



January 23, 1995

Volume I, Issue 19

"Get Off the Highway and Into the Alley™"

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A bi-weekly publication of Apple Computer, Inc. - Customer Services Division

Inside Information...

About the Information Alley

The *Information Alley* TM 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 *Information 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 *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. 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:

Information Alley

Apple Computer 1200 East Anderson Lane MS 212-STI Austin, TX 78752 Fax: (512) 908-8018 email: alley@apple.com

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

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The *Information Alley* is produced using FrameMaker 4.0 on a Power Macintosh running System 7.5.

Published bi-weekly by

Apple Computer, Inc.
Support Information Services
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MS: 212-STI
Austin, TX 78752
(512) 908-8975

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If you print the *Alley*, please share when done!

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Seeking Distribution and Translation Information



By Janet Christian

Since Apple requires no written permission to redistribute or translate (into another language) the **Information Alley**, we are always hearing "through the grapevine" about ways in which this is happening. For example, we recently learned that, in France, **Mac Universe** magazine bundles a CD with each of their issues – and they include multiple issues of **Information Alley** on each CD. We have heard that the **Information Alley** is being translated into French and German, but have not been able to verify this as yet.

We are in the process of trying to evaluate just how widely distributed the *Information Alley* is at this point. We would greatly appreciate hearing from you if you are aware of a distribution channel or language translation that we haven't already reported on in a previous issue (which are too numerous to list here). If you aren't sure whether we've previously listed a particular channel or translation, please let us know anyway – we would rather hear about it twice than not at all. Please see *Inside Information* on Page 2 for our address and telephone and fax numbers.

If you are translating the **Information Alley** into another language, please share a copy of each translated issue with us. We would like to distribute these translations to our regular online services, so that they are available to a wider audience.

As usual, as we learn of new distribution channels and language translations, we will let you know. As

we've oft repeated, our goal is to provide the *Information Alley* to as many readers as possible, in as many ways as possible.

Adobe Acrobat Tip

If you use SuperATM and still want to read the *Information Alley* via Adobe Acrobat, copy the font database from the System Folder to another location (such as the desktop) prior to installing Acrobat. Acrobat installs a tiny ATM database during installation. If you have the SuperATM database in your System Folder, Acrobat overwrites it. After you have installed Acrobat, copy the saved font database back over the ATM that Acrobat installed.

Issue Date Now on Every Page

We've made one minor format change with this issue – you may notice that the issue date is now included on the bottom right of every page. Since we earlier added the page number to the top center of each page, there was no real reason to maintain it on the bottom of the page as well. Therefore, you can now tell the publication date on those pages you might print out to keep.

Modified Feedback Form

We've slightly modified our feedback form to provide us with information about the version of the *Information Alley* you are reading. We always appreciate receiving feedback forms from our readers.

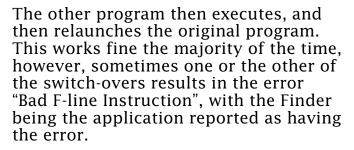
What is an F-Line Instruction?

From the Technical Information Library

Many Apple computer users have wondered what an F-line instruction is and why a bad one interferes with the operation of a Macintosh.

Example Scenario

For example, under System 7.x, a user has a particular program operating most of the time, and occasionally this program launches another program and quits itself.



Background and Ideas

F-Line instructions are used to access attached processors such as a floating-point math co-processor. It could be that the system is having a problem with the math chip; it could also be erroneous instructions are being handled in this way.

A bad F-Line instruction is a bad Floating Point Unit (FPU) call. However, when you see this on Central Processing Units (CPUs) without FPUs, or in applications that do not support an FPU, then it is probably a spurious error (basically, a faulty error message) generated – possibly because some data was executed that happened to have an F in the top nibble, or some similar situation. This problem has occurred on the Macintosh SE (which has no FPU) when loading a WDEF without sufficient memory to do so.

The error could be caused by some bad code in the application which is calling a processor that is not present or calling a memory location that is not there. There may be a corrupted application or an Extension causing some spurious memory problem.

A possible solution is to remove and reinstall the application and/or remove and reinstall the system software.

