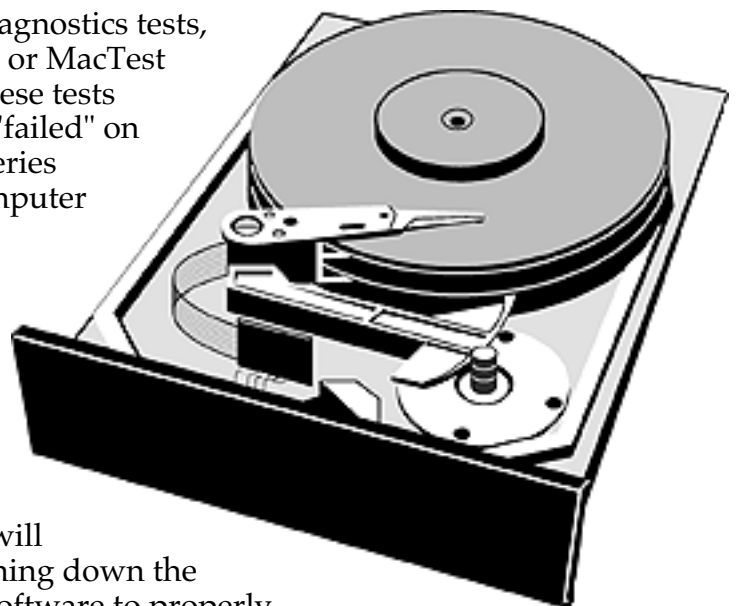
## Why Power Macintosh Hard Drive Test Fails

By Garrett Wilson

If you run one of many popular hard drive diagnostics tests, such as SilverLining, FWB Hard Disk Toolkit, or MacTest Pro, you may have noticed that often times these tests report that the hard drive test has seemingly "failed" on a Power Macintosh 7200, 7500, 8500 or 9500 series computer after they have been testing the computer for 30 minutes or more.

One very likely "cause" of this "failure" is that the Energy Saver software is making the drive spin down during the testing, which causes the diagnostics report that the hard drive has failed its tests.

To avoid this, in the Energy Saver control panel, set the Sleep Setup option to "Never" before you begin the testing procedure. This will prevent the Energy Saver software from spinning down the drive and allow the hardware testing utility software to properly check the functionality of the hard drive. 🍏



# New Apple Software Updates Posted Online

Contributed by Denise Cavanna

The following Apple software updates have recently been released and posted on AppleLink, Compuserve, eWorld and Apple's Internet sites:

- **System 7.5 Update 2.0** – Please read the file named APPLE.LIC before downloading this software. This software updates US System Software 7.5.x to US System Software 7.5.3. For complete information, please refer to the documentation included with this software. This software is available in two formats (14 1.4 MB disk images and a single 20 MB "Net Install").
- **System Profiler 3.5** – The Apple System Profiler (ASP) is a new utility that gathers, summarizes, and delivers key pieces of system configuration information (for example, processor clock speed, disk cache size, non-Apple installed extensions, etc.) needed to effectively and efficiently troubleshoot customers' systems.
- **Adobe Acrobat Reader 2.1** – Some documents posted within Apple SW Updates may require the Adobe Acrobat Reader. Adobe Acrobat Reader lets you view and print any Portable Document Format (PDF) file. You'll find several PDF files on your computer's hard disk and on the system software CD that came with your computer. These PDF files contain instructions for using many of the special software programs that came with your computer.
- **PowerTalk 1.1.6** – The posting of this software is intended for customers who upgraded their PowerBook 500 series computers to PowerPC.
- **Localized Versions of PowerBook 5300 Software Update** – The software posted here is available in two formats (14 disk images and "Net Install"). System Software Update for the PowerBook 5300 can only be utilized with these computers: PowerBook 5300 Series, PowerBook 190 Series, PowerBook 2300 Series, PowerPC Upgrade for the PowerBook 500 Series, and the PowerPC Upgrade for the PowerBook Duo computers.

This update offers better system performance for the PowerPC microprocessor, improved emulator performance, integration of Finder 7.5.4 which optimizes caching to improve performance, native resource updates to improve system level performance, an improved PC Card modem extension for faxing, and an improved application launch process which increases the launch speed of applications.

These versions have been posted so far: B-British, DK-Danish, N-Dutch, F-French, C-French-Canadian, D-German, T-Italian, E-Spanish, and S-Swedish.

- **Newton Backup Utility 1.0** – With the Newton Backup Utility, you can connect your Apple MessagePad or other Newton personal digital assistant (PDA) to your computer and do the following:
  - Back up Newton information and store it on your computer.
  - Install packages (applications, system updates, and so on) on your Newton PDA.
  - Restore backed-up information to your Newton PDA.
- **Color LaserWriter 8.3.2** – This is the revised disk set for Color Laserwriter 12/600 PS. It includes:
  - Laserwriter 8.3.2 (recommended for PCI Power Macintosh)
  - Desktop Printing 1.0.3 (recommended for PCI Power Macintosh)
  - Apple Printer Utility 2.0.1
  - ColorSync 2.0.1 