Tips and Tidbits

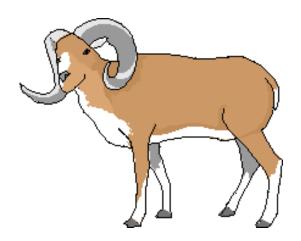
Disinfectant

Select **About Disinfectant**, and pull a menu down and hold it to pause the advancing virus names while the music plays (to prevent the foot from arriving too soon and stopping the music). John Norstad appears in one half of the dialog, while in the other half an animated sequence of virus names march out as the Monty Python theme song plays, until they get stomped by a huge foot. Holding down a menu pauses the viruses but not the music, and if you hold the menu down long enough, the entire theme song (John Philip Sousa's *Liberty Bell March*) plays! (You may have to release the mouse button every now and then if the music does stop.) [From the 1994 Macintosh/Newton Easter **Egg List** – Compiled by Brian Kendig. Contributed by Dave Claytor and Mitchell Marmel.]

Upgrading the LaserWriter Select 360's RAM

By Joe Wilson

The LaserWriter Select 360 can be upgraded with more RAM (memory), which lets you print more complex documents and improves performance on documents that contain many fonts.



The printer's standard memory size is 7 MB (megabytes), 4 MB of which are contained on a removable SIMM (Single Inline Memory Module). The printer may be upgraded to 16 MB total (the largest size supported by the printer) by

removing the 4 MB SIMM and replacing it with a 16 MB SIMM. The remaining 3 MB of memory is disabled by the controller whenever a 16 MB SIMM is installed.

The 16 MB SIMM may be purchased from your Apple-authorized Service Provider. SIMMs must meet the following specifications:

Size: 16 MB (4 Mbit x 32 bit)

• Access Time: 80 ns or less

• SIMM Type: 72-pin

• Refresh: 2K Row (11 bit x 11 bit)

SIMM manufacturers typically produce 10 or more SIMM types for every SIMM size.

There are a wide range of 16 MB SIMMs available. Just because a 16 MB SIMM is being used does not mean that it is the correct one for use in the LaserWriter Select 360. Contact the SIMM vendor to confirm that the proper SIMM is being used.

New Places to Find the Information Alley

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

- **QuickData Services** BBS (Greencastle, Pennsylvania) (717) 597-8732 FirstClass 2.6 bulletin board. Online 24 hours/7 days a week. This is a completely free bulletin board.
- **VMUG Online** BBS (Las Vegas, Nevada) (702) 437-8684 Maintained by the Las Vegas Macintosh User Group. A FirstClass BBS. Three lines available at 14.4 Kbaud.
- *Mac Universe* Magazine (France)

Each issue of *Mac Universe* magazine, published in France, comes with an information CD, which now includes back issues of the *Information Alley*.

System 7 Key Combination Shortcuts

By Wayne Brissette

This article includes (in alphabetical order) the keyboard/mouse combinations you can use with System 7.5. Many of these tips are documented in Finder Shortcuts, under Balloon Help.



<u>Alphabetize Icons in a Window</u>

STEP	ACTION
1	Activate the window you want to alphabetize.
2	Choose By Name from the View menu.
3	Choose Select All from the Edit menu.
4	Drag all files to the icon that represents the active window.
5	Choose By Icon from the View menu.

Bypass Set Start-up Device

To bypass the currently selected startup device (except on a Quadra 700), start or restart the computer while holding down the **%-Option-Shift-Delete** keys.

Cancel a Print or Copy Job

To cancel a print or copy job **%-.** (period) keys.

Change "About This Macintosh"

To change the menu entry from "About this Macintosh" to "About the Finder" hold down **Option** while choosing the About document under the Apple menu in the Finder.

Clean Up Icons

Move all icons to nearest point on the grid

Use one of these methods:

- Select **Clean Up Window** from the Special menu.
- Hold down the **Option** key and choose **Clean Up By Name** from the Special menu (this function alphabetizes and aligns icons to the grid and each other, the same as the previously explained **Alphabetize Icons in a Window** tip).

Note: Available in icon views only.

Align icon to grid

Hold down the **%** key and drag then release the icon.

Close All Windows at Startup

To close all open windows on the desktop at startup, hold down the **Option** key. The folders remain closed on subsequent startups, unless you open them in the Finder.

Copy Selected Item to Clipboard

Use one of these methods:

- Select **Copy** from the Edit menu.
- Press the **%-C** keys.

Cut Selected Item to Clipboard

Use one of these methods:

- Select **Cut** from the Edit menu.
- Press the **%-X** keys.

Diacritical Marks (Typing)

Character	Key Sequence
Grave Accent	Option-`-(any character) EXAMPLE: lèvre
Acute Accent	Option-E-(any character) EXAMPLE: école
Umlaut	Option-U-(any character) EXAMPLE: Böblingen
Circumflex	Option-I-(any character) EXAMPLE: maître
Tilde	Option-N-(any character) EXAMPLE: mañana
Cedilla	Option-C EXAMPLE: façade

Note: With the exception of the Cedilla (which is a specific character), diacritical marks can be applied to almost any character. The correct sequence is to press the **Option** key and the key that activates the accent mark. The accent mark is applied to the next key pressed after this sequence.

Dialog Boxes (Using Functions)

Scroll Through List in Open Dialog Box

Use one of these methods:

- Click on the **Up** or **Down** arrows in the scroll bar.
- Use the **Up** or **Down** arrow keys on the keyboard.

Find a File Quickly in an Open Dialog Box

Type in the name of the file.

Note: The **Delay until Repeat** control in the Control Panel determines how many characters may be entered for a File search.

Select the First File in an Open Dialog Box

Use the **Left** or **Right** arrow keys on the keyboard.

Select the Last File in an Open Dialog Box

Press the tilde (~) key.

Move Up File Hierarchy in an Open or Save Dialog Box

Click on the current disk icon or click on the directory name icon at the top of the dialog box to display the file hierarchy and select the one you want.

- Press the **%-Up** arrow keys to move closer to the top-level directory.
- Press the **%-Down** arrow keys to open a selected folder.

Disable Virtual Memory

Hold down the **X** key at startup. Do not release the key until startup is complete.

Note: This disables virtual memory, but loads any system extensions.
When you restart your Macintosh, virtual memory is turned on again.

Duplicate Item

Click on the item you want to duplicate and use one of these methods:

- Choose **Duplicate** from the File menu.
- Hold down the **Option** key and drag the icon to another folder.
- Press the **\mathbb{H}**-**D** keys.

Easy Access (Activating/ Deactivating)

Easy Access is a function designed especially for the disabled. This function lets you lock modifier keys (**%**, **Control**, **Option**, **Shift**, **Clear**) without having to hold them down. Easy Access must be installed in the System Folder – Control Panels folder.

Activate Easy Access

Without moving the mouse, press the **Shift** key five (5) times.

Deactivate Easy Access

STEP	ACTION
1	Without moving the mouse, press the Shift key five (5) times.
2	Press any two modifier keys simultaneously.

- Press the modifier key(s) you want to use (do not press modifier keys simultaneously unless you want to deactivate Easy Access).
- Press a nonmodifier key to activate a function.
- Press the modifier key once to activate it for one function (the **U** icon should now appear with an arrow above it).
- Press the modifier key twice to lock it down for more than one function (the U icon should now be filled with an arrow above it).

If the modifier key is locked, pressing it again unlocks it.

Eject Floppy Disk

Use one of these methods:

- Press the **%-Y** keys or choose **Put Away** in the File menu.
- Drag the floppy disk icon to the Trash.
- Choose **Restart** or **Shut Down** from the Special menu.
- Start or restart the computer, and hold down the mouse button.
- Press the **%-Shift-1** keys to eject internal floppy drive 1.
- Press the **%-Shift-2** keys to eject internal floppy drive 2 or an external floppy drive.
- Press the **%-Shift-0** keys to eject any other floppy disk drives.
- Press the **%-E** keys or choose **Eject Disk** from the Special menu if no disks are selected, these function ejects all floppy disks. These functions leave a "greyed out" floppy disk icon on the desktop.

Last Resort

If the disk will not eject you can insert a straightened paper clip into the hole located on the right front of the floppy drive. However, this may damage the floppy drive.

Erase Disk

The **Erase Disk** command under the Special menu erases any selected disk except a write protected (locked) disk or the disk that contains the active operating system.

Erase Floppy Disk

To erase the selected floppy disk use one of these methods:

• Select **Erase Disk** from the Special Menu.

• Hold down the **%-Option-Tab** keys while inserting the disk.

Extension Manager (System 7.5)

To bring up the Extension Manager at startup hold down the **Space Bar**.

Force Quit an Application

Press the **%-Option-Esc** from within the application.

Use this feature with extreme caution. You should definitely not rely on this as a usual way to quit an application. It is useful in the event that you have unsaved work in other applications when your current application hangs. By using this feature, you can return to the Finder and save the work in your other applications. You should restart your computer after using this feature.

Get Info (Using Functions)

Information

Select the icon and then use one of these methods:

- Choose **Get Info** from the File menu.
- Hold down the **%-I** kevs.

Lock Item

Check or uncheck the **Locked** box in the lower left corner Get Info dialog box.

Change Application Memory Size

Click in the box located next to **Preferred Size** in the Get Info dialog box and enter the desired size.

Note: This function sets the amount of RAM that is allocated to an application when it is launched. It should not be set below the Suggested Memory Size number.

<u>Hide Current Application When</u> <u>Switching to Next</u>

Hold down the **Option** key while

switching applications.

<u>Keypad Mouse (Activate/</u> Deactivate)

To set the keypad to control mouse movement, press the **%-Shift-Clear** keys.

- The 1, 2, 3, 4, 6, 7, 8, 9, keys control movement and direction of the pointer.
- The 5 key is the mouse button.
- The 0 key locks the mouse button.
- The decimal point key unlocks the mouse button.

Note: This function does not work on a PowerBook without the Mouse Keys extension because there is no keypad.

New Folder Creation

Use one of these methods:

- Choose New Folder from the File menu.
- Press the **%-N** keys.

Open a File or Folder

Click on the item you want to open and use one of these methods:

- Select **Open** from the File menu.
- Double-Click on the item you want to open.
- Press the **%-O** keys.
- Press the **\(\mathbb{H}**-\textbf{Down Arrow keys.}

Paste From the Clipboard

After a Copy or a Cut, use one of these methods to Paste:

- Choose **Paste** from the Edit menu.
- Press the **%-V** keys.

Postscript File Dump

This function lets you dump postscript files to disk rather than to the printer.

The Postscript Files are labeled as **Postscript X** (where **X** is a number from 0 to 9). Background Printing must be turned off.

Note: This is for LaserWriter driver's previous to 6.3. Version 6.3 and higher support printing to a PostScript file

Postscript File Dump With Laserprep

Use one of these methods:

- Select **Print** from the File menu.
- Press **%-P**. When the print dialog box appears, click **OK**. Immediately after clicking **OK**, press the **%-F** keys.

Postscript File Dump Without Laserprep

Use one of these methods:

- Select **Print** from the File menu.
- Press **%-P**. When the print dialog box appears, click **OK**. Immediately after clicking **OK**, press the **%-K** keys.

Print

Use one of these methods:

- Select **Print** from the File menu.
- Press the **%-P** keys.

Note: The command key function is not available at the Finder level.

Put Away Items

Choose **Put Away** in the File menu to place a selected item(s) back into its folder.

Quit

Use one of these methods:

- Select **Quit** from the File menu.
- Press the **#-Q** keys.

Note: This command is not available from the Finder level. It is used to quit from an application.

Rebuild the Desktop

Hard Drive

Start or restart the computer while holding down the **%-Option** keys.

Floppy Disk

Insert the floppy disk while holding down the **%-Option** keys.

Note: If the floppy disk is the start-up disk, start or restart the computer while holding down the **%-Option** keys.

Screen Dump

The files are saved to disk as **Picture X** (where **X** is a number from 0 to 9).

Pict File Screen Dump

Press the **%-Shift-3** keys.

Screen Dump to Imagewriter

Press the **%-Shift-4** keys.

Dump of Active Window to Imagewriter

• Press the **%-Shift-Caps Lock-4** keys.

Note: The Imagewriter dumps do not work on networked printers.

Select All Items in the Active Window

Press the **%-A** keys.

Startup From CD-ROM

Hold down the letter **c** key (lower-case only).

On a Power Macintosh or Macintosh 630 family (Performa 630, Performa 635, Performa 636, Performa 637, Performa 638, LC 630, and Quadra 630) computer, this directs the computer to startup from the CD-ROM drive instead of the hard drive or floppy.

Switch Startup Disk

STEP	ACTION
1	Open the Startup Control Panel
2	Select the device you want to use as your startup device.

Trash (Move Something To)

Drag the selected icon to the Trash Can

Delete Files Without Warning/Delete Locked Files

 Hold down the **Option** key and drag a file to the Trash.

Turn Off Extensions (7.x)

Hold down the **Shift** key at startup until you see **Welcome to Macintosh**. **Extensions off**.

This disables, for this startup only, any items that load at startup, such as system extensions, control panels, or chooser extensions. It also disables virtual memory, and background printing with PrintMonitor, and turns the Disk Cache down to 16K (the minimum). It also prevents launching any items in the Startup Items folder.

<u>Undo (the Last Editing</u> <u>Operation)</u>

Use one of these methods:

- Choose **Undo** from the Edit menu.
- Press the **%-Z** keys.

Windows (Manipulating)

Change Size of a Window

Use one of these methods:

- Drag the size box.
- Click the zoom box to expand or reduce the size of a window.

Close Active Window

Use one of these methods:

- Choose **Close** from the File menu.
- Click the active window's close box.
- Press the **%-W** keys.

Close All Windows

Use one of these methods:

- Hold down the **Option** key and choose **Close** from the File menu
- Hold down the **Option** key and click the active window's close box.
- Press the **%-Option-W** keys.

Move Inactive Window

 Hold down the **X** key and drag on the inactive window's title bar.

Return to the Finder With No Windows Open

 Hold down the **Option** key while starting or quitting from an application.

Zap the PRAM (7.x)

This operation resets parameters stored in Parameter RAM (PRAM).

Hold down the **%-Option-P-R** keys during the restart sequence. Your computer beeps for a normal startup and then beeps again. When you hear the second beep, you may release the keys.

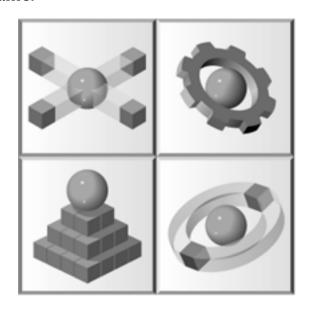
Many default settings for the Macintosh, such as serial port speeds, default application font, mouse scrolling rate, and so on, are stored in PRAM. It is sometimes useful to zap the PRAM to clear these settings and reset them to default values. Reselect any customized values for these settings.

Note: After this operation, you may want to check your General control panel settings. If you have more than 8 MB RAM, also check your Memory control panel settings.

Apple's Support Professional Solution Series

By Fred Widmer

Apple Computer, at the first anniversary of its Support Professional Program now provides a program upgrade and a new name.



Renamed the Support Professional Solution Series, the new program includes enhancements to the original such as:

- Macintosh and Windows support for the program's software components.
- Multiple e-mail services for Support Notices! and Support Briefings.
- Automatic biweekly e-mail notification of new *Information Alley* news magazine availability.
- A suite of Skill Module System applications that provide flexibility for developing customized learning paths.
- The Apple Support Library now contains two CD-ROMs; the Support Library CD and the Apple Software Archive CD.
- Access to interim updates to the Apple Support Library via WAIS.

Overview Of The Support Professional Solution Series

The enhanced Support Professional Solution Series is a one year subscription designed to address the complete technical support cycle from support "readiness" to response. This new program features two series of offerings, the 700 Series and the 500 Series.

Both Series include:

- Desktop delivery of support briefings via CD and teleconferencing – featuring the Apple Support Briefing System.
- A bimonthly Apple Software Archive CD and Apple Support Library CD (including Apple's Tech Info Library)

 indexed for use with AppleSearch client-server software.
- Support Notices! on customers' choice of e-mail services.
- Apple's bimonthly Support Journal and biweekly Information Alley electronic magazine.
- A complete Skill Module System and Apple Skill Module Library, which lets customers create customized selfpaced learning paths to ramp up unsupported staff or computer users.
- A path for technical escalation The distinction between the two series is the customer's chosen path for technical escalation issues.

Support Professional Solution 700 Series

The 700 Series includes priority phone support from senior support engineers in Apple's Direct Response Center,

featuring a target 60 second response time to incoming calls.

Support Professional Solution 500 Series

Complements reseller or consultant technical backup services letting customers receive the benefit of Apple support systems and information and the multi-vendor or environment-specific technical response services provided by their chosen reseller reconsolidating.

Key Enhancements To The Support Professional Solution Series

Ease Of Distribution

- New offerings will be available through resellers, higher education resellers, VARS or Apple Direct – normal ordering procedures.
- License Agreements are shrinkwrapped. No more contracts to sign.

Special Offer

All current subscribers and those placing orders between December, 1994 and September, 1995 will receive Ziff-Davis' Interactive Support On Site CD on a bimonthly basis through December, 1995.

Tips and Tidbits

Color Control Panel (System 7.x)

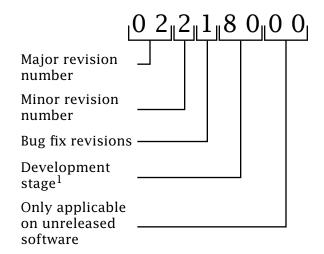
Click on the **Sample Text** a few times. The strings "by Dean Yu" and "& Vincent Lo" alternate. Also, "& Don Louv" sneaks in there every sixteenth click. [From the **1994 Macintosh/Newton Easter Egg List** – Compiled by Brian Kendig. Contributed by Don Louv].

HyperCard 2.2 Version Numbers Explained

From the Technical Information Library

The latest released version of HyperCard is 2.2. This is the version returned by the **Get Info** command. The "version" property of HyperCard returns version information on the HyperCard application and stacks. On pages 645 to 647 of, *HyperTalk 2.0: The Book*, by Dan Winkler and Scot Kamins, is an excellent description of the property and the information it returns. However, Claris Corporation uses a different numbering scheme for release versions of its software.

Running HyperCard 2.2, type **put the long version**. The string **02218000** appears in the message box. This string shows the following:



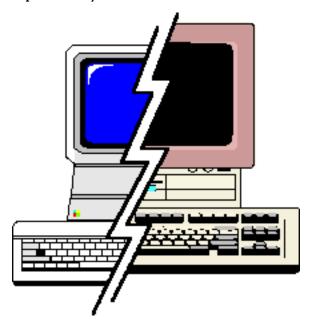
¹In this case, the 80 means it is released software.

Translating all of this using the Apple scheme results in 2.2.1. Claris uses only the major and minor revision number in its releases. The bug fix revision number translates to a "v" number with 0 being equivalent to "v1", 1 to "v2", and so on.

DOS Compatibility Card – Issues and Pointers

By Wayne Brissette

This article includes issues and pointers with the Power Macintosh DOS Compatibility Card.



User's Guide Error on Apple Adjustable Keyboard

On page 61 of the **DOS Compatibility Card for the Power Macintosh User's Guide** reads "Using the Apple Adjustable Keyboard: If you are using the Apple Adjustable Keyboard, you cannot use key combinations made up of keys from the main keyboard and function keys (for example, **Shift-F1**)." This is incorrect, the Apple Adjustable keyboard works properly with a DOS Compatibility Card.

Press Esc Twice to Bypass RAM Test

To bypass the RAM memory test when you startup MS-DOS, you have to press the **Esc** (Escape) key twice, even though the screen instructs you only to "Press ESC to Bypass Memory Test". At this time it is not known why you must press the ESC twice, but it does allow you to bypass the memory test.

Readme Error on Drive File Locking

On Page 6 of the **Readme** file, it is recommended that you lock the Drive File. **Do not lock the Drive File.** If you lock the Drive File using Get Info, the PC does not startup and several error messages appear.

Windows Calculator Uses Leading Space

When you copy a number from the Windows Calculator, it places a leading space in front of the number, which prevents you from pasting the number in the Macintosh Calculator. One workaround is to paste the number into a Macintosh application, then delete the space. Once you delete the space, you can paste the number into the Macintosh Calculator.

PC Network Extension Manager Error

When you turn off AppleTalk and restart, the error message "PC Network Extension: AgentOpen () returned 01" displays. This is an errant message, and does not cause any problems in the operation of either the DOS Compatibility Card, or your Macintosh. Click **OK** and continue.

DOSClip Not Compatible in EGA Mode

You cannot use DOSClip when in EGA mode. The DOS Compatibility Card only supports VGA modes 0, 1, 2, 3, 4, 5, 6, 7, 14, 16, 17, 18, and 19.

All Displays Modes Not Supported

The DOS Compatibility Card does not support all multiscan displays. If the PC Setup Control Panel does not recognize your monitor, and the VGA resolution option is dimmed, your monitor may not be supported. In this case, your monitor only works in the mode the hardware recognizes.

Do Not Restart While Copying

There are no safety checks in MS-DOS to prevent you from restarting MS-DOS while a copy is in progress. Since the Macintosh OS cannot determine if files are open in the DOS container, there is no way to prevent this.

The only way to prevent zero length or corrupted files is not to press the **Control-Alt(Option)-Delete** keys when the computer is copying files.

Cannot SUBST Shared Drives

You get the error message "Cannot SUBST a network drive" if you try using the MS-DOS SUBST command on a shared drive. There are many things that MS-DOS will not allow you to do with a networked drive, including using the SUBST command. This is how MS-DOS works.

No Support For Multiple CD-ROMs

The current software for the DOS Compatibility Card does not support multiple CD-ROM devices. If you have an internal CD-ROM, then you cannot use your external CD-ROM drive when you are using MS-DOS.

AppleCD SC Drive Not Supported

You can use the AppleCD SC drive for Macintosh CD-ROM discs, but not for MS-DOS CD-ROM discs.

This problem only occurs with the AppleCD SC drive. The AppleCD SC Plus, AppleCD 150, AppleCD 300, or AppleCD 300 Plus drives work without a problem.

With the AppleCD SC drive, you can sometimes read directories, however trying to run applications from the disc results in the error message "CDR101: Not ready reading drive E, with Abort/Retry/Fail."

AfterDark 3.0 Causes Crash

When using Switch on Startup with AfterDark v3.0 for the Macintosh, the DOS Compatibility Card freezes.

If you select **Switch at Startup** in the PC Setup control panel, when you choose **Restart** from the Special menu your Macintosh freezes. If you have two monitors and you are running Macsbug, a Macsbug error appears on the Macintosh monitor and the MS-DOS monitor is frozen. With only one monitor, you switch to the DOS side, but the system freezes and you are unable to return to the Macintosh OS.

This is a problem with AfterDark and not the DOS Compatibility Card. There are only two workarounds at this time:

- Disable Switch at Startup in the PC Setup control panel.
- Turn off AfterDark if you want to use the **Switch at Startup** option.

Troubleshooting Sound Problems

If you cannot get any sounds to play from DOS or Windows, including the DOS system beep, and all the Macintosh sounds play correctly, check the following:

- Ensure first that the PC Setup control panel has the sound set to **Auto Enable**.
- Make sure that the audio cable is correctly attached between the DOS Compatibility Card and the Macintosh logic board.
- Check the Sound control panel's Sound In settings.

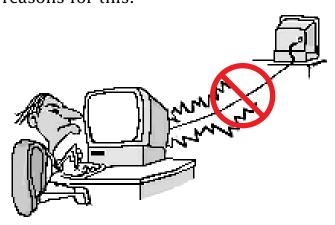
STEP	ACTION				
1	Click the Options button.				
2	Click on the CD icon (visible even if you do not have an internal CD).				
3	Click the PlayThrough button.				

This lets you play DOS and Windows sounds through the Macintosh speaker.

GeoPort/Express Modem Not Connecting to Another Modem

By Anthony Snyder

Sometimes a GeoPort does not connect to modems that do not support data compression, unless the GeoPort modem is not using data compression. This article discusses some possible reasons for this.



The default setting on Express Modem software and GeoPort is for the modem to attempt a high-speed, error correcting, data compressed connection and fall back as necessary to what the other modem is set to (AT command &q5). Also, modem register S47 is set to 7, which enables the Express Modem to negotiate with the other modem on features such as compression.

The Problem

If you are having problems with the Express Modem connecting or negotiating a connection with another modem, make sure register S47 is not set to **0**. This causes the Express Modem to drop a connection when the other modem is incapable of data compression connections (v42bis).

The application being used may be making settings without your knowledge. You can test connections by using a basic terminal program. Enter **AT&F** and press **Return** in the terminal

window. Dial the other modem by entering one of these commands and pressing **Return**:

- ATDT <phone number> (digital)
- ATDP <phone number> (pulse/ rotary)

For example: **ATDT 555-4567**

You should see the message **'CARRIER XXXX'** followed in a few seconds by the message **'CONNECT XXXX'**.

Some applications are written to immediately send data after seeing the CARRIER message. This behavior causes the Express Modem software to drop the connection because it is receiving data from the terminal program before the CONNECT message. The CARRIER message only means that the Express Modem/GeoPort has detected another modem on the line. By design, the Express Modem software disconnects if it receives data before it has a chance to print the CONNECT message. Some terminal programs send data before the CONNECT message to command the modem to abort a connection. The Express Modem is duplicating this behavior.

<u>A Workaround</u>

A workaround if your application expects CARRIER to signify a connection is to add a **'W0'** (a zero, not the letter "O") command to the application's modem initialization string. This instructs the Express Modem to not provide the CONNECT message and allow the application to use the CARRIER message as a valid connection signal.

Refer to the document titled *Express Modem AT Commands* installed by the Express Modem software installer for a complete description of modem commands.

Rebuilding the Desktop When Running At Ease

By Tammy Harvey

If you are running At Ease and have it turned on, the desktop file will not rebuild.



System 7.5 Users

Here is how to rebuild the desktop file:

STEP	ACTION				
1	Turn At Ease off.				
2	Restart.				
3	Hold down the Space Bar to bring up the Extensions Manager control panel.				
4	Turn off all the extensions EXCEPT Macintosh Easy Open.				
5	Close Extensions Manager				
6	Hold the Option-X keys.				
7	After rebuilding the desktop, open the Extensions Manager and turn the extensions back on.				
8	Turn At Ease back on.				
9	Restart.				

Non-System 7.5 Users

Here is how to rebuild the desktop file:

STEP	ACTION
1	Turn At Ease off.
2	Restart holding down the Shift key to turn extensions off.
3	After you see the extensions off message, hold down the Option- keys to rebuild the desktop.

Another method of rebuilding the desktop requires the At Ease user to have Finder access.

STEP	ACTION				
1	Sign into that user.				
2	Hold down the Option- keys (continue holding these keys down).				
3	Select Go To Finder from the Options menu.				

The recommended way to rebuild the desktop is with all Extensions OFF (especially when running virus protection software). Most of the time, holding down **Option-** keys on restart is sufficient.

Tips and Tidbits

Enchanter (Game)

Use the magic spell for "summon a person" to summon the game's creator's, Marc Blanc and Dave Lebling. They argue about fixing bugs and disappear. This only works once.

SCSI Manager 4.3 – Compatibility and Features

By Scott George

This article provides compatibility and feature information of Small Systems Computer Interface (SCSI) Manager 4.3.



New Features

SCSI Manager 4.3 adds several new features to the SCSI architecture of the Macintosh. These features include:

- SCSI 2 compliance
- Concurrent asynchronous I/O
- Disconnect and reconnect

These new features can improve the performance of the SCSI bus. SCSI Manager 4.3 is supported on all Power Macintosh, and 68040 Macintosh computers, except for the Macintosh 630 family (Performa 630, Performa 635, Performa 636, Performa 637, Performa 638, LC 630, and Quadra 630), and 68040 PowerBook.

SCSI Manager 4.3 is part of the ROM in all Power Macintosh and Quadra AV computers. Other 68040 Macintosh computers require the SCSI Manager 4.3 system extension.

SCSI-2 Compliance

All mandatory SCSI-2 messages and protocol actions, as defined by the initiator, are supported. However, optional hardware features of SCSI-2, such as fast SCSI and wide SCSI, are supported by the interface but not by the Macintosh hardware. This means that expansion cards can be designed to offer this functionality and SCSI Manager 4.3 supports these cards.

Concurrent Asynchronous I/O

Concurrent asynchronous I/O means that reads and writes can be requested and the processor is free to do other things until the device completes the request and notifies the SCSI Manager by using an interrupt. Multiple drivers can issue multiple requests; SCSI Manager 4.3 tries to overlap the operations as much as possible. Applications need to call the File Manager asynchronously to take advantage of the asynchronous operation of SCSI Manager 4.3.

Disconnect and Reconnect

Disconnect and reconnect lets devices disconnect from the SCSI bus while processing a command and reconnect when needed. With this feature requests can be sent to multiple devices and executed in parallel. For example, a driver for a disk array can send a request to one disk, which disconnects, then issue another request to a different disk. The two disks can then process the requests simultaneously, reducing the time needed to accomplish the task.

Direct Memory Access

Direct memory access is also used by SCSI Manager 4.3. This capability is available on the Quadra 660av, Quadra 840av and all Power Macintosh computers. This allows direct transfer of data from the SCSI bus to memory without going through the main processor. This frees the main processor to do something else at the same time as the data transfer.

Multiple SCSI Bus Support

SCSI Manager 4.3 also supports multiple SCSI buses. Some Macintosh models (such as the Power Macintosh 8100/80) have dual SCSI buses. These Macintosh computers support 14 SCSI devices (7 on each bus) as long as the drivers for these devices support SCSI Manager 4.3. Also, Nubus and PDS cards can be developed to add even more SCSI buses.

Parity Detection

Parity detection is now used to check for errors in data received by the SCSI Manager. This feature can be enabled or disabled on a per transaction basis for compatibility. The original SCSI Manager did not check for parity errors of incoming data. All Macintosh computers generate parity for write operations.

Compatibility

SCSI Manager 4.3 is backward compatible with the original SCSI Manager. All of the original SCSI Manager functions and TIB instructions are supported except for **scComp** (compare).

Additional and programming information can be found in **Chapter 4** – **SCSI Manager 4.3** of **Inside Macintosh: Devices.**

QuickTime Musical Instruments Extension Available From Online Services

By Jeff Mosqueda

QuickTime Musical Instruments extension 2.0, is a major component of QuickTime 2.0, providing support for various musical instruments.



The QuickTime Musical Instruments extension is now available from the following online services:

AppleLink

Apple Products → Apple SW Updates → Macintosh → System Software → Other System Software → QuickTime Musical Instruments

eWorld

Computer Center → Apple Customer Center → Apple Software Updates → Macintosh → System Software → Other System Software → QuickTime Musical Instruments

Internet

Anonymous ftp site on the Internet:

ftp.info.apple.com/Apple.Support.Area/ Apple.Software.Updates/Macintosh/ System.Software/Other.System.Software/ QT Musical Instruments sea hqx

